

AH-64D Photo by CW3 Dan McClinton, 4th Bde, 4th ID



# Artillery Fires in Support of Aviation in the Close Attack

By Lieutenant Colonel Richard S. Richardson

Original implementation of the armed helicopter during the Vietnam War saw utility (UH-1) and attack (AH-1) helicopters employed as aerial rocket artillery providing close supporting fires. During the 1980s, the fielding of the AH-64 Apache and the implementation of AirLand Battle doctrine focused attack helicopters almost exclusively on deep shaping operations well beyond the mechanized ground maneuver fight.

The recent evolutions in equipment and tactics have resulted in the “re-emergence” of the attack helicopter employed in close proximity to ground maneuver forces. In today’s contemporary operational environment (COE), several factors contribute to the ascendancy of the close aviation fight: expanding battlespace, increasingly lethal air defenses and the battlefield environment.

The enhanced capabilities of the digitized 4th Infantry Division (Mecha-

nized) at Fort Hood, Texas, have increased the Force XXI Division’s battlespace from 10,000 to 24,000 square kilometers. Commanders and battle staffs have found that traditional ground armored reserves do not have the speed to rapidly cross the breadth and width of this expanded battlespace. Instead, the attack helicopter has become the reserve of choice, given its speed, lethality and range.

In addition, threat air defenses have improved at a rate faster than air countermeasures, significantly increasing the risk to deep operations that extend far into enemy battlespace. Attack helicopter operations are more often conducted relatively close to ground troops, usually within the range of supporting multiple-launch rocket systems (MLRS).

Finally, weather effects in some theaters of operation often limit the range in which attack helicopters can operate successfully.

These factors are important—not that close attack operations have replaced deep attack operations, but that close attack operations have significantly increased in frequency in the COE.

While the Army shifted to employing attack helicopters more frequently in close support of the ground-mechanized fight, aviation and fire support doctrine have not addressed fires for close attack operations adequately. This doctrinal shortfall was clear during the 4th Division Battle Command Training Program (BCTP) Warfighter exercise in December 2000 at Fort Hood and Phase I of the Division Capstone Exercise held in March 2001 at the National Training Center (NTC), Fort Irwin, California.

Close aviation fire support during these exercises was problematic for two main reasons. There was no established doctrine or standing operating procedures (SOP) at the division or brigade level. Furthermore, indirect fires, close air support (CAS) and Army aviation with ground maneuver forces required extensive synchronization due to the close proximity of these operations to the forward-line-of-troops (FLOT).

After-action reviews (AARs) from these exercises resulted in tactics, techniques and procedures (TTPs) to increase the effectiveness of fires in support of close attack operations during Phase II of the 4th Division Capstone Exercise at Fort Hood in October 2001. These close attack TTPs are for command and control options for aviation

forces and planning and executing the attack. See Figure 1 for considerations for fires support for close attack operations.

**Command and Control.** During close attack operations, there are typically four command and control options for aviation forces: under the operational control of (OPCON to) a ground brigade combat team (BCT), OPCON to a ground task force (TF), under aviation brigade control (organic) or under division control, usually by the division tactical command post (DTAC) (organic by higher headquarters).

Command and control relationships for close attack operations provide the framework for the command and support relationship of supporting fire support assets. Typically in the 4th Infantry Division, attack helicopter companies or battalions are employed either OPCON to the ground BCT or under the control of the DTAC.

**Planning and Executing Close Attack Fire Support.** Within the command and control framework, there are three areas of concern when planning fire support for close attack operations. These are assigning planning and execution responsibilities to fire support elements (FSEs), allocating fire support assets to the mission and determining clearance of fires procedures. The key to effective planning is to design and plan a mission package of artillery and aviation instead of merely sending the aviation unit on the mission.

*Planning Responsibilities.* First, the division planners determine which FSE will plan the fires for the aviation close attack. The ground BCT FSE takes the lead in planning the fires for the aviation element because it has the best understanding of both the enemy situation and the ground tactical plan in its zone of operations.

Typically, the ground BCT already has an ongoing suppression of enemy air defenses (SEAD) program in its zone to protect CAS. Furthermore, this FSE has a habitual relationship with the artillery operating in the area in support of the ground BCT.

The aviation brigade and attack helicopter battalion FSEs help the ground BCT FSE by providing aviation maneuver planning factors that allow proper timing of SEAD along the route to and from the engagement area (EA). The FSEs work together to plan and execute SEAD along the ingress route, in the EAs and then along the egress route. In addition, the FSEs synchronize aviation and indirect fires with the direct fires in the EAs to contribute to the commander's desired effects.

