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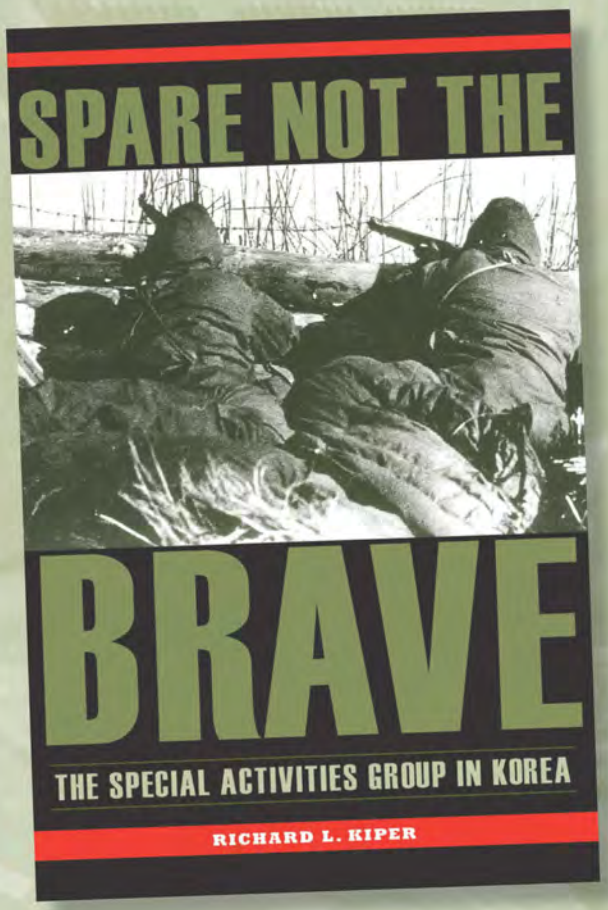

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MILITARY HERITAGE

September 2014

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columns

COVER: WWII era B-17 bomber Aluminum Overcast, *restored and flown by the Experimental Aircraft Association, is a popular attraction at air shows across the U.S. See story page 12. Photo: Buddy Mays; www.buddymays.com*

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The French sought revenge after the fall of Louisbourg.

IN THE WAKE OF THE IMPRESSIVE VICTORY BY AMERICAN colonists over the French at Louisbourg in June 1745 during King George's War (1744-1748), the Province of Massachusetts Bay braced for the inevitable raids by the French and their Native American allies on two fronts. The western front was northwest Massachusetts, and the eastern front was the coast of present-day Maine.

In a campaign lasting one and a half months, a force composed entirely of American colonists had, through a combination of good luck and strong wits, successfully besieged the "Gibraltar of the New World" located on Cape Breton Island.

In the wake of the victory, Massachusetts Governor William Shirley ordered the construction of three new forts on the western border and arranged for additional troops to be assigned to garrisons at existing forts in Maine, such as Forts St. Georges and Frederick.

The Iroquois descended on English settlements in New York and western Massachusetts, and the Abaneki attacked the English settlements on the seaweed-laced coastal waters of Maine. The Abaneki were one of the five nations of the Wabanaki Confederacy. Their ancestral lands lay between the Merrimack and the Penobscot Rivers, but by the 1740s they had been driven east of the Penobscot River.

The French and the Wabanaki nations had forged bonds of brotherhood during the more than half a century of wars conducted against the English. The English settlements were located on peninsulas shaped like osprey talons along the wide bays and estuaries of mid-coast Maine.

The French and Abaneki attacks began in July 1745. Armed with hatchets, bows, and muskets, the Abanekis excelled at guerrilla warfare. Attacking in bands as small as six, and on some occasions in groups as large as 100, the warriors conducted hit-and-run attacks against the English. They assaulted frontier fortifications, burned houses, ambushed farmers, and slaughtered cattle. If an English settler was not slain and scalped on the spot, he or she was dragged off to the attackers' village.

On the whole, the attacks against English settlements in Maine did not occur on the scale they did in New York, where a French-led attack in November 1745 against undefended Saratoga resulted in the death of 30 settlers and the capture of 60 others.

In Massachusetts, Shirley continued to send colonial troops to Maine. The additional manpower enabled the garrisons to send out regular patrols designed to disrupt enemy attacks. In September 1747, a force of 60 French and Abanekis launched a major attack on Fort Frederick at Pemaquid. Even though the garrison of American colonists was only half the number of the attacking force, it was able to repulse the attack mainly because the fort was made of stone and therefore difficult to burn.

The loss of lives in the frontier war was not great when compared to the naval and marine actions of King George's War. Nevertheless, the number of soldiers and settlers taken prisoner by both sides was substantial as shown by the number of prisoners exchanged. For example, French ships sailed into Boston in August 1747 with 270 freed prisoners, and Massachusetts vessels arrived at Ile aux Basques in October of the same year to free 63 prisoners.

King George's War was part of the longer War of the Austrian Succession, which pitted Britain against France and her European allies. Following the treaty of Aix-la-Chapelle on October 18, 1748, an Abaneki delegation was granted safe passage to Boston where its members on June 23, 1748, agreed to cease hostilities.

A key point worth noting in the aftermath of the war is that in returning Cape Breton Island (and hence Louisbourg) to the French in exchange for Madras in India, the British deeply antagonized the American colonists. Indeed, the Americans were so incensed that in the subsequent French and Indian War (1754-1763) they let the British take Louisbourg themselves. That expedition required three times the number of troops to achieve the same goal.

William E. Welsh

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By Chuck Lyons

USS *Growler* Commander Howard W. Gilmore sacrificed his life to save his crew and vessel in February 1943 while on patrol in the Pacific.

ON FEBRUARY 7, 1943, WHILE ON PATROL IN THE SOUTHWEST Pacific Ocean, U.S. Navy Commander Howard W. Gilmore, commander of the USS *Growler* (SS-215), and his crew carved out a place for themselves in Navy legend and set a standard of duty that is remembered in the submarine service today. For his actions that day, Gilmore received the Medal of Honor.

U.S. Navy Commander Howard W. Gilmore (above), wounded during a surface attack by the USS *Growler*, made a heroic sacrifice (right) on February 7, 1943, by ordering an immediate dive even though he knew he would be left in the water.

Growler had departed Brisbane, Australia, on January 1, 1943, to patrol shipping lanes between Truk and Rabaul in the Bismarck Islands, off the northeastern coast of New Guinea, an area that was bristling with Japanese aircraft and armament. During the month of January, *Growler* sank a number of Japanese cargo ships. Then, there was trouble.

On the night of February 4, *Growler* spotted a Japanese convoy of merchant ships with two patrol boats escorting it. Because of the weather conditions and resulting poor visibility, Gilmore opted for a surface attack. *Growler* slipped through the darkness to get ahead of the Japanese ships. As the Gato-class submarine was closing in, the lead Japanese ship spotted her and opened fire. Gilmore quickly took the boat down and rigged her for a depth charge attack.

Both: U.S. Navy

For what seemed like hours but was actually only about 40 minutes, depth charges shook the submarine, eventually rupturing a manhole gasket in the forward main ballast tank. Seawater poured into the forward torpedo room until a damage control party was able to staunch the flow with a rubber sheet stretched over the manhole secured with jacks.

Meanwhile, the Japanese attack had finally ended, and Gilmore came up to periscope depth where he saw three of the Japanese ships pulling away while one patrol boat remained in the area. *Growler*'s pumps were keeping up with the seawater still seeping into the forward part of the boat, and Gilmore kept *Growler* submerged and quietly slipped away.

When darkness came, Gilmore took the vessel to the surface and made the necessary repairs. Afterward, *Growler* continued its mission.

When the Japanese attacked Pearl Harbor on December 7, 1941, the Navy had 55 submarines in the Pacific Ocean with the speed, range, and endurance to operate as part of the Navy's battle fleet. In addition, the Navy had 18 medium (or S-boat) sub-

marines, slower and of more limited range. The Navy withdrew the S-boats from service in mid-1943 as new fleet submarines were produced. The S-boats were then relegated to training.

A short six hours after the Japanese attack, the Navy chief of staff ordered U.S. forces in the Pacific to execute unrestricted air and submarine warfare against Japan. That order authorized all U.S. submarines in the Pacific to attack and sink without warning any warship, commercial vessel, or civilian passenger ship flying the Japanese flag.

"When I took command of the Pacific fleet on December 31, 1941, our submarines were already operating against the enemy, the only units of the fleet that could come to grips with the Japanese for months to come. It was to the submarine force that I looked to carry the load," wrote U.S. Pacific Fleet Commander Admiral Chester Nimitz.

The four U.S. submarines in Pearl Harbor at the time of the Japanese attack—USS *Narwhal, Dolphin, Tautog*, and *Cachalot,* in the Navy Yard for repairs—had escaped the attack without damage. They and other U.S. submarines had gone on patrol as early as December 11, 1941, in the waters around the Philippines and Indochina.

The United States' unabating submarine attacks on Japanese shipping during the next three years were to prove a decisive factor in the collapse of the Japanese economy. Over the course of the war, U.S. submarines, though they accounted for only about two percent of the U.S. Navy, destroyed more than 30 percent of the Japanese Navy, including eight aircraft carriers, one battleship, and 11 cruisers. U.S. submarines also destroyed more than 60 percent of the Japanese merchant fleet, crippling Japan's ability to supply its military forces and industry.

Howard Gilmore was born in Selma, Alabama, on September 29, 1902. He joined the Navy on November 15, 1920, serving as a simple enlisted man. Two years later, he passed the examination to enter the U.S. Naval Academy and won an appointment. Gilmore graduated from the academy in June 1926, standing 34 in a class of 436 men. He received a commission and was assigned to serve on the battleship USS *Mississippi* and later on the destroyer USS *Perry.*

In 1931, Gilmore attended the Navy submarine school at New London, Connecticut, and from 1932 until 1935 received additional training at the Naval Postgraduate School and the Washington Navy Yard. He was then assigned to the newly built submarine USS *Shark* (SS-

174), a Porpoise-class submarine, becoming her executive officer and navigator when she was commissioned in January 1936.

While with the *Shark* on her shakedown cruise, Gilmore went ashore in Panama and was attacked by a group of men who beat him and cut his throat. Luckily, he survived the near fatal attack and was eventually able to return to duty.

In 1941, Gilmore took command of the *Shark* but was transferred the day after the Japanese attack on Pearl Harbor to command of *Growler,* still under construction at the Electric Boat Company yard in Groton, Connecticut. *Growler* was commissioned on March 20, 1942. After her shakedown cruise, *Growler* began operating out of Pearl Harbor and was one of seven submarines assigned picket duty north and west of the islands as part of the Hawaiian defense during the early phases of the Battle of Midway in June 1942. Then she went on patrol.

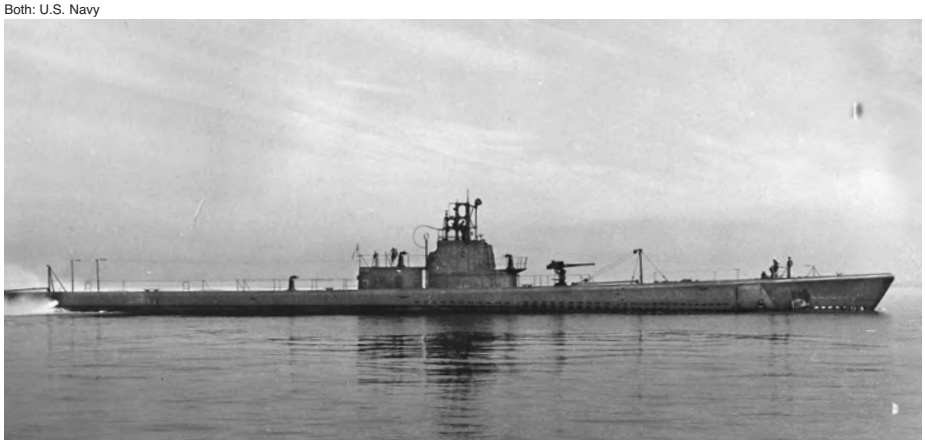
In June 1942, on the first of her four war patrols under Gilmore's command, *Growler* was assigned to patrol around Dutch Harbor, in Alaska's Aleutian Islands, one of the few places on U.S. territory to be bombed by the Japanese during the war. That attack had come the previous May. Earlier in June, the Japanese were also successful in seizing and occupying the two Aleutian islands of Attu and Kiska.

Five days into that patrol, Gilmore saw his first action when three enemy destroyers were sighted lying at anchor. He fired three torpedoes, one of which hit the Japanese destroyer *Arare* amidships. As *Growler* surfaced, she could see the *Arare* burst into flames as her boilers exploded. Meanwhile, Gilmore's second torpedo hit the bow of the destroyer *Kasumi*. A third Japanese destroyer, the *Shiranuhi*, fired two torpedoes at *Growler* before she in turn was hit in the bow by Gilmore's third torpedo. The two Japanese torpedoes passed to each side, missing *Growler* as Gilmore took his submarine down.

The destroyer *Arare* was sunk, and the other two Japanese destroyers were severely damaged but were able to limp back to Japan for repairs. The official Navy report of the action erroneously credits *Growler* with sinking two of the Japanese destroyers.

It was an auspicious beginning, and the report of the action praises Gilmore and his crew. "The first war patrol of the *Growler* was extremely well conducted and the results were most gratifying," states the report. "The attack on three anchored destroyers merits the highest praise." For his actions, Gilmore was awarded a Navy Cross.

Both: U.S. Navy



The *Growler,* with a 3-inch gun mounted on the forward section, gets underway on May 5, 1943.

On *Growler*'s next two patrols, Gilmore added to his record by sinking four Japanese merchantmen in the East China Sea and being awarded a Gold Star in lieu of a second Navy Cross.

It is *Growler*'s fourth patrol that is remembered today.

The Japanese had overrun Rabaul in 1942 and converted it into their main base in the South Pacific. By 1943, there were about 110,000 Japanese troops based there. Truk, a second major Japanese base in the South Pacific, is located in the Caroline Islands and is about 1,800 miles northeast of Rabaul.

Growler had been in its patrol area only five days before sighting an enemy convoy. Maneuvering inside the convoy escorts, Gilmore fired two torpedoes that hit one of the Japanese cargo ships. As the stricken ship, the *Chifuku Maru,* a passenger and cargo ship of 6,000 tons, was sinking, *Growler* was spotted and forced to dive and ride out a depth charge attack.

Eight days later, she sank another 6,000-ton passenger and cargo ship, the *Miyadono Maru*. Gilmore then shifted his patrol area west to attack shipping between Truk and Palau in the Caroline Islands. *Growler* attacked and damaged a freighter and again suffered through a severe depth charge attack.

On February 4, *Growler* suffered the ruptured manhole cover gasket during the 40-minute depth charge attack against the four-ship Japanese convoy before slipping quietly away. After the repairs to damage from that attack had been made, *Growler* continued her patrol with Gilmore's submarine making two more torpedo attacks but failing to sink any enemy shipping.

Shortly after 1 AM on February 7, *Growler* was on the surface charging her batteries when a lookout spotted a Japanese gunboat, later identified as the *Hayasaki,* and began an approach. The *Hayasaki* was a 2,500-ton ship made especially to combat submarines. At the time, weather conditions, as well as the nighttime darkness, had reduced visibility considerably. As *Growler* approached, *Hayasaki* spotted her and quickly turned, intending to ram the American boat. Gilmore, who was on the bridge, sounded the collision alarm and sharply ordered "left full rudder" and "all ahead flank" in an attempt to avoid the impending collision. Instead, the sharp turn brought *Growler* into a ramming course of her own, and she struck the enemy ship amidships at 11 knots, ripping open *Hayasaki*'s side plating.

Hayasaki responded with murderous machine-gun fire from several .50-caliber guns at what was almost point-blank range, sweeping the submarine's bridge and killing Officer of the Deck Ensign W. Williams and lookout Fireman W.F. Kelley. Two other crewmen on the bridge also were severely wounded, one having a leg blown off and the other suffering severe wounds to his arm. Gilmore was also severely wounded and was forced to clutch the bridge rail to remain upright. *Growler* was heeled over to 50 degrees and had bent 18 feet of her bow to the side. Her forward torpedo tubes were disabled.

Fearing his boat was about to be lost altogether if it did not submerge immediately, Gilmore ordered the bridge cleared. The executive officer and the quartermaster descended and pulled the two wounded men into the conning tower after them, but Gilmore was too badly wounded to make his way to the hatch and back into *Growler*.

Still clutching the rail, he ordered, "Take her down."

Executive Officer Lt. Cmdr. Arnold Schade, who had suffered severe bruising and was dazed after falling down the ladder into the control room, waited below. Hearing the order, he hesitated briefly and then obeyed. Some sources indicate that Schade acted to close the hatch only after Gilmore had given the same

order a second time. Curiously, the official report of the incident, presumably written by Schade, does not mention the "take her down" order at all. The report reads that after the executive officer, the quartermaster, and two wounded men were inside the conning tower "about 30 seconds passed. No one else appeared at the hatch. Sounded diving alarm, closed the hatch. Submerged."

Growler blew out its ballast tanks and slipped away from *Hayasaki* and below the waves as *Hayasaki* continued spraying the boat with machine-gun fire. Schade took command of *Growler,* which now had water in its control room from leaks in the conning tower and in the pump room, but was able to level the boat at a depth of 150 feet while crew members struggled to control the flooding. Three depth charges were noted but at a considerable distance from *Growler.*

"We had bullet holes in the conning tower which nearly flooded us out," Schade reported. "It caused us to lose all auxiliary power and started an electrical fire. We stayed down for twenty minutes."

By then the crew had stabilized the situation, and Schade had recovered his full senses. He brought *Growler* to the surface again seeking to reengage the enemy, but the *Hayasaki* was gone. Schade reported that she had been sunk, but the Japanese ship had been able to steam away under her own power. A search of the area failed to locate the bodies of Williams, Kelley, and Gilmore. Their bodies have never been found.

Schade took *Growler* back to Brisbane with her surface speed reduced by about 30 percent and her "diving control extremely difficult." The boat arrived there on February 17. The submarine was immediately taken into dry dock and repaired. She fought again, at first under the command of Schade, who was at the time the youngest U.S. submarine commander in the service. *Growler* had also been given a new nickname.

"When the Australians replaced our damaged bow they put two little kangaroos there as a sort of figure-head," wrote Schade. "It [was] our most prized distinctive marking." The markings led to *Growler* being called the "Kangaroo Express."

After the repairs, she continued operating in the Pacific. *Growler* was lost on her 11th war patrol in November 1944. On November 8, a submarine pack led by *Growler,* then under the command of Captain T.B. "Ben" Oakley, had closed on a Japanese convoy south of Mindoro in the Philippine Islands with *Growler* on the opposite side of the convoy from two other U.S.

Navy personnel atop the *Growler* at Brisbane, Australia. The damage to a 25-foot section of the submarine's bow, which occurred when it was rammed by the 900-ton Japanese cargo ship *Hayasaki,* can be clearly seen.

submarines. *Growler* ordered the attack to begin and then fell silent. After the attack was underway, the other U.S. submarines, *Hake* and *Hardhead,* reported hearing what sounded like a torpedo explosion and then a series of depth charge explosions on *Growler*'s side of the convoy, perhaps as many as three of the latter.

She had disappeared, and all efforts to contact *Growler* for the next three days proved futile. She was finally listed as lost. It was possible that she was hit by one of *Hake*'s or *Hardhead*'s torpedoes that had slipped past the Japanese ships, that she was hit by one of her own torpedoes that detonated early or that turned on her in a circular run, or she may have been simply sunk by the convoy's escort vessels. She took 85 men down with her.

By the time of her loss, *Growler* had received eight battle stars for her role in the Pacific War, had sunk 17 enemy ships and 74,900 tons of enemy shipping, and had damaged seven additional enemy ships.

Gilmore remains her most decorated crew member. He received the Medal of Honor "for distinguished gallantry and valor above and beyond the call of duty," according to the citation. The U.S. Navy called what happened during the encounter on February 7 "one of the most gallant actions in naval history" and "the most famous act of self-sacrifice known to the U.S. submarine service."

He was the first of six submariners to receive the Medal of Honor during World War II and only the second submariner in the service's history to be so honored. (The first submariner to receive the Medal of Honor was torpedoman Henry Breault, who returned to a sinking submarine to rescue a shipmate after a peacetime accident in 1926.)

Gilmore additionally was honored in September 1943 when the new submarine tender, USS *Howard W. Gilmore* (AS-16), was launched at the U.S. Navy Yard at Mare Island, California. □

By John Emmert

The Boeing B-17 Flying Fortress flew deep into enemy territory to carry out its strategic bombing missions during World War II.

SECOND LIEUTENANT JOHN BOSKO WAS FLYING HIS SEVENTH MISSION on August 24, 1944. He was reasonably seasoned as far as bomber commanders went but was unaware of his target's macabre reputation. His crew and machine from the 327th Bomb Squadron, 92nd Bomb Group, were en route to the well-defended Merseburg oil refineries in Germany's heartland from their base in East Anglia.

His plane was a veteran of almost 60 missions and had gone through all of them relatively undamaged. *Snake Hips* and her crew were about to be put to the ultimate test.

As the 92nd Bomb Group made its run over the target, the flak bursts began to rattle *Snake Hips* until a loud explosion shook the aircraft. Smoke filled the cockpit, and fuel sloshed around in the bomb bay. Bosko was shocked to learn from the co-pilot that three bombs had just rolled off the starboard wing. There was a gaping hole in the right side of the fuselage extending from the bomb bay through the radio compartment. Also, a large section of skin had been ripped off the top of the starboard wing. The ball turret gunner had been mortally wounded.

Snake Hips was dropping out of formation and losing altitude. Control cables to the ailerons had been cut. Despite this, Bosko managed to fly his battered bomber back to England and make an emergency landing not far from the coast. With the exception of the ball turret gunner, all the crew had survived. Bosko's machine had been ripped apart and reduced to scrap metal but had still flown home. Few Army Air Forces pilots would have been surprised, for B-17 Flying Fortresses such as *Snake Hips* had been flying back to their bases with multiple engines inoperable or large sections of the aircraft blown away on a regular basis after 2½ years of combat around the world.

Keith Ferris's painting, *Fortresses Engaged*, shows two German fighters attacking head-on through a formation of B-17s of the 100th Bomb Group. The B-17s were used in dangerous daylight raids on German targets from 1942 to the end of the war.

One of the most recognizable and iconic aircraft of World War II, the B-17 was neither the most modern nor the most produced aircraft of its class during the war. However, the B-17 was flown in combat from almost the beginning of the war to its end, often on long missions deep in the heart of enemy territory and into the teeth of thick enemy defenses. Brought forth in a gamble to meet a 1930s bomber competition, Seattle-based Boeing created a flying legend, an icon in the history of military aviation.

Boeing had furnished the bulk of the U.S. Navy and the U.S. Army biplane fighters for much of the 1920s and early 1930s, and in 1930 the company flew the first all-metal airliner, the twin-engined 247D monoplane.

In 1935, the Army Air Corps sent Circular 35-26 to various aircraft

manufacturers outlining its requirements for a possible replacement for the Martin B-10 twin-engined bomber. The circular's requirements left a great deal of flexibility. The maximum speed requirement was anywhere from 200 to 250 miles per hour at an altitude of 10,000 feet, with a cruising speed of 170 to 220 miles per hour at the same altitude. Endurance could be anywhere from six to 10 hours, and a maximum service altitude was loosely specified between 20,000 and 25,000 feet. The contract required multiple engines, most companies assuming that this meant two engines.

The Army Air Corps had long been converts to the doctrine of strategic bombing, the intentional targeting of an enemy's industry to cripple its ability to wage war. Officially, the concept was adopted in 1935 as the Army Air Corps' primary mission in the event of a war. Martin and Douglas both entered aircraft candidates in the competition, but their prototypes were more suited for tactical rather than strategic bombing.

Boeing chose to take the lead, both in terms of size and engineering, by building more than a mere twin-engined aircraft. Borrowing from engineering studies done on their jumbo bomber, the XB-15, Boeing created the model 299. The entry from Seattle boasted four Pratt and Whitney R-1690 radial engines (later upgraded to the more powerful Wright R-1280 Cyclone engine), with a wingspan of 103 feet and was just short of 68 feet long. The nose was a combined compartment for the bombardier and navigator. The pilots sat in an elevated cockpit aft of the nose compartment, with the engines abreast. The bomb bay separated the cockpit from the radio compartment, with the aft section of the fuselage being used to provide space for three gun blisters: one ventral and two side.

On its rollout at the Seattle plant at the end of July 1935, the 299 quickly received names from the press, such as Aerial Battle Cruiser, but the one that stuck was Flying Fortress. Its delivery flight to the Army Air Forces at Wright Field, Ohio, proved that the competition only existed on paper. During the August 20 flight, the Flying Fortress clocked an average cruising speed of 230 miles per hour. The bomber also met the endurance requirements by making the nine-hour flight nonstop.

The plane's advanced features nearly proved its undoing. On October 30, a test crew attempted to take off with the controls still secured, resulting in a crash that claimed the lives of the two pilots. Although the accident

was ruled as human error, it was the first of several technical challenges Boeing faced before it finally vanquished its primary competition, the Douglas B-18.

In September 1939, Europe was engulfed in war as Germany marched into Poland. For two years already, the Japanese had been on the rampage in China, using their own bombers as weapons of terror on Chinese cities. It would only be a matter of time before the United States joined in the conflict, and Congress began to prepare, if belatedly. The B-17B, C, and D models introduced from 1937 to 1940 featured minor improvements, but they would be found wanting as the Flying Fortress went to war.

In 1941, the British received 20 B-17Cs for evaluation and to supplement their own supply of bombers. Royal Air Force (RAF) Bomber Command was hoping that the bombers could operate from 35,000 feet, making them far less vulnerable to German air defenses. Unfortunately, it was not only the plane that was limited to 30,000 feet, but the crews as well. At lower altitudes, the lack of armament made the aircraft vulnerable to fighters. None of the guns that came on the C model were fitted in pairs or in power-driven turrets. A lack of spare parts and battle damage often kept as many as half the force grounded. Ultimately, the miniscule number of B-17s being used by the RAF, together with Bomber Command's chosen tactic of night saturation missions, rendered the Flying Fortresses ineffective as combat assets.

The shortcomings outlined by the RAF were addressed by Boeing and the Army Air Forces with the B-17E, brought out in the fall of 1941. The E model featured a new rear fuselage. Now 73 feet long, the E had a redesigned vertical stabilizer, tail turret, revised waist gun mountings, a powered Bendix top turret, and a manned electrically driven belly turret, bringing the armament installed on the plane to eight .50-caliber machine guns and one .30-caliber machine gun. More guns would be added after American pilots came under fire. On December 7, 1941, a group of eight B-17Es en route to Hawaii arrived over Oahu during the middle of the surprise attack on Pearl Harbor. Low on fuel and with the armament removed for the transit, the crews were forced to dodge both Japanese Zero fighters and friendly fire to land wherever they could.

The Japanese tide in the Pacific seemed unstoppable. American planes sought desperately to blunt the advances. High-altitude bombing proved to be a waste of munitions. At more than 20,000 feet, ships maneuvering about the ocean make hits impossible. Older, less capable B-17Cs and B-17Ds were pressed into service due to a lack of aircraft, often with disastrous results. However, due to their size and armament, the Japanese came to revere both the B-17s and the men who flew them. The B-17s would range wide over the South Pacific from bases in Northern Australia and French New Caledonia, both to hit fixed Japanese bases and to act as long-range reconnaissance aircraft. A group of B-17s that took part in the Battle of Midway is given more credit than was really its due out of necessity that the carrier force be protected from enemy intelligence assets. B-17Es and the improved B-17F model with better propellers and single-piece nose cones served well into 1943 when they were largely phased out and replaced with Consolidated B-24 Liberator bombers, which possessed greater range and payload capacity.

ABOVE: On August 17, 1943, several hundred B-17s participated in the double raid on Schweinfurt-Regensburg. The losses were staggering, with 60 B-17s downed or damaged beyond repair. RIGHT: A B-17 from the 379th Bomb Group made it home even with the cockpit shredded. The B-17s natural handling characteristics enabled pilots to fly it back to base even with heavy damage.

It was not until August 1942 that the United States actually began to field its own combat units and squadrons in England as part of the embryonic U.S. Eighth Air Force. When they first began operations on August 17, 12 B-17Es were dispatched to attack the railroad yards near Rouen, France, with an additional six aircraft ordered to probe the coast at two different spots as decoys. The mission was successful, but it was yet to be seen if the B-17 and the 10-plus machine guns it carried were enough to make U.S. daylight bombing practical. On September 6, German fighters shot down two B-17s during a mission to hit an aircraft factory in northern France. Worse was to come.

With units and replacement aircraft siphoned off to support the North African campaign begun in November 1942, the U.S. Eighth Air Force found itself unable to carry the war into Germany until 1943, limited by a lack of planes

and encumbered by the need to bomb U-boat bases in France. Beginning with the January 27 raid on Wilhelmshaven, Germany, the Eighth Air Force's B-17s began to face stiffer and stiffer resistance. The missions into Germany were being made without fighter escort, because the Eighth Air Force's Republic P-47 Thunderbolts and RAF Supermarine Spitfires simply lacked the range to do so. Flak was becoming an increasing nuisance, combated by flying at higher altitudes and in larger formations, but the fighters were a greater menace. Flying a B-17 out of England became a hazardous enterprise. A tour of duty consisted of 25 missions, a difficult quota when mission loss rates were sometimes higher than 10 percent.

The *Memphis Belle* was the most famous of those first B-17s, and its crew was one of the first to complete 25 missions. Assigned to the 91st Bomb Group, the *Memphis Belle* was the primary machine flown by Captain Robert Morgan and his crew. A Hollywood camera crew, led by future *Ben Hur* director William Wyler, captured multiple missions on color film to produce a 1944 feature documentary. Although Morgan's crew had spent much of its tour flying on different aircraft and as parts of different crews, the mystique of the *Memphis Belle,* her 1943 war bond tour, and the public recognition she received from the film are likely what preserved her, even as other bombers that completed much longer tours of duty were consigned to the scrap heap.

Even though the Germans were beginning to feel increased pressure, the Eighth Air Force loss rate began to steepen. The Schweinfurt and Regensburg raids on August 17 pit B-17s from two different divisions against a violent German reception committee. The 4th Bombardment Division struck the Regensburg Messerschmitt plant just before noon after flying over most of southern Germany through a swarm of angry fighters. As planned, the groups flew on to Africa to avoid the deadly interceptors waiting for their return trip. The 1st Bombardment Division was delayed for several hours by weather, hitting Schweinfurt at roughly 3 PM. They were exposed to the full fury of the German defenses as they flew back to England. No B-24s took part in the raid. Sixty B-17s were shot down or damaged beyond repair, a staggering loss of nearly 25 percent of the total attacking force. The introduction of the B-17G with a two-gun chin turret did nothing to lower the loss rate. Another 60 B-17s were lost on an attack by both units on Schweinfurt on October 14, with groups of B-17s fighting their way through and nailing the target regardless of the losses.

ABOVE: *Knock-Out Dropper* from the 303rd Bomb Group survived 75 missions over Germany before returning to the United States. BELOW: A B-17 formation attacks a Focke-Wulf plant at Marienburg, Germany, on October 9, 1943.

It was not until 1944, with the arrival of the North American P-51 Mustang, that fighter escort could be provided all the way to the target and back. This close escort, coupled with the dramatic losses the P-51s inflicted on the Luftwaffe, made it safer for bombers to cross Europe in daylight. Flak still downed bombers, and German fighters showed themselves from time to time to shoot down a few bombers. The Eighth Air Force flew its last mission on April 25, 1945, ending the combat career of the B-17 as a bomber.

Despite all that could be thrown at them, some B-17s and their crews often refused to die. It was from these battles that the B-17 was made the stuff of legend. A B-17F flying with the 384th Bomb Group received heavy damage on a mission to Antwerp in the summer of 1943. The cockpit and tail were shredded by cannon shells, killing the tail gunner. It took a month to ready this plane for another mission. *Patches,* as the plane was called, was peppered by flak over the target on July 30, only to get shot up by Fw-190s on the way back. More crew members were wounded, and *Patches* was forced out of formation. For more than 20 minutes, the machine and her crew battled it out with Fw-190s until, out of either ammunition or fuel, the bandits turned for home. When she landed in England, *Patches*' ground crew is said to have counted more than 1,000 holes.

It was said that the B-17's natural handling characteristics made for a pleasant aircraft to fly. Unlike the contemporary B-24, most B-17s were easy to fly on trim tab, where minute adjustment to the control system would allow the pilot to fly almost hands free. It also meant that the machine could still be flown in a controllable manner with multiple engines shot out and controls damaged. On February 9, 1943, a B-17 crew operating in the Solomon Islands got into a running gun battle with multiple Zeros. The plane, badly damaged, began to descend toward the ocean. Three engines were dead. The pilot was able to ditch safely and all 10 crew members survived.

It was not uncommon for a blessed B-17 to rack up impressive mission tallies. Among them was *Knock-Out Dropper,* a 303rd Bomb Group machine that survived 75 missions with the Eighth Air Force before returning home to the United States. At the end of the conflict, the record stood with the 91st Bomb Group's *Nine-O-Nine,* with a staggering 140 missions to her credit. Still more impressive, that B-17 suffered no loss of crew members or an abort during that entire span.

Perhaps more than any other weapon, the B-17 will forever be remembered as helping destroy the military and industrial might of Nazi Germany. That achievement alone is one of which the United States can be proud. □

By Peter Kross

The mysterious flight of Nazi official Rudolf Hess to Scotland on May 10, 1941, remains shrouded in secrecy.

TO THE PEOPLE OF THE SCOTTISH HIGHLANDS THE BATTLES OF the previous year had seemed a distant concern. But the war returned in an idiosyncratic manner when top-ranking Nazi official Rudolf Hess's plane landed in their country on May 10, 1941. The strange event had ramifications that would last throughout the war and would prove controversial for years to come.

Hess had served as the deputy to Adolf Hitler and was the third most important member of the Nazi Party. By the time word of his clandestine arrival in Scotland reached London, the top members of Prime Minister Winston Churchill's government, as well as their security services, began working overtime to piece together the reasons for his sudden appearance. However, the answer to that question proved as elusive as the man himself.

Rudolf Hess served in the 7th Bavarian Field Artillery Regiment in World War I and received the Iron Cross. Later in the war, he served in the Imperial Air Corps. After the war, he married 27-year-old Ilse Prohl with whom he had one son, Wolf.

