

The MEF's Force Artillery

By Chief Warrant Officer Three Quint D. Avenetti, USMC

The Commandant of the Marine Corps directed we develop lethal, flexible and potent fire support capable of supporting today's style of modern maneuver warfare. We reviewed our force structure and equipment and identified capabilities and shortfalls with respect to the Force Artillery. USMC Force Artillery is similar to the Army's corps-level artillery; however, it does not control assets other than those that are organic or attached.

This article outlines the doctrinal changes being implemented to provide a Force Artillery to complement the fire support needs of the marine expeditionary force (MEF) in a major theatre war (MTW). The 14th Marine Regiment (Reserves), Fort Worth, Texas, will fulfill that role.

Background. History and the Gulf War, in particular, have proved the continued need for long-range fire support capable of providing dedicated counterfire assets to engage high pay-off targets (HPTs). The-MEF-sized element, such as the one employed in the Gulf War, assumes a vast area of responsibility, and supporting fires must be positioned to provide either general support (GS) or reinforcing (R) fires to the ground combat element's (GCE's) organic artillery force structure. Cuts in the 1970s and 1980s eliminated the FA group, leaving the MEF commander with no organic GS artillery.

During the Gulf War, the 14th Marine Regiment had no more capability with respect to range than her active duty sister regiments; this relegated the 14th Marines to augmenting the active artillery with firing batteries. There was no dedicated counterfire headquarters nor was there a ground-based fires liaison to the MEF to resolve fires-related conflicts between the close and deep battle areas.

The Force Artillery Mission. The quick response study along with les-



sons learned from many MEF-level exercises were influential in modifying the Force Artillery mission statement to read as follows: "Upon activation, Force Artillery provides an artillery capability and a MEF-level artillery headquarters to command and control all cannon/rocket artillery units not assigned to the Ground Combat Element in order to provide the MAGTF commander all weather, surface-to-surface deep fires in support of MEF deep battle space fire support requirements; fires to reinforce the MEF close battle; and an effective MEF-level counterfire capability." (This mission statement is from Chapter 5, "Force Artillery" of *Marine Corps Warfighting Publication 3-16.1 Marine Corps Artillery Operations*, March 01 Coordinating Draft.) The studies began identifying the details of the Force Artillery mission, personnel and equipment, which are still evolving.

Rocket Artillery. Key, here, was the Marine Corps' decision to add a rocket delivery system to its inventory. The first of two battalions designated as high-mobility artillery rocket system (HIMARS) battalions is currently being configured for this mission and will be fielded to the 14th Marines in FY06.

Upon full integration of HIMARS, the 14th Marines will be composed of three cannon battalions and two rocket battalions (HIMARS). The ability to prosecute targets beyond cannon artillery ranges is one of the main advantages of the Force Artillery, enabling it to provide the MEF commander the support listed in Figure 1.

Liaison Element. The integration of the Force Artillery in the MEF fight cannot be accomplished without the addition of a liaison element to the MEF force fires control center (FFCC). The

1. Deep Fires in Support of Marine Expeditionary Force (MEF) Shaping Operations
2. Fires to Reinforce the MEF Close Battle
3. Capability to Weight the Main Effort in a Timely Manner without Impacting Ground Combat Element (GCE) Artillery Assets
4. An effective MEF-Level Counterfire Attack Capability with Force Artillery Organic Weapons
5. Counterbattery Radar (CBR) Target Acquisition Capability
6. Command and Control of all Non-GCE Artillery Assets

Figure 1: Force Artillery Responsibilities

principal artillery functions of the FFCC are to integrate and control deep artillery fires, coordinate and deconflict the employment of surface and air-delivered weapons and munitions inside the MEF battlespace and monitor the conduct of MEF artillery operations and the status of artillery assets. The MEF liaison team helps develop the counterfire plan, which includes the documents listed in Figure 2.

Force Artillery Challenges.

The Force Artillery faces some unique challenges as shown by the application of fire support coordinating measures (FSCM) on the MEF battlefield in Figure 3. The figure shows what could be a typical MEF battlespace with applicable FSCMs.

Deconflicting Surface and Aviation Fires. Note the battlefield coordination line (BCL) was created in response to scenarios where placement of the fire support coordination lines (FSCLs) was directed by a higher headquarters, usually a commander-in-chief (CINC). This resulted in the placement of the FSCL well beyond the range of the MEF's organic artillery (non-rocket assisted).

By definition, the BCL is a supplementary FSCM established based on the mission, enemy, terrain, troops and time available (METT-T) that facilitates the expeditious attack of surface targets of opportunity between the BCL and the FSCL. Primarily, this is to allow Marine aviation to attack surface targets without approval of a GCE commander in whose area the targets may be located.

