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MANAGING CONSTRUCTION IN GERMANY, 1956–1966

Between 1950 and 1955 the Federal Republic of Germany financed the military construction program that supported the North Atlantic Treaty Organization (NATO) and the expansion of U.S. forces in West Germany. Once the Western Powers recognized the Federal Republic diplomatically in May 1955, the occupation officially ended and the West German government had no further obligation to pay the costs of the U.S. troops on its soil. To manage construction in Germany, the United States created a new entity, the U.S. Army Construction Agency, Germany (USACAG). Operating in a new fiscal environment, USACAG managed the continuation of the construction programs begun in the early 1950s. It also oversaw the design and construction requirements necessitated by the introduction of tactical and strategic missiles into Europe in the late 1950s. Then, when the Soviet Union threatened the independence of Berlin, USACAG managed urgent construction to defend the city.

The German Environment

For the first time since 1945 the U.S. military had to work with a fully sovereign German state that insisted on controlling construction within its territory. Direct contracts awarded by the Army during the early 1950s had overtaxed the German economic and social systems, provoking the extremes of excessive profit and bankruptcy among local construction companies. Similar economic and social consequences had troubled the French construction sector during the buildup of the line of communications.[1] Since 1953—even before the formal end of the occupation of Germany—the West German government had insisted that its own *Deutsche Bundesbauverwaltung* (German Federal Construction Administration) participate in an increasing share of the construction financed with Deutschmarks. During 1953 about 30 percent of the total value of United States Army, Europe (USAREUR), construction contracts went to the *Deutsche Bundesbauverwaltung*, which

then awarded the contracts to construction firms. During the 1954–1955 program year, the amount approached 40 percent.[2] Once sovereignty became a reality in 1955, all U.S. military construction became subject to German law and the *Deutsche Bundesbauverwaltung* became the conduit for both design and construction work for the U.S. military. In 1956 the Federal Republic's Ministry of Finance created the *Bautechnische Arbeitsgruppe* (Technical Construction Working Group) to coordinate American and other allied military construction programs at the German federal, state, and local levels.

As USAREUR's agent, USACAG dealt directly with the Ministry of Defense or the Ministry of Construction in Bonn to develop an agreement for each new construction program. The agreements were international and intergovernmental in character in that they were between agencies of sovereign powers; but each one was specific to a particular construction program, such as Nike missile installations or housing for troops or military families. The construction agreements were subordinate to broader diplomatic accords, such as the NATO Status of Forces Agreement or the *Dollarbaukontrakt* (Dollar Construction Contract). USACAG's role always depended upon a higher authority, such as USAREUR, and at the completion of any formal discussions it submitted copies of accords for review by the secretary of the Army and the Department of State. The need to negotiate an implementing agreement on each new program delayed the construction; at times each installation site had to be negotiated individually. The negotiations were, however, an unavoidable consequence of doing business in a host nation. William E. Camblor, the USACAG director, proved particularly adept at managing these negotiations and remained involved in them with Germany and other NATO host countries for over four decades.[3]

Any implementing agreement between USACAG and the Federal Republic's ministries of defense and construction in Bonn was only the beginning. Each agreement next passed through the Federal Ministry of Finance's *Bautechnische Arbeitsgruppe*, which maintained its offices in Frankfurt. The federal ministries then issued orders to state construction offices (*Oberfinanzdirektionen*), which in turn passed the orders for execution to a local office (called *Landesbauamt*, *Staatsbauamt*, or *Finanzbauamt*, depending on which state it was in). USACAG's contracts for U.S. military construction were with West German government agencies at the federal level, not with the firms executing the work.[4] By contrast, states and localities—rather than federal agencies—had jurisdiction over all contracts that engaged architect-engineer firms or builders. The entire system gained the label indirect contracting.

The *Dollarbaukontrakt*, negotiated in 1956 and modified in 1961, coupled with the Supplementary Agreement to the NATO Status of Forces Agreement signed with West Germany in 1959, governed the indirect contracting system and formed the basis for all U.S. dollar–funded design and construction executed in the Federal Republic.[5] During USACAG's early years the Germans still allowed many of the dollar-funded projects

to be contracted directly. The new West German government progressively expanded the indirect contracting system so that by the early 1960s indirect contracting had become the standard operating procedure for construction in Germany. It remained for decades the aspect of engineer activities in Europe least understood by the people not directly involved with it.[6]

USACAG Organization

In organizing for the transition of U.S. forces from occupying power to ally, the U.S. commander in chief for Europe delegated execution of dollar-funded construction in Germany to USAREUR's commander in chief. Well before Deutschmark financing ended, planners had contemplated creating a new construction organization.[7] They were motivated by severe budgetary pressure as well as by the change in West Germany's international status and responsibilities. Although its obligation to support U.S. military construction was ending, the Federal Republic nonetheless agreed to provide Deutschmark funding for construction obligations contracted before May 1955 so long as projects were completed by the end of 1957. During fiscal year 1956, despite this commitment, German support for the U.S. military dropped by nearly $500 million. Because the bulk of these Deutschmark funds had gone into wages and utilities, the U.S. military had to trim staff and consolidate services. Lacking the funds for pay, the Army released 24,000 German employees in fiscal year 1956.[8]

To manage contract construction for the U.S. Army, on 1 July 1956, USAREUR activated its Construction Agency. Within a short time the organization, subordinate to USAREUR's Engineer Division but with headquarters in Frankfurt, settled on the name U.S. Army Construction Agency, Germany.[9] USAREUR removed responsibility for contract construction from the area and post commanders and placed it under this single agency. (*See Chart 5.*) Centralized administration for contract construction remained characteristic of U.S. forces in Europe from 1956 onward.