Hess later attended the University of Munich, where he studied both political science and history. When Adolf Hitler came on the scene in Germany, Hess was immediately taken by his charisma and believed wholeheartedly in the National Socialist cause. He joined the movement and was arrested with Hitler and others in the infamous Beer Hall Putsch in November 1923, and was given a 7½-year prison term. He worked as Hitler's private secretary and played a major role in the editing of Hitler's book, *Mein Kampf*. After Hitler became chancellor of Germany in 1933, he picked Hess to be his deputy Führer, and they soon worked to bring Germany under their iron fist. However, as time went on Hess believed he was being assigned a secondary role in the government and soon took a back seat to Hitler's two newest advisers: Joseph Goebbels and Herman Göring, both of whom would play prominent roles in Hitler's Final Solution.

Hess was not anti-British in his political leanings and did not agree with Hitler's decision to go to war with that country after Germany's invasion of Poland in September 1939. He hoped that somehow the British would come to their senses and make a peace deal with Germany before their country was drawn into a war. Hess began to make covert contact with like-minded people in Britain who shared his political ideas, not necessarily those in government circles.

One of these influential people was Albrecht Haushofer, a German who happened to be directly connected to anti-Hitler groups. Haushofer broke with the Nazis after the persecution of his family because of his half-Jewish mother. He also had ties to a large Russian

Both: National Archives

Deputy Führer Rudolf Hess (below) speaks at a Nazi Party rally in 1937. Hess (below right), who served on Hitler's cabinet and oversaw several departments, stands at far left beside Adolf Hitler's Mercedes-Benz during the 1938 Nuremburg rally.

spy network in Europe called the Red Orchestra. Albrecht Haushofer's father, Karl, had been Hess's teacher and was one of the most influential German political theorists of the day. Hess told Karl Haushofer he believed that if Germany made a deal with England an invasion of Britain could be avoided.

Another person whom Hess counted on in his secret machinations was a Briton of royal upbringing named David Douglas-Hamilton whose royal title was the Duke of Hamilton. At the time of Hess's flight to England, the Duke of Hamilton was 37 years old, a graduate of Eton and Balliol College, Oxford, and a former boxing champion. Douglas-Hamilton was the first man to fly over Mount Everest and a conservative member of the British Parliament. He was known for his conciliatory attitude toward the German government.

Haushofer told his son about his meeting with Hess and urged him to lend his name to Hess's plan. Haushofer gave Hess the names of British politicians who might be able to work out a deal with like-minded Germans if Hitler was willing. Along with the Duke of Hamilton, Haushofer suggested Sir Samuel Hoare, the United Kingdom's ambassador to Spain.

Imperial War Museum

Hess stands in the cockpit of the ME-110 he flew to Scotland in 1941 on his unsanctioned peace mission. When the German government learned that Hess had taken off for England, it went into overdrive to put the best spin on the event.

Two days after Hess's flight to England, the Gestapo arrested Albert Haushofer for resistance activities. Many high-ranking German military and intelligence officers, including Sicherheitsdienst (secret police) Chief Walter Schellenberg, believed Hess was influenced by agents of the British Secret Service and their German collaborators and that they played a large part in his decision to fly to Scotland.

The theory that the British government, via its intelligence services, might have lured Hess to make his flight to Scotland gained attention from many conspiracy theorists after the war. That particular conjecture was presented to the public as early as July 1943 in an article in the *American Mercury* magazine. The *American Mercury* was a well-established publication that had been founded by H.L. Mencken years before. The article, called "The Inside Story of the Hess Flight," authored by "Anonymous," was vouched for by the magazine's editor and contained information that could not have been made up by the writer, who seemed to have perfect sources.

The article stirred up a hornet's nest of publicity, coming when the outcome of the war was still very much in doubt. The writer said that Hess came to Scotland "not only with Adolf Hitler's blessing, but upon Hitler's explicit orders. Far from being a surprise, the arrival of Hess was expected by a limited number of Britishers, the outlines of his mission were known in advance, and the Nazi leader actually had a Royal Air Force escort in the final stage of his air journey."

The article in the *American Mercury* stated

that in 1941 Hitler wanted to turn his attention to defeating Russia despite the nonaggression pact he made with Stalin. In order for him to do that, Great Britain had to be taken out of the war, and a separate peace with that nation had to be consummated. If Britain was no longer a combatant against Germany, Hitler could invade Russia to improve Germany's chances of winning the war. According to the story, in January 1941, Hitler made covert contact with certain pro-German individuals in England, including the Duke of Hamilton, who belonged to a pro-German organization called the Anglo-German Fellowship Association. Hitler's personal representative to Hamilton and his allies was Hess.

Hitler, the story continues, personally ordered Hess to fly to England to make a separate deal with the British government. In the months before Hess actually arrived, the British developed a sting operation headed by the intelligence services to lure Hess to England and then renege on their deal with Hitler. The *American Mercury* story says that Hitler's message to Hamilton and his friends was intercepted by the British Secret Service and that British agents handled the entire affair.

When the German government learned that Hess had taken off for England, it went into overdrive to put the best spin on what had just taken place. At 8 PM, a radio broadcast from Germany gave the first official explanation of why Hess had left for England. The broadcast said, "Party member Hess had left on Saturday on a flight from which he had not yet returned." The government further said that Hess had suffered a mental disturbance and had left a letter that "unfortunately ... justifies the fear that he was a victim of mental hallucinations." The broadcast also said that a number of Hess's confederates had been arrested. Why did the German government say that Hess suffered from a mental condition? Is it possible that certain members of the high command knew in advance about Hess's flight to England and were trying to put the onus on Hess alone?

Interestingly, the German government put out an official announcement dismissing Hess's alleged peace mission to England just one day after he left Germany.

In the end, Hess bailed out of the aircraft and landed safely on the farm owned by David McLean near the town of Paisley. When Hess landed, he told the astonished farmer that he was a friend of Britain. McLean took the airman to the local constabulary. While in custody, the pilot identified himself as "Alfred Horn" and asked to see the Duke of Hamilton.

In his meetings with the Duke of Hamilton and members of the British military, Hess insisted that Hitler knew nothing of his trip, that he had made it on his own. He told his astonished listeners that Hitler did not want to continue the war against Britain and that if England made a separate peace with Germany it would be given lenient treatment after the war was over. Hamilton said that he could not make any such agreements and turned Hess over to British intelligence. But did the British government know all about this in advance?

Just days after Hess's departure, his valet, Karlheinz Pintsch, arrived at Hitler's mountain retreat at Berchtesgaden. Pintsch gave Hitler the letter written by Hess before his departure. According to Pintsch, Hitler commented that Hess's trip was an "extremely dangerous escapade." Hitler then invited Pintsch to lunch with him, and after the meal was over he had him arrested. General Karl Bodenschatz, who was Reichsmarschal Herman Göring's adjunct, said that Hitler seemed shocked after reading Hess's letter. He also said he believed that Hitler's "shock and surprise on hearing of Hess's flight was an example of superb acting."

Hess's secretary, Ingeborg Speer, said that her boss never told the Führer about his upcoming flight and that Hess did it "in his fantastic love for the Fatherland. He wanted to make the greatest sacrifice of which he was capable for Adolf Hitler, to leave nothing undone to bring the German people the desired peace with England." That statement flies directly in the face of the *Atlantic Mercury*'s account of Hitler's knowledge about Hess's flight. Chief of Staff General Franz Halder said that the "Führer was taken completely by surprise by Hess's flight." Walter Schellenberg, a leading figure in the German espionage establishment, said Hitler was in such a state of shock upon hearing about what Hess had done that he could not speak.

The Hess matter immediately caught the attention of MI5 (British Intelligence) in the person of Major T.A. Robertson, who held an important post in the counterintelligence division. In a letter about the Hess case, Robertson said he had met with Air Vice Marshall Charles Medhurst, who filled him in on their knowledge of Albert Haushofer and the Duke of Hamilton. In time, Prime Minister Churchill was given a wide-ranging briefing on Hess, and he took an active interest in the case. Medhurst ordered Robertson to make further inquiries at the military base where Hess was staying to glean all information he could about why Hess had landed in Scotland.

Soviet officials learned much about Hess from one of their most productive spies of World War II. Kim Philby was then working

for British intelligence and would become known as one of the "Cambridge Five" (Russian spies who infiltrated the British government in World War II). Philby, according to a former British diplomat named Tom Dupree, told his Soviet controllers that Hess had sent a letter to Lord Hamilton a few weeks before his flight and that it was intercepted by British intelligence. Philby said that Hess believed that he could influence the anti-Churchill party in England, which really did not exist, and make a case for a separate peace with England.

Soviet leader Josef Stalin believed Hess's flight was a plan concocted by the Germans and the British intelligence services at the expense of the Soviet Union.

Following the war, Hess was incarcerated at Spandau Prison in Berlin. On August 17, 1987, his body was found hanging in his cell, the result of an apparent suicide. At the time of his suicide, he was the last prisoner at Spandau, which was run jointly by the Soviet Union and the three Western wartime Allies.

In September 2013, Hess's personal files were put up for auction in the United States. The files shed new light on the complicated story of what really motivated Hess to make his secret flight to England. The company that auctioned off the Hess papers was Alexander Historical Auctions, and it placed the value of the papers at $750,000. The papers included Hess's personal notes, copies of letters, and transcripts of interviews regarding his flight to England. Among the papers allegedly in the files was a handwritten proposal of peace terms that Hess handed over to former British Foreign Secretary Lord Simon. An Alexander Historical Auctions spokesman said they got copies of Hess's file "through one of their consignors in Europe." The unnamed consigner said that decades ago he received an anonymous phone call from a man who knew his work. He was told to meet this person the next day, when the Hess file would be given to him for his historical research.

National Archives

Hess, seated second from left next to Reichsmarschal Hermann Göring, is shown at the Nuremberg Trials. He was sentenced to life in prison in 1946.

One of the papers in the collection states: "The offer by the Führer is genuine ... the British cannot continue the war without coming to terms with Germany…. By my coming to England, the British government can now declare that they are able to have talks ... convinced that the offer by the Führer is genuine ... the British government has no reason for further bloodshed ... the British will agree to the suggestions made."

The facts surrounding the mysterious flight of Rudolf Hess to Scotland on May 10, 1941, are still shrouded in secrecy more than 70 years after the fact. The last of the Hess files are still under lock and key in the British Archives and are not slated to be opened until 2017.

U.S. President Franklin D. Roosevelt may have summed up the Hess affair succinctly. He said, "I wonder what is really behind this story."□

By Joe Wallis

Britain's hollow-cast toy soldiers continue to attract collectors decades after their manufacture.

MANY MILITARIA COLLECTORS CAN TRACE THE ROOTS OF their hobby to their childhood encounters with toy soldiers. For American kids in the 1930s and 1940s, this may have been with three-inch-tall American-made Manoils or Barclays from the local dime store. Along with Marx tanks, they could do a lot of imaginary damage from trenches dug in the backyard.

Britains' Somerset Light Infantry (top) and Royal Horse Artillery (bottom). The company consulted illustrations by Richard Simkin that appeared in the *Army and Navy Gazette* to ensure the details of British regiments were accurate.

Perhaps they even led some of us to learn about reenacting a battle or two. Certainly, many militaria collectors include military toys in the inventory of their collections.

Many varieties of toy soldiers were available during that time period, including composition soldiers from Germany along with their solid lead Heyde brothers (see *Military Heritage*, November 2013), as well as Lucotte and Mignot lead soldiers made in France. Sold worldwide for more than 100 years were the highly popular, gloss-painted, hollow-cast figures from England aptly named for their founder William Britain. The institutional history of Britains Limited is similar to that of many other 19th-century businesses. Common elements include family ownership, new ideas for production and marketing, wise business moves, and good luck.

William Britain Sr. (1831-1907) was born in Birmingham. In the 1871 census he identifies himself as a toy maker, whereas before he was listed as a brass finisher. By 1874, he had moved his family to Nugent House at 28 Lambton Road in the North London suburb of Hornsey Rise. William Britain Sr., as well as his eldest son, William Britain Jr. (1859-1933), possessed great ingenuity and an aptitude for designing clever mechanical toys. Among these devices were a sailor who tipped and donned his cap when a coin was placed in a collecting plate, an equestrienne who could jump over a bar and land again upon her horse's back with the aid of interconnecting gears, the popular London Road Roller model powered by a flywheel arrangement, and a tea-drinking, clockwork Chinese Mandarin patented in 1884. By the 1891 census, William Britain Sr., his wife, and their five sons and two daughters no longer resided at the Lambton Road house, having been successful enough to move to newer North London residences. The house at 28 Lambton Road and its entire block became a toy factory that was in use until 1968.

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TOP: Britains' range extended well beyond the British Empire, and their stock included dozens of troops from other nations, such as the Danish Gardehussars. ABOVE: Britains' method of hollow casting allowed for enhanced detail as demonstrated by its U.S. Marine Corps Color Guard set.

However well made their clever mechanical contrivances were, their intricacy and cost limited their sales, and this large family had to explore means of expanding its customer base. William Britain Jr. introduced the process of hollow casting toy lead soldiers to broaden the firm's clientele. The company issued its first model of this kind, a mounted English Life Guard, in 1893.

When the firm began manufacturing toy soldiers, German-made flats and solid, full, or semi-round toy soldiers dominated English stores. Britains was able to supplant these foreign figures by cutting production expense, maintaining a uniformity of scale, continually introducing a variety of new items complementary to previous issues, devoting careful attention to authenticity, and upholding a standard of quality and excellence that was recognizable and reliable. As a result, Britains became the most prolific and accepted toy soldier maker in the world. In contrast to the figures produced by the Germans, Britains' method of hollow casting allowed enhanced detail and more realistic anatomy. The method not only saved metal, but also reduced shipping costs because the weight of the hollow-cast soldier was less than that of a solid figure. These advantages enabled Britains to undercut the prices of its competitors' imported goods.

The entire enterprise was very Victorian. From the time it was established to the 1940s, each payday involved counting out cash into each employee's hand, and the work week included a half day on Saturday. If a worker was 15 minutes late, he was docked an hour's pay; if more than 15 minutes late, he was sent home without pay. The company fired workers who were repeatedly tardy. However, as documented by an article in *The North London Press* titled "Britains soldiers are ready for 1955 call-up," many employees worked at Britains for 45 to 50 years, and a common means of being hired by Britains was to have relatives already employed there.

Britains made most of its pieces in 1/32nd scale so that a six-foot-tall man was represented by a toy figure just over two inches or 54 mm high. The utility of this consistent size was that compatible additions to a child's army, or to an adult's collection, could be made readily. Britains carefully researched the correct uniforms, drill positions, and historical backgrounds of the models to be produced. Incredible detail was present on the early figures; for example, trouser stripes and medals were often incorporated into the mold itself. Facings, plumes, and other uniform details were almost always represented by Britains more fully than by other companies. Valise packs and Slade-Wallace equipment were depicted on Britains models of the 1890s, and then updated over the years with first webbing equipment and service dress, then battledress, and finally No. 1 dress uniforms. This inventory of correctly costumed British regiments was definitely a factor in successfully competing with foreign-made troops to capture the English toy market. The emphasis on accuracy also benefited Britains by appealing to military history enthusiasts and adult collectors. Not only were the initial figures based on extensive research, but the firm continually tried to refine its products.

Typically, Britains came five or eight to an illustrated box; of course, there were larger, more elaborate Britains sets available, such as an 83-piece display box depicting the ceremony of the Changing of the Guard at Buckingham Palace. These were the toys of boys' dreams, but they also embodied history. It was necessary for the firm to continually conceive of new poses and to represent regiments and types not previously offered. If they had not been able to introduce new lines on a consistent basis over a long period of time, the public would have lost interest or turned to competitors' products.

In the late 19th century and early 20th century, daily newspapers read by an increasingly well-educated public, as well as the early newsreels shown at the new cinemas, focused attention upon current events, including colonial campaigns and clashes in foreign lands. Such news stories were often reflected in the firm's catalog in very short order; examples that come to mind are toy soldiers of Kitchener's reconquest of the Sudan, the Spanish-American War, the Second Boer War, the Russo-Japanese War, the Balkan Wars, and much later Mussolini's invasion of Ethiopia. It was necessary for Britains to research the uniform and to decide on an appropriate pose before designing the molds. For this reason, the company maintained a reference library of books and prints to go to for ideas when designing a new figure.

A frequent source of inspiration for Britains was the work of Richard Simkin, a prolific military artist. Between January 7, 1888, and September 6, 1902, he drew 178 chromolithograph prints depicting every regiment of the British Army along with Yeomanry regiments and many colonial units. They were published monthly in *The Army and Navy Gazette*. Britains based many early figures, such as a 12th Lancer officer turned in the saddle from Set 2169, on the Simkin print of a 5th Lancer officer that inspired it. Similar Simkin print inspirations appeared for the Household Cavalry, Hussar, Dragoon, and Dragoon Guards Officer on a Rearing Horse.

Britains clearly used Simkin's prints as the basis for the Somerset Light Infantry of Set 17, which were standing on guard or kneeling to receive cavalry with fixed bayonets in the classic British square formation. Britains' range extended well beyond the British Empire; its stock included dozens of foreign troops such as Argentine Military Cadets, Danish Guard Hus-

A Gordon Highland Officer (left) and a 12th Lancer Officer.

sars, Montenegrin Infantry, and Zulu Warriors. Britains soldiers carried accurately modeled rifles and served correctly modeled artillery.

The firm also enhanced the appeal of its soldier figures with the artwork done by Fred Whisstock for the box lids of its sets. Battle honors for the British regiment contained in that box were often included as part of a Whisstock label. He designed 150 box labels between 1908 and 1930. Some of his labels were used by Britains as late as 1959 (for example, Set 163, Boy Scout Signallers), but most were replaced by standardized labels such as Armies of the World circa 1933, and then Regiments of All Nations in 1949. This saved the cost of designing an individual label for each set.

Following the death of William Britain Sr. in 1907, the firm was transformed from a proprietorship (William Britain and Sons) to a limited liability corporation whose stock was controlled primarily by members of the family. A Paris office was established from 1905 to 1923 (when it was closed "for failure to run properly"). Exports to Europe, the British Colonies and Dominions, and the United States increased greatly. World War I diverted most of the firm's efforts to making shrapnel, but Britains only completely shut down toy production for a little over a year from late 1917 to 1918. A few of the mechanical toys that had been the initial focus of the firm still appeared in the 1915 Britains catalog but ceased to be made shortly thereafter.

A second factory on Sutherland Road in Walthamstow in East London was built in the late 1920s, and a 1929 article titled "A Record of Achievement" in the *Toy Trader* magazine reported that more than 20 million models a year were being produced by a trained staff of 450 persons. In July 1941, the British government ordered the company to suspend the production of toys and concentrate solely on making munitions parts, such as grenade pins.

The company distributed its first postwar catalog in December 1945. Limited numbers of sets that had all been available prewar were sold on an export basis as Great Britain desperately needed foreign exchange to pay its debts and to import food.

Rationing ended as the economy improved by the early 1950s. Queen Elizabeth II's coronation in 1953 was the occasion for new Britains sets in No. 1 dress uniform. While production increased and uniforms were modernized, the colors and types of many historical uniforms were maintained; modern artillery and vehicles such as a magnificent model of a Centurion tank were added to the horse-drawn vehicles that continued unchanged in the catalog. The rising cost of lead and the old-fashioned, piecework labor (e.g., hand painting and casting) required to produce the traditional lead figures prompted the firm to turn to plastic instead of lead and to again restrict the sale of lead soldiers to export markets.

The final year for the traditional lead soldiers was 1966, when only 95 sets were listed in the catalog. In 1968 the firm moved the last remaining operations out of Lambton Road after 94 years connected with that location. In the 1970s and later, Britains restarted production of less detailed lead soldiers without the traditional hand painting and casting that had been the hallmark of its earlier years. The firm was sold to a mining conglomerate in 1984 (91 years after making its first toy soldier). It has been sold and resold since, and Britains are manufactured in China today.

Britains models manifest military history and an attention to detail and accuracy that continue to attract collectors decades after their manufacture. These same traits will also appeal to many collectors of militaria. □

Greeks and Persians are locked in mounted hand-to-hand combat in 16th-century artist Jan Brueghel the Elder's painting of the Battle of Issus. Although unrealistic to a certain degree because the participants are shown in medieval armor rather than period dress, the rendering nevertheless captures the fury and chaos of ancient warfare.

UNSTOPPABLE GOD OF WAR
ALEXANDER AT

THOSE RARE QUALITIES that set the extraordinary military commanders apart from the average ones were present in Alexander the Great, wrote the Greek historian Arrian, who drew on the account of Alexander's general, Ptolemy.

Alexander was "most masterly in marshalling an army and in arming and equipping it; and in uplifting his soldiers' spirits and filling them with good hopes, and brushing away anything fearful in dangers by his own want of fear," noted Arrian. "And all that had to be done in uncertainty he did with the utmost daring; he was most skilled in swift anticipation and gripping of his enemy before anyone had time to fear the event."

Alexander III became King of Macedon at the age of 20 in 336 BC upon the assassination of his father, Philip II. In the spring of 334, having spent the last two years settling things in Macedonia and Greece, Alexander set out for the Hellespont to fulfill his father's plan to bring war to the Persians. The undertaking was made possible by the standing army Alexander had inherited from Philip.

The young Macedonian king made sure to include troops from the Greek city-states in his campaign against the sprawling Persian Empire. The patriotic fervor of the Greeks would go a long way toward sustaining them in battles far from their homeland.

Alexander's infantry consisted of 9,000 Pezhetairoi, or Foot Companions, divided into six taxeis of 1,500 men each. They were armed with the small, round shield and sarisa, a pike 12 to14 feet long, and were supported by 3,000 hypaspists, most likely armed as hoplites and divided into three chiliarchies of 1,000 men each.

The Greek states of the League of Corinth sent 7,000 hoplites. They were accompanied by 5,000 mercenaries, probably armed as hoplites; 7,000 light-armed Odrysians, Triballians, and Illyrians; 1,000 Agrianian javelin men; and 1,000 Macedonian and Cretan archers for a total of approximately 32,000 men.

Alexander's cavalry included 1,800 Hetairoi or Companions, a Royal ile, or squadron, of 300, and seven other ilai of 200 or so. They were armed with the traditional cavalry lance, the xyston. The longest cavalry lance was 11.5 feet, and the shortest about 8.5 feet. As a secondary weapon, the horsemen of Alexander's time, both Persian and Greek, favored the kopis, a curved sword, sharpened on the concave edge of the blade, a deadly, cleaver-like cutting weapon.

Thessaly had always been known for its formidable mounted warriors, and Alexander, whose own mount, Bucephalus, came from Thessaly, employed 1,800 Thessalians in eight ilai, probably corresponding to the Hetairoi with respect to organization and arms. From the allied Greek states came 600 heavy cavalry. Diodorus adds 900 Thracian and Paeonian prodromoi, or scouts, used as light cavalry. In all, Alexander led some 5,100 horsemen to Asia.

While Parmenion ferried the army across the Hellespont from Sestos to Abydos in 160 League triremes, Alexander took a ship and his lifelong companion, Hephaestion, to Troy, where they visited the graves of various heroes.

Alexander met the army at Arisbe, marched east to defeat the Persians in bloody hand-to-hand combat at the Granicus River, then turned south and followed the coastline, taking the coastal cities by force or accepting their surrender. The captured cities furnished his army

ISSUS

A vast Persian host arrayed on the banks of the River Pinarus in 333 BC stood astride Alexander the Great's supply line. Anything short of a complete victory for the Macedonians meant certain annihilation.

BY CHARLES HILBERT

with the necessary supplies and denied the Persian fleet a place to land and resupply. Alexander spent the winter of 334 subjugating the various cities of Lycia and Phamphylia and then turned northeast toward Gordion, which he reached in March 333.

The Macedonian king wanted to visit the temple of Jove and see the famous chariot of Gordion. The yoke of this vehicle was tied with an intricate knot, the legend being that whoever could loosen the knot would become the ruler of Asia. Alexander looked at the knot for a minute or two, and then brutally hacked it to pieces in a show of controlled savagery calculated to impress his onlookers that he had indeed fulfilled the legend, that he was indeed the man for the job of ruling Asia, and that anyone who thought otherwise would end up like the knot.

Alexander left Gordion in late July, having waited until the harvest so that the cities along their route, having surrendered or been taken by units sent ahead, would be able to provide them with supply depots. Sometime in August, Alexander reached the Cilician Gates, a pass over the Taurus Mountains into Cilicia. His advance was so rapid and unexpected that upon learning of his

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At the Battle of Granicus in 334 BC, Alexander defeated the forces of the Persian satraps of Asia Minor. Afterward, Alexander captured the coastal cities, which supplied his army while denying the Persian fleet a place to land and resupply.

proximity, the Persian forces, which in fact held a strong position guarding the gates, retreated, as Curtius says, "not brave enough to endure the sight of the enemy." Alexander's reputation had preceded him.

Alexander entered Tarsus in the first week of September 333, and immediately after bathing in the River Cydnus, fell deathly ill, probably a victim of malaria. Around the same time, Darius III marched out of Babylon leading his army in person, his Greek mercenary commander Memnon having died of an illness. While the Persian king headed west to confront the man who had already detached a good part of his empire, Alexander spent the next two months recovering. By the third week of October, after a march of 577 miles, Darius had reached Sochoi on the east side of the Amanus Mountains. A week later Alexander was out of bed and sending Parmenion, with the allied infantry, Greek mercenaries, Thracians, and Thessalian cavalry, to take the town of Issus and continue south along the coast to secure the Beilan Pass, which led into Syria.

Alexander spent the first week of November pacifying western Cilicia. He then returned to Soli and held musical and athletic competitions. His delay was intentional. With winter coming on, Darius could not remain at Sochoi because his army would soon run out of supplies, and resupply was difficult in a region far from the coast with no navigable rivers. He would have to move soon. Alexander knew that Darius had four choices: to attempt the Beilan Pass, which debouches onto the coastal plain 35 miles or so south of Issus where Parmenion was waiting in ambush; hold the pass in the face of Alexander's advance; withdraw eastward; or await the Macedonians in the plains of Syria as long as their supplies held out. Darius, however, was aware of Parmenion and was not about to attempt the Beilan Pass, nor was he about to march back the way he had just come. Alexander advanced to Mallus. He left there on the first day of the second week of November, heading toward Issus, which he reached two days later. There he established a field hospital for the sick and wounded. This seems to indicate that the last thing he expected from Darius was an offensive movement westward. Darius decided to do the last thing his opponent expected.

The ancient accounts suggest that while Alexander took the coast road south, Darius, persuaded by his courtiers that the Macedonians delayed in Cilicia only out of fear of the Persian king and his huge army, left Sochoi and marched north by an inland route through passes in the Amanus Mountains, both armies passing each other in a single night. It is most probable that Alexander did not expect Darius to leave Sochoi in the plains of Syria, a location much more suited to the Persian way of warfare, which relied heavily on cavalry, and was unaware of Darius's northward movement. Surely the Persian king, already hesitating to attempt the Beilan Pass in the face of Parmenion's force, would not have blindly crossed the passes above Issus without certain knowledge of Alexander's whereabouts.

Upon learning of Alexander's position at Issus, Darius left Sochoi heading northwest, intending to come upon the Macedonian rear. He sent his war chest to Damascus with what the Roman historian Curtius calls "a modest guard." All ancient accounts of the Persian army, which numbered as many as 600,000 men, are greatly exaggerated, and this mention of "a modest guard" is our first indication that the army of Darius was probably not much bigger than the Macedonian force. If Darius had had the huge army attributed to him by the ancients, he might have sent his valuables to Damascus with more than "a modest guard." As it was, he did not have the numbers to spare.

On the fourth day of the second week of November, Alexander reached the mile-high pass of the Pillars of Jonah, while at the same time the Persians began crossing the Amanic Gates. The next day Alexander reached Myriandrus, where it rained all night, and the Persians entered Issus, where Alexander had left his sick and wounded. According to Curtius, "All whom by the instigation of the furious Persian nobles with barbarous cruelty having their hands cut off and [their wounds] cauterized, he [Darius] ordered to be led around, so that they should see his troops, and with all having been seen fully, to report to their own king what they

had seen." The next day these pitiable survivors of the Macedonian field hospital arrived in Alexander's camp at Myriandrus, and Darius marched south.

Darius had cut Alexander's line of communication; the Macedonians could not retreat. Since the Persian fleet still dominated the eastern Mediterranean, they could not resupply. Darius had but to hold the line of the Pinarus to ensure victory; he did not have to win the coming battle. He just had to make sure that he did not lose. For the Macedonians and their allies it was a matter of victory or death.

Alexander, finding it hard to believe that Darius was now astride his communications with his whole army, for it might have been just a raid or diversion, sent off some of his Hetairoi in a small ship to reconnoiter the gulf of Issus. It must have taken a few hours for them to sail north and then back to Myriandrus, for when they returned and reported the presence of the Persians, Alexander called his officers together for a pep talk. Alexander reminded the Macedonians how the Persians on multiple occasions had undertaken to conquer their lands, destroy their cities, and violate sacred laws and rights of men and gods, reported Curtius. This time, the tables were turned on the Persians, and the Macedonians should exchange their infertile mountain lands for the rich fields and pastures of the Persians.

It must have been late in the day by then, so Alexander ordered the men to have dinner while he sent ahead some cavalry and archers to secure the southern end of the Pillars of Jonah. When it was dark, he followed with most of the army. It is probable that he left in Myriandrus, to guard the Beilan Pass, the allied Greeks, who are not mentioned in the sources regarding the actual battle, and some cavalry just in case Darius had left a corps behind to attack Alexander's rear. The fact that Darius did not is a further indication of the small size of the Persian army.

At this point, Alexander was probably leading north about 25,000 infantry: 12,000 in the phalanx, 5,000 heavy-armed mercenaries, 7,000 light-armed infantry, and 5,000 cavalry. Darius probably did outnumber Alexander in cavalry and light troops, but the armies were roughly equal in professional heavy infantry, or what Arrian calls hoplites. Both sides were headed for a fateful rendezvous at the River Pinarus; Darius got there first, probably around the time the Macedonians were eating dinner.

The Pinarus is the modern Payas River in Turkey, and Callisthenes describes its course as it bisects the battlefield: "There is at this place an interval not more than four and ten stadia from the sea till to the foothills of the mountain [about 2,800 yards]. Through this extends the aforementioned river at an angle."

From the mouth of the Pinarus upstream for about 500 meters the river bed is bordered by low banks ranging from 1 to 2 meters in height, according to a 20th-century geological survey. For the next 1,000 meters the river is only five to 15 meters wide with steep banks. Farther inland, the banks are extremely steep, but about 2,740 meters from the mouth of the river is a narrow ford. Cavalry could have crossed the Pinarus near its mouth. Where the banks were steep, infantry could have crossed but not cavalry. Where the banks were extremely steep, neither cavalry nor infantry could have crossed, except at the ford.

By midnight, Alexander had reached the Pillars of Jonah, six miles north of Myriandrus. He halted there while the advance guard of cavalry and archers went on to secure the northern end, eight miles south of the Pinarus. Darius had probably spent the day forming his camp, much like the camp of Cyrus the Great as described in Xenophon's *Cyropadeia*: "All the officers had banners over their tents, [the aides] were acquainted with the location of the various officers and were familiar with the banner of each one ... he dug a trench 60 feet wide and 10 deep and encircled the camp with the baggage-wagons of his train like a wall."

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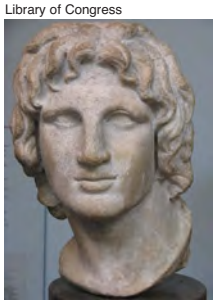


TOP: Macedonian General Ptolemy (left) and Alexander III of Macedon. BELOW: In a war council, Alexander told his generals that they would soon possess the fertile lands of the Persians.

Library of Congress

At dawn on the seventh day of the third week of November, 333 BC, the first units of Alexander's army came down the road leading out of the northern end of the pass. As the Pillars of Jonah Pass is almost a mile high and in places so narrow that only four infantrymen or two horsemen can march abreast, the process of negotiating the entire army through these narrows must have taken half a day, while Alexander's advance scouts ranged far ahead. It was, at first, necessary to march in column for hours. As the northern end of the pass finally fell away behind them and the ground widened, Alexander slowly brought his column into line, one taxeis after another, between the mountain to his right and sea to his left. This must have necessitated many halts and dressing of lines, occupying much of the day. While the Macedonians marched in column, their cavalry followed the infantry. According to Callisthenes' eyewitness account, "As soon as Alexander came into the open fields he set [the army] in order, ordering all of the phalanx to form line, and to make the depth of the phalanx 32 [men], after this in turn to 16, and last, being near the enemy, to 8." It appears that he thinned and lengthened his line of battle, as Plutarch says, to prohibit the Persians from executing an envelopment.

Arrian furnishes more detail: "As into the open space they advanced, he now drew up the army for battle, those first on the right wing toward the mountain, the agema of the foot." This was the Royal Agema of the hypaspists, 1,000 strong, posted on the extreme right, the position of honor. To their left were the rest of the hypaspists, a force of 2,000 led by Nikanor, son of Parmenion. Thus followed, toward the sea, the taxeis of the Pezhetairoi, each bristling with 1,500 sarisai, first that of Koinos, then those of Perdikkos, Amytas, Ptolemy, Meleager, and, on the extreme left, Craterus, in command of the infantry of the left, the position he had occupied at the River Granicus and would once again hold at Gaugamela. Parmenion was in overall command of the left wing and had been ordered to keep his flank against the sea so that the Persians could not get around it. It is clear that Alexander was very concerned that Darius would attempt a double envelopment, and he took every measure to prevent this.

When Alexander's approach was reported to Darius by some of the locals, he sent some of his cavalry and light-armed troops south of the Pinarus to screen the deployment of his infantry pha-

Both: © Johnny Shumate, www.johnnyshumate.com

A Macedonian hoplite (left) and Persian cavalryman as they might have appeared at the Battle of Issus. Paintings by historical illustrator Johnny Shumate.

lanx along the banks of the river. It seems that Darius planned to cover the first 500 yards or so from the river mouth inland with these troops once he had positioned his infantry. Arrian reports: "First of the hoplites the Greeks, the mercenaries, he drew up ... opposite the phalanx of the Macedonians."