1. Organization for Combat
2. Counterfire Policy
3. Radar Plan
4. Sensor/Shooter Concept
5. Target Attack Matrix
6. Target Confirmation Standards
7. Counterfire Priorities
8. Target Attack Standards
9. Attack Target Information and Execution Matrix
10. Fires Coordination Process
11. MEF Liaison Plan

Figure 2: Documents to Support the Force Artillery Counterfire Plan

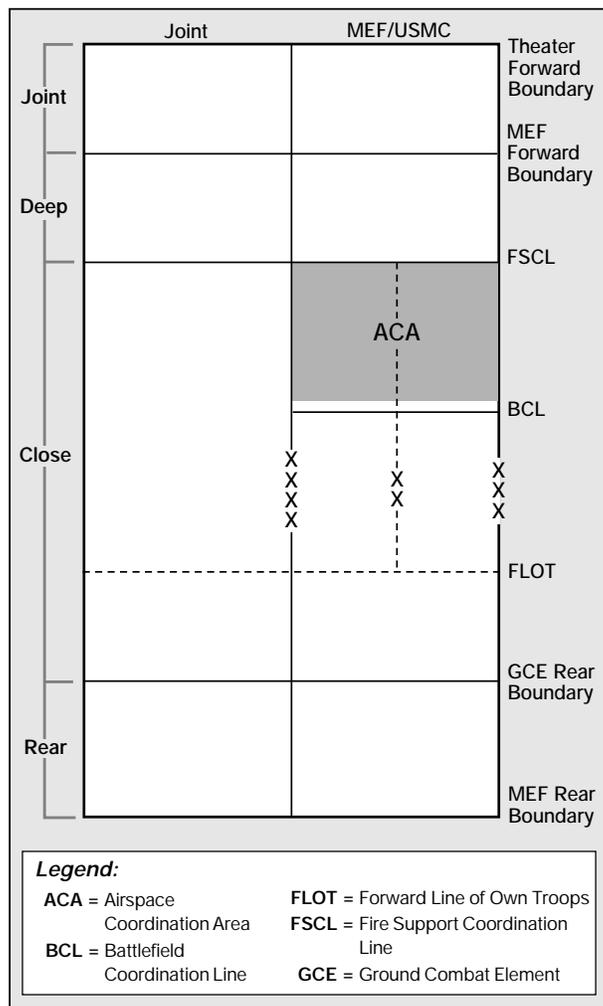


Figure 3: Battlespace Geometry Comparison. This depicts a Marine Expeditionary Force (MEF) battlespace with applicable fire support coordinating measures (FSCM).

To deconflict air and surface fires, an airspace coordination area (ACA) always will overlie the area between the BCL and the FSCL. Additionally, ground commanders may strike any targets beyond the BCL and short of the FSCL as long as those fires do not violate the established BCL ACA.

As you can see, the BCL plays a key role in the Force Artillery's ability to quickly engage targets beyond the range of organic artillery. It should be noted that, ideally, a FSCL would be positioned to facilitate maximum integration of air and surface fires, thereby, negating the requirement for a BCL.

The Force Artillery will play a critical role not only in counterfire, but also in shaping the battlefield for the MEF, specifically with ground-based fires between the BCL and FSCL. Counterfires must be examined more closely to define the Force Artillery's responsibilities.

Counterfire. The Force Artillery will provide liaison to the MEF force fires coordinator (FFC) to help plan, coordinate and execute the counterfire effort. The counterfire liaison officer (CFLNO) is located in the MEF combat operations center (COC). The CFLNO monitors counterfire operations at the MEF level and liaisons with the Force Artillery. He coordinates the counterfire efforts between the theater counterfire headquarters, the division FSCCs, the MEF current fires cell, the reactive targeting cell and the Force Artillery COC.

The CFLNO works closely with the MEF FFC to maximize proactive counterfires with respect to the MEF commander's guidance. He ensures the FSCLs and BCLs are placed so that counterfire targets are primarily attacked as deep fires, thereby, synchronizing maneuver fires and counterfire operations.

The Force Artillery then implements a counterfire radar plan that maximizes coverage and minimizes interference and duplication of sensors. The Force Artillery does not control radars organic to the divisions; however, the Force Artillery and divisions coordinate a radar MEF cueing plan and report the radar locations and orientation to the MEF

FFCC via the advanced Field Artillery tactical data system (AFATDS).

Integrating Multiple Battlefield Radars. The multiple sensors on the battlefields must be closely managed. The use of common sensor boundaries (CSBs) is essential to effective radar management. Figure 4 shows a scaled-down scenario of multiple radars deployed by the GCE and a ground weapons-locating radar (GWLRL) deployed by the Force Artillery.

The Force Artillery helps coordinate the MEF surface counterfire operations, to include managing the radars. By coordinating the radar plans for acquisition of all indirect fires (mortar, cannon, rocket and missile), the Force Artillery conserves valuable cueing time, maximizes the probability of acquisitions and ensures timely reactive counterfires and the survivability of the critical asset.

As the Force Artillery does not control the GCE radar assets, the GCE executes

counterfire within its zone and submits mission fired reports (MFRs) via AFATDS to the Force Artillery. All artillery units configure their AFATDS to reflect MEF-designated CSBs. These CSBs, in essence, could be effective at the BCL (as depicted in Figure 4), routing all counterfire acquisitions below the BCL to the GCE for prosecution by organic assets.

