

## NOTES

[The rank given in the notes is the highest rank attained. Career assignments are a representative sample and are not meant to be complete: For further information on West Point graduates, see the Register of Graduates and Former Cadets, United States Military Academy, published annually by the Association of Graduates.]

1. The interviewee's father, MG Walter K. Wilson, Sr. (1880-1954), graduated from the USMA in 1902 with a commission in the Artillery Corps. He served on the War Department General Staff (1917-1919), as an executive officer at West Point (1929-1935), and as Commander, Western Defense Command (1940-1942). After retiring in 1944, he immediately returned to active duty as Director of Army Emergency Relief, a position he held until his "second" retirement in 19510
2. Geronimo (1829-1909) was an Apache warrior who led raiding parties to protest the forced removal of his tribe from their Arizona reservation. Captured in March 1886, Geronimo and his followers finally ended up at Fort Sill as prisoners of war.
3. In military slang, "Manchu law" refers to a law or regulation designed to require active service with troops and to prohibit lengthy assignments to desirable positions or locations.
4. LTC John N. Wilson (1913-1944), the interviewee's brother, graduated from the USMA in 1935 with a commission in the Field Artillery. He commanded the 219th Field Artillery Battalion of the 35th Division and was killed in Normandy in July 1944.
5. William L. LaFollette (1860-1934) served as a Republican in the House of Representatives (1911-1919). Robert M. LaFollette (1855-1925) was governor of Wisconsin (1901-1906), U.S. senator from Wisconsin (1906-1925), and an unsuccessful candidate for President in 1924.
6. COL Charles Keller, Jr. (b. 1908) graduated from the USMA in 1930. He commanded the 1135th Engineer Combat Group, Third Army, European theater of

operations (1944-1945), and later became Engineer of the VIII Corps, Third Army. His father, BG Charles Keller (1868-1949), graduated from the USMA in 1890.

7. Because of a shortage of men needed to garrison its stations both in the United States and overseas, the Coast Artillery Corps placed Fort Rosecrans in a caretaker status in 1922. The 28th and 115th Companies of the Corps were stationed there at the time Wilson, Senior, took command.
8. Fort Ruger is located on the slopes of Diamond Head on the island of Oahu.
9. Established in 1908, 25 miles from Honolulu, Schofield Barracks served as an Army training camp and was the site of an officer candidate school.
10. The reference is to Wilson's classmate, COL Horace F Sykes, Jr. (b. 1907), who served in the Panama Canal Zone (1939-1943); in General Headquarters, Far East Command (1945-1948); and as a member of the National Munitions Board (1949-1952).
11. LTC Walter K. Wilson III (b. 1937) graduated from the USMA in 1960 with a commission in the Infantry. He later transferred to the Corps of Engineers. He served with the Military Assistance Advisory Group in China (1967-1969), and was on the faculty of the engineering department at the USMA (1971-1975) before moving to Louisville Engineer District as deputy district engineer (1975-1978). Since 1980 he has been the Engineer at the 21st Support Command installation in Manheim, Germany.
12. LTC James T. Barber (b. 1904) entered the Coast Artillery Corps upon graduation.
13. The reference is to GEN Omar N. Bradley (1893-1981), a classmate of Eisenhower, who graduated from the USMA in 1915. During World War II Bradley commanded II Corps in Tunisia and Sicily, and the First Army and 12th Army Group in the ETO. He went on to become Chief of Staff, U.S. Army (1948-1949), and Chairman, Joint Chiefs of Staff, U.S. Army (1949-1953).
14. MG Edmund C.R. Lasher (b. 1906) served in the Office of the Quartermaster General (1939-1942),

the Office of the Chief of Transportation (1942-1944), and as Commandant, The Transportation School (1952-1954). He retired in 1958.

15. COL James J. Winn (b. 1907) served as Commander of the 955th Field Artillery Battalion in the ETO (1944-1945) and as a member of the Korean Military Advisory Group (1953-1954) before retiring in 1959.
16. MG Frank D. Merrill (1903-1955) commanded "Merrill's Marauders," a composite unit of 3,000 volunteers that infiltrated enemy lines in Burma and won all of their 5 major and 30 minor engagements in 1944. After the war Merrill served as Chief of Staff, Tenth and Sixth Armies before retiring in 1948. He was Commissioner of Public Works and Highways for the state of New Hampshire from 1949 until his death.
17. As an infantry officer, COL Charles N. Hunter (1906-1978) commanded the 5307th Composite Unit in the 'China-Burma-India theater. Later he served on the faculty of the Armed Services Staff College (1951-1954). He retired in 1959.
18. GEN Frederick H. Smith, Jr. (1908-1980) became Commander in Chief, U.S. Air Force, Europe (1959-1961), and Vice Chief of Staff, U.S. Air Force (1961-1962).
19. LTG James M. Gavin (b. 1907) commanded the 82d Airborne Division (1942-1948) and was Commanding General of VII Corps, Europe (1952-1954). After retiring in 1958, he served as ambassador to France (1961-1962). GEN Paul D. Harkins (b. 1904) was Commandant of Cadets at West Point (1948-1951) and served as Commanding General, Military Assistance Command, Vietnam, and Military Assistance Command, Thailand, for his last two years on active duty (1962-1964). GEN William F. McKee (b. 1906) held several key staff positions in the Air Force before becoming Vice Chief of Staff in 1962. He served in that post until his retirement in 1964. MG Robert W. Ward (b. 1905) served in Europe and the Mediterranean during World War II. His last assignment was as Chief of Staff at Headquarters, Allied Forces Southern Europe (1960-1962). MG Alvin G. Viney (1905-1962) was Deputy Commanding Officer and Chief of Staff in the Advanced Section, ETO Communications Zone (1944-1945), 7th Army

Engineers, Europe (1952-1953), and Deputy Chief of Engineers for Military Operations, OCE (1957-1959). BG John L. Person (1907-1968) held several positions in OCE (1941-1943), including Chief, Military Construction Branch. He then served in the ETO and was Commander of the Military Pipeline Service and Deputy Chief Engineer of the theater (1944-1946). After the war he was Louisville District Engineer (1948-1950) and Ohio River Division Engineer (1954-1956). He completed his career as Acting Assistant Chief and then Assistant Chief of Engineers for Civil Works (1956-1959). GEN Paul L. Freeman, Jr. (b. 1907) became Commandant of the Infantry School and Commanding General, The Infantry Center (1958-1960), and was Commanding General, Continental Army Command (1965-1967).