Perhaps Darius could see the Macedonians off in the distance, and, surveying the ground south of the Pinarus, drew up his mercenaries in the only place where the Macedonians would be able to attack in a phalanx formation across the dry, rocky bed of the river. Darius might have had about 15,000 Greek mercenaries. To augment this force he added perhaps another 15,000 Persian Kardakes, young nobles, who, according to Arrian, were probably armed as Greek hoplites, but lacking their traditions, training, and discipline. They were stationed on either side of the Greek mercenaries, and a similar formation would be adopted once again at Gaugamela. Arrian says: "The ground received in that place so many men, they drew up in order of battle in a double phalanx." Because of the narrowness of the battlefield, both units of the Persian phalanx must have been 16 ranks deep, twice as deep as Alexander's eight ranks and so equal to Arrian's double phalanx.

To their left, stretching toward the mountains, Curtius tells us, "Aristomedes, the Thessalian, had 20,000 barbarian foot." Arrian mentions 20,000 men to the left of the Persian phalanx. Polybius calls them "peltasts [light-infantry] ... bordering on the mountains." Darius's soldiers covered the north bank of the Pinarus from sea to mountain; however, most of these were light infantry and archers, and of his hoplites only the Greek mercenaries were the equals of the Macedonians. Darius took up his own position, conspicuous in his high, ornate chariot, behind the Greek mercenaries, surrounded by his bodyguard of 3,000 noble Persian knights. To threaten Alexander's right he moved some peltasts, probably across the ford, 3,000 yards from the sea onto the high ground south of the Pinarus.

With his infantry in place, Darius recalled the cavalry and light troops that he had sent across the river to screen his dispositions. He seems to have divided his cavalry equally on both wings but then realized that the rising ground to his left was unsuitable for heavy cavalry. As Curtius tells us, "The horses and horsemen of the Persians were equally heavy, covered as far as their knees with rows of plates." They were armed with two short spears and a sword. Darius then sent most of his cavalry over to his right under the command of Nabarzanes, probably leaving only some light horse somewhere near the narrow ford. Along any part of the northern bank that looked a little too accessible he fixed pointed stakes.

Alexander moved his line forward slowly and methodically, screened by his advanced guard of light cavalry, bowmen, and slingers. When the ground allowed, he brought up the Hetairoi and the Thessalians from column into line and led them to the right. He sent the allied horse to Parmenion on the left.

Although many historians have perpetuated the myth of the triangular cavalry formation, this wedge is the result of mistranslations of the Greek word "embolus" and the Latin word "cuneus." For various common sense reasons the cavalry wedge did not exist in reality, at least not in combat. Alexander used his cavalry like the beak of a trireme. Formed in attack columns they would ram their way through and exploit any opening in his enemy's line.

Polybius relates that horses cannot be drawn up in formation more than eight ranks deep and that between each of the ilai there must be an equal interval in the lines so that the ilai can maneuver. Parmenion perhaps drew up his 600 horse in three ilai of 200, with 25 troopers in each front rank, each taking up two yards of front, so that each ile would be 50 yards wide and 50 deep, each horse and rider in each ile taking up at least six feet. This, with the intervals mentioned by Polybius, would just about cover half of the 500 yards from the sea inland, which on the northern bank of the Pinarus was occupied by Nabarzanes' heavy cavalry.

On the right still moving slowly and although in sight of the enemy far out of missile range, Alexander must have draw up the Hetairoi and Thessalians, each 1,800 strong, in two lines of attack columns in a checkerboard fashion, the

Royal Ile of 300 men roughly 75 yards wide and 50 deep, the other seven ilai of some 200 men each, roughly 50 by 50 yards. Including intervals, the right wing cavalry occupied a frontage of some 800 yards. The Thessalians were probably drawn up to cover the intervals in the first line.

With Darius's screen of light troops and cavalry withdrawn and reposted along the northern bank of the Pinarus, Alexander also repositioned his advanced guard, which had been out in front functioning as a skirmish line. He moved the prodromoi and the Paionians, possibly 900 light horse, to the right in front of the Hetairoi, supporting them with archers and gradually strengthening his right wing for a movement toward the ford. The light horse would be the first across, formed up in small attack columns and supported by the covering fire of the bowmen. The heavy cavalry would follow and take the Persians in their left flank.

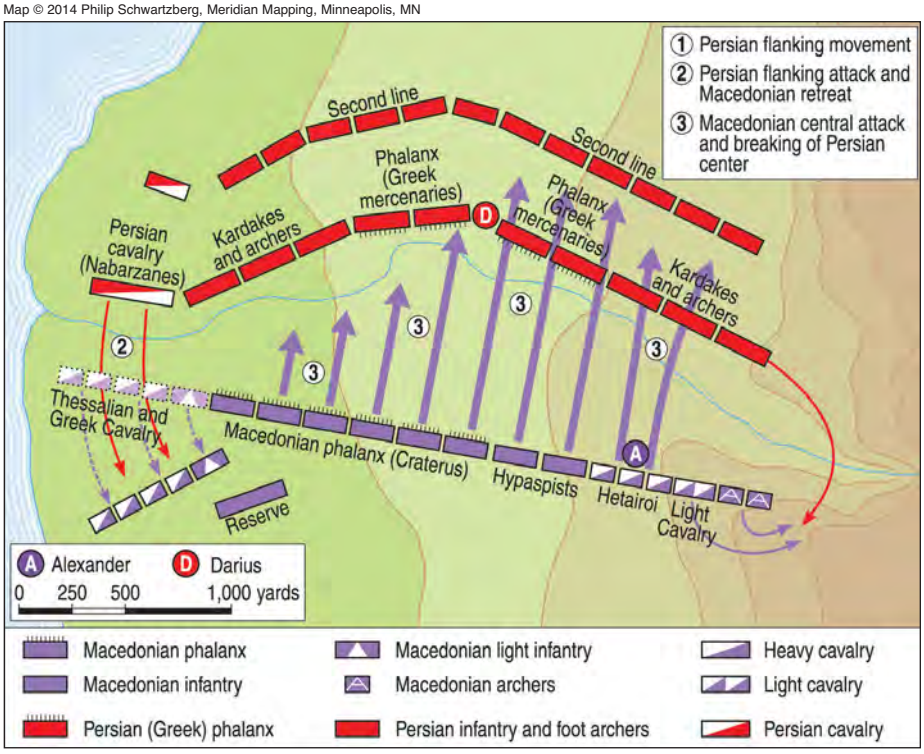
To support Parmenion, Alexander sent the Cretan bowman, at least 500 strong, and Thracian light troops and foreign mercenaries, possibly as many as 2,000, probably armed as hoplites, to extend his infantry line to the left as far as possible. This was yet another precaution against a possible double envelopment by the Persians.

As Alexander slowly advanced toward the river, he also protected his right. Arrian preserves Ptolemy's firsthand account: "He stationed the Agrianians ... some ... horsemen and bowmen, formed at an angle toward the mountain ... so that on his right the phalanx was drawn up separated into two wings, one thus before Darius and all the Persians beyond the river, and the other thus against those formed up on the mountain.... Since those [Persians] drawn up on the mountain did not come down, a sally against them by the Agrianes and ... the bowmen ... repulsed them easily from the foot of the mountain; they fled to the top." These Persian troops were probably peltasts and could do no more than threaten the Macedonian right. They were no match for the aggressive Agrianians.

Alexander further strengthened his right, slowly gathering his forces for a decisive blow. He withdrew two ilai of Hetairoi from the right of the hypaspists and sent them over to the right wing, screened by the light horse and the bowmen where they perhaps drew up behind or on the far right of the rest of the Companions. Still wary of a double envelopment—he could see hordes of Persian light troops across the river—Alexander filled the gap left by the two ilai with the Agrianes and mercenary hoplites who had been out on his right, chasing the Persian light troops up the mountain. Alexander had now secured both his flanks. His infantry line extended to the sea on his left, and he had managed to stretch the right end of his infantry line beyond the Persian left. A small cavalry detachment fixed in place those Persian light troops farther up the mountainside, removing them as a factor in the battle. At that point, his line, from sea to foothills, was probably a bit over a mile and a half long.

The Macedonian line of battle slowly advanced and then halted for some time. Alexander made sure that his army maintained proper formation by riding in front of it and personally dressing the ranks. He was probably accompanied by about a half dozen bodyguards and some of the young sons of noble Macedonians who were his personal attendants. This must have been the last halt before the final advance against the Persians, and both armies must have been out of arrow range, more than 200 yards apart. Arrian records Ptolemy's eyewitness account: "Then Alexander, riding along everywhere, called to his men to be brave, not calling up the leaders alone by name ... but both iliarchs and captains by name and some of the foreign mercenaries, as many as were deemed worthy or well known with respect to some manly deed. And from every side a shout arose not to delay but to fall on the enemy." Alexander, however, restrained them for the moment.

As he slowly proceeded toward his own left, Alexander was riding downhill. At some point, being on higher ground, he must have seen almost the entire Persian cavalry drawn up on his left



After breaking through the Persian left wing, Alexander continued his strong attack by striking the Persians in the flank and rear.

by the sea, with only the Greek allied horse to oppose them. Alexander now realized that the Persian troops on the mountainside were merely a decoy and posed no real threat but that Darius intended to use his numerical superiority in heavy cavalry to break through the Macedonian left and either take the phalanx in flank and push it toward the mountains or in the rear and push it into the river. He ordered the Thessalian horse to ride quickly behind the phalanx and report immediately to Parmenion. It was now about 4:30 PM, and a race against time began as each commander seems to have planned a breakthrough on his opponent's left. The first to accomplish such would surely be the victor.

As soon as he knew that the Thessalians were in position, Alexander must have quickly assumed his station on the right, at the same time ordering the phalanx forward. This is probably when, according to Curtius, "Both sides were in sight, but beyond missile range, when the Persians first raised up a disordered and savage clamor. It was returned by the Macedonians ... echoed by the ridges and vast forests of the mountain." Both sides quickly came within arrow range, about 150 yards between them, and the Persian bowmen let fly a cloud of missiles. Nabarzanes' heavy horse charged

across the river and drove into the Thessalians. Darius, perhaps not fighting a merely defensive battle but alternatively pinning his hopes on a breakthrough on Alexander's left, had struck first, with Nabarzanes leading probably 4,000 heavy cavalry across the shallow estuary of the Pinarus.

It was suicide for cavalry to remain stationary to receive the charge of their opposite number, so the Thessalians must have countercharged. They seem to have gotten the worst of it at first. Curtius mentions "one ilai trampled by the impetus" of the initial Persian charge. Both sides became disordered from the violent shock of the collision. The Thessalians were first to reform and first on the offensive. They crashed into the Persians and, cutting them down, pushed them back.

Ptolemy describes the action on the Macedonian right: "As they came within missile range, those in front of Alexander and Alexander himself, having drawn up on the right, at a run, rushed into the river to drive away the Persians by the swiftness of their approach ... before the bowmen could hurt them." The Persian composite bow has an effective range of 100 to 200 yards; Persian archers were strung out along the northern bank of the Pinarus, and they must have been especially concentrated at the ford, where there was also a small body of Persian horse. Alexander's bowmen now advanced and engaged their opposite numbers in a firefight, while the prodromoi and light horse that Alexander had stationed in front of the Hetairoi charged toward the narrow ford.

This passage, only 30 yards wide, would have permitted the horse to advance in a column four or five abreast. With the Macedonian bowmen providing covering fire, probably from both the western and eastern sides of the ford, the light horse charged into the shallow, rocky streambed through a storm of Persian arrows. On the south side of the river, the path descended steeply into the riverbed, but on the north side it rose more gradually along the flattened river bank.

It must have been a breakneck, adrenalin-pumping ride, first down the precipitous southern bank, through the slippery riverbed, arrows bouncing off breastplates and helmets, men and horses struck, then up the gentle northern slope and out into open order, striking the Persian bowmen and peltasts with javelin and sword. Arrian dryly reports: "Immediately as hand-to-hand combat developed, those of the Persian army ... stationed on the left wing were put to flight." As the Persian light troops and cavalry scattered, pursued by Alexander's light cavalry, the Macedonian king led the Hetairoi across the river in column and then quickly wheeled into line of battle facing the Kardakes on the left of the Persian phalanx. He had probably left the Agrianes and mercenaries in line, facing and fixing in position the Persian light troops directly across the river, with orders to follow, once the ground in front of them had been cleared by the cavalry attack.

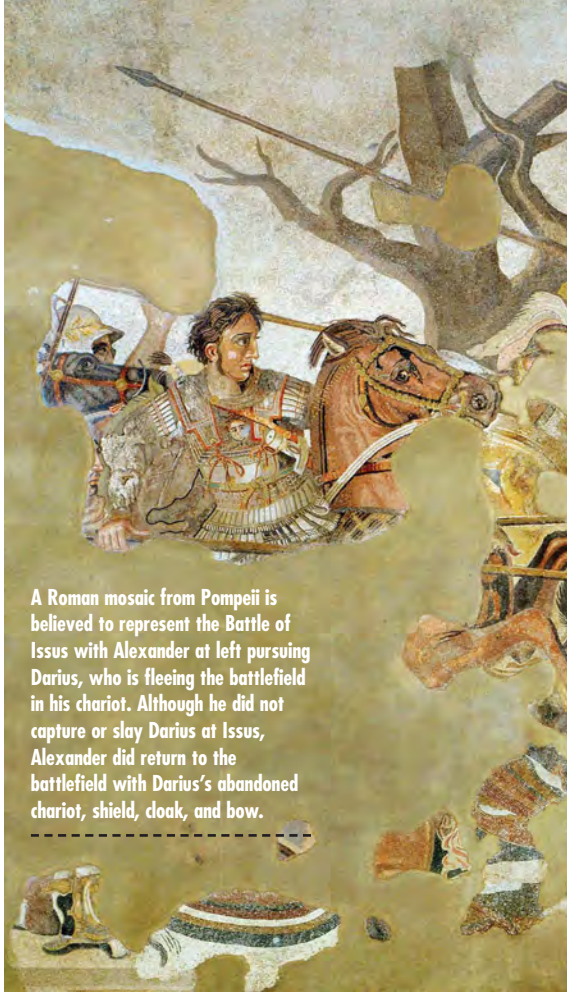
In the center, the taxeis of the Macedonian phalanx were slowly struggling to maintain formation as they crossed the bed of the Pinarus in the teeth of Persian arrows. As they reached the northern bank, the taxeis of Ptolemy became separated by a triangular headland from the taxeis of Amytas to its right. From the high bank, down into the gap, poured Darius's Greek mercenaries, with gravity adding to the momentum of their heavy armor and racial hatred of the Macedonians in whose eyes they were renegades fighting for barbarians against their own kin. They struck the

FACED WITH WHAT MUST HAVE LOOKED LIKE IMMINENT AND UNAVOIDABLE DEATH IN THE FORM OF AN UNBELIEVABLY AGGRESSIVE, SUPERHUMAN, AND EVER CLOSER ALEXANDER, DARIUS WAS PROBABLY CLOSE ENOUGH TO SEE ALEXANDER'S COLD, GRAY EYES BURNING WITH BATTLE MADNESS.

Macedonians' unshielded right sides with sharp, deadly force. Arrian says, "And here fell Ptolemy the son of Seleucus, being a brave man and about 120 of the others of the Macedonians."

The taxeis of Craterus and Meleager to Ptolemy's left were engaged with the Kardakes to the right of the Greek mercenaries; the three taxeis to Ptolemy's right were faced by higher banks and the rest of the Greek mercenaries. A savage battle developed as Darius's Greeks, holding the high ground, stabbed downward at the Macedonians, slipping and sliding as they tried to climb the banks, stabbed upward with their longer sarisai.

On the Macedonian left, the cavalry action continued as the Thessalians were pushed back by Nabarzanes' greater numbers. Supported by the fire of the Cretan bowmen, the Thracian light troops, and with the backing of the mercenary hoplites, they were able to hold their ground. Darius's flank attack was bogged down in a confused action of mixed cavalry and light troops.



A Roman mosaic from Pompeii is believed to represent the Battle of Issus with Alexander at left pursuing Darius, who is fleeing the battlefield in his chariot. Although he did not capture or slay Darius at Issus, Alexander did return to the battlefield with Darius's abandoned chariot, shield, cloak, and bow.

Alexander had won the race. He now led the line of Hetairoi against the left side of the Kardakes posted to the left of Darius's Greek mercenaries. Lacking the discipline of the Greeks or Macedonians and witness to the slaughter and flight of their light troops to their left, it seems that the Kardakes did not wait to receive the charge of the Hetairoi. Their rear ranks melted away and fled into the trackless ravines north of the river, which caused the rest of their phalanx to withdraw in disorder. Facing them across the river were the hypaspists. Now, with the retreat of the Kardakes these troops were able to cross the Pinarus unopposed, and, wheeling to their left, strike Darius's Greek mercenaries on their left side and push them back from the river. This relieved the pressure on the taxeis facing the mercenaries, and they were able to advance.

Alexander now headed straight for Darius, whose 3,000-man mounted bodyguard, led by Darius's brother Oxathres, countercharged the Hetairoi. Both sides crashed together, Oxathres cutting down some of the Macedonians, Alexander receiving a sword wound in the thigh. The Macedonian king had been a fighting man, a warrior, from the age of 16, and he

Naples National Archaeological Museum.

was not afraid to draw attention to himself on the battlefield. He was ostentatiously and conspicuously dressed in the most expensive armor money could buy; his helmet was festooned with plumes and feathers, now all of course spattered with blood and gore.

As he cut his way forward on his great black horse, the animal itself steaming with foamy sweat and the blood of his rider's victims, Alexander must have seemed to Darius, mere yards away, as the unstoppable god of war. The Hetairoi and their king were experts with the cavalry spear, the xyston; they stabbed their noble Persian counterparts in the face or ran them completely through the body, eventually dropping their broken spears and drawing cleaver-like kopides to relentlessly hack their bloody way through the heaving mass of Darius's bodyguard.

Faced with what must have looked like imminent and unavoidable death in the form of an unbelievably aggressive, superhuman, and ever closer Alexander, Darius was probably close enough to see Alexander's cold, gray eyes burning with battle madness. With his left wing completely gone and probably feeling the pressure of the Macedonian phalanx to his front as it pushed back his Greek mercenaries, Darius realized that the battle was lost. He turned his chariot to the rear and left the field.

Nabarzanes, although he seems to have been holding his own, learning of the flight of his king and observing the repulse of Darius's mercenaries also withdrew, possibly in good order and supported by his light troops. In turn, he must have supported what was left of the Greek mercenaries, for they were able to remain in formation and fight their way out of the battle. Eight thousand eventually made it to Tripoli and sailed for Egypt. The rest of the Persians were not so lucky. As they fled headlong, they were pursued by the Thracian light troops, whom Livy calls "the Thracians, not otherwise than wild animals released from long confinement." They were not happy unless they returned from battle "singing ... the heads of enemies fastened upon their spears."

There was now a general rout of the Persians, as the horse of the bodyguard followed the peltasts and Kardakes into the broken ground north of the Pinarus. Alexander, seeing his army victorious, now turned to the pursuit of Darius himself. Darius bounced along as far as the ground allowed until he was forced to trade his chariot for a horse.

Just as the number of Persian troops on the battlefield is impossible to ascertain definitively, so too is it impossible to compute the true numbers of Persian dead and wounded. However, the side that breaks first and offers its back to the enemy sustains the most casualties, so the Persian dead and dying must have littered the ground for miles in and around the ravines north of the Pinarus. The ruthless Thracians must have had a happy, bloody time of it. As for the Macedonians, Curtius reports 450 killed and 4,500 wounded in what was clearly a desperate action for both sides.

Alexander kept up the pursuit as long as daylight lasted, but the battle had started late in the afternoon and Darius had a bit of a head start. However, Alexander did not return empty handed. Ptolemy watched him bring back "the chariot of Darius ... and his shield and cloak and bow." He also captured Darius's camp along with his wife and mother and 3,000 talents. The story of Alexander's chivalrous treatment of his women captives is well known.

As Alexander and his Companions, covered in the dust and blood of battle, marveled at the treasures left by Darius, the Persian king was riding alone through the darkness, headed for the Euphrates and what was left of his empire. Darius and Alexander would meet one last time at Gaugamela, and then Alexander would relentlessly pursue him over the long miles of the Bactrian wilderness until the new ruler of Asia stood over the lifeless body of the last Achaemenid king of Persia. □

With a sharp clatter of machine guns, the Japanese marines announced their presence by spraying bullets into the isolated U.S. Navy radio shack. Eight Americans dropped to the floor in the early morning attack on Kiska Island, pulled the door open, and crawled free into the dense fog. Two others remained behind to burn code books as machine-gun bullets pulverized the radio and shattered the walls of the isolated Aleutian installation.

All 10 of the Navy men were eventually rounded up on the barren, windswept island following the June 7, 1942, attack that came six months to the day after Pearl Harbor. The Americans may have been rudely awakened that morning, but they were not overly surprised. The U.S. base at Dutch Harbor on Unalaska Island, located more than 670 miles to the east, had been attacked June 3-4 by carrier-based Japanese planes. The attacks on Dutch Harbor had created plenty of havoc but did little real damage in the first bombings of North American soil during World War II.

A few hours after the machine-gun attack on Kiska, a component of the Japanese task force steamed into Massacre Bay on Attu, some 175 miles west and the furthermost island in the Aleutians, to discharge another 1,200 troops. With difficulty, the troops made their way over snow-covered passes to take the tiny 41-person village of Chichagof on the island's northeast rim. Soon both Attu and Kiska were firmly in the hands of more than 2,500 crack Japanese troops on the two islands with a sizable naval force patrolling offshore.

The two fog-shrouded islands in the western Aleutians were taken without any real opposition, with only one person killed in the process. Sixty-year-old Foster Jones, who served as a teacher at Chichagof, was shot down as he attempted a dash to a radio set to alert the American military. The emperor's forces quickly created defensive positions and set up antiaircraft guns as men and war matériel continued to swarm onto the beaches in a determined move to maintain the claim.

Alaskan Defense Commander Maj. Gen. Simon Bolivar Buckner Jr., the outspoken son of a Confederate general, had strenuously argued for years that the region was unprepared for war despite Herculean efforts. "We're not even a second-rate team up here," he told Washington. "We are a sandlot club." And that sandlot club consisted of small, isolated Army garrisons, scattered airfields with a few bombers and fighters, and a naval fleet of aging destroyers, submarines, and converted fishing boats. It was tasked with locating the Japanese in the cold, isolated, fog-shrouded Aleutians, strung like black pearls across more than 1,000 miles in the North Pacific.

Before the fighting had died down more than 14 months later, the Americans were to suffer 1,500 killed and 3,400 wounded in the retaking of Attu alone, while the Japanese lost 4,350 killed. Attu was located 650 miles from the major Japanese base at Paramuchiro in the Kurile Islands. Although often overlooked, the Aleutian Islands campaign was to clearly demonstrate America's willingness and ability to muster its forces and focus its industrial and military resources to pry the Japanese from American soil.

The June 3-4, 1942, attacks on Dutch Harbor were seen by many as a diversionary strike by the Japanese in their concerted thrust to take Midway atoll. Because the Americans were secretly reading the Japanese codes, they set a trap at Midway that succeeded well beyond expectations, in part because of flukes in the timing of the American

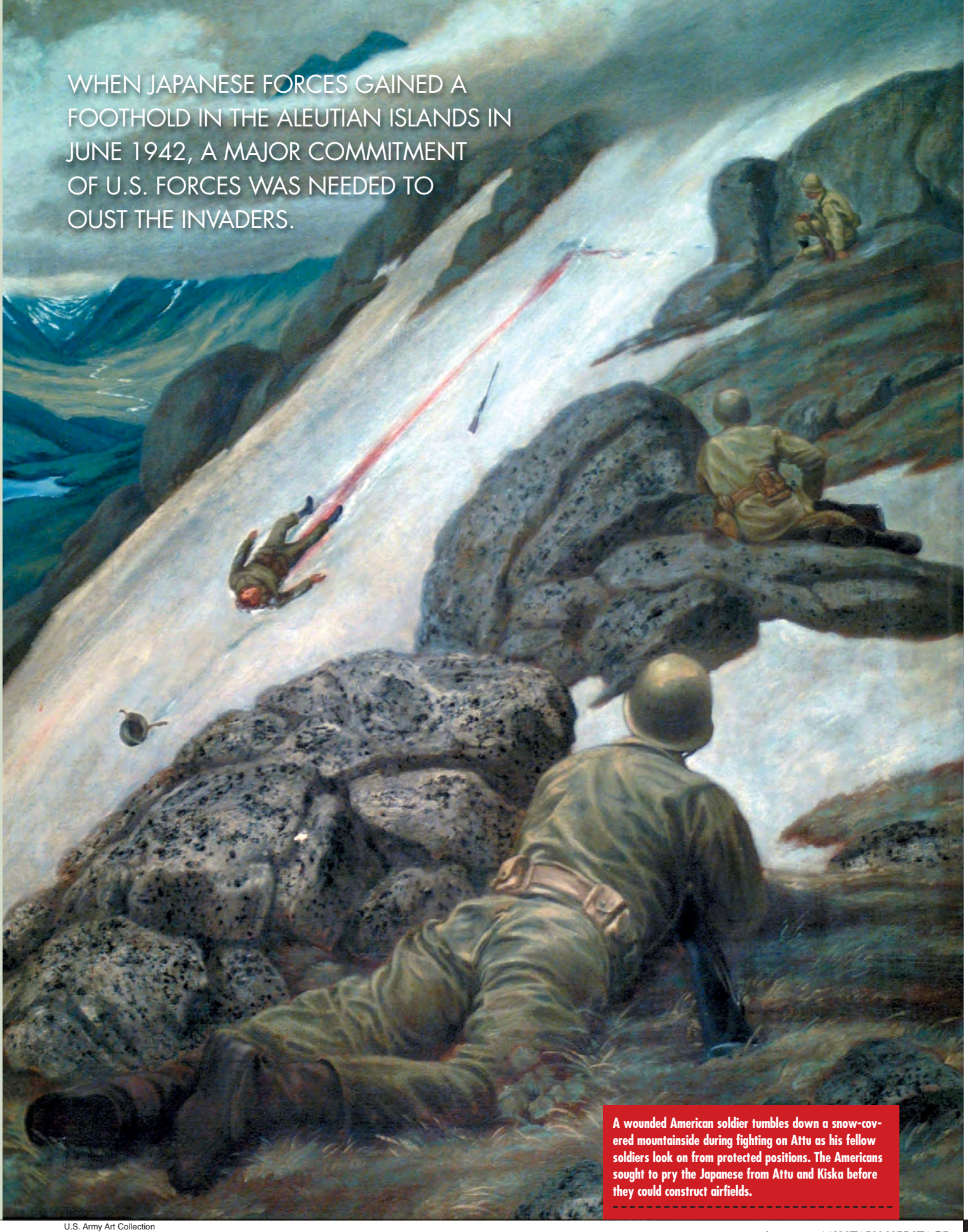
SHOWDOWN IN THE ALEUTIANS

BY PHIL ZIMMER

All Photos: National Archives

Smoke rises from the U.S. naval facility at Dutch Harbor in Alaska's Aleutian Islands following an attack by Japanese carrier-launched torpedo aircraft on June 3, 1942. When Japanese forces occupied Attu and Kiska, it fell to the thin forces of the U.S. Alaska Defense Command to begin the initial counterattack.

WHEN JAPANESE FORCES GAINED A FOOTHOLD IN THE ALEUTIAN ISLANDS IN JUNE 1942, A MAJOR COMMITMENT OF U.S. FORCES WAS NEEDED TO OUST THE INVADERS.



A wounded American soldier tumbles down a snow-covered mountainside during fighting on Attu as his fellow soldiers look on from protected positions. The Americans sought to pry the Japanese from Attu and Kiska before they could construct airfields.

U.S. Army Art Collection

ABOVE: B-25 Mitchell medium bombers fly over islands covered in snow and shrouded in fog to strike at Japanese forces. RIGHT: Maj. Gen. Simon Bolivar Buckner Jr. is shown conferring with U.S. troops on Attu in the early stages of the campaign.

attacks. Admiral Isoroku Yamamoto lost all four aircraft carriers committed at Midway along with more than 325 planes, one third of Japan's combat pilots, and thousands of sailors as Japan suffered its first major naval defeat in several hundred years.

In hindsight, the two aircraft carriers and the planes committed to the strike in the Aleutians might have easily tipped the scales in Yamamoto's favor at Midway. Following Midway, the Japanese were determined to make a statement by maintaining a hold on the western Aleutians and perhaps tying up substantial American forces in the process. It would provide a badly needed victory in the wake of Midway, help protect Japan's northern flank, and perhaps interfere with the flow of Lend-Lease goods to the Soviet Union, thus assisting Axis partner Nazi Germany in its struggle half a world away.

Much of the Aleutian campaign would depend on men like Buckner and U.S. Army Air Forces Colonel William O. Eareckson, an equally bold and innovative thinker who rarely did things by the book. It was Eareckson who directed the American air strikes against the Japanese on Kiska, the closer of the two islands. As the first of the flights approached on June 11, 1942, the well dug in Japanese put their 75mm antiaircraft guns to good use, managing to lay one burst into the open bomb bay doors of the lead aircraft, blowing the Consolidated B-24 Liberator out the air so violently that the two bombers flying abreast were crippled by the explosions. Eareckson personally led the second flight that day, bringing three Boeing B-17 Flying Fortresses in at 3,000 feet, well below Kiska's volcanic peak, and wiggling through tight mountain passes to surprise the enemy from behind. The startled Japanese never found the range as the planes slid in and dropped their sticks of bombs toward the destroyers and cruisers lying at anchor, creating loud explosions but missing the targets.

The U.S. Navy took the next shot at the enemy, thanks to the USS *Gillis,* a seaplane tender serving as the mother ship to 20 Consolidated PBY Catalinas. The crew of the tender had double the usual number of planes to repair, refuel, and rearm at Nazan Bay on Atka.

The Kiska Blitz continued with bombing by both the Army Air Forces and the Navy. The U.S. attacks took their toll as ships were damaged, three large Mavis seaplane bombers were sunk at anchor, and a number of 75mm guns were silenced. The Americans suffered too, with more than half the lumbering PBYs shot down or put out of action within the first three days. The Navy pilots were relentless. The PBYs continued with strikes on the island as the men on the tender worked around the clock servicing planes before they headed back to what the pilots grimly called the "PBY Elimination Center" at Kiska. By June 13, the bone-weary men on the USS *Gillis* had run out of bombs, ammunition, and fuel for the planes, so the tender was ordered away from Atka.

The campaign was now 11 days old with the Japanese in possession of the western portion of the Aleutians, and no American forces were positioned west of Umnak. It was now a Mexican standoff in the cold, fog-shrouded North Pacific. Japan was afraid of an American invasion of the freshly won islands, and the United States was wary of further Japanese advances on American soil.

In the wake of Midway, the Japanese decided to hold their Aleutian islands for a few more months to tie up American forces and then abandon their gains with the arrival of winter. In early June a large Japanese force consisting of four carriers and a sizable fleet of cruisers and destroyers steamed from Paramuchiro to support and resupply the islands.

The resourceful Eareckson and his men now devised what they called dead-reckoning runs to offset the foggy conditions that most often prevailed at Kiska. The American pilots used a compass and stopwatch as they swung by the volcanic peak and dropped their payloads through the cloud cover. Not much damage was done, but the raids delayed construction work on an airfield. Eareckson devised another clever gambit to snare Japanese pilots. He used radar-equipped B-17s to escort newly arrived Lockheed P-38 Lightning fighters to Kiska and then directed the fighters down through the clouds to tangle with enemy bombers before swinging down to attack ground targets. On August 4, 1942, P-38s used a radar assist from a B-17 to dive from the clouds and send two Kawanishi 97 patrol aircraft flaming into the sea.

The Americans were gearing up for a protracted fight and instituted Operation Bingo, the first mass airlift in American military history. Tons of men and matériel were airlifted into Nome, Alaska, which provided a new base for Buckner's men. Nome's airfield eventually became an important staging area for Lend-Lease aircraft headed to the Soviet Union.

Although the tap had been opened and sup-

plies were flowing from America's stateside industrial base, the hardships continued largely unabated for the men in the cold, damp climate of the Aleutians. The Japanese faced the same elements and the continuing American bombardment that cratered and slowed work on the Kiska runway.

By August 1942, the Americans were preparing to springboard into the central Aleutians with a landing on Adak, 275 miles east of Kiska. Colonel Lawrence V. Castner and 37 of his men, who belonged to a commando-style scout unit known as "Castner's Cutthroats," paddled ashore August 28 in the darkness and alighted from rubber rafts. The scouts searched the island in vain for the Japanese and flagged an all-clear the next day. The main body of 4,500 troops landed August 30 in the midst of stormy weather that smashed boats and sent tons on cargo to the bottom. By the end of the day, Buckner's 4th Infantry Regiment was ashore and antiaircraft guns were in position along with heavy construction equipment and units from the 807th Aviation Engineer Battalion.

Looking for the best location for the planned airfield, the engineers settled on a tidal cove that could be relatively easily drained and filled. The engineers plowed ahead, completing the airfield in 10 days rather than the three to four months that had been predicted based on Adak's heavily mountainous terrain. The runway proved to be a fortuitous development for the Americans, bringing them closer to the enemy and eliminating the grueling 1,200-mile roundtrip flight between Umnak and Kiska. On September 14, Eareckson departed Adak for the first time to lead his 12 B-24 Liberators, along with 14 P-38 Lightnings and 14 Bell P-39 Aircobras, on a wave-top strike. In the stunning surprise attack, the Americans sank two ships, damaged three others, put three midget submarines out of commission, silenced a dozen antiaircraft guns, and set a number of shore installations on fire. Seven Japanese interceptor-fighter floatplanes known as Rufes were damaged at anchor, and another five were shot out of the air by American fighters.

Soon the base at Adak was handling tons of incoming supplies each day, and Buckner was considering taking the battle directly to the Japanese homeland. Seabees descended on the island, building an entire city complete with Quonset huts, kitchens, power grids, and roads. It was not an easy process; Seabees were often tied to rafters of buildings they were constructing so they would not be blown off by the fierce Aleutian winds. Throughout the construction, pressure on the enemy was stepped up with Canada's 111th Fighter Squadron joining in the raids on Kiska.

