

Corps Rebuilt Greek Infrastructure

“to help friendly nations help themselves”

By Dr. Paul Walker

When the U.S. Army Corps of Engineers has engaged in major international activities during the post-World War II era, it has used its district organization as a model to manage the work. The approach is firmly grounded on experience. The Corps' involvement in Greece between 1947 and 1949 set the pattern.

At the end of World War II, Greece stood in virtual ruin. During the Ger-

man occupation, which lasted until October 1944, the economy nearly collapsed. Allied bombing raids destroyed miles of railroads and devastated the major port cities of Salonika, Volos, and Piraeus. A combination of heavy military traffic and neglect left the country's highway network in a precarious condition. Then, as the Germans withdrew, they blew up bridges, highways, and portions of the 4-mile-long Corinth Canal, which

was a vital link between Athens and the Adriatic Sea.

British troops entered Greece and restored the monarchy as the Germans left, but conditions scarcely improved. A strong communist-led Greek underground had formed during the war, survived, and challenged supporters of the king. Unable to manage the situation, British officials informed the United States that they intended to withdraw by April 1, 1947.

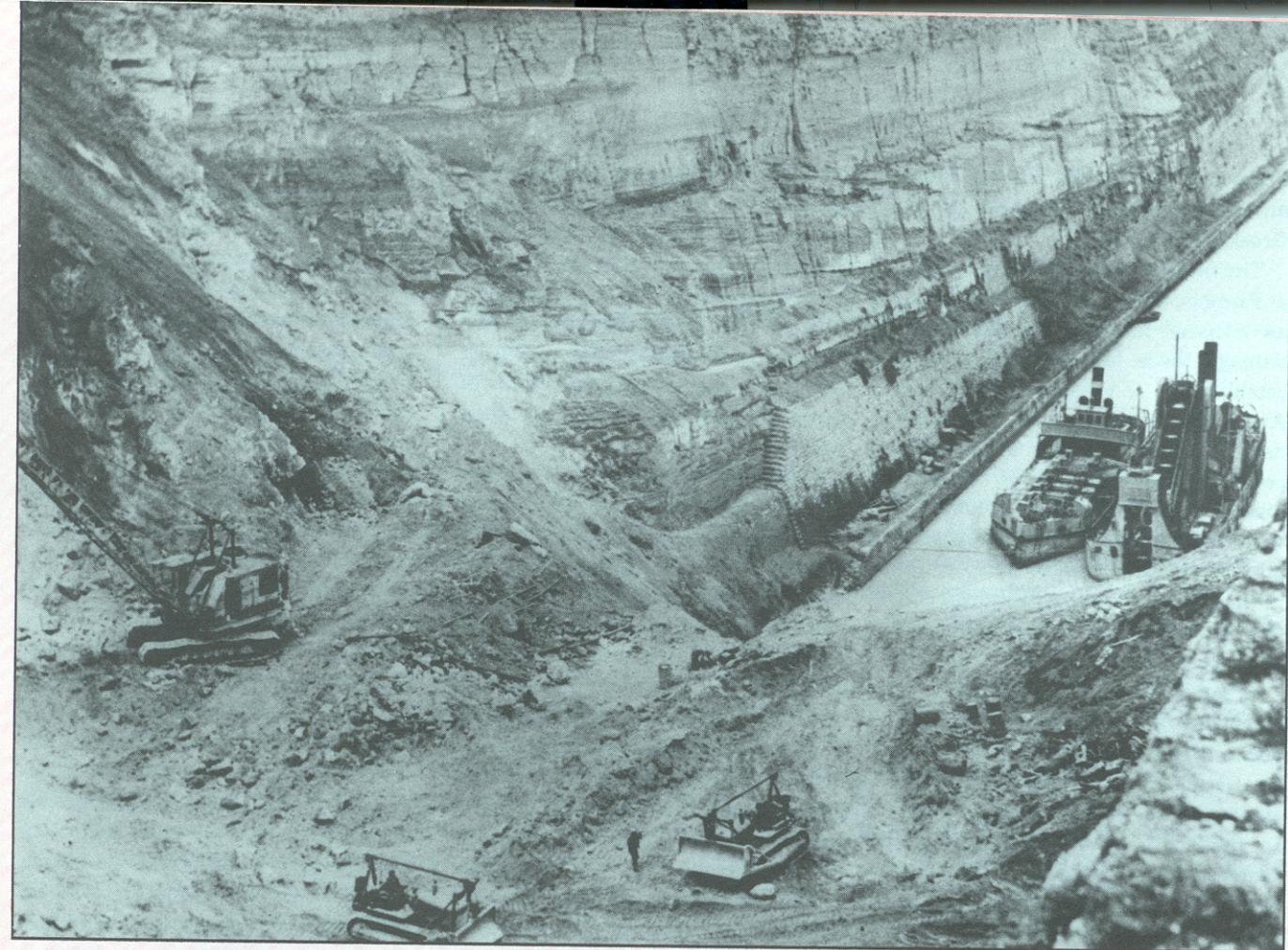
The threat of civil war and the possibility of a communist takeover convinced President Harry Truman that America had to act quickly. In March the President asked Congress for \$400 million in aid for Greece and Turkey. "It must be the policy of the United States," he argued in what became known as the Truman Doctrine, "to support free peoples who are resisting attempted subjugation by armed minorities or by outside pressures." The primary way to accomplish this, he concluded, was "...through economic and financial aid which is essential to economic stability and orderly political processes."