The new organization enabled USAREUR to reduce personnel. Of the 1,037 persons in construction employed in the area commands, by 1 January 1957, these commands retained only 76. USACAG operated initially with about 210 employees, producing a net saving of more than 750 places. USAREUR expected a central construction agency to manage the dollar-funded contracts more consistently than the area commands. Furthermore, USAREUR saw an advantage in being able to transfer many of the command and operating responsibilities of its Engineer Division to USACAG, thereby allowing the USAREUR engineer to concentrate on his staff responsibilities as adviser to the commander in chief.[10]

USAREUR appointed an American civilian, Camblor, to direct USACAG. Before World War II, Camblor had worked in the New York District of the Corps of Engineers. Mobilized as a reserve officer early in the war, he had landed at Normandy shortly after D-Day and moved

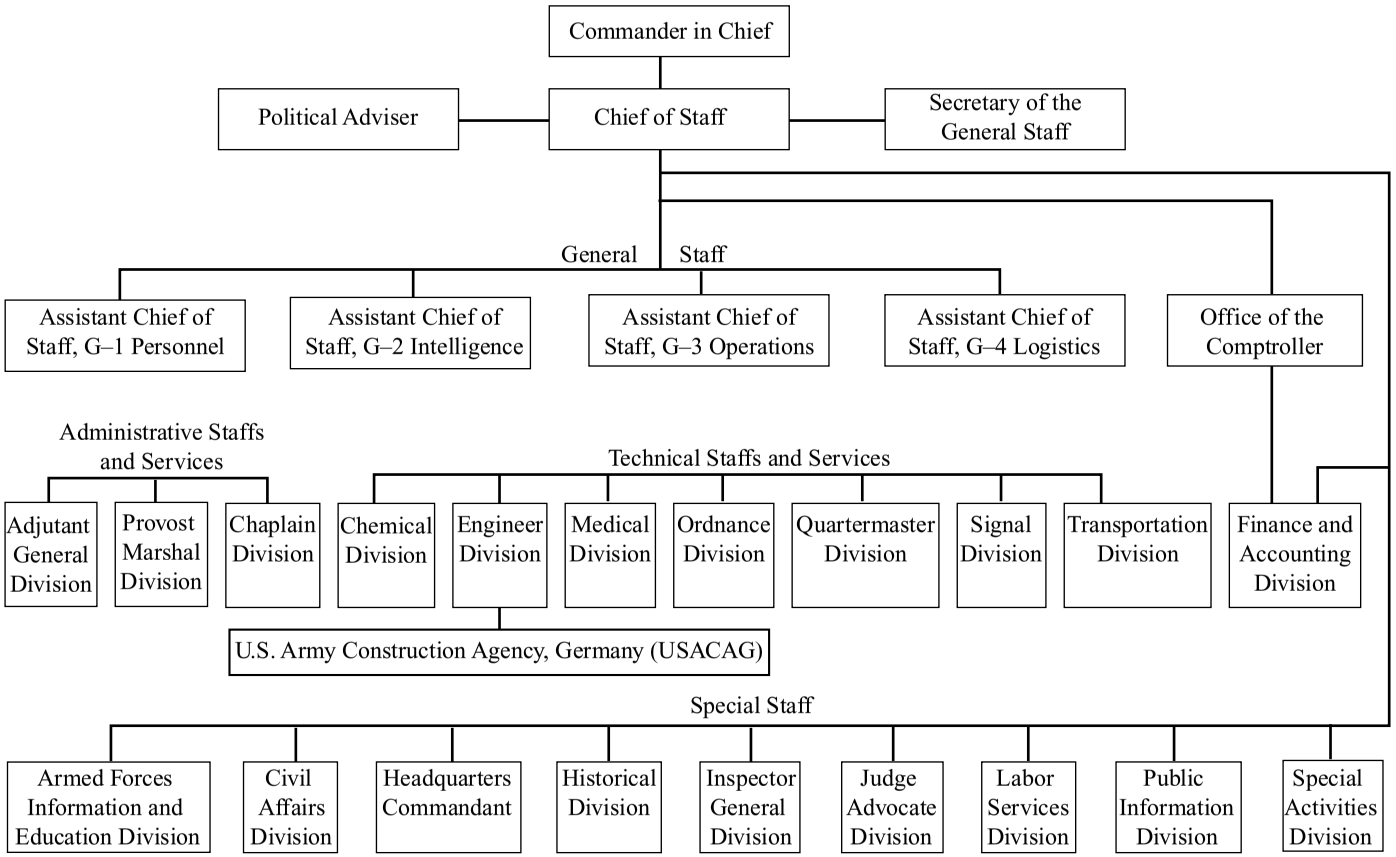
through France and Belgium with the Communication Zone's Advance Section engineers. In 1947 Camblor resigned his commission and took a position in the Office of the Theater Chief Engineer. By 1950 he had become deputy chief of the Construction Branch. He served under two European Command engineers, Brig. Gen. David H. Tulley and Brig. Gen. Frank M. Albrecht, during the years that U.S. forces expanded rapidly. As West Germany approached full sovereignty, Camblor's proficiency in German, knowledge of Army engineer operations, and ability as a negotiator gave him a significant supporting role in the talks between the United States and the Federal Republic. He served as a resource person on engineering issues in discussions leading to the agreements governing U.S. military construction in Germany—the *Auftragsbauten Grundsätze* 1955 and the *Dollarbaukontrakt* in 1956.[11]

William Camblor, shown here in the 1970s, was the first director of USACAG.

Although barely forty years old in 1956, Camblor had served as the highest ranking civilian in the USAREUR Engineer's Office for several years. Tulley, who esteemed Camblor's talent and service, had moved to the Office of the Chief of Engineers in Washington; but he remained in close contact with affairs in Europe. Tulley and his successor as USAREUR engineer, Albrecht, gave Camblor strong support for the position of director of USACAG, as did Camblor's immediate military superior in Heidelberg, Brig. Gen. Charles McNutt.[12]

Camblor's appointment as director of USACAG made the organization noteworthy in four ways. First, he was the only civilian ever to command an Army engineer agency of such scope. Second, because he was not subject to the military cycle of rotating assignments, Camblor brought continuity during his seven-year service that gave him increased influence in dealing with his counterparts in the local German agencies responsible for supporting U.S. military construction. Third, Camblor had an aptitude for European languages. He conducted formal negotiations in English aided by an interpreter and a legal adviser, but he established rapport with officials in Europe by conversing freely with them in either German or French. Fourth, as a Cuban-American, Camblor commanded USACAG at a time when it was unusual for persons from ethnic or racial minorities to

Chart 5: Organization of Headquarters, U.S. Army, Europe, 30 June 1956



hold executive positions in American institutions. It had been less than a decade since President Truman ordered the military to integrate. Although the military responded with greater speed than many other segments of American society, it would still be many years before another member of a minority group achieved a comparable position of leadership in the Corps of Engineers.