20. BG George A. Lincoln (1907-1975) served as professor of social sciences, USMA (1947-1969) and as chairman of the department (1954-1969). After retiring in 1969, he headed the Office of Emergency Preparedness until 1973. His younger brother, LTG Lawrence J. Lincoln (b. 1909), graduated from the USMA in 1933 and was known as 'Little Abe.' But George Lincoln was actually smaller than his brother, hence, Wilson's observations about the elder brother: "'Big Abe' we called him, although he was 'little Abe.'"
21. BG William A. Mitchell (1878-1941) graduated from the USMA in 1902 and served as assistant professor (1907-1911) and professor (1922-1938) in the Engineering Department at the USMA.
22. COL Gerald E. Williams (d. 1949) graduated from the USMA in 1931. He commanded the 391st Bombardment Bomber Group in the European theater (1943-1945).
23. COL William D.A. Anderson (d. 1934) graduated from the USMA in 1904 with a commission in the Corps of Engineers. He was Assistant Commandant and Commandant of the Engineer School (1924-1928) and District Engineer, Mobile (1928-1932).
24. COL Benjamin C. Fowlkes, Jr. (1903-1978) graduated from the USMA in 1925. He was Commanding Officer, Granite City Engineer Department (1950-1952), and Commander, 7th Engineer Aviation Brigade (1952-1955).

25. MG Stephen R. Hanmer (1910-1973) graduated from the USMA in 1931. He served as Commanding General, Fort Belvoir (1961-1962); and Chief, Office of Personnel Operations, Department of the Army (1962-1964).
26. MG Campbell King (1871-1953) graduated from Charleston College and later from the Infantry and Cavalry School in 1905. He retired in 1933 following his last assignment as Commandant, Fort Benning.
27. MG William A. Carter, Jr. (b. 1907), graduated from the USMA in 1930. He was Engineer, First Army, ETO (1944-1945); and Governor of the Canal Zone and President of the Panama Canal Company (1960-1962).
28. BG Bruce D. Rindlaub (1904-1959) graduated one file behind Wilson in the class of 1929. During World War II he served in Headquarters, Services of Supply (1944) and as Engineer at the New Guinea Base Section, Southwest Pacific Area (1944-1945). He was Engineer of Far East Command general headquarters (1945-1949); commanded the 7th Engineer Brigade, U.S. Army Europe (1956-1958); and served his last assignment as Commanding General, U.S. Army Engineer Maintenance Center (1958-1959).
29. CAPT Francis E. Cothran (b. 1898) graduated from the USMA in 1922. After serving with the 11th Engineers in the Canal Zone (1923-1926), he was detailed briefly to the Air Corps (1926-1927) and later served in the St. Paul and Galveston Districts (1934-1936). His last assignment before retiring in 1939 was as Company Commander, 6th Engineers, at Fort Lawton, Washington.
30. Established in March 1933 as a New Deal work relief agency, the Civilian Conservation Corps (CCC) provided jobs (for males between the ages of 18 and 25) in reforestation, road construction, soil erosion prevention, and national park and flood control projects. Engineer officers served as project directors.
31. In 1930 the Corps of Engineers established a hydraulics laboratory--the Waterways Experiment Station--at Vicksburg, Mississippi. LT Herbert D. Vogel was the first director. Initially the station constructed a model of the Illinois River

in order to determine the backwater limits of the Mississippi River. The success of this project led to a second model, which, when completed in 1935, reproduced 600 miles of the lower Mississippi River. The practice of assigning young lieutenants to the Experiment Station for the period between graduate study and assignment to the Engineer School at Fort Belvoir began in the summer of 1931.

32. GEN William C. Westmoreland (b. 1914) became Superintendent of the USMA (1960-1963); Commander of the Military Assistance Command, Vietnam (1964-1968); and Chief of Staff, U.S. Army (1968-1972). GEN John L. Throckmorton (b. 1913) served as Deputy Commander under Westmoreland in Vietnam (1964-1965), Commanding General of Third Army (1967-1969), and Commanding General of Strike Command (1969-1973). LTG Frederick J. Clarke (b. 1915) served as Chief of Engineers (1969-1973). GEN Creighton W. Abrams, Jr. (1914-1974), succeeded Westmoreland as Commander of the Military Assistance Command, Vietnam (1968-1972), and as Chief of Staff, U.S. Army (1972-1974).
33. GEN Andrew J. Goodpaster (b. 1915) graduated from the USMA in 1939. He served as Supreme Allied Commander, Europe (1969-1974); retired in 1974; and returned to active duty as Superintendent of the USMA (1977-1981).
34. The text was Design of Concrete Structures by Leonard C. Urquhart and Charles E. O'Rourke, first published in 1923.
35. In June 1935 the Corps of Engineers began **constructing the Passamaquoddy Tidal Power Project** on Cobscook Bay near Eastport, Maine, with an initial allotment of \$10 million in federal emergency relief funds. From its inception the project suffered not only because of its dual work-relief/hydroelectric power nature but also because of the tremendous engineering and administrative problems and escalating costs. The next year Congress blocked further emergency relief funds for "Quoddy" and for the Cross-Florida Canal, another work-relief project undertaken by the Corps. When the Corps began demobilization at Quoddy in July 1936, **only** three small dams and limited excavation for the powerhouse were complete. The research on the region's special

engineering problems carried on **by** Wuerple and others was one positive achievement of the Corps' involvement at Quoddy.

