



# **AUSA BACKGROUND BRIEF**



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## **Army Issue: CLOSE AIR SUPPORT**

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### **EXECUTIVE SUMMARY**

Close air support (CAS) involves air action against hostile targets in close proximity to friendly forces; close coordination of air missions with the maneuver of friendly ground forces is required.

Historically, CAS has been a function assigned to Air Force fixed wing aircraft. Assignment of CAS responsibility to the Air Force grew out of the the Key West Agreement of 1948. Since that time, however, the nature of combat and weaponry has evolved to a high level of technological sophistication. This was graphically illustrated in the most recent combat experiences for U.S. forces, Just Cause in Panama and the Persian Gulf War.

Ground combat has become far more complex in terms of depth of engagement, speed of movement and the complexity of coordination and control. Supporting fires must be accurate and responsive to ground force needs and available day and night under all weather conditions. Identification means and control necessary to preclude firing on friendly troops is also a problem of increasing complexity. Fixed wing aircraft now available do not meet the desired criteria.

The Army's attack helicopter, with night capability and armed with precision weapons, is well suited for a greater role in meeting the CAS requirement. Other ground weapons with precision fires capability can also provide fire support.

The issue of service responsibility for CAS has been raised, primarily by Congress. The Air Force would apparently be willing to give up the CAS role, but the Army does not want to assume responsibility for a whole category of fixed wing aircraft. It does not currently have the logistics capability, nor would the shift of responsibility be cost effective. The Army, however, does want to keep the functions provided by its attack helicopters and ground-to-air and ground-to-ground weapons.

The recently released report by the chairman, Joint Chiefs of Staff (CJCS), "Roles, Missions and Functions of the Armed Forces of the United States," February 1993, concludes that CAS is a joint function and needs joint doctrine; that all services are responsible for CAS; that the Army should depend on fixed wing support from other services; that the Army is the primary provider of rotary wing CAS; and that helicopters are complementary and not in lieu of fixed wing aircraft.

AUSA agrees that CAS is a joint function and should have joint doctrine. Fixed wing air support is needed as a theater asset but is not appropriate for Army assignment. The Army needs to continue to maintain a strong attack helicopter capability to provide rapidly available support to ground troops. The Army also needs to maintain direct control over its other organic supporting fires.

## **ISSUE**

The issue involves determining which service or services should have primary responsibility for close air support (CAS). Historically, since 1948, CAS has been a function of the Air Force, but all the services have a very direct interest in and responsibility for the integration of fires in support of operational forces in combat. Also, the development and fielding of attack helicopters and precision ground to ground weapons has vastly expanded and complicated the issue.

## **BACKGROUND**

CAS involves air operations designed to provide direct assistance to surface forces in the accomplishment of their missions. It has developed through the joint efforts of air and ground commands over most of this century. Evolving from rudimentary efforts to support ground forces in breaking through enemy fortifications in World War I, it has emerged into a highly refined operation between friendly air and ground elements to substantially enhance the combat power of joint and combined forces in both offensive and defensive operations.

Close air support (CAS) involves "Air action 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."<sup>1</sup>

At a conference held at Key West, Florida, in 1948 responsibility for CAS was assigned to the Air Force. While such assignment appeared logical in 1948, its current propriety has come into serious question. The advent of the attack helicopter has posed a competitor for some of the missions originally anticipated for fixed wing aircraft. Helicopter advocates argue persuasively that Army and Marine Corps armed rotary wing aircraft are *de facto* CAS elements, possessing capabilities for ground attack,

some of which are superior to those of aircraft. Further, they contend that the question of service responsibility for CAS should be treated with due consideration for the realities of current operational practices in the field.

CAS is but one of several forms of air support. It plays directly to the heart of ground force requirements for attack of certain classes of targets, but it is often perceived by aviators as a diversion of resources. First priority, they argue, must go toward attainment of air superiority. Thereafter, emphasis must frequently be placed on the destruction or neutralization of more sharply defined targets at greater ranges from the forward line of troops (FLOT). In many cases, they say, such prioritization of missions is more effective for the overall success of American military efforts than operations tethered to the proximity and speed of ground forces.

A principal tool in the application of CAS is the fire support coordination line (FSCL). The line delineates the area forward of friendly forces within which air attacks of ground targets must be closely coordinated between air and ground commands. Targets outside the FSCL involve different forms of air support and may usually be attacked on the initiative of air commanders. The actual designation of the FSCL has proven to be a frequent sticking point between air and ground staffs. Air staffs, typically seeking maximum flexibility of operations, tend to favor a line closely drawn. Conversely, in view of the increasing range and flexibility of artillery and other ground force strike systems, and the speed of modern armored and mechanized units, ground staffs lean toward establishment of lines at greater distances.

### **Responsibilities for CAS**

Since the mid-1980s there has been a growing concern over Air Force responsibility for CAS, the capabilities of aircraft performing the function, and the doctrinal bounds of the function itself. Generally speaking, these relate to:

- The performance of CAS missions by attack helicopters;
- the inflexibility of the A-10 aircraft for performing other types of missions;
- the rapid movement of armored forces potentially blurring distinctions between close air support and air interdiction mission;
- alleged Air Force preoccupation with other air combat missions.

