

## CHAPTER VI

# Decline and Demise

### *Decline of the Bureau*

The 1850s were a difficult period for Colonel Abert. The decade started with him complaining about inadequate manpower. The Coast Survey wanted more of his officers, and he could spare none. In 1855, asking for 24 additional captains and lieutenants, he found himself again forced to employ civilians and line officers to compensate for his small numbers. These temporary assistants were inefficient, their experience departed with them, and they were costly. In 1856 Abert used three pages of his report to list by name the assignment and location of each officer, noting their assignments “from the Atlantic to the Pacific; from Lake Superior to the capes of Florida” and their duties “as various and diversified as . . . the objects over which the general government exercises a control.” Many were overworked, he said, with “an amount of responsibility and control which might with advantage be lessened, did the number constituting the corps admit it.” With that, he renewed his request for more officers.

He never stopped. In 1858 he compared the size of the United States when his corps was formed to that of the nation at mid-century. His officers now had duties extending to the Pacific Coast, with responsibilities for explorations and surveys, military roads, and service with military departments “west of the frontier of the old States of the Union.” Therefore, he wrote, “an increase of the corps is absolutely necessary to meet the demands of the government for its services, and the recommendation made in previous reports is now renewed.” He also wanted more money for instruments and a printing plant so the bureau could produce its own maps.

Abert did have a program in mind for an expanded corps. In 1856 he called the region west of the tier of territories from Arkansas north to Wisconsin and east of California “compar-

actively unknown" with parts "absolutely as unexplored as is the interior of Africa." Much of this unknown new country resembled "a wedge into the heart of our country." Anticipating the great surveys of the 1870s, he wanted to cover the entire western interior with "a net-work of explorations and surveys, accompanied by a series of carefully conducted observations of every kind that will fix its geographical, mineral, vegetable, and climatic peculiarities." "Thus," he claimed, "would every stream and mountain become known, and every nook, valley and plain be open for the settlement and enterprise of our population."

While he strove earnestly to convince Congress to provide the resources that would accommodate his vision, he watched his mission slip away. First came the reintroduction of the Corps of Engineers into rivers and harbors work in 1852. Then came the worst blow. Secretary Davis took the Pacific railroad surveys from Abert's control and placed them under a new office that reported directly to Davis. This action marked the end of the bureau's involvement in western exploration. A third reduction came when an impatient Congress assigned the western roads to the Interior Department. Moreover, although Lieutenant Warren's map of the trans-Mississippi West did leave some blanks, it nevertheless provided an accurate overall picture of the region. The great reconnaissance of the West was essentially over.

Indeed, Abert struggled against the tide. Ever since the Mexican War, individual topogs had distinguished themselves while the bureau sank into obscurity. Fremont had ignored his orders and carried artillery to California, where he became a hero and later a presidential candidate. Then Emory gained renown in southwestern natural history while working for the boundary commission. Warren produced his map for the Office of Pacific Railroad Explorations and Surveys. Even Michler's work in Panama was for the Navy. The dominant theme of the post-Mexican War years was the rise to prominence of many topog officers while the bureau declined. Abert, who reached his 70th birthday and his 44th year of military service in 1858, may not have recognized the direction in which these developments pointed.

### *The Civil War*

The Civil War succeeded where a decade of Abert's lobbying had failed. In two separate acts passed in August 1861, Congress



Civil War topographers, shown at Camp Winfield Scott, near Yorktown, Virginia, in May 1862.

made modest increases in the size of the corps. The numbers still fell short of Abert's hopes, but two increments of 6 brought the authorized strength to 48. Abert stayed on active service just long enough to see this expansion take place and then retired. Stephen Long, who at 76 was four years older than Abert, replaced him. Other longtime topogs, including James Kearney and Howard Stansbury, also retired in the opening months of the war. A few, among them Johnston and Ives, went south and joined the Confederacy.

