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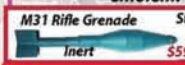

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Contents

WWII HISTORY

Features

Columns

Cover: A 5th Infantry Division soldier brushes snow off the machine gun mounted on his Jeep during Third Army's advance to relieve Bastogne. See story page 36. Photo: National Archives

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Actor Leslie Howard Died in Plane Shot Down by Nazis 80 Years Ago.

ON THE MORNING OF JUNE 1, 1943, THE DOUGLAS DC-3 LIFTED OFF FROM the airport at Lisbon in neutral Portugal. BOAC Flight 777 or Dutch KLM Flight 2L272, as it had been designated, carried 13 passengers and its crew on a flight bound for London.

But the unarmed passenger plane was jumped while flying over the Bay of Biscay. Eight German Junkers Ju-88 maritime patrol fighters had taken off from their base near the French city of Bordeaux. Their rendezvous with the civilian flight ended in tragedy as a burst of cannon and machine-gun fire sent the DC-3 spinning into the waters of the Atlantic Ocean, killing everyone aboard.

The shootdown was the climax of a series of odd events that grabbed the attention of the world, not because a plane was lost—this was wartime after all—but because one of the casualties was actor Leslie Howard, one of the best-known screen performers of his time. Howard, a veteran of World War I, had taken up acting on the advice of a doctor to cope with the symptoms of post traumatic stress disorder (PTSD). He went on to achieve acclaim, primarily as Ashley Wilkes, the handsome Confederate suitor of Scarlet O'Hara in the blockbuster film *Gone With The Wind*. Howard had also earned Academy Award nominations for his roles in Berkeley Square and Pygmalion.

However, during the rise of the Nazis in the mid-1930s, another of Howard's films, *The Scarlet Pimpernel*, had drawn the ire of German Propaganda Minister Joseph Goebbels. The movie was an updated version of a literary classic that substituted the Nazis for villains as they attempted to stop political refugees from fleeing their regime with the assistance of Howard, the hero of the story.

Why was this particular civilian aircraft on this particular day targeted by the Luftwaffe for elimination? Some would say that it was simply an incident of war. Actually, though, a tacit agreement between the British and Portuguese governments had allowed these flights to continue while the Germans ostensibly left them alone because some of the traffic could be useful to them—agents flying in and out of the cities gaining useful intelligence and such.

Then, on April 19, 1943, this very DC-3, named Ibis, had been fired upon by German aircraft and barely escaped to land safely in Portugal. Despite the close call, the flights were continued, and there was no real concern given the fact that such an incident was more or less bound to happen in war.

On that fateful June morning, Howard, having been to Portugal to promote his film distribution business and deliver a series of lectures on his motion picture career, boarded the plane. Before leaving from London days earlier, he had expressed concerns to his wife, Ruth, noting "…a queer feeling about this whole trip, but what the hell! You know that I'm a fatalist anyway."

Also on the doomed flight was portly Arthur Chenall, a business associate of Howard's who smoked cigars and reportedly bore at least a passing resemblance to British Prime Minister Winston Churchill. Others included Kenneth Stonehouse, a reporter for Reuters News Service; Ivan Sharp, a mining engineer who had furthered British interests regarding the import of tungsten; Tyrrel Shervington, Shell Oil Company's top man in Lisbon; Wilfred Israel, a Jewish relief worker; and seven other men, women and children.

Prior to boarding, Stonehouse had misgivings. He lamented, "I'm normally not frightened, but somehow, I feel bad about this air trip. I wish that I could go to sleep here and wake up at some English airfield." Shervington had a disturbing premonition, a dream that he had died in the crash when the plane was shot down.

Aside from the fact that Howard's anti-Nazi activities had annoyed Minister Goebbels and other assertions that the actor may in fact have been serving as a British intelligence operative, might Nazi agents in Lisbon have spotted the rather rotund Chenall and mistaken him for Churchill, a tempting target indeed? Was it a case of revenge, a political hit, or simply an unfortunate crossing of aerial paths?

Some reports indicated that the German planes circled the wreckage after shooting down the DC-3, taking photographs to confirm that their mission had been executed. Smoking gun? Maybe.

The death of Leslie Howard and the other unfortunates aboard BOAC 777/KLM 2L272 remains one of the enduring mysteries of World War II.

—Michael E. Haskew

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THE NATIONAL WWII MUSEUM
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WWII History

By David H. Lippman

M3 Grant/Lee Tank: The Armored Stopgap

Library of Congress

> The M3 Grant/Lee tank served as an interim solution as the more advanced M4 Sherman medium tank design began to roll off the assembly line.

STANDING 10 FEET TALL, EQUIPPED WITH BOTH A 75MM AND 37MM, AN impressive mass of steel and rivets, the Grant and Lee M3 tank seemed like the definitive answer to Hitler's raging panzer tanks. And it was—for a whole month.

After that, it was universally regarded as a death trap.

When the U.S. Army began to seriously re-arm in 1940, the primary medium tank was to be the M2, which was believed the equal or superior to Germany's vehicles. The only question was which company would win this lucrative contract.

William Knudsen, a member of the National Defense Advisory Commission and president of General Motors, persuaded his colleagues and superiors that the pre-existing idea to have companies that produced heavy cranes and locomotives could not do the job—building tanks required automobile assembly lines and their efficiency. The only difference between producing cars and tanks was that the latter required armor plate. The Commission was sold, and Chrysler—a GM competitor—got the contract to produce 1,000 M2 tanks.

However, before Chrysler could start tooling up, the Germans drove into France with their Mark III and Mark IV panzers, which were superior to the M2.

The M2, by comparison, was equipped with a smaller 37mm gun, a brace of machine guns, and for some reason, a siren. Its turret ring was too small for a heftier 75 mm gun, so the government canceled its contract with Chrysler after 94 M2s clunked down the assembly line at Rock Island Arsenal. Those built clattered off to training centers.

A more heavily-armed tank had to be built, and quickly, and the only design that could meet the need for firepower and quick assembly was an M2 knockoff with a side-mounted 75mm gun. It had a 75mm pack howitzer—similar to those later used by British and American airborne divisions—mounted in a right-side low-level sponson, and a small turret

An M3 Grant tank leads a column of armored vehicles during maneuvers at Fort Knox, Kentucky, in June 1942. The Grant was a stopgap design with a sponson mounted 75mm gun.

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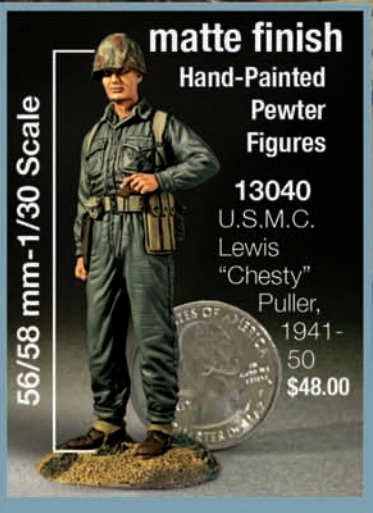

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During Third Army maneuvers at Camp Polk, Louisiana, in February 1943, crewmen of the 741st Tank Battalion make a rapid exit from their Grant tank while carrying small arms.

above, which packed a 37mm gun.

The tank came in two operational types, the M3 Lee and the M3 Grant, named for opposing generals of the American Civil War. They were similar in appearance, except for a top machine-gun and cupola above the Lee's 37mm turret. The Grant's lower turret reduced the vehicle's massive silhouette. The Grant's turret was rounder than the Lee's, too. The British moved the Grant's radio equipment from the hull to the turret, adding an overhang to the turret to do so, and added pistol ports. Both tanks had a crew of six.

The British weighed in on the tank's design based on their increasingly disastrous experiences in North Africa, where General Erwin Rommel's Afrika Korps was running rings around the Eighth Army. They would be purchasing most of the Grants.

Construction began at Chrysler's Detroit Arsenal, American Locomotive, and Baldwin Locomotive, in April 1941. By August, the tank was in full production. More than 6,000 were built during a production run that lasted until December 1942.

The M3s that rolled off the production lines looked like taller versions of the M2, with square, high-sided silhouettes, three pairs of suspensions on each side of the tank. The Grant turret armor was welded, but the Lee turret—and the rest of both tanks—was riveted. The armor was 56mm at its thickest.

The weaponry was clearly a stopgap in both choice and mounting. The 75mm gun was one of the world's most powerful pieces of ordnance. It could accommodate high explosive and armor-piercing shot. The gun's weakness was that it had a limited traverse.

The 37mm gun was already obsolete, but the tank needed a top turret with 360-degree traverse and a reasonably powerful gun. The result was that the Grant had a tank with a gun designed for the present and another for the future.

There were more defects, though—the 75mm was placed in a sponson low in the tank, which meant that the vehicle could not fire its main gun from a position commanders preferred: hull down. The army also wanted the 75mm gun to match artillery standards for durability, so it had to be able to fire 4,000 shells before going to the repair shop. However, tanks rarely lasted that long in combat.

Thus, the M3's 75mm gun was a low-velocity weapon, which met the artillery requirements, but lacked the speed to blast through a German tank hull.

Power came from a gasoline-fueled, nine-cylinder Wright Continental radial aircraft engine, which provided enough horsepower to drive the 30-ton tank up to 26 mph on a road or 16 mph across country. The weakness was that the 100-octane gasoline would explode if the tank was hit.

However, the Grant had some advantages beyond its two guns. If necessary, the gasoline engine could be replaced by safer Chrysler diesel engines. Maintenance and repair were fairly simple. Grant tanks arrived in Egypt properly packed and weatherproofed, and their spare parts fit right in without having to be chiseled, bent, or filed.

The first of the 167 Grant tanks the Eighth Army would use in its debut battle arrived in Africa in 1941. They were assigned to the 4th Armored Brigade, part of the legendary 7th Armored "Desert Rats" Division, holding the bottom of the Gazala Line in May 1942.

The British had constructed a belt of minefields, infantry "boxes," and fortifications from the Mediterranean coast at Gazala down to a track intersection called Bir Hacheim, held by the 1st Free French Brigade. Southeast of that, the British deployed their mobile forces, awaiting Rommel's certain attack on that route.

It came on the evening of May 26, when Rommel blasted northeast from below Bir Hacheim to defeat the British tanks in battle, surround their immobile defenses, and seize the port of Tobruk.

But Rommel got a nasty surprise when his panzers met up with Grants for the first time on the morning of the 27th. Despite their deficiencies, the Grants were superior in firepower and numbers to Rommel's best tank, the Panzer IIIJ and its high-velocity 50mm gun. The Germans called the Grant the "Pilot."

Tank battles raged all over the desert floor. Unable to get into hull-down positions behind little hillocks, Grant tanks and their crews had to stand and fight. While the British outnumbered the Axis forces and their Grant tanks outgunned them, many other British tanks were still inferior in design. Worse, British tactics and operational art still lagged behind Rommel, who played his hunches with extraordinary skill. He turned the Gazala Line, pinned down the French at Bir Hacheim, and slammed hard into the two British armored divisions, relying on his 88mm anti-tank guns to shred holes in the Grants' armor, setting them ablaze.

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During fighting in North Africa, British troops ride through heavy rain and mud across the Libyan landscape. Their Grant tank mounts a 37mm gun in a small turret and a sponson mounted 75mm gun.

With British tanks stalled and their leadership indecisive, Rommel turned to engage the British armor. Once again, Rommel's Panzer IIIJs and 88mm guns proved superior to the Grant tanks.

The British counterattack, codenamed "Aberdeen," cost them 150 tanks and 6,000 casualties. The British still had 250 tanks that were "runners," but Rommel dominated the battlefield yet again. There was nothing for the Eighth Army to do but retreat in what was called the "Gazala Gallop." It didn't end until June, when the Eighth Army dug in at Matruh in Egypt.

At Matruh, the 2nd New Zealand Division —the Eighth Army's best—faced two Afrika Korps panzer divisions at a hill called Minqar Qaim. British Grant tanks were supposed to provide the Kiwis with support to hold off Rommel. They didn't show up due to communications breakdowns. The New Zealanders held for a full day before they—and the whole Eighth Army—retreated again, this time to a rail whistlestop called El Alamein.

At Alamein, the British counterattacked. The 4th Armored Brigade's Grants hit the over-extended Afrika Korps hard, leaving Rommel with only 26 tanks in his two panzer divisions. The British stopped the Axis at the gates of Alexandria, and the Grant tank was a good reason.

But not good enough. When Tobruk fell, Churchill was sitting with U.S. President Franklin D. Roosevelt in the White House. Churchill burst into tears. "How can we help?" FDR asked.

The answer was to rush more than 100 M4 Sherman tanks, the replacement to the Grant tank, straight from American factories to Egypt instead of assigning them to U.S. Army forces readying for the invasion of North Africa. Despite its own high silhouette and gasoline-fueled engines, with its higher-velocity 75mm gun the Sherman was a more powerful vehicle than the Grant.

Also sent to Egypt, this time from England, was Lieutenant General Bernard Law Montgomery, who took over the Eighth Army. Rommel replenished his supplies, added more tanks, and tried a flanking assault at Alam Halfa to defeat Montgomery.

The Afrika Korps slammed into Eighth Army's defenses, which took advantage of short supply lines, air superiority, combined arms teams holding terrain, refusals to retreat, and the courage of the 22nd Armored Brigade's Grant tank crews in support of New Zealand infantry. The Grants were still deficient, though. Lord Brumsfield of the Scots Greys said: "Our tanks were always grossly under-armed and armored compared with the German tanks, and we never caught up let alone surpassed the German models. Our tanks were designed like sports cars, the Germans' like agricultural machines."

When Alam Halfa ended, the British had lost 1,640 men, 68 tanks, and 18 anti-tank guns. Rommel lost about 2,500 men, 51 tanks, and now had to put his troops on the defensive.

On October 23, 1942, a barrage of more than 1,000 Eighth Army guns opened the Battle of El Alamein, Montgomery's great offensive. The spearhead was 246 Grant tanks and 285 new Shermans. Overall, the British had 1,029 tanks—more than the Russians at their near-simultaneous Stalingrad counterattack—and the Axis had only 489.

With Rommel in Germany recovering from an illness, the Axis was taken by complete surprise. British engineers removed minefields, clearing routes for the Grants and Shermans. Wild fighting ensued, with heavy casualties. Rommel flew back and ordered a counterattack. Two panzer divisions charged forward and came under heavy air bombardment and Grant tank fire. The Germans attacked 1st Armored Division's Grant tanks and lost 50 of their own vehicles. A 10-day dog fight opened up, leaving smoking tanks lying across the desert floor.

For the 2nd New Zealand Division, the attack gained a measure of vengeance when Brigadier John Currie's British 9th Armored Brigade was assigned to them for the assault. Currie's Grants battered German and Italian defenses into collapse or submission. An

observer of the fighting described it as "a hastily organized car park at an immense race meeting held in a dust bowl."