*Supporting Artillery Assets.* The second area of concern is in relation to supporting artillery assets. The questions are which artillery assets will support the aviation attack, under what relationship will these artillery assets operate and what will the fire mission request chain be?

Generally, there are three options for the artillery-aviation relationship. (See Figure 2 on Page 24.) First is a quick-fire channel established with the ground BCT's direct support (DS) or reinforcing (R) artillery battalion. The second option is a quick-fire channel established with a general support (GS) artillery battalion (such as 2d Battalion, 20th FA Regiment, the 4th Division's GS MLRS battalion) or with supporting corps artillery battalions. Last is the artillery DS to the aviation company or battalion.

The most common option is creating a quick-fire channel from the aviation unit to the ground BCT's DS or R artillery battalion. This method gives the

ground maneuver commander the most flexibility while still providing the aviation unit responsive fires. Typically, the attack aviation unit receives priority of fires (POF) within the BCT's and division's zone while committed.

When using this option, the BCT fire support officer (FSO) decides what the fire mission request chain must be. The aviation unit can either call-for-fire directly to the artillery battalion fire direction center (FDC) or the aviation unit can call the brigade FSE that then forwards the request to the supporting artillery FDC. The latter method allows the ground brigade FSE to approve and prioritize the request and, if desired, forward it to other assets, such as CAS or GS artillery. This option has the most centralized control; however, it does so at the expense of responsiveness.

A second option is to establish a quick-fire channel from the aviation unit to a GS artillery battalion positioned where its zone of fire is in the zone of action of the aviation unit. This requires coordination between the division artillery and the supported ground BCT to ensure the GS battalion is positioned properly to support the attack.

The primary advantage to this option is it does not take DS or R fires away from the BCT's committed ground forces. When using this method, the call-for-fire typically goes from the aviation unit directly to the GS artillery battalion FDC.

The last option is to place an artillery battery or battalion DS to the aviation unit for the duration of the mission. This provides the aviation unit the most responsive fires. However, this option limits the flexibility of the ground maneuver commander by aligning the DS battalion to the aviation unit exclusively, although typically for a short time. Additionally, this option requires the aviation commander to coordinate the positioning of the DS artillery where it can range his aviation's zone of action.

When determining which option to use, planners consider the advantages and disadvantages of cannon versus rocket artillery units. Cannons typically provide the most responsive and sustained fires. They also can be fired closer to friendly units than rocket systems and provide a variety of munitions types, including smoke and mines, that rocket systems can't. However, rocket artillery has longer range and greater lethality and can engage more targets simultaneously.

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| <ul style="list-style-type: none"> <li>• What are the targets aviation should attack?</li> <li>• What are the target objectives? Disrupt, Delay, Limit, Isolate...</li> <li>• What are the target effects? Suppress, Neutralize, Destroy...</li> <li>• What are the fire support means to use? Direct Support, Reinforcing, General Support (Quick-Fire Channel?) or General Support-Reinforcing (Quick-Fire Channel?)</li> <li>• What are the priorities for engaging targets?</li> <li>• Where is the aviation company within the brigade combat team (BCT) priority of fires?</li> <li>• Is aviation incorporated into the BCT observation plan?</li> <li>• Who clears fires? Which commo net is for clearing fires?</li> <li>• What are the call-for-fire (CFF) procedures? Which commo net is for CFFs?</li> <li>• Who approves CFFs?</li> <li>• Who plans and executes suppression of enemy air defenses (SEAD) in the BCT zone?</li> </ul> |
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Figure 1: Considerations for Fire Support for Army Aviation Close Attack Operations

