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In This Issue

The Professional Bulletin of Army History

ARMY HISTORY

The Professional Bulletin of Army History

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Issue Cover: A soldier kneels at the grave of a fallen comrade in the 96th Infantry Division Cemetery on Okinawa, January 1946. /National Archives

EDITOR'S JOURNAL

The Winter 2017 issue of *Army History* presents two engaging articles on very disparate topics, the first covering graves registration activities during the battle on Okinawa and the second examining the development of the Army's risk management doctrine.

Dr. Ian Spurgeon, a historian at the Defense POW/MIA Accounting Agency, recounts the graves registration efforts during and after Operation ICEBERG, the battle for Okinawa and the other Ryukyu Islands. Graves registration personnel faced a number of difficulties and impediments—impassable terrain, poor weather, and a high number of casualties that quickly filled the temporary cemeteries—but still managed to recover and identify over 95 percent of those killed in action. Variations in recordkeeping and documentation during the battle created more problems for those trying to identify the unknowns after the war.

Next, Capt. Mike Mobbs, an active duty Army officer, looks at the creation of the Army's risk management doctrine, its ties to the Army aviation community, and its evolution over a thirty-year period that culminated in the publication of Field Manual (FM) 100–14, *Risk Management*.

This issue's Artifact Spotlight highlights an iconic weapon of the mid-nineteenth century, the Colt Walker Model revolver. This issue also includes a new feature on The National Museum of the United States Army (NMUSA), which had its groundbreaking ceremony this past September. In future issues, NMUSA Features will be a common component of *Army History* and will offer glimpses of forthcoming galleries as museum construction progresses.

In his Chief's Corner, Mr. Bowery welcomes the Center of Military History's new chief historian, Mr. Jon Hoffman, and discusses the restructuring of a number of leadership positions here at the Center. Mr. Hoffman, in his inaugural Chief Historian's Footnote, briefly introduces himself to our readers and the Army historical community, and talks about the various endeavors he has inherited while positing a number of ideas for improvement as the Center moves forward on a myriad of important projects.

As ever, I invite the submission of articles on the history of our Army, and encourage those working on topics relating to the First World War and the Vietnam War to send us their manuscripts as we enter important commemoration periods for these two conflicts.

Bryan J. Hockensmith
Managing Editor

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ARMY HISTORY
Winter 2017

Features

Articles

The Chief's Corner

Charles R. Bowery Jr.

Changes at the Top and Our Continuing Priorities

As we pass into the new fiscal year, it is a good time to tell you about some changes in the senior leadership here at the Center of Military History (CMH). First off, it gives me great pleasure to welcome our new Chief Historian of the Army, Mr. Jon T. Hoffman. Jon is no stranger to CMH, having served as the first chief of our Contemporary Studies Branch when it was established in 2005, but that is only one assignment in his diverse portfolio of Department of Defense official history positions. Jon has served as the acting director of the Marine Corps History and Museums Division, was an early stakeholder in the National Museum of the Marine Corps project, and most recently was the deputy chief historian of the Office of the Secretary of Defense. All of this followed a twenty-year career as a Marine Corps infantry officer. Jon is also the author of three acclaimed works of Marine Corps history, including one of my personal favorites as a native son of Tidewater Virginia, *Chesty: The Story of Lieutenant General Lewis B. Puller, USMC* (New York, 2001). Jon's breadth of experience in official history, understanding of the challenges of the historian's work in the digital age, and sterling reputation make him the perfect senior leader to help us to move the Center forward and increase our value to the Army. Welcome, Jon!

I am also pleased to inform you that we continue to work toward the establishment of a new senior leader position of Chief Curator of the Army. This new CMH billet will place our community of museum professionals and archivists on a professional par with our research and applied historians, and will send a strong message to the Army that we value our material culture every bit as much as our "intellectual property." The establishment of a chief curator will also open up additional career opportunities for our museum professionals within Career Program 61 (CP 61). As we continue to implement the Army's guidance and restructure CMH leadership of the Army Museum Enterprise, with an active-duty colonel as Director of Army Museums, we must retain Department of the Army civilian leadership and continuity at the same time. The chief curator will be a powerful voice as my senior material culture expert.

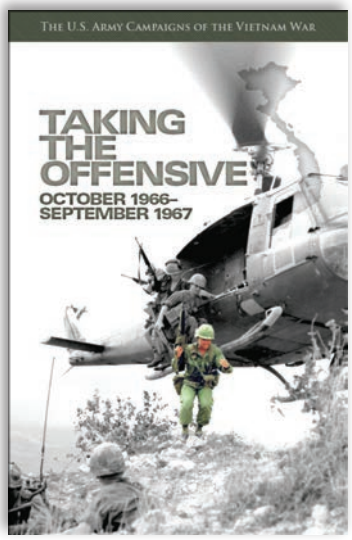
My personal priorities as the chief of military history continue to be the implementation of the Army Museum Enterprise, the ongoing effort to establish 100 percent accountability of our artifact collection, CMH's leadership of the Army's program to commemorate the centennial of World War I, and further expansion of career development opportunities in CP 61. Please feel free to reach out to us to tell us how the Center can better support all Army historians, and indeed all soldiers and civilians.

Army Historians Educate, Inspire, and Preserve!

NEWSNOTES

New Publication from the Center of Military History

The U.S. Army Center of Military History recently published a new pamphlet in its U.S. Army Campaigns of the Vietnam War series. *Taking the Offensive, October 1966–September 1967*, by Glenn F. Williams, begins with a discussion of Operation Attleboro in Tay Ninh Province. The largest allied operation to date in the war, Attleboro forced the *9th People's Liberation Armed Forces* (*PLAF*) *Division* to abandon its attack on Suoi Da Special Forces camp and cost over 1,000 enemy lives. Additional action in War Zone C, including Operations Cedar Falls, Junction City, and Junction City II, highlight the U.S. Army effort to disrupt the network of camps and supply stores of the North Vietnamese main force units through ground and air assault. Operations in Binh Dinh Province—Thayer I, Thayer II, Pershing, and Lejeune—continued to inflict heavy losses on the enemy. The efforts of the U.S. Army throughout Vietnam during this period allowed for growing political stability in South Vietnam leading up to the 3 September 1967 election. This pamphlet contains twelve maps and fifteen illustrations. It has been issued as CMH Pub 76–4 and will be available to U.S. government agencies through the normal channels and may be purchased by the general public from the U.S. Government Publishing Office.



Career Program 61 Updates

The Career Program Office for the Army's Historians, Archivists, and Museum Professionals has been providing funding for the professional development of its members since 21 April 2013. Since then, over 100 Career Program 61 (CP 6 1) employees have not had to pay for college courses related to their jobs, and they have received travel, lodging, and per diem to attend training courses or to participate in professional development rotations and conferences. This year, CP 61 has received even more funding and expects to be able to fund the following opportunities (see calendars below). For more information, please contact Mr. Ed Clarke at edward.c.clarke.civ@mail.mil.

Conferences

Dates	Events	Locations
24–27 Mar. 2017	Company of Military Historians	San Antonio, Tex.
30 Mar.–2 Apr. 2017	Society for Military History	Jacksonville, Fla.
13 Apr. 2017	Society for History in the Federal Government	Washington, D.C.
7–10 May 2017	American Alliance of Museums	St. Louis, Mo.
22–24 June 2017	Society for Historians of American Foreign Relations	Washington, D.C.
TBD July 2017	Conference of Army Historians	Arlington, Va.
23–29 July 2017	Society of American Archivists	Portland, Ore.
TBD Sep. 2017	International Commission of Military History	Yaoundé, Cameroon

Center of Military History Training

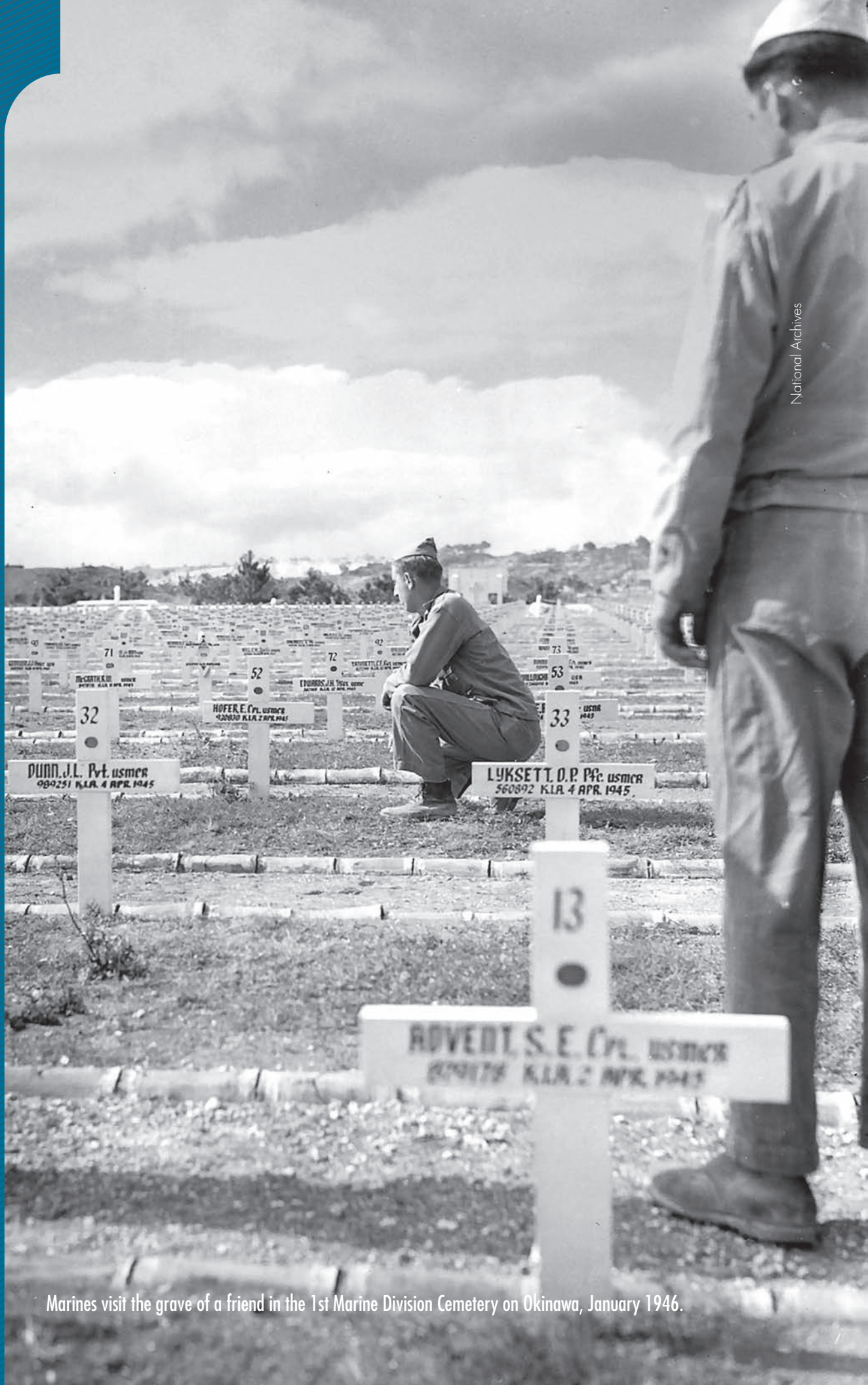
30 Jan.–3 Feb. 2017	Center of Military History Orientation Course	Ft. McNair, D.C.
10–14 Apr. 2017	Basic Museum Training Course	Ft. Belvoir, Va.
24–28 Apr. 2017	Archives Practicum Training Course	Carlisle, Pa.
TBD Nov. 2017	Intermediate Museum Training Course	Ft. Belvoir, Va.

Professional Development

16 Jan.–3 Feb., 20 Mar.–7 Apr., and 5–23 June 2017	Archivist Professional Development in the Chief of Staff of the Army's Office (2-3 weeks)	Arlington, Va.
Any two-week period	Research trip to produce a historical article	Any CONUS location

ABOUT THE AUTHOR

Dr. Ian Michael Spurgeon is a historian for the Defense POW/MIA Accounting Agency (DPAA) in Washington, D.C. He conducts archival research and provides historical analysis for cases involving Americans missing from World War II, and has conducted field investigations for missing service members in Belgium, France, Germany, Luxembourg, the Netherlands, and Okinawa, Japan. Prior to joining DPAA, he was a historian for the U.S. Air Force in Okinawa. Dr. Spurgeon received his bachelor's and master's degrees in history from Kansas State University in 1998 and 2000, respectively. He worked on Capitol Hill as a staff member to a U.S. senator from 2000 to 2003, before completing his Ph.D. in U.S. and military history from the University of Southern Mississippi in 2007.



National Archives

Marines visit the grave of a friend in the 1st Marine Division Cemetery on Okinawa, January 1946.

THE FALLEN OF OPERATION ICEBERG

U.S. Graves Registration Efforts and the Battle of Okinawa

By Ian Michael Spurgeon

On 1 April 1945, American forces moved against the island of Okinawa beginning Operation Iceberg, the first major ground campaign on a Japanese home island. Over the course of three months, U.S. Army and Marine Corps units moved across Okinawa in a steady, but bloody, march, methodically eliminating Japanese defenders. Though successful, the campaign cost the lives of more than 12,000 Americans. By 1945, after nearly four years of operational experience in the Pacific, the U.S. efforts to recover those killed in action (KIA)—called graves registration activities—were at their wartime peak. Usually, American forces rapidly evacuated most casualties for treatment or burial behind the front lines. As a result, over 95 percent of those killed in the ground fighting were recovered and identified.[1] However, the intensity of the fighting on Okinawa, as well as the poor weather, resulted in the loss of identification material for many remains. These became the unknown soldiers of Operation Iceberg. Today, Department of Defense historians dedicated to recovering these missing servicemen face a particularly difficult task with the unidentified remains from Okinawa. Because their burials occurred almost immediately (in many cases), and because military authorities still allowed variations in graves registration recordkeeping late in the war, limited contextual and circumstantial details survive for these individuals. Paradoxically, graves registration operations during Operation Iceberg succeeded in returning most of the KIAs, but have handicapped modern analysts' efforts to recover and identify those left behind.

Preparations for Operation Iceberg began in late 1944. Running sixty miles long and ranging from two to eighteen miles wide, Okinawa boasted a civilian population of over 435,000 inhabitants. It also contained several airfields, ports, and space for supply depots that offered U.S. forces a valuable base of operations for the expected invasion of mainland Japan.[2]

Lt. Gen. Simon B. Buckner Jr. and his Tenth Army were tasked with capturing the island. Buckner commanded 183,000 troops, from seven divisions: the 7th, 27th, 77th, and 96th Infantry Divisions (the XXIV Army Corps), and the 1st, 2d, and 6th Marine Divisions (the III Marine Amphibious Corps). All of these divisions included battle-tested regiments, some with experience dating back to 1942 and the Guadalcanal campaign. The troops slated for Okinawa represented the peak of readiness and planning for U.S. operations in the Pacific.[3] That included graves registration activities. Falling under the authority of the Army's quartermaster general, graves registration operations during the first campaigns of World War II had been woefully undermanned. Individual enlisted graves registration personnel had been parceled out to combat units in order to organize volunteers or manage temporarily assigned soldiers to recover the dead, with minimal facilitation by higher authorities.[4] It was not a desirable assignment.

By early 1945, graves registration activities had better oversight. On 1 January 1945, the Tenth Army head-

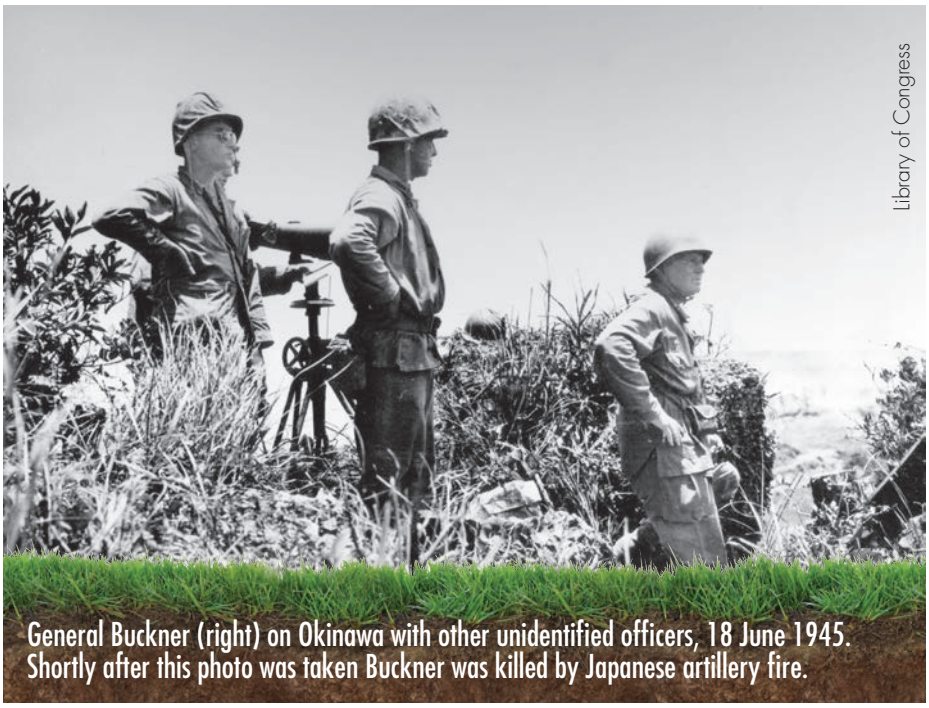
Composite Image: Cemetery plans and construction instructions from FM 10–63, *Graves Registration*

quarters established the staff quartermaster as the technical coordinator of graves registration activities during the Okinawa campaign. Yet, field operations still involved delegating responsibilities and labor. The January directive stated that "Army, Navy and Marine corps units will be governed in general by the publications and directives of their own service." In short, Army and Marine Corps graves registration units serviced their own respective divisions.[5]

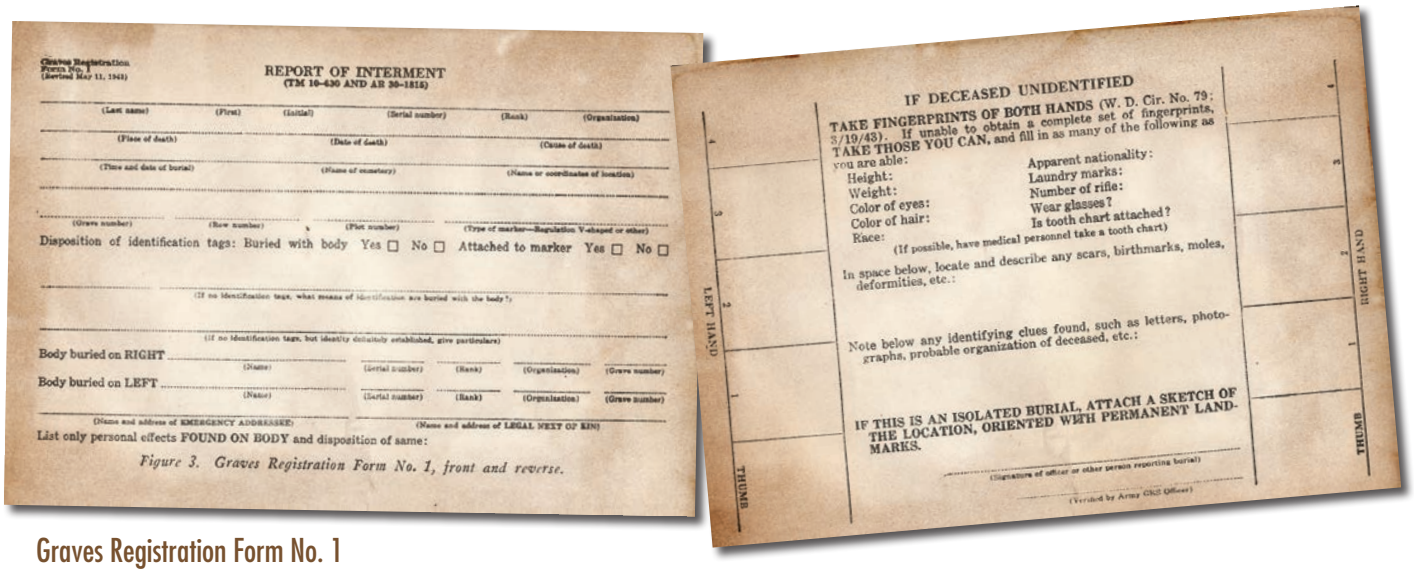
The Tenth Army's orders gave only broad guidelines for burial standards as well. Internments were to be "at inland sites where practicable." If Japanese resistance on the landing beaches prohibited constructing cemeteries inland, burials could take place on existing beaches, or graves registration teams could evacuate the dead to a "nearby land mass under friendly control." Burials at sea were restricted. All instances were to be justified in writing and filed with geographic coordinate information. Finally, the directive declared that "isolated burials will be kept to a minimum."[6]

To conduct the field work, the Tenth Army received seven platoons from two Army graves registration units—the 3008th and 3063d Quartermaster Graves Registration Companies. The headquarters detachments from each company, along with the 3d and 4th Platoons of the 3063d, fell under the Army's XXIV Corps. The remaining five platoons (consisting of approximately twenty-five soldiers each) were dispersed among the five Army divisions.[7] Marine Corps graves registration units were more organic. Each combat division was responsible for establishing its own cemetery. However, remains did not have to be separated by unit. The Tenth Army directive instructed recovery teams to deliver the fallen "to the nearest cemetery of the service concerned."[8]

Because of the broad guidelines, and the relative autonomy among the field recovery teams, paperwork filed by graves registration units varied as well. Army personnel used Graves Registration Service (GRS) Form No. 1 to record each interment. Marine Corps cemetery personnel were instructed to



General Buckner (right) on Okinawa with other unidentified officers, 18 June 1945. Shortly after this photo was taken Buckner was killed by Japanese artillery fire.



