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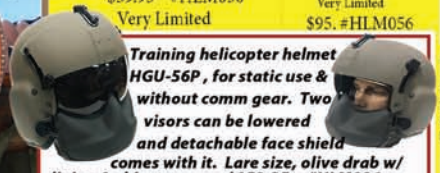

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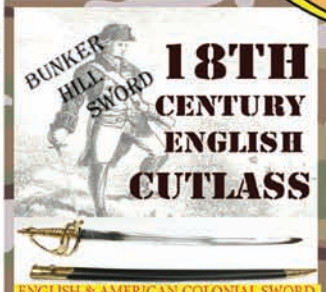

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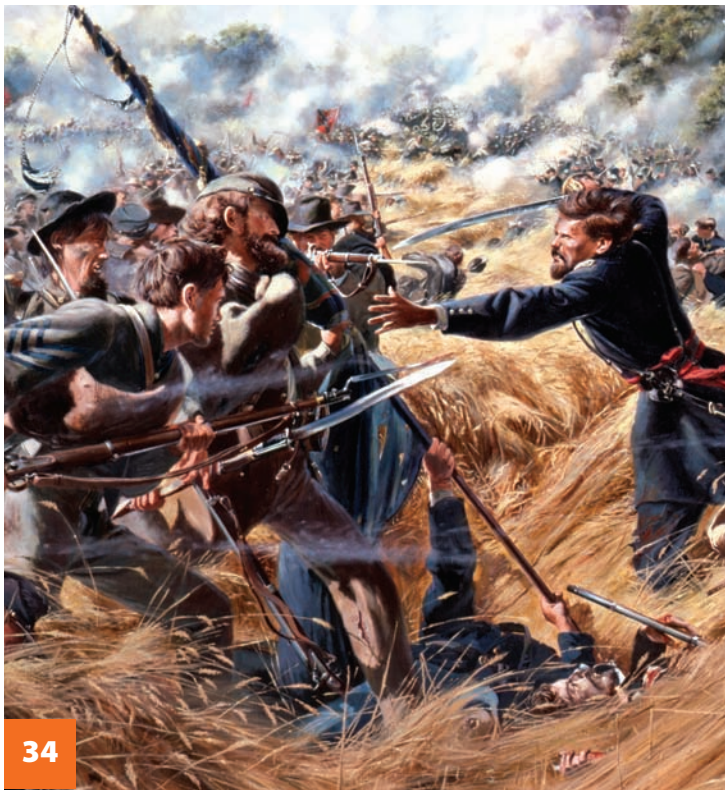
Summer 2023

FEATURES

Cover: A British soldier from the 6th King's Own Scottish Borderers, carrying a Bren gun and full equipment, moves up in Holland. In February 1945, British and Canadian forces fought the Germans through the Reichswald and into Germany. See story page 44. Photo: Imperial War Museum.



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EDITORIAL

Horatio Nelson: Deserving Hero

DAYS BEFORE THE IMPENDING BATTLE OF TRAFALGAR, A SAILOR on Horatio Nelson's flagship Victory was so busy ensuring that each man's letters home were secured for dispatch on a vessel bound for England that he forgot until after the ship had sailed that he hadn't included his own. Hearing of it, Admiral Nelson had a signal hoisted to call the courier ship back so the sailor's letter could be included.

About the same time, superiors in London ordered Nelson to send back a fellow admiral to England for a questionable court-martial. Nelson, realizing the man would feel disgraced if returned in a frigate rather than his own larger ship of the line, allowed him to sail home in it rather than retaining the three-decker for his own imperiled fleet.

These are but a few examples of the character of this small man, product of an up-country parson's family. Over the last two centuries, with the exception perhaps of Winston Churchill, no one has so sparked the admiration and love of the British people. Like Churchill's, Nelson's funeral was partly staged on the River Thames, the Royal Navy at places of honor and the banks lined with citizens of a grateful nation. Such an honor is befitting the two men who, 150 years apart, thwarted invasion by a menacing continental foe by retaining sea superiority in the English Channel.

Nelson, of course, is less revered in the United States than in Britain, perhaps because his Royal Navy so plagued the young country in 1776-1781 and again in 1812-1814. Still, he was an exceptional person. He was flawed, to be sure, but ingenious, a brilliant strategist and tactician, and exceptionally likable.

If the word "genius" is to be applied to a military man, he must possess certain qualities, including the blessings of luck. Nelson had them aplenty. He was thoroughly trained in seamanship, having set to sea at age 12. He was bright and picked up his craft quickly. By age 20 he was a captain.

He studied past battles and determined how to wage them better. He saw how Britain's determination to "go by the book" ruined her chances for victory against the French fleet off Yorktown in 1781 and consequently lost her the American colonies. Thereafter, a certain measure of insubordination and "going against the book" were Nelsonian trademarks.

As an admiral, he was willing to risk all, as he did at Aboukir Bay, Copenhagen, and Trafalgar on untried tactics. But he and his captains worked in extraordinary harmony.

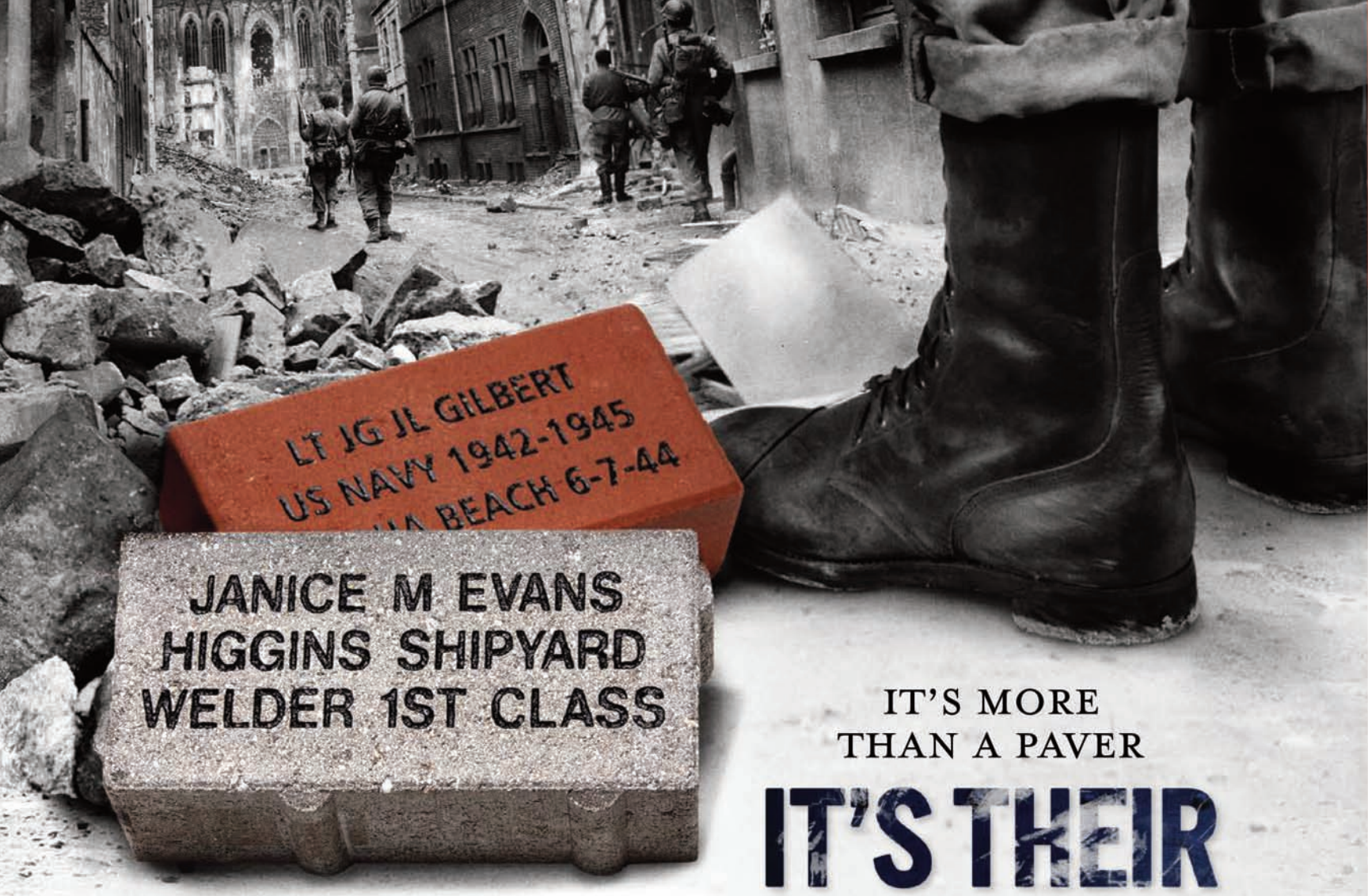
He was unquestionably brave. He always led his men in attack and never put himself in a position of protection, hence the loss of an eye and an arm. Indeed, he led the way at Trafalgar and paced the deck defying fire despite the fact that as admiral he really had nothing to do once the ships were engaged. His death by musket ball was the result.

He lived by his code of duty. Time and again he put his personal needs aside to serve his country.

All of this would have been enough to ensure him a place in the pantheon of military luminaries. But he also felt a keen affinity for those who served with him. They returned his affection. Of course, this aided his path to victory; the sailors and captains who served with him were eager to go where he led and fought, for Nelson personally, if for no other reason.

His great flaw, the abandonment of his wife for Lady Hamilton, has always tarnished his glory, but even this may have stemmed from his bravery. The head wound he sustained at Aboukir Bay may have damaged his brain's frontal lobes, leading to a loss of judgment and inhibitions. His affair began as Emma Hamilton tended the wound.

Brilliant, brave, killed at the height of a crowning victory, flawed, intriguing. Well might Britain still revere her little admiral, who, like Elizabeth and Churchill, faced down invasion and won.



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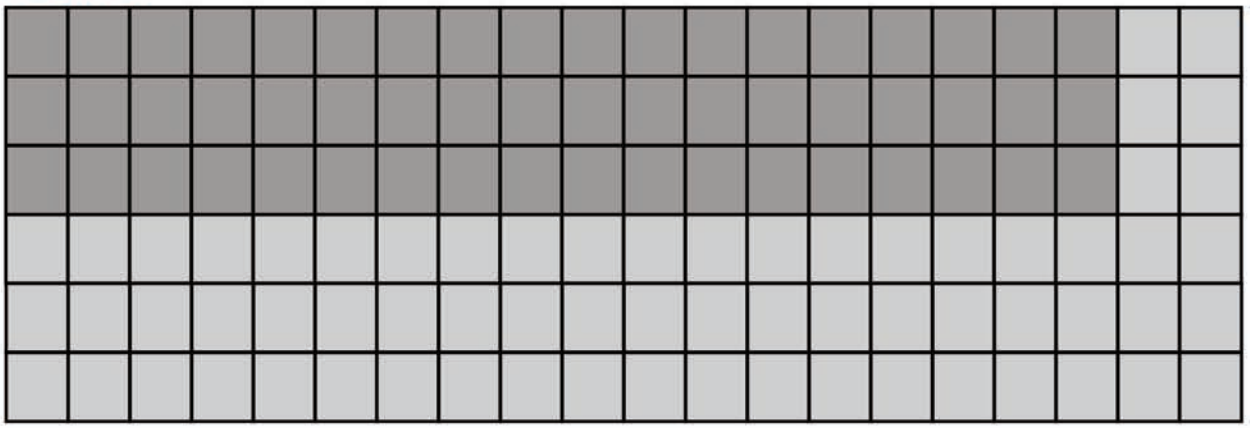

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VALOR

Naval History and Heritage Command

A True 'Top Gun' receives Navy Cross for his against-all-odds 1952 dogfight with seven Soviet MiGs that was kept a secret for nearly 50 years.

By Mark Carlson

One of the most remarkable events in modern naval aviation was kept a secret for almost half a century. On the morning of November 18, 1952, U.S. Navy pilot Lieutenant E. Royce Williams was on combat air patrol with three other F9F-5 Panthers around the aircraft carrier USS *Oriskany* in the Sea of Japan off the coast of North Korea. Their 90-minute patrol was soon interrupted by orders to intercept incoming bogies. Williams was the first to identify the enemy planes as dreaded Soviet MiG-15s. Mechanical problems forced the three other Navy planes to turn away. In a matter of minutes Williams' routine patrol had become a dogfight for his life as he found himself surrounded by seven MiG-15 fighters.

The story of Williams' fight–and success–that day was classified, though he did receive a Silver Star. That award was upgraded to the Navy Cross, the service's highest military decoration, which Williams, 97, received from Secretary of the Navy Carlos Del Toro in a January 2023 ceremony.

That day over the Sea of Japan was about as far away from home as a South Dakota farm boy could get. Williams had joined the Navy soon after Pearl Harbor. At 17, he signed up for the Naval Aviation Cadet Program (NAVCAD). After receiving his wings at the end of the war, he accepted a regular Navy commission and attended the University of Minnesota where he received a Bachelor's Degree, then went to the Naval Postgraduate School in Monterey.

Royce Williams

ABOVE: Navy Lieutenant Royce Williams climbs into his F9F Panther. Williams shot down four Soviet MiG-15s off the coast of Korea in an incident classified for 50 years. In January 2023, he received the Navy Cross. TOP: Navy F9F-2 Panther of Fighter Squadron 24 (VF-24) flies over ships of Task Force 77 during operations off North Korea in July, 1952.

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Naval History and Heritage Command

U.S. Navy

ABOVE: Two Grumman F9F-2 Panther fighters dump fuel as they fly past the carrier USS *Princeton*, during Korean War operations in May 1951. Some 18 months later, U.S. Navy pilot Lieutenant E. Royce Williams would take on seven Soviet MiG-15s, downing four of them, diminishing the aircraft's reputation as invincible. RIGHT: U.S. Navy Captain Royce Williams served in Korea and Vietnam, and was awarded the Navy Cross in January 2023. U.S. Representative Darrell Issa is working to get Williams awarded the Congressional Medal of Honor.

Williams had been on track to fly a propeller-driven Vought F4U Corsair, but he wanted to get into jets and was able to transfer to the VF-781 "the Pacemakers," which flew the Grumman F9F-5 Panther, a highly capable ground attack and close air support jet fighter. He was assigned to the carrier USS Oriskany (CV-34), part of Carrier Task Force 77 on station off the North Korean coast, in late 1952. Under Commander Gordon P. Chase, a World War II Navy Cross holder, Williams and the other pilots in Air Group 102 provided support for American and United Nations ground forces fighting the North Koreans.

Their adversary would be the Mikoyan-Gurevich 15 (MiG-15) known to NATO as the "Fagot." The MiG-15 was the most advanced Soviet fighter of the post-war years. Like the Mitsubishi A6M Zero early in the Pacific War, the MiG-15 earned an infamous reputation soon after it appeared in late 1949. Fast, nimble and with an unmatched rate of climb, it was the most feared foe in the Korean sky. The stories of what the MiG-15 could do made it seem virtually unbeatable. Even the best American pilots were in awe. But as with all legends, the truth was more prosaic—the MiG-15 was not invincible.

On November 18 CTF 77 was off Chongjin for a series of air strikes on North Korean industrial targets. The Oriskany was one of about 20 ships under Rear Admiral Joseph "Jocko" Clark on board his flagship, the battleship USS Missouri. The task force was within striking distance of the border with the Soviet Union, which increased the alert level to a high degree. But so far in the war, the Red Air Force and Soviet Navy had refrained from interdicting U.S. forces at sea or in the air. That was soon to change.

On the morning of November 18, Williams With a full load of fuel, the CAP could orbit the ship for about 90 minutes before being relieved by another four-plane patrol. Although there had never been an attack by Communist forces on American carriers, there was always the chance the rules of the war would change. In November the Korean weather was often miserably cold, but that day there was a blizzard under a solid layer of cloud at about 10,000 feet. Below, the slate-gray Sea of Japan was barely above freezing. No one wanted to bail out or ditch in that water. Even with the heavy immersion suits and Mae West life preservers, a man's life expectancy was measured in minutes. A helicopter was always on alert to rescue downed airmen.

Williams led the second element off the catapults, followed by his wingman, Lieutenant (junior grade) Dave Rolands. Climbing to 12,000 feet, the four planes began a slow circuit around their carrier.

Then Oriskany's radar picked up a contact 80 miles to the north, headed directly at CTF 77. The radio barked out the orders, "Climb and intercept incoming bogies." All four Panthers banked to the north and climbed at full throttle. They left the storm behind and the weather was clear. As the four blue F9Fs closed on the contact, Williams was the first to spot and identify the MiG-15s at about 50,000 feet.

The Soviets had the advantage of altitude and numbers. The odds got worse for the Americans when flight leader Lieutenant Elwood had mechanical trouble and was ordered back to the ship, escorted by his own wingman. That left two

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ABOVE: A Soviet MiG-15 is shot down by a burst of tracer rounds from a Navy F9F Panther over Korea in November1950. TOP: Two Cold War-era Soviet MiG-15s fly in formation at the Slovak international Air Show in 2022.

Panther F9Fs against the superior MiG-15s.

The North American F-86 Sabre–direct descendant of the famed P-51 Mustang–was the best American fighter of the Korean War. A true dogfighter, the Sabre was the only U.S. jet that could duel the MiG-15 on nearly equal terms. Williams was not flying the Sabre, but the subsonic Grumman F9F Panther, an aircraft not considered a match for one MiG—much less seven.

Outclassed by the MiG in speed, altitude and rate of climb–nearly double–Williams' Panther did have some advantages. The wingtip tanks made the fighter very nimble in a roll, an advantage in a dogfight. It also had four 20mm cannon in the nose with a higher rate of fire than the MiG's larger 23mm and 37mm cannon. In addition, later test flights of captured MiGs proved it had a directional instability in a steep dive, which would throw off its aim. Even though the MiG could reach transonic speeds, dogfights were most often fought at speeds of less than 500 knots.

Still climbing, Williams and Rolands closed on the bogies. At 45 miles from CTF 77, the seven MiGs passed over the two Panthers, each one leaving a clear white contrail across the cerulean sky. Then they banked hard left and flew the reciprocal of their southbound course, as if about to return to their home base. Williams and Rolands stayed with the MiGs. "Then they dived and broke into two flights, three going left and four going right," Williams said. "They were about 30 miles away at my ten o'clock."

The contrails vanished, making the Fagots very hard to see. Williams radioed that he had lost visual contact with the MiGs, and heard back from Oriskany's combat information center (CIC) that they'd gone off the ship's radar. The CIC believed that the MiGs were returning to their base and ordered the two F9Fs to turn back and reestablish the CAP barrier.

"While I was doing that," Williams said, "the four that had turned to the right came at us in a finger-four formation and started firing. All of them were shooting." With a head-on closure of over 1,000 knots, the chances of a hit were minimal, but a single hit from a MiG's heavy cannon could be catastrophic.

"I kicked a lot of rudder and pulled hard to get on the tail of their number four plane as they shot by," Williams recalled. " I put the pipper, the aiming point, which was controlled by the gyro system, and maneuvered my plane to make sure the shells intercepted the target. I used fire discipline, since I had only about 720 rounds."

Williams flew at full power to stay with faster planes, saving his ammo until he had a sure shot. The Panther quivered from the rapid thumps of the four 20mm cannon that he heard even through his helmet. The MiG on the far right of the formation shuddered from the impact of dozens of explosive shells. Williams said, "At that altitude you don't get much of an explosion, just some flames, but mostly smoke." His quarry dropped out of the sky, trailing smoke as it fell towards the icy slate waters of the Sea of Japan—his first kill. Williams said he did not see if the pilot bailed out.

"I did not have the liberty of following them down. I had more of them shooting at me. I would aim, hit, do some damage, then maneuver defensively." By this time Williams was alone. Lieutenant (jg) Rolands dove after the first MiG that had been hit and was nowhere in sight.

Engaging the six Soviet fighters, Williams turned his attention from one target to the next. "Two of the kills were head-on, and the others were from the rear. They went past too fast to permit deflection shots so I concentrated on getting on their tail."

During the 35-minute dogfight, one of the longest in history, a second, then a third and fourth MiG fell, each trailing flames or smoke. Williams' sturdy Panther was also damaged as shrapnel from explosive shells had penetrated the thin aluminum skin in many places. More serious was the 37mm round he had taken from behind as he closed in on one of the MiGs. He evaded the trailing MiG, but not before it scored a hit.

"The 37 hit the accessory section of the engine and did a super amount of damage," Williams said, noting that all hydraulic power was lost leaving him with no control over ailerons, rudder and flaps. "I only had elevator control, fortunately the landing gear extended from gravity."

Williams coaxed his crippled fighter towards the sanctuary of Oriskany's broad flight deck. "I was pretty shot up and out of ammunition, and headed back to the ship. I had a MiG on my tail. Then Rolands came up and followed the MiG until we made it back under the cloud deck. Apparently his guns jammed so he could not fire but the MiG pilot chose not to attack," Williams said. "During the fight Rolands did not know what had happened to me. He thought he was going to have to tell my wife I was dead."

Coming in at about 170 knots with no flaps to slow him, Williams caught the third wire and landed safely, but his plane was beyond repair. He was sure of at least four kills, perhaps five. Later Soviet reports said that only one of the seven pilots made it back alive.

A few days later he was called by Vice Admiral

Continued on page 90

Anne S.K. Brown Military Collection

Henry Shrapnel set his fertile mind to explosive shells and helped win the battle of Waterloo, among others.

By Robert Whiter

Wellington's artillery commander at Waterloo said that without Henry Shrapnel's devastating new shell, Allied forces could not have taken a key position on the battlefield.

And the rockets' red glare, the bombs bursting in air …" That, as most people know, is a line from the American national anthem, words by Francis Scott Key, to the tune of Anacreon in Heaven by John Stafford Smith

The incident that precipitated the anthem took place during the bombardment of Fort McHenry by the British on September 14, 1814 during the War of 1812.

Bursting, or exploding, bombs (shells) had been in use in one form or another for quite awhile. Some authorities credit the Venetians in 1376 as the originators. Others, such as W.H. Greener, in his book The Gun and Its Development, give the honor to the Dutch.

Basically, the exploding shell was a hollow cast-iron sphere filled with explosive, the filling hole being plugged by a fuse that was timed to detonate the gunpowder during the projectile's travel. Its use was mainly confined to land operations, the shooting of any form of incendiary missile onboard ships being considered too dangerous. However, several tests were carried out by Deschiens in France and Sir Samuel Bentham who served with the Russian navy. The latter's shells had considerable success against Turkish ships.

The French General Henri Paixhans also developed guns that gave the shell not only a high angle and muzzle velocity, but substantially increased the range. Additionally, tests had been carried out in England during the middle and late 1700s, but these had been delayed, to some extent, by premature exploding of the projectiles while still in the barrel.

It was around this time that a certain Lieutenant Henry Shrapnel was experimenting with his own exploding shells, and there is little doubt that it was the perfected variety of these that inspired Key to pen his immortal lines. The very first recorded tryout of his musketball-filled shells took place during the attack on Dutch Guyana. This resulted in the capture of Surinam (1804) and made an obscure artillery captain, one might say, into an overnight celebrity. He was promoted to lieutenant colonel and given the post of Assistant of Artillery. This enabled him to carry out tests of his various inventions and innovations at the iron foundry at Carron near Falkirk in Scotland.

Henry Shrapnel was the youngest of nine children born to Mr. and Mrs. Zachariah Shrapnel on June 3, 1761 at Midnay Manor House, Bradford-on-Avon, Wiltshire, England. Apparently his brothers died childless, so what little money existed passed on down to him. With this he was able, by living carefully, to have just enough to

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Anne S.K. Brown Military Collection

finance the numerous inventions that flowed from his fertile brain. Although his service life was spent in the army, it didn't prevent him from submitting ideas to the navy. These included plans for improving the design and shape of certain warships and advocating replacing wooden vessels with iron-clads!

At age 18, Shrapnel entered the Royal Military Academy, Woolwich, known to generations of budding engineers and gunners as "The Shop." Among its many graduates may be found the following who achieved fame in the British Army: General Charles "Chinese" Gordon, Field Marshal Herbert Lord Kitchener, General Alan Cunningham and Maj. Gen. Orde Wingate, all "Sappers," as the Royal Engineers are known. Shrapnel was the odd man out—he was a gunner.

Right from the start there seems no doubt that Lieutenant Henry Shrapnel fully embraced every aspect of the science of artillery. Although most cannon fired some form of exploding (or perhaps disintegrating would be a more correct description) antipersonnel shell, they lacked the range so crucial in most battles. Generally known as "canister" and "grape-shot," their maximum range rarely exceeded 300 yards. Canister shot consisted of a thin, metal, cylindrical case the same size as the caliber of the gun. This was filled with metal balls of either iron or lead. (Cases have been recorded where even stone pebbles were used.) Fired directly against the opposing forces, there was no exploding device inside the case. Air pressure, combined with centrifugal force, caused the shell to break up, after leaving the cannon, and shower the enemy with its contents.

TOP: At Fort McHenry in Baltimore, Maryland, during the War of 1812, the British used exploding shells. Henry Shrapnel (Inset) designed the shells, which were especially lethal to infantrymen.

"Grapeshot," on the other hand, generally fell into two categories: "Caffin's" Grapeshot consisted of a number of iron balls placed in layers between thin circular iron plates. These were arranged in banks (generally three) and held together by an iron bolt that passed through the center of the plates.

Quilted grape (thought by many to be the earliest type), on the other hand, was shot arranged around a spindle that was bolted to an iron tampion, or round bottom plate. The whole assembly was placed inside a canvas bag which, in turn, was intertwined with a quilting line or cord. The top of the bag was then drawn together and tightly tied under the cap at the top of the spindle.

Both types resembled a bunch of grapes—hence the term "grapeshot." When fired, the canvas disintegrated, distributing the balls with quite a deadly effect. But, as previously stated, the range was very limited. By way of interest, grapeshot could only be fired from an iron cannon as it needed a hard parallel bore. Bronze guns, which fired solid shot, were taboo. Long-range solid shot was fine for punching holes in fortifications, but, otherwise, it merely cut a narrow path through attackers.

It was during his four-year tenure at Woolwich that Shrapnel began seriously experimenting with an effective long-range bursting shell that could be used against massed troops. At first, he tried to improve on ideas already in use (e.g., a hollow ball filled with explosive and relying on the shattering of the outer shell into jagged fragments), but none met his exacting requirements. Finally, he took a similar hollow sphere and only partly filled it with explosive. The rest of the space he filled with musket balls. He added a fuse to the filling hole.

Two main problems bedeviled him. First, the casing had to be strong enough to withstand the initial propellant, but weak enough to be shattered from the bursting charge. Second, he required a fuse that would explode the shell at the required time.

But even when Shrapnel had finally solved these problems (as with most inventors) he had considerable difficulty in selling his product to the authorities, in this case, "The Ordnance Board." Finally, on his return to Britain in 1784, he was able to demonstrate his "Spherical Case Shot" to the War Office. Even so, it wasn't until 1803, as a captain and company commander of the 1st Battalion of the Royal Artillery, that his invention was finally adopted and went on to be successfully used, as previously stated, in 1804.

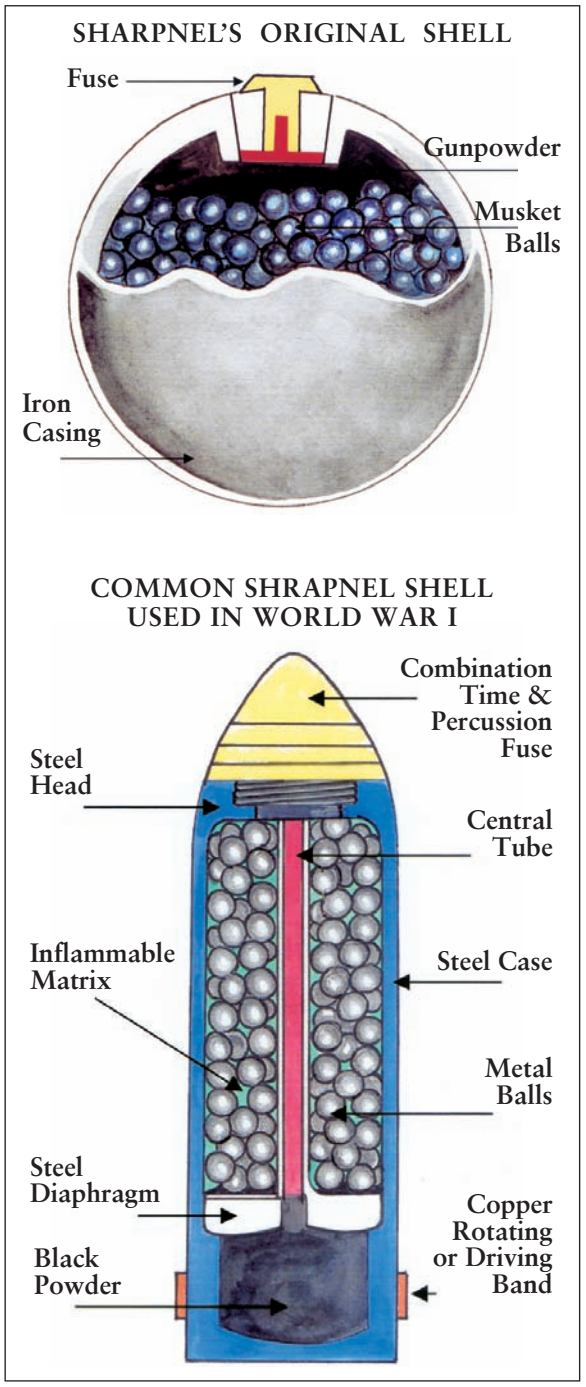
The succeeding years were to prove how effective Henry Shrapnel's device was. Reports came in from around the world, and British gunners testified to its terrible power. The Royal Navy was quick to realize the new weapon's potent capabilities in sea battles, for instance, clearing the decks of enemy ships. It is reported that Admiral Sir Sydney Smith (famous for his defense of Acre against Napoleon in 1799) was so impressed that he ordered a large quantity of the bursting shells, paying for them out of his own pocket.

Napoleon's troops had emerged mostly victorious from engagements with some of the world's finest armies, but received a nasty setback when they encountered the new weapon for the first time. This occurred during the Peninsular War at the battle of Vimeiro on August 21, 1808. It is recorded that, when Napoleon heard of the British victory, he sent an order that a secret tour be made of the battlefield in case there were any unexploded cannon balls still lying about. He wanted his ordnance specialists to examine and determine how the shells worked. If this account is true, it would show the importance Napoleon, an artilleryman himself, placed on this new weapon.

Indeed, there are many military students who are of the opinion that Shrapnel's murderous creation went a long way to being one of the decisive factors at Waterloo. General Sir George Wood, Wellington's artillery commander, went so far as to state, "Without Shrapnel's shells, the recovery of the farmhouse at La Haye Sainte, a key position in the battle, would not have been possible."

Yet, in spite of all this, fame and fortune in the main eluded Henry Shrapnel. Visitors to the United Kingdom will search in vain for any statue or monument. The principal reason, paradoxically, was the importance of his invention. For one thing, it was purposefully kept secret by order of the Duke of Wellington himself. Even while Shrapnel was alive, financial reimbursement was slow, although the government finally awarded him a pension of 1,200 pounds.

Author's Collection



In the 1820 Royal Military Calendar, Shrapnel was accorded a mere eight lines, while numerous other minor martial men were given copious writeups. Probably the unkindest cut of all was when, nearing retirement as a major general on relatively modest means, he heard that his monarch, William IV, who had promised him a baronetcy, had died before conferring it! Shrapnel died aged 81 at Peartree House in Southampton in 1842. His wife of over 30 years buried him in the family vault in the chancel of the church at Bradford-on-Avon, Wiltshire.

Shrapnel's son, Henry, Jr., made a collection of his father's effects, which included drawings and letters of commendation from the Duke of Wellington and other dignitaries of the nation. Taking them with him, he emigrated to Canada where, to all intents and purposes, the artifacts have remained.

With the development of breech-loading field guns and howitzers and the perfection in rifled barrels (circa 1885), Henry Shrapnel's hollow ball took on a new shape, i.e., cylindrical with a cone-shaped head. The latter consisted of a time-and-percussion fuse and was screwed to the hollow body. This contained the balls imbedded in resin. Beneath these was a steel diaphragm and the bursting charge. This was set off by a flash down the central tube coming from the time fuse which, in turn, drove the balls forward, forcing off the cone-shaped head.

Various methods were tried to ensure that the shell gripped the rifling. One of the earliest systems was Sir William George Armstrong's (Engineer of Rifled Ordnance at Woolwich), by which the whole shell was coated with lead. Not only was this necessary to give the shell its spin, but also to guarantee complete sealing of the gasses following the shell, thus giving maximum propulsion. Unfortunately, it was found that, owing to the heat generated during discharge, a great percentage of the lead tended to melt and fall away. After trying numerous other ideas, it was found that the copper driving or rotating band at the base of the shell proved the most effective.

World War I proved to be the nemesis of the shrapnel shell. Once the opposing armies had dug in, the shower of balls that had been so effective against massed troops in the open were of little consequence against soldiers ensconced in fortified dugouts. Shrapnel shells were not even potent enough to destroy barbed-wire defenses, the destruction of which was so necessary before making an attack on the enemy's position.

Shrapnel's name lives on in military nomenclature, although, to most people, it refers to the jagged fragments of an exploded shell or grenade casing. (Technically speaking, these should be referred to as shards, splinters, or shell fragments.) My own mother could make this mistake. I can recall that while on a leave in London during World War II, and during a lull in the course of an air raid, I wished to leave the family shelter and bring back some refreshments. My mother cautioned me to put on my "tin hat" because she was sure she could still hear "shrapnel" from the anti-aircraft shells hitting the ground! ■

UNIFORM FIRST RHODE ISLAND DETACHED MILITIA, 1861

By Paul Loane
Artwork by Don Troiani

BLOUSE: With summer approaching, and expectations that the war would be short, uniforms were lightweight, with little attention to durability. Designed by Col. Burnside and inspired by the "hunting shirts" worn by many Continentals during the American Revolution, the blue flannel pullover blouse was simple and easily made by the ladies in Providence. Single breasted for line officers and enlistees, double breasted for staff.

PRINCIPAL WEAPON: U.S. Model 1855 Rifle-Musket with bayonet. Many also carried a small pocket pistol presented to the rank-and-file by an admirer on April 30.

TROUSERS: The trousers supplied with the blouses were a loose-fitting, gray woolen weave.

HEADGEAR: The unit wore a blue "chasseur" pattern kepi with a detachable white cotton covering known as a havelock. Designed to protect the wearer from the sun, it was introduced by Sir Henry Havelock of the British Army for use during the Indian Mutiny in the late 1850s. The American copies hung limply on the soldiers' heads making them hot and uncomfortable. A year later, the mania for havelocks was gone and they disappeared from the army.

GEAR: The most distinguishing item of gear was a bright red woolen blanket carried on the back by a brown, over-the-shoulder leather strap made for that purpose. A waistbelt with cartridge box and cap box, a white canvas haversack for rations and a tin canteen completed the kit.

In the days following the outbreak of war, Northern states scrambled to assemble small militia groups into regiment-size units, recruit additional volunteers and uniform them all in a cohesive manner. Rhode Island was no exception with the added problem of having no official state uniform for its troops. Ambrose Everett Burnside, former major general in the state's militia, returned from his job as a N.Y. City banker and stepped up to the task of equipping and organizing the troops.