After 10 days of unbelievable fighting, the British broke through on November 2 in Operation Supercharge, which forced Rommel to begin a retreat that would not end until his tanks reached French Tunisia.

Tunisia became his retreat objective because the Americans and British ended Vichy France's pro-German neutrality on November 8 with Operation Torch, the invasion of French North Africa, putting Lieutenant General Dwight D. Eisenhower's armies behind the Axis forces.

The Americans had planned to equip their invaders with the Sherman tank, but their stock had been sent to the British Eighth Army. The U.S. 1st Armored Division would have to fight in the Algerian, Moroccan, and Tunisian desert with their Lee tanks.

The Lee tanks clanked ashore and defeated the outdated Vichy French machines they faced. The French soon capitulated and joined the Allies in expelling the Nazis and Italians from North Africa. The 1st Armored headed east to face German troops that were being rushed by sea and air to help Rommel hold Tunisia.

The German tanks included newer models of the Panzer IV, even tougher than those that had fought in Libya, and a few vehicles that were even more terrifying: the Mark VI Tiger I tank, which packed a fearsome 88mm gun beneath heavy armor. It made up for its lack of mobility with metal and firepower.

These vehicles fought across Tunisia in bitter winter battles amid heavy rain to control vital hilltops, and the Americans showed their inexperience, amusing the Germans and annoying their British allies.

The climax of this fighting took place in February 1943, when Rommel, having recovered his troops, supplies, defenses, and nerve, launched a massive assault on the poorly-deployed U.S. II Corps at Kasserine Pass. The II Corps' commander, Major General Lloyd Fredendall, lacked every attribute needed for successful battlefield leadership, and his troops lacked every attribute for successful defense—trying to hold valleys instead of hills, for example. At Sidi Bou Zid, the Afrika Korps set II Corps on their heels.

Major General Orlando "Pinky" Ward's 1st Armored and his Lee tanks were ordered to save the day, and they advanced against the newly-arrived German 10th Panzer Division on February 15. The Germans were astonished by the Lees' high silhouette and began pouring fire into them. The Lees fired back, but to little avail. German shells snapped Lee rivets, send-

Both: National Archives

ABOVE: A destroyed M3 tank sits abandoned in Tunisia in February 1943. This tank had taken a direct hit from a German 88mm gun. The British used the Grant tank to good effect prior to receiving the M4 Sherman medium tank. BELOW: An American tank crew poses beside its M3 tank during a respite from combat in Tunisia in November 1942. The Grant tank was soon replaced by the M4 Sherman medium tank.

ing them flying around the tank interiors, killing crewmen. The rivets, the size of .50-caliber bullets, would also cook off the tank's ammunition or engine. Of the 52 Lees that attacked that morning, 46 were left on the battlefield, burning or abandoned.

The following day saw the worst American defeat of the Kasserine battle, Tunisian campaign, and the European war: Sidi bou Zid, where 3,000 Americans were killed and 100 tanks destroyed. Fredendall was able to execute a good retreat, but that was it for him. He was replaced by Major General George S. Patton, Jr.

Rommel was out, too. He had to withdraw from Kasserine when Montgomery attacked at Mareth and his forces could not effectively fight two battles at once. The Desert Fox left North Africa on sick leave never to return. The Americans gained supplies, better leaders, new Sherman tanks, and regained their fighting spirit. The Allied armies completely defeated the Germans and Italians in North Africa, taking a larger bag of POWs than the Russians at Stalingrad.

After the victory in North Africa, the British and Americans planned their next move in the Mediterranean, the invasion of Sicily. However, the Lees and Grants would be no part of it—at least as battle tanks.

Lee and Grant tank hulls found new uses. The first and most valuable was their conversion to the M7 Priest self-propelled artillery piece. The sponson that held the 75mm gun became a command and control position. The hull itself was opened up to accommodate a 105mm field artillery piece. With its tracks, powerful weapon, and speed, the infantry finally had artillery that could keep up with the advance and set up in a hurry. The M7 became successful and popular on battlefields across the world.

Another conversion was more secret: the CDL "Canal Defense Light," used by the British Army. It was more of an offensive weapon, as it illuminated night river crossings. Again, the turret and guns were removed, and the sponson rebuilt to accommodate a massive searchlight. In night attacks, the searchlight could directly illuminate the enemy or bounce its beam off hovering clouds.

The CDL did work in defense, though, when German frogmen tried to attack captured bridges, such as the one at Remagen in 1945, or human torpedoes tried to sink anchored shipping in Channel ports like Antwerp. In these roles, the CDL was highly successful.

However, there still remained a great many Lee and Grant battle tanks sitting in tank parks in Tunisia and Egypt. About 300 went to the Soviet Union, either through Arctic convoys or by rail through Iran. They fought in the Caucasus and South Ukraine against the Wehrmacht's first team, which included Tiger tanks and the new Mark V Panther.

The Soviet tankers, being experienced with both the Germans and armored warfare, were unimpressed with this latest piece of Lend-Lease largesse. They disliked the M3's rubber-steel tracks, which could not withstand Russia's mud and snow. Nor could they handle Soviet roads. The high profile was the top negative factor. The Soviets called the M3 "a grave for six brothers" and went back to their T-34 tanks.

Meanwhile, remaining M3 tanks still needed

new jobs. While some went to work as training vehicles, the rest were shipped from Egypt to a front that needed any kind of tank to defeat an equally determined, capable, and fanatical enemy—the Japanese in Burma.

By late 1943, the Burmese front had become a dreadful, malaria-ridden, monsoon-filled stalemate, forgotten by all except those who fought there. The British and Indian forces got Lees and Grants in large numbers, many for the Indian Army's legendary 3rd Carabiniers.

They got them just in time, too. In the spring of 1944, Japanese General Renya Mutaguchi, commanding the 15th Army in Burma, hurled his troops against the Anglo-Indian forces defending the border. The Japanese sought to conquer Bengal and Assam and set off a wave of Indian anti-British sentiment, activism, and violence that could bring down the Raj.

The main Japanese assault fell on the British. The 14th Army commander, General William Slim, one of the best British generals of the war, defended two key towns on the frontier, Kohima to the north and Imphal to the south. The former was on some hills, the latter amid a plain. Within a short time, both British positions were encircled.

Slim wasted no time. Imphal was held by the 4th Corps under General Geoffry Scoones, which included the 3rd Carabiniers. While American and British supply planes flew in massive re-supply missions to Imphal airfield and air dropped supplies to Kohima, the 3rd Carabiniers counterattacked the Japanese troops.

The Japanese were ferocious, skilled, and incredibly brave. But they lacked anti-tank weapons of any sort. Some troops went forward holding poles with a brace of satchel charges on the front end in suicidal attacks to punch holes in Lee tanks. Japanese pre-war designed T95 tanks were smaller vehicles, armed with 47mm guns, lacking armor, but a mass of rivets. The 3rd Carabiniers tore them up.

At Kohima, Japanese troops built field fortifications to surround the British defenders. Lee tanks blasted open the blockhouses and killed their occupants.

From the north, the British 2nd Division and its tanks drove south to break the two sieges. Kohima's men, surviving on air drops, were relieved on April 18, but massive fighting continued. On June 6, the Allies invaded Normandy, and the Japanese gave up at Kohima and started retreating.

The 2nd Division and its Lee tanks continued advancing to relieve Imphal. On June 22, their Lee tanks started shelling movement at Milestone 108. They stopped when a desperate radio message came in. They were shelling Imphal's defenders. The siege was broken. Mutaguchi's 15th Army fled India in ragged defeat, and the general was fired. It was a defining victory for the Lee/Grant tank.

The British resumed the offensive after the monsoon in 1945, driving on Mandalay, Meiktila, and Rangoon, using Lee and Grant tanks to blast open Fort Dufferin in Mandalay and dominate streets in all three cities. When Japan surrendered in August, the M3's war was also over.

The Lee/Grant tank was not the best tank the Allies deployed in World War II. Its deficiencies were numerous, and it could only succeed in situations where it did not face more powerful enemies. However, given the crisis of 1942, there was nothing else. In many ways, it was the wrong tank in the right place.

Yet it became both a minor icon and a major one. The minor icon was the 1943 American war movie Sahara, starring Humphrey Bogart as U.S. Army Master Sergeant Joe Gunn, commanding the Lee tank Lulubelle assigned to the British Eighth Army in Egypt. Lloyd Bridges played a crew member who gets killed.

Shot in California deserts, the propaganda piece depicted the tank and its propaganda crew: a Free French corporal, a black African corporal and his Italian POW, a British doctor and his patients, retreating from Tobruk to safety in June 1942. The movie revolved around a battle of wills between Bogart and a German mechanized force for control of a well. In the end, Bogart and his crew win both the mental and military battle, hauling the surviving German POWs back to British lines. Critics gave the film good reviews, particularly Bogart for his usual style.

A more iconic use of the Grant came from Montgomery himself, who had one converted into his command vehicle at El Alamein, with the guns removed and replaced by communications gear. A photograph was taken of him at Alamein, depicting him clutching a pair of binoculars, wearing his black tanker's beret, and his familiar steely expression as he faces the enemy. It became an emblem of Britain's war effort and was reproduced thousands of times.

The tank survived, too. At Montgomery's request, the Grant tank went on display in London's Imperial War Museum, a visible display of his determination and Anglo-American alliance and resolve in the darkest hours of the two nations' histories. ■

Author David Lippman resides in New Jersey and writes frequently on a variety of topics for WWII History.

| By Michael D. Hull |

Imperial War Museum

Archibald Wavell: Hero and Scapegoat

British Army Field Marshal Archibald Wavell commanded Commonwealth Troops in the Desert War and in the China-Burma-India Theater.

Wikipedia

TOP: Captured Italian soldiers sit under the watchful eyes of a British soldier perched aboard a Bren Gun carrier on December 16, 1940. These men were captured during the British offensive in the Western Desert that inflicted a stinging defeat on Italian forces. INSET: Field Marshal Sir Archibald Wavell was both praised and maligned during his tenure as a senior Allied commander in World War II.

NO ALLIED FIELD COMMANDER IN WORLD WAR II SHOULDERED SUCH heavy burdens, with so few resources and over such a wide area, as did British General Archibald P. Wavell in the winter of 1940-41.

The 57-year-old Black Watch Regiment veteran of the South African War and World War I led all British land forces in Egypt, the Sudan, Palestine, Trans-Jordan, Cyprus, Aden, Iraq, British Somaliland, and on the shores of the Persian Gulf. His Middle East Command was responsible for an area measuring 1,800 miles by 2,000 miles that included nine countries and two continents.

When Italy entered the war in June 1940, "Archie" Wavell's 40,000 British and African troops found themselves vastly outnumbered—sandwiched between almost 200,000 Italians and Libyans on the western side and 250,000 on the eastern.

With the loss of 260 men, the British inflicted an estimated 2,052 casualties on the Italians in Somaliland but withdrew. When Prime Minister Winston Churchill protested, Wavell replied that Major General Alfred R. Godwin-Austen's troops there had fought well and hard, adding, "A big butcher's bill is not necessarily evidence of good tactics." Churchill was almost dumb with fury, and Wavell was assured of a frosty relationship with him.

General Wavell retained an aggressive instinct and proved adept at moving forces from one front to another. After stalling Italian advances, he went on to direct stunning victories during the winter of 1940-41—first in the Western Desert where, Lieutenant General Richard O'Connor's "five-day raid" led to the virtual destruction of the Italian Tenth Army in Cyrenaica, and then in Ethiopia and Eritrea, where regular and irregular forces under Major General Alan Cunningham, Lieutenant General William Platt, and Major Orde Wingate forced the Italians to capitulate. With no more than two divisions at any given time in Cyrenaica, O'Connor had advanced 500 miles, routed 10 enemy divisions, and captured 130,000 prisoners, 400 tanks, and 1,200 guns.

One of the best British generals in the Western Desert before his capture, the bantam-sized O'Connor defeated the Italians at Sidi Barrani in December 1940, stormed Bardia and Tobruk

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Italian tanks rumble across the desert floor as they approach Sidi Barrani during the desert offensive of 1940 against the British. The offensive, however, was roughly handled by a much smaller British force, and General Wavell authorized Operation Compass, a counteroffensive that led to disaster for the Italians and British victories at Sidi Barrani, Bardia, Tobruk, and Bed Fomm.

in January 1941, and destroyed the remains of the Italian forces at Beda Fomm the following month. Wavell's "Operation Compass," a large-scale raid on the rear of the Italian positions along the Sidi Barrani line, when O'Connor's 30,000 men faced 80,000 of the enemy, was lauded by military observers.

The desert actions from December 7, 1940, to February 7, 1941, revealed Wavell's outstanding generalship, revived British confidence in the aftermath of Dunkirk, and facilitated the passage of Lend-Lease legislation in the U.S. House of Representatives on February 8, 1941. The Middle East Command gained worldwide fame, but it was afforded little time to rest on its laurels.

The area of responsibility grew even wider and more critical when Wavell reluctantly supported the dispatch of a large contingent of his best British and Commonwealth troops to the ill-fated Greek campaign. This prevented him from exploiting the gains made by O'Connor.

As General Erwin Rommel's Afrika Korps seized the initiative in the Western Desert, British forces were bundled back to the Egyptian frontier and three generals were taken prisoner. In two months, Rommel captured most of the territory taken in Wavell's first campaigns. The evacuation from Greece was carried out successfully, but the battle for neighboring Crete, led by New Zealand's Major General Sir Bernard Freyberg, developed into a costly series of failures and mishaps.

Meanwhile, on Churchill's orders and much against his will, Wavell was obliged to send forces into Iraq and Syria. Amid these distractions, which were "too major to be dismissed as mere sideshows," Wavell had to plan his own offensive in the desert. Few generals in history have faced more daunting challenges.

Throughout his years in command, Wavell never had adequate resources for what he was called upon to do. His situation from March to June 1941, with simultaneous crises on his western, northern, and eastern fronts, and with no reserves in hand, was undoubtedly the most challenging ever faced by a higher commander. At one point, he was conducting five campaigns simultaneously.

The prime minister had grown increasingly impatient with British defeats in the early years of the war—from France to Norway to the Middle East—and he pressed for victories to shore up morale on the home front.

With Churchill continuing to badger him, he received some reinforcements, including new Matilda and Cruiser tanks, and launched the ambitious "Operation Battleaxe" in June 1941. The aim was to relieve the besieged port of Tobruk and destroy Rommel's forces. But neither objective was achieved. While many Italian units had fought gallantly, the Afrika Korps

was a more formidable foe, able to devastate the British with its superior armor and deadly 88mm flak guns.