REPORT OF INTERMENT
(TM 10-630 AND AR 30-1815)

Disposition of identification tags: Buried with body Yes ☐ No ☐ Attached to marker Yes ☐ No ☐

Body buried on RIGHT

Body buried on LEFT

List only personal effects FOUND ON BODY and disposition of same:

Figure 3. Graves Registration Form No. 1, front and reverse.

IF DECEASED UNIDENTIFIED

TAKE FINGERPRINTS OF BOTH HANDS (W. D. Cir. No. 79: 3/19/43). If unable to obtain a complete set of fingerprints, TAKE THOSE YOU CAN, and fill in as many of the following as you are able:

Height:
Weight:
Color of eyes:
Color of hair:
Race:
Apparent nationality:
Laundry marks:
Number of rifle:
Wear glasses?
Is tooth chart attached?
(If possible, have medical personnel take a tooth chart)

In space below, locate and describe any scars, birthmarks, moles, deformities, etc.:

Note below any identifying clues found, such as letters, photographs, probable organization of deceased, etc.:

IF THIS IS AN ISOLATED BURIAL, ATTACH A SKETCH OF THE LOCATION, ORIENTED WITH PERMANENT LANDMARKS.

LEFT HAND
RIGHT HAND
THUMB

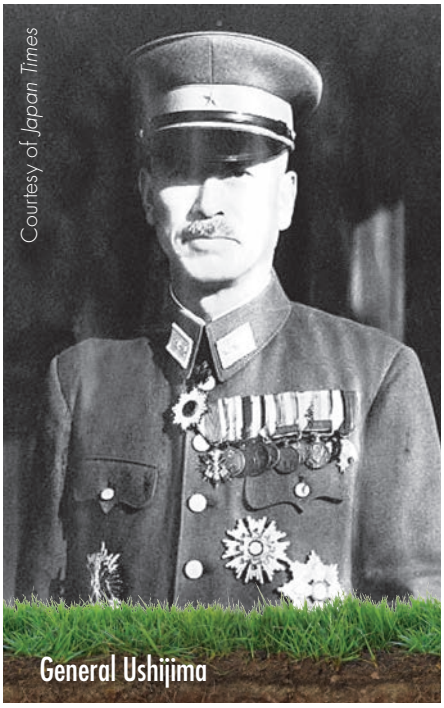
Graves Registration Form No. 1

use whatever reports were prescribed in Marine Corps regulations. Overall, the Tenth Army headquarters allowed a great deal of flexibility for graves registration practices among the services and divisions, but expected to be kept informed of the overall results.[9]

In February 1945, to assist the small graves registration teams with the expected high numbers of casualties during the campaign, the XXIV Corps headquarters instructed that division and regimental commanders should "provide the necessary labor troops for the prompt removal of all bodies to readily distinguishable collecting points near trails or roads, taking care to remove bodies found in pill boxes or covered by debris and rubble."[10] In response, the 27th Infantry Division authorized its Quartermaster to use heavy equipment from shore party engineers to construct cemeteries, while personnel from the Salvage Collecting Company would make up the cemetery labor force until enough civilian laborers (or prisoners) could be acquired. Supply trucks and tracked vehicles returning from the front were expected to assist graves registration personnel by transporting remains from the field to the cemeteries.[11]

On 1 April 1945, the Tenth Army hit the beaches of Okinawa. The Japanese commander, Lt. Gen. Mitsuru Ushijima, had withdrawn most of his forces from the landing zone. Instead of the massive casualties expected by military planners, the surprised U.S. marines and soldiers advanced onto the island almost unopposed. Graves registration teams rapidly established cemeteries inland. The 3d Platoon of the 3008th Quartermaster Graves Registration Company was ashore and working by 1900 that first day. By 3 April, the platoon interred its first set of remains at the new 96th Infantry Division Cemetery. Similarly, the 2d Platoon of the 3008th Company, attached to the 7th Infantry Division, buried its first set of remains on 3 April.[12]

Upon landing and extending eastward to divide Okinawa in half, the Tenth Army sent its marines north and the Army forces south for the overall conquest of the island. Relatively few Japanese soldiers occupied the mountainous jungle region that is the northern two-thirds of Okinawa. Marines secured most of the north by the end of April. The Japanese main line of resistance lay to the south, near the capital city of Naha. Army forces struck the first elements of that within a few days of landing. Though much of the southern part of Okinawa was farmland, the landscape was studded with imposing ridgelines and coral limestone hills teeming with tunnels, pill boxes, machine gun nests, and mortar emplacements. By late April, with American casualties mounting, the true cost of Operation Iceberg was becoming apparent.



To handle the increasing number of fallen Americans, graves registration personnel divided their responsibilities. For instance, a portion of the 3d Platoon, 3008th Quartermaster Graves Registration Company, attached to the 96th Infantry Division, traveled with service companies to recover the dead from the battlefield and collection points for transportation back to the cemetery, where the balance of the platoon processed the remains.[13] Those conducting recoveries frequently found themselves in the midst of combat. Pfc. John L. Nigro received the Bronze Star medal for actions performed while retrieving the bodies of two soldiers of the 96th Infantry Division. On 10 April, during

U.S. Army

Limestone hills on Okinawa honeycombed with caves and dugouts and other Japanese defensive emplacements

his search, Private Nigro saw a Japanese soldier emerge from a cave to attack a nearby American officer. According to his citation, "Without regard to his own safety and in the face of certain enemy fire, Private Nigro rushed to the side of the officer and fired into the cave from the hip." Later that day, he led another patrol to the cave area, killed two more enemy soldiers, and gathered valuable intelligence.[14] Sgt. Harmon Whiteman similarly received multiple decorations for his efforts to recover dead from the front lines of the 96th Infantry Division. One notable example occurred on 21 April, as Sergeant Whiteman supervised three men removing American remains in full view of an enemy position. A Japanese machine gun opened fire, killing the three soldiers and wounding Sergeant Whiteman.[15]

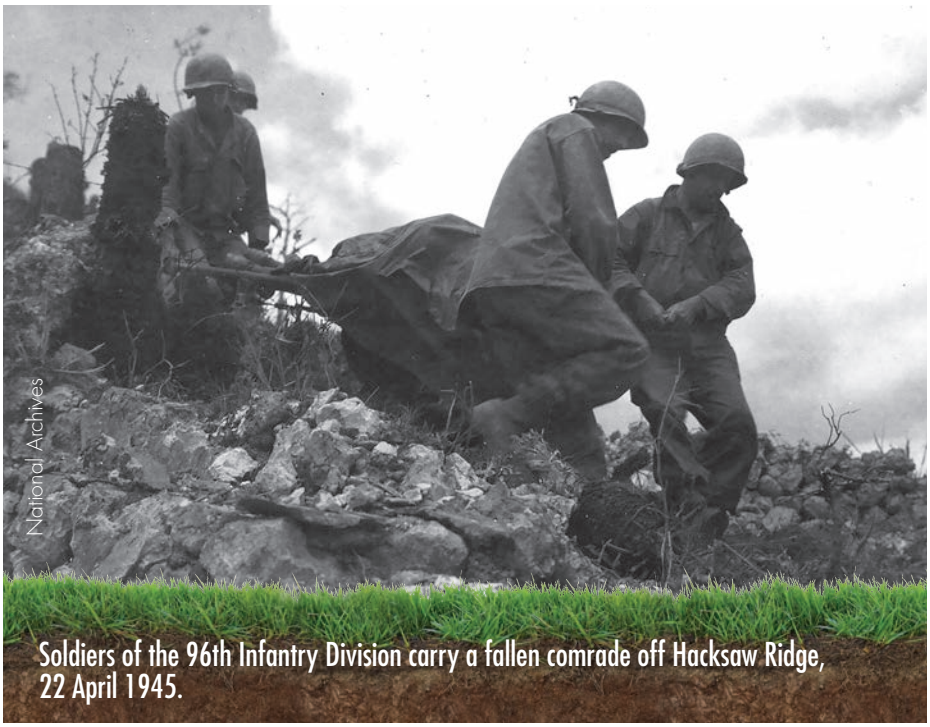
Most battlefield recoveries, however, were conducted by infantrymen on the frontline. Pfc. Nils Andersen, of the 29th Marine Regiment, 6th Marine

National Archives

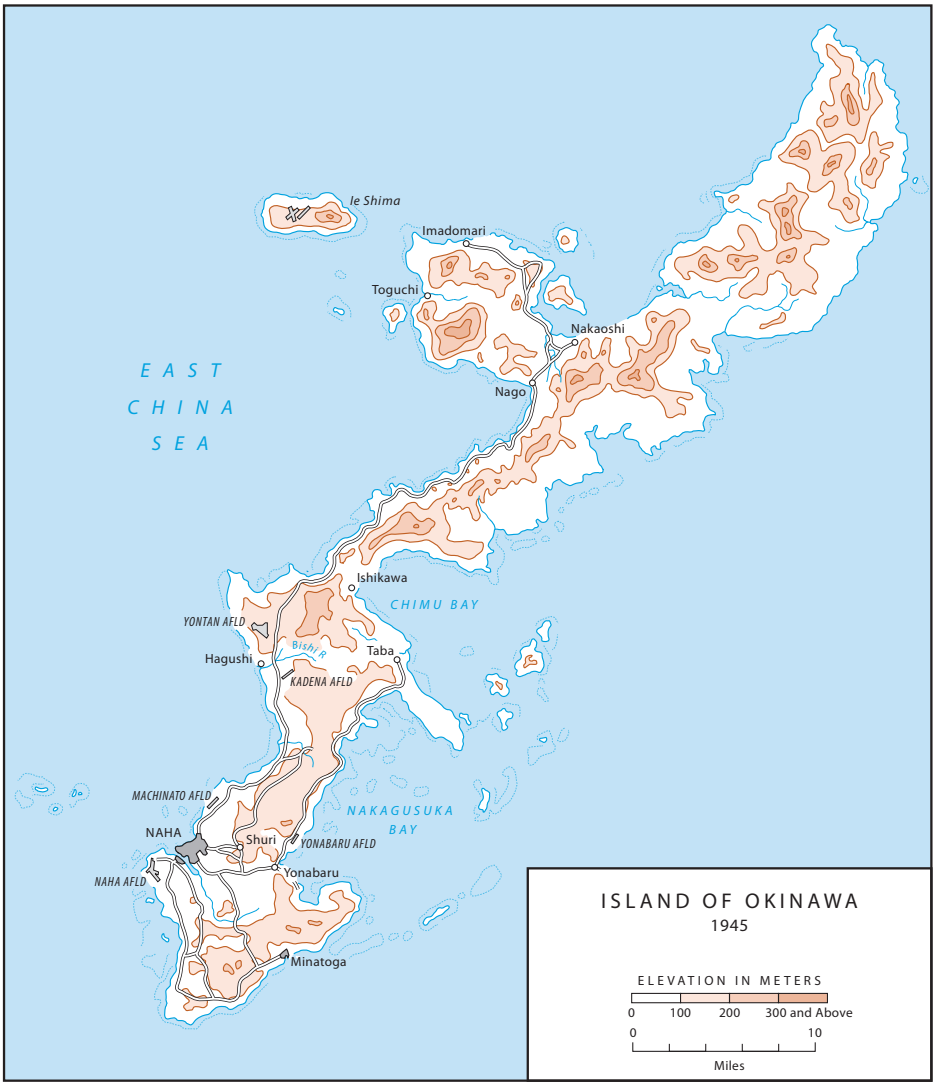
The 4th Platoon, 3008th Quartermaster Graves Registration Company, poses at the entrance to the 96th Infantry Division Cemetery, 8 June 1945.

Division, was among four marines ordered to remove American dead from Sugar Loaf, a nondescript mud hill that had proven to be one of the fiercest battle sites of the campaign. From 12–19 May, the 6th Marine Division fought for Sugar Loaf and its neighboring heights, suffering more than 2,500 casualties.[16] Many of the dead remained on the field, in the subtropical sun and mud, for several days before Andersen and three other marines recovered them. They used stretchers and even ponchos to carry or drag the bodies to a collection point. Enemy mortars and gunfire raked the area occasionally, forcing the marines to run. The condition of the remains made the job physically and psychologically difficult. When one of Andersen's colleagues lifted the hand of a casualty and pulled, the entire arm separated from the body. The stunned marine collapsed and vomited.[17]

The ferocity of the battle had broken many of the bodies before recovery. Andersen later explained that "we suggested before we started that we put a body onto the litter, or canvas, or poncho that we were using, and it consisted of a head, torso, two arms, two legs. If they didn't match we'd do that anyway, and Graves Registration could sort out the pieces later." The marines placed the parts into small piles for transport by vehicle. They worked in total silence. After several hours, an amphibious tractor (Landing Vehicle Tracked [LVT]) arrived and the four marines loaded as many as twenty bodies into the well of the LVT. Three marines jumped into the cab, leaving Andersen alone in the back with the pile of remains. What followed haunted him for several decades. As the LVT drove down a hill, the bodies, several inches of water, maggots, blood, and other fluids, sloshed forward. When the LVT drove up a steep incline, gravity pushed the remains toward the rear of the vehicle and toward Andersen. He yelled for the driver to stop, but the deafening roar of the engine drowned his cries. Within moments, as he later described, "the water is around my neck, and the fellows are bumping into me and starting to climb up on top of me. Now some of them, rolling . . . the guts stay like that . . . the heads start coming off,



Soldiers of the 96th Infantry Division carry a fallen comrade off Hacksaw Ridge, 22 April 1945.




National Archives

Marine LVTs on the beach of Iheya Island, north of Okinawa, 16 July 1945

some of the arms start coming off, and now they are becoming a jumbled mess." Back and forth, this occurred, as the LVT trudged its way to the Marine cemetery. At one point, Andersen lost his footing and fell to the floor of the tractor bed. The vehicle began a steep incline and he was covered. "One of my thoughts, believe it or not," he later explained, "was for them, those guys, that they were being so mutilated after death." He cried for help, but then blacked out. Andersen awoke near the command post after he had been pulled from the back of the LVT. Other marines recoiled at the sight and smell of him and the other men detailed for body recovery. The four were given a bucket of water to bathe with—two-and-a-half gallons to share. Their clothes were unsalvageable, so they scrounged whatever was available and returned to their unit.[18]


National Archives

A truck loaded with remains of fallen soldiers of the 77th Infantry Division drives through thick mud on Okinawa, 31 May 1945.

Despite the dangers and associated horrors, battlefield recoveries on Okinawa proved effective in removing most of the bodies of those killed during the ground campaign. Japanese defenders rarely launched counterattacks sufficient to overwhelm companies or platoons; thus there are few examples of large numbers of men reported missing in action at a single time. Remains could only not be recovered when they became isolated within heavy vegetation or rocky terrain, or were totally inaccessible. Japanese forces utilized thousands of natural caves and hand-dug tunnels across southern Okinawa. Occasionally, American infantrymen entered caves to help Okinawan civilians, gather Japanese documents, or simply collect souvenirs. Sometimes, these incidents turned deadly. Private Andersen recalled an incident in which two marines entered a cave, only to be wounded by at least one Japanese soldier hidden in its darker recesses.

Enemy fire subsequently killed or wounded all who tried to rescue the wounded marines. A Marine captain assessed the situation and issued a simple order: "BLOW 'EM UP!" Another marine protested, arguing that wounded men were still in the cave. According to Andersen, the captain responded firmly, "We can't get 'em out. Blow 'em up." As instructed, a Marine squad threw an explosive charge into the opening of the cave, entombing the marines and the Japanese within.[19]

The campaign for Okinawa continued into late June as American troops eliminated Japanese resistance in a methodical advance to the island's southern tip. At its farthest, the front lines were located twenty miles from the cemeteries near the landing beaches. This negated the practice of temporary battlefield burials and allowed graves registration personnel to rapidly transfer remains to processing centers—sometimes on the very day of death.[20] All remains were to be buried with a report of interment. However, the failure of the Tenth Army's headquarters to standardize graves registration forms and practices led to inconsistent recordkeeping. For instance, 7th Infantry Division Cemetery reports consistently recorded vital information (such as the individual's name, general location of death, date of death, cause of death, and date of burial) and took fingerprints of the deceased when possible.[21] The 6th Marine Division reports of interment, on the other hand, did not include an entry for date of death or date of burial. And, frequently, the 6th Marine Division reports listed place of death simply as "Okinawa."[22]

Troops from the 27th Infantry Division work to clear caves on Okinawa.

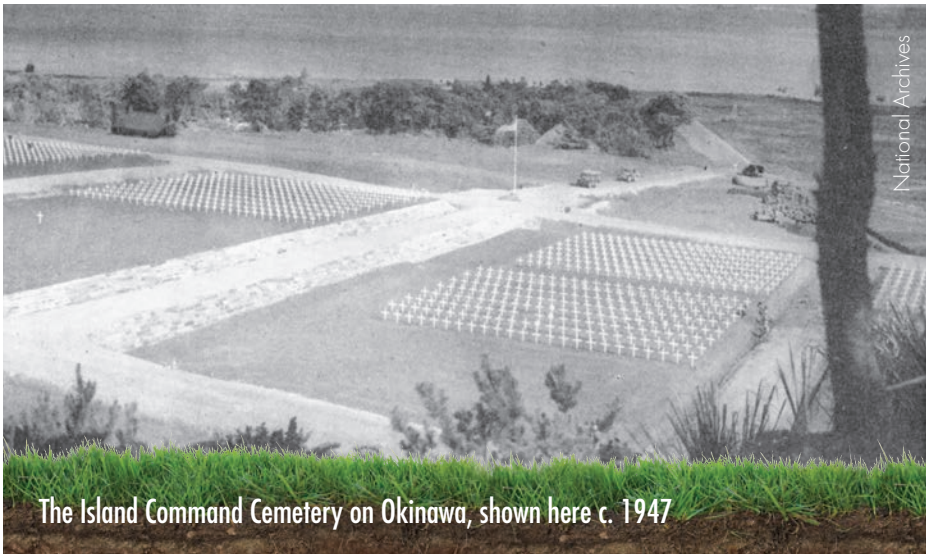
The entrance to the 96th Infantry Division Cemetery on Okinawa

Combat operations on Okinawa came to an end in late June 1945. However, some of the division cemeteries reached capacity before then. The 96th Infantry Division Cemetery closed on 13 May with its 875th burial, only forty days after it had been established and only half-way through the campaign. After that, another 768 sets of remains were routed to the 96th Infantry Division plot at the Island Command Cemetery. The 77th Infantry Division Cemetery concluded interments on 27 June, with its 770th burial. The 7th Infantry Division recorded its 1,451st—and final—burial on 9 July. The Island Command Cemetery remained open the longest and became the largest. Originally this cemetery was the location for soldiers' remains of the 27th Infantry Division, but it eventually contained remains from all units after other cemeteries reached capacity. Some of those buried at the Island Command Cemetery were not casualties of the fighting on Okinawa. Hundreds of individuals who died in accidents during and after the battle (including victims of a typhoon on 9 October 1945), or were recovered in the immediate months after the fighting, were interred there until it closed in June 1946.[23]

Throughout the campaign for Okinawa, American forces sustained approximately 12,300 killed or missing. Of those, over 4,500 were from the Army, roughly 2,800 were from the Marine Corps, and nearly 5,000 were Navy personnel.[24] Graves registration


National Archives

The 7th Infantry Division Cemetery on Okinawa, 8 June 1945


National Archives

The Island Command Cemetery on Okinawa, shown here c. 1947

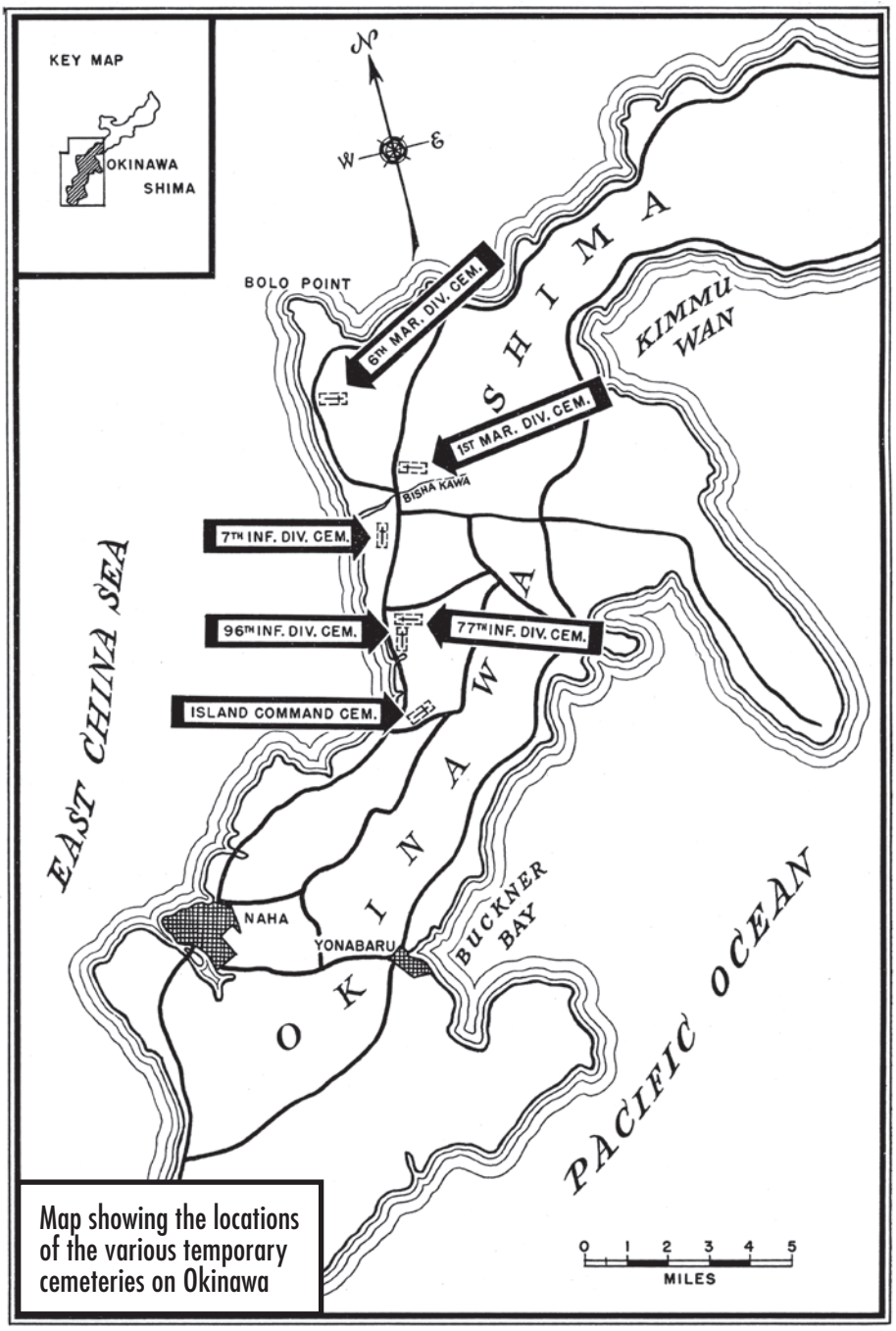

U.S. Army Quartermaster Museum

Graves Registration Service (GRS) personnel work to properly document the remains of soldiers recently killed in battle.

