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The United States Army in Hawaii Outpost Reinforcement in 1941

Charles R. Anderson

United States Army presence in the Hawaiian Islands dates from the aftermath of the Spanish-American War. Victory over Spain gave the United States new territories in two oceans, principally Puerto Rico in the Caribbean, and Guam and the Philippines in the Pacific. The mission of securing lines of communication to these territories across vast ocean distances naturally fell to naval task forces, but it implied a companion mission for the United States Army. While the naval technology of the period allowed ships to reach Caribbean ports without refueling, the great distances to the new Pacific possessions—6,600 miles from San Diego to Manila, for example—necessitated establishment of coaling stations and maintenance facilities along the way. The Hawaiian Islands offered a desirable location, considering the range of warships: one-third the distance between the American west coast and the Philippines. In 1887 the Navy Department secured rights to establish a coaling and repair station on the island of Oahu. The mission of providing security for these facilities brought the U.S. Army into an area 2,400 miles from the continental United States.

In the Hawaiian Islands, the U.S. Navy found a large harbor formed by volcanic activity. Keeping only the ancient name—"Pearl Waters"—the Navy built docks, repair shops, offices, and barracks. While naval construction continued, the War Department built up a garrison on two reservations established as Fort Shafter in 1907 and Schofield Barracks in 1909. During the next few years the garrison went through an administrative evolution to emerge in 1913 as a major separate command, the Hawaiian Department. (1)

The buildup of the Hawaiian Department resumed after the World War. The first aviation units posted to the islands used Luke Field on Ford Island in the middle of Pearl Harbor, and later two larger air bases: Wheeler Field, near Schofield Barracks, and Hickam

Field, on the east side of the harbor. Four infantry, three artillery, and two coastal artillery regiments, with support units, filled out, and in 1921 these units were organized into the Hawaiian Division. Thereafter, Hawaiian Department strength stabilized at around 13,000. (2)

As the Army established itself in the islands, Hawaii became one of the most sought-after assignments. Soldiers of all ranks hoped for a tour in the "Paradise of the Pacific." And by all accounts, Hawaii was the closest thing to paradise the Army offered. Balmy weather year round, matchless scenery, exotic food and drink, and miles of spotless beaches combined to make duty with the "Pineapple Army" unusually pleasant. Senior officers considered Hawaii the ideal place to serve their sunset tours. With danger seemingly so far away from the idyllic islands, commanders sometimes added to the training routine matters marginal if not trivial. Maj. Gen. Charles P. Summerall, department commander during 1921-1924, disliked the "droppings" of automobiles as much as those of horses as he watched the number of privately owned vehicles increase on post. To keep Army streets clean, he ordered vehicle owners to wash oil stains from pavement in front of housing areas. (3)

German rearmament and Japanese aggression began to disturb the languorous routine of Hawaii in the 1930s. The Franklin D. Roosevelt administration increased military spending after years of Republican parsimony toward the Army and Navy, but the new policy did not translate as coordinated modernization for both services. The Navy benefited first, with a new shipbuilding program in 1934. For the rest of the decade appropriations for the Army remained between 10 percent and 27 percent behind spending for the Navy. Nevertheless, with a 1939 budget of \$531 million—twice as large as the 1934 budget—the secretary of war and chief of staff could make significant

progress in Army expansion and modernization. (4)

When Army Chief of Staff General George C. Marshall turned to outpost modernization, he found in several respects a more substantial foundation at Hawaii than at the Army's other outposts in the Philippines, Panama Canal, Alaska, and Puerto Rico. Although the Hawaiian Department had less room to expand than other outposts, it had a larger garrison force and two large airfields. Also, in Maj. Gen. Charles D. Herron, Marshall had a department commander familiar with insular defense; Herron had served as chief of staff of the Philippine Department during 1927-1929. Herron had come to Hawaii in October 1937 to command the Hawaiian Division, then moved up to the department command the next year. (5)

The mission of the Hawaiian Department and its counterpart, the Fourteenth Naval District, was detailed in a document entitled "Hawaiian Defense Project, Revision 1940." The Army and Navy in Hawaii shared a joint mission: "To hold Oahu as a main outlying naval base, and to control and protect shipping in the Coastal Zone." Individual Army and Navy missions recognized the particular specialties of each service while at the same time enjoining both to render maximum cooperation. The Army mission read: "To

hold Oahu against attacks by sea, land and air forces against hostile sympathizers; and to support the naval forces." The Navy mission read: "To patrol the Coastal Zone and to control and protect shipping therein; to support the Army forces." In practice, Hawaiian Department officers understood their mission to mean protection of naval installations ashore and the Pacific Fleet when in port. (6)

Marshall and Herron recognized three major threats to Hawaii: sabotage, air raid, and submarine raid. The concern about sabotage grew out of the racial composition of the local population. Although several non-white groups lived in the islands, the Japanese dominated with 37 percent of the population of 423,000. Worried about the loyalty of these people in the event of a breakdown in American-Japanese relations, Hawaiian Department intelligence officers worked with the Federal Bureau of Investigation in Honolulu to monitor their activities, as well as those of German and Italian aliens. (7)

The concern about an air raid reflected the growing role of the aircraft carrier in naval operations. While the battleship remained the decisive weapon in naval doctrine, the aircraft carrier was winning new respect, especially after the successful British carrier



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raid on the Italian naval base at Taranto in November 1940. The *Imperial Japanese Navy*, in addition to a new and large submarine force, was believed to have at least six large carriers—each capable of launching thirty to fifty planes. Curiously, however, the threat of a submarine or carrier raid remained secondary in American thinking at the time because of the great distance from Japan to Hawaii and the conviction that U.S. Navy sea and air patrols would detect any hostile naval force. (8)

On a small island with excellent agricultural potential, the Army had to pay constant attention to civilian interests. The Hawaiian economy was dominated by a landowning-banking-agricultural network known as the "Big Five." Friction with the Big Five developed when the Hawaiian Department held maneuvers. To re-create realistic conditions, commanders wanted their units to move to all defensive positions, including those on private property. But if they did so, Big Five sugar and pineapple growers protested what they saw as trespassing. To avoid a spate of lawsuits, Herron ordered his troops to remain on roads or undeveloped areas, a policy which denied realistic training to many units, especially mobile anti-aircraft batteries. The stalemate over land use continued through the late 1930s and into 1941. (9)

To counter the various threats identified in the Pacific, the Hawaiian Department had an undersize infantry division, a brigade of coastal artillery, and an air wing of two bombardment and one pursuit groups. The Hawaiian Division did not have enough troops to defend all of the Hawaiian Islands, or even the coastline of Oahu, but this was not a major concern of Marshall or Herron because both discounted the possibility of land invasion. In an emergency, infantry units would have an antisabotage mission. Deficiencies in artillery and aircraft were more serious. Two of the three types of anti-aircraft weaponry dated from the World War: 3-inch batteries and .30-caliber machine guns. Only the .50-caliber machine guns could be effective against modern aircraft. At Wheeler and Hickam fields, Herron had obsolete B-18 bombers and P-36 pursuit planes. Prospects for air modernization in Hawaii were poor because official American neutrality precluded large-scale production in the late 1930s; later, when Britain came under German air attack, President Roosevelt ordered diversion of a portion of American aircraft production to the Royal Air Force. (10)

General Marshall tested defenses in Hawaii by calling an all-out alert in the summer of 1940. Despite

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the military deficiencies they recognized in the islands, both Marshall and Herron were pleased with the Hawaiian Department's response to the alert. (11)

At the end of 1940 an unexpected problem on the Navy side of the Hawaiian scene interrupted War Department plans for the islands. The sudden relief of the Pacific Fleet commander forced General Marshall to consider a change at Fort Shafter. General Herron would soon reach the retirement age, and rather than leave him to establish relations with a new admiral shortly before his own relief and then expect his successor to repeat the process a few months later, Marshall preferred to appoint someone with the prospect of longevity in the islands. Thus, most of the work of reinforcing the Hawaiian Department fell to Lt. Gen. Walter C. Short, who took command on 8 February 1941. (12)

Whoever commanded either the Army or Navy component of an outpost in 1941 had to work with a delicate command arrangement that represented an unrealistic attempt to contain the debilitating influence of interservice rivalry. Hawaii, like every other outpost in 1941, was a "two-headed" command. Neither the senior Army nor Navy officer on the scene commanded the other. Both were expected to command "by mutual cooperation," as the joint plan stated it. Thus, the effectiveness of outpost commands remained hostage to the chemistry of personality. Whenever outpost commanders came due for rotation, the Army chief of staff and his Navy counterpart had to exercise great care in selecting replacements. But not even carefully chosen officers could always make the two-headed system work. A few months before Marshall sent Short to Hawaii, interservice rivalry had flared on the Pacific side of the Panama Canal over the appropriate response to a possible submarine sighting. (13)

General Short faced a multitude of problems against a backdrop of growing international tension. In a letter to the new commander in Hawaii, Marshall underlined the Army mission in Hawaii, described briefly the new Pacific Fleet commander Short would have to work with, Adm. Husband E. Kimmel, and detailed the problems he faced in reinforcing Hawaii. Marshall's assessment was bleak, for at a time when the Navy was pressing the Army to improve defenses at all fleet outposts, the War Department was developing the eight Caribbean sites acquired from the British in the September 1940 destroyers-for-bases deal, as well as sharing weapons production with the British and Russians. Nevertheless, Marshall would try to send 31 P-36s in two weeks and 50 newer P-40s within six. (14)

After inspecting his new command, Short listed for Marshall the priorities he would address. At the top of his list was cooperation with the Navy. Within two months he made significant progress with his two counterparts, Fourteenth Naval District commandant Rear Adm. Claude C. Bloch and Admiral Kimmel. In March Short and Bloch agreed on a command arrangement for joint air operations. If aircraft of the two services attacked "hostile surface vessels," the Navy would command; if they operated "over and in the immediate vicinity of Oahu," the Army would command. Further, if the Navy needed assistance in carrying out its mission of distant reconnaissance from Oahu, the Army would make available some of its aircraft. In April Short and Bloch agreed on a "Joint Coastal Frontier Defense Plan," a lengthy document which, among other provisions, detailed Army and Navy responsibilities. Marshall found these agreements gratifying, and wrote Short, "It is evident that you have been on the job, and I know that the Navy is delighted to have such generous cooperation." (15)

Short had more success than his predecessor with civilian Hawaii. Elected officials invited Short to address the territorial legislature in April, and he took the opportunity to outline his views on civilian participation in defense of the islands. Short's proposals were incorporated into a Mobilization Day Bill, soon enacted by the legislature, which provided for a set-aside land program to produce food reserves and integration of civilian legal and medical resources with those of the Hawaiian Department in case of emergency. (16)

Short spent most of his time strengthening the Hawaiian Department's combat power. This effort implied several separate tasks, most of which Short had listed for Marshall below interservice cooperation in his first month in Hawaii. These included several construction projects and a request for engineer troops to carry them out. Progress on construction was made difficult by both funding and personnel problems. The War Department had neither enough money nor trained engineer troops to satisfy every department commander. Between February and December 1941, Short requested a total of \$22,953,697 but received only \$350,000 for road improvement, an appropriation rate of barely 1.5 percent. The response to Short's requests for personnel was even worse. No additional engineer units had arrived by the end of November. (17)

Despite funding and personnel problems, Short was able to accomplish much in strengthening defenses. Using infantry troops as engineers and mate-

rials set aside for the Works Progress Administration, he built aircraft revetments and field fortifications, bombproofed repair shops, improved roads, and lengthened airfields. He used companies and battalions of the 299th Infantry, Hawaii National Guard, to garrison outlying islands. He gained authority to transform the square four-regiment Hawaiian Division into two triangular divisions of three regiments each and divided responsibility for the defense of Oahu between the resulting 24th and 25th Divisions. (18)

Of all the military projects to which Short gave attention, none received more time than the aircraft warning service. To protect the islands against air attack, Short envisioned an air-ground agency that would perform three functions: detect the approach of enemy aircraft, alert coast artillery batteries and pursuit squadrons, and control antiaircraft fire and the movement of friendly aircraft against enemy forces. The antiaircraft weaponry and aircraft on hand in Hawaii at the beginning of the year represented a useful, though small and obsolescent, foundation for the aircraft warning service. According to reinforcement programs to be completed in the first half of 1942, Short would have 345 .50-caliber machine guns; in November 1941 he had 180. He ordered 140 37-mm. guns, but had only 20. And he ordered 24 of the new 90-mm. guns but never received any. The mainstay of Short's antiaircraft defense remained 86 obsolete 3-inch guns. In aircraft, Short was promised 360 fighter planes but had 105 at his airfields. He ordered 184 B-17 bombers but had 12. Because of a parts shortage throughout the Army, only 80 fighters and 6 B-17s were operational. (19)

To improve the aircraft situation, Short was counting on Marshall's promise of 55 P-40s and 35 B-17s when production increased. Nevertheless, Marshall sent Hawaii enough older P-36s and early versions of the P-40 for Short to add another pursuit group to the three-group air force he inherited from Herron. Thus, the Hawaiian air force in the first week of December had two bombardment and two pursuit groups. (20)

Short also made a start on the crucial control element of his aircraft warning service. Department signal and air officers planned an interceptor command to control antiaircraft fire and dispatch pursuit aircraft against approaching enemy squadrons. Because the interceptor command could call on Navy aircraft if needed, as provided for in the Short-Bloch joint air agreement, it had to deal with the delicate issue of interservice relations. To minimize the potential for disruption of a coordinated effort by the two services,

Short began holding air defense drills with the Navy in the fall of 1941. (21)

The key to the success of the aircraft warning service was early detection, but throughout 1941 this remained the weakest component of the system. The SCR-270 (mobile) and SCR-271 (fixed) radar systems developed in the late 1930s offered the promise of detection to about 150 miles. Impressed by radar tests in the Panama Canal area, Short ordered six mobile and six fixed sets. But shifting priorities in response to events in Europe and the western Pacific slowed Hawaiian reinforcement in the latter half of 1941 so seriously that by the first week of December Short had only five mobile radar sets in operable condition but no trained operators, and parts for three of the fixed sets, though sites for the latter were not finished. (22)

While planning his aircraft warning service, Short ran into opposition from another U.S. government agency. The National Park Service vetoed one of his choices of a radar site and service road on the grounds that construction would ruin a scenic view. It took the personal intervention of General Marshall with the secretary of the interior to restore the radar installation program in Hawaii. (23)

Although the Hawaiian Department never received the engineer and coastal artillery troops Short requested early in the year, the command received a growing number of men called by the new Selective Service System. By the summer of 1941 the Hawaiian Department was the largest overseas command in the Army, with more than 35,000 troops, and War Department plans called for building up to the authorized strength of 58,000 by the middle of 1942. But increasing strength on paper did not immediately translate into increasing combat capability, for many of the new men arriving in Hawaii had not completed basic training cycles. Thus, in addition to his official missions, Short had to assume the unofficial mission of completing the interrupted training of new men. (24)

Even in secure times, the execution of multiple missions can stretch resources to the limit. But in 1941 shifts in strategic priorities and additional missions reduced the Hawaiian Department's ability to carry out its primary mission. In the spring, to protect Lend-Lease shipments to Britain, President Roosevelt directed a shift of one-quarter of the Pacific Fleet to the Atlantic Fleet. For the Army in Hawaii, this Atlantic emphasis presented two unwelcome developments: delays in construction and weapons, because of the priority given the new Caribbean bases, and a loss of expected aircraft. Early in the year Marshall had

promised Hawaii 35 new B-17 bombers. Short received 21 in May; the others went to the Atlantic. (25)

Late in the summer, after the Japanese occupied French Indochina, another change of priorities in Washington affected Army reinforcement in Hawaii. The War Department changed its strategic view of the Philippines from a throwaway outpost in the path of expected Japanese aggression to a keystone position in the containment of Japan. As a result, the War Department gave the Philippines a higher priority for reinforcement than Hawaii. In addition to the loss of priority, Short lost 9 more B-17s to the Philippines, leaving him with 12 on paper. Besides these losses, Short's air force was given the additional mission of training B-17 crews for the buildup of General MacArthur's air force. For this new mission, Short received no new aircraft, which meant his 6 B-17s were no longer available to augment distant reconnaissance by the Navy. Thus, the promise from Marshall in February for 35 B-17s had become the reality in July of 6 B-17s on the runways. (26)

As important to an Army outpost as modern weaponry was accurate intelligence. While the Hawaiian Department labored to enhance combat power, the command also had to remain ready to answer any military challenge from the most likely adversary, Japan. Short and his staff depended on the War Department for information about Japanese forces. This reliance kept alive on a larger scale the dangers of interservice rivalry that Short and his staff thought they had under control because, of course, the Navy in Hawaii received intelligence from its own sources. As the months passed in 1941, the danger manifested itself. In a series of critical messages sent after Japanese forces occupied Indochina in July, different situation estimates became especially obvious. These differences culminated on 27 November, when the War and Navy Departments sent to their outpost commanders messages they intended as war warnings. The Navy left no room to doubt the purpose of its message. The first sentence read: "This dispatch is to be considered a war warning." (27)

In contrast, the War Department sent Short a mild summary of recent diplomacy that began: "Negotiations with the Japanese appear to be terminated to all practical purposes with only the barest possibilities that the Japanese Government might come back and offer to continue." The message continued in a curious pairing of positive and negative directions that earned it a name that would embarrass the War Department for years: the "Do-Don't" message. For example,

Short was told to "undertake such reconnaissance and other measures as you deem necessary," but not to "alarm the civil population," "disclose intent" or even show the message to any but "minimum essential officers." Both Short and Kimmel read each other's messages, and both put them down wondering which accurately reflected thinking in Washington. The different degrees of urgency conveyed by the two messages made difficult, if not impossible, an effective joint response in Hawaii. (28)

Short studied the ambiguities of the Do-Don't message. Three more messages about sabotage received within days convinced him that the War Department believed sabotage the greatest danger he faced. Short put his command on an antisabotage alert and continued essential training and construction. (29)

The supreme test of Hawaiian Department—and American—preparedness came, of course, on 7 December 1941. By any measure, the Army outpost failed in its mission to protect the naval base and ships in port and even its own posts and air bases. In the nation's most spectacular military defeat, the Pacific Fleet lost the heart of its battle line and was effectively disabled for six months. The Hawaiian Department lost over half of its aircraft and, worst of all, 683 casualties, 232 of them killed. (30)

Change came rapidly for the Hawaiian Department in the last three weeks of 1941. The two-headed command arrangement was immediately abolished, with all units in the islands now under the new Commander-in-Chief, Pacific, Admiral Chester W. Nimitz. The Hawaiian Department got a new commanding general, Lt. Gen. Delos C. Emmons, an experienced air officer, and unlimited funding for accelerated reinforcement. (31)

The Pearl Harbor disaster also provoked change in the longer term, for both the Army and the nation. The defeat showed that the emphasis in the Hawaiian Department reinforcement effort had been misplaced. Rather than numbers and types of weapons and aircraft, the critical element in the effectiveness of the outpost in 1941 was information. On several occasions in the latter half of that year, mishandled information misled officials in both Hawaii and Washington about the capability and preparedness of Army and Navy forces. Both Short and the War Department overestimated the ability of the Navy to detect and intercept enemy task forces. Kimmel and Bloch thought the Hawaiian Department was on a full alert status after Short received the 27 November warning. A second warning message from Marshall might have

caused Short to put his command on a higher alert, but it was sent by the slowest method and reached Fort Shafter after the attack. And everyone underestimated the ability of the Japanese to plan and carry out a complex operation far from the home islands. (32)

Lasting remedies for the problems of two-headed commands and mishandled information came in 1947, with the unification of the Army and Navy and a separate Air Force in one cabinet department and the establishment of the Central Intelligence Agency. Ironically, however, even before these reforms were in place, events demonstrated changing functions for

outposts. During the war that began with the attack on Pearl Harbor, both the Hawaiian Department and the naval establishment in Hawaii served more as staging and service commands than as national outposts. The Army garrison in Hawaii was never again as vulnerable as in 1941.