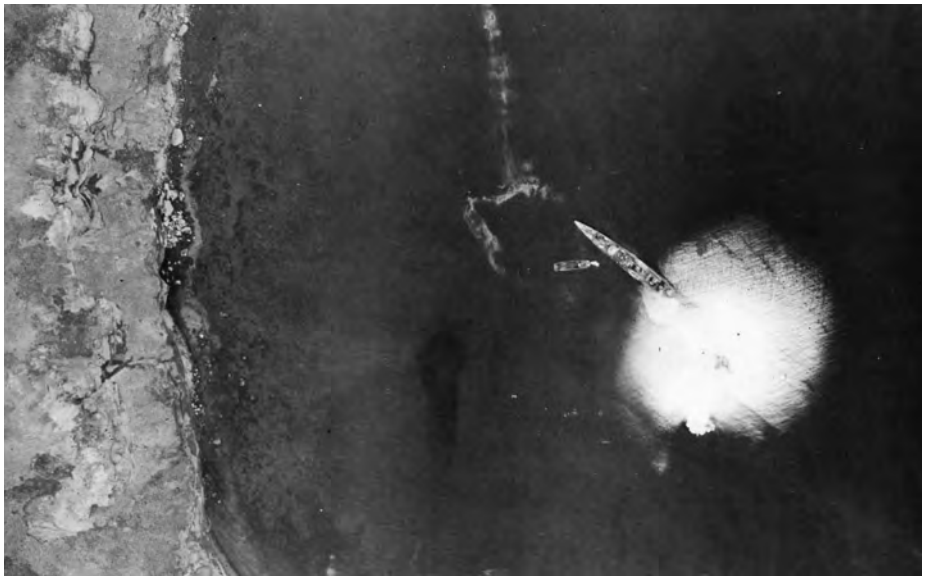
The Japanese did not discover the Adak base until September 30, a full month after the Americans had landed. The few enemy planes that attempted a run at Adak were simply shot out of the sky. With things going badly for the Japanese at Guadalcanal, there were no planes and no additional matériel for the Aleutian effort. The Japanese would need to hold on until winter and then fall back to bases in the Kurile Islands. Meanwhile, the 1,500 Japanese troops on Attu were repositioned to Kiska.

Word came down that the Aleutians would not be abandoned as planned by the Japanese but would be held fast. Plans were afoot to reoccupy Attu with fresh troops and to build a runway

Map © 2014 Philip Schwartzberg, Meridian Mapping, Minneapolis, MN

LEFT: The remote Aleutian Islands stretch for more than 1,000 miles across the northern Pacific Ocean. The nearest Japanese base was located 650 miles away at Paramushiro in the Kurile Islands.

BELOW: A bomb explodes near a Japanese ship anchored at Kiska. The Americans put heavy pressure on Japanese forces at Kiska and Attu with regular bombing runs.



there, too. The Japanese retook Attu on October 29 and were not discovered until two weeks later by the Americans. Eareckson established Attu as an alternate bombing site if Kiska was socked in by bad weather. The Americans continued to put pressure on the two islands with bombing runs that destroyed planes, damaged installations, and delayed construction.

By December 1942, Bucker had some 150,000 troops in the theater. Dutch Harbor was now handling more than 380,000 tons of shipping each month, and a 1,000-mile pipeline brought Canadian oil to Alaska. The new Alcan Highway ran more than 1,500 miles and connected Alaska by land to the continental United States. It served as a vital Lend-Lease link to Russia and brought supplies to Buckner's men.

Interservice squabbles continued, with Buckner at odds over what he believed to be the Navy's reluctance to bring its full resources to bear on the enemy. A shift occurred in January 1943, when Rear Admiral Thomas Kinkaid, a vigorous veteran of several Pacific battles, assumed command of the U.S. North Pacific Force with responsibility for the Aleutians. Kinkaid brought a bold new approach with him. Interservice cooperation improved as the operations shifted to a higher gear.

On his second day in command, Kinkaid ordered full landings to proceed at Amchitka, 75 miles southeast of Kiska, while the Army Air Forces pinned down the enemy with bombing of Attu and Kiska and sank two heavily laden enemy freighters in the process. The Amchitka land-

ings went well, and the Japanese did not spot the American intrusion until January 23, 1943, when they began bombing runs known as the Amchitka Express. The Japanese air raids, which consisted for the most part of attacks by two aircraft, lasted several weeks but did little damage.

When the Seabees completed the runway at Amchitka, Colonel Jack Chennault, son of General Claire Chennault, the legendary founder of China's Flying Tigers, brought a flight of Curtiss P-40 Warhawks to the new strip. When two Japanese floatplanes took flight on January 29 from Kiska, Chennault's men shot them from the sky. The Japanese air attacks became sporadic after that, largely because they had so few airworthy planes left. Ten P-38s joined the party at Amchitka, along with North American B-25 Mitchell and Martin B-26 Marauder medium bombers and a PBY tender. By the end of March, Amchitka airfield had been extended and the veteran 36th Bombardment Squadron and its heavy bombers joined the others as the Americans stepped up bombing and laid plans to establish a naval blockade of Kiska and Attu.

Rear Admiral Charles McMorris had only four destroyers and the cruisers USS *Richmond,* his flagship, and USS *Salt Lake City* to enforce the blockade. Reviewing his options, he decided to shell Japanese positions at Chichagof on Attu before steaming farther westward to intercept Japanese convoys before they neared the two Japanese-held islands. The Americans intercepted and sank a 3,000-ton supply vessel en route to Attu, which compelled two other Japanese ships departing the Kurile Islands to turn back.

By moving westward to Amchitka the Americans had raised the stakes. By January 1943, they had a clear advantage in planes, bombs, and men. Finishing the runways on Attu and Kiska would be an option for the Japanese, but using warships or submarines to attack the extended American supply lines was ruled out. The Japanese did not have large surface ships available, and they stood firm in their belief that submarines should be limited to running supplies to outposts or attacking American warships.

Japanese headquarters prodded the estimated 8,000 men on Kiska and the 1,000 on Attu to redouble their efforts to complete the airfields, even as they were hampered by continued American bombing and the lack of construction equipment. The situation worsened as the Americans tightened their hold, continued the bombing, and downed more enemy planes. One Japanese transport ship with three bulldozers aboard managed to squeak into Attu's harbor only to be sunk before the eyes of the construction workers. A few supply ships did make it through, but others were turned back by the American blockade.

At that point, the Japanese decided to commit more forces. Admiral Boshiro Hosogaya would take his Northern Force consisting of four destroyers and four cruisers, along with three heavily loaded transports, and blast his way if necessary from the Kurile Islands to the Aleutians. In the Battle of the Komadorski Islands, fought March 27, 1943, the Japanese damaged the aging USS *Salt Lake City,* rendering it dead in the water. The aggressive McMorris called for a smoke screen to protect the venerable ship and ordered three destroyers forward to attack the larger enemy ships. As the USS *Monaghan* and USS *Coghlan* closed to within 9,000-yards of the cruiser *Nachi,* the Japanese flagship turned tail as American salvos followed it. *Salt Lake City* managed to get under power as the Japanese disappeared over the horizon. The Japanese Navy had been forced from the scene, and no further convoys were to reach the Aleutians.

The Americans had decided by January 1943 to take Kiska with an amphibious landing force using Army troops. The brass ignored the advice of Alaskan veterans, who called for a comparatively light-footed, fast-moving infantry force over a traditional, heavily equipped unit on the island's soggy surface. They did accept one crucial piece of advice from the Aleutian veterans: the 4th Infantry Regiment and the National Guard units already in Alaska were too depleted and too small to accomplish the mission.

The U.S. military designated the Army's 7th Motorized Division, at the time in desert training in California, as the unit for the job. The planned move against Kiska was just three months away, so the division faced a challenging transformation from a desert warfare motorized division to a light infantry division equipped and trained for amphibious landings in the cold, windswept Aleutians. In the process, the unit's motorized equipment was withdrawn, and it was designated the 7th Infantry Division.

Veterans of the Aleutian campaign were able to convince the planners that 75mm pack howitzers should be included with the heavier 105mm howitzers. Equipment and supplies would need to be manhandled over Kiska's muskeg, making motorized travel questionable at best. American ships were in short supply as the Allies were making preparations to land in Sicily and the Solomon Islands. That shortfall prompted the American planners to focus instead on attacking Attu, 175 miles west of Kiska and with only an estimated 500 defenders. The landings on Attu were given the go-ahead, and training of the 10,000-man 7th Infantry Division began in California at San Diego and Fort Ord.

Strained relations continued between the leaders in California and the Aleutian veterans. Maj. Gen. Albert E. Brown, commander of the 7th Infantry Division, rejected the idea of a personal reconnaissance of the Aleutians. When one of Buckner's staff pointed out that all three military branches had poor maps with different coordinates, nothing was done to correct the problem. A large 90mm antiaircraft regiment

was added to the growing landing force despite Eareckson's contention that the Navy's own antiaircraft batteries were sufficient. Worse yet, the men were not issued proper clothing or boots for the wet, soggy conditions they would encounter in the western Aleutians. Compounding the problems were recent reconnaissance photos that revealed some 1,600 Japanese on Attu, more than three times the previous estimate. That prompted the Americans to plan on putting the entire 7th Infantry Division ashore rather than 2,500 as previously planned. Additional transport craft would need to be scrounged in short order.

A new round of photos showed that the Japanese had 2,500 men on Attu. Planning proceeded, with heavy gunfire to be provided by the battleships USS *Nevada*, *Idaho*, and *Pennsylvania*. Nineteen destroyers, six cruisers, and an escort aircraft carrier would round out the task force.

As late as May 2, 1943, other plans for the invasion were being seriously considered. U.S. strategists agreed on a fairly complicated plan.

National Archives

The Southern Force, under Colonel Edward P. Earle, was to land at Massacre Bay in the southeast, and the Northern Force, under Lt. Col. Albert V. Hartl, was to land three miles north of the main Japanese camp at the western edge of Holtz Bay. The Northern Force was to clear the western section of Holtz Bay, take the high ground along Moore Ridge, and link up with the Southern Force as it pushed north over the crucial Jarmin Pass that connected Massacre Bay and Holtz Bay.

The forces then would complete the capture of the Holtz Bay area and the valley to the southeast. A well-trained and heavily armed scout unit under Captain William H. Willoughby was to land along the north shore west of Holtz Bay and attack east toward an enemy battery at the head of the west arm of the bay. That enemy battery would be forced to turn and fight to the west, weakening its set

ABOVE: Pushing inland on Attu, Americans had to pry Japanese soldiers from dugouts in the bleak, snow covered-mountains. LEFT: A Japanese soldier killed in heavy fighting at Holtz Bay on the north shore of Attu. OPPOSITE: Colonel Yasuyo Yamasaki did not contest the landings at Attu in May 1943; instead, he ordered his 2,300 troops to establish strong positions in the mountains from which they could fire down on the Americans. Pictured are U.S. troops at Massacre Bay.

position overlooking the bay. Another small unit was to land at Alexei Point, east of Massacre Bay, to cover the back of the Southern Force as it advanced north toward Jarmin Pass. A reserve unit would wait aboard ship.

Despite the news blackout, the Japanese learned of the invasion plans as the U.S. task force steamed toward Attu in early May 1943. The Aleutian weather did not help, pushing the attack back from May 7 to May 11. Colonel Yasuyo Yamasaki realized he could not defend every inch of the 345-square-mile island, so he pulled his men back from the beaches and into the mountains. He planned to lure the Americans from the beaches and then blast them with mortars and machine guns from the high ground. It would be a delaying action until additional men and matériel could be landed in late May as had been promised by Japanese officials. Despite the cautionary tales from the Aleutian veterans, the leaders of the untried American unit were optimistic that the amphibious landings would go well and most of the fighting would be over within days.

The scout unit landed shortly after 1 AM on May 11, paddling ashore in rubber boats from two surfaced submarines. The scouts started working their way inland toward the snow-covered, 3,000-foot mountains. A few hours later men of the Northern Force began landing with difficulty near Holtz Bay accompanied by a small band of scouts, and by mid-afternoon some 1,500 men were ashore. The largest contingent, led by Brown, was delayed by fog before landing unopposed at 4:20 PM. By 5 PM, the Americans had secured all three beaches without a shot being fired.

Once the American heavy guns began landing at Massacre Bay, the tractors pulling the 105mm howitzers broke through the tundra and began spinning wildly in the black mud, just as the Aleutian veterans had cautioned. As the infantry advanced from the bay, sniper fire and enemy mortars rained down on the Americans. The Japanese harassing fire continued for the next five days as the Americans struggled forward against the heavily entrenched enemy. The Japanese were well positioned above Massacre Bay, commanding the heights near Jarmin Pass and along neighboring ridges. Continuing Japanese fire from the ridgelines along both flanks and in front brought the American advance to a halt about 600 yards short of the pass.

The Northern Force also found the going difficult and was stopped a half mile from the hilltop that dominated Holtz Valley. By 10 PM that first day, the Americans had more than 3,900 men ashore including about 2,000 at Massacre Bay, 1,500 north of Holtz Bay, and the scouts to the west.

The next day, May 12, the USS *Nevada* opened fire, lobbing 14-inch shells into enemy positions above Massacre Bay. The heavy shelling proved deadly effective as evidenced by the mangled equipment and torn bodies of Japanese soldiers that tumbled off the mountain. The tenacious enemy was well entrenched, and confusion on the beach delayed the movement of supplies to the troops fighting above the bay. The Americans pressed forward despite heavy enemy rifle, machine-gun, and mortar fire. They managed to get to within 200 yards of the mouth of Jarmin Pass on May 13 before being forced back to their starting point some 600 yards short of the pass. The Southern Force made five successive attempts to take the pass but the units were pushed back.

A frustrated Brown called on his auxiliary troops for the fray above Massacre Bay and requested additional troops from Buckner's men on Adak. Confusion on the landing beach had not been resolved at Massacre Bay, and static and the chaos of battle had interrupted communications with Navy officials aboard ships off the coast. The Army was blaming the Navy, and the Navy blaming the Army for missteps in the battle that was to have been won in a matter of days. Brown was relieved, and Maj. Gen. Eugene M. Landrum, former commander on Adak, took charge on May 17 of all forces on Attu. Colonel Lawrence Castner of the Alaska Defense Command became Landrum's deputy chief of staff.

Incredibly, during the first five days of fighting no contact had existed between the two U.S. main forces. Each knew the other had landed, but they had no detailed information beyond that. On the afternoon of May 16, the Northern Force had seized the high ground on the western section of Holtz Bay that dominated the main Japanese base. The Japanese moved to the eastern arm of the bay, exposing their forces at Jarmin Pass to the prospect of being taken from the rear by the advance of the American Northern Force. During the night of May 16-17, the Japanese commander pulled his troops from the left flank of the Southern Force to behind Jarmin Pass in the direction of Chichagof. In the process, he strengthened the defensive positions around Clevesy Pass that also led toward Chichagof. By May, 18 the Northern and Southern Forces had linked up, ending the fight for Jarmin Pass.

The struggle to capture Clevesy Pass and the new principal Japanese base at Chichagof had begun. The plans now called for the Southern Force to take Clevesy Pass while the Northern Force fully cleared the eastern arm of Holtz Bay and then advanced toward Chichagof along the northern slope of Prendergast Ridge. It took three days of fierce fighting before Clevesy Pass was cleared and the Northern Force had reached the halfway point along the ridge on its way to Chichagof.

Intelligence revealed that the Japanese might land reinforcements, so the 1st Battalion, 17th Infantry Regiment was tasked with setting up a strong defensive position at Holtz Bay. Reinforcements never did reach Attu, and it is still not certain if they ever even set sail for the embattled island. A flight of 10 low-flying planes did appear on May 22 and launched 12 torpedoes, which missed their marks on the cruiser USS *Charleston* and the destroyer USS *Phelps* off Massacre Bay. Sixteen heavy bombers appeared the same day off Chichagof Harbor. P-38s arrived on the scene, and they fled, but not before nine Japanese bombers were reported shot down. With the exception of these two abortive air attacks, the Japanese forces on Attu were to receive no outside assistance.

The Southern Force took heavy fire as it moved toward Sarana Nose on the way to Chichagof. On May 22, the Americans unleashed four batteries of 105mm howitzers, a section of 75mm pack howitzers, 23 81mm mortars, 14 37mm guns, and heavy machinegun fire on Sarana Nose. As troops of the 17th and 32nd Infantry Regiments advanced, they discovered that the enemy had moved farther up the hill. Many Japanese were so dazed and shaken that they offered little resistance as the Americans took the hill.

Concurrent with the struggle for Sarana Nose, the 1st Battalion, 4th Infantry Regiment encountered the enemy on the slopes of Prendergast Ridge. The unit called in 105mm howitzer support, driving the enemy from cover so the Americans could take the slope and reach the summit of the ridge. The taking of the ridge and Sarana Nose opened the way for a direct attack toward Chichagof Valley. U.S. forces captured an area at high elevation known as the Fish Hook by May 28 in a methodical advance. For their valor, Companies I and K, 32nd Infantry Regiment received unit citations.

The Japanese had their backs to the sea and were crowded onto a flat area at Chichagof Harbor. The well-armed Americans held the dominating heights around the harbor and had a powerful naval force just offshore. On the night of May 28, for the first time since the beginning of the battle, the Americans had no reserves in place as Landrum prepared to launch his full force against the trapped Japanese on the 29th.

Yamasaki had fought a skillful delaying action over the previous 18 days, giving ground only under substantial pressure and losing some 70 percent of his force in the process. He had lost most of his artillery and much of his supplies in the defense of Holtz Bay. He had also lost hope that the promised help would come from the Kurile Islands, and he was aware of the dire straits of his position. Yamasaki assumed that the powerful force confronting him was prepared to pounce on his bone-tired, battle-weary, undernourished command.

Surrender was not an option for him. A suicidal last stand would be useless and fruitless, and an attempt to infiltrate into the hills would only delay matters for a few days. A surprise counterattack, though, offered a glimmer of success. Using the cover of darkness, he might be able to deploy his remaining force to cut through to the American battery positions on the heights behind Engineer Hill. Those guns could be turned to destroy or capture the main American base at Massacre Bay. It was a long shot. It would result in either victory if it worked or a certain but honorable death if it did not. Yamasaki called his more than 800

men together and planned the attack.

At 3:30 AM on May 29, Yamasaki's men swarmed into a company of Americans as they were withdrawing under orders. The shrieking Japanese struck with bayonets fixed at the outnumbered American unit, throwing it into confusion and sweeping across Sarana Valley toward Clevesy Pass. U.S. combat engineers, cooks, and other service units heard the confusion and sprang to arms. They quickly organized an improvised line on the slopes Engineer Hill.

A small number of Japanese managed to penetrate Clevesy Pass and attack an area in Massacre Valley just short of the American 105 mm howitzers. Some fighting continued there on May 29, but much of the onslaught was defeated in hand-to-hand combat by the engineers. Late on the afternoon of May 30, matters were well in hand with units of the 17th and 32nd Infantry Regiments taking Chichagof Harbor without resistance.

After the battle, reporter Robert Sherrod walked the ground covered by Yamasaki's charge and counted the bodies of more than 800 enemy soldiers. "The results of the Jap fanaticism stagger the imagination," wrote Sherrod. "The very violence of the scene is incomprehensible to the Western mind. Here groups of men had met their self-imposed obligation, to die rather than accept capture, by blowing themselves to bits." He estimated that one in four held a grenade against his head. "Sometimes the grenade split the head in half, leaving the right face on one shoulder, the left face on the other," wrote Sherrod.

One American report notes that a tribute to Yamasaki's garrison lies in the statistics of the Attu campaign. More than 15,000 American soldiers participated in the attack with 549 killed

ABOVE: Realizing that the end was near, Japanese forces on Attu launched a banzai attack on May 29, 1943. Although the attack pierced the front line of the Southern Landing Force, it was contained. Afterward, the Americans mopped up any remaining resistance. LEFT: A dead Japanese soldier in Attu. His bandages indicate he was wounded in previous fighting. OPPOSITE: Americans run for cover as a Japanese sniper fires at them during the Battle of Attu.

in action, 1,148 wounded, and another 2,100 incapacitated. The Americans buried more than 2,350 Japanese with an undetermined number of additional enemy soldiers buried by their own during the fighting. Perhaps the U.S. Army's official history puts it best: "In terms of Japanese destroyed, the cost of taking Attu was second only to Iwo Jima. For every 100 of the enemy on the island, about 71 Americans were killed or wounded."

There were a few benefits to the fight for Attu. The Americans learned valuable lessons about naval gunfire support, mountain operations, unloading transports, and upgrading tactical procedures. The lessons helped save American and Allied lives throughout the remainder of World War II and also in the Korean War.

While the infantry carried much of the weight of the battle, the artillery, Army Air Forces, and Navy played crucial roles by opening the way for the foot soldiers. The combat engineers deserve credit not only for their stand against the final Japanese charge, but also for constructing the airfields and installations that played a vital role in the outcome.

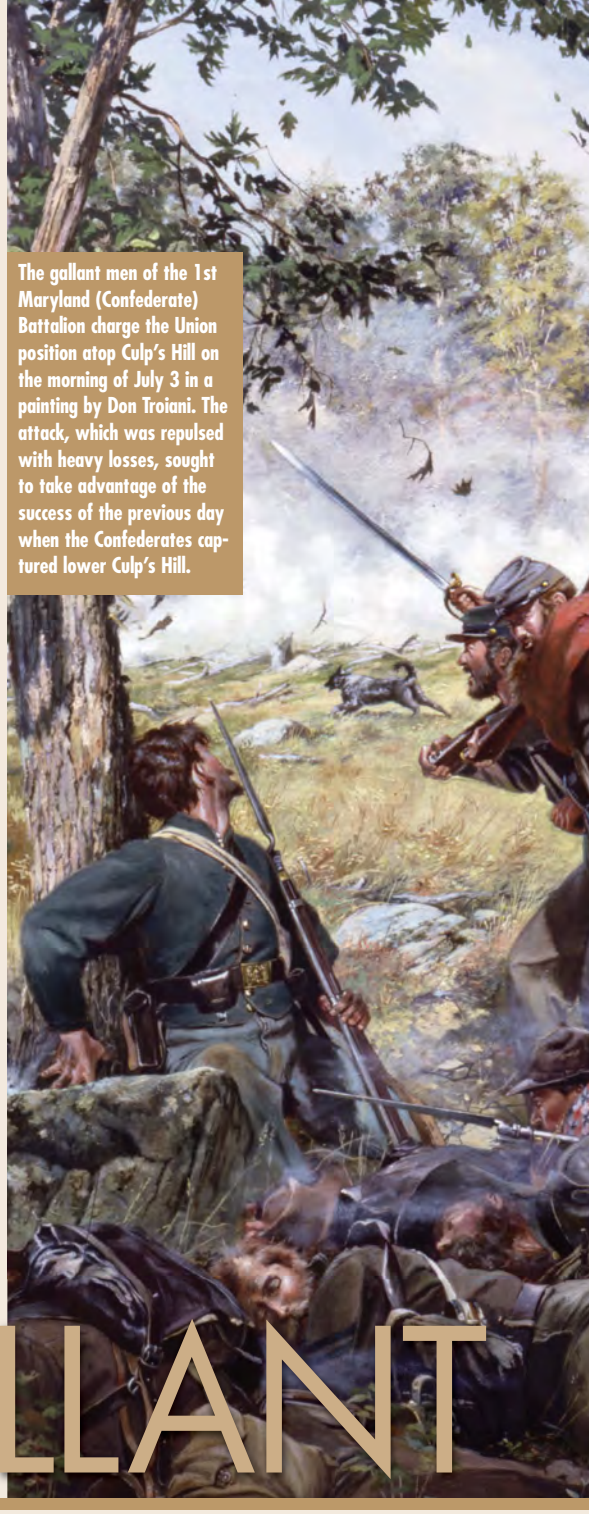
With Attu firmly in American hands, only the fortress at Kiska remained to be taken. The Americans dramatically stepped up the bombing of the island, and on July 26 alone it was hit with more than 200,000 pounds of bombs. The Japanese decided to abandon the island, burning or destroying anything of value, scrawling insults to the Americans, and setting booby traps before the approximately 5,200 defenders departed in late July 1943, aboard Navy ships. The Americans were unaware the enemy had left, and they continued the bombardment from air and sea with one flight even detailed to drop surrender leaflets on the now-deserted island.

There were some suspicions that the Japanese had departed. Buckner and others suggested putting a scout unit ashore to check things out, but Kinkaid made the decision for an all-out invasion of Kiska. Even if the enemy had scampered, he contended, the landings would be excellent for training purposes, perhaps in the eventual need to invade Japan itself. An invasion force of more than 34,000 gathered, including Canadian forces. The troops began landing August 15, 1943, with a doubting Eareckson promising a case of good Scotch to anyone who could find even a single Japanese soldier on the island. His hunch proved correct, and after combing the island, not one enemy soldier was located, although tons of munitions had been expended and more than 300 casualties incurred in the landings.

The Aleutian campaign gave the United States its first theater-wide victory in World War II. The Japanese were now off North American soil, and their venture into the Western Hemisphere was concluded. From that point forward, the United States and its allies continue their focus on tightening the noose around Japan's home islands. □

"MANY GALLANT

Lieutenant General Richard Ewell's troops tried repeatedly to drive resilient Yankees from the high ground at Culp's Hill on the Union right flank at Gettysburg, but failed each time. **BY KELLY BELL**



The gallant men of the 1st Maryland (Confederate) Battalion charge the Union position atop Culp's Hill on the morning of July 3 in a painting by Don Troiani. The attack, which was repulsed with heavy losses, sought to take advantage of the success of the previous day when the Confederates captured lower Culp's Hill.

RIFLE FLASHES ERUPTED AT INTERVALS ON THE BASE OF THE SLOPE. THE flashes gave away the location of the confederate troops advancing in large numbers in the darkness of the night of July 2, 1863, on the eastern side of Culp's Hill southeast of the town of Gettysburg. The 4,000 Rebels in three brigades belonged to Maj. Gen. Edward "Allegheny" Johnson's division of soldiers hailing from the Old Dominion.

Waiting for their attack on the eastern slopes of the key position on the extreme right of the Union Army of the Potomac was a solitary brigade that belonged to Maj. Gen. Henry Slocum's XII Corps led by one of the oldest officers in the army. The Union Army commander, Maj. Gen. George Meade, had stripped the hill of most of its troops to reinforce other parts of his line, and the 1,300 rifles of Brig. Gen. George Greene's 3rd Brigade of Maj. Gen. Alpheus Williams' First Division braced themselves for the daring night attack.

The Union troops had evened the odds against the superior attacking force by erecting strong breastworks of logs that integrated the large boulders and ledges that dotted the slopes of the hill. Most of the troops would be able to fire through slits in the barricades at the advancing Rebels, which would greatly reduce the likelihood that they would be killed or maimed by the low-velocity bullets and balls aimed at them.

Nevertheless, the weight of the Confederate attack was enough to rattle the nerves of the most seasoned veterans in the blue ranks. Many of the Yankees knew that they were entrusted with holding a crucial part of the Union line. If the Confederates could drive them from their fortified positions, the Rebels could seize control of a portion of the Baltimore Pike, Meade's lifeline to his supply base 20 miles away at Westminster, Maryland. If that occurred, the entire Union army would be forced to fall back south, possibly uncovering Baltimore and putting Lee's army that much closer to the nation's capital. Aware of their solemn duty, Greene's bluecoats put their minds to the task. They steeled their nerves for a firefight in which they were principal actors that came at the close of the second day of a titanic clash on Northern soil midway through the conflict.

The name Gettysburg is seared into the American consciousness as the bloodiest three days in the great republic's history. The battle ended the Confederacy's dream of a separate nation after two years of back-and-forth jousting turned irreversibly against the secession states. Even after all the millions of words that have been written about this battle during ensuing decades there are still aspects of the Gettysburg decision that remain obscure. The struggle for a nondescript promontory called Culp's Hill ranks, for strategic significance, right up there with such legendary chapters as Little Round Top and Pickett's Charge. Being overlooked takes nothing away from the significance of this aspect of the battle.

In the wake of the Union Army's disaster at Chancellorsville under the command of Maj. Gen. "Fighting Joe" Hooker, a campaign that unfolded during the first week of May 1863, the U.S. government replaced Hooker on June 28 with Maj. Gen. George Meade. President Abraham Lincoln and his top military advisers selected Meade, who most recently had led the V Corps at Chancellorsville, because Meade did not scare easily and was able to keep a clear head on the battlefield under pressure. The acerbic Meade lacked the charisma of Maj. Gen. George McClellan, one of the early commanders of the Army of the Potomac, or Hooker, and his appointment to replace Fighting Joe surprised many in the army.

General Robert E. Lee's Confederate Army of Northern Virginia had won a decisive victory over Hooker at the crossroads of Chancellorsville a short distance west of Fredricksburg, Virginia, but the success was tainted by the loss of Confederate Lt. Gen. Thomas "Stonewall" Jackson. Stonewall died of complications from a friendly fire wound received while following up his May 2 flank attack on the Union XI Corps, which won the battle for the South. In the aftermath of the battle, Lee reorganized his army into three corps, with the newly created Confederate II and III Corps commanded by Lt. Gen. Richard "Old Bald Head" Ewell and Lt. Gen. A.P. Hill, respec-

MEN WERE LOST"

tively. General James Longstreet commanded the Confederate I Corps.

Lee decided to follow up the victory at Chancellorsville by invading the North a second time to seize food from the fertile farmlands of Pennsylvania and relieve the pressure on the battle-scarred landscape of northern Virginia. Lee's forces began shifting to the Shenandoah Valley the first week of June in preparation for the invasion. Using the Blue Ridge Mountains as a screen, the infantry marched north unopposed. To ensure the Union army was confused as to the exact location of the Confederates, Lee entrusted Maj. Gen. J.E.B. Stuart with using his superb cavalry to keep Union forces on the east side of the mountains from being able to capture the mountain gaps.

Stuart did that job well, and the 70,000-strong Confederate Army of Northern Virginia finished crossing the Potomac River on or about June 24. Ewell's corps, which formed the vanguard of the Confederate army, fanned out and marched all the way to Carlisle and York, Pennsylvania, by the time Meade took command of the pursuing Army of the Potomac.

Having no notion of the exact whereabouts of Lee's forces, Meade sent Brig. Gen. John Buford's First Division of the Union Cavalry Corps into Pennsylvania to locate Lee's army. Following Buford were three corps forming the vanguard of the Army of the Potomac led by Union I Corps commander Maj. Gen. John Reynolds. On June 30, Buford ran headlong into the middle of the Confederate army moving east when he encountered infantry of Hill's corps on the

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A photo taken after the battle testifies to the strength of the Union position atop Culp's Hill. The Yankees used rocks and logs to construct formidable breastworks.

Chambersburg Pike west of Gettysburg. Buford fired off a dispatch to Reynolds indicating that he had found the main body of Lee's army, and Reynolds immediately ordered his three corps to march to Gettysburg.

The following day, Buford consolidated his command, which was spread out looking for Lee's army, on the ridges west of Gettysburg. Buford planned to have his men, who were armed with various makes of single-shot, breech-loading carbines, fight dismounted. This would force the Confederate infantry commanders to deploy their men from column into line of battle, slowing their advance and revealing their strength.

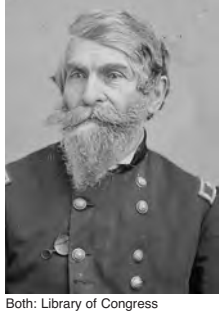
Confederate Maj. Gen. Henry Heth's division of Hill's corps ran into Buford's dismounted troopers about 7:30 AM on July 1. Reynolds had arrived at Gettysburg ahead of his troops that morning, and he and Buford conferred at the Lutheran Seminary near Chambersburg Pike on the west side of Gettysburg. The lead elements of Reynolds' I Corps soon arrived, and the general deployed them on McPherson's Ridge and allowed Buford's cavalry to fall back to new positions around the town in anticipation of the arrival of other Confederate units. By noon, Maj. Gen. Robert Rodes' division of Ewell's corps had arrived and occupied Oak Hill northwest of the town, which endangered the right flank of the Union I Corps. By that time, Reynolds had been killed by a Confederate sharpshooter, and the command of his corps had passed to Maj. Gen. Abner Doubleday, the I Corps' senior division commander.

Federal reinforcements arrived in the nick of time. Having made a forced march to Gettysburg, Maj. Gen. Oliver Howard deployed the bulk of his XI Corps north of Gettysburg to meet Rodes' attack. The arrival of Maj. Gen. Jubal Early's division of Ewell's corps via roads leading into the town from the northeast put it astride Howard's right flank. The unlucky Howard, whose corps had been smashed by Jackson, was once again whipped by the Confederates under Early. Early's division proceeded to roll up Howard's line. Howard's men fled south through the streets of Gettysburg toward the safety of Cemetery Hill. With Howard's corps routed, Doubleday's infantry soon found Confederate infantry attacking them from the rear, and they also retreated toward Cemetery Hill. Ewell's third division, under Johnson, soon arrived and deployed on Early's left flank.

Lee arrived on the battlefield while the Union retreat was in progress. To partially offset that command advantage, the Union forces benefitted from the arrival of Union II Corps commander Maj. Gen. Winfield Scott Hancock. When Meade learned of Reynolds' death, he had sent Hancock to take command of the army until he was able to arrive in person at Gettysburg. Hancock immediately began deploying the disorganized Union infantry to receive a Confederate followup attack.

As he went about establishing a strong position at Cemetery Hill, Hancock became anxious over the vulnerability of the right flank. Seeing several limbered batteries belonging to Reynolds retreating from Seminary Ridge toward Cemetery Hill, Hancock shouted for the captain of one of them to come over to him.

The officer Hancock summoned was Captain Greenleaf Stevens, commander of the 5th Maine Battery, I Corps. Hancock, pointing to Culp's Hill, ordered Stevens to deploy his battery of Napoleon 12-pounder cannons on the hill to prevent the enemy from occupying it. Stevens, who believed the thickly wooded summit of Culp's Hill prevented him from unlimbering atop it, decided instead to deploy on a knoll on the west end of the Culp's Hill ridgeline. Stevens' battery was soon shelling the Confederates. The knoll that Stevens chose for his position became known thereafter as Stevens' Knoll.



Confederate Maj. Gen. Edward "Allegheny" Johnson (above) and Union Brig. Gen. George Greene.

Both: Library of Congress

Unfortunately for Stevens, he had no infantry support to prevent enemy sharpshooters from picking off his artillerymen one at a time. Hancock, who soon noted the weakness, at 5 PM ordered Colonel William Robinson, commanding the retreating 1st Brigade (known as the Iron Brigade) of Brig. Gen. James Wadsworth's 1st Division of the I Corps, to march his troops to Culp's Hill, which lay about a half mile southeast of Cemetery Hill.