teams constructed eight cemeteries to handle 9,225 remains recovered from Okinawa, the surrounding islands, and from the ocean.[25] Most of the unrecovered were sailors killed aboard the thirty-six American ships sunk and 368 ships damaged, primarily by Japanese air attacks.[26]

The division cemeteries on Okinawa were intended to be temporary. In December 1945, the War Department began a process to remove and return fallen Americans from battlefields across the world. The responsibility in the Pacific fell to the American Graves Registration Service (AGRS).[27] Unlike field recovery operations in other parts of the Pacific—such as the Philippines, Solomon Islands, and New Guinea—where the remains of thousands of American service members were scattered over rough terrain and isolated areas, AGRS investigation teams recovered few remains from the battlefields of Okinawa, since recovery operations during the battle had already removed most of the fallen. Furthermore, due to the dense population of Okinawa, Japanese civilians frequently found accessible American remains before AGRS investigation teams arrived.[28]

Most AGRS operations on Okinawa involved the processing of remains buried in the wartime cemeteries. In July 1947, the AGRS established a mobile identification laboratory at Okinawa. Disinterment teams removed the remains and all identification material buried with them. They first looked for the original report of interment buried alongside the remains, in a bottle or other weatherproof vessel, and compared it with cemetery records.[29] According to regulations, the remains were then to be transferred to tables at a mobile laboratory. It is unclear how many examinations on Okinawa actually took place in a laboratory. Inspections of remains at other Pacific cemeteries, such as at Iwo Jima, were done graveside on canvas shelter halves.[30] Nonetheless, the prescribed procedure involved a table supervisor and two assistants to process each set of remains. These individuals were technically classified by military regulations as embalmers, but the AGRS



Map showing the locations of the various temporary cemeteries on Okinawa

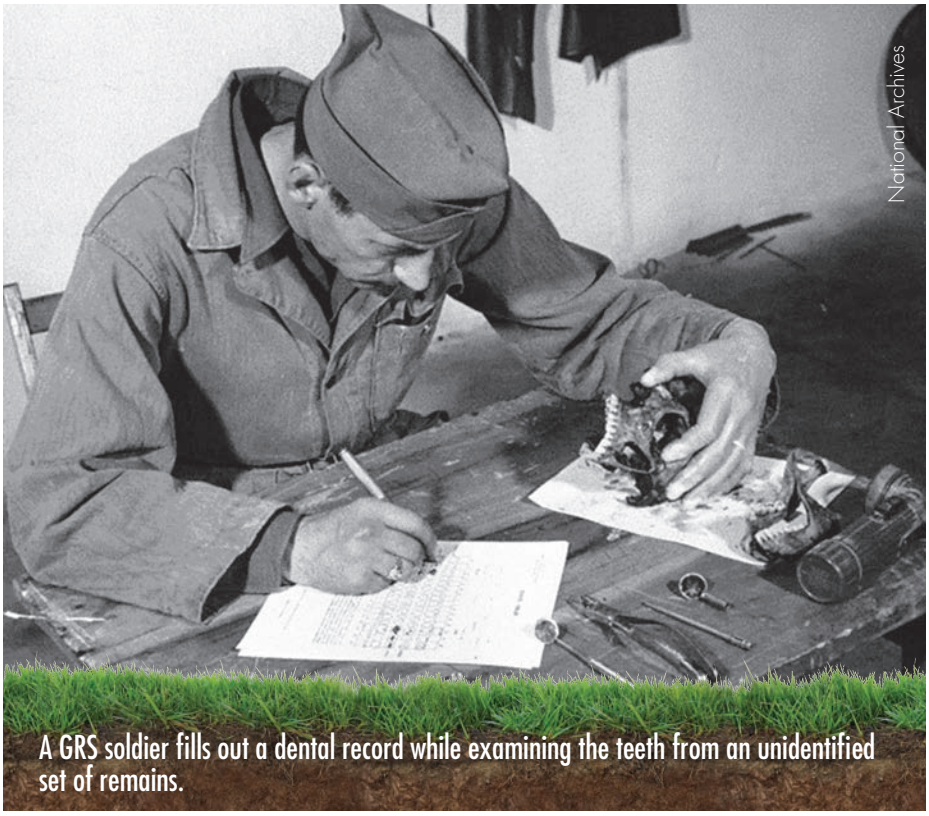
considered them "identification analysts." They were expected to have "a thorough knowledge of anatomy" and be able to easily identify bones, recognize physical abnormalities useful for identification, create an accurate tooth chart, and take fingerprints.[31]

During the examination, technicians estimated the percentage of decomposition, completed a chart showing which bones were present, and noted any significant damage to the remains. Dental information served as the most important means of identification, so technicians completed dental charts indicating the location of fillings and which teeth had been extracted, or had fallen out posthumously. The analysts removed clothing and recorded any personal effects, identification tags, and other material evidence that aided, or confirmed, identification.[32]

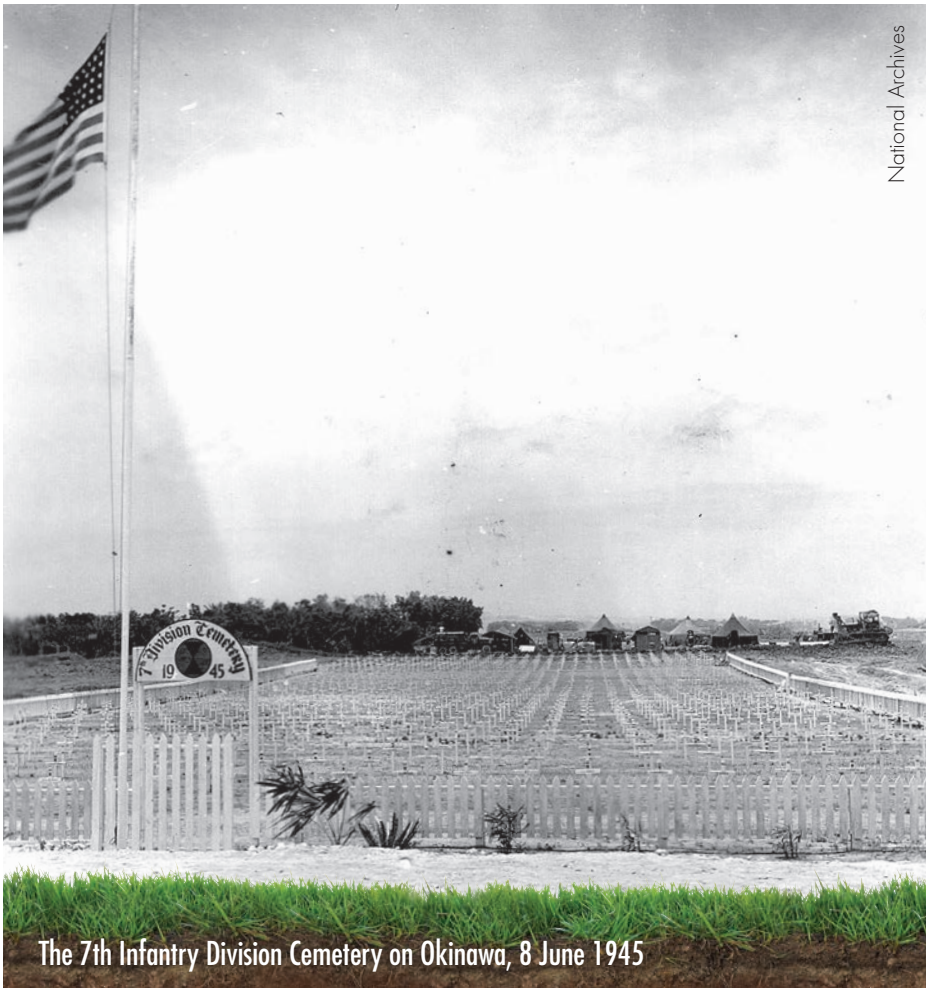
Upon completion of the inspection, the remains were reinterred for later transfer. In March 1948, the AGRS formally ordered the relocation of more than 9,000 remains from Okinawa to a processing laboratory on Saipan. Graves registration personnel were ordered to bundle each set of remains with the material evidence and store them in a temporary mausoleum at Naha. From there, the AGRS planned to ship the remains to Saipan.[33] This operation began on 15 March, at the 7th Infantry Division Cemetery.[34] By 15 May, graves registration personnel had cleared that cemetery as well as the 1st Marine Division Cemetery. The first shipment to Saipan, aboard Landing Ship, Tank (LST) 916, departed on 7 May 1948, carrying 2,026 sets of remains.[35] Exhumations at the

Naval History and Heritage Command

LST 916 in the Philippines, c. 1946


National Archives

A GRS soldier fills out a dental record while examining the teeth from an unidentified set of remains.



National Archives

The 7th Infantry Division Cemetery on Okinawa, 8 June 1945

6th Marine Division Cemetery proved more difficult, as the diggers found some remains buried as far as twelve feet deep and under coral rock. Worse, some graves had not been marked properly, and disinterring teams were forced to dig in several areas before locating the expected set of remains. In one extreme instance, graves registration teams opened eighty-four graves to find one individual.[36]

The final set of remains arrived at Saipan on 24 August 1948. Once there, AGRS analysts reprocessed the remains for their final disposition.[37] Technicians completed new dental charts, new skeletal charts, and new reports verifying identifications, or suggesting leads for unknown remains. If the individual's identity was well established, the examination concluded quickly and the remains were stored at a mausoleum on Saipan until they could be transferred to a final resting place requested by the next of kin—a stateside or permanent overseas military cemetery.[38]

For unidentified remains, analysts pursued potential leads, based on material evidence found with the remains, such as names found on letters or envelopes, laundry marks inscribed on clothing, jewelry, or unique personal effects. Unidentified remains frequently were examined two or three different times.[39] Of the approximately 10,000 sets of remains recovered from Okinawa and its surrounding islands, only 203 are still unidentified.[40] They are currently buried as unknown service members at the Manila American Cemetery in the Philippines.

Considering the tremendous size of the Tenth Army and the large number of casualties, graves registration activities on Okinawa were remarkably successful. This has left modern analysts with relatively few unresolved ground loss cases from Okinawa. However, the identification of those unidentified remains is particularly difficult because of the aforementioned Tenth Army headquarters' failure to standardize graves registration practices and reports. When fallen Americans arrived at their respective division cemeteries with their identification intact, the variations in interment reports mat-

tered little. But, for remains delivered to cemeteries without identification, the inconsistency in recordkeeping of even basic circumstantial information—such as date of burial, condition of remains, identifying features, uniform or other contextual service details, and cause of death—leaves modern investigators few clues to reconstruct the identity of the unknown soldier or marine.

Perhaps the greatest irony is that the efficiency of the recovery and burial of unidentified remains by wartime graves registration teams decreased the likelihood of identification through historical analysis compared to remains recovered by immediate postwar AGRS investigation teams, or modern investigation teams. Unidentified remains rushed to cemeteries during the battle were separated from one of the most important details used by modern investigators—location of death. Army and Marine Corps regimental records of the fighting on Okinawa are among the most detailed documents available to historians studying the campaigns of the Pacific. Because the fighting on Okinawa followed relatively well-established battle lines, remains found at a particular site on Okinawa can be associated to a handful of units through a rather simple analysis of unit documents. For instance, after a set of unidentified remains were recovered in 1987 on Kunishi Ridge, Department of Defense historians excluded all but two Marine regiments from consideration based on the location of death, and then narrowed down the list of associated individuals based on casualties from those regiments lost during the fighting


U.S. Army Quartermaster Museum

GRS personnel catalog the personal effects, clothing, and equipment of soldiers recently killed in action.

American Battle Monuments Commission

A memorial to the unknown service members laid to rest in the Manila American Cemetery

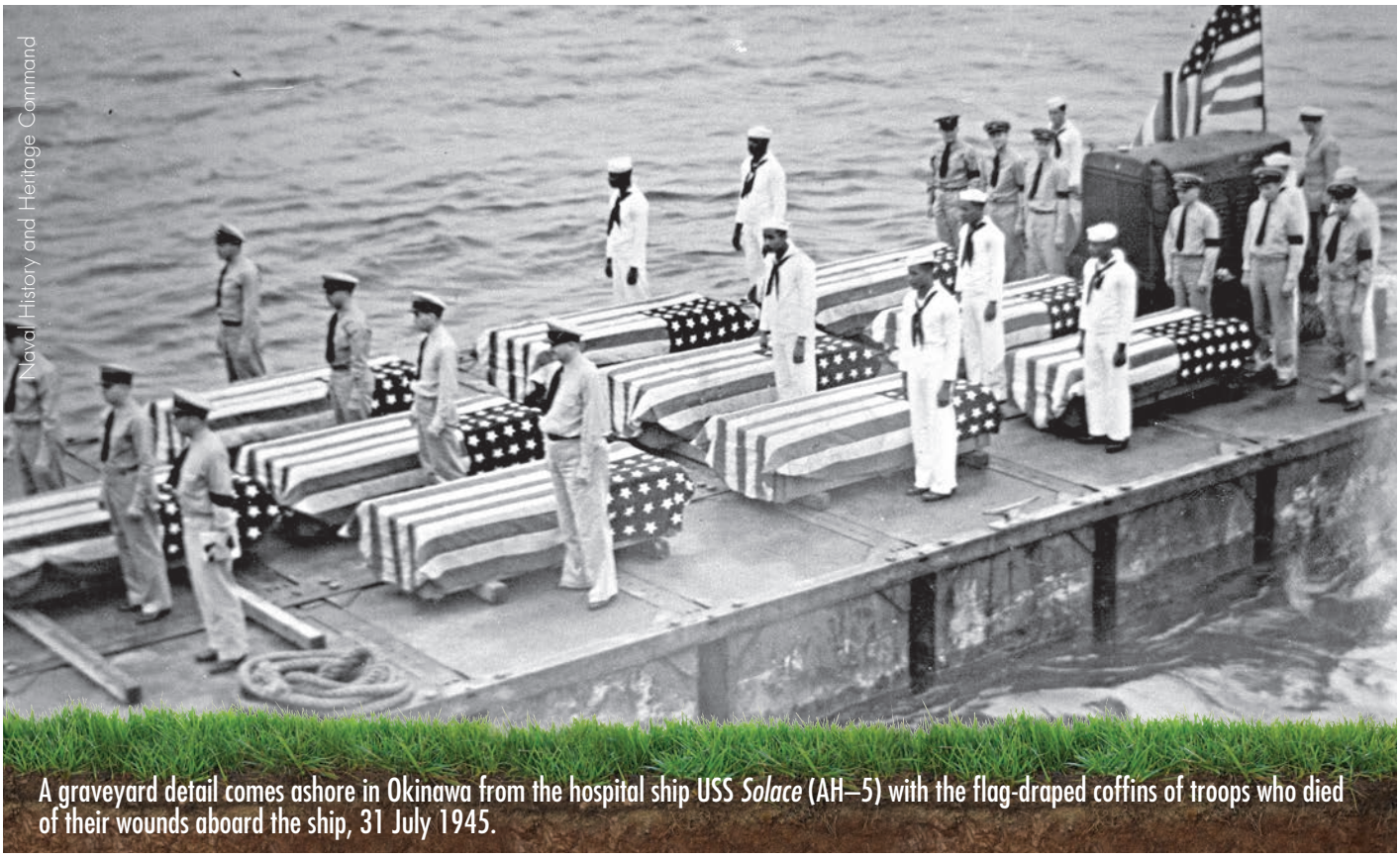

U.S. Army

Troops from the 27th Infantry Division look for the graves of fellow soldiers killed during the fighting on Okinawa.

in that area.[41] The files of hundreds of unidentified remains recovered from other battlefields by AGRS field investigation teams after the war frequently have maps, eyewitness statements, and descriptions of material evidence found nearby. This information can be crucial for identification.

This type of analysis is impossible for most unidentified remains from Okinawa because they were removed from their loss site and placed in a cemetery with little information. While scientific developments, such as DNA testing, allow new means of identification, the process still relies on historical analysis to narrow down the pool of possible associations for genetic comparison. In other words, DNA analysis is most effective when used as a process of elimination. Without circumstantial information about where or when an unknown set of remains was recovered, or even branch of service, analysts would need to compare the remains to the physical and genetic information of all of those missing in action from Operation Iceberg, a daunting task even with the advantages of modern techniques and technology.

Despite these complications, Defense Department historians working on cases from Operation Iceberg still benefit from the overall efficiency of the Tenth Army's graves registration operations. The percentage of service members still unaccounted for from the ground campaign compared to the overall number of those killed is particularly small. The unresolved cases truly represent the anomalies of the recovery effort and the relatively few instances in which circumstances of a horrendous battle overcame the best efforts of the soldiers and marines who struggled to recover the fallen.


Naval History and Heritage Command

A graveyard detail comes ashore in Okinawa from the hospital ship USS *Solace* (AH–5) with the flag-draped coffins of troops who died of their wounds aboard the ship, 31 July 1945.

Notes

1. Total American ground losses on Okinawa reached approximately 7,300. Today there are roughly 205 unaccounted for soldiers and marines from the campaign.

2. Roy E. Appleman et al., *Okinawa: The Last Battle* (Washington, D.C.: U.S. Army Center of Military History, 2005), pp. 4–7.

3. Ibid., p. 26.

4. Edward Steere, *The Graves Registration Service in World War II* (Washington, D.C.: Historical Section, Office of the Quartermaster General, 1951), p. 40.

5. Headquarters Tenth Army, Operational Directive Logistics no. 5, 1 Jan 1945, Folder "110-3.15 10th Army Directives 1-6 (Log) 10-18 20-34 7(MG)48 1945," box 2479, 10th Army, Record Group (RG) 407, National Archives, College Park, Md. (NACP).

6. Ibid.

7. Steere, *The Graves Registration Service in World War II*, pp. 158–59.

8. Headquarters Tenth Army, Operational Directive Logistics, no. 5, 1 Jan 1945, NACP.

9. Ibid.

10. Steere, *The Graves Registration Service in World War II*, p. 159.

11. Ibid., pp. 159–60.

12. Rpt, 1st Lt Knapp A. Tomberlin, "Historical Narrative Report of American Graves Registration Service Activities, Ryukyus Command," 23 Oct 1947, pp. 1–2, Folder "314.7 GRS – Far East (Historical Narrative) Feb 46 – Oct 47," box 417, RG 92, Office of the Quartermaster General, Entry 1894A, "Miscellaneous Files," NACP.

13. Ibid., p. 2.

14. Col C. H. White Jr., Headquarters 96th Infantry Division, "Award of the Bronze Star Medal," Pfc John L. Nigro, 30 Jun 1945, Folder "314.7 GRS – Far East (Historical Narrative) Feb 46 – Oct 47," box 417, RG 92, Office of the Quartermaster General, Entry 1894A, "Miscellaneous Files," NACP.

15. Col C. H. White Jr., Headquarters 96th Infantry Division, "Award of the Bronze Star Medal," and "Award of the Oak Leaf Cluster," 30 Jun 1945, Sgt Harmon O. Whiteman, Folder "314.7 GRS – Far East (Historical Narrative) Feb 46 – Oct 47," box 417, RG 92, Office of the Quartermaster General, Entry 1894A, "Miscellaneous Files," NACP.

16. Appleman et al., *Okinawa: The Last Battle*, pp. 322–23.

17. Laura Homan Lacey, *Stay Off the Skyline: The Sixth Marine Division on Okinawa* (Washington, D.C.: Potomac Books, Inc., 2007), p. 121.

18. Ibid., pp. 122–24.

19. Ibid., p. 95.

20. For instance, Cpl. Joseph Cascone of Company E, 1st Marine Regiment, was killed at Kunishi Ridge south of Itoman, Okinawa, on 14 June 1945. He was buried in the 1st Marine Division Cemetery on 15 June 1945, eighteen miles from his location of death. Report of Interment, Individual Deceased Personnel File for Joseph Daniel Cascone, Corporal, 863718, RG 92, Records of the Office of the Quartermaster General, Washington National Records Center (WNRC), Suitland, Md.

21. For instance, see Report of Interment, 7th Infantry Division Cemetery Unidentified X-35, WNRC.

22. For instance, see Report of Interment, 6th Marine Division Cemetery Unidentified X-39, WNRC.

23. Rpt, 1st Lt Knapp A. Tomberlin, "Historical Narrative Report of American Graves Registration Service Activities, Ryukyus Command," 23 Oct 1947, pp. 8–11, NACP.

24. Total numbers of casualties for Operation Iceberg vary among sources. The numbers presented in this paper represent an approximate average. See Tenth Army Action Report, "Report of Operations in the Rykyus Campaign," ch. 11, fig. 9, 11-1-12, Folder "110-0. Action Rpt Ryukyus Opn III Amphibious corps (Phase I–II Okinawa) Okinawa 1944–45," 10th Army Records, box 2439, RG 407, NACP; and Appleman et al., *Okinawa: The Last Battle*, p. 473.