*Mr. Charles R. Anderson is a historian with the Center of Military History's Field and International Division. He is the author of *The Grunts and Vietnam: The Other War*. This article is derived from his forthcoming biography of Walter C. Short.*

Notes

1. War Department General Orders (WDGO) no. 183, 30 Sep 10; no. 64, 19 May 11; no. 129, 21 Sep 21, 11; no. 9, 6 Feb 13.
2. WDGO no. 16, 5 Apr 21; Hawaiian Division and Hawaiian Department returns, 1921-41, National Archives; Record Group (RG) 337: Records of Headquarters, Army Ground Forces, National Archives; also relevant is RG 395: Records of United States Army Overseas Operations and Commands, National Archives.
3. General Lucian K. Truscott, Jr., *The Twilight of the U.S. Cavalry: Life in the Old Army, 1917-1942* (Lawrence: University Press of Kansas, 1989), p. 35.
4. *Pearl Harbor Attack; Hearings Before the Joint Committee on the Investigation of the Pearl Harbor Attack, Congress of the United States, Seventy-ninth Congress, First Session* (Hereafter PHA), 1946, pt. 14, pp. 1017-18.
5. Biographical summary, Charles D. Herron, prepared by the War Department, copy in 201 File, U.S. Army Center of Military History, Washington, D.C.
6. PHA, pt. 15, pp. 1428-30.
7. Ibid., pt. 18, p. 3136; pt. 22, pp. 856-62.
8. Ibid., pt. 15, p. 1602; pt. 22, p. 165; pt. 28, pp. 1355-56.
9. Ibid., pt. 28, pp. 1357, 1369-70, 1382.
10. *Army Directory, October 20, 1940* (Washington, D.C.: The Adjutant General's Office), p. 7; Wesley Frank Craven and James Lea Cate, eds., *Men and Planes*, vol. 6 of *The Army Air Forces in World War II* (Chicago: University of Chicago Press, 1955), p. 267.
11. Marshall to Herron, 28 Aug 40, in Larry I. Bland,

- ed., *The Papers of George Catlett Marshall* (Baltimore and London: The Johns Hopkins University Press, 1981), vol. 2, pp. 296-97; Herron to Marshall, 6 Sep 40; Ibid., p. 297n.
12. Gordon W. Prange, *At Dawn We Slept: The Untold Story of Pearl Harbor* (New York: McGraw-Hill, 1981), pp. 38, 44, 47-48; Marshall to Herron, 13 Dec 40, *The Papers of George Catlett Marshall*, vol. 2, pp. 370-71; Biographical summary, Walter C. Short, prepared by the War Department, copy in 201 File, U.S. Army Center of Military History, Washington, D.C.
13. PHA, pt. 15, p. 1430; Mark S. Watson, *The War Department; Chief of Staff: Prewar Plans and Preparations* (Washington, D.C.: U.S. Army Center of Military History, 1950), pp. 460-61.
14. Marshall to Short, 7 Feb 41, in PHA, pt. 15, pp. 1601-02; pt. 14, pp. 973-75, 985-86, 990-1005; pt. 16, pp. 2225-29, 2238-39.
15. Ibid., pt. 15, pp. 1429-36; Marshall to Short, 5 May 41, in Ibid., p. 1612.
16. Telephone interv, author with Lt Gen Louis W. Truman (USA, Ret.), 5 Aug 86; PHA, pt. 7, pp. 2928-29; pt. 23, pp. 776, 790, 827.
17. Short to Marshall, 19 Feb 41, in PHA, pt. 15, pp. 1602-05; pt. 18, p. 3126.
18. Ibid., pt. 7, pp. 2924-27; pt. 12, pp. 318-19; pt. 18, p. 3096.
19. Ibid., pt. 1, p. 54; pt. 12, p. 320; pt. 22, p. 38; pt. 32, p. 172.
20. Stetson Conn, Rose Engelman, and Byron Fairchild, *Guarding the United States and Its Outposts, The United States Army in World War II* (Washington, D.C.: U.S. Army Center of Military History, 1964), p.

- 163; *PHA*, pt. 24, p. 1768.
21. *PHA*, pt. 6, p. 2587; pt. 28, pp. 1357-58; Conn et al., *Guarding the United States*, p. 168.
22. Conn et al., *Guarding the United States*, p. 167; *PHA*, pt. 1, p. 38.
23. *PHA*, pt. 15, p. 1606.
24. *Ibid.*, pt. 7, p. 2925; pt. 15, pp. 1602-05, 1635; pt. 22, p. 36.
25. *Ibid.*, pt. 33, p. 696; pt. 15, p. 1631; Conn et al., *Guarding the United States*, p. 166.
26. Conn et al., *Guarding the United States*, p. 167; *PHA*, pt. 22, p. 38.
27. *PHA*, pt. 14, p. 1406.
28. *Ibid.*, pt. 6, p. 2581-82; pt. 7, pp. 2935, 2950.
29. *Ibid.*, pt. 7, pp. 2935-37; pt. 22, p. 36.
30. *Ibid.*, pt. 1, pp. 54-55; pt. 24, p. 1784; pt. 39, p. 119;

pt. 22, p. 93. The Navy and Marine Corps lost 2,896 killed, wounded, and missing: Prange, *At Dawn We Slept*, p. 539.

31. Marshall to Emmons, 20 Dec 41, in *PHA*, pt. 15, pp. 1483-84; pt. 22, pp. 61, 89; Biographical summary, Delos C. Emmons, prepared by the War Department, copy in 201 File, U.S. Army Center of Military History, Washington, D.C.; *PHA*, pt. 7, p. 2928.

32. *Ibid.*, pt. 7, pp. 3054, 3057; pt. 27, pp. 164, 192-94, 200-201, 204-06; pt. 6, pp. 2582-84; pt. 7, pp. 3371-72; pt. 22, p. 474; pt. 7, pp. 2957-58; pt. 22, pp. 46-47; pt. 23, p. 977; pt. 35, p. 212.

Editor's Journal

Lt. Col. Charles McKenna's article on the "forgotten reform": instituting a system of field maneuvers in the U.S. Army in the years before World War I has been delayed in publication one issue. Watch for it in the Winter 1991/92 *Army History*.

This issue takes a look at the United States on the eve of war—very much in a state of armed neutrality, at Pearl Harbor, and on joint defense preparations. Once again we feature Mr. Edward Bedessem's chronology to help us all keep the World War II commemoration on track.

In the last issue General Nelson had some kind words for those of us who produce your professional bulletin. Two individuals in Production Services Division do not appear on the masthead, but have a direct hand in every issue. Ms. Catherine A. Heerin, Chief, Editorial Branch, and Mr. Arthur S. ("Steve") Hardyman, Chief, Graphics Branch, take a personal interest in how each issue of *Army History* is published, and I think their efforts deserve special mention.

Arnold G. Fisch, Jr.

Civil War Reference Bibliographies

In an era of fiscal restraint, it is often difficult to meet the needs and demands of the casual as well as the serious research communities. To meet both of these increasing needs in military history, the Military History Institute (MHI) has developed electronically created bibliographies (RefBibs) in order to maintain and expand references to its sources on a multitude of topics.

As part of this project, Ms. Louise Arnold-Friend of the Historical Reference Branch set out in 1989 to identify its materials pertaining to Union and Confederate Civil War units. The first phase of the project was completed earlier this year. Bibliographies of sources, citing only MHI holdings, are now available on 3,417 Union and Confederate units. They include library sources on a given unit, and also specific manuscript collections and a statement about the availability of photographs of individuals who served in each unit.

Because of the time invested in preparing and collecting the bibliographies, the turnaround time in responding to inquiries for information on units is now almost immediate. MHI anticipates that within a year a similar compilation of bibliographies on campaigns and battles will be available on-line, via the network through which users will access the full reference bibliography database.

For further information, the point of contact for both Civil War projects is Ms. Louise Arnold-Friend, Historical Reference Branch, USAMHI (DSN 242-3611, or commercial 717-245-3611).

The Chief's Corner

Harold W. Nelson

World War II commemoration activities are garnering many headlines as we pass through the fiftieth anniversary of Pearl Harbor. Here at the Center of Military History and in offices and museums throughout the system, these activities are seen as a mixed blessing. A long list of tasks unrelated to World War II still needs to be performed, very few additional resources are available, and it seems as if we cannot possibly meet new demands. Yet we know World War II truly was a turning point in our nation's history. The demands from veterans and units having a heritage in the war and our own continued interest in the period compel us to play an active role. Some of the Center's work over the past two years has been aimed at making it easier for all of us to meet the need for good, usable history of the Army in World War II in the coming years.

Keeping existing books in print is a big part of our program. Many of the "Green Books" are still unsurpassed as a starting point for serious research on World War II subjects. All volumes are available, and we have just published a special World War II Commemorative Edition of our catalog so that everyone can get the necessary ordering information.

We are also publishing an updated *Reader's Guide* to the Green Books. This provides a summary and topical listing for each volume along with an index. Since the long shelf of thick green volumes is sometimes rather forbidding to beginning students, the *Reader's Guide* can help them take initial steps. Those of us who are more familiar with the series find the *Guide* useful to help track specific topics in related volumes.

The catalog lists reprints of all American Forces in Action monographs. These are operational histories written by field historians during the war. Most have all of their maps bound in the volume. Several, e.g., *Utah Beach*, are shipped in a shrink-wrap package with maps. In every case the fine maps are an important reason for using these books alongside later commercial volumes that often lack adequate graphics.

Our cartographers and editors have been busy supporting the production of new books. Dr. Jeff Clarke and Mr. Robert Ross Smith literally fill a gap with *Riviera to the Rhine*—the long-awaited volume on

operations in Southern France, 1944-45. It joins Dr. Graham Cosmas and Dr. Albert Cowdrey's *Medical Service Support in the European Theater of Operations* to complete the Green Book series, save for one more possible volume. Two new small monographs are also aimed at the World War II audience. Dr. Charles Kirkpatrick's *Writing the Victory Plan of 1941* and Dr. Chris Gabel's *The GHQ Maneuvers of 1941* tell important stories that interest wide audiences. We also have in preparation, being edited by Dr. Clayton Laurie, John Ohly's manuscript on industrial plant seizures, and Dr. David Hogan's monograph "U.S. Army Special Operations in World War II."

In November our "Battle Streamer" pamphlets began to appear. CMH plans to publish a pamphlet for each World War II streamer on the Army flag, describing the strategic situation at the beginning of the campaign, the plans and activities of Army units that won the streamer, and the situation that evolved as a result of their initiatives. Today's units can use these pamphlets for officer professional development, focusing on their units heritage or studying campaigns of general interest. Veteran's groups will also be able to use relevant pamphlets in their education programs.

The Army is the Department of Defense Executive Agent for World War II Commemoration and has appointed Lt. Gen. (Ret.) Claude M. Kicklighter to head the effort. Much of his team's work will be aimed at education, so the products I have outlined here should contribute to the program's success. Army Art is heavily involved in one of the biggest events in the DOD program—a special show opening in San Antonio on December 7th that will later pass through presidential libraries before closing at the National Archives. The level of military, community, and corporate interaction for this kickoff event is impressive, but I predict that many command historians and museum curators will find themselves caught up in similarly ambitious programs in the coming years.

We will all have a chance to get together to talk about our progress and problems at the Conference of Army Historians here in Washington, 7-11 June 1992 (for conference details, see p. 35 of this issue). The planners are assembling a fine program, so I know all of us will benefit from attending, and I look forward to seeing you there.

Automating Army History

Kathryn Davis

Research is the essence of the historian's work. But since successful research is dependent upon the availability of source materials, locating and having access to relevant sources is vital. Unfortunately the process of finding pertinent sources is often a lengthy one, especially if historians must rely on traditional means of locating materials. Valuable research time often is spent simply searching the holdings of repositories in the hope of finding useful sources. If a quicker, more efficient way of locating source materials existed, historians would be able to invest more time on what they do best—examining, analyzing, and explaining historical information.

There is a wealth of material for Army historians within the Army's many libraries, museums, and historical collections—the problem is deciding where to search. While there have been tentative efforts to automate access to these resources, the Army historical community often must still rely on word of mouth, occasional printed finding aids, telephone calls, cunning, and plain old instinct to locate pertinent materials. Until recently little thought was given to making it easier for Army historians by providing them with an economical, efficient way of locating source materials without having to leave their offices.

Technology to the Rescue

With the proliferation of computers throughout the Army and the growth of on-line catalogs, data bases, and electronic finding aids, Army historians are now in a position to access vast holdings of automated source materials. Existing technology enables the Army historical community to network its many automated systems. Historians can easily tap into such a network using a personal computer with a telecommunications software package and a modem. The possibilities for such a system seem endless. An operation could be as simple as "black boxing" existing systems together to provide electronic mail, file transfer, and remote log-in capability, or as complex as providing a central data base containing all of the Army's historical materials on a mainframe computer with the capability of on-line full-text retrieval. Furthermore, this electronic resource-sharing network could interface with selected non-Department of Defense institutions, such as the Library of Congress, the National Archives

and Records Administration, and the National Park Service—each of which possess substantial holdings of interest to Army historians. Access to such a network would save historians tremendous amounts of time, reduce costs, and enable them to keep abreast of new collections as they become available. Regardless of when such a network becomes available, the Army needs to become aware of electronic means for bringing historians and source materials together.

The MHI Experience

Several years ago the U.S. Army Military History Institute (MHI) faced automation challenges very similar to the ones now facing the entire Army historical community. Established in 1967, the institute's stated mission is to "facilitate and encourage the official and unofficial use and study of military history by the acquisitions, concentration, preservation, organization and disposition of materials relating to the military aspects of history." These materials include books, government documents, military publications, periodicals, diaries, letters, memoirs, photographs, maps, posters, sheet music, oral histories, and audiovisual productions. Since its establishment MHI has acquired materials at a phenomenal rate, requiring immense effort just to physically handle, sort, and catalog them. At times the influx of material was so overwhelming that a large percentage was simply set aside to be organized at a later date. This expedient, of course, resulted in considerable backlogs of materials awaiting processing, thereby denying historians access to key sources. All concerned soon became aware that the traditional methods used to control the institute's collections and provide information to patrons were no longer adequate. In sheer desperation, MHI turned to automation to improve control over its collections and services to its customers.

Automated systems gradually were introduced at the institute beginning in 1976 with participation in the On-Line Cataloging Library Center (OCLC), an international cataloging resource sharing network. This innovation was followed in 1985 with the development and implementation of the Carlisle Tri-Library System (CATS), an on-line catalog shared by the three libraries on Carlisle Barracks. Next, MHI created a local network of multiuser computers (Intel 310s)

originally introduced as word processing machines. It was not long, however, before their use expanded to include preparing inventories and finding aids for the institute's holdings, creating data bases for archival and photographic holdings, and converting MHI's massive collection of reference bibliographies (refbibs) from paper copy to electronic files that could easily be updated and produced for patrons. Refbibs focus on specific subjects and contain a wealth of information on the institute's library, archival, and photographic holdings. As such, they are very useful research tools.

The initial results of these automation efforts were impressive and had a dramatic impact on how materials are processed and on the way MHI handles patron inquiries. The backlog of materials awaiting processing has been reduced significantly, now that materials can be checked quickly against existing holdings to immediately identify and eliminate excess items. Despite a 10 percent reduction in staff since 1985, the institute's ability to respond more quickly to the growing number of researcher inquiries has been significantly enhanced. Moreover, as MHI identifies and makes available a greater percentage of its holdings, there has been a corresponding increase in their use.

As the institute's collections came under control through the use of automation, the concept of improving service by providing remote electronic access to its holdings began to develop. With this idea in mind, the institute is planning to provide electronic access to the over 2,600 refbibs that have been compiled by the Historical Reference Branch over the last two years. Electronic access to these bibliographies will be through the Defense Data Network (DDN) using the automatic response feature of its electronic mail system. Any remote user with access to the DDN will be able to transfer copies of the refbibs to a local computer and then manipulate the transferred information with a local word processing package. Access to the refbibs likely will be available to DDN users in the fall of 1991.

The refbibs project is only the first step in the institute's plan to share its resources with the Army historical community. Eventually MHI hopes to have all of its data bases, inventories, and finding aids electronically accessible to researchers. This access should prove to be an invaluable asset to anyone doing research in American military history, and if this proves true for the institute's holdings, it should be equally true for the numerous other Army facilities with significant historical collections.

Army History Automation Project

Recognizing the need to "network" the Army historical community and the fact that MHI both represents the Army's major repository of historical materials and is well along in its automation initiatives, the U.S. Army Center of Military History (CMH), in conjunction with the institute, is sponsoring an Army History Automation Workshop scheduled for 18-20 November at MHI. The purpose of the workshop is to generate interest in developing an automation network for Army historians and to encourage participants to look for ways to automate their local resource holdings, while ensuring future compatibility with the rest of the historical community. The workshop's principal goals are:

1. To increase awareness of automation efforts that currently exist within the Army historical community and related organization;
2. To introduce participants to current technologies that may be appropriate in meeting their automation requirements;
3. To provide participants with training on how to automate, how to work with technical experts, and how to acquire automated systems; and
4. To provide participants with information on how resources can be shared through networking.

Workshop attendees—primarily historians, museum staff members, librarians, and selected individuals with an interest in military history—will represent a variety of organizations from throughout the Army and will bring to it a breadth of knowledge and experience regarding Army history that will help in preparing a network for the future.

Several projects are under way in preparation for this workshop:

1. CMH issued a survey to Army historians requesting information about their current automation efforts. Preliminary responses confirm that there are pockets of automation within the Army historical community, but a variety of different systems and software packages are being used. The final results of this survey will be presented at the workshop as an indicator of where Army historical automation stands today and as a guide for how to proceed in the future;
2. As mentioned earlier, MHI plans to have its refbibs accessible through the DDN in the fall of 1991. How these refbibs can be accessed electronically by the remote user will be demonstrated at the workshop and will serve as an example of how the DDN might

support the development of an Army history automation network; and

3. Workshop planners will make contact with the Office of the Director of Information Systems for Command, Control, Communications, and Computers (ODISC4), Headquarters, Department of the Army, to investigate the feasibility of developing hardware and software standards for the Army historical functions.