Camblor set up headquarters for USACAG in Frankfurt in the summer of 1956. He quickly selected fourteen people and took them to Paris to the headquarters of the Joint Construction Agency, where they spent a week learning the regulations, rules, and procedures. He then returned to Frankfurt and began recruiting personnel, drawing particularly on those who had served in the USAREUR engineer's office in Heidelberg or with engineer offices in the area commands. USACAG's staffing level fluctuated between 210 and 250, including both the Central Office staff and the staffs of district offices.[13]

Camblor brought John Tambornino from Heidelberg to USACAG as chief of engineering. Tambornino already had over twenty years in government engineer positions, beginning in 1934 when he joined the Corps of Engineers in the United States. From 1940 to 1942 he had worked in Panama on the design of the third set of locks for the canal. He had come to Germany in 1951 to serve in the post engineer's office in Heidelberg and then in the USAREUR engineer's office. Tambornino served as chief of engineering in USACAG and successor commands until he retired in late 1974.[14]

Camblor recruited H. Jace Greene from the Southern Area Command in Stuttgart.[15] Active as an engineer in military communities in Germany since 1946, Greene had turned Bundesbahn locomotives into a temporary heating plant for military family housing in Kornwestheim. Greene moved from chief of construction for Southern Area Command to chief of construction for USACAG.

Transfers came from other Army engineer offices throughout Europe. In 1957 Saul Fraint, who had worked in Austria, Italy, and France, left the Joint Construction Agency and joined USACAG as Greene's deputy in the Construction Division. Fraint became head of the Technical Engineering Branch in 1958 and served in varying capacities before his retirement in 1974.[16]

Camblor also recruited engineers just arriving in Europe. Paul Friesch, for instance, had seen Germany at the end of World War II but harbored a desire to see it again in better times. After completing his professional education in the United States, he worked in the Detroit District of the Corps of Engineers, spending a good deal of time on designs of facilities in support of new missile systems. He applied for a position in Germany and was accepted; but when he arrived in September 1956, the job had been eliminated. He followed a suggestion and called Camblor, who immediately offered him a position with USACAG. Friesch spent most of the rest of his career in Europe, working with USACAG and its successor and then with NATO in Brussels, from which he retired in 1990.[17]

Like Friesch, Louis Brettschneider had been looking for a way to work in Europe. After graduating from college in 1944, Brettschneider had joined the U.S. Merchant Marines. A job with the Joint Construction Agency in Paris disappeared, but he too found his way to Frankfurt; he joined USACAG in December 1956. A technical engineer of considerable ability, Brettschneider continued with USACAG's successor organizations into the 1990s.[18]

For every Department of the Army civilian (DAC), USACAG's staff included two Germans (local nationals) in professional and clerical support capacities. The Germans' reasons for seeking jobs with the U.S. military varied. Some, like Hasso Damm, developed a sense of loyalty and a strong commitment to the organization. A young student already trained in classical Greek and Latin, Damm hoped to earn money to continue his studies in law when he took a job as an estimator with USACAG in mid-September 1956. In addition to his academic interests, Damm was also a qualified stonemason, which gave him a range of practical experience that served him well as USACAG's first estimator.[19] Because USACAG had no legal branch, Camblor asked Damm to research legal issues associated with applying the *Dollarbaukontrakt* under which U.S. military construction operated. In addition to his estimating work, Damm conducted the legal research, although he never returned to his formal studies. He stayed with USACAG and came to head the Estimating Section that developed.[20]

Another young German who obtained employment with USACAG followed a different path. Georgi Reitzel received an engineering degree in 1949. Because of the limited opportunities for professional employment in Germany, he spent several months working as a construction laborer and carpenter. Hired as a draftsman for the Army at Tompkins Barracks in Schwetzingen, Reitzel made a deal to teach one of his superiors German in exchange for English lessons. In 1956 he was working at Headquarters Area Command in Heidelberg, and he became one of the first appointees to USACAG's Engineering Division. In March 1962 Reitzel left USACAG to form his own contracting firm. Over the next thirty-five years he won a variety of contracts from USACAG and its successors, from NATO, and from West German government construction agencies. Reitzel considered his experience at USACAG fundamental to his later success in business.[21]

Germans employed by the U.S. military came under different work rules than those applied to DACs. These work rules changed as West Germany emerged from the occupation. Between 1948 and 1952 post commanders were responsible for the salaries and social insurance surcharge for all personnel paid in Deutschmarks. Beginning on 1 July 1952, the United States paid each employee's wages to the German *Länder* (states). The *Länder* then disbursed the funds.[22] In 1954 the United States accepted an agreement that affirmed the right of German workers to belong to unions. The agreement exempted U.S. forces from German civil laws that mandated "works councils" in industry. USAREUR, however, authorized works councils for its organizations employing Germans, limiting their

scope to the consultative role of making suggestions and presenting grievances and complaints on working conditions.[23]

USAREUR negotiated the terms of the local nationals' employment with the Federal Republic for all its subordinate organizations, including USACAG. In 1955 allied forces in Germany agreed to establish uniform pay schedules and policies and a 48-hour, six-day workweek as standard for all German employees. In August 1957 USAREUR introduced a 45-hour, five-day workweek.[24]

Because so many German nationals joined USACAG at the start, their influence in the small organization was significant. Many stayed with the Army engineers for their entire careers, despite improved employment opportunities in Germany. The German employees felt they were valued as an integral part of the organization. Many American professionals viewed their German coworkers as the key to continuity in the organization and as a vital element in USACAG's operation.