Congress wasted little time. On May 22, President Truman signed an Interim Aid Bill establishing the American Mission for Aid to Greece (AMAG). Less than a month later, expanding on the principles of the Truman Doctrine, Secretary of State George Marshall proposed his plan for long-term economic recovery for all European nations. By spring 1948, the Marshall Plan was channeling dollars to Europe through the Economic Cooperation Administration. Some of the money supplemented AMAG funds for Corps projects already underway.

To address the immediate crisis in



Corps of Engineers projects in the Grecian reconstruction program, 1947-1949. (Map reprint from 1949 *Military Engineer*)



The Dredge *Poseidon* (right center) at work clearing the Corinth Canal. (Photo courtesy USACE Office of History, Research Collection)

Greece, AMAG focused on restoring the ports and transportation system. As word spread in late spring 1947 that the program would include construction projects, the State Department received nearly 100 inquiries from interested American firms. Lacking experience in contracting and construction, the State Department sought advice from the U.S. Army Corps of Engineers, an agency with a proven record in contracting and construction management.

AMAG's Reconstruction Division and the Corps weeded the list of qualified contractors down to 26 but agreed that joint ventures would be the most effective approach. The two organizations cooperated closely during contract negotiations, and two contracts were finally awarded. The J. Rich Steers Company and Grove-Wilson-Shepherd and Kruge, as the joint venture Steers-Grove, would reconstruct port facilities and clear the Corinth Canal. Guy F. Atkinson Company, Johnson-Drake and Piper,

and Starr-Park and Freeman, as the joint venture Atkinson-Drake-Park, would reconstruct highways, railroads, railroad bridges and tunnels, and airfields.

When State Department representatives met with the Office of the Comptroller General, they discovered that these contracts required an extensive construction organization and numerous accountants to provide the required level of oversight. They concluded that administering and supervising the contracts was also a job for the Corps of Engineers.

To manage the construction program, the Corps used its proven district organization, including some seven area offices. The Grecian District, with headquarters in Athens, was organized as part of the North Atlantic Division on August 1, 1947. The district drew personnel largely from existing Corps organizations. Colonel David W. Griffiths left his position as Galveston District commander to become the district engineer in Athens.

District personnel went to work immediately with contractor personnel and the Greek Ministry of Public Works. The contractors successfully recruited Greek nationals but had difficulty attracting American contract supervisors because of the unstable political conditions in Greece. At the peak of the recovery effort, government and contractor forces totaled 629 Americans and 12,131 Greeks.

The reconstruction program initially was scheduled to be completed in one year, and a demobilization plan was in place early. However, guerrilla activity, unusually severe winter weather, and additional new projects resulted in extensions through March 1949. Real and threatened guerrilla attacks were a major problem that resulted in about 214 incidents involving loss of life and construction time. Contractors also had difficulty obtaining equipment and supplies. They amassed the necessary materials—more than 5,200 pieces at the peak of construction—by combining

items procured in the United States and Greece with items loaned by the Greek government.