This workshop is viewed as the first step toward creating an electronic resource-sharing network within the Army historical community. Ideally, historians should then be able to access electronically the holdings of any Army historical research facility simply by using a local computer to tap into the network. How this network will be developed is yet to be determined,

but it is clear that such a network would be of great utility to Army historians. No longer will they have to "play detective" to locate pertinent materials. They can spend their time instead doing legitimate historical research—sifting through the source materials themselves.

For further information about the Army History Automation Workshop, contact Mrs. Kathryn Davis at (717) 245-4565, DSN 242-4565, or via electronic mail sent to "davisk@carlisle-em2.army.mil."

Mrs. Kathryn Davis is Assistant Director for Systems at the Military History Institute. A follow-up article on the results of the workshop will appear in a future issue of Army History.

United States Field Artillery Association 1992 Writing Contest

The United States Field Artillery Association is sponsoring its seventh annual History Writing Contest, with the winners' articles to be published in the August 1992 edition of *Field Artillery*. Those wishing to compete should submit an original, unpublished manuscript on any historical perspective of *Field Artillery* to the association by 3 February 1992. The association will award \$300 for the first place article, \$150 for second place, and \$50 for third. Selected honorable-mention articles also may appear in *Field Artillery*.

Military of all branches and services, including allied nations, and civilians of any nationality are eligible to compete. Competitors need not be a member of the association. Each submission should be a double-spaced manuscript of no more than 2,500 words, and should include footnotes, bibliography, and graphics (black and white or color photographs, slides, charts, graphs, etc.).

The article should include specific lessons or concepts that apply to today's innovative Redlegs, i.e., it should not merely record events or document the details of an operation. Authors may draw from any historical period.

A panel of three expert historians will judge the manuscripts, which will be forwarded to them without the authors' names. The panel will determine the winners based upon: Writing clarity (40 percent), usefulness to today's Redlegs (30 percent), historical accuracy (20 percent), and originality (10 percent).

Send entries by 3 February 1992 to the United States Field Artillery Association, ATTN: Writing Contest, P.O. Box 33027, Fort Sill, Oklahoma 73503-0027. For additional information, call the editor or managing editor of *Field Artillery* at DSN 639-5121/6806 or commercial (405) 351-5121/6806.

Cisterna di Littoria

A Brave Yet Futile Effort

Anthony J. Abati

This essay won the Center's 1990 Military History Writing Contest.

On 30 January 1944, German forces destroyed the 6615th Ranger Force (Provisional) outside the small Italian town of Cisterna di Littoria. This tragic loss of approximately nine hundred highly trained soldiers was the direct result of questionable tactical decisions by senior American leaders. Specifically, the respective commanders of the U.S. Army VI Corps and 3d Infantry Division violated the fundamental principles of offensive action, mass, and surprise.

To recognize the lessons of Cisterna di Littoria, one must first understand Italy's prevailing strategic and operational setting. After the successful Allied invasion of Salerno the German High Command ordered its forces to conduct bloody delaying actions across southern Italy's mountain regions. (1) This defensive tactic provided the German Army with time and subsequently enabled the fortification and manning of the Gustav/Bernhard Line. (2) By early November nine enemy divisions occupied this strategic mountain position, while another division was located between Anzio and Rome. (3) These forces were commanded by the German *Tenth Army* and tasked to prevent further Allied penetrations of Italy's southern front.

Tenth Army's responsibility included the defense of Rome and all potential amphibious sites south of Piombino and Porto Civitanova. To defend central and northern Italy, additional German units were stationed north of the *Tenth Army*. These troops were under the command of the *Fourteenth Army* and consisted of nine divisions—only two of which were qualified for combat. *Fourteenth Army's* mission was to eradicate partisan activity within its zone, establish strong points for coastal security, and train and refit units for deployment to other operational areas.

Germany *Army Group C* commanded these two armies and controlled all intertheater operations. (4) In the event of a major Allied offensive along the southern front, *Fourteenth Army* was directed immediately to dispatch fresh units to *Tenth Army's* operational area. Such a transfer would reduce the *Fourteenth Army's* available troop strength and, conse-

quently, diminish its capacity to defend successfully Italy's northern and central coastline. Therefore, by preceding an amphibious assault of central Italy with a major southern offensive, Allied forces could significantly degrade Germany's overall capability to defend the Italian peninsula.

The Germans recognized this relationship and, thereby, identified their potential vulnerability to amphibious assault. As a result, significant planning time and material resources were devoted to Italy's coastal defense. Although German intelligence could not forecast an exact future landing site, it did designate five likely areas. These five sectors—centered around Rome, Genoa, Livorno, Rimini-Ravenna, and Istria—were subsequently fortified and reinforced with available forces.

Shortages of in-country personnel significantly degraded the Germans' capability to man coastal defensive positions. (5) In fact, to effectively combat an Allied amphibious landing, reinforcements would have to be dispatched from adjacent theaters and Germany itself. Recognizing this, the German High Command issued detailed contingency plans to several major commands. (6) These plans designated reinforcing units, specified primary and alternate reinforcement routes, and provided for an emergency road and rail repair capacity. Additionally, to diminish the time between invasion notification and subsequent deployment of troops and equipment, only combat forces and essential service support troops would be dispatched to threatened areas.

Opposing the German forces was the Allied 15th Army Group, consisting of the American Fifth Army on the west and the British Eighth Army on the east. (7) Throughout the winter months of 1943 these forces had battered their way across Italy's vast southern mountain ranges and approached the Germans' main defensive area. During this period German defenses and counterattacks were highly effective, as Allied progress was slow at best. By early January the Allies had finally reached the Gustav Line. To the west, the American Fifth Army occupied the heights above the Garigliano and Rapido rivers. Directly across their front lay Monte Cassino and the narrow mountain

avenues of approach toward Rome. Without a strategy to turn the Gustav Line's western flank, however, the American Army would face another arduous and bloody mountain campaign.

As Allied forces slowly approached the Gustav Line, the coastal regions west of Rome quickly became the Germans' principal concern. This area was considered to be a prime landing site for an Allied amphibious assault—especially one designed to support offensive operations along the Gustav Line's western sector. Furthermore, given its political and religious significance, German control of Rome ensured Italy's membership in the Axis alliance. Therefore, its military occupation was critical to both Allied and German commanders.

During the initial days of January 1944 German intelligence sources indicated an impending Allied amphibious assault. (7) They could not, however, pinpoint an exact location. Consequently, defensive efforts were speeded up all along the coast, with particular emphasis given to Rome's adjacent coastal areas. By 15 June 1944, four *Tenth Army* divisions were headed toward or located near Rome, while an airborne corps was positioned to the city's east.

While the Germans strengthened their coastal defensive positions, the American Fifth Army completed preparations for a two-phase offensive operation. During phase one, American forces would conduct a deliberate supporting attack across the Garigliano River. This attack would incorporate sufficient Allied strength to draw in the German reserves and thus open up the enemy's rear areas. Once German reserves were decisively engaged along the Garigliano River, Allied forces would launch their main attack—a surprise amphibious landing at the twin resort towns of Anzio and Nettuno.

The amphibious assault was designed to cut vital German lines of communication to the Gustav Line's southern sector and secure high-speed avenues of approach into Rome. Upon confronting large scale attacks to their front and rear, German defenses were expected to disintegrate. Such a response would allow American forces to break through the Gustav Line, link up with assault units north of Anzio, and move rapidly toward Rome.

By 16 January German intelligence ascertained Allied plans to attack across the Garigliano River. (8) Based upon earlier indications of an impending amphibious assault and current estimates of available Allied forces, the Germans began immediate preparations to counteract two simultaneous attacks. (9) All

available *Tenth Army* reserves were committed to either Rome's adjacent coastal areas or the Gustav Line's southern sector. Additionally, planned movements of front line combat units to rear rest areas were canceled.

On 18 January 1944, the American Fifth Army initiated offensive operations at the Garigliano River. After crossing, Allied forces attacked across a wide front and gained immediate success. Within one day, the western sector of the Gustav Line began to crumble. (10) Faced with the immediate collapse of its southern defense, the German High Command was forced to act.

Despite the threat of an Allied invasion along Italy's central or northern coast, German *Army Group C* sent all available forces to the southern front. By the evening of 21 January the *1st Parachute Corps* and two *Panzer Grenadier* divisions—the *29th* and *30th*—had moved from Rome to the Garigliano River's immediate northwest. This action stripped personnel from the coastline west of Rome, leaving only small security elements to defend a sector nearly 100 miles long. (11) Although significantly weakening their coastal defensive capabilities, the Germans believed that the Gustav Line's rapid reinforcement would quickly change the tide of battle. Furthermore, a successful German counterattack could disrupt preparations for and, thereby, delay any Allied amphibious operation.

The hoped-for reprieve did not occur, however, as the Allied army's VI Corps assaulted the Anzio and Nettuno beaches at 0200 on 22 January 1944. (12) With only two undermanned battalions positioned to defend against twenty-seven attacking battalions, initial German resistance consisted of scattered mines, sporadic sniper fire, and intermittent indirect fire. (13) As the VI Corps troops pushed slowly inland, the U.S. air forces provided tactical air cover and attacked German resupply routes to Anzio's south, north, and east. Given the Germans' reaction to the Garigliano River offensive and the effectiveness of Allied air interdiction efforts, the enemy was incapable of executing effective defensive operations for approximately forty-eight hours. (14) Complete success was clearly within the American commander's grasp.

Rather than maintaining offensive action during this critical period, Allied forces occupied a small beachhead and prepared for an anticipated German counterattack. In fact, before 25 January, VI Corps directed subordinate elements to begin establishing strong defensive positions. (15) This cautious strategy

provided German commanders with ample time to rush troops toward the beachhead and fully undertake steps to prevent further enemy advances. (16) Three days after the Anzio invasion the previously unprepared and surprised German Army began demonstrating violent and stiff resistance. The Allied VI Corps had lost the initiative—its key element to a rapid and decisive victory. (17)

In an attempt to prevent further Allied advances, the Germans began an energetic defensive works program. Encircling the beachhead with interlocked strongpoint defensive positions, they developed a main line of resistance (MLR) which passed through the towns of Cisterna and Campoleone. Furthermore, to hold the Allies as far south of the MLR as possible, the Germans occupied and fortified positions between their main defense and the forward edge of the battle area. During this defensive operation the Germans recognized the value of masonry farmhouses, barns, and silos. Machine gun positions were placed inside such structures, where they enjoyed concrete protection against artillery, rocket-propelled grenades, and small arms fire. To support these improvised bunkers, dug-in fighting positions were emplaced around their immediate exterior. The result was a very formidable defense. In fact, tanks, tank destroyers, and direct hits from heavy artillery would prove to be the only effective weapons against it. (18)

Given the increasing strength of German positions, further Allied advances along the VI Corps' front were negligible from 26 through 29 January. During this interval attempts to break through the enemy's toughening defense repeatedly met with determined and highly effective resistance. This inability to seize additional territory prompted the Allies vigorously to execute combat patrols to search for German defensive weaknesses. Unfortunately, rather than discovering enemy limitations, American reconnaissance elements identified extensive defensive activity. In fact, across the 3d Division's entire front, the Germans were reinforcing and expanding existing positions. (19)

Faced with continually growing enemy strength, timid Allied leaders finally were willing to attack eight days after the initial amphibious assault. Their breakout plan called for a two-pronged night advance against a numerically equivalent enemy force. From the center of the Allied beachhead, the British 1st Infantry and United States 1st Armored Division were to push forward to Albano. Simultaneously, on the eastern (right) flank, the American 3d Division was to seize

Cisterna di Littoria, cut Highway 7, and be prepared to move toward Velletri. Acting as the VI Corps' security element, the U.S. 45th Infantry Division would be responsible for beachhead defense.

Located fourteen miles northeast of Anzio, Cisterna's proximity to major transportation networks made it a natural target for invading forces. (20) Specifically, two principal German supply routes passed through or were adjacent to the city. Running north to Velletri and southeast along the Italian coast, Highway 7 bisected Cisterna. To the city's immediate south, the main rail line between Rome and Naples ran through Cisterna's train station. By seizing Cisterna, therefore, the Allied forces would block a principal enemy line of communication to the Gustav Line.

In addition to its strategic import, Cisterna also possessed significant tactical value. Only two main roads ran into and out of the Anzio beachhead; one of these passed through Cisterna. Furthermore, via a surfaced road from Cisterna, the Albanese Mountains and the city of Cori were both immediately accessible. Since 22 January these two locations routinely had been used by German forward observers to target Allied forces. Given these factors, Cisterna's occupation would provide VI Corps with access to both high-speed avenues of approach and dominant terrain.

The Germans also recognized Cisterna's tactical and strategic importance. (21) Thus, once the invasion occurred, significant expenditures of manpower and equipment were allocated to the city's defenses. As a strongpoint in the German's MLR, the city itself was heavily defended by elements of the *Hermann Goering* and *26th Panzer Divisions*. Furthermore, German units also occupied forward defensive positions that covered Cisterna's mounted and dismounted avenues of approach.

By 28 January over eleven battalions were defending in depth within the immediate vicinity of the city. Equipped with a vast and devastating array of firepower, German defenders enjoyed excellent fields of fire across virtually coverless terrain. High-speed avenues of approach linked forward positions to armored reinforcements, thereby ensuring the potential for rapid and violent counterattacks. Finally, within their respective defensive sectors, direct and indirect fire assets possessed clearly identified and registered target reference points. In effect, German defenders had transformed Cisterna's flanking and southern approaches into a gauntlet of deadly engagement areas.

To defeat the Germans' defense, the U.S. 3d

Infantry Division planned to incorporate the night infiltration capabilities of a lightly armed commando force and the firepower of two infantry regiments. To be successful, the operation required three principal events to occur: the undetected infiltration of two battalion-size elements, the city's rapid seizure by lightly armed soldiers, and the successful penetration of enemy defensive positions by reinforcing units. During the formulation of the plan, heavy reliance was placed upon input by Allied intelligence experts. (22) Unfortunately, their estimates incorrectly portrayed enemy strengths and possible courses of action. In fact, attacking Allied forces were expected to "be capable of seizing [Cisterna] without much difficulty." (23) By basing its task organization and execution on such erroneous assessments, the division's final attack plan was fundamentally flawed. Specifically, it failed to concentrate sufficient mass at critical points and did not provide adequate techniques to ensure surprise.

The 3d Infantry Division's attack force consisted of the 6615th Ranger Force (Provisional), 7th and 15th Infantry Regiments, and 504th Parachute Battalion. (24) As the division's main effort, the Ranger Force would begin crossing the line of departure (LD) at 0100 on 30 January 1944. Moving along an infiltration route and direction of attack, the Rangers would seize the town of Cisterna and clear the Conca-Faminamorta-Cisterna Road. One hour after the Rangers' first elements crossed the LD, the two infantry regiments and the parachute battalion would launch supporting attacks. Their respective missions entailed cutting Highway 7 northwest and southeast of Cisterna, as well as seizing various bridges along the Mussolini Canal. By dawn Cisterna was to be controlled by the Rangers, while all other missions were to be accomplished no later than noon. Once all objectives were secured, the 3d Division was to be prepared to continue northeast and seize the high ground near the towns of Velletri and Cori.

Before the attack the Ranger commander organized his organic and attached assets into five distinct elements. (25) The force's main effort consisted of the 1st and 3d Battalions. Moving in a column formation along a single route, the two battalions "would utilize drainage ditches to conceal their movements" and infiltrate into Cisterna's southern outskirts. Upon reaching the town the 1st Battalion would assault and seize Cisterna. The 3d Battalion would provide support and be prepared to seize the objective should the 1st Battalion fail. Once Cisterna was cleared the two battalions would establish a hasty defense oriented

from the northwest to northeast.

One hour after the main effort began crossing the LD, the Ranger Force would initiate a supporting attack consisting of the 4th Battalion and an attached minesweeping party. This element would advance along the Conca-Faminamorta-Cisterna Road and clear this route of all enemy forces, mines, and obstacles. Upon reaching Cisterna, the 4th Battalion would orient hasty defensive positions in the south and be prepared to reinforce its two sister battalions in the north.

As soon as the Conca-Faminamorta-Cisterna Road was cleared, Cannon Company and a platoon from the 601st Tank Destroyer Battalion would move into Cisterna. Their mission was to cover the town's high-speed avenues of approach and, thereby, establish a hasty antiarmor defense against potential enemy counterattacks. Given the Rangers' lack of heavy weapons, such firepower augmentation would significantly enhance the Americans' capacity to defend against armored enemy forces. (26) Conversely, since this antiarmor asset was not to participate in Cisterna's actual seizure, attacking Rangers would have a severely limited capability for counteracting defending German tanks and self-propelled guns. (27)

Throughout the execution of the main and supporting attacks, elements of the 83d Chemical Mortar Battalion would provide indirect fire support to the three Ranger battalions. To execute this mission, mortar crews would travel behind the supporting attack and establish firing positions from which they could provide immediate suppressive fire. In addition to the crews that crossed the LD, additional mortar assets were located within the Ranger Force's assembly area. If the need arose, these tubes could reinforce the indirect fire provided by the attack's primary support element.

During the early morning hours of 30 January the 3d Division's attack began with all elements crossing the LD at their prescribed times. From then on, however, things began to go very wrong. The 7th and 15th Infantry Regiments had each planned to initiate their respective attacks by infiltrating one battalion toward their regimental objectives. Before daylight these infiltrating forces were to be followed up by each regiment's remaining infantry battalions and attached armor support. Unfortunately, just north of the LD the infiltrating battalions ran into strong and stubborn German resistance. Their covert movements suddenly were transformed into intense firefights with all companies heavily engaged.

In an effort to avert a tactical disaster, the two

regimental commanders immediately launched their remaining forces. While their encircled sister battalions battled for their very survival, each regiment's reinforcements attempted to break through German defenses and effect linkup. The flat, open nature of the surrounding terrain, however, did not support the attacking forces. Virtually devoid of cover and concealment, the terrain provided the German defenders with excellent fields of fire and observation. Hence, the exposed attacking American troops were forced to advance through "dense bands of automatic and indirect fire." (28)

The Rangers' supporting attack along the Conca-Faminamorta-Cisterna Road was also failing. Approximately 0415 the 4th Battalion began encountering dug-in enemy positions and heavy direct and indirect fire. As the Rangers attempted to push forward, they encountered a roadblock and flanking minefields. By covering this fixing obstacle with intense and accurate fire, German defenders for over an hour prevented a successful breach. This delay enabled enemy forces to establish and reinforce other defensive positions along the Rangers' direction of attack. Consequently, further American efforts to clear the road proved highly ineffective.

Throughout the initial engagements of the two infantry regiments and 4th Ranger Battalion, the 3d Division's main effort continued with its planned infiltration. While their counterparts fought intense battles to their flanks and rear, the 1st and 3d Ranger Battalions moved cautiously along the Pantano Canal. Passing directly through and around numerous German troop concentrations, the Rangers' tight column formation was not engaged by enemy defenders. During this "covert" movement the main attack force experienced two major breaks in contact, the first when the 3d and 1st Battalions became separated. The second break occurred while attempting to resolve the initial problem. By 0630 lead elements of the two-battalion force were approximately 1,300 meters southeast of Cisterna and preparing to cross Highway 7.

