



THE MULTIROLE ENGINEER BATTALION

By Lieutenant Colonel James R. Rowan

As U.S. forces prepared to move into Bosnia in late 1995, crossing the Sava River loomed as a major obstacle. In addition to the challenges of the river's width, depth, and bank conditions, and the unknown enemy and mine-threat situation, there was the overarching challenge of command and control of the crossing area. The 1st Armored Division needed general support engineers to emplace a float bridge and execute the engineer tasks required to conduct a deliberate river crossing of the division and a large portion of V Corps assets. This mission was assigned to the 16th Engineer Battalion (Corps)(Mechanized) and Task Force Volturno, named for the Volturno river crossing conducted by the 1st Armored Division and the 16th Engineer Battalion in Italy during World War II. This article describes the formation of Task Force Volturno, the missions executed during Operation Joint Endeavor, and the benefits of a multirole engineer battalion for future operations.

Task Force Volturno

When initially formed, Task Force Volturno included the 16th Engineer Battalion, the 502d Engineer Company (Assault Float Bridge), the 586th Engineer Company (Assault Float Bridge), the 38th Engineer Company (Medium Girder Bridge [MGB]), and the 535th Engineer Company (Combat Support Equipment

[CSE]). With this organization, the task force had mechanized combat engineers capable of conducting any combat engineer mission. In addition, there were fixed and float bridge companies to cross the Sava River and the CSE company to build and upgrade roads, access routes, approaches, and ramps into the river.

The task organization of separate companies under a corps mechanized engineer battalion follows current Army doctrine. FM 5-100, *Engineer Operations*, states that one of the capabilities of such a battalion is to provide command and control for assigned and attached units. Task Force Volturno deployed out of Germany ahead of the 1st Armored Division's organic engineer assets and arrived in Croatia and Bosnia before the direct support engineer units aligned with the division's two brigade combat teams. Based on a habitual training relationship developed in Germany, two companies of the 16th Engineer Battalion were prepared to provide engineer support to the 1-1 and 3-5 Cavalry Squadrons and the 4-12 Infantry Battalion. Using corps engineer assets allowed these key maneuver units to have dedicated engineer support as they moved into Bosnia ahead of the other 1st Armored Division maneuver and engineer elements. Meanwhile, the Task Force Volturno headquarters, one line company, and the separate companies completed the missions associated with crossing the Sava River.



A bulldozer from the 535th CSE prepares ramps at the Sava River to support the division's redeployment to Germany.

Missions

The 1st Armored Division Engineer Brigade commander realized the advantages the multirole engineer battalion provided to division operations and elected to keep Task Force Volturno intact throughout Operation Joint Endeavor. Early in 1996, the float bridge companies returned to their home stations, and the 55th Engineer Company (MGB) joined the task force. With its mix of combat engineer companies, bridge companies, and a construction company, Task Force Volturno could execute almost any engineer mission required in the 1st Armored Division sector. As U.S. forces moved farther south into Bosnia, elements of Task Force Volturno continued to move ahead. They cleared and proofed routes, upgraded main supply routes, conducted hundreds of kilometers of route reconnaissance, reconned and classified more than 100 bridges, emplaced armored vehicle-launched bridges (AVLBs) to upgrade key routes, built MGBs, and hauled in gravel to construct much-needed parking and maintenance areas.

Force Structure. Throughout the first 11 months of Operation Joint Endeavor, four battalion-sized U.S. engineer units operated in the Task Force Eagle sector under the 1st Armored Division Engineer Brigade commander. Two divisional engineer battalions (the 23rd and the 40th) were in direct support of the two brigade combat teams. The 16th Engineer Battalion (Corps)(Mechanized) and the 94th Engineer Battalion (Combat)(Heavy) operated in general support of the division. Several smaller engineer units operating in the U.S. sector came from multinational brigades—Russian, Danish, Finnish, Swedish, Turkish, Hungarian, and Romanian.

Task Organization. Within this robust engineer force structure, Task Force Volturno brought several unique capabilities to the fight, the most important being the ability to internally task organize for any mission. The combat engineer battalion provided a mechanized force capable of conducting clearing or proofing missions. Organic .50-caliber machine guns mounted on armored vehicles provided security. Bridging was possible using either AVLBs or the MGB company. Several MGBs were emplaced and later replaced with Bailey bridges. Since the bridge companies were attached to Task Force Volturno, the security and countermining capability typically required for bridging in Bosnia were provided without additional units. Task Force Volturno also ran a theater bridge park with up to seven sets of Bailey bridges on hand. Horizontal construction and a tremendous haul capability also were available within the task force.

