Responsive Fires in the deep fight

By Lt. Col. Jeremey Davis

Fire supporters at the division and corps level must become experts at airspace coordination in order to enable maneuver commanders to dominate in Unified Land Operations against near-peer adversaries. For over the past decade, we have lived in an environment where maneuver forces operated outside the range of friendly artillery, precision Fires were more valuable than massed Fires, and complete air supremacy meant friendly aircraft were on station all the time. As we return our focus to facing a near-peer adversary, the Fires community must relearn skills reminiscent of Air-Land Battle: linear combat against a numerically superior enemy where local air superiority is hoped for but not guaranteed. Things have progressed since the time of Air-Land Battle doctrine, and fire supporters have a broad array of tools to integrate in time and space. In order to integrate all fire support assets, Fires planners must develop airspace coordination measures that support the maneuver plan and produce attack guidance that matches the right weapon to the right target at the right place on the battlefield.

Insufficient or inadequate planning before the battle leads to 1) unresponsive Fires 2) engaging with munitions that may not be the most effective 3) expending scarce resources where they could be best used elsewhere. Planning must generate Fires products throughout the military decision-making process, such as the attack guidance matrix and the target list worksheet. Targets short of the fire support coordination line (FSCL) and air-to-surface Fires should have priority beyond the FSCL. This neither prevents airstrikes short of the FSCL nor prohibits launching ATACMS beyond the FSCL. Rather, airspace coordination measures (such as blue and purple kill boxes) should be established short of the FSCL permitting aircraft to conduct operations, and beyond the FSCL to allow for missile fire. Whether in the Joint Air Ground Integration Cell at division or the Fires cell at brigade, Fires officers need to engage with all other airspace users during the airspace management meeting to develop ACMs. These ACMs can be permanent, of limited duration or on-call. Even an on-call ACM can provide benefits versus live de-confliction due to the ability to disseminate and rehearse the measures beforehand. Ideally, the FSCL should be calculated based on how far the field artillery can fire without breaching the coordinating altitude. Lessons learned from Combined Joint Task Force – Operation Inherent Resolve have found that responsive indirect fire support requires at least a 10,000-foot coordinating altitude (Redleg Update 04/17). How-
Figure 2. Airspace control methods (Courtesy illustration).

ever, 20,000 feet allows for most 105 mm Fires and 30,000 feet facilitates most 155 mm Fires. The commander’s decision on FSCL and control access comes down to a question of just how responsive he wants his surface-to-surface Fires to be. Placing the FSCL too far out runs the risk of creating a gap where field artillery systems cannot range targets, yet aircraft must request clearance to engage. To address the difficulty of coordinating an FSCL move during offensive operations, one technique is to establish an airspace coordination area (ACA) short of the FSCL. This effectively allows aircraft to cover the gap beyond the range of the field artillery and then, once the field artillery is in position, turn off the ACA to allow Fires up to the FSCL.

“We don’t plan targets because we don’t know exactly where the enemy will be.” This statement overheard in a warfighter Fires cell, along with the opposite extreme of plotting a target on every grid square “just in case,” exemplify common misunderstandings of why we plan targets in the first place. Planned targets provide a specific focal point for coordinating assets when the maneuver commander declares what he wants dead, when and where. A sufficiently detailed target will specify a target number, trigger, location, observer and delivery system. This ensures we can have a primary and alternate observer on station and a delivery system in range at the right time during the battle. Once position areas for artillery are selected and aviation attack by fire positions are plotted, each of the respective branches can compare notes and start de-conflicting gun-target lines with air mobility corridors. Air Force planners can select ingress and egress routes that do not intersect planned rocket flight paths, while Artillerymen establish on-call restricted operating zones over their firing points. It all starts with target development combined with military specialists working in tandem to minimize risk and maximize joint effects.

Joint Publication (JP) 3-52 describes positive control as a method of airspace control that relies on positive identification, tracking, and direction of aircraft within an airspace, conducted with electronic means by an agency having the authority and responsibility therein. Procedural control is a method of airspace control which relies on a combination of previously agreed and promulgated orders and procedures according to JP 3-52.