On April 20, just five days from Lincoln's call for 75,000 troops for three months service, the First Rhode Island Detached Militia departed for Washington D.C., led by Col. Burnside himself. On July 16 the unit left camp outside the capital with the bulk of the Union Army and five days later met the Confederate forces at Manassas, Va. Here the Rhode Islanders were in the thick of the fighting and in the calamitous retreat "maintained a soldierly calmness and preserved its ranks unbroken" until it returned to its camp. With its term of service expired, the unit departed for home on July 25 and was officially mustered out of service on August 2. ■

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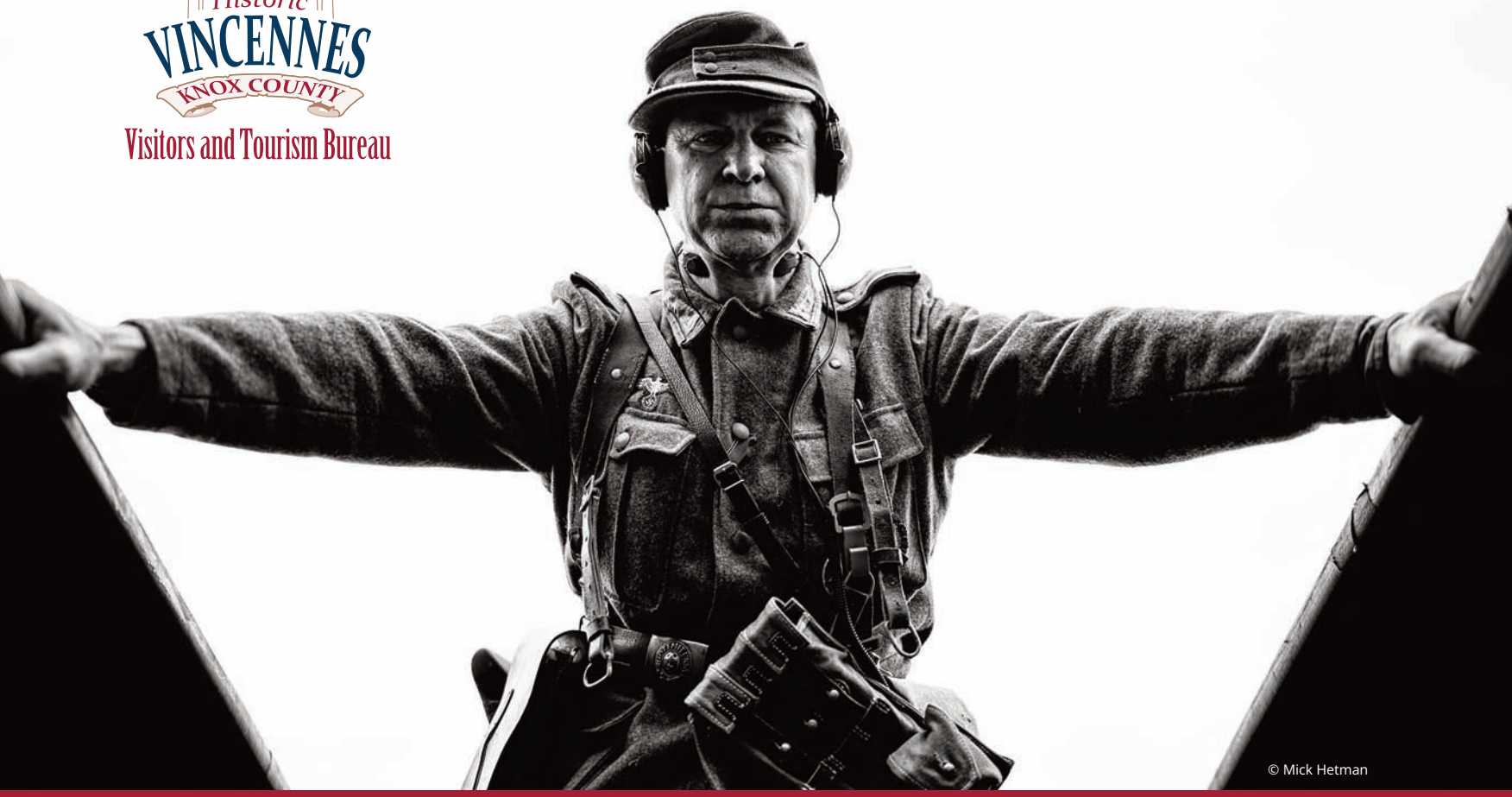

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England was transformed from a Saxon land of earls and peasants to a conquered island nailed down by the will of a single man—William, Duke of Normandy.

By Mark Carlson

The final defeat of the Saxon King Harold at the Battle of Hastings on October 14, 1066, meant that England became forever Norman. The driving force for the transformation of this island nation was personified in William, Duke of Normandy—William the Conqueror.

The Norman Conquest involved more than the usual reasons of national interests or the desire for land and resources. This was personal, driven by pride, revenge, greed, audacity, and extraordinary luck.

While the battle is well documented, there are still gaps in accounts of the invasion itself. How, in only a few months, did William assemble a huge army of 8,000 infantry and cavalry and build a fleet capable of carrying them across the stormy English Channel? Nearly a thousand years later it remains the most compelling element of the Norman Conquest.

In 1064 England was ruled by 60-year-old King Edward the Confessor. The Earl of Wessex, Harold, Son of Godwin and brother of the Queen served as Edward's regulator in the kingdom. In this role he was considered heir to the throne. That summer he embarked on a hunting expedition along the coast, but his ship was caught in a severe storm that drove him onto the rocks on the Normandy coast. The region was under the absolute control of William, Duke of Normandy. Normandy was a land of Norse descendants who had a warlike tradition. At age seven, William was named the Second Duke

Both Wikipedia

ABOVE: William, Duke of Normandy, led a large army across the English Channel to defeat the Anglo-Saxon King Harold Godwinson at the Battle of Hastings on October 14, 1066. TOP: A closeup of the 224-foot-long Bayeaux Tapestry, an 11th century textile work depicting the conquest of England by William, Duke of Normandy in 1066.

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after his father died during one of the early Crusades. Until he reached the age of 15, he was under constant threat of assassination by the ambitious and combative Barons and nobles. As an adult, William proved to be a barbarous and powerful leader with no scruples except his staunch loyalty to the Catholic Church.

While William's father, Robert, had been the Duke of Normandy, his mother was the daughter of a common tanner—making him a bastard. Anyone who sneered at his illegitimacy was skinned alive.

William was ambitious, and had convinced himself that Edward had promised the throne of England to him during a visit there in 1051. This is unlikely, since Edward was well aware that he had no power under the English Constitution to promise the kingdom without the approval of the Wittens, the Saxon council.

Then Harold was brought before William in Rouen. According to Norman accounts, Harold swore on holy relics that upon Edward's death, he would concede the crown to William. Whether he did this willingly or under duress is not known, but William was certain Harold would keep his word. Harold was known to be a fair and honorable man.

But when King Edward died in January 1066, the man who claimed the throne was not William, but the 40-year old Harold Godwinson. By breaking his sacred pledge to William, Harold had created an implacable and mortal enemy.

Not only did William feel cheated of the crown he had been promised, but he had been made a fool in the eyes of the English—intolerable to a man so proud and ambitious. He began planning what would be the most daring and challenging invasion in history.

The task was formidable. First, William needed to form an army of infantry and cavalry, in itself no small task. Then he had to build a fleet of ships to carry the army across the stormy Channel to land on hostile shores—all before the coming of winter.

But the 38-year-old Duke was probably the only man on Earth who was both audacious enough and capable of achieving the impossible.

William was initially unsuccessful at raising the support of the Norman nobles for his invasion. Historian David Howarth claims in his book 1066: The Year of the Conquest, that William's "outraged pride gave them too much assurance and not enough persuasion." It was generally known that the English could mass a large fleet and at 10,000 men-at-arms. But William declared "Wars are not won by numbers, but by courage." He convinced them that Harold had sworn on holy relics to give him the crown. Then he used two very powerful incentives, greed and the church. An invasion of England would mean great riches for the barons who supported him, but his greatest coup was in convincing Pope Alexander II, himself an ardent supporter of the first crusades, of the rightness of his claim. Receiving Papal blessing for his holy crusade was his most potent weapon in the war to come.

The Regent of France, Count Baldwin, provided French cavaliers and their horses, while his representatives scoured Brittany, Flanders, Burgundy, Aquitaine, and Poitou for veteran foot and mounted men-at-arms.

As for the ships he needed for the channel crossing, William's half-brother Bishop Odo promised 100 ships while another half-brother, the Count of Mortain, pledged 120 more. The nobles of Montgomery and Eu offered 30 each. Soon the number rose to more than 800, but actually obtaining and building them was a far greater challenge. They recruited thousands of woodcutters, carpenters, blacksmiths, and teamsters to cut and transport the timber for the fleet.

While the nobles bought, begged, borrowed and probably stole every craft capable of carrying men or supplies to England, the woodcutters and carpenters began to build.

William's armada was a fleet in name only. Very few of the vessels were of a single type. They ranged from small wide-hulled fishing smacks of 20 feet with a crew of four, while others were 50 or more feet long. While the largest were modeled on the classic Viking longships, others were purely for carrying goods and cargo. One thing they all had in common was their basic construction. They were clinker-built with high stems and sterns, graceful with shallow draft. They could be elaborate with beautiful carvings or slapped together with no embellishment. According to Howarth, they "were economical in labor, but extremely wasteful of timber."

How many ships William had under his command is not known, but historical estimates range from 696 to several thousand. The lower figure is more likely. But even this would have needed at least 12,000-15,000 full-grown trees. The Duke had an army of 4,000 infantry, 1,000 archers and 3,000 cavalry. With the larger ships carrying 60 men and 10 horses, at least 300 would have been needed for the horses alone.

In a remarkably short time, by early August, the work was largely complete.

The Normandy coastline extended from the Cotentin Peninsula, east past the Seine and Dives

Wikimedia Commons/Bernard Gagnon

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ABOVE: A crowned Duke William II of Normandy discovers the Saxon King Harold lying dead on the battlefield in this Victorian painting of the Battle of Hastings by Frank Wilkin. The actual encounter was some six miles from Hastings, at Senlac Hill, near the present-day town of Battle, East Sussex. TOP: Built by William the Conqueror in 1078, the White Tower the is part of a large complex of buildings known as the Tower of London, officially "His Majesty's Royal Palace and Fortress of the Tower of London." OPPOSITE: A closeup of the 11th century Bayeaux Tapestry depicting William, Duke of Normandy, leading boats full of horses and men across the channel to England in 1066.

Rivers, a distance of 165 miles. There were few sheltered harbors and strong tides. During the summer the winds were nearly always out of the north or southeast. William needed southwest winds to carry his fleet to the shores of England.

The army and fleet assembled at the mouth of the River Dives just east of Caen and 100 miles from Beachy Head, his intended landing area.

It would take a day to load the ships and, with a speed of about five knots, he needed a full night of steady winds. Every day Duke William prayed in the Norman chapel and watched the weathervane on the tower.

On August 12, the winds seemed favorable and William had the ships loaded. Food and weapons, armor and arrows, barrels of wine and sacks of dried meat and grain, all the impedimenta of medieval war were loaded as fast as possible. Pre-cut timbers were loaded for constructing a fort at the landing site. When the horses and their riders at last took their places on the ships, William sent the word to sail north out of the mouth of the river and head for England.

But the first attempt at a crossing was ended when winds from the north forced them to seek shelter at Saint Valery at the mouth of the Somme 60 miles from the English coast. While this was fortuitous, William was no longer in his own land. Even more frustrating was that he was trapped and unable to leave as long as the winds remained from the north.

Another month passed as the discouraged army remained encamped along the river estuary. Time was running out for the Duke. He was certain Harold was aware of the impending invasion and assembling an army.

He was right. After convincing the earls of Sussex, Hull, Wight and Dover of the danger, King Harold assembled an army of about 8,000 foot soldiers. They were the earls' professional Housecarls and militia Fyrds armed with axes, swords, spears, clubs, helmets, chain mail and leather armor. The army was contracted for two months of service, meaning that if no invasion materialized, they could go home in mid-August.

The square sails in use across northern Europe meant that ships were limited to sailing mostly downwind. Southwest winds on the Channel would force the Normans to land somewhere east of the Isle of Wight.

Assuming William would arrive on English shores in the early summer, Harold used his fleet of 400 boats and ships to carry the majority of the army to the south shore of the Isle of Wight and east to Hyde, Hastings, Beachy Head and Pevensey.

Harold's own vessels were light and easy to row. With most of them pulled up on shore and a few remaining in the water for rapid use, the army watched and waited. It only took one man to raise the alarm while the others called in the troops.

Harold never intended to use his fleet to intercept William at sea and fight him there. The Norman and English ships were only intended to move troops, and in William's case, horses.

King Harold waited in Bosham in Chichester where he had been raised. The town was on a peninsula only 60 miles from London.

Continued on page 90

'ISRAEL's Survival at Stake'

Their country's survival hung in the balance for four days as Israeli defenders with only 177 tanks held off a Syrian assualt of 1,400 tanks during the Battle of Golan Heights in the 1973 Yom Kippur War.

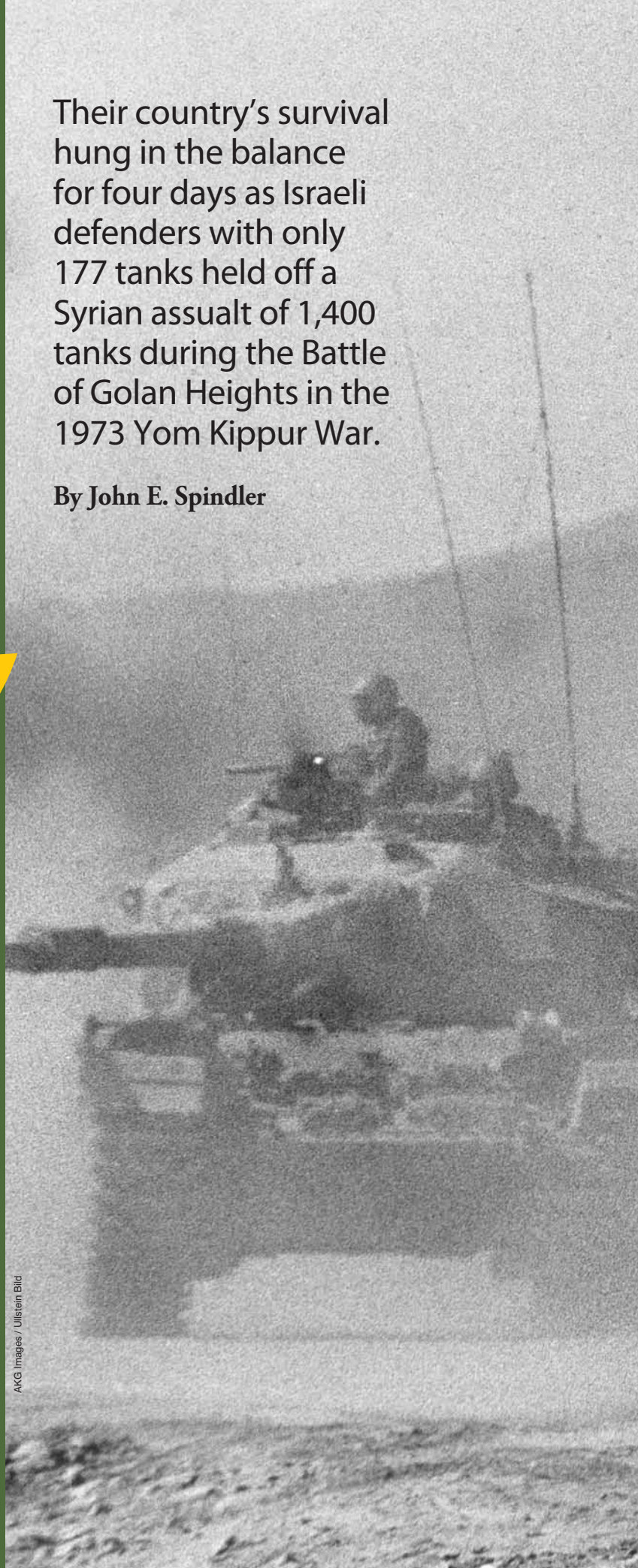
By John E. Spindler

Lieutenant Zvi "Zvicka" Greengold raced back to Nafakh, commanding his fifth or sixth Sho't Kal, an Israeli-upgraded Centurion main battle tank, having had the previous ones knocked out beneath him. The Israeli command center in the Golan Heights was on the verge of being overrun by the Syrians. Exhausted from being in combat since returning to the Golan from his Yom Kippur holiday. Like most of his countrymen, Greengold believed Syria and Egypt would not attack for a couple more years. Yet attack those Arab nations did.

Greengold's journey began shortly before 9 p.m. on October 6, 1973 upon receiving orders to defend the Tapline Road and set out with three other Sho't Kals, all already battle-damaged. Two encountered mechanical issues forcing Lt. Greengold to confront a substantially larger Syrian armored force with only two vehicles. Settling into a hull-down position, he did not have to wait long. Only twenty minutes out, Greengold engaged the Syrians resulting in damage to his tank. He transferred to the other Sho't Kal and sent his back for repairs. For an hour, he stood as the sole Israeli force between the advancing Syrians and the Israeli command center. Using the Syrian own searchlights to his advantage, Greengold knocked out several enemy T-55 tanks.

Israeli Defense Ministry

At one point a small tank force joined Greengold, but all were knocked out in combat. Once again, the Israeli lieutenant operated solo. In order to deceive the enemy, who listened in on the Israeli frequencies, about his strength he referred to himself as "Task Force Zvika." Throughout October 7, Greengold fought on, changing tanks. Hearing Nafakh's dire situation, he raced cross-county with another Sho't Kal, leaving destroyed Syrian vehicles in their wake. Arriving at the damaged perimeter of the command center, Greengold's gunner destroyed a T-62. Within minutes of his appearance, the remaining First Syrian Armored Division tanks withdrew. An exhausted,



AKG Images / Ullstein Bild

Israeli-upgraded Centurion main battle tanks (Sho't Kal) advancing into Syria on October 11, 1973. Having withstood the initial four-day assault of the Yom Kippur War and retaken the Golan Heights, Israeli leaders immediately decided to invade Syria and knock them out of the war. OPPOSITE: Lieutenant Zvi "Zvicka" Greengold was credited with 40 tank kills in delaying the Syrian advance on the Golan Heights during the 1973 Yom Kippur War. Greengold was awarded the Israeli Medal of Valor in May 1975.

All GPO

ABOVE: Israeli troops take cover in the Golan Heights during a Syrian air attack. The Syrian Air Force had 110 ground attack jets with protection provided by 200 Soviet Mig-21 interceptors. BELOW LEFT: Egyptian President Anwar al-Sadat, right, looks at a situation map during fighting in the Sinai. Syrian president Hafez Al-Assad asked Sadat to attack Israel in the south to draw attention away from the Golan Heights, where Israeli forces had repelled his attack and invaded Syria. The Egyptian attack on the Sinai was also repelled. BELOW RIGHT: Hafez Al-Assad became president of Syria after a 1971 military coup. By 1973, he launched a major assault on Israel to try to take back the Golan Heights lost in the 1967 Six Day War.

injured, fire-scorched Greengold clambered out his vehicle and collapsed. "I can't anymore," he apologized. Although only crediting himself with twenty Syrian tank kills, Israeli officials list his toll at forty. For delaying the Syrian advance, Lieutenant Zvi Greengold earned the Medal of Valor in May 1975.

For four days, October 6-9, 1973, Israel's survival hung in the balance. The Golan Heights, taken from Syria in the 1967 Six-Day War, acted as a small buffer zone for Israel. The attack surprised them and they almost lost the Golan. From the tank-friendly terrain of southern Golan to the rocky "Valley of Tears" in the north, the brigades of the hysterically outnumbered Israeli 36th Armored Division sacrificed themselves, buying time for the arrival of reserve divisions who turned the tide. Israel would become victorious in the 1973 Battle of the Golan Heights.

Background Through 1967 Six Day War

This Israeli-Syrian clash happened to be the latest Arab-Israeli confrontation. Both sides believed the Palestine region belonged to them, going back to the Ancient World. Even before their 7th Century conquest, Arabs claimed the region as their homeland. Countering, Jewish belief holds that their right to the land traces back to the Semitic tribes who were established in the region by 1100 B.C. Although disputes arose and fell for centuries, the groundwork for the modern conflicts started with an increase in immigration to the region in the late Nineteenth Century, mainly by Jews escaping Imperial Russia.

During World War I, agreements to resolve the issue were concluded, including the 1917 Balfour Declaration. Although it favored the establishment in Palestine a home for the Jewish people, it did not guarantee the establishment of the Jewish State. Britain gained control of Palestine. In the years preceding World War II, Nazi Germany's policy towards its Jewish population led to a great migration to Palestine. After carrying out a violent campaign against British forces, the nation of Israel established itself on May 14, 1948 igniting the first Arab-Israeli War.

After successfully defending its new independence against stronger Arab forces, Israeli forces expelled the invaders. The resulting armistice resolved little, with both Israel and the Arab States unwilling to compromise. Eight years after the first Arab-Israeli War, Egyptian President Gamal Abdal-Nasser nationalized the Suez Canal Company and barred Israeli ships from using the canal. Israel colluded with Britain and France, both angered over Nasser's nationalization of the canal, and attacked first, occupying the Sinai Peninsula. In 1957, Israel renounced its gains and withdrew. Tensions never dissipated, as shown with the 1964 Water War which saw the Israeli Centurion main battle tank's (MBT) first combat.

Starting in November 1966, Arab nations began to eliminate the disunity that had plagued them. Egypt and Syria signed a mutual defense pact. The following May, Egypt signed a similar pact with Jordan. Fear of an Arab attack allowed the "hawks" in Israel to shape foreign policy. On June 5, 1967, the Israeli Air Force (IAF) surprised and obliterated the Egyptian Air Force, commencing the Six-Day War. Heavily outclassing their Arab enemies militarily, Israeli forces occupied the Sinai Peninsula from Egypt, the Golan

GPO / Eiten Harris / Wikimedia

Troops rushing up to the northern frontier after the outbreak of the Yom Kippur War, October 7, 1973. Israeli strategy called for a token force on the Golan Heights to be able to hold off any attack for a day to allow reserves to be brought in. They did just manage to do so against an unexpectedly large Syrian assault.

Heights from Syria, and territory in the West Bank from Jordan. Unlike 1956, Israel retained the conquered land, providing their country with buffer zones on both frontiers. Due to its color on the United Nation Observation Forces' map, the 1967 cease-fire line in the Golan Heights became known as "The Purple Line."

Syria and Egypt dreamed of reclaiming their lost territories. The path to this goal began with a change in leadership in both countries. In 1970, Anwar Sadat became President of Egypt and one year later Hafez al-Assad, in a coup, appointed himself as leader of Syria. Both leaders realized that a critical component of Israel's 1967 victory came from the superiority of the IAF. Soviet military aid, in the form of equipment and advisors, poured into the Arab nations. With armored forces already cored by the T-55 tank, they received a boost by adding the latest Soviet MBT, the T-62. More critical to Syria and Egypt was the procurement of Soviet surface-to-air missiles and Sagger anti-tank missiles to suppress Israeli air and land superiority.

In April 1973, Egypt and Syria held a secret meeting discussing cooperation in war against Israel. Over the next few months, a coordinated two-front attack named Operation Badr took form. With the Egyptian part of the attack dependent on the tides and levels of the Suez Canal, October 6 emerged as D-Day. Differences over H-Hour were hammered out with the Syrian crossing the Purple Line at 2 p.m. Feelers went out to King Hussein of Jordan. Though supportive of the Arab cause, the Jordanian monarch did not want a repeat of the 1967 catastrophe and declined to attack from his kingdom.

With their past victories against Arab forces, Israeli overconfidence shaped its views about their own military capabilities and those of their enemies. Their intelligence service, AMAN, firmly believed Syria would not attack without Egyptian participation. It also thought Egypt would not undertake an invasion of the Sinai until the acquisition of modern medium-range bombers which AMAN felt that would not be until 1975 at the earliest. Confident to the point of arrogance, Israel's chief intelligence leader believed his service would be able to give the country 48 hours' notice before an Arab attack, allowing for the call up of reservists.

During September, Syria and their Egyptian allies carried out one of the most successful deceptions in recent history. Both countries built up very sizable forces on their respective border with Israel. Neither the Israelis nor 95% of their own soldiers knew the true intentions of the deployments. The cover story of military exercises was believed. Israeli military intelligence exacerbated the misjudgment, feeling the increased Syrian presence along the Purple Line was a response to a significant air clash on September 13 when 13 Syrian jets were downed. Some Israeli officials became concerned over the build-up on their borders but had faith in the word of AMAN. Doubts were eliminated after King Hussein met with Israeli Prime Minister Golda Meir and informed her about Syrian and Egyptian preparations for an imminent attack upon her country.

At the time of the aerial clash, Syria had 650 tanks and 100 artillery batteries within striking

Shlomo Arad

ABOVE: Israelis advance into the battle zone on the Golan Heights under air cover Oct. 8, 1973, two days after the surprise attack by Syrian forces. The normally dominant Israeli Air Force would be hampered in supporting the ground troops by Syria's 100 surface-to-air missle (SAM) batteries—more than half of which were the latest model, SAM-6. OPPOSITE: An unexpectedly large Syrian force with 1,400 Soviet tanks attacked Israel's northern border at the Golan Heights on October 8, 1973. A force of 177 tanks held up the assault long enough for reserves to arrive and after four days of heavy fighting, Israel turned the tide and invaded Syria, moving toward Damascus until the UN brokered a cease-fire October 24.

distance of the cease-fire line. A few weeks later, Israeli intelligence placed the number of tanks at 900 with 140 artillery batteries. In reality, the Syrian General High Command (GHQ) had 940 T-54/55 and 460 T-62 MBTs and 800 artillery pieces of varying calibers. All would be defended against Israeli air attacks by an umbrella composed of 100 SAM batteries with 50% the latest model—the SAM-6. Complimenting the massive invasion force's punching power, the Syrian Air Force had a few IL-28 bombers and 110 ground attack jets with protection provided by 200 Mig-21 interceptors. President Assad and his staff calculated victory needed to be accomplished in under 36 hours (before Israeli Reserve Forces could arrive in significant numbers).

The 60,000 Syrians were organized into five divisions—three mechanized infantry and two armored divisions—supplemented by a few independent brigades and special forces units. Deployed to cross the Purple Line in the north with the initial goal of capturing the Hermonit and Wasset were the 7th Infantry Division and the Moroccan Expeditionary Brigade, who specialized in mountain warfare. On their left, with the target of Kuneitra and area to its south sat the 9th Infantry Division. Charged with driving towards the Arik Bridge via the Tapline road was the 5th Infantry Division. Positioned behind this division, the 1st Armored Division waited to exploit any open path. The 3rd Armored Division was deployed in the northern Golan for the same purpose. Both divisions as well the elite Republican Guard, commanded by President Assad's brother, were equipped with T-62s. Syrian GHQ held strict control over the divisions. As a result of Soviet training to follow orders from above, independent thinking at lower levels was practically non-existent, an exception being Brigadier-General Omar Abrash of the 7th Infantry Division, who trained in the United States.

Dug in across the Purple Line, behind minefields and an imposing anti-tank ditch lay the men of Israel's Northern Command, led by Major-General Yitzhak Hofi. Actual defense of this bleak land fell to the 36th Armored Division, commanded by Brigadier-General Rafael Eitan. Comprised of three brigades, the Golani Infantry Brigade, the 188th "Barak" Armored Brigade (Colonel Yitzhak Ben-Shoham) and the 7th Armored Brigade (Colonel Avigdor Ben-Gal), the "Barak" Brigade defended the territory for most of 1973. During its deployment, the Syrians launched artillery barrages while infantry crossed to engage one of the 17 Israeli outposts. These clashes ended at sunset with withdrawal of the Syrians and were named by the Israelis as "Battle Days" as they never exceeded 24 hours in duration. A concerned Hofi dispatched the 7th Armored Brigade's 77th Armored Battalion (Lieutenant-Colonel Avigdor Kahalani) as a reserve. Belief that the Israeli Air Force would dominate as it had in the past, belief that AMAN would provide the 48-hour warning needed to get the reserve units to the Golan, belief in the superiority of its men and Sho't Kals led to an overconfidence that only the 188th armored Brigade was needed in the Golan Heights.

What type of land was the 460 square-mile area that would be contested? Rising from level plains in the south, optimum for the deployment of armored forces, to rocky formations in the north, its terrain had been shaped by ancient volcanoes. Their extinct cones, named tels, sprouted across the Golan. From the Sea of Galilee on its western border to the Purple Line in the east, the Heights spanned a maximum of 17 miles. Unlike the Sinai, Northern Command could not trade land for time. In their favor, the rocky terrain and ridges allowed the armored units to position their Sho't Kals in a hull down position on specially-built firing ramps to take advantage of its main gun's -10° depression.

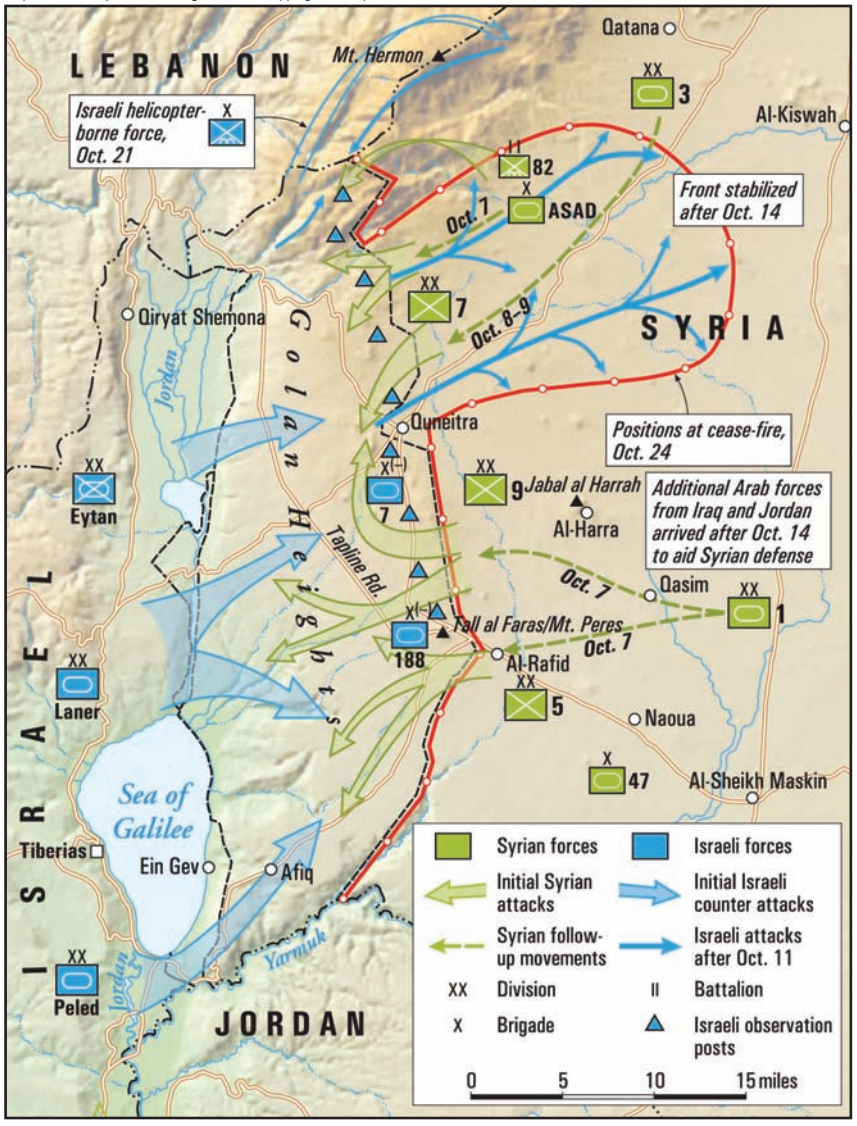
Build up to Syrian Offensive

Starting October 1, events increased in pace. Besides Yom Kippur, the date of the invasion

fell on the tenth day of Ramadan. Normally obligatory fasting during the day, Arab troops received exemption for the time being. In addition to the continued increase in Syrian military hardware along the border, the Israelis learned on October 3 that in two days, villagers would not be allowed to access their fields. The next day, the Soviets evacuated families from Damascus and Cairo.

Though many officials desired a clear-cut indication of war, the Israeli Defense Force went to Alert Level C. Activated the same day of the Soviet civilian departure, this encompassed cancellation of leaves and recalling key personnel. The preparation for reserve force call-up began. The 210th and 146th Reserve Armored Divisions were earmarked to Northern Command. On the eve of the Yom Kippur War, the remaining two 7th Armored Brigade battalions arrived hours before the Syrian invasion. When the Syrians launched Operation Badr, their 1,400 tanks faced 177 Sho't Kals.

Map © 2023 Philip Schwartzberg, Meridian Mapping, Minneapolis, MN



On October 6, Yom Kippur, from early in that Saturday morning onward Israeli officials worked on the situation. All believed the Syrians would attack later that day at 6 p.m. Hofi established his division's headquarters at Nafakh. At 1 p.m. a meeting about preparations for the expected attack began. Forty-five minutes into the briefing, reports came in from various observation points that the Syrians had started removing the camouflage coverings over their artillery placements. Ten minutes later, Israeli officers and soldiers desperately sought cover as incoming rounds exploded across the Golan. The Yom Kippur War had started.

Battle of the Golan Heights

After the 50-minute artillery bombardment and supporting air attack, tanks and armored personnel carriers (APCs) from three Syrian infantry divisions crossed the 1967 Cease-fire line, approaching the anti-tank ditch. The extensive methods concerning secrecy of Operation Badr fooled the enemy, however it backfired to some extent on the attackers. Syrian company commanders learned of the invasion a mere hour before its launch. This meant most of the critical engineering equipment, such as bridge-laying tanks, mine-clearing tanks, and bulldozers failed to be at the forefront.

Crews of the "Barak" Brigade Sho't Kals dashed to the vehicles, avoiding shrapnel. Receiving orders from Ben-Shoham, the commanders maneuvered their tanks into firing positions, all the time listening to and feeling debris impact the armor. External storage bins and equipment became riddled with holes or destroyed all together. Once in place, a moment of fear and disbelief passed through those who saw the immense number of Syrian vehicles heading their way. After some delay the Syrian engineers brought forth the bridge-laying tanks. At a range of 2000 meters, the 105mm cannons of the Sho't Kals opened up on the enemy. The skilled gunners took a toll on the Syrians as bridge-laying tanks were hit and knocked out of action as well as any Syrian tank trying to improvise their way across the barrier. Abrash's 7th Infantry Division lost all but two of its bridge-layers that attempted to span the ditch before nightfall. Eventually the superior Syrian numbers won out as the Israelis could not defend every crossing location, as well as the bravery of bulldozer crews who filled in the anti-tank ditch under fire. The first close combat fighting for the Israelis took place against the Moroccans.

Integral to the defense of the Golan Heights, the IAF appeared in the skies to support the 36th Armored Division. To the shock of Israeli soldiers, a flight of four A-4 Skyhawks immediately fell victim to the Syrian SAM umbrella, which claimed another four Skyhawks minutes later. While the Sho't Kals knocked out Syrian T-55s along their defense line, the elite Syrian 82nd Parachute Battalion landed on Mount Hermon. By nightfall, this important observation point, the highest point on the Golan, fell into Syrian hands. Seeing the situation taking a bad turn as 188th Armored Brigade tanks were knocked out of combat, Eitan committed the 7th Armored Brigade to the fray. He assigned the 7th Brigade to the northern part of the Golan and the hard-pressed 188th Brigade to the south. For several hours, Ben-Shoham believed this assault was merely a "Battle-Day" albeit on a much grander scale.

As nightfall arrived the Syrian pressed their attack as more tanks and APCs breached the minefields. The Sho't Kal continued to prove to be better than the T-55 due to its quality as well the superiority of the crews. In the darkness, the T-55 gained some advantage on the Sho't Kal with its night-fighting equipment which the Centurion lacked. In the south, elements of the 5th and 9th Infantry Divisions made progress for the remainder of October 6. By nightfall, 105mm ammunition ran low. Arriving at Nafakh, Lieutenant Greengold received his assignment and headed eastward starting his incredible journey. In northern Golan, Abrash pushed his division's

Nir Keren Tzvi / Wikimedia

armored brigade into the area between the Hermonit and what is known as 'Booster Ridge.' Despite the infrared night-fighting equipment on the Syrian tanks, the Kahalani-commanded Israelis held their ground and inflicted a significant toll on the Syrians. When the sun rose the next day, the large number of destroyed and abandoned Syria tanks and other vehicles would earn this area the name "Valley of Tears."