When he received word of the failure of Operation Battleaxe, Churchill roamed disconsolately at his home in Chartwell, Kent, and the hapless Wavell was inevitably sacked. On June 22, the day that German armies invaded the Soviet Union, the officer who had built a reputation as the British Army's "most inspiring tactical leader" was dismissed as Middle East commander. Awarded the GCB (Knight Grand Cross of the Order of the Bath), he was denied a requested leave and ordered to replace General Claude J. Auchinleck as commander-in-chief of the Indian Army. While Wavell flew to India to "sit under the pagoda tree," Auchinleck took command in the Middle East.

A brave soldier and enlightened commander, Wavell provided early victories when Britain desperately needed them, but he was then overwhelmed by circumstances far beyond his control. He had resoundingly defeated the Italians in the Western Desert but simply did not have the manpower, weapons, and supplies needed to overcome Rommel's vaunted Afrika Korps.

Born May 5, 1883, in Colchester, Essex, Archibald Percival Wavell was the son, grandson, and great grandson of generals. After attending the Summer Fields preparatory school at Oxford, he won a scholarship to the army class at historic Winchester (Hampshire) College in 1896.

The studious Archie developed an abiding love for literature and the classics. He would one day become the only general known to have compiled a best-selling anthology of poetry, *Other Men's Flowers*.

In August 1900, Archie passed fourth into the Royal Military College (later the Royal Military Academy) at Sandhurst and passed out at the top of his class on May 8, 1901, three days after his 18th birthday. His course was shortened dramatically because of the demands of the Boer War. Archie was commissioned a second lieutenant in the famed Black Watch, his father's regiment, and sailed four months later to South Africa. He joined the 2nd Battalion that September, just in time to see service in the waning Boer War.

Wavell was posted to India in 1903, took part in skirmishes against fierce Pathan tribesmen on the rugged North-West Frontier, and was promoted to lieutenant in April 1904. He soldiered in India until January 1909 when he entered the Staff College at Camberley, Surrey.

Two months after leaving Camberley, the subaltern was posted to Russia as a language student. He lived in Moscow, was attached to

military units, and observed maneuvers during his year in Russia. On returning to England, he was irritated to find himself assigned to the Russian section at the War Office. Wavell waited for an opportunity to escape and was promoted to captain in March 1913.

The fateful following year saw the outbreak of World War I and the ambitious officer's chance to flee from the War Office confines. In November 1914, three months after the British Expeditionary Force crossed the English Channel, Archie Wavell followed and was appointed a brigade major in the 3rd Infantry (Iron) Division. He was assigned to the general headquarters staff in France and Belgium.

Wavell was a popular and respected officer. His subordinates and fellow staff officers adored him, and, because he had no airs or graces, was able to "get through" to the enlisted men. He shunned "chateau generalship" and spent as much time as he could in the front lines.

On the Western Front, and throughout his career, Wavell emphasized the importance of discipline and ceremonial drill while caring deeply for the welfare of the men under him.

Wavell married Eugenie Marie Quirk, a colonel's daughter, during a leave in April 1915, and soon returned to the front. In the grim, muddy trenches of the Ypres Salient in Flanders, he tried to improve conditions for the troops. He was calm under fire and refused to be rattled in any situation. Wavell made many reconnaissance sorties and tried to strengthen his brigade's position. Late on June 16, after a divisional attack on Belwaarde Ridge, the officer was making his way back to brigade headquarters through a German barrage when he was wounded, losing his left eye to a shell splinter. He was immediately awarded the newly created Military Cross for gallantry. After recovering from his wounds, Wavell went back to GHQ in France and Flanders.

The major served for 10 months in the Caucasus as a liaison officer to Grand Duke Nicholas and left Russia in April 1917. Wavell was promoted to brevet lieutenant colonel that June and then was posted to the Middle East as liaison officer between the War Office and the Egyptian Expeditionary Force. He later served as chief staff officer to Lieutenant General Sir Philip Chetwode's 20th Corps during General Sir Edmund Allenby's successful campaign against the Turks in Palestine in 1917-18. Wavell entered Jerusalem and advanced to Damascus at the side of Colonel T.E. Lawrence, the legendary leader of Allenby's irregular Arab forces. Wavell stood up to Allenby and admired him. He adopted the "Bull" as his career model and eventually wrote three books about him.

After serving briefly on the staff of the Allied Supreme War Council at Versailles early in 1918, Wavell rejoined the 20th Corps general staff in Palestine. He reached the rank of brigadier general by the end of the war but reverted to colonel after the armistice. After serving with the 2nd Battalion of the Black Watch in the Rhineland in 1920-21, Wavell spent five years in the adjutant general's and operations sections at the War Office.

After serving on the staff of the 3rd Infantry Division on sprawling Salisbury Plain in Wiltshire, Wavell received a series of progressively more responsible assignments. While commanding the 6th Infantry Brigade at Aldershot, Hampshire, from 1930 to 1934, he reached major general rank and again went on half pay. He assumed command of the 2nd Infantry Division in March 1935 and was awarded the CB (Commander of the Order of the Bath).

As the British Army struggled under threadbare budgets to modernize during the early 1930s, Archie Wavell turned away from the War Office diehards who still saw a future for horse-drawn transport and cavalry. Though hesitant at first, he became a staunch advocate of mechanization, particularly armor, along with such visionaries as Sir Basil Liddell Hart,

Major J.F.C. Fuller, and Major General Percy C. Hobart.

After attending Soviet Army maneuvers in 1936, General Wavell was ordered to a Middle East hot spot. In August 1937, he took command of British troops trying to keep order in Palestine and Trans-Jordan during an Arab rebellion.

After six months' service, Wavell returned to England early in 1938, was promoted to lieutenant general, and was appointed COG of the key Southern Command. Wavell's tour of duty in Southern Command was brief, and he was off to the Middle East again shortly before the outbreak of World War II. He was promoted general, awarded the KCB (Knight Commander of the Order of the Bath), and appointed to the new post of GOC Middle East in July 1939. He arrived in Cairo on August 2. His post was upgraded to Middle Eastern commander-in-chief the following February.

Less than two years later, after he had struggled—with some brilliant initial success—against overwhelming odds and with scant resources to prevail against the Axis forces in the Middle East, Archie Wavell was ousted. He was Churchill's scapegoat and a victim of one of his own weaknesses; he had not been ruthless enough with underperforming subordinates.

Field Marshal Archibald Wavell arrives in Dutch Indonesia to take command of the short-lived ABDA military partnership. At the time, Wavell had fallen out of favor with Prime Minister Winston Churchill.

Before breakfast at his house in Cairo one June morning in 1941, his devoted chief of staff, Lieutenant General Sir Arthur Smith, brought in a telegram announcing that Wavell was to exchange appointments with Auchinleck.

Wavell set off for India on July 7, visiting Iraq on the way. Another hopeless situation faced him as war clouds were gathering in the Far East. He was appalled at the state of defenses in India, where there were only obsolete fighter planes, no modern tanks or armored cars, and only 30 antiaircraft guns. Meanwhile, he set about expanding the Indian Army, which grew to 2.5 million in 1945, and sending trained units to combat theaters. During 10 days of talks in London, Wavell pointed out the extreme weakness and urged vainly that Burma's defense should be tied to India rather than Singapore.

Wasting no time in assessing the imminent Japanese threat and calling for resources to meet it, he reported that Singapore was "very far from being keyed up to war pitch." He appealed for armor and antiaircraft guns, and for Burma to be placed under his command. He received a half-hearted promise of tanks. Wavell's question about Burma's defense was not acknowledged. It was not until a December 12 signal from Churchill that Wavell was given responsibility for Burma. By then, Japanese forces had struck without warning at British and American bases from Pearl Harbor to Malaya to the Philippines.

Library of Congress

Field Marshal Archibald Wavell stands at center as Chinese General Chen Cheng and U.S. General Joseph Stilwell shake hands prior to the beginning of an Allied conference in Delhi, India.

On December 30, Wavell learned from Churchill, then on a three-week stay in Washington, of the formation of ABDA, a supreme Allied command in the Southwest Pacific comprising all American, British, Dutch, and Australian forces. Told that the Americans had proposed him as its commander, Wavell cabled ruefully to Field Marshal Sir John Dill, new head of the British military mission in Washington, "I have heard of being handed the baby, but this is quadruplets."

The six-week life of the ABDA was described as a "nasty, brutish, and short" nightmare, with news of fresh disasters each day. Headquartered at Lembang in western Java, General Wavell traveled far, and at considerable personal risk, to inspect and encourage frontline brigades. At Singapore, he did his best to inspire the defenders with his presence. On the night of February 10, while waiting for his flying boat four days before the fortress fell, he tumbled from a jetty and fell heavily on the rocks below. Wavell broke several bones and was flown back to Java in great pain, but he refused to let it interfere with his duties.

ABDA was doomed from the start. Although Wavell worked hard to put heart into the Allied defense, despite a lack of reserves and clear direction from the Joint Chiefs of Staff, he knew little of the Far East and consistently underestimated the Japanese. Although far from being solely to blame, he had presided over the loss of Malaya, Singapore, and Burma. ABDA was disbanded on February 22 with the enemy poised to overrun the East Indies.

Wavell reverted immediately to his command in New Delhi. Fearing a Japanese invasion, he strove to shore up the defense of India. In September 1942, he began planning an offensive in Burma, which started with an advance through the Arakan the following December. But no breakthrough was achieved because of Wavell's reliance on a frontal assault strategy, and by March 1943, Japanese counter attacks had eliminated all gains.

Wavell was not at his best in the China-Burma-India theater, and his quiet, stoical personality was not conducive to dealing with politicians or difficult allies, such as Chinese President Chiang Kai-shek and cantankerous U.S. Lieutenant General Joseph W. Stilwell. But, after initial disasters and epic retreats, Wavell's forces were able to challenge the Japanese in the fetid Burma jungles.

Despite lingering doubts about his capabilities, Churchill appointed Wavell a field marshal in January 1943. He was offered the viceroyalty of India the following June. The political post was widely viewed as a demotion engineered by the prime minister. Wavell was sworn in on October 20 and was raised to the peerage as Viscount Wavell.

As in Cairo, Java, and Rangoon, he faced an immense challenge, but he went to work with customary vigor. His major problems were famine, riots, and looting in Bengal and strident nationalist demands for Indian independence. Within a week of being sworn in, Wavell spent three days in Calcutta, visiting destitutes on the squalid streets by night and prodding officials by day. He took immediate steps by introducing food rationing. An estimated million people had died, but chaos gradually gave way to order.

With earnestness and honesty, Viscount Wavell strove to lessen the antagonism between Hindus and Muslims. He met many times with the nationalist leaders, released Mahatma Gandhi from prison, and at the same time tried to maintain authority while realizing that the days of the British Raj were numbered. Wavell found Churchill, the devout imperialist, still difficult to serve, but the more liberal viceroy saw it as his duty to plan for a lasting and peaceful future for the 400 million people entrusted to him. He exercised "limitless patience" in India until he was replaced in February 1947 by Lord Louis Mountbatten.

Returning home, Wavell felt at loose ends and did not enjoy living in London, but he kept busy. He published several well-received books, played golf, received honorary degrees from four universities, and served as Colonel of the Black Watch, High Steward of Colchester, Constable of the Tower of London, and Lord Lieutenant of London. He and his devoted wife had three daughters, Pamela, Felicity, and Joan, and a son, Archie John, a major in the Black Watch during World War II who was killed by Mau Mau terrorists in Kenya in 1953.

Wavell planned to visit his regiment in Berlin in April 1950, but an operation for gallstones was scheduled. His malady proved to be cancer, and he died in a hospital at the age of 67 on May 24. At his funeral service in Westminster Abbey, General Smith, his former chief of staff, accompanied the coffin. The pallbearers included Field Marshal Sir Alan Brooke, former Chief of the Imperial General Staff, Lord Mountbatten, Field Marshal Bernard Montgomery, Field Marshal Sir Henry M. Wilson, and brothers, General Alan Cunningham and Admiral Sir Andrew Cunningham.

Archibald Wavell possessed all the qualities to ensure greatness, but it eluded him. He struggled against insurmountable odds, and some of his campaigns, such as Greece and Crete, were abject failures. Yet he also managed to secure spectacular victories in the Western Desert when his country–fighting alone against the Axis powers–needed them most. Rommel said of the British desert generals, "The only one who showed a touch of genius was Wavell." His accomplishments during the "lean years" of World War II were overshadowed by those of later generals who could call on a superiority of manpower, weapons, and logistical services—and unrestrained political support. ■

The late Michael D. Hull wrote for WWII History *on a variety of military subjects. He resided in Enfield, Connecticut.*

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| By Sam McGowan |

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The Army and Air Power

The development of the Air Corps, Army Air Forces, and U.S. Air Force gained speed with the coming of World War II.

WHEN THE UNITED STATES ARMY FIRST DEVELOPED AN INTEREST IN aviation and purchased its first airplane from the Wright Company in 1909, it and the pilots and mechanics who flew and serviced it were assigned to the Signal Corps, a specialty corps that had been established prior to the Civil War to develop visual signals, then later to develop and service telegraph lines.

In 1907, before the War Department purchased its first airplane, the Aeronautical Division of the Signal Corps was set up; seven years later the Army established the Aviation Section, Signal Corps as the organization responsible for aviation. After the U.S. entered World War I, President Woodrow Wilson appointed Major General William L. Kenly as Director of Military Aeronautics by executive order and removed aviation from the Signal Corps.

Shortly after Kenly's office was established, the aviation organization was officially recognized as the Army Air Service. By that time, American airmen were already in Europe. When General John J. Pershing went to France to command the American Expeditionary Forces, an air service was included. The AEF Air Service was commanded by the Army's first pilot, Brigadier General Benjamin Foulois, but his tenure didn't last long. Pershing was not satisfied with the way the service was performing, so he replaced him with Brigadier General Mason M. Patrick, an engineer.

Even though he was not its commander, the driving force behind the AEF Air Service was Brigadier General William "Billy" Mitchell, who had gone to Spain in 1917 as a military observer then moved to France to join Pershing's staff as aviation officer. Mitchell spent time with British Royal Flying Corps commander Major General Hugh M. Trenchard and came away impressed. U.S. Army aviators began using the term "air force," and it soon entered the U.S. military vernacular. By the 1930s, "air force" was commonly used to describe aviation units.

World War I ended with the Air Service occupying a prominent place in the minds of citizens who had read of the exploits of pilots such as Eddie Rickenbacker and Frank Luke, but the place of aviation was far from prominent within the Army itself. There was no separate budget for aviation and no representation at the staff level for aviators. Aviation units were subordinate to ground army commanders and staff. The aviators' case was not helped by Congressional action decreasing the War Department budget.