TAIS, with a real-time friendly feed and integrated with AFATDS, provides the tracking, while the air support operations cell provides the authorities to facilitate rapid de-confliction of deep Fires in the JAGIC via positive control. This assumes digital systems have not been degraded or tampered with by a near-peer adversary. Ultimately it is up to the commander what risk he is willing to accept. Positive or procedural control can only reduce risk; it cannot eliminate it.

A key part of the joint targeting cycle is capabilities analysis or weaponeering; determining how we want to engage a target in order to achieve the desired effects. In doing so we must consider the capabilities of our weapons and delivery systems verses the properties of the specific target. Given an abundance of planning time, each individual target can be analyzed to generate an engagement solution tailored to the properties of that specific target. However, an Attack Guidance Matrix (AGM) provides a general starting point for weaponeering pre-planned targets, and expedites the tactical fire direction required to engage dynamic targets. Three variables to consider when creating an AGM are the target’s survivability, mobility and relative location on the battlefield.

- Is the target unarmored, armored or hardened structure?
- Is the target mobile or static?
- Is the target generally found in the close, deep maneuver or operational deep area?

ATP 3-94-2 Deep Operations gives us the following guidance regarding Army assets:

Artillery strikes are very effective for engaging well-defended, high-payoff targets, day or night, in all weather conditions. They can conduct short-notice strikes without aviation support against targets in heavily defended areas where the probability of the loss of aircraft is too high. Artillery strikes are typically employed against soft, stationary targets such as unhardened surface-to-surface missile sites, emplaced artillery batteries, air defense sites, logistics sites and command and control facilities. Appropriate target areas include chokepoints along mobility corridors and areas through which hostile weapon systems and equipment must pass.
Aviation attacks are effective at executing precision engagements against moving enemy forces, armored forces, hardened targets (such as bunkers), or targets located in terrain that restricts, prohibits or degrades artillery strike accuracy and effectiveness.

The wide variety of ordinance and aircraft available to the United States Air Force, combined with the ability to operate throughout the depth of the battlefield, make air power effective against most assets. When building the AGM, the question is not “Can aircraft effectively engage this target?” but rather “Do I have other assets that could engage this target?” Artillery ammunition is typically more plentiful than available sorties, and is effective against fewer targets. It should be prioritized against the targets it can best influence in order to free up aircraft for deeper targets. Additionally, when aircraft are grounded by weather, artillery continues to provide support for the close fight while also providing some ability to engage deep high-payoff targets. Lastly, we can expect a near-peer adversary to have a robust combination of fighter aircraft and air defense artillery. In these cases, aircraft require support from electronic warfare assets, air superiority fighters, and artillery suppression of enemy air defenses missions to create windows in which to deliver their ordinance and come back alive. In summary, artillery is best against static soft targets in the close or deep maneuver area, aviation is best against mobile armored units in the close fight, and aircraft are versatile against many targets, but are limited by availability, weather and the balance of air power.

Shaping Fires in the deep fight attrit enemy forces, divert or disrupt their scheme of maneuver and deprive them of key capabilities by striking high payoff and high-value targets, ensuring maneuver commanders have a decisive advantage once they make contact with the enemy. Fires are often the “action” part of “actionable” intelligence gathered by the division’s reconnaissance assets. The effectiveness of shaping Fires depends on a combination of tactical weaponeering and technical responsiveness. In weaponeering, fire supporters engage in a deadly game of rock, paper scissors to employee the most effective asset against its most vulnerable counterpart as distilled into the AGM. For Fires to be responsive, we need to use the appropriate delivery asset at the right point in the battlespace. To do so requires prior planning, in the form of position areas for artillery, targets, fire support coordination measures and airspace control measures. It is through this combination of tactical and technical proficiency that we can most effectively destroy, defeat or disrupt the enemy with joint integrated Fires.

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