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Engineer/Civil Affairs Teams Enhance Peace Support Operations

By Lieutenant Colonel Christopher J. Toomey and Major William R. Buckley Jr.

Whether the mission is to deliver humanitarian aid in Somalia, foster development of democratic institutions in Haiti with the United Nations force, or ensure peace and stability in Bosnia as part of the NATO Implementation Force/Stabilization Force (IFOR/SFOR) engineer and civil affairs (CA) units are necessary for successful peace support operations.

This article describes how engineer and CA units can develop positive working relationships and enhance their contributions to any mission. Included are examples of successful operations and some guidelines to maximize these units' combined capabilities.

The Challenge

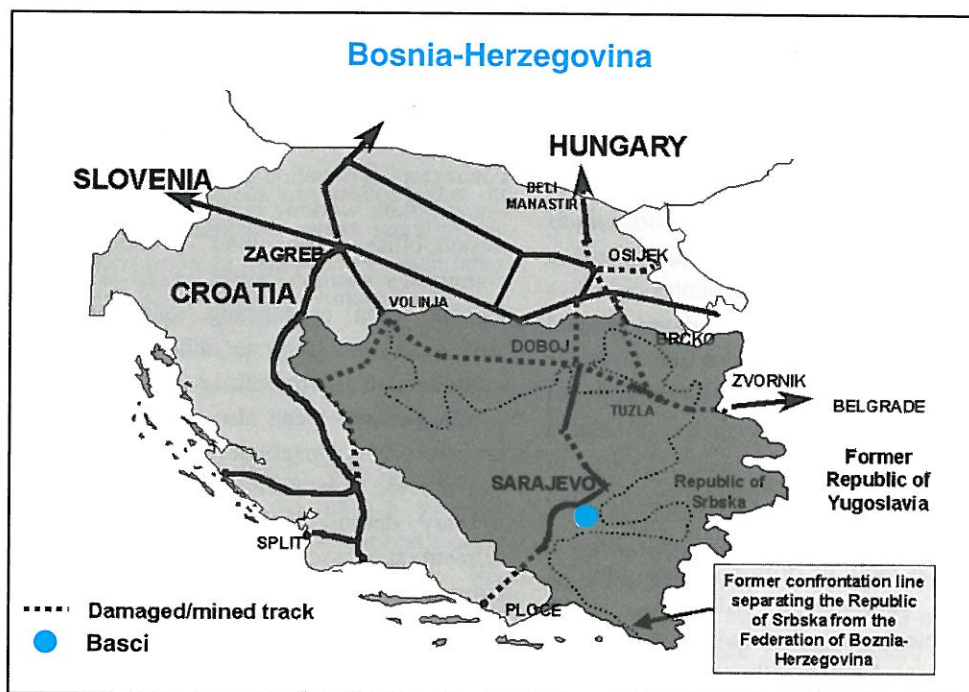
A significant challenge in many peace support operations is that they occur in areas with an immature or destroyed infrastructure. Transportation networks are either rudimentary, as in Somalia or Haiti, or destroyed, as in Bosnia. Utilities often are disrupted or deficient. The lack of a supportable infrastructure limits sustainment of the peace support force and hinders

humanitarian aid, economic regeneration, and the development of democratic institutions.

Another challenge is that military forces within peace support operations normally operate in conjunction with the host nation; with governmental agencies, such as the Department of State; or with nongovernmental organizations, such as the World Bank and the European Union. These organizations often are not affiliated with the United States and may have objectives and time lines that are not in synch with military forces. Therefore, fostering stability is a continual and complex challenge during peace support operations. In nations with shattered economic and democratic institutions, the peace support force is often charged with encouraging stability and restoring democratic-based "normalcy."

Complementary Capabilities

To counter these challenges, engineer and CA units bring complementary capabilities to the peace support "battlefield."



The Bosnian rail situation in January 1996



Engineer forces perform valuable service during peace support operations.

Engineer Units

Engineers are infrastructure experts. They provide military forces with mobility and survivability support, particularly during early stages of an operation. Engineers open and construct roads; restore bridges, airfields, and heliports; and open lines of communication. Depending on the force package, specialized well-drilling, quarrying, and other units are included.

Engineer units have design and project management capabilities that are valuable to civil organizations. Engineers can take the lead in demining programs. Depending on the situation, they may remove mines to support military forces and assist civilian demining programs.

Civil Affairs Units

Civil affairs units also bring a wealth of expertise to the theater. These units are concentrated within the U.S. Army Reserves. CA units have personnel skilled in a myriad of professions, skills, and occupations, some of which are not available within the Active Component. Civil and electrical engineers, telecommunications specialists, doctors, veterinarians, farmers, and lawyers are some of the skills that CA units bring to the force.