Operating under strict radio listening silence, the main attack force began the final leg of the infiltration by 0630. After passing through a prominent drainage ditch immediately east of Highway 7, the 1st Battalion began to move north across a large open area. To its rear the 3d Battalion continued to push forward along the drainage ditch.

Unknown to the attacking Rangers, the German defenders had anticipated the 3d Division's plan and, subsequently, taken steps to counteract it effectively.

(29) By approximately 0700 the two Ranger battalions were within a well-defended enemy engagement area. Without warning the awakening dawn became a brilliant flame from automatic weapons, tank main guns, and direct-fire artillery. From concrete structures and dug-in positions east of the drainage ditch, German defenders began pouring effective fire into the 3d Ranger Battalion. While the American soldiers oriented their weapons to this threat, additional German tanks and dismounted infantry began attacking from the west and southwest. Within fifteen minutes the 3d Battalion was completely surrounded by an impenetrable wall of exploding steel fragments and jacketed bullets.

As 3d Battalion soldiers valiantly battled against the enemy's numerically superior forces, the 1st Battalion continued to press forward toward Cisterna. Approximately 800 meters south/southeast of their objective, these Rangers met the same fate as their comrades in the 3d Battalion. From the city's southern outskirts and surrounding terrain, concealed German defenders engaged the Americans across well-defined sectors of fire. Completely exposed on coverless terrain, 1st Battalion soldiers dropped to the ground and began returning fire. By radio, Ranger leaders submitted immediate suppressive fire requests to the regimental command post. Although American artillery and mortars quickly responded, German defensive positions possessed excellent cover from indirect-fire weapons—especially the Rangers' supporting 4.2-inch mortars. Consequently, while armored German forces maneuvered for a complete encirclement, effective enemy fire continued to rain down on the 1st Battalion.

The Ranger's regimental commander, Col. William O. Darby, recognized the desperate situation confronting his main attack force. (30) Unfortunately, given the unexpected strength of German resistance, the necessary reinforcements were unable to assist Colonel Darby's beleaguered battalions. Approximately 4,500 meters southwest of Cisterna a well-defended German obstacle and minefield system blocked further 4th Ranger Battalion advances. At 0830 Cannon Company and the attached tank-destroyer platoon were directed to assist the 4th Battalion and, subsequently, lost four vehicles to intense enemy fire and concealed antiarmor mines. Even after the 3d Division commander released elements of the division's reserve, the Rangers' supporting attack was unable to break through German defensive positions.

Meanwhile, the 7th and 15th Infantry Regiments'

flank attacks were being repulsed by "the most intense direct and indirect fire ever encountered by 3d Infantry Division forces." Attacking units were channeled into kill zones by cleverly emplaced wire obstacles and minefields. After entering these engagement areas, supporting American tanks and mechanized vehicles were systematically destroyed by well-concealed anti-armor weapons. When dismounted infantrymen attempted to breach fixing obstacles and create an escape route, they were eliminated by machine guns and direct-fire artillery. As a result, ten hours after crossing the LD the division's two supporting attacks had advanced no farther than 4,000 meters.

At 1200 1st Ranger Battalion sent the following transmission to the Regiment's command post: "[Our] force has been badly shot up and is surrounded...Enemy tanks and self-propelled guns are causing great damage." Moments later, the inevitable occurred: isolated into small groups by intense German fire, surviving Rangers began to surrender. Of the main attack's 767-man infiltration force, only six returned to friendly lines. The others were either killed or captured. (31)

For the next forty-eight hours American units continued to batter against Cisterna's seemingly impenetrable defenses. After being heavily reinforced by division reserves and the 3d Battalion, 15th Infantry Regiment, the 4th Ranger Battalion succeeded in reaching the town of Faminamorta, about two miles south/southwest of Cisterna. Critically weakened by extensive losses suffered over the last two days of combat, the 4th Battalion was no longer a combat-effective unit. While adjacent American units secured their hard-fought gains, the 4th Battalion's survivors pulled back toward the LD and began guarding Allied lines of communication. Elsewhere along the 3d Division's front, further offensive actions were curtailed and subsequently replaced by consolidation and hasty resupply. Late in the afternoon of 1 February, with their attack objectives still two miles to the north and northwest, American units began to prepare for a German counterattack. Although fought with incredible bravery and determination, the Cisterna operation had failed. (32)

The 3d Division was not alone in its unsuccessful attempt to break out of the Anzio beachhead. Along VI Corps' other attack axis, Allied forces were repulsed by stiff enemy resistance and stalled by miserable ground conditions. (33) Immersed in a sea of thick mud, attacking armor was unable to maneuver across the battlefield. As a result, British infantry units were forced to attack without the support of the U.S. 1st

Armored Division. By the end of 30 January attacking elements had gained only approximately one mile of enemy territory. Two days later the attack ground to a complete halt along the railroad tracks southeast of Campoleone—nearly 10,000 meters south of the planned march objective.

By adhering to basic principles of warfare, American commanders could have avoided the tragic failures of 30 January through 1 February. After seizing the initiative during the Anzio invasion the VI Corps commander, Maj. Gen. John P. Lucas, was reluctant to expand the beachhead rapidly and seize key and decisive terrain. Such timidity enabled German Army forces to recover from their initial shock and, subsequently, heavily to reinforce the town of Cisterna di Littoria. Consequently, an objective that initially was only lightly defended became unattainable despite an intense deliberate attack. More important, once the initiative of offensive action was abandoned, American soldiers were forced to fight and die in a battle that should never have been fought.

After failing to capitalize on his initial success, General Lucas also failed to plan properly for VI Corps' breakout from the Anzio beachhead. Facing a numerically equivalent enemy, the VI Corps commander split his forces into two attack elements rather than concentrating his combat power at a single decisive point. Such a strategy prevented Allied forces from enjoying local fire superiority and instead led to advances into murderous fire. Without the ability to suppress enemy defenses, VI Corps' subordinate elements could not maneuver and rapidly became isolated and surrounded. Once this occurred, previously effective units were systematically cut to pieces by highly efficient German defenders.

The VI Corps commanders were not alone in their violation of mass. During the attack on Cisterna the 3d Infantry Division fought along a seven-mile front and attempted to seize objectives over five miles inside enemy defensive positions. (34) Across such a large offensive sector the American attack could have succeeded only under conditions that the battlefield did not exhibit—light enemy resistance. Thus, by spreading its limited firepower and personnel across five independent attack routes, the division did not possess the requisite mass necessary to defeat the enemy's extensive use of concrete structures and dug-in positions. (35) To make matters worse, once this flawed tactical plan began to unfold, thick cloud cover and steady rain throughout the battle prevented Allied aircraft from offsetting reverses on the ground.

Errors were also committed during planning for the seizure of Cisterna di Littoria. During this vital phase the 3d Division's commander, Maj. Gen. Lucian K. Truscott, required the Rangers' main attack force to move along a single infiltration route. (36) Because of this element's size, however, the operation should have been conducted by breaking into smaller units and infiltrating along multiple routes. By moving as a single body, the attack force minimized the advantage of surprise and enhanced the probability of detection, thereby degrading its chances for success.

Based upon interviews with German prisoners of war, it is clear that enemy defenders easily detected the Rangers' two-battalion attack force. (37) Foiling the attack, therefore, became a simple question of when to engage the assaulting Americans. Since the enemy

had planned numerous kill zones designed to engage dismounted enemy soldiers, this question was easily resolved. Specifically, engagement would occur when the maximum number of American troops were within a primary engagement area. This is precisely what the Germans did and, consequently, the 6615th Ranger Regiment was destroyed—destroyed in a brave yet futile effort.

Capt. Anthony J. Abati originally submitted this essay while attending the U.S. Army Infantry Officers' Advanced Course in December 1990 at Fort Benning, Georgia. His essay was accompanied by excellent maps, which are not reproduced here for Army History.

Notes

1. Allied operations in Italy began on 9 September 1943 with an amphibious assault on Salerno by the U.S. Fifth Army, including the 1st, 3d, and 4th Ranger Battalions. At that time the three Ranger battalions were not formed under a provisional regimental headquarters. Although Lt. Col. William O. Darby was the senior Ranger officer, he did not have overall command of the three battalions. He commanded the 1st Battalion, while Lt. Col. Herman W. Dammer commanded the 3d and Maj. Roy A. Murray the 4th. William O. Darby and William H. Baumer, *Darby's Rangers: We Led the Way* (San Rafael, Calif.: Presidio Press, 1980), pp. 28, 32, 112.

2. The Gustav/Bernhard Line was an extensive defensive position running across Italy from Greta to Ortona. It consisted of man-made obstacles and fortified positions, all of which had been cleverly tied into the natural obstacles of Italy's southern mountain ranges. C.L. Sulzberger, *The American Heritage Picture History of World War II*, ed. American Heritage Magazine, vol. 2 (New York: American Heritage Publishing Co., 1966), pp. 372-73, 388.

3. Except as noted, what follows—including the discussion of German command relationships, missions, and unit locations—is based primarily on U.S. War Department, Military Intelligence Division, *The German Operation at Anzio: A Study of German Operations at the Anzio Beachhead from 22 January to 31 May 1944* (Washington, D.C.: U.S. War Department, 1946), pp. 2-11.

4. Within the Italian Theater *Army Group C* was

responsible for command of all German Army units, all air force units assigned land missions, and the execution of all administrative and support activities. *Army Group C* did not command German air and/or naval operations conducted within the Italian Theater, however, as this responsibility fell to Field Marshal Albert Kesselring.

5. By late 1943 German force levels were barely sufficient simultaneously to combat Italy's growing partisan activity and hold the Gustav Line.

6. In the event of an Allied amphibious landing in Italy, the CinC West (France and the Lowlands), CinC Southeast (Balkans), and *Replacement Army* commander were directed to transfer combat troops and equipment to the CinC Southwest (Italy), with some reinforcements kept ready to march on eight to twelve hours' notification.

7. German intelligence sources consisted of the military's air and ground reconnaissance assets, as well as informants located throughout southern Italy. These sources revealed the following indicators: Allied troops and ships assembling in the Naples region, Allied offensive operations along the Gustav Line changing from attacks to holding actions, and an amphibious rehearsal being conducted along Italy's southern coast.

8. American activity within the Garigliano River area, 13-17 January, included Fifth Army troops redeploying south of Cassino; artillery batteries moving southwest to cover the Garigliano, registering at their new

locations, and beginning harassing and interdiction missions; and Allied air assets flying numerous tactical sorties throughout the Germans' defensive area. *German Operation at Anzio*, pp. 8-9. See also Martin Blumenson, *Salerno to Cassino* (Washington, D.C.: U.S. Army Center of Military History, 1969), pp. 315-20.

9. German intelligence estimates strongly indicated that Allied forces possessed the personnel, equipment, air assets, and lift capability required to conduct two major offensive operations simultaneously. In fact, throughout the first year of combat on the Italian peninsula, German intelligence experts continually wondered why Allied commanders never fully used this capability. *German Operation at Anzio*, pp. 3-8.

10. By the first week of February, the Germans had successfully countered the Allied offensive within this sector and reestablished their positions along the Gustav Line. *Ibid.*, p. 8; and Blumenson, *Salerno to Cassino*, pp. 348-51, 366-73.

11. According to captured German documents, the emergency deployment to the Garigliano dramatically reduced the size and capabilities of available defensive units. Rome's remaining units were battle fatigued and not fit for intense combat.

12. During the Anzio operation the 6615th Ranger Infantry Regiment (Provisional) was attached to the 3d Infantry Division. U.S. Army, Historical Division, *Anzio Beachhead: 22 January-25 May 1944*, American Forces in Action Series, no. 14 (Washington, D.C.: U.S. War Department, 1947), pp. 5-8.

13. Sources describing the Germans' initial ability to defend against the Allies' amphibious operation include: *Anzio Beachhead*, pp. 11-20; *German Operation at Anzio*, p. 11; Memo, Maj Gen Lucian K. Truscott for Adjutant General, 15 Mar 44, sub: Historical Record, HQ VI Corps, Jan 44—The Mounting and Initial Phases of Operation SHINGLE, pp. 4-5; Michael J. King, *Rangers: Selected Combat Operations in World War II*, Leavenworth Paper no. 11 (Fort Leavenworth, Kans.: U.S. Army Command and General Staff College, 1985), p. 32.

14. Memo, Truscott for Adjutant General, 15 Mar 44, sub: Operation SHINGLE, pp. 4-8; and *German Operation at Anzio*, pp. 9-12.

15. The German commanders were amazed at this American failure to seize an invaluable opportunity. See Martin Blumenson, *Anzio: The Gamble that Failed* (Philadelphia, Pa.: J.P. Lippincott Co., 1963), pp. 139-43; Blumenson, *Salerno to Cassino*, pp. 361-

65; Memo, Brig Gen John W. O'Daniel to Adjutant General, 7 Mar 44, sub: Historical Record, 3d Infantry Division, After Action Rpt for January 1944, pp. 3-5; *History of the Third Infantry Division in World War II* Donald G. Taggart, ed. (Washington, D.C.: Infantry Journal Press, 1947), pp. 109-11; *German Operation at Anzio*, p. 142.

16. By the evening of 22 January, *Army Group C* decided that the Anzio invasion was the Allies' major attack. Left unchecked, the assault could lead to the collapse of the entire southern front, i.e., the envelopment of the Gustav Line. *German Operation at Anzio*, pp. 11-12.

17. After the Anzio operation senior German Army leaders questioned the Allies' immediate transition from attacker to defender. Blumenson, *Salerno to Cassino*, p. 389.

18. The objective was twofold: to hold the Allies as far south as possible and to build up reserves behind German defensive positions for a decisive counterattack. *German Operation at Anzio*, p. 19; and Taggart, *Third Infantry Division*, p. 111.

19. Memo, Truscott for Adjutant General, 15 Mar 44, sub: Operation SHINGLE, p. 9; Taggart, *Third Infantry Division*, p. 112.

20. Wynford Vaughan-Thomas, *Anzio* (New York: Holt, Rinehart, & Winston Publishers, 1961), p. 61.

21. Blumenson, *Salerno to Cassino*, p. 87.

22. Unfortunately, instead of recognizing the Germans' actual intent—to defend in depth and hold at all costs—Allied intelligence experts predicted that the enemy probably would resort to delaying actions and small-scale counterattacks. Taggart, *Third Infantry Division*, pp. 112-16; Memo, O'Daniel for Adjutant General, 7 Mar 44, sub: Historical Record, 3d Infantry Division, pp. 4-6; King, *Rangers*, p. 34.

23. This estimate is curious in the light of earlier engagements involving the *Hermann Goering Panzer Division*, which traditionally was used to reinforce key or decisive terrain or to conduct major counterattacks. King, *Rangers*, p. 34; Robert D. Burhans, *The First Special Service Force: A War History of the North Americans, 1942-1944* (Washington, D.C.: The Infantry Journal Inc., 1947), reprint ed. by Lee Printing Co., Dalton, Ga., 1985, pp. 87-163.

24. Anticipating VI Corps' breakout plan, the 3d Division sought to maximize its available combat power. Consequently, on 28 January General Truscott requested a defensive frontage reduction and assistance in rear security operations. Maj. Gen. John P.

Lucas, VI Corps commander, reduced the division's front to ten kilometers, but during the actual attack the division was still responsible for sector security.

25. For a complete discussion of the Rangers' operational plan, see U.S. Army, 6615th Ranger Infantry Regiment (Provisional), Ranger Force Field Order #2, 29 Jan 44, Historical Document Section, U.S. Army Infantry Center and School Technical Library, Fort Benning, Ga.; King, *Rangers*, pp. 33-35.

26. During this time Ranger battalions were organically equipped with .30-caliber machine guns, 60- and 81-mm. mortars, and bazookas. Such weapons possess limited antiarmor capability at best. Furthermore, to minimize noise during the 1st and 3d Battalions' infiltration, main attack soldiers did not carry either machine guns or 81-mm. mortars—only 60-mm. mortars with less than twelve rounds per tube. Baumer, *Darby's Rangers*, pp. 26, 157-58.

27. While planning the Cisterna attack, the Americans were aware that a significant number of enemy tanks were near the town, although exact strength was unknown. Taggart, *Third Infantry Division*, p. 120.

28. Taggart, *Third Infantry Division*, pp. 114-15; O'Daniel, Historical Record, 3d Infantry Division, pp. 5-6.

29. Immediately after the Anzio invasion, General Field Marshal Albert Kesselring anticipated a 3d Division thrust to seize Cisterna. *German Operation at Anzio*, pp. 14-18; King, *Rangers*, p. 37; Taggart, *Third Infantry Division*, pp. 118-22.

30. Immediately before the Anzio invasion Col. William O. Darby assumed command of the recently formed 6615th Ranger Regiment (Provisional). The regiment's executive officer was Lt. Col. Herman

Dammer, 3d Battalion's former commander. Darby gave command of the 1st Ranger Battalion to Maj. Jack Dodson and the 3d Battalion to Maj. Alvah Miller. Baumer, *Darby's Rangers*, p. 136; King, *Rangers*, pp. 35-36.

31. King, *Rangers*, p. 39.

32. For a vivid eye-witness account of Cisterna's fierce combat, see Taggart, *Third Infantry Division*, p. 119.

33. Throughout the evening of the 29th and the morning of the 30th, rain fell across the Anzio beachhead. This rain was accompanied by thick clouds which effectively negated Allied air superiority. Truscott, *Operation SHINGLE*, pp. 10-13.

34. U.S. War Department, Historical Division, *Anzio Beachhead*, pp. 35-36.

35. Taggart, *Third Infantry Division*, pp. 118-23; Truscott, *Operation SHINGLE*, pp. 10-13.

36. Baumer, *Darby's Rangers*, pp. 157-58; O'Daniel, Historical Record, 3d Infantry Division, p. 5.

37. According to enemy prisoners captured near Cisterna, the Rangers were detected almost immediately after crossing the line of departure. Based on the Americans' approach route, the Germans recognized that the Rangers would eventually pass through a well-defended kill zone. King, *Rangers*, p. 37; Memo, Col H.J.P. Harding for the Adjutant General, 8 Mar 44, sub: Operations of the Ranger Force at the Anzio Beachhead, Historical Document Section, U.S. Army Infantry Center and School Technical Library, Fort Benning, Ga., pp. 3-4; *German Operation at Anzio*, pp. 14-18.

☆☆ New World War II Publication Recommended ☆☆

Brig. Gen. Harold Nelson, the Chief of Military History, heartily recommends it. Noted military historian Martin Blumenson calls it the "best account of combat in northwestern Europe 1944-45 I have ever read." What is it? A new publication entitled *War From the Ground Up: The 90th Division in WW II*, by John Colby, and available at \$29.95 from Eakin Press, P.O. Drawer 90159, Austin, Texas 78709. For further information call (512) 288-1771.

We anticipate reviewing this new book in the near future.

A.G. Fisch

World War II

1941

October - December

8 Oct - In debate surrounding the \$5.985 billion second Lend-Lease bill, the chairman of the House Appropriations Committee, Congressman Clarence Cannon, says "We must provide [the Allies] with clouds of airplanes, with acres of tanks, and with an avalanche of munitions."

9 Oct - In a message to Congress President Franklin D. Roosevelt urges repeal of Section 6 of the Neutrality Act of 1939, which precludes arming American merchant ships.

