

# A Technique for Employing CAS

by Captain Samuel R. White, Jr.

The availability of close air support (CAS) to the maneuver brigade offers the commander an extremely effective means to project combat power beyond the range of direct fire weapon systems. CAS—together with Field Artillery, electronic warfare (EW) and engineer efforts—forms the backbone of the brigade's deep operations. These operations can set favorable conditions for the decisive close fight.

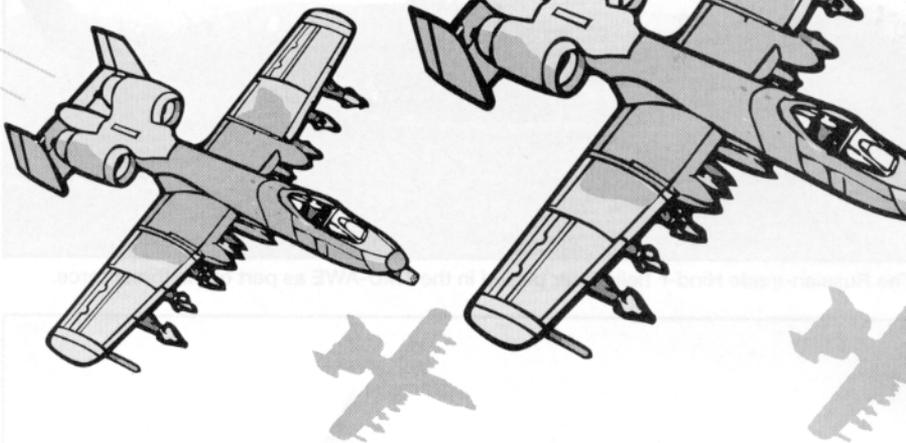
CAS affords the brigade significant flexibility and lethality in conducting deep operations that, when used in concert with other deep attack systems, can have a devastating effect on the enemy. Sadly, the full effects of CAS are rarely achieved during a campaign at the National Training Center (NTC), Fort Irwin, California.

Throughout a campaign, a brigade's efforts to employ CAS are routinely thwarted by a number of factors: too many target grids generated from a variety of sources; ineffective airspace deconfliction; lack of suppression of enemy air defenses (SEAD), both lethal and non-lethal; and lack of qualified air controllers at the right place and time. Gradually, integrating CAS into the operation becomes viewed as "too hard."

In actuality, CAS is too hard with little or no planning. Generally, the brigade intends to employ CAS but doesn't plan to employ CAS. The transition from intent to planning is obviously the key to success.

Precious few tactics, techniques and procedures (TTP) exist to assist the brigade plan CAS employment. This article explains TTP developed at the NTC for employing CAS.

**Step 1: The targeting team determines where CAS is to be targeted during the operation.** The determination begins during analysis in course of action (COA) development and continues through hasty war gaming with the "where" synchronized with other fire support during the deliberate war gaming session. It isn't within the scope of this article to cover the war-gaming session; *CGSC Student Text (ST) 101-5 Staff Decision Making Process* outlines the process in detail. When



all friendly COAs have been war gamed against all enemy COAs and branches and sequels have been identified, there will be many potential CAS targets across the area of operations.

**Step 2: Graphically portray the potential CAS targets on an overlay.** A standard target symbol (+) can be used; however, this target symbol must be distinguishable from an artillery target. A different color (blue, for example) may be used, or CAS may be annotated in the upper right quadrant of the target symbol.

**Step 3: Construct a CAS target box (CTB) around the CAS target.** The CTB is the area around the target in which the particular enemy formation could be found, based on the one COA for which the target was developed. The CTB defines the area within which (1) we can expect to find the enemy, (2) we have the capability to engage the enemy and (3) we can achieve the desired effects on the enemy. Each CAS target will have only one CTB. The CTBs should be numbered on the overlay for reference. (See Figure 1.)