All acquisitions beyond the BCL would be ignored by the GCE radars, picked up by the Force Artillery radar and then sent to the Force Artillery target-processing center (TPC) for prosecution. The Force Artillery TPC collects and processes all counterfire targets within the MEF area of operations (AO). The TPC then submits MFRs to the MEF. This integrates all radar assets, maximizes coverage and improves responsiveness of counterfire systems.

Quickfire Air Support. One important point to consider is the likelihood that a target will plot beyond the range capabilities of the GCE's organic artillery as well as the Force Artillery's rockets. Counterfire by air is the next logical step and responsiveness is just as critical for that target as for ground-based counterfire targets. To rapidly prosecute these targets, the Force Artillery implements a procedure known as "quickfire."

At the first sign of a counterfire mission, a quickfire coordinator (QFC) determines the most effective method of neutralizing the firing element. The QFC immediately contacts the tactical air control party (airborne), called a TAC (A), working the deep battlespace and determines if any aircraft are already attacking the target. If so, the counterfire mission is being processed.

If not, the QFC and TAC (A) determine how best to engage the target by air or whether or not the counterfire mission should wait due to a higher priority air mission in progress, based on the commander's attack guidance matrix.

Target Execution Responsibilities. The coordination of counterfires depends on whose battlespace the target is in—whether it is cross boundary, adjacent, rear, deep—as well as what weapon platform will be the "shooter." This article does not address each one spe-

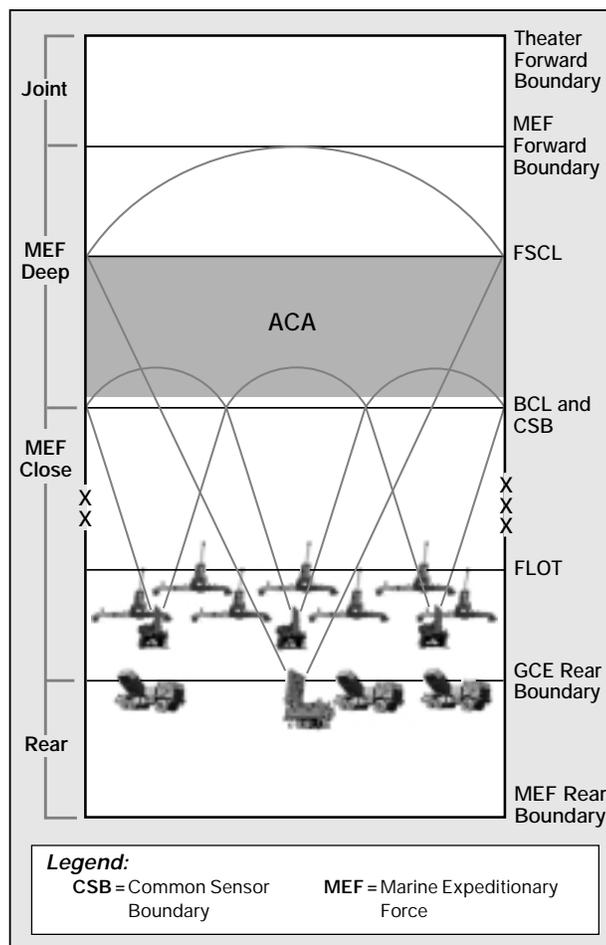


Figure 4: The Force Artillery deploys its ground weapons-locating radar (GWLR) and integrates the MEF radars.

cifically, as they are covered by standard doctrine; however, suffice it to say that the addition of rockets to Marine artillery brings a new facet to Marine fire support. No longer is Marine air considered the only option when prosecuting targets beyond organic cannon artillery range.

One of the following counterfire options will occur, as depicted in simplified scenarios.

- If division assets locate a counterfire target and it is within the division's zone, the target is the division's responsibility and its assets attack the target. Reinforcing fires may be requested.

- If the Force Artillery assets locate a counterfire target and plots the target within a division zone, the Force Artillery passes the target to the division for disposition.

- If either division or the Force Artillery assets locate a counterfire target and it plots in an adjacent ground force zone, the target is passed to the responsible ground force FSCC through the MEF FFCC.

- If division assets in the MEF zone locate a counterfire target, the division passes the target to the Force Artillery for disposition.

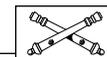
- If Force Artillery assets in a MEF zone locate a counterfire target and the Force Artillery can engage the target, the Force Artillery notifies the air combat element (ACE) to clear the airspace, informs the FFCC and attacks the target.

- If Force Artillery assets in the MEF zone locate a counterfire target and the Force Artillery can't engage it, the Force Artillery passes the target to the ACE via the QFC and notifies the FFCC.

Reinforcing Fires. The Force artillery also is responsible for reinforcing fires within the GCE commander's close fight. These fires fall between the GCE rear boundary and the FSCL (or BCL, if in use).

When assigned a reinforcing mission, the Force Artillery provides a liaison team to the reinforced unit. In this case, the Force Artillery staff assumes standard liaison and coordination responsibilities.

The 14th Marine Regiment, indeed, will bring the decisive arm of combat to tomorrow's fight. In the role of Force Artillery, the 14th Marines is the MEF's all-weather, 24-hour general support weapon of choice. *At the Ready!*



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