25. The eight cemeteries were the 1st Marine Division Cemetery, the 6th Marine Division Cemetery, the 7th Infantry Division Cemetery, the 77th Infantry Division Cemetery, the 96th Infantry Division Cemetery, Island Command Cemetery on Ie Shima, Island Command Cemetery on Okinawa (which was an incorporation of the 96th Infantry Division #2 and the 27th Infantry Division Cemetery), and the Armed Forces Cemetery on Zamami Shima. Steere, *The Graves Registration Service in World War II*, p. 162.

26. Appleman et al., *Okinawa: The Last Battle*, p. 473.

27. Maj Gen Edward F. Witsell, War Department Technical Manual TM 10-281, "Permanent Interment of World War II Dead," (Washington, D.C.: United States Government Printing Office, 1947), p. 1.

28. For instance, see Report of Interment, 21 Mar 1947, Okinawa Island Command Cemetery Unidentified X-136, WNRC.

29. For instance, see Capt Thomas E. Cox, "SUBJECT: Reprocessing of Remains," 27 Jul 1950, 6th Marine Division Cemetery Unidentified X-25, WNRC.

30. See photo labeled "AGRS-48-203 McEwen 17 Aug 47," with caption: "Pfc F J Payton, 8246th Field Operation Section, prepares dental chart at Third and Fourth Marine Cemetery, (Iwo Jima, Bonin Islands)," Folder "314.7 GRS – Far East (Historical Narrative) Feb 46 – Oct 47," box 417, RG 92, Office of the Quartermaster General, Entry 1894A, "Miscellaneous Files," NACP.

31. Lt Col L. D. Lott, Headquarters Philippines-Ryukyus Command, "SUBJECT: Identification Procedures," 15 May 1947, pp. 1-2, Folder "314.7 GRS – Far East (Historical Narrative) Feb 46 – Oct 47," box 417, RG 92, Office of the Quartermaster General, Entry 1894A, "Miscellaneous Files," NACP.

32. Technicians occasionally fluoroscoped the remains—a type of X-ray that indicated the presence of metal (such as identification tags, bracelets, or jewelry) not easily accessible or observable during a traditional examination. Ibid., pp. 2–4.

33. Col James A. Murphey, Operational Order, no. 1: Concentration-Okinawa, 3 Mar 1948, Folder "314.7 GRS Far East (History AGRS – FEZ) (Part Three)," box 416, RG 92, Office of the Quartermaster General, Entry 1894A, "Miscellaneous Files," NACP.

34. Headquarters American Graves Registration Service, Ryukyus Command [Report of Okinawa disinterments], 15 May 1948, Folder "Graves Regis – Far East Jul 48," box 401, RG 92, Office of the Quartermaster General, Entry 1894A, "Miscellaneous Files," NACP.

35. Ibid.

36. Edward Steere and Thayer M. Boardman, *Final Disposition of World War II Dead, 1945–51*, QMC Historical Studies, Series II, no. 4 (Washington, D.C.: Historical Branch, Office of the Quartermaster General, 1957), pp. 425–26.

37. Ibid., p. 426.

38. For instance, the identified remains of Pvt. Bruce Mitchell of the 1st Marine Division were placed in the Saipan mausoleum on 9 July 1948 and transferred to Hawaii for permanent interment at the National Memorial Cemetery of the Pacific in January 1949. Disinterment Directive, Individual Deceased Personnel File for Bruce Allen Mitchell, Private, 561720, RG 92, Records of the Office of the Quartermaster General, WNRC.

39. For instance, a set of remains labeled Unknown X-21 of the Island Command Cemetery was examined in November 1947, May 1948, and September 1949, before it was declared unidentifiable by the AGRS. Island

Command Cemetery, Okinawa, Unidentified X-21, WNRC.

40. Information about Saipan identifications can be found in Steere and Boardman, *Final Disposition of World War II Dead, 1945–51*, p. 426. The number of current unidentified remains from Okinawa is the sum of existing X-files from the eight temporary cemeteries of the Ryukyu Islands, compiled at the Defense POW/MIA Accounting Agency (DPAA). Today, just over 200 marines and soldiers are still unaccounted for from the ground campaign. At least 649 sailors are still missing and there are over 450 Army Air Force airmen unaccounted for from missions over the Ryukyu Island chain. These latter losses, though, primarily took place over water and were inaccessible to graves registration teams. The numbers of unaccounted for were tabulated from the DPAA's World War II Individual Loss Database according to loss locations listed as "Okinawa," "Ryukyu Islands," "Ie Shima," "Miyako," and "Kerama Rhetto." Some Navy losses were listed geographically as both "Pacific Ocean" and "Ryukyus Islands." The numbers listed above may not be the definitive count of individuals still unaccounted for from Okinawa or the Ryukyua Island chain. The numbers are based on data of each individual loss as recorded by officials during World War II and available to current DPAA analysts.

41. Dr. Ian Spurgeon, "JPAC CASE OKINAWA CIL accession 1987–127," 4 Jan 2012, Defense POW/MIA Accounting Agency File.

ARMY HISTORY

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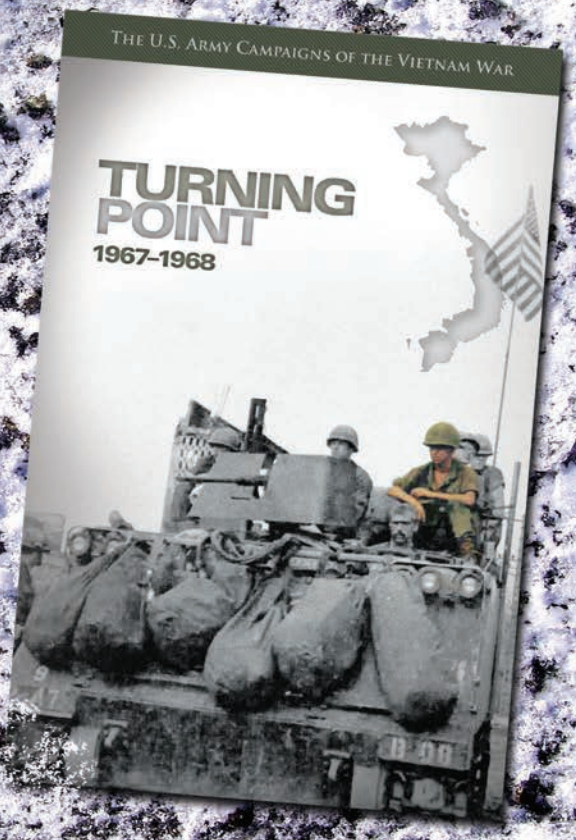

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U.S. Army Artifact Spotlight

The Colt Walker Model Revolver

By Dieter Stenger

The recently acquired Colt Walker Model revolver, planned for display in the National Museum of the United States Army, which is scheduled to open in 2019 at Fort Belvoir, Virginia, captures the spirit of a legendary weapon used during the Mexican-American War and on the Texas frontier from 1849–1850. While the Colt Walker Model revolver catapulted Colt Firearms to popularity, which endured for over 150 years, it also highlights the fearless and heroic career of Capt. Samuel Hamilton Walker, U.S. Mounted Rifle Regiment, Texas Rangers, who inspired the design of the revolver.[1]

This massive 4-pound 9-ounce, .44-caliber, 6-shot revolver, marked "A COMPANY No 21," is a rare example of approximately 150 surviving Colt Walker revolvers.[2] Designed in 1846 by Samuel Colt, based on the personal recommendations of Captain Walker, the "A COMPANY No 21" pistol was part of a contract for about 1,000 Colt Walker Model revolvers. The Colt Walker Model was an improvement of the .36-caliber Paterson, the first production Colt handgun. Colt Walker Models were marked with A–E Company designations with serial numbers from 1–200 in each group.

Born in Maryland in 1815 (some sources say 1817), Walker joined the U.S. Army at the age of twenty-one and, by 1837, promoted to corporal for courage on the battlefield fighting the Seminoles in Florida. During his brief life, he became famous for fighting Indians and Mexicans, escaping captivity, and eluding death on several occasions until his luck ran out. He was killed in action on 9 October 1847 during the Battle of Huamantla, just a few months after receiving his own pair of Colt Walker revolvers.[3] As the only Colt Walker Model in the Army Historical Collection, this revolver shall be prominently displayed in the National Museum of the United States Army as part of the Mexican-American War gallery. It is currently stored under professional museum standards at the Museum Support Center, Fort Belvoir.

AH

Dieter Stenger serves at the Museum Support Center as the curator of firearms and edged weapons.

Notes

1. Philip Schreier, "Walker's Walkers: The Colt Walker Revolvers of Captain Samuel H. Walker, Texas Ranger," *Man at Arms Magazine for the Gun and Sword Collector* (Woonsocket, R.I.: Mowbray Publishing, 1998), p. 30.

2. Revolver "A Company No. 21" is listed by serial number as one of 150 surviving U.S. Colt Walker Models revolvers identified by Robert D. Whittington, *The Colt Whitneyville-Walker Pistol: A Study of the Pistol and Associated Characters 1846–1851* (Brownlee Books, 1984), p. 79. A total of 1,100 revolvers were made.

3. See Sam Pachanian, "Colt's 1848 Pocket Model—The 'Baby Dragoon'—A Classification by Model," *American Society of Arms Collectors Bulletin*, no. 59 (Fall 1988), p. 17; Robert Q. Sutherland and R. L. Wilson, *The Book of Colt Firearms* (Kansas City, Mo.: R. Q. Sutherland, 1971), pp. 79–80; Robert Nieman, "Captain Sam Walker," *Texas Ranger Dispatch,* no. 9 (Winter 2002), p. 21.

Samuel Walker, c. 1846

Library of Congress

U.S. Army Museum Feature

Army Breaks Ground on National Museum

By Matt Seelinger

On 14 September 2016, at Fort Belvoir, Virginia, in a ceremony attended by Secretary of the Army Eric K. Fanning, Army Chief of Staff General Mark A. Milley, and over 300 guests, the Army officially broke ground for the National Museum of the United States Army. The ceremony was led by retired generals Gordon R. Sullivan and William H. Hartzog, the chairman and vice chairman, respectively, of the Army Historical Foundation, the organization, in conjunction with the Association of the United States Army, responsible for coordinating the fundraising campaign for the museum.

The museum groundbreaking marked an important milestone in the long effort to build a national museum for the Army, the origins of which can be traced as far back as 1814, when Congress introduced legislation authorizing the collection, preservation, and public exhibition of captured flags, standards, and colors by the Army. Although the Army is the nation's oldest branch of the armed forces, it is the only one without a national museum.

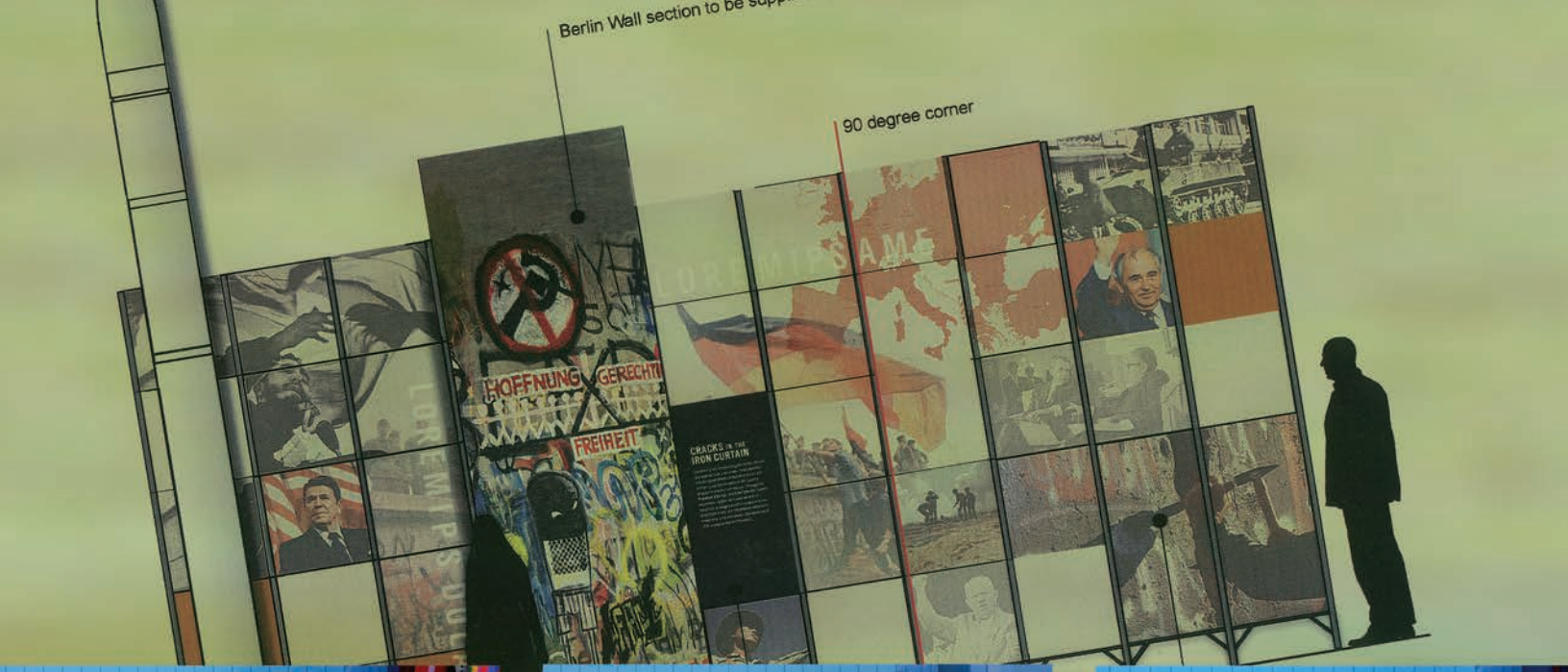
The National Museum of the United States Army will be located on an 84-acre site at Fort Belvoir, Virginia, with access by the public off the Fairfax County Parkway. The 186,000-square-foot facility will showcase thousands of artifacts, images, and pieces or artwork, much of which have never been seen by the general public. The museum is expected to attract up to 750,000 visitors annually.

The museum's galleries will depict the history of the Army in times of war and peace. The three main galleries are Soldier Stories, Fighting for the Nation, and The Army and Society. The Fighting for the Nation gallery will feature six sub-galleries that cover different periods in the Army's history, beginning with the Revolutionary War and proceeding up through the recent conflicts in Afghanistan and Iraq.

Space within the museum will be able to accommodate educational programs, lectures, receptions, and other events. The museum will also feature a gift shop and café. The outside areas of the museum campus will feature a memorial garden, amphitheater, parade ground, and Army Trail.

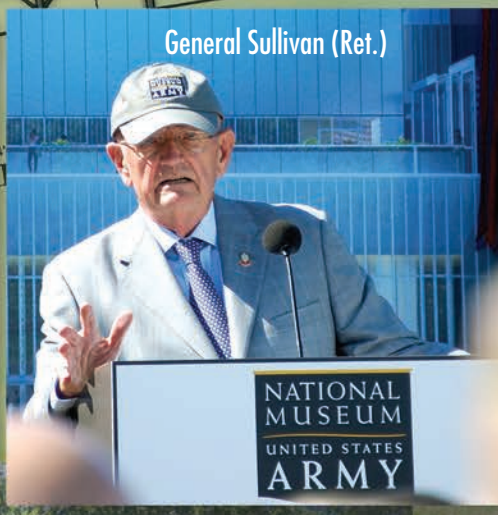
The National Museum of the United Sates Army is expected to open to the public in late 2019. For more information and updates, please visit the Army Historical Foundation's Web site at www.armyhistory.org.

Matt Seelinger is the chief historian of the Army Historical Foundation.

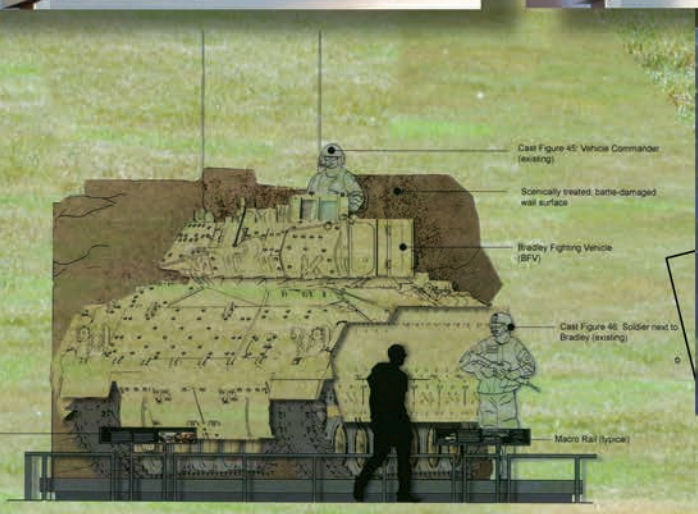


Secretary Fanning

General Milley



General Sullivan (Ret.)




Secretary Fanning, General Milley, and General Sullivan (Ret.)

Opposite: (Left to right) Sgt. Maj. of the Army Daniel A. Dailey, General Milley, and General Sullivan (Ret.); Secretary Fanning, Katherine Hammack, assistant secretary of the Army for installations, energy and environment, and General Hartzog (Ret.)

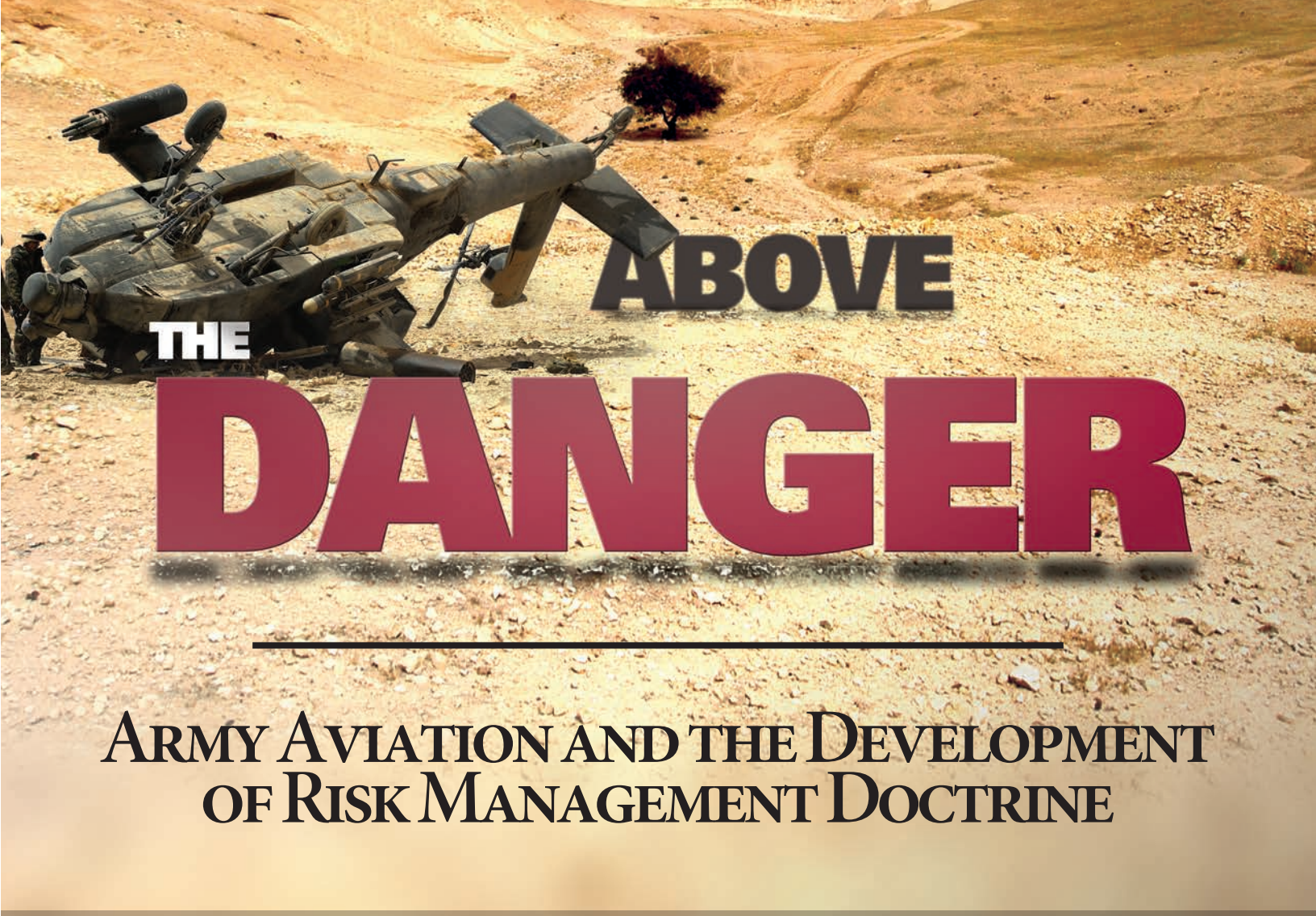
All photos courtesy of Frank Ruggles, and conceptual renderings courtesy of Eisterhold Associates Inc.

ABOUT THE AUTHOR

Capt. Mike Mobbs, an active duty Army officer, is currently pursuing a master's degree in history at the University of Pennsylvania before a follow-on assignment to the History Department at the United States Military Academy. He has served at all levels within the light airborne and special operations community, from private to company commander. In his most recent assignment, he commanded companies in the 2d Battalion, 504th Infantry Regiment, and in the 3d Battalion, 73d Cavalry Regiment, both part of the 82d Airborne Division.