**Step 4: Graphically portray the triggers or decision points (DPs) for each CTB on the overlay.** The trigger or DP is the point the enemy formation reaches that activates a particular CTB for engaging the formation. (See Figure 2.) The trigger or DP must be far enough from the CTB to allow sufficient time to execute the variety of events associated with attacking into the CTB—for example, the nine-line mission brief, SEAD, flight time from the initial point (IP), etc. These triggers or DPs are numbered to corre-

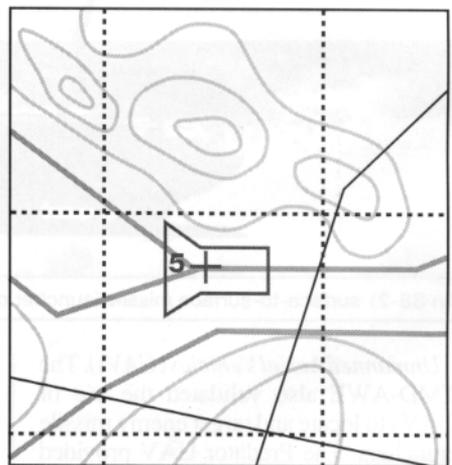


Figure 1: CAS Target Box, or CTB (Step 3). Each CAS target has a CTB, which is numbered for reference.

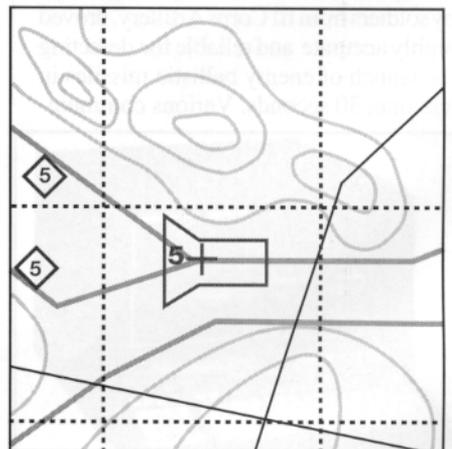


Figure 2: Trigger Points (Step 4). The trigger points are diamond-shaped and have the same number for the CAS target they reference.

spend with the CTB. The trigger or DP also should be included on the fire support execution matrix (FSEM) and the brigade decision support matrix (DSM) and its template or brigade synchronization matrix.

An example of a completed CAS overlay (Steps 1 through 4) is shown in Figure 3.

**Step 5: Construct CTB cards for each CTB.** These 5x8 cards contain vital information regarding a CAS mission on a specific target at a specific CTB (Figure 4). Each CTB has its own card. The CTB card is a tool for detailed CAS planning, serving as the checklist for a particular engagement. The obvious benefit is that the details—such as airspace coordination areas (ACAs), SEAD, control and the like—are addressed during planning, not execution.

The CTB card in Figure 4 is for the CTB introduced in Figure 1. In this example, CTB Card #5 is for CAS to engage an enemy moving armor battalion. Thus, when the target is acquired at Trigger 5, the fire support officer (FSO) announces CTB 5 is activated; all fire supporters simply refer to that card for the coordinating data. The controlling tactical air control party (TACP), RAVEN 18, knows he'll control; and the FSE, intelligence and EW support officer (IEWSO) and fire direction center (FDC) know the ACA and intent for SEAD. The nine-line CAS briefing can be completed by extracting data from the card.

The card's line-row reference system permits efficient updates at any phase: planning, preparation or execution. For example, using the reference "Line 3B of CTB Card #5," it's easy to change the line from "Bn 2 DPICM" (battalion, 2 rounds of dual-purpose improved conventional munitions) to "Bn 1 HE/VT" (battalion, one round of high-explosive munition/variable-time fuze). The artillery battalion and all FSEs should receive copies of the CTB cards.

This article has explored one set of TTP for rapidly employing CAS on the battlefield with minimum confusion. CAS overlays and CTB cards offer a way to systematically walk through the planning and execution of close air support. Regardless of the steps used, thorough planning is the only way to ensure success with CAS.