Since it had such diverse capabilities, Task Force Volturno was located at Camp Bedrock in the center of the Task Force Eagle sector. The 1,200-man base camp was the only base camp in Bosnia where an engineer commander served as the senior tactical commander. The central location allowed task force units to operate anywhere within the U.S. sector. The mix of wheeled and tracked vehicles allowed soldiers to operate throughout the division's vast geographic area.

Task Force Volturno units augmented the 23rd and 40th Engineer Battalions, which supported the 1st and 2d Brigades of the 1st Armored Division. Typical support included minefield clearing; bunker destruction; and hardstand, combat trail, and ammunition holding area construction. Task force companies also provided engineer support to units in the division that lacked a task force engineer battalion in direct support of their base camps and operations. These units

included the corps support group, the divisional aviation brigade, the artillery brigade, the division main, the division rear, and several remote signal sites within Tuzla Valley.

Force Protection. For Task Force Volturmo units, the primary engineer mission was assisting with force protection at base camps. The task force constructed several hundred bunkers and fighting positions throughout Bosnia. They also provided technical expertise and supervised the sandbagging of these structures. The task force emplaced more than 100 kilometers of triple-standard concertina wire and built numerous checkpoints and guard points. The division used concertainers (cloth-lined, wire mesh bastions filled with rocks, sand, shale, and earth) to provide protection against direct-fire weapons. Because of the high cost of delivering vast amounts of fill to base camps, task force units began a shale quarry. They hauled more than 50,000 cubic meters of fill for protective structures. This was critical because divisional battalions do not have dump trucks. By combining the assets of corps mechanized companies, the bridge companies, and the CSE company, Task Force Volturmo had the equivalent of more than 100 5-ton dump trucks to conduct their enormous haul mission.

General Support. The general support role of Task Force Volturmo allowed the division engineer some latitude in directing engineer efforts. Maneuver brigade commanders kept their direct support engineers fully employed. The general support engineers gave the division a capability to shape the future battlefield. They worked on redeployment routes, bridge and raft ramps, bridge anchor systems, and redeployment base camps while direct support engineers concentrated on such zone-of-separation missions as clearing minefields and destroying bunkers and trench lines.

Each of the multinational brigades brought an engineer capability, but they sometimes lacked enough engineer forces to complete missions within their sector. The multinational engineers were attached to their country's maneuver forces and did not receive orders through U.S. engineer channels. General support engineers allowed the division engineer to influence engineer efforts in the multinational brigade sectors without having to change the division's task organization or become overly directive with another nation's forces.

Countermining. As the only corps mechanized engineer battalion in Europe, the 16th Engineer Battalion was charged with becoming the countermining proponent. Long before deployment, battalion officers and senior NCOs and engineers from other units in Europe trained at Fort Leonard Wood to develop a countermining assessment and a training plan for units deploying to Bosnia. The 16th Engineer Battalion conducted mine-orientation training for the division units deploying first. When the battalion received orders to deploy, training was moved to the Combat

Maneuver Training Center (CMTC) in Germany. The CMTC adopted the battalion's program of instruction as the standard for all U.S. soldiers and support personnel deploying into theater.

Benefits

The 16th Engineer Battalion was able to successfully organize and accomplish a wide range of missions. Some benefits of a multirole engineer battalion include:

- As general support engineers, they were not as constrained by habitual relationships as the direct support engineers. The unit could internally task organize and mass efforts as needed. The direct support engineers of a division typically are allocated an engineer company in support of a maneuver task force, and it can cause great concern within the brigade if one task force loses its normal share of engineer battalion assets.
- The corps mechanized modified table of organization and equipment (MTOE) supports a large, diverse organization better than the divisional MTOE.
- Corps mechanized units have a slightly greater command and control capability because they are authorized a communications officer, an intelligence officer, and a maintenance officer. These positions are not supported under the divisional MTOE.
- More maintenance personnel are allocated to a corps mechanized unit than to a divisional engineer unit. This extra maintenance capability allows units to operate over greater distances and to be less reliant on a maneuver task force for maintenance and recovery support.