Dissension ran through the ranks of the Air Service, caused largely by the treatment of the young aviators at the hands of other Army officers. Pilots were given later dates of rank than ground officers who entered the army at the same time due to the length of their training and subsequent commissioning. To senior offi-

A Boeing B-17 Flying Fortress heavy bomber of the U.S. Army Air Forces makes a bombing run over the city of Osnabruck, Germany, during World War II. When the B-17 was introduced, many observers considered it too expensive. However, the bomber was a workhorse in the European theater as army air power evolved during the war years.

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Well, what I found was a whole lot of trouble. As in 8 feet and 800-pounds of trouble in the form of a grizzly bear. Seems this grumpy fella was out looking for some adventure too. Mr. Grizzly saw me, stood up to his entire 8 feet of ferocity and let out a roar that made my blood turn to ice and my hair stand up. Unsnapping my leather sheath, I felt for my hefty, trusty knife and felt emboldened. I then showed the massive grizzly over 6 inches of 420 surgical grade stainless steel, raised my hands and yelled, "Whoa bear! Whoa bear!" I must have made my point, as he gave me an almost admiring grunt before turning tail and heading back into the woods.

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cers who thought only in terms of fighting ground and sea battles, airplanes were merely weapons that could be developed by the Army and Navy and used by the respective service to support its armies or fleets.

Dozens of plans were developed and submitted to the War Department and through other channels for reorganization, but the most radical was to establish a department similar to the British model, with a cabinet level air agency on a par with the War and Navy Departments. An alternative plan called for the establishment of a single Department of National Defense to coordinate Army, Navy, and Air departments. A fourth alternative was to establish an air force under the Army General Headquarters to which all air units, other than those providing services to ground forces, would be assigned in time of war. Several boards were appointed to study the matter. A group of men appointed by Secretary of War Newton Baker went to Europe to study European air forces and came back to present a unanimous endorsement of complete separation of the Air Service from the Army.

Baker ignored it. He instead supported proposals made by the Army General Staff and, in June 1920, the War Department officially recognized the Air Service as a combat arm. Yet, the Air Service still lacked autonomy and had no direct line to the chief of staff.

The next six years were tumultuous, thanks largely to Billy Mitchell, who began a writing and speaking campaign promoting a separate air force and attacking the Army and Navy establishments as stodgy and lacking military foresight. He was charged with insubordination and faced court martial.

Mitchell's court martial commenced in October 1925 and continued to December 17. Although the vote by secret ballot, Mitchell had a friend on the court who voted for his acquittal. Major General Douglas MacArthur was a childhood friend of Mitchell's. Their fathers were veterans of the same Civil War regiment. Unlike most of the board, the younger MacArthur was receptive to many of Mitchell's ideas. Nine years later he would establish the first combat air arm in Army history.

Prompted by public opinion voiced during Mitchell's court martial, Congress passed the Air Corps Act in 1926, which sounds like a major step but was merely a renaming of the Air Service as far as policy was concerned. Many Congressmen realized the law was inadequate, and no less than 12 bills were presented to establish a department of aeronautics and 17 to combine the War and Navy Departments into a single department of defense. None passed.

By 1933, many air officers began seeking a less ambitious means of gaining autonomy for Air Corps combat units. One of those officers was Lieutenant Colonel Frank M. Andrews. That year, an Army board headed by Major General Hugh A. Drum recommended the establishment of an air force of 1,800 combat airplanes under the Army General Headquarters. When no action was taken, Andrews took matters into his own hands. His close friend, Lieutenant Colonel Walter Weaver, was director of information on the Air Corps staff, and through him Andrews became a confidante of South Carolina Congressman John J. McSwain, the chairman of the House Armed Services Committee. McSwain introduced a new bill to establish a separate air force knowing it wouldn't pass, but would call attention to the airmen's ideas.

In early 1934, President Franklin D. Roosevelt ordered the Air Corps to start carrying the mail, a decision that turned out to be a major mistake. It did, however, focus attention on the Air Corps, and former Secretary of War Baker was appointed to head a board to investigate the Air Corps and Army aviation in gen-

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ABOVE: In this photograph from April 1935, Major Jimmy Doolittle (left), vice president of the National Aeronautic Association, presents Brigadier General Henry "Hap" Arnold a gold medal to honor his receipt of the Mackay Trophy. Both men went on to hold high command during World War II. General Oscar Westover, assistant chief of the Army Air Corps, looks on at right. BELOW LEFT: General Billy Mitchell, the controversial advocate of U.S. Army air power, is shown in uniform during the 1920s. Mitchell was court-martialed for his highly opinionated stance, but many of his observations were later vindicated. BELOW RIGHT: Lieutenant General Frank M. Andrews, is considered one of the founders of the U.S. Army Air Forces.

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eral. The Baker Board recommended the establishment of an air force as part of the Army General Headquarters (GHQ).

The decision was not unanimous—civilian James H. Doolittle of Shell Oil recommended complete separation of the air force from the Army. At the time, the GHQ only existed on paper as an organization that would activate in time of war. The proposed GHQ Air Force would serve as a command unit for all combat air units directly under the Chief of Staff, then report to the GHQ whenever it activated.

Before the Baker Board made their decision, Andrews was ordered to report to Washington to chair a committee to make recommendations "to make the Air Corps more mobile." Serving with him were Lieutenant Colonel Horace Hickam, Majors Carl Spaatz and Hugh Knerr, and Captain George C. Kenney. Hickam would die in an aircraft accident at Galveston, Texas, later that year but the others all went on to make their mark in World War II. Spaatz and Kenney would become theater air commanders, and Knerr would serve on the Eighth Air Force and Strategic Air Forces in Europe staffs. Andrews died in an aircraft accident in May 1943.

On March 1, 1935, the new GHQ Air Force activated, and MacArthur, who was in his final year as chief of staff, appointed Andrews to command it, jumping him two ranks to brigadier general in the process. Kenney, Knerr, and Spaatz were on his staff. Although the GHQ Air Force was technically under the Chief of the Air Corps, Andrews reported directly to the Chief of Staff separately from the Air Corps commander, Major General Oscar Westover.

The GHQ Air Force gave legitimacy to the name "Air Force" but the term had been in common use in the Army since the Great War. While the GHQ Air Force was not autonomous, it did give airmen a voice in the development of air power doctrine. Instead of answering to Army ground commanders, combat unit commanders answered directly to Andrews through the three wing commanders. While Westover was responsible for the training of individuals, responsibility for combat unit training fell under Andrews, along with organization and operations.

After Boeing's new B-17 was presented to the Army in 1935, Andrews wanted to equip all Air Force bombardment squadrons with four-engine bombers. He wanted 98 B-17s, enough to equip a full group on each coast. He got 13. The cost-conscious Chief of Staff, General Marlin Craig, saw no need for four-engine aircraft, which cost more to buy and were more expensive to operate. Westover sided with Craig in advocating the purchase of twin-engine B-18s instead.

The Navy was opposed to Andrews' recom-

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ABOVE: A Boeing B-29 Superfortress bomber of the U.S. 20th Air Force flies over Mount Suribachi on the island of Iwo Jima. Army Air Forces B-29s based in the Marianas Islands raided Japanese cities from 1944 until the end of World War II. OPPOSITE: This Boeing B-29 Superfortress nicknamed "Booze Hound" flies over the island of Saipan in the Marianas in 1945. By that time, the Superfortresses had devastated Japanese cities during their sustained bombing campaign, and U.S. Army air power had come of age. In 1947, the Air Corps became the United States Air Force.

mendations as well. Although MacArthur had worked out an arrangement with the Navy giving the Army responsibility for coastal defense, the Navy saw offshore air operations as an encroachment on its responsibilities.

Westover was killed in an aircraft accident in September 1938 and his assistant chief of staff, Brigadier General Henry H. Arnold, took his place and immediately began lobbying to have the GHQ Air Force under his command. Craig initially offered the position to Andrews, but with a provision—he would have to drop his advocacy of the B-17. Andrews refused and was banished to San Antonio and demoted to his permanent rank of colonel. Craig and Secretary of War Henry Woodring expected him to retire, but their plan backfired. While serving as Air Force chief, Andrews had become a close friend and associate of Deputy Chief of Staff Brigadier General George C. Marshall.

Andrews took Marshall, then head of the War Plans Committee, on a nine-day tour of Air Force facilities. During the tour, he was candid with Marshall about the dismal state of U.S. Army aviation and especially the need for four-engine bombers. Marshall came away from the trip with an appreciation Andrews and the military possibilities of air power.

On July 1, 1939, Marshall became Acting Chief of Staff, and his first action was to bring Andrews back to Washington to serve as his Assistant Chief of Staff for Training and Operations (G-3) with a permanent promotion to brigadier general. Woodring was incensed, but Marshall told him that unless the decision was approved he would resign. Woodring caved. Andrews' new position as G-3 gave airmen a greater status than the creation of the GHQ AF had. For the first time, an airman was in a position to determine Army doctrine. Marshall was receptive to their ideas and became aggressive in his own advocacy of air power.

Rising tension in Europe led the United States to consider plans for national defense. In December 1940, Andrews arrived in the Canal Zone to organize an air force. With Marshall's approval, Andrews organized the first "theater air force," an organization consisting of bomber and interceptor commands, the concept under which later theater air forces were organized. After the White House began beefing up strength in the Philippines, the Far East Air Force was activated under the command of Maj. General Lewis H. Brereton. Other theater air forces would follow.

In October 1940, Arnold proposed a complete reorganization of the War Department, eliminating the GHQ and replacing it with separate departments for ground, air, and service, each reporting directly to the Chief of Staff. It was opposed by the ground members of the Army Staff, who pointed to recent German successes in France where the Luftwaffe supported rapid ground advances. Instead of concurring with Arnold's proposal, the Deputy Chief of Staff recommended that the GHQ Air Force be removed from the Office of the Chief of Staff of the Air Corps and placed directly under the GHQ. Arnold was appointed as Deputy Chief of Staff for Air effective October 30. However, three weeks later the GHQ Air Force was placed under the GHQ. In the reorganization, four national air defense districts were established within the Army's national defense areas.

Two years earlier, Roosevelt had switched his views on air power and called for increased aircraft production. Although most was intended for sale overseas, an expansion of the Air Corps was inevitable. Congress authorized an expansion of the air arm to 54 groups. New wings would be needed to control them.

The increasing size of the air force under the existing arrangement had created an unwieldy organization. In March 1941, Air Corps Chief Major General George Brett advised Marshall of the difficulties he faced when trying to get the General Staff to act on air matters. Marshall conferred with Secretary of War Henry L. Stimson on March 26-27 and they both came away convinced that something had to be done. Stimson directed that Army air elements be placed under a single commander, and Marshall issued a directive that all air matters would be coordinated by Arnold.

When Congress authorized the Air Corps in 1926, an assistant secretary for air was authorized but the position had never been filled. In November 1940, Secretary Stimson brought Robert Lovett, a highly decorated naval aviator, into his office to serve as a civilian advisor on aviation. The War Department contended that the war in Europe demonstrated that a separate air force was not needed, but Lovett's views were horizontally opposed to those of other civilian staff members. On March 10, Lovett told Stimson that the airplane was a revolutionary weapon and that it demanded "a tight-knit, flexible organization as modern as the weapon itself." Marshall's encounter with Brett and the subsequent conferences led him to admit that a simpler system was needed and in April Lovett

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was appointed Assistant Secretary of War for Air. For the first time in history, American airmen were represented at the cabinet level.

On June 20, 1941, a new Army headquarters was established as the Army Air Forces and identified as the Air Staff. The new AAF was established over the Army Air Corps and the Air Force Combat Command, which replaced the GHQ Air Force. Arnold was moved up to command the AAF while Brett continued his role as Chief of the Air Corps and Lieutenant General Delos C. Emmons took command of the AFCC.

On November 28, 1941, General Marshall directed the War Plans Division to undertake a reorganization study of the War Department and Brigadier General Joseph T. McNarney, an air officer, was put in charge. When war came, Air Corps Chief Brett was on an inspection trip to India, China and the Middle East. On December 21, the War Department decided to transfer him to Australia to take command of a new headquarters.

The McNarney Board recommended reorganization. On March 2, 1942, the War Department Issued Circular 59, with an effective date a week later. The GHQ was abolished, and the War Plans Division assumed planning and operational functions over all theaters of operations and the four defense commands. Three autonomous but coordinated commands were organized under the Chief of Staff – the Army Air Forces, the Army Ground Forces, and the Services of Supply. The Office of the Chief of the Air Corps was eliminated, but the Air Corps itself remained in existence through a reorganized Air Staff and subordinate commands to carry out Air Corps functions such as training, procurement and supply. The Air Force Combat Command headquarters transferred to the new Army Air Forces headquarters.

The Air Corps was a statutory organization that was established by a Congressional act authorizing the Army to have an air force as a combat arm. The Army Air Forces, on the other hand, was established by a War Department executive order and its legal authority did not extend to combat command.

The AAF role was to recruit and train personnel, to procure aircraft to equip combat groups, and to procure aircraft parts and other aviation supplies. In June 1942, Arnold established the Air Transport Command as part of the US Army Air Forces with dual responsibility for ferrying combat aircraft and providing transportation. ATC had no combat role.

As American combat groups were sent overseas, the War Department authorized the activation of theater air forces to command them. Each of the overseas air forces was part of the U.S. Army headquarters in the region.

In 1944, the AAF assumed a combat role, largely a result of Arnold's vanity. When it was clear that the new B-29 wouldn't be needed in Europe, Arnold came up with a scheme to place the B-29s under his personal command, a violation of War Department policy. He used his political connections to have the policy under which the AAF had been established waived and activated Twentieth Air Force in Washington, DC, under his command. Arnold retained command of the Twentieth Air Force until the spring of 1945 when it transferred to Guam. With the exception of the four regional air forces in the United States and Twentieth Air Force, all of the numbered air forces were under theater commanders. In 1944, two air forces were organized to command theater air forces, the U.S. Strategic Air Forces in Europe and Far East Air Forces. The USSTAF was organized to command Eighth and Fifteenth Air Forces in an offensive against Germany. FEAF was organized under MacArthur to command Fifth and Thirteenth Air Forces; Seventh Air Force was added when Pacific forces were reorganized.

The Army Air Forces did not replace the Army Air Corps even though the office of Chief of the Air Corps was not filled and, for all practical purposes, was eliminated. Air Corps responsibilities of training and supply were carried out by offices reporting to the Air Staff. New officers were commissioned into the Air Corps and technicians were enlisted. They wore the Air Corps patch and the Air Corps insignia.