Cemetery Hill was indeed a formidable position. Rising 100 feet above the terrain over which the Confederates would have to attack, the local burial ground's most visible landmark was its arched brick gatehouse. The northwestern side of the hill was laced with walls and fences that would serve as ready-made breastworks for infantry. Its smooth, unforested top offered an excellent location for artillery.

Just south of Cemetery Hill lay Cemetery Ridge, and east of Cemetery Hill was Culp's Hill. Along with Big Round Top and Little Round Top, which lay south beyond Cemetery Ridge, the high ground south of Gettysburg would serve over the next two days of battle as the Union army's "fishhook" defensive line. The fishhook began at Big Round Top and ran north toward Cemetery Ridge until it curved at Cemetery Hill. Culp's Hill formed the barb of

the fishhook, anchoring the extreme right of the Union positions at Gettysburg.

Culp's Hill was named after farmer Henry Culp, who owned the property in 1863 and who would lose a nephew fighting for the Union in the battle. With its heavily wooded and easily defensible slopes, Culp's Hill was the perfect anchor for the far right of the Union line. Rock Creek flows past Culp's Hill on its east side, and the Baltimore Pike skirts the hill to the southwest.

The rise is actually two hills. The higher, upper hill rises sharply about 180 feet above Rock Creek. About 400 hundred yards south, the lower hill rises 80 feet over the same watercourse. The lower hill slopes south to a swale called Spangler's Meadow, which contains Spangler's Spring. A saddle-shaped ridge connects the two elevations.

Hancock also ordered Colonel Ira Grover's 7th Indiana Infantry, 2nd Division, I Corps to join the Iron Brigade on Culp's Hill. Lt. Col. Rufus Dawes' 6th Wisconsin Infantry unloaded entrenching tools from its supply wagon and began entrenching on the upper hill in anticipation of an imminent Rebel attack. Because of the shallow earth, the soldiers were not able to dig deep trenches. Instead, they felled trees and appropriated cordwood stacked by farmers.

Like all of the large hills at Gettysburg, the crest and slopes contained boulders of many shapes and sizes, and the soldiers incorporated them into their construction when possible. To finish off these breastworks, they capped them with head logs. When finished, the soldiers were almost completely protected because they were able to fire at the enemy from a slit between the head log and the part of the breastwork beneath it. This form of entrenching would continue throughout the battle as fresh units were rotated onto Culp's Hill and the line extended the length of the upper and lower hills. No sooner had the Union troops entrenched than Confederate skirmishers began slowly working their way up the western slope of the upper hill.

Johnson had arrayed the bulk of his division on the west bank of Rock Creek. He was under the misconception that the upper hill was unoccupied. After nightfall his scouts blundered into the 7th Indiana, precipitating a flurry of rifle fire in the darkness. The Rebels scurried back downhill to report the Yankee presence to a surprised Johnson.

Just before dusk, Ewell had meticulously studied through a telescope the terrain of Cemetery Hill and the position of the Union troops atop it and decided the position was too strong to be overcome by direct assault. He did, however, realize that by taking Culp's Hill his troops could outflank the Union forces on Cemetery Hill. The problem was that Lee had ordered him to move his command to the opposite end of the Confederate line to guard against Federal thrusts at that sector of the battlefield.

Ewell rode to Lee's bivouac and convinced his superior to allow his corps to remain on the left and secure Culp's Hill. Just after midnight Ewell sent a runner to Johnson with orders to "take possession of the hill if you have not done so already." Johnson had formed a line of battle after dark and sent a reconnaissance party up the taller peak to see if it was unoccupied or lightly held, but it had reported that the Federals were there in force.

Johnson was overestimating the number of Union occupiers and reported inflated figures to Ewell, asking for further orders. The Yankees were being slowly but steadily reinforced, but when Johnson received his first response, they were still too few to have withstood a major assault by Johnson's four brigades. By the time he received confirmation from Ewell late the next morning, the Yankees had absorbed sufficient reinforcements and had thrown up adequate breastworks to withstand the planned assault. The Confederates had wasted a promising opportunity to breach Meade's defensive line.

Lee's final orders to Ewell for July 2 were for Old Bald Head to make a demonstration against Union forces in front of him, and if that demonstration was promising to develop it into a full-scale attack. The position at Culp's Hill was just as important to the survival of the Union army as the two round tops on the opposite end of the battlefield. If Ewell's corps could capture Culp's

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The Confederate II Corps repeatedly attacked Culp's Hill throughout the night of July 2, but failed to dislodge Greene's 3rd Brigade from its nearly impregnable position.

Hill, the Confederates would be able to seize control of the Baltimore Pike on the opposite side. The Baltimore Pike was the best road between Gettysburg and the nearest Union railhead at Westminster, Maryland. Cutting the Baltimore Pike south of Cemetery Hill would likely force Meade to withdraw from the battlefield over roads of poorer quality and seek a new defensive position much farther south.

After a tense night, substantial Union reinforcements arrived at Culp's Hill. Brig. Gen. Alpheus Williams' 1st Division and Brig. Gen. John Geary's 2nd Division of the XII Corps marched up Culp's Hill at 6 AM on July 2. The additional troops allowed the Union army to extend its line from the upper hill to the lower hill.

The Union army was fortunate to have Brig. Gen. George Greene, a civil engineer with extensive experience, leading one of the brigades atop Culp's Hill. He ordered his men to entrench facing east adjacent to Wadsworth's brigade. The 62-year-old Rhode Island native, who had overseen many large construction projects as a civil engineer, had rejoined the army in January 1862 as a colonel of the 60th New York Infantry and subsequently fought at Cedar Mountain, Antietam, and Chancellorsville. Greene personally inspected the construction of the fieldworks to ensure that they were well made and that the troops occupying them could withstand an assault by superior forces.

"Our position and the front were covered with a heavy growth of timber, free from undergrowth,

Library of Congress

A period sketch by Union artist Edwin Forbes fails to capture the stress and confusion along the Union line that occurred as the Confederates sought to breach enemy defenses atop Culp's Hill on the morning of July 3.

with large ledges of rock projecting above the surface," Greene wrote of his brigade's position on the upper hill. "These rocks and trees offered good cover for marksmen. The surface was very steep on our left, diminishing to a gentle slope on our right. By noon on July 2 the full length of Culp's Hill was strongly manned and fortified in anticipation of the pending Confederate assault."

By midday on July 2, the frontline Union defensive positions at Culp's Hill were held by Wadsworth's division of the I Corps on the left of the upper hill facing north, Greene's brigade of the XII Corps facing east, and Brig. Gen. Thomas Kane's brigade of the XII Corps on the lower hill also facing east. Dug in behind these primary positions was a second line comprising the XII Corps brigades of Colonel Charles Candy, Colonel Archibald McDougall, Colonel Silas Colgrove, and Brig. Gen. Henry Lockwood extending from Spangler's Spring through a copse called McAllister's Woods. Lee ordered attacks that morning on both ends of the Yankee line.

It took Ewell until 4 PM to get his troops deployed to support Lt. Gen. James Longstreet's I Corps assault on the Union left. Ewell used the sound of Longstreet's attack to the south as a signal, but instead of sending an infantry charge he limited his demonstration to shelling the Union lines, believing this would suffice to dissuade the Federals from opposing Longstreet.

The demonstration was carried out by Major Joseph Latimer commanding Andrews' artillery battalion of Johnson's division. The battalion comprised four batteries stationed on Benner's Hill, which fired on Union forces on Cemetery Hill and Culp's Hill. As many as 40 Yankee guns on Cemetery Hill soon found the range of the Rebel artillery atop Benner's Hill and shelled it to devastating effect. As his guns were being withdrawn, Latimer was struck and killed by shrapnel. The withdrawal of the Confederate guns deprived Johnson's infantry of artillery support for the remainder of the day.

Ewell's guns atop Benner's Hill did an acceptable job of hammering their target, but this did not convince Meade to sit tight and wait out the barrage. Meade sent the XII Corps south to face Longstreet, which left only Greene's brigade atop Culp's Hill.

Greene extended his line to his right to cover as much of the lower hill as possible, but his small force would be stretched dangerously thin should they be hit by a determined Confederate attack. Greene had kept most of his troops on his left, which meant that those on the right had so much of the breastworks to occupy that they were stationed a foot apart from each other, thus presenting a dangerously thin line against an enemy advancing in multiple ranks. The Confederates, however, were throwing the bulk of their available forces against the Union left and center, not realizing how weakly the right was held.

As darkness gathered at 7 PM, the Rebel pressure on the Union left and center was running out of steam. Realizing this, Ewell belatedly commenced his main infantry assault. Three brigades of Johnson's division prepared to ford Rock Creek and assault the eastern slope of Culp's Hill. The Confederate brigades right to left were led by Brig. Gen. John Jones, Brig. Gen. Francis Nicholls (under the command of Colonel Jesse Williams, replacing Nicholls who had been seriously wounded at Chancellorsville), and Brig. Gen. George "Maryland" Steuart.

Johnson's fourth brigade—Brig. Gen. James Walker's "Stonewall" Brigade—was to follow the other three brigades. But Walker was preoccupied with Union forces stationed east of Culp's Hill and was late to join the attack.

There was still sufficient daylight for Greene to see the magnitude of the attack bearing down on him, and he hurriedly summoned reinforcements from Wadsworth and Howard, whose troops were tightly packed on Cemetery Hill in anticipation of an attack on their front by Early's division. Wadsworth sent three regiments, and Howard sent four regiments. The Union reinforcements came bearing additional ammunition.

Jones had detached one of his six regiments, the 50th Virginia Infantry, to guard Confederate artillery posted on Benner's Hill. The remaining five regiments had to attack up the steepest, heavily forested taller peak of Culp's Hill.

Johnson's three brigades splashed through the shallow waters of Rock Creek and pressed on toward the east slope of Culp's Hill. As the fight developed, Jones struck Greene's left, Williams hit Greene's center, and Steuart attacked Greene's right. As Jones' regiments marched toward Culp's Hill, artillery shells fired by Capt. R.B. Ricketts' 1st Pennsylvania Artillery crashed into their ranks, but the veteran graybacks pressed on despite the whistling of shells overhead.

The main battle line of Jones' brigade sent Greene's skirmishers fleeing up the slope toward the safety of the breastworks. Most of the skirmishers made it, but some cried out in agony when struck by Rebel bullets that filled the air, striking the rocks and trees with audible thuds. Awed Yankees watched as Jones' graybacks arrived on the slopes in force, skillfully loading and firing as they advanced on the breastworks of the upper hill.

Colonel Abel Godard's 60th New York Infantry easily withstood Jones' repeated charges. Godard's men inflicted heavy casualties on the enemy. One of those casualties was Jones.

Seriously wounded, he was carried to a dressing station, leaving his men leaderless. Greene's engineering expertise was a godsend for the Union. "Without breastworks our line would have been swept away in an instant by the hailstorm of bullets and the flood of men," wrote Captain Jesse Jones of the 60th New York.

By this point it was completely dark, but this did the Confederates little good. Williams, who was leading Nicholls' brigade comprising five Louisiana regiments, spent four hours trying to breach the fortifications facing it. In the darkness relatively few men on either side were hit despite the hail of bullets, but the Rebels could not get past Union breastworks manned by the 78th and 102nd New York Infantry Regiments. When their ammunition was exhausted, the Rebels fell back.

Steuart had his troops on the left occupy the empty breastworks on the lower hill and commence a cautious advance through the darkness toward Greene's right flank. When Steuart's men fired on some stray bluecoats they mistook as the main Union body of troops, they betrayed their position to Greene's main force. The Yankees fired a withering barrage into Steuart's densely packed ranks.

Two of Steuart's regiments, the 10th and 23rd Virginia Infantry, managed to outflank the 137th New York Infantry led by Colonel David Ireland. Under extreme pressure, the Empire State troops dropped back to a secondary, southward-facing trench and managed to hold off Steuart's charge. Still, Ireland lost a third of his men in the nocturnal firefight. This spirited defense and the darkness kept Steuart from realizing that the Confederate main objective, the Baltimore Pike, was situated only about 600 yards in front of him. Had the Rebels launched a determined frontal assault in that direction a huge disaster would have befallen the Union forces, but Steuart, unaware of the proximity and vulnerability of this vital target, never advanced in that direction. This pivotal attack would almost certainly have succeeded during daylight, especially considering the close, reinforcing proximity of the 1st Maryland (Confederate) Battalion.

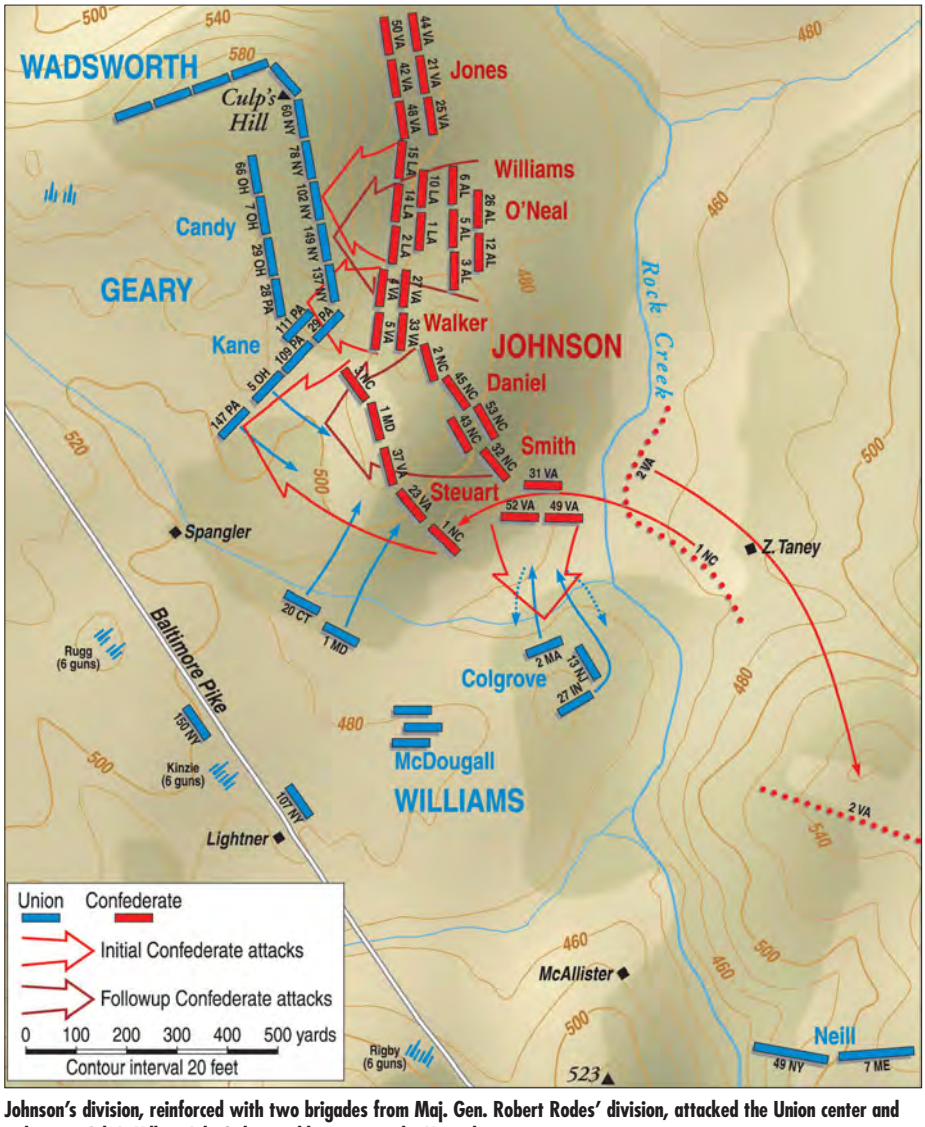
In the confused nighttime encounter, the 1st North Carolina Brigade mistakenly fired on and pinned down the Marylanders. Also, at this point Hancock, who was on Cemetery Ridge and had become alarmed by the sound of a significant clash atop Culp's Hill, sent the 1st Pennsylvania Infantry to reinforce the 137th New York. Nevertheless, the situation was far from secure for the bluecoats on Culp's Hill.

By withdrawing a large number of troops from Culp's Hill, Meade had committed a major blunder that almost cost the Union the war. Taking into consideration the mounting pressure Longstreet's assault was putting on the Union left and that there was little activity around Culp's Hill, Meade repositioned the XII Corps from Culp's Hill to reinforce the left. Two of the XII Corps' brigades marched off Culp's Hill, headed down the Baltimore Pike, got lost, and reached Rock Creek at dusk. In that location, they set up a bivouac to await further orders.

Had the XII Corps' final unit on Culp's Hill, Greene's 3rd Brigade, also departed its positions, Lee's army likely would have won the battle. However, as the brigade was preparing to move out a messenger arrived with news that Confederate troops were advancing in force on Rock Creek and Culp's Hill. Greene ordered his men back into position behind their breastworks and had couriers locate and recall some of the already departed troops. This still left him with too few soldiers to man the lines stretching along the ridge connecting the two sections of Culp's Hill and those extending down to Spangler's Spring. For the moment these breastworks remained empty.

At 7 PM, Greene's 3rd Brigade had hurriedly moved into the vacant trenches, but they were stretched thin trying to man its quarter-mile length. At that point, Steuart sent his infantry forward against Greene's position. The defenders gamely opened fire, but the Confederates' left flank charged the vacated diggings whose defenders had earlier marched off down the Baltimore Pike. After quickly securing these positions, the Rebels assailed Greene's troops on the lower hill, who found themselves under attack from their front and right, as well as from behind a stone wall to their rear.

Ireland, commanding the 137th New York, pulled his troops back to the traverse above the sad-



Johnson's division, reinforced with two brigades from Maj. Gen. Robert Rodes' division, attacked the Union center and right atop Culp's Hill on July 3, but could not pierce the Union line.

dle connecting the upper and lower hills. The gathering darkness aided the Federals as it partially cloaked their movement, but other Union forces on the heights mistook Ireland's maneuver as a retreat and commenced falling back themselves. Realizing the implications, Yankee officers managed to halt what could have turned into a rout.

At that point, the 10th Virginia Infantry occupied the unmanned works on the south slope of the lower hill. Meanwhile, the 61st Ohio and 157th New York, unaware of the 10th Virginia's presence, were advancing on the same point from the opposite direction with the intent of reinforcing Greene. Colliding with the Confederates in the darkness, the Yankees were initially driven back in confusion, but elements of the Union I Corps were trailing the Ohio and New York units and arrived in time to fight the Virginians to a standstill and secure Greene's right flank.

By then the day's fighting on Culp's Hill started to fizzle out. Johnson suspected his foes were anticipating a night attack, so he forbade any further advances before dawn. He did not realize there were no Federal troops between his division and the Union rear on the Baltimore Pike. He did send a scouting party from the 1st Maryland (Confederate) Battalion to check for enemy movements. When these troops returned and reported seeing wagons moving along the pike, Johnson misconstrued this as a Federal retreat. It was actually a supply convoy. He decided to wait for daylight to finish off the Yankees.

Confederates now occupied the captured works and the lower hill from the saddle between the upper and lower hills south toward Spangler's Meadow. Ireland had established a firm defensive line on the upper hill. Far from retreating, as Johnson believed, the Federals used the night hours to move the 71st Pennsylvania Infantry from Cemetery Ridge to reinforce their presence on Culp's Hill. Around midnight, elements of XII Corps tried to return to their vacated diggings on the hill's southeastern slope near Spangler's Spring only to find them occupied by Steuart's Rebels. Williams had assumed command of the Union XII Corps earlier that day when Slocum assumed control of the right wing of the Union army. Williams was unwilling to resume the chaotic nocturnal fighting, so he had the troops bed down in an open field in front of the trench and wait for dawn.

During the early hours of July 3, Williams laid plans to assault the Rebel positions on the lower hill at daybreak. Under cover of darkness he quietly moved artillery into position overlooking Spangler's Meadow in such a way that it could, as soon as it was light enough, fire at virtually point-blank range into the Confederate diggings. Williams shifted his division, at that point led by Brig. Gen. Thomas Ruger, to a position on the southern perimeter of Spangler's Meadow. A brigade of Geary's division set itself up in an east-west line along the tree line bordering Spangler's Lane. Another brigade, commanded by Candy, reinforced Greene's troops. With the Federal attack scheduled for daybreak, the artillery was to open its preliminary barrage at 3:30 AM.

Also during that busy night Walker eventually joined the attack, deploying his troops facing the Federals across Spangler's Meadow. Two additional brigades from Rodes' division of Ewell's corps—led by Brig. Gen. Junius Daniels and Colonel Edward O'Neal—reinforced Johnson's command on the right and center facing the upper hill. Brig. Gen. William "Extra Billy" Smith's brigade of Early's division forded Rock Creek to extend the Confederate left from Spangler's Spring.

Lee's plan for the morning of July 3 was to launch coordinated attacks on Culp's Hill and Cemetery Ridge, but Longstreet could not get his forces deployed in time. The Federals did not wait for him and opened up with their field pieces. One of the 1st Maryland (Confederate) Battalion's officers, Major William Goldsborough, described the shelling: "To add to the horrors of the situation a battery or two opened upon the division at close range, and most of their shells fell among the men of Steuart's brigade, who were compelled to closely hug the ground behind the breastworks for protection. A more terrible fire men were never subjected to, and it was a miracle that any escaped."

Seeing what was happening to his troops Steuart, his face a river of tears, repeatedly sobbed, "My poor boys! My poor boys!"

The Union guns had opened fire promptly at 3:30 AM, inflicting grievous casualties on the graybacks dug in on the lower hill. The shelling did not last long, though, as Lt. Col. Ariel Pardee's 147th Pennsylvania Infantry charged across open ground (which since that day has been known as Pardee's Field) and quickly routed the decimated defenders from behind their stone wall before they could draw beads in the gloom of late predawn. At 4 AM the Yankees to the right also advanced but collided with a furious countercharge by the graybacks facing them, driving the Federals back in disorder. The Rebels attempted to follow up this success by launching several assaults on the northern positions on the upper hill, but each was driven back with heavy losses both from entrenched blue infantry and by fatally accurate shelling from Williams' cannons above Spangler's Meadow. By 6 AM, the Rebels had ruefully broken off their charges up the upper hill.

Library of Congress

"We tried again and again to drive the enemy from their position," wrote Lt. Col. L.H. Salyer of the 50th Virginia Infantry. "But at length we were compelled to fall back, worn down and exhausted. At one time we were within a few feet of their works, but the fire was so heavy we could not stand it."

At this point Williams ordered Colonel Silas Colgrove, commanding Ruger's brigade, to make a reconnaissance foray in front of the Union right. Possibly due to a mix-up in communications, Colgrove instead ordered the 2nd Massachusetts Infantry and 27th Indiana Infantry to launch a direct assault on the Confederate positions facing them. When Lt. Col. Charles Mudge of the 2nd Massachusetts heard the directive, he remarked, "Well, it is murder, but it's the order." He sent his men across 100 yards of open field facing strong defensive positions.

The Massachusetts troops charged straight ahead across Spangler's Meadow while the Hoosiers galloped across the field in a northwesterly direction. Both units were met by blis-

READ MORE ON THE WEB

If Richard Ewell had captured Cemetery Hill on July 1, the fight for Culp's Hill might not have occurred. Read about Ewell's flawed performance on our website:
http://warfarehistorynetwork.com/daily/civil-war/ewell-at-cemetery-hill

Louisianans of Nicholls' brigade exchange fire with Union XII Corps defenders atop Culp's Hill on July 3. Confederate General Robert E. Lee's plan for the morning of July 3 was to launch coordinated attacks on Culp's Hill and Cemetery Ridge, but Longstreet could not get his forces deployed in time and Ewell's attack went forward prematurely.

tering musketry that stopped the 27th Indiana cold after it had traversed about one-third of the field's length. The 2nd Massachusetts made it almost all the way across the field before piling up in front of Confederates who had set themselves up among a line of huge boulders. Both attacking elements were slowed by the meadow's muddy ground, which hampered their mobility and made them easier targets. Also, just as the situation seemingly could not get worse for the blue soldiers, the defenders were reinforced by a brigade of Smith's Virginians. The bluecoats gamely held on until running out of ammunition, and then the survivors fell back. The sole result of this mistaken charge was that these two Union regiments were decimated to the point of uselessness.

Immediately before the charge of the Indiana and Massachusetts regiments, the 1st Maryland (Federal) Potomac Home Brigade under Brig. Gen. Henry Lockwood had advanced at a gallop from the Baltimore Pike to Spangler's Meadow. This inexperienced unit did fairly well versus stout opposition, endangering the rather thinly held Confederate line bordering Pardee Field. However, the Marylanders became confused and halted, thinking they were attacking their own troops when they saw a number of blue soldiers crossing from right to left in front of them. This was actually the ill-fated charge of the 2nd Massachusetts. Lockwood led his men back to the Baltimore Pike, aborting a charge that might well have rolled up the sparsely manned Rebel line.

By 6 AM, both sides had settled into a heavy exchange of musketry between lines that were not widely separated. Two hours later, Johnson commenced a series of attacks all along the battle line. These were beaten back, with the commands of Daniels, Williams, and Steuart taking heavy losses from both small arms and artillery as Greene rotated regiments in and out of the breastworks, enabling them to maintain a high rate of fire. At 10 AM, Johnson launched his final assault with Steuart's brigade charging from the southern border of Pardee's Field. This unfortunate unit again suffered ghastly losses from enfilading artillery fire and riflemen that sent surviving gray soldiers back in disordered retreat. To the right of Steuart's troops, the 1st Maryland (Confederate) Battalion and 3rd North Carolina Infantry advanced through a wooded area that afforded some cover, but these units could only advance as far as the saddle between the upper and lower hills before being stopped cold by Williams' artillery.

The last significant Confederate attack kicked off at 10 AM as the Stonewall Brigade and Daniels' brigade charged Greene's positions from the east while Steuart's brigade advanced across open ground toward the position of Candy's and Kane's brigades on the upper hill, where the Federals had been too busy fighting during the past 24 hours to throw up breastworks. In the face of accurate and well-coordinated artillery and rifle fire, both attacks were beaten off with heavy losses. About this same time, the inexperienced 1st Maryland (Federal) Potomac Home Brigade was bloodily repulsed while trying to take a stone wall traversing the open field parallel to the line of works. Candy hurriedly sent his 147th Pennsylvania Infantry to reinforce the Marylanders, enabling them to carry the field and secure the wall. Yet, the drama continued for the moment.

Williams later described the Confederates' hysterical counterattacks: "The wonder is that the Rebels persisted so long in an attempt that the first half hour must have told them was useless."

Displaying a fanaticism that astounded and horrified the Northerners, Johnson repeatedly sent his eager troops against the stout Union defenses. O'Neal later wrote that his brigade "charged time and again up to their works, but were every time compelled to retire. Many gallant men were lost."

Johnson's division lost about 2,000 men, nearly a third of its complement. Another 800 from reinforcing units fell on that grisly July 3. During July 2 and 3, the Union XII Corps lost approximately 1,000 men. Many more lives would be lost in the months to follow, but the success of Greene's brigade atop Culp's Hill contributed substantially to the eventual end of the bloody Civil War between the North and the South. □

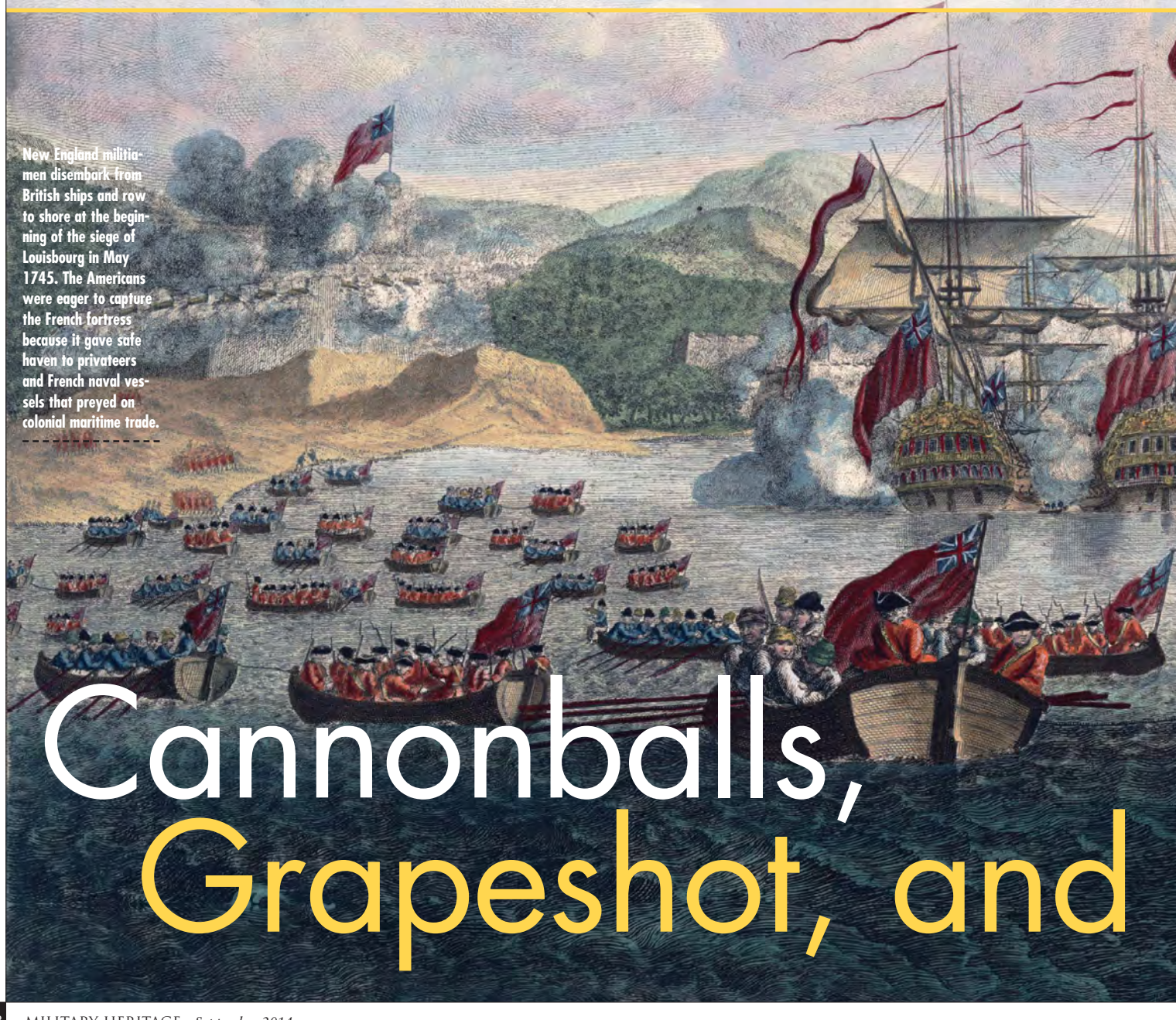
FOR NEARLY A MONTH, 4,000 New England militia aided by the Royal Navy had surrounded the great fortress of Louisbourg, the key to French Canada. Despite its massive stone walls and its heavy artillery, Louisbourg's defense hinged on a smaller stone fortification in its harbor. Thirty guns on the Ile de L'entrée, in what the English called the Island Battery, kept the Royal Navy out of the harbor and menaced the besieging army.

Well after midnight on May 27, 1745, the Island Battery's commander, Charles-Joseph d'Ailleboust, paced the ramparts. It had been quiet at the beginning of the night, but now, a freshening wind lashed the surf against the rocks surrounding the little fortified island. Out of the darkness and over the noise of wind and splashing waves, D'Ailleboust was shocked to hear an English voice shouting for his comrades to give a hearty three cheers. Raising the alarm, the French commander turned out his men. Flashes from cannons and muskets in the fort revealed hundreds of enemy troops. Four hundred militiamen were betting their lives that they could bring an end to the siege of the Fortress of Louisbourg with a single stroke.

Four hundred New England militiamen came to a fortified island in Nova Scotia because of a treaty signed three decades earlier. In 1713, the Treaty of Utrecht ended the War of the Spanish Succession, known in North America as Queen Anne's War. In the treaty, France lost most of Acadia, its colony in eastern Canada (including Prince Edward Island, its settlements in Newfoundland, and the mainland part of modern-day Nova Scotia) to the British.

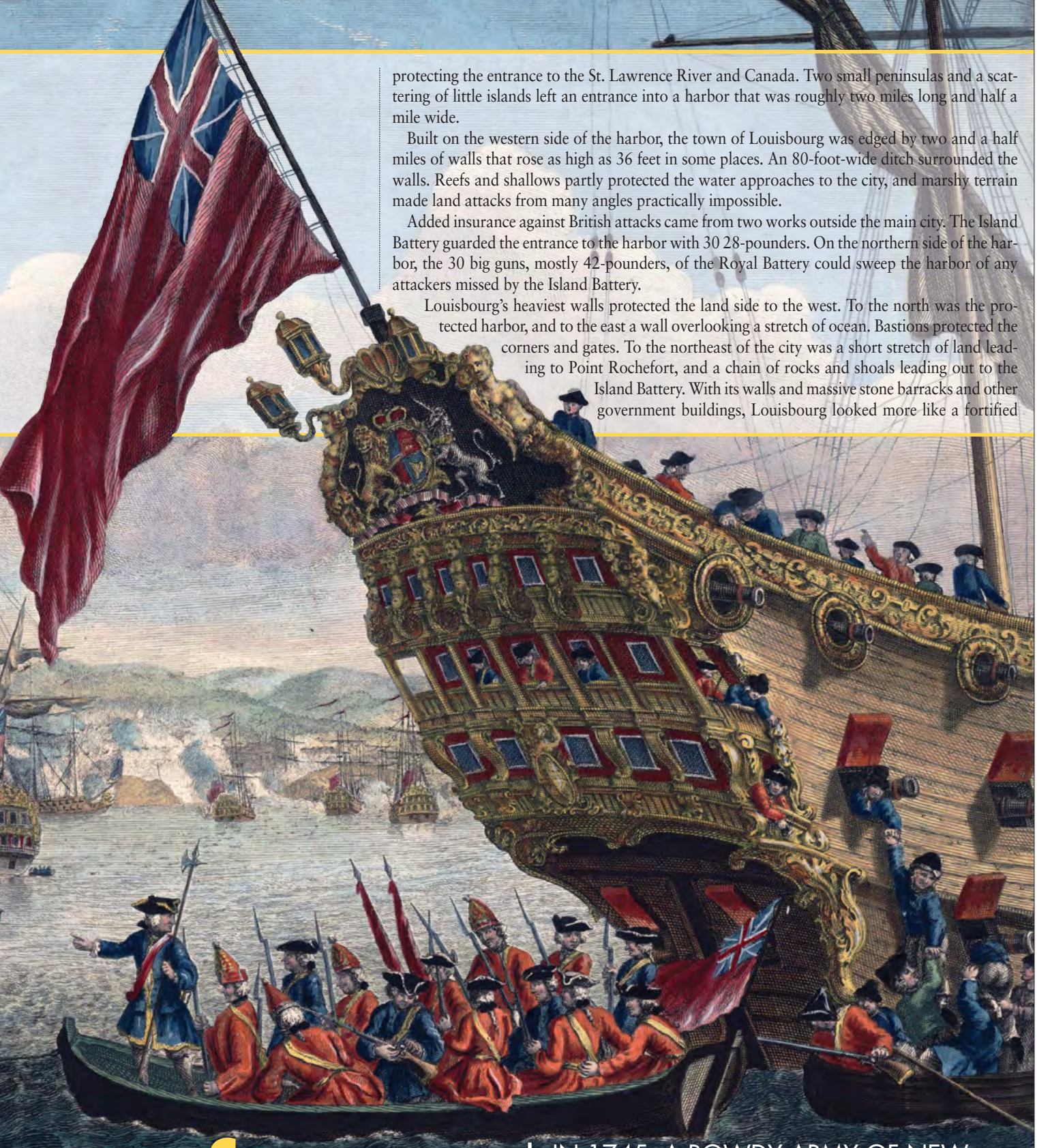
Britain took over Port Royal, the capital of Acadia, and changed its name to Annapolis Royal. France was allowed to keep Cape Breton Island. Today part of the Canadian province of Nova Scotia, Cape Breton's nearly 4,000 square miles were separated from the continent by the narrow Strait of Canso. The French brought in exiled colonists from Prince Edward Island and Newfoundland. To protect Quebec and their other North American possessions, France started the construction of what would become the most formidable citadel in North America: the fortress of Louisbourg.