10 Oct - The House passes the second Lend-Lease bill.

13 Oct - The Secretaries of State, War, and the Navy testify before Congress that the Neutrality Act should be modified to allow the arming of American merchantmen and the entry of these ships into war zones.

16 Oct - The *Bold Venture*, an American freighter flying the Panamanian flag, is sunk about 500 miles south of Iceland.

17 Oct - The House passes an amendment to the Neutrality Act which would allow the arming of American merchant ships.

- The U.S. destroyer *Kearny* is hit by a torpedo about 350 miles southwest of Iceland. Though damaged, the ship is able to limp to port under her own power. The eleven crew members killed are the first American sevicemen killed through hostile action in the war. Officials in Berlin accuse the United States of staging the incident to get America into the war.

19 Oct - The American freighter *Lehigh* is torpedoed and sunk by a German submarine off the South African coast.

20 Oct - In the Senate an amendment to the ship-arming resolution is introduced which would repeal the Neutrality Act.

23 Oct - The Senate approves the second Lend-Lease bill.

24 Oct - President Roosevelt says that he will ask

Congress for funds to double America's tank production in light of lessons learned by the British in North Africa.

25 Oct - President Roosevelt formally condemns the execution of fifty French hostages by German soldiers in reprisal for the 20 October assassination of Lt. Col. Karl Friedrich Hotz, Nazi commander in Nantes, France.

28 Oct - President Roosevelt signs the second Lend-Lease bill and issues an executive order establishing the Office of Lend-Lease Administration.

29 Oct - U.S. Navy oil tanker *Salinas* is severely damaged but not sunk by a torpedo southwest of Iceland.

31 Oct - The U.S. destroyer *Reuben James* is torpedoed and sunk west of Iceland. This is the first American warship lost in the war.

- Following a confrontation between strikers and nonstriking workers, the Bendix, New Jersey, plant of Air Associates, Inc., is occupied by 2,100 Army troops.

3 Nov - In a cable to Washington U.S. Ambassador to Japan Joseph C. Grew says that Japan "might resort with dangerous and dramatic suddenness to measures which might make inevitable war with the United States."

- Admiral Isoroku Yamamoto's plan to attack Pearl Harbor is approved by the Japanese high command.

6 Nov - Congress approves \$1 billion loan to the Soviet Union.

- The U.S. cruiser *Omaha* and destroyer *Somers* capture the German merchantman *Odenwald*, which was operating as a blockade runner disguised by flying the American flag.

7 Nov - The Senate approves an amendment to the Neutrality Act which allows the arming of American merchant ships and their entrance into war zones.

11 Nov - President Roosevelt recommends that Lend-Lease aid be extended to the Free French.

16 Nov - The First and Fourth Armies begin two weeks of maneuvers in North and South Carolina.

Chronology

17 Nov - President Roosevelt signs the bill repealing sections of the Neutrality Act that prohibit the arming of merchant ships and their sailing in war zones.

- President Roosevelt meets with special Japanese envoy Saburo Kuruu at the White House to discuss U.S.-Japanese relations.

20 Nov - In ongoing diplomatic discussions with the United States, Japan proposes that the United States end all aid to China and allow Japan complete autonomy in her dealings with China and Indochina.

21 Nov - Lend-Lease aid is extended to Iceland and, three days later, to the Free French.

23 Nov - U.S. forces occupy Dutch Guiana, which provides most of the bauxite needed by the defense industry aluminum producers. The Netherlands and Brazil approve the occupation.

24 Nov - Germany denounces the U.S. occupation of Dutch Guiana as "White House imperialism."

25 Nov - The Department of the Navy orders the convoying of merchant ships in the Pacific.

27 Nov - The United States rejects Japan's proposals of 20 November, effectively ending negotiations toward a peace settlement.

3 Dec - The U.S. merchant ship *Sagadahoc* is sunk by torpedoes in the South Atlantic.

6 Dec - President Roosevelt sends a personal appeal for peace to Emperor Hirohito.

7 Dec - In a surprise attack Japanese forces bomb Pearl Harbor, destroying four battleships and two other ships, damaging four other battleships, three cruisers, three destroyers, and two other ships, and killing 2,334 American servicemen. Within hours the Japanese also attack the Philippines, Guam, Wake Island, Singapore, and Hong Kong.

8 Dec - The United States declares war on Japan.

10 Dec - Guam surrenders to the Japanese.

11 Dec - Germany and Italy declare war on the United States.

- The United States declares war on Germany and Italy.

12 Dec - Rumania, Hungary, and Slovakia declare war on the United States.

-U.S. troops aboard ships bound from Hawaii to the Far East are organized under Brig. Gen. Julian F. Barnes as Task Force South Pacific.

13 Dec - Bulgaria declares war on the United States.

15 Dec - The first merchant ship lost by Japan in the war, the *Atsutasan Maru*, is sunk by the U.S. submarine *Swordfish*.

17 Dec - Top Army and Navy commanders in Hawaii are replaced as a result of the events of 7 December.

- Albania declares war on the United States.

20 Dec - The Japanese land at Davao, Mindanao, sparking heavy fighting.

- Congress amends the Selective Training and Service Act to provide for the registration of all men between the ages of 18 and 65, and the eligibility for training of men between the ages of 20 and 45.

- American aviators patrolling the Burma Road turn back a raid against Kunming and shoot down four Japanese planes.

22 Dec - Prime Minister Winston Churchill meets with President Roosevelt at the White House to discuss plans for "the defeat of Hitlerism throughout the world."

- The Japanese mount a large-scale assault on Luzon Island in the Philippines, engaging American and Filipino troops.

-The first American troops (Task Force South Pacific) arrive in Australia.

23 Dec - Japan occupies Wake Island. The approximately 400 servicemen and 1,000 civilians on the island are captured.

26 Dec - Manila is declared an open city. All troops are withdrawn and supplies destroyed.

Focus on the Field

Military History Office

Forces Command

William E. Stacy, Command Historian

Forces Command (FORSCOM) is the continental United States base for the combat arms, combat support, and combat service support units—both Active and Reserve Component. As a Joint Chiefs of Staff specified command, it supports the overseas commanders in chief, as was done recently during JUST CAUSE and DESERT SHIELD/DESERT STORM.

As might be expected in such a large and diverse command, the military history program is both large and diverse. It also at times appears contradictory. For example, one of the best FORSCOM museum curators has a doctorate in history, and one of the best FORSCOM historians started off as an Army museum curator. The Military History Detachments are not always staffed by professionally trained historians, while our additional-duty historians often have advanced degrees in history. To orchestrate and synchronize such a diverse group is an interesting challenge.

Traditionally, FORSCOM commanders have been supportive of the military history program, but rarely has this support been translated into permanent professional historian positions. The commanders presume that the FORSCOM historical community will do its job in a professional manner, just as they presume that soldiers can shoot straight and mechanics can maintain tanks. So how does one “make something out of nothing at all”? Essentially, through the dedication and professionalism of the FORSCOM historical community, the mission is accomplished—no one hides behind a job description and says that it is not his or her business to do such-and-such.

The foundation of the Forces Command military history program is the FORSCOM museum at the unit and installation level. Most of the already overworked museum curators have been designated as the installation historian and, in some instances, as the unit historian as well. This tasking results from the fact that—except for the 101st Airborne Division—none of the FORSCOM units below the corps level has a full-time historian. In addition, the curators and their staffs assume the lion's share of the military history

education mission in Forces Command. There simply would not be a viable military history program below the corps level without these dedicated professionals.

The command currently has three professional civilian historian positions in the field. All three are at the corps headquarters level. In addition, the 101st Airborne Division has appointed a uniformed officer to be its full-time historian. These four historians serve not only their own organizations, but often provide staff support to subordinate commands. Along with their historical tasks, each corps historian has program management responsibilities—a very full plate for a one-person office.

Forces Command has an outstanding pool of talent in its Active Army and Reserve Component Military History Detachments (MHDs). Trained and ready when called upon for a contingency or war, they support many organizations and special projects during peacetime—often far beyond their normal training requirements. Each three-soldier team consists of a major with the historian designator, a 46Q Public Affairs NCO, and a 71C Executive Administrative Assistant. This range of talent makes the detachments particularly effective in supporting nontraditional or comprehensive military history missions. Their deployability make them the true utility players on the team.

The additional-duty historians make up the largest group of historians and provide a wide range of historical services. First, they write the organizations' annual historical reviews, and in the process gather what few historical documents get retired in most units. Second, they serve as the organization's point of contact for historical staff questions. Some FORSCOM units also conduct military history education projects such as staff rides, battle analysis conferences, and military classics seminars with special projects officers. The range of professional qualifications of these part-time historians is very impressive, and the level of military history activities generated for their units is amazing when one considers that they all have full-time jobs in the unit.

In summation, the challenge of the Forces Command military history program is to nourish this hybrid plant, prune the dysfunctional parts, and encourage healthy growth where appropriate.

Fifty Years of Excellence

The Redstone Arsenal Complex Since 1941

Michael E. Baker and Kaylene Hughes

Just over fifty years ago, fire trucks raced through the "Watercress Capital of the World" delivering an "EXTRA" edition of the *Huntsville Times*. The 3 July 1941 newspaper's banner headlines proclaimed the construction of a \$40 million chemical war plant southwest of what was then a quiet town in northern Alabama. The Army's impact on Huntsville and the surrounding area was immediate and profound. It would also prove to be long lasting. The 1949 decision to consolidate the Army's missile and rocket programs at Redstone Arsenal forever changed the people and way of life in Huntsville. The arsenal's past helps to explain its own as well as Huntsville's current position on the technological cutting edge in missilery and space.

Redstone Arsenal's World War II Origins

It was hot and sultry in Huntsville, Alabama, on the morning of 25 October 1941, when Maj. Carroll D. Hudson walked to the center of a cotton field and turned over a shovelful of earth. This simple ceremony marked the beginning of construction of the Ordnance Corps' seventh manufacturing arsenal.

Redstone Ordnance Plant, as the new facility initially was known, was not the first Army installation to be located in the Huntsville area of north Alabama. Previously, on 4 August 1941, the Chemical Warfare Service (CWS) had broken ground on a new chemical manufacturing and storage facility named Huntsville Arsenal, which was to supplement the production of the CWS' only other chemical manufacturing plant at Edgewood Arsenal, Maryland. The Army acquired about 30,000 acres of land on the city's southwestern edge for the new facility.

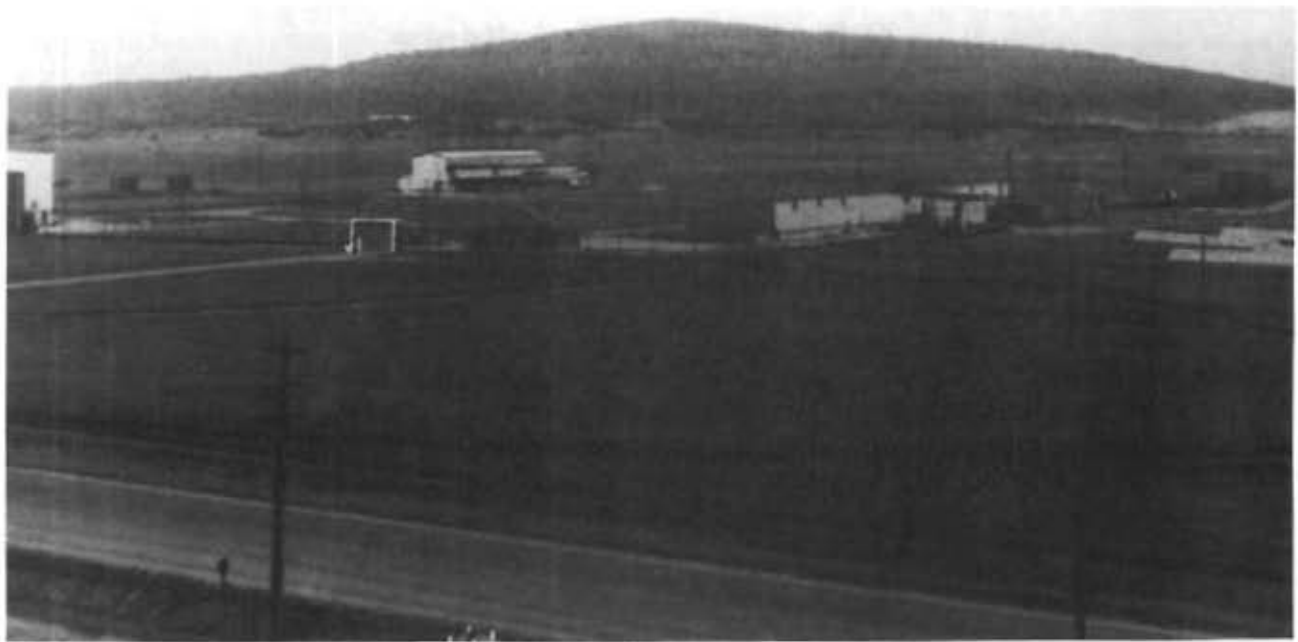
Included in the land for Huntsville Arsenal were over 7,700 acres which were to be used for construction of a depot area. Located in the extreme southern portion of the arsenal bordering the Tennessee River, the Huntsville Chemical Warfare Depot was established by the War Department on 6 March 1942. The depot received, stored, and issued such CWS materiel as munitions, bulk chemicals, decontaminating apparatuses, protective materials, and spare parts for gas masks. To avoid confusion with Huntsville Arsenal,

the War Department changed the storage facility's name to Gulf Chemical Warfare Depot on 10 August 1943.

There were several factors that contributed to the Army's selection of Huntsville as the site for its new chemical production and storage facilities. First, the Army needed about 30,000 acres of land located far enough from the coast to provide sufficient protection from enemy aggression. The land offered by the city was not only very reasonably priced, but also surrounded by foothills which afforded extra protection from possible attack. Other considerations included access to adequate rail, water, and highway transportation; plentiful fuel and electrical power; ample construction supplies; and enough raw materials for subsequent operations. In addition, the available labor pool, the climate, and the general living conditions in northern Alabama were considered excellent.

The Ordnance Corps was attracted to the area by the presence of the CWS installation. Recognizing the tremendous economy of locating a shell loading and assembly plant close to this facility, the chief of ordnance acquired a 4,000-acre tract east of and adjacent to Huntsville Arsenal. Redstone Ordnance Plant, which derived its name from the preponderance of red soil in the area, was the only government-owned and -operated arsenal established by the Ordnance Corps during World War II. It was also the only Ordnance Corps manufacturing arsenal located south of the Mason-Dixon Line. The War Department officially activated the new facility on 5 February 1942. One year later on 26 February 1943, the plant was redesignated Redstone Arsenal.

During World War II Redstone Arsenal produced such items as burster charges, medium- and major-caliber chemical artillery ammunition, rifle grenades, demolition blocks, and bombs of varying weights and sizes. Between March 1942, when production began at Redstone, and the Japanese formal surrender in September 1945, over 45.2 million units of ammunition were loaded and assembled for shipment. For their outstanding services in the manufacture of munitions, Redstone Arsenal employees won the Army-Navy "E" award five different times.



World War II-era Huntsville Arsenal production facilities

Neighboring Huntsville Arsenal also had a notable war record. The installation's initial production facility was activated in March 1942, and by October of that year the arsenal had become the sole manufacturer of colored smoke munitions. Huntsville Arsenal also was noted for its vast production of gel-type incendiaries. In addition, it produced toxic agents such as mustard gas, phosgene, lewisite, white phosphorous, carbonyl iron, and tear gas. During World War II more than 27 million items of chemical munitions having a total value of more than \$134.5 million were produced. Personnel of the Huntsville Arsenal won the Army-Navy "E" four times for their outstanding record in the production of war equipment.

The Home of Army Missilery

Once World War II ended, production at both Redstone and Huntsville Arsenals ceased. Between 1945 and 1947 the focus at the facilities shifted to such activities as renovating and salvaging ammunition returned from overseas; destroying obsolete and captured enemy munitions; disposing of surplus property; decontaminating arsenal buildings and equipment; and placing the production plants in standby storage. Redstone Arsenal was put on standby status in February 1947, while Huntsville Arsenal was declared excess to the needs of the Army in September of that year.

In November 1948 Huntsville Arsenal won a brief reprieve when the chief of the Chemical Corps removed the installation from the surplus category and

placed it on standby for possible use by the Department of the Air Force. When the Air Force subsequently declined use of the arsenal, the Office of the Assistant Secretary of the Army directed that Huntsville Arsenal be advertised for sale by 1 July 1949. The sale never happened, however, because the Army found it needed this land for the new rocket and missile mission developing at nearby Redstone Arsenal.

During the summer of 1948 an extensive survey of all ordnance installations had been made to find suitable land and facilities to permit the activation of a rocket center for the Army's expanding work in this field. The chief of ordnance designated Redstone Arsenal in October as the center of research and development activities in the field of rockets and related items. On 1 June 1949, he officially reactivated the arsenal as the site of Ordnance Rocket Center. Huntsville Arsenal ceased to exist as a separate installation on 30 June 1949, with its remaining personnel transferred to Redstone Arsenal. Redstone assumed the functions necessary for providing internal security and maintaining essential utilities for lessees pending the final disposition of Huntsville Arsenal's property and land.

To increase the economy and efficiency of the Army's missile program, the Secretary of the Army on 28 October 1949 approved the transfer of the Ordnance Research and Development Division Sub-Office (Rocket) at Fort Bliss, Texas, to Redstone Arsenal. Among those transferred were Dr. Wernher von Braun and his team of German scientists and engineers

who had come to the United States after World War II under Operation PAPERCLIP. Effective 1 April 1950, the Department of the Army officially discontinued Huntsville Arsenal and consolidated the major portions of its land and facilities with Redstone Arsenal to accommodate the newly transferred Ordnance Research and Development Division Sub-Office (Rocket).

With the arrival of the Fort Bliss group beginning on 15 April 1950, Redstone Arsenal officially entered the missile era. The Ordnance Research and Development Division Sub-Office (Rocket) was redesignated the Ordnance Guided Missile Center after its transfer to Redstone. One year later the arsenal assumed responsibility for the national procurement and field service missions. In addition to basic and applied research, development, and testing of free rockets, solid propellants, jets, and related items, the arsenal was now charged with research and development of guided missiles.

Rocketry, Missilery, and Space *Redstone Arsenal, 1950-56*

In April 1950 Redstone Arsenal became the home of the consolidated Army Ordnance Corps rocket and missile program. The following year the corps expanded the arsenal's mission to include anti-aircraft missiles, rocket launchers, and solid propellants—the latter two programs to be carried out in cooperation with Rock Island and Picatinny Arsenals.

The installation was also approved in February 1951 as the site for guided missile courses. Accordingly, on 3 March 1952, the commanding officer at Redstone Arsenal officially established the Provisional Redstone Ordnance School (PROS). The arsenal lost jurisdiction over the school, however, effective 1 December 1952, when the Ordnance Guided Missile School (now the Ordnance Missile and Munitions Center and School) was established.

