BOSNIA:
THE SECOND TIME AROUND

By Colonel Thomas P. Bostick

The 1st Armored Division completed its second deployment to Bosnia on 7 October 1998. A number of units in the division, including the Engineer Brigade, served during various periods throughout the one-year rotation. The 16th and 40th Engineer Battalions deployed at different times during the year, and a portion of the Engineer Brigade Headquarters Company deployed for the entire year. Engineers were actively engaged in missions on two major fronts: demining and construction. The successful rotation in Bosnia was a total team effort. Army engineers worked side-by-side with Navy and Air Force personnel, civilians, Brown & Root and other contractors, NATO and non-NATO allies, and many others. This article highlights some of the missions and lessons learned throughout the deployment.

Demining

Much progress was made in moving toward the demining end state identified by the Stabilization Force (SFOR) commander: a national, sustainable demining capability. Several key elements of the campaign plan were vital to achieving this end state: organization, training, equipment, and insurance.

Organization

The organizational structure successfully transitioned from the U.N. Mine Action Center to the Bosnia-Herzegovina Mine Action Center, which includes representatives from both the Federation and Republika Srpska. This center has overall responsibility for the demining program throughout Bosnia-Herzegovina. The SFOR headquarters, through the multinational divisions, met regularly with the Entity (Federation and Serb) Mine Action Centers and the Entity Armed Forces (EAF) to determine future areas of work. Entity Mine Action Center personnel worked with EAF soldiers to determine areas of focus, while SFOR retained veto power over sites selected. SFOR soldiers monitored the EAF demining efforts. *SFOR participation in overseeing the demining process could continue to decrease with additional training for EAF monitors and quality-control observers.*

A significant challenge in achieving all the requirements set by the Dayton Accords is to complete civil implementation tasks. The military continued to provide a secure and stable environment, but the civil implementation tasks were a challenge to plan, coordinate, and execute. Demining provides a model for how civil and military tasks may work together. The U.N. Mine Action Center controlled the tasks and priorities of the civilian demining organizations, while SFOR monitored the military demining effort. Both organizations worked in parallel toward a common goal. Early in the process, the military placed a demining expert liaison officer in the U.N. Mine Action Center to help synchronize civilian and military efforts. Equally important, commanders worked at all levels—including SFOR, Multinational Division-North, and the EAF—to regularly address requirements, training, and ongoing issues. Because of the coordination between the U.N. Mine Action Center and SFOR, the demining mission could more effectively employ the efforts of multiple non-governmental and private volunteer organizations.

Training

Long-term training programs in Bosnia allowed the country to train its own deminers. U.S. Special Operations Forces (SOF) established three training centers for military and civilian deminers. The SOF coordinate many demining operations throughout the world, but combat engineers have a significant role in Bosnia. *It is important that SOF provide a liaison officer to combat engineers early in this type of mission and throughout peacekeeping operations.* Liaison officers are important to ensure a coordinated effort in key areas—such as training, funding, and equipment—so that resources are appropriately distributed among the many demining operations that require military support.

The demining challenge in stability operations requires long-term solutions. Therefore, in-theater schools that help to train the indigenous population must be established early in the campaign. Training both military and civilian deminers in Bosnia reduces the need for SFOR engineers in the training arena. Training for the civilian population in Bosnia-Herzegovina is also important. Many initiatives, including Superman comic books, were used to educate the local populace. Figure 1, page 3, shows the significant progress made in reducing mine strikes in Bosnia.