In the early morning of October 7, an Israeli unit known as "Tiger Force" comprising seven Sho't Kals successfully ambushed a force of 40 tanks, destroying half of them without a single loss. Daytime brought about the Syrians pressing their advance along the Rafid-Kuneitra and Tapline roads. Colonel Tewfiq Juhni's Syrian 1st Armored Division passed by either side of Rafid. Ben-Shoham found himself without any tanks in reserve to plug into the line. In addition to Syrian tanks, RPGs and Sagger anti-tank missiles employed by tank-hunting parties took out a number of Israeli tanks. Both brigade commanders were reduced to employing small groups of Sho't Kals, usually between 3 and 6 vehicles, in order to deal with the numerous crises along the front.

So devoid of forces in the southern Golan, the Syrian 5th Infantry Division's 46th Mechanized Brigade by mid-morning reached a point eight miles from the Jordan River. Its lead elements could glimpse the Sea of Galilee. Trained by the Soviet's programming to seek direction from higher officials, the force's commander radioed Syrian GHQ requesting permission to advance - instead of taking the initiative and seizing the Arik Bridge. Luck blessed the Israelis as he received the reply to halt. The Syrians preferred a reorganization of their invading forces, probably saving Israeli's northern front.

During mid-day, the Syrian-threatened command center at Nafakh barely held out until the arrival of a reserve armored brigade as well as Lt. Greengold, forcing the Syrian 1st Armored Division to withdraw. The defenders suffered a major blow when the "Barak" Brigade lost both its deputy commander and Col. Ben-Shoham. The 3rd Armored Division went into action as well. In another opportunity missed by the Syrians, the division was employed against the stubborn defenses of the 7th Brigade in the north instead of diverting south to where their added armored punch could have ensured victory.

That evening the elements of the 210th and 146th Reserve Armored Divisions crossed the Jordan River. With the situation being critical, Eitan had to introduce them to the battle in piecemeal formations. Equipment employed by the various battalions and brigades was not uniform. While most used the Sho't Kal, some of the tanks arriving in the Golan Heights or on their way included older gasoline-engine Centurions, called Sho't Meteor, and M-51 Shermans, the latter having been upgraded with a French 105mm gun. A percentage arrived late or not at all due to mechanical breakdowns.

As with the previous night, the Syrians attacked just before midnight. Their continued tenacity surprised the Israelis who had expected their enemy to cave after running into such a determined defense. In the "Valley of Tears" region, Abrash gathered a few hundred tanks, including the newer T-62s to force his way through the central part of the line. The 7th Armored Brigade mustered 40 operational Sho't Kals. In addition, the Syrians amassed substantial artillery support for the operation. At 10 p.m., and again 4 a.m. the next morning, the Syrian used the Soviet method of overwhelming brute force to batter their way through the enemy's lines. Ben-Gal's brigade outdueled the Syrian at ranges under 50 yards, forcing them to withdraw.

Monday arrived and though being under severe pressure, Israeli officials decided to do what the IDF was best at and had both the 240th Reserve Armored Division under Brigadier-General Dan Laner and the 146th Reserve Armored Division, led by Brigadier-General Moshe Peled, counter-attack to retake the Golan Heights. Despite neither commander having all of their brigades united, both Laner and Peled unleashed their reservist forces against the Syrians. At last, the IAF

Both: Israeli Defense Ministry / Wikimedia

ABOVE: The Israel Defense Forces fire Soviet Katusha rocket launchers (BM-24 MRLs) from World War II. Captured during the Six-Day War (1967), they were used by two battalions during the Yom Kippur War, as well as the 1982 Lebanon War. TOP: A Syrian T-62 Soviet tank destroyed near the Israeli settlement of Ortal in the Golan Heights. OPPOSITE: Israeli tanks fire on Syrian troops in the Valley of Tears area of Golan Heights during the Yom Kippur War. With only 177 tanks, Israeli defenders held off a Syrian invasion force with 1,400 tanks long enough for reinforcements to arrive. The Sho't Kal's (Centurion main battle tank) superiority over the Soviet T-55s and T-62s fielded by the Syrians, was an important factor in their success.

began having success as it targeted the SAM batteries, thus diminishing the effectiveness of the Syrian SAM Umbrella.

The 146th Reserve Armored launched its counter-attack at 8:30 a.m. and five hours later had liberated a number of urban centers in the southern Golan, including Ramat Magshimim and Juhader before reaching the Tel Faris. Not to be outdone, the 240th Reserve Armored overcame the enemy in its path and retook key crossroads. Both armored divisions inflicted heavy casualties, yet the Syrian continued to fight. One of Laner's brigades ran into a prepared Syrian anti-tank defensive position that knocked out a few Israeli armored fighting vehicles using dug-in tanks, RPGs, and Sagger missiles. Through determination, the Israeli broke the Syrian position and pressed forward, albeit with a little more caution. Seeing the danger and out of reserve forces, the Syrian 5th Infantry Division's commander requested and received permission to fall back before becoming trapped.

Juhni ordered his 1st Armored Division to make another attempt to capture vital Nafakh. Once more, the Israeli command center became perilously close to falling. Like Abrash, Juhni employed self-initiative and sent some units past Nafakh. They achieved some of the deepest Syrian penetration of the war, reaching a point three miles from the B'not Ya'akov Bridge over the Jordan River—a mere 10-minute drive for the Syrian T-62s. A combination of losses around Nafakh and attacks on his flank forced Juhni to withdraw his division before the Israelis had the opportunity to encircle it.

For the depleted 7th Brigade, Monday brought about minor firefights for the men who were exhausted from days of continuous combat. Unfortunately, the Sho't Kals were dangerously low on fuel and ammunition. Abrash correctly deduced that "Booster" Ridge as the critical point in the Israeli defense line and designed an attack plan that employed a force, heavily supported by artillery, that drew fresh units from his division, the 3rd Armored Division, and Assad's Republican Guard. He wanted to use the tanks' night-fight equipment to Syrian advantage. Coupled with superior fresh forces, he could finally overcome the extremely fatigued 77th Armored Battalion. The war gods smiled favorably upon Israel. At dusk Colonel Abrash died when his tank was struck.

Due to Abrash's untimely demise, the Syrians

postponed the assault until the next day. As Tuesday, October 9, began, the three Syrian divisions in the central and southern area of the Golan were withdrawing towards the Purple Line in the face of the Israeli counter-attack. The Sho't Kals and Super Shermans from the reserve divisions kept pressure upon their Arab foes. An incredible number of Syrian tanks and other vehicles remained on the plains, either destroyed or simply abandoned. Not everything went smooth as IAF aircraft caused a friendly-fire incident when a few planes struck an Israeli armored battalion. Luckily the remainder of aircraft were warned off and dropped their payload on Syrian positions near Tel Kudne.

As dawn broke, Kahalani possessed a mere seven Sho't Kals, all bore damage of some sort. Commencing their last offensive in the Golan Heights at 9 a.m., the Syrians unleashed their heaviest barrage on a specific area to-date, supplemented by bombardment from Katyusha rocket launchers. So intense was the incoming fire that Kahalani received permission to pull back 400 yards from his firing ramps. The 3rd Armored Division's 81st Brigade, a second Republic Guard battalion, and assorted infantry advanced into the "Valley of Tears." Syrian helicopters flew into the area in a bold attempt to land forces in a heliborne assault. At least one fell victim to Israeli fire. Kahalani received efficient artillery support, otherwise the situation may have been over for him. Ben-Gal informed his battalion leader to hang on as at the moment no assistance would be forthcoming. The Sho't Kals engaged the T-62s at shorter ranges, their 105mm gun barrels suffering wear from heavy use over the past few days. As the Syrian armor pressed towards Kahalani's position, the vehicles gained temporary cover from the terrain when they traversed a wadi, hiding them from the Israeli view.

Suddenly Kahalani and the others noticed a few T-62s breaking over the ground directly in front of the abandoned firing ramps. At 400 yards, Kahalani's own gunner destroyed five tanks in less than five minutes. The battalion commander was amazed at the Syrian's sustained tenacity despite incurring horrendous losses. Much to his relief, eight recently-repaired Sho't Kals arrived. Knowing he had to regain the firing ramps to survive, Kahalani issued orders. But two issues complicated the task. First, the reinforcements entered the scene with little 105 mm ammunition—a few tanks had none. One commander was about to announce this fact when ordered forward, but Kahalani used his commander override to cut off communications lest the enemy, who undoubtedly listened to Israeli radio messages, learned just how dire the situation was. Second, as the reinforcement tanks derived from several units, many were on various radio frequencies and never heard Kahalani's orders.

Both Eitan and Ben-Gal remained in constant communication with Kahalani, asking him to hold on for a little longer as help was finally on the way. Kahalani told them that his force had already knocked out 60 to 70 tanks and the Syrians were still attacking. Becoming increasingly frustrated and angry, Kahalani tried to get everyone on the same frequency. Receiving no acknowledgements, even from his own battalion, the commander decided to shame them into action by advancing on his own towards the firing ramps. Not all followed. Somehow, enough of the other vehicles tuned to the in-use frequency and Kahalani tried a different tactic—a pep talk. Those vehicles that had not been immobilized followed the commander. Sho't Kals out of ammunition fired their coaxial machine guns. An unspoken coordination developed between the remaining Israeli tanks as they eliminated enemy vehicles. Ben-Gal radioed him asking if he could hold out a little longer, relief was minutes away.

When all seemed lost, Ben-Gal received a message from Strongpoint #3, located a little east of

CIA / Wikimedia

Israeli Defense Ministry

ABOVE: Israel Defense Force troops recover Soviet T-62 tanks used by Syria in the Battle of Golan Heights, Oct. 13, 1973. The Israelis captured hundreds of T-62s, which had better night-fighting capability than their Patton and Centurion main battle tank, and some were put into service as the Tiran-3. OPPOSITE: By October 9, the third day of the war, Syrian forces in the central and southern area of the Golan Heights were withdrawing in the face of the Israeli counter-attack. Multitudes of Syrian tanks and other vehicles, destroyed or abandoned, were scattered across the plains.

"Booster Ridge." Syrian supply convoys had turned around and begun withdrawing toward the cease-fire line. At a point when each tank holding the ridge had only a couple of rounds left, the enemy's pressure abruptly disappeared. After four days of fighting the 7th Infantry and 3rd Armored Divisions fell back inexplicably, leaving hundreds of vehicles, including 260 tanks, in the "Valley of Tears." "You are a hero of Israel," Ben-Gal informed Kahalani via radio. By nightfall all Syrian divisions had crossed back over the Purple Line. The Battle of the Golan Heights was over.

Aftermath

While the reserve forces had just begun to arrive in the Golan, the decision was made to invade Syria and knock them out of the war. On October 11, just over 24 hours from retaking the Golan, three Israeli armored divisions invaded Syria, including a reinvigorated 7th Armored Brigade. With their force shattered, Syria relied on assistance from other Arab countries. Between October 12 and 20, Israeli forces decisively defeated uncoordinated and ineffective attacks from forces that included various Syrian units, the Iraqi 3rd Armored Division, and the Jordanian 40th Armored Brigade. Once within long-range artillery range of the Syrian capital, the Israelis halted and consolidated their positions. The Golani Infantry Brigade and paratroopers recaptured Mount Hermon on October 22. Two days later a United Nation-implemented ceasefire went into effect for both the northern front in Syria and the southern front along the Suez Canal ending the Yom Kippur War.

For four days, Israel and Syria fought tenaciously without a regard for casualties being inflicted upon them. The 7th Armored Brigade calculated approximately 75% of its crews were either killed or wounded during that period. For the span of the Yom Kippur War, October 6 to 24, 250 Sho't Kals, gasoline-engine Sho'ts, and Super Shermans fell victim to Syrian arms, but only 100 were listed as total write-offs. Every single tank committed received at least one hit. 772 Israeli soldiers made the ultimate sacrifice for their country with a further 2,453 wounded and 65 becoming prisoners-of-war.

The Syrian military crossed the 1967Cceasefire line with 1,400 tanks. 1,181 failed to return to Syrian territory with 304 total write-offs. Taken into the Israeli Armored Corps numbered 240 T-62s and 627 T-54/55s. For the same 18-day period, 3,100 Syrians were killed in action, 5,600 wounded, and 348 taken prisoner. An unknown but most likely a low number of Moroccans ended up as casualties.

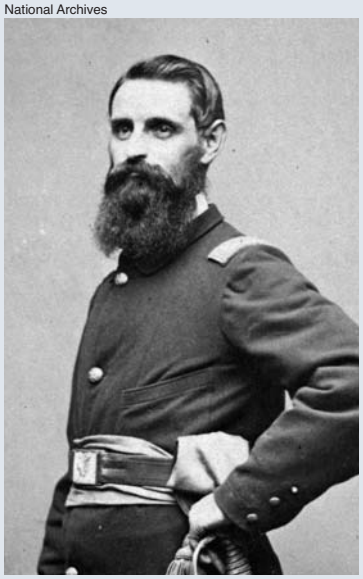
On October 6, Syria surprised Israel with their attack to reclaim the Golan Heights. Overconfidence in the ability of the Israeli Air Force and its intelligence agency to provide adequate warning of an attack left the Golan defended only by one infantry and two armored brigades. Israeli tactics and training, plus the Sho't Kal's superiority over the T-55s and T-62s fielded by the Syrians, allowed 177 tanks to delay an invasion force containing 1,400 tanks long enough for reserve divisions to reach them. Israel was fortunate that the Soviet training and reliance on orders from superiors prevented the Syrian commanders at the forefront of invasion forces from exercising self-initiative. This resulted in at least two lost opportunities of reaching the bridges over the Jordan River which might have secured a Syrian victory. By the end of October 9, 100 hours after the invasion began, Israeli forces through much sacrifice and determination defeated the Syrians in the Battle of the Golan Heights. ■

CIVIL WAR DI

IT was about four o'clock in the afternoon of July 2, 1863, when Colonel Ira Coray Abbott ordered his regiment to halt on a low rise called "Stony Hill," near Gettysburg, a small town in southern Pennsylvania. Abbott and his men were part of a Union army fighting the invading Army of Northern Virginia under the celebrated southern General Robert E. Lee.

Abbott's unit was the First Michigan Volunteer Infantry Regiment, First Brigade, First Division, Fifth Corps, the Army of the Potomac. It was the second day of battle, and it wasn't clear which way things would go. The first day's fighting had been confused, in part because elements of both armies had stumbled upon one another, and calls for help from hard-pressed units had drawn more and more formations haphazardly into the growing maelstrom.

National Archives



The Federals were forced to fall back, abandoning Gettysburg in favor of establishing a defensive position on high ground just beyond. Taking and holding the high ground is a military axiom that has been followed for centuries, but Lee was sure he could overcome the Union position with a flanking movement on the Army of the Potomac's left

Everyone knew that this unfolding battle might well determine the outcome of the war. Lee had won a series of notable victories against the long-suffering Army of the Potomac, most recently at Chancellorsville only a few weeks before. It seemed as if every time they suffered a defeat at Lee's hands, President Abraham Lincoln would fire the commanding general and replace him with a new man. Right now the Army of the Potomac was led by General Gordon Meade, a Pennsylvanian who seemed competent enough, but had only been appointed to the command a scant three days before, and so was an unknown quantity.

But Abbott and his regiment were hopeful that Meade, nicknamed "the old snapping turtle," might yet sink his teeth into the rebels and never let go. Perhaps the fact that they were fighting on his native soil might stir Meade to greatness. When he had time to jot a few words down in his diary, Abbott recalled the march to Stony Hill with fondness: "Our movement was in column by division, the 18th Mass (Massachusetts) on the right followed by the 118 Pa (Pennsylvania) and 1st Mich in the center & the 22 Mass in the left. This old brigade moved forward in splendid style feeling that victory was in our grasp… Our brigade reached the established line (Stony Hill) and deployed into line."

Though he didn't know it yet, Gettysburg was going to be the climax of a distinguished career that had begun when the Confederates fired on Fort Sumter in 1861. Thousands of Americans realized they were living through one of the most important periods in the history of the still young republic, and were determined to record events for future posterity. Abbott was one of them. Abraham Lincoln and other notable fig-

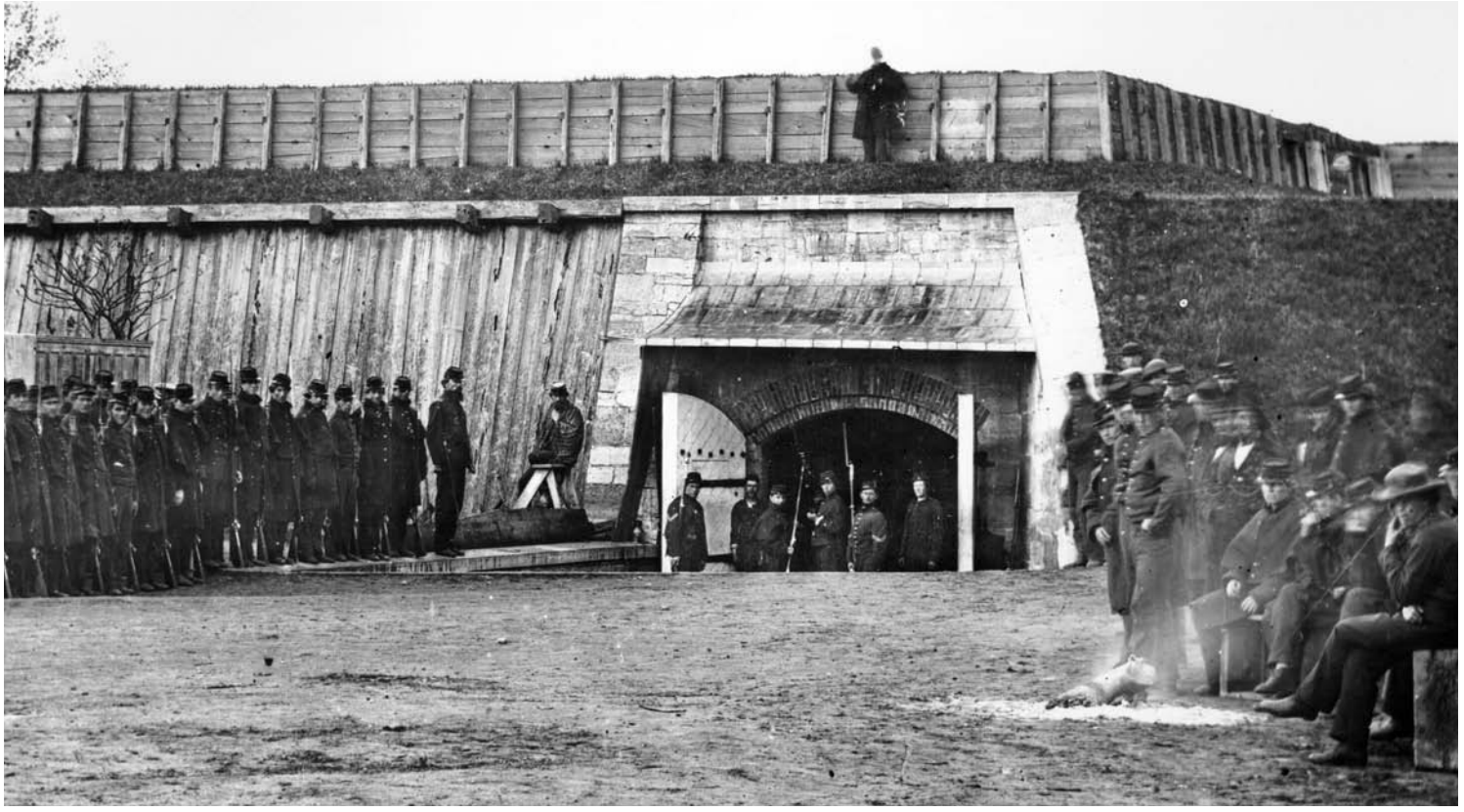
Colonal Ira Coray Abbott (above) and his 1st Michigan were among the Union defenders of the Wheatfield until overwhelmed by the Confederates. RIGHT: Colonel Harrison Jeffords retakes the regimental colors of the 4th Michigan Infantry during hand-to-hand combat in the Wheatfield at Gettysburg, July 2, 1863. Painting by Don Troiani.

ARY

Colonel Ira Coray Abbott's Civil War chronicle from Bull Run to Gettysburg.

By Eric Niderost

Michigan Archives



ures appear in the pages of the diary, but Abbott also records the day-to-day life of a soldier in the field—not just fighting, but trying to live as best as one can under circumstances far from normal.

Ira Coray Abbott was born in Burns, New York, on December 14, 1824. When he was 10, his father decided to pull up stakes and moved the family west. Americans have always been a restless people, seeking greener pastures beyond the horizon. The epic migration to Oregon and California is the stuff of legend, but in the 1820s and 1830s the American Midwest was the promised land to people in the more settled eastern seaboard.

The Abbott family moved to Buchanan, Michigan, where young Ira attended public school. His father was a farmer, a common enough occupation in those days, but he must have prospered, because he was able to send his son to a business college in Elkhart, Indiana, for a year. After graduation Abbott, now a young adult, found work as a clerk in a bank and general store. Marriage followed in 1857 when he wed Electa Shear. Two children were born, and the Abbotts seemed to look forward to a future of domestic tranquility as members of the rising middle class.

All that changed after Fort Sumter. Lincoln responded by issuing a call for 75,000 volunteers to put down the rebellion. Each loyal state had its own quota to fill, and the enlistment term was set at three months. Michigan, a staunch unionist state, responded with alacrity to the President's request. Governor Austin Blair protested when Michigan's quota was set at only one regiment of 10 companies, explaining the state had enough willing manpower to do much more.

Michigan had to start almost from scratch. On paper it had 28 militia companies of 1,240 men, but they were poorly equipped and functioned more as social clubs than military formations. The only thing really military about them were names such as the Coldwater Cadets and the Detroit Light Guards. Abbott's unit was the Burr Oak Guards. Since he was the postmaster of Burr Oak, he was the first one to see the governor's proclamation about raising a regiment when it came through the mail.

For some reason Abbott doesn't mention a grand ceremony that was held on May 11, 1861, when the regiment paraded to Campus Martius, an immense public square in the heart of the downtown area. Thousands turned out to view the spectacle, which included the presentation of the regimental colors. But the First Michigan was urgently needed to defend the nation's capital, so two days later the regiment boarded the steamer *May Queen* to begin the first leg of their journey.

"At five o'clock," Abbot later wrote, "the regiment by companies was marched on board, and by six all men in quarters for the trip to Cleveland. At seven the order was given to cast off the lines. The band played the Star Spangled Banner and hundreds of handkerchiefs was waved and the cheering goodbye was heard from those on board as we left the shore. The band on shore was playing 'Columbia the Gem of the Ocean' as we moved out upon the bosom of Lake Michigan. It was a beautiful sight—not a ripple on the lake and next morning at daylight we were ready to disembark (at Cleveland) and go aboard the (train) cars."

The long train trip became almost a triumphal procession at each rail stop. They were cheered, fed well, and shown that Unionist sentiment was at a fever pitch. But there was one more hurdle before reaching their destination—Baltimore. Maryland was a slave state, and Baltimore a hotbed of secessionist feelings. There was a municipal ordinance that prohibited steam railroad tracks from being laid across the city. That meant that troops would have to leave their incoming train at President Station, and march 10 blocks to the Baltimore and Ohio's Camden Station to catch another train and complete their journey.

A few weeks earlier the Sixth Massachusetts Militia regiment had been trying to peacefully make the transfer, only to be violently attacked by a secessionist mob while marching down Pratt Street. A full scale riot erupted, the mob pelting the soldiers with bricks, paving stones, and a scattering of pistol shots. The Ninth Massachusetts returned fire, and when it was over four soldiers and 12 civilians were dead.

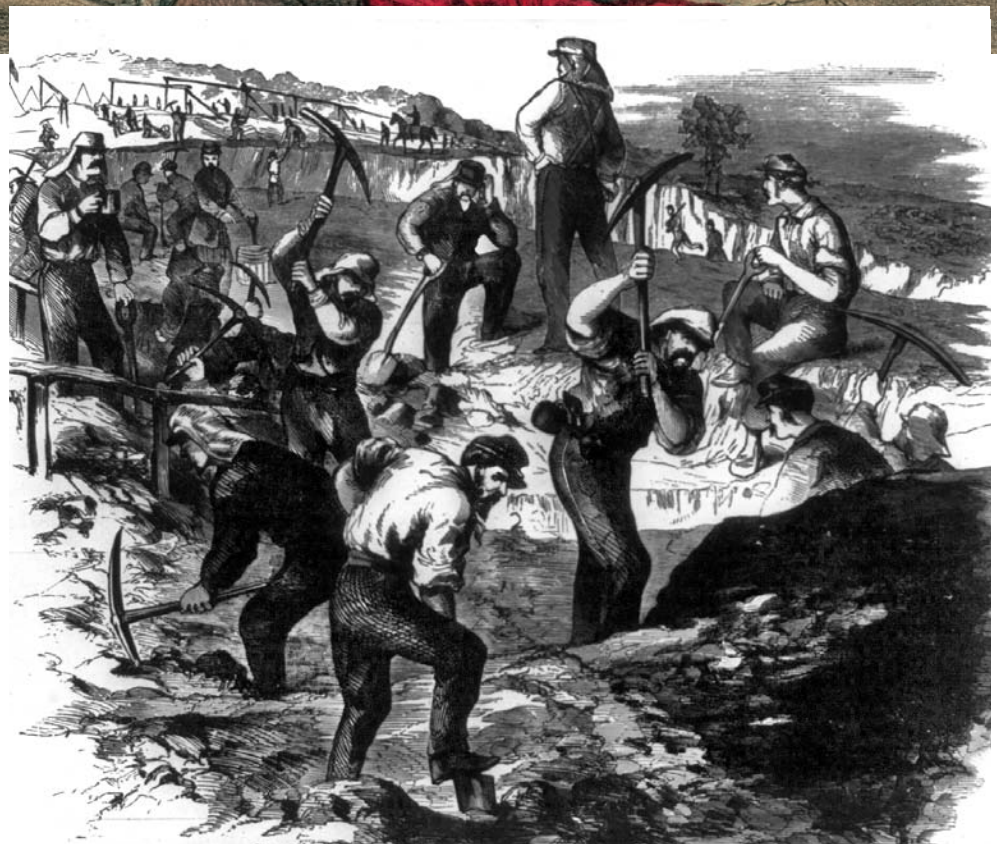
Both: Library of Congress

Harrisburg, Pennsylvania, was the First Michigan's last stop before proceeding to Baltimore. The regiment was reviewed by Pennsylvania Governor Andrew Curtin, then preparations were made to depart for Baltimore. Abbott remembered "The train was ready and we went aboard. Here we were obliged to take freight cars, which some of the companies complained of, since the officers were furnished with a passenger car.

"The next morning we reached Baltimore and here another transfer. The regiment was to march through the city. Preparatory arms were traded and bayonets fixed. [We were ordered] if there was an attack by the mob to fire and charge bayonet. The regiment marched through the city in column by platoons. The sidewalks for a long distance on either side thronged with a rebels (sic) mob hurrahing for Jeff Davis but no violence was offered."

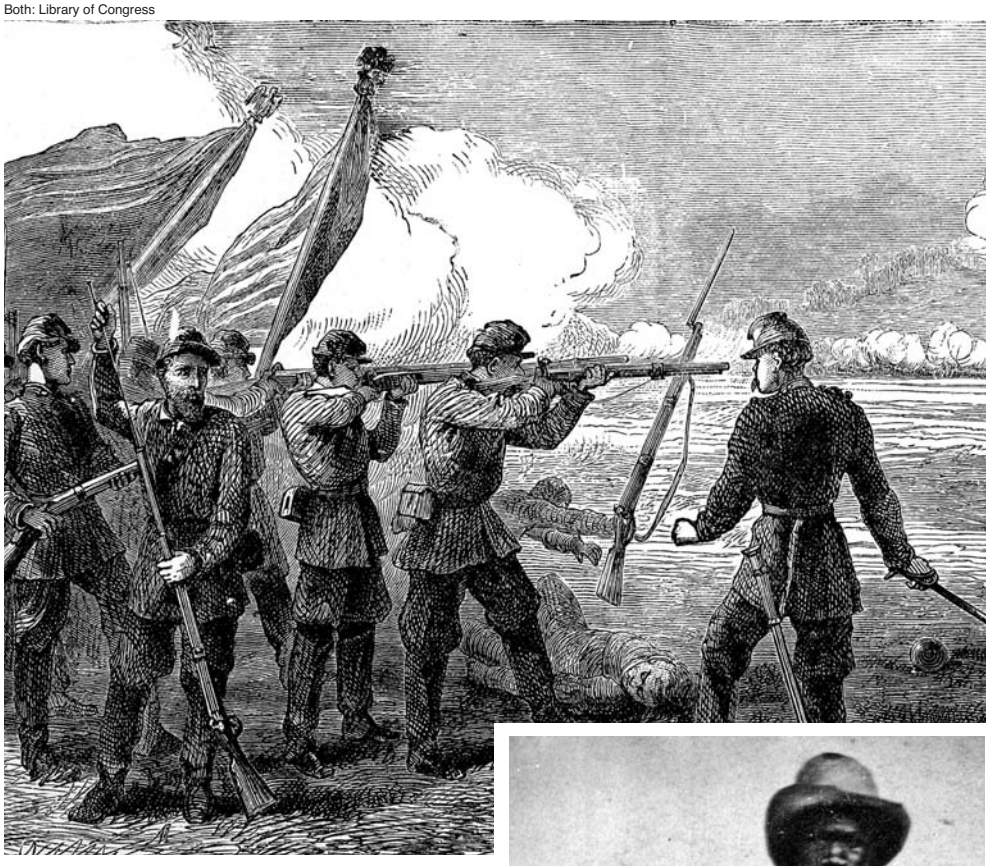
The First Michigan arrived in Washington, D.C., on the evening of May 16, 1861. Abbott remembered it as "around six" but newspapers of the period report the time was more like 10 p.m. or even a little later. Washingtonians were awakened by the regimental band's martial music, threw on clothes, and joined the growing crowds that cheered the new arrivals. They were not the first unit to arrive, but it was noted they were the first regiment from a "western" state.

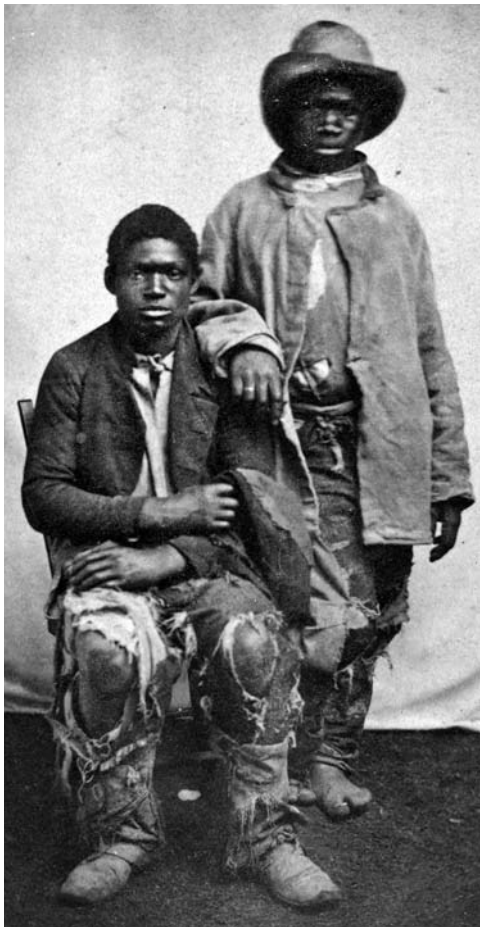
The regiment was reviewed by President Lincoln, who earlier had supposedly exclaimed



TOP: Union recruits gathering near Washington, D.C., had to march through sessionist Baltimore, where a riot broke out when the 6th Massachussets Militia marched through. Marching with fixed bayonets, the 1st Michigan was verbally harassed, but not attacked in Baltimore. ABOVE: After arriving in Washington, the 1st Michigan was put to work with other newly arrived units building defenses around the Capital. OPPOSITE: The 1st Michigan Infantry Regiment photographed in front of Fort Wayne, Detroit, in 1861. After an initial term of three months, the unit was reformed in August 1861 for three years' service.

Both: Library of Congress





ABOVE: Captain Abbott and the 1st Michigan first saw battle at Bull Run in July 1861. Despite being "green," the unit retook a Union Battery captured by the Confederates. RIGHT: Wearing rags, these former slaves found freedom behind Union lines. In the fall of 1861, well before Lincoln's Emancipation Proclamation, Abbott was ordered to return a runaway slave family to a Maryland farmer, but did not do so. OPPOSITE: Artist Alfred Waud made this battlefield sketch of Confederate troops overrunning a vacated Union battery during the Battle of Gaines Mill. Now a major, Abbott and the 1st Michigan defended the left flank of the V Corps position until the entire Union line was over run.

"Thank God for Michigan." Regimental officers were invited to a White House reception, and though Lincoln was an unknown quantity at the time, Abbott and the others were charmed by the President's humor, his down-to-earth friendliness and affability. Lincoln not only shook hands with each officer, he also pressed the flesh with each member of the regimental band that was providing music for the occasion.

The Battle of Bull Run was the first major clash of the Civil War, when both sides were still rank amateurs for the most part, their heads filled with dreams of romantic glory. The First Michigan did well for green troops, in part because they were led by Colonel Orlando Willcox, a West Pointer and professional soldier who was a veteran of the Seminole Wars and the Mexican-American conflict. He provided the firm hand and courageous example that steadied and inspired the men.

The regiment was positioned on the far right of the Federal line, and soon advanced down the right side of Sudley Road. The Confederates had just taken a Union battery, and the First Michigan's mission was to try and retake it. They succeeded, and advanced to woods just south of the Henry House, where on Henry House Hill gray troops under General Thomas Jackson resisted all Union attempts to break their line. In fact it was their stubborn defense that gave Jackson his famous nickname of "Stonewall."

By some accounts it was the First Michigan who had advanced the furthest into the Confederate position, though it was ultimately unsuccessful and came at a high cost. Willcox's horse was shot from under him, and he was wounded and captured. For the First Michigan, as for the other untried Union forces, the day ended in confusion and humiliating defeat. Colonel Willcox and a large number of Michiganders were taken prisoner, and worse still, its regimental flag was also captured as a war trophy.

Captain Abbott doesn't say much about the Bull Run debacle, but does mention that "the first man who fell was color sergeant (sic), struck by a shell which severed his head from his body." That was Sergeant Calvin Colgrove, who was later remembered and honored. It was said that Captain Abbott helped rally the survivors and lead them back to Washington when the federal army retreated.

The defeat at Bull Run was a sobering experience, but everyone now realized the war was going to be a long and bloody one. The battered First Michigan returned home, their three-month enlistments at an end, but the regiment reformed as a new entity based on service for three years. The First Michigan Volunteer Infantry Regiment joined the newly formed Army of the Potomac, named after the river that flows past the nation's capital.

The fall of 1861 found the regiment guarding portions of the vital Baltimore and Ohio Railroad. Confederate raiders were known to tear up tracks and generally sabotage the passage of Federal troops to and from Washington. Captain Abbott and his company were based at Contee's Station, about 20 miles from the Capital. It was there that Abbott had to confront the issue of runaway slaves. This was early in the war, and the Lincoln administration's main focus was on the restoration of the Union, not the emancipation of the south's four million slaves.

There was a great fear—a valid one at the time—that if Lincoln moved too quickly against slavery, important slave border states like Kentucky that were still in the union might join the Confederacy. If that happened, the scales might be tipped and the south would win the war. For that reason, the Lincoln administration and the Union army were scrupulous about respecting

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"property rights," even if the "property" consisted of human beings in bondage.

Abbott must have considered the incident as important, because in his diary he devotes several pages to the subject. He copies letters sent to him from the regimental colonel, his replies, and even a kind of deposition by a private involved in the case. It began when Corporal William H Radley recalled "The slave 'Dick' appeared at the camp at about 1 a.m. Tuesday standing several rods from the tents. One of the soldiers asked him if he were a slave and he said yes. He then came to the cook house when he was given something to eat…"

Radley goes on: "At about 11 a.m. I was ordered by Sergeant Hoffman to go with the slave Dick and bring his wife back to camp who he had said he had left a short distance behind him. After walking some time we came to the plantation of the slave owner. As we came in sight of the plantation I gave the man [the slave Dick] the musket [to defend himself] keeping the revolver for myself. As we were passing a mill on or near the plantation the man Duval, son of the [slave owner, Dr. Charles Duval] came running from the mill…saying 'where are you going with that servant? He belongs to me' I answered 'You keep still if you know you are well off' he then said 'very well go on.'"

