



CAS Battle Drill

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At the National Training Center (NTC), Fort Irwin, California, we have a unique opportunity. We can train and execute in near real-world combat scenarios, providing quantifiable effects to the combat teams and identifying performance trends requiring attention.

One area needing attention is close air support (CAS). Routinely, we see aircraft dedicated to CAS departing the area of operations (AO) with devastating combat effects still hanging from their wings or loaded in their guns. For example, two battle-laden A-10 aircraft dedicated to CAS may carry a variety of munitions, but a fairly standard load would be AGM-65 Maverick attack guided munitions, CBU-87 cluster bomb munitions and gun passes with the 30-mm cannon. Why allow this combat capability to depart the AO without expending ordnance on the enemy?

The core cause of ineffective employment of CAS assets: Lack of prompt execution of this fleeting (fuel- and time-limited) asset. At the NTC, we identified areas for improving CAS integration into the ground fight as shown in Figure 1 on Page 26. Although Figure 1 is not all-encompassing, it addresses many areas that even units that execute

CAS promptly and efficiently could draw potential benefit from.

This article outlines TTP for executing CAS that is timely and effective in massing fires to achieve the supported unit commander's intent.

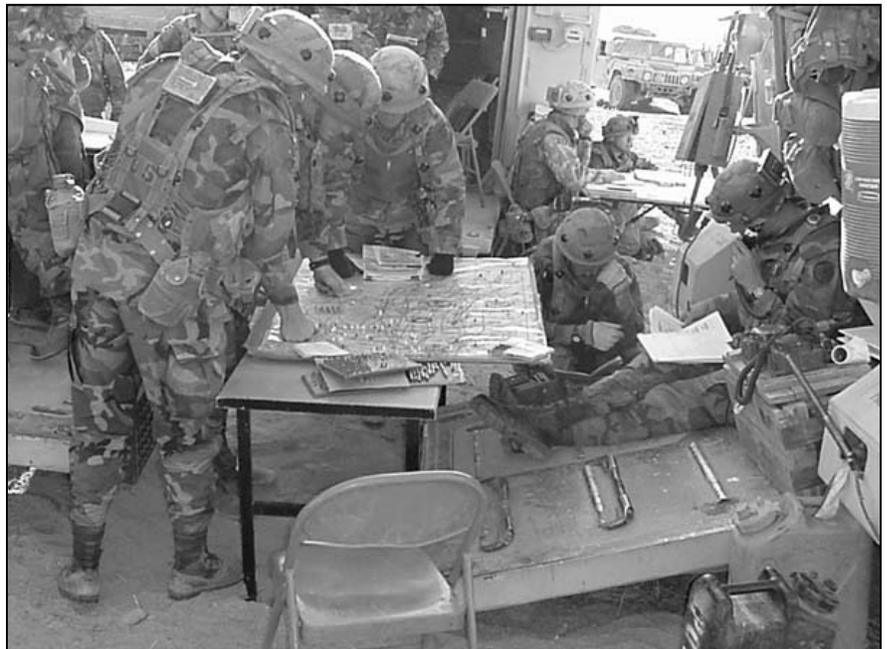
Communicating the Mission. The ground commander has an air liaison

officer (ALO) located with his staff. The ALO is a rated Air Force officer (flyer) with tactical experience and expertise in fixed-wing employment. The ALO leads the tactical air control party (TACP) that "...provides the interface between the Army unit it supports and the combat Air Force unit that provides combat air support" [*Joint Pub 3-09.3 Joint Tactics, Techniques and Procedures [TTP] for Close Air Support (J-CAS)*]. The TACP also includes the airborne forward air controller (FAC-A) and the enlisted terminal attack controller (ETAC) who control the aircraft in the final attack of the CAS missions.

The ground commander owes the ALO guidance and intent for his CAS assets. This guidance should be clear and tied to battlefield effects and outcomes.