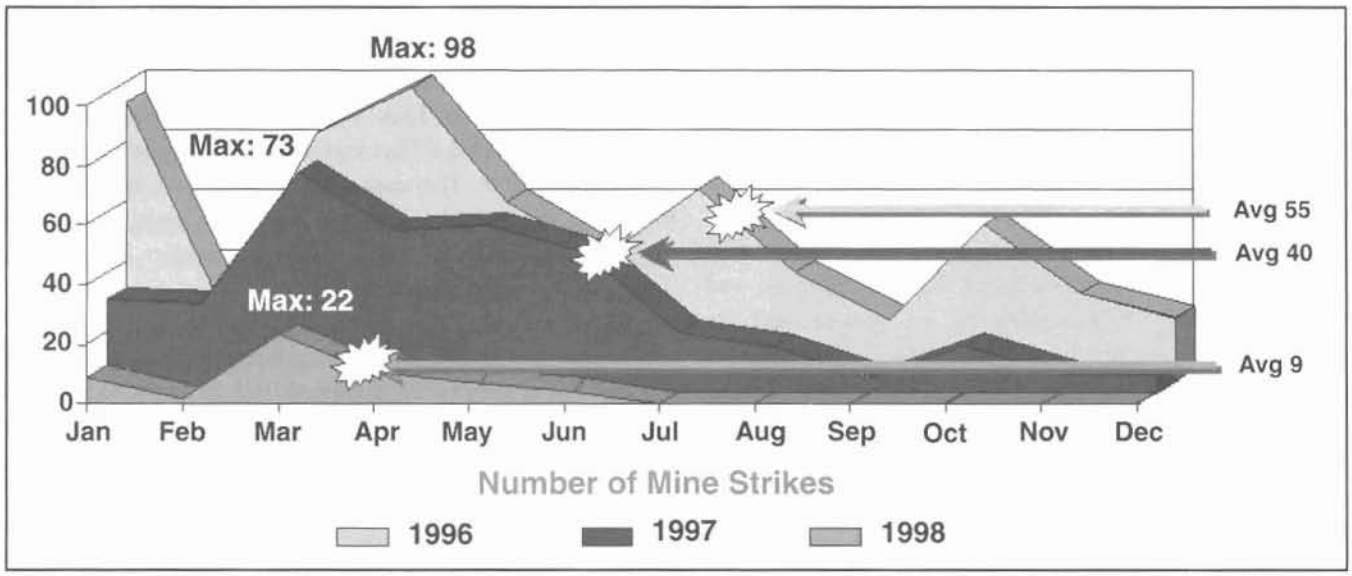


Figure 1

Equipment

SFOR purchased mechanical demining equipment similar to the U.S. miniflail for the EAF demining teams. They also acquired additional personal protective gear and mechanical demining equipment. The EAF used a small number of T55 tanks with rollers, which were particularly effective in relatively flat areas. The EAF teams were much more effective and willing to do dangerous demining work when they were properly equipped. *Providing equipment to the EAF early and establishing a regular accountability and resupply program of essential items would make it possible for their personnel to work more often and more effectively.*

Insurance

The Entity Armed Forces now have health and life insurance, which is a major improvement. Before insurance could be acquired, the EAF had to agree to several stipulations. One stipulation was to convert their mine-clearing operations to humanitarian standards. They had to perform to the same standards and use the same techniques as those used by U.N. civilian deminers. They could not continue to lift mines identified only on minefield records. The EAF successfully made this transition in July 1998, and they now focus on the amount of land cleared rather than total mines lifted. Early in the demining program, it was not uncommon for less than 50 percent of the lifting teams to arrive at work. Their reasons included pay, equipment, and insurance. Several attempts to gain funding for deminers from the international community and various countries were unsuccessful. However, insurance for deminers was very important to the EAF, and the international community supported this initiative for moral reasons. Combined with training and equipment, insurance for deminers made a huge impact on their morale and efforts. Near the end of the 1st Armored Division's year in Bosnia, 100 percent of the demining teams often arrived at work each day.

Training and organizing EAF monitors and quality-assurance officers to assume the role of SFOR monitors is a key element in achieving the end state. With proper training, the EAF can assume this responsibility and report to the Entity Mine Action Center, which will reduce the requirement for SFOR engineer monitors. The overall demining campaign in Bosnia has made significant progress. The lessons learned in organizing, training, equipping, and insuring personnel may be applicable to future operations in countries ravaged by mine challenges.