U.S. Army

UH–60A Black Hawk crash site near Nasiriyah, Iraq, 21 September 2004



ABOVE THE DANGER

Army Aviation and the Development of Risk Management Doctrine

By Mike Mobbs

On 15 February 1995, a 34-man patrol of U.S. Army Ranger School students quietly slipped into the 52 degree water of the Yellow River, near Eglin Air Force Base, Florida. Their mission was designed to be relatively easy: paddle rafts five to six miles down the river to a predesignated point, and then move overland through the Florida swamps to establish an ambush position. Ranger School is an eight-week training exercise that develops leadership skills by exposing students to challenging terrain while under "mental and physical stresses, including nutritional and sleep deprivation," and the Ranger students were on the fifth day of their final training exercise when they entered the water. Believing that the water would become shallower and the foot movement easier, the instructors allowed the students to continue deeper into the swamps and through unfamiliar ground. As the movement continued, however, conditions deteriorated, and the instructors began to notice the early signs of hypothermia in some of the students. What started as a training exercise suddenly became a real life rescue operation as the body temperatures of the Ranger students plummeted. By the end of the day, seven students had been evacuated, with four dead of hypothermia.[1]

These deaths occurred despite the fact that "Risk Management"—a five-step tool for identifying and mitigating risk—already existed in the Army.[2] What did not exist, however, was a doctrinal mandate for incorporating the management of risk into all Army training and operations. The Army publishes doctrine, which is defined as "fundamental principles by which the military forces or elements thereof guide their actions in support of national objectives," to define authoritative action, tempered by an individual leader's judgment.[3] At the time of this Ranger School accident, Risk Management was not a fundamental principle of planning and decision making. While this tragedy did not alone instigate institutional change, it was emblematic of the fundamental problem that Risk Management eventually sought to address: the absence of a formal tool for assessing and mitigating the risk inherent in all military operations. This tool, Army Risk Management, was finally written into a standalone doctrinal publication on 23 April 1998, and titled Field Manual (FM) 100–14, *Risk Management.*

The evolution of how the Army thought about risk and developed a systematic approach to making risk

Composite Image: AH–64D Apache crash site near Balad Army Airfield, Iraq, 30 October 2003 /U.S. Army

U.S. Army soldiers during the Ranger Course on Fort Benning, Georgia, 21 April 2015

decisions, however, has been largely neglected by military historians. For the majority of the Army's history, accidents were attributed to the inherent danger in military training and operations. Risk was an intangible, akin to the Clausewitz concept of the "fog of war." This article argues that before it spread to the entire Army, the conscious effort to reduce accidents and develop risk systems began in the Army aviation community. A careful examination of Army publications, field manuals, regulations, and the reflections of those who helped shape and write Army doctrine regarding risk in the years following the activation of the first helicopter units, tells the story of the evolving understanding of accidents, risk, how they are related, and how to address them. This article brings these sources together to trace the Army's evolution of risk thought from its genesis in Army aviation, to its peak with the publication of FM 100–14, *Risk Management*.

In 1955, the U.S. Army established the Army Aviation Center at Camp Rucker, Alabama, which was renamed Fort Rucker within the year.[4] Army aviation was still in its infancy after the National Security Act of 1947 established the separate U.S. Air Force, and in order to set themselves apart and complement their style of ground-based warfare, the Army staffed its air arm with the helicopter. As a new technology, the helicopter presented the Army with an exposure to new hazards and levels of risk unknown before the 1950s. Any new equipment fielded by the Army, including helicopters, did go through an intensive acquisitions process that applied a systematic approach to identifying and managing mechanical risk—at the time a separate concept from the seemingly enigmatic risk inherent to military operations. The acquisitions process for new equipment was regulated by common engineering standards outlined in such publications as Military Standard (MIL-STD) 882, *System Safety Requirements*.[5] This publication required engineers to "identify the hazards of a system and to impose design requirements and management controls to prevent mishaps by eliminating hazards or reducing the associated risk."[6] However, this did not provide the Army aviation community with any proper guidance on managing risk during actual operations. Therefore, aviators had to push the boundaries of human and mechanical limitations in order to develop doctrine from whatever successes (and failures) that they found.[7]

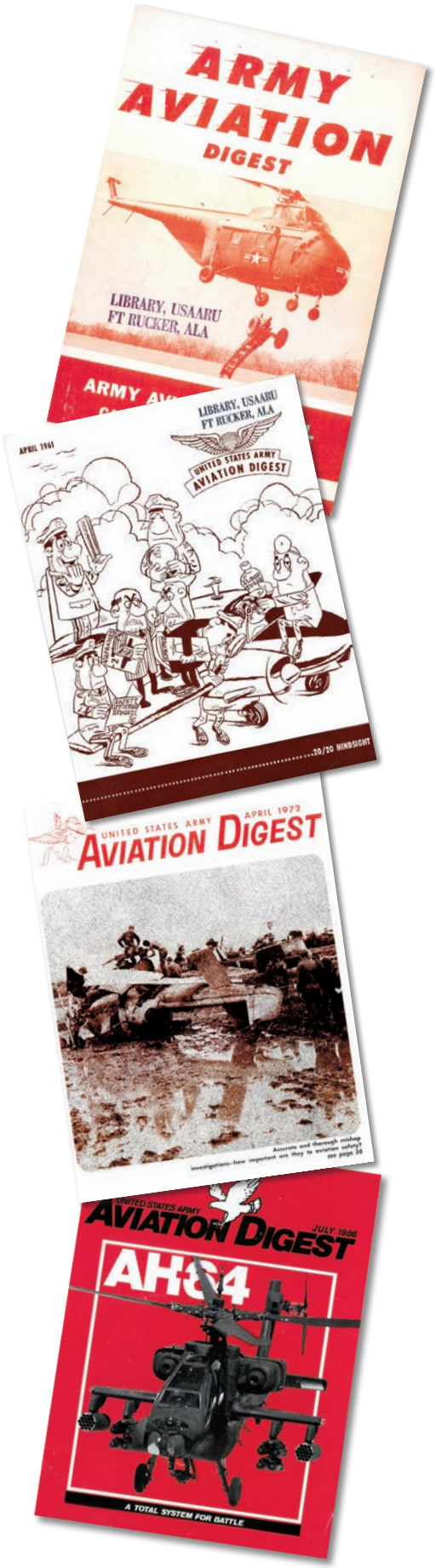
By pushing these mechanical and human limitations, accident rates increased. In the first decade of Army aviation's implementation, the death rate per 1,000 hours of exposure peaked at .0332 in 1958.[8] For example, on 7 February 1958, Capt. John Asbury and two crew members departed Augusta, Georgia, en route to Fort Bragg, North Carolina, in their H–21 Shawnee helicopter for a routine evening flight. Failing to account for adverse weather, Captain Asbury flew directly into a blinding rainstorm, causing him to lose control of his aircraft and crash near Hartsville, South Carolina. While the two crew members survived with minor injuries, Asbury died in the crash.[9] As Army aviators continued

General Hutton

An Air Force H–21B Shawnee crashed due to engine failure near Goose Bay, Newfoundland, and Labrador, Canada, c. 1959.

to learn hard lessons at the cost of human lives, such as Captain Asbury, the Department of the Army directed Brig. Gen. Carl I. Hutton, then director of the Aviation Center, to offer solutions that addressed the increase in helicopter accidents. Hutton made two recommendations. First, he suggested that the Army establish an accident prevention board and publish a "professional aviation periodical." The Army concurred, and thus the U.S. Army Board for Aviation Accident Research (USABAAR) and *Aviation Digest* were born. As the Army Aviation School grew and matured at Fort Rucker, USABAAR was charged with cataloging data on aviation accidents, as well as publishing findings and recommendations. *Aviation Digest* published best practices and advocated for safety awareness across Army aviation.[10]

USABAAR's collection of accident reports led to the 1966 publication of Army Regulation (AR) 95–5, *Aviation Accident Prevention, Investigation, and Reporting.* AR 95–5 was one of the foundations of the modern notion of risk management, but it had a few glaring flaws. Accidents were seen as completely synonymous with risk, which not surprisingly mirrored the guidance on accident prevention in the 1965 revision of AR 385–10, *Army Safety Program*, which also equated a "high-risk" activity with a "high-accident" activity. The new regulation also described a "safety council" that would develop an "effective system for exposing operational hazards," periodically reviewing those hazards, and taking appropriate action to eliminate them without, however, providing a process to accomplish any of it.[11] For example, one aviation company, when planning an operation, might consider pilot experience, assign an arbitrary numerical value between one and ten, and claim that this value was the risk of conducting the operation.

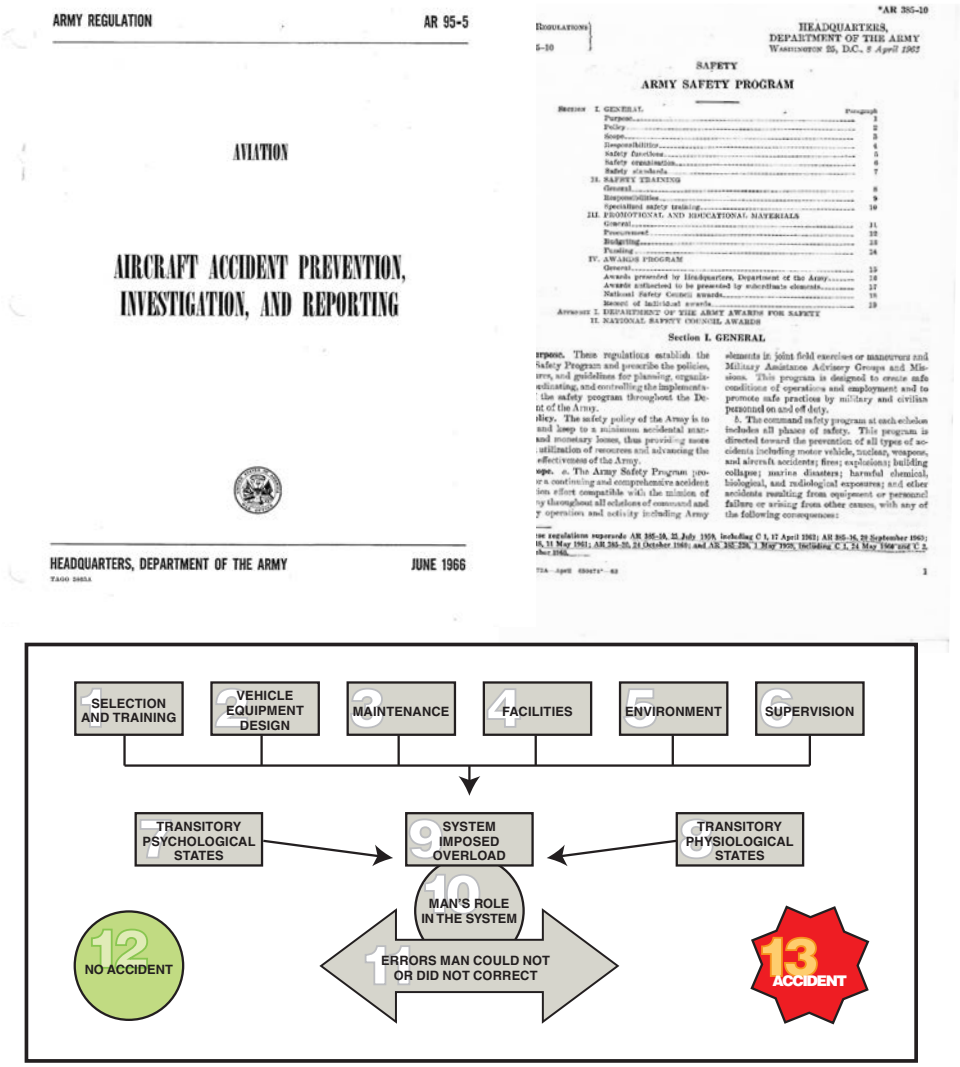


Covers from four decades of *U.S. Army Aviation Digest*

Meanwhile, a different company, even in the same battalion, might plan the same operation while considering a different factor, and come up with a completely different value for risk.[12] Another failure of AR 95–5 was that it left hazard identification and elimination vague while specifying in great detail how to investigate an accident and report it to the USABAAR. The prevention guidance in AR 95–5 instilled "into all aviation personnel and the users of aviation the need for a positive attitude toward accident prevention," while the majority of the nearly 300-page regulation was spent outlining detailed investigating and the reporting of accidents.[13] These approaches to accident prevention rested on the assumption that by reducing accidents, risk would also inherently be reduced. It also put the focus squarely on the accident's description and reporting methods, rather than investigating an accident's causes.

Aviation accident reports therefore became seen as the primary tool to reduce risk; theoretically, the greater the collective knowledge of accident occurrences that was described in the reports, the more successful the Army would become at accident prevention. This was shown in one accident summary that stated that if "techniques used to cope with [emergencies] could be shared and learned by all, army aviators would be in a far better position to prevent accidents resulting from similar factors." Another publication from the USABAAR emphasized the importance of post-accident reports when it lamented that during 1967, two-thirds, or more than 200 mishaps, were generically reported, without the specificity required to share meaningful insights to the aviation community at large.[14] Furthermore, it appears that the accumulated data of over fifteen years of accidents were never critically examined in order to identify root accident causes, specific areas of focus, or common accident factors. Army aviation had become mired in accident reporting, rather than accident prevention.

This situation was exacerbated by the 1975 revision of the AR 95–5. The revised publication did make some progress, however, in addressing accident factors and causes. The human element of accidents were finally addressed, as the significantly revised publication included a chapter titled "Human Factors Investigation," which specified that "any individual whose task/duty performance is suspected of causing or contributing to the mishap should be investigated." (The 1975 revision of AR 95–5 was accompanied by a series of articles in *Aviation Digest* titled "Pilot Error Accidents Aren't All Pilot." A reprint of these articles stated in the foreword that the "ultimate objective of this approach is to attack the human-error problem in a manner that is as systematic as the attack on materiel/machine failure." The *Aviation Digest* articles included an accident model that placed the human element at the convergence of accident causation. The article explained the model describing that when any factor is out of tolerance to a degree that exceeded man's limitations, the result is a system overload and a human-error accident).[15] Furthermore, the list of accident-causing factors was increased from four, in the 1966 version, to nine.[16] These factors were a glimpse of the same hazards that the aviation safety council aimed to expose and eliminate, but unfortunately, instead of trying to better understand these underlying hazards, they were used to conduct more detailed investigations. The Army had effectively reinforced the specificity of their accident reporting requirements without addressing the root causes. Fortunately, the aviation



Source: U.S. Army Agency for Aviation Safety (USAAVS) model of the Human-Error Accident, from "Pilot-Error Accidents Aren't All Pilot Part I," *U.S. Army Aviation Digest* (January 1975).

community was soon about to turn away from the accident reporting process as a way of reducing risk.

A 1977 article in *Aviation Digest* titled "A New Approach to Human-Error Accidents," pointed out that:

> Formerly, pilot error was approached in the context of specific type of accidents such as hard landings, midair collisions, and blade strikes. This type of approach considered the situation in which the accident occurred instead of the causes that brought it about. As a result, causes that are common to different types of accidents were overlooked. Preconceived types of accidents tended to foster preconceived notions of what happened and why it happened. In summary, this approach fostered the tendency to describe and account for accidents rather than to discover their causes and cures.[17]

This article signified the beginning of a paradigm shift in which "causes" and "cures" marked a clear departure from the traditional Army aviation approach of safety that sought to minimize risk by simply reducing the number of accidents.

The 1979 edition of AR 385–10, *Army Safety Program*, mirrored this shift in thought. The new regulation called on leaders to "minimize frequency and severity of injuries and occupational illnesses" and for the first time provided clear definitions of key terms.[18] A hazard was defined as "any existing or potential condition that can result in a mishap," while a mishap was "an unplanned event or series of events that result in death, injury, occupational illness, or damage to or loss of equipment or property (i.e., an accident)."[19] The most significant contribution of this edition of AR 385–10 was a requirement that leaders use "early detection techniques on a priority basis over techniques that rely on detecting hazards or accident causes after an activity is operational or after an accident has occurred."[20] This "early detection technique" was designed as a tool for leaders to classify hazards in terms of frequency and severity. Hazard severity was categorized as either *catastrophic (I)*, *critical (II)*, *marginal (III)*, or *negligible* (not depicted), and mishap probability was categorized as either *likely to occur immediately (A)*, *probably will occur in time (B)*, *may occur in time (C)*, or *unlikely to occur (D)*. This tool was coined a *risk assessment*, and was the first time that Army doctrine made a direct link between an existing hazard and the mishap that it caused.[21] The risk assessment gave leaders a model by which they could prioritize their efforts against the most severe and probable hazards. The model proved a success, as it dramatically decreased the number of aviation accidents. Around the time of the model's introduction, the number of accidents had averaged over 350 annually. But as AR 385–10 became more strictly enforced and widespread, this number dropped to 126 in 1984, and averaged 118 thereafter (this despite an increase in annual flight hours).[22]

	Mishap Probability			
Hazard Severity	A	B	C	D
I	1	1	2	3
II	1	2	3	4
III	2	3	4	5

Source: AR 385–10, *Army Safety Program,* 1979.

Aviation's success in properly addressing risk and reducing the overall number of accidents was soon recognized by the rest of the Army. By the 1980s, the ground component was grappling with new technologies, much like the aviation community had when the helicopter was first introduced several decades earlier. As the Army strived to implement best practices for the safe operation of these new technologies, leaders turned to the aviation community for direction. As Michael Olin, a former Aviation Safety Program Manager noted, "M1A1 Abrams tanks, Bradley Fighting Vehicles, turbine engines . . . who had the turbine engine experience? The aviation world." For the previous thirty years, aviators had dealt with accidents involving these technologies, because "everything that happens . . . happens in aviation, very quickly, and catastrophically." The role of the aviation safety council to develop an "effective system for exposing operational hazards," periodically reviewing those hazards, and taking appropriate action to eliminate them, provided the framework within which the risk assessment naturally lay. However, the Army soon discovered that the risk assessment model needed further adjustment, as the Army Safety Program lacked a process to go beyond hazard assessment, and actually implement hazard controls. This issue was first addressed within the 1990 publication of FM 25–101, *Battle Focused Training*.[23]

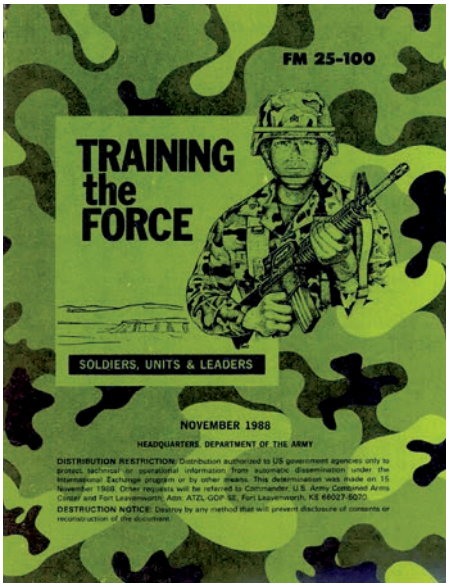
FM 25–101 replaced the 1988 FM 25–100, *Training the Force*, which did not even contain the word *risk*. FM 25–101, however, met this concept head-on. Chapter 3 counseled leaders that a "risk assessment is the thought process of making operations safer without compromising the mission."[24] To accomplish this, leaders needed to identify the risks; assess possible loss, cost, and probability; make decisions and develop controls to reduce risks; and implement controls by integrating them into plans.[25] The Army embraced this integration of risk assessment into operations, and leaders emphasized its importance. "If you look at the 'stats,' we have a lot of training accidents," Sgt. Maj. Robert Skinner, a former safety specialist said. "A lot of times common sense isn't used. Accident follow-ups generally show weak or

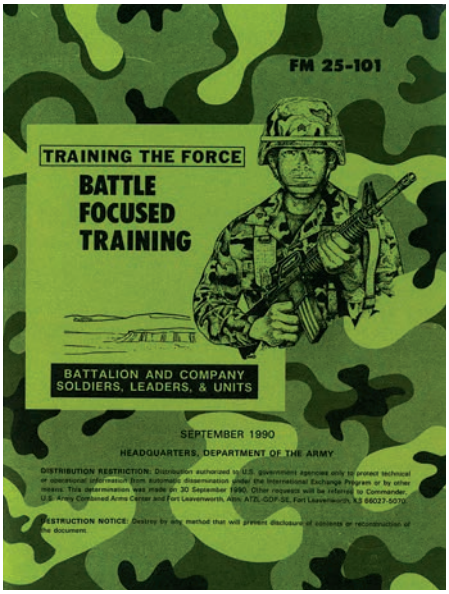
no risk assessment on the training."[26] The Army's Training and Doctrine Command (TRADOC) developed a risk assessment worksheet and tested it at numerous training centers. The results of using this worksheet showed an average 60 percent reduction in training accidents.[27] Consequently, at the time of Operations Desert Shield and Desert Storm, the Army was arguably the most risk aware at any point in its existence.

Yet the sheer numbers of mishaps during that conflict told a different story: the concept of risk assessment was not yet being properly implemented in the field. "We cannot ignore the reality that the majority of the deaths and injuries in Desert Shield and Desert Storm occurred in accidents," wrote Maj. Gen. Clyde A. Hennies, Ret., the former commander of the Army Safety Center, "and looking at the individual accidents that produced these deaths and injuries results in the depressing realization that most were completely preventable."[28] Though accidents in training had decreased from nearly 12,000 in 1986, to about 7,500 in 1990, the improvements made by the risk assessment model in training had clearly not carried over to combat and field operations. In his article for *Military Review*, General Hennies attempted to mitigate this disparity by integrating the concept of the risk assessment into a five-point model. This model called for leaders to identify risks, assess risks (using the established risk assessment model), make decisions and develop controls, implement controls, and supervise. Hennies, a former aviator, had in essence taken the duties of the aviation safety council (outlined in AR 95–5), along with the risk assessment model, and combined them into a step-by-step process that he termed *risk management*.[29] Although Hennies' version of risk management was not yet doctrine, it was quickly noticed around the Army and soon proved its worth around the world.