Louisbourg, on the eastern coast of Cape Breton Island, guarded the St. Lawrence Bay,



New England militiamen disembark from British ships and row to shore at the beginning of the siege of Louisbourg in May 1745. The Americans were eager to capture the French fortress because it gave safe haven to privateers and French naval vessels that preyed on colonial maritime trade.

Cannonballs, Grapeshot, and



Profanity

BY DAVID A. NORRIS

IN 1745, A ROWDY ARMY OF NEW ENGLAND MILITIA SET ITS SIGHTS ON FRENCH-HELD LOUISBOURG, THE MOST FORBIDDING STONE FORTRESS IN NORTH AMERICA.

protecting the entrance to the St. Lawrence River and Canada. Two small peninsulas and a scattering of little islands left an entrance into a harbor that was roughly two miles long and half a mile wide.

Built on the western side of the harbor, the town of Louisbourg was edged by two and a half miles of walls that rose as high as 36 feet in some places. An 80-foot-wide ditch surrounded the walls. Reefs and shallows partly protected the water approaches to the city, and marshy terrain made land attacks from many angles practically impossible.

Added insurance against British attacks came from two works outside the main city. The Island Battery guarded the entrance to the harbor with 30 28-pounders. On the northern side of the harbor, the 30 big guns, mostly 42-pounders, of the Royal Battery could sweep the harbor of any attackers missed by the Island Battery.

Louisbourg's heaviest walls protected the land side to the west. To the north was the protected harbor, and to the east a wall overlooking a stretch of ocean. Bastions protected the corners and gates. To the northeast of the city was a short stretch of land leading to Point Rochefort, and a chain of rocks and shoals leading out to the Island Battery. With its walls and massive stone barracks and other government buildings, Louisbourg looked more like a fortified

European city than a frontier outpost.

Although rather neglected by France, Louisbourg long represented a peril hanging over the British colonies along the Atlantic Seaboard, particularly New England. The harbor nursed privateers and French naval vessels to attack their maritime trade. From the land, French soldiers and agents pushed their Indian allies to attack English frontier settlements.

War came to the New World again in 1739, when Britain and Spain clashed in the War of Jenkins' Ear. Friction between New France and New England flared into King George's War in 1744. A parallel to Europe's wider War of the Austrian Succession, the battlefront of King George's War was the dividing line between the New World empires of Britain and France.

When the new war broke out, Louisbourg had 600 regular soldiers. About 2,000 civilians lived in or near the town, and among them were about 1,400 men serving as militia.

About one quarter of the regulars were from the Régiment de Karrer, a unit of German-speaking Swiss soldiers. Their red uniform coats made them resemble British troops.

At the best of times, life was tedious in the isolation of Louisbourg. The remote town attracted far fewer settlers than the more promising locations of the English colonies farther south on the Atlantic Seaboard. Fog often covered the town and the surrounding waters and countryside. In winter, ships avoided visiting because of storms and drift ice.

The lives of the soldiers in Louisbourg were bleak. Many of them had joined the colors only to avoid prison terms. Pay and treatment were poor. Their straw bedding was replaced once a year and the barracks were so foul that the soldiers preferred to sleep outside except in winter weather.

To supplement their income, officers were allowed to sell wine and food to their men, often at unfair prices. Some officers were more concerned with their farms or mercantile businesses than their units.

France declared war on March 15, 1744, two weeks before England got around to returning the favor. Louisbourg rated far down the list of French concerns and was notified of the declaration of war by a dispatch sent on a merchant ship.

The timing of the declarations of war gave the French a head start. The commander at Louisbourg, Jean-Baptiste-Louis Le Prévost Duquesnel, sent François Du Pont Duvivier to attack the nearest English post, a fort on the Strait of Canso. Duvivier was assigned 350 sailors and French and Swiss troops for the attack.

Canso's main defense was a wooden blockhouse built by the fishermen who inhabited the place. The post's 90 men were commanded by Captain Patrick Heron of Governor Richard Phillips' Regiment (later the 40th Regiment of Foot). Before the French troops landed, two privateer vessels opened fire on the fort. With shot tearing through the walls of the blockhouse, Heron ran outside to wave a white flag. He later claimed that his best course was to surrender early to get more generous terms. Heron and his men were in Louisbourg before the English in Boston knew war had been declared.

Next, the French took aim at a more important target, Annapolis Royal. Led by Major Paul Mascarene, about 100 soldiers held the fort. Long years of neglect had left the fort's earthen walls so eroded by rains that the post's cattle wandered back and forth over them.

Ninety French soldiers and four officers joined by about 400 Indians surrounded Annapolis Royal. Warned that hundreds more troops were coming with two ships, the 64-gun *L'Ardent* and the 50-gun *Caribou,* the French demanded the surrender of the fort.

Mascarene refused the offer, wisely, it turned out. The French ships never joined the attack. Meanwhile, two small vessels brought 50 more men from Boston, sent by Governor William Shirley of Massachusetts. Eventually, the ineffective siege was lifted and the French returned to Louisbourg.

An anonymous French chronicler, the Habitant of Louisbourg, saw the feeble fall campaigns against Canso and Annapolis Royal as the source of disaster. "Perhaps the English would have let us alone had we not first insulted them," he wrote, and "not taken into our heads to waken them from their security."

The Habitant of Louisbourg may have been wrong about New England's intentions. For years, Louisbourg was seen as the "Dunkirk of America," a reference to the French port's history as a haven for French privateers.

Personifying the privateer menace was Pierre Morpain, one of France's most renowned corsairs. During Queen Anne's War, Morpain menaced English shipping in the Caribbean and the North Atlantic. Once he captured a frigate, and in one 10-day cruise he took nine ships and sank four others. Almost 60 years old, Morpain was still around, serving as the port captain of Louisbourg Harbor.

National Portrait Gallery

Massachusetts Governor William Shirley (above) and Royal Navy Captain Sir Peter Warren.

National Maritime Museum

Even before the attacks of 1744, Shirley was suspicious of Louisbourg. He had sent that small reinforcement to Annapolis Royal before he knew of the declaration of war. The governor also wasted no time in bolstering Boston's defenses and sending troops to strengthen the garrisons in Maine. By late 1744, plans were brewing for a colonial campaign against Louisbourg.

Back at Louisbourg, the *L'Ardent* and *Caribou* left to shepherd an East Indian convoy to France. The governor died suddenly in October. His replacement was Louis Du Pont Duchambon. Born in France in 1680, Duchambon had spent a long life of service in Canada. By 1745, Duchambon suffered from health problems, and he had become cautious and indecisive as a commander.

Winter ended active military operations, but grumbling intensified among the garrison troops. It was bad enough to endure poor rations, tolerate low pay, and be cheated by one's officers. Adding to the soldiers' grievances was the failure to pay them some promised prize money for taking Canso.

On December 27, the town was alarmed by the garrison drummers beating a call to arms. There were no English ships on the horizon; the drummers summoned the troops to join a mutiny by the Régiment de Karrer. Nearly all

the enlisted personnel in Louisbourg joined the mutiny and took their officers hostage. Duchambon capitulated and placated the men. The troops went back to their duties, but the officers were never sure of their loyalty again.

At the beginning of 1745, Shirley called a secret session of the General Court of Massachusetts, the colony's administrative and legislative body. At the session, the governor unveiled a plan for sending ships and troops to attack Louisbourg.

The court at first balked at the ambitious and expensive plan. Shirley worked behind the scenes, pointing out that New Englanders would get the supply contracts and officers' commissions. Good news came from Captain Heron and the other Canso prisoners, who returned after the French paroled them. They brought reports that the Louisbourg garrison was mutinous and their food and supplies were running short.

On January 24, 1745, the General Court granted Shirley permission to press on with the attack. Its war motion passed by a single vote; tradition holds that it was only because one delegate who opposed the campaign broke his leg on the way to the session.

Time was of the essence. England, embroiled in Europe, would provide little help for this colonial sideshow. A French fleet was expected to reinforce Louisbourg in the late spring, so the expedition was readied with great speed. New England united to provide troops, supplies, and ships for the campaign, but other colonies were not as threatened by Louisbourg and held back. New York sent some cannons, and Pennsylvania agreed only to contribute some supplies. From Philadelphia, a skeptical Benjamin Franklin wrote his brother in Boston, "Fortified towns are hard nuts to crack, and your teeth have not been accustomed to it…. Some seem to think that forts are as easy taken as snuff."

Shirley also sent a request to Captain Peter Warren of the Royal Navy, who was then in Antigua, to send some ships to join the expedition. Warren was well acquainted with the region. He spent most of his naval career in the Caribbean or North America, and his wife was a Bostonian. When Warren received the request, though, he felt bound to use his ships to defend the West Indies and reluctantly refused.

Shirley chose William Pepperrell, a prominent merchant from Kittery, Maine, to command the expedition. Born in Kittery in 1696, he was the son of a Welsh-born shipbuilding and fishing fleet owner also named William Pepperrell. From humble circumstances, their family attained great wealth dealing in fish, land, and the mercantile trade. Pepperrell was

Archives nationales de l'outre-mer

A period map of Louisbourg shows the fortified town at left, the Island Battery at right, and the Royal Battery at top center. If any enemy ships managed to get past the Island Battery, they would still have to contend with the Royal Battery on the north side of the harbor.

well liked and widely respected in New England. He had served as a militia officer for years, and his career in trade made him well acquainted with his region's people, the frontier, and the sea. For the expedition, he was commissioned a lieutenant general three times over by the colonies of Massachusetts, Connecticut, and New Hampshire.

Pepperell led the largest military expedition so far raised by the British colonies. Not a single British redcoat sailed with him; every man was a colonist. There were approximately 3,000 soldiers from Massachusetts, 500 from Connecticut, 350 from New Hampshire, and a smaller number of Rhode Islanders.

In some eyes, the expedition took on aspects of a crusade. Vehemently Protestant New Englanders saw French-inspired Indian raids as a religious war sparked by Catholic missionaries in Canada. A chaplain for the expedition, Reverend Samuel Moody, announced he was bringing a hatchet to smash the images in the church of Louisbourg.

Most of the force sailed from Boston on March 24. First, the ships would rendezvous near Canso and retake the fort before moving on to Louisbourg. About 90 colonial vessels, mainly schooners, sloops, and fishing smacks, were assembled to carry the troops. Guarding them was a flotilla of armed New England ships. Heading them was the 20-gun frigate *Massachusetts,* under Captain Edward Tyng. The *Caesar* and the *Shirley Galley* also carried 20 guns. The *Prince of Orange* and the *Boston Packet* mounted 16 guns each. Also from Massachusetts were three smaller armed sloops. Three armed vessels came from Rhode Island, one from the colony's government and two hired by Massachusetts, Connecticut, and New Hampshire each sent one armed sloop.

A storm of rain and snow scattered the colonial ships. Sixty-eight vessels pushed through to gather off Canso on April 5. The rest straggled in over the next few days.

Canso was quickly recaptured and fortified, but Louisbourg was safe for the moment. Ships sent to look in on the fortress found the eastern coast of Cape Breton blocked by drift ice. Aboard one of the vessels on April 15, the Reverend Joseph Emerson wrote that the ship was "all day encamped with vast cakes of ice some are judged to be 50 feet thick." The colonial ships stayed out, taking a few prizes bound for the enemy port. The ice was in a way lucky for Pepperrell, as it provided a three-week delay to allow time to drill his untrained army.

Connecticut's troops left New London on April 14, accompanied by the 12-gun Connecticut sloop *Defence* and the 14-gun *Tartar* from Rhode Island. Off Nova Scotia on April 3, they were spotted by the *Renommée,* a 36-gun frigate bound from France with supplies for Louisbourg.

Captain Daniel Fones steered the *Tartar* away from the fleet and toward the intruder. Fones fired his bow chasers and then turned away, provoking the frigate into a chase. French shots severed the Rhode Islanders' jib halyards, but Fones pushed his little ship for hours, leading the frigate

away from the fleet.

The Connecticut vessels reached Canso on April 24 with the news that Fones had sacrificed his ship to save them. At 1 PM the following day, a ship approached and fired five guns in a triumphant flourish. It was Fones and the *Tartar.* The Rhode Islanders had escaped from the French frigate in the darkness two nights earlier.

On April 22, diverted from convoy duty by Warren's orders, the British frigate *Eltham* reached Canso. Warren arrived the next day. With new orders from London, the naval commander gambled that he could leave the Caribbean colonies and join Pepperrell. With Warren were the ship of the line *Superbe* and the frigates *Mermaid* and *Launceton.*

Pairing Warren as sea commander with Pepperrell as the army leader was a stroke of luck. The two were old friends, and Warren had spent considerable time visiting Pepperrell's home in Maine. One thing they shared in common was the idea of putting the British flag over Louisbourg. Back in 1743, Warren recommended such an attack to the British Admiralty. He believed that taking Cape Breton Island and Louisbourg would "be of greater consequence to Great Britain than any other conquest that we may hope to make in a Spanish or French war."

When the ice thinned out, the New Englanders left two companies to guard Canso and moved on to Louisbourg. They reached their destination about 8 AM on April 30 and dropped anchor at a sheltered spot on Gabarus Bay about two and a half miles west of the enemy citadel.

No scouts or messengers had reported the attack on Canso, so Duchambon and the garrison were completely surprised. The city's bells tolled, and guns boomed from the walls to summon the militia from the nearby countryside.

Louisbourg, although formidable in appearance and construction, had dangerous weaknesses. The walls had 148 emplacements for cannons, but many were empty. Perhaps there were as many as 90 big guns on the fortress walls, not counting those in the Royal Battery or Island Battery. The fortress was well situated to repel attack from the sea but was vulnerable to heavy artillery if siege guns were planted on higher ground overlooking the city.

Although the French commander was unwilling to risk sending out his troops, bolder officers pushed for action. Antoine La Poupet de La Boularderie was a former army officer who retired to an inherited estate in Cape Breton. Hearing of the invasion, he traveled in an open boat to the fortress. At Louisbourg, he insisted that Duchambon launch an immediate counterattack. If half the garrison, he thought, fell upon the New Englanders while they were fatigued and disorganized from their landing, the affair could be ended quickly. Morpain, the old privateer, backed the plan for action.

Duchambon finally allowed de La Boularderie and Morpain to lead an attack on the landing party. Too cautious to risk a substantial portion of the garrison, he allotted only 24 soldiers and 50 civilian volunteers. Advancing past the walls, Morpain and de La Boularderie realized that they had underestimated their peril. Hundreds of men were already landed. Confident and well organized, the English colonists turned their muskets on the small French detachment. Once the transports and naval vessels saw the French were attacking, they bombarded them with their cannons.

The French could do nothing but retreat. Left behind was de La Boularderie, who was wounded and captured. Morpain was also wounded and stranded on the field, but one of his slaves rescued him and helped him back into Louisbourg. French losses were only about 16 killed or wounded, but the skirmish was costly in removing two of Duchambon's most decisive and skilled officers. By nightfall, 2,000 of Pepperrell's men were ashore. The rest of the men were landed on May 1.

On the evening of May 2, 400 men marched from camp. They explored the terrain around the fortress and torched some French warehouses filled with naval stores. Winds blew the heavy smoke over the Royal Battery.

Within the walls of the battery, the officers feared a disaster. Much of the rear wall had been torn down for repairs. Now, as smoke from the burning warehouses engulfed the battery, it appeared that they were under a heavy attack. After a hurried plea to Duchambon, the fortress commander granted permission to spike the guns and withdraw to the city.

The gunners departed so quickly that they left their flag flying. The next morning, Colonel William Vaughan and a small reconnaissance party came within sight of the Royal Battery. From above, the outline of the battery was like a chevron, pointing down toward the harbor. Embrasures for the guns pierced the tops of the stone walls, rather like the battlements of a castle. Round turrets at either end flanked the walls. Vaughan noticed that beneath the waving flag no smoke rose from the chimneys of the suspiciously silent fortifications. One of Vaughan's Indian scouts crept up to the walls and found the works utterly deserted.

Vaughan's party entered the fort. Eighteen-year-old William Tufts climbed up the flagpole holding his red coat in his teeth. Tufts tied his coat to the top of the pole as a substitute flag. Vaughan sent a messenger to Pepperrell asking for reinforcements. Before more men could arrive, several boats of French troops approached to take back the fort. The New Englanders opened fire, pelting the boats with musket balls fiercely enough that the French turned back for Louisbourg.

Brigadier General Samuel Waldo was placed in charge of the captured Royal Battery. Tufts' coat no longer flew over the fort. "Pray favour us with one of the union flags," he wrote to Pepperrell on May 3. "We make a mean appearance under two old fishermen's ensigns."

Had the French broken the trunnions of the abandoned guns or even burned the carriages, the battery would have been of little use to its captors. As it was, nothing had been done other than spiking the pieces. Major Seth Pomeroy, a gunsmith, supervised 20 men who drilled out the vents. One by one, the pieces were ready to turn against the walls of the citadel.

Brought with the expedition were 34 guns: 8 22-pounders; 10 18-pounders from New York; 12 9-pounders, and four coehorn mortars (sometimes called "Cowhorns" by the colonists). Also packed was a quantity of 42-pounder ammunition in anticipation of putting captured French guns to use.

Two miles of mostly marshy ground separated the landing point and Green Hill, a piece of high ground where siege batteries were to be planted to bombard the fortress. The first gun transported into the marsh sank to its hubs and then disappeared into the mud. Horses and oxen could not work in the soft, wet ground. Many of the soldiers were used to handling sledges to transport timber and masts. Several new sledges were built to carry the guns. Teams of 200 pulled the sledges with ropes all the way to Green Hill. By May 5, the first guns were ready to open fire.

The contrast between Pepperrell's amateur soldiers and European regulars could hardly have been sharper. In general, they carried out their siege in a disorganized manner. When the men were off duty and away from the trenches, they spent their time in a number of recreational pastimes such as wrestling, pitching quoits, or target practice.

Waldo was hounded by his men to get them more rum. Soldiers on the expedition were entitled to one gill and a half (six ounces) of spirits per day, but supplies at the battery often ran out. "We are in great want of good gunners who have a disposition to be sober in the daytime," wrote Waldo. He said most of his men were less focused on their duties than "speculation on the surrounding hills" and "ravaging the country."

National Guard Heritage Collection

New England militia use wooden sleds to haul siege guns across wet ground on Cape Breton Island. The Americans established their own batteries on high ground near Louisbourg to suppress the French batteries.

Pepperrill's expedition often ran short of necessities. Waldo worried that each firing of the 42-pounders in the Royal Battery burned 16 pounds of gunpowder. Bombardment often ceased for want of more powder. Fortunately, Warren had some powder to spare aboard his ships and shared it.

Solid shot, at least, was easily obtained. With the incentive of small cash bounties, men chased rolling shot from the enemy's guns and turned the projectiles in to be fired back at the enemy's walls.

Deadlier than the artillery of Louisbourg were the colonists' own siege guns. Few men in the expedition were experienced gunners. Improperly loaded or too heavily charged, several of their guns exploded. When a large gun was split, as the colonials referred to the bursting of a gun, it was often fatal to one or more gunners. Warren helped once again, assigning some naval gunners to tutor the landsmen.

The expedition commanders knew little of siege craft, and planning new batteries was done in an inefficient and often dangerous way. Sappers approached new works in trenches that ran straight and open to French fire rather than in a safer zigzag pattern.

Even if fired by amateurs, the growing number of guns that lobbed shot and bombs took a toll on the city. The first shot to land in Louisbourg killed 14 people. Houses were smashed, and the walls, bastions, and gates were steadily chipped away. Women and children sheltered in fort casemates. "Some long pieces of wood had been placed in the casemates in a slanting position and this so deadened the force of the bombs and turned them aside that their momentum had no effect," according to the Habitant of Louisbourg.

Warren's ships and the civilian privateers snapped up several small French vessels that tried to enter the harbor. The frigate *Renommée* never made it past the blockade and eventually returned to France without delivering dispatches or supplies for Louisbourg.

On May 19, 1745, Captain Alexandre de La Maisonfort Du Boisdecourt neared the fortress in the 64-gun ship of the line *Vigilant*. The ship was packed with enough gunpowder, ammunition, and food to supply the garrison until the arrival of more aid from France. Favorable winds beckoned for the last few miles to the harbor entrance, but La Maisonfort hesitated when he saw artillery fire ashore. Then, he was stunned when two smaller ships fired on him.

Some accounts state that Royal Navy frigate *Mermaid* opened fire on the ship of the line, and others credit Captain John Rous and the *Shirley Gallery.* Most likely, both ships took a hand in confronting the *Vigilant*. In any event, Maisonfort abandoned his course for the harbor entrance and turned his attention to the smaller ships.

Rous kept ahead of the *Vigilant* and steered toward a fog bank. Then the wind dissipated the fog, revealing Rous's objective, the rest of Warren's warships. The *Vigilant* wheeled about with several vessels in pursuit. By 5 PM, two English frigates were close enough to open fire on the French vessel. One of the frigates lost its mainmast and much of its rigging but the fighting delayed La Maisonfort until more British ships sailed within range. Along with the Royal Navy, the little *Shirley Galley* kept up a stubborn fire; La Maisonfort later noted that Rous's ship killed seven of his men and "broke all his glass and china ware."

After taking considerable damage and 80 casualties, the *Vigilant* struck its flag. "There was not one of us," wrote a disgusted Frenchman who watched the disaster unfold from the shore, "who did not utter maledictions upon what was so badly planned and so imprudent."

About 100 small cannons, stores for the garrison, and supplies for two French warships under construction in Canada were on board the captured ship. Pepperrell's officers, concerned about

their dwindling supply of gunpowder, saw their problem eased by the capture of the munitions.

The capture of the *Vigilant* was only part of a remarkable run of English good luck. Although the weather was often foggy, temperatures were mild and there was little rain. The enemy sent little opposition against the landing on April 30, and in a panic abandoned one of its most important works, the Royal Battery. Even little turns of luck were noted. Sappers digging a trench uncovered a rock large enough to halt their progress. Just after the frustrated soldiers left the blocked trench, the rock was removed when a French shot plunged down onto it.

Even with extra helpings of good fortune, though, the siege became bogged down. By late May, between the sick lists and detailing some soldiers to man the captured *Vigilant,* Pepperrell had only 2,100 men fit for duty. As much as the colonists fired into the fortress, the French garrison managed to repair the damage to the walls. Looming over the campaign was the prospect of a fleet arriving from France with reinforcements and saving Louisbourg.

Duchambon still had one vital asset. As long as the French held the Island Battery, they could keep the British ships out of the harbor and harass the colonial artillery positions on land. The Island Battery, like the Royal Battery, resembled a little castle. The island was oriented diagonally from northwest to southeast, with its long northern face and the eastern edge protected by a battlemented stone wall. Guns pointing from the embrasures covered the harbor entrance. To the west and south, the island was protected by rocks jutting from the low island and the surrounding waters as well as coverage from the guns of Louisbourg.

Three assaults on the island were postponed for lack of volunteers or from the objections of officers who doubted it could be done. To stimulate volunteering for the mission, soldiers were promised a share of prize money if the battery was taken. For an assault planned for the night of May 23, a total of 200 volunteers showed up. They were a scattering of unorganized men from different units, without officers, and many of them were drunk. As if a bright moon was not enough to light the harbor and reveal a nighttime boat attack to the French, a display of the Northern Lights flashed overhead. Between the unfit state of the men and the unnaturally bright night, this attack was also called off.

Eon Images

New England merchant William Pepperrell directs his troops during the siege of Louisbourg. He drilled his raw recruits before the invasion to prepare them for the arduous expedition.

Volunteers gathered for another try against the Island Battery on the night of May 26. Allowed to choose their commanders, the men voted in a fellow named Brooks as their temporary captain.

Brooks's men left the shore in front of the Royal Battery and steered their whaleboats into Louisbourg Harbor. On their way to the battery, they were joined by a detachment that left from Windmill Point. The force numbered about 400 men. Rather than rowing with oars, they used paddles, which were quieter.

If the stone ramparts of the Island Battery were dark and silent, the sea was not. When they launched their boats around midnight, the waters were calm. But winds picked up quickly and sharply. Later, veterans of the raid agreed that they fought the most violent surf and waves they had seen since the expedition landed in Gabarus Bay. Churning waves overturned boat after boat before the men could reach their objective.

Nearing the island, the soldiers found that the only place to land was a narrow beach bracketed by dark rocks splashed with waves and foam. Only three boats at a time could unload. From the boats, men stepped ashore dripping wet, and many of them found their ammunition was soaked and useless.

D'Ailleboust, the battery commander, was awake and outside on watch. Under his command were about 60 soldiers and 140 local militiamen. Brooks's men continued trudging ashore with their scaling ladders. All was well until about one third of the men were out of the boats. Then one man, overcome with eagerness or rum, decided to shout a hearty three cheers.

Alerted to the attack, the Island Battery's garrison turned out to repel the raiders. Besides their 28-pounders, D'Ailleboust's men had several swivel guns and numerous muskets to put into action. By the light of their muzzle flashes, the French garrison saw the enemy militia and their boats as they poured cannonballs, grapeshot, and profanity into them. Some of Brooks's men fired their muskets, mostly in vain, against the French sheltering behind their stone ramparts. Other colonists leaned their scaling ladders against the walls and tried to climb into the battery. Brooks, by one account, was hauling down a French flag when a Swiss soldier killed him with a cutlass.

Few of the raiders made it back that night. The men still aboard boats turned them around and headed for safety. French fire smashed and splintered the whaleboats hauled up on the beach, trapping their crews on the island. Some of the stranded men fired their muskets at the French all night. A French official wrote that their fire was "extremely obstinate, but without effect, as they could not see to take aim."

After daylight, 119 survivors surrendered to d'Ailleboust. Sixty others were dead on the island or drowned in the surrounding waters. French casualties were small; one writer recorded that only two or three of the island garrison were killed or wounded.

News of the disaster swept through Pepperrell's camps. No one knew how many of the men trapped on the island were dead. Samuel Curwin recorded in his journal, "A hundred men are missing, and we are in hopes they are taken, as two boats laden with men were seen

going into the town after the attack, when the French gave three hurrahs."

For Pepperrell's men, the Island Battery attack was the worst setback of the siege. D'Ailleboust won the admiration of the garrison for the first French victory in what seemed like a grueling and hopeless campaign. Months later, the captain was awarded the Cross of St. Louis by King Louis XV.

Although protected by water, the Island Battery was vulnerable to bombardment from higher ground. Lighthouse Point, about 1,000 yards across the harbor entrance from the battery, offered fine potential artillery positions to bombard the island, but getting English guns to Lighthouse Point would require dragging them three to four miles from the Royal Battery or landing them a long way from the point. Either option required pulling the guns across terrain strewn with rocks, covered with forests, or drenched with swamps.

Only a few hundred yards from the lighthouse was a little cove where the French had located ships for repairs. A valuable prize was found there: 10 heavy French guns. Removed from a ship years earlier, the guns had been abandoned and left to sink in the muck. The guns were cleaned up and dragged to the site of the proposed battery.

After repulsing a sortie made by 100 troops sent by boat from Louisbourg, the British moved more guns to join the captured French pieces. On June 11, the new Lighthouse Battery joined in a bombardment of the French works. The Island Battery was soon knocked out of action.

By this time, Pepperrell and Warren were reinforced by more ships from England. Warren now commanded more than 3,500 sailors and marines aboard six ships of the line and five frigates with a total of 554 guns.

With the Island Battery ruined and their force considerably strengthened, Pepperrell's commanders agreed it was time for an all-out attack. However, there was another card to play first. Up to that point, the French garrison expected help to arrive, and it did not know for certain what happened to the *Vigilant*. La Maisonfort was asked to write a letter to be delivered under flag of truce. Ostensibly, the letter was to warn the garrison not to mistreat its prisoners and to praise the consideration given to the crew of the *Vigilant*. But the message really was intended to convey the news that the *Vigilant* was captured and no help was coming.

Hope faded for the disheartened garrison, as soldiers and townsfolk realized that they would never be relieved. Louisbourg's prominent citizens and officers pleaded with Duchambon to surrender the city. On June 15, Duchambon asked for a parley to negotiate the capitulation. Two days later, the French flag was lowered from the most forbidding fortress in North America.

The Granger Collection, New York

French forces at Louisbourg surrender to the British in June 1745. In the Treaty of Aix-la-Chapelle three years later, the British returned Louisbourg to the French in exchange for Madras in India, which had been captured by the French. The American colonists were outraged when they learned of the treaty's terms.

Articles of surrender were quite generous. Officers, soldiers, and inhabitants would be paroled and conveyed to France. The garrison could march out bearing arms and flying its flags. The colors and weapons would be turned over to the English but would be returned when they reached France. There was one unusual provision: "If any persons of the town or garrison did not wish to be recognized by the English, they should be permitted to go out masked."

New England, and England itself, were elated by the victory. Warren was promoted to rear admiral, and William Pepperrell was made a baronet. But squabbles soon dulled the glow of success. New Englanders resented Warren quickly sending in his marines to hold the fortress and believed that the Royal Navy tried to take credit for their siege. While there was considerable prize money for the navy, the soldiers qualified for very little reward. Scores of men sickened and died before British regulars from Gibraltar arrived to take over the fortress in March 1746.

At the end of the war in 1748, diplomats met to draw up a peace treaty. During the war, the British colony of Madras in India fell to the French. More interested in their eastern possessions than Canada, British representatives traded Louisbourg for Madras.

In New England, pride in the taking of the Fortress of Louisbourg turned to disappointment and anger. All of their massive effort and the lives lost had been thrown away by distant officials who seemed to have reversed the hard-won victory on a whim.

READ MORE ON THE WEB

British regulars captured Louisbourg in 1758. Read about Jeffrey Amherst's 1758 expedition on our website:

http://warfarehistorynetwork.com/daily/military-history/capturing-louisbourg/

In the next war, Louisbourg again had to be captured, and this time Britain sent the Royal Navy and regular troops. After retaking the city in 1758, the British kept it. French colonists were expelled, many to distant Louisiana, where they formed the foundations of the region's Cajun culture.

Louisbourg's walls were demolished by British troops. Although not the first time the British sent American soldiers overseas during the French and Indian Wars, Pepperrell's expedition to Louisbourg was the first time an exclusively American army was organized for an overseas operation. The successful outcome showed the separate colonies what they might accomplish when they worked together. Duchambon's surrender in 1745 set a precedent that inspired the 13 American colonies when they broke away from British control and moved toward independence. Thus, the story of the Siege of Louisbourg in 1745 is as much a part of colonial America's patriotic heritage as the American Revolution itself. ■

KING WILLIAM I OF PRUSSIA stood resplendent in the uniform of a Prussian Guard officer on a hill in eastern France on a sunny day in late summer 1870. The 73-year-old monarch watched with pride as a seemingly endless sea of troops clad in dark blue uniforms marched past him headed east toward enemy positions on a ridge near Metz. With the Prussian king that morning were Minister President Otto von Bismarck, Chief of Staff Helmut von Moltke, and Second Army Commander Prince Frederick Charles.

Those assembled on the hill could hear to their north the steady boom of the Krupp cannons that had bedeviled the French Army of the Rhine since the war began one month earlier. Soon another mass of Prussian artillery much closer began a thunderous barrage of the French positions to the east. A total of 200,000 troops from two Prussian armies were on the move that morning. By noon some units were ready to attack, but most were still marching to their designated positions.

Moltke's plan to envelop the French, which had been frustrated at the border, seemed at that moment to be bearing fruit. Prince Frederick Charles' Second Army had stolen multiple marches on the French Army of the Rhine since the frontier battles at Froschwiller-Worth and Spicheren on August 6. While the 112,000-strong French army resupplied itself at Metz, Prince Frederick Charles marched south of Metz and then swung north to cut the French army's route of retreat to Verdun and communications with Paris.

Moltke's plan for the day was for the Prussian First Army, led by General Karl von Steinmetz, to feint at the French left while the Prussian Second Army enveloped the French right flank. Moltke believed this would force the French to fall back to Metz where they would be trapped and eventually compelled to sur-

French troops in the foreground counterattack Prussian infantry in a vain effort to stabilize their right flank at the elevated village of Saint-Privat seen in the background. Infantry of both sides fought valiantly throughout the day, but both the French and Prussian high commands performed poorly.

BY WILLIAM E. WELSH

VICTORY AT A

render. First, however, the Prussians had to drive the French from an excellent defensive position. The French held the high ground, and they had spent the previous day entrenching. Most of the French units would have a clear field of fire against the Prussians.

From time to time a messenger rode up and delivered a report to the king. William I was calm as the chaos of battle swirled around him, but his chief of staff was deeply agitated. Moltke rose frequently from his seat on a pile of knapsacks to stride about with his hands joined behind his back and his head bowed in thought.