In its eight years as the commodity arsenal for



Three of Redstone Arsenal's most influential leaders: (l to r) Maj. Gen. John B. Medaris, first commander of ABMA and AOMC; Dr. Wernher von Braun, noted scientist and space pioneer; and Brig. Gen. (later Maj. Gen.) Holger N. Toftoy, nicknamed "Mr. Missile," who helped convince the Army's leadership to consolidate its rocket and missile programs at Redstone Arsenal.

rockets and guided missiles, Redstone Arsenal served as the nerve center not only for the research and development but also for the procurement, storage, maintenance, and repair of the entire family of Army Ordnance missile systems. During the period from April 1950 to March 1958 Redstone Arsenal managed several important missile and rocket programs, including the Redstone, Corporal, Nike family, Hawk, Lacrosse, Honest John, Sergeant, Littlejohn, and Redeye.

In addition to its rocket and guided missile responsibilities, Redstone Arsenal also retained until 1 July 1956 the chemical ammunition missions formerly assigned to wartime Redstone and Huntsville Arsenals. Following the United States' entry into the Korean War, four ammunition production lines were reactivated from standby status and resumed production in July 1951. By the end of 1955 Redstone Arsenal was producing a major portion of all chemical artillery ammunition used by U.S. troops. Between July 1951 and July 1956 the arsenal produced over 38.7 million complete rounds of chemical artillery ammunition.

Army Ballistic Missile Agency, 1956-61

The Army Ballistic Missile Agency (ABMA) was established at Redstone Arsenal on 1 February 1956 because of the availability of necessary resources at the installation and the proven success of the Redstone missile program. With the activation of this new organization, however, Redstone Arsenal suffered a severe loss in mission, personnel, and facilities because the core of the new agency came from the Guided Missile Development Division of the arsenal's Ordnance Missile Laboratories.

A Class II activity under the jurisdiction of the chief of ordnance, ABMA's existence began with a purely military mission: to field the Army's first intermediate range ballistic missile (IRBM). The agency was responsible initially for the Redstone and Jupiter (IRBM) missile programs; the Pershing project was assigned to ABMA in 1958. The Army satellite program, for which ABMA was best known, was executed under special orders and was not actually assigned as a mission of this agency.

The period between 31 January 1958 and 1 July 1960 was a time of outstanding success for the U.S. space program. It was also the period during which the U.S. Army made its most notable contributions to the nation's space effort. Foremost among the Army commands and installations aiding the nation's space mission was ABMA.

During the thirty months stretching from the successful launch of Explorer I to the formal transfer ceremony which officially opened the George C. Marshall Space Flight Center at Redstone Arsenal, the Army accomplished several significant missions. It placed four earth satellites into orbit; launched the Free World's first lunar probe and first solar satellite; sent three primates into space—two of which (Able and Baker) were recovered alive; initiated effort on a 1.5-million-pound-thrust booster being designed for a lunar exploration vehicle; and began work on the launch vehicle which would carry the first men into space.

Army Ordnance Missile Command, 1958-62

On 31 March 1958, the Department of the Army created the Army Ordnance Missile Command (AOMC) because of the increasing importance of missileery and the pressing need for exploiting resources to their maximum capability. A Class II activity under the jurisdiction of the chief of ordnance, the new command was headquartered at Redstone Arsenal. It was the largest field organization within any of the Army's technical services in number of personnel directly engaged, value of facilities, number of weapon system programs under its control, and dollars allotted. The subordinate elements of AOMC included ABMA; Redstone Arsenal; the Jet Propulsion Laboratory (JPL) at the California Institute of Technology in Pasadena, California; and White Sands Proving Ground (later, White Sands Missile Range), New Mexico.

Establishment of the Army Rocket and Guided Missile Agency

Another subordinate element of AOMC was the Army Rocket and Guided Missile Agency (ARGMA), created on 1 April 1958. Although not officially established as an activity under the jurisdiction of the chief of ordnance until 1 June 1958, ARGMA assumed the technical missions formerly assigned to Redstone Arsenal. The primary mission of the latter organization became that of providing support and housekeeping services for the entire arsenal complex. Redstone Arsenal subsequently was replaced as the support element of AOMC on 1 June 1961 by the Army Ordnance Missile Support Agency, the forerunner of today's Redstone Arsenal Support Agency. With the activation of AOMSA, Redstone Arsenal became a geographical location only.

NASA Transfer

On 21 October 1959, President Dwight D. Eisenhower approved the transfer of Army Ballistic Missile Agency scientists and engineers to the National Aeronautics and Space Administration (NASA). Within a week the chief of ordnance advised AOMC that the Army's work for NASA would be handled under the cooperative agreement of 3 December 1958 until Congress approved the transfer. The Development Operations Division of ABMA, the nucleus of which was Doctor von Braun's team, would remain an Army responsibility until phased to NASA after congressional approval.

The Army-NASA Transfer Plan, signed by the NASA administrator, the secretary of the Army, and the acting secretary of defense on 16-17 December 1959 and approved 15 March 1960, provided for ABMA's continued performance of military weapon systems missions and permitted NASA to establish a substantially independent space vehicle research and development organization on Redstone Arsenal.

By the end of March 1960 AOMC's mission was changed, eliminating the projects being transferred to NASA as well as all references to spatial missiles and vehicles and the Jet Propulsion Laboratory (which transitioned to NASA in December 1958). Supporting research projects on ballistic missiles and guided missile weapon systems as well as scientific projects assigned by the Department of the Army became substitute missions for the Army Ordnance Missile Command. On 1 July 1960, AOMC formally lost all of its space-related missions, along with about 4,000 civilian employees and \$100 million worth of facilities and equipment, both at Redstone Arsenal and Cape Canaveral, Florida, to Marshall Space Flight Center, which officially opened at Redstone Arsenal the same day.

AOMC Reorganization

As part of the reorganization of AOMC, both ABMA and ARGMA were abolished on 11 December 1961, and their functions and personnel were merged with AOMC headquarters. Knowledge of the pending Army-wide reorganization heavily influenced the consolidation and restructuring of the Ordnance Missile Command. AOMC established project offices for fourteen of the weapon systems under its direction. On New Year's Day 1962 the White Sands Missile Range was removed from AOMC's jurisdiction and placed directly under the chief of ordnance. All of these actions subsequently helped to smooth the transition from AOMC to the new command that would be established at Redstone Arsenal as part of the Depart-



The Army's Redstone missile, named for the arsenal where it was developed and initially produced, was the first large U.S. ballistic missile to be deployed overseas.

ment of the Army reorganization in 1962.

U.S. Army Missile Command, 1962-Present

The U.S. Army Missile Command (MICOM) was established at Redstone Arsenal on 23 May 1962 and activated as a Class II activity under the jurisdiction of the U.S. Army Materiel Command (AMC) on 1 August, at which time AOMC officially ceased to exist. AMC assumed the missions and functions of the Office, Chief of Ordnance, and certain other technical services, which lost their statutory status during the sweeping reorganization of 1962. The Missile Command was incorporated with nearly twenty major missile systems, eight under project management and the rest under commodity (product) managers.

MIRCOM/MIRADCOM, 1977-79

Following the recommendations of the Army Materiel Acquisition Review Committee, MICOM was abolished on 31 January 1977. Its missions and personnel were divided between the Army Missile Materiel Readiness Command (MIRCOM), which was oriented toward missile readiness, and the Army Missile Research and Development Command (MIRADCOM), which was dedicated to missile acquisition, research and development, and initial procurement.

This divided command structure lasted until 25

April 1979, when the Department of the Army approved the merger of MIRCOM and MIRADCOM into a single organization to reduce duplication, improve efficiency, eliminate interface and transition problems, and better use dwindling resources. On 1 July 1979, MICOM was reactivated in the first part of a two-phase merger process completed in October. Other realignments to streamline the consolidated command according to Army Materiel Development and Readiness Command organizational concepts followed in 1980 and 1981.

Program Executive Officers

Another significant organizational change (and change in mission) occurred at Redstone Arsenal 1 May 1987 with the provisional establishing of four program executive officers (PEOs). The PEOs were a key element of the Army's restructured acquisition process. Under this particular reorganization the under secretary of the Army also became the Army Acquisition Executive. PEOs reported directly to that executive, while program/project managers reported directly to their respective PEOs and the acquisition executive. The PEOs and program/project managers accomplished their missions through the use of functional personnel and facilities supplied by the major subordinate commands.

Initially, the PEOs for Forward Area Air Defense, Close Combat Missiles, Fire Support, and High/Medium Air Defense were established at Redstone Arsenal. The following year, in September 1988, the Army Acquisition Executive directed changes in the PEOs located at the arsenal as part of the overall realignment of the Army PEO structure. As a result of this reorganization, the Forward Area Air Defense and High/Medium Air Defense PEOs combined to form the new Program Executive Officer for Air Defense, while the PEOs for Fire Support and Close Combat Missiles combined to form the Program Executive Officer, Fire Support.

A Tradition of Excellence

The Army commands currently located on Redstone Arsenal are the successors of earlier Army missile activities at the same location. Today Redstone houses the U.S. Army Missile Command; the U.S. Army Test, Measurement, and Diagnostic Equipment Support Group; the U.S. Army Ordnance Missile and Munitions Center and School; and the U.S. Army Information Systems Command-Redstone. A major industrial firm doing missile work for the Army in a gov-

ernment-owned plant is also sited on the arsenal. In nearby Huntsville are the U.S. Army Strategic Defense Command; Redstone Readiness Group; and the Huntsville Division, U.S. Army Corps of Engineers. All of these commands receive some support from the arsenal.

Today Redstone Arsenal has a government and contractor daily working population of about 20,100. Almost 4,250 soldiers are assigned to the various commands at Redstone or in Huntsville. Together those agencies employ approximately 11,000 civilian government workers. The combined Army payroll exceeds \$485 million annually.

For the last three decades the Army's mission at the Redstone Arsenal complex has been focused on work that integrates space-age technology with weapons for the soldier in the field. Two excellent examples are the development and deployment of the Pershing II and the tube-launched, optically tracked, wire-guided (TOW) missile. The Pershing II, an IRBM, is widely credited as being a driving force behind the U.S.-Soviet Intermediate Range Nuclear Forces (INF) Treaty. The TOW, the Free World's primary antitank weapon, was the first American-made guided missile fired by U.S. troops during combat in Vietnam.

During Operation DESERT STORM many of the systems managed and supported by agencies at the Redstone Arsenal complex first received international attention. Systems such as the Army Tactical Missile System (Army TACMS), the Multiple Launch Rocket System (MLRS), TOW, Hellfire, and Patriot all contributed substantially to the victory against Iraqi forces.

The first missiles to be fired during Operation DESERT STORM were Hellfire missiles used to knock out Iraqi radar so that the fighter pilots could begin their successful air war against Saddam Hussein's ground forces. Specially modified Patriot missiles were used to defend allied and Israeli targets against SS-1 ("Scud") ballistic missiles. Because of its impressive record of Scud kills, the Patriot was popularly known as the "Scudbuster."

Meeting the challenge of providing for America's defense has been a goal at Redstone Arsenal since 1941. As the installation prepares for the future, the Redstone Arsenal complex will continue its long-standing tradition of excellence.

Mr. Michael E. Baker is command historian, U.S. Army Missile Command, Redstone Arsenal, Alabama. Dr. Kaylene Hughes is a senior historian in that command.

The U.S. Military Academy-Reserve Officer Training Corps Cadet Command Military History Fellowship

Leslie H. Belknap and Kim M. Juntunen

In June of each year the Department of History at the U.S. Military Academy (USMA) conducts an intensive four-week postgraduate program for civilian military-history professors. These sessions are in support of the Reserve Officer Training Corps (ROTC) Cadet Command's Military History Education Program. This past summer (2-28 June) twenty-three civilian professors, along with three Air Force and Army command historians, participated in the USMA-ROTC Military History Fellowship held at West Point.

As a joint venture between the Military Academy and Training and Doctrine Command (TRADOC), the ROTC Workshop (renamed Fellowship in 1990) emerged in 1981 as a program to improve the formal aspect of future commissioned officers' military education. Although military history instruction traditionally has been an important part of the ROTC curriculum, before 1981 the active duty members of the ROTC cadre taught the military history requirement. Although at the time many competent and energetic officers had taught the military history requirement, a number of civilian colleagues at universities nationwide considered this instruction below prevailing academic standards. At the initiative of the TRADOC commander at the time, General Donn A. Starry, the Army solicited civilian history professors from various institutions offering ROTC programs to teach the military history course requirement. Many history departments immediately began to offer these military history courses, but two fundamental problems emerged: (1) not all universities had qualified military historians within their faculty ranks, and (2) there was no consensus about what should be the scope of this military history instruction. To help alleviate these and other problems, the TRADOC staff asked the Department of History at the Military Academy to conduct a four- to six-week workshop in military history for civilian history professors.

Over the last ten years more than 400 civilian history professors representing over 300 academic institutions have attended the USMA-ROTC Military History Fellowship. A recent survey of these attendees revealed that of those responding to the survey (nearly 50 percent), over 85 percent currently offer one or more courses in military history. In retrospect, most

viewed their month at West Point as extremely useful in the preparation of their present course offerings.

The daily program for the fellows consisted of morning, afternoon, and optional evening sessions. The three-hour morning session, led by USMA history faculty members, introduced the civilian professors to the major periods of military history. Although the sessions focused on the American military experience, topics also included early modern European military development, Napoleonic warfare, and the development of interwar mechanized and airpower doctrine. The morning sessions took place in small classroom groups of no more than fourteen fellows, which facilitated discussion among them and the faculty members.

The 2 1/2-hour afternoon session featured presentations relating to the morning session topics by visiting civilian or uniformed military historians, followed by an optional hour-long question and answer period. The question and answer period gave the fellows an opportunity to meet and talk with some of the most influential military historians working today.

One or two evenings a week the program provided colloquia on a variety of subjects such as "The History of ROTC" by Maj. Lee Harford, the Cadet Command historian; "Eisenhower as a Theater Commander" by David Eisenhower; "Blitzkrieg: Sedan, 1940" by USMA History Department head Col. Robert A. Doughty; Lt. Gen. (Ret.) Hal Moore on "The Battles of the Ia Drang"; and "The 4-66 Armor in the Gulf War" by Maj. Kevin McKedy, an assistant professor recently returned from DESERT STORM. Although these sessions were optional, most of the fellows attended them.

An integral part of the fellowship is the Guest Speaker Program, which draws both civilian and military academicians to the afternoon sessions. This year's attendees listened to such noted military historians as Professor Russell F. Weigley on "The Battle of the Bulge," Professor David G. Chandler on "Napoleon," Professor John W. Shy on "Jomini and the Conduct of the Civil War," and Professor Herman Hattaway on "Post-1863 Confederate Prospects." Among the military speakers were Lt. Gen. (Ret.) Phillip Davidson on "Vietnam in Retrospect," Brig. Gen. (Ret.) Roy Flint on "Ridgway's Generalship,"



The 1991 USMA-ROTC military history fellows (above), visiting professor Herman Hattaway lectures at the Dunker Church (below)



Brig. Gen. Harold Nelson on "Military History and the Army," and Maj. Gen. Wallace C. Arnold on "Military History and ROTC."

An additional well-received feature of the fellowship program was the Civil War staff ride. Led by several members of the fellowship staff, the attendees visited the Antietam and Gettysburg battlefields for their introduction to the staff ride. Many of these same professors later will assist the professor of military science and cadre at their respective institutions with the Cadet Ride portion of the precommissioning process. In addition to these two battlefield stops, this year's fellows visited the U.S. Army Ordnance Museum (Aberdeen Proving Ground, Md.) and the U.S. Army Military History Institute (Carlisle Barracks, Pa.). During the afternoon at Aberdeen the fellows viewed the museum's extensive holdings as well as recently arrived trainload of captured Iraqi equipment, including T54/55, T62, and T72 tanks; BMP and MTR-60 fighting vehicles; a wide variety of self-propelled and towed artillery pieces; and many other vehicles. At the Military History Institute the fellows received briefings on the diverse holdings at Carlisle, followed by a very brief period for personal research. The fellows considered this four-day venture from West Point a major highlight of their stay.

The staff filled the fellows' weekends with optional events as an additional opportunity to enrich

their month at West Point. Led by members of the USMA History Department faculty, most fellows visited the Saratoga and Stony Point battlefields and several visited Fort Ticonderoga and Crown Point. A number of the fellows also had an opportunity to visit New York City.

The USMA-ROTC Cadet Command Military History Fellowship continues to play an integral part in the Cadet Command's Military History Education Program and to foster a stronger bond between the military and the world of civilian academe. It is little wonder that the former chief of military history, Maj. Gen. William A. Stofft, called the program "a national treasure," and a 1991 fellow wrote that "the real strength of the fellowship was the total immersion in military history. It was the most intensive learning experience of my life." Because of the involvement of college and university professors from all over the United States, noted military historians, and the USMA history faculty, the USMA-ROTC Cadet Command Military History Fellowship must be considered one of the nation's most influential programs in military history.

Capt. Leslie H. Belknap and Capt. Kim M. Juntunen are both assistant professors of military history in the Department of History, U.S. Military Academy, West Point, New York.



1991 military history fellows at Antietam

Antietam Staff Ride Guide

Ted Ballard

During the first year of the Civil War the Confederate Army in the east had followed a defensive strategy, though tactically it frequently assumed the offensive. For complicated political and military reasons, however, at the beginning of September 1862 General Robert E. Lee determined to take the offensive and invade the North with his Army of Northern Virginia. The campaign against George McClellan's Union Army of the Potomac resulted in the battle of Antietam on 17 September 1862. On that day more Americans were killed, wounded, or listed as missing—22,719—than on any other day during the Civil War or any other American war. Today the field looks remarkably similar to how it appeared in 1862, making it easy to understand how the battle developed and progressed. Antietam, therefore, is a prime candidate for an Army staff ride to demonstrate the effects of terrain upon plans and implementation. Participants also can be exposed to case studies in leadership and unit cohesion, as well as logistical considerations in combat.

The information that follows is intended to assist interested individuals in designing and leading an Antietam staff ride.

A publication to assist in organizing the project is *The Staff Ride*, by William G. Robertson and published by the U.S. Army Center of Military History in Washington. This booklet gives guidance for organizing a staff ride, lists various functions (e.g., site selection, study phases) associated with staff riding, and establishes flexible standards for a successful exercise. Copies are available to Army account holders from the U.S. Army Publications Distribution Center, 2800 Eastern Boulevard, Baltimore, Md. 21220-2896. The CMH Publications number is CMH Pub 70-21.

Another valuable publication is *The U.S. Army War College Guide to the Battle of Antietam*, by Jay Luvaas and Harold W. Nelson. This publication features official reports, photographs, and diagrams and includes related actions at South Mountain and Harpers Ferry. Eighteen stops are arranged in the order in which the battle unfolded. The Antietam guide is available from commercial bookstores at a cost of \$8.95 each.

One of the most well written, detailed, and accurate accounts of the battle is *Landscape Turned Red*, by Stephen Sears. Copies are available commercially in

hardbound (New Haven: Ticknor and Fields, 1983) and softbound (New York: Warner Books, 1988). The cost is \$24.95 and \$6.95, respectively.