The AAF drew heavily on the Air Corps for personnel, but it also included personnel from other branches such as the Medical Corps, the Signal Corps, Intelligence, and the Corps of Engineers. Although they reported to the Air Staff, all Air Corps functions continued through the various departments of the Army Air Forces. The Air Corps ceased to exist on September 17, 1947, when the United States Air Force was activated in the new Department of Defense. ■

Sam McGowan is a pilot and veteran of the U.S. Air Force. He has written frequently for WWII History *over the years and resides in Missouri City, Texas.*

| By Glenn Barnett |

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Department G Code Breaker

Frank Onstine, an actuary in civilian life, helped Allied cryptanalysts read critical intercepts of Axis weather reports.

Onstine Family

ABOVE: Sergeant Frank Onstine and Detachment G played a key role in decrypting German weather reports that boosted the efficiency of Allied bomber operations in the Mediterranean theater. TOP: Consolidated B-24 Liberator bombers of the U.S. Fifteenth Air Force fly through thick enemy flak during bombing runs against the oil refinery complex at Ploesti, Romania. These bombers executed one of the most hazardous missions of World War II, and accurate weather information decrypted from German sources facilitated such air operations.

THROUGHOUT WORLD WAR II THE CENTER OF CRYPTOGRAPHY AMONG the Allies was at the top-secret location at Bletchley Park outside London. There the best and brightest minds worked to decipher the Axis codes in order to read their internal messages. But even with their accumulated brain power, there was one American, working independently, who was able to make a valuable contribution to their work.

The United States Twelfth Air Force had a problem. Based near Algiers after the successful invasion of North Africa, the Twelfth and later the Fifteenth, under the command of Brigadier General Jimmy Doolittle, was tasked with bombing raids in support of Allied aims, first in Sicily and then Italy and against Axis targets throughout the Mediterranean. The problem was that they could not get accurate weather reports over the target areas in a timely manner.

As a result, Boeing B-17 Flying Fortress and Consolidated B-24 Liberator bombers would run into unexpected low overcast that blocked the view of their targets and forced them to drop their bombs by guessing, usually without success. At least one flight of B-17s returning from a mission to northern Italy at high altitude in winter conditions had their wings ice up. Ice on the wings weighed them down and distorted the airflow that caused lift. As a result, several bombers crashed into the sea because no high-altitude weather data was available to them.

Only weather stations on the continent of Europe could give accurate forecasts of weather there. These were all under the control of Germany and her allies and were sent out as encrypted messages that were a part of a different code than those used by the Kriegsmarine and Wehrmacht. It was one more problem for the Allied code breakers.

The Axis weather codes had been broken at Bletchley Park, and the daily weather reports could be read. These weather reports were sent on to North Africa using a British code. Often the cryptographers in London forgot to tell the

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Americans when they changed their sending code or did not provide them with the information in a timely manner to read the reports they sent. It could take a couple of days to get it all sorted, and by that time the weather could change.

Early in the American involvement in the war, signal intelligence was a brand new asset that was not yet trusted by military commanders. They often did not see the reason to have men on the front lines who did not carry a gun and fight. It took a while for them to see the value in intercepting enemy radio traffic and knowing what the enemy was thinking and doing. Another disadvantage of being a new unit was that signal intelligence was last in line to receive equipment for setting up operations.

The 849th Signal Intelligence Service was ordered to set up near Algiers in an isolated ravine without a telephone, no field wire, no radio set, or even a power unit. They begged and borrowed supplies until their equipment arrived.

Meanwhile, officers of the Twelfth Air Force, receiving the British weather reports, appreciated their accuracy when delivered on time. They began to see the value of having their own code breakers on site. Since the 849th was already attached to the Twelfth, it was easy to create Detachment G and add it to the 849th in July 1943.

Detachment G was staffed with hastily trained cryptographers. At first "G" had difficulties procuring and training personnel, obtaining and modifying or even improvising equipment, but conditions would improve.

It would be their job to decode and read enemy weather station reports which would give meteorological observations for enemy-held territory. Soon Detachment G was sending decrypted weather reports to all of the headquarters sites of the Twelfth and the new Fifteenth U.S. Air Force, the British Royal Air Force bases in the Mediterranean, the U.S. Fifth Army, and the US and British Royal Navies in the Mediterranean Sea.

By now Air Forces four-engine bombers based in North Africa were bombing targets in Sardinia, Sicily, Naples, Foggia, and Terni near Rome. Bombers also hit the Ploesti oil fields in Romania, submarine pens at Toulon in southern France, and distant Luftwaffe bases in Trieste and Venice.

The German weather codes were based on the prewar International Meteorological Code (IMC). This was a numerically based code that had been in use worldwide. The open code consisted of 25 digits arranged in five lines of five numbers in each line. Information in the code included the location of the weather station of origin and their reporting of atmospheric pressure, weather conditions at low, medium, and high altitude, wind speeds, cloud types (0 meant no clouds, 9 meant bad weather), and more. The use of numbers in the prewar code allowed operators in each nation to convert it into their own language.

National Archives

On February 4, 1944, Allied bombers of the U.S. Fifteenth Air Force struck the Nazi submarine base at Toulon in occupied France. Weather reports from Detachment G were critical to the success of the raid. This image shows the opening moments of the air assault as warehouses, a drydock, and other installations are seen being pounded by bombs.

During the war, the Germans, Spanish, Italians, and Vichy French continued to use the 25 digits in five groups of five numbers but scrambled the numbers in their own codes to hide their content and usefulness to the enemy. The coding was sent out by the famous Enigma machines.

It was the job of the Allied cryptographers to break the frequently changing Axis codes to aid ships at sea and planes over enemy territory. Reading the codes of Germany's allies was fairly easy. It was the German codes that presented a challenge.

When the Allies moved from North Africa to Italy in November 1943, the code breakers of Detachment G went with them and established headquarters near Foggia in southeastern Italy. They soon received some IBM equipment with a key punch machine and a skilled operator on loan from IBM. The IBM machines rapidly increased frequency counts of repeated "trigrams," which was the name given to the German coding system. The dictionary defines trigrams as, "any of the eight possible combinations of three whole or broken lines." It was complicated on purpose, and the IBM machines were a great help in sorting through it all. They saved a lot of time, as the reams of numbers would otherwise be sorted through by hand, a labor intensive task.

By February 1944, Detachment G reached its full complement of four officers and 60 enlisted men working in three shifts around the clock decoding, reading, and passing the weather reports to whoever needed them.

Newcomers that month included Sergeant Frank Onstine, an actuary in civilian life and a career he would return to after the war. Actuaries work with numerical probabilities and possibilities and are useful to insurance companies.

Onstine was born on January 6, 1919, in Cherokee, Iowa, graduated from Cherokee High School in 1936, and then went to the University of Iowa, where he earned money playing clarinet in a local "big band." He graduated in 1940 with a degree in Mathematics, and he enjoyed solving complicated mathematical problems. He was a numbers man. Straight out of college he began working as an actuary with the Metropolitan Life Insurance Company before he was called up in 1943 and assigned to the Army Signal Corps.

Once he joined Detachment G, Onstine started straight away to immerse himself in the pages and pages of seemingly meaningless numbers issued by two separate German coding stations. He began to see patterns in the numbers and subsequently new patterns when the codes

were changed.

Bletchley Park and Detachment G were intercepting two German ciphered transmissions. One called DDX originated in Berlin, while another, a clear text in Spanish and Portuguese, was called DAN. The easily read DAN codes helped the code breakers read the DDX from Berlin. But every time the Germans changed their code, the codebreakers had to start over.

In January 1945, after the Germans had once again changed their code, Onstine made an important discovery. Sifting through the numbers he realized that the Germans had not devised a new code, which would have been more complicated than the last, they had resorted to using an older code. That code had already been broken and could be easily read by the Allies if they knew of its use. Quietly, Onstine wrote a system using a free associative technique for discovering the use of older codes. He called it a "parent" and "grandparent" technique, which consisted of trigram tables to pinpoint which code was being used by Berlin.

Detachment G was then easily able to determine which of the older codes was in use and read it accordingly. The results of Sergeant Onstine's insightful discovery and his tireless work in matching the current German codes with the former codes were shared with the cryptographers at Bletchley Park. Onstine's British counterparts had no idea that the German codes were being repeated. They were astonished to learn that an American had not only figured it out but had developed a methodology for discovering which of their codes the Germans were using.

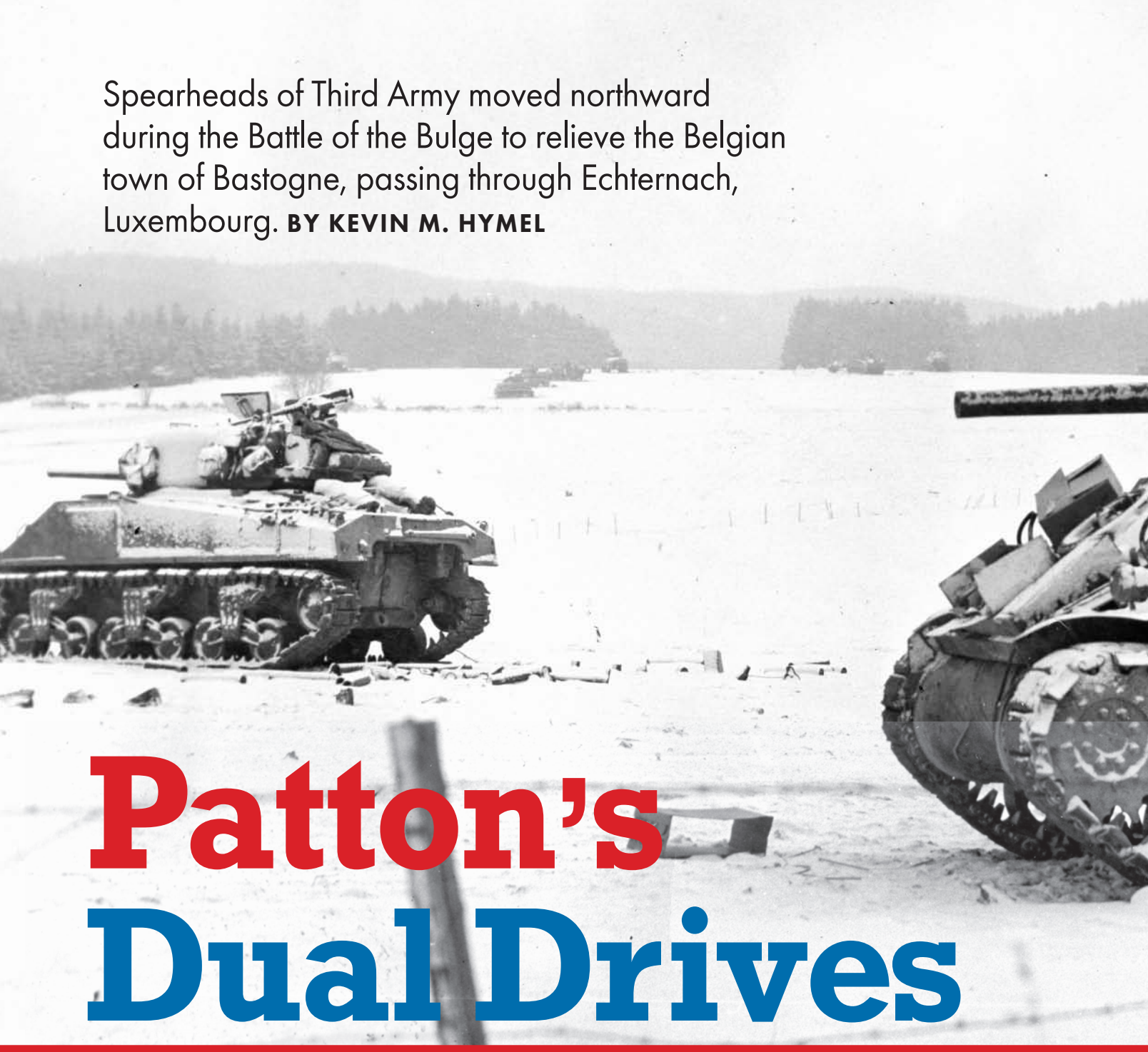
The British quickly took advantage of Onstine's calculations in their own operations. They would refer to his method of determining the codes as "Onstineing." The Germans never learned of this development and never developed a new code again.

For his part in the cryptography war, Onstine was awarded the Legion of Merit, and he and his fellow Detachment G code breakers were able to take some well-deserved leave as a reward.

After the war, Frank Onstine lived quietly in a suburb of Los Angeles with his wife Alice while raising three sons and a daughter. Like most returning veterans, he rarely spoke about the war or his modest contribution in helping to win it. ■

Author Glenn Barnett is a retired college instructor and aerospace engineer. He worked on the Apache helicopter, B-1B bomber, and Space Shuttle. He is a frequent contributor to WWII History.

Spearheads of Third Army moved northward during the Battle of the Bulge to relieve the Belgian town of Bastogne, passing through Echternach, Luxembourg. **BY KEVIN M. HYMEL**



Patton's Dual Drives

This article is excerpted from Kevin Hymel's latest book, **Patton's War: An American General's Combat Leadership, Volume 2: August—December 1944**, *published by University of Missouri Press. Volume 2 follows General Patton across France as he helps close the Falaise Pocket, races to the Moselle River, captures Metz and relieves Bastogne.*

On the morning of December 22, 1944, at 6:30 a.m., Lieutenant General George S. Patton launched a two-pronged attack through the Ardennes Forest into the left flank of the German offensive during the Battle of the Bulge. He had spent the last four days turning two of his three corps north to both relieve the besieged Belgian town of Bastogne and recapture the Luxembourg town of Echternach.

While Bastogne seemed more urgent—where paratroopers from Brigadier General Anthony McAuliffe's 101st Airborne Division and tankers and infantrymen from various units had been holding out since December 19—Echternach was just as important to Patton. If he could retake the town, he could simultaneously protect his drive for Bastogne, limit the width of the German offensive, and take the first step toward closing the bulge at its base.

Major General John Millikin's entire III Corps pushed north toward Bastogne that morning, while only part of Major General Manton Eddy's XII Corps—Major General LeRoy Irwin's 5th Infantry Division—battled northeast toward Echternach later in the day in an attack across a 30-mile front. From west to east, Milliken's III Corps consisted of Major General Hugh Gaffey's 4th Armored Division, Major General Willard Paul's 26th Infantry

All: National Archives

M4 Sherman medium tanks of the 35th Tank Battalion, 4th Armored Division, clear the road to Bastogne, Belgium, during the Battle of the Bulge in December 1944. The 4th Armored Division was the spearhead of the Third Army drive north to relieve the 101st Airborne Division holding Bastogne, a vital crossroads.

Division, and Major General Horace McBride's veteran 80th Division.

Gaffey's 4th Armored got off to a slow start, stymied by craters and blown bridges, but his tanks got rolling later in the day. Gaffey had three combat commands under him: Brigadier General Herbert Earnest's CCA; Brigadier General Holmes Dager's CCB; and Colonel Wendell Blanchard's CCR (Reserve).

