

JOINT FIRES AND EFFECTS FOR YOUR INFANTRY AND HEAVY BCTs

MAJOR GENERAL DAVID P. VALCOURT

Joint fires and effects is what we *do* — your Field Artillery is the Army's integrators of joint fires and effects. As we transition to the Modular Force on to the Future Force, we have three priorities to best support the Army's ability to integrate joint fires and effects.

Our top priority is to enable the Army to grow the Fires Battalions organic to the fourth brigade combat teams (BCTs), in most cases, in the units of employment (UEs). We are capitalizing on the energy and resources of the Global War on Terrorism to grow these battalions from 33 to 43 in the BCTs — potentially to 48 BCTs. Growing Fires Battalions, which are more capable versions of today's direct support (DS) FA battalions, will help relieve the pressure on the Army due to our GWOT operational tempo (OPTEMPO).

My second priority is to provide Fires and Effects Cells (FECs) that replace fire support elements (FSEs) in our maneuver force at every level from the company to the UEy as the backbone of the ground force's ability to employ joint fires and effects. The FECs are joint-capable, lethal and nonlethal effects coordinating centers.

Third we will build Fires Brigades for the echelon above the BCTs ...the UEs and possibly UEy. The Fires Brigade combines the functions of today's corps artillery, FA brigade and division artillery. Ideally, we will have a Fires Brigade for every UE.

The BCT's Fires Battalions

Each maneuver brigade commander now has an organic Fires Battalion with 16 guns. His FA battalion has two eight-gun batteries that each has two firing platoons. Figure 1 shows an Infantry BCT Fires Battalion. A Heavy BCT Fires Battalion is essentially the same, exchanging the 105-mm cannons for 155-mm cannons and adding a Q-37 Firefinder radar.

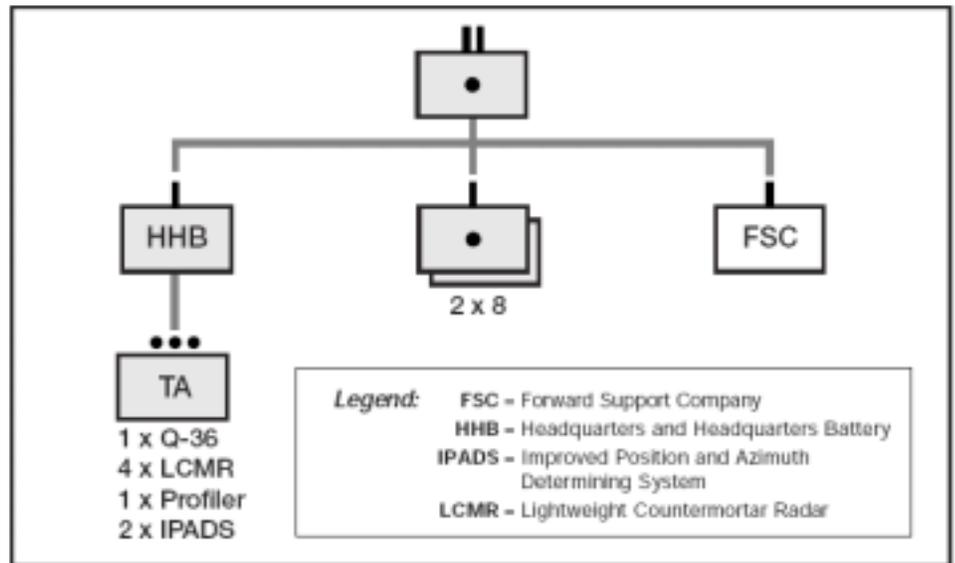


Figure 1 - Fires Battalion for the Infantry Brigade Combat Team

The purpose of the Fires Battalion is to provide you immediately responsive, all-weather, all-terrain close supporting precision and suppressive fires.

Massing that 16-gun Fires Battalion remains a mission-essential task list (METL) capability. But fighting in Operation Iraqi Freedom and Operation Enduring Freedom has taught us you need platoon-sized elements with four guns to track your patrols and lay on your highest priority targets. You will have four organic platoons to support your patrols in your Fires Battalion and more if you have a reinforcing cannon battalion from the Fires Brigade employed with your UE. That reinforcing battalion effectively will double your FA fires capabilities.