For example, we often hear guidance such as, "Send the CAS deep and destroy the enemy."

Instead, we should hear, "Employ CAS against enemy reserves and repositioning forces to prevent a counterattack and preserve favorable ratios for the close fight. Desired destruction is six combat vehicles from the CAR [combined arms reserve]. Then shift CAS to



The brigade tactical operations center (TOC) conducts a targeting meeting.



- Commander's guidance for CAS is not specific.
- Fire support officer (FSO)/air liaison officer (ALO) are not prepared to wargame CAS.
- Airspace coordination areas (ACAs) are not developed in detail.
- Suppression of enemy air defenses (SEAD) is not planned in detail.
- Combined arms and fire support rehearsals are not addressing CAS.
- Excessive time taken briefing aircrews.
- CAS conflicts with indirect fires.
- CAS departs without executing the essential fire support tasks (EFSTs).

Figure 1: National Training Center (NTC) Trends. These areas need improving to more effectively integrate close air support (CAS) into ground operations.

direct support of the close fight under the main effort's task force control."

The ALO owes the commander advice and counsel on the correct and exploitive use of air power. The ALO is the commander's expert on air power and works hand-in-hand with the commander and his staff to integrate CAS into ground operations. He must be part of the military decision-making process (MDMP) and integrate air power into the wargaming process and into the entire scheme of maneuver. For the ALO to accomplish this, he needs the support of the commander.

Too often, we hear, "ALO, when will we get air?"

When we should hear, "ALO, the S-2 believes we'll identify the position of the enemy forces in the defense at 0630 and have the conditions set for our offensive. We will need the air on station at 0620 to support destruction of those enemy forces as they move from their hide sites to battle positions as we begin to smoke the objective."

"Roger, Sir. We will request air on station at 0615 so the aircraft are briefed and ready to employ on time. We'll request Maverick and gun to facilitate use in the close fight vicinity the POP [point of penetration]. I will have an ETAC in position to over-watch the POP [to provide final control and prevent fratricide]. When the task force breaches, I will shift CAS to EA [engagement area] Cobra to prevent enemy repositioning and reinforcing."

Airspace Coordination Areas (ACAs). To ensure we can mass fires instead of just deconflicting fires, we need to plan and implement ACAs to integrate all fires. Joint Pub 3.09.3 discusses TTPs for several ACA techniques: formal, informal and artillery-CAS joint attacks by separating fires laterally, by altitude and by time. Figure 2 lists some considerations for developing ACAs.



An enlisted terminal attack controller (ETAC) executes CAS.

An integral part of planning an air corridor for CAS is to provide for suppression of enemy air defenses (SEAD). One of the most difficult CAS missions to support is when the artillery provides SEAD for CAS and also fires on the target simultaneously with CAS aircraft. See Figure 3 for the CAS-artillery attack battle drill. We must use all the tools at our disposal to integrate and mass fires.

An important point to remember is that SEAD must be based on the threat and the tactics the CAS aircraft will employ to defeat the threat—not simply provide suppression in the attack area. For example, Maverick launch may take place several kilometers from the target. Another example: If we can employ air power above the low-altitude threats, SEAD only needs to deny the enemy employment of his mid- to high-altitude threat systems to be effective.

If we plan SEAD for every target area and a mark to expedite target identification for the aircraft, we will be prepared to execute that mission if needed and may obtain the added benefit of massed fires. The TTP in Figure 3 serves as a template for planning and integrating CAS to deconflict and mass fires—a template the ALO, ground commander and his key staff easily can understand and execute.

Targeting. As stated in *FM 6-71 Fire Support Handbook for the Maneuver Commander*, the purpose of the targeting meeting is to update and revalidate targets, coordinate target acquisition (TA) assets and update the HPTL and attack guidance matrix (AGM). In terms of CAS, the key personnel who must attend the targeting meeting include, but are not limited to those shown in Figure 4 on Page 28.