Construction

During late 1998 and early 1999, Task Force Eagle received the most significant construction mission since U.S. forces arrived in Bosnia. Some of the major projects were airfield repair, hospital construction, SEA-huts (Southeast Asia huts) for most troops, two base camp closures, and asphalt road repair. Many smaller projects were completed or are ongoing. The surge of construction was funded with a supplemental appropriation from Congress of about $34 million. Much of the construction was performed during an intensive period that also included Bosnia-Herzegovina elections and transfer of authority to the 1st Cavalry Division. The construction mission was a joint and combined effort of Army combat heavy and mechanized engineers, Navy Seabees, Air Force personnel, allied engineers, USACE, and Brown & Root contractors.

The 1st Armored Division Engineer Brigade headquarters provided command and control for both the construction and demining missions. The 130th Engineer Brigade deployed members of its construction management section and

B Company, 94th Engineer Battalion. The European District provided civilian inspectors and engineers from Corps of Engineer districts in the United States. The surgeon general's office deployed a facilities planner to assist with hospital design and construction. The Navy deployed additional design and project management engineers, and the Air Force deployed an airfield construction expert. Mechanized combat engineers worked side-by-side with Navy Seabees and Army combat heavy engineers, and USAREUR used tele-engineering to provide off-site assistance with challenging sewage and electrical power design. These teams, as well as others, were key to success. *In Bosnia, engineer teams designed and constructed several significant projects. Future operations must plan for these teams to come together quickly through a cadre of rapidly deployable experts.*

Airfield Repair

The Tuzla Airfield presented several challenges before it was completed. The most significant were funding and the need for airfield construction expertise. Task Force Eagle worked with funding constraints that were difficult to overcome in a peacekeeping mission. *Department of Defense leaders must reassess the standard military new-construction limit of $500,000 and repair limits of $2 million in terms of how they apply to peacekeeping environments.* NATO provided some funding for the airfield and may ultimately fund the entire airfield repair. SFOR, USAREUR, and U.S. Air Force in Europe (USAFE) assisted Task Force Eagle throughout the entire funding process. USAFE provided an airfield construction management expert, who was valuable in working through translators to ensure that local subcontractors met stringent standards. The result is a strategic airfield that allows soldiers to fly, for the first time, directly from the United States into Tuzla (Figure 2).



Figure 2

Hospital Construction

Another significant construction mission for Task Force Eagle was a theater-of-operations hospital, so the medical facility at Guardian Base Camp could move to Eagle Base Camp before the 1st Cavalry Division arrived. The standard theater-of-operations hospital described in the theater construction manual did not meet the strict requirements of the medical community. Therefore, the surgeon general sent a facilities planner to Task Force Eagle to assist with the hospital design. This officer was extremely helpful throughout the entire process. The team effort resulted in a new hospital that was completed on time. *Engineers must include a facilities planner early in the planning process for projects with specific design requirements.*

SEA-huts

The primary goal of this rapid construction effort was to move soldiers out of tents by the winter of 1998. Soldiers, sailors, and civilians worked together to construct SEA-huts. A new design combined five single SEA-huts side-by-side with a latrine/shower unit located between the second and third huts (Figure 3). The new design reduced fire hazards and improved quality of life for soldiers by providing a common roof, covered walkways, and nearby latrine and shower facilities.