36. Charles E. Wuerple (b. 1906) 'was a civilian engineer with the Corps of Engineers (1929-1948). His last assignment before leaving the Corps in 1948 to become technical director of the Marquette Cement Manufacturing Company in Chicago was as Chief of the Concrete Research Division, Corps of Engineers. He lectured widely on concrete technology, including at the USMA (1938-1941).
37. After its founding in 1881 as the School of Application for Infantry and Cavalry, the Command and General Staff School at Fort Leavenworth, Kansas, went through several reorganizations. Courses fluctuated from one to two years in length depending on the demand for graduates. Between the wars, the school graduated nearly 4,500 officers from the Regular Army National Guard, and Reserves. The school's mission was to provide instruction that would prepare officers for duty in staff and command positions and, given lessons learned and recent developments, to ensure improvement in such areas as intelligence, tactics and logistics, and the employment of field forces. After World War II, the school became known as the Command and General Staff College.
38. GEN Thomas D. White (1901-1965) graduated from the USMA in 1920 and served as Chief of Staff, U.S. Air Force, from 1957 until his retirement in 1961.
39. BG James W. Green, Jr. (b. 1906) was Commandant of the Radar School (1942-1944) and served in the Southwest Pacific as Chief Signal Officer, Services of supply; and as Chief Signal Officer, U.S. Air Force, West Pacific (1944-1946). He was a professor of electricity at the USMA (1947-1957).
40. MG Paul F. Yount (b. 1908) graduated from the USMA in 1930. He served in CBI theater in World War II; and was Commanding General, 2d Logistics Command, Yokohama and Pusan (1950-1951); and Chief, Transportation Corps (1954-1958).
41. GEN Dwight D. Eisenhower (1890-1964) graduated from the USMA in 1915. He served in the Tank Corps (1918-1919). During World War II he was Commanding

General in the North African theater and Italy (1942-1943) and General of the Army, Supreme Allied Expeditionary Forces (1943-1945). After the war he served as Chief of Staff, U.S. Army (1945-1948), and as Supreme Allied Commander, Europe (1950-1952). He resigned from the Army in the summer of 1952 and served as President of the United States from 1953-1961.

42. GEN George S. Patton, Jr. (1885-1945), graduated from the USMA in 1909. He held three major commands during World War II: II Corps in North Africa (1942), Seventh Army in Sicily (1943), and Third Army in Europe (1944-1945).
43. The maneuver, which involved several river crossings, has been described as a "battle of engineers" and the "battle of bridges." Poor reconnaissance and a shortage of engineers hampered the exercise, Post-maneuver training attempted to correct these problems, but the need for engineers in combat became clear.
44. Engineer amphibious troops were training at Nantucket, Martha's Vineyard, and Washburn Island in New England and also at Camp Blanding, Florida. Several schools, including an advanced officer school and a welding and propeller school, were located on Cape Cod.
45. MG Jonathan W. Anderson (b. 1890) graduated from the U.S. Naval Academy in 1911. The following year **he took a** commission in the Field Artillery. He served in the War Plans Division before joining the 3d Infantry and becoming Commanding General, Amphibious Corps, Atlantic Fleet.
46. LTC Albert O. Connor (b. 1914) graduated from the USMA in 1937. He served in Italy as G-3 for the 3d Division (1943-1944) and for VI Corps (1944-1945). Among his later assignments were Secretary of Staff, Supreme Headquarters, Allied Powers Europe (1962-1964); Deputy Chief of Staff for Personnel, Department of the Army (1967-1969); and Commanding General, Third Army (1969-1972).
47. Located on the west coast of Morocco, Fedala was to be the location of the main amphibious attack in the Allied effort to liberate Casablanca as part of the TORCH operation.

48. Beginning in the spring of 1941, new inductees began to report to replacement training centers for individualized basic training before joining their units. Engineer troops attended a 12-week course. The first Engineer Replacement Training Center, located at Fort Belvoir, opened in March.
49. MG Harry J. Malony (1889-1971) graduated from the USMA in 1912. After serving as Commander of the 94th Infantry Division (1942-1945) and as commander of the International Forces in Greece for a year, General Malony finished his active duty career on the Special Staff, U.S. Army.
50. MG Keith R. Barney (1904-1977) graduated from the USMA in 1926. He later commanded the 1120th Engineer Combat Group in the ETO (1943-1945) and served as Deputy Chief of Engineers (1960-1962).
51. COL John B. Hughes (1896-1973) graduated from the USMA in November 1918 with a commission in the Corps of Engineers. He served as Engineer, Army Ground Forces (1942-1945) and as Director of Training, ETO (1945-1946). He retired in 1948.
52. GEN Albert C. Wedemeyer (b. 1896) graduated from the USMA in 1919 with a commission in the Infantry. He was Deputy Chief of Staff, Southeast Asia Command (1944); Commanding General, U.S. Forces, China (1945-1946); Director of the Plans and Operations Division, General Staff, U.S. Army (1947-1949); and Commanding General, Sixth Army (1949-1951).
53. At the Quadrant Conference in Quebec in August 1943, President Roosevelt, Prime Minister Churchill, and their chiefs of staff considered a plan for the combined defeat of Japan. Crucial to the success of such an operation was the recapture of Burma in order to reestablish a line of communications from Rangoon and to keep China in the war as an ally. Planners sought to defeat Japan by assault on the Central Pacific islands combined with developing bases in north China from which air assaults could be made easily on Japan. One result of the conference was the establishment of a new Southeast Asia Command with Vice Admiral Louis Mountbatten (1900-1980) as Supreme Commander, Southeast Asia. Lord Mountbatten was the son of Queen Victoria's granddaughter, had risen through

the ranks of the Royal Navy to become Chief of Combined Operations and a member of the British Chiefs of Staff Committee (1942-1943). He served as Supreme Allied Commander, Southeast Asia Command (1943-1946).