USACAG had offices in an old, two-story, wooden, prefabricated building behind the officers' club at the rear of the I. G. Farben building in Frankfurt.[25] Camblor set up the organization on the model of a stateside Corps of Engineers district, where the office of director was comparable to that of a district engineer. Camblor and his deputy, at the outset a lieutenant colonel and later a full colonel, were the only authorized contracting officers. Camblor operated with a small special staff, an advisory and administrative staff to support the organization as a whole, and a technical staff to supervise design and construction.[26] (*Chart 6*)

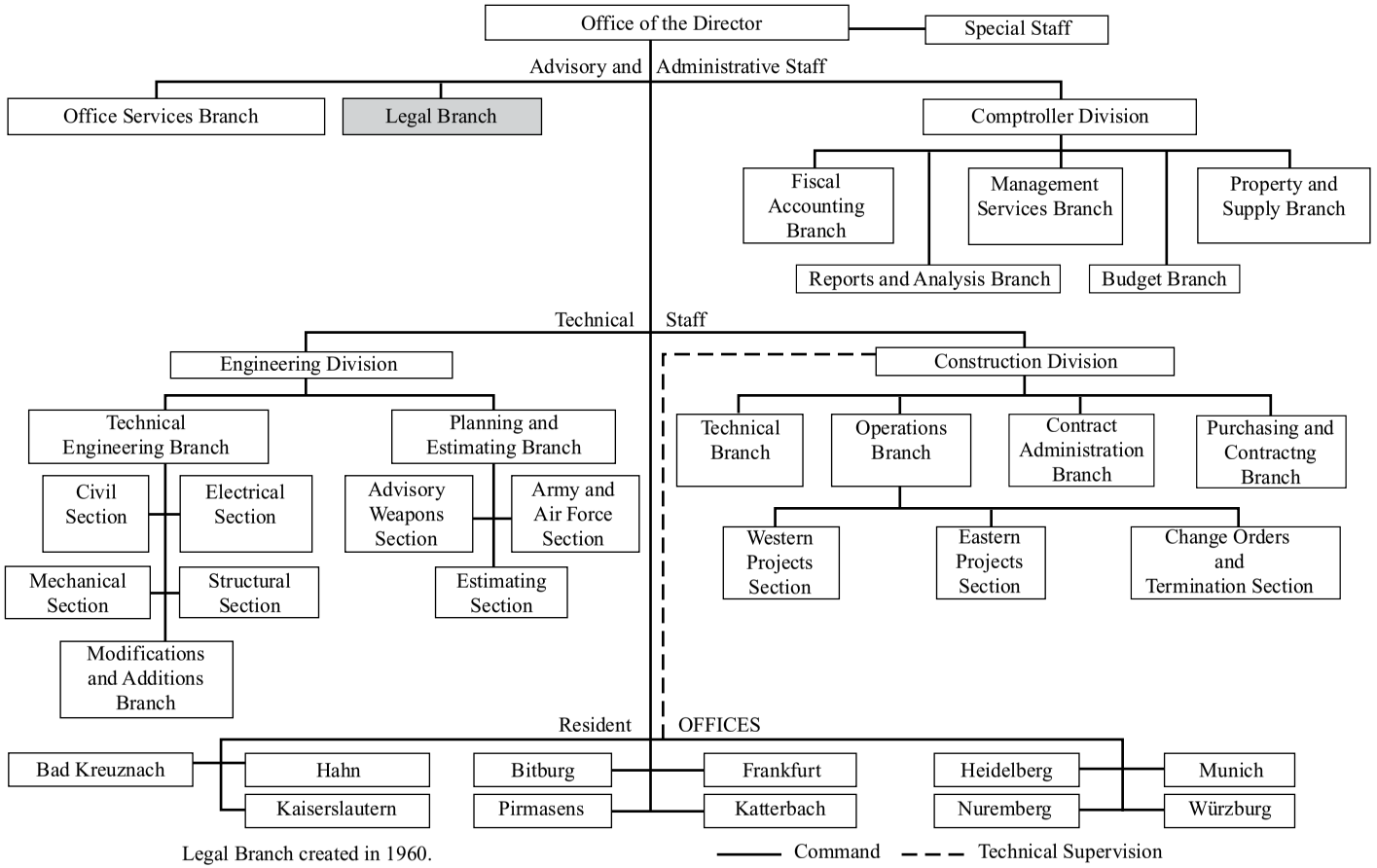
USACAG's assigned task was to execute the Army's (and later the Air Force's) construction programs within the entire Federal Republic of Germany. This marked a contrast with the area commands, which had handled Deutschmark construction on a regional basis. For fiscal year 1957 USACAG executed 35 percent of the construction projects budgeted by USAREUR. Repair and utilities agencies handled 60 percent of the projects, and troops and combat engineer units handled the remaining 5 percent. By 1960 USACAG, at the direction of the commander in chief of USAREUR, had taken on responsibility for construction in other areas of Europe beyond Germany.[27]

USACAG Projects

The projects under Deutschmark funding included community support facilities and family housing.[28] In fiscal year 1957, USACAG's first year of operation, Congress cut the appropriated funds for Military Construction, Army, from a projected total of $11.5 million to around $2.2 million and reduced the number of projects from twenty-eight to nine. Total construction placement, including projects using Deutschmark funds, amounted to around $5 million for the year.[29]

In December 1957, reacting to the military implications of the Soviet launch of *Sputnik*, the NATO Council decided that "stocks of nuclear warheads would be established in Europe and … nuclear delivery weapons,