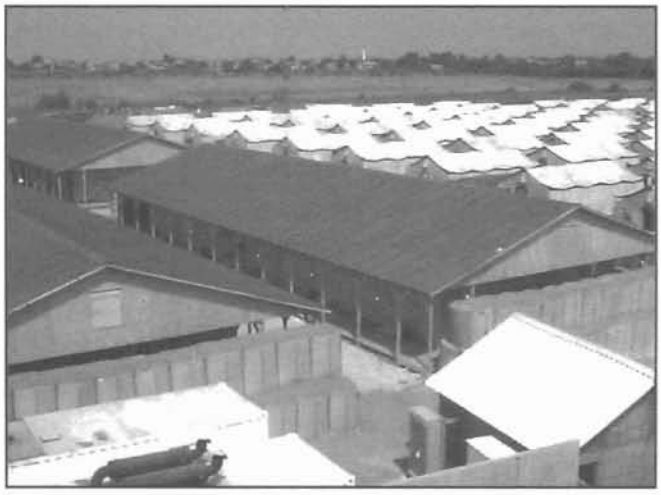


Figure 3

Base Camp Realignment

To improve efficiency, save money, and realign base camps, Task Force Eagle closed the Colt and Guardian Base Camps. These closures required that the entire logistics operations be moved from Guardian to Comanche Base Camp. A massive construction effort was required at Comanche that included living areas, a container storage handling area, a direct support maintenance building, a supply and service area building, 50-ton haul roads, a new dining facility, parking areas, and numerous other projects. Some of this construction had to be completed or be well under way so that the 1st Cavalry Division could move directly into Comanche and Eagle Base Camps.

One lesson learned during the construction mission was the synergistic effect of Navy Seabees, Army combat heavy and combat mechanized engineers, and NATO and other allies working side-by-side with Brown & Root personnel to complete a demanding construction mission.

Mechanized engineers provided much-needed manpower and dozer expertise (cross-trained armored combat earthmover operators). *In future peacekeeping operations, special construction tools not organic to mechanized engineers should be available through pre-positioned stocks.*

Task Force Eagle also benefited from theater engineer support provided by Italian rail engineers, Austrian army dump trucks, and Hungarian rail ramp expertise. These soldiers, their expertise, and their equipment were a significant force multiplier. Brown & Root personnel integrated their work with military construction efforts extraordinarily well. Military and Brown & Root planners, designers, project managers and builders worked together to make complex operations run smoothly and safely (Figure 4).



Figure 4

Other Engineer Missions

Military engineers also completed considerable work on roads and bridges off the base camps. As the SFOR mission extended throughout Bosnia, heavily used roads and bridges required significant repair. Engineers retrieved seven armored vehicle-launched bridges from Multinational Division-North routes and replaced them with timber trestle bridges. Some bridges were simple, but others were more challenging and included piers, multiple spans, steel stringers, and concrete abutments. Federation engineers (Croatians) worked with C Company, 40th Engineer Battalion, to construct the bridge shown in Figure 5.



Figure 5

In some cases, military engineers demolished damaged bridges on major highways so that new bridges could be constructed. B Company, 16th Engineer Battalion, used more than 750 pounds of explosives to destroy the Bosanski Samac bridge (Figure 6).

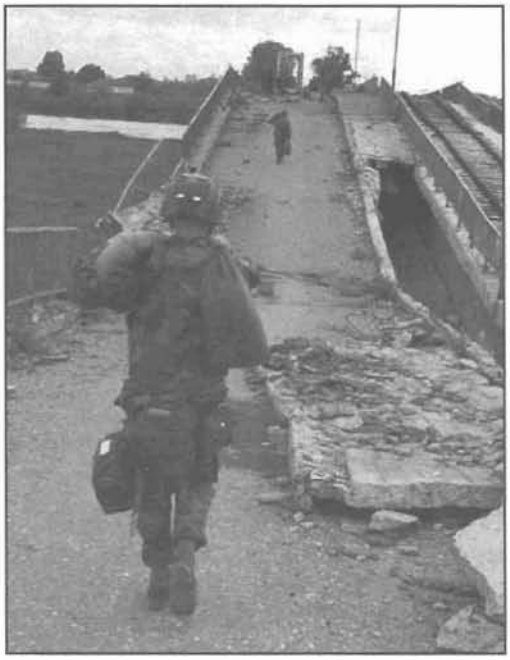


Figure 6

Task Force Eagle encouraged EAF engineers to support the democratization of their military. These engineers could help rebuild their country in areas other than demining. In most democratic countries, the military provides aid following natural disasters, and the EAF could do the same in its war-torn country. Convincing the EAF of the advantages such projects offer was initially challenging, but bridges proved to be a useful vehicle for this effort. *Building bridges benefited the local people and helped the image of the EAF military and Bosnia-Herzegovina politicians.* With the proper recognition and use of media, the joint effort with the EAF in bridge building was quite successful. Russian and American engineers worked closely with Serb engineers to complete the bridge at Priboj (Figure 7).