54. MG Desmond Harrison (b. 1896) was educated at the Royal Military Academy at Woolwich and at Cambridge University. He was Engineer in Chief, Southeast Asia Command, under Lord Mountbatten. After the war he served as Director of Fortifications and Works in the British War Office until his retirement in 1947.
55. LTG Raymond A. "Speck" Wheeler (1885-1974) graduated from the USMA in 1911. He participated in the Vera Cruz Expedition (1914) and was chief of the Persian Gulf Mission (1941-1942). In 1942 he was promoted to major general and served as Commanding General, CBI (1942-1944); and Deputy Supreme Commander, Southeast Asia Command (1944-1945). At the end of the war Wheeler became Chief of Engineers and held that position until his retirement in 1949. He was one of three officers who served in CBI and later became Chiefs of Engineers. The others were his successor, LTG Lewis A. Pick, and the subject of this interview, LTG Walter K. Wilson, Jr.
56. GEN Joseph W. Stilwell (1883-1946) graduated from the USMA in 1904 with a commission in the Infantry. In Europe during World War I he participated in several engagements, including St. Mihiel. After the war he studied Chinese, and in 1920 went to Peking as a language student, staying until 1923. Stilwell served with the American forces in China (1926-1929) and was military attache at the U.S. embassy in Peiping (1935-1939). In March 1942 he became commander of U.S. Army Forces in CBI and commander of the Fifth and Sixth Chinese Armies. Later he was Chief of Staff to Chiang Kai-shek and Deputy Supreme Allied Commander, Southeast Asia Command. He returned to the U.S. in November 1944. His last assignment was as Commanding General, Sixth Army.
57. Prince Philip (b. 1921), whose mother was the sister of Lord Louis Mountbatten, married Princess Elizabeth, later Queen Elizabeth II.

- 580 Brig. James F. Benoy (b. 1896) attended St. John's College, Cambridge. He served in France and Belgium during World War I. He was Deputy Assistant Adjutant General, China Command (1936-1940); Deputy Adjutant and Quartermaster General, Southeast Asia Command (1944-1945); and headed Lord Mountbatten's liaison staff in Australia (1946).
59. COL Craig Smyser (b. 1911) graduated from the USMA in 1934 with a commission in the Field Artillery. He later transferred to the Corps of Engineers. He served as Executive Officer and Deputy Chief of Staff, Services of Supply, CBI (1945-1946); Executive Officer, OCE (1949-1952); and Engineer, Canal Zone, from 1952 until his retirement in 1954.
60. MG Thomas F. Farrell (b. 1891) graduated from Rensselaer Polytechnic Institute in 1912. In the fall of 1918 he served with the 1st Engineers of the American Expeditionary Force in France. General Farrell resigned- from the Regular Army in **January 1926** and entered the Engineer reserves the following month. He was in charge of construction **and** engineering for the New York State Department of Public Works (1930-1942). In February 1941, Farrell returned to active duty. He reported to CBI in November 1943 as Chief Engineer at Headquarters, Services of Supply, and as Commanding General of the Construction Service. After returning to the United States in early 1945, Farrell became Deputy Commanding General of the Manhattan Engineer District. He retired from active duty in April 1946.
61. LTG Daniel I. Sultan (1886-1947) graduated from the USMA in 1907 and joined the Corps of Engineers. Sultan served in Corregidor constructing fortifications (1916-1918) and worked on the Nicaragua Canal Survey (1929-1931). He was the Commanding General, U.S. Forces, CBI (1944-1945); and was Inspector General, U.S. Army (1945-1947).
62. MG Alvin C. Welling (b. 1910) graduated from the USMA in 1933. He received a master's degree in civil engineering from MIT in 1938 and served as Section Executive Officer on the Alcan Highway (1942-1943). Welling was Chief Engineer (1944-1945) and G-4 (1945-1946) at Headquarters, CBI. He was Baltimore District Engineer

(1948-1951); Executive Officer, OCE (1951-1955); Engineer Commissioner, District of Columbia (1957-1960); and Commanding General of the Corps of Engineers Ballistic Missile Construction Office (1960-1961). He retired in 1965.

63. BG Joseph A. Cranston (1898-1973) graduated from the USMA in 1919 with a commission in the Infantry. In CBI he was Commanding General, Intermediate Section Headquarters, in Chabua, Assam, India (1944); and with the Services of supply (1944-1945). When the Japanese invasion of western Burma and eastern India seemed likely in April 1944, Stilwell appointed Cranston as Ground Forces Commander, Upper Assam.
64. BG Robert R. Neyland, Jr. (1892-1962) graduated from the USMA in 1916 with a commission in the Corps of Engineers. He was aide-de-camp to General Douglas MacArthur at West Point (1921-1922) and professor of military science and tactics at the University of Tennessee (1925-1930) before retiring as a major in 1936. He returned to active duty in 1941; was promoted to brigadier general in 1944; and served as Commanding General, Base Section, Services of Supply, India-Burma theater (1944-1945). He retired in 1948.
65. Known as the "Boeing Superfortress," the B-29 was the most sophisticated of the World War II bombers. Each bomber was 99 feet long, had a 141-foot wingspan, and could carry 10 tons of bombs. The B-29 required an 8,500-foot runway, which was 2,500 feet longer than that needed by the next largest bomber, the B-17. First used in Bangkok in June 1944, B-29s flew approximately 35,000 sorties and dropped nearly 170,000 tons of bombs, including the atomic bomb, before the war's end.
66. BG Philip F. Kromer, Jr. (b. 1905) graduated from the USMA in 1930 with a commission in the Corps of Engineers. In CBI he was Division Engineer, Engineer Division #1, Calcutta (1943-1945); and Deputy Commanding Officer, Base Section, Calcutta (1945-1946). He served with the Armed Forces Special Weapons Project (1951-1953); was Chicago District Engineer (1953-1956); and Commanding General, Engineer Maintenance Center (1959-1962).