Chart 6: Organization of U.S. Army Construction Agency, Germany (USACAG), ca. 1961, Depicting the New Legal Branch and Eleven Resident Offices



including intermediate-range ballistic missiles, would be placed at the disposal of SACEUR [Supreme Allied Commander, Europe]."[30] To implement this decision, the United States increased its defense spending. Work on missile sites and installations became a main part of USACAG's construction program. Construction placement more than doubled for fiscal year 1958, to $11.6 million, as the organization assumed responsibility for construction to support the new weaponry. In fiscal year 1959, the first year of the Nike air defense missile program, construction placement rose to $13.6 million. By fiscal year 1961 it had reached about $19 million as the Hawk and the Mace missiles were also introduced into Europe.[31]

By September 1961 USACAG's backlog of authorized but unbuilt construction totaled $95 million, of which only $16 million was supported with appropriated dollars. The balance ($79 million) was funded by the Germans, principally under the Alternate Construction Program, or by NATO. The U.S. military budget initially funded construction for the Nike, Hawk, and Mace missiles. Subsequently, a substantial portion of the construction for the missile programs qualified for financing under the NATO Common Infrastructure Program and funding for the Nike installations shifted to the NATO budgets.[32]

NATO's Common Infrastructure Program paid for construction of fixed structures and elements of any military installation necessary to support forces committed for the common defense of Europe. The expense was justified as a collective investment for all the nations of the alliance. USACAG worked through the Common Infrastructure Program on projects where U.S. forces would use the facilities.[33] The infrastructure program paid for design and construction; the host nation (on whose territory the installation would be located) acquired the land and provided local utilities. The United States, whose forces assigned to NATO would occupy the facilities, took responsibility for maintenance and for financing any construction features that exceeded NATO criteria.[34]

The construction program for the Nike missiles was the first large NATO program in Europe. The Nike missile, about a foot in diameter and twenty feet long and armed with an explosive warhead, was designed as an all-weather antiaircraft ground-to-air missile with a range of about twenty-five miles. The Nike installation site had four components: the launching area, an electronic command and control center, a radar installation for tracking incoming aircraft, and housing for the troops manning the facility. These components were located within a total area of about thirty acres, but the control area could be as far as five miles away from the launching area. One of USACAG's critical responsibilities was site selection, because the control and launching areas required unobstructed line of sight between them.[35] By the end of the Nike program, USACAG had built some two dozen sites using definitive drawings developed by the Advanced Weapons Section headed by Paul Friesch. These drawings provided the basis for all of the Nike sites eventually built by NATO in Norway, Denmark, Germany, Italy, Greece, and Turkey.[36]

While construction of the Nike installations was still in progress, the United States began the Hawk missile program—also for NATO—and USACAG had construction responsibility in Germany. The Hawks were ground-to-air missiles designed to bring down low-flying aircraft. Eventually about 100 installations were built.[37] Hawk facilities required only about half the space of Nike sites because the structures were concentrated in one location. USACAG also supervised contracts with architect-engineer firms designing Mace missile sites for the Air Force. Air-breathing subsonic Mace missiles were designed for underground shelters capable of surviving an atomic attack and thus allowing a retaliatory strike. Despite the design, the first sites built in Germany were at ground level. Construction for all these weapons systems required attention to the special requirements of sensitive electronic equipment.[38]

In 1958 USACAG also began work on storage sites for atomic and chemical weapons. Other storage sites, built with a humidity control system, warehoused equipment pre-positioned for use by troops who would be flown from the United States to Europe in case of emergency.[39] These new storage sites addressed a major tactical-logistical concern by providing dispersed depot facilities to replace storage heretofore concentrated west of the Rhine during the buildup immediately after the Korean War. The new depot complexes consisted of two major components: a large earth-covered warehouse with a storage area of about 20,000 square feet and a series of about fifteen 2,000-square-foot storage igloos that were highly blast-resistant and distributed over protective terrain. The original construction plan called for nine such depots.[40]

The warehouses created particular problems in community relations. To keep the potentially hazardous materials away from population centers, the warehouses were located in what amounted to public parks—forest areas that Germans valued greatly. Of twenty-one sites considered for the warehouse facilities, eight were finally selected as appropriate. Selection did not mean final acquisition, however. The German state governments owned all the sites in question; they showed great reluctance to turn them over to the U.S. military because it meant a diminution of their forest areas. By October 1961 only two warehouses had been completed, a third was close to completion, and three additional facilities were scheduled for completion by March 1962. Two of the sites still had not been acquired because the community opposed the installations. The Army finally sought expropriation of the land in question, and the governments eventually acquiesced. Once a site became available, USACAG needed eight months to complete the construction.

In November 1960 the German government granted USACAG permission to survey sites for six groups of storage igloos. By grouping up to fifteen igloos in each site, USACAG achieved its goal of locating seventy-four igloos on only five sites. In June 1961 the German government gave permission to proceed with construction at the five sites with the condition that each site be secure from accident or intrusion. The Army agreed, and USACAG designed fencing and fire protection for each area.

The security features added about $27,000 to the cost of each site. Costs averaged another $350,000 each for the warehouses and about $870,000 for each igloo area.[41]

While USACAG supervised this work in Germany, the United States Construction Agency, France (USACAF), managed construction of similar storage facilities near Metz, France. An engineer captain, James C. Donovan, aided by a team of French and American technical specialists, supervised construction.[42] At each site, the French contractor excavated into the side of a hill, set out forms, and poured concrete over reinforcing steel rods. As a young engineer, Donovan was impressed by the quantity of reinforcing rod that went into the structure. "That re-bar was so close and there was so much steel in those walls and in that roof" that it could withstand a significant blast. In addition, the doors had a sensing device that would feel the shockwave of a nearby explosion; trigger a release mechanism; and automatically close the mammoth steel doors, which were "12 or 16 inches deep and extending clear across the entire opening."[43]

USACAG received orders to include these sensitive storage sites in a major electronic radio network called *troposcatter*, a vast communications system that ran 8,300 miles from northern Norway to eastern Turkey. Its eighty-two sites were completed by 1963.[44]