CA units typically are task organized to support specific mission requirements. Their mission and force structure depend on the degree to which military forces are required to operate in-country institutions. Support can range from a complete "hands-on" approach, similar to that required in Germany and Japan after World War II, to liaison and coordination with existing governments, similar to operations in Bosnia. CA units in Bosnia provide military forces with essential coordination with host nation governments, government organizations, and non-government organizations. Liaison officers are stationed with key players, such as the host nation, U.N. organizations,

and the World Bank. Where appropriate, these soldiers provide NATO and the organizations to which they are attached with information on one another's operations, goals, and objectives. They are conduits for information flow in both directions and can build interpersonal relationships needed to coordinate between organizations with no formal connections and that may answer to national authorities with differing goals and priorities.

Mutual Support

Engineer and CA units should support each other during peace support operations and execute combined initiatives. Military engineer resources and efforts normally are focused on direct support to the combined/joint team and have a distinctly military flavor. CA personnel can serve as a lubricant to facilitate this engineer work. Engineers seldom work in a vacuum during peace support operations, so it is necessary to establish and foster relationships with local contractors, host nation governments, and various international organizations working in the area. The CA personnel serve as liaison officers, open lines of dialogue, and represent the command's position. Their liaison skills may be especially helpful when establishing long-term rapport with host governments to facilitate military engineers' access to real estate and locally controlled resources.

CA personnel can also provide economic and political analyses. As engineers develop courses of action, CA forces can provide assessments and projections that facilitate the military decision-making process. Country studies and infrastructure assessments can be very helpful and should be considered valuable resources.

Engineers can support CA operations. Direct support may take many forms but normally is in terms of engineer assessments and design work. A good practice is to include

engineers as part of CA assessment teams for infrastructure surveys. These engineers contribute technical expertise and ensure that the surveys support engineer efforts. When resources are scarce, engineers may also provide physical support. A small amount of engineer effort, such as grading a road or rebuilding a wooden bridge, can pay great dividends. CA teams can maximize the use of such residual engineer effort by identifying low-cost, high-payoff targets.

Examples

The authors acquired firsthand experience in exercising engineer/civil-affairs cooperation while serving with the SFOR, NATO Headquarters, in Sarajevo, Bosnia-Herzegovina. The Combined Joint Engineer (CJENGR) and the Civil-Military Commission (CIMIC) Task Force routinely cooperated to facilitate engineer support to SFOR military operations and CA reconstruction objectives as a means of promoting economic regeneration.

Operating in teams, CJENGR and CIMIC personnel established strong liaisons with each other and coordinated both plans and operations. The CJENGR was a multinational organization, while the CIMIC Task Force was a U.S. organization that worked through the multinational CJ9 (the staff section responsible for civil-military operations). For numerous reasons, it was not practical to simply integrate a CIMIC brigade into the NATO headquarters. This was a potential problem, because U.S. civil-military doctrine is much more defined than that of most of our NATO allies. To enhance cooperation, the chief of CJ9 allowed the CIMIC Task Force to pursue missions within the overall SFOR and civil-military campaign plans. For the most part, CJENGR worked directly with the CIMIC Task Force's Joint Civil Commission (JCC). The JCC comprised the bulk of engineer and infrastructure expertise within the CIMIC Task Force.

A primary component of success was ensuring that the engineer and civil-military campaign plans were synchronized with the theater campaign plan and with each other. The engineer campaign plan listed three primary goals:

- Support military operations.
- Promote effective demining.
- Improve civil infrastructure.

The last two goals correlated directly with CA actions. Engineers were major contributors to the CA planning process, while CA personnel participated as members of the CJENGR-led SFOR Infrastructure Steering Group. The steering group brought many agencies together to establish theater-wide engineer policies and construction priorities.



A Hungarian engineer works on the bridge at Basci.

Within the steering group, the CIMIC Task Force provided the civil perspective to an organization that had no civilian component. The task force also provided the NATO engineer officers, who had minimal contact with civil-military operations, with resources they could access through their CIMIC teams.

Of major importance to the success of operations in Bosnia was the network of liaison officers the CIMIC Task Force established with the host nation and various international organizations such as the World Bank. The liaison officers helped facilitate engineer initiatives, identify potential high-payoff projects, gain access to resources, and promote engineer activities.

The CJENGR staff routinely consulted with the CIMIC Task Force and appointed a liaison officer to serve as the primary point of contact for CA actions. Working through the Engineer Plans Office, this officer oversaw coordination of engineer support to CA initiatives.

Three initiatives portray the outstanding mutual support fostered at theater level and illustrate the varied scope of engineer/CA actions undertaken: the bridge replacement program, the strategic rail program, and the Basci village construction.