Throughout this process, the targeting methodology of *decide, detect, deliver, and assess* (D³A) should be stressed. An unclear targeting process can delay the execution of air power to the extent that we lose it all together. The staff needs to keep in mind the lethality of CAS, but equally important, it must remember its fleeting nature. Sooner or later, the air-



- Where is the target area (when CAS is available)?
- What is artillery shooting and from where?
 - Where is the direct support artillery, reinforcing artillery and mortars?
 - Have we considered the fire and maneuver plans?
- What is the air defense threat?
- What are our sector boundaries?
- How much maneuver airspace do our fighters need? *
- Have we considered weapons employment?
- What ACA type (or combination) will complement all our fires (lateral, time or altitude separations)?
- Will we need suppression of enemy air defenses (SEAD) for this mission, and if so, can we range the targets?

*A-10s require less than F-16s or F/A-18s, but all require at least six to eight kilometers with at least four kilometers maneuvering space around the target.

Figure 2: Questions to Answer to Develop Airspace Coordination Areas (ACAs)

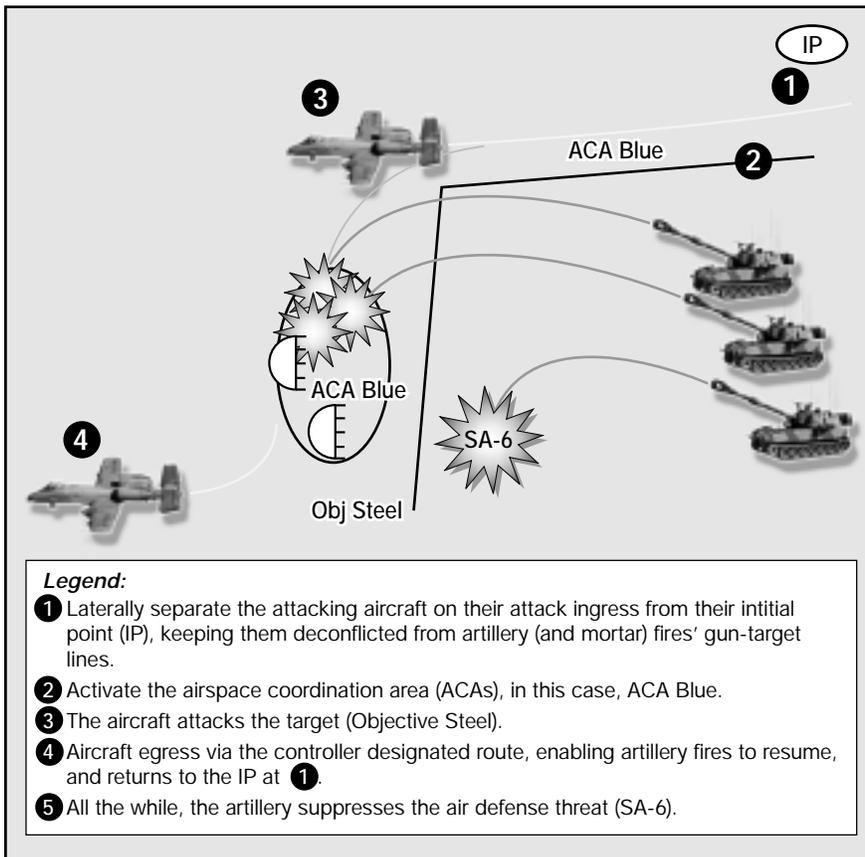


Figure 3: Close Air Support (CAS) and Artillery Attacking the Same Target

craft will run out of fuel and need to return to base.

CAS Drill. As soon as the ALO (or any TACP member) receives word of aircraft launch or tasking to their AO, he communicates this to the supported unit's executive officer (XO). Essential information is first the projected time on station. Other information includes weapons load, loiter time, airspace requirements and system capabilities. This information also needs to be communicated to the air defense artillery (ADA) cell to ensure everyone understands that friendly aircraft are arriving on station.