67. GEN Curtis E. LeMay (b. 1906) received a bachelor's degree in civil engineering from Ohio State University in 1927. During World War II he commanded bombing units in the European and Pacific theaters. He directed the 20th Bomber Command in B-29 attacks in CBI and on the Japanese mainland. Later he became Chief of Staff of the Strategic Air Forces in the Pacific. He commanded the Strategic Air Command (SAC), and was Vice Chief of Staff of the Air Force and the Chief of Staff of the Air Force between 1961 and his retirement in 1965.
68. GEN George C. Marshall (1880-1959) graduated from the Virginia Military Institute (VMI) in 1901 and was commissioned in the Infantry. He served with the American Expeditionary Force in France (1917-1919), as GEN John J. Pershing's aide-de-camp (1919-1924), and as Army Chief of Staff (1939-1945). General Eisenhower succeeded Marshall as Chief of Staff in November 1945, whereupon Marshall went on to become Secretary of State (1947-1949) and Secretary of Defense (1950-1951).
69. The last major German offensive, the Ardennes offensive (December 1944-January 1945), was known as the "Battle of the Bulge" because of the resulting triangular "bulge" of the line into Belgium. Although taken by surprise when the attack began on 16 December, the Allies countered with particularly strong efforts at St. Vith and Bastogne and by 21 January had restored the original line. Casualties were heavy on both sides.
70. MG Claude H. Chorpene (b. 1897) graduated from the USMA in November 1918 with a commission in the Corps of Engineers. He served as assistant to the Engineer of Fort Peck District (1937-1939) and as chief of the Development Branch and then Executive Officer of the Supply Division in OCE (1940-1943). He was Deputy Commander of the United Kingdom Base, Services of Supply (1943-1945), before shifting to the Pacific theater to become commanding officer of the Construction Service, Central Pacific Base Command. After the war he served as Tulsa District Engineer (1946-1949), and as chief of the Personnel Division and Assistant Chief of Engineers for Civil Works in OCE (1949-1954). He retired in 1956.
71. After breaking with the Communists in 1927, Chiang Kai-shek (1887-1975) reversed his policy of

appeasing the Japanese and allied with the Communists against Japan in 1936. Chiang became generalissimo in 1937 and Supreme Commander of the Allied Forces in the China theater in 1942. He obtained American support but had difficulty working with American commanders, notably Stilwell.

72. MG Royal B. Lord (1899-1963) graduated from the USMA in 1923 with a commission in the Corps of Engineers. He held various staff positions in ETO including Chief of Staff, Communications Zone; and Deputy Chief of Staff at Headquarters (1942-1946). He retired in 1946.
73. MG Marshall Stubbs (b. 1906) graduated from the USMA in 1929 with a commission in the Infantry. He served in Headquarters, Advance Section, Communications Zone; and as Chemical Officer and Deputy G-4 in ETO (1944-1945).
74. LTG Emerson C. Itschner (b. 1903) graduated from the USMA in 1923 with a commission in the Corps of Engineers. He was Chief Engineer, Advance Section, Communications Zone, ETO (1944-1945); I Corps Engineer in Korea (1950-1951); and North Pacific Division Engineer (1952-1953). In 1953 he came to Washington as assistant chief of engineers (1953-1956) and then served as Chief of Engineers until his retirement in 1961.
75. After the liberation of Antwerp in September 1944, this port city became a major target for German flying bombs, the V-1 and the V-2 Jet engines powered both rockets, but the more sophisticated V-2 carried a supply of liquid oxygen, allowing it to fly at higher altitudes. Once the failure of their last offensive became clear, the Germans hit Antwerp with a barrage of **V-1s**. General Wilson was there at the time of the heaviest attacks, which culminated on 16 February when 160 of the V-1s fell on the city.
76. LTG Marshall S. Carter (b. 1909) graduated from the USMA in 1931 with a commission in the Coast Artillery Corps. He served on the War Department General Staff (1942-1945). He was Deputy Director, Central Intelligence Agency (1962-1965), and Director, National Security Agency (1965-1969).

77. GEN Robert C. Richardson, Jr. (1882-1954), graduated from the USMA in 1904 with a commission in the Cavalry. He served as Commandant of Cadets (1929-1933) and as Commandant, the Cavalry School (1939-1940). He was Commanding General, Hawaiian Department; Military Governor of Hawaii; and Commanding General, Pacific Ocean Areas and Middle Pacific (1943-1946).
78. LTG Richard K. Sutherland (b. 1893) graduated from Yale University in 1916. During World War I he served with the Infantry on the Verdun front and at Chateau Thierry in the Aisne defensive (June-July 1918). He was MacArthur's Chief of Staff in the Southwest Pacific Area (March 1944-December 1945).
79. COL Vachel D. Whatley, Jr. (b. 1903), graduated from the USMA in 1927 with a commission in the Infantry. During World War II he served at Headquarters, U.S. Army Forces, Mid-Pacific. He retired in 1957.
80. LTG Samuel D. Sturgis, Jr. (1897-1964) graduated from the USMA in 1918 with a commission in the Corps of Engineers. General Sturgis served in France during World War I, and while in the Philippines (1926-1929) he commanded the 14th Engineer Regiment as the unit opened trails that were used by MacArthur in the defense of Bataan during World War II. He served on the Passamaquoddy Tidal Power Project (1935-1937) and as Vicksburg District Engineer (1939-1942) He joined the Sixth Army in the Southwest Pacific theater of operations as Chief Engineer in 1943 and remained with it throughout operations in New Guinea, the Philippines, and Japan. He was Deputy Director, Organization and Training Division, Headquarters, U.S. Army (1948-1949); and Missouri River Division Engineer (1949-1951). His last assignment before being selected as Chief of Engineers in 1953 was as Commanding General, Communications Zone, U.S. Army, Europe. He retired in 1956.
81. Gurkhas were soldiers from Nepal who served in the British and Indian Armies.
82. MG Thomas A. Terry (1885-1963) graduated from the USMA in 1908 with a commission in the Coast Artillery Corps. He was Commanding General, New

England Sector (1940-1942); 2d Service Command (1942-1945); and I-B theater (1945-1946). He retired in 1946.