Figure 7

(Continued on page 18)

a working knowledge of joint doctrine. Unfortunately, Service schools already have packed curriculums and shortened course lengths and devote little time to joint training. Distance learning is one alternative for acquiring joint training. Distance learning offers engineers an opportunity to become versed in joint operations before they deploy or attend a joint exercise.

Service engineer chiefs recently approved more than 100 joint engineer core competencies. The list includes a myriad of general and engineer-specific topics, including the Goldwater-Nichols Act, Joint Civil-Military Engineer Boards, Logistics Civilian Augmentation Program capabilities, and Service engineer capabilities. The goal is to establish a joint staff web site and post briefings related to the competencies. A web site should be operational by this summer. Additionally, USACOM has posted functional area handbooks that discuss joint engineering on its home page.

The third skill is much harder to teach: the ability to be flexible and open minded, yet decisive, as a joint team member in a crisis-action environment. Recommending another Service for a mission based on an understanding of the respective capabilities is tough. Yet it is indicative of a joint team member who understands the situation.

Summary

Joint task force operations are "high adventure." The JTF engineer and his staff are presented with numerous challenges. Determining the engineer end state and mission standards, conducting proper mission analyses, choosing the appropriate command and control structure, and synchronizing the engineer effort during the planning and execution phases are just a few of the challenges they face. Engineers do all this in a crisis-action environment—very likely in a foreign country without needed resources and with team members who probably are meeting each other for the first time.

The lessons presented here will help the engineer staff learn from others' experiences. And hopefully, they will not have to be **re**-learned.

Lieutenant Colonel Vesay is an Army engineer assigned to U.S. Atlantic Command. He is the senior engineer observer/trainer, responsible for training engineer forces to operate within a joint task force. He is scheduled to command the 249th Engineer Battalion this summer.



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Task Force Eagle engineers worked with the U.S. Agency of International Development (USAID) as well as politicians from the United States and Bosnia-Herzegovina to accomplish engineer tasks that supported the overall campaign plan. The joint efforts of Ambassador Farrand (supervisor of Brcko), MG Ellis (Task Force Eagle commander), and USAID leaders to construct a water well for a village near Brcko demonstrated the type of missions that engineers can assist with during stability operations. Army engineers—working with the ambassador's office, USAID, and the two mayors (Federation and Serb) of the town of Stari Rasadnik—helped push through the design, approval, and groundbreaking of the well, which provided much-needed water for the people (Figure 8). *Military engineers in peacekeeping operations must understand how key organizations such as USAID can assist in the overall campaign plan.*



Figure 8

Teamwork

Engineers in Bosnia-Herzegovina often worked side-by-side with engineers from many other countries. Each country adds value in various areas that help the overall mission. *To form a strong and effective team, U.S. engineer planners must clearly understand the capabilities of our allies.*

Bosnia provides another great opportunity for military engineers from around the world to serve their respective countries. MG Ellis' vision, appreciation, and support of engineers fueled an enormous effort. The 1st Armored Division Engineer Brigade was honored with the opportunity to serve in Bosnia. In November 1998, we handed off the torch to a well-prepared 1st Cavalry Division Engineer Brigade. They are continuing a great tradition of engineers serving our nation whenever and wherever they are needed.

Colonel Bostick is the 1st Armored Division Engineer Brigade commander. Previous assignments include engineer battalion/brigade S3, 1st Armored Division; and commander, 1st Engineer Battalion, Fort Riley, Kansas.