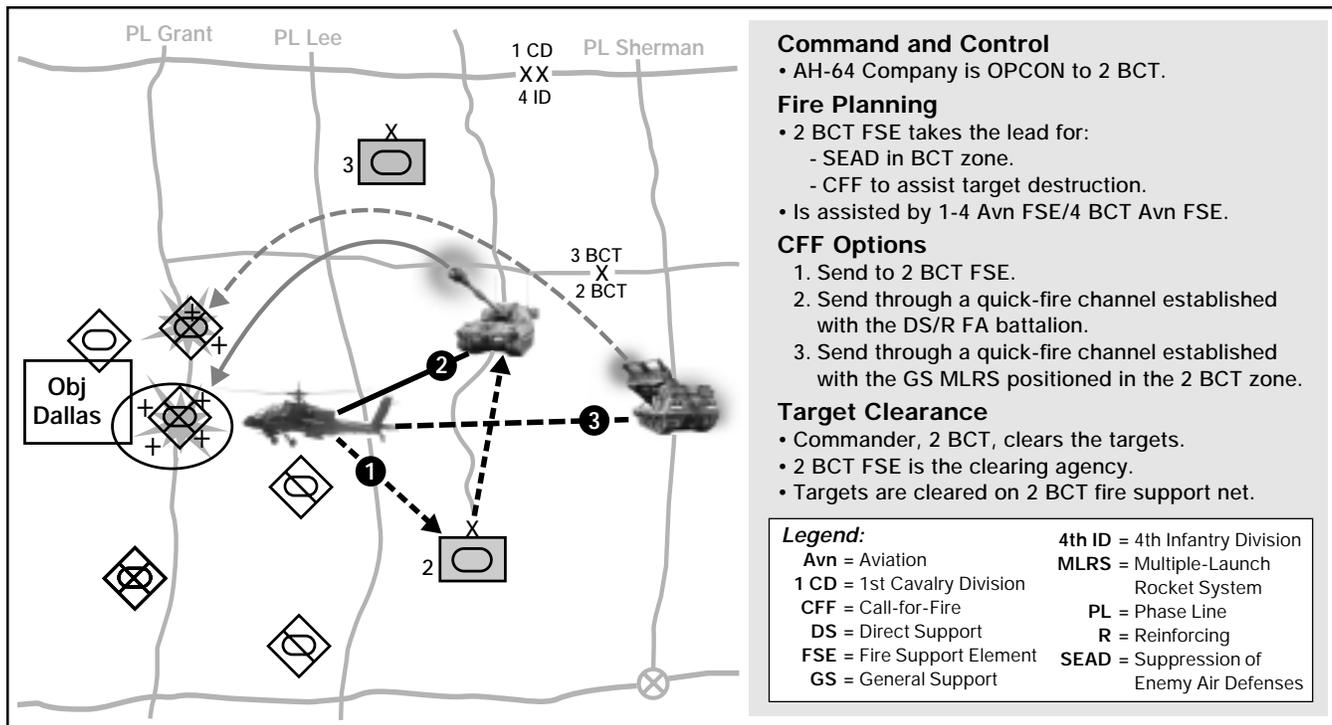


Figure 2: Artillery in Support of the Aviation Attack. In this scenario, an AH-64D company and Kiowa Warrior troop are under the operational control of (OPCON) a BCT. The scenario illustrates artillery assets in support of and their relationship with aviation and fire mission processing options.

**Clearance of Fires.** The third major area of concern is clearance of fires. Experience in the 4th Infantry Division shows that if clearance of fires responsibilities and procedures are not clearly defined during planning and rehearsals, then fire support execution will be unresponsive and can cause fratricide.

Per *FM 6-20-40 Tactics, Techniques and Procedures for Fire Support for Brigade Operations*, the BCT commander clears fires requests short of the coordinated fire line (CFL) within his zone. Before executing the mission, the aviation brigade and ground brigade FSOs determine which voice or digital radio nets to use to clear fires. Typically, the ground BCT FSE is the clearing agency for the brigade commander using the brigade fire support voice net.

When deciding clearance procedures, the FSOs consider minimizing the number of nets the aviation unit must talk on because helicopters have a limited number of FM radios. The FSOs may consider using the same net to both request and clear fires. Once the FSOs decide which procedures to use, they disseminate the call signs, frequencies and digital addresses to the aviation unit and ground BCT FSE.

Experience in the 4th Infantry Division shows that addressing these three areas during the planning process is

most effective when the procedures are specified in the division operations order (OPORD) directing the use of attack aviation assets in the close fight. The division's planners determine which FA unit will provide fire support for the attack aviation and clearly state so in the OPORD. For example, "2 BCT: NLT 022000DEC, position DS or R battalion where it can support A Co, 1-4 Avn and 2 BCT FSE." Another option would be to state "NLT 022000DEC, establish quick-fire channel between A Co, 1-4 Avn and 3-16 FA during close attack mission."

If the division planners decide to use GS artillery assets to support close attack operations, then the fragmentary order (FRAGO) specifies position areas for artillery (PAAs). For example, "2 BCT: NLT 022000DEC, secure 2 km radius PAA 13 to protect 2-20 FAR during close attack operations." And, "Div Arty: NLT 022000DEC, position one battery from 2-20 FAR in PAA 13 to support close attack operations in 2 BCT zone."

The 4th Division turned a weakness identified during Phase I of the Division Capstone Exercise into a strength by developing these TTPs and standardizing them in the division SOP. The TTPs

cue staff officers to requirements when planning and executing fires in support of attack aviation. The division and brigade staffs validated the effectiveness of these TTPs during Phase II of the Division Capstone Exercise.

The next step is to continue to refine these procedures and, ultimately, see them included in FA doctrine.



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