The corps actually hit a peak strength of 45 in 1861 but dropped off to 28 the following year. The decline was due to the assignment of topogs to responsibilities outside the bureau. By that time, Humphreys, Warren, Pope, Whipple, and numerous others were senior staff officers on the way to general officer rank and major commands or had become generals already.

The bureau itself, once the administrator of large-scale civil works and exploration projects, reverted to duties reminiscent of the days of Roberdeau, printing and distributing maps for use in the field. This was an important mission, and the bureau could never keep up with the demands of field units, which had their own topographical departments to supplement efforts in Wash-



Andrew A. Humphreys (1810-1883) as a major general during the Civil War. Humphreys was Chief of Engineers from 1866 to 1879. He was a fun-loving youth, and his standing at West Point, where he graduated thirteenth in a class of 39, resulted from the numerous demerits he received for his pranks rather than from want of academic talent. He showed a composure and self-confidence that rarely deserted him. Humphreys fought in the Seminole War in Florida in the 1830s but became sick with fever and shortly thereafter resigned, only to join the newly established Corps of Topographical Engineers in 1838. He worked on numerous projects, mainly in the Washington, D.C., area. From 1844 to 1850, Humphreys was de-

ington. The most sophisticated of these field offices was the Army of the Potomac's Office for Surveys for Military Defenses, later the Office for Surveys and Maps and headed by topog John Macomb. This office did its own research, field work, printing, and distribution.

### *Civil War Troops*

In his efforts to gain more people and money, Abert did not forget the need for Topographical Engineer troops. In its entire existence up to the Civil War, the Corps of Topographical Engineers always consisted exclusively of officers. As late as November 1860 Abert was still asking for a "company of pioneers" to assist with military and geographic exploration. The Corps of Engineers, on the other hand, had added a company of engineer soldiers at the start of the Mexican War. This company formed the basis for expansion and creation of other regular army engineer units during the Civil War. But no such unit served the topogs.

Topographical officers knew how useful such troops could be. In 1845 Major Graham did have enlisted help on the northeastern boundary survey. A detachment of ten men from the 2d Artillery Regiment "selected," Graham said, "with a due regard to intelligence and moral character:" assisted astronomical

tailed to the U.S. Coast Survey. In the last year, he was assigned to work with Stephen Long on the Mississippi Delta Survey, a project that brought him a worldwide reputation. Aside from a year and a half of travel and study in Europe and approximately two years directing the Pacific railroad surveys, most of his work during the 1850s was with the delta survey. His 500-page report, coauthored by Lieutenant Henry L. Abbot, arrived at the office of the Chief of Topographical Engineers in August 1861, a few months after the firing on Fort Sumter. During the Civil War, Humphreys rose to the rank of brevet major general and became a corps commander. He earned a reputation as a fearless leader and, occasionally,

a peerless swearer. He saw action in numerous battles, including Fredericksburg, Chancellorsville, Gettysburg, Cold Harbor, and Petersburg.

observers by noting the time on chronometers and recording observations as announced. They also prepared catalogs of stars, found logarithms for computations, and performed some elementary computations. In addition, they transported apparatus, ran experimental lines with compasses, plotted field work of preliminary surveys, and served as chain bearers and instrument carriers. Graham appreciated these services. "It would," he said, "add greatly to the practical usefulness of the corps, and also tend to economy, if instead of these details, which are liable to change, and consequently a loss to the service of the experience and practical efficiency previously acquired, a certain number of non-commissioned officers and men could be permanently attached to the corps by regular enlistment." Even as few as 12 sergeants, 12 corporals, and 100 privates would permit the assignment of small detachments to each separate command charged with an important operation in the field. Such an organization would cost the government less money than "the usual expedient" of short-term seasonal hires. Abert started to seek such a unit during the same year.