In the spring of 1993, the National Training Center (NTC) at Fort Irwin, California, in conjunction with the Army Safety Center, tested Hennies' process of risk management within a brigade during their preparation for a subsequent training rotation to the NTC. The study claimed that risk management was a success, and stated that "the terms risk management and risk assessment are often used synonymously, when in fact, they are different." The difference, the study continued, was that "risk management is a tool that helps leaders make sound logical decisions," while "a risk assessment causes leaders to identify hazards and threats and place them in perspective relative to the mission or task at hand."[30] Following the lines of General Hennies' article, the study stated that risk management was designed to be incorporated into both combat and training planning. Rather than claiming that risk management was some "new tool," the study asserted that risk management was "an extension of the decision-making process which is already ingrained in military leaders."[31]

Though still not yet official doctrine, the Army took steps to further embed risk management into its systems and processes. A 1995 technical report outlined procedures for integrating risk management into training and operations. The 1997 manual for Army staffs stated that "every staff officer must integrate risk management into the planning and execution of training and operational missions."[32] The 1997 edition of FM 101–5–1, *Operational Terms and Graphics*, also provided definitions for risk management for each of the steps, and FM 1–100, *Army Aviation Operations*, added an





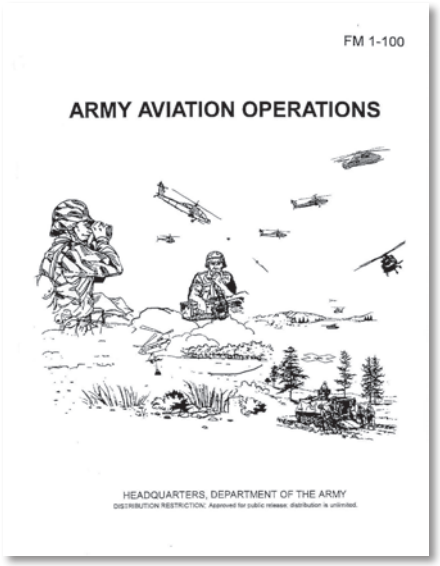
	Battle and Non-Battle Casualties Rate* Per 1,000 Soldiers (Percent)			
Conflict	WWII 1942–1945	Korea 1950–1953	Vietnam 1965–1972	DS/S 1990–1991
Accident	95.57 (56%)	120.33 (44%)	154.66 54%	11.14 (75%)
Friendly Fire	1.50** (1%)	3.03** (1%)	2.67** (1%)	.68** (5%)
Enemy Action	73.61 (43%)	148.56 (55%)	131.20 (45%)	2.90 (20%)

* Per twelve months for World War II, Korea, and Vietnam, fourteen months for Operations Desert Shield and Desert Storm.

** Research-based estimate (2 percent of all direct- and indirect-fire losses).

Source: U.S. Army Safety Center, "Force Protection Safety," *Center for Army Lessons Learned Newsletter* 93, no. 3 (1993): 2

General Hennies

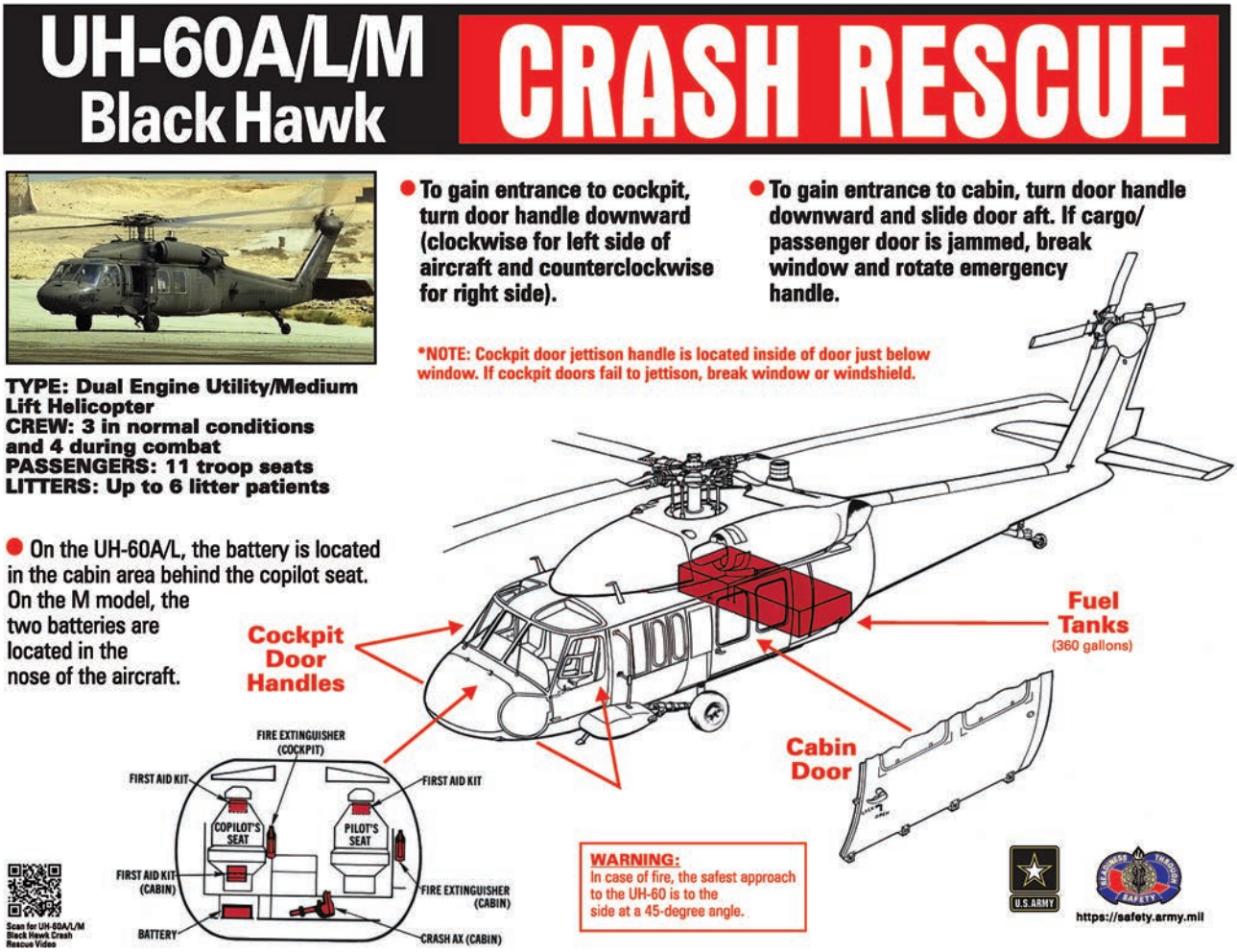


in-depth appendix explaining how risk management should be integrated with planning.[33]

Even though the Army was obviously trying to institutionalize risk management, there was still not yet any formal doctrine when the four Ranger students froze to death in the swamps of Florida in February 1995.[34] The incident made national news, with major newspapers such as the *New York Times* and the *San Francisco Chronicle* carrying the story. Pressure from Congress and civilian leadership was swift; the 1996 National Defense Authorization Act required Congress to assess the "implementation and effectiveness of all corrective actions taken by the Army."[35] Reports determined that risk mitigation was not applied appropriately at the Ranger School, and civilian leadership called for risk management to be finally formalized into doctrine by the Army.

Gene Snyder, *A Mighty, Mighty Fine Slingload*, oil on canvas, 1996

Sparked by the incident at the Ranger School, the TRADOC Office of Safety took the lead on writing the first doctrinal manual outlining risk management, starting in 1996. Adam Janczewski, a 1978 graduate of the United States Military Academy and former Army air defense officer with a background in systems engineering, was given the task to write



U.S. Army Combat Readiness Center

UH–60A/L/M Black Hawk Crash Rescue Diagram

it. Janczewski's engineering experience served him well; assessing risk in terms of severity and probability was standard practice in the engineering community. Even as Janczewski wrote the first draft of new the doctrinal manual, other departments in the Army (including, ironically, the Army Safety Center), as well as the other services, pushed back. "Some individuals didn't want change," noted David Prentice, former director of Safety and Occupational Health for TRADOC. "Some of the sister services resisted because [the Army's model] wasn't compatible with their process."[36] Despite this resistance, after nearly two years of work, the Army published FM 100–14, *Risk Management*, on 23 April 1998, the culmination of decades of learning experiences begun by Army aviation in the 1950s.[37]

"It was a groundbreaking publication," remarked Prentice. "It was the first time that risk management was actually formal doctrine." Until FM 100–14, risk management "was buried in a number of individual sources across the spectrum of Army publications and doctrine, but there was no single source." Risk management constituted a "cultural change" from how the Army planned and conducted training and operations. FM 100–14 was designed to help leaders "develop a framework to make risk management a routine part of planning, preparing, and executing missions and everyday tasks." As Prentice stated, "risk management took what was an intuitive decision making process, and made it cognitive."[38] Yet the new doctrine had its growing pains, as some leaders struggled to implement it correctly.

The intent of risk management "was to decentralize decision making and push it down to the lowest level possible," but in practice, the result was "a tendency to [artificially] drive the risk down so that [leaders] don't have to brief it."[39] As Prentice noted, "the purpose of risk management isn't to get the risk as low as possible, it's to identify the hazards associated with what it is you're doing, determine the level of risk, a probable or likely outcome in the event of accident, and then make a decision."[40] As the Army implemented risk management, some leaders also used the process to hide risk from outside scrutiny, while others used it to dodge accountability

by passing the risk decision up the chain of command.[41] By placing clear labels on risk, such as "high risk," or "medium risk," leaders could envision the consequences of their decisions for the first time—decisions that they had already been making over a career of military service, but were now viewed purely in seemingly clear terms of risk and consequence. The problem was that "some people are hesitant to risk their future on someone else's judgment." However, risk management, when implemented correctly, demands that leaders entrust subordinates with making risk decisions at a level appropriate to their experience and the resources available. "In order to be successful, as a whole . . . we need to train our junior officers and noncommissioned officers whereby we rely upon their judgment using a very simple process." Put simply, "risk management allows the commander to give his subordinates the freedom to fail."[42]

While the proper use of risk management does allow for the possibility of failure, its implementation can help leaders identify hazards and implement controls in a systematic way that can preserve lives and equipment. In the case of the 1995 Ranger School incident, the implementation of Army risk management resulted in several control measures that helped reduce the overall risk of an already demanding program. The Ranger School developed procedures to obtain river level and weather information and incorporated this information into daily instructor briefings. The school purchased water depth markers and electronic weather sensors, and "installed [them] along the Yellow River to measure water depth and temperature, air temperature, and humidity." Additionally, each battalion of the Ranger Training Brigade instituted a "safety cell organization" to ensure that risk management is incorporated and adhered to in every operation—a practice followed by every brigade in the Army since.[43]

The nature of military training and operations is inherently hazardous, but "what has made the Army successful is the ability of the soldier to make on the spot decisions" in the absence of orders or guidance.[44] As the focal point of the Army's safety efforts, risk management changed Army culture so that accident reduction is merely the result of Army safety efforts, not the goal. What began as a deliberate effort to preserve the lives of Army aviators in the early days of helicopter integration, has now expanded to become a fundamental element of planning doctrine throughout the entire U.S. Army.

A load is slung to a UH–60L Black Hawk helicopter at Schofield Barracks, Hawaii, 12 February 2009

Notes

1. U.S. General Accounting Office Report to Congressional Committees, *Army Ranger Training: Safety Improvements Need to be Institutionalized*, 1997, pp. 2–6; Don Terry, "4 Army Ranger Candidates Die in Chilly Florida Swamp," *New York Times,* 17 Feb 1995, accessed 11 October 2015, http://www.nytimes.com/1995/02/17/us/4-army-ranger-candidates-die-in-chilly-florida-swamp.html.

2. U.S. Army Safety Center, "Force Protection (Safety)," *Center for Army Lessons Learned Newsletter* 93, no. 9, (1993): 11.

3. Department of the Army (DA), Army Doctrine Reference Publication (ADRP) 1–02, *Terms and Military Symbols*, 2015, pp. 1–28.

4. "Origins of Fort Rucker and Army Aviation," accessed 1 October 2015, http://www.rucker.army.mil/history/.

5. Department of Defense, Military Standard (MIL-STD) 882B, *Military Standard System Safety Program Requirements*, 1984. This publication, among others, provided the guidelines for new equipment development by military contractors and overseen by the military's acquisition corps. This reference, as others, is technical in nature and draws from standard engineering safety practices. From the available literature, there is no way for me to determine how/if the risk mitigation steps outlined in this document influenced the eventual Army five-step model of risk management.

6. Ibid., p. A–9.

7. Interv, author with Michael Olin, former Aviation Safety Program Manager, 1 Oct 2015.

8. Transactions of Society of Actuaries 1958 Report, *Report of the Committee on Aviation: Aviation Statistics*, 1958, p. 89.

9. "1 KILLED, 2 INJURED IN HELICOPTER CRASH," *Florence* (*S.C.*) *Morning News*, 9 Feb 1995.

10. "Aviation Digest History," accessed 14 October 2015, http://www.rucker.army.mil/aviationdigest/history_avnDigest.html.

11. Army Regulation (AR) 95–5, *Aircraft Accident Prevention, Investigation, and Reporting*, 1966, p. 3-1.

12. Interv, author with David Prentice, former TRADOC Director of Safety and Occupational Health, 29 Oct 2015.

13. AR 95–5, *Aircraft Accident Prevention, Investigation, and Reporting,* 1966, p. 2-2.

14. U.S. Army Board for Aviation Accident Research, *UH–1 Accident Summary*, 1967, p. 2.

15. Army Aviation School, *Army Aviation Digest* 21, no. 1 (January 1975): 47; U.S. Army Safety Center, Directorate for Investigation, Analysis & Research, *Pilot-Error Accidents Aren't All Pilot*, 1979.

16. AR 95–5, *Aircraft Accident Prevention, Investigation, and Reporting*, ch. 11, 1975, p. 2-0; AR 95–5, 1966, p. 2-1.

17. Army Aviation School, *Army Aviation Digest* 23, no. 12 (December 1977).

18. AR 385–10, *Army Safety Program*, 1979, p. 1-1.

19. Ibid., p. C–1.

20. Ibid., p. 1–2.

21. Ibid., pp. C–1, C–2.

22. Frank W. Tate, "Army Aviation as a Branch, Eighteen Years after the Decision" (School of Advanced Military Studies, United States Army Command and General Staff College Fort Leavenworth, Kansas, Second Term AY 00–01), p. 57.

23. Interv, author with Olin, 1 Oct 2015; AR 95–5, *Aircraft Accident Prevention, Investigation, and Reporting*, 1966, p. 3-1; AR 95–5, 1972, chg. 3; "History," U.S. Army Combat Readiness Center, accessed 2 November 2015, https://safety.army.mil/HOME/History.aspx.

24. Department of the Army Field Manual (FM) 25–101, *Battle Focused Training*, accessed 1 November 2015, http://www.globalsecurity.org/military/library/policy/army/fm/25-101/fm251_4.htm#REF15h2.

25. Ibid.

26. Bob Rubinosky, "Stand Up for Safety," *Essayons* 5, no. 18 (1992): 1.

27. U.S. Army Safety Center, Technical Report (TR) 95–1, *Risk Management for Brigades and Battalions,* 1995, p. 1.

28. Clyde Hennies and Paul Dierberger, "Risk Management: A Key Battlefield Edge," *Military Review* 72, no. 5 (1992): 33.

29. Ibid., pp. 33–34.

30. U.S. Army Safety Center, "Force Protection (Safety)," *Center for Army Lessons Learned Newsletter* 93, no. 9 (1993): 11.

31. Ibid., Foreword, p. 12.

32. TR 95–1, *Risk Management for Brigades and Battalions*, 1995, p. 3; DA FM 101–5, *Staff Organization and Operations*, pp. 4–7. The risk management process outlined in FM 101–5, as well as the following publications listed above, appear to be the same risk management process outlined by Hennies in *Military Review*. However, it is unclear if the *Military Review* article influenced the risk management model that became doctrine. Adam Janczewski, in a 12 November 2015 interview, stated that he was not aware of the article and that he developed the five-step risk management process to mirror the Army's mission planning process, and independently of the *Military Review* article. The intent, according to Janczewski, was to make risk management easy to integrate within the existing planning model. Janczewski also stated that he was responsible for adding risk management to all publications leading up to FM 100–14, *Risk Management*, in 1998.

33. DA FM 101–5–1, Operational Terms and Graphics, Table of Contents and Preface, accessed 1 Nov 2015, http://www.globalsecurity.org/military/library/policy/army/fm/101-5-1/index.html; DA FM 1–100, *Army Aviation Operations*, 1997, app. F.

34. U.S. General Accounting Office Report, *Army Ranger Training: Safety Improvements Need to be Institutionalized*, 1997, p. 3.

35. Terry, "4 Army Ranger Candidates Die"; Associated Press, "4 Soldier's Die of Exposure during Training / Ranger candidates suffer hypothermia," *San Francisco Chronicle*, 17 Feb 1995, accessed 11 October 2015, http://www.sfgate.com/news/article/4-Soldiers-Die-Of-Exposure-During-Training-3044433.php; U.S. General Accounting Office Report, *Army Ranger Training: Safety Improvements Need to be Institutionalized*, 1997, p. 1.

36. Interv, author with David Prentice, former TRADOC Director of Safety and Occupational Health, 3 Nov 2015.

37. DA FM 100–14, *Risk Management*, 1998.

38. Interv, author with Prentice, 3 Nov 2015; DA FM 100–14, p. ii; Interv, author with Prentice, 29 Oct 2015.

39. Interv, author with Prentice, 3 Nov 2015; Interv, author with Olin, 1 Oct 2015.

40. Interv, author with Prentice, 29 Oct 2015.

41. This assertion is based on the author's own observations over thirteen years of professional military service, both in a training environment and during combat deployments.

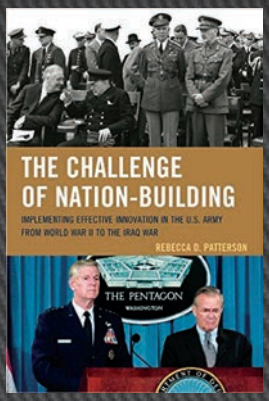
42. Interv, author with Prentice, 3 Nov 2015.

43. U.S. General Accounting Office Report, *Army Ranger Training: Safety Improvements Need to be Institutionalized*, 1997, pp. 4–5.

44. Ibid.

BOOK REVIEWS

The Challenge of Nation-Building: Implementing Effective Innovation in the U.S. Army from World War II to the Iraq War



By Rebecca D. Patterson
Rowman & Littlefield, 2014
Pp. xi, 256. $65

Review by Michael G. Kelley

In *The Challenge of Nation-Building*, Rebecca Patterson describes the U.S. Army's role in nation-building efforts from postwar Germany through the Iraq conflict. The author has produced a direct and candid historical evaluation, enumerating the conditions that have allowed the U.S. Army to effectively innovate nation building in some cases, and also those instances in which the Army's efforts have not been successful. The book contains an excellent introduction, discussion of methodology, and conclusions that include specific recommendations. The author examines each conflict using four effectiveness criteria: integration, responsiveness, skill, and quality. This is a highly compelling approach and provides structure to a complex subject.

Nation building is an amorphous concept subject to many interpretations. To mitigate this, Patterson defines *nation building* as a subclass of war that is different from a peacekeeping or a counterinsurgency effort, but rather a specific instance of comprehensive military occupation in which the United States has distinct political and economic goals for the territory it is occupying (p. 2). Patterson further specifies three criteria to separate nation building from other military interventions. These include regime change or survival, a large unit of U.S. troops, and a requirement for the military to perform administrative functions in addition to war fighting in the host country (p. 26).

The Army has never embraced a nation-building role, despite the rhetoric. Advisers in Vietnam who had the dual responsibility of war fighting and rebuilding the Vietnamese economic and political infrastructure found their careers stunted because of their role. The author makes a valid point that a soldier, trained as a war fighter, must adapt to most other tasks, but the skills required to be successful in a postconflict setting are vastly different from traditional war-fighting skills.

From Korea to Iraq, the Army fell into a deepening quagmire with each successive nation-building campaign. The inability of the Army to react to the ever-growing role of civilians and the lack of reformist military leadership is the underlying topic throughout the book. As an example, Patterson illustrates the contempt President Harry S. Truman had for the military. He championed the National Security Act, which reasserted civilian supremacy in foreign affairs matters, causing the military to fall back on its traditional, institutional repertoire. Civilians made the decisions tasking the military with ensuring the success of that decision in an environment of growing distrust between civilian and military leadership.

This book does not simply list the mistakes made by others in recent conflicts or a personal account of service. It is a scholarly analysis of how the U.S. Army, as well as civilian leadership, tried to undertake the complexities of a nation-building exercise despite being ill-trained or ill-equipped and managed by traditional leadership methods. Patterson does not cast blame or point fingers, except in a few rare cases in which leadership arrogance overruled common sense. Patterson's narrative, while complex and redundant at times, depicts a country, and the Army in particular, floundering due to the lack of a clear and definitive leadership and the inability of our civilian and military leaders to work as a team.

The Army's ability to innovate and the efficiency of those innovations are the themes throughout the case studies. The author unmasks many of the political and human constraints, as well as successful and faulty judgment errors that underlie much of the Army's recent nation-building efforts. This is done in a clear and factual manner that should make many senior Army officers and civilians in decision-making roles pause and reflect before making future conclusions. The Army is comfortable with training and equipping for

large-scale conventional war and does not reward those who introduce a revisionist point of view.

The strength of the book is the historical analysis of each case that is thoroughly researched and referenced. Patterson begins with Germany and Japan, where the military primarily directed the rebuilding of both countries. The author stresses that the personal relationship and deep trust between General George C. Marshall, President Truman, and General Dwight D. Eisenhower played a major role in the success and the attitude of the civilian leadership toward the military at the end of World War II. Their collaboration led to a more responsive and integrated approach to rebuilding a defeated and broken Germany. This was a success story that illustrated that having the right leadership in nation building is not a daunting task.