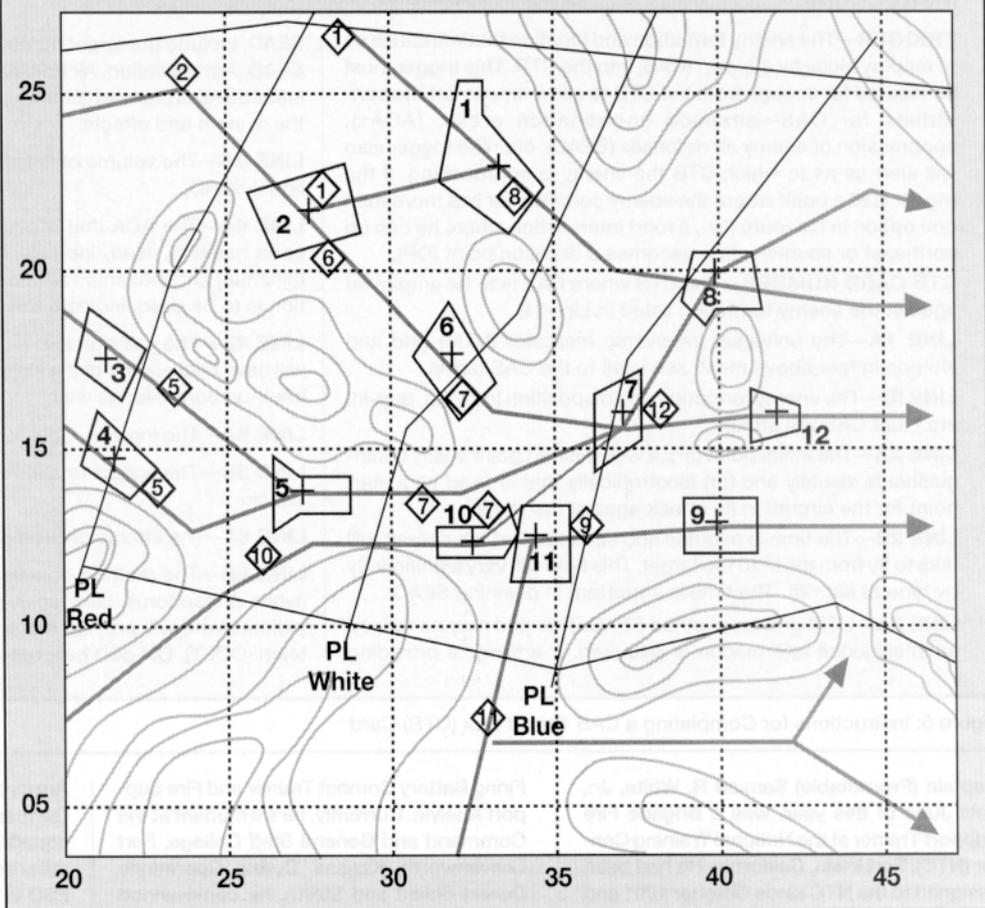


Figure 3: A Completed CAS Overlay

TRIGGER $\diamond$ 5		CTB CARD # 5
LINE	A	B
1	TARGET GRID <u>NK 272139</u> TARGET ALT <u>3014 MSI</u>	TARGET DESCRIPTION <u>Moving Armor Battalion</u>
2	IP <u>X-RAY</u>	TIME-IP TO TGT <u>2 min 37 sec.</u>
3	SEAD TGT <u>AJ 0117</u> NON-LETHAL: <u>Jam ADA</u>	VOLUME <u>BN (2) DPICM</u>
4	ACA <u>EAGLE</u>	CONTROL <u>RAVEN 18</u> ALTERNATE: <u>SILKY 20</u>
5	INGRESS $\odot$ <u>along ridge</u> <u>stay <math>\odot</math> of E-W road</u>	EGRESS $\odot$ <u>along ridge</u> <u>stay <math>\odot</math> of E-W road</u>
6	EFFECTS <u>Destroy 3 BMPs</u>	MARKING <u>Laser COLT 2</u> <u>PRF 226</u>

<b>Legend:</b>	ADA = Air Defense Artillery	DPICM = Dual-Purpose Improved Conventional Munition
BMPs = Soviet-Made Tracked Infantry Combat Vehicles	PRF = Pulse Repetition Frequency	

Figure 4: A Completed CAS Target Box (CTB) Card. (See Figure 5 on Page 24 for instructions on how to complete this card.)