Earnest's CCA reached Martelange while Dager's CCB reached Menufontaine, about seven miles northwest of Earnest, which, incidentally, freed a number of 28th Division soldiers. Both towns bordered on the Sûre River and both commanders also fought through the night to establish bridgeheads, but Dager pushed further north, to the town of Burnon, creating a gap between the two commands, forcing him to stop and wait for Earnest's force to catch up.

While Gaffey's engineers raced to build bridges across the Sûre, General Paul's 26th Infantry Division made good progress against German delaying actions. General McBride's 80th Infantry Division had the toughest fight, running up against a defended river line which stalled his division until after dark, when the infantry finally broke through the German lines and pressed north. To confuse the enemy about the offensive, the 23rd Headquarters Special Troop transmitted fake radio traffic between Gaffey and McBride's headquarters, discussing how they were going into reserve,

away from Bastogne.

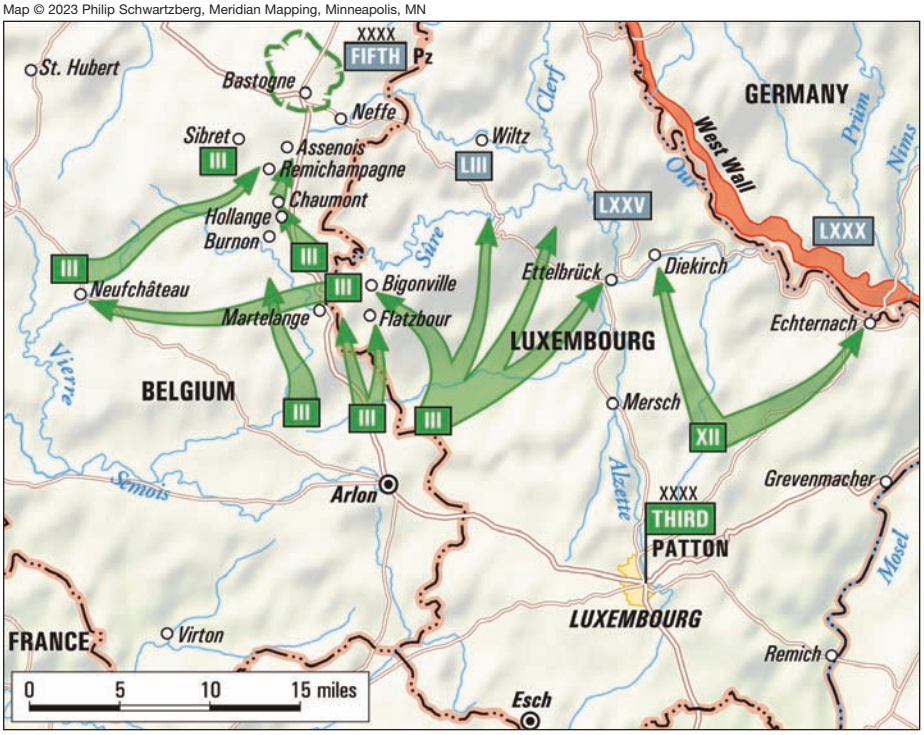
As the attack progressed, Patton called a staff meeting at 11 a.m. and immediately referenced the weather. "The Lord kind of played me a dirty trick," he said before breaking into a smile, "but maybe he knows better, but we sure could have used some good flying weather, [although we] killed a lot of Germans." When a message arrived from Millikin, Patton lamented the possibility of him getting killed on his first day in battle. "This is a big day for him," he told the staff. "[It will] make him or break him."

Six hours after Millikin's tanks and infantry started pushing north, up at Bastogne a group of German soldiers carrying a white flag approached the American perimeter with a surrender to him. When one of his staffers explained that it was the other way around, he exploded with anger. "Us surrender, awe nuts!" Still, he was not sure how to respond to the ultimatum until one of his staff officers suggested the word "Nuts."

The response was typed up and given to the Germans, who were blindfolded again and escorted out. When one finally read the message and asked what it meant, one of the American escorts told him, "It means go to hell." The response became an inspirational mantra to both the men inside Bastogne and those fighting towards it.

Patton found Millikin doing better than he expected. His men and tanks pushed forward

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



ABOVE: The dispositions of German troops and armor surrounding Bastogne were assaulted by General George Patton's Third Army thrust to relieve the 101st Airborne Division and elements of the 10th Armored Division inside the besieged town. OPPOSITE: This photo was taken on December 23, 1944, during the rapid movement of Third Army toward Bastogne and the city of Echternach, Luxembourg, at the height of the Battle of the Bulge. These troops are Americans of the 101st Infantry Regiment, 26th Division moving through the town of Hobsheid, Belgium.

render ultimatum. Glidermen from the 101st Airborne blindfolded the Germans and escorted them to McAuliffe's headquarters.

McAuliffe had been asleep when word came through about the ultimatum. "Nuts!" he said, as he roused from his sleeping bag. The Germans demanded he surrender by 4 p.m. or Bastogne would be annihilated by German artillery fire. McAuliffe had been in communication with General Troy Middleton, commander of VIII Corps, and although he never mentioned it, he knew that Patton was on the way. At first, McAuliffe thought the Germans wanted to surrender to him. When one of his staffers explained that it was the other way around, he exploded with anger. "Us surrender, awe nuts!" Still, he was not sure how to respond to the ultimatum until one of his staff officers suggested the word "Nuts."

The response was typed up and given to the Germans, who were blindfolded again and escorted out. When one finally read the message and asked what it meant, one of the American escorts told him, "It means go to hell." The response became an inspirational mantra to both the men inside Bastogne and those fighting towards it.

Patton found Millikin doing better than he expected. His men and tanks pushed forward in the snow, fighting and overcoming destroyed roads and bridges. Patton encouraged his new corps commander "to go up and hear them whistle." He then took his own advice and visited some forward positions. At one command post which had undergone a tremendous pounding from German artillery, he entered the cellar and soldiers began to stand up to salute. Suddenly, a shell slammed into a building across the street. The lights dimmed, dust poured down and everyone lay flat—except for Patton. He just stood there, took off his helmet, and brushed off the dust. Three or more shells followed, but Patton stood unshaken. "What's the matter boys?" he asked. "Are you expecting trouble up here?"

When Patton encountered a company of trucks with trailers plodding slowly north, he stopped one of them and ordered the driver to remove the trailer so he could advance faster. He also came across eight soldiers from the 28th Infantry and the 9th Armored who had spent the last four days walking southwest from Wiltz after their divisions had been decimated in the opening days of the campaign. While they had trekked through 27 miles of enemy-held territory, they only saw seven Germans, leaving Patton to speculate, "I think that perhaps there is less weight in the middle of the salient than we think."

Patton returned to the Alpha Hotel in Luxembourg City, where his staff had set up his headquarters. "I think we achieved complete surprise," he told his staff. "[With] no artillery preparation, [we] just moved off and caught them cold, tit for tat." While Millikin made his move on the left flank, Patton wanted Eddy's XII Corps to attack on the right. But not enough of Eddy's troops had arrived yet for a punch equal to Millikin's. Instead, Patton would use elements of Irwin's 5th Infantry Division to seize the high ground around Echternach in preparation for Eddy's larger corps offensive.

Patton spent the later part of the day concerned about Irwin's attack. It launched around noon and ran into an attacking German force, leaving Patton waiting for word of the battle's results. Although Irwin had initiated the action, Patton decided to hold off any major offensive by Eddy until he had driven the Germans east across the north-to-south running Sûre River.

Around noon the skies cleared and would remain that way for the next five days. The collective prayers of Third Army had been answered. Brigadier General Otto Weyland's fighter-bombers of his XIX Tactical Air Command pounded German rear areas, averaging 570 sorties a day. Pilots shot down enemy aircraft, strafed troop and fuel trucks, tanks, railway cars, and gun emplacements. They blew up oil dumps and cut highways. Some pilots dropped napalm on antiaircraft units. They pulverized buildings at strategic intersections, making the roads impassable for the Germans. Still, on December 22, despite the clear afternoon skies, the airfields where the C-47s launched were too icy for operations, scrubbing an aerial resupply of Bastogne.

The resupply cancellation chafed Patton. He marched into the office of Major John Carvey, the officer in charge of the drop, and yelled at

him, "Major, your Goddamned mission was a failure." Carvey agreed, only to leave Patton glaring at him. "Well, what are you going to do about it?" Carvey, shaking and stammering, explained that he had already scheduled a second drop.

"Are you scared of me?" Patton asked. When Carvey told him he was, Patton asked him if he was married. When Carvey responded in the negative, Patton smiled. "Major, I want you to make me a promise," he told the young man. "When you get back to the states, the first thing you're to do is to get married. After you've been through the hell of married life, there will be nothing that I can say to you that will frighten you again."

Patton knew time was of the essence and hoped for Gaffey's 4th Armored to break through. "The situation in Bastogne is grave," he wrote. "I will try to get Dager [commander of CCB] there tonight." Patton's hopes were way too high for the situation. When he later realized the Germans were using the same delay and retreat tactics they employed against him at Metz, he exploded. "Hell, why didn't those [blank] come at me? If they want to pick on somebody, I'll take care of those [blank]!!" Finally, he calmed himself and admitted, "They must have some smart men running the show." Patton, too, had proved himself a smart man, having managed to move the bulk of his army, 250,000 men, from battling east along the Saar River to attacking north—an impressive feat in any terms. Worried about relieving Bastogne, he sent a message to Millikin that the advance was to be continued throughout the night.

Patton was satisfied, although not happy, about the day's results. "I should be content which of course, I am not," he wrote his wife Beatrice, knowing the difficulties of attacking in a snowstorm. "It's always hard to get an attack rolling," he penned in his diary, yet he doubted if the Germans would be able to launch any kind of attack against him for the next 36 hours. "I hope by that time we will be rolling. The men are in good spirits and full of confidence."

By the next morning, December 23, Patton's prediction of reaching Bastogne again proved too optimistic. While 4th Armored engineers spent most of the day repairing bridges over the Sûre River, tankers and armored infantrymen fought on little sleep and in temperatures cold enough to freeze the water in their canteens.

Germans ambushed the tankers of Earnest's CCA about two miles north of Martelange, hitting them with small-arms fire, mortars and Panzerfaust anti-tank weapons. Earnest struggled to advance one more mile to the outskirts of Warnach. Blanchard's CCR tried to capture Bigonville, three miles west of Earnest's force, but dueled with German paratroopers and tanks (and a captured American tank in German service) just south at Flatzbour.

Dager's CCB took the worst hit. Reaching the outskirts of the small town of Chaumont, about six miles ahead of Earnest, it looked like CCB would bolt the last six miles into Bastogne before sundown. But as Major Albyn Irzyk's tanks surrounded and entered Chaumont at the bottom of a bowl-shaped depression, the Germans counterattacked with infantry, paratroopers, StuG III tracked assault guns, and Jagdtigers—heavy tank destroyers resembling Royal Tiger tanks but firing a 128mm shell (as opposed to the Tiger's 88mm shell). By the time the smoke cleared, the Germans had destroyed or disabled 18 of Irzyk's tanks, roughly half his force. Patton's best bet to quickly reach Bastogne had been stopped cold.

Worried about Millikin's lack of progress, Patton called the III Corps commander but only reached his chief of staff, Colonel James Phillips. "The going wasn't so good yesterday, I'm unhappy about it," Patton told Phillips. "I want to emphasize that this is a ground battle and they must move forward. Get them to bypass towns and get forward. I want a definitive report at 1315 today on the situation."

Then Patton dropped a bomb: "I want Bastogne by 1350." He wanted Millikin to traverse 10 miles of German defenses and icy roads in less than three hours. Then he explained why. "I have to give it to my boss at that time." He concluded, "Get those boys moving, tell Millikin to get them going if he has to go down to the frontline platoon and move them!" Phillips agreed, and Patton hung up.

Patton hoped for better success with Eddy.

ABOVE: These American artillerymen of Battery A, 19th Field Artillery Regiment, 5th Infantry Division pose with 105mm shells at the ready. Their howitzers provided significant support for the Third Army drive to Bastogne, and American artillery performed superbly throughout World War II. BELOW: German prisoners, under the watch of American soldiers of the 5th Infantry Division, place their hands on their heads and await instructions. These Germans were taken prisoner near the city of Echternach, Luxembourg. OPPOSITE: An American soldier of the 44th Armored Infantry Regiment, 6th Armored Division, carries a bazooka along a road near the outskirts of Bastogne, the embattled Belgian crossroads that was held against the Germans during the Battle of the Bulge. This infantryman is hurrying to join with tanks preparing to attack the Germans surrounding Bastogne.

He brought the XII Corps commander into his situation room to show him options to attack. While Patton sat on the edge of a desk, Major Robert Allen, an intelligence officer, encouraged Eddy to launch a diversionary attack on the German city of Trier, thus enveloping the Germans' western flank. Patton then went outside and saw the skies clear. The C-47s were able to drop supplies to the surrounded men in Bastogne, losing 11 aircraft in the process. Later that morning, Eddy's XII Corps attacked northeast of Luxembourg City, driving the Germans east of the Sûre River.

The surrounded, thinly stretched troops inside Bastogne fought off local German attacks and survived an artillery bombardment. The line was so thin that the men at one post joked, "How are you doing on your left?" "Good! We have two jeeps out there." One of McAuliffe's officers contacted an operations officer under Middleton, who's VIII Corps commanded the 101st, and advised, "It's getting pretty sticky around here," adding, "The enemy has attacked all along the south and some tanks are through and running around in our area." That night, McAuliffe sent a message to Gaffey: "Sorry I did not get to shake hands today. I was disappointed." He sent a follow-up message that jabbed at Patton, who promised to relieve Bastogne on December 25: "There is only one more shopping day before Christmas."

On the morning of December 24, Earnest's CCA fought its way into Warnach, but the Germans counterattacked, fighting for most of the day until the Americans took the town before sundown. Dager's CCB remained south of Chaumont, spending the day fighting off German counterattacks and exchanging artillery fire. Blanchard's CCR encircled and finally captured Bigonville, effectively blocking any German attempts to cut off the 4th Armored's base. Paul's 26th Division soon replaced the tankers in Bigonville, leaving Blanchard to believe his men would get a rest until he received orders that night to head west.

As the Germans counterattacked all along Millikin's front, Patton blamed himself, "This was probably my fault," he wrote, "because I have been insisting on day and night attacks." He felt the tactic worked when the Germans were surprised, but now he realized he was in error, using exhausted men against defended positions, especially when there was no guiding moonlight. "It takes a long time to learn war," he confessed. While Gaffey's men and tanks struggled to push north, Patton sent McAuliffe an optimistic message: "Xmas Eve present coming up. Hold on." McAuliffe called Middleton and told him, "The finest Christmas present the 101st could get would be relief tomorrow."