Radley then wrote, "we then went on to a tobacco field when we found this woman, his wife and four children. We then returned and as we repassed the mill the man who we spoke to before then asked what I was going to do with their servants [euphemism for slave] I answered that was my business." Seeing both union soldier and slave armed, the younger Duvall changed his tune, saying "very well—they don't belong to me."

But Duval senior was upset, and went immediately to Union General Joseph Hooker to complain his "property" was taken away. Strictly following policy, Hooker gave Duval a letter ordering that said property would be returned immediately. Once he got the word, First Michigan Colonel John C. Robinson forwarded the missive to Captain Abbott to look into the matter and resolve any difficulties.

Dr. Duval did show up at Abbott's camp one evening and saw that the slave and his family were there. Perhaps sensing that he was in unfriendly surroundings, Duval didn't attempt to take possession but asked that they be held until morning. He—or a representative—would come by to pick them up and return them to slavery. Bound by official policy, Abbott had to agree to the arrangement.

But the next morning no one came. Duval's reason for not coming or sending someone is not known, but the slave owner's absence gave Abbott his opportunity. He immediately ordered the slaves to leave and advised them to "return home." In other words, he was giving lip service to the official Union position at the time. Dick and his family were "given breakfast" and then "went away in the direction of Washington [D.C.]"

Depriving Dr. Duval of his human "property" might have had repercussions, so Abbott wrote the mitigating circumstances involved in the case. The man, his wife, and their children "were in a very destitute condition indeed having scarcely any clothing to cover their nakedness." The white people of Maryland have been "kind" to Union soldiers in general, but the "condition of the colored man and his appeal for protection" was a major factor. Speaking of himself in the third person, Abbott concludes that "his sympathies were aroused to such an extent he permitted the occurrence as stated [giving aid to the escaped slaves]. The young man Duval is no doubt a hard master as I have it from reliable men and the same impressions had been communicated to that detachment [Radley and others]."

An anonymous adage usually attributed to the Great War described a soldier's life as "months of boredom punctuated by minutes of sheer terror." That was no less true for Abbott, who in his diary at times confesses that there was little or nothing

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to record that day. Sometimes, seemingly to fill a page, he details when they had breakfast, or how he set up the various guard duty assignments as Officer of the Day.

The fall and early winter of 1861-62 was one such comparatively tedious stretch. In February, 1862 Abbott noted that "private William Smith of Company B having absented himself without leave has had a charge of desertion preferred against him. February 17th Private Smith was tried by court martial and sentenced to "30 days imprisonment with a 32 pound ball and chain attached to his leg. It was thought by the court that he was not guilty of intention to desert and was punished for being absent without leave."

Abbott often speaks in the third person, as when he notes "Jan 10 (sic) Capt Abbott received a furlough for 10 days and started for Michigan—did not return until the 28th having been delayed in getting transportation for detachment (sic) of men he recruited during his absence." He further noted that two of the recruits, Leonard Whitmayer and George Bandmaster, were well known to him, having been "Members of Capt Abbott's Comp (sic) G in the three months service."

In early 1862, General George B. McClelland was commander of the Army of the Potomac. Idolized by his men, who gave him the affectionate sobriquet of "Little Mac," McClelland was a masterful organizer and trainer, transforming the Army of the Potomac into a fighting force of real merit. Unfortunately, events were to show he had serious flaws as a general in the field. He was timid, overcautious, and slow in maneuver.

Above all, he seemed to lack the moral courage required from a successful battlefield general. A commander should not spend his men's lives recklessly, but should also have the courage to send them into harm's way to achieve victory. McClellan seemed to lack that quality, delaying action for weeks while sending Lincoln pleas for reinforcements, coupled with a barrage of excuses for his inactivity.

In the spring of 1862 McClelland finally launched what became known as the "Peninsula Campaign." His main objective was the capture of Richmond, the Confederate capital. Using the Union's advantage in sea power, McClellan was going to transport the army down the Chesapeake Bay to Fort Monroe at the tip of a peninsula formed by the York and James Rivers.

By going up the peninsula, the Army of the Potomac would only have two rivers to cross, and its base at Fort Monroe would be only about 75 miles from Richmond. As part of the Army of the Potomac's Fifth Corps, the First Michigan would take active part in the campaign. Unfortunately Abbott contracted typhoid fever, and ended up in a Fort Monroe hospital for 20 days. Even after he was officially released, the Michigander admitted he "wasn't able to walk without a cane, or draw his sword from the scabbard with his right hand."

Nevertheless, Abbott reported for duty June 27,1862, just in time to participate in the Battle of Gaines Mill. The Union's peninsula offensive had slowed to a crawl, sputtering out just as it neared the Confederate capital. General Fitz John Porter, the Fifth Corps commander at the time, placed his men in a very strong defensive position along a meandering, boggy stream called Boatswain's Creek. Its banks were a virtual swamp, carpeted with thick undergrowth and clumps of trees.

The position stretched almost two miles, with Boatswain's Creek forming a kind of natural moat that gave added protection. General John Morell's First Division, which included Abbot's regiment, anchored the left flank of the Fifth Corps defenses. The battle was noted for being the debut of General Robert E Lee and his newly named Army of Northern Virginia. Abbott describes his position as being along a "deep ravine." This is probably the start of the swampy bottomland that edged Boatswain's Creek.

Abbott tells us that "I was ordered to take charge of the left and construct an abattis in front of our lines." Generally, that means felled trees with sharpened ends facing toward the enemy. "At one o'clock," he continues, "the heavy guns of the enemy began to thunder, and occasionally a shell would explode near our line. They were replied promptly by our 32 pounder(s) planted on our right and the rear of our line the [Union] shots passing over our heads." He's most likely

referring to the supporting batteries of the 1st Rhode Island light Artillery as well as U.S Artillery and Pennsylvania Artillery which were on the slopes of Turkey Hill, a plateau that gave them an excellent view and field of fire.

Abbott then writes, "At three o'clock Copys B (sic), Capt. Byrnes (my old co), detached from the Regt and sent to the front as skirmishers. Having been out a short time they fell back before the advance of the main line of enemy infantry." These were General A.P. Hill's Light Division, composed of Georgians, North Carolinians, and Alabamans. Hill's force of some 12,000 men had to cross a quarter-mile of open ground, only to face new obstacles as they confronted the viscous, swampy muck that edged the meandering Boatswain's Creek.

Major Abbott and his men were veterans by this point, but the spectacle of long lines of gray-clad infantry advancing in almost parade ground fashion still was a thing to be admired. As Abbott commented, "The enemy advancing over the ridge and down the opposite side of the ravine in splendid style until within twenty rods of our line when a heavy fire was opened along our front causing many a gray coat to fall to the ground." The Confederates facing Abbott's position were probably Georgians, possibly the 35th Georgia, but all of the "rebels" showed exemplary courage.

The attacks continued, and Abbott goes on, "By an order of Col [Horace] Roberts (who replaced Robinson as commander of the 1st Michigan at the time) our fire was reserved until the enemy had advanced to short musket range when the dogs of war infantry and artillery were let loose and they were again driven back with hearty loss." The battle seesawed back and forth, but when all of his men had finally come up and were in position Lee gave an order for a general advance.

This was the largest confederate offensive in the war, with no less than 32,000 men—16 brigades—attacking along a broad front. Even the celebrated "Pickett's charge" involved far fewer soldiers. Porter's Fifth Corps had performed prodigies of valor throughout a long, bloody, and exhausting day, but the greatly outnumbered Yankees finally gave way. It was nearing sunset, and the gathering darkness combined with the dense clouds of lingering gun smoke to produce chaos and confusion.

Abbott was focused on the First Michigan's Company F, and in the confusion didn't realize that the whole Union front had collapsed and individual units were in headlong retreat. Abbott writes, "This was the most desperate fighting of any during the day—here our men and officers fell like sheep before the slaughter…Individual [Union] regiments contested the ground and only gave way to an overwhelming force. The First Mich (sic) being on the extreme left was the last to give way."

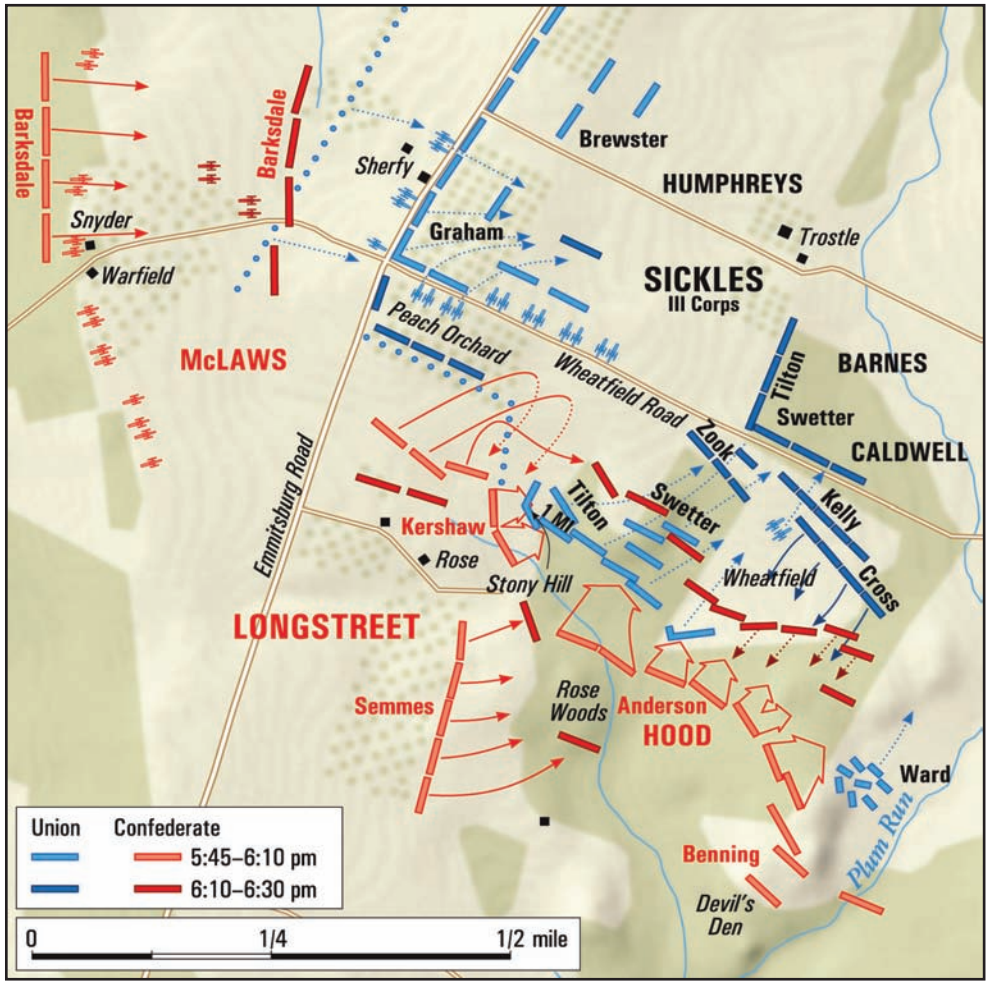
Major Abbott quickly gave orders to Company F to withdraw, but he was dismounted and didn't know where his mount could be found. He was still very lame from his previous illness, and found to his chagrin he couldn't keep up with the departing troops. The Confederates were surging forward, and in the process were taking many prisoners. Abbott's death or capture seemed likely, so he decided to pause a moment to figure out his next moves.

"I took shelter in a ravine immediately on the left which was filled with underbrush. As luck would have it I found in the ravine a horse which was hitched to a tree and afterwards I found to belong to the Major of the 12th N.(sic) York Infantry." Thus he was able to save "myself and the horse from the hands of the enemy."

Colonel Roberts was killed at Second Bull Run. A replacement was already chosen, but was unable to take the post because he was incapacitated by a wound he sustained at Gaines Mill. Abbott, by now a lieutenant colonel, replaced him and became Colonel of the First Michigan. This was the late summer of 1862. The Battle of Antietam followed, and in December of that same year Lee defeated the Army of the Potomac at Fredericksburg.

Even by Civil War standards Fredericksburg was a terrible slaughter, with the lion's share of the casualties from the Army of the Potomac. Abbott, twice wounded, recalled "Oh, the horrors of war, of a battle like this! Thousands of wounded, dying or dead. I can never forget that night—such horrible groans and cries—no pen can describe, or pencil paint them."

After Fredericksburg came Chancellorsville, considered Lee's greatest victory, and then, finally, the dramatic confrontation at Gettysburg. The march to Gettysburg had its own attendant horrors, including forced marching under a broiling



ABOVE: Now Colonel of the First Michigan, Abbott and his men, along with other V Corps units at Gettysburg, were sent forward to the Wheatfield, as General James Longstreet's Confederates sought to roll up the Union flank. OPPOSITE: This engraving depicts a massive Union charge at the Battle of Fredericksburg, December 13, 1862. Abbott recalled the carnage, "Oh, the horrors of war... Thousands of wounded, dying or dead. I can never forget that night..."

Wikimedia

sun. Scores of his men were laid low by sunstroke and at least one man died of it. Many others fell out from sheer exhaustion, though they rejoined the regiment by evening. At one point Abbott estimated they had marched over 30 miles in one day.

Once his men were in position at Stony Hill, Abbott took stock of the situation. Looking down from the Stony Hill's modest elevation, he could see farmland, verdant and green as it simmered in the torrid summer sum. A few hundred yards behind him stalks of summer wheat gently swayed with every small breeze. The First Michigan was part of General William Tilton's brigade, and four other brigade regiments soon took their respective positions. The 118th Pennsylvania anchored the right, the First Michigan the center, and the 18th Massachusetts on the left. The 22nd Massachusetts was positioned just behind as a reserve.

General Lee's plan was to attack the Federal left, and if successful, the gray troops would continue the advance with a strong flanking assault that might roll up the whole Union line. Tilton's Brigade was one of the units assigned to prevent such a catastrophe. The First Michigan would be facing men of General George T. Anderson's brigade, part of General James Longstreet's First Corps, Army of Northern Virginia.

Abbott knew the brigade was going to face a major onslaught, and the main attack would be preceded by a swarm of skirmishing sharpshooters. The Colonel recalled, "I immediately gave orders for my men to lay down and not after a few minutes a stray shot from the enemy Sharp Shooters (sic) came over…. I order men to their feet, load and fix bayonets and lay down again with positive instruction not to fire until orders were given. [It] was my intention to wait until the enemy was well within short musket range and make every shot [count]."

The attacking Confederates drew nearer, and "we did not wait long when the well known rebel yell was heard in our immediate front…. They came down on us with banners flying…. The enemy had commenced firing as it advanced now plainly in view with two lines of battle." Those two gray and butternut lines were the men of the 8th and 9th Georgia regiments. "The regt (sic) to my right and left commenced firing but my own (men) remained anxiously waiting for the word of command."

"Our Captain Griffith Co E getting a little nervous as they came along said 'what is the matter with the col [colonel]? Why in HC [hell?] don't he begin to fire?' Then, the crisis of this local fight: the 118th Pennsylvania seemed to have given way and "it looked as though it would be hard to hold our line but I knew my men could be trusted."

Abbott didn't know it, but the 118 had actually been ordered to fall back by Brigade commander Tilton, subsequently a much debated move. The 118th didn't want to leave, crying "no retreat! no retreat! This is our (home) ground!" but orders were orders and they reluctantly withdrew. But that meant the First Michigan would potentially be faced with Confederates both in front and the right flank.

But Abbott had a contingency plan in place that would address this threat. The regiment would deploy in a kind of upside down "L" formation, with the smaller stroke of the letter facing the right. As Abbott remembered: "…when the (gray) lines were 10 rods off our front the words "attention Battalion" every man was on his feet perfectly cool and at the command fire by files—commence firing! it was repeated all along down our lines and our fire was continuous."

Abbot continues, "the enemy was so badly crippled that their lines began to waver (and) finally halted." The flanking effort stalled, and finally the gray coats "fell back in confusion and the ground was ours." As a grim postscript, Abbott remembered "when our firing commenced they were so close that every shot told and the ground was strewn with their dead, dying, and wounded." The Confederates would return, and the First Michigan would be withdrawn with the rest of

Tilton's battalion, but after seesaw fighting the Union regained control of the ground.

Colonel Abbott was badly wounded shortly after Anderson's initial attack. He describes the incident in a somewhat laconic manner, merely recording "I received a wound in my face, the ball passing under my nose nearing severing my upper lip and completely demolishing my teeth." With his face swelling and bloody, his mouth a disaster of deep cuts and shattered teeth, Abbott was forced to relinquish command.

"After being wounded," he continues, "turned over the regiment to Lt Colonel Thorp [and] went to the rear and had my lip stitched on by a surgeon of the Fifth New York regiment. After having my wound dressed I decided to go direct to Fifth Corps Hospital." After walking a bit, he saw a series of horse-drawn ambulances and hitched a ride on one, taking a "seat by the driver."

It wasn't a long journey and they soon arrived at the makeshift hospital, "a farm house and barn near which was a large apple orchard. The barn was occupied as a hospital." This was the Weikert house and barn. After a huge Confederate bombardment on July 3, the hospital was moved to the Bushman farm. Abbott was a self-reliant sort, so when he saw some new hay he gathered some to make a bed and spread the armful under one of the apple trees.

Settling down, he "laid down to rest where I remained until the next morning." The wounded Colonel met some of his own men from the First Michigan, who perhaps were looking for him, because they had a stretcher. Admittedly "weak and tired," and no doubt in pain, Abbott allowed himself to be carried to the new Corps hospital at the Bushman farm. He was given quarters in a tent with another presumably wounded officer.

This was July 3, the day of Pickett's charge, a celebrated event that was preceded by what was probably the greatest artillery duel of the entire war. The Confederates alone had somewhere between 150 and 170 guns. Abbott recalled that July 3 was "the most desperate day of battle. The earth fairly trembled from the effects of artillery and the musketry was continuous from early morning till night when it began to die away."

Sitting there in his hospital tent, he had time to reflect on the momentous events that had just taken place. A great battle had been fought for three long days," he wrote. "General Meade, had won the day and the turning point in one of the greatest wars of the nineteenth century had been reached. Gettysburg was ours at dreadful cost."

Gettysburg also proved to be Abbott's last experience as an active duty soldier. He was sent to Washington, D.C., to take part in court martial tribunals. Though his facial wound healed, he was beset by ill health, and he never again went on campaign, though his regiment fought on all the way to Appomattox. Colonel Ira Abbott did manage to join the First Michigan in the grand victory parade that was held in Washington in May of 1865. He also became a brevet (honorary) brigadier general for his "meritorious services" during the war.

After the war Abbott obtained a position as a clerk in the Pensioner's office in Washington, a job he kept, incredibly, the rest of his life, even into his eighties. General Ira Coray Abbott was active in veteran's affairs and regimental reunions until his death in 1908 at the age of 83. ■

Library of Congress

ABOVE: Photographer Alexander Gardner arrived in Gettysburg shortly after the battle was over and captured a number of photographs of the dead, including this image of soldiers gathered for burial in the Wheatfield. OPPOSITE: Union infantry advance through a wheatfield as artillery cassions struggle to leave the field in this detail from the Gettysburg Cyclorama. Col. Abbott's troops managed to halt the Confederates to his front before he was badly wounded and taken off the field.

These young soldiers of the 6th Royal Welsh Fusiliers were part of Field Marshal Bernard Montgomery's Anglo-Candian Operation Veritable (February 8-March 11, 1945), the northern half of an Allied pincer movement into the industrial heart of Germany.

REICHSWALD:
The Battle for a Sinister Forest

The bloody fight for the Reichswald, according to Lieutenant General Horrocks, was a soldiers' battle "fought by the regimental officers and men under the most ghastly conditions imaginable."

"We had so damn many guns, we didn't have enough real estate to put them down on," quipped Brigadier Stanley Todd, commander of the 2nd Canadian Corps Artillery. "We had to put two batteries in every position," he added. More than 1,000 guns lined the border between The Netherlands and Germany near Nijmegen, their barrels aimed menacingly at the enemy-occupied Reichswald Forest.

At 5 a.m. on February 8, 1945, the artillery thundered, muzzle flashes piercing the gray morning sky. Adding to this fury of noise and high explosives being hurled at the Germans were medium machine guns, tanks, mortars, anti-tank guns and waves of rockets from the 1st Canadian Rocket Battery. Lieutenant Howard Powell of the Calgary Highlanders watched in awe as this latter unit fired a 12-projector salvo at a farm and a grove of trees and the "place just disintegrated, all in one smack."

The German soldiers could do nothing but endure the pounding, as previously registered

Vastly outnumbered and outgunned, desperate Germans manned the fortifications of the Westwall—fighting for the first time on their home soil against a foreign invader. | By Mike Phifer

strongpoints were smothered in a tornado of fire. Mercifully, the guns fell silent at 7:40 a.m. Smoke shells then landed along the front in an attempt to trick the German guns into returning fire and revealing their positions. Most of the German gunners that had not already been knocked out didn't take the bait. But about 20 positions, one battery and the rest mortars, did fire back and were quickly located and wiped out as the bombardment continued 10 minutes later.

For another two-and-half hours or so the pounding continued to smother the German positions. At 10:29 a.m., yellow smoke-shells signaled that in one minute thousands of Scottish, Welsh, and Canadian troops would attack. As the artillery began laying down a creeping barrage, lumbering tanks and four divisions of infantry moved toward Reichswald Forest and German soil.

Almost three months earlier the 1st Canadian Army took over the Allied line along the Meuse or Maas River in the Nijmegen Salient, Netherlands. The Canadian army was under the command of General Harry Crerar and was part of the 21st Battle Group commanded by Field Marshal Bernard Montgomery. This battle group consisted of the 1st Canadian Army and the 2nd British Army and held the northern end of the

Imperial War Museum

All: Imperial War Museum

Soldiers of the 154th Infantry Brigade (part of the 51st (Highland) Infantry Division) man a Vickers machine gun in support of the advance of Operation Veritable from Holland into Germany on February 8, 1945.

Allied 600-mile line that stretched from the North Sea to Switzerland.

By late 1944, the Allies were focused on getting over the Rhine River and into Germany. But first they had to deal with the Nazi forces in the Rhineland, a swath of land 20-30 miles wide that lay between much of the Allied line and the Rhine River. The Maas and the Roer Rivers flowed through the Rhineland, creating natural obstacles. The Germans had also added the formidable Siegfried Line or "West Wall" as they called it.

In talks with Gen. Dwight Eisenhower, commander of the Supreme Headquarters Allied Expeditionary Force, Montgomery proposed a two-pronged attack into the Rhineland to secure the west bank of the Rhine River. The northern attack, launched southward from the Nijmegen area between the Maas and Rhine Rivers under the command of the 1st Canadian Army, would be called "Operation Veritable." The southern attack, called "Operation Grenade," would be carried out by American forces across the Roer River.

Both forces would cross the Rhineland and converge near Wesel, along the Rhine River. The Germans on the west side of the Rhine would be forced to fight and be wiped out, or retreat across the river. By March, the Allies would then be in a position to cross the Rhine.

Operation Veritable was scheduled tentatively for New Year's Day 1945, but everything changed on December 16. That day, three German armies smashed into the Ardennes Forest, catching American forces there by surprise. Brutal fighting raged into January before the situation was restored. It would not be until January 21 that Eisenhower assigned Lt. Gen. William Simpson's 9th Army of the 12th U.S. Army Group to Montgomery's command for Operation Grenade. That same day, Montgomery set February 8 for the launch of Operation Veritable. Eventually February 10 was the date set for Operation Grenade.

The 1st Canadian Army's sector was a bustle of activity preparing the massive logistics for Veritable. Adding to the congestion of the operation's crowded start area was the arrival of the British 30th Corps, which was assigned to the Canadian army. Lt. Gen. Brian Horrocks, commander of the 30th Corps, was responsible for carrying out Operation Veritable. Temporarily attached to his corps was the 2nd and 3rd Canadian Division giving him overall a strength of about 200,000 troops.

To help keep the enemy unaware of the coming operation, officers of the 30th Corps who reconnoitered the front lines were ordered to travel in Canadian vehicles and wear Canadian uniforms as they were of darker khaki than the British ones. The vast amount of supplies and ammunition were moved up at night near their final positions and were concealed in farmyards, haystacks, simulated hedgerows and barns, among other places. The large concentration of artillery south and east of Nijmegen were camouflaged, while at the same time obvious "dummy" gun positions visible to German patrols were established. These "dummy" guns would be switched for real ones shortly before the operation began. Six divisions moved up in the darkness to where assembly lines were hidden in dugouts, schoolhouses, assembly halls and factories. Nearby fields, meanwhile, overflowed with camouflaged tanks, armored vehicles and anti-aircraft guns.

Canadian engineers worked around the clock to improve the roads and build new ones along with bridges to allow the vast number of troops, equipment and material to get to the front. Conditions were to get worse when the weather turned milder and a pounding rain began in early February. "The tide's in!" joked soldiers of the Canadian Scottish Regiment (Canscot) when they woke up on the morning of the 7th to find the surrounding fields submerged. The Germans had blown holes in the Rhine's winter dike, allowing water to rush into the already drenched lowlands. On the eve of Operation Veritable, half of the coming battlefield was under five feet of water and the other half was a quagmire of mud.

This Allies began with a bottleneck only six miles wide between the Maas and Rhine Rivers. Looming sinisterly at this point was the Reichswald, a 32-square mile state forest divided into blocks separated by "rides" or narrow tracks. Two paved roads cut through Reichswald from the north converging at the town of Hekkens midway along the southern edge of the forest.

To defend this area the Germans had constructed three defensive belts. The first belt ran from the town of Wyler, located on the road to Cleve, along the western face of Reichswald then southward eventually passing through Gennep and down the east bank of the Maas River. This line consisted of trenches, anti-tank ditches, roadblocks, dug in anti-tank guns, minefields and was further strengthened with farmhouses and villages converted into strongpoints.

The second defensive belt was part of the Siegfried Line. Construction of the line in this area had not been completed, causing Maj. Gen. Heinz Fiebig commander of the 84th Infantry Division to comment that this section of the famous line was "a haphazard series of earthen dugouts." Besides trenches and anti-tank ditches, the line was strengthened with about 70 or so concrete shelters and pillboxes. With the northern end of line being located about three miles to the rear of Wyler, the Siegfried Line ran through the Reichswald then skirted the southern edge of the

"HOBART'S FUNNIES"

The 79th Armoured Division played an important role in the success of Operation Veritable. Created on August 14, 1942, the 79th would soon come under the command of Maj. Gen. Percy Hobart two months later. With a long military career in the Royal Engineers and the pre-World War Two Tank Corps, Hobart was a problem solver with a willingness to embrace innovation. He was the right man to command the 79th which would soon take on an unusual role with their unusual armored fighting vehicles.

From hard lessons learned on the disastrous Canadian raid on Dieppe on the French coast on August 19, 1942 it was determined that specialized armored vehicles were needed in dealing with fortified coastal terrain, obstacles and enemy strongpoints. The ideas learned there as well from other theaters of operation such as North Africa, and earlier techniques used from World War I were expanded upon.

These specially designed tanks, mostly modified from American Shermans and British Churchills, would be nicknamed "Funnies." Under Hobart they would come ashore at Normandy on June 6, 1944 and see action through northwest Europe for the rest of the war. Often the units with their "Funnies" that made up the 79th Armoured Division were dispersed and deployed with other British and Canadian divisions as was the case during Operation Veritable.

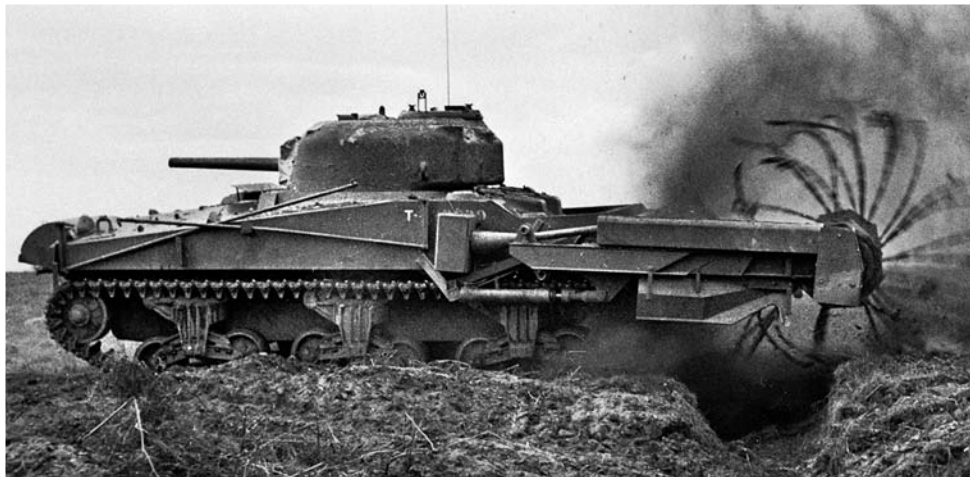
The "Funnies" included the Crab which was a Sherman tank which had a flail attached to its front. This was a rotating drum with long chains used to clear minefields. They proved particularly useful in the fighting at Reichswald.

Crocodile Churchills were fitted with flamethrowers and took the place of the hull machine gun. The fuel for the flamethrower was towed behind the tank in an armored trailer able to hold 400 gallons. Able to spew flames about 110 yards, the Crocodiles proved a fearsome weapon in clearing out stubbornly held pillboxes and bunkers as well breaking enemy morale.

The Assault Vehicles Royal Engineers (AVRE) were modified Churchills which performed a wide range of roles. For taking out strongpoints some were armed with a 290 mm Petard mortar in place of the main gun that was designed to blast through thick concrete or steel. Among its other uses AVREs with different detachments could drop a box girder into a gap such as an anti-tank ditch to allow it to be crossed. Also, AVREs could drop a bundle of wooden poles held together by wire into a gap that needed to be bridged as well.

Some of the other specialized vehicles used by the 79th included the CDL (Canal Defence Light) which was a Grant tank fitted with a search light in its turret for night operations. The DD (Duplex Drive) Shermans that were amphibious due to a flotation screen around it were used on D-Day. The LVT called Buffalos by the British was an amphibious vehicle which proved useful on the flooded terrain of Operation Veritable as well as other water related operations the 79th was involved in. The "Funnies" more than proved their use during the war.

—Mike Phifer



A problem solving engineer, Major General Percy Hobart developed the "Crab" from a Sherman tank with a chain flail attached to detonate mines. His "Crocodile," fashioned from a Churchill tank, was fitted with a flamethrower and towed a 400-gallon armored fuel tank for it.

Bundesarchive Bild 183-J 28747: Photo: Erwin Seeger

German panzergrenadiers defending the town of Cleve, Germany, during the joint British-Canadian Operation Veritable in early 1945. The high rate of fire and reliablity of German machine guns made the Allied task tougher as the Nazis defended their home soil.

forest. There it turned south and passed through Goch and continued southward.

Six miles east of Reichswald a third defensive belt stretched from Rees along the Rhine southward in front of Hochwald Wood to Geldren. The Allies called this area of trenches, minefields and anti-tank ditches the "Hochwald Layback."

Holding Reichswald was Fiebig's 84th Infantry Division numbering about 10,000 troops. This division narrowly escaped the Falaise Pocket during the end of the Normandy campaign. It had been reformed and refitted but had suffered heavy casualties during Operation Market-Garden. In the division ranks being held in the rear area were the 276th Magen (stomach) Battalion made up of troops with digestive problems and the Sicherungs Battalion Munster, consisting of older men who usually guarded static installations.

Fiebig was recently bolstered by the well-equipped 2nd Parachute Regiment, 2nd Parachute Division, numbering about 2,000 troops. Also supporting Fiebig were 36 self-propelled guns of the 655th Heavy Anti-tank Battalion and 100 artillery pieces. The 84th Infantry was part of Gen. Erich Straube's 86th Corps which along with the 2nd Parachute Corps and the 47th Panzer Corps made up the 1st Parachute Army under Gen. Alfred Schlemm tasked with holding the northern part of the Rhineland.

While the 30th Corps prepared to smash the German defenses, they received maximum Allied air support. Bridges, ferries and enemy supply dumps were targeted as were road and rail bridges at Wesel. On the night of February 7/8 Goch and Cleve were shattered in a heavy bombing raid. It was hoped that, by destroying Cleve and its road and rail lines, that the Germans would have difficulty bringing in reinforcements.

As the fires from the bombing of Cleve created a crimson glow in the distance, Horrocks climbed half way up a tree to a small platform. In the early gray morning of February 8, Horrocks had a good view over most of the battlefield. By this time British and Canadian guns were hammering the German positions in Reichswald and surrounding areas. "The noise was appalling, and the sight was awe-inspiring," Horrocks later wrote.

Half a million shells pounded the enemy in what was one of the largest British artillery barrages of the war. "There was no scope for cleverness," Horrocks said of the narrow front before his 30th Corps. "I had to blast my way through."

Blast he did, as the severe artillery pounding initially did its job. Crerar would later report that "resistance offered by a dazed and shaken enemy proved to be a lesser handicap than the appalling conditions on the ground." On Horrocks' left, the 3rd Canadian Division did not join in with the infantry and armor that advanced into the Reichswald and surrounding area. They were not scheduled to attack until 6 p.m.

To their right was the 2nd Canadian Division where two of its brigades had been holding the front line, through which the Scottish and Welsh divisions, along with the armor, now passed. Only the 5th Brigade of the 2nd Canadian Division would be joining the attack and their objective was to clear a small piece of land south of the Nijmegen-Cleve road near Wyler. This was the northern anchor of the German's first defensive line and its capture was critical for the rapid advance of the neighboring 15th Scottish Division.

Supporting the 5th Brigade was a squadron of tanks from the 13/18th Hussars and a squadron of Crab/Flail tanks from the 79th Armoured Division. These Flail tanks had a rotating drum with long chains attached to its front that were used in clearing mines. The Flails and other unusual tanks from the 79th would be attached to the other attacking units as well.

Hugging the creeping barrage, the Regiment

de Maisonneuve of the 5th Brigade captured its objective of Den Heuvel along with a number of shell-shocked Germans by 11:23 a.m. The Calgary Highlanders, meanwhile, had a tougher time.

Nearing the hamlet of Vossendall "A" Company came upon a minefield. The mines were scattered about on the surface and as the troops began to step around them, they quickly discovered to their horror other mines were buried just below the surface. To add to their misery mortar shells began to crump around them and vicious machine gun fire opened up from the edge of Vossendall. In a handful of minutes 28 men were killed or wounded and the rest pinned down in the minefield.

Lance Corporal Robert Allan McMahon got clear of the minefield and took out the enemy machine guns. He captured 22 German troops and an officer who he had to punch into submission when he realized McMahon was alone. McMahon forced e the Germans go into the minefield to carry off the Canadian casualties. The Calgary Highlanders then pushed on to their objective of Wyler, which they captured at 6:30 p.m., along with 322 prisoners. Having secured their objective, the 2nd Canadian Division was withdrawn from the battle for the time being.

The 15th Scottish Division to the Canadians right moved forward on a two-brigade front with 46th Brigade on the right and 227th on the left. Following behind these two brigades was the 44th Brigade. Supporting the infantry were tanks from the 6th Guards Tank Brigade and two regiments of 79th Armoured Division including Flails. Mines and mud were trouble for the 15th Scottish Division, whose object was to breach the Siegfried Line north of the Reichswald and take the Materborn feature—the high ground that overlooked Cleve.