### **Air Force Views**

For almost twenty years the Air Force has relied upon the A-10 heavy ordnance (max external load 16,000 lb.) aircraft for CAS missions. Currently, nine A-10 squadrons (five active and four reserve) are dedicated to the CAS mission. While the aircraft are heavily armored, maneuverable, and equipped with redundant flight systems, critics say that they are too slow, considering the increasing lethality of potential hostile surface-to-air missiles and radar-directed guns. The aircraft may continue to have some utility (e.g., as forward air control platforms), but the critics point out that they are not suitable for other Air Force missions. Some officials have suggested that they should be transferred, along with the CAS function, to the Army.

Other commentators follow a parallel line, but stop short of endorsing Air Force relinquishment of responsibility for CAS. General Michael Loh, commander of the USAF Combat Command remarked recently: "One of our goals is to try not to be involved in close air support, to try and do a better job a little deeper so that you can, with airborne battlefield surveillance and other equipment, avoid direct contact with the forward line of troops and relieve to a great extent the Army's direct contact (with the enemy)."<sup>2</sup>

The argument is not so much that the Air Force should not be responsible for CAS, but that greater emphasis on air interdiction at greater ranges will minimize requirements for close support in the future. In addition, there is a growing recognition that Army attack helicopters have special capabilities for night operation close to friendly troops not shared by high speed aircraft. Particularly, the Air Force has come to think of CAS targets within tens of meters of friendly troops as more appropriate for the helicopters, while Air Force aircraft would attack targets no less than hundreds of meters from friendly forces.<sup>3</sup>

The shift from CAS to more distant targets focuses attention on the designation of the fire support coordination line (FSCL) and the restrictions which it implies. The Air Force would like to ensure that Army development of long-range strike systems will not impinge on its freedom of action for engagement of targets beyond the FSCL.

Main stream thought in the Air Force has held that the CAS function can continue to be accomplished by the Air Force if better aircraft are made available. Early planners supported the selection of a ground attack version of the F-16 (designated A-16) for the role. They recognized that the CAS function can expose aircraft to dense flak, and looked for a combination of speed and armor for survivability. Most important, however, was provision for a successful single pass target attack capability to minimize the risks. They calculated that the A-16 with the following new features would be able to do the job for the foreseeable future:<sup>4</sup>

- Automatic target handoff system, to permit direct spotter target location input to the aircraft's computer;
- digital terrain system, to facilitate the aircraft's approach to the target with minimal exposure;
- rapid laser location and identification system;
- head steered forward looking infrared for automatic steering of weapons systems;
- additional hardening against missile and gun projectiles;
- additional radio frequency-hopping to avoid jamming and improve communications with ground forces.

More recently, largely for economic reasons, the Air Force shifted its thinking to eliminate requirements for head steered FLIR and additional hardening. One result of the modification was a reversion to the F-16 designation for the aircraft rather than A-16. Nevertheless, the key survivability concept of "one target-one pass" was retained.<sup>5</sup>

Finally, there is a small school in the Air Force which has opposed the adoption of the F-16 for CAS. This group has argued that the aircraft is insufficiently armored to survive in an environment of dense hostile anti-aircraft fire. Not surprisingly, many in this group would like to see the Air Force out of the CAS business altogether.<sup>6</sup>

## **Army Views**

CAS is a function vital to the mission of ground forces for successful combat at minimal cost. In the Army view, the Air Force is not greatly interested in the function and tends to neglect it in favor of strikes deeper into enemy territory. The advent of the attack helicopter has afforded the Army the means for accomplishing some tasks formerly deemed suitable for attack only by fixed wing aircraft. However, the helicopter is slow and lightly armored, rendering it vulnerable to hostile ground fire and it has limited lift capacity for delivery of heavy ordnance. Requirements remain for rapid delivery of heavy munitions on enemy targets in close proximity to ground troops and for supplementary fires on selected types of targets at greater range which pose a potential threat to maneuvering ground forces in a fast moving situation. High performance aircraft must be available for these purposes.

The Army has no capacity for the operation or maintenance of high performance aircraft, therefore it does not wish to assume primary responsibility for CAS. Such responsibility, the Army believes, should remain with the Air Force. The Army can perform supplementary CAS using attack helicopters over friendly held territory. In the words of then Army chief of staff, General Carl E. Vuono, in October 1989, "Anyone who says the Army ought to have the close air support mission doesn't understand the battlefield."

With regard to more distant targets, the Army believes that the rules governing operations on either side of the FSCL need clarification. The Army perceives its role as that of a force designed for domination of the battlefield and of all action taking place upon it. This includes the surrounding terrain and the immediate air space above it, out to the full range of its weapon systems.