83. MG William M. Creasy (b. 1905) graduated from the USMA in 1926 with a commission in the Air Service. He also served in the Field Artillery and the Chemical Warfare Service. He was Deputy Chief of **Staff and** Commanding Officer, Services of Supply, CBI (1944-1945). After the war he served in various capacities in the Chemical Corps, including as its chief (1954-1958).
84. The Corps of Engineers completed Baldhill Dam on the Sheyenne River in North Dakota in 1950. It **provides** substantial water supply and recreational benefits to the semi-arid region of the state. Baldhill resulted in the creation of Lake Ashtabula, which serves as a center for fish, wildlife, forest, and biological conservation as well as a popular recreational **attraction**.
85. In 1949 **the** Corps undertook a study for a permanent flood control project on the Souris River north of Minot, North Dakota. At the same time the Bureau of Reclamation was considering a Missouri-Souris diversion project. The bureau rejected the idea in 1956. After years of debate, Congress authorized the Burlington Dam in 1970. Preconstruction planning was still in progress in 1983.
86. Construction problems encountered in Alaska and Canada during World War II led to research on permafrost by the Missouri River Division beginning in 1943. Similar research began in Boston District the following year, resulting in the establishment of the Soils Foundation and Frost Effects Laboratory. In 1945 the Corps established the Permafrost Division in St. Paul District referred to here. See Walter K. Wilson, Jr., "The Problem of Permafrost," in appendix A.
87. In 1951 the Corps of Engineers began construction of an airbase at Thule, Greenland, as part of the support system for SAC bombers and the United States' advance warning system. Permafrost was a major problem. But, as Wilson indicates, the Corps used experience gained in World War II and relied on subsequent research to solve it. They erected buildings on pads containing materials that did not

transmit heat and used ducts to remove any heat that did escape into the flooring.

88. Concern over possible military operations relating to the Korean War was responsible for the founding of the Snow, Ice, and Permafrost Research Establishment (SIPRE) at Wilmette, IL, in 1951. This organization studied the physical and mechanical properties of snow and ice. In 1953 the Corps merged the St. Paul and Boston District units into the Arctic Construction Frost Effects Laboratory (ACFEL), which in 1963 combined with SIPRE to become the Cold Regions Research and Engineering Laboratory (CRREL), located in Hanover, NH.
89. COL William N. Leaf (1898-1948) graduated from the USMA in 1923 with a commission in the Corps of Engineers. He commanded the 592d Engineer Amphibious Regiment, Sixth Army, in the Southwest Pacific and Philippines (1943-1945), and served as Rock Island District Engineer from 1946 until his death on 1 June 1948.
90. The Corps of Engineers began construction of Allatoona Dam on the Etowah River upstream from Rome, Georgia, in 1944. Completed in 1955, the project provides a dam and reservoir for flood control, regulation of stream flow for navigation, and development of hydroelectric power.
91. The Jim Woodruff Reservoir resulted from Corps construction of a lock and dam as one of four projects for development of the Appalachian River. The project began in 1947 and was completed ten years later. The **dam's** power-generating units have a capacity of 30,000 kilowatts.
92. BG Mason J. Young (1894-1982) graduated from the USMA in 1915 with a commission in the Corps of Engineers. He was Engineer, VII Corps, in the American and European theaters (1941-1945); South Atlantic Division Engineer (1947-1949); and Commander, European Command, Communications Zone, and Wurzburg German Military Post, 1951-1953.
93. MG Bernard L. Robinson (b. 1901) graduated from the USMA in 1920 with a commission in the Corps of Engineers. He commanded the 5201st Engineer Construction Brigade in the Southwest Pacific,

Philippines theater (1942-1945); and was Deputy Chief of Engineers for Construction (1953-1955) and Director, Joint Construction Agency, France (1955-1957).

94. The original Warrior-Tombigbee project, consisting of 17 dams with 18 lifts along the Black Warrior, Warrior, and Tombigbee Rivers, was completed in 1915. Demopolis Dam replaced locks 4 to 7.
95. The cost-plus-fixed-fee contract (CPFF) is used when insufficient time is available to prepare plans and specifications before construction starts; when details are scarce, as in this instance; or when the project is such that frequent changes are anticipated during construction. There is no competitive bidding. CPFF contracts involve close supervision of the work because reimbursement is limited to actual expenditures for work approved by the contracting officer. The fixed fee is based on a schedule of maximum fees calculated as a percentage of total cost.
96. MG Gerald E. Galloway (1902-1980) graduated from the USMA in 1925 with a commission in the Corps of Engineers. He commanded the 543d Engineer Boat and Shore Regiment in the Southwest Pacific theater (1942-1945), served in OCE (1949-1951), and was Commanding General of the Engineer Center and the Engineer School at Fort Belvoir (1958-1960). He completed his active duty career as Pacific Ocean Division Engineer (1960-1962).
97. Buford Dam-Lake Sidney Lanier is a multipurpose project with three power-generating units. The dam is located on the Chattahoochee River about 50 miles above Atlanta with a reservoir (Lake Sidney Lanier) extending 47 miles upriver. Construction began in March 1950 and was completed in June 1960.
98. Wernher von Braun (1912-1977) came to the United States with 120 associates in 1945 under contract to the U.S. Army Ordnance Department to develop rockets. Von Braun had been technical director of the German Army Rocket Center since 1937 and had developed the V-2. Von Braun's group became the nucleus of the U.S. Army Ordnance Guided Missile Division, Redstone Arsenal, at Huntsville, AL (1950-1955).

