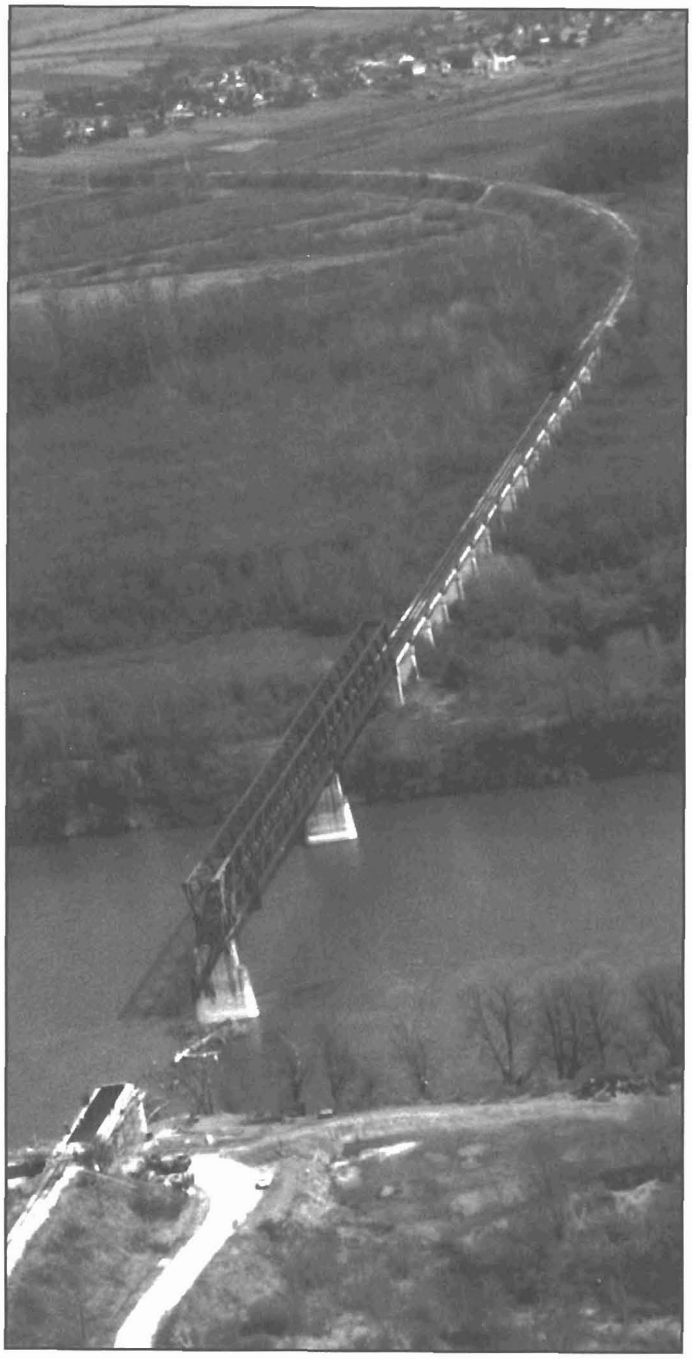
NATO Rail Operations in the Balkans

By Lieutenant Colonel Christopher J. Toomey



The railroad bridge at Brcko was reconstructed by USAID in 1997.

"We will take measures to repair and improve the road and rail infrastructure of the area in order to facilitate movements from east to west and north to south."