Bridge Replacement Program

Situation: From 1995 to 1997, to promote freedom of movement for military forces, SFOR and its predecessor, IFOR, installed numerous NATO-owned military equipment bridges to replace bridges destroyed on main supply and

movement routes throughout the country. In late 1996 and early 1997, international organizations began funding the repair or replacement of damaged or destroyed bridges to replace the NATO military equipment bridges. The challenge was to facilitate bridge repair and replacement—a major move toward economic regeneration—while maintaining full freedom of movement for SFOR. The CIMIC Task Force, which focused on developing civil institutions, un-hesitatingly endorsed the proposal. However, CJENGR, ever mindful of military requirements to keep routes open for military traffic, insisted that all routes remained open. The solution exemplifies the cooperative approach between the two organizations.

Solution: Convinced that civilian-led bridge repair was the eventual long-term solution, the CJENGR considered bypasses for each of the bridges, which would ensure full freedom of movement for SFOR once the military equipment bridges were removed. Since no NATO funding existed to upgrade bypass routes, the CIMIC Task Force coordinated with international donors to incorporate bypass upgrades in their funding. The CIMIC Task Force and the CJENGR worked closely with local transportation directorates to ensure that construction schedules meshed with the CJENGR's ability to remove the equipment bridges and provide site clearance. By working together, the CJENGR and the CIMIC Task Force took this process a step further. They worked together to select sites to place bridges displaced by new construction. Most of these sites had great civil benefits and helped enhance SFOR's image as a positive force within the country.

Strategic Rail Program

Situation: Before the conflict, rail was the primary mode of long-distance transportation in the Balkans. The conflict destroyed much of the rail system (*Engineer*, July 1998, pages 2-6) however, and by 1996 rail traffic was only 15 percent of prewar levels. Large stretches of the network were literally torn apart. In particular, there was no rail access to the mineral-rich Tuzla Valley. Before the war, this area was linked to the Sava River port of Brcko and to ports along the Danube in Croatia and Hungary. In a region with an estimated 70-percent un-employment rate at the start of 1997, the CIMIC Task Force estimated that restoring the link between the Tuzla Valley and Europe would immediately create 1,200 jobs and inject a minimum of \$4.6 million per annum into the depressed area. Restoring regional economic vitality is a key component of developing stability and fostering democratic institutions. Encouraging rail traffic across the Bosnian-Croatian border was a positive step in normalizing relations within the divided region.

Solution: Over the course of several months, the CJENGR-CIMIC team worked closely with SFOR's

political advisor to develop a program to repair most of the main rail line. Following the CJENGR's technical assessment of the line between Tuzla and the Hungarian border, the CJENGR-CIMIC team developed initiatives to repair it. A key element was using the U.S. Agency for International Development (USAID) as a funding source for materials and construction contractors. As a healthy investor in the region, USAID provided funds for the \$2.5 million rail-highway bridge at Brcko and pledged more than \$2 million for additional work along the line. With the CJENGR's encouragement, the Italian government deployed the Italian Railway Engineer Regiment to construct the line between Tuzla and Brcko using materials provided by USAID. In Croatia, a series of negotiations chaired by the CJENGR-CIMIC team led to Croatian Rail and the Hungarian government repairing much of the line between the Croatian border and Hungary. By late 1997, a serviceable rail line existed from the Dalmatian Coast to the main European line in Hungary. Although some political obstacles still restrict full traffic, the necessary infrastructure is in place.

Basci Village Construction

Situation: The village of Basci, located southeast of Sarajevo near the International Entity Boundary Line, was ravaged and abandoned during the fighting. Due to its proximity to the boundary and the willingness of its residents to return, the United Nations High Commission for Refugees (UNHCR) considered Basci an ideal place to spearhead the refugee-return program. Funding was available from various sources to purchase modular buildings as housing for returning residents. However, routes into the area needed repair, and two small bridges on the road leading to the village were destroyed. Although local contractor support was not costly, it was limited. Using military engineers to do the work was an attractive option.