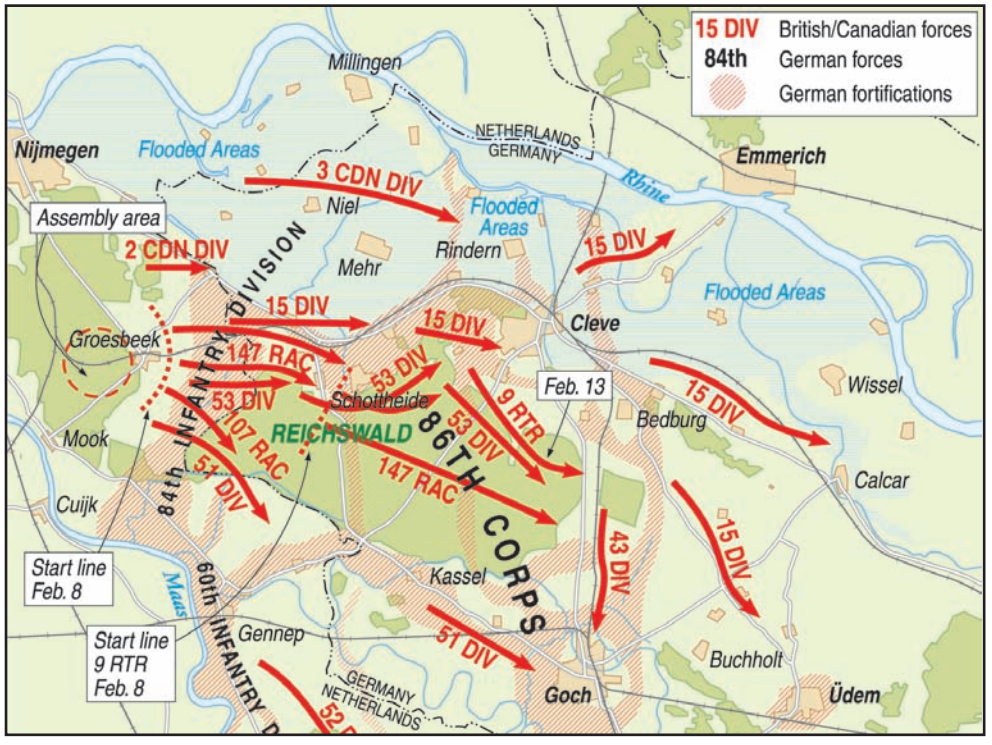
Flails opened a gap in the minefields on the right, but many bogged down in the mud. The Scots pushed on but were behind schedule. The narrow tracks the armor were following became impassable due to flooding and the pounding rain. By afternoon only one track was still usable, slowing the armor. In the growing darkness the 46th Brigade cleared the village of Frasselt, while the 227th Brigade took Kranenburg.

The 44th Brigade was tasked to move forward and smash through the Siegfried Line, but the single track slowed down its supporting Special Breaching Force of nearly 300 armored vehicles. It proved to be a nightmare for the men working through the night to get some order of the traffic chaos. Bulldozers managed to build a detour for the armor, but it would be the early morning of February 9 before the exhausted 46th Brigade would be in position to launch an attack against the Siegfried Line.

The 53rd Welsh Division, meanwhile, to the right of the 15th Scottish Division had the task

Imperial War Museum

Map © 2023 Philip Schwartzberg, Meridian Mapping, Minneapolis, MN



ABOVE: The divisions of XXX Corps met stiff resistance from German defenders in the Reichwald, despite heavy Allied bombardment before the assault. Other Allied units were delayed by the German sabotage of dams, flooding low-lying areas in the Rhineland, allowing more troops to oppose XXX Corps. TOP: A British sniper from "C" Company, 5th Battalion, The Black Watch, searches for targets through his scope from his position in a ruined building in Gennep, Holland, 14 February 1945.

of clearing a good portion of the Reichswald Forest. Leading the attack on a narrow front was the 71st Brigade supported by squadrons from the 34th Armoured Brigade. There was little enemy resistance at first, but as elsewhere, the tanks bogged down in the mud. The exception were the Churchill tanks which had broader tracks and managed to keep up with the 71st Brigade.

By 2 p.m. the 1st Oxfordshire and Buckinghamshire Light Infantry had taken Brandenberg Hill. The 71st Brigade was soon in control of the northwest angle of the Reichswald Forest. In a cold incessant rain two battalions of the 160th Brigade, along with a squadron of Churchills, pushed deeper into the forest. By 2 a.m. they had broken through the Siegfried Line and had reached the Kranenburg-Hekkens road.

Attacking to the right of the 53rd Division and on the right of Horrocks' front was the 51st Highland Division supported by squadrons of the 34th Armoured Brigade and elements of the 79th Armoured Division. Their objective was to clear the southwest corner of Reichswald and open the gap between the forest and the Maas River where the key Mook-Goch road passed through.

The advancing 154th Brigade quickly had three of its Black Watch officers killed by sniper fire. Bitter fighting soon raged as the Scots of the 154th Brigade attempted to root out determined troops of the recently arrived 122nd Grenadier Regiment, 180th Infantry Division of the 86th Corps holding little villages near the Reichswald. Flails, meanwhile, cleared a lane through a minefield up to an anti-tank ditch. There an engineer tank dropped a box girder bridge and a bulldozer ramped the ditch with rubble and anything else it could find. The bridge was usable by mid-afternoon, while another crossing was ready by late evening.

The 154th Brigade fought hard for Freuden-Berg Ridge, its objective just inside the forest, until 4 a.m. the next morning. The 153rd on the division's right flank, meanwhile, had its lead elements establish a position at the southernmost corner of the Reichswald around midnight.

At 6 p.m. the 3rd Canadian Division on Horrocks' left, or northern, flank launched their watery assault. Their objective was to clear the area between the Nijmegen-Cleve road and the Rhine River, securing the left flank of the 2nd Canadian and 15th Scottish Divisions. As this area was mostly flooded a good part of the 3rd Division, dubbed the "Water Rats" for previous amphibious operations, would be attacking in Buffalos—amphibious tracked vehicles.

Aided by "artificial moonlight" which involved searchlights reflecting off low hanging clouds and a smoke screen, the Canadians attacked. The division's 7th Brigade objective was the Quer Damm which blocked the line of advance. Here the Germans had defensive positions on either end of the partly collapsed mile-long dam. Having enough dry land to advance on, the Regina Rifle Regiment supported by the 13th/18th Hussars and a Flail tank captured the German defenses on the southern end of the dam. They pushed on a mile further east and captured the village of Zyffich, bagging 100 prisoners. The 8th Brigade, meanwhile, on the division's left flank had secured the village of Zandpol and a dike near it.

The situation proved tougher at the enemy's stronghold on the north end of the Quer Damm. Cruising in on Buffalos, the Canscots quickly captured enemy dugouts but soon encountered a defiant concrete pillbox spraying machine gun fire. After some delay the Canscots had a Buffalo move in and lay down covering fire from its 20mm and 50mm machine guns. A platoon section then managed to finally silence the troublesome pillbox.

Overall, the 30th Corps attack had gone well considering the rain, flooded terrain and churned up mud. They had taken 1,200 German prisoners and had mauled six enemy battalions. The next day the 30th Corps continued their attacks against the Germans and mud. Low hanging clouds and a hard rain grounded air support while the flood levels continued to rise.

The 3rd Canadian Division continued to capture villages over their flooded portion of the battlefield. The 51st Highland Division met tough resistance as the 153rd Brigade cut the road between Mook and Gennep, a village located along the Maas River. Elsewhere elements of the 152nd Brigade battled to within a couple of miles of Hekkens.

Meanwhile, the 53rd Welsh Division made good progress in the Reichswald. The 160th Brigade along with the 9th Royal Tanks pushed eastward a couple of miles toward the Stoppelberg high ground. There the 2nd Battalion of The Monmouthshire Regiment after sharp fighting took a key hill there. The 160th Brigade would soon be on the move again, pushing to the edge

ABOVE: British soldiers of the 43rd Wessex Division move aside on the road to Goch, Germany, as a universal carrier, Humber scout car and Sherman tank go ahead on Febrary 17, 1945. OPPOSITE: A Canadian armoured personnel carrier—"Kangaroo"—made from the modified chassis of an M4 Sherman medium tank, carries Allied soldiers during Operation Veritable.

Both: Imperial War Museum

of the forest overlooking Materborn.

The German resistance stiffened as reinforcements were fed into their lines. Further south of the 160th Brigade, The East Lancashires of the 158th Brigade came under fierce attack and managed to throw back the enemy with help from eight tanks of the 147th Regiment Royal Armoured Corps which had managed to struggle through the nearly impassable tracks.

Good progress was also made by the 44th Brigade of the 15th Scottish Division which prepared to breach the Siegfried Line in their sector in the early morning. Mines exploded as Flails cleared lanes through the minefields in front of the line allowing Armoured Vehicles Royal Engineers (AVREs) to lay down bridges over the anti-tank ditch. By 9 a.m. the bridging was complete and the 6th King's Own Scottish Borderers (KOSB) riding in armored personnel carriers called Kangaroos and tanks from the Grenadier Guards smashed through the Siegfried Line. Sergeant-Major John Walls of the 6th KOSB strung up a token line of wash on the defenses in a nod to the popular tune his comrades had been humming all day, "We're going to hang up the washing on the Siegfried Line."

The 44th Brigade soon cleaned up the surrounding area including the village of Nutterden bagging another couple hundred prisoners and some self-propelled guns. The brigade was soon ordered to push on for Materborn before the enemy reached it. With only half an hour to spare, the 6th KOSB riding in Kangaroos reached the Bresserberg Ridge a mile from the Materborn village and near the outskirts of Cleve. There they encountered troops from the German 7th Parachute Division intending to seize the ridge. The 6th KOSB threw back the paras, but the German still blocked the road from Materborn to Cleve.

On the evening of February 9, Horrocks received news that the 44th Brigade had taken the Materborn Feature and were pushing toward Cleve. "This was the information for which I had been eagerly waiting," Horrocks later wrote. "Speed in capturing Cleve before the German reserves got there was essential. So I unleashed my first reserve, 43rd Wessex Division, which was to pass through the 15th Scottish, to burst into the plain beyond and advance towards Goch."

Unfortunately, the news Horrocks received was not accurate as the Germans still stubbornly resisted outside of Cleve. As a result, on February 10 a good part of the 43rdWessex and the 15th Scottish were snarled in a massive traffic jam which took most of the day to get the tanks and vehicles untangled. Horrocks candidly admitted later it "was one of the worst mistakes I made in the war."

While much of the 43rd Wessex was stalled, its leading brigade, the 129th, pushed on following a muddy secondary road for Cleve. By dawn on the 10th the brigade swarmed into Cleve recalled Major Victor Beckhurst of the 4th Somerset Light Infantry, "thinking it had been cleared, but instead we had wandered slap-bang into the middle of a German position." A wild firefight raged through the day as they were attacked by 16th Regiment, 6th Parachute Division, elements of the 84th Infantry and a handful of tanks and self-propelled guns. Pinned down in the rubble-strewn city, the 129th Brigade held out until relieved the next day by elements of the 15th Scottish. Cleve was finally in Allied hands.

The 9th Brigade of the 3rd Canadian Division on Horrocks' left flank, meanwhile, riding in Buffalos broke through the partially submerged Siegfried Line capturing enemy held "island" villages. With these villages in Canadian hands the Germans would not have an escape route over the flooded area from Cleve to the Rhine River. The Stormont, Dundas and Glengarry Highlanders (Glens) were given the tough task of clearing the fortified village of Rindern.

"We got in there all right," remembered Lieutenant Colonel Roger Rowley, the Glen's commander, "but they were waiting for us." Brutal house-to-house fighting raged as the Glens took the village and beat back counterattacks by enemy paratroopers. By the 11th, Rindern was firmly under Canadian control. Over the next day the 9th Brigade secured a couple more villages in their flooded zone.

While the 30th Corps continued its muddy advance, Lieutenant General Simpson of the American 9th Army could only fume as the Roer River rose. Before Operation Grenade was to be launched on February 10 two dams had to be captured which controlled the river's water levels. A couple of divisions from the U.S. 1st Army were given the task. Before they could capture the

National Archives

Schwammenauel Dam the Germans had disabled the discharge valves on the dam allowing a strong flow of water into the Roer River valley. By doing this the Germans had created a longer lasting flood then had they just blown the dam. Operation Grenade was now postponed until the Roer River's water level dropped.

With Cleve lost, it was now clear to the German high command that the 1st Canadian Army's attack was the major Allied thrust into the Rhineland. Reinforcements were quickly being dispatched to help the beleaguered 84th Infantry. Gen. Eugen Meindl's 2nd Parachute Corps was sent to the Goch area. The 6th Parachute Division, which the 129th Brigade had encountered in Cleve, and the 180th Infantry Division were arriving on the front as well to help stall the British and Canadians. The 47th Panzer Corps was being shifted away from the flooding Roer River front toward Cleve.

South of Cleve in the Reichswald, the 53rd Welsh Division continued their grueling forest battle. By February 11 the 160th and 158th Brigades had reached the eastern fringe of the forest and then swung southward. The Germans grudgingly fell back from one position to another. At times their self-propelled guns blazed away down the narrow tracks, slowing the mud-caked Welshmen. The push continued south the next day, now with the 43rdWessex also driving southward from Cleve on the outside of Reichswald. Both divisions repulsed fierce counterattacks by 15th PanzerGrenadier Division and 116th Panzer Division of the 47th Panzer Corps. Two days later on the 14th, Reichswald was cleared of the enemy except for small pockets that had to be mopped up. Two days later the Welsh troops were pushing south of the forest meeting tough resistance as they advanced toward Goch.

To the west, the 51st Highland Division had taken Gennep on the 10th, where the 1st Gordon Highlanders had to root out the Germans in deadly street fighting. Pushing toward Hekkens which was strongly fortified as part of the Siegfried Line, the Highlanders met strong resistance on February 11. That afternoon the 5th Seaforth Highlanders attack on the village was stopped cold by machine gun fire. The Highlanders took cover in a shallow ditch and were pinned down for most of the day until the arrival of tanks helped them withdraw.

Artillery soon opened up on Hekkens. The 154th Brigade attacked with its two Black Watch battalions closing following the severe bombardment. As the barrage lifted the Highlanders surged into Hekkens as bewildered Germans were stumbling out of their bomb shelters. About 300 German soldiers were quickly captured and Hekkens was in the hands of the 51st Division.

The 30th Corps continued their advance for Goch, a key point in the German defenses. Attempting to block them was the Panzer 47th Corps holding an improvised line stretching from the Moyland Wood to the Cleve Forest. Here this line met another defensive line anchored on the Cleve-Goch road.

Taking advantage of clear skies on February 14 thousands of sorties were made by Allied air support not only on the battlefront, but also deeper into Germany. That day the 46th Brigade, 15th Scottish Division attacked Moyland Wood which consisted of a three-mile-long forest and high ground. The forest was plagued with boobytraps, mines, barbed wire and machine gun posts positioned to provide murderous interlocking fire. The troops of the 46th Brigade endured heavy fire as they moved through the mud toward the forest.

Wicked enemy machine gun fire stalled the 46th Brigade attacks the next day. Adding to their misery was mortar and artillery shells crashed among them. "We fought as we'd never fought before," remembered Lieutenant A.W. Waddell of the 9 Cameronians of the bitter fighting as the German fought desperately to hold the line.

On February 15, the 43rd Brigade was now under the command of the 3rd Canadian Division which took over the 15th Scottish Division's front. The bulk of this division would soon be passing through the 43rdWessex Division taking part in the attack on Goch. The 2nd Canadian Corps under Lt. Gen. Guy Simonds was now on the left flank of the 30th Corps. The 2nd and 3rd Canadian Divisions now returned to his command, and the latter division soon took over the fighting for Moyland Wood.

Elsewhere, the 43rd Wessex Division had bro-

ken through the German defenses east and south of the Cleve Forest. The 214th Brigade with supporting tanks set off on the evening of the 16th clearing villages of enemy troops as they headed toward Goch. By early the next morning they had reached the escarpment overlooking the key town and the Niers River that flowed through it. Goch was critical to the Germans with its rail line and three key roads passing through it. As part of the Siegfried Line one anti-tank ditch encircled the town on three sides, while a second one circled all of Goch. Concrete and steel pill boxes and emplacements further strengthened the German defenses as did a number minefields.

Meanwhile, fighting for the Moyland Wood continued as the 7th Brigade of the 3rd Canadian Division, supported by tanks from Scots Guards, entered the bloody area on the afternoon of the 16th. Fighting would rage in the Moyland Wood for the next five days. Tracked carriers called "Wasps," armed with flamethrowers, helped the Canucks slowly shove back the stubborn enemy fighting to defend the Fatherland. Elements of the German 6th Parachute Division were fed in the battle and they launched vicious counterattacks against the Canadians.

Finally, on February 21, while rocket firing Typhoons provided air support, The Royal Winnipeg Rifles with tanks from the Sherbrooke Fusiliers Regiment and flame-spewing Wasps cleared the Germans out of the Wood. That night two sharp counterattacks were thrown back. Moyland Wood was in Canadian hands, but it had cost the 7th Brigade about 500 casualties.

While the 7th Brigade battled it out for Moyland Wood, the 4th Brigade of the 2nd Canadian Division launched an attack on a key section of the Goch-Calcar Road on February 19. This attack was to help support the advance of the 30th Corps on Goch. At midday artillery opened up as Kangaroos carrying two rifle companies of the two attacking battalions—The Royal Hamilton Light Infantry (RHLI) and The Essex Scottish Regiment. These units were supported by tank squadrons from the Fort Garry Horse.

Mud bogged down some of the Kangaroos and Shermans—some of the latter also being disabled by mines. German 88mm guns forced the rest of the Kangaroos to stop short of their object as the infantrymen quickly cleared the carriers. Enduring vicious machine gun fire, the two battalions reached farms and buildings near the road and dug in. German counterattacks were beaten back, although more were to come.

The Panzer Lehr Division had arrived and they attacked after dark with a powerful battlegroup of infantry and tanks, supported by mortar and artillery fire. The battlegroup had broken through as far as the tactical headquarters of the RHLI, while a couple of its companies were being infiltrated by tanks and infantry. The RHLI's commander, Lt. Col. Denis Whitaker, called in his reserve company to help restore the situation by the early morning of the 20th. Elsewhere attacking elements of the 116th Panzer Division overran the forward companies of the Essex Scottish. Resisting fiercely, Lt. Col. J.E.C. Pangman, commander of the Essex Scottish, was reporting it was "touch and go" as there were "enemy tanks and infantry all about."

The next morning the Royal Regiment of Canada and tanks from the Fort Garry Horse enduring enemy fire fought their way to the Goch-Calcar Road. After driving off enemy counterattacks, they reached the Essex Scottish headquarters and other survivors of that unit. The tanks and Royals eventually secured their position. A squadron of tanks and elements of the Queen's Own Cameron Highlanders of Canada, meanwhile, reinforced the RHLI and helped beat back a German attack.

More German counterattacks were thrown back during the day by the battered 4th Brigade. At 6 p.m. the darkness soon lit up with the flash of tank, machine gun and small arms fire as the Panzer Lehr attacked one last time. After two hours of fighting the Germans were driven back. While Typhoons overhead attacked any that moved, sporadic fighting continued the next day, but the Germans having suffered heavy losses were done. On the night of 21/22 the Germans withdrew leaving the Goch-Calcar road to the Canadians.

To the southwest the 52nd Lowland Division of the British 2nd Corps had entered the battle now and were fighting on the 51st Highland Division's right flank. The 51st Highland Division, meanwhile, continued their advance toward Goch, securing village after village in hard fighting. Enemy strong points were taken out under the cover of smoke by fire breathing Churchill Crocodiles and AVREs firing penetrating charges. Reaching the outskirts of Goch, they with the 15th Scottish Division were given the task of taking the key town.

Continued on page 89

Imperial War Museum

ABOVE: Sherman Firefly tanks moving through Cleve in the Rhineland on February 16, 1945, on the way to take the town of Goch. A British innovation, the Firefly was an M4 Sherman fitted with a high-velocity 17-pound (76.2mm) gun more suited for combat against other tanks. OPPOSITE: British soldiers cross the Niers River on March 2, 1945, heading for the nearby town of Weeze, Germany. The Germans disabled dams to allow normally small rivers to overflow their banks. Some floodwaters took as long as two weeks to recede.


Oscar Gué

The Battle of MANSOURAH, *1251*

European knights made a bold incursion but they faced formidable terrain and tough opponents.

Saint Louis, King Louis IX of France receives Robert of Nantes, Patriarch of Jerusalem, in Damietta, Egypt, in June of 1249. Robert is lending his knights to the battle ahead, the Seventh Crusade. Nineteenth century painting by French artist Oscar Gué.

Alamy Images

After a century and a half of efforts—with mixed success—by Western Europe to seize control of the Holy Land, the Seventh Crusade of 1250 led by Louis IX of France was the last best chance to change the political and military situation in the Eastern world before the Reformation. Like all but the first, this crusade had its roots in the ones that preceded it, most especially the Fifth, which attempted a flanking maneuver by seizing Egypt first. The Seventh would follow that pattern.

The crusading period began in the 1090s with Pope Urban II's call for a force to recover the Holy Lands from the Saracens. The success of that venture established four crusader states, including the powerful Kingdom of Jerusalem, and was due in large measure to the disunity then prevailing in the Muslim world. But the

BY DOUGLAS STERLING

strengthening of Muslim power in response to the Latin Kingdoms led to a hundred years of warfare and the slow loss of territory by the Christians. This began with the fall of the city of Edessa in 1144 and culminated in the victories of Saladin, reducing the Latin Kingdoms to some isolated fortresses, mainly on the Mediterranean coast.

Strategically, the Fifth Crusade prefigured requisite conditions under which Louis IX was later to struggle. Both in its Levantine phase and when the scenes of battle shifted to Egypt, the control of sea lanes and the ability to resup-

ply and reinforce the armies were essential to the crusaders' ability to prosecute the war. In Egypt, the military objective was the capture of the Muslim stronghold of Damietta, located on the eastern branch of the Nile in the Nile Delta.

The attack on Egypt was proposed for a variety of reasons. First, the Nile Delta was the Muslims' richest province. Second, it was thought that control of Egypt meant command of an easy outflanking route to the cities of Palestine (an indirect approach). Jerusalem, therefore, would be the focal, vulnerable center of a pincer movement from Acre and Suez. And, finally, Egypt's capture would ensure naval control of the Eastern Mediterranean. The focus of the attack became the fortress city of Damietta because it afforded easy access from the Holy Land ports. It provided more control over the sea and land route to Cairo and also offered a less problematic route of retreat should that prove necessary. Also essential to the success of their strategy was control of the Nile and of the local waterways and canals close to Damietta and to the crusader camp.

Much of the conduct and eventual failure of the Fifth Crusade boiled down to differences between Cardinal Pelagius, the papal legate, and the nominal military leader John of Brienne (King of Jerusalem) concerning questions of political and military control. The fact that the militarily inept Pelagius was able to set the terms of strategic and political objectives led directly to the debacle. The crusaders, having captured Damietta, advanced in force up the Nile toward Cairo. This disastrous offensive was a classic illustration of an ill-advised, unsupported overextension, in which the naval forces of the sultan were able to control the waterways behind the advancing crusaders and gain control of a canal the crusaders thought unnavigable (but which rose with the rising Nile). With positions cutting off the retreat and control of the sluice gates, the sultan's forces were able to extract favorable terms by holding the crusaders hostage even though they retained Damietta and had naval command of the Nile mouth and Delta.

It is clear from the circumstances of the Fifth Crusade, and the disastrous end to which it came, that the almost total control that the Christians held of the maritime supply lanes and several local waterways of Egypt were not enough to conquer the territory. They were, however, of great significance and were sufficient to achieve the reasonable results for which a Crusade was being waged—the return of the lands of the Kingdom of Jerusalem to Christian jurisdiction. Had the Muslim forces been able to contest the Christian landings or been able to cut their lines of communication, supply, and reinforcement, or yet to threaten the coastal ports of Palestine, they may have been able to save Damietta.

Wikimedia

ABOVE: King Louis IX of France, later referred to as Louis the Saint, was crowned king of France at age 12, following the death of his father. Louis was 36 years old in 1250. OPPOSITE: This illustration dating from the 1300s depicts King Louis IX of France as a saint departing Cyprus with his assembled army, which had lingered there for months as it waited for all his forces to arrive.

Forty years passed.

The story of Louis's interest in leading a crusade is perhaps apocryphal, but it was widely disseminated, and widely believed, and was to be key evidence in the campaign for his sainthood. In December 1244, he fell desperately ill. On his sickbed, he vowed to lead a crusade. This vow was supposed to have been prompted by a vision of the fall of Jerusalem.

The Holy City had indeed fallen to a concerted Muslim attack in August of that year, but it is unclear when the news reached the western states. A palace revolution in 1243 had placed Sultan as-Salih Ayub on the throne of Egypt. The barons of Acre and the Templars proceeded to negotiate for a renewal of the truce with the new sultan's enemies, the sultans of Damascus, Homs, and Aleppo. As-Salih, furious at what he considered a betrayal, summoned the Turkish bands called the Corasmins from Mesopotamia. On their way through the Holy Land, they laid waste the Galilee and reached Jerusalem, devastating it in August. At La Forbie, near Gaza, the Egyptian army and its Turkish reinforcements destroyed the Frankish army and its Syrian Muslim allies. According to a letter from the Patriarch of Jerusalem to the French and English churches, only a few hundred Frankish combatants remained in Syria.

Upon his recovery from illness, which he ascribed to miraculous causes, Louis promised to fulfill his vow. Although declared under the auspices of a call by Innocent IV, Louis was the prime mover and financier of the new crusade. In an assembly in Paris called by Louis in October 1245, he won baronial approval for the campaign, and many lords took the cross that day.

Louis raised money by large taxes, including taxes on the clergy, much to their fury. Agents of the king hired ships for transportation from negotiations carried out with corporations in Genoa and Marseilles. Louis made arrangements for the governing of France in his absence. And Innocent's legates were not idle, preaching the crusade throughout Germany, Scandinavia, and England, as well as France.

After years of preparation, King Louis departed from the port of Aigues-Mortes on the French Mediterranean coast on August 25, 1248. His destination was Cyprus, which he reached on September 17. According to the chronicler Joinville, who traveled with him, the king hoped to cruise straight to Egypt, but was convinced he should stop in Cyprus to assemble his forces before moving on. Indeed, many of the crusaders made their own way, departing later or embarking at other ports. However, it is clear that Cyprus had been long planned as an assembly and supply point, from the evidence that Joinville provides of the mountains of supplies he saw there: "… as for instance a good store of money in his treasury, and plentiful stocks of wine and grain. The king's men had made a sort of cellarage for him in the middle of the fields, close to the shore. Here they had stacked an enormous number of huge barrels of wine which they had begun to buy two years before the king's arrival, and which they had piled up so high one on top of the other that anyone approaching them from the front might have taken them for barns. The wheat and the barley had been heaped in great mounds about the fields."

Library of Congress

But the delay was protracted and harmful to the expedition. In order for it to move on, because of the sailing conditions of the Mediterranean, the invasion fleet would have to depart in October. Yet Louis's force had still not assembled in full by that time, making it necessary to delay the beginning of the campaign into the next year. As it turned out, the expedition did not get underway until May, and the intervening months were disastrous. At least 250 knights, along with other troops, died during the winter. The Europeans blamed the climate, and Louis had to issue a prohibition, severely enforced, against leaving the island. However, other crusaders continued to arrive and make up somewhat for the losses.

It could still be said of a crusading force in the 13th century, as it was regarding the forces of the 12th century Frankish kingdoms in Syria, that "knights who owed service for fiefs—either in land or money—formed the backbone of the army." King Louis IX was to be entitled to go beyond the feudal muster and enlist any able-bodied man available for the infantry. Undoubtedly, he was able to make use of the common practice of hiring mercenaries. This method had been used on an ever-increasing scale throughout the 12th century in the fighting in Syria. Louis was also able to call upon the services of the military orders of the knights of the Templars and Hospitallers. The force thus assembled in Cyprus, by the acceptance of vows by the fighting nobility, was similar to that raised by the king in his secular duties.

The extended stay in Cyprus also had a profoundly severe effect on the finances of the crusaders. Those less well off were caught with expenses beyond their means. Indeed, Joinville himself, the chronicler of the crusade, mortgaged his property to pay for his own service and took along 10 knights for whom he himself paid. These knights consistently held him under threat to leave if he failed to pay them. But when Louis took Joinville into his service, the resulting pay gave him a surplus. It was partly by putting knights onto his payroll that Louis was able to keep his force together. Thus arrayed, Louis had perhaps 15,000 men, according to one estimate. It was truly a large force, but whether it was adequate to the task was yet to be seen.

The army, boosted by troops from Acre, finally sailed from Cyprus at the end of May. It is unclear at what point the decision had been made to attack the Damietta mouth of the Nile and the city of Damietta, but it had long been understood that Egypt was the destination. For one thing, as Louis reasoned, there were limited opportunities in Judea. Muslim power there was strong, and any attempt made upon it would force the crusaders inland, far from their bases of supply on the coast. Egypt allowed the Christian forces to use their control of the sea lanes to the fullest, and with Egypt in their hands they would have a powerful bargaining chip for the return of Jerusalem.

Egypt was also the richest Muslim province and, thought to be under weak political control, a place where "infidels" were potentially most vulnerable. Wrote Sir Steven Runciman in his 1997 *History of the Crusades*: "If the Muslims could be driven out of the Nile valley, not only would they lose their richest province, but they would be unable to keep a fleet in the Eastern Mediterranean; nor could they hold Jerusalem long against a pincer attack coming from Acre and from Suez."

What was true for the Fifth Crusade was also of importance in determining the objectives of the Seventh. For Louis "had grasped the fact that the Frankish kingdom of Jerusalem was an impossibility so long as there was a strong Egyptian

army. In these circumstances, it was eminently reasonable to plan an invasion of Egypt." The object was correct, but it was an open question whether the particular strategy employed was flawed or valid. One potential pitfall: Damietta was a poor base from which to attempt the conquest of Egypt.

Wrote Charles Oman in his 1923 *Art of War in the Middle Ages*: "The road from that place to Cairo leads through the very midst of the Delta, over countless canals and four considerable branches of the Nile. Across it lie a dozen strong positions for the defending army. It is not too much to say that the invasion of Egypt by this line is bound to fail, if the masters of the country show ordinary vigour and intelligence."

Still, it was obviously no surprise to the aging sultan that Damietta was the immediate objective of the crusade. A garrison was placed in the city, and the rest of his army was laid farther up the Nile to attempt to block the landing.

The Egyptian army at this time was still under the Ayyubids , the Egyptian dynasty originally founded by Saladin and his uncle after overthrowing the Fatimids. Although the largest army in the Muslim world, it was still mainly a highly trained, elite cadre of cavalry and infantry regiments. A heterogeneous force with recruits from various nations, it was undergoing a unifying period under direct control of the Egyptian sultan. Changes had been occurring since the time of Saladin in recruitment, costume, and equipment. Infantry was being relegated to siege warfare while horse archery was gaining prominence. These tactical changes would play an important part in the coming battle.

Before the attack on Egypt, Louis had sent a declaration of war to the sultan, in typically virulent language: "I have already warned you many times, but you have paid no heed. Henceforth my decision is made: I will assault your territory, and even were you to swear allegiance to the cross, my mind would not be changed. The armies that obey me cover mountains and plains, they are as numerous as the pebbles of the earth, and they march upon you grasping the swords of fate."

Actually, they were like pebbles compared to the grains of sand of the Egyptian forces. This was a common problem for Frankish armies in the crusading period and a major reason for their defensive tactics, according to notable crusades historian R.C. Smail.

The crusaders' squadron arrived off the Damietta branch of the Nile on June 4, 1250. Although his advisers cautioned delay to await the arrival of some transports that had been separated from the rest of the fleet, Louis refused. The landing began at dawn the next day, on the sandy shore of the west bank of the Nile's mouth. There was a sharp action between the forces of the crusaders and the Muslims on the beach, though it was not a coherent, pitched battle. Individual combat was widespread, as the crusaders' ships seemed to land and disembark troops in a disorderly fashion, attracting charges by various Muslim contingents when they hit the shore. These appear to have been repulsed with relative ease.

Joinville wrote, "No sooner had they seen us than they charged towards us, spurring hotly. As for us, when we saw them coming, we stuck the sharp ends of our shields into the sand and fixed our lances firmly in the ground with the points towards the enemy. But the moment they saw the lances about to pierce their bellies, they wheeled round and fled."

The weakness of the Muslim defense was accentuated by the death of the emir in charge of the Saracen troops early in the battle. By noon, the Muslim forces had retreated into the city, and the crusaders extended their bridgehead and moved supplies ashore.

The defenders in Damietta, unable to get a reply to messages sent to the sultan by carrier pigeon, and fearing that he had died, soon evacuated the city. When Louis dispatched one of his knights into the city to check a report from a renegade Saracen that the army had decamped, it was discovered with what haste the Muslims had fled. Not only were large amounts of supplies and armaments found, but also the bridge of boats that connected the city to the western bank of the river remained intact. Louis's army simply marched into Damietta on June 6, and his banner soon blew over a high tower.

After the capture of Damietta, the prudent course would have been to take advantage of the disarray in the sultan's army (made worse by the hanging of a number of the army's leaders responsible for the ignominious retreat) and coordinate an immediate advance. But, again, Louis opted for delay. He chose to await provisions and reinforcements, including his brother, Alphonse of Poitiers, expected in the autumn. Then, too, it

ABOVE: The French King Louis IX worked an old strategy of attempting to reclaim the Holy Lands for European Christendom by first controlling Egypt, its trade, and its riches. OPPOSITE: This medieval era painting depicts the crusader's arrival at Damietta, with the Egyptian inhabitants greeting the French King Louis IX and his troops with music and fanfare. In reality, most of the Egyptian soldiers and the civilian population had fled.

Wikimedia

was important for his army to await the receding of the Nile floods, which would be at their height in July. A march toward Cairo was difficult at any time, with canals and swamps to cross; with the whole area under water, it would be impossible. Louis put off the campaign until the fall.

But this delay was even more harmful to the morale of Louis's army, and therefore to the expedition, than the delay on Cyprus. Like Hannibal's army at Capua, the idleness of a force occupying a large, rich city fostered dissipation and a sapping of the martial spirit. Conversely, the delay allowed the sultan's forces to regroup and rebuild, so that when the crusading army got under way, they faced a stronger enemy. This was already evidenced during the occupation by the almost continuous attacks and incursions of the Saracens against the crusader camp outside the city gates. Bedouin skirmishers regularly raided the Christian lines and beheaded those they captured.

Louis forbade the crusaders to respond, in the interest of cohesion. He did not want his forces wasted on individual attacks. One such impetuous response, led by Walter of Autreches, led to his death. Louis condemned this act and ordered an entrenchment of the camp to prevent further Saracen penetrations. This sequence of events was typical of Frankish warfare against Muslim forces. The Saracens poked and probed, attempting to precipitate a rash counterattack in order to cause a weakness in the crusader forces. The task of the crusader leaders was to keep the force coordinated and resist such attacks.

The advance finally began on November 20, but not before some discussion over the desirability of first capturing Alexandria to the west. Apparently, most of the king's advisers pressed for its capture, at least according to Joinville, who echoed the feeling in his chronicle. Alexandria, the king's councilors felt, was preferable "because that city had a good harbour, where the ships bringing food for the army could land their supplies." But it was the king's brother, Robert of Artois, who convinced him to concentrate on Cairo, "because it was the chief city in the kingdom of Egypt, and if you wished to kill the serpent, you must first of all crush its head." Presumably, Alexandria was dismissed as constituting a peripheral attack that would dissipate the Christian forces without accomplishing the political aim of the crusade. Yet the real point was that control of the country was ultimately to be left to a military controlling agent, and in order for control to be established, the crusaders must first destroy the Egyptian army. Whichever route they took, this was the immediate objective with which they were faced.

On the march from Damietta the crusaders, like their predecessors of the Fifth Crusade, followed the right bank of the Nile. The Christian fleet accompanied the infantry (crossbowmen and pikemen) and knights on horseback, transporting supplies and bridging materials needed to traverse the various canals, along with siege machines for the proposed attack on Cairo.

Three days into their journey, unbeknownst to the crusaders, the aged sultan, Ayub, died. The Egyptians, seeing such a huge force traversing their territory, might have been irreparably demoralized by the death of a powerful and charismatic leader. Fortunately for the Egyptians, however, a member of Ayub's harem, Sheger-ed-durr, took control of the situation. In consultation with an emir of the sultan's court, she was able to conceal the sultan's death and to continue administering the government and the army without serious disturbance, while the sultan's son, Turanshah, was discreetly summoned from his provinces in Mesopotamia.

The crusaders made slow progress as they faced continuous harassment by the Egyptian army. Neither did the Franks hold back entirely from counterattacks. Although forbidden to "be so bold as to attack the enemy," some knights could not long restrain themselves.