Of particular importance to the Army is the principle of unity of direction of ground combat, encompassing engagement of hostile forces in both close proximity and at deeper ranges from friendly forces. Enemy forces within range of Army deep strike systems may be capable of rapid maneuver against friendly forces, radically altering the situation; hence, they pose serious and virtually immediate threats to the ability of ground forces to accomplish their missions. Air activities within the range of ground force weapons, therefore, should be coordinated with ground force commanders.

## **Prospects for the Future**

The Air Force has developed a concept for improved CAS with more capable aircraft. Originally conceived in context with the Automated Target Handoff System (ATHS), "cooperative attack" envisions the passing of target data from one computer to another with such speed that a CAS aircraft might approach the target area at operational speed and altitude, receive its directions, execute a single, successful pass over the target, escaping before the enemy might be able to initiate any countermeasures. Instead of the three or four minutes usually consumed in verbal communications between the pilot and forward air controller (FAC), the system would permit data transmission in a burst of digital information in a fraction of a second. The pilot would immediately have his target designated with an accuracy of ten meters. Information might come from a Joint STARS (Surveillance and Targeting Attack Radar System) tactical command and control aircraft, scout helicopters, or remotely piloted vehicles. Even ground force unit with an air liaison officer would be able to feed data directly to the aircraft.

A later development, the Improved Data Modem (IDM), replacing the ATHS, would permit even higher data throughput. With Joint STARS providing automatic target designation, the traditional problem for the pilot of finding the target is expected to be minimized. The F-16 is also expected to be equipped with a SINCGARS (Single Channel Ground and Air Radio System) - compatible anti-jam VHF radio for improved communications with ground forces.<sup>8</sup>

A principal Army interest in CAS policy development in the immediate future probably lies in securing appropriate recognition of the role of attack helicopters. Unquestionably, armed helicopter technology and operational techniques have matured to such an extent that the aircraft play regular and significant roles in the provision of fire support to ground forces. Formal recognition of the function should be made in context of official service roles and missions reviews.

General Colin Powell, chairman of the Joint Chiefs of Staff, expressed his views on CAS in a 1993 report, "Roles, Missions and Functions of the Armed Forces of the United States." He argued that the current distribution of CAS responsibilities should be retained, but that CAS could be "better integrated into joint operations." He suggested that layers of control be removed from Navy, Marine Corps and Air Force CAS units to permit direct access to them by joint force commanders. On the management side, he recommended that initial attack helicopter training for Army and Marine Corps pilots be consolidated.<sup>9</sup> The final recommendation under the CAS title in the report sent to Congress stated: "Include attack helicopters as CAS assets and realign and clarify functions and doctrine to include CAS as a primary mission area for all Services."<sup>10</sup>

The most serious issue between Army and Air Force views regarding air support on the battlefield does not focus so much on CAS as on the derivative matter of control and coordination of deeper strikes. As Army capabilities for longer-range target engagement have grown, the precise function, meaning and doctrine for placement of the fire support coordination line has come into more heated contention. Each service seeks maximum latitude in its operations, raising serious questions of operational priorities, safety and efficiency. (The full ramifications of this debate are not likely to be illuminated purely in the context of CAS. A general discussion of service roles in deep strike is required to adequately address this issue. This is addressed in a separate AUSA issue paper.)

## **CONCLUSIONS AND RECOMMENDATIONS**

Close air support applies to all the armed services.

It is an important and essential form of fire support for ground combat forces. Because of its landpower function, the Army is a principal user of CAS.

The nature of ground combat has evolved significantly over time. Ground combat has become far more complex in terms of speed and depth of movement. While CAS provides an important fire support capability, it is only part of the total close fire support equation and has grown to include rotary wing aircraft as well as fixed wing. Also, its use must be coordinated with all other forms of fire support available to the commander.

The issue has been raised on whether CAS should remain a principal function of the Air Force or whether it should be assigned to its principal user, the Army. As pointed out in the JCS February report to Congress, the answer is neither. CAS is broader based than a single service. It is a joint function and should be covered by joint Doctrine.

Rotary wing attack aircraft have demonstrated their capabilities at providing CAS for ground forces. The Army should have and retain primary functional responsibility for rotary wing CAS.

Fixed wing CAS support is still essential because of its speed, range and responsiveness. It should be considered a theater asset, however, under theater control. It would not be appropriate to assign fixed wing CAS to the Army which does not have the training or logistics capability to support high performance fixed wing aircraft. Such a change would not be cost effective.

### ENDNOTES

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3. Sweetman, p. 1081.
4. David Fulghum, "Air Defenses May Make Fixed-Wing Air Cover Obsolete," *Army Times*, 2 October 1989, pp. 18-19.
5. Remarks to the author by General Dynamics representative, Robert Robbins, 21 January 1993.
6. Robbins.
7. Spencer Rich and George C. Wilson, "Army Lets Air Force Keep Job," *Washington Post*, 13 October 1989, p. 6.
8. Sweetman, p. 1081.
9. William Matthews, "Redundancies Among Forces 'a Bargain,' Powell Says," *Army Times*, January 18, 1993, p. 26.
10. Chairman of the Joint Chiefs of Staff, "Report on the Roles, Missions, and Functions of the Armed Forces of the United States," February 1993.

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