Also observing the battle from that vicinity was *New York World* correspondent Moncure Conway, whose account of the action captured the fury of the battle once the Prussian infantry advanced.

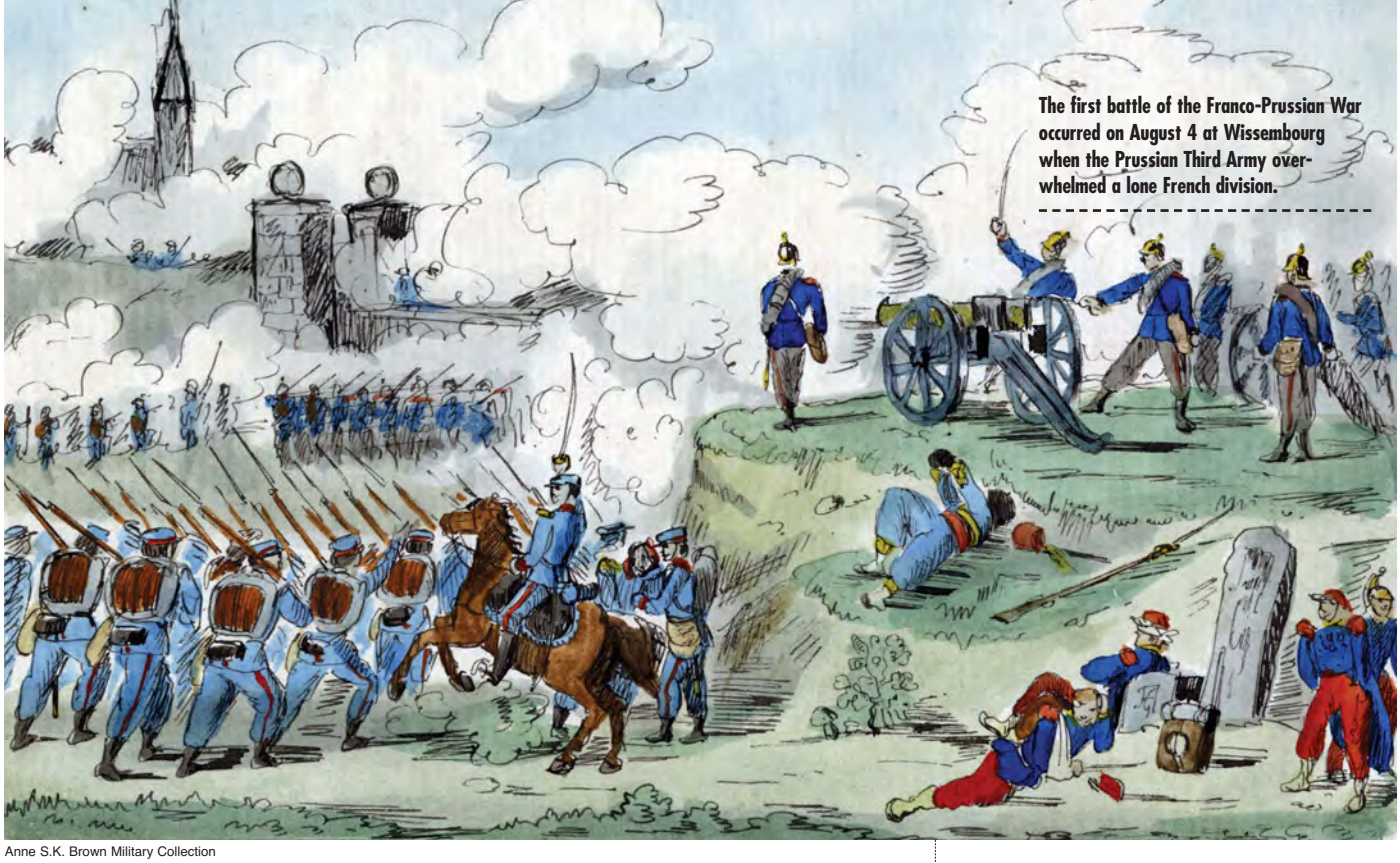
"From their commanding eminence, the French held their enemies beneath them, and subjected them to a raking fire," wrote Conway. "Their artillery was stationed far up by the Metz road, between its trees. There was not an instant's cessation in the roar; and easily distinguishable amid all was the curious grunting roll of the mitrailleuse. The Prussian artillery was to the north and south of [Gravelotte], the mouths of the guns on the latter side being raised for an awkward upward fire. The French stood their ground and died—the Prussians moved ever forward and died, both by hundreds; I almost said thousands ... so fearful was the slaughter."

Like the road to Metz, the road to war had been a short one. Four years earlier, Prussia had defeated Austria in just seven weeks. Through the Peace of Prague, Prussia eliminated the Austrian-led German Confederation and replaced it with a Prussian-led North German Confederation. But this still left the South German States outside Prussia's control. Bismarck saw a war with France as a way to finish the goal of uniting all German states in a Prussian-led German empire.

DREADFUL COST

On August 18, 1870, the Prussians fought a savage battle with the French at Gravelotte-Saint-Privat. Despite a series of blunders, the Prussians' superior numbers and artillery enabled them to carry the day.

Anne S.K. Brown Military Collection



The first battle of the Franco-Prussian War occurred on August 4 at Wissembourg when the Prussian Third Army overwhelmed a lone French division.

Anne S.K. Brown Military Collection

But it meant waiting for the right opportunity.

That opportunity came in the form of the Ems Dispatch in which Bismarck framed King William's conversation on July 13 to the French ambassador to Berlin on a highly sensitive matter in such a way as to make it seem an affront to the ambassador. Spain had offered its throne to Prince Leopold Hohenzollern, a cousin of the Prussian king, who had declined the offer, and the French wanted assurances that he would not accept it at a later date. William had already told the French that Leopold would not accept the offer; the Prussian king did not want to discuss the matter again. The French had played right into Bismarck's hands. On July 19, 1870, French Emperor Napoleon III, or Louis-Napoleon, declared war on Prussia.

In the nearly two decades that he had been in power, Louis-Napoleon had invested in new weapons that would give his troops an edge over their adversaries. The most effective of these was the breech-loading Chassepot rifle, which by virtue of a better seal on the breech, had twice the range of Prussia's breech-loading Dreyse rifle. Another new weapon was the mitrailleuse, a primitive precursor to the machine gun. The mitrailleuse, mounted like a cannon on a carriage, could fire up to five 25-round bursts in one minute. But the mitrailleuse lacked many of the best features of the 20th-century machine gun, such as automatic loading and easy traversing. Moreover, the French deployed it with the artillery instead of assigning it to infantry units as close-fire support.

As for the Prussians, their major technological advantage was breech-loading artillery. The Krupp-made guns were superior to the French muzzle-loading artillery in range, accuracy, and rate of fire. The Prussians also switched to a percussion fuse, which was far more reliable than the powder fuse used by the French.

By the end of July, the Prussians had deployed 310,000 men in 14 corps on the French border. Steinmetz's First Army, numbering 50,000 men in three corps, was deployed in the Rhine Provinces. The other two armies were deployed in the Palatinate. Frederick Charles's 135,000-strong Second Army, organized into six corps, was deployed in the western Palatinate near Saarbrucken. Crown Prince Frederick William's 125,000-strong Third Army, divided into five corps, was stationed in the eastern Palatinate opposite northern Alsace.

In contrast, the French had about 225,000 men in eight corps. Napoleon III had deployed his eight corps at intervals on the border. The dispersed deployment would make it hard for one corps to reinforce another in the coming campaign.

Moltke's strategy for invading France was that Steinmetz and Crown Prince Frederick William would attack and defeat the French in front of them on the flanks first. Then they would envelop the French forces between them in the center opposite Saarbrucken. But Steinmetz completely ignored the strategy. Rather than crossing the Saar River at Merzig to attack the French forces in front of him, he diverted toward Saarbrucken when he learned that General Charles Frossard's II Corps had on August 2 occupied the lightly held German city.

Unlike Steinmetz, Crown Prince Frederick William followed his orders correctly. On August 4, the Prussian Third Army invaded northern Alsace. General Abel Douay's division of Marshal Patrice MacMahon's French I Corps at Wissembourg was not expecting a Prussian attack so quickly after a declaration of war and was defeated in a six-hour battle against three German corps.

Alerted that a large Prussian force was at Wissembourg, the following day MacMahon deployed his entire 48,000-strong corps in a line on a forested ridge 17 kilometers south of Wissembourg at Froschwiller-Worth and awaited the inevitable Prussian attack. In the battle that unfolded on August 6, MacMahon's five divisions were no match for the crown prince's nine divisions backed by 150 guns. The battle, which Prince Frederick William had not ordered, was brought on by overly aggressive Prussian corps and division commanders eager to test their troops against the French. The Battle of Froschwiller-Worth cost the Prussians 10,500 casualties. As for French, they lost 6,000 killed and wounded and 9,000 captured.

To the west, Frossard withdrew from Saarbrucken on August 5 when he learned that two Prussian armies were converging on the city. Frossard took up a new position three kilometers to the south on a ridge near Spicheren to

await the Prussians. The vanguards of the Prussian First and Second Armies followed closely on Frossard's heels. On August 6, the Prussians launched frontal attacks first against the French right and then against the French left. Neither attack pierced the French line of battle. But when the Prussians launched a successful flank attack against the French left late in the day, Frossard ordered a retreat. At the Battle of Spicheren, the Prussians paid a high price for their ineffective frontal assaults, losing 5,000 men. French losses included 2,000 killed and wounded and 2,000 captured.

On August 7, Napoleon III organized his eight corps into two armies. The five French corps in western Lorraine (II, III, IV, VI, and the Imperial Guard), which were the cream of the French army, became the Army of the Rhine under his direct command. As for the remaining three corps (I, V, and VII), the French emperor organized them into the Army of Chalons with MacMahon as its commander. Napoleon III ordered MacMahon to retreat to Chalons. The French emperor intended to retreat with the Army of the Rhine first to Metz to get much needed supplies before continuing to Chalons.

By August 9, the French Army of the Rhine had assembled behind the Nied River 15 kilometers east of Metz. On August 12, Prussian cavalry seized the Moselle River crossing at Pont-a-Mousson south of Metz. That same day, Louis-Napoleon informed Marshal François-Achille Bazaine, the most senior French corps commander, that his declining health made it imperative that he transfer command of the Army of the Rhine to Bazaine. Napoleon III told Bazaine he would soon depart for Chalons, even though the French emperor lingered at Metz for three more days saying goodbye to his troops.

As soon as Pont-a-Mousson was in Prussian hands, Moltke ordered all three Prussian armies to cross the Moselle south of Metz and then swing north to block Bazaine's retreat. Steinmetz once again disobeyed Moltke's orders. Instead of bypassing Metz, Steinmetz advanced directly toward the city. Although Steinmetz's repeated disregard for orders was sufficient grounds for removal, Moltke was reluctant to take such action because Steinmetz was a longtime personal friend of the Prussian king.

On August 14, Bazaine's army was passing through Metz to new bivouacs on the west side of the city when one of Steinmetz's divisional commanders launched an unauthorized attack against General Claude Decaen's III Corps encamped east of the city. The Battle of Borny was a French tactical victory but a strategic defeat in that it further delayed Bazaine's march west. Decaen was killed during the battle, and Bazaine appointed General Edmond Leboeuf to succeed him. The Prussians lost 4,600 men in the rearguard action compared to French losses of 3,900 men.

The direct route to Chalons from Metz passed through Verdun. To make it from Metz to Verdun, Bazaine needed to march his army west on the Vionville Road through a string of villages—Graveolotte, Rezonville, Vionville, and Mars-la-Tour. An alternate route, the Doncourt Road, passed through Doncourt to Verdun. A third route, the Briey Road, farther north and more circuitous, passed through the villages of Saint-Privat and Briey.

At 10 AM on August 15, Bazaine ordered the II and VI Corps to march to Verdun on the Vionville Road, and the III and IV Corps to do the same on the Doncourt Road. Prince Frederick Charles assumed that Bazaine was by that time approaching Verdun, and he ordered the half of the Second Army farthest west (II Corps, XII Corps, and Guard Corps) to march on Verdun in the hope of intercepting Bazaine's army. The other half of the Second Army (III Corps, IX Corps, and X Corps), together with Goeben's VIII Corps from the First Army which Moltke had transferred to the Second Army, had crossed the Moselle the night before at Corny. Those three corps were awaiting further orders from Moltke.

Bazaine's army made little progress on August 15. At the end of the day, the French vanguard was at Vionville and the rearguard at Gravelotte. Prussian General Albert von Rheinbaben's 5th Cavalry Division was shadowing the movements of the French army from south of the Vionville Road and attacking French outposts.

Both: Library of Congress

ABOVE: Prussian General Karl von Steinmetz (left) and Crown Prince Frederick William. BELOW: French marshals Francois-Achille Bazaine (left) and Patrice MacMahon.

Both: Library of Congress

Of all the Prussian infantry corps, General Constantin von Alvensleben's III Corps was the closest to Bazaine's actual position on the morning of August 16. It had reached the village of Gorze at 2 AM, which put it five kilometers south of the Vionville Road.

At dawn on August 16, Louis-Napoleon finally departed for Chalons in his royal carriage accompanied by two regiments of Imperial Guard cavalry. A short time later, Prussian cavalry blocked the Vionville Road. When Bazaine learned of that, he ordered the column on that road to halt.

Alvensleben assumed the French troops at Vionville formed Bazaine's rear guard, and without orders to engage the enemy he nevertheless ordered General Ferdinand von Stulpnagel's 5th Division to attack what he believed was the back of the French rear guard at Rezonville, while the 6th Division marched west to Mars-la-Tour in an attempt to cut off the front of the French rear guard. Frossard's II Corps easily repulsed Stulpnagel's piecemeal attack. While the infantry was attacking, 90 Prussian guns deployed on high ground south of Vionville and began shelling French positions on the plateau to the north.

At 11:30 AM, General Karl von Buddenbrock's 6th Division went into action on Stulpnagel's left. Buddenbrock's men attacked Frossard's left, capturing lightly held Vionville but failing to drive Frossard's soldiers out of Flavigny. The artillery of General Francois Canrobert's VI Corps, positioned north of Vionville, inflicted heavy casualties on Buddenbrock's troops. By then, Alvensleben had realized the severity of his situation. He was not facing the French rear guard; he was facing Bazaine's entire army.

Alvensleben, whose infantry was alone on the battlefield until such time as General Constantin Voights-Rhetz's X Corps arrived, asked Rheinbaben to launch a cavalry attack to silence Canrobert's guns. At 2 PM, General Adalbert von Breedow assembled his 800 cuirassiers and uhlans for the difficult mission. In an effort to lessen the casualties they would take on their advance, von Breedow led them through depressions in the landscape that partially concealed them until they were within several hundred yards of their objective. Just before 2 PM, Canrobert had ordered the infantry posted among the guns to withdraw to protect them from the Prussian artillery fire. This worked to von Breedow's advantage because there were no support troops to protect the

The frontier battles had shown the Prussians that close-order, frontal assaults were futile against French infantry armed with the superior Chassepot rifle. But the Prussians used the same unimaginative tactics at the Battle of Gravelotte-Saint-Privat.

French artillerymen when his horsemen galloped into their midst, slaying as many of them as possible before the French cavalry intervened. "Von Breedow's Death Ride," as the famous charge was called, silenced many of the French guns but at the cost of 420 cavalrymen.

After making a forced march from its Moselle crossing, Voights-Rhetz's X Corps arrived in mid-afternoon to reinforce Alvensleben's III Corps. The 19th and 20th Divisions of the X Corps deployed at Mars-la-Tour and Vionville, respectively. At 3:30 PM, General Emil von Schwartzkoppen ordered his 19th Division to assault what he believed was the French right flank northeast of Mars-la-Tour. In actuality, the division found itself making a frontal assault against Ladmirault's IV Corps. Ladmirault's riflemen easily broke up Schwartzkoppen's attack.

With little else to try, the Prussians resorted to another cavalry attack. Rheinbaben led his two remaining cavalry brigades around the French right flank, but the French had three divisions of cavalry on the field. The Prussian cavalry, despite being outnumbered, was able to drive the French away from Mars-la-Tour, ensuring that it remained firmly in Prussian hands.

At twilight, Prince Frederick Charles arrived on the battlefield with reinforcements from Goeben's VIII and Manstein's IX Corps. The prince ordered an attack on Rezonville intended to collapse the French left flank, but nightfall interrupted the attack before it could achieve its objective. The Battle of Mars-la-Tour cost the French 17,000 casualties, compared to 15,800 Prussian casualties.

At dawn the following day, Bazaine ordered his corps commanders to fall back six kilometers to a long ridgeline just east of Gravelotte. He was reluctant to march his army to Verdun and risk the Prussians forcing him to fight a battle on open ground. "I will resume my march in two days if possible, and will not lose time, unless new battles thwart my arrangements," he wrote to Louis-Napoleon. Bazaine simply did not want to abandon the vast storehouses of Metz regardless of the consequences. He hoped that the Prussians would suffer such severe casualties in the coming battle that they would be forced to abort their invasion.

The Army of the Rhine moved to its new position on the high ground west of Metz on August 17. Most of the army spent the afternoon entrenching, with the exception of Canrobert's VI Corps, which had not carried its entrenching tools. The 12-kilometer line stretched from the Rozerieulles Plateau in the south along the Amanvillers Ridge to Saint-Privat in the north. The French left, anchored on the Moselle, was particularly strong owing to a number of walled farms on the east bank of the Manse Stream. The one major weakness was that the French right did not rest on any physical barrier and was vulnerable to being turned. The French army was deployed left to right as follows: Frossard's II Corps, Leboeuf's III Corps, Ladmirault's IV Corps, and Canrobert's VI Corps. General Charles Bourbaki's Imperial Guard Corps was stationed next to Bazaine's headquarters at Fort Plappeville behind the left wing, and General Francois du Barail's Cavalry Corps was stationed behind the right wing.

The Prussian cavalry had been so badly shaken in the Battle of Mars-la-Tour that Moltke decided not to press it to conduct reconnaissance of French movements until it had rested. Instead, Moltke would have to rely on the infantry to perform that task. Thus, Moltke ordered the Second Army on the morning of August 18 to march northeast on a wide front to intercept the French if they tried to march to Verdun via a more northern route. As for the First Army, it was to concentrate at Gravelotte and await further orders.

At 10 AM, Manstein reported to the Second Army commander and also to Moltke that he believed the French right flank was positioned around the village of Amanvillers. However, Manstein had located the French center, not the right. Prince Frederick Charles immediately issued orders to the rest of his army to turn east toward Metz. The Prussian Guard and XII Corps marched east on the Doncourt Road, and the Prussian III and X Corps marched in that direction along the Vionville Road.

A half hour later, Moltke issued orders to Manstein to attack the French at Amanvillers. Manstein's guns were already in action against Ladmirault's IV Corps and his troops deploying for attack when a dispatch came from Prince Frederick Charles ordering him to suspend the attack. The Second Army commander had received reports that the French right flank was situated at Saint-Privat to the north and not at Amanvillers.

Manstein initially deployed 54 guns against the French IV Corps atop the Amanvillers Ridge, but they took up a position within range not only of Ladmirault's cannons and mitrailleuses, but also of entrenched French infantry that fired on the gunners with their Chassepot rifles. "A hail of shell and shrapnel ... answered the war-like greeting from our side," wrote Prussian staff officer Julius Verdy du Vernois. "The grating noise of the mitrailleuses was heard above the tumult, drowning the whole roar of battle."

At 1 PM, Manstein ordered his guns pulled back until his infantry arrived to provide pro-

tection for them. An hour later, his 18th and 25th Divisions had arrived, but Manstein was reluctant to order a frontal assault considering the devastating firepower that the Chassepot gave the French infantry. He wanted to see what result the Prussian attack on the French right would have before ordering his men to charge the ridge. There was no reason not to continue to shell the French positions. The Krupp guns were rolled back to their original places and began a punishing bombardment of Ladmirault's IV Corps. The Prussian artillerymen "fired without interruption, smothering us in shells," wrote General Ernest Pradier of Ladmirault's IV Corps.

Steinmetz had arrived on the battlefield at noon and retaken control of Goeben's VIII Corps without Moltke realizing it. The septuagenarian First Army commander ordered Goeben's artillery and Zastrow's VII Corps artillery to deploy north of Gravelotte and begin bombarding Frossard's and Leboeuf's troops on the Rozerieulles Plateau behind the Manse. Altogether, Steinmetz was able to mass 150 guns that began a steady barrage against the French positions. The Prussian shells smashed enemy guns and inflicted severe shrapnel wounds to enemy riflemen who crouched for protection in their trenches.

At 2 PM, Steinmetz ordered Goeben to lead three brigades, two forward and one in reserve, in an assault on the Saint-Hubert Farm on the opposite side of the Manse. Steinmetz reasoned that if the Prussians could capture the farm, it could be used as a forward artillery position to support a subsequent attack on the plateau.

Like finely detailed embroidery, the western slope of the Rozerieulles Plateau was stitched with trenches above and below and on both sides of the Saint-Hubert Farm. At 2:30 PM, a sea of blue-uniformed Prussian infantry streamed down the west ravine and plunged into the stream above and below the causeway that led toward Saint-Hubert. Inside the walled farm was a single battalion of the 80th Line Regiment of the 4th Division of Leboeuf's III Corps. As they splashed through the stream, the Prussians heard the unmistakable thud of bullets into human flesh as French infantry fired on them. With great discipline, the Prussian riflemen advanced into the storm of bullets. The Krupp guns at Gravelotte zeroed in on the farm and blew it apart. The French still held two nearby farmhouses as well multiple rows of trenches on the west slope of the plateau. From these positions they poured a withering fire at the Prussians who sought to secure the ruins of Saint-Hubert.

At 3:45 PM, the fire from the French 12-pounders slacked off as the crews awaited the arrival of more ammunition. Steinmetz misinterpreted this as a French withdrawal and ordered Zastrow to prepare his division for an attack on the Rozerieulles Plateau. Goeben, whose corps had taken heavy casualties in the first assault, advised against it, but the headstrong Steinmetz ignored him. Like Goeben's attack, Zastrow's also employed two brigades forward with one in reserve to exploit a breakthrough.

By that time, Moltke had learned that Steinmetz was ordering the assaults, but he permitted them to proceed even though he thought it was foolhardy. Zastrow's attack followed the course of the Rozerieulles Road, which swung past Saint Hubert and curved south toward the Point du Jour farm toward the village of Rozerieulles. Point du Jour was held by line infantry of Verge's 1st Division of Frossard's II Corps. Zastrow's men never made it to the plateau. They encountered a gale of shot and shell from Chassepots, mitrailleuses, and muzzle-loaded artillery that stopped them cold.

Steinmetz, who could not see the assault because of a tract of forest that blocked his view, for some unimaginable reason believed it had succeeded. He therefore planned to reinforce it. He ordered the 1st Cavalry Division and four batteries to advance east on the Rozerieulles Road. Only one regiment, the 4th Uhlan, made it to the plateau, where it suffered 50 percent casualties in a matter of minutes. One of the batteries unlimbered on the edge of the plateau, but all of its guns were soon captured. Another unlimbered at Saint-Hubert, but counterbattery fire silenced all but one of its guns. By that point, the Manse ravine was littered with dead soldiers and horses and smashed artillery equipment.

Library of Congress

A French artillery crew is shown posing with a heavy gun during the Franco-Prussian War. The French muzzle-loading artillery was no match for the superior breech-loading Prussian guns, which the Prussians massed at key positions to overwhelm French defenses during the fighting at Gravelotte-Saint-Privat.

By that time, the Prussian Second Army was preparing a major infantry assault on the opposite flank. It took Prince August of Wurttemberg's Guard Corps nearly five hours of countermarching before it reached its attack position. The XII Corps, which also was marching northeast toward the French right flank, was about one hour behind the Guard Corps. At 3 PM, Prince Frederick Charles ordered a limited attack by the Guard against the village of Saint-Marie-Aux-Chenes, less than a kilometer from Saint-Privat, designed to drive out the 94th Line Regiment from the French VI Corps. Once the village had been captured, Wurttemberg directed the Guard to deploy its 100 guns in an arc and begin shelling the French positions in front of them.

At 4 PM, the vanguard of the XII Corps arrived at Saint-Marie-Aux-Chenes, and Prince Fredrick Charles directed Crown Prince Albert of Saxony to continue north with his three divisions of Saxons to the village of Roncourt, to put it in a position to launch a flank attack on Canrobert's VI Corps.

To pin down Canrobert's corps so it would not be able to shift troops to check the Saxon flank

attack, Prince Frederick Charles decided it was necessary to send his corps forward in a frontal attack against Saint-Privat, even if that meant subjecting it to heavy losses. The Prussian Guard had 18,000 men ready for battle, more than twice the number of men in Canrobert's corps. However, Canrobert's men held the high ground, and a portion of them would receive the attack from inside the walled village.

Prince Frederick Charles wanted to pin down the right flank of Ladmirault's IV Corps so it could not reinforce the French VI Corps. To achieve this objective, Wurttemberg ordered the 3rd Guard Brigade at 4:45 PM to attack General Ernest Courtot de Cissey's 1st Division of the IV Corps at Amanvillers. The French riflemen cut down 2,000 Prussian guardsmen before they could get close enough to use their inferior Dreyse rifles.

Wurttemberg had deployed the other three Guard brigades to attack Saint-Privat. The 1st Guards Brigade formed up north of the Briey Road, and the 2nd and 4th Brigades assembled south of the Briey Road. Despite their esprit-de-corps, the veteran guardsmen must have felt a gnawing in the pit of their stomachs as they looked across the long expanse of open ground they would have to cover to reach the French line on the ridge to their front. Wurttemberg sent the 4th Guards Brigade forward at 5 PM against the 4th Division of Canrobert's corps. The guardsmen made it to within 800 yards of the French line before they were pinned down like the 3rd Guards Brigade to their right.

At 5:45 PM, Prince August ordered the 1st Guards Brigade positioned north of the Briey Road to advance against Canrobert's 1st Division, which its commander had split in half to defend both Roncourt and Saint-Privat. With its officers shouting, "Forward, Forward!" to keep the riflemen advancing, the guardsmen suffered heavy casualties not only from the front by those enemy riflemen at Saint-Privat, but also in the flank from those deployed at Roncourt. Nevertheless, they followed the tactics of the other Guard brigades, advancing by rushes toward their objective. Seeing that the 1st Guards Brigade would not be able to reach the village without reinforcements, Prince August ordered his 2nd Guards Brigade, which was his last, to push directly up the Briey Road toward the objective. The 2nd Guards Brigade closed to within 700 yards but stalled after losing nearly all of its field officers.

Anne S.K. Brown Military Collection

French Marshal Francois-Achille Bazaine's greatest blunder was leaving the French right flank unanchored at Saint-Privat, which proved to be the key to the battle. Struck from two sides by the Prussians, General Francois Canrobert's VI Corps was routed at dusk.

While Crown Prince Albert continued on to Roncourt with his infantry, he left behind a portion of his artillery that deployed on the left of the Guards artillery. In addition, the Prussian X Corps, which was approaching the battlefield, sent forward some of its guns. This gave Frederick Charles 208 guns with which to shell Saint-Privat. At 6:30 PM the Krupp batteries at Saint-Marie-Aux-Chenes began a steady bombardment that lasted 40 minutes. The fused shells struck the walls of the village, sending chunks of stone careening through the air. By the time the bombardment ended, the village had been heavily damaged, and flames from fires that had started in the houses leaped toward the sky.

Before it could join the assault on Saint-Privat, the Prussian XII Corps had to drive the French out of Roncourt. The Saxons launched their attack on the village at 5 PM. General Henri Pechot's 1st Brigade of the 1st Division of the French VI Corps put up an impressive defense against the Saxons for two hours, but at 7 PM Pechot ordered his men to fall back to the relative protection of thick woods behind the Amanvillers Ridge.

By twilight, the Guard had already lost about 8,000 killed and wounded in its frontal assaults on Saint-Privat, but when the Krupp guns stopped firing at 7 PM, the Guards and the Saxons launched a simultaneous assault designed to carry Saint-Privat. Bugles and drums filled the air as guardsmen rose up to resume their assault and Saxon infantry charged up the ridge toward the walled village. At the same time the Guards and Saxons attacked Saint-Privat, Manstein ordered his 25th Division to storm the Amanvillers Ridge and engage Ladmirault's IV Corps in an attempt to pry it from the ridge.

At Saint-Privat, the French and the Prussians fought house to house through the burning village in the gloaming. Fighting was particularly fierce in the walled cemetery in the center of the village, where the 4th Foot Guards Regiment of the 1st Brigade stormed through the gates and drove out French soldiers who attempted to make a stand in that small space. In an hour-long bloodbath, the Prussians slowly gained control of the village, forcing the survivors of Canrobert's 1st Division to flee into the woods to the east. At great cost in lives, the Prussians finally secured Saint-Privat at 8 PM.

As the Prussians fought to capture Saint-Privat and Roncourt on their left, Steinmetz continued to send troops against the strong French position on the Rozerieulles Plateau on the Prussian right. When King William rode forward to confer with him at 5:45 PM, Steinmetz wrongly assured his monarch that his troops had gained a foothold on the plateau and requested permission to send reinforcements. Equally uninformed as to the actual state of affairs on the Prussian right, William nodded his assent and withdrew. Gathering a brigade each from the Prussian VII and VIII Corps, Steinmetz sent them forward at 6 PM. An hour later, General Eduard Fransecky's Pomeranian

II Corps, which belonged to the Second Army, arrived on the Prussian right, and Steinmetz persuaded Fransecky to send his 3rd Infantry Division against the entrenched French positions. The situation went from bad to worse when shells from the Krupp guns began landing amid the advancing Pomeranians. "Excellency, our own brothers are shooting at us!" cried the Pomeranians nearest Fransecky.

At 8 PM, soldiers from the three Prussian corps that had been sent forward on the Prussian right began streaming back along the road and through the fields toward Gravelotte. In the darkness, Prussians moving up fired into the backs of those already engaged, causing mass panic. "All is lost! All is lost!" the soldiers cried as they moved swiftly west in their blood-spattered uniforms.

Bourbaki had resisted Bazaine's efforts throughout the afternoon to send the Imperial Guard into battle piecemeal. At 6:15 PM, one of Ladmirault's staff officers arrived at Bourbaki's headquarters and implored him to send reinforcements immediately to the right flank. Bourbaki, together with the staff officer, rode at the head of General Joseph Picard's 2nd Guards Division as it set off at 6:45 PM for the right flank. When they were halfway there, they found themselves in the midst of a large body of soldiers from the French VI Corps moving south toward Metz. Bourbaki had been under the illusion that he was going to commit his troops as a reserve to win the battle rather than to serve as the rear guard for a retreat.

"You promised me a victory, but now you've got me involved in a rout!," Bourbaki spat at the staff officer. "You had no right to do that! There was no need to make me leave my magnificent positions for this!" Rather than try to rally the retreating French, Bourbaki ordered his column to countermarch to its original position.

Ladmirault's IV Corps was hard pressed after the panicked retreat of the VI Corps to its right. At that point, Ladmirault's men were being assailed by the Prussians from three sides. When the French riflemen learned that the Imperial Guard was not coming to their assistance, the soldiers abandoned their position without orders and began moving south toward Metz.

Ladmirault descended the east slope of the Amanvillers Ridge and rounded up whatever troops he could find. He established a rear guard on the right wing of the army astride the road from Saint-Privat to Metz using Pechot's brigade and several regiments of cavalry. Although Bourbaki led his infantry toward Metz, he ordered his artillery to remain behind to bolster Ladmirault's rear guard.

The Prussians suffered heavy casualties on both flanks at Gravelotte-Saint-Privat. The casualties were so high on the Prussian right at Gravelotte where Chief of Staff Helmut von Moltke observed the battle that he initially thought the Prussians had lost the day.

At 10 PM, Bazaine issued orders for the French army to withdraw toward Metz. He believed his units' ammunition had been so severely depleted by the battle on August 18 that it would not be able to fight on the same ground the following day. Moltke, who along with King William had witnessed the rout of the Prussian right wing at Gravelotte, had no idea that his troops had won the battle until he received a report in the middle of the night informing him that the Prussian Guard and XII Corps had driven the French right wing from the field. This guaranteed that Bazaine's army would have to try to break out from Metz. Given Bazaine's conservative mindset, it was unlikely that he would be able to do so against the larger, better led Prussian forces confronting him.

The Prussians lost 20,000 killed and wounded compared to French losses of 12,500 killed, wounded, and captured. The French soldiers had fought valiantly and had nothing of which to be ashamed. They knew full well that they had lost the battle because of Bazaine's poor performance as an army commander.

MacMahon tried unsuccessfully to reach Metz with his 120,000-strong Army of Chalons, but the Prussians prevented him from doing so. While the First Army and part of the Second Army laid siege to Metz, the other half of the Second Army, which Moltke had renamed the Army of the Meuse and placed under the command of Crown Prince Albert of Saxony, conducted joint operations with Crown Prince Frederick's Third Army against MacMahon.

The two Prussian armies outmaneuvered the French Army of Chalons, driving it steadily away from Paris. MacMahon's army soon found itself besieged in Sedan. On September 1, MacMahon attempted unsuccessfully to break out of Sedan. The following day, Napoleon III surrendered himself to the Prussians, and MacMahon's army surrendered shortly afterward. On September 4, the French overthrew Louis-Napoleon's Second Empire and replaced it with the Third Republic. On September 19, the Prussians besieged Paris.

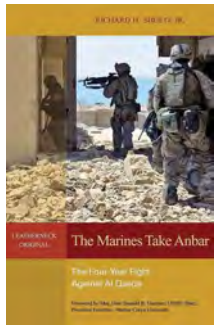
Bazaine tried halfheartedly on August 31 to break out of the encirclement but subsequently surrendered on October 27. On January 18, 1871, the German princes met at Versailles to proclaim the creation of a unified German Empire. Later that month the two sides signed an armistice. Under the terms of the Treaty of Frankfurt signed May 10, 1871, Bismarck forced the defeated French to cede Alsace and part of Lorraine, as well as to pay Prussia an indemnity of five billion francs. The harsh indemnity was designed to impoverish France for the foreseeable future so that it would not be able to meddle in the affairs of the young German empire. However, France eventually recovered. Less than a half century later, an even more terrible war between the two nations broke out. □

By Christopher Miskimon

U.S. Marines enlisted the locals in Anbar Province to help them stamp out the insurgency in the second phase of the Iraq War.