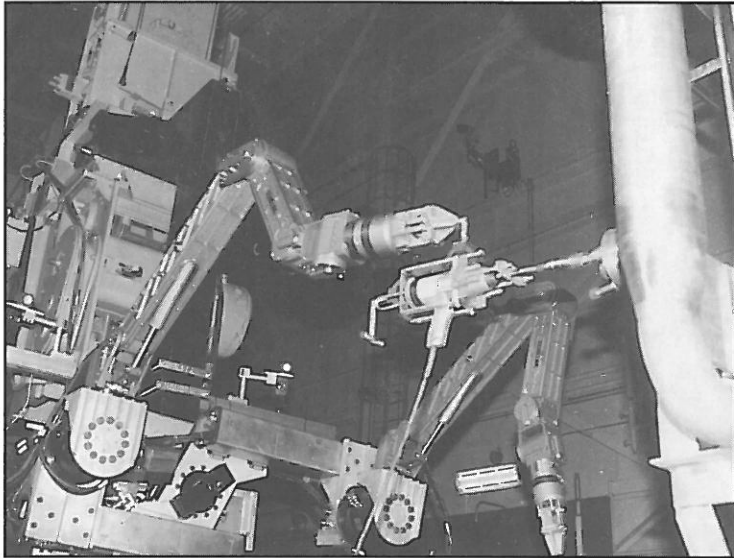
Solution: Working as a team, CJENGR and CIMIC Task Force representatives, via the CIMIC Task Force's UNHCR liaison officer, scheduled NATO military engineers to repair the 2,100-meter road and construct two military load class 40 bridges of 6.5 and 6.9 meters, respectively. The troops assigned to complete the mission were members of the Hungarian Engineer Contingent. Because NATO funding did not cover the cost of materials (about \$8,000), the CIMIC liaison officer obtained funds from the United Nations.

Guidelines

The following guidelines will help maximize engineer/CA cooperative capabilities.

- **Recognize complementary capabilities.** Engineer and CA personnel must be familiar with each other's capabilities and organizations. Since engineer and CA

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The Dual-Arm Work Platform can be mounted on deployment devices such as Rosie-C, overhead cranes, telescoping booms, and remote vehicles.

panels, and dismantled graphite bricks. This equipment can accept a variety of tooling configurations, and its remote operation removes workers from high-radiation environments. (See photo above.)

Lessons Learned


The United States' unleashing of the fundamental power of the universe with the atomic bomb is one of the greatest accomplishments of our time. Although it was an enormous challenge to build the nuclear weapons

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task organizations are mission-specific, knowledge beyond generic capabilities is required. This knowledge is critical when forecasting the support available from each organization.

- **Encourage cooperation at the lowest level.** In peace support operations, people on the ground are closest to the problem, usually have the greatest insight, and often make the greatest contributions. They should not be hindered by unnecessary bureaucracy and should have the flexibility to create ad hoc relationships.
- **Carefully assess resources.** Specify "who will provide what" in an operation. Military engineers often have more manpower and equipment resources than discretionary funding, while CA teams have access to funding sources. To avoid half-finished projects that may be viewed negatively, assess all resources when developing a plan. Close coordination with logistics and transportation personnel is very important.
- **Link with the information campaign.** The success of both engineer and CA activities is magnified when woven into an information campaign. During peace support operations, the perception of the force—by the host nation, the interna-

complex, to safely and effectively decontaminate and dismantle these facilities may be an even greater challenge. This endeavor will require an enormous level of commitment and cooperation from governmental agencies, federal and state regulators, industry, academia, and the public. We must safely accomplish the enormous undertaking of cleaning up the aftermath of the Cold War. To do so, we must use ingenuity to develop and modify robots that can work effectively on delicate and heavy decontamination and dismantling tasks in highly radioactive environments.

For more information, contact Mark D. Kessinger, the Army's National Program Manager, at (304) 529-5083 or at markk@mail.orh.usace.army.mil. 

Mr. Kessinger is the Corps of Engineers National Program Manager for support to the Department of Energy's Federal Energy Technology Center. Previous assignments include Corps liaison to the Department of Energy and engineering staff specialist with the Great Lakes and Ohio River Division in Cincinnati. Mr. Kessinger holds a master's degree in engineering management from West Virginia University.


Reference:

Closing the Circle on the Splitting of the Atom, U.S. Department of Energy, Office of Environmental Management, Second Printing, January 1996.

All photos courtesy Department of Energy.

tional community, and at home—as a contributor to peace and stability is advanced by publicizing CA and engineer contributions.

A Final Word

As our Army becomes engaged in more and more peace support operations, we will continue to face unforeseen challenges and seek to solve complex issues that go beyond the realm of traditional military solutions. Engineer and civil affairs leaders must recognize that they have mutually supporting capabilities and look to forge a cooperative spirit. Through cooperation, these two organizations can magnify their separate contributions toward achieving the force's objectives. 

Lieutenant Colonel Toomey, U.S. Army Corps of Engineers, commands the 14th Engineer Battalion (C), at Fort Lewis, Washington. He previously served as SFOR's Chief, Engineer Plans, in Sarajevo, Bosnia-Herzegovina. LTC Toomey is a graduate of the U.S. Military Academy.

Major Buckley is a reserve civil affairs officer and president of Bay Colony Engineering, based in Foxboro, Massachusetts. He recently served as a leading member of the Joint Civil Commission in Sarajevo, Bosnia-Herzegovina. MAJ Buckley is a graduate of the U.S. Military Academy.