Information about the battlefield is available from the Antietam National Battlefield Visitor Center. That office has books, brochures, maps, and other information concerning the battle which can be valuable to the staff ride leader. The Visitor Center is located on the Old Hagerstown Pike, across from the Dunker Church and includes a small museum and film presentation. It is open seven days a week, 0800 to 1700, except Thanksgiving, Christmas, and New Year's Day.

Additional information regarding Antietam National Battlefield can be obtained by calling (301) 432-5124 or writing to the Superintendent, Antietam National Battlefield, Box 158, Sharpsburg, Md. 21782.

Before actual field study at Antietam the staff ride leader should become relatively familiar with the battle, battlefield terrain, and principal personalities. A few published sources of information which might be helpful to Antietam staff ride leaders are listed below. Copies of these publications should be available from commercial bookstores or, if out of print, through interlibrary loan:

Freeman, Douglas Southall. *Lee's Lieutenants: A Study in Command*, vol. 2. New York: Scribner, 1946.

_____. *R.E. Lee: A Biography*, vol. 2. New York: Scribner, 1934.

Murfin, James. *Gleam of Bayonets: The Battle of Antietam, Robert E. Lee's Maryland Campaign*. Baton Rouge: Louisiana State University Press, 1982.

Priest, John M. *Antietam: The Soldier's Battle*. Shippensburg, Pa.: White Mane Publishing Company, Inc., 1989.

Sears, Stephen. *George B. McClellan: The Young Napoleon*. New York: Ticknor and Fields, 1988.

Tilberg, Frederick. Antietam National Battlefield. National Park Service Handbook No. 31, U.S. Government Printing Office, 1960.

Warner, Ezra J. *Generals in Blue*. Baton Rouge: Louisiana State University Press, 1964.

_____. *Generals in Gray*. Baton Rouge: Louisiana State University Press, 1959.

Johnson, Robert U. and Buell, Clarence, eds. *Battles and Leaders of the Civil War*. Grant Lee Edition, vol.

2, part 2. New York: The Century Company, 1884.

U.S. War Department. *War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies*, series 1, vol. 19, parts 1 and 2. Washington: U.S. Government Printing Office, 1889.

Modern topographical maps of the battlefield area (Keedysville, Funkstown, and Williamsport, Maryland; and Shepherdstown, West Virginia, quadrangles cover the area, all 1:24000 scale) are available for sale at the Antietam National Bookstore, P.O. Box 158, Sharpsburg, Md. 21782. Copies are also available from the U.S. Geological Survey, Denver, Colo. 80225 or Reston, Va. 22092. The cost is \$2.50 per map.

A black and white map of the battlefield, showing how roads, fences, and vegetation appeared in September 1892 is available from the Antietam National Bookstore at a cost of \$1.00 per map.

The most overall detailed battlefield maps available are a series of 14 maps (Carman-Cope) assembled in the 1890s with the help of veterans from both sides. Copies are available from the Geography and Map Division, Library of Congress, Washington, D.C. 20540. The cost of these maps varies, depending upon the type of reproduction. Inquiries should be directed to the Geography and Map Division at (202) 707-6277.

Additional advice and assistance on how to plan and conduct staff rides may be obtained from the

following sources:

In the continental United States: U.S. Army Center of Military History, ATTN: DAMH-FIL (Mr. Ted Ballard), Southeast Federal Center, Bldg. 159, Washington, D.C. 20374-5088 (DSN 335-2905, commercial 202-475-2905).

Military History Director, Department of National Strategy, U.S. Army War College, Carlisle Barracks, Pa. 17013-5000 (DSN 242-3207, commercial 717-245-3207).

Director, Combat Studies Institute, U.S. Army Command and General Staff College, Fort Leavenworth, Kans. 66027-6900 (DSN 552-2810/3831, commercial 913-684-2810/3831).

Head, Department of History, U.S. Military Academy, West Point, N.Y. 10996 (DSN 688-2810, commercial 914-938-2068).

In Europe: Chief, Military History Office, ATTN: AEAGS-MH, Headquarters, U.S. Army, Europe, and Seventh Army, APO New York 09403 (DSN 370-8612/8127).

In Korea: Command Historian, ATTN: SJS-H, Headquarters, Eighth Army, APO San Francisco 96301-0100 (DSN 315-723-5213/5214).

Larry A. ("Ted") Ballard is a historian in the Center's Field and International Division, with a special interest in the Civil War.



Conferences of Army Historians Focus on World War II

The Center of Military History continues to commemorate the fiftieth anniversary of World War II in a variety of ways, including an emphasis on that conflict during the Center's historical conferences.

The Eighth Conference of Army Historians in March 1990 was attended by over 200 Army historians from across the United States and overseas. U.S. Army historians were joined by official historians from Canada, the United Kingdom, the Federal Republic of Germany, France, Austria and Italy as well as by academic specialists in military history. Topical panels were organized around the conference theme: "The U.S. Army in World War II Through the Summer of 1943."

The Ninth Conference of Army Historians is planned for 8-12 June 1992 in Washington, D.C. The

theme of the conference will be "The U.S. Army in World War II-The Mediterranean and European Theaters." Once again, international and academic historians will be encouraged to attend and participate in topical panels with their U.S. Army colleagues, with veterans, and historians from other services. Sessions may include presentations on political and military leadership, strategic decisions, the Army's experiences at Sicily, Anzio, Cassino, Normandy, the Battle of the Bulge and other pivotal campaigns, and life on the homefront. For further information please contact Dr. Judith Bellafaire of the Field and International Division, U.S. Army Center of Military History, Bldg. 159, SEFC/WNY, Washington, D.C. 20374-5088. Telephone: DSN 335-2905 or commercial 202-475-2905.

The Air Defense Artillery Museum Fort Bliss, Texas

John T. O'Gorman

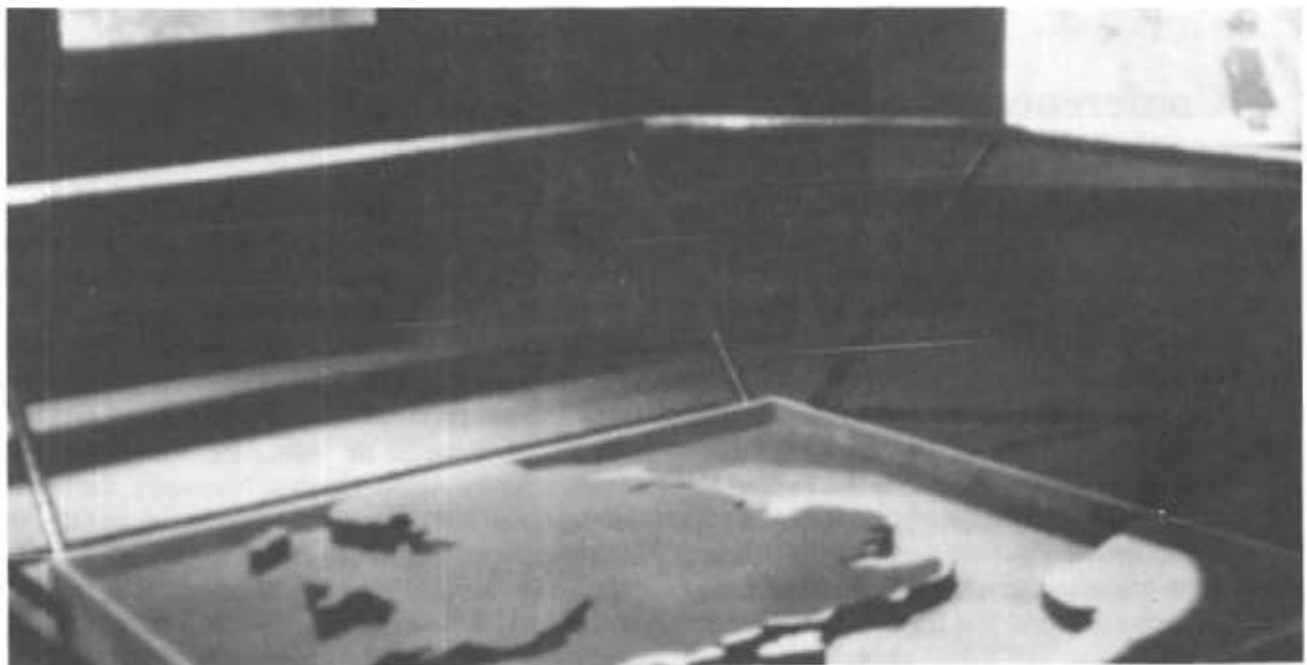
Earlier this year history was made in Saudi Arabia, where Fort Bliss-trained air defense artillerymen and 3d Armored Cavalry soldiers helped to provide the thunder and lightning for Operation DESERT STORM. The eyes of everyone at Fort Bliss were focused squarely on those events in the desert, as Americans wondered what the news of the present might mean for the future.

As the nation and the Army considers the fiftieth anniversary of World War II, the Fort Bliss Museums Division is shifting the focus to a more distant past, when the grandfathers of the Patriot, Hawk, and Stinger crews fought the first great air defense battles in modern history. It was a time when cavalry became armored and when Fort Bliss ceased being merely a desert cavalry post to become an antiaircraft training center and, eventually, the home of air defense artillery. It was also a time of war against enemies whose military prowess left the question of victory or defeat in doubt throughout much of the conflict.

The Museums Division has planned an exhibit program commemorating the fifty-year anniversary of World War II for showing throughout the anniversary period. The division, composed of the Air Defense

Artillery Museum, Fort Bliss, and the 3d Armored Cavalry Museum, began last summer with the inaugural "Their Finest Hour--The Battle of Britain." The exhibit was a depiction of a battle with great significance to air defense history, i.e., the first time an integrated air defense using aircraft, antiaircraft defenses, and radar, was put to the test against a strong opposing air force, the German *Luftwaffe*. The exhibit opened on 10 July 1990—fifty years to the day after the Battle of Britain officially began—using an audio-visual slide presentation in conjunction with an audio-visual map, flashing points and events as these were related in the narration. Royal Canadian Air Force artifacts dating from the Battle of Britain period, loaned by the Canadian War Museum, and British and German aircraft models built by a soldier at Fort Bliss rounded out the exhibit.

Historically, the Battle of Britain was the first test of interwar theories that "the bomber would always get through." To U.S. Army air defense planners, the battle was of immense importance, a preview of what the United States could expect if attacked. Unknown at the time was the fact that the system devised by the British to defend themselves against the *Luftwaffe*



A display from the "Their Finest Hours" exhibit showing the range of British radar during the battle of Britain

would pioneer air defense systems of today. Fort Bliss air defenders who viewed the six-month-long exhibit readily recognized the system employed by the British to detect, identify, intercept, and destroy an attacking enemy.

Through 1995 the Fort Bliss Museums Division will be offering a variety of exhibits and programs commemorating anniversary events in air defense and Fort Bliss history. In March 1991, "Hammer, Saw, Trowel, and Rule--Mobilization at Ft. Bliss and Its Impact on El Paso" will detail the rapid construction of 1940-41. Shown will be the transformation of Fort Bliss from a cavalry post to an antiaircraft center, the expansion of the fort and adjoining land, and the impact this wartime building boom had on El Paso.

Also planned are exhibits dealing with the Pacific

War, the American homefront, "Kilroy Was Here," a social history of the American GI, and the defense of Antwerp and the Remagen bridgehead by U.S. air defense forces during World War II.

The events this year in Southwest Asia will continue to hold the world's attention for some months and will, in time, be the subject of detailed histories and analyses. At the same time, however, as the nation enters this fiftieth anniversary period, it is fitting that the Army also reflect on those who once fought to free the world from tyranny during the most pivotal event in the twentieth century, World War II.

Mr. John T. (Tim) O'Gorman is curator of the U.S. Army Air Defense Artillery Museum, Fort Bliss, Texas.

The Archaic Archivist

The theme for this issue is the U.S. Army and the coming of World War II, culminating in the Japanese attack on Pearl Harbor. This column describes some significant holdings of the Archives Branch of the U.S. Army Military History Institute, Carlisle Barracks, Pennsylvania 17013-5008. Researchers are reminded that the institute has substantial published as well as manuscript and pictorial holdings on the advent of the war.

The gathering storm clouds in the 1930s and the first two years of World War II were studied as current events at the U.S. Army War College, especially until the last prewar class graduated in 1940, but also thereafter. These studies are reflected in course syllabi, lectures, and student papers in the AWC Curricular Archives. Many of the students in the last ten prewar classes went on to become army, corps, and division commanders during the conflict.

Overseas perspectives on foreshadowing fights appear in the papers of Lt. William Biddle, who served on the League of Nations commission under Lord Lytton investigating the Japanese conquest of Manchuria, and in the papers of Col. Henry Reilly, who as a newsman covered the Italian conquest of Ethiopia and the Spanish Civil War. Useful information on the Ethiopian war, the situation in the Balkans, and the early 1940s appears in the diaries and papers of Col. William J. Donovan, future director of the Office of Strategic Services.

From foreign capitals come the papers of Army attaches: memoirs of Col. Truman Smith in Berlin (1936-39); memoirs of Col. Ivan Yeaton in Moscow (1939-41); letters and memoirs of Col. Bradford Chynoweth in London (April-September 1939); and the unabridged diaries of Col. Raymond Lee in London (June 1940-November 1941). Another useful diary from London was kept by Lt. Col. Charles Bolte, who served on Maj. Gen. James Chaney's mission (May 1941-June 1942). Oral history transcripts, as well as an August 1941 lecture, "Complacency Ends at the War Front," reflect Capt. Frank Besson's visits to the United Kingdom earlier that year on behalf of the Army Engineer Board.

Another Army engineer, Capt. Austin Betts, recounts in memoirs his experiences in the Bermuda Engineer District, while Lt. Donald Coan's documents from Force Tuna concern the Jamaica Base Command. Both of these sources represent America's forward presence as part of the destroyers-for-bases arrangement with the British.

Meanwhile on the mainland, the Army was bolstering itself for any eventuality. War Department perspectives on this endeavor appear in the papers of Brig. Gen. Brehon Somervell and Col. Leslie R. Groves, Jr., of the Construction Branch, Quartermaster General's Office; the papers of Maj. Gen. George A. Lynch, the Chief of Infantry; the diaries of Col. Orlando Ward and memoirs of Col. William Gill of the

War Department General Staff Secretariat; the memoirs of Col. Sidney Spalding of the Production Branch/Offices of the Assistant Secretary and of the Under Secretary of War; the recollections of Maj. Carter Magruder of the G-4 Office; the papers of Brig. Gen. Russell Maxwell, the Administrator of Export Control; and the voluminous papers of Brig. Gen. (later General) Lewis Hershey, the Director of Selective Service.

A different vantage within Washington comes from the recollections of Congressman Dewey Short of the House Military Affairs Committee and the diaries of John E. P. Morgan, a lobbyist on behalf of manufacturers of military observation airplanes. Another influential civilian was Charles Minot Dole of the National Ski Patrol, whose letters of 1940-41 to General George C. Marshall argued the importance of creating mountain troops in the U.S. Army.

Experiences in the field are also richly represented. Among the institute's many collections can be cited the extensive papers of Lt. Col. Willis D. Crittenger and the reminiscences of Maj. Robert Grow on the renaissance of American armor at Fort Knox in the late 1930s, the papers of Brig. Gen. Alvan C. Gillem, Jr., on the 2d Armored Division at Fort Benning in 1940-41, the reminiscences of Lt. Charles Corcoran on the mobilization of the Pennsylvania National Guard at Fort Indiantown Gap in 1941, and numerous accounts of the various field maneuvers and war games in New York and the South. Particularly pertinent are the papers of Capt. Walter K. Wilson, Jr., 3d Engineers, who served in Hawaii until just a few months before Pearl Harbor was attacked.

Many of these officers would become generals during or after the war. The institute also has the papers of several officers who were already general officers by 1941—Lt. Gen. Hugh Drum, Lt. Gen. Stanley Ford, Maj. Gen. George Grunert, Maj. Gen. Kenyon Joyce, Lt. Gen. Walter Krueger, Maj. Gen. Karl Truesdell, and Brig. Gen. Jonathan Wainwright—or who had received a star during the major expansion of the previous year—Terry Allen, Benjamin Davis, Sr., Robert Eichelberger, John Lucas, William Simpson, and Fred Wallace. Their papers shed light on the Army that entered World War II.

For the Army, sustained combat began with Japanese attacks on American positions in the Pacific in December 1941. The institute's archival holdings on the defense of the Philippines over the ensuing six months are substantial and substantive. An entire *Ar-*

chaic Archivist column can (and, doubtless, will) be written just on that subject.

For Pearl Harbor proper, manuscript holdings are less numerous but still informative. They include wartime letters by Lt. Col. Herbert Blackwell, Separate Coast Artillery Brigade Headquarters at Fort Shafter; Pvt. Edward Bowser, 21st Infantry; and Mrs. Richard Lawson, wife of a captain in the 19th Infantry. Another wife's account, as well as her husband's, appears in the memoirs of Maj. and Mrs. Stewart Yeo, 8th Field Artillery Battalion. Immediate countermeasures following the onslaught are recorded in the memoirs of Col. J. Lawton Collins, who was dispatched to Hawaii immediately after the attack. The subsequent military investigation, as transcribed in Brig. Gen. Joseph McNaney's copies of the proceedings, as well as reflected in related explanatory papers, fill ten boxes of Lt. Gen. Walter Short's papers. From the vantage of fifty years' perspective, some recollections by Pearl Harbor veterans are being recorded in the institute's ongoing World War II Survey. Prof. Stanley Weintraub of Pennsylvania State University, moreover, generously has donated three boxes of recollections by military personnel and civilians, both in Hawaii and on the mainland, of their reactions to the attack on Pearl Harbor; these recollections were gathered for his book *Long Day's Journey Into War*.

Through such reminiscences and through contemporaneous letters, diaries, and documents, the institute's archival holdings provide extensive coverage on the U.S. Army and the coming of World War II.

Air Force Academy Military History Symposium

The United States Air Force Academy will hold the Fifteenth Military History Symposium, "A Revolutionary War: Korea and the Transformation of the Post-War World," 14-16 October 1992. For further information contact: Capt. T.N. Castle, HQ USAFS/DFH, USAF Academy, Colo. 80840-5701, or phone (719) 472-3230.

Book Review: Harold R. Winton Reviews Martin van Creveld's *The Training of Officers*

Van Creveld's purpose is to provide a historical and comparative survey and to use this survey as a basis for evaluating the current system of officer education in the U.S. armed forces (*The Training of Officers: From Military Professionalism to Irrelevance*. New York: The Free Press. 134 pp.). His argument is developed in four steps: first, a survey of the origins of military education from ancient times to the late eighteenth century; second, a comparative analysis of the development of military education from the early nineteenth century to the present in Prussia-Germany, France, Britain, Russia-Soviet Union, and the United States; third, conclusions deriving from this comparative analysis; and finally, recommendations for reform of the current American system of officer education. His focus throughout is at the intermediate and senior levels of staff colleges and war colleges.

The first section points out that before the late eighteenth century, which witnessed the beginnings of a permanent officer corps in most European countries, the education of officers was an individualistic affair, which centered on the readings of military memoirs or the occasional classical work such as Vegetius' *De Re Militari*.