99. MG John R. Hardin (b. 1897) graduated from the USMA in 1919 with a commission in the corps of Engineers. As assistant to the District Engineer, he took charge of spillway construction at Fort Peck Dam (1934-1938). In 1939 he began a four-year tour in OCE serving as Chief, Rivers and Harbors Section (1939-1940); Chief, Construction Section (1940-1941); and Executive Officer, Construction Division (1941-1943). In ETO he was Deputy Chief Engineer (1943-1945). After the War he was Deputy Engineer, Lower Mississippi Valley Division, and Secretary of the Mississippi River Commission (1945-1947); New Orleans District Engineer (1947-1949); and Great Lakes Division Engineer (1949-1951). He returned to OCE in 1951 as Assistant Chief of Engineers for, Military Construction. His last assignment was as Division Engineer and President of the Mississippi River Commission (1953-1957).
100. The Corps of Engineers, acting as construction agent for the U.S. Air Force, began work on an airbase at Sidi Slimane, a town in the Rabat region of northwestern French Morocco, in 1951.
101. MG Curtis W. Chapman, Jr. (b. 1918) graduated from the USMA in 1941 with a commission in the Corps of Engineers. During World War II he commanded the 1312th Engineer General Service Regiment in Australia, New Guinea, and the Philippines. In the Mediterranean Division he was Chief, Operations Division (1952-1953), and Deputy Division Engineer (1953-1954) before he resigned from the Army. In 1959 he returned to active duty as Executive Director, Research and Development Division, OCE (1959-1960). He held troop command (1960-1968), was the Executive Officer in the OCE (1964-1966), and was Division Engineer, Pacific Ocean Division (1968-1970). He served as Deputy Commanding General, U.S. Army Combat Developments Command (1971-1973), and Senior Member, Weapons System Evaluation Group (1973-1975).
102. COL Gunnard W. "Swede" Carlson (1910-1983) graduated from the USMA in 1931. He served in the G-4 Section of Headquarters, Supreme command, Allied Powers (1945-1946); was Boston District Engineer (1949-1950); served in Morocco with the Casablanca District (1952-1953); and was District Engineer at Nouasseur (1953-1954). He retired in 1958.

103. COL Paul D. Troxler (b. 1905) graduated from VMI in 1926. During World War II, after transferring from Field Artillery to the Corps of Engineers, he served in the Persian Gulf Command and in the Pacific. He was Deputy District Engineer, Athens, Greece (1947-1949); and organized and then commanded the Middle East District, headquartered in Tripoli, Libya (1950-1953). Following this assignment he served in OCE under the Assistant Chief of Engineers for Military Construction and then as District Engineer, Jacksonville (1957-1960). After retirement he was a project manager on the Link Canal Project in Pakistan (1960-1971).
104. After numerous delays, construction of an airfield began in February 1954 at Boulhaut, a town in French Morocco 28 miles east of Casablanca.
105. MG David H. Tulley (1904-1970) graduated from the USMA in 1925 with a commission in the Corps of Engineers. During World War II he was Assistant Army Engineer, Third Army, ETO (1944-1945). Later assignments were as Deputy Chief and Chief, Engineer Division, U.S. Army Europe (1952-1953); Assistant Chief of Engineers for Military Construction (1953-1956); and Commanding General, the Engineer Center and Fort Belvoir (1956-1958). He retired in 1961.
106. At this point Tulley left OCE to become Commanding General of the Engineer Center and Fort Belvoir.
107. Wilber M. Brucker served as Secretary of the Army for the period 21 July 1955 to 20 January 1961.
108. Robert S. Kerr (1896-1963) served as a U.S. senator from Oklahoma from 1949 until his death in 1963. General Wilson called on the senator because Kerr at the time was chairman of the Subcommittee on Rivers, Harbors, and Flood Control of the Senate Public Works Committee and was the ranking Democrat on the full committee. His subcommittee had control over Corps project authorizations. As chairman, Kerr was an ex officio member (with full voting and speaking rights) of the Senate Appropriations Subcommittee on Public Works, the committee which controlled appropriations for Corps projects.

109. MG William E. Potter (b. 1905) graduated from the USMA in 1928 with a commission in the Corps of Engineers. In World War II he served in the G-4 Section of Headquarters; and Headquarters, Communications Zone, **ETO** (1943-1945). He was Kansas City District Engineer (1945-1948), Alaska District Engineer (1948-1949), and Acting Assistant Chief of Engineers for Civil Works and Assistant Chief of Engineers for Special Projects (1949-1951). General Potter's last active duty assignments were as Missouri River Division Engineer (1952-1956) and as Governor of the Canal Zone and President of the Panama Canal Company (1956-1960).
110. MG Robert J. Fleming, **Jr.** (b. 1907) graduated from the USMA in 1928 with a commission in the Corps of Engineers. In World War II he served as Chief of Staff, Hawaii Service Command; Deputy Chief of Staff, Central Pacific Area (1942-1943); and Engineer, XXII Corps, ETO (1944-1945). General Fleming was Engineer, Office of the Chief, Army Field Forces (1951-1954); Southwest Division Engineer (1960-1962); and Governor of the Canal Zone and President of the Panama Canal Company (1962-1967).
111. LTG William F. Cassidy (b. 1908) graduated from the USMA in 1931 with a commission in the Corps of Engineers. In World War II he commanded the 815th Engineer Aviation Battalion in North Africa (1942-1943) and the 21st Engineer Aviation Regiment in Italy (1943-1944). He served in the Far East (1950-1953); as Division Engineer, South Pacific Division (1955-1958); in OCE as Assistant Chief of Engineers for Civil Works (1959-1962) and Deputy Chief of Engineers (1962-1963); and as Commanding General of the Engineer Center and Fort Belvoir (1963-1965) before his assignment as Chief of Engineers (1965-1969). He retired in 1969 but returned to active duty for one year as Chief of the Board of Engineers for Rivers and Harbors (1969-1970).
112. MG Thomas J. Hayes III (b. 1914) headed the Los Angeles Field Office, predecessor to CEBMCO (1958-1959), and then served as vice commander and commander of CEBMCO (1960-1962). He graduated from the USMA in 1936 with a commission in the Corps of Engineers. He directed military construction in

Greenland, Alaska, and the Caribbean (1941-1943) and served on the faculty of the Engineer school (1944-1945). Later assignments were as District Engineer, Little Rock (1952-1953) and Omaha (1953-1957); Assistant to the Chief of Engineers for NASA support and Director of Military Construction for Space Programs (1962-1964); Director of Topography and Military Engineering (1964-1967); and Division Engineer, South Atlantic (1967-1969). After retiring from the Army in 1969 he joined International Engineering Company.