A substantial share of USACAG's work came from the Alternate Construction Program, sponsored by the Federal Republic of Germany. In 1949 local communities had offered to construct alternate facilities for U.S. troops in exchange for the return to its German owners of property previously requisitioned.[45] During the final years of the Deutschmark construction, the Alternate Housing Program provided 3,228 units of family housing for U.S. military personnel. Once the occupation ended in May 1955, continued American use of requisitioned property became even more irritating to the Germans. The two countries resolved the issue with an accord negotiated in 1957 and 1958, whereby the Federal Republic agreed either to buy a requisitioned facility and make it available for use by the U.S. forces or to construct an alternate facility.[46] In August 1960 USAREUR's commander in chief, General Clyde D. Eddleman, and West Germany's defense minister, Franz Josef Strauss, signed an agreement that extended the Alternate Construction Program to facilities not acquired by requisition but wanted by the Federal Republic. German government agencies and contractors accomplished all work under the Alternate Construction Program, with the U.S. military user setting specifications for the new facilities.[47]

The 1960 agreements covered five projects. The Germans constructed about 1,000 family housing units at various locations in West Germany in exchange for the release of about the same number of units. They also rehabilitated and built new facilities at the Illesheim Caserne (completed in 1969) and rehabilitated the former quartermaster installation in Giessen for use by the European Exchange Service (later Army and Air Force Exchange Service). The 4th Armored Division vacated facilities in Ulm for the Germans and received renovated facilities formerly used by

the European Exchange Service in Katterbach. The Germans provided alternate facilities in the Nuremberg–Munich area for administrative and support units in return for American release of the Palace of Justice in Nuremberg and the main customs office and other facilities in Munich.[48]

The Berlin Crisis of 1961

USACAG, like other American military organizations in Europe, owed its very existence to the Cold War. This rationale was never more dramatically evident than in the intensity of USACAG's involvement in Operation Bamboo Tree in Berlin, a program designed to prepare West Berlin for an airlift if the Soviet Union imposed a second blockade.[49]

West Germany's growing participation in NATO made the leaders of the Soviet Union exceedingly uneasy. Their unease only intensified when, after the Soviets launched *Sputnik*, West Germany agreed to station tactical nuclear weapons on its territory. Each time Soviet Premier Nikita Khrushchev provoked a crisis over Berlin, he warned West European nations that they were risking nuclear annihilation in the event of a war between the United States and the Soviet Union. Far from disrupting NATO, as Khrushchev had hoped, the series of threats to Berlin prompted Britain, Italy, and Greece to authorize the installation of American medium-range missiles in their countries in the summer of 1959.

Two years later, in June 1961, Khrushchev met in Vienna with the new U.S. president, John F. Kennedy. At that meeting and in subsequent exchanges, Khrushchev demanded a German peace treaty, the end of allied occupation of Germany, recognition of East Germany as a state, and establishment of West Berlin as a "Free City," undefended by Western military units. In the absence of a satisfactory settlement, Khrushchev threatened to sign a separate peace treaty with the German Democratic Republic on 1 January 1962 and turn over full control of Berlin to the East Germans. Kennedy responded by requesting that Congress appropriate an additional $3 billion for defense spending and by doubling draft quotas to increase the size of the Army.

As tension over Berlin mounted during the summer of 1961, thousands of East Germans fled from Communist rule simply by passing into the western sector of the city and asking for assistance to fly from there to the West. A total of 22,000 refugees fled in the first twelve days of August 1961.

At 2:00 a.m. on 13 August 1961, under cover of darkness, the East German regime imposed its solution to this drain. Soldiers strung barbed wire barriers along the entire line separating the western sectors from East Berlin. Over the next several days, troops erected a formidable wall of concrete and barbed wire guarded by watchtowers, dogs, and soldiers who had orders to shoot anyone trying to escape. With all eyes on the Berlin Wall, the West and the East seemed poised on the brink of war.

President Kennedy's overt reaction was limited to rhetoric and military mobilization, and he took no steps to remove the wall. Secretly,

however, he ordered Operation Bamboo Tree. In September 1961, as part of this covert operation, the Air Force instructed USACAG to improve the landing and navigational facilities available at West Berlin's three zonal airports—Tegel, Gatow, and Tempelhof—and at several specific airfields in West Germany. The orders, attributed to Secretary of Defense Robert McNamara, stated that nothing was to stand in the way of the "timely completion" of this mission. USACAG's staff interpreted the charge quite broadly.

Camblor immediately set up an office in West Berlin and surveyed the needs of the airports. USACAG's Engineering Division became the coordinating point for Operation Bamboo Tree. Ignoring the normal process of paperwork and requisition, USACAG engaged architect-engineer firms in West Germany and construction firms in West Berlin. Design engineers in Frankfurt worked through many nights that autumn preparing drawings and specifications. USACAG engineers literally pulled the designs off the designers' drawing boards, flew to West Berlin, and handed the project specifications to the construction companies mobilized for the job. Bidding was done on the spot. For the most important building, the base for a tower that would house two large generators, Saul Fraint traveled to Berlin with the design drawings. "I gave them these three sheets—that's all there were—and said, 'We need bids on this building. It's for a very important project'—and they knew what it was for—'day after tomorrow.'" He remained in Berlin to receive the bids, compared them, and awarded the contract to Philipp Holzmann, A.G., to start work the next day.[50]

USACAG managed construction at all three allied airfields with good cooperation but little material help from the French and the British. Air Force construction troops and American firms were also involved. Contractors worked around the clock. Support from the West Berliners—who had a clear appreciation of what was at stake—was outstanding. As Khrushchev's 31 December deadline approached, Fraint and Louis Brettschneider sought a meeting with the director of Siemens and his managers to appeal for their support and supervision of a very delicate installation of electrical cable. Fraint and Brettschneider explained that completing the job on time would demand work straight through the Christmas holiday. After listening to their appeal, the director of Siemens replied, "I understand the need, and I will be there on Christmas Day." He then turned to his managers and asked, "Who will join me?"[51]