The first reconstruction project was at Piraeus, a key port city that served as Athens' harbor. As elsewhere, damage there had resulted from a combination of intense British and American air raids and calculated demolition by retreating German forces. Germans destroyed or damaged most of the 3,300 meters of concrete quay walls and used machinery, steel girders, and debris to block key points in the harbor. Gone were a grain silo, conveyor system, warehouse, and equipment which served the port.

Steers-Grove, with the Knappen Engineering Company as consultants, began repairs on November 18, 1947. By December 1948, they had reconstructed 2,100 meters of quay walls. In the same 11-month period they removed 16,000 cubic meters of debris and placed 4,674 cubic meters of concrete to make the port's two dry docks operational. Dredging was a cooperative effort. The Grecian District confined itself to the area around the quay walls, while the Ministry of Public Works dredged the rest of the harbor. Steers-Grove completed similar, but less extensive work at the ports of Volos and Salonika, on the Aegean sea in central and northern Greece.

The Corinth Canal presented one of the greatest challenges. Only 7 kilometers (about 4 miles) in length, the canal could save shippers about 200 kilometers on the trip from eastern to western Greece. Damage rendered by the retreating Germans was severe. Explosions triggered at two points dumped 645,000 cubic meters of earth and rock into the canal. Other debris included a duplex highway-railway bridge, 130 railroad boxcars, six locomotives, mines, and the 3,400-ton steamship *Vesta*, which had been wrecked and sunk in the canal. Lack of maintenance had affected the entrance breakwaters, and the channel was heavily silted.

Work to repair the canal began in October 1947. The silt and debris

removal effort required special equipment and had to be timed to support the overall excavation schedule. Steers-Grove used dredges, floating derricks, tugs, and dump scows in the cleanup effort. When full-scale traffic resumed in December 1948, a total of 321 ships carrying 58,838 tons of cargo cleared the waterway that month.

Atkinson-Drake-Park undertook road, bridge, and tunnel repair and eventually airfield construction. The highway networks presented a significant challenge. At the end of the war, most major highways were impassable. Ninety percent of the bridges and culverts had been destroyed. Contractors used nearly 30,000 tons of asphalt and more than 650,000 tons of aggregate to restore and surface 1,216 kilometers of highway. As district engineer Griffiths noted, the job was a worthy accomplishment "considering the mountainous topography, the unprecedented cold and snow...and the insecure conditions in all field areas." The Greek Ministry of Public Works simultaneously constructed highway bridges and secondary roads and later completed surfacing at several Corps projects.

Atkinson-Drake-Park was also responsible for reconstructing twelve steel railroad bridges, two tunnels, and a highway bridge. After this work was underway, the Greek Air Ministry requested that ten airfields be included in the Corps' contract. That effort involved new air strips and control towers as well as repairs and improvements to existing runways and administration buildings.

In Greece between 1947 and 1949, the Corps of Engineers played a significant role in carrying out the United States' initial post-World War II assistance programs involving direct economic aid. The goal was to rebuild the national infrastructure, which would provide the basis for economic recovery and political stability. Dedicated to containing communism, American policymakers believed the future of the entire

region was at stake.

While the engineers' work was only part of AMAG's total aid program, it was a most visible part that was appreciated for many years. Once Corps' contracts were completed, the district organization closed down. Thus the Corps demonstrated very early that it could put together an effective organization rapidly and disband it just as quickly.

Beginning in the early 1950s, the Corps returned to the Mediterranean region as part of economic aid and more ambitious military assistance and reimbursable programs. Over the ensuing decades this included programs in Saudi Arabia, Turkey, Iran, Pakistan, Afghanistan, and North Africa, as well as Greece. In nearly every instance the Corps employed many of the same approaches evident in their initial effort in Greece: use of the engineer district organization, provision of technical assistance in conjunction with economic aid, and training indigenous contractors and workers to perform as much of the work as possible. The total effort was designed to help friendly nations help themselves.

Today, the Corps is involved in numerous international activities in support of CINC South, the Department of State, the Agency for International Development, and Voice of America. The Corps does not possess separate program authorities and funding for international work, but stands ready when deemed appropriate to become involved in additional projects.

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