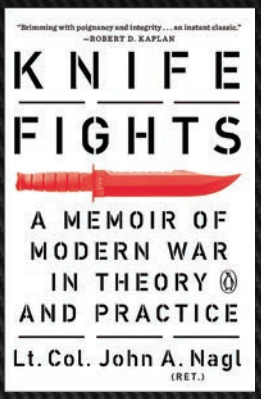
Germany and Iraq are two different scenarios, but the author makes a compelling argument that successful preplanning, revisionist leadership, and cooperation between different agencies resulted in success in Germany. This occurred despite the overwhelming public sentiment to demobilize the Army and the horrible physical and economic conditions in Europe at the time. Patterson makes a convincing case that this approach would have had a far different scenario in Vietnam and Iraq. The lack of confidence and respect toward the military by many in civilian leadership has led the Army to portray a false sense of optimism in Vietnam and stalled the establishment of an indigenous military force in Korea.

Patterson also persuasively explains the lack of success in Iraq. The military did not deviate from its traditional war-fighting scenario, displaying an inconsistent and uncoordinated plan for anything beyond the war itself. The Bush administration publicly deprecated nation building, so military leaders did not plan for that mission. The Army demonstrated a lack of integration and responsiveness to the complexities surrounding the Iraq War. The result was chaos in postwar occupation plans, as the Defense and State Department officials disagreed over goals and responsibilities. The author describes how the Coalition Provincial Authority (CPA) and its leadership failed to understand the unique situation facing Iraq, and made little effort to integrate the CPA's efforts with the military. This disconnect made an already precarious situation more complicated. The lack of trust and camaraderie between the military and civilian leadership is one of the main reasons that the United States was not able to sustain a nation-building effort. The author asserts that the United States can be successful in nation building with forward-thinking civilian and military leaders, and a sense of mission and solidarity between the participants.

Patterson's final chapter is thought provoking and revolutionary. The recommendations cover a variety of subjects, from the Army's officer promotion system, to the United States' commitment to nation building. This book should be required reading for all military and civilian leaders before sending future war fighters to foreign lands. Patterson will be criticized by some who refuse to admit that the United States fell short of success in Vietnam and Iraq, but the bold, original perspective contributes immensely to the debate. This type of thinking is what the Army needs, as the future often looks bleak and the mission appears muddled. Regardless of your opinion, Patterson will cause you to rethink America's future wars.

Michael G. Kelley is a retired Army Reserve colonel who served on a mobile advisory team in Vietnam and a provincial reconstruction team in Iraq. He holds a master's degree and a Ph.D. from Georgia State University. He currently teaches history at Blinn College in Bryan, Texas.

Knife Fights: A Memoir of Modern War in Theory and Practice



By John A. Nagl
Penguin Press, 2014
Pp. xiii, 269. $27.95

Review by Jon B. Mikolashek

Since the wars in Afghanistan, and later Iraq, the U.S. Army and its sister services have been fixated on counterinsurgency. This led to the quick creation of two field manuals, numerous books on the subject, and a major internal debate within the Army and other services. One of the key figures involved in the interest in counterinsurgency is retired Lt. Col. John Nagl. Following the publication of his doctoral dissertation *How to Eat Soup with a Knife*, Nagl's work eventually became a must-read for academics and military leaders alike. Despite professional historians, theorists, and practitioners questioning his views on counterinsurgency, his place within the counterinsurgency intelligentsia was secure.

In his recent book, *Knife Fights: A Memoir of Modern War in Theory and Practice*, Nagl explains the evolution of his views on counterinsurgency, and how he tried to convince others both inside and outside the military that population-centric counterinsurgency was the best way to defeat an insurgency.

Knife Fights is not a traditional autobiography. Instead, Nagl's second tome is "a book about counterinsurgency and its journey from the far periphery of U.S. military doctrine to its center, for better and, some would argue for worse" (p. 1). It is not, however, a "warts and all" examination of counterinsurgency or

counterinsurgency doctrine, and that is a major flaw in not only the book, but Nagl's thinking. Despite writing his dissertation, scholarly articles, and participating in history and military conferences, Nagl's stance on counterinsurgency has not matured or grown since the release of his first book. He continues to stick to the dogmatically population-centric style of counterinsurgency and repeats the same stories and tales about General William C. Westmoreland and Vietnam that have been repudiated by preeminent historians Dale Andrade and Andrew J. Birtle.[1] Nagl still views the Vietnam War as nothing more than a counterinsurgency fight and alludes to the United States fighting "ghostlike enemies," when in fact the United States was also fighting the conventional North Vietnamese Army (NVA). The same can be said with Nagl's simplistic interpretation of Malaya. Again, he selectively ignores history and cherry-picks the parts of the counterinsurgency that support his points and disregards or ignores the other aspects of the war. Malaya was not simply won because of population-centric counterinsurgency. It was won for many reasons, mainly the British were the actual government and military of the small nation and focused on the enemy as well as the civilian population.

There are other smaller mistakes that also hurt the book and Nagl's views on counterinsurgency. Throughout the book, he mentions the writings and theories of the famous French Army officer David Galula. He writes that Field Manual (FM) 3–24, *Counterinsurgency*, pulled from the works and writings of Galula and that Nagl always had a copy of his writings with him during the latter part of his military career (p. 133). Yet in *Knife Fights*, Nagl incorrectly attributes a quote from Mao Zedong to Galula, and also admits that the greatest failure of FM 3–24 is that there is little to no commentary on Information Operations, something Galula viewed as highly important.[2] Again, these are minor issues, but they add up and adversely affect the impact of the book.

The best part of *Knife Fights* is simple. It shows how the current U.S. counterinsurgency doctrine was developed and created. Often through jobs, conferences, and meetings, Nagl, General David Patreaus, David Killcullen, and others all developed a working relationship that led to the development of the current counterinsurgency doctrine. What is alarming is the lack of outsiders or those who did not share the belief that the population is the key to countering an insurgency. Nagl provides little to no mention of Gian Gentile, Harry Tunnell, Daniel Marston, or others who could have better balanced the new doctrine or offered a broader perspective, or a historically more accurate account that moves away from the singular notion that counterinsurgency can be won solely by winning the population. Instead, the doctrine that was published is overly one-sided and focused on the population.

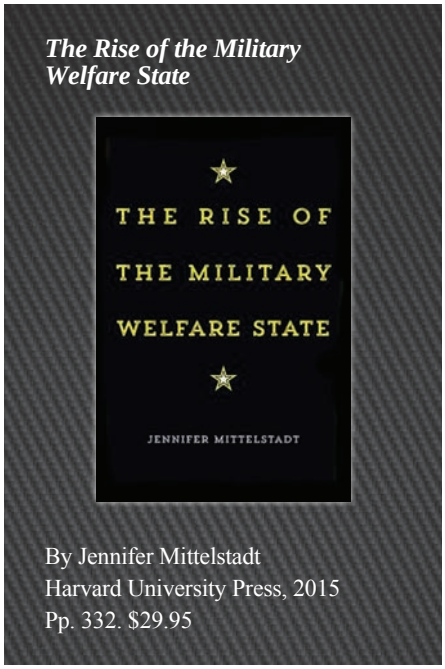
Knife Fights is an entertaining and, at times an infuriating read, but it is a worthy addition to the growing collection of works on counterinsurgency and the wars in Afghanistan and Iraq. For those who have followed the debate, the book offers readers an insight into Nagl's thinking about how the doctrine was developed. For the majority who are unaware, it gives a good, albeit biased, background, into the making of doctrine and the internal debate about counterinsurgency in the U.S. military. In the end, Nagl is correct about the future role of U.S. forces: countering insurgencies will not go away, and the United States will have to continue to fight these wars.

Notes

1. See Andrew J. Birtle's Review Essay on Lewis Sorley's *Westmoreland: The General Who Lost Vietnam*, *Army History*, no. 84 (Summer 2012), pp. 26–31.

2. See David Galula, *Pacification in Algeria: 1956–1958* (Santa Monica, Calif.: RAND Corporation, 2006).

Dr. Jon B. Mikolashek is the author of several articles on World War II and the Global War on Terrorism. He is also the author of *General Mark Clark: Commander of U.S. Fifth Army and Liberator of Rome* (Havertown, Pa., 2013). He is an associate professor of history at the U.S. Army Command and General Staff College.



By Jennifer Mittelstadt
Harvard University Press, 2015
Pp. 332. $29.95

Review by Roger D. Cunningham

Since its founding, the United States has taken care of its military men and women in varying degrees, generally offering them as little as it could get away with and still attract adequate personnel to ensure national defense. If there were wars requiring more men than could be convinced to voluntarily enlist, then military drafts were instituted. In 1973, after the end of the extremely unpopular Vietnam War, the government decided to stop drafting personnel and transition to an All-Volunteer Force (AVF), but this meant having to greatly improve the pay and other benefits that would entice men and women to opt for military service. *The Rise of the Military Welfare State* examines how the Army has altered the different entitlements that it has offered to soldiers and their dependents over the decades since the AVF was established.

The creation of the AVF required the Army to drastically restructure its pay and benefits in order to successfully attract and retain personnel in a free market economy. It soon formalized a phrase—the Army Family—to emphasize that it intended to take care of its own. This "became the colloquial expression of the economic and social support

relationship between the army, soldiers, and their families" (p. 37).

The elimination of the draft greatly altered the demographics of those who were volunteering to join the Army family. Middle-class men who had been subject to the draft were no longer attracted to the AVF, and most of the Army's enlistees began coming from much humbler backgrounds. Journalist James Fallows argued in the *Washington Star* that the Army had been "contracted out to the poor" (p. 76). The author quotes a Senate committee's frightening report that the AVF "faced the ignominy of becoming a safety net for the least advantaged, least able, neediest, and most demanding groups in the United States" (p. 89).

To serve as a tool for middle-class recruitment, the government created a new GI Bill. President Ronald Reagan, who took office in January 1981, was very pro-military, and although he was generally opposed to federal aid to higher education, he strongly supported the GI Bill. Thus, government funds that had previously provided financial support to low-income students (such as Pell Grants) were diverted to pay for some of the costs associated with the new GI Bill. The author writes: "The [Reagan] administration used the bill to recalibrate what constituted legitimate versus illegitimate government spending" (p. 119).

Army wives also expected enhanced support. Army Community Service (ACS) became the Army's first official family support program. The ACS depended heavily on volunteer workers. In fiscal year 1983, the Army relied on 7,822 volunteers—most of whom were military wives—to staff the ACS. The Army Family Action Plan (AFAP) was also created. The AFAP mandated an annual review process to determine family needs and how to meet them.

The nation's Christian leaders wanted to ensure that family values were actively promoted within the Army. Their efforts were strongly supported by the Chief of Staff of the Army, General John A. Wickham Jr., who was a born-again Christian. During his term of office (1983–1987), General Wickham welcomed conservative Christian influence over the growing military social welfare system. His support for Christian values was underscored by his efforts to discourage the traditional emphasis on drinking in the Army. General Wickham also launched a war against pornography, and he supported Army efforts to reduce family violence.

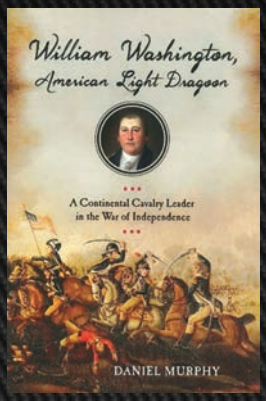
The end of the Reagan era, however, saw the exceptional status reserved for Army family programs come to an end, and there was a turn toward self-reliance. Family Support Groups (FSGs) became the featured vehicles for family support during the 1991 Operation Desert Storm. While soldiers were deployed to the Persian Gulf, FSGs played a key role in sustaining families, but there were negative consequences as well. Some spouses expected the FSGs to help them with tasks such as mowing lawns and babysitting, and the Army concluded that the FSGs "had fostered impractical expectations among army wives" (p. 175). After the war, the Army decided to begin teaching families self-sufficiency rather than fostering dependency, and this was to be accomplished through a new program called Army Family Team Building. In 2000, the FSGs were renamed Family Readiness Groups.

The author ends her discussion by describing how the Army began outsourcing soldier and family support in the 1990s. During the Clinton administration, pressure to outsource caused the Army to shed about half of its total support functions to the private sector. She writes: "[T]he army no longer literally 'took care of its own' but paid others to do it" (p. 192).

The author, an associate professor of history at Rutgers University, writes well, has done her homework, and generally presents an objective history of the topic. She might also have included a discussion of how Reserve and National Guard benefits have been greatly expanded during the post-Vietnam period, but that is a minor omission. For those who are interested in the modern evolution of the social safety net that service members and their families currently enjoy, this book is highly recommended.

Roger D. Cunningham graduated from the U.S. Military Academy in 1972 and retired from the U.S. Army in 1994. He is the author of *The Black Citizen-Soldiers of Kansas, 1864–1901* (Columbia, Mo., 2008), as well as numerous articles and book reviews, many of which have appeared in this journal.

William Washington, American Light Dragoon: A Continental Cavalry Leader in the War of Independence



By Daniel Murphy
Westholme Publishing, 2014
Pp. x, 225. $26

Review by John R. Maass

Over the past decade, a number of biographies of some of the American Revolution's lesser-known Patriot military officers have been published, including volumes on George Rogers Clark, Henry Knox, "Lighthorse Harry" Lee, Benjamin Lincoln, and Baron von Steuben. Author Daniel Murphy has added to this valuable collection with a biography of cavalryman William Washington, a Virginian and second

cousin of the Continental Army's commander in chief and squire of Mount Vernon. William Washington started his service as an infantry officer in the northern theater, then switched to cavalry duty, where he served on many Southern Department battlefields.

William Washington was from a lower gentry family of Stafford County, and was studying for the ministry when the War for American Independence began. He quickly entered service as a captain of the county's minuteman battalion, which was soon transferred to the 3d Virginia Regiment of the Continental Line. With this regiment, Washington fought at the battle of Harlem Heights, New York, in 1776, and was wounded during the American victory at Trenton, New Jersey, at Christmastime of that year.

In early 1777, Washington was promoted to major, with orders to serve in the newly raised 4th Continental Light Dragoons. After fighting at the battles of Germantown, Pennsylvania (1777), and Monmouth Courthouse, New Jersey (1778), William Washington was promoted to the command of the 3d Light Dragoons with the rank of lieutenant colonel in late 1778. In February 1780, Washington brought his small regiment of cavalry to South Carolina to defend the Southern Department from increased British pressure on that region. Washington would make a name for himself here in several battles and numerous skirmishes through September 1781.

The Virginia cavalryman fought at all four of the major battles in the southern theater beginning in early 1781, while the Continentals were led by Maj. Gen. Nathanael Greene. Washington played a prominent role at the head of his eighty dragoons at the battle of Cowpens, South Carolina, on 17 January 1781, in which his men were initially held in reserve behind the Patriots' main line. Two devastating cavalry charges led by Washington routed the enemy's horses, significantly contributing to the rebel victory. During the fighting, Washington engaged in individual combat with several British dragoon officers, and was nearly killed in the struggle. For this action, he was awarded a silver medal by Congress. Murphy's description of the decisive battle is lucid and engaging, as are his accounts of the other southern battles in which Washington fought.

After covering the retreat of Greene's army to the Dan River while pursued by British troops under Lt. Gen. Charles, Lord Cornwallis, Washington and his cavalrymen were in the thick of the fighting at the battle of Guilford Courthouse, North Carolina, on 15 March 1781. Washington's troopers initially skirmished with the enemy's column as they approached the battlefield, then were posted on the American right flank. Washington's significant contribution to the Patriots' efforts was a freewheeling charge into the redcoats attacking Greene's third and final line. Again, Murphy's narrative of the complex fighting is well done, although much of it does not concern William Washington's role in the battle.

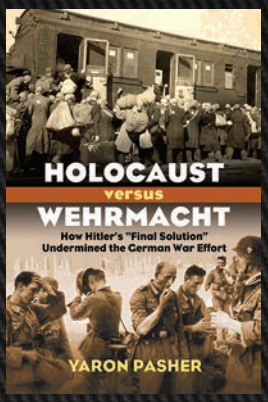
After Guilford Courthouse, Greene's troops pushed into South Carolina, where they fought another battle in April, this time just north of Camden at Hobkirk's Hill against British troops under Francis, Lord Rawdon. While the infantry of both armies fought in the pine woods, Washington's cavalry moved to flank the British on their right, and gain their rear. Washington was prevented from reaching the enemy's rear due to the terrain and thick brush, but captured numerous wounded enemy troops and halted to secure the captives. During this time Greene began to retreat, and Washington's dragoons had to fight their way back to their own lines. The cavalry colonel has been criticized by modern historians for his delay on the British right flank and for not striking Rawdon's rear area, but Murphy cites contemporaries who praised Washington's conduct that day as evidence that his conduct was seen at the time as free of censure.

Washington's last battle of the war was at Eutaw Springs, South Carolina, where Greene attacked an enemy force on 8 September 1781, and initially routed much of the British line. Washington's role in the engagement was somewhat controversial, as he led an attack on the enemy's far right, which was posted in thick trees and brush difficult for cavalry to attack successfully. During the fighting his dragoons suffered heavy losses and Washington was wounded and captured, having almost been bayoneted by redcoats before being saved. Murphy carefully examines the various conflicting sources for Washington's actions and the enemy's right flank position, and provides readers with one of the best accounts of this battle available.

Although there is no conclusion to this study and there are some factual, grammatical, and stylistic problems (especially the frequent use of exclamation points and unattributed quotes), this is overall a well-written account of an important Revolutionary soldier. This is especially so given that Washington wrote no memoir and few of his letters have survived. The book also includes several excellent maps of Cowpens, Eutaw Springs, and Guilford Courthouse, for which the publisher should be lauded.

Dr. John R. Maass is a historian at the U.S. Army Center of Military History. He received a bachelor's degree in history from Washington and Lee University and a Ph.D. in early U.S. history from the Ohio State University. He is the author of the first pamphlet in the Center of Military History's Campaigns of the War of 1812 series, titled *Defending a New Nation, 1783–1811* (Washington, D.C., 2013) and *The Road to Yorktown: Jefferson, Lafayette and the British Invasion of Virginia* (Charleston, S.C., 2015).

Holocaust versus Wehrmacht: How Hitler's "Final Solution" Undermined the German War Effort



By Yaron Pasher
University Press of Kansas, 2014
Pp. xiii, 364. $34.95

Review by Stephen F. Barker

Many students reading about the Holocaust often ask, "Why did the Nazis put so much effort into the annihilation of Europe's Jews while trying to win World War II?" Yaron Pasher, who recently earned his Ph.D. at Tel Aviv University while studying with Dina Porat and Gerhard Weinberg (at the University of North Carolina), offers a new perspective to answering *how* ideology overrode military concerns during World War II in Europe. By examining the logistics supporting the German military's spearheads as they pierced deeply into the Soviet Union and defended the Atlantic Wall, Pasher argues that the competing logistical requirements of the extermination camps significantly affected the Wehrmacht's ability to fight and win. Specifically, he argues that by quantitatively studying exactly how the Reichsbahn (German National Railway) logistically supported both the military campaigns and extermination program, one can see how the efforts were ultimately at the expense of the Wehrmacht.

Pasher's thematic mantra is "every train counted." His four-part book illustrates this through a comparison of the concurrent logistical efforts of Operation Typhoon and the Jewish deportations to the East, the German defeat at Stalingrad and Operation Reinhard, the Battle of Kursk during the peak of the Final Solution, and the extermination of most of the Hungarian Jewry during the Allied invasion of Normandy and Operation Bagration. Additionally, Pasher examines the topics of German economy, leadership, bureaucracy, and other related events during the timeframe from mid-1941 to late 1944.

Pasher's work develops the fertile ground at the intersection of military history and Holocaust studies. Overlooked and understudied, this intersection shows the inseparability of the execution of military operations with the implementation of the Final Solution. By studying rail logistical networks, this book succeeds at linking German military strategy and ideology. The author connects the strategic level of war that is concerned with coordinating the multiple fronts in the European Theater of Operations with the large-scale logistics at the operational level of war.

German military and railway archival sources reveal not only the number of trains used to support the dual campaigns, but also the correspondence between Nazi leadership, SS bureaucrats, Reichsbahn officials, and Wehrmacht generals regarding the competition for resources. Operation Typhoon, which was designed to seize Moscow but floundered in front of the city in the winter of 1941, is a good example. The typical historiographical consensus contends that the Russian winter and Red Army resistance stopped the Wehrmacht's advance, but Pasher argues that logistical rail support diverted from the military for SS deportations was just as significant. While also citing the possibility of reserve troops being brought up from the rear, Pasher references General Heinz Guderian's complaints of fuel shortages in November and General Franz Halder's determination that supply trains in the East would be given priority to support military logistics that same month. Deportations continued, however, despite the fact that, "each transport of Jews from the Reich could have been replaced by 100 tons of hay or fuel" (pp. 38–40).

Throughout the book, Pasher juxtaposes the numbers of trains used to transport Jews to ghettos or extermination camps with the number of troops that could have been delivered to the front instead. During the military campaigns of 1942, Pasher writes that "combining all the trains operating to each camp, including Auschwitz, Belzec, Treblinka, and Sobibor during Operation Reinhard, at least ten trains per day transported Jews to their deaths—that is, roughly 10 percent of the entire logistical effort demanded by the army" (p. 136). These actions seem incongruous with the ongoing military operations. "On June 30 [1944]," Pasher notes that "a train carrying 1,153 Jews left Paris for Auschwitz, traveling through eastern France, the Rhineland, Saxony, and Silesia, without interference, at the time Allied armies were battling in Normandy, less than 240 kilometers away" (p. 266).

Pasher also discusses other possible reasons behind the German logistical failures during these parallel operations, which include the Russian winters, sabotage from partisans, bombing by Allied air forces, numerical superiority of Soviet armies, as well as industrial output. However, these do not completely account for the breakdown of German supply and support. Pasher concludes that because "the mechanism of annihilating European Jews faced no logistical problems and operated meticulously," overall logistical support was not unified but rather decentralized, to the detriment of the Wehrmacht (p. 280). Unfortunately, the author does not include a look at how the train network was utilized by the Germans in 1945 as the state collapsed. The emphasis during this period on transporting camp prisoners from the east to the west could have strengthened his argument regarding prioritization of ideology over military necessity.