113. From 1954 until 1959 the group was known as the Planning Studies Division and was part of the Army Map Service. In December 1959 the organization came under the command of Troop Operations, OCE, as the Strategic Planning Group. However, the group was still located in the same building as the Army Map Service. In 1977, after two further name changes, the group assumed its present designation, the Engineer Studies Center, and began reporting directly to the deputy chief of engineers.
114. BG William C. Hall (1909-1982) graduated from the USMA in 1931 with a commission in the Infantry but transferred to the Corps of Engineers in 1936. During World War II he was Assistant to the Chief, Intelligence Branch, OCE (1941-1943); and Commander, 1306th Engineer General Service Regiment (1943-1946), serving in the Southern Base Section, Communications Zone and the Third Army area, ETO (1943-1945); and in the Philippines (1945-1946). He was the Executive Officer in the Engineering Division, Military Construction, OCE (1946-1948); and Director of Personnel (1959-1961) and Director of Research and Development, OCE (1961-1962). He retired in 1963 and became Executive Secretary, Society of American Military Engineers (1965-1978).
115. Robert S. McNamara (b. 1916) was president of the Ford Motor Company when President John F. Kennedy appointed him Secretary of Defense in 1961. McNamara served in that position until 1968.
116. Adam Yarmolinsky (b. 1922) was Special Assistant to the Secretary of Defense (1961-1964). He is the author of The Military Establishment (1971).
117. GEN George H. Decker (1902-1980) graduated from Lafayette College in 1924. The same year he was

commissioned in the Infantry, Regular Army. During World War II he was Deputy Chief of Staff and Chief of Staff, Sixth Army, in the Southwest Pacific (1943-1946). He was Comptroller of the Army (1952-1955), and Vice Chief of Staff (1959-1960) and Chief of Staff, U.S. Army (1960-1962). As Chief of Staff he promoted the modernization of weapons and stronger ground forces in Europe.

118. GEN Earle G. Wheeler (1908-1975) succeeded Decker as Chief of Staff on 1 October 1962. General Wheeler graduated from the USMA in 1932 with a commission in the Infantry. In World War II he was Chief of Staff of the 63d Division in the American and European theaters (1943-1945). He served as Chief of Staff, U.S. Army (1962-1964), and as Chairman, Joint Chiefs of Staff, from 1964 until his retirement in 1970.
119. GEN Harold K. Johnson (b. 1912) graduated from the U.SMA in 1933 with a commission in the Infantry. During World War II he was a prisoner of war (1942-1945) following the fall of Bataan. He was Commandant of the Command and General Staff School (1960-1963); Deputy Chief of Staff, Military Operations, Department of the Army (1963-1964); and Chief of Staff, U.S. Army (1964-1968).
120. After graduation from Oregon State College with a B.S. in civil engineering in 1936, MG Jackson Graham (b. 1915) entered on active duty with the Corps of Engineers. During World War II he was a battalion commander and Division Engineer, 12th Armored Division (1942-1944), and commanded the 1160th Engineer Combat Group, ETO (1944-1945). He served as Assistant to the District Engineer and Executive Officer, Los Angeles Engineer District (1949-1951), and as Chief, Military Personnel Division, and then Assistant Chief of Engineers for Personnel and Administration (1951-1954). General Graham was District Engineer, Portland (1955-1958); Division Engineer, Ohio River Division (1961-1963); and Director of Civil Works, OCE (1963-1966).
121. On 23 March 1961 a chemical barge carrying several tanks of liquid chlorine sank in the Mississippi River 7.5 miles below Natchez. Private efforts to locate and raise the barge and its deadly cargo failed. Although estimates determined that the chlorine should not escape for decades, the

prediction that "uncontrolled release of the chlorine could cause 40,000 to 50,000 casualties with 10,000 to 20,000 fatalities" prompted the Office of Emergency Planning on 7 September 1962 to direct the Corps of Engineers to remove the hazard. COL Warren S. Everett, the Vicksburg District Engineer, took charge of the effort. Salvage operations were safely completed by the end of October. See Warren S. Everett, "Operation Chlorine," Military -Engineer 55 (March-April 1963): 79-83.

122. Along the lower Mississippi River, civilian levee boards, authorized by the state and organized locally, maintain Corps-built levees and construct levees in areas where the Corps does not have authority to do so.
123. The Beach Erosion Board existed from July 1930 until November 1963 when it was replaced by the Coastal Engineering Research Center (CERC). The board, comprised of civilian and military members, was responsible for beach erosion studies and research investigations. Congress created the Board of Engineers for Rivers and Harbors (BERH) in June 1902. The board, consisting of five Engineer officers, was charged with reviewing all reports on the examination and surveys authorized by Congress. The board later included Division Engineers in addition to the chairman and a resident member supported by a staff of civilians representing several disciplines.
124. Winton M. "Red" Blount (b. 1921) was president of the Blount Construction Company, Montgomery, Alabama (1946-1968), and Postmaster General of the United States (1969-1971).
125. MG Augustus M. Minton (b. 1911) was Director of Civil Engineering for the Air Force (1957-1963) and Chief of Staff of the Air Force (1964-1965). Commodore Archibald D. Hunter (b.1905) graduated from the U.S. Naval Academy in 1927. He served as Deputy Chief, U.S. Navy Bureau of Yards and Docks (1949-1953) and retired from active duty in 1959.
126. MG Daniel A. Raymond (b. 1917) graduated from the USMA in 1942 with a commission in the corps of Engineers. During World War II he served with the Fleet and Amphibious Force in the Mediterranean

(1942-1944) and with the 10th Engineer Battalion, 3d Infantry Division in ETO (1944-1945). He was Deputy Okinawa District Engineer (1958-1960); Mobile District Engineer (1961-1964); Deputy Director and Director of Construction, Construction Directorate, U.S. Military Assistance Command, Vietnam (1966-1967); Director, Southeast Asia Construction Group, Office of the Assistant Secretary of Defense (1967-1969); and Director of Military Construction, OCE (1969-1972).