One of the laws of August 1861 that added a small number of officers to the topogs also established a company of soldiers for the corps. Recruiting efforts got under way quickly but were ineffective. The corps lacked a central depot, an officer for instruction,



William H. Emory, left, and Gouverneur K. Warren. Emory and Warren, former topogs shown as Civil War major generals, had been explorers and cartographers. As mapmakers in the 1850s, they had competed with each other. Emory, in the office of the Mexican boundary survey, and Warren, with the Pacific railroad surveys, had raced to be the first to publish an overall map of the trans-Mississippi West. Emory beat Warren into print, but Warren's map was the more comprehensive of the two.

and experienced sergeants. It also had to compete with volunteer units, which tended to get all of their soldiers from the same locale. In two months, the topogs won three recruits. Colonel Long closed down the office and turned the enlistees over to the Corps of Engineers. The topogs never did field a company.

### *End of an Era*

Midway through the Civil War, Congress abolished the Corps of Topographical Engineers as a distinct branch of the Army and merged it into the Corps of Engineers. The same law made the commander of the enlarged Corps of Engineers, still Joseph Totten, a brigadier general. By that time, experience showed that the duties performed by officers of the two corps overlapped and were often the same. So there seemed no need for two organizations, particularly after the Corps of Engineers had taken on much of the civil works mission in 1852. In addition, the bureau's unique role as the federal civil engineering agency



George G. Meade was another former topog who became a major general during the Civil War. Meade graduated from the Military Academy in 1835 but served only one year as an artillery officer before resigning. He rejoined the Army in 1842 as a Topographical Engineer and spent nine years as a second lieutenant. However, within 12 years of his first promotion, he was a major general, in command of the Army of the Potomac and facing General Robert E. Lee's army at Gettysburg. When that critical battle opened, Meade had been in command less than a week. Meade remained in command of the Army of the Potomac for the rest of the war, but Gettysburg remained the high point of his career.

was slipping away with the establishment of other scientific agencies, among them the Naval Observatory, the Smithsonian Institution, the office of the U.S. Coast Survey, and the Interior Department's Pacific Wagon Road Office.

Just before the Corps of Topographical Engineers was established, Secretary of War Joel Poinsett had argued that the "duties of this corps require the combined knowledge of the military and civil Engineers." He had proved correct. The topogs' military duties included surveys for frontier defenses and fortifications and reconnaissances for armies in the field. Their civil duties ranged from railroad and coastal surveys to rivers and harbors work. With the exception of the Mexican War and the Civil War, military duty was always secondary to the civil and scientific work, and most of their military duty was carried out under some authority other than that of the bureau.

In executing a wide variety of duties, the Topographical Engineers contributed significantly to the concept of the modern professional soldier. They believed they were servants of the state and looked to Congress and the Secretary of War for guidelines and policies. The power of the Topographical Engineers rested in their professional engineering expertise. This power was substantial in a period when Army Engineers had a virtual monopoly on the engineering skills so desperately needed by the developing nation. Today, of course, such expertise is shared with private and public engineers around the country.

To the 20th-century Corps of Engineers, the topogs left an important legacy. The pre-Civil War Corps of Engineers resembled a traditional military engineering organization, committed to its work on fortifications, frequently indifferent to involvement in civil works, and a little disdainful of the topogs. The Topographical Engineers, on the other hand, not only accepted new missions but actively sought them. They worked for other government agencies, whether surveying boundaries for the State Department or building lighthouses for the Treasury. They pioneered Engineer work in the District of Columbia. Most important, they combined military and civil functions, moving from one to the other as the situation and government policy demanded. The Corps of Topographical Engineers bequeathed a willing spirit, open to possibilities and eager to try new tasks, to its successors in the modern Corps of Engineers. Not always prevalent and sometimes even dormant, this spirit nevertheless remains an important part of the Corps of Engineers' culture.

To the country, the topogs left a more concrete legacy in an improved navigation and transportation system. Their work helped open markets and increase industrial output. It accelerated the movement of people to the West and changed for all time the distribution of population in the country. That all this was done by an organization of only three dozen or so officers is impressive enough. But perhaps in the end the most important accomplishment of this unique organization was its contribution to a vision of an expanding nation where man would dominate all that he surveyed.