The Fires Battalion's weapons must be the best possible to support your operations. Next summer, we are reopening the production line for the M119 105-mm towed howitzer to equip the new additional Fires Battalions in the Infantry BCTs. Although the M119 howitzer is not the ideal system, it is the best currently available.

Recognizing that Infantry BCTs will require a light, close support cannon system, we are developing the M119's replacement, an enhanced lightweight cannon, called the enhanced forcible entry cannon. This digitized 105-mm cannon will be transportable by both the UH60 Black Hawk helicopter and the high-mobility multipurpose wheeled vehicle (HMMWV). Our requirements include a greater range and better 6400-mil traverse capability and the ability to fire existing and future improved 105 ammunition. The forced-entry cannon is in concept development now, and we are pushing to bring it into the force as rapidly as possible.

Our Stryker BCTs need a self propelled, survivable howitzer to replace its towed M198. As an interim step, the first SBCT will receive the M777A1, which is a more deployable lightweight 155-mm howitzer with Paladin-like accuracy and responsiveness, in August of 2006. The LW 155 will be the first cannon capable of firing our new Excalibur precision munitions.

Ultimately, the SBCT and Heavy BCT

will fight with the same cannon called the non-line-of-sight cannon, the NLOS Cannon, a future combat system (FCS) variant. We are projected to start fielding the NLOS Cannon in 2008. For more information on the NLOS Cannon, see the article “NLOS Systems for the Modular and Future Forces” in the November-December 2004 edition of *Field Artillery* online at sill-www.army.mil/famag.

The Fires Battalion commander remains dual-hatted: commander of your 16-gun FA battalion and resident expert on coordinating the BCT’s joint fires and effects. Your fire support team members (FISTers) organic to the companies are part of his fires and effects chain. As you know, these FISTers are in your formations to provide lethal fires and nonlethal effects where “the rubber meets the road,” the close fight.

As Chief of Field Artillery, I have had several discussions with your Chief of Infantry about where to best locate these FISTs to make them most effective — including at the task force or BCT level. There is no perfect solution, however, I would tell you that where they are located is not the issue. *Ownership* is not the issue — the Fires Battalion and all fire support assets are organic to the BCT, and FISTs exist in order to provide each company accurate, timely, and lethal fires. The issue is ensuring these very capable FISTers remain trained and certified to standard while at the same time earn the trust and confidence of their maneuver company commanders they are there to support. To do this, their training must balance both their maneuver skills with their digital fires and effects skills. Experience has shown that maneuver skills are best trained in the maneuver company, but the digital fires skills must be trained and sustained in the BCT fires environment led by the senior fire support officer and NCO.

Whether the FISTs are aggregated at the BCT level, assigned out to the companies or aggregated at the Fires Battalion’s headquarters and headquarters battery (HHB), the key will be to strike a balance for training and certification.

FISTers are first and foremost combat arms Soldiers. As such, they should be trained and capable of leading combat arms platoons. But we should remember that their primary mission is to ensure you receive the fires and effects you need to succeed in combat or stability and support operations (SOSO). These functionally trained lieutenants and NCOs are in the maneuver company formation to coordinate your close supporting fires.

One additional thought along those lines...the Fires Battalion is the BCT’s best resource to train, certify, and command and control the indirect fire systems of the BCT. I recommend the BCT consider assigning the task force’s 120-mm mortars to the Fires Battalion for gunnery training and certification, then back into their TFs for combined arms training and execution. Many



Private First Class R. Alan Mitchell

Two Soldiers from the 2nd Armored Cavalry Regiment prepare to launch a mortar round during live-fire training at Glamoc, Bosnia and Herzegovina.

of you already do this, and from reports I have received, this seems to work well.

Traditionally the 120’s have been the maneuver TF commander’s only organic fires asset and the one system he always controlled and could depend upon. Again, this is not about ownership but about training — all are organic to the BCT. The Fires Battalion is the BCT commander’s best place to train and certify the individual and collective indirect fire tasks demanded of these tremendously capable combined arms Soldiers.