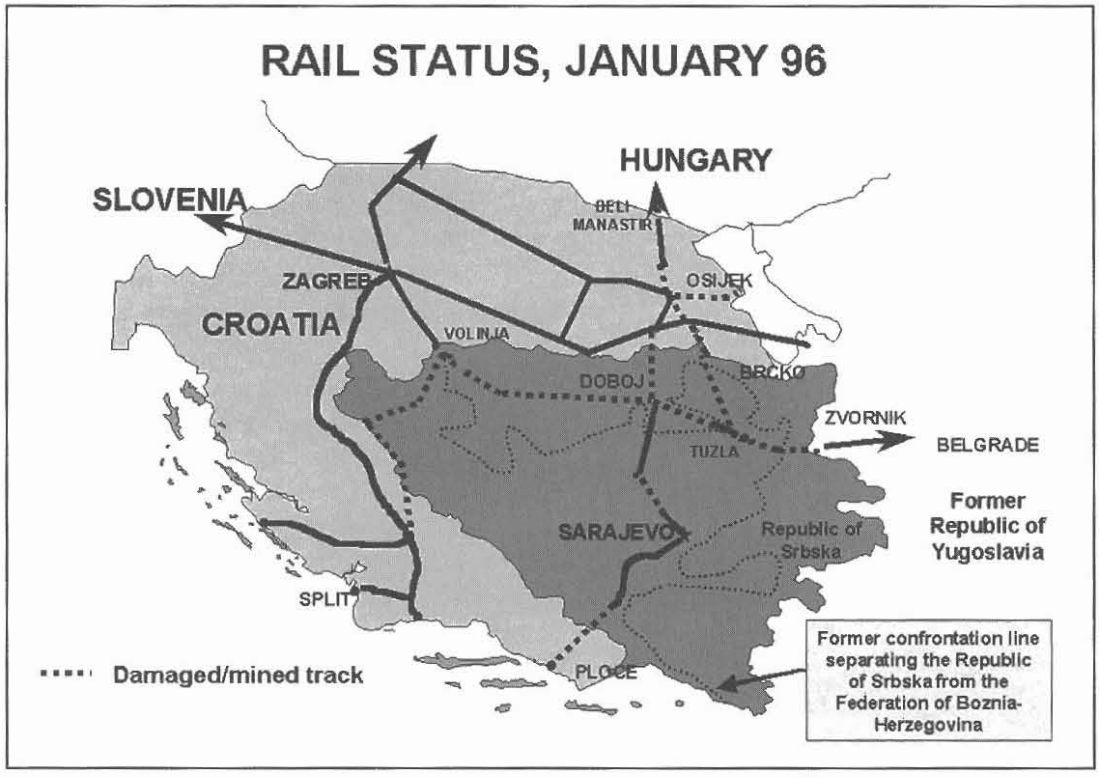
Carl Bildt
U.N. High Representative
14 February 1997

When the NATO Implementation Force (IFOR) deployed to Bosnia in 1996 to enforce the military provisions of the Dayton Accords and ensure peace and stability, it found a rail system in total disarray. The devastating civil war from 1990 to 1994 resulted in serious damage to the rail systems in both Bosnia and Croatia: lines were torn apart, blown up, or mined. Embankments were used as field fortifications and became inundated with bunkers. Wooden sleepers (pieces of timber used to keep steel rails in place) were burned for fuel or used in construction, as were tons of ballast. Bridges were destroyed and approaches mined. Telecommunications systems, rail stations, and rolling stock—the trains—became casualties of the conflict. More than 75 percent of the locomotives in the region were destroyed, and the traffic loss was immense. In 1996, passenger rail traffic was estimated at 10 percent of the 1989 level, and freight traffic was at 15 percent of the prewar level.

This article examines the efforts by both IFOR and Stabilization Force (SFOR) engineers, working in conjunction with the international community, to rejuvenate the Balkan rail system. The primary office responsible for theater-level engineer planning, the Combined Joint Engineer (CJENGR), is headquartered in Sarajevo.

To influence the rebuilding of the rail system, CJENGR accepted four major tasks:

- Serve as technical advisor to the command and civilian organizations.
- Develop policies and implement programs to translate the commander's intent into concrete action.
- Unify the various IFOR/SFOR agencies that touched rail operations, including the civil affairs and information campaigns.



- Synchronize SFOR actions with various civilian initiatives to ensure maximum use of resources.

1996 Initiatives

From the outset of its involvement in Bosnia, NATO's military planners and engineers were concerned with reestablishing an effective rail system. In a country with a very limited road network, a functioning rail line is an asset to any military force concerned with supplying and reinforcing its forces.