The rise of a professional officer corps in the nineteenth century brought with it a demand for officer education. This demand, van Creveld argues, was because of two factors: the need of the officers to address the issues of their work in a systematic and orderly manner; and the need to keep the officers employed in some worthwhile and relatively inexpensive activity when they were not actually fighting. Van Creveld's comparative historical analyses are insightful and balanced, and this section is, by far, the most valuable portion of the work. As he did in *Supplying War*, *Command in War*, and *Technology and War*, van Creveld has focused on a theme that is important to the military profession and traced the evolution of that theme over time in an informed and persuasive manner.

When he moves from the historical realm into the contemporary world, however, his judgments become more uneven. On the one hand, there is a series of insights that demonstrate keen appreciation for the process of education, the profession of arms, and methods of placing the former at the service of the latter. On the other hand, there are several aspects of

this work which suggest bias, lack of information, and failure to appreciate some of the structural requirements of educating military officers.

First the positive. To attain excellence in military education, van Creveld argues, there are certain irreducible minimums. Officers must be selected for advanced military education based on the results of a competitive examination, not merely on their record of military performance. The faculty at the institution must be clearly superior to the student body in intellectual qualification and, in the case of military faculty, in military experience as well. The curriculum must focus on the conduct of war at the appropriate level: the operational level for intermediate education and the strategic level for senior education. The educational method must include a minimum of actual class time and a large amount of time for reading, thinking, and independent research. Completion of the course must not be taken for granted; it must be earned through excellent written work and by passing tough examinations. Advanced courses at each level should provide the opportunity to earn advanced degrees in military science, masters at the intermediate level and doctorates at the senior level. It is difficult to argue with any of the above, and if these criteria were to be applied universally throughout the American armed forces, professional military education in this country would take a giant step forward. However, implementing them even within one service will require a radical shift in values concerning the relative worth of thinking critically about war versus performing well the day-to-day tasks of a peacetime force. Van Creveld's criticism of the armed services' penchant for providing officers the opportunity to receive advanced degrees at government expense in areas only tangentially related to the conduct of war also seems well founded.

If this book has so much to commend it, what defects does it have? Before answering that question, we must take a quick look at van Creveld's background. Martin van Creveld is a professor of history at Hebrew University. He is a specialist in military history, having written the three works previously mentioned and a book entitled *Fighting Power*, a comparative analysis of American and German small unit effectiveness in World War II. His only direct experience with educating American military officers,

however, apart from the occasional lecture, is service for one year as a visiting professor at the National Defense University.

I have three reservations about this book. First, one finds in this work a distinct tendency to denigrate American military institutions and to venerate Israeli and German institutions. For example, van Crevelde argues that neither the American tradition of apolitical military service nor the practice of having appointments to the nation's military academies approved by members of Congress promotes military effectiveness. The assertion may or may not be valid. What it fails to appreciate, however, is that this is exactly what the Founding Fathers of the United States intended. They were explicitly willing to trade a fairly large amount of military effectiveness to obtain a very high degree of assurance that the political institutions of the Republic would *always* enjoy dominance over the military. Neither Germany nor Israel, with their much more tenuous geo-strategic situations, could afford this luxury. However, in defense of the American system it must be pointed out that while in the short run the United States has been disadvantaged by its lack of military preparedness, in the long run its ability to synchronize its military efforts with its political intent has proven more of a blessing than a bane.

Second, there are indications that van Crevelde's information is not always up-to-date, as in two examples from the Army Command and General Staff College (CGSC), with which I am most familiar. First, he states that the Leavenworth system of designating honor graduates should be adopted by all staff colleges. In point of fact, CGSC dropped the practice of designating honor graduates in academic year 1986-87 when it changed its basic method of instruction from lecture to seminar and its method of student evaluation from multiple choice "objective" examinations to subjective ratings by faculty members based on the solution of tactical problems, participation in seminars, and the production of written analyses for various courses. He further states that the possibility of awarding an M.A. degree in military science should be considered for those who take the Leavenworth second-year program. As a matter of fact, the award of the master of military arts and science degree has been an integral part of this program since its inception in 1983.

Third, and most important, van Crevelde's prescription for the reform of senior-level education fails to take account of the distinction between national military strategy and national security (or "grand")

strategy, each of which requires its own study and analysis. Van Crevelde would have the United States abolish the service war colleges in favor of a joint war college for all the armed services. He would divide the curriculum of this college into three parts: joint operations; nonmilitary aspects of war—political, social, and economic dimensions; and one nonmilitary subject completely unconnected to the student's military specialty. The problem is that this curriculum leaves out the single most important thing that the war colleges *should* be (but not always are) covering: the military component of national strategy. Van Crevelde is correct in arguing that there needs to be a joint war college that investigates the integration of the military element of strategy into all the other components of national security strategy. However, the Skelton Panel's recommendation that this college should be attended by senior officers who have already been educated in the military aspects of strategy makes much more sense than van Crevelde's prescription for jumping from the higher operational level directly to the level of grand strategy.

In sum, I found this book a very profitable read. Van Crevelde has not only performed a useful service in providing a concise history of officer education, he has also developed some excellent criteria, based mostly on his analysis of the factors that allowed the *Kriegsakademie* to contribute significantly to German military effectiveness at the operational level for well over a century. We would do well to consider these standards as guides to our own efforts today. He has also outlined in considerable detail the very high standards of the Soviet military education establishment. This should remind us that no matter how much we reform our present system, we will remain several orders of magnitude behind the Soviet armed forces in this arena. This constitutes another worthwhile and sobering realization! Those who spend some time engaged in the actual task of educating American military officers, however, must be careful to take van Crevelde's prescriptions with a grain of salt and to put them into the context of our own needs and responsibilities.

Dr. Harold R. Winton is professor of military history at the School of Advanced Airpower Studies, Maxwell Air Force Base, Alabama.

Book Review
by Charles R. Anderson

Remembering Pearl Harbor; Eyewitness Accounts by U.S. Military Men and Women
edited by Robert S. LaForte and Ronald E. Marcello
Scholarly Resources, Inc. 303 pp., \$24.95

Even before this fiftieth-anniversary year, the Japanese attack on Pearl Harbor was one of the most extensively documented military events in American history. The large number of accounts available—official, academic, and personal—has done nothing to diminish interest in one of the watershed events of the American experience. Magazine and newspaper articles, television specials, and movies, as well as more substantial studies, keep coming, and almost all find enthusiastic reception.

An interesting anniversary year addition to the literature on Pearl Harbor is an oral history edited by Robert S. LaForte and Ronald E. Marcello, two professors at the University of North Texas (UNT) in Denton. *Remembering Pearl Harbor* is not a commemorative quickie. For over fifteen years, Pearl Harbor has been a major theme of the UNT oral history project. After conducting numerous interviews with survivors, the editors set out to present the views of "the rank and file" and "the soldiers in the barracks or sailors below decks," rather than those of high-ranking officers, a generational selection the passage of half a century had largely made for them. In assembling this collection, the editors chose from 350 survivor interviews to present the experiences of American men and women in uniform aboard ships, at air bases, on hospital wards, and in barracks on 7 December 1941.

The images of Pearl Harbor most frequently published—blasted and burning ships slumped in the muck under Battleship Row—tend to convey the impression of Pearl Harbor as a naval event. LaForte and Marcello reinforce this misconception in their selection of interviews for *Remembering Pearl Harbor*. Of forty-four interviews between these covers, thirty-two come from sailors and marines, two more from Navy wives. Accounts of the attack on Pearl Harbor published in this commemoration season will most likely be read by persons born after the event, those who need to be reminded that on that "day of infamy" the United States Army command in the islands, the Hawaiian Department, counted 43,000 troops. The experiences of Army ground troops,

pilots, and medical personnel deserve the same careful documentation as those of the men of the Pacific Fleet. Within this imbalance, the editors managed to sample the experiences of nine Army men and women and one Army wife under headings of location: "Hickam Field, Fort Kamehameha, and Tripler Army Hospital," "Schofield Barracks and Wheeler Field," and "Kaneohe Naval Air Station and Bellows Field."

The editorial hands in *Remembering Pearl Harbor* are light enough to let the emotions generated on 7 December 1941 come through—and those emotions remain vivid after half a century—but heavy enough to spare us barroom exaggeration. The result is an account nearly as gripping as the event. One can feel the irritation of Fireman 3c. William Ellis, who would just like to finish his morning shower aboard the USS *Antares* before those Army flyboys pull another one of their practice raids; the stark terror of Pfc. Jim Gross as he watches a strafing Japanese pilot stitch a line of explosions in the grass directly toward him; the heart-break of Army nurse Lt. Ada Olsson when she is told that her fiance has been shot down; the animal desire to strike back and kill felt by thousands of soldiers and sailors on the ground and aboard ship as they watched the "Zekes," "Vals" and "Kates" swoop in for bombing and strafing runs—close enough for the Americans to see the pilots' faces. When memories waver or some of the old Pearl Harbor rumors again find voice, LaForte and Marcello provide factual reminders in footnotes: "There are no official reports that sharks entered the oil-covered waters of the harbor" (46), and, "No torpedoes are known to have struck the *Arizona*" (80).

This is oral history as stirring as it can be—accounts of the past conveyed with a vibrant immediacy, the whole undistorted by an interpretative mold. Those fortunate enough to know survivors of stunning events like Pearl Harbor can hear firsthand what it was like. But the rest of us, and future generations as well, will have to rely on collections like this to understand the particular attitudinal context of 1941, the elusive spirit of the times. Here LaForte and Marcello excel, as they let their veterans explain the peacetime mindset and the wrenching difficulty of changing it: the utter disbelief that all that racket on a beautiful Sunday morning really could be the start of war—right here in the "Paradise of the Pacific," of all places; the confusion of an Army wife who can't decide what to wear to a bomb shelter; or the by-the-book insistence of some NCOs on properly signed paperwork before issuing ammunition—even as bombs crashed through the roof.

Such testimony gives terms like "surprise attack" and "unpreparedness" entirely new depths of meaning.

Just as interesting to the reader are the reactions formed after the fear and anger of the moment subsided. We are not surprised to learn that many Pearl Harbor veterans still hate the Japanese for killing so many of their buddies, or that many others have stopped hating the Japanese in the intervening decades. But these interviews also reveal a reaction not widely known today, one the veterans could not voice fifty years ago. One sailor described the embarrassment that would not go away: "We felt completely let down, like getting beat by a rival high school...What will the folks think of us back home? Here they are depending on us and look what we've done!"

Despite their qualifications and experience, the editors need an editor. Too many mistakes remain for this work to have gone to the printer. The naval base at Pearl Harbor dates from 1887, not "the 1870s" (231). The 27th Infantry at Schofield Barracks was a regiment, not a division (238). The Army Nurse Corps became a part of the Regular Army in 1901, not 1947 (227). There was no aviation unit called the Seventh Air Corps (284). Some nautical terms ("dog" and "blister") are defined at first appearance, while others ("well deck") go undefined in several interviews. After several references to World War I-era "four-stack" destroyers, we read about a strange newer design, "the *Cassin*, a one and one-half stack destroyer" (133). Too often the editors' commentary and bridging material is either clumsy, with redundancies, misplaced emphases, and run-on sentences, or raises distracting questions. The reader wonders if the editors intend to make a joke of one sailor by sending him to a mental hospital for an arm amputation; they then make the sailor himself clear up the situation (273). The three maps in the book lack scales and several place labels recurring in the text, such as "fleet landing" and "Aiea landing." And the editors begin their annotated bibliography with the surprising observation that "Despite the historical importance of the attack on Pearl Harbor, only a few books of note have been written about it" (295). They then list sixteen authoritative and widely read books on the event.

Fortunately for the editors, however, readers will pull *Remembering Pearl Harbor* off the shelf to read not their commentary, but the stirring experiences of the veterans. The result is not altogether inappropriate for an oral history anthology: vivid history framed in subdued borders. Even with its distractions, LaPorte and Marcello's work is a lively and interesting addi-

tion to the literature on Pearl Harbor.

Mr. Charles R. Anderson is a historian in the Center's Field and International Division with a special interest in Pearl Harbor (see p. 1 of this issue).

Book Review

by Carl H. McNair, Jr.

Winged Sabers; The Air Cavalry in Vietnam
by Lawrence H. Johnson III
Stackpole Books. 180 pp., \$24.95

The author has assembled a remarkable amount of information on a subject of great interest to cavalry enthusiasts and especially Vietnam-vintage Army aviators. Hank Johnson left few stones unturned in his search for details about the genesis of our air cavalry units, tactics, and equipment. In fact, perhaps the greatest merits of his book—aside from its entertainment value for those of us who were there—are its referenced source material, to include names, dates, and places that contributed to the air cavalry story. Many of these data will be valuable for future historians as they try to reestablish audit trails of unit activations, inactivations, deployments, and campaigns. In that sense alone, the work will have a well-earned place on the bookshelves of the military libraries throughout the country. But as the reader discovers, there is much more factual information on the why and how of air cavalry before and during Vietnam that was not incorporated. These omissions—such as the very key tactical and almost strategic role of the cavalry in the Lam Son 719 operation into Laos—will be noticed by those truly conversant with the history. The actual narrative of such a major cavalry operation would have added immeasurably. Thus the book's principal shortcoming is that it simply does not go far enough to describe air cavalry really coming of age, instead concentrating mostly at the small unit, individual level, but perhaps that is the author's conscious intent.

One who has lived in the era described and known many of the individuals concerned, their equipment, and their units would heartily agree that compliments are certainly due the author on his work. His treatment of detail is excellent throughout and serves the purpose he intended. There did, however, appear to be a far greater opportunity for scholarly work than was achieved, whether by omission or commission. The focus of *Winged Sabers* centers on the particulars of air

cavalry, the weapons systems, unit histories, and even extraneous information of limited value, whereas the same elements could have been woven into a more meaningful treatise. This is not meant to fault the author, but more to point to what might have made a good work even better.

As Lt. Gen. David Doyle says in the foreword, "This effort has been...a primer to remember the past...to look with great insight into the future." And it is the latter focus that fell short. Although the work was done in the late 1980s and copy protected in 1990, chronologically it ended in 1973 with the withdrawal of U.S. combat elements from Vietnam. It was at this point that air cavalry and exploitations of the concept expanded with Cavalry Brigade Air Combat and the Air Cavalry Combat Brigade's testing, acceptance, and activation at Fort Hood, Texas. While clearly it was not the author's intent to take his readers through the final phase of concept and doctrinal development within the Army, he does leave the reader hanging as to "what happens now." He did, however, set the stage for a fitting end that the concept was conceived by the Cold War, born in battle in Vietnam, and grew to maturity postwar, attaining its rightful position of prominence in the Aviation Branch—the newest of the combat maneuver arms. But this failure to close on the objective will not be a major distraction for the casual reader. It likely will disappoint the serious historian or aviation advocate who wants more development, the lack of which detracts from the completeness of an otherwise well-researched and documented effort.

It is in the research and documentation that the author deserves the highest praise. The evidence of his labor is present throughout the detail of his notes, the appendix, glossary, bibliography, and the acknowledgments of his many interviews. His cross-referencing in the index likewise makes it a valuable source document for those desiring to track his work and his sources. Those who elect to do so, as did this reviewer, may discover after reading that in his zeal to collect detail and work across a broad front, he neglected to capitalize upon some highly credible sources readily available to add to this meaningful work.

The author mentions only in passing Lt. Gen. Harry Kinnard, commander of the 11th Air Assault Division, during testing of the air assault concept and later the deploying commander of the First Cavalry Division. Few did more to advance the Air Cavalry concept than General Kinnard or General Hamilton Howze, who chaired the Howze Board on Army Air Mobility in the early 1960s. Likewise, other notables

such as Maj. Gen. James C. Smith, a post-Vietnam commander of the 1st Cavalry Division, who was one of the early squadron commanders of the 1st Squadron, 9th Cavalry, during some of its toughest fights in Southeast Asia, could have added valuable insights. There are a myriad of others whose views, experiences, and contributions would have lent inestimable depth to the book. Troop and squadron commanders such as Jack Woodmansee, Charlie Canedy, Bob Molinelli, and Doc Bahnsen all played unique roles—not just during the Vietnam era in making their mark on the air cavalry's combat contribution, but also in moving it forward for the larger role ahead in the Army's AirLand Battle doctrine of the 1980s and 1990s. If there is a shortfall in Hank Johnson's work, it is in this area of follow-through. What we find is authentic but sometimes not as authoritative as could have been—and a historical effort needs both.

With regard to the organization of the text itself and the composition of the volume, the author is to be complimented. His writing style overall is clear, succinct, and to the point—almost military, but easy to read—one might say, "reader friendly." The text flows well, and it is interspersed with photographs, charts, graphics, and interesting captions. At times the notes become a bit distracting and might be better placed at the bottom of each page for ease of flow, but the facts and sources are always there if you seek them out. The notes do contain much pertinent information, so they should not be ignored.

The discussion of equipment in Chapter 4 and uniforms in Chapter 6 is well done, especially for the casual or uninformed reader. This treatment is a significant feature, because as time passes the work will be used more by those for whom the terms "LOACH," "SLICK," "HOG," and the like truly will be history. The author has recognized this fact as his narrative develops.

Interspersing individual quotations at the introduction of each chapter adds a uniquely personal touch, although one would daresay that some readers might challenge the introductory Air Cavalry accolade on the first page of Chapter 1. This reviewer, having served two Vietnam tours and flown a few hundred combat sorties, observed the innovation and aggressiveness of aviation units other than air cav engaging the enemy, but in a different role. The Cav had the color, the spirit, and the uniqueness that only Cav can have.

Have no fear, however; one should take nothing away from the Air Cavalry—their case has been made

elegantly in the annals of Army history, and this author has added another useful work. Others will no doubt present alternative perspectives, but this work is not an artillery, infantry, or armor chronicle; it is clearly Air Cav all the way. Written by an air cavalryman, the devoted son of another air cavalryman, it is a fitting tribute by a son who has walked in his father's footsteps. Historians will use it, serious collectors of modern military texts should have it in their libraries, and readers will enjoy it. In sum, *Winged Sabers* should appeal to all with a serious interest in the background, why, where, and when of Air Cavalry. It is a credible work, interesting and authentic, and deserving of reading indeed by students of modern warfare and the Vietnam experience.

Maj. Gen. Carl H. McNair, Jr., USA (Ret) is a Master Army Aviator with over 4,000 flying hours, including 1,600 helicopter combat hours as an Aviation Unit Commander during two tours in Vietnam. He is a former commander of the U.S. Army Aviation Center and Army Aviation Officer, U.S. Army Chief of Combat Developments, TRADOC. He is a former member of the Secretary of the Army's Historical Advisory Committee.

In the next issue of *Army History*...

Lt. Col. Charles McKenna's account (delayed one issue) of the "forgotten reform": instituting a system of field maneuvers in the U.S. Army in the years before World War I.

A comprehensive (author, title, subject) index of the early years of *Army History*...to be updated annually.

Ted Ballard's staff ride suggestions and bibliography for those planning a staff ride to Chancellorsville.

Book review of *A History of Army Aviation, 1950-1962* by Richard P. Weinert (TRADOC Historical Monograph Series).

Book review of *Secret Forces of World War II* by Philip Warner.

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