At this point, the target needs to be verified or selected. A running CAS focus expedites this process and simply requires the staff validate the target for the TACP. This process must be expeditious and completed before the aircraft checks in on-station. The earlier the target is available, the better.

The air support operations center (ASOC) can pass target updates to fighters while still enroute to the AO (as recommended in Joint Pub 3-09.3). In this case, when the CAS checks in, the pilots already will have gotten their target data, to include a nine-line CAS briefing, and are nearly ready to attack

the target with minimal additional coordination with the TACP.

Assuming our target is selected for CAS, we then plan for SEAD. These may be tactically located in the same target area (suppressing the man-pad, small arms and light anti-aircraft artillery threat) or in an adjacent area with a significant threat (SA-6/8, etc.). When planning SEAD, don't forget holding, ingress and egress threats.

As the aircraft check in, any information not passed to them by the ASOC needs to be transmitted. By now, the pilots need to know the nine-line briefing (or updates), threats, commander's intent, location of the forward-line-of-own-troops (FLOT), location of fire support coordination measures (FSCM), final controller information, any specific instructions and any other information deemed applicable.

At this point, we are ready to coordinate the attack. This may be by time-hack or time-over-target. In a very low-threat environment, we may clear the fighter pilots directly to their target or final controller. The pilots need a realistic and rehearsed process driving they're timing—for example, if the coordination process demands a seven-

minute hack, don't attempt a five-minute hack.

The next several events happen in rapid sequence or simultaneously. The FSO calls the fire direction center (FDC) to fire SEAD; the air defense officer (ADO) changes weapons control status. The targeting cell selects secondary or "back-up" CAS targets. The FDC calls with SEAD "Splash." The FSO then calls all fire support elements (FSEs) and activates ACAs as required.

The ALO/TACP announces fighters departing the initial point (IP). The fighters engage the target and egress per their briefed instructions. Now the ALO/TACP announces the fighters are clear of the ACAs and unencumbered fires can resume. ACAs are closed (if required), and the ADO changes weapons control status.

An important culmination to this process is the transmitting of battle damage assessment (BDA) and battlefield intelligence from the fighters/FAC-A to the brigade combat team (BCT). Often this may be the best and most timely source of battlefield reconnaissance data.

So, as we look at our earlier scenario, an example of a possible CAS battle drill might be:

ALO: "CAS airborne, expect on time at 0615."

Staff: "CAS airborne."

XO (After Targeting Meeting): "Focus of CAS, enemy armor west of the POP [point of penetration] vicinity 4215; closest friendlies east of the obstacle, east of the 40."

ALO: "Roger, Sir. Armor vicinity 4215; I have an ETAC with eyes on."

FSO: "Understand CAS focus 4215; preparing SEAD mission."

ALO: "Roger, we'll need target area SEAD and as soon as splash, no fires west of the 46 above 9,000 feet MSL [minimum sea level]...CAS on station."

Staff: "CAS on station."

ADO: "Weapons control status yellow tight." (While this is going on, the fighters are getting their nine-line briefing, if not previously relayed, and target area coordination and description.)

FSO: "SEAD mission ready; ready for five-minute hack."

ALO: "Five minute hack ready; ready, hack."

FSO: "Good hack."

Pilots: "Good hack."

ALO: "Fighters departing the IP."

FSO: "SEAD shot, out....SEAD splash."

ALO: "I need no fires west of the 46 above 9,000 feet."



- Brigade executive officer conducts the targeting meeting.
- Brigade FSO and targeting officer ensure fire support asset allocation, validates the high-payoff target list (HPTL) and updates the high-value targets (HVTs)/HPTL.
- Brigade S2 provides target updates and retasks collection assets.
- Combat observation lasing team (COLT) platoon leader provides target updates.
- Air liaison officer (ALO) ensures sortie allocation to the targets and provides target updates.