Initially, only IFOR had the resources, the manpower, and an organization available to make immediate and noticeable rail improvements. They focused on developing the rail network to link and support NATO's Multinational Divisions. Since the cost to repair severely damaged rail bridges along the Sava River was estimated at several million dollars, IFOR decided to avoid the north-south line and concentrate on opening the east-west line from Volinja through Doboj and on to Zvornik (see map). In all, NATO repaired or funded the rejuvenation of 460 kilometers of track at a cost of $5.6 million. The project consumed more than 1,000 tons of rail and included extensive demining and the repair of three major bridges.

The project was an outstanding example of multinational military cooperation, with German, Italian, Hungarian, Romanian, and U.S. engineer units working together along various sections of the line. The bulk of the work was executed by the Italian Railway Engineer Regiment, which also maintained overall technical supervision.

Several international organizations, working in coordination with NATO, initiated repair efforts during 1996. Three groups in particular—the International Management Group (IMG), the World Bank, and the U.S. Agency for International Development (USAID)—became key players in focusing money and resources on rail reconstruction in the region.

1997 SFOR Initiatives

Realizing the enormous economic potential that a fully rejuvenated rail system means to Bosnia, SFOR became involved in developing the system above and beyond direct support to NATO forces. Reestablishing an effective rail link between Bosnia and Europe will help promote regional stability, a major component of SFOR's mission.

Obstacles

Despite IFOR's efforts, there was still significant damage to the rail system at the beginning of 1997. The IMG repaired electrical and communication lines between Sarajevo and Ploce in 1996, but electrification and signaling remained major shortfalls.

Political problems complicate the situation. Three rail companies operate in the region, each aligned with a particular ethnic faction: Croatian Rail, Rail Company of the Republic of Srbska, and Rail of the Federation of Bosnia-Herzegovina (ZBH). With no central governing body, there is constant discourse on priorities and resourcing. Each company is fiercely territorial and consistently considers its portion of the line in isolation rather than as part of a network.

It is seemingly impossible to prevent political agendas from influencing activity along the rail lines. SFOR's freedom of movement along the lines is assured by the Dayton Accords, but in early 1997 physical damage and political impasse prevented restoration of regular traffic.

Developing Priorities

In establishing SFOR's priorities, CJENGR worked closely with SFOR civil affairs experts, the Civil Military Commission (CIMIC), to form the Theater Rail Working Group. This group periodically brought together SFOR and external agencies—IMG, USAID, and the World Bank—with a rail interest in Bosnia. The working group established the following priorities for 1997, with the overall aim of creating a link between Bosnia and the rest of Europe:

- Complete repairs to the east-west line.
- Improve signaling at Doboj Junction.
- Facilitate repairs between Tuzla and Brcko.
- Facilitate linking Brcko through Croatia into Hungary.

SFOR's priorities were synchronized with the IMG's plan to concentrate on upgrading the line between Ploce and Doboj while USAID constructed the rail/highway bridge over the Sava River at Brcko.

East-West Line. Funds from the 1996 project were used to resume repair on the east-west line in April 1997. The upgrade involved repairs between Banja Luka and Doboj and cost almost $5 million. Work contracted through the Rail Company of the Republic of Srpska included repair or replacement of ballast, sleepers, rails, switches, and rudimentary signaling at various sections along the line. Many small bridges were upgraded, and some areas were demined to permit reconstruction. NATO furnished much of the material and pushed initiatives to make local military personnel participate in demining. As in 1996, the Italian Railway Engineer Regiment maintained overall technical supervision of the repairs. Work on this line was completed in October 1997.

Doboj Junction. A major rail junction in Bosnia, Doboj Junction lies within the zone of separation between the Republic of Srbska and the Federation. The junction is important both technically and politically, because it is an area in which the two factions in Bosnia must come together to resolve differences.