Joinville wrote, "[When] the Turks realized that no attack on them was contemplated … they grew bolder and flung themselves on the Templars, who formed the van. One of the Turks bore a Knight Templar to the ground, right in front of the hoofs of the horse on which Brother Renaud de Vichiers, at the time Marshal of the Temple, was mounted. On seeing this, the Marshal cried to his brother Templars: 'For God's sake, let's get at them! I can't stand it any longer!' He struck his spurs into his horse, and all the army followed. Now our men's horses were fresh, and those of the Turks already weary; and so, as I have heard, not one of the enemy escaped, but all perished. Some of them had fallen into the river and been drowned."

The army endured a month of this, a month of painful and slow progress during which the crusaders were forced to dam canals in order to ease the march. The army then arrived at an arm of the Nile known as the Ashmun-Tannah, across which stood the fortress city of Mansourah. Built after the Fifth Crusade at the site where John of Brienne's forces were repulsed, and named in honor of al-Kamil's victory, it still represented a formidable obstacle to the army's continued advance. It was all the more daunting because the Egyptian army held the opposite shore, camped by the Ashmun before the city.

The Christian army was virtually pinned in a triangle of ground between two branches of the Nile. An advance would be irretrievably wasteful, requiring a river crossing in the face of a defending force. This would negate what potential shock value the Christian knights still maintained, and their infantry would be useless as well, unless able to cross the river. A retreat, however, was unthinkable. It was soon clear that the army could not stay there, especially because the Egyptian forces were not idle, engaging in ceaseless skirmishes with the crusaders.

Again, the strategy of forbearance against attack, of attempting to maintain order and discipline, was easier ordered than obeyed. The crusaders attempted to build a causeway across the Ashmun, but their engines and "cat-castles" (the works built as protection for the builders of the causeway) came under attack from the Muslim defenders. Using missiles and Greek fire, the Egyptians kept up a continuous bombardment on the causeway crew. Besides causing irreplaceable casualties and sapping the Christians' morale, the incessant use of Greek fire on the works ultimately exposed the futility of the effort. Eventually a number of the cat-castles were destroyed by fire.

Joinville has left a frightening account of these attacks: "This Greek fire was such that seen from the front as it darted towards us it appeared as large as a barrel of verjuice, and the tail of fire that streamed behind it was as long as the shaft of a great lance. The noise it made in coming was like that of a thunderbolt falling from the skies; it seemed like a dragon flying through the air. The light this huge, flaming mass shed all around it was so bright that you could see right through the camp as clearly as if it were day. Three times that night the enemy slung Greek fire at us from their petraries, and three times they shot it from their swivel crossbows."

At the same time, as the causeway advanced, the Egyptians undermined the farther bank, increasing the width of the river. "Thus it happened that in one day they undid all that we had done with three weeks' labor; for as fast as we dammed up the stream on our side, they broadened its course by the holes they made on theirs," Joinville wrote.

During all this time the crusaders were under constant bombardment, with the Egyptians hurling missiles from 16 stone slings. The French replied with their own 18 machines, and an artillery duel raged between the two sides across the river. With attacks by the Egyptian cavalry on the rear of the Frankish force, though repulsed by the Comte d'Anjou (another of the King's brothers), it was obvious that Louis's forces could not long survive the losses they were incurring. They were still not across the river—and Cairo was yet a long march off.

It was at this point that a man (Joinville says a Bedouin) came into the French camp with an offer to reveal a ford across the river, upstream of the camp, by which the crusaders could easily attain the other side. A crossing there promised the opportunity of outflanking the Egyptian camp and capturing the machines that had been hindering the work of the causeway. With the knights holding the southern bank, the causeway could be completed, and the infantry thereby advance in support. A pitched battle dispersing or destroying the Egyptian force would leave the advance to Cairo open.

There is no evidence that it ever occurred to King Louis or his advisers that, even with such a circumstance prevailing, overcoming a spirited defense of Cairo would be impossible. Yet there were disturbing developments—the crusaders no longer had the ability to conduct a major siege so deep inside enemy territory, if they ever did. The Egyptian naval forces had already begun to attack the French fleet supplying the army.

On February 7, the attack commenced that began the Battle of Mansourah. With a strong detachment of crossbowmen left to guard the camp, the French cavalry advanced up the Ashmun-Tannah. Their force was split into three battles, or detachments. One, composed of Templars, formed the van, followed by a battle under the king's brother Robert of Artois (who was chiefly responsible for the expedition), and the final one under Louis himself. The Templars were to cross at the ford and first secure the far bank, allowing the others, including the king's cavalry and some of the infantry, to cross. Significantly, Louis gave orders for all units to keep in close contact and for no advance to be made until he gave the order.

Charles Giradet

A French knight attempts to fend off Muslims on the narrow city streets of Mansourah. Unable to maneuver in the city streets, many were cut down.

Again, this was in keeping with prudent tactical alignments of the past, when faced with an enemy eager to separate the crusader forces and exploit any weaknesses they might be able to uncover.

It was a wise order, and a pity for the expedition that it was not obeyed. The attack was well coordinated, starting early in the day, and achieved complete surprise. The first battles began the crossing that, though unopposed, went with difficulty. The water was deep, the bottom muddy, and the far bank steep and slick. A few knights' mounts slipped and their riders were lost. But the van had made it to the other side when a force of three hundred Muslim cavalry appeared. The Count of Artois charged them, whereupon they fled to warn the Egyptian camp. Ignoring the king, Artois impetuously rushed after the Egyptians. According to Joinville, this was the occasion of a dispute, for the Templars, in the van, felt they should have the honor of leading the assault. "Thinking they would be shamed if they let the Comte d'Artois get in front of them, [the Templars] struck spurs into their horses and rushed headlong in pursuit of the Turks, who fled before them," Joinville wrote.

So, without waiting for their force to adequately assemble, the crusaders split up on a wild charge toward the Egyptian camp. A case can perhaps be made that it was important to move quickly now that the advantage of surprise had been lost. With the warning that the Arab horsemen were bringing with them, the sultan, being aroused, would surely employ his men for a spirited defense. Unfortunately, as is obvious from Joinville's reading of the response of the Templars, the attack was made more for purposes of honor than for tactical advantage.

At first, the charge appeared successful. In the description by the great historian of medieval warfare, Sir Charles Oman: "Count Robert rode so hard and so recklessly that he came hurtling into the eastern end of the Egyptian camp almost as soon as the flying Bedouin whom he was chasing. He found the Infidels in a state of disarray and unpreparedness.… The horses were not saddled nor the men armed. The French rode through the camp, slashing right and left and driving all before them, till they came to the place where were the perrieres and mangonels which commanded the unfinished causeway. They wrought great slaughter, and killed the Emir Fakr-ed-din himself, fresh from his bath and without his coat-of-mail, as he rode up and down trying to rally his men."

But Robert did not stop there. Instead, thinking the day already won and the enemy in rout, he ordered an advance into Mansourah. Again the master of the Templars tried to restrain him and argued for caution, but Robert denounced his advice as well as that of the Earl of Salisbury and questioned their courage. Unable to stomach his taunts they joined the charge into Mansourah.

Although many Muslims fled into the city and their emir was dead, the Egyptians were not in rout. They were able to reestablish discipline within the city and fix a defense. While the crusaders poured through the open gate, the Egyptians, stationed at various points throughout the city, rushed upon them. The Frankish horsemen were unable to maneuver within the narrow

ABOVE: King Louis, shown at right center, at the Battle of Mansourah. Louis was unable to prevent his knights from pursuing the routed Egyptians into Mansourah. OPPOSITE: Detail of this miniature painting depicts the capture of King Louis IX (Saint Louis). Weak and disease-ridden Louis and most of his rear guard were captured at the town of Fariskur. After long negotiations, Damietta was restored to the sultan, along with a substantial sum, in return for King Louis and any of his surviving knights.

streets and were thrown into confusion. Many were cut down on the spot. According to Joinville, "The Turks in Mansourah threw great beams and blocks of wood down on them as they passed through the streets, which were very narrow." Others were able to escape on foot to be tracked down and killed or to drown in the Nile. Robert of Artois, barricading himself with his bodyguard in a house, was discovered and all were slain. Also killed was the Earl of Salisbury and most of the English knights, and 280 Knights Templar, though their commander, William of Sonnac, escaped with his life.

The rest of the French force, including the king, had by this time crossed the Ashmun. Hearing of the disaster in Mansourah, Louis ordered an advance. Approaching the camp, which only a short time before had been under the control of Louis's brother, the crusaders saw that the Egyptians had regrouped and were drawn up in battle array. They soon charged at the French, pouring arrows into their ranks. But Louis's men held them off until the Egyptians retreated due to a shortage of ammunition. A counterattack swept the Egyptians back but they soon again reformed.

Meanwhile, Louis had ordered the building of a bridge to allow his infantry and crossbowmen to join the battle. To counter this effort, the Muslims effected a series of attacks on the Christian forces, trying to stop the construction of the bridge and hoping to probe a weakness, at one point even forcing the king and his party against the river.

Joinville wrote: "While we were coming back down the bank of the river, between a brooklet and the main stream, we saw that the king had come up close to the river. The Turks were driving back his other battalions, slashing and striking at them with swords and maces, and gradually forcing them, together with the king's own battalion, back upon the river. The rout there was so complete that many of our people attempted to swim across to join the Duc de Bourgogne; but

they were unable to do so … we saw the river strewn with lances and shields, and full of men and horses drowning in the water."

Finally, that evening, the bridge was completed and the infantry charged across. The crossbowmen were immediately drawn up to cover the cavalry. But the Egyptians, discharging their weapons to great effect, retired out of range, and the battle was, for all intents and purposes, over. Louis's force was far too exhausted to follow up and press the attack. That evening, the infantry built a wooden embankment around the French camp.

The French claimed victory, for they held the camp of the enemy, but it was a hollow boast. According to Jean Richard, a modern biographer of Louis IX: "Louis, who wept for the brother whose rashness had brought disaster to the advance guard and imperiled the main army, had in reality suffered a decisive strategic defeat. Many hundreds of knights had been lost, and amongst them most of the Templars, with their experience of war in the East. The Egyptian army had regrouped; Mansourah still barred the route to Cairo. And, by the following night, it was necessary to repel attacks by enemy elements trying to destroy their machines of war."

The French were now encamped with their backs against the Ashmun, which could no longer be used as a defensive moat (although many men remained in their old camp—so, in truth, the force was divided). Here they remained for almost four months, subject to numerous attacks and incursions, including a major assault, which was repulsed with heavy losses. But the fate of the expedition had been sealed and finally, after losses from battle and more from disease, and with the supply line of the Nile cut by the fleet of the newly arrived Sultan Turranshah, it was decided that the only recourse was a retreat back to Damietta.

The retreat was almost as disastrous as that of the crusaders of 1221. The army was harassed by raiders on all sides, and suffered the capture of many dozens of ships by the sultan's fleet. The weak, disease-ridden army was finally halted at the town of Fariskur. Louis himself, ill and near death, had been captured with most of the rear guard. Through lengthy negotiations, during which many more crusaders died, it was finally resolved that Damietta be restored to the sultan, along with a substantial sum, in return for the release of Louis and the remainder of the knights still held by the Egyptians. Louis went on to Acre for a time, trying to organize further crusading efforts, but eventually returned to France. Still, the passion in him would not dim. During 1270, he launched a smaller effort against Tripoli in another effort to work at the Holy Land through the southeastern flank. But he died there of disease soon after landing.

The Seventh Crusade proved to be the final chance the western Christian nations had of recouping their losses in the Holy Lands. Never again was such an expedition organized. It is undoubtedly true that the battle was "a signal illustration of the essential interdependence of cavalry and infantry," wrote a student of the battle in 1905, because of the failure of the unsupported cavalry charge.

It is equally justified to claim that its ultimate futility was due to the very impetuousness of the expedition itself. Louis's Seventh Crusade fiasco was a direct result of advancing with too small a force deep into alien country unsupported by a locally controlled strongpoint. Nevertheless, the debacle was not in the end seen as an utter failure of Western sensibilities: Louis's sainthood was in no small part due to his sufferings at Mansourah. ■

Both: Wikimedia

The English fleet under Rear-Admiral Sir Horatio Nelson destroys the French fleet in this 1830 painting "Battle of the Nile, August 1, 1798" by Thomas Luny.

Britannia Trium

Smoke drifted across the quarterdeck of H.M.S. *Vanguard*, occasionally obscuring the figure of a slender officer bowed with battle wounds and outright exhaustion. At 39, Rear Admiral Horatio Nelson was already considered one of Britain's most gifted naval commanders. But on the morning of August 2, 1798, a gravely wounded Nelson, surveyed the aftermath of one of the most furious naval battles of the eighteenth century.

Anchored at Aboukir Bay near the mouth of the Nile River, the *Vanguard* now sat mute witness to the horrific carnage after Nelson's ships had all but destroyed the enemy fleet. The human wreckage left in the wake of the fighting was an appalling reminder of the reality of war.

While Nelson surveyed the scene of his victory, common sailors did the same. John Nicol, a hand aboard the *Goliath*, went above decks for a view of the bay and was sickened by what he saw.

"An awful sight it was," recalled Nicol, "the whole bay was covered with dead bodies, mangled, wounded and scorched, not a bit of clothes on them except their trousers."

By the summer of 1798, Britain and France were locked in an epic struggle that persisted for two decades and would eventually decide the fate

French General Napoleon Bonaparte planned to cripple the British Empire by seizing Egypt. His hopes were dashed by the Royal Navy in a furious action at Aboukir Bay.

By Joshua Shepherd

phant at the Nile

Sotheby's / akg-images

of Europe. Ignited by the revolutionary upheavals that rocked France during the 1790s, the conflict had been joined by the Continent's major powers, including Austria, Prussia, the Netherlands, and Great Britain. The Allied coalition, though it possessed overwhelming force, was plagued by dissension and conflicting strategic goals. By 1797, Britain alone remained at war with the French Republic.

The mounting danger to Europe's delicate balance of power was increasingly personified by the French General Napoleon Bonaparte. The upstart Corsican had emerged from humble roots, risen through the commissioned ranks of the French Republic, and made a name for himself as a shrewd tactician during brilliant campaigns against Austrian forces in Italy.

Clearly an enterprising officer whose star was on the rise, Bonaparte developed an ambitious and highly original idea aimed at striking Britain where it was most vulnerable.

Rather than directly confront the imposing naval and military forces that Britain could muster in her defense along the English Channel, Bonaparte forwarded an audacious plan to invade and occupy Egypt. Although the nation was technically a part of the Ottoman Empire, seizing Egypt

Anne S.K. Brown Military Collection

would threaten the vital trade routes to Britain's lucrative colonial possessions in India.

Early in 1798, Bonaparte began marshaling a field army as well as forming a transport fleet at the Mediterranean port of Toulon. Eventually heading up an expeditionary force of 35,000 men, Bonaparte sailed from Toulon on May 19. The sudden appearance of a substantial French army on the Mediterranean ensured that the conflict was global in scale and could potentially pose a threat to the commercial survival of the British Empire.

The commander of Bonaparte's fleet was a veteran officer of lengthy service and solid reputation. Vice Admiral François-Paul Brueys d'Aigalliers, Comte de Brueys, had been in the French naval service since the age of 13. A scion of French nobility, Brueys had seen extensive action in the Mediterranean, as well as in North American waters, where he served against British naval forces during the American Revolution.

Despite his noble birth, Brueys survived the revolutionary purges that swept France. Brueys was experienced, dependable, and personally brave under fire. Although he had not commanded a major naval action, he was one of the best French officers available, and was personally selected by Napoleon to command the naval component of the expedition to Egypt.

Unfortunately for Brueys, his opposite number was one of the best officers from a nation that prided itself on centuries-old naval dominance. Rear Admiral Horatio Nelson had served Britain at sea since he was 12. Quickly exhibiting a remarkable proclivity for the naval service as well as a steely resolve, Nelson was given command of his own vessel at 20.

Nelson would rapidly gather laurels during the conflict with revolutionary France, seeing extensive action in the Mediterranean. Cool under fire and tactically adroit, Nelson had survived multiple engagements but had more than his fair share of scars to prove it. In action off Corsica in 1794, enemy fire had nearly blinded Nelson in his right eye. At the Battle of Santa Cruz in 1797, a French musket ball shattered his right arm, which was subsequently amputated.

By May of 1798, alarming intelligence regarding developments in the Mediterranean had thoroughly rattled the British Admiralty. Although precise French plans remained a mystery, Napoleon was clearly hatching something big. Nelson's squadron was ordered into the region on a scouting mission but he would be dogged by misfortune throughout the campaign. Nelson's flagship, the *Vanguard*, was nearly wrecked in a storm, and the French fleet was nowhere to be found in the vicinity of its home port at Toulon. As far as Nelson could determine, Napoleon and his army had vanished into thin air.

The hunt was on. Reinforced by an additional 11 capital ships on June 7, Nelson was nonetheless plagued by a woeful deficiency of fast-sailing frigates that could fan out and locate the French

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ABOVE LEFT: François-Paul Brueys d'Aigalliers commanded the French fleet from his flagship the *Orient*, which exploded after a fire reached the powder stores on the evening of August 1, killing the vice-admiral and as many as 800 crewmen. ABOVE RIGHT: A portrait of Sir Horatio Nelson after the loss of his right arm at Santa Cruz, Tenerife, in July 1797. Nelson pursued the French fleet for two months before finding it at anchor off the coast of Egypt. OPPOSITE: Napoleon crushed Ottoman forces at the Battle of the Pyramids, July 21, 1798, a week before Lord Nelson destroyed the French fleet in Aboukir Bay.

fleet. Nelson began his search with little information to go on. After passing Elba and Naples, Nelson received reports that the French fleet had been spotted off the coast of Sicily and was presumed to be headed toward Malta.

On June 22, Nelson received solid intelligence that the French fleet had been seen sailing east from Malta. Lacking confirmation, Nelson was forced to make a strategic guess. Perusing his maps, he came to the conclusion that Bonaparte intended to target Egypt, and ordered his fleet to immediately make sail for Alexandria.

Unknowingly, the two fleets barely missed a collision that night, passing within a few miles of each other in the dark. On June 28, Nelson reached Alexandria Harbor to find the French fleet nowhere in sight. Desperate to locate the enemy ships, Nelson turned his own fleet toward Turkey, then back toward Sicily.

He had come remarkably close to stumbling on the French. The day after the British fleet departed Alexandria, French frigates appeared at the harbor in preparation for the invasion. Subsequent to making landfall, Napoleon seized Alexandria and then consolidated his hold on Egypt by crushing Ottoman forces at the Battle of the Pyramids on July 21. Although Napoleon preferred that Brueys remain in Alexandria Harbor, the French admiral decided instead to anchor his fleet in the protected waters of Aboukir Bay to the northeast.

Nelson meanwhile, still unsure of French intentions, refitted at Sicily and then headed east, still hoping that fortune would turn in his favor. On July 28, it did just that. Off the Greek coast, Nelson finally received word that Napoleon had, indeed, launched an invasion of Egypt. In short order, Nelson's ships were under full sail in a desperate attempt to make contact with the enemy fleet.

By August 1, the scattered British fleet reached Alexandria, but Nelson's hopes of finding the French were dashed. The harbor indeed contained French vessels: transports guarded by a handful of frigates. The bulk of the French fleet had, once again, seemingly vanished. A despondent Nelson, desperate for any information of his enemy's whereabouts, ordered the *Zealous* and the *Goliath* to scout northeast along the coast.

At 2:45 p.m., British fortunes made an abrupt and miraculous turn. The *Zealous* and *Goliath* sailed about nine miles before rounding a narrow spit of land and turning toward the sheltered waters of Aboukir Bay. High in the rigging of the *Goliath*, a bleary-eyed midshipman caught the unmistakable sight of white canvas dotting the blue waters of the bay. The rest of the fleet was hurriedly signaled. At long last, Nelson had discovered the elusive fleet of the French Republic.

With over nine miles separating the two fleets, it was obvious that if Nelson launched an immediate attack, the impending fight would take place in gathering darkness and dangerous shallows unfamiliar to the British. Nelson characteristically opted to go in for the kill and the fleet was signaled to prepare for battle.

The British fleet, scattered as it was, got underway immediately, slowly closing the distance to Aboukir Bay. While crews beat to quarters and gun decks were cleared for action, Nelson issued crucial orders, signaling for his captains to attach springs, or ropes used for adjustment, to anchors. When the fight was joined, such a technique would ensure that British ships, once anchored in line of battle, could still be turned in order to maximize the effect of their broadsides.

To gain access to Aboukir Bay, the British fleet had to swing wide to the east, bypassing a narrow isthmus guarded by Aboukir Castle, as well as Aboukir Island (now Nelson's Island), guarded by French guns. Once past the island, the British had greater worries: perilous shoals that threat-

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The beginning of the Battle of Nile, at sunset. Nelson's fleet, led by HMS *Goliath*, is shown at the head of the anchored French line, with the Aboukir fort, in the background at left. The brunt of the British ship attack is from the seaward side, but the *Zealous* can be seen rounding the bow of the French *Guerrier*, at the head of the French line, to lead an attack from the landward side. At right is the rearmost of the anchored French ships of the line, the *Timoleon*. Painting by Nicholas Pocock, 1808.

ened to ground the heavy ships-of-the-line. About 5 p.m., Nelson's ships roundied the shoals shielding Aboukir Bay and the setting sun revealed the grand French fleet at anchor.

It was obvious that Nelson would be in for a tough fight. Although trapped at anchor in the western reaches of the bay, the French fleet was still imposing. Admiral Brueys commanded 13 ships-of-the-line as well as four frigates. Brueys' flagship, positioned in the center of his line, was the towering 120-gun *Orient*. The rear of the French line was dominated by 80-gun ships. The French ships' bows were oriented to the north, with their starboard batteries facing the bay.

As he sailed into the narrow confines of the bay, Nelson opted to target the head of the French line. With the enemy anchored roughly north to south and with the wind coming from the northwest, Nelson hoped to target the most vulnerable section of the French line and destroy it in detail before the French rear could offer any assistance.

By the time Nelson's ships entered the bay, Captain Thomas Foley of the 74-gun *Goliath* had taken the lead of the British line. Foley was a veteran naval officer who possessed aggressive tactical instincts. The ships of the French fleet had run out their starboard batteries in preparation for the fight, but Foley decided to cross in front of the lead French ship, *Guerrier*, then swing south on the opposite side of the French line. The move caught the French off guard, and Foley proceeded steadily on course with four sister ships in tow.

Foley was keen to exact grim punishment on the enemy, and his gun crews exercised the fire discipline characteristic of the British Navy. But as he crossed in front of *Guerrier*'s vulnerable bow, the British captain shortened sail in order to slow his ship. As he did so, he ordered a devastating raking fire from his port batteries. The full weight of the British broadside crashed lengthwise through the French vessel, crashing through her oak hull.

When Foley turned *Goliath* to the south, the French vessel was in for worse punishment. Captain Jean-Francois Troullet had only run out his starboard guns, and was totally helpless to confront the *Goliath* when it turned along his port. British gunners once again let loose a full broadside at nearly point-blank range. The fire ripped into *Guerrier* as her crew frantically scrambled to get their port guns into the fight.

Right behind *Goliath* sailed Captain Samuel Hood's *Zealous*, which unleashed a broadside as it, too, crossed *Guerrier*'s bow. Hood then anchored in place beside *Guerrier* and commenced a furious close-quarters fight as fast as the British crews could load and fire their guns. In the opening minutes of the battle, *Guerrier* had already taken severe punishment. Her surgeries were rapidly filling with wounded men, the vessel's foremast had been cut in half by a well-aimed solid shot, and her port batteries had barely been able to return fire.

The *Goliath*, meanwhile, was in search of her next victim. Foley moved to the next French ship, *Conquerant*, where he dropped his anchor and settled in for a toe-to-toe fight. It was an 80 to74 gun mismatch, and the British tars, seasoned by years at sea and regular gunnery drills, far outpaced their opponents, shattering the hull of the

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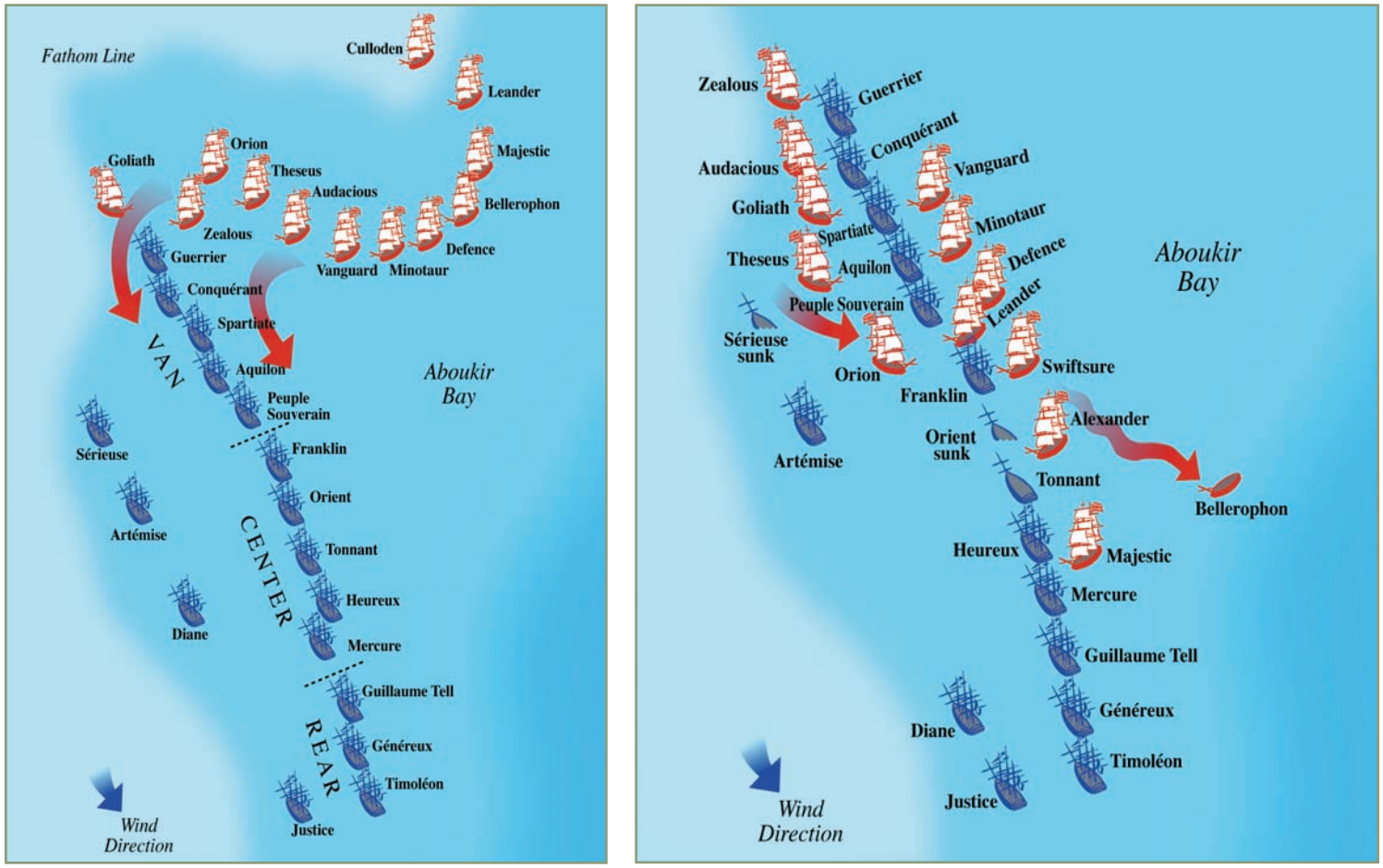

LEFT: Positions of the French (blue) and British (red) fleets at about sunset on August 1, 1798, in Aboukir Bay. The French are anchored in a line, with guns run out only on the seaward side, believing the channel behind them too shallow for a ship to pass. RIGHT: Positions of the French (blue) and British (red) fleets after 9 p.m., about the time the French flagship *Orient* had exploded when a fire reached its magazine. A group of British ships led by the *Orion* slipped behind the line of anchored vessels to fire on the French nearly unopposed.

French ship, knocking out enemy guns, and decimating the crew. The French, only moderately trained and largely inexperienced, fought manfully but took the worst of it.

At the head of the French line, *Guerrier* continued to take an unabated battering. Three more British ships—the *Orion*, *Audacious*, and *Theseus*—had followed Foley, and each ship in turn delivered a devastating broadside as it passed *Guerrier*'s bow. Captain Ralph Miller of the *Theseus*, recognizing that the French ship was badly damaged, closed in for the kill. The two ships were nearly touching when Miller crossed the bow of the stricken vessel, and his well-timed broadside wreaked devastating carnage. Ripping lengthwise through *Guerrier*, *Theseus*' solid shot tore the ship to pieces in a hail of oak splinters and mangled bodies. The manhandled French ship lost her remaining masts. Isolated knots of brave French sailors continued to fight on, but *Guerrier* had effectively been knocked out of the battle.

The five British ships that had crossed to the far side of the French line had succeeded in badly mauling the unprepared port of the enemy vanguard. As the *Orion* moved into position, it fired a heavy broadside into the frigate *Serieuse*, which fled to the shallows and quickly sank. *Orion* then anchored in position to attack both *Peuple Souverain* and *Franklin*.

The *Audacious* and *Goliath* teamed up opposite *Conquerant*, a badly unprepared ship that possessed a woefully understrength crew. The two British ships delivered a merciless pounding. *Conquerant*'s main and mizzen masts were soon down, and over 200 Frenchmen littered her blood-soaked and fire-swept decks.

While the battle raged, the situation only worsened for the French. Nelson, standing bolt upright on the quarterdeck of the *Vanguard*, was finally bringing his own flagship into the fight. With much of the French van badly chewed up, Nelson turned his vessel down the starboard side of the enemy line looking for fresh quarry. He found it in *Spartiate*, which was already taking fire from the *Theseus* on the port.

The two British ships commenced a brutal pounding of the French vessel but found a worthy opponent in her commander, Captain Maurice-Julian Emeriau. Emeriau commanded one of the newest vessels in the French fleet, and her crew gave a good accounting of themselves. Despite being trapped in the crossfire of two British men-of-war, the Frenchmen sternly stuck to their fighting positions, trading broadside for broadside.

The battle was, thus far, unfolding precisely to Nelson's intentions, with the van of the French line being overwhelmed by a concentration of superior British firepower. But while *Spartiate* was slowly being battered into submission, Captain Miller of the *Theseus* inexplicably pulled away in order to engage *Aquilon*.

Miller later explained that he was leaving the honor of the victory to Nelson, but the immediate results were far from helpful. With the threat to his port suddenly removed, Emeriau ordered his entire crew to man the guns of his starboard batteries, which increased their fire into the *Vanguard*.

Locked in a death struggle, the two ships were wreathed in clouds of smoke as they pummeled

BELOW: This painting by Charles Edward Dixon shows the HMS *Majestic*, which became entangled in the canvas and rigging of several French ships and suffered 150 casualities, but continued to pour cannon fire into the enemy. RIGHT: The French flagship *Orient* is shown engulfed in flames in this painting by Thomas Whitcombe. The ships nearby have closed their gun ports in anticipation of the ship's magazine igniting a large explosion. Around 10 p.m., it came, blowing the *Orient*'s hull out of the water and killing as many as 800 sailors.

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each other. The decks of both vessels were transformed into killing grounds as they were swept by a hailstorm of iron and lead. Aboard *Spartiate*, sailors fell by the score. Despite the fact that the British were gaining the upper hand, they likewise suffered heavy casualties in the process. In a mere ten minutes, *Vanguard* lost more than 50 men.

One of those struck was Nelson, who was hit in the forehead and collapsed. Streaming blood, Nelson blurted out "I am killed, remember me to my wife." The admiral, however, would survive. The wound was ugly, a deep cut across his forehead, but far from mortal. While Nelson was carried below to surgeons, the battle raged unabated.

By 10 p.m., the British were succeeding in smashing the head of the French line. *Aquilon* was forced to surrender. *Peuple Souverain* struck her colors after its captain had both of his legs ripped off by artillery fire. The captain of *Spartiate* surrendered his sword to a boarding party of Royal Marines; the trophy was eventually delivered to the wounded Nelson. But despite the tremendous success that the battle had thus far produced, Nelson's fleet had yet to encounter the French center.

Breaking the French center appeared to be a herculean task. The center of the line was occupied by the frowning *Orient*, the 120-gun flagship of the fleet and crown jewel of the French navy. *Orient* was protected fore and aft by *Franklin* and *Tonnant*, 80-gun ships-of-the-line commanded by capable officers.

The first British ship to enter the breach was the *Bellerophon*, commanded by Captain Henry Darby. Darby brought his ship directly alongside *Orient*, dropped his anchor, and settled in for a grim contest with the French giant. Not unexpectedly, his ship took a beating from the outset. Darby's crew traded broadside for broadside amid a thunderous roar of artillery, but, despite superior British gunnery, the men of the *Bellerophon* were badly outmatched. The 120-gun French behemoth pounded the *Bellerophon* to splinters, cutting two masts in half, wrecking 16 of her guns, and littering the decks with 200 casualties.

Darby, himself badly wounded, cut his anchor cable and escaped the fray, entirely removing his disabled ship from the battle. Despite the one-sided nature of the fight, the crew of the *Bellerophon* had succeeded in exacting a grim punishment on *Orient*. The initial weakening of her hull and crew, though purchased at great price, would later prove crucial.

While the *Bellerophon* was fighting its duel with *Orient*, Captain George Westcott experienced an unfortunate stroke of bad luck as he took his *Majestic* toward the French line. Helplessly tangling his ship in the limp canvas hanging from *Tonnant*'s foremast, Westcott was caught under the broadsides of his opponent but largely unable to return fire. While *Tonnant* made the most of the situation, the French ship *Heureuse* joined the fray, adding her own guns to the merciless pounding of the *Majestic*.

Amid the bloodshed, Westcott went down with a musket ball to the neck and First Lieutenant Robert Cuthbert assumed command. He succeeded in cutting the *Majestic* free, and then attempted to slip the vessel between *Heureuse* and *Mercure*, where he could rake both enemy ships. Misfortune, however, was *Majestic*'s lot. As Cuthbert attempted to slide between the French vessels, he ran into a cable strung between them. Stopped cold, *Majestic* fought on, losing her main and mizzen masts and over 150 men. She did, however, hurl an astounding amount of iron at her assailants, tearing up both French ships.

As Captain John Peyton brought the *Defense* into action, he came up along the starboard of *Peuple Souverain*, which was already sorely pressed by the *Orion* off her port. The crew of the French vessel had fought valiantly since the outset of the battle, but the overwhelming British firepower hastened the inevitable. Her masts shot away and the crew decimated, the ship was forced to surrender.

As the rest of the British began to approach the French fleet, disaster befell one of Nelson's best officers. Captain Thomas Troubridge of the *Cul-*

loden, in his haste to make for the fighting, rounded Aboukir Island far too closely, abruptly running aground in the shoals south of the island. *Culloden*, with a pierced hull, began taking on water at an alarming rate. Despite the crew's best efforts, the ship couldn't be freed from the shallows. Frustrated at his dilemma and raging at his bad luck, Troubridge, and the vital 74 guns under his command, was unable to join the fight.

Despite *Culloden*'s costly mishap, Nelson's unengaged ships continued to join the battle, inexorably tilting the balance in his favor. As he brought the *Alexander* into action, Captain Alexander John Ball made a crucial split-second decision. Rather than attack the French line from starboard, Ball directed his ship to slip across the rear of *Orient*. His execution of the maneuver, the vital "crossing the T" of eighteenth-century naval warfare, began the unraveling of the French battle line.

From his port batteries, Ball battered the unprotected bow of *Tonnant*. The commander of the ship, Commodore Aristide Aubert Dupetit-Thouars was badly mangled, losing a leg and both arms. He refused to quit his deck and died with his men.

From his starboard guns, Ball sent shells crashing into the virtually undefended *Orient*. Though a fearsome giant in a stand-up fight, *Orient* proved an enormous, helpless target at anchor as the Alexander poured broadside after broadside into the massive ship's stern.