The same spirit of cooperation that prevailed in the Siemens' boardroom extended to the construction site. About two weeks after construction began on the building to house the generators, Fraint learned that the equipment ordered by the Air Force would not be available on schedule because of a labor dispute in the United States. The Air Force located substitute generators, but they were too long to fit into the building as designed. Rather than take time to redesign, Fraint and Brettschneider flew to Berlin and went to the construction site, where the contractor was about to lay the foundation for the back wall of the building. They

paced off an additional five meters and asked the construction crew to change the specifications on the spot. According to Fraint, the foreman said, "Yes, Sir!" To everyone's relief, when the generators arrived they fit into the redesigned building. By 1 January 1962, the essential work was done. The crisis had also eased. Operation Bamboo Tree remained in the memory of those involved as a period of intense activity and a source of great satisfaction.[52]

From USACAG to Engineer Element

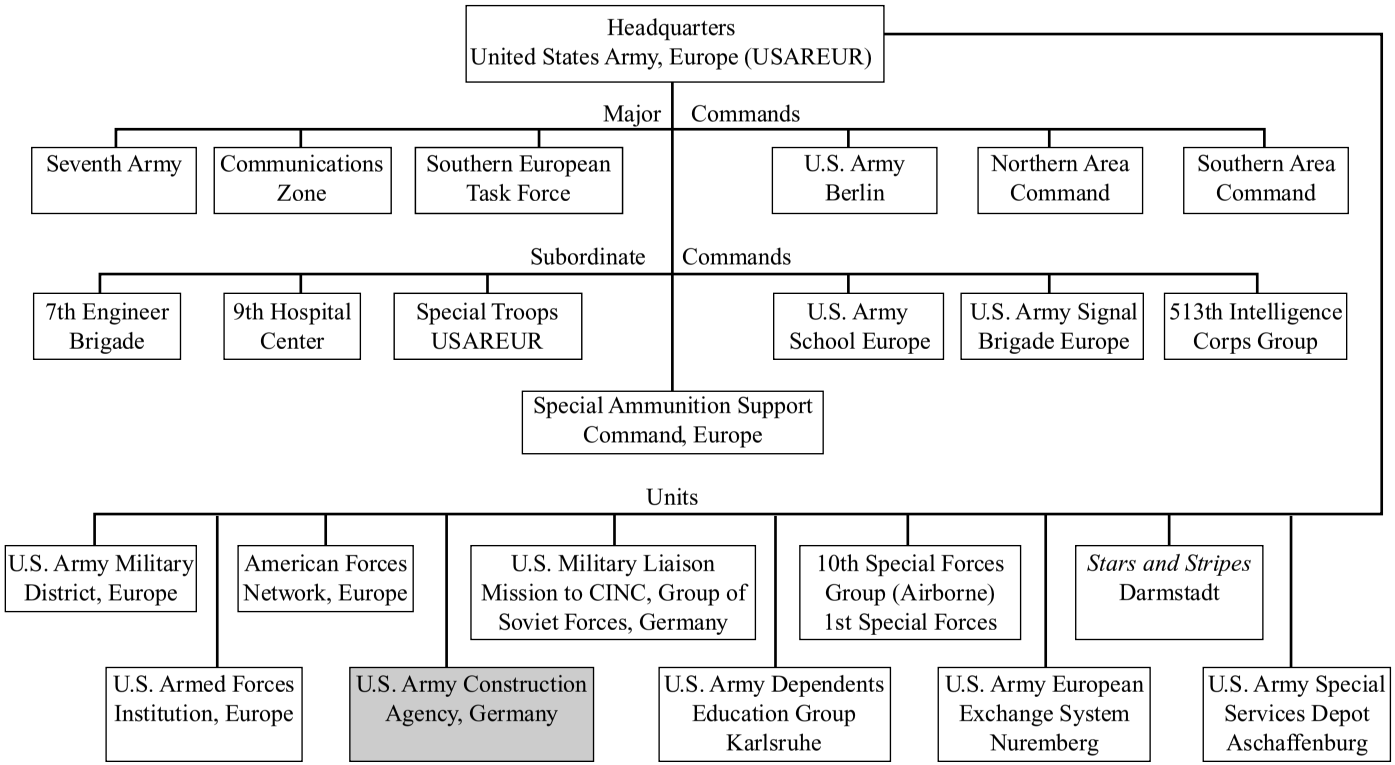
In August 1962, after a record year in construction placement, William Camblor took a year's leave to study at the Industrial College of the Armed Forces at Fort McNair in Washington, D.C. One of five civilian employees of the Department of the Army admitted into the program, he felt it would enhance his credentials. Already a GS–15, he had been recommended for promotion in 1959 but had not received the higher grade. The year at the Industrial College seemed to be an opportunity to advance his career.

About the time Camblor left for Washington, USAREUR reexamined its organization of engineer resources. (*See Chart 7.*) With work declining in France, the maintenance of separate construction organizations for France and Germany seemed a costly duplication. At the same time, some of the colonels who served under Camblor in USACAG bridled at being subordinate to a civilian. They made their feelings clear to the USAREUR engineer in Heidelberg and found a sympathetic ear when Brig. Gen. Howard A. Morris took over that office in January 1963. Morris, who had served as post engineer in Frankfurt in 1946–1947, felt strongly that an engineer officer should direct military construction.[53]

USACAG had been one of several distinctive agencies the Department of Defense organized in the 1950s to manage military construction. In addition to the Joint Construction Agency and its successor, the United States Army Construction Agency, France, the Army activated in 1956 the United States Army Construction Agency, Korea (USACAK), and the United States Army Construction Agency, Japan (USACAJ). In the Pacific the experiment had been short-lived. In a scant year, control of the contract construction resources for the military passed from theater commanders to the chief of engineers in Washington. USACAK and USACAJ were inactivated in June 1957 and their functions taken over by the newly formed Pacific Ocean Division of the Corps of Engineers.[54]