While the Germans pushed back against Millikin's III Corps, Eddy's XII Corps attacked a 17-mile-long line from Diekirch to Echternach and almost reached the Sûre River using Irwin's 5th Division, elements of Major General William Morris's 10th Armored, and Major General Raymond Barton's 4th Infantry Divisions. When Patton learned that German prisoners admitted that they hadn't eaten in three days and that his troops had intercepted a message from the German 5th Parachute Division that they could not hold on without help, he contacted his corps commanders about "this happy state."

Patton felt the Germans had staked everything on this one offensive to restore the initiative, but it wouldn't work. "They are far behind schedule and I believe beaten," he wrote in his

diary. "If this is true the whole army might surrender." Yet, he knew the Germans had done it before in 1940, when they invaded France through Saarbrücken on Thionville. "They may repeat but with what?"

With all eyes on Millikin's attack toward Bastogne, Patton wanted Eddy to continue pressing north. While Bastogne seemed like the obvious center of gravity, Patton knew that Eddy could choke off the German offensive at its base and possibly capture Trier. With that in mind, he declared to his staff, "[I] got two more regiments of engineers. That makes four. I want to use them in the Trier area."

He also wanted his staff to provide Lieutenant General Omar Bradley, the commander of the 12th Army Group and Patton's boss, with a situation report on Eddy's offensive. "[The] future of this army depends on the impression we make regarding it. Be sure to emphasize the various danger spots—Trier, [our] exposed flank on the west, Echternach, and others." Bradley visited, and the two reviewed the situation. Colonel Oscar Koch, Patton's intelligence officer, briefed the two generals on Eddy's situation and answered any questions.

Throughout the day, Patton wavered between confidence of the German collapse and worry about the pace of his army. He called General Dwight D. Eisenhower, the supreme commander in Europe, expecting to be fired. When Eisenhower asked him where his worry came from, Patton responded, "I'm going too slow." Eisenhower disagreed. "You're going as fast as I expected. Keep it up, George." Now in a much better mood, Patton visited Bradley's headquarters. Major Chet Hanson, Bradley's aide, found Patton "boisterous and noisy, feeling good in the middle of a fight."

That evening, Patton paced the map room at his headquarters, chomping a cigar, worrying about his lack of replacements. Finally, he sat on the edge of his desk, staring intently at the map. "I wish I had another two divisions," he told Robert Allen. "I could wipe them out." Patton thought about the situation, then concluded: "The 101st is doing a great job. They [the Germans] can't wipe them out. We can supply them now with this good weather and the Huns can't overrun them. They are better men and better fighters than the Hun. If we can only have a few more days of good weather like today, then the war will be over."

Patton then attended a late Christmas Eve mass at a small Episcopal church in the heart of Luxembourg City. He arrived late as the parishioners, mostly soldiers, sang the benediction. He stopped in the middle of the aisle and stared up at the main window, before sitting in the same pew where Kaiser Wilhelm II sat during World War I. Everyone recognized him. One witness said he looked "fierce and dramatic—as if he had come to demand God's blessing for his sword."

Christmas day dawned cold but with clear skies. "Lovely weather for killing Germans," Patton wrote, "which seems a bit queer considering whose birthday it is." The holy day energized him. At his morning briefing he declared, "Merry Christmas to you all! Here's to hoping we spend the next one in Tokyo." But his cheer turned serious as he listened to updates on his troops' trek to Bastogne. Then he addressed the staff: "I want everyone to understand we are not fighting this battle in a half-assed way. It's either whole hog or die. Shoot the works. If those Hun bastards can do it, so can we. If those sons-of-bitches want war to the raw, we'll give it to them."

Then it was back to work, with Patton shifting units and bringing more up to the line. He did not intervene when he learned that Millikin had attached two infantry battalions from McBride's 80th to Gaffey's infantry-depleted 4th Armored. He jotted down a quick message to Beatrice, telling her the three consecutive days of clear skies had helped him in the attack,

but he vented, "so far, I am the only one attacking," and concluded, "I am going out to push it now."

Patton visited troops in both Millikin's and Eddy's corps. Along the way he crossed paths with a tank from the 702nd Tank Battalion heading south, away from the battlefield. He put his hand up and the tank stopped. The men climbed out to greet him. "Where are you going with this vehicle?" Patton asked. When the tanker commander told him they were taking it to ordnance he asked, "Do you think this vehicle should go to ordnance, don't you think it will last a little longer?" The men assured him it would not.

Patton looked the tank commander up and down and suddenly turned deadly serious, asking the tank commander, "Where are your overshoes, soldier?" The commander replied that they had never received any. Patton told him, "I went through the hospitals, and I find a lot of frozen feet, and you can't cure them. The Doughs [a World War I slang for infantrymen] that get hit with bullets or shrapnel can get well, but those boys in there that have frozen feet have no way of ever getting well. You'll have overshoes here tonight." He then asked the commander how far it was to the front line and climbed into his jeep, where his dog Willie waited, and drove away.

Patton visited all three of Gaffey's combat commands, then Paul's and McBride's infantry. He found Gaffey's tankers fighting hard but making incremental progress. Paul's infantry made decent progress, but McBride's men were stalled. "All, I feel, are doing their best," he wrote. Earnest's CCA, with an attachment from the 80th Division, had taken the town of Tintage, two miles west of Warnach, while the main force drove four miles north, reaching the high ground south of Hollange. Dager's CCB spent the morning clearing the woods and plains around Chaumont with the help of its attached 80th Division units. The infantry then attacked into Chaumont, capturing it by nightfall. Blanchard's CCR spent the day driving west. The Germans were threatening to capture the town of Sibret, on the southwest side of Bastogne, and Blanchard's mission was to blunt them.

Patton visited Dager's CCB, where he saw two American aircraft strafe and bomb the Germans, but to little effect. Then a few German fighters strafed the road where Patton stood, but no one was hit. Patton, having braved numerous air attacks in North Africa and Sicily, appreciated the historical milestone: "This is the only time in the fighting in Germany or France that I was actually picked out on the road and attacked by German air."

Patton then visited Paul's 26th Division headquarters. When he walked in, Paul felt sure his commander was about to fire him for his slow progress. Instead, Patton threw his arm around Paul's shoulder and told him, "How's my little fighting son-of-a-bitch?" Paul's attitude changed, later writing, "I was so cheered for not getting relieved, there was nothing I wouldn't have done for the man."

In Eddy's zone, Patton saw Irwin's 5th Division which had driven the Germans back to the Sûre River and was threating to retake Echternach. Permission had finally been given to use proximity fuses, which enabled artillery shells to explode before hitting the ground, making them much more deadly. The infantrymen called them a "Christmas present, for the Germans." Irwin's artillerymen fired the new weapon from the hills overlooking Echternach, watching the shells explode over the Germans as they raced over a wooden bridge or paddled small boats across the Sûre. The fire became so deadly the Germans broke and ran back into the town. Patton put the German tally from the shells at 700 dead, but the Germans still held the town.

Overall, Patton was pleased to see his men were in good condition, cheerful, and eating at least one Christmas meal of turkey. He gave full credit to the Quartermaster Corps for providing rear-echelon soldiers hot turkey while the frontline soldiers at least received turkey sandwiches. "I know of no army in the world except the American which could have done such a thing."

In Bastogne, there were no turkey sandwiches for the troops. Only K-rations and a scant hot meal, usually beans. Another aerial resupply had failed to get off the ground due bad weather in England. The Germans launched a major panzer attack into Bastogne from the west, but

glidermen, paratroopers, and tank destroyers under Colonel Steve Chappuis stopped it. German tanks rolled over Chappuis's paratroopers on a downhill slope to the town of Champs. The paratroopers suffered some casualties, but after the tanks passed the men stood up in their foxholes and cut down the enemy supporting infantry.

Paratroopers in the woods added to the fire, cutting down German infantrymen riding on the tanks. When the German tanks reached Champs, American tank destroyers and bazooka-wielding paratroops knocked them all out. It had been a major victory for McAuliffe's command, but he did not share in his men's joy. When a lieutenant reported on the German defeat, McAuliffe only shook his head and interrupted the young officer. "Hell, I know that! I want to know where the 4th Armored is." He contacted Middleton and told him, "We have been let down."

That night, Patton ate a late dinner with Bradley in Bradley's mess hall. After dinner they talked about British Field Marshal Bernard Montgomery, who now commanded Lieutenant General Courtney Hodges's First Army on the northern side of the Bulge. Montgomery had supposedly declared that First Army was in no condition to go on the offensive for at least three months. Furthermore, he also said that Patton should pull back to the Saar line, or maybe the Moselle, to obtain more troops.

The plan did not sit well with Patton. "This is disgusting and might remove the valor of our Army and the confidence of our people," he wrote in his diary. "If ordered to fall back I think I will ask to be relieved." Eisenhower had actually gone to Montgomery's headquarters that day to urge him to develop his own drive south to meet Patton's. Montgomery, however, was convinced that another heavy attack was coming against him and wanted to hold off until the Germans were defeated. Eisenhower agreed to give him a few days to find a favorable moment.

The day after Christmas commenced overcast and cold. Patton spent the morning rearranging his forces. Eddy called with good news: Irwin's soldiers had finally captured Echternach, obliterating the Bulge's southern shoulder and ensuring the Germans could not ruin Millikin's offensive. Even better, Irwin's men reported entire enemy companies swimming the Sûre River under fire, which Patton considered "hardly a healthy pastime."

While Eddy's attack had yielded progress, Millikin's attack seemed to yield only frustration. The Germans continued to successfully block all the routes to Bastogne. With his tanks stalled, Patton flew two medical teams via glider into the besieged town. The gliders came under fire but landed safely. By the afternoon, he admitted, "Today has been rather trying as in spite of all our efforts we have failed to make contact with the defenders of Bastogne."

While Patton fumed about Bastogne, Gaffey's 4th Armored tankers and infantrymen fought to get it for him. South of Bastogne's perimeter, Blanchard's CCR reached a crossroad at Remichampagne, only six miles from the heart of the town. Lieutenant Colonel Creighton Abrams, the commander of the 37th Tank Battalion, was preparing to head northwest to Sibret to protect the division's left flank when he saw a flight of C-47s flying in supplies. The aircraft parachuted their cargoes to the beleaguered defenders as towed gliders released and soared down. Enemy antiaircraft fire hit some of the aircraft, dropping them out of the sky.

The sight of the brave fliers inspired Abrams. Realizing there was only one town, Assenois, between his force and Bastogne, he decided to try to do what the other combat commands failed to do: relieve Bastogne. He radioed up the chain of command until his request reached Gaffey, who called Patton around 4 p.m. and asked if he would authorize the risk to break through to Bastogne. "Go to it," Patton said. Abrams would be racing against the Germans and the setting sun to break the ring around the town.

Before Abrams sent his tanks and halftracks north, he reviewed the situation with the lead tanker, Lieutenant Charles Boggess, telling him, "Get to those men in Bastogne." Boggess's tank roared north for Assenois, followed by tanks

Continued on page 74

ABOVE: Lieutenant Charles Boggess' M4 Sherman medium tank sits in the center of Bastogne with a triumphant message scrawled along its side. Crew members posed proudly for this photo shortly after Bastogne was liberated. LEFT: General George S. Patton, commander of Third Army (left), meets Brigadier General Anthony McAuliffe, temporary commander of the 101st Airborne Division, after the relief of Bastogne. McAuliffe gained fame with his reply "Nuts!" to a German surrender demand. OPPOSITE: Infantrymen of the 4th Armored Division protect the flanks of a column of M4 Sherman medium tanks proceeding down a road toward Bastogne. German infantrymen were sometimes seen to emerge from cover and fire the Panzerfaust anti-tank weapon at American armored vehicle.

BY MICHAEL D. HULL

The U.S. Coast Guard played a key role during World War II,which has been somewhat overlooked through the years.

Recently put ashore, three companies of U.S. Marines advanced stealthily along the Matanikau River on the northern coast of Guadalcanal on September 27, 1942.

Running into unexpectedly heavy Japanese opposition, the leathernecks were trapped on the beach, and it became necessary for them to be evacuated. The seaplane tender USS *Ballard* was sighted offshore, and a Marine sergeant arm-signaled the desperate situation. The ship hastily mustered its flotilla of five Higgins boats to extract the Marines.

Signalman First Class Douglas A. Munro of the U.S. Coast Guard volunteered to undertake the rescue mission. Under a hail of enemy machine-gun fire, he led the boats to the shore and hurriedly loaded them with wounded Marines. The Japanese fire increased, and Munro placed his boat in a position to shield the evacuation. Able-bodied leathernecks fought off the Japanese as more Marines were loaded in the boats.

As the laden boats began to pull away, Munro noticed that one of the craft had run aground on jagged coral. He maneuvered alongside and pulled it free. When an enemy machine gun on the beach opened up, Munro and crewman Raymond Evans fired back with their two bow guns and silenced the Japanese. But enemy rounds had mortally wounded Munro. He remained conscious long enough to ask weakly, "Did they get off?" Evans replied, "Yes." Munro smiled and then died. The 22-year-old Munro and his boat crews saved an estimated 500 Marines that day.

Born in Vancouver, British Columbia, and raised in the little town of Cle Elum, Washington, Munro had enlisted in the Coast Guard in 1939 and spent 18 months aboard the cutter *Spencer* in the Atlantic before transferring to the West Coast. He served aboard the attack transport *Hunter Liggett* during the Guadalcanal landings before being assigned to the landing boat pool. His mother, Edith, accepted his posthumous Medal of Honor from President Franklin D. Roosevelt on May 24, 1943, and then enlisted in the Coast Guard.

Munro was the only Coast Guardsman to recieve the nation's highest decoration in World War II, but during the 200-year-old maritime service's immense and far-flung role in 1941-45, his comrades were awarded many medals and commendations for valor. These included six Navy Crosses, two Distinguished Service Medals, 64 Silver Stars, 96 Legions of Merit, 12 Distinguished Flying Crosses, and many Air Medals, Lifesaving Medals, and Bronze Stars.

USCG Historial's Office & Scott Price

ABOVE: U.S. Coast Guard Signalman First Class Douglas A. Munro was killed in action while covering the evacuation of Marines from a beach at Guadalcanal that was swept by Japanese fire. He received a posthumous Medal of Honor. RIGHT: This stirring image titled "Douglas A. Munro Covers the Withdrawal of the 7th Marines at Guadalcanal"was painted by artist Bernard D'Andrea for the observance of the bicentennial of the United States Coast Guard.