We are working to ensure the 13F Fire Support Specialists in your company FISTs are trained and qualified to access joint close air support (JCAS). With modularity, the Army has stated it has a requirement for enlisted terminal attack controllers (ETACs) of JCAS assets down to the *company level* vice the previous requirement for ETACs at the task force level. Training, certifying and sustaining the qualifications of the increased number of TACs will take time, and we believe it will require the Army to certify Soldiers to bring CAS effects to the company level.

The Army plans to invest this training most heavily in those who make their living coordinating fires and effects, our 13F30s and 13F40s. The 3rd Infantry Division recently sent about two dozen 13Fs for training at the Air-Ground Operations School at Nellis AFB, Nevada, as proof of the concept. The training qualified them to provide guidance for JCAS when visual acquisition of the aircraft and target is not possible or not necessary because of a low risk of fratricide (types 2 and 3 CAS). We will continue this training for 13Fs.

At the end of the day, I believe we also will train and equip Soldiers to serve as ETACs with eyes-on the CAS aircraft and

target, controlling the attack (type 1 CAS). This will require more extensive training to meet joint fires standards.

In a related issue, we may have caused some confusion with the term “Universal Observer.” The more appropriate term is “Joint Fires Observer.” We are correcting that term and its definition in joint doctrine channels. A Joint Fires Observer is any serviceman, usually E5 or above, who is trained and certified to plan and execute the application of effects from Marine, Army and Navy indirect fires systems as well as coordinate Air Force types 2 and 3 CAS.

As your BCT fights, your Fires Battalion must be able to support you in the most difficult terrain, including urban areas, minimizing collateral damage while delivering precision effects against high-payoff point targets. We are developing precision-guided munitions to do just that.

Precision-guided munitions organic to your BCT will provide maximum responsiveness. We are developing precision-guided munitions for 155-mm and 105-mm cannons and for the two “six-pack” multiple-launch rocket system (MLRS) and one “six-pack” high-mobility artillery rocket system (HIMARS), a wheeled version of MLRS.

In September, the Excalibur Unitary Round (155-mm) Operational Requirements Document (ORD) was approved by the Joint Requirements Oversight Committee (JROC) with the signature of the Vice Chairman of the Joint Staff. Excalibur unitary increases the Fires Battalion’s precision in the close fight with longer range and a steep, non-ballistic terminal trajectory that allows the BCT to attack targets in urban and complex terrain while minimizing collateral damage. The round has been very successful in recent testing and is projected to be fielded with the LW 155 in FY07.

The projectile guidance kit (PGK), also known as the course-correcting fuze, will bring precision to 105 as well as 155 cannon munitions. It is a fuze/fins device applied to existing dumb munitions to significantly increase accuracy to an objective requirement of 30 meters. This will reduce the amount of ammunition required for missions and enhance the Modular and Future Forces’ precision.

For the Fires Brigade, we are developing



Lightweight Countermortar Radar

the guided-MLRS unitary rocket (GMLRS-U). It will give the UEx longer range precision fires for shaping and counterstrike operations with the added benefit of the unitary round’s being effective in areas of collateral concern. The internal bomblets in the GMLRS-U are replaced by a single unitary charge. Its precision and more predictable lethality area reduces the minimum safe distance (MSD) to friendly forces and enables attack in areas of collateral concern. I am extremely pleased with GMLRS-U’s performance in recent operational testing—it is a potent munition for our GWOT forces operating in urban and complex terrain.

Congress has approved the funding for GMLRS-U. I am pushing for its limited fielding for ongoing war operations in FY06. Force-wide fielding is projected for FY08.

To help your BCT achieve precision-guided fires and provide more precise area effects, we have “raised the bar” on target location error (TLE), setting the standard at no more than 20 meters at ten kilometers.

The mounted observer in our Heavy BCT will meet the TLE standard via his fire support sensor system (FS³) mounted on the combat observation lasing team (COLT) Knight vehicle in early 2005. The FS³ is a long-range advanced scout surveillance system (LRAS³) with a laser designator module (LDM). We will deploy

20 FS³-equipped Knights to Iraq in January. We are working to provide our Bradley FIST vehicles (BFISTs) with the same capability.