Task Force Volturmo also provided several less obvious benefits:

Command and Control. A key advantage was the task force's ability to provide command and control to the separate engineer companies. Doctrinally, the engineer brigade headquarters performs this mission. However, the austere headquarters of a division engineer brigade supporting 15 brigade-equivalent units could not provide the same degree of support to companies as Task Force Volturmo.

Flexible Structure. The capabilities within the multirole engineer battalion provided the engineer brigade and the division commander with a flexible engineer structure. While engineer units were never kept in reserve, the multirole battalion was able to reallocate forces and respond quickly to several emergencies within U.S. and multinational brigade sectors.

Professional Development. There were many developmental opportunities for officers assigned to the task

force. Officers from attached companies typically worked in their specialized area and seldom interacted with other companies or a battalion staff as task force officers did during Operation Joint Endeavor. In turn, the attachment of up to four additional companies with very different equipment and personnel provided a tremendous opportunity for battalion staff officers to manage a wide spectrum of requirements. FM 5-100 states that an engineer battalion can provide command and control for up to five companies. Task Force Volturmo's ability to continuously command and control six to eight units was due to the mission, enemy, terrain, troops, and time available (METT-T) in Bosnia. Once the Task Force Eagle sector was established, the headquarters was relatively stationary and secure and could devote additional staff effort to the companies. Also, the deliberate pace of this operation allowed a greater span of control than the typical fast-paced, high-intensity operation allows. All task force members benefited by working together on the wide variety of missions—mine clearing and proofing, bridge and route reconnaissance, force protection, road construction and repair, airfield construction, bridge construction, overhead anchorage system design and construction, security, and base-camp construction and decommissioning.

Limitations

Task Force Volturmo overcame several limitations, most of which could have been avoided with proper planning.

Funding. Funds were suspended or diverted from many corps units to pay for the 1st Armored Division's mission in Bosnia. The 16th Engineer Battalion's deployment preparations were halted or delayed several times due to insufficient funds. Eventually, the 1st Armored Division Engineer Brigade provided funds for critical deployment supplies.

Reports and SOPs. Even though most Task Force Volturmo units were from the 130th Engineer Brigade and were assigned to the same corps as the 1st Armored Division, they used different reports and tactical standing operating procedures (SOPs). The problems resulting from these differences decreased as Bosnia-specific SOPs were developed and implemented.

Equipment. The fielding of new equipment, specifically the single-channel, ground-to-air radio system (SINCGARS), had not been completed for all corps units when the deployment order was received. New radios were installed, but this placed great logistics and training burdens on units that were already busy with countermine operations

and deployment preparations. The 55th Engineer Company from Fort Riley, Kansas, never received the SINCGARS and had to rely on older, less capable, and not fully compatible 12-series radio systems.

Logistics Support. Once in sector, continual changes in the maintenance and supply units providing support was a major challenge. The 16th Engineer Battalion was supported by six different maintenance units during its deployment. With each change, the logistics trail became longer. During one period, repair parts were unavailable while the supply system tried to catch up with the tactical situation.

Personnel. As the deployment continued, personnel shortages increased. Early in the operation, Task Force Volturmo units were resourced at 100 percent of their authorized personnel strength. Throughout the year-long deployment, losses exceeded gains, and by the end of the year units were down to about 80 percent of their authorized personnel. Divisional engineer unit strengths declined at a lesser rate. Although Task Force Volturmo units were attached to the 1st Armored Division, personnel managers in the division could not affect personnel strengths in attached corps units since they would eventually redeploy to their home stations.

The Future

The multirole engineer battalion works—it was validated in the Balkan theater of operations. While this operation had a specific mission with a unique set of METT-T, it is possible to extrapolate and visualize that the concept has great potential for any operation where corps engineers will be called into a division sector. The multirole capability currently is being fielded for bridge units. Now is the time to establish the corps mechanized engineer battalions as multirole task forces. The minor problems encountered in Bosnia could have been resolved in a training environment, making the task force more effective and quicker to establish when needed. The force structure is in place. This proposal does not require additional forces or funds. Let's task organize now and get the most out of the engineer resources we have available.



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