The *Swiftsure* lent its metal to the fight. Under the command of Captain Benjamin Hallowell, the ship assailed both *Franklin* and *Orient*'s port rear quarter. With *Alexander* and *Swiftsure*'s guns rapidly belching fire and iron, weakened French crews began to crumble under the pressure.

Amid the nightmarish fight of the big ships, one of Nelson's smallest vessels fearlessly pitched into the battle. Captain Thomas Thompson's *Leander*, technically a ship-of-the-line, was nonetheless an antiquated 50-gun vessel that only slightly outmatched a frigate. Undaunted, Thompson crossed the T in front of *Franklin* and poured a crushing fire into the French ship's bow. The 80-gun *Franklin*, beset by a swarm of British ships, was consequently being battered to pieces by *Defence*, *Leander*, *Orion*, and *Swiftsure*.

Aboard the *Orient*, morale plummeted and defenses began to crumble. Attacked simultaneously by *Alexander* and *Swiftsure*, the French flagship had suffered heavy casualties and many of her batteries fell silent for scarcity of gunners. To his credit, Admiral Brueys had fought nobly. Wounded in the arm and head, the admiral's uniform coat was spattered with his own blood.

But as he continued to direct the fight, a careening British shot struck Brueys in the midsection, nearly cutting him in half. Terrified onlookers attempted to move him below decks but Brueys, resigned to his fate and grim to the last, refused to leave his crew. Lying on deck in his own gore, Brueys amazingly lived for another quarter hour, the French colors still flying above his ship.

Orient, however, was doomed to share the fate of the admiral. British sailors battling the French flagship suddenly noticed that a fire had broken out in the rear of the vessel; for ships in the age of sail, there was no greater peril. French sailors could be seen scrambling about the decks in an attempt to fight the fire. Aboard *Swiftsure*, Captain Hallowell coolly ordered his gunners to target the French sailors, discouraging further efforts to stop the blaze.

As British guns continued to batter *Orient*, the fire on the French ship began to rage out of control. The water pump needed to douse the fire had been shattered by British artillery, and the French crew was helpless to halt the blaze. In short order, flames spread along the length of the ship, igniting the deck, masts, and sails. The terrifying inferno lit up the bay, and men from both sides stood temporarily transfixed. Aboard the *Vanguard*, the stricken Nelson was carried above decks in order to take in the sight.

It was a surreal scene that onlookers intuitively realized would get disastrously worse. The raging

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fire grew so hot that tar began to melt out of the seams in *Swiftsure*'s hull. *Orient*'s crew desperately attempted to soak the contents of the ship's powder magazines, but the conflagration grew so hot that they were forced to give up the attempt.

When it became increasingly apparent that *Orient*'s powder stores couldn't be protected from the flames, bedlam erupted. The doomed ship's crew began leaping overboard, preferring the black waters of Aboukir Bay to the disaster that was sure to come. All around *Orient*, both French and British ships that had been locked in a death struggle for hours began hastily cutting their anchor cables in order to get away.

While most ships fled for safety if they could, Captain Hallowell of the *Swiftsure* remained cool. Retaining his position in line, Hallowell maintained fire on *Orient* and *Tonnant*, all the while busying work crews in wetting his sails and decks. When he reckoned that he had pressed his luck as far as he dare, Hallowell had his gun ports closed and ordered his sailors to seek cover.

And then it happened. It was slightly past 10 p.m. when the flames finally reached *Orient*'s powder magazines, and a shocking explosion obliterated the French vessel. In an enormous fireball that could be seen for miles, shattered debris was blown thousands of yards in every direction, leaving the surface of the bay littered with the ghastly flotsam of shattered oak, charred canvas, and broken bodies. Witnesses of the horrific conflagration would never forget the sight. Watching in awe from the quarterdeck of the Theseus, Miller thought the explosion of *Orient* "a most grand and awful spectacle."

As the explosion subsided, the sky rained burning embers, endangering nearby ships. *Swiftsure*'s tops received relatively minor damage, but fires broke out on *Franklin* and *Alexander*. It took two hours for the crew of the latter to put out the fire.

As if mesmerized by the terror of the explosion, both sides ceased fire and did what they could to rescue survivors. While tattered and terrified men bobbed about the bay and called for help, British vessels sent out longboats to rescue the perishing French. Desperately clinging to anything that would float, the survivors were a pathetic sight.

Many were injured and burnt, others had literally had their clothing ripped off by the tremendous force of the blast. Some British sailors shared their own clothing with the wretched survivors. The explosion of *Orient* had been a holocaust. From a crew of 800, British rescue boats saved no more than 70 men.

As rescue efforts subsided, the battle slowly resumed. The fighting was centered around *Franklin*, whose resolute crew refused to give in. Freed to seek other targets following the destruction of *Orient*, Nelson's fleet closed in for another kill. The Chevalier de Blanquet reported that *Franklin* was "surrounded by enemy ships, some of which were within pistol shot, and who mowed down the men with every broadside." By 11:30 p.m., the French ship had lost her main and mizzen masts as well as a staggering two-thirds of her crew. Down to just three functioning guns, the crew of *Franklin* finally struck their colors.

Nelson hoped to complete the destruction of the French fleet, but his own ships were scattered and disorganized after hours of heavy fighting. The French fleet was in even worse condition, with a dwindling number of ships still capable of action. *Heureuse*, *Mercure*, and *Artemese* had all run aground, sitting ducks for renewed attacks. Ball started up a fresh duel with *Tonnant*, battering the already weakened ship. Rather than surrender, the French crew cut their anchor cable and ran toward shore, likewise running aground. *Theseus* and *Alexander* ventured as close to the shallows as they dared and lobbed fire toward the stranded and helpless French ships.

By dawn of August 2, after a brief period of rest and repairs, British ships rallied for a renewed push against what was left of the enemy fleet. The French rear, which had remained inexplicably detached from the fighting, was still unscathed, and consisted of three ships-of-the-line, *Guil-*

I. Tudgay

ABOVE: The aftermath of the Battle of the Nile. British casualties were recorded soon after the battle as 218 killed and about 677 wounded. Casualties on the French side are not known, but estimated to be between 2,000 and 5,000. As many as half of the French deaths came in the explosion of the French flagship *Orient*. Some of the French fleet tried to escape the bay after the explosion, but only two ships of the line and two frigates out of a total of 17 ships engaged managed to escape. OPPOSITE: The ship *Tonnant* at the Battle of Aboukir Bay and the heroic death of Captain Dupetit-Thouars on August 1, 1798.

laume Tell, *Genereux*, and *Timoleon*, as well as the frigates *Diane* and *Justice*. Eventually five British vessels, the *Theseus*, *Alexander*, *Majestic*, *Leander*, and *Goliath*, crowded around the ships of the French rear and opened fire.

Fighting spirit, however, was clearly gone from the demoralized French, and the commander of the French rear, Rear Admiral Pierre-Charles de Villeneuve, wisely opted to disengage and make a run for it with his remaining ships.

As the French fled, misfortune struck yet again. *Timoleon* had taken a severe pounding from the attacking British, and was left with damaged masts, sails, and rudders. Running aground in the confusion, the vessel was helplessly immobilized. Captain Louis-Leonce Trullet would refuse to surrender, choosing instead to abandon ship and burn his vessel rather than turn it over to the British. Of the once-great French fleet, Villeneuve escaped with just four vessels: two ships-of-the-line and two frigates.

Following Villeneuve's escape, the British fleet was left the undisputed master of Aboukir Bay. As the frenetic pace of the battle subsided, the full magnitude of the victory became apparent. The bay presented a shocking scene of smoke, death, and destruction. The French Republic's grand fleet had been wrecked. The British had captured or destroyed 11 ships-of-the-line, two frigates, and one brig in one of the most remarkably one-sided victories in British naval history.

The Battle of Aboukir Bay, or the Nile, as it also came to be known, was costly to both sides. British losses amounted to 895 killed and wounded; the hard-fighting *Bellerophon* alone suffered nearly 200 casualties. The destruction of the French fleet was so complete that precise casualty figures remain elusive. Estimates ran as high as 6,250 total in killed, wounded, and missing; the number included 3,305 French prisoners. Naval surgeons worked for days, treating ghastly wounds and amputating horribly mangled limbs.

For his part, Nelson was exultant at the scale of his success. "Victory," he would write, "is certainly not a name strong enough for such a scene as I have passed." Although such grand sentiments were certainly cold comfort for the common sailors who had bled and died at Aboukir Bay, the strategic victory wrought at the battle was truly epic in proportion.

Most importantly, Britain was once again the undisputed master of the Mediterranean, and Napoleon's grand scheme for menacing Egypt and India were inevitably doomed to failure. Without the support of a strong fleet that could facilitate resupply and reinforcement, the ambitious French adventure in Egypt died with a whimper. Entirely cut off and left to its own devices, the French expeditionary force suffered final defeat and dissolution by 1799.

For the great victory at the Nile that saved the farthest reaches of the British Empire, Nelson would become an unparalleled legend in the pantheon of British national heroes. He was likewise destined for immortality, and an early grave, for his victory over a combined French and Spanish fleet at Trafalgar in 1805.

In a letter to his father after the Battle of the Nile, an exultant Nelson nonetheless refused to take credit. "It was not in the power of man to gain such a victory," he wrote, "the hand of God was visibly pressed on the French." ■

One of the great military minds of Europe, the Innovative Swedish King won two major victories in the Thirty Years War before being cut down in his prime.

By Robert L. Durham

Gustavus Adolphus AND THE BATTLE OF RAIN

In the 1632 Battle of Rain, Sweden's King Gustavus Adolphus would once again prove the superiority of his artillery, training and tactics. He had penetrated deep into German territory en route to what would become the penultimate battle before his death at 36. Across the rapidly flowing Lech River lay Catholic Bavaria and Johann Tserclaes, Count of Tilly, famed commander of the combined Imperial and Catholic League forces.

Gustavus Adolphus had nearly destroyed Tilly's Imperial forces at Breitenfeld the previous year. Now, after wintering over in Germany, he meant to finish the job. But first he had to cross a river against an entrenched army ready and waiting for him.

One of the first things Gustavus Adolphus did was have a smokescreen built with green wood, wet straw, and gunpowder. The thick black smoke blinded Tilly's musketeers, allowing the King's Finnish troops to build a pontoon bridge and establish a bridgehead in the face of Tilly's advance guard. Tilly personally led an attack to prevent the building of the bridge and the vicious fighting spread into the shallows and onto the bridge itself. Both sides fed men into the fight, resulting in 1,000 casualties on each side. Try as they might, the Imperial troops could not force the Finns back and Gustavus Adolphus marched three brigades across the Lech to secure the bridgehead.

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This 1880 engraving shows the mortal wounding of the leader of the Catholic League forces in the Thirty Years War, Johann Tserclaes, Count of Tilly, while fighting against the Swedish King Gustavus Adolphus at the Battle of Rain, April 15, 1632.

The clash at Rain was the second time the famed military leaders faced each other on the field. As Tilly's reputation on the battlefield grew early in the Thirty Years War, Gustavus, the "Lion of the North," had been fighting in Poland for the past three years, finally signing a peace treaty in September 1629.

He then turned his attention to defeating Tilly and the Habsburg Empire. He landed his army at Mecklenburg in 1630, going first to Berlin, to make alliances with the leaders of Northern Germany. Afterward, he captured the city of Frankfurt an der Oder.

At the Battle of Breitenfeld September 17, 1631, Tilly had faced an army unlike any he had ever encountered. Tilly had been busy in northern Italy and so had not responded to the entrance of the Swedes into the war. The end of the Mantuan War in 1631 freed Tilly and his troops to move into the German states. Gustavus Adolphus, meanwhile, had expanded across northern Germany, increasing his army by adding mercenaries along the way, until they reached 23,000 men.

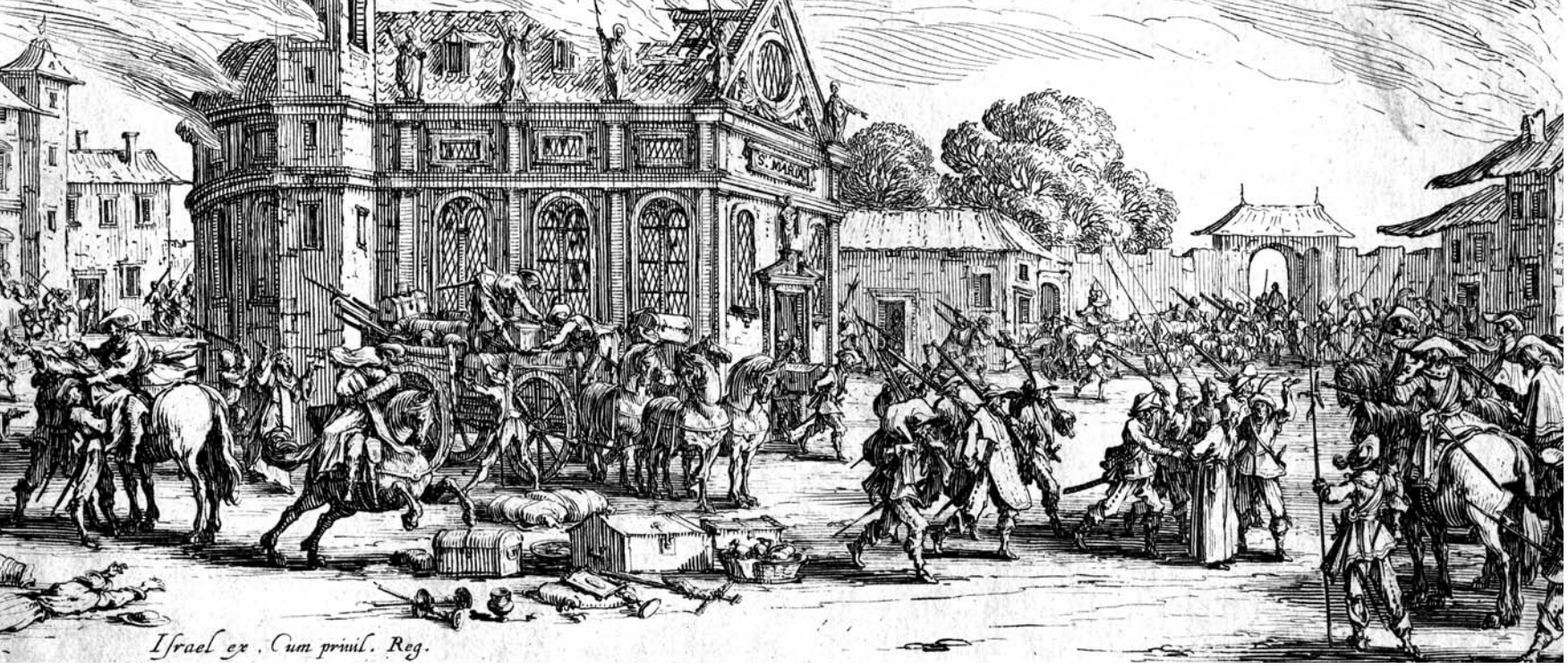
Both generals had to move through Saxony, Gustavus Adolphus advancing with permission of the Saxons, who joined with him as allies. Breitenfeld was a meeting engagement, with both men agreeing to join in battle. The Imperial army had a decided advantage in infantry, having 25,500 trained men. Gustavus Adolphus had 15,000 veteran infantry, with 9,000 untrained Saxon allies. But the Swedish Protestants had a definite advantage in cavalry and their artillery was superior to that of the Catholics.

The battle opened with a two-hour exchange of artillery, in which the lighter Swedish artillery demonstrated its superiority to Tilly's cannon. Most of the Imperial guns were destroyed. Following the artillery duel, Tilly made several attacks, finally routing the weak Saxon infantry. This uncovered the Swedish left flank, but before the Imperial army could exploit this, the commander of the Swedish left, Marshal Gustav Horn, refused his line and attacked the Catholics before they could regroup and change face.

Gustavus Adolphus attacked against the former front of the Imperials, capturing their remaining cannon, and turning it on Tilly's forces, in a crossfire. The disciplined Swedish gunners were capable of firing as many as four shots per minute. After several hours of punishment, the Catholics broke. A wounded Tilly managed to escape, but 7,600 Imperial troops were killed and 6,000 captured. After the battle, Tilly could only field 7,000 men so he went on the defense behind the Lech River while he raised more troops for his army. Gustavus Adolphus' forces increased after the battle and he marched across Germany before going into winter quarters near the Rhine. It was his biggest victory in the conflict and his success emboldened Protestant factions and attracted French financial support in opposing the Holy Roman Empire helping to determine the political and religious balance of power in Europe.

Johann Tserclaes, Count of Tilly, one of the great captains of the Imperial armies, had become a field marshal in just five years, fighting in the Eighty Years War, the Long Turkish War and the Thirty Years War. He commanded the army of the Catholic League against Bohemian rebels, defeating them at the key Battle of White Mountain in 1620, which many consider the first battle of the Thirty Years War. He then transferred his army to Germany but was defeated at the Battle of Mingolsheim in 1622. Joining with the Spanish, he won a victory at the Battle of Wimpfen and again at the Battle of Höchst. Based upon these wins, he was made a count. These three battles in two months led to his capture of Heidelberg after an 11-week siege.

Another Tilly victory in the Battle of Stadtlohn



Anne S.K. Brown Military Collection

ABOVE: The sack of Magdeburg was the greatest tragedy of the Thirty Years War. Count Tilly laid successful siege to the German city in 1631, but lost control of his Catholic League troops, who killed an estimated 20,000 inhabitants—including women and children—and burned the city. Protestant King Gustavus Adolphus had promised protection, but could not get to the city in time. OPPOSITE: The Swedish King Gustavus Adolphus at the 1631 Battle of Breitenfeld in this painting by Jean Jacques Walter. In the first of their two engagements in the Thirty Years War, the Protestant Gustavus Adolphus defeated Count Tilly, leader of the Catholic League forces. They would meet again at Rain the following spring.

led to the complete surrender of Bohemia, effectively ending virtually all resistance in Germany. King Christian IV of Denmark entered the war in 1625 to protect Protestantism and to make himself the chief leader in Northern Europe. In response, Tilly besieged and captured Münden in 1626. After the seizure, he had all Protestant ministers thrown into the Werra River. Count Tilly won his greatest victory against the Danes at the Battle of Lutter. He prevailed decisively, destroying more than half the Danish army. Denmark sued for peace and signed the Treaty of Lübeck. This disrupted the balance of power in favor of the Catholics.

Tilly then laid siege to Magdeburg, finally winning the city by storm. The Catholic commanders lost control of their troops and almost 20,000 of the 25,000 citizens were slaughtered. Even the children were slain without mercy. After plundering the city, the troops fired it. At the time Tilly's army razed it, Magdeburg was one of the largest cities in Germany, approximately the size of Cologne or Hamburg.

In March 1632, about six weeks before he would meet Tilly at Rain, Gustavus Adolphus broke winter camp, marching to join Marshal Gustavus Horn at Schweinfurt. After meeting Horn, he moved to Nuremberg, where the King assembled the rest of his scattered forces. He marshaled 40,000 troops to march south to Augsburg and Bavaria.

Duke Maximilian, Elector of Bavaria, had sworn neutrality but his fear of the advancement of Gustavus Adolphus led him to renounce his neutrality and join Count Tilly at Ingolstadt. This gave the King all the excuse he needed to invade Bavaria. Tilly shifted his army eastward, where he meant to hold the Lech River. Tilly felt his army was suffering from low morale and a council of war had decided to act only on the defensive until they received reinforcements from Albrecht von Wallenstein, another great Imperial general.

In Tilly's front lay the Lech River with the Ach River to his rear. The right flank rested on the Danube, and the left on the town of Rain. They built fortifications along the low-lying river front, joined by entrenchments. Heavy artillery was placed in batteries at intervals along the river. The bridges had been destroyed and Rain occupied.

On April 7, Gustavus Adolphus crossed the Danube at Donauworth, then marched eastward, toward Tilly. He laid waste to the land on his route so no army that might follow him could find sustenance. His troops uprooted the young corn to feed their horses, leaving the fields barren.

As Gustavus marched toward Bavaria, Wallenstein waited on the Bohemian border with 20,000 soldiers, but would not reinforce Tilly. The government at Vienna insisted for weeks that he move to stop Gustavus and save them, but he continually refused.

The Kings of Sweden had laid the foundation for a national regular army as early as the sixteenth century and Gustavus Adolphus perfected it. He was a master of tactics and made many innovations in the composition of his army—the first in Europe built as a regular and national military. In time of war, other countries raised troops by conscription, either voluntary or by press-gang enlistments. Or hired mercenaries, who were unreliable in war, dangerous in both war and peace.

Regulars were kept full strength by a draft from the militia. The militia comprised eight cavalry and 20 infantry regiments—each district raising and supporting 300-600 men. Gustavus Adolphus eventually resorted to mercenaries to fill his war-thinned ranks, but Swedes always formed the base of his army. He introduced a new method of awarding his regulars, granting each man a parcel of land, rising in size and importance according to arm and grade. The soldier's land supported and equipped him. From this land, all able-bodied males from 15 years of age and older were called into service.

His army was superior to other armies in the Thirty Years War due to its discipline and esprit de corps. The pay of the Swedish soldiers was small, but the troops were paid regularly. One of the most important improvements of the King was feeding the troops from stockpiles. The King saw to it these stockpiles were kept full, either from Sweden or from systematic contributions from countries the army traveled through. Gustavus Adolphus saw to it that his troops were well cared for. This did away with a lot of the plundering other European armies engaged in. Wherever his

men were quartered, camp and garrison duties were compulsory, and discipline was never relaxed.

Gustavus Adophus did much to make changes which would transform the art of war. In the early seventeenth century, infantry consisted of pikemen and musketeers. The pikemen were heavy infantry and considered superior in value to musketeers. They had full body-armor and were armed with eighteen-foot pikes, later reduced in length to allow for better maneuverability.

Ultimately, Gustavus realized the value of musketeers and decreased the number of pikemen, taking away the weight of their armor, which allowed for more mobility. He also introduced grenadiers, normally used in defense of fortified towns. The grenadiers were paid more because musketeers could fire from behind cover and grenadiers could not. Veterans were also paid more, known as "double-pay" men.

The musketeers were fitted with a pot helmet, a saber, and a musket. As the effectiveness of firearms improved, the musketeers were increased from one third to two thirds of the infantry force. A Swedish company of 150 men consisted of 75 musketeers and 59 pikemen, the rest being officers and petty officers. In 1631, he introduced entire regiments of musketeers.

Gustavus Adolphus' army was much more uniform than the Imperial army. He was first to brigade his regiments, naming them after the color of their standard.

Paper cartridges were the most important improvement in firearms introduced by Gustavus. The men carried 10, with spare powder and ball, in bandoliers hung across the chest from the left shoulder. The sword was slung from the right shoulder.

Using more reliable Wheelock muskets, paper cartridges and more efficient movements for loading, Swedish musketeers had a higher rate of fire than most armies they faced.

The musketeers stood in closed files, but in open ranks, which created intervals between ranks. They usually fired in salvos by rank, with succeeding ranks coming forward, while the one which had fired retired through the intervals to reload. At times, they fired two ranks together, and sometimes even three ranks at the same time. They achieved this by having the first rank firing from their knees, the second rank from a stooping position, and the third rank standing.

The musketeers sometimes advanced in open order, almost like a more modern skirmish line. The pikemen stood in closed ranks and files. Sometimes, a brigade formed with a division of pikemen in advance and four divisions of musketeers in two ranks in the rear. However, many of the foreign regiments in Gustavus' army had their own formations and drill. Gustavus did not alter this, so as not to affect the efficiency of the regiment. The Swedish formation was a flexible system, seen to be "apt and ready they are to be embattled into any form, either offensive or defensive," as observed by William Barriffe, an English officer. The Swedish brigades were formed of either three squadrons to form an arrowhead formation, or four squadrons to form a diamond.

Without question, the Swedish artillery was superior to the Imperial artillery. Gustavus Adolphus made marked changes in his artillery, by making the guns and carriages lighter and handier. In tactics, he adapted the artillery movements to those of the other arms and to the needs of the battlefield. Gustavus Adolphus strove for mobility and rapidity of fire. In 1624, he commanded all old and unserviceable cannon to be recast into newer patterns.

In 1625, he developed a 3-pound regimental cannon which could be pulled by one horse or three men. Using the first artillery cartridge—a charge in a thin wooden case wired to the ball that weighed less than a pound and a half—it could be fired once every three minutes.

Gustavus Adolphus' use of cannon in massed batteries, as well as dispersed with regiments, was an integral part of his success. The artillery of the Swedes was superior to that of any other European army.

The artillery was usually either posted in front of the infantry or on strategically valuable ground. Gustavus often mixed small detachments of infantry and cavalry, with a field-gun for each of

Anne S. K. Brown Military Collection

After his defeat of Tilly at Breitenfeld, King Gustavus Adolphus led his army through Frankfurt am Main in November 1631, marching across Germany and going into winter quarters near the Rhine river. Gustavus Adolphus would meet Tilly again at the Battle of Rain in Bavaria the following April.

LIGHTER, FASTER, MORE MANEUVERABLE: King Agustus Adolphus' Swedish Cavalry.

King Gustavus Adolphus of Sweden surveying the field of Lutzen during the Thirty Years War in this painting by Thorvald Rasmussen. His military innovations, especially with cavalry and artillery, have prompted some to call Adolphus the father of modern warfare.

The cavalry of the Swedish army comprised cuirassiers and dragoons, the latter acting as mounted infantry. Initially, there were arquebusiers, armed with an arquebus, a form of long gun. Gustavus gave these up in favor of lighter guns in the cavalry. When Gustavus first came to the throne, cavalry was deemed the more honorable arm. The nobility ultimately became too poor to keep the cavalry up to its ancient standard. Therefore, Gustavus finally had to recruit his cavalry the same way he recruited his infantry. His cavalry arm was not strong, in the Swedish army there were only 3,500 cavalrymen.

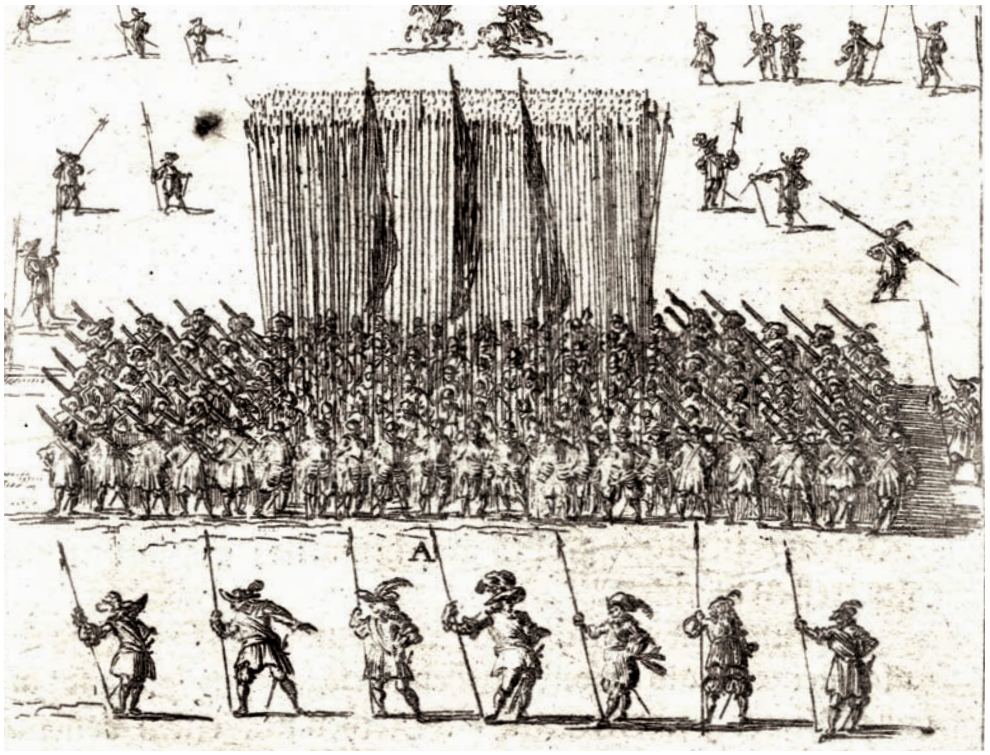
Cuirassiers, heavy cavalry, wore helmets, front and back cuirass, and were armed with a sword and two pistols. German mercenary cuirassiers were also armed with a carbine. The armor was eventually discarded when muskets became more deadly, and they became light cavalry, who turned out to be more efficient than the heavy. The dragoons were provided with infantry muskets and they dismounted to fight.

The cavalry was organized into regiments or companies, the latter also being called squadrons or cornets. Each cavalry company consisted of 115 men. The Swedish cavalry regiments had eight companies, 920 men. The cavalry tactics of the day made them slow in charging. They would ride up to the enemy, where each rank would fire in succession, and then wheel off to reload. The Swedish cuirassiers were trained to ride at a gallop, fire their pistols, and then take to the sword. The Swedish cavalry were no better than the German except in their tactics. The best German heavy cavalry was, perhaps, better than the Swedish, but this was only because their horses were larger.

The cavalry of other regiments formed four to six ranks but Gustavus reduced this to three ranks. This greatly increased their maneuverability. Fancy skirmishing was abolished, as well as the firearm as the only resource in the attack. The Swedish cavalry rode in two or more lines, either company in rear of company, or in a checkerboard formation. Even the dragoon, instead of being a well-transported infantryman as in other armies, in Gustavus' Swedish army the dragoons partook more of the impulse of the cavalryman.

In all other armies, the cavalry was placed on the wings. Gustavus also placed cavalry on the wings, but he also put cavalry companies in the rear of each line of infantry. There, they could help in re-establishing any check.

—Robert L. Durham



Both: Anne S.K. Brown Military Collection

ABOVE: This etched plate from 1630 shows two musketeers armed with matchlocks. At least some of Gustavus' soldiers carried new, more reliable wheellock muskets which did away with the burning match held by the soldier at right. TOP: This engraved plate from 1630 shows a formation of musketmen in close ranks and files, assembled in front of a formation of troops carrying 18 foot pikes. Gustavus fielded more musketmen, which allowed for more mobility in battle. OPPOSITE: King Gustavus Adolphus directs the advance of his army as cannons fire across the Lech River. The Battle of Rain , sometimes called the Battle of the River Lech, featured 25,000 Catholic League troops under Johan Tserclaes, Count of Tilly, dug in along the river in a defensive position, waiting for help that never came. Gustavus Adolphus outnumbered Tilly with his 40,000 Swedish troops.

these units. The detachments fielded 200-400 men. In some instances, he detailed men from different organizations into a corps d'élite of musketeers. Gustavus Adolphus' army became a well-oiled machine, all parts operating smoothly, instead of a disjointed mass.

In a typical battle, the ground would first be held by small groups of skirmishers. Because of their dangerous position, these men were called forlorn hopes. Behind the skirmishers, the lines formed. The cavalry then charged down the front to clear out the curtain the skirmishers had formed. Unfortunately, friendly skirmishers were sometimes ridden down as well as the enemy. Then the artillery would fire along the entire line. Under the smoke of the cannon, the cavalry, normally on the flanks, would charge again. The infantrymen would get into musket-range and, if possible, the fight would come down to "push of pike." To modern eyes, this would look like a rugby scrum. Grand tactics were things of the future, so the lines would become intermingled and whichever side showed the least confusion would probably win.

The value of Gustavus Adolphus' tactics lay in the disposition of his troops, placing his pikemen to cover his musketeers, and the musketeers to cover the pikemen. Each brigade maintained the other, but each was self-sufficient to itself, with well-covered flanks. The brigade moved forward like a small fortress. Rather than the solidity of each body, it was its mobility that lent it self-sustaining power.

The King knew, from the development of gunpowder, the need for maneuverability on the battlefield. Future commanders introduced grand tactics, based on the work of Gustavus Adolphus. He knew the value of local topography and other conditions of the battlefield, and he made the most of it.

As Count Tilly found himself once again facing the man who would later be called "the father of modern warfare," his plan was to use his fortified position as a delaying action, not as a "last stand." He had formed his defense east of the Lech River with his major strength at Rain and screening forces between Rain and Augsburg, where he stationed a secondary force. Tilly's main force numbered 16,806 infantry, 5,312 cavalry and 20 guns. Less than half of his army were veteran troops.

The Lech is one of a series of rivers beginning in the Alps and draining into the Danube. The Schmutter is to the west of the Lech and the Ach to the east. The west bank of the Lech is about twenty feet higher than the east bank so that any attacker would dominate the defender. The heavy rains of spring and the melting snow from the Alps swelled the river to its maximum width. Marshes and woods covered the east bank.

Anne S. K. Brown Military Collection

Tilly destroyed the bridge at Rain, so any crossing had to be south of Rain. There, Tilly entrenched and deployed his forces, with his major body of troops in a fortified camp just east of the Ach. He established the camp on a wooded hillock. The infantry there were mainly recruits and militia. He placed a reserve of veteran infantry behind the camp.

Tilly built a smaller redoubt west of the camp, on the other side of the Ach, approximately 1,000 feet east of the Lech, protected by a thick line of chevaux-de-frise to the south and west. Woods to the north and marshes in front, facing the Lech, covered the redoubt. A screen of musketeers protected both these barriers. Tilly garrisoned the redoubt with two veteran infantry regiments, with twelve light guns. Tilly positioned his heavier guns to support the main camp and they had the range to reach the bank on the opposite side of the Lech. He established his cavalry on both wings.

By April 12, Gustavus Adolphus had reduced Tilly's outposts west of the Lech. When personally exploring the line of the Lech, he saw Tilly's sentries on the other side. They did not recognize him and shouted across the river, "Where's your King?" "Nearer than you think," Gustavus Adolphus cried back, then cantered away. During his scout, the King recognized the weakness of Tilly's position which, at first, seemed unassailable

Both banks of the river were a low, boggy plain. The marsh lay between the Imperial position and the river, with higher ground farther back. Most of Tilly's army lay on a wooded hill back of the low ground, waiting for Wallenstein's arrival. The King could have turned Tilly's right flank by crossing the Lech above him, or he might coop him into a corner where he could starve him and force him to come out to fight. Both would take time, which the King did not have. He decided on a third option, he would cross the river and attack their supposed invulnerable entrenchments.

The Swedes held a council of war before initiating the action. Horn brought up everything that might cause the plan's failure. "What, have we crossed a sea and so many rivers, to be stopped now by a mere brook?" Gustavus Adolphus replied, paraphrasing the words of Alexander the Great at the Granicus.

By April 13, Gustavus Adolphus occupied Oberndorf, a village northwest of Tilly's line. The Swedes deployed in front of Tilly's redoubt, in line of battle. The King formed 12 infantry brigades in two echelons, flanked by cavalry, also in two lines, reinforced by detached musketeers. There were a few light guns. The bulk of the artillery were massed, 72 guns (18 12-pounders and 54 lighter guns) under Marshal Lennart Torstensson.

Gustavus Adolphus did not intend to force a crossing. The battle line was only a distraction, to act as cover for the engineers. They tested the bank for firmness and established the fields of fire. During the night, the engineers constructed two great earthworks to shelter massive 24-cannon artillery batteries. They would be able to place Tilly's battery under an active fire but only the heavy guns could reach Tilly's main camp. Tilly had burned the boats along the river, but the King brought boats from the Danube and, during the night, he brought up other bridging material. He gathered all the wood that could be found to supplement the boats. Gustavus made Oberndorf the assembly point for the bridging material.

Anthonie Palamedesz

Tilly deployed his light guns in the forward redoubt and the heavier guns behind in the camp. The whole of the 14th, a heavy artillery duel ensued. The Catholics directed their fire against the Swedish batteries with Gustavus' own fire directed against Tilly's infantry. However, the defensive works were too strong for either side to receive much damage.

The King planned for the artillery duel to be another distraction. While Tilly's attention fixed itself upon the opposing guns, the real venture would occur farther south. Late in the afternoon, Gustavus Adolphus drew up his army and began to march his men toward the river as if he planned to ford it. Tilly could not believe this but had his men stand ready just in case. Now Torstensson directed his heavy guns against the Catholic camp. The 24-pound balls wreaked havoc, shattering trees, and showering splinters on the men. The crashes of the cannon balls and the falling branches terrified the recruits. The actual losses were light, but the barrage had a terrible effect on the morale of the troops in the camp. Gustavus intended this to be only a feint and had it broken off at sundown.