Our dismounted observers in the Infantry BCT will meet this standard. The binocular-like Mark VIIIs and Viper/Vector 21s have significantly improved the TLE for our dismounted observers in the Infantry BCTs. These systems provide lightweight night vision and digital connectivity. We have fielded them in Afghanistan and Iraq.

About fires at the UEx level...a few words. The Fires Brigade will come to the fight with a mix of both MLRS and cannon battalions. In most situations, I would coach the UEx commander to push the Fires Brigade cannon battalions down to the BCTs to thicken and reinforce the fight where he has the most concern. The remaining MLRS/HIMARS can be positioned to support the UEx commander’s intent, setting the conditions for the BCTs’ fight and delivering counterstrike fires.

The Fires Brigades will have improved target acquisition capabilities, including access to tactical and attack unmanned area vehicles (UAVs) and other sensors. This will allow counterstrike to be proactive, attacking enemy fires assets before he can employ them, as well as allow for the more traditional reactive counterstrike using Firefinder radars.

The BCT/UEx will have three-tiered radar coverage with overlapping footprints for maximum force protection. The three are the Q-37 and Q-36 radars plus the lightweight countermortar radar (LCMR), the latter in the maneuver battalion providing 360-degree coverage. The LCMR began life as a commercial, off-the-shelf Special Operations Forces (SOF) radar. It will complement the Firefinder radars that have considerably more range. We are working with the Program Manager of LCMR to improve the LCMR’s accuracy to 10 meters at 10 kilometers and reduce the processing time to achieve a lethality in total radar coverage that will allow the enemy *one chance* to fire before we destroy him and his systems.

Just like the Fires Battalion commander is the BCT commander’s expert on fires and effects and his indirect fires trainer, the Fires Brigade commander will serve the UEx commander as his fires and effects

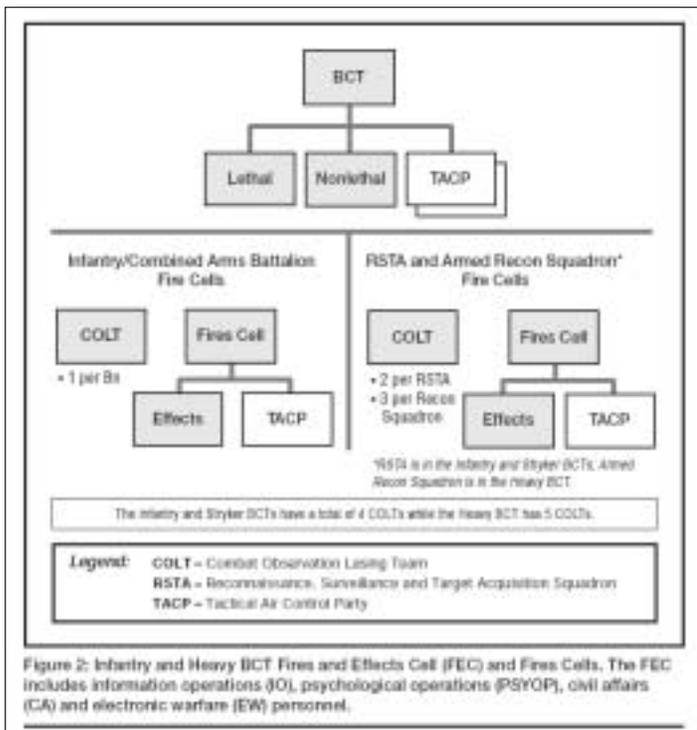


Figure 2

advisor/trainer. The Fires Brigade commander will assist BCT commanders by maintaining an informal relationship with the Fires Battalion commanders, coaching, mentoring and training them and ensuring their battalions are certified.

Fires and Effects Cells

In addition to lethal fires with precision or to suppress, sometimes you will need tactical nonlethal effects. Your BCT, UEx and UEy FECs are “FSEs” redesigned to coordinate that full-spectrum joint capability. Fires Cells serve as the “FECs” in the Infantry/Combined Arms battalions headquarters. (See Figure 2.)