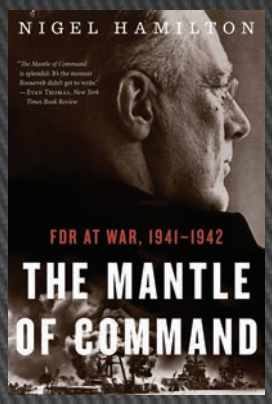
The book contains some fairly glaring mistakes and repetitious material that should have been caught prior to publication, which is perhaps illustrative of a dissertation published too quickly. These small editorial issues unfortunately affect the overall readability of the book. Furthermore, Pasher's comparisons would have benefited from a more standard metric of train capacity and a more consistent explanation of how other contingent factors, such as distance, affected the trains' operation

and a standard description of a typical Wehrmacht division's strength.

While the book regrettably lacks an organized historiography of the specific topic regarding Reichsbahn logistics during the war, Pasher does situate his work within the spectrum of the functionalist/intentionalist debate, and illuminates a new angle concerning how the war was mismanaged by the Germans. Historians and students concerned with understanding the complicated relationship between ideology, strategy, and operational logistics (especially on the Eastern Front) will need to read this book. The discipline as a whole also benefits from further exploration into the intersection of military history and Holocaust studies.

Maj. Stephen F. Barker taught history at the United States Military Academy at West Point. He earned his master's in history from Brown University. His current research focuses on how American soldiers witnessed the Holocaust.

The Mantle of Command: FDR at War, 1941–1942



By Nigel Hamilton
Houghton Mifflin Harcourt, 2014
Pp. xiv, 514. $30

Review by Laurence R. Jurdem

In 1949, as Winston Churchill was crafting his Nobel Prize–winning chronicle of the Second World War, the former prime minister said, "History will be kind to me for I intend to write it." That statement was prophetic. The multivolume work, published in 1953, would contribute to cementing Churchill's reputation as one of the giants of the twentieth century. President Franklin D. Roosevelt (FDR), who shared the stage with Churchill during the global conflict that lasted from 1939–1945, never had the opportunity to write his own narrative of events. The president unexpectedly passed away in April of that year, leaving historians to wonder how FDR viewed his role as commander in chief. Nigel Hamilton's well-researched, illuminating narrative, *The Mantle of Command*: *FDR at War*, 1941–1942, seeks to fill that void in the historiography by presenting an analytical history of Roosevelt's leadership style during the first two years of the war.

The first of what is expected to be a two-volume study follows the president's initial encounter with Churchill off the coast of Newfoundland in August 1941 and concludes with the successful Allied invasion of North Africa in November 1942. Hamilton uses FDR's confidential memorandums as well as a variety of diaries, memoirs, and other primary sources both in English and German as a means of giving the reader the impression of how Roosevelt viewed the events and the complex personalities he dealt with on a consistent basis throughout the war. Hamilton, whose previous works include biographies of Bernard Montgomery and John F. Kennedy, as well as a survey of presidential leadership from FDR to George W. Bush, is an engaging storyteller, and his strong, detailed analysis on Roosevelt's wartime leadership is extremely thoughtful.

The study is one of revisionist history. Hamilton seeks to portray FDR as much more than "one who largely delegated the business of war to others—including Winston Churchill" (p. x). While Roosevelt as the charming, ebullient patrician is very much in evidence, the author also casts the president as one who was very much in command, designing the strategy that was ultimately responsible for the defeat of the Axis forces.

Despite being surrounded by commanders like General George C. Marshall, Maj. Gen. Henry "Hap" Arnold, and Adm. Harold "Betty" Stark, Roosevelt had little faith in the judgment of his military staff. The president had become concerned that many of the predictions made by the War Department about German military strategy since the spring of 1941, including Adolf Hitler's invasion of the Soviet Union, had been inaccurate. Due to the poor record of his advisers, FDR had concluded "not to allow the military to decide American policy, which he was intent on holding strictly in his own hands" (p. 14).

The conflict between Roosevelt and his advisers over the conduct of military policy is a key part of the narrative. Hamilton is quite critical of Marshall as well as Secretary of War Henry Stimson for what FDR believed was poor political judgment, a lack of strategic thinking, and the inability to take risks. Marshall and Stimson, along with other key members of the U.S. military, were vehemently opposed to Roosevelt's plan for the invasion of North Africa, favoring instead a cross-channel invasion of Europe. Hamilton demonstrates how Roosevelt was able to utilize his brilliant political skills to neutralize any significant opposition to his policies within the military as well as his charm, optimism, and humor to get the best performance possible out of these flawed, but highly skilled individuals. While Hamilton writes of other complicated wartime personalities that FDR was forced to contend with, including that of General Douglas MacArthur, none was more complex than the president's partnership with the charismatic British Prime Minister Winston Churchill.

There is no question that Roosevelt appreciated many of Churchill's qualities, including his rhetorical flair and the inspiration he brought to his relationship with the British public. However, FDR was also critical of the British leader's military judgment that Hamilton argues had caused the British to lose "every single battle against the Nazis in the two years after he became Prime Minister" (p. 105). The author contends that Churchill was so desperate for history to portray him as a great military strategist that he falsely claimed in his memoirs to have been the one who initiated the idea for the inva-

sion of Morocco and Algeria when he visited Roosevelt at the White House in December 1941. Based on the author's research, the opposite appears to be true. Roosevelt and his military staff had composed a strategy for an Allied landing in North Africa as part of a broad victory plan developed in the summer of 1941, months before events at Pearl Harbor brought the United States into the war (p. 105).

The prime minister's attempt to "mislead" historians is not surprising, as Churchill relished being at the center of attention. While he longed to be the leader of the Allied effort, Churchill knew that only the United States and its massive industrial capabilities had the capacity to turn the tide against Hitler and his Third Reich. Despite Churchill claiming to be content to play the role of Roosevelt's most able lieutenant, the prime minister still attempted to use the force of his personality to insert himself into the policy decisions of how the war was to be prosecuted.

One such example was the disagreement between the two leaders over the defense of India against the Japanese. FDR was very much concerned that if India succumbed to Tokyo's forces, the entire Pacific theater would be placed in jeopardy. The president believed that if the British promised the Indian people self-government, the nation might unify behind the Allied effort to defeat the Axis powers, a strategy that had been successful in America's relationship with the Philippines. However, as the author points out, Churchill was unable to disabuse himself from the idea that the British Empire was in decline and that those who composed the British Commonwealth were no longer content to simply stand by while London controlled their destiny. Hamilton writes that the disagreement with FDR over Indian self-determination became so contentious that Churchill threatened to resign over the issue.

But the author maintains that despite this disagreement and others, Roosevelt's optimistic spirit never wavered. While the president had countless pieces of information at his fingertips as director of the war's overall strategy, he was also able to strike a perfect balance. FDR seemed to instinctively know when to immerse himself in the details of a particular issue while simultaneously having the judgment to delegate responsibility to the person within his administration best suited to accomplish a particular task. That was a talent Churchill never developed. Hamilton's volume concludes on the note that by the time Operation Torch was launched, FDR was becoming more and more self-assured in his new role as leader of the Allied campaign. Roosevelt had come to understand that the only way victory could be achieved was for all parties to be completely unified under one commander in chief, a position that Franklin Roosevelt believed no one was better prepared, nor better suited for, than himself.

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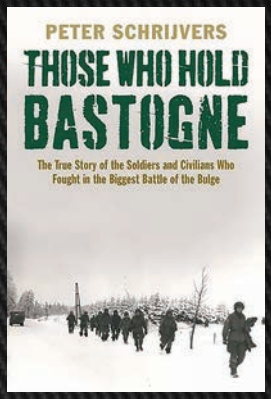
Those Who Hold Bastogne: The True Story of the Soldiers and Civilians Who Fought in the Biggest Battle of the Bulge



By Peter Schrijvers
Yale University Press, 2014
Pp. xiv, 310. $28

Review by Jeffrey B. Barta

The Battle of the Bulge is the largest U.S. Army battle in history and military historians have documented it extensively. Works such as Charles B. MacDonald's *A Time for Trumpets: The Untold Story of the Battle of the Bulge* (New York, 1984) have done great justice to the macro events of the battle, while incorporating a good amount of detail of unit-level action into the overall narrative. As our nation's "Greatest Generation" fades into memory, it is welcomed to see more "micro and nano-histories" of many of World War II's battles being published—books that cover individual battles and individual units down to the tactical and individual soldier levels. To that end, Peter Schrijvers' *Those Who Hold Bastogne* is a very valuable addition to the genre, because it details the fighting around Bastogne, and how very close the strategic crossroads town came to being taken by the Germans in December and January of 1944–1945. He does great justice to not only the combatants, but also to the civilians who fought, supported, and suffered during the siege.

Writing in a very readable and familiar style, Schrijvers begins with a summary of the overall battle, as if to introduce the casual reader to the Bulge for the first time. In doing so, he sets the book up for the intertwining of the history of Bastogne and the individual units, soldiers, and civilians who fought and lived through it all. He spares no level of detail, chronicling the strategic with General Dwight D. Eisenhower, the operational with the 101st Airborne Division and Lt. Gen. George Patton, and the tactical, focusing on many units and individuals who have generally not been covered in popular histories. The author also presents the German side of the story, though sparingly, to provide fuller context.

What is most impressive is the attention given to the civilians who lived and died in and around the crossroads town. This book is one of the first to actually tell the story of civilians suffering in-depth, in a way that humanizes the story. Civilians were forced to hide in cellars, run for cover in the middle of firefights and artillery barrages, scrounge (and often compete with the Army) for food and medical attention, and often ended up maimed or dead. Schrijvers covers these civilian aspects tastefully and with an eye

toward objectivity, by describing how the civilian population was affected by the combatants and weather during the struggle.

Schrijvers interweaves the overall story, broken into roughly chronologically themed sections, with vignettes from the more familiar units (Company E, 506th Parachute Infantry) with lesser-known elements such as the civil affairs/military government sections of the 21st Army Group. Schrijvers deftly describes some of the battle's atrocities by detailing not only the well-known story of the Malmedy Massacre, but also several retaliatory acts committed by the Americans. His openness on this issue is refreshing and shows that war is not always black and white.

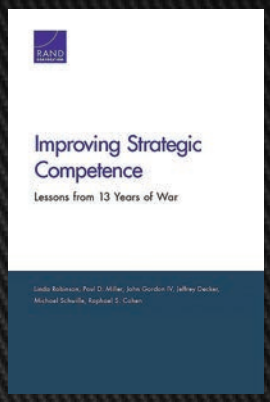
Contrary to popular belief, the Bulge and the siege of Bastogne did not end with the relief conducted by troops under Patton. Schrijvers goes to great length to detail just how close the Germans came to overrunning the town by highlighting the individual skirmishes on the outskirts, the narrow corridor that the Third Army penetrated the German lines from the south, and then the fights along the "longest road" from Bastogne to Houffalize in the north, that ultimately helped cut the Germans off. To this day, one can walk around the front lines of the battle marked off with Sherman tank turrets as markers, often within yards of the town itself.

Schrijvers' research is exhaustive and well documented. However, he does make one minor error in using Martin King's *L'infirmière Oubliée: L'histoire inconnue d'Augusta Chiwy, l'infirmière noire de Freres d'armes* (Brussels, 2012) as a secondary source. While historically accurate, King's work is a novel and this reviewer would question its inclusion in the bibliography. Nevertheless, it is good that Schrijvers makes mention of the "Forgotten Angel of Bastogne" in telling this story. (Readers who wish to know more about Augusta Chiwy's incredible story should look for the Emmy Award–winning documentary *Searching for Augusta* on PBS.)

Those Who Hold Bastogne is a thorough, yet accessible account of the actions surrounding the crossroads town of Bastogne in December 1944 and January 1945. It makes a great addition to the scholarship concerning this key World War II battle at the micro and nano levels and should be on the bookshelf of anyone wishing to learn more about this crucial battle in history.

Jeffrey B. Barta, a retired commander and naval aviator, is the deputy for the museum system office at the Naval History and Heritage Command. He has a bachelor's degree in history (Vietnam War emphasis) from the University of Wisconsin and a master's degree in international relations from Troy University. He toured the Ardennes and the battlefields of the Bulge extensively while stationed in Germany.

Improving Strategic Competence: Lessons from 13 Years of War



By Linda Robinson, Paul D. Miller, John Gordon IV, Jeffery Decker, Michael Schwille, Raphael S. Cohen
RAND Corporation, 2014
Pp. xxiv, 142. $24.50

Review by Gary Dehrer

Improving Strategic Competence: Lessons from 13 Years of War, is a RAND Corporation study of the U.S. experience over thirteen years of warfare in the Middle East, from 2001 to 2014. Linda Robinson is the lead author, ably assisted by a team of contributing writers and researchers. The goal of this study is to evaluate the American effort in conducting land warfare in conjunction with joint, interagency, and multinational partners in facing hybrid and irregular threats. Additional goals include lessons and recommendations for U.S. political and military leaders in better coping with current and future asymmetrical conflicts. The RAND study notes that there has been, until now, no systematic effort to collect and analyze lessons from the thirteen years of American military involvement in Afghanistan and Iraq. A RAND Arroyo Center workshop provides a platform for such an interim study, which was prepared for the U.S. Army's Special Operations Command (USASOC).

The RAND study is an insightful review into the conduct of America's "Long War" in the Middle East, ongoing since 2001. The study focuses on problems inherent with strategy and planning. From the onset, it should be said that even if all of the mistakes identified by the RAND study had been avoided, this would have given the United States only the *best chance* of avoiding conflict and securing more favorable outcomes. There remains a lively debate over what actually constitutes political and military success and victory in the Middle East. Clearly, the United States has made errors in waging what has become the longest war in its history, primarily in the strategies employed. Despite the availability of overwhelming U.S. military power, the RAND lessons point to a more complex and elusive array of strategic demands and shortfalls; these continue to present an unrelenting challenge to a superpower inexplicably experiencing a difficult learning curve.

A salient point advanced throughout the RAND study is that while the American military has consistently demonstrated its mastery of tactics and operational art, it has fallen short on implementing effective strategies in Afghanistan and Iraq. As author Robert Greene stated, "most of us in life are tacticians, not strategists. We become so enmeshed in the conflicts we face that we can think only of how to get

what we want in the battle we are currently facing. To think strategically is difficult and unnatural. . . . To have the power that only strategy can bring, you must be able to elevate yourself above the battlefield."[1] The study suggests that being strategically adept requires leveraging critical thinking skills over purely combat skills, a practice that has eluded American senior leadership in their recent Middle Eastern misadventures.

The RAND study identifies seven major lessons, *which are not yet learned*, and concludes with seven recommendations based on research, interviews, a focus workshop, and a Delphi exercise. The study's methodology "consisted of document-based research and semistructured interviews," which is described in a two-page summary (pp. 4–5). The Delphi method, pioneered by RAND in the 1950s, solicits expert opinion and discussion through the use of questionnaires and feedback analysis.

The seven unlearned lessons identified by the study include:

1. Deficiency in making national security strategy due to a lack of applying strategic art
2. Insufficiency of civilian-military collaboration in achieving effective national security policy
3. Failure to align military campaigns with a coherent and parallel political strategy
4. Inability of technology alone to substitute for lack of expertise in history, culture, and languages
5. Neglecting to plan for the entirety of military operations; critical importance of having a properly sequenced endgame of stability and recovery, and if necessary counterinsurgency
6. Not considering *shaping, influencing,* and *unconventional approaches* which might have been cost-effective alternatives to large-scale military interventions
7. Poor performance in joint, interagency, intergovernmental, and multinational partnerships; efforts at joint force collaborations have been problematic.

The past seventy-five years reveal the emergence of three broad trends: First, warfare has become more complex; second, wars have shifted from conventional, World War II–style, to unconventional; and third, while the U.S. Army has been very good at learning new tactics and preforming operational art, it has been resistant to systemic transformational change. In short, the Army continues to be overly reactionary, looking more to the past, than revolutionary, seizing present opportunities and embracing future potential.

The RAND study indicates that there are better methods for achieving strategic competence but the "American Way of War" is still firmly entrenched; civilian oversight is distracted and undereducated, while the Pentagon is fixated on lessons gleaned from World War II and weapons technology development. While the Department of Defense extolls the power of science and technology, the social sciences have been largely neglected. For American senior civilian and military leadership, the strategic arts have been misunderstood and unevenly applied. Overall, American senior leaders are seen struggling to see world problems in their true context, and straining to successfully appraise, assess, debate, recommend, approve, and implement a competent national strategic plan. Until the old ways change, the current Long War will limp along, revealing a U.S. inability to fully learn from its war experiences and to gain satisfactory closure. The lessons of the Long War must be learned.

The RAND study calls for a complete institutional reform and makes the following recommendations:

1. Enhancing strategic outcomes through revamping the formulation and execution of the strategic art process; effective strategies rest on clarity, communication, cooperation, and collaboration
2. Organizational adaptation focusing on greater flexibility and certainty of direction
3. Full integration of Special Operations Forces into the total force
4. Innovative and multifunctional personnel development; doing more with less
5. Increased emphasis on joint, interagency, intergovernmental, and multinational (JIIM) capabilities to better meet irregular warfare threats
6. Improving interagency and intergovernmental coordination and follow through
7. Improving workability of coalitions and maximizing available multinational expertise.

The RAND study notes that "the tendency at the present moment, as the large commitments in Iraq and Afghanistan have ended, may be to completely eliminate capabilities that were developed and dismiss as irrelevant lessons that were only partially formulated and disseminated. This rush to turn the page on the past 13 years may impose a heavy price." (p. 123). Indeed, the price will be costly as failure to remember, much less *learn*, the lessons of the Long War will invite their repetition. The lessons and recommendations of the RAND study are clear; it is imperative to add them to the Long War discussion and call for a fundamental reform in the theory and practice of American strategic art.

Note

1. Robert Greene, *The 33 Strategies of War* (New York: Penguin Books, 2006), p. xx.

Gary Dehrer is a retired school principal and Army Reserve lieutenant colonel. He has a master's degree in education and is a graduate of the Command and General Staff and Air War Colleges. He has contributed book reviews to *On Point* magazine and is a published author.

Chief Historian's Footnote

Jon T. Hoffman

Familiar Surroundings with New Challenges

As my predecessor, Dr. Richard Stewart, aptly noted in 2006, it is a humbling experience to take the reins as chief historian at the U.S. Army Center of Military History (CMH). I not only have to strive to meet the high professional standards set by previous incumbents, I also am acutely aware of the important mission I need to help accomplish every day—capturing, disseminating, and maintaining the history of the American Army. The specter of being haunted by the ghosts of George Washington, Ulysses S. Grant, Alvin York, Audie Murphy, and legions of other soldiers is not something anyone could take lightly!

My new role marks a homecoming of sorts, as I served as chief of the Contemporary Studies Branch from 2005–2010. Prior to that I was a Marine infantry officer and field historian, then deputy director and acting director of the Marine Corps History and Museums Division from 2000–2005. For the past six years, I was the deputy chief historian for the Office of the Secretary of Defense historical program. I thus bring a wide perspective on official military history, but recognize that I still have much to learn about the Army and its history.

I join a program with many strengths. One of those is the Army's investment in its historical program, which dwarfs that of other Department of Defense components. Another is a sterling reputation for the quality and breadth of publications, with the World War II "Green Books" setting the gold standard. The effort that has gone into establishing Career Program 61 will pay increasing dividends as all its benefits come into full play. The National Museum of the United States Army, now officially under way following the groundbreaking on 14 September, will become the crown jewel of the Army's museum community. The Field Programs and Historical Services Directorate connects the Army with its history on a daily basis, providing lineage and honors support to units, assisting commands with their history programs, conducting staff rides, and answering official and unofficial inquiries from the Army, veterans, and the American public. The Institute of Heraldry provides unique and expert support to the entire U.S. government, and builds tangible connections between soldiers and their history through the insignia they wear and the heraldic items that adorn their unit spaces.

As with any endeavor, there is always room for improvement. Years ago, in concluding the CMH publication *A History of Innovation: U.S. Army Adaptation in War and Peace* (2009), I cited the words of industrialist Henry Ford: "It could almost be written down as a formula that when a man begins to think that he has at last found his method, he had better begin a most searching examination of himself to see whether some part of his brain has not gone to sleep." In that spirit, the chief of military history has tasked me with taking a fresh look at how the Center accomplishes some of its missions. One area of emphasis is the process of researching and writing official history, which is taking on added importance as CMH embarks on the newly dubbed "Tan Book" series chronicling the Army's part in recent and ongoing operations in Afghanistan and Iraq. In addition to the usual challenges involved in writing history, authors will face the daunting task of dealing with a massive but unorganized collection of primarily digital records that may contain significant gaps. Another aspect is the Center's interaction with the Army's senior leadership and the Army Staff. How can we better serve them as our customers, ensuring that they have the historical input they need, ideally before they even know that they need it, without overpromising beyond our capabilities?

The Center has embarked on a number of major initiatives that will keep all of us leaning forward in our fighting holes. We continue to interact with the National Museum Project Office to assist them in bringing our museum to reality, while planning to incorporate that major new facility into the CMH fold as it nears completion. We are serving as the Army's lead integrator in planning the centennial commemoration of World War I. We are establishing the Army Museum Enterprise to guide the Army's large and diverse field museum system. And we have just begun the process of evaluating a thorough modernization of Collins Hall on Fort McNair—the home to much of CMH—which began its life more than a hundred years ago as horse stables. As CMH marches forward, we will continue to reinforce the linkage of today's Army with its past, while simultaneously providing the historical knowledge that will help the Army fight and operate in the future.

Jon T. Hoffman
Chief Historian
U.S. Army Center of Military History

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