A small island in a bend of the river became the site of the major object of the King's attack. He converted the bank into a staging area for an assault. The Swedes dug entrenchments and positioned the boats and bridge sections. They built supporting earthworks that held 18 guns and 2,000 musketeers.

At 8 a.m., the maneuver began. 334 Finns of the Hastfer Infantry Regiment crossed the river to the islet in boats. Gustavus believed the Finns to be natural commandos. From the island, they built a trestle bridge across the river to the Swedish bank. The King crossed three brigades to the islet. Tilly marched his reserve to the threatened bank when his outposts warned him of Gustavus' activity.

The Finns now crossed the Lech to the Catholic side of the river, by using the boats, loaded with the wood and other building materials that had been gathered. They approached a defended shore but Gustavus and Torstensson put up a smokescreen of green wood, wet straw, and gunpowder. The thick, black smoke from the smokescreen, and Gustavus' artillery on the islet and the east bank, blinded Tilly's advance guard. As soon as the Finns were across, they started to build a pontoon bridge back to the islet, building it to lay even with the water to lessen the target. Even with the smokescreen and artillery support, it was a close-run action.

Tilly, his second-in-command, Johann von Aldringer, and Maximilian personally led their troops to prevent the bridge building. The fighting spread into the shallows and onto the bridge itself, but the Imperials could not stop the Finns. Gustavus marched the three brigades he had on the island over the Lech to establish a bridgehead.

Tilly tried his best to prevent the crossing, assigning select troops that made several attacks on the Swedes without significant result. At the same time, they opened fire with all their guns that could cover the bridge or the developing enemy attack. Both sides fed troops into the developing bridgehead, causing approximately 1,000 casualties for each army.

The King sent his right-wing commander, Duke Wilhelm Sax-Weimar with his cavalry, a little over a mile south to ford the river. Gustavus ordered 400 more cavalry, with a cavalryman and a musketeer on each horse, about a mile to the north to attempt to swim the river. This would threaten both Tilly's flanks. Unfortunately, Tilly's men pinned down the northern column before they could do much.

By 4 p.m., Wilhelm had thrown his three brigades,1,972 men, at the island across the river. These were some of the King's veteran troops. Tilly counter-attacked with his cavalry reserve, approximately 3,000 men. Gustavus' cavalry who had forded in the south hit the Catholic cavalry in the flank, forcing Tilly's cavalry to retreat.

At about 5 p.m., Tilly's second-in-command, Johann von Aldringer, went down with a fractured skull, struck in the head by a falconet ball. Almost immediately after, Tilly had his thigh shattered, a wound which would prove mortal, and was carried to the rear. After the battle, Gustavus sent his personal surgeon but Tilly died two weeks afterwards. Maximillian, a civilian, took over command.

The battle ended at sundown. Gustavus held only a small portion of his bridgehead but by dawn it would be entrenched, and many guns would be brought across. His cavalry who had safely forded upriver from Rain could be easily reinforced. The King intended to renew the battle in the morning, striking with his cavalry from the south and outflanking Tilly. At the same time, he

Theodore Schaepkens / Wikimedia

ABOVE: During the battle, the outnumbered Catholic League forces under Count Tilly tried to prevent Swedish King Gustavus Adolphus from crossing the Lech River into Bavaria. Tilly was mortally wounded just after 5 p.m. and carried from the field. He would die two weeks later. OPPOSITE: King Gustavus Adolphus set up his cannon across the Lech River from the main Catholic League forces near Rain as a diversion while his infantry built a pontoon bridge across the river from an island. The King's cavalry forded the river a mile south and surprised Tilly's cavalry, causing them to retreat.

would attack with his reinforced bridgehead troops, directly forward against Tilly's redoubt.

Maximilian saved the remainder of Tilly's army by ordering an immediate retreat to Neuberg and then to Ingolstadt. Maximilian managed the retreat so well the King did not find out about it until morning when he discovered the redoubt empty. He sent his cavalry out to harass the Imperial escape, but they only captured part of the wagon train.

When Gustavus explored the enemy redoubt, he said "Had I been the Bavarian, I wouldn't have abandoned these works." Maximilian had no choice but to retreat, due to the outflanking Swedish cavalry. Later Tilly would be criticized for placing his works too close to the river, rather than out of range of Gustavus' artillery. He should then have counterattacked when the Swedes tried to cross. However, believing his troops were not experienced enough to win a fight with Gustavus, Tilly did not plan to win a battle but to discourage an attack.

From 1,200 to 2,000 men were killed or wounded on the Swedish side, while the Imperials suffered 3,000 to 4,000 casualties. The Catholics also lost confidence and organization. The battle added to the legend of the invincibility of the Swedish army. The battle being won, Gustavus Adolphus crossed the Lech with the remainder of his troops, took Rain, and captured all the towns on the eastern bank of the river to Augsburg. The battle left Bavaria open to the Protestant army and Gustavus Adolphus could now threaten the Austrian heartland. The King won his final victory at the Battle of Lutzen on November 16, 1632, but died in action.

After Gustavus Adolphus' death, his sole heir, the six-year-old Christina acceded to the throne, which weakened Sweden considerably. This played into the hands of France, ruled by Louis XIII and his chief minister, Armand-Jean du Plesis, Cardinal de Richelieu. The French united with Sweden under a union formed on April 23, 1633—the Heilbronn League. The Swedes were given military direction of the League, but it was obvious the French controlled it. On September 6, 1634, the Swedes were badly defeated in the First Battle of Nördlingen. In 1635, the French became directly involved in the conflict, recruiting Bernard of Saxe-Weimar to fight in southwestern Germany.

Ultimately, the military innovations of Gustavus Adophus—and his decisive victories at Breitenfeld and Rain—had kept the Protestant cause alive. The alliance between France and Sweden proved too powerful for the Catholic forces to conquer and The Thirty Years finally came to an end in 1648 with the Peace of Westphalia. ■

BOOKS

Department of Defense

Western fighters volunteering with Kurdish forces watched the arrival of American power in Syria.

By Christopher Miskimon

Dr. Till Paasche and Shaun Murray were from different countries, but they came together in Syria. Shaun was just a child when the 9/11 attacks occurred, and by the time he was old enough to serve, the war in Iraq was winding down. A citizen of the UK, Shaun served in the Royal Irish Regiment of the British Army. He wanted to make a difference in the world and Syria was where he chose to do so.

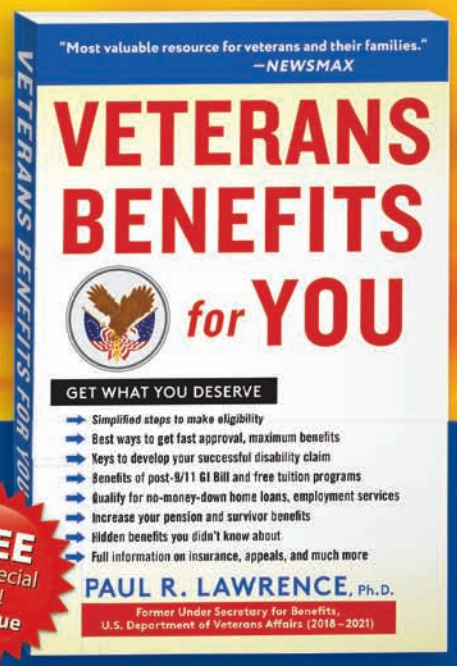
After arriving, he met Dr. "Baz" Paasche, a German doctor serving as a medic for the Kurdish forces fighting Daesh. The pair soon met Jefferson, a Brazilian who obtained American citizenship by serving in the U.S. Army. The three men each possessed skills needed to survive and be productive in this war zone, so they decided to stick together.

Kurdish commanders were initially reluctant to risk the lives of westerners on the front lines, but the trio soon made their way to Rojava, a town being fought over by Kurdish and Daesh forces. Baz and Shaun were given new AK rifles, still covered in grease from the Soviet factory which made them. The rifles were date-stamped 1965. When Baz asked where the weapons came from, his commander told him, "As soon as there is war, someone will sell weapons from somewhere. That's just how it is."

When the pair turned around, they saw Jefferson–holding an American M16. It was a rare and precious weapon in this area, but he had gotten one simply by asking for it. The M16 was one of thousands given to the Iraqi army by the Americans. At some point it had been captured by Daesh and brought to Syria. There, its Islamic State user had been killed and now the rifle was back in the hands of an American who would use it against the Islamist extremists.

Kurdish peshmerga exercises near Erbil in February, 2016. A city of some 1.5 million, Erbil is considered the capital of Kurdistan. Due to the heavy casualties, few of the troops were over 23 and the youngest were 15, the youngest allowed to be recruited.

Due to the heavy casualties most Kurdish units suffered, the majority of the westerner's fellow soldiers were teenagers. Few of the troops were over 23 and the youngest were 15. There was a rule against recruiting anyone younger. The unit sat on one side of a berm made of earth, sandbags and old mattresses. During the day a few sentries stood guard while most of the troops slept. At night everyone manned the berm, expecting a Daesh attack. Life soon became a dull and tedious



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existence, waiting for an attack. Occasional duels with heavy machine guns punctuated the periods of boredom. Jefferson constantly hunted for 5.56mm ammunition for his M16.

The nerve-racking days of avoiding snipers and drinking chai (tea) seemed endless, until the Americans arrived. One night, as the Kurdish fighters manned the berm, two USAF AC-130 gunships appeared in the sky overhead. They flew over the front line and dispersed a long line of red flares, which lit the area. The two gunships then opened fire on the Daesh positions, pounding them with cannon and machine gun fire. The Kurds listened on the radio to unencrypted Daesh transmissions. Each time an enemy fighter died, someone on the radio said the deceased had "gone to paradise." It made the Kurdish troops happy to hear that.

Up to now, the Daesh troops had the upper hand. Now, every time they moved, deadly fire struck them down. Many went into their bunkers and fighting positions, but the advanced imaging systems on the AC-130s spotted them anyway. During the day, F-18 fighters joined the fight, their munitions shaking the ground when they detonated. The Islamic State fighters could only squat in their crumbling bunkers and wait for the bomb or shell that would kill them.

Fighting nearby was American John Foxx, a former U.S. Marine who also volunteered to join the Kurds. The Baz, Shean and John took part firsthand in the terrible fighting in Syria against Daesh. They later pooled their experiences and wrote ***America's War in Syria: Fighting with Kurdish Anti-Isis Forces*** (Till "Baz" Paasche, John Foxx and Shaun Murray, Casemate Books, Havertown PA, 2022, 304 pp., maps, photographs, glossary, notes, bibliography, index, $34.95, hardcover).

These men fought in all the major Kurdish operations against Daesh from late 2014 to mid-2016. They worked with Special Forces units from the U.S., the UK and France, helping evacuate hundreds of wounded. The book is a fascinating and down-to-earth look at the war against the so-called Islamic State from the vanguard. The gritty, honest narrative gives the reader a close look at the war, its participants and its victims. It provides an intimate understanding of a war most Americans know little about.

Combat Divers: An Illustrated History of Special Forces Divers (Michael G. Welham, Osprey Books, Oxford UK, 2023, 304 pp., photographs, bibliography, index, $40, hardcover)

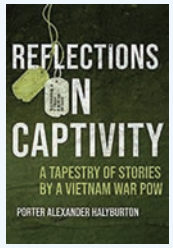
A group of Israeli divers quietly came ashore at an Egyptian-held island at the south entrance of the Suez Canal in 1969. As they reached the island, they laid aside their underwater breathing

equipment and readied their weapons. They soon reached a concrete sea wall with a layer of barbed wire in front of it. Behind the wall stood their objective, a radar unit. Standing in chest-deep water with Egyptian sentries only a few feet above, the Israeli divers cut the wire to clear a path forward. The divers climbed the wall and opened fire on the opposing guards, cutting them down. Nearby a fire support element opened fire on the rest of the Egyptian installation, causing chaos and confusion. Hand grenades and bursts of automatic weapons fire finished anyone who resisted the Israeli onslaught. With the target secured for the moment, the divers rigged the radar set with explosives.

Being a military diver is an especially dangerous job in an already dangerous profession. Beyond commando raids, they carry out reconnaissance, survey landing beaches, and remove and defuse mines. This new book delves into various military diving units worldwide and examines their training, equipment and activities. The author is a for-

SHORT BURSTS

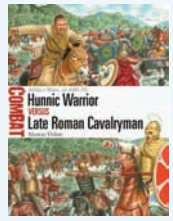
Liberating Libya: British Diplomacy and War in the Desert (Rupert Wieloch, Casemate Books, 2022, $34.95, hardcover) This book delves into the relationship between Libya and the United Kingdom through centuries of military and diplomatic activity.



Reflections on Captivity: A Tapestry of Stories by a Vietnam War POW (Porter Halyburton, Naval Institute Press, 2023, $21.95, hardcover) The author spent more than seven years in captivity. This book contains 50 vignettes on his experiences.

Bloody April 1917: The Birth of Modern Air Power (James S. Corum, Osprey Books, 2023, $24, softcover) The air campaign supporting the 1917 Anglo-French spring offensive was the first to be fought in an integrated fashion with the ground forces.

Berezina 1812: Napoleon's Hollow Victory (Alexander Mikaberidze, Osprey Books, 2023, $24, softcover) Napoleon's retreat across the Berezina River was one of the most dramatic episodes of the Russian campaign. This new work covers both operational and tactical aspects.



Hunnic Warrior Versus Late Roman Cavalrymen: Attila's Wars, AD 440-53 (Murray Dahm, Osprey Books, 2023, $22, softcover) This work compares these two opposing cavalry forces, including their organization, weapons, and tactics.

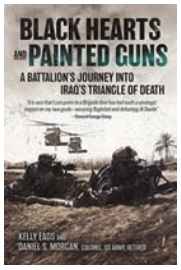
The Soviet Army's High Commands in War and Peace, 1941–1992 (Richard V. Harrison, Casemate Books, 2022, $45, hardcover) The Soviet high Command has always needed to control forces spread over vast distances and multiple fronts. The author reveals their methods and experiences.

Hell in the Streets of Husaybah: The April 2004 Fights of 3rd Battalion, 7th Marines in Husaybah, Iraq (David E. Kelly, Casemate Books, 2022, $34.95, hardcover) The author was a field historian who collected the accounts of this battle immediately after it occurred. This book presents those dramatic stories of courage and sacrifice.

SU-57 Felon (Piotr Butowski, Key Publishing, 2022, $24.95, softcover) This well-illustrated volume covers the development and fielding of Russia's fifth-generation fighter aircraft.

mer diver with the British Royal Marines and his expertise lends authority to the text.

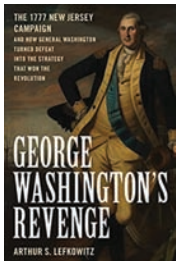
Black Hearts and Painted Guns: A Battalion's Journey into Iraq's Triangle of Death (Kelly Eads and Daniel S. Morgan, Casemate Books, Havertown PA, 2023, 160 pp., photographs, appendix, $34.95, hardcover)



The American patrol had spent hours dismounted from their armored Humvees, walking along fields, canals and roads. They found two Improvised Explosive Devices (IEDs), defused them and then decided to use their vehicles to get to the final patrol location. As they approached it, the crew in one vehicle spotted enemy fighters. The gunner opened fire and the humvee's driver slowed so the gunner could fire more accurately. As they did, an IED under the truck exploded. Despite the vehicle's armor, it was thrown into the air. The doors flew off and the entire Humvee bent in half. The gunner and driver were killed instantly while the other two occupants were severely injured. Incoming fire rained down on the Americans as they formed a perimeter. A platoon sergeant took command, as several other soldiers raced to the burning Humvee to see if any survivors could be saved.

The 101st Airborne Division's 2nd Battalion, 502nd Infantry deployed to Iraq in 2005. They soon set up patrol bases in their assigned areas and soon made a reputation, known to the enemy as the "Black Hearts" for the symbols worn on their helmets, used since World War II. The Scout Platoon gained the added sobriquet of the Painted Guns, due to the way they camouflaged their rifles. The authors are both Iraq War veterans, with Eads a veteran of this unit covered in this book. The work is an intimate and well-done memoir of one unit's experiences in Iraq.

George Washington's Revenge: The 1777 New Jersey Campaign and how General Washington Turned Defeat into the Strategy that Won the Revolution (Arthur S. Lefkowitz, Stackpole Books, Essex CT, 2022, 346 pp., maps, illustrations, notes, bibliography, index, $34.95, hardcover)



In late 1776, the Continental Army was in a desperate position. In August, they retreated from Long Island to Manhattan; in November they withdrew into New Jersey and soon after into Pennsylvania. However, from the depths of looming defeat, General George Washington discerned the path to victory. He kept his army moving, always out of reach of the pursuing British. He used surprise and deception, targeting isolated enemy units. To inflict attrition on his opponents Washington formed partisan bands while avoiding large battles with his main force. These techniques influenced him to seize the opportunity to cross the Delaware River and strike the British detachments at Trenton and Princeton. Afterward he checked further British movements, denying them the chance to support their invasion of upstate New York.

This is the author's eighth book on the American Revolutionary War, and he brings extensive research and deep knowledge of the New Jersey area to his writing. The amount of detail in this book is impressive and the narrative smoothly ties these details together into an interesting and informative history of Washington's darkest hour.

Teutonic Knight Versus Lithuanian Warrior: The Lithuanian Crusade 1283– 1435 (Mark Galeotti, Osprey Publishing, Oxford UK, 2023, 80pp., maps, photographs, bibliography, index, $23, softcover)

The Teutonic Knights were a military order dedicated to spreading Christendom into Russia and the Baltic region. Over time, they spread their span of control across the area–until they encountered the Grand Duchy of Lithuania, a cohesive nation able to effectively resist the Teutonic Order. Over time they fought a number of battles, including Voplaukis (1311), where a Lithuanian raiding party was defeated by a Teutonic force. Later, at Kaunas (1362), there was a siege of Lithuania's first brick-built castle. Lastly, at Grunwald (1410), a combined Polish-Lithuanian army defeated the Teutonic Knights, a loss from which the Teutons would never fully recover.

This book compares the organization, weapons, logistics, leadership and tactics of these two military forces and effectively shows how they matched up in three of their major battles. The author is an expert on Russia and this region's history and this is evident in the level of detail in the writing. The book exhibits all the strengths of this publisher: good maps, original artwork and excellent overall illustration.

Masters of Warfare: Fifty Underrated Military Commanders from Classical Antiquity to the Cold War (Eric G. Pinzelli, Pen and Sword Books, South Yorkshire UK, 2022, 324 pp., photographs, bibliography, $42.95, hardcover)

Shivaji Bhonsle "The Great" was a warrior-lord

of the Bhonsle Clan. Descended from a line of nobles, he founded the Maratha Empire in 1674. Shivaji began his struggle using guerilla warfare against the Deccan Sultanates and the Mughals, using light infantry and light cavalry to advantage in the mountainous terrain. To augment his forces, he created a network of spies and informants. Taking advantage of his enemy's distractions with other foes, he eventually created a viable Maratha nation. To protect that nation, he created a navy and defended his country against foreign threats. Despite these accomplishments, few outside India know who he is today.

This figure is just one of the lesser known and underappreciated military leaders covered in this book. They are presented in chronological order, organized into the general era in which they lived. There is a good mix of leaders the reader may have heard of but knows little about, alongside those who are almost unknown today. The selection includes a good mix of western and eastern personalities and both army and naval commanders.

U.S. Soldier Versus Chinese Soldier: Korea 1951-53 (Chris McNab, Osprey Books, Oxford UK, 2022, 80 pp., maps, photographs, bibliography, index, $22, softcover)

The entry of Chinese troops into the Korean War took UN forces by surprise. Hundreds of thousands of Chinese soldiers attacked American units, pushing them back and in some cases encircling them. This happened at the Battle of Chipyong-ni, known to historians as the "Gettysburg of Korea" dues to its importance to the course of the war. Once the lines stabilized, battles such as Triangle Hill and Pork Chop Hill tested each side's ability to take and hold ground as peace negotiation dragged on. Each army possessed experienced, skilled leaders and while the Americans could mass firepower, Chinese troops were disciplined and could endure hardships both in and out of combat.

Osprey excels at producing compact volumes which nevertheless inform the readers of the essentials of their topic. This new work is in their Combat Series, comparing historical opponents in various conflicts, and reveals the reality of these two combatants of the Korean War. The author deftly reveals both side's strengths and weaknesses and show the Chinese were capable of more than simple human wave attacks while their American

By Joseph Luster

TWO EXCITING TACTICAL OUTINGS, INCLUDING ONE IN THE MIDST OF THE GREAT WAR, MAKE THEIR WAY TO PC

Warpath

Genre: Strategy • Platform: PC
Publisher: Lilith Games • Available: Now

Following up on its previous debut on iOS and Android devices, free-to-play real-time strategy game *Warpath* recently made its way to PC courtesy of Lilith Games. For those who have already deployed on mobile, the PC version includes graphical enhancements and a few features and additions that are exclusive to this port, so it's worth checking out again if you're feeling the need for a new flavor of tactics.

With the ability to wage war across a large-scale map, *Warpath* boasts over 200 different pieces of military equipment at your disposal across both land and air. Those who want to take a breather from the top-down strategizing can even take a moment to enter a first-person perspective and put boots on the ground as a sniper, creating a different avenue for pinpoint assistance with the overall mission. Commanding your army is easier than ever, too, thanks to the addition of keyboard shortcuts and keybindings that weren't possible with the original mobile version.

Beyond those more advanced controls, the PC version has been optimized for a variety of models and screen sizes, and if you want to experience the game both ways you can link your data between the PC and mobile versions. This is a nice feature for anyone who finds themselves in the thick of battle at home but also wants to take their army on the go when they leave, keeping the conflict alive just a little bit longer. If this sounds like a good time in the commander's seat to you, *Warpath* is still a free-to-play game, so there's no inherent risk when it comes to stepping on the terrain of this particular battlefield.

The Great War: Western Front

Genre: Strategy • Platform: PC • Publisher: Frontier Foundry • Available: Now

For a detailed strategy game focusing on World War I, the folks behind *Command & Conquer Remastered* and *Star Wars: Empire at War* have delivered *The Great War: Western Front*. As one might expect, this one focuses on the pivotal Western Front campaigns between 1914 and 1919, letting players choose their own factions, direct their armies in real-time battles and, should everything (hopefully) go according to plan, eventually lead their forces to victory. This will be easier said than done, but *The Great War* offers a lot of resources essential to achieving said victory, including the ability to step into the role of both Theatre Commander and Field Commander.

Both roles play a crucial part in the ups and downs of battle. When wearing the hat of Theatre Commander you'll be tasked with challenging turn-based gameplay from a grand strategy perspective, carefully spreading resources across the Western Front and doing the research necessary to know precisely where your various assets are best utilized. On the other hand, Field Commander puts you right in the thick of it in real-time battles that pit your units against your opponent's. Both will shape the course of history, at least in the context of your own virtual war, and the balance between the two results in a game with some pretty impressive levels of replayability.

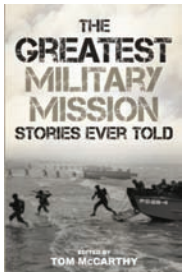
Beyond the main campaign, *The Great War: Western Front* offers modes like Historical Battles, which specifically let you relive iconic moments in history. There's also Skirmish, in which you can create your own battles and, of course, plenty of Multiplayer to sink your teeth into and test your might against others.

One of the seemingly small details throughout that really adds up over time is the way your battles ultimately shape the overall battlefield. All of the explosions and gunfire have an impact on the environment, and those scars and craters remain in subsequent encounters. This isn't just an aesthetic bonus, it allows you to create your own complex trench networks and further develop your strategies as you progress through the campaign. The weather also plays a significant role, with snow and rain encroaching and affecting unit movement, artillery performance and other key aspects of combat. Mastering the conditions of the battlefield and its surrounding environment is just as important as properly placing troops and vehicle units around the map.

Whether you choose to play as the Allied Nations or the Central Powers, *The Great War: Western Front* features weaponry, tanks, artillery and infantry that are as true to history as possible. If you've been itching for an authentic World War I strategy experience, you might just find the concoction Petroglyph has brewed here to be most potent. ■

opponents learned to fight in difficult terrain, often without armored support. The book has several pieces of original artwork and is liberally illustrated. Good maps accompany the accounts of the three battles chosen to show how each side fought.

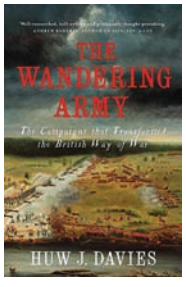
The Greatest Military Mission Stories Ever Told (Edited by Tom McCarthy, Lyons Press, Essex CT, 2022, 256 pp., bibliography, $19.95, softcover)



A battalion of North Vietnamese troops attacked the Marines of 1st Platoon, Company A, 1/9 Marines in their section of the Khe Sanh defenses on February 8, 1968.They got through the barbed wire at the perimeter and placed machine guns to keep reinforcements from getting close. Vietnamese soldiers poured into the trenches. Second Lieutenant Terence Roach led his Marines in a counterattack down the trenchline, fighting hand to hand. Within a few minutes he was mortally wounded; nearby, a private felt a Chinese-made stick grenade hit his helmet and saw it land at his feet. He picked it up to throw it back and it exploded in his hand. In a freak piece of luck, it barely harmed him, and he stayed in the fight. Soon the A Company commander led a counterattack and drove the enemy back and into a clearing where the entire battalion opened fire on them.

This anthology collects stories of American Soldiers, Sailors, Marines and Airmen in combat, ranging from the Revolutionary War to Vietnam. Each is an interesting episode in American military history, presented with veteran accounts and background information to place the action in time, place and importance. The work is written as a tribute to these service members and their dedication to duty.

The Wandering Army: The Campaigns t hat Transformed the British Way of War (Huw J. Davies, Yale University Press, New Haven CT, 2022, 500 pp., maps, photographs, notes , bibliography, index, $38, hardcover)



On May 11, 1745, 15,000 British troops marched into battle at Fontenot in two lines and reportedly in perfect order. These soldiers possessed a solid reputation for professionalism and skill with their muskets. If they could close with their French opponents and engage them in open battle, victory was all but assured. The French commander, Maurice, Comte de Sade, determined to deny the British that opportunity. Knowing his infantry could not match the Englishmen, he set a trap for them. Maurice used natural features of the terrain, set up redoubts and other field fortifications, and guided his enemy into defeat. When the British withdrew, they left 6,000 dead and wounded on the field. Their lives were a blood price the British Army paid to regain its capability in the modernizing art of warfare.

Military reform is often a dry and tedious subject. Here, the author uses historical examples to relate how these reforms and transitions occurred as British soldiers put theory into practice on the battlefield. The 18th and 19th Centuries were a time of great changes and the army had to change to stay relevant to achieve the victories the empire needed for its expansion and success. This book effectively lays out how that occurred over more than a century of conflict.

The Secret War Against Red Russia: The Daring Exploits of Paul Dukes and Augustus Agar VC During the Russian Civil War (Brian Best, Frontline Books, South Yorkshire UK, 2022, photographs, bibliography, $39.95, hardcover)

The end of World War I did not mean the end of fighting for Russia. The communist Bolsheviks vied for control against the Royalist "White" Russians, leading to brutal conflict. The Allied nations attempted to help the Whites maintain control. A primary source of information from within Bolshevik-controlled territory was a British spy named Paul Dukes, who managed to infiltrate the Communist Party and the police in Petrograd. The most difficult part was getting his information out of Russia. To make this possible, naval officer Lt. Augustus Agar was recruited to lead a small group of volunteer sailors aboard small coastal torpedo boats. Agar was not only able to get through to Dukes on multiple occasions, but also torpedoed the cruiser *Oleg* and aided in another attack which sank two battleships and a depot ship. Dukes' cover was eventually blown and he made a daring escape, later becoming the only person ever knighted by the King for actions related solely to espionage.

The exploits of these two men are retold in fascinating detail in this new book. Most works covering Allied efforts focus on the overt military activities; this coverage of naval and espionage missions is refreshing and engaging. Both subjects left extensive accounts, and these are used to advantage in the text. ■

Reichswald

Continued from page 53

On February 18 the 44th Brigade led the 15th Scottish Division's attack on the town sector north of the Niers River. AVREs from the 79th Armoured Division had earlier under the cover of darkness laid bridges across the outer anti-tank ditch where they established seven crossings. Crossing the inner ditch proved more troublesome as the AVREs struggled to get a bridge in place. They and the accompanying 8th Royal Scots had come under machine gun fire and that of a self-propelled gun as well.

By mid-afternoon the 6th KOSB had arrived and by midnight they had established a hold on the northern part of town. Things went better the next morning when the remaining brigade's battalion, the 6th Royal Scots, joined the other two battalions. With assistance from tanks of the 4th Grenadier Guards and flame throwing Wasps, the three battalions fought their way down to the river's edge clearing houses.

After the 152nd Brigade of the 51st Highland had established a bridgehead over the anti-tank ditch during the night of February 18, early the next morning the 153rd Brigade fought its way into town. "The rest of the day was perfectly bloody," commented Major Martin Lindsay, acting commander of the 1st Gordon Highlanders. "The street was badly cratered by debris so we could not use tanks or Crocodiles, and any sortie by the bulldozer was met by aimed small-arms fire from snipers." Despite the 153rd Brigade's capture of the German garrison commander, Col. Paul Matussek, bitter fighting continued to rage.

Meindl of the 2nd Parachute Corps, who had taken over the front on either side of Goch, sent in reinforcements. Bitter fighting went on for a couple of days before the town was secured by the 30th Corps. The Germans withdrew.

The two-week battle for the Reichswald and breaking through the Siegfried Line in that sector was over. The British and Canadians had suffered about 8,500 killed and wounded, while the Germans had over 11,700 captured and an equal number killed or wounded. The fighting, however, was far from over.

On February 23 the U.S. 9th Army crossed the receding Roer River as they launched Operation Grenade. Three days later the 2nd Canadian Corps supported by 30th Corps launched Operation Blockbuster which would see hard fighting in clearing the Hochwald Layback. On March 10 the last German troops withdrew across the Rhine River ending the muddy, bloody battle for the Rhineland. Horrocks would later write, "I was very glad to have it behind me." He was likely not the only one to think that. ■

Valor

Continued from page 13

Robert Briscoe, Commander, Seventh Fleet. "We met in his office and he had his secretary and intelligence officer with him," Williams recalled. "The intel officer did not participate. The entire conversation was between Admiral Briscoe and myself."

Williams was told the MiGs were not flown by North Koreans, or Chinese, but by Soviet Naval Aviation pilots flying out of Vladivostok. He was also told never to speak of the incident to anyone—his squadron mates or even his wife.

The then-new National Security Agency (NSA), using a variety of sensitive eavesdropping technology, had been listening in on Soviet air traffic out of Vladivostok on that November morning. The NSA already knew the Soviet Navy had sent the seven MiG-15s south to observe the carrier task force. But, intent on keeping the Soviet Union from learning how good their covert listening systems were, they had to erase all traces of the dogfight.

President-elect Dwight Eisenhower, visiting Korea, asked Williams to meet with him. "Eisenhower greeted me warmly and introduced me to Generals Bradley, Clark, and Ridgeway. They explained how important it was that no one ever know about the fight with the Russians."

With the growing tension of the Cold War, U.S. officials covered up the entire incident—the first, and so far as is known, only time that U.S. and Soviet aircraft had met in combat. They feared U.S. public reaction to the aggressive attack by Soviet fighters on American pilots could ignite a global crisis.

For nearly 50 years only Williams and a few people in the Pentagon, the NSA, the White House and Soviet Union knew what had happened that day. But Williams had destroyed the MiG-15's air of invincibility. He was awarded the Silver Star for his actions and went on serve in Vietnam.

Now retired and living in San Diego, Captain Williams reflected on his military career which included three wars, two Distinguished Flying Cross medals, a Silver Star and other commendations and medals. "I was proud to serve in the United States Navy and during wartime. I think if I'd not gotten involved in it, I would have been disappointed in myself," he said.

After almost five decades of silence, Williams was at last informed by a friend and government official that his engagement with the MiGs had finally been declassified.

"I served in the Navy for thirty-three years," Williams said, "I had a lot of hairy moments in Korea and more in Vietnam. And all anyone ever asks me about is that one-and-a-half hours in 1952." ■

Soldier

Continued from page 23

As summer dragged on with no invasion in sight, his troops became bored and impatient to return to their homes. Though their period of enlistment had ended on August 14, they remained longer. But by early September, it appeared that Harold had been wrong.

Harold's plan had been to pinpoint the landing site, then send the army at the Isle of Wight east by sea to cut off and destroy the invading fleet while his land troops cut off the Norman advance. It was a sound plan, but as history has often proven, no plan survives first contact.

In what has to be the most extraordinary coincidence in history, another invading fleet was landing on England's shores 200 miles north of London.

The invaders were the Vikings under King Hardrada of Norway. Harold's exiled brother, the mentally unstable and devious Tostig Godwinson had recruited the Vikings to invade so he could overthrow Harold and claim the crown. Hardrada's men were always ready to attack and invade England, and were, even more important, experienced seamen. They had a ready fleet of 300 longships and an army of battle-hardened warriors. After two days' sailing across the North Sea the Vikings landed at the mouth of the River Tyne in Northumbria.

The date was September 9, the day after Harold's troops began returning home, convinced there was no chance the Normans could invade before the Vernal Equinox and the end of summer.

On that very day Duke William was contemplating his disgrace, knowing that if the winds did not shift into the north he would have to disband his army and abandon the fleet.

King Hardrada's bloodthirsty warriors stormed into Scarborough and began burning, looting and killing.

King Harold was back in London when he heard of the Viking invasion and hastily assembled an army of 6,000 men and marched north to fight the invaders. After a savage battle at Stamford Bridge on September 25, both Hardrada and Tostig were dead. The Norsemen had been decimated, with less than a tenth surviving to limp back to Norway.

On the evening of September 26, William saw the banners over his ships flutter. The wind was hard and steady right out of the south. God had at last heard his prayers. He ordered the ships loaded and prepared to move out. William and his staff, which included his half-brothers Bishop Odo and Robert of Mortain, climbed onto the deck of his flagship Mora.

It was late afternoon on the 27th when Mora's sail was unfurled and it slid north out of the Somme estuary. "The Duke sent a herald to the other ships to wait until they saw the lantern at his masthead in the night. They were to make sail and follow," Howarth wrote. The invasion fleet was on its way.

At an average speed of five knots, it would take about 12 hours to cross the 60 miles of open sea. The night was bitterly cold and the soldiers, not being accustomed to boats, were nervous but eager. The months of work and waiting were over. Their objective was a sheltered harbor and sufficient beach to land on, as well as a route inland. William was aiming for Hastings. But navigating blindly across the Channel at night while staying close together was not an easy task. Mora's pilot had to find a known landmark and use it to guide him while the other ships would follow.

Hours passed with the sound of water under the hulls, flapping sails and the murmur of voices. When the early dawn erased the stars to the east, there was no sign of the white cliffs of Dover. Even worse, Mora was alone. The Duke ordered the sail lowered and, concealing his frustration, ate breakfast.

As the fastest ship in the fleet Mora had simply outdistanced the others, especially the heavily-loaded cavalry transports. As the sky grew lighter, acres of sail appeared to the south and the fleet rejoined Mora.

Beachy Head was sighted and the fleet headed in, making landfall at Pevensey at about 9 a.m. A Roman fort dominated the harbor, but no English soldiers were waiting. The cavalry jumped into the shallow water and moved ashore, the first Normans to invade England. William had done the impossible.

As Harold and his tired but victorious men marched south, a courier arrived with the portentous news that his mortal enemy, Duke William of Normandy, had landed his army. At that moment Harold must have begun to doubt that God had anointed his reign. With no other choice, he urged his men forward and sent out a call for more troops.

The Duke led his 8,000 archers, soldiers and cavalry into Sussex, arriving at Hastings a day before Harold. It was Friday October 13, 1066. Hastings was a narrow valley between two hills, Caldbec and Telham. King Harold's army of 8,000 Housecarls and Fyrd militia took positions on Senlac Ridge. Tired but angry at the invasion, his troops were ready to fight. But the Duke of Normandy had a great advantage: heavy cavalry, archers and the blessing of the Pope. William had no doubt that God was with him and the usurper of his legitimate claim to the throne had no chance. The following day the armies of King Harold and Duke William met for the fateful battle that would change history.■

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