Figure 4: In terms of CAS, these are the key personnel who must attend the targeting meeting and their responsibilities.

FSO: “Roger, no fires west of the 46 above 9.”

ALO: “Fighters inbound.”

ADO: “Visual with friendly fixed wing.”

XO: “Secondary CAS target EA [engagement area] Cobra.”

ALO: “Fighters engaging armor... Fighters off target, cancel ACA.”

FSO: “ACA canceled.”

ADO: Weapons control status red tight.”

ALO: “Fighters report three tanks destroyed, four to five armored vehicles observed at 4015 moving northeast.”

XO: “Roger, can the fighters engage that target?”

Barriers to Execution. The following are some of the most common barriers to executing CAS effectively as observed at the NTC.

Lack of Clear Guidance. Without knowing where to plan for CAS, it’s difficult to prepare to execute.

Lack of Willingness to Use CAS Close. Although a great tool in shaping the battlefield, CAS also can produce devastating effects in the “knife-fight.” Imagine the shock of an enemy hammered with indirect fires, direct fires, electronic countermeasures and CAS.

Lack of Willingness to Shut-Down or Shift Fires. CAS is a very lethal but fuel-limited asset. The BCT needs to think carefully about employing all its fires. However, based on the mission and lethality, a shift or “check fire” of the brigade’s ground fires may be warranted. If this is the case, the ALO/TACP needs to ensure CAS is executed promptly so ground fires can resume.

Lack of Effective Observation. ETACs need to be considered a critical asset and put in position to control the air power. This should be in concert with the scheme of maneuver and commander’s intent. Additionally, the BCT should be prepared to employ positive indirect CAS using data from scouts and combat observation lasing teams (COLTs).

Slow or Ineffective SEAD. When SEAD is needed, it is needed *now*. The lack of timely, effective SEAD results in the loss of irreplaceable aircraft—they cannot be returned to the fight.

Lack of Complete Battlefield Calculus. CAS can be employed very close to friendlies and with devastating effects if the lay of the battlespace is fully understood. Terrain features and obstacles can create CAS employment areas and targeting opportunities of sizeable significance. A visually significant tank ditch can clearly be communicated as well as the delineation of friend and foe. Something as simple as, “Enemy north of the ditch” can create a clear opportunity for CAS to support a penetration.

CAS Not Synchronized with Fires. Massing is the key. At all opportunities, we should bring joint and combined arms to bear on the enemy. The artillery can force the enemy to move, making him visually significant to CAS. When struck with CAS, if the enemy goes to ground, he becomes an ideal artillery target. This complementary effort creates an untenable situation for our foe.

CAS Not Synchronized with Maneuver. The effects of CAS can be maximized by using channelizing terrain and obstacles to force the enemy into concentrations. This creates an ideal opportunity for CAS aircraft to reap the full effects of their munitions. Additionally, CAS can be integrated with smoke as a trigger to catch repositioning forces in support of an objective. Coordinating the availability of CAS in this role can significantly influence the outcome of an attack.

Conclusion. Joint Pub 3-09.3 lists the conditions for effective CAS as “air superiority, suppression of enemy air defenses, target marking, favorable weather, prompt response, aircrew and terminal controller skill, appropriate ordnance, communications, and com-

mand and control.” The brigade staff, in concert with the TACP, controls or, at least, influences the great majority of the items on this list.

CAS can be integrated into and synchronized with the ground fight with devastating effectiveness. The key is the ground unit must have a tactical standing operating procedures (TAC-SOP)-driven CAS process that maximizes the lethality of CAS while minimizing its limitations and that is rehearsed and understood across the BCT staff.

CAS, as an additional weapon in the commander’s arsenal, is significant. CAS, as an integrated and synchronized element of the BCT’s fighting force, becomes a force multiplier, a battlefield shaper and a key contributor to a victorious consequence.



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