Several months of discussion resulted in a decision by NATO to invest almost $500,000 to increase the junction's throughput capacity to 60 trains a day. This ensures that SFOR trains can travel uninterrupted for the foreseeable future. Improvements to Doboj Junction have definite civil benefits because the station links the important industrial areas of Tuzla and Zenica with the rest of Bosnia. Contractors completed the following work by November 1997:

- Improved the road network and buildings in and around the junction.
- Completed communication links between dispatchers in the station and along the line, switch operators, and operators in the locomotive depot and marshalling yards.
- Repaired automatic telephone networks.

Tuzla-Brcko-Hungary Line. Traditionally, the mineral-rich Tuzla Valley was a key economic area with a strong industrial base. Before the war and the destruction of connecting rail lines, goods and minerals were shipped by rail to the Sava River port of Brcko or to ports along the Danube. As 1996 ended, industrial output in the region was estimated at 15 percent of prewar levels, while unemployment was at 70 percent. SFOR and U.N. economic analysts projected that reopening full rail traffic would immediately bring nearly $20 million to the region and employ 1,200 people, with a potential for 56,000 jobs in the Brcko-Zenica industrial region.

Politically the area is troubled. Brcko, claimed by both Serbs and Muslims, is still a divided city patrolled by U.S. forces from Multinational Division (North). The potential for economic growth that a healthy rail line brings will help reduce political and ethnic tension.

In Croatia, the line enters another contentious area—Eastern Slovenia—which was governed by the U.N. Transitional Authority for Eastern Slovenia until late 1997. Conditions there were economically grim with un-employment at 60 percent. Completing the railroad enables access to the Danube River ports, connection to the European line in Hungary, and the potential for significant economic improvements.

Developing a Strategy

The SFOR effort was led by the CJENGR with heavy support from the CIMIC Task Force. These two organizations formed a "rail team" that attacked rail issues and worked as partners throughout the process. The team fully assessed the technical, political, and economic issues involved in re-vitalizing the rail system. Key components of the strategy follow:

Focus on the Permanent Railway. As with the 1996 effort, SFOR realized that it was initially important to make the track functional. Support for signaling and telecommunications will follow once the international community sees the tracks in use.

Work Closely With USAID-Bosnia. Since the earliest introduction of NATO forces, USAID resourced projects throughout the country. It rebuilt the rail and highway bridge



Photo courtesy of the 16th Engineer Battalion, 1st Armored Division.

The first train of U.S. equipment leaves the Bosnian military railhead at Lukavac on 21 April 1998.

across the Sava River at Brcko in anticipation that SFOR would rebuild the rail line between Tuzla and Brcko.

Use NATO Engineers When Available. Using SFOR or additional NATO forces to help construct all or part of the railway reduces the overall cost and makes projects more attractive to USAID and other civil organizations. The Italian Railway Engineer Regiment deployed to Bosnia in 1997. Other forces included the Romanian Engineer Battalion and Hungarian Engineer Contingent (a force larger than a battalion), which are directly under CJENGR's control as part of SFOR.

Open Negotiations in Croatia. Any work in Croatia requires the input of Croatian Rail and the Croatian Government, as well as civil organizations that act exclusively in Croatia.

Rebuilding Tuzla to Brcko

From the outset, USAID funded all material for repairing the line between Tuzla and Brcko but could not fund contract labor for the entire line. Deployment of the Italian Railway Engineer Regiment greatly reduced the overall repair costs. Italian engineers repaired more than 600 breaks in the line and replaced the main section between the Kalanac and Lipovac bridges. They were supported by the Hungarian Engineer Contingent, which executed numerous general engineering tasks, to include demining. Soldiers from the Army of the Republic of Srbska, who were trained under a U.S. Department of Defense-sponsored program, also performed demining.

USAID eventually contributed about $2 million, which provided material for the line; contract repair of bridges at Lipovac, Kalanac, and Spionica; repairs at a landslide at Tinja; and repair of the train station at Bukovac.