The construction agency in France also disappeared. In October 1961, with the volume of construction declining, a smaller entity, the United States Army Field Engineer Office, France, replaced USACAF. Of the special organizations created in the 1950s to manage U.S. military construction, only USACAG in Frankfurt survived. As the workload in France declined, USACAG's workload increased through the late 1950s, reaching its peak in 1962 at $40 million, more than five times its dollar volume in 1957.[55]

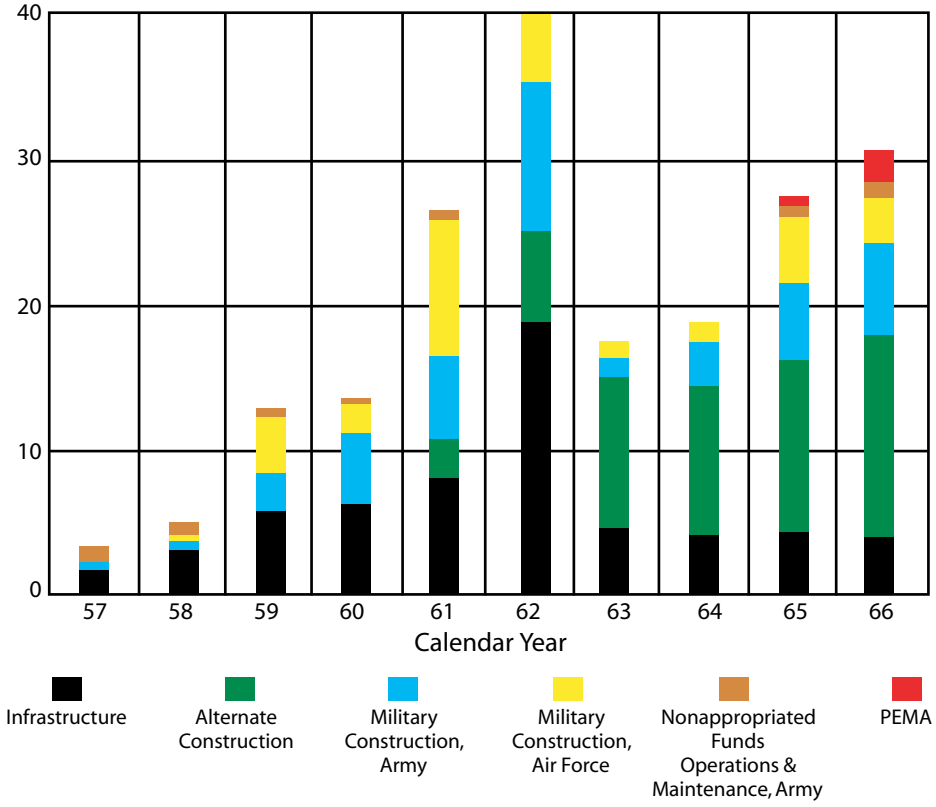
Chart 7: Organization of Headquarters, U.S. Army, Europe, 1963, Just before the Dissolution of USACAG



USACAG outlasted the other construction agencies, but as an organizational anomaly. It had always been unusual because a civilian served as director. Several factors conjoined to bring on its demise: Camblor's leave of absence during most of 1962 and 1963, USAREUR's study of engineer resources, a Department of Defense study urging consolidation of construction activities, the declining volume of work in France, and the elimination of all other construction agencies. Camblor's deputy, Col. Paavo Carlson, became acting director of USACAG; by June 1963 Carlson was signing documents as director.[56] USAREUR appointed another military officer, Col. Ed Streck, to succeed Carlson. Camblor completed the program at the Industrial College and continued his studies for several months in Washington, earning a master's degree in business administration. By the time he was ready to return to Germany, USAREUR had decided to reorganize its engineer activities.[57]

Camblor returned to Europe in September 1963 to serve in the USAREUR engineer's office in Heidelberg, not to his former position in Frankfurt. Camblor accepted a new position as Morris' special assistant because he judged that serving at a higher headquarters might enhance

Figure 2: Annual Construction Placement of the U.S. Army Construction Agency, Germany, and the Engineer Element, 1957–1966



his opportunity for promotion; but many of his civilian colleagues viewed Morris' offer as a device to remove him to install a military officer as USACAG commander.[58] In February 1964 USAREUR consolidated USACAG with the U.S. Army Field Engineer Office, France, to form a new entity, the Engineer Element.[59] (*Figure* 2)

The Engineer Element inherited USACAG's offices in Frankfurt and its staff. A subordinate command of the USAREUR engineer, it supervised dollar-funded military construction in Germany, France, and the Benelux countries; monitored NATO construction and construction programs financed from other sources; and provided professional and technical engineering services to other USAREUR elements. For USAREUR, the Engineer Element managed Operations and Maintenance, Army, design-engineering projects costing between $25,000 and $200,000. USAREUR assigned projects costing under $25,000 or involving no design to its post engineers. In October 1965 USAREUR transferred management of real estate to the Engineer Element. Since the end of World War II, major subordinate commanders at the area level had handled real estate operations. Late in 1964 USAREUR had centralized these responsibilities under the Army Area Command, with headquarters in Munich; a year later the function and a staff of about eighty people passed to the Engineer Element.[60]

The change from a civilian director of USACAG to an Army colonel commanding the Engineer Element made little difference in the day-to-day work on such activities as Nike and Mace missile installations, troposcatter, NATO infrastructure, Alternate Construction, and other programs and projects. Many long-term employees hardly remembered the Engineer Element as a distinct organization. When interviewed twenty-five years later, only one person other than Camblor could recall by name the colonels who commanded it from 1964 to 1966.

During an eight-year existence, USACAG achieved a distinguished history. It had overseen the installation of missile sites and construction of storage facilities to support atomic weaponry as NATO expanded its military capabilities in the 1950s. It had responded to the challenge of the Berlin Wall by preparing Berlin to receive supplies by air if the Soviet Union tried to impose a second blockade. It had the unique distinction among military construction agencies of being commanded by a civilian. USACAG ceded place in 1964, but its successor, the Engineer Element, gave way in 1966 to the Engineer Command, a unique organization that brought together all engineer resources in the European Theater for the first time.