As you can see in the figure, the FEC has significantly broader capabilities, including access joint fires. The BCT FEC links directly with its UEx, the Fires Brigade and the UEy FECs and with joint assets via the advanced field artillery tactical data system (AFATDS). The FEC is the one organization at each maneuver headquarters that pulls together all lethal and nonlethal effects to support the maneuver commander’s plan.

The Fires Cells in the maneuver company and battalion headquarters will be led by your Fires Officers while at the BCT level and above, Effects Coordinators (ECOORDs) will lead the FECs.

The function of the ECOORD is not to be confused with that of today’s “fire support coordinator” (FSCOORD), who is an FA commander in the DS battalion or division artillery. The Fires Battalion/Fires Brigade commanders will command their FA formations and advise the BCT/UEx commanders on fires and effects. The ECOORD, who is the FA staff officer at the maneuver headquarters, will plan the details of and coordinate fires and effects, lethal and nonlethal, at the direction of his maneuver commander. He will serve, more or less, as a G3-Fires. The BCT ECOORD is designated as a lieutenant colonel position; however, for sometime in the future, you will see majors as BCT ECOORDs.

Fort Sill initiated the Joint Fires and Effects Course (JFEC) in September to develop fires and effect officers and NCOs. The three-week course has joint instructors teaching the full range of joint fires and effects to students from all services. Also in the Second Quarter of FY05, we will begin teaching the Tactical Information Operations (IO) Course for IO at the BCT and below. It will complement the IO course for UEx and above taught at Fort Leavenworth.

CounterStrike Task Force (CSTF)

As many of you are aware, the Army established the Improvised Explosive Device (IED) Task Force to counter the asymmetrical effects of IEDs in Afghanistan and Iraq. In a similar vein, the Army has established the CSTF to counter the effects of enemy indirect fires in OIF and OEF, primarily mortar and rocket fires, which are causing the greatest number of casualties among our Coalition Forces. These indirect fires are characterized by low-volume, shoot-and-scoot delivery.

The Training and Doctrine Command (TRADOC) Futures has focused the efforts of the schoolhouses, particularly, the FA and Air Defense Schools, to work with in-theater leaders and the Department of the Army staff to find holistic solutions to defeat the enemy and protect our Soldiers. Our strategy must be layered and redundant.

Today’s Army is an Army of veterans, including you, and I need your help. We are looking for ways to provide early warning of incoming rounds for individual Soldiers, improvise overhead protection at base camps, intercept rounds and improve radar acquisitions of indirect fire and response times, among other things.

We need your innovative ideas and those of others in the Army and our joint force to defeat the indirect fire threat in OIF/OEF. Please share your expertise on our secure website: <https://counterstrike.army.smil.mil>. You can go to our nonsecure website for more information: <http://sill-www.army.mil//counterstrike>.

If you would like more information about anything I have discussed in this article (and more), please visit our Fires Knowledge Network (FKN) on Army Knowledge Online (AKO) under “Knowledge Networks.” If you want to comment on this article, e-mail me at Redleg@sill.army.mil. Whether I respond or not, be assured I read those e-mails and you will have had input.

The bottom line for today’s transitioning Modular Force and the Future Force: joint fires and effects is what we do. And we do it for you — immediately responsive close supporting and suppressive fires and effects in all weather, all terrain. It’s my job to support you and the entire combat arms team. **Create the Thunder!**

Major General David P. Valcourt has been the Chief of Field Artillery, Commandant of the Field Artillery School and Commanding General of Fort Sill, Oklahoma, since December 2003. In his previous assignment, he was the Director of Strategy, Plans and Policy in the Office of the G3 at the Pentagon. He also served as the Assistant Division Commander (Maneuver) for the 2d Infantry Division in Korea and commanded the 4th Infantry Division (Mechanized) Artillery, Fort Hood, Texas, helping to transform the 4th Division into the Army’s first digitized division. He was the G3 of III Corps Artillery and the 212th Field Artillery Brigade, both at Fort Sill. General Valcourt commanded 2d Battalion, 17th Field Artillery, the first unit equipped with the Paladin M109A6 155-mm self-propelled howitzer, determining the initial tactics, techniques and procedures for the new semi-autonomous howitzer in support of maneuver forces. He holds two master’s degrees, including an MA in National Security and Strategic Studies from the Naval War College, Newport, Rhode Island.