ON THANKSGIVING DAY 2009, A CONVOY OF THREE MINE-RESISTANT ambush-protected (MRAP) vehicles left the south gate of Camp Ramadi, Iraq, and began the roughly three-mile journey to the Provincial Government Building. As they traveled along a downtown street, a young Arab man standing on the roadside suddenly threw an RKG-3 antitank grenade at the lead truck.

The machine gunner in the vehicle's turret ducked as the grenade struck the right front end of the crew compartment. The explosion shattered the outer layer of the MRAP's armored glass; a tiny fragment lodged in the machine gunner's helmet strap, but he was otherwise unharmed. Quickly remanning his weapon, the gunner saw his attacker turn and flee, ducking into a crowd of nearby civilians. He made a snap decision to hold his fire; the risk to the civilians was too great. The convoy continued on its mission. The Iraqi was captured by the crowd he ducked into, angry at the way he had placed them at risk. The American machine gunner would later testify against the insurgent in an Iraqi court. By 2009, such an attack happened perhaps once a month rather than the hundreds of attacks per month just a few years earlier. A functional Iraqi justice system had likewise been a dream not long before.



From 2004 through 2006, Iraq's Anbar Province was one of the most dangerous places in the world. Two of its cities, Fallujah and Ramadi, earned the grim sobriquet "deadliest city on Earth" at different times. American Marines and soldiers fought desperate battles in those cities, and official reports claimed the battle for Anbar was a lost cause. Within a year the situation had dramatically turned around until combat in these places became a rare occurrence. ***The Marines Take Anbar: The Four-Year Fight against Al-Qaeda*** (Richard M. Schultz Jr., Naval Institute Press, Annapolis, MD, 2013, 292 pp., maps, photographs, notes, bibliography, index, $39.95, hardcover) tells the story of how Iraq's lost province became one of its most secure.

Marines assigned to I Co., 3rd Battalion, 3rd Marine Regiment speak with a local shopkeeper in Zaidon, Iraq, during a patrol of area neighborhoods to interact with the residents and prevent enemy freedom of movement.

When the Marines arrived in Anbar in early 2004, an insurgency was rapidly growing. Anbar's citizens are overwhelmingly Sunni Muslims. With the downfall of Saddam Hussein's regime, Shia Muslims became more prominent and the people of Anbar feared for their future. Mistakes made by the American authorities only made the problem worse. Before long war took hold as tribal fighters resisted the American presence and Al-Qaeda operatives moved in to use them as

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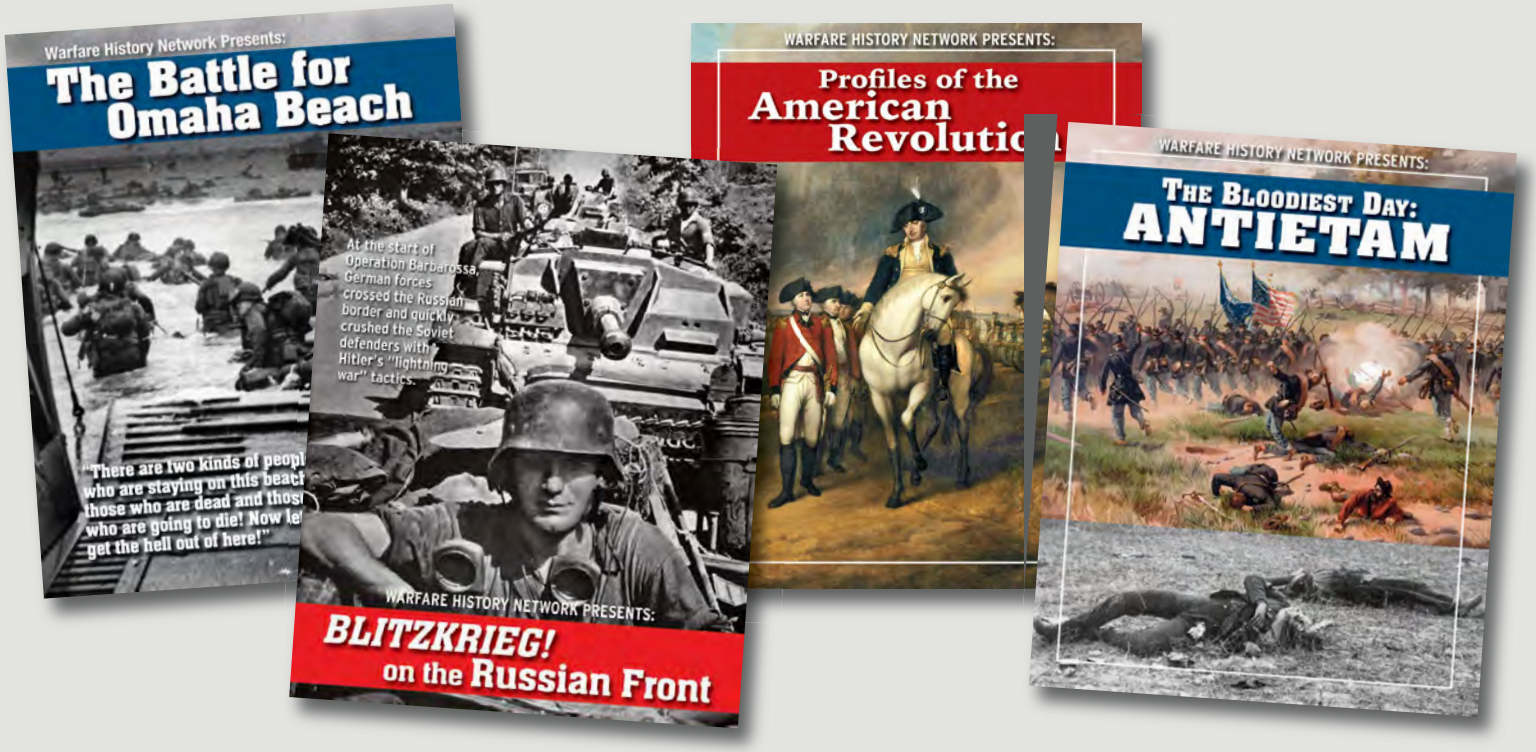

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pawns in their own schemes to expand the global jihad.

A series of mistakes and miscalculations plagued the Marines at the start. The Americans believed they were deploying to carry out "stability operations," a euphemism for reconstruction and humanitarian aid aimed at getting the Iraqi government working again. Instead, they found themselves fighting a full-blown insurgency. At higher levels, U.S. government officials were slow to recognize the threat and resisted engaging with the traditional tribes of the region, whose sheikhs represented the true ruling authority.

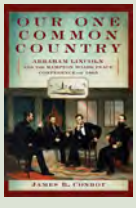
On the ground, this meant the Marines and attached soldiers faced hard fighting. The enemy used improvised explosive devices, mortars, and rockets to launch ambushes. With the locals unwilling to work with the Americans, the situation rapidly deteriorated. By 2006, one Marine intelligence report even declared the war in Anbar lost. The report was later obtained by the press, gaining widespread media attention. It seemed all was lost in the Sunni stronghold of Anbar.

The Americans were not ready to give up yet, though. They were starting to understand the situation and what was needed. In addition, Al-Qaeda's brutal and fanatical tactics began taking a toll on Sunni civilians. When they complained, Al-Qaeda men intimidated, tortured, and murdered locals to maintain control. They knew if the sheikhs and tribes turned against them they would be unable to hold the province. To prevent this, even sheikhs were murdered. That was the tipping point. The local tribes became open to working with the Americans, and the Marine Corps leadership was perceptive enough to seize the opportunity. The sheikhs mobilized their people. With American support, Al-Qaeda was driven out.

This book is an excellent primer for counter-insurgency warfare at the regimental and division levels. Key leaders were interviewed, and these officers candidly explained what did and did not work. The author is able to explain both military and political situations in easily understandable terms, and his level of detail on the tribal sheikhs and their actions is commendable. I served in Anbar Province, and this book taught me things that I did not know or only dimly realized. Anyone who wants a greater understanding of the Iraq War can benefit from reading it.

SHORT BURSTS

Our One Common Country: Abraham Lincoln and the Hampton Roads Peace Conference of 1865 (James B. Conroy, Lyons Press, 2014, $27.95, hardcover). This is an account of the long-neglected peace negotiation, which ultimately failed to end the Civil War. It was the only time a serving president spoke directly to an enemy during wartime.



The Admiral and the Ambassador: One Man's Obsessive Search for the Body of John Paul Jones (Scott Martelle, Chicago Review Press, 2014, $26.95, softcover). The buried body of naval hero John Paul Jones was lost in the chaos of the French Revolution. Later, Civil War Hero and Ambassador to France Horace Porter conducted a search leading to the body's return to America in 1906.

The Fires of Patriotism: Alaskans in the Days of the First World War 1910-1920 (Preston Jones, University of Alaska Press, 2014, $35.00, softcover). Though still a territory at the time, Alaska sent more men per capita to war than any state. This book is a summary of Alaska's contribution to the American war effort.

Civilian Warriors: The Inside Story of Blackwater and the Unsung Heroes of the War on Terror (Erik Prince, Portfolio/Penguin, 2014, $29.95, hardcover). The author is the founder and former chief executive officer of the private military company Blackwater Inc. This is his account of the company's practices, history, and the controversies surrounding it.

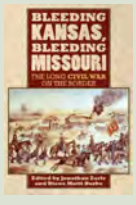
Crisis in the Mediterranean: Naval Competition and Great Power Politics, 1904-1914 (Jon K. Hendrickson, Naval Institute Press, 2014, $54.95, hardcover). This is an analysis of how competition in the Mediterranean between Great Britain, Italy, and Austria-Hungary changed the situation in the years before World War I. The author maintains this forced England and France into a closer relationship.

Supreme Commander: MacArthur's Triumph in Japan (Seymour Morris Jr., Harper Collins, 2014, $26.99, hardcover). The author examines how General Douglas MacArthur rebuilt Japan from a nation devastated by war to a functioning democracy. He achieved this despite many who believed he would fail.

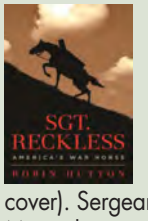
US Cold War Aircraft Carriers: Forrestal, Kitty Hawk and Enterprise Classes (Brad Elward, Osprey Publishing, 2014, $17.95, softcover). This is a book highlighting the carriers that shouldered the burden of Cold War operations for several decades. Information on their origins, designs, and service histories is included.

I Am a Soldier of Fortune: Dancing with Devils (Lt. Col. Robert K. Brown, Casemate Publishers, 2014, $29.95, hardcover). This is an autobiography of the famous former Green Beret who founded *Soldier of Fortune* magazine. He fought and then reported on wars around the world for decades.

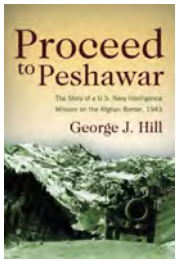
Bleeding Kansas, Bleeding Missouri: The Long Civil War on the Border (Eds. Jonathan Earle and Diane Mutti Burke, University Press of Kansas, 2014, $37.50, softcover). This book of essays seeks to show the horrible fighting which occurred in these two states during the American Civil War. Included are writings on how the people managed to rebuild after the war ended.



Sgt. Reckless: America's War Horse (Robin Hutton, Regnery History, 2014, $27.99, hardcover). Sergeant Reckless was a Mongolian mare who carried supplies to the front and wounded men to the rear during the Korean War. Her story is told here through the help of Marines who knew her.



Proceed to Peshawar: The Story of a U.S. Navy Intelligence Mission on the Afghan Border, 1943 (George J. Hill, Naval Institute Press, Annapolis, MD, 2013, 272 pp., maps, photographs, notes, bibliography, index, $36.95, softcover).



On the morning of November 16, 1943, a trio of men, two American and one British, climbed into a U.S. Army jeep in the city of Peshawar in India's Northwest Frontier Province. The three men, Major Gordon Enders, U.S. Army, Major Benjamin Bromhead, British Army, and Lieutenant Albert Zimmerman, U.S. Navy, set out to gather information on the Indian/Afghan border area. In effect, they were being drawn into the Great Game, the competition between Great Britain and Russia, later the Soviet Union, for control of the area. This contest had gone on since the mid-1800s. Britain sought to protect its interests in India and the Middle East while the Soviets wanted the region as an eventual starting point for a push to the Indian Ocean, giving them an all-weather port in the area. Even during World War II this game went on as both nations looked to the long term, knowing the war would end and the two countries would again become competitors.

The byzantine political arrangements of the area mixed diplomacy, military action, and clashes of culture. Many British officials believed India would soon be independent of the British Empire and the Americans would take over an interest in the area. The expedition was a way to slowly work the United States into the area. Though American involvement in the area was only gradual, it eventually became involved in the region to this day, as the recent war in Afghanistan shows. This book shows how a small U.S. mission laid seeds for that involvement.

Bracketing the Enemy: Forward Observers in World War II (John R. Walker, University of Oklahoma Press, Norman, 2013, 274 pp., maps, photographs, notes, bibliography, index, $29.95, hardcover).

One of the U.S. Army's greatest strengths in World War II was its field artillery. During the 1930s, American artillerymen devised new methods of fire direction which allowed them to quickly mass the fire of multiple artillery battalions onto a single target. Both German and Japanese troops readily acknowledged this ability as one of the most fearsome things they faced when fighting Americans. One of the key elements of this system was the forward observer.

Equipped with radio, map, binoculars, and compass and well trained in their role, forward observers accompanied every infantry battalion, often down to the company level. The typical team comprised a lieutenant to oversee the mission with several enlisted men serving as assistants. The team would communicate with its parent unit to get targeting information on enemy positions to support the infantry. Since they were with the infantry, casualties were high, and enlisted men often assumed the observer's role with deadly effect. The system worked so well that it is still used today with only a few changes, mostly due to advancing technology.

The author uses two Army units as examples. The 37th Infantry Division, Ohio National Guard, saw action in the Pacific Theater beginning on New Georgia in July 1943. It went on to fight on Bougainville and in the Philippines, including the Pacific War's biggest urban battle at Manila. The 97th Division, a reserve outfit reactivated in 1943, went to the European Theater, entering combat in December 1944 with Lt. Gen. George Patton's Third Army. In addition to Lorraine, it saw action on the Siegfried Line and also in the Battle of the Bulge. Each is representative of the American experiences on opposite sides of the globe during World War II.

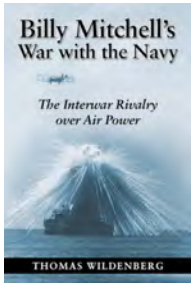
Aside from showing the observers in action, the author does a good job explaining how American artillery developed its deadly effectiveness before the war. Comparisons between American, German, and Japanese systems of artillery direction are explained, too, admitting the strengths and weaknesses of each. The explanations are in simple terms easily understood even if the reader has no knowledge of artillery, and many personal stories of observers are included.

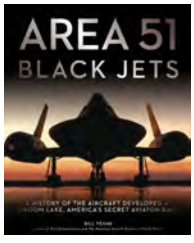
When Football Went to War (Todd Anton and Bill Nowlin, Triumph Books, Chicago IL, 2014, 273 pp., photographs, notes, bibliography, $25.95, hardcover).

During the past 100 years a number of sports figures served their country during wartime. Many made the ultimate sacrifice for doing so. This work focuses on football players who left the gridiron to fight on the real battlefields of World War II, Korea, Vietnam,

and the Middle East.

The example set by Jack Lummus shows the heroism of which these men were capable. Lummus was a Texas farm boy who signed two sports contracts, one with a minor league baseball team, and then with the New York Giants football team. After a short time playing for them, he joined the Marine Corps on January 30, 1942. Lieutenant Lummus served in a variety of postings before landing on Iwo Jima in February 1945 with the 27th Marines. On March 8, he led an attack on Japanese positions and exposed himself to intense fire several times, knocking out several pillboxes and trench lines. Finally, leading another attack, he stepped on a landmine. The explosion took both his legs. Standing on his stumps, he encouraged his men forward to complete their assault. He died that night in a field hospital. Lummus was awarded the Medal of Honor for his actions that day. This is just one of the many examples of football players serving the United States found in this book.





Billy Mitchell's War with the Navy: The Interwar Rivalry Over Air Power (Thomas Wildenberg, Naval Institute Press, Annapolis MD, 2013, 271pp., photographs, notes, appendices, bibliography, index, $34.95, hardcover).

Billy Mitchell is a unique character in American military history. A leading proponent of air power during its infancy after World War I, he advocated for an independent air force as the nation's first line of defense. He defended this view through the successful sinking of a German battleship, the *Ostfriesland*, in 1921 by bombers. Despite this example, the military establishment rejected his calls for an air force amid the strained budgets of the postwar country.

Undaunted, the oft-insubordinate Mitchell continued his crusade, focusing his attacks against the Navy. Eventually his words went too far and he was court-martialed. Found guilty, he soon resigned his commission and continued his war of words from a civilian pulpit. Controversial at the time, he was later recognized widely as a father of the U.S. Air Force. The story of how all this happened is a fascinating look at interwar American defense doctrine and politics.

Westmoreland's War: Reassessing American Strategy in Vietnam (Gregory A. Daddis, Oxford University Press, New York, NY, 2014, 280 pp., photographs, notes, index, $34.95, hardcover).

William Westmoreland has received much criticism for his handling of the Vietnam War during his tenure from 1964-1968. In this book the author contests this view of Westmoreland as a dogmatic officer trying to refight World War II in Vietnam. Rather, he asserts that as the senior commander Westmoreland's policies gave much focus to what would today be called civil-military operations. This included economic development, providing security to the civilian populace and stabilizing the chaotic political situation in South Vietnam. While search and destroy missions and the famous "body counts" did exist, Westmoreland did recognize the need to win the support of the South Vietnamese people. The author asserts that while the American effort was doomed to fail for other reasons, Westmoreland's strategy was not the cause of that failure.

Area 51 Black Jets: A History of the Aircraft Developed at Groom Lake, America's Secret Aviation Base (Bill Yenne, Zenith Press, Minneapolis, MN, 2014, 192 pp., maps, photographs, bibliography, index, $40.00, hardcover).

Area 51 is better known as the focus of UFO conspiracy theories, but in actuality is a historic location where many of the U.S. Air Force's most famous aircraft were developed and tested. Military aircraft such as the U-2 and SR-71 reconnaissance platforms, F-117 stealth fighters and modern unmanned aerial vehicles all saw time at the enigmatic air force facility in the Nevada desert north of Las Vegas.

In addition, many Soviet warplanes were tested and used in training in the area. Acquired through various means, these jets were used to train American pilots in how to fight them long before anyone knew we had them. In 1966 an Iraqi MiG-21 pilot defected to Israel, and his plane came to Nevada two years later. More MiG-21s came during a trade with Indonesia for American F-5s. The Israelis provided MiG-17s, and later Egypt transferred MiG-23s. Even senior leaders in the USAF did not know of the program's existence. Even today, unconfirmed sightings of newer Russian designs such as the MiG-29 abound, along with reports of even more exotic and strange aircraft, adding to the mystique of Groom Lake. □

You deserve a factual look at . . .

Israel: An Apartheid State?

Is there any truth at all in this oft-repeated calumny?

At many universities Arab militants and other radical students hold Israel Apartheid Weeks. Even some establishment politicians have taken to using the word "apartheid" to describe Israel's policies or the danger of Israel becoming a segregationist state. What justification is there for this odious characterization?

What are the facts?

South African Apartheid. "Apartheid," the Dutch-Africaans term for separation, was the social order of the former South Africa. It meant exactly that. The Black majority of the nation and the so-called Colored were kept strictly apart in all aspects of life. White domination over the native population was mandatory. For instance: Non-Whites had to carry a "passbook." Passbook infringement could lead to deportation to one of the Bantu "homelands." Blacks and Coloreds were being kept from a wide array of jobs. Black-White sex was a serious jail-time criminal offense. Hospitals and ambulances were strictly separated. Whites enjoyed free education until graduation. Not so for Blacks, whose education was strictly limited by the oppressive "Bantu Education Act."

By law, no mixed sports were allowed. Park benches, swimming pools, libraries, and movies were strictly separated. Blacks were not allowed to purchase or imbibe alcoholic drinks. And that is only a partial and small list of the many abusive impediments that non-Whites suffered under the South African apartheid regime.

> "To call Israel an apartheid state is an expression of ignorance, anti-Semitism, and malice."

Israeli Equality. In fact there can be no comparison of these policies to life in Israel. To the contrary: Not one single apartheid law or practice can be found in Israel. Israel is by far the most racially mixed and tolerant nation in the entire Muslim Middle East. Arabs, who are about 20% of Israel's population, enjoy, without any exception, the same rights and opportunities in all fields as their Jewish fellow citizens. The total equality of all Israelis is assured in Israel's founding document. All non-Jews (which means primarily Muslim Arabs) have full voting rights. At present, eleven Arabs sit in Israel's Knesset (parliament): Three Arabs are deputy speakers. Arabs are represented in Israel's diplomatic service all over the world. Arab students may and do study in all Israeli universities. All children in Israel are entitled to subsidized education until graduation, without any restrictions based on color or religions. In short, Muslim Arabs and other non-Jews are allowed everything that Jews are allowed, everything that non-Whites were not allowed in apartheid South Africa.

But, yes, there is one difference: Jewish Israeli men are obligated to a three-year stint in the Israeli Defense Forces (IDF) and serve in the reserve until they are 50 years old. For Arabs, this service is voluntary. Except for the Druze, hardly any Arabs volunteer to serve in the armed forces.

Israel has granted permanent residence and full citizen rights to a large number of legal and illegal foreign workers and their families – from the Philippines, Eritrea, Colombia, Nigeria, and from many other countries. Nobody, of course, is forced or requested to convert to Judaism as a condition of their being allowed to stay. Israel has accepted a shipload of Vietnamese refugees who had sought asylum. No Arab country has accepted a single one of those refugees. Israel has brought in about 70,000 black Ethiopian Jews, who despite their backwardness have become fully integrated citizens of Israel. Everything that Blacks were not allowed to do in South Africa is totally open to non-Jews in Israel.

The "Apartheid Wall." Another reason for which left-wing zealots and anti-Semites like to refer to Israel as the "apartheid state" is the fence between Israel proper and the territories. This fence (which is indeed a fence and not a wall over most of its length) was constructed at great cost in order to prevent the suicidal attacks that had killed hundreds of Israelis and grievously wounded thousands more. Thankfully, this "wall" is exceptionally successful and has totally prevented any such attacks since its completion. There is little question that this separation fence is the cause of inconvenience for some of the Arab population. But it is an annoyance that they have brought about themselves. And, of course, there are walls for protection all over the world. The Chinese invented it hundreds of years ago. Our own country has a long, high, very sophisticated wall across our border with Mexico. It is a wall, not to keep out criminals who want to kill Americans, but people who want to come here only in search of a better life. To call the Israeli fence an "apartheid wall" is an expression of ignorance and of malevolence.

Israel is a light unto the nations. It has, regrettably, many enemies – all or most of the world's Muslim nations and left-wing ideologues who mostly hate the United States and who consider Israel to be America's cat's-paw in the Middle East. The reality, of course, is that Israel is the exact opposite of an apartheid state. It is a country in which all residents, all citizens, enjoy the same full rights. All other countries in the Middle East are benighted theocracies, ruthless tyrannies, or mostly both. To call Israel an apartheid state is an expression of ignorance, anti-Semitism or malice – or all three.

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THE BIG NAMES ARE BACK FOR MORE, WITH *CALL OF DUTY, BATTLEFIELD,* AND *RAINBOW SIX* GUNNING FOR THE TOP SPOT.

This year's E3 was full of the typical spectacle one expects from a slew of games and promises that are still waiting in the relatively distant future. The big name publishers and developers were out in full force, especially during Microsoft and Sony's press conferences, so it was a good opportunity to see what we have to look forward to when it comes to the major blockbuster war games throughout the remainder of 2014 and beyond.

It wouldn't be, well, a year without a new *Call of Duty* game, and the one coming toward the end of this calendar looks to take the set pieces, visuals, and every other aspect of the best-selling franchise up a few more notches. While Activision allows its bread winner to cook a bit longer than normal, EA is whipping up something very different with its *Battlefield* franchise, and Ubisoft is bringing the squad tactics of *Tom Clancy's Rainbow Six* back for another round. All in all it should be an interesting year for AAA action games, so let's take a closer look at what's in store.

PUBLISHER ACTIVISION
DEVELOPER SLEDGEHAMMER GAMES
SYSTEM(S) PC, PS3, PS4, XBOX ONE
AVAILABLE NOVEMBER 4

CALL OF DUTY: ADVANCED WARFARE

Call of Duty is as much of a mainstay as a series can get, rivaled only by the likes of annual sports games and Ubisoft's relentless *Assassin's Creed* conveyor belt. For the next entry, *Call of Duty: Advanced Warfare,* Activision cranked up the development period, and developer Sledgehammer Games flexed its muscles on a new graphics engine that boosts what everyone was beginning to consider somewhat dated visuals. The *Call of Duty* games have always made up for their graphical shortcomings with enough bombastic thrills, but it's nice to see a new level of care being put into even the most insignificant of details.

What in the world is Sledgehammer Games, though? The developer isn't completely new to the block, and previously contributed to the series by co-developing 2011's *Call of Duty: Modern Warfare 3*. Sledgehammer gets to have even more fun this time around, taking the reins and playing around with some really advanced futuristic machinery to assist in unprecedented levels of destruction and mayhem. The perfect example of this can be seen in the exoskeletons soldiers are equipped with, allowing them to boost their jumps and leap about, enhance their strength, and other superheroic feats.

Yes, exo-suits and more represent the kind of equipment the year 2054 has to offer, and private military corporations rule in this vision of the future. The largest PMC in the world is known as Atlas, run by founder and CEO Jonathan Irons, played here by none other than Kevin Spacey, hot off his fourth-wall-busting run on *House of Cards.* Irons has beef with America, believing that the country has failed numerous attempts to install democracies around the world for far too long, and aims to change the global balance of power through clandestine operations. Former U.S. Marine Mitchell, played by Troy Baker (The Joker in *Batman: Arkham Origins*), joins Irons and the rest of the folks at Atlas.

It may not be the current-gen-only entry some were expecting—we are still in that murky transitional period between hardware generations, after all—but from spider tanks to the hardware outfitting every individual soldier, *Call of Duty: Advanced Warfare* looks like it should at least live up to its name. We'll see just how well it can predict the future of firefights when it launches across consoles and PC later this year.

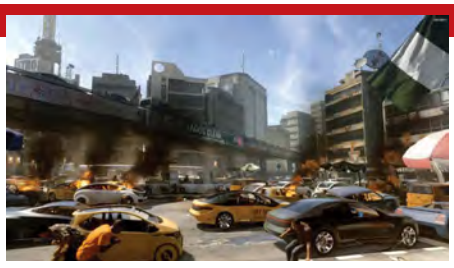
PUBLISHER EA
DEVELOPER VISCERAL GAMES
SYSTEM(S) PC, PS3, PS4, XBOX 360, XBOX ONE
AVAILABLE OCTOBER 21

BATTLEFIELD: HARDLINE

Placed side by side with the latest *Call of Duty,* EA's efforts with the *Battlefield* franchise couldn't look any more different. *Battlefield: Hardline* moves away from the traditional war settings—both historical and modern—and turns it into a fancy game of cops and robbers. The studio handling development duties this time around is Visceral, best known for working on the *Dead Space* series of action horror games.

EA let Visceral take over after discussing the idea nearly three years ago, but they had to prove themselves first by working on a *Battlefield* expansion pack. With the focus shifting to police in *Hardline,* the war on crime takes center stage, and factions are split up between the Special Response Units and the criminals. *Battlefield 4*'s Levolution mechanic—which allowed for environmental destruction on a massive scale and other cool effects—will be in full play here, and *Hardline* adds in new game modes such as Heist, Blood Money, Rescue, and the high-speed chases of Hotwire mode.

Battlefield: Hardline can currently be sampled via a PC and PlayStation 4 beta, and at the very least it's unlikely *Hardline* will come out the gate



broken in as many places as *Battlefield 4* was.

PUBLISHER UBISOFT
DEVELOPER UBISOFT MONTREAL
SYSTEM(S) PC, PS4, XBOX ONE
AVAILABLE 2015

TOM CLANCY'S RAINBOW SIX: SIEGE

While Tom Clancy is sadly no longer with us, his legacy lives on in games like Ubisoft Montreal's *Rainbow Six: Siege.* Like *Hardline,* this entry pits two similarly opposing forces against one another, placing the emphasis on team play with a more realistic angle, exemplifying what the series has been known for since 1998.

Players on both ends will get the chance to flex their tactical prowess as one side takes hostages and decides where to post them up, while the other team prepares to bust in with a gang full of SWAT officers. That sets the stage nicely for plenty of infiltrative gadgetry on behalf of the latter, while the former focuses on barricading and fortifying their hold-up for the inevitable onslaught of armed police. While SWAT guys have gear like camera drones and other means of reconnaissance, the baddies are also outfitted with CCTV cameras, so one side always has the opportunity to get the drop on the other.

Rainbow Six remains more of a thinking man's shooter in comparison to the Hollywood-esque rumblings of *Call of Duty* and the building-toppling mayhem of *Battlefield.* We'll have to wait a little longer to play the full version of this one, but it's currently aiming specifically for current-gen systems (PS4 and Xbox One) and PC. □

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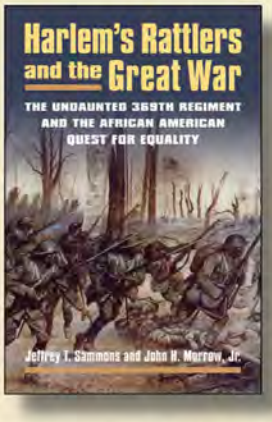
Jeffrey T. Sammons and John H. Morrow, Jr.



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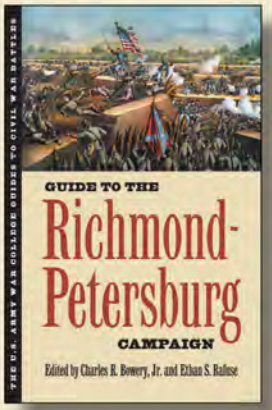

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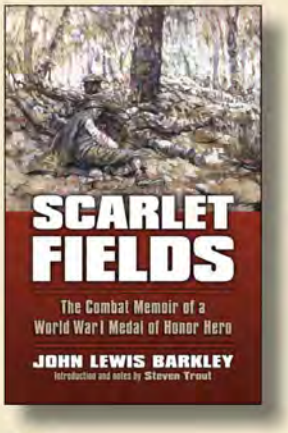

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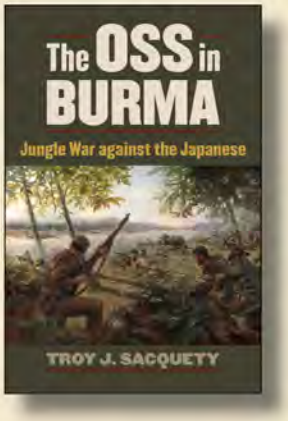

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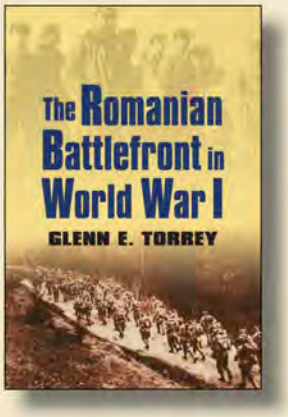

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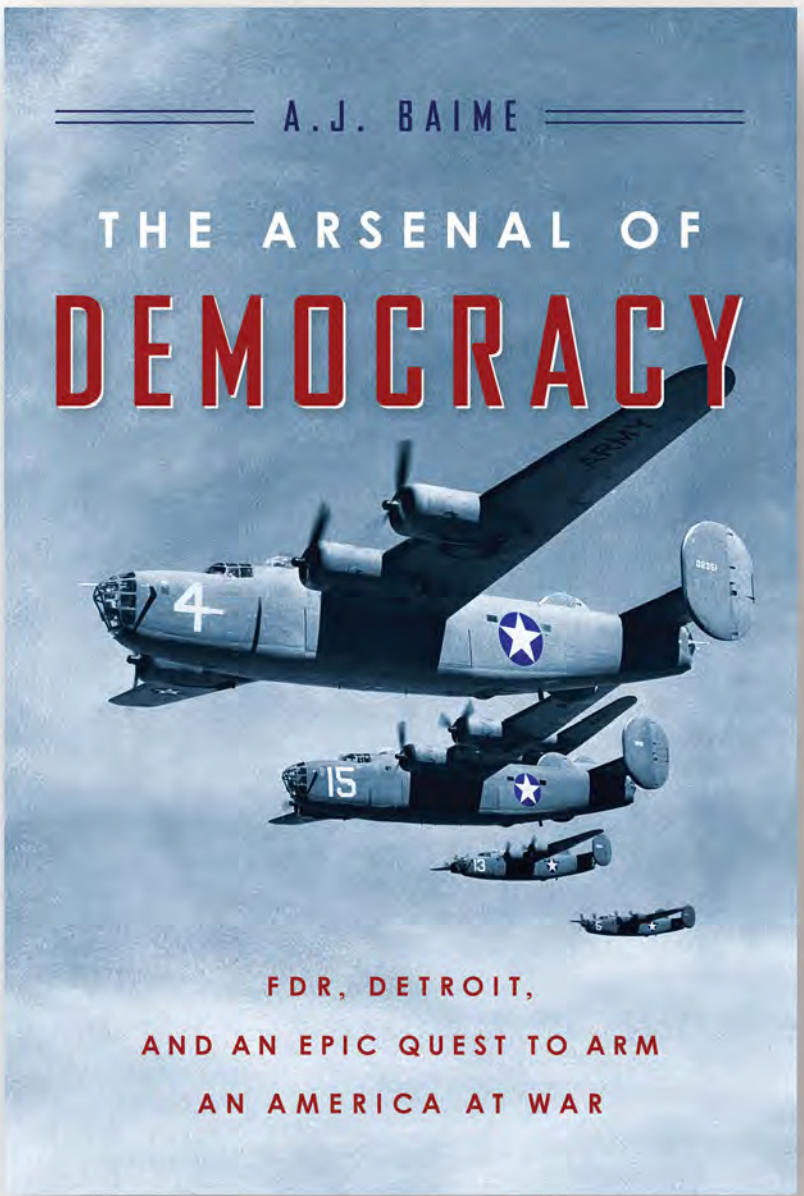

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