## Instructions:

**TRIGGER**—The enemy formation and location that will cause us to employ close air support (CAS) into the CTB. This trigger must be located far enough from the CTB to allow time to set the conditions for CAS—airspace coordination areas, (ACAs), suppression of enemy air defenses (SEAD), etc. The trigger also will alert us as to which CTB the enemy is approaching. If the trigger is at a point where the enemy commander has more than one option in his route (i.e., a road intersection where he can go northeast or southwest), it becomes a decision point (DP).

**CTB CARD NUMBER**—The CTB where CAS is to be employed against the enemy formation listed in Line 1B.

**LINE 1A**—The universal transverse mercator (UTM) grid and altitude in feet above mean sea level to the CAS target.

**LINE 1B**—The enemy formation and disposition (moving, dug-in, etc.) that CAS will attack.

**LINE 2A**—The initial point (IP): a well defined point easily distinguishable visually and (or) electronically that is used as a start point for the aircraft in its attack against the target.

**LINE 2B**—The time in minutes and seconds that the aircraft will take to fly from the IP to the target. This time will vary significantly by type of aircraft. The time is important in planning SEAD.

**LINE 3A**—UTM grid for planned SEAD. This grid may be refined as intelligence information is gathered. If artillery is providing

SEAD, include the target number. If another system is providing SEAD (Army aviation, Air Force, etc.), indicate the system. If non-lethal SEAD is planned (jamming, electronic warfare, etc.), indicate the system and effects.

**LINE 3B**—The volume of fire/ordnance and delivery system for lethal SEAD.

**LINE 4A**—The ACA that is planned for this particular CTB. If a code name is used, indicate the name. Include all grids and minimum and maximum altitudes, if appropriate. If time separation is to be used, indicate this on the card.

**LINE 4B**—The call sign and location of the individual team that will have final control of the aircraft during the attack. Include the back-up controller as well.

**LINE 5A**—The ingress route for the aircraft for this attack.

**LINE 5B**—The egress or exit route for the aircraft following the attack.

**LINE 6A**—The effects desired on the target from this attack.

**LINE 6B**—The method of marking the target that will be used (white phosphorus, laser spot, etc.). If laser spot is to be used, indicate who will provide the spot—combat observation lasing team (COLT), OH-58D helicopter, etc.—and the laser code.

Figure 5: Instructions for Completing a CAS Target Box (CTB) Card

Captain (Promotable) Samuel R. White, Jr., until June of this year, was a Brigade Fire Support Trainer at the National Training Center (NTC), Fort Irwin, California. He had been assigned to the NTC since October 1991 and also served as the Service Battery and then

Firing Battery Combat Trainer and Fire Support Analyst. Currently, he's a student at the Command and General Staff College, Fort Leavenworth, Kansas. During Operations Desert Shield and Storm, he commanded the Howitzer Battery of the 2d Squadron, 2d

Armored Cavalry Regiment out of Bamberg, Germany, the same in which he served as the squadron Fire Support Officer (FSO). Among other assignments, Captain White was a troop FSO in the 3d Armored Cavalry Regiment at Fort Bliss, Texas.

# Check Fire!—

## Change in Senior Fire Support Conference Dates

The dates for the Senior Fire Support Conference have been moved to 11 through 15 March 1996 at the Field Artillery School, Fort Sill, Oklahoma. Topics for discussion include the role of fires in Force XXI and fire support issues in doctrine, materiel development, training, force development and joint operations.

Invitations to the conference will be sent to all Army corps and Marine expeditionary force (MEF) commanders; Reserve Component (RC) and

Active Component (AC) Army and Marine division commanders; selected retired general officers; Training and Doctrine Command school commanders; AC and RC Field Artillery brigade, division artillery and Marine regimental artillery commanders and their command sergeants major; and US Field Artillery Association corporate members.

Corporate members and other companies also may have displays at the conference.



If units or individuals have questions or need more information, they should contact the G3 of the Training Command at Fort Sill: DSN 639-5460/4203 or commercial (405) 442-5460/4203.