Marine Engineers:

Developing a Strategic Vision for Engineer Support

By Major Jay E. Johnson

For several years the U.S. military engineering community has struggled to speak as one voice and attack from a united front. As we move into the 21st century, it is time for Marine Corps engineers to move forward and prepare to support Operational Maneuver From the Sea (OMFTS), as described by the Commandant of the Marine Corps in a 1996 White Letter. This Navy/Marine Corps concept builds on the foundation laid by two earlier documents: "From the Sea" (1992) and "Forward From the Sea" (1994). These documents present landmark shifts in operational focus and a reordering of coordinated priorities for naval forces engaged in forward areas. Their objectives are to prevent conflicts and control crises in areas known as the "chaos of littorals," which refers to chaos in shore or coastal regions. OMFTS is the centerpiece of our preparations for future expeditionary, littoral, and amphibious warfare.

Principles of OMFTS

Operational Maneuver From the Sea describes the Marine Corps' concept for the future. It—

- Focuses on an operational objective.
- Uses the sea as maneuver space.
- Generates overwhelming tempo and momentum.
- Pits strengths against weaknesses.
- Emphasizes intelligence, deceptions, and flexibility.
- Integrates all organic, joint, and combined assets.

To remain a relevant military engineer force in the future, all military engineers must be able to "deal explicitly with the full spectrum of challenges that we will have to face, the dangers and opportunities created by new technologies, and the very exciting prospect of adapting the tradition of maneuver warfare, not merely to amphibious operations, but to all aspects of warfare in, and around, coastal waters." (OMFTS, 1996)

Marine Engineer Vision

With the OMFTS concept in mind, Marine Corps engineers landed 28 July 1997 on Camp Lejeune, North Carolina, to conduct the Naval Expeditionary Engineering Conference. Participating in the conference with us were guests from the Navy Seabees and Army engineers from the 20th Engineer Brigade, the U.S. Army Engineer Center, the XVIII Airborne Corps, and the U.S. Army Corps of Engineers. Our mission was to develop a common Marine Corps vision for engineer support, identify strengths and weaknesses in engineer support, and establish critical issues and objectives for engineer support. Armed with that information, we will soon develop strategies and action plans that will lead to our campaign plan for naval expeditionary engineering support to the Marine Air/Ground Task Force (MAGTF). The intent of the week-long conference was to both inform and guide the advancement of Marine engineer issues (doctrine, organization, training, equipment, and support) in the context of joint engineering and the Marine Corps development process to create a strategic plan. That plan will serve as our azimuth for the 21st century.

This was not a "typical" conference with numerous speakers where attendees reunite with old friends. Under the tutelage of Colonel Phillips, Commanding Officer of the Marine Corps Engineer School, we quickly realized that this was a working conference with a specific goal: to unite the engineer community by creating a strategic vision for the Marine Corps that encompasses and has applications across the other services.

The Marine engineer vision is to—

- Deliver focused engineering support across the total spectrum of military operations.
- Provide flexible, mobile force multipliers.
- Provide units that are sized to get to the fight with the capability of supporting sustained operations.
- Support MAGTF joint and combined operations.
- Enhance momentum, sustain the force, shape the battle, and win!

This vision is a beacon that demonstrates the Marine Corps' commitment to a joint engineer environment.

Challenge

For success in future conflicts, all U.S. military engineers must have the capability to link with the MAGTF and combine into a relevant combat force multiplier that the joint commander can bring to any mission. The full spectrum of conflict has no limits; it encompasses an asymmetrical enemy that may range from humanitarian relief to full-scale war. Engineers must be prepared to operate in a seamless, interoperable environment and have a diverse structure that is task organized to support the MAGTF and joint commands.

Opportunities

With this new challenge come new opportunities to exploit and add to our "tool box." For example, we must create new doctrine that supports OMFTS and develop or procure assets that provide adequate force protection. By tailoring our engineer capabilities to fit the mission, we will maximize our efforts and "showcase" engineers as the force multiplier for today and tomorrow.

To fill the doctrinal void, joint service engineers recently received approval to publish Joint Publication 3-34, *Engineer Doctrine for Joint Operations*. The initial draft of JP 3-34 is due out for review in November 1997. This publication outlines engineer fundamentals, organizations, planning, operations, and the capabilities of all service engineers for the joint force commander and his staff. It supplements two other joint doctrinal publications with an engineer focus: JP 4-04, *Joint Doctrine for Civil Engineering Support*, and JP 3-15, *Joint Doctrine for Barriers, Obstacles, and Mine Warfare*. These publications provide the joint force commander with the tools he needs to maximize engineer efforts and make them a true part of the joint team.

Some opportunities are already a reality. Interservice engineer training has been conducted at Fort Leonard Wood, Missouri, and other locations since October 1995, and we are developing training exercises that will strengthen our complementary capabilities with all services.

Our Marine engineer vision sets the stage for a new era of naval expeditionary engineering. Now we must revise the role, training, equipment, and structure of Marine engineers to more fully support OMFTS and joint operations. This should be done gradually in a continuous process rather than take quantum leaps that create a major event. A gradual, well-planned process will ensure that Marine doctrine and the new assets we procure adequately support and keep pace with OMFTS and the other services.

Role. The Marine engineer role is clearly defined by our four basic pillars (mobility, countermobility, survivability, and general engineering). These pillars will not change. However, we require further amplification on how our role will support the evolving tactics and operations required for OMFTS. First we must develop tactics, techniques, and procedures (TTPs) that will help define the engineer role in supporting OMFTS. Then we must test and validate our TTPs and inform the MAGTF of our capabilities. Until the Marine engineer role in supporting OMFTS is clearly defined, we should not develop a unified priority list relative to funding, personnel, equipment, and training.

Training. As MAGTF tactics evolve, we must reorient Marine engineer training to support OMFTS. If we do not adequately train Marine engineers to support the OMFTS, we will cease to be a combat multiplier in joint environments. It is critical that we revise and modify the current engineer training program of instruction and individual training standards at our formal schools and Fleet Marine Force units to sustain OMFTS.

Equipment. Current equipment and resources do not provide Marine engineers sufficient capability to support the MAGTF or the joint community. We must review the MAGTF table of equipment with regard to ground tactical mobility requirements and develop an armored engineer vehicle for use in highly mobile environments. One option may be to develop an engineer variant of the Advanced Amphibious Assault Vehicle. We must develop a united Marine engineer Program Objectives Memorandum strategy to procure equipment that supports OMFTS and joint missions, or we will continue to be left scrounging for crumbs at all future congressional funding hearings.

Structure. Finally, the current organization of Marine engineer units may not adequately support future operational concepts of OMFTS and joint missions. To be effective, Marine engineer units must be structured to support the dynamics of the MAGTF, OMFTS, and joint commands. We must formulate an analysis tool to validate future operation concepts in their planning stages. These analyses should indicate how to revamp the Marine engineer structure to fully support OMFTS and joint operations.

Setting the Course

The July 1997 conference was successful in that it gave our engineer community a shot in the arm or wake-up call upon which we can build for the future. We Marine engineers now must focus on our vision and implement an engineer campaign plan. An engineer steering group (consisting of six colonels, one Navy captain, and one GS-15 civilian) was introduced at the end of the conference. This group will guide our community; the executive-level decision makers; Headquarters, Marine Corps; the Marine Corps Combat Development Center; Marine Corps Systems Command; and Marine forces in accomplishing this mission.

As the conference came to a close, we were reminded to "be patient, work the tactical issues, and spread the word of our campaign plan." That plan will unite our engineer community as one voice and not only support but lead the way in OMFTS for others to emulate.

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