Rebuilding Brcko to Hungary

The map on page 3 shows that repairing the Tuzla to Brcko section was pointless without also repairing the line through Croatia into Hungary. However, the direct line to the north was heavily damaged in Croatia. A major technical obstacle was repair of the Basut River bridge and the 12 kilometers of track between the bridge and Vinkovci. Croatian Rail pledged to repair this section, including demining the line and the bridge, if USAID provided material assistance. USAID-Bosnia pledged the materials and committed $400,000 to repair the bridge. SFOR's office in Zagreb, in conjunction with USAID, provided project oversight and overall technical supervision. The project was completed in December 1997.

The line from Vinkovci to Osijek was entirely destroyed. Much of the 35-kilometer line was heavily mined and inaccessible. The estimate to restore the permanent railway is about $15 million, which makes it uneconomical to repair at this time. Instead, traffic was moved from Vinkovci to Vroplje and thence to Osijek, where the line was in good repair and required only additional switching and signaling to transfer the trains at Vroplje.

The last section, Osijek to Beli Manistar (along the Hungarian border), eventually required minimal SFOR input. Once Croatian Rail was convinced that the Brcko to Vinkovci section was a reality, they began to repair the Osijek-Beli Manistar line in a joint venture with Hungarian rail authorities. This effort included extensive contract and military demining.

Lessons Learned

Military engineers can gain much from CJENGR's experiences in developing the strategic rail plan.

Take a Team Approach. The success of SFOR's rail program is largely due to the positive interaction of the various elements of the command. Working as a team magnifies the expertise of individual components.

Look Beyond the Technical Issues. Most problems are complex and involve much more than surmounting technical obstacles. Engineers must become involved in addressing the often closely related political and economic issues. In many instances, CJENGR became involved in negotiations that required engineers to fully understand the economic and political issues at hand.

Work With Civil Agencies. An integral part of SFOR's efforts was to develop a positive relationship with interested civil agencies. This included understanding their objectives and concerns, as well as exhibiting the ability to compromise. Civil agencies do not necessarily have the same agenda as the military force and often have a different time line. Engineers must forge partnerships with civil agencies to tap into diverse resources and ensure a mesh between military and civilian planning.

Think Regionally. Infrastructure, particularly transportation networks, must be thought of regionally. Shifting political boundaries may not align with natural boundaries, which influences the development of road and rail networks. By developing a regional approach, military engineers can learn to appreciate the breadth of factors affecting issues.

Prognosis

Through the efforts of SFOR and partner civil agencies, the permanent railway is functioning along main sections of the line. NATO forces are using the rail system. In fact, much U.S. equipment moves over rebuilt sections of the rail line. Many countries that contribute forces to SFOR are expanding their use of rail in moving and supporting forces in the region. Rail is also used extensively in Croatia, with the Croatian government working to maximize the economic potential of a functioning rail system.

Civilian traffic within Bosnia is still minimal. Much of this is due to political complications. Perhaps the following 10 February 1998 statement from Radio Free Europe accurately sends the message:

Klein Urges Restoration of Bosnian Rail Traffic. Jacques Klein [deputy to the U.N. High Representative for Implementation of the Peace Agreement] said in Sarajevo on 7 February that the rail system presents "the worst case of all the public utilities [in Bosnia]. Almost no train is running..., [which] means waste on a large scale, because no train means no investment, no investment means no jobs."

Although some technical obstacles exist, most of the issues that prevent regular traffic are political and involve reluctance by the various entities within Bosnia and Croatia to grant full access to cross-border traffic. Many people recognize the importance of rail for economic regeneration, but internal restrictions to free movement across borders keeps political leaders from allowing the rail system to realize its enormous potential.

Ultimate responsibility for successful rejuvenation of the rail system rests with the Bosnian and Croatian governments. They must show the good faith and willingness to support progress that will entice international investment on a large scale. Restrictions on movement will be the deciding point on the future of rail traffic—and the regeneration of the economy—in Bosnia.

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