U.S. Coast Gua

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rd Goes to War

Though generally overlooked by most historians, the U.S. Coast Guard performed sterling service in almost every phase of the sea war and in all theaters of operations, starting even before America entered the hostilities. Besides guarding the coastlines, keeping ports secure, and training merchant mariners, its dedicated officers and seamen manned several types of vessels and aircraft, battled German U-boat packs, performed numerous rescue operations at sea, and took part in every major Allied amphibious invasion. Fleet Admiral Chester W. Nimitz, commander of the U.S. Pacific Fleet, observed, "In wartime operations, Coast Guardsmen performed individual acts of heroism as valorous as those of any other of the armed services…I know of no instance wherein they did not acquit themselves in the highest traditions of their service, or prove themselves worthy of their service motto, 'Semper Paratus' (Always Ready)."

Before the Japanese attack on Pearl Harbor on December 7, 1941, thrust America into the war, Coast Guard personnel were on active duty in the frigid waters around Greenland and Iceland. Their cutters broke ice and kept convoy routes open for merchant ships, rescued survivors of submarine attacks, reported on weather and ice conditions, and maintained surface and air patrols. And a few Coast Guardsmen were the first Americans in action against Germans before their country was at war. They were members of the Greenland Patrol, which was established in the summer and autumn of 1941.

Early that September, a few days after the destroyer USS *Greer* exchanged fire with a U-boat, Commander Edward H. "Iceberg" Smith was in charge of a flotilla comprising the destroyer USS *Bear* and the Coast Guard cutters *Northland* and *North Star*. He learned that two groups of "hunters" with radio equipment had been dropped off by a Norwegian trawler north of McKenzie Bay on the east coast of Greenland. Smith placed a prize crew aboard the trawler, which was believed to be sending weather reports and information on Allied shipping to U-boats.

Commander Smith anchored the *Northland* in a fjord and dispatched a landing party to find a suspected German radio station. Twelve Coast Guardsmen led by Lieutenant Leroy McCluskey made their way through ice and darkness and came to a hunters' shack. They surrounded it, kicked in the door, and rushed in to surprise three German radio operators resting in their bunks. The occupants surrendered and yielded their equipment and codes. Pretending to build a fire and make coffee for the Americans, the cunning Germans tried to burn some documents. But McCluskey's men were too quick, and the papers were seized. The documents turned out to be Adolf Hitler's plans for a network of radio stations in the far north.

By the late autumn of 1941, when the war situation in Europe and the Middle East had become critical, it seemed only a matter of time before America became fully involved. The Roosevelt administration was aiding the British and Russians, and American ships were helping to protect Atlantic convoys. But the Navy, facing a two-ocean war, desperately needed more vessels and personnel. So, on November 1, President Roosevelt signed Executive Order 8929, ordering the Coast Guard to operate as part of the Navy. It was to do so until January 1, 1946.

Under the guidance of its commandant, Admiral Russell Randolph Waesche, the Coast Guard underwent a rapid expansion of its personnel, vessels, bases, and equipment. A handsome man known for his foresight and resilience, Waesche was held in the "highest esteem" by Admiral Nimitz. Waesche, a Maryland-born graduate of Purdue University, had been a destroyer and cutter skipper and chased rum runners in the 1920s.

The Pearl Harbor attack accelerated Waesche's buildup effort, with the Coast Guard increasing from 29,000 military and civilian personnel to a peak of 175,000 regulars and reservists in June 1944. An eventual total of 10,000 females served in Commander Dorothy C. Stratton's newly-formed Women's Reserves

After landing a 12-man shore party that surprised three German soldiers setting up a radio station on Greenland, the Coast Guard cutter USS *Northland* lies at anchor amid heavy ice. Coast Guard personnel participated in action across the globe during World War II.

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(SPARS), releasing male personnel for sea duty.

The Coast Guard entered the war with only 168 named vessels which were 100 feet or more in length. More craft were acquired, and by January 1, 1943, the service had a peak number of 802 vessels of 65 feet or more and 7,960 smaller craft. During the war, Coast Guardsmen served aboard a variety of Navy vessels, including destroyer escorts, frigates, attack transports, freighters, tankers, and infantry and tank landing craft.

Not only had some Coast Guardsmen seen action before their country went to war, but a few others were in the thick of the action on that fateful Sunday morning when Japanese carrier planes mauled ships of the Pacific Fleet anchored in Pearl Harbor, Hawaii. At that time, the 327-foot cutter USCGS *Taney*, commanded by Captain G.B. Gelly was on routine patrol duty off Honolulu. Within four minutes of the initial attack, the cutter's guns were fully manned and firing on scattered formations of Japanese planes.

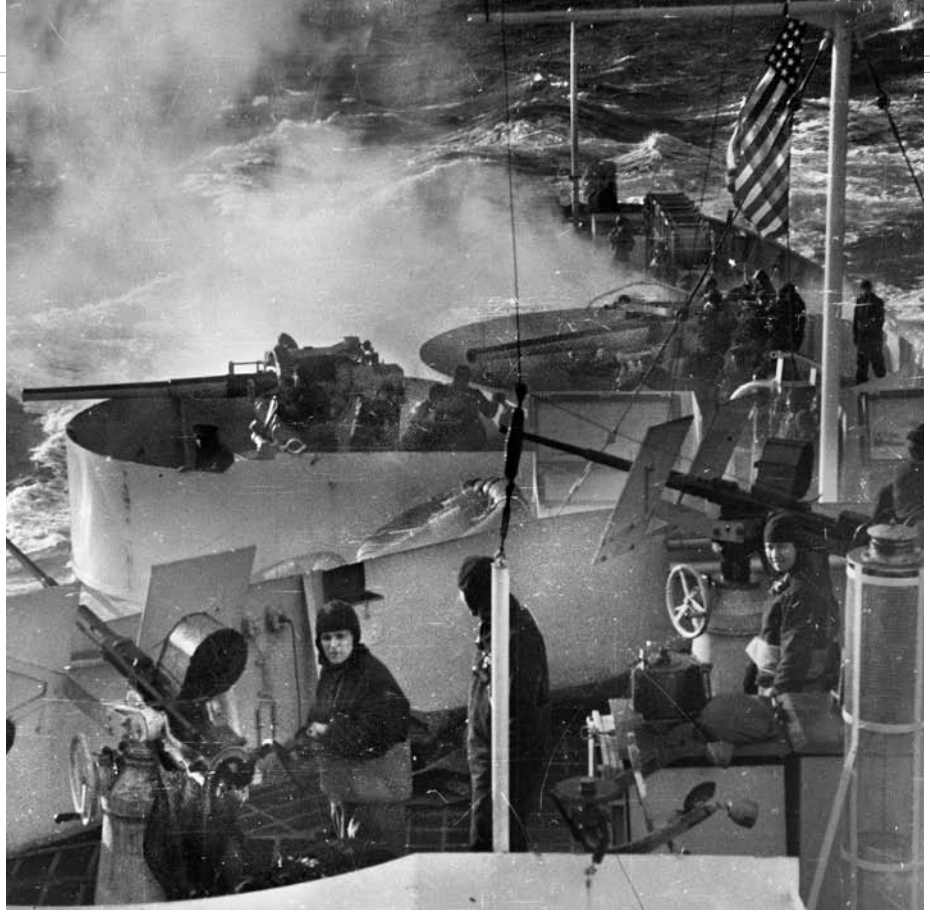
When five enemy aircraft approached the *Taney* from over the harbor entrance on what appeared to be a glide bombing run toward the cutter or the Honolulu power plant, the cutter's crewmen blasted the raiders with their three-inch guns and .50-cal. machine guns. There were no direct hits, but the planes were rocked by the salvos and swerved up and away. The *Taney* continued to patrol off Honolulu and later served as a headquarters ship in the great April 1945 invasion of Okinawa.

As the tempo of the war increased, an urgent demand grew for Coast Guardsmen both at sea and in shore duties, particularly port security and anti-sabotage patrols. One of their first major assignments was guarding the nation's lengthy and vulnerable coastlines, particularly the Eastern Seaboard, off which long-range German U-boats prowled unmolested during the first half of 1942. Many Allied merchant ships were sunk within sight of East Coast cities, and there was the threat of Nazi spies and saboteurs landing from submarines. So, the Coast Guard's "Beach Pounders" were formed. By boat, jeep, truck, on foot, and on horseback, Coast Guardsmen—working in pairs and often accompanied by sentry dogs—tirelessly patrolled the Atlantic, Gulf, and Pacific coasts. Most areas were under constant surveillance by the end of 1943.

With the aid of the FBI and, on one occasion, an alert Boy Scout, Coast Guard vigilance resulted in the apprehension of German saboteurs at Amagansett, Long Island, Ponte Vedra Beach, Florida, and near Machias on the Maine coast.

While Coast Guardsmen kept vigil along the shores, others were stalking the U-boats at sea. The Coastal Picket Patrol was organized by the Coast Guard in May 1942. Nicknamed the "Hooligan Navy," it comprised auxiliary yachts and motor launches under 100 feet in length. Armed with small guns and depth charges, they were mostly commanded by their civilian owners and manned by yachtsmen unqualified for Navy service. The boats were deployed too late to repel the German submarines' first blitz along the East Coast, but they patrolled faithfully during the hard winter of 1942-43.

The Hooligans were too small, slow, and feebly armed to score any kills. At top strength, in February 1943, there were 550 such craft cruising between Eastport, Maine, and Galveston, Texas. From that time, the numbers were pro-



Both: USCG Historial's Office

TOP: Manning their battle stations during an exercise, Coast Guardsmen aboard a cutter at sea await orders to open fire with their guns. ABOVE: Its complement of sailors at general quarters and its decks laden with depth charges, a U.S. Coast Guard cutter rides swells in the Atlantic Ocean while on convoy escort duty, protecting merchant ships loaded with supplies and equipment for the war in Europe.

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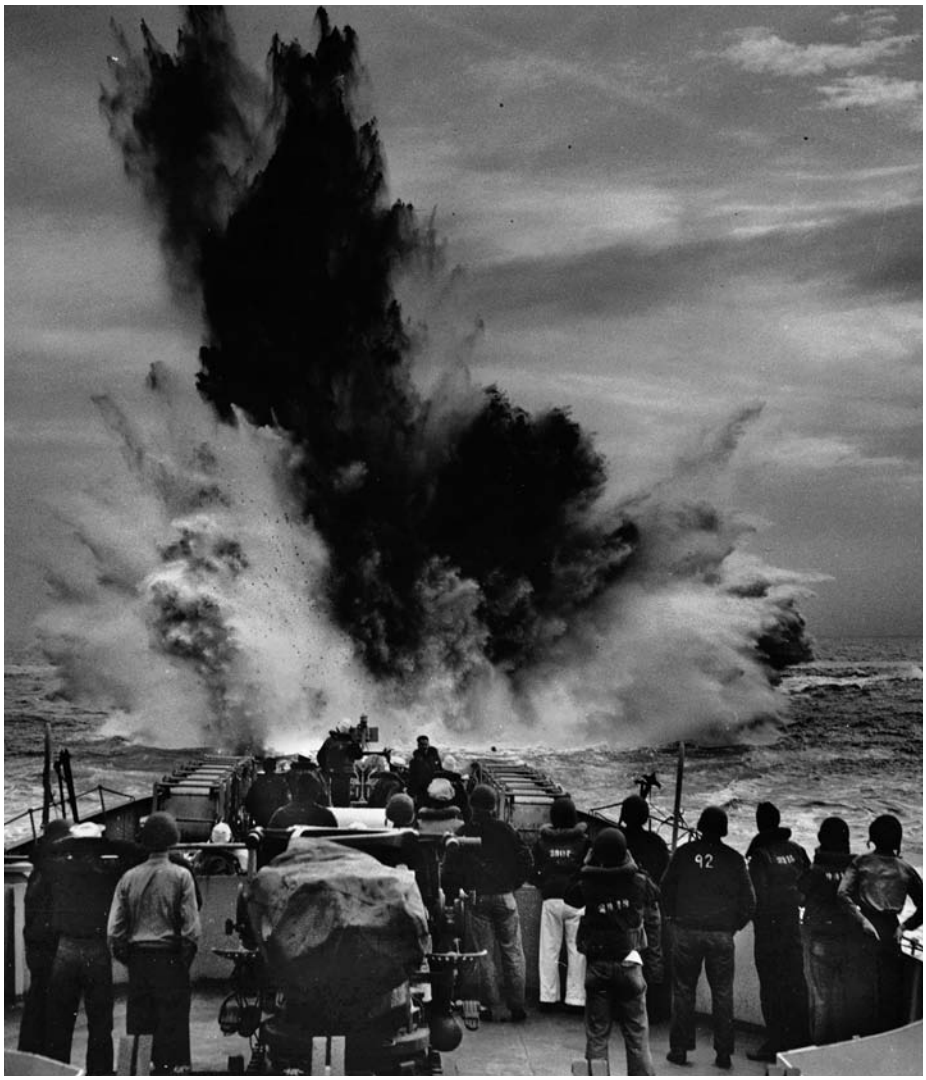

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TOP: A depth charge explodes beyond the stern of a Coast Guard cutter in the Atlantic while crewmen watch the resulting cascade of seawater. Coast Guard cutters played a key role in the fight against German U-boats. ABOVE: German sailors frantically make their way to the deck of the submarine *U-550* after damage from Coast Guard and U.S. Navy warships forced it to the surface. Twelve Germans were taken prisoner aboard the USS *Joyce*, a Coast Guard destroyer escort originally built for the Navy.

gressively reduced as 83-foot Coast Guard cutters assumed their duties.

One of the most important activities of the Coast Guard during the war was security in the nation's busy ports from New York to Galveston, Boston to Miami, and Seattle to San Juan. Working with the FBI and other federal and state agencies, Coast Guardsmen patrolled piers, inspected cargoes, screened longshoremen, fought fires, and successfully prevented sabotage and dangerous carelessness. The port security program, which absorbed 20 percent of the service's personnel, was activated before America entered the war. During its existence, no injury or serious damage occurred to any facility or vessel for which the Coast Guard was responsible. Considering the many hazards from within and without, it was a remarkable achievement.

Coast Guardsmen also improved navigation on inland waterways, ferried landing craft to the coasts from industrial plants along the Mississippi River and the Great Lakes, and maintained coastal communications and navigation networks, including the new LORAN (long-range aid to navigation) system.

For service on the high seas, Coast Guard cutters and patrol boats traded their peacetime white paint for Navy gray or camouflage and were armed with guns, depth charges, and sonar detection equipment. Besides their own increasing fleet of craft, Coast Guardsmen manned 351 naval vessels ranging from troop transports to landing craft and 288 vessels of the Army Transport Corps.

In the Atlantic, Coast Guard cutters, frigates, destroyer escorts, and Consolidated PBY Catalina flying boats and Grumman JF Ducks joined British, American, and Canadian naval units in protecting vital convoys of troops, weapons, and materiel to England for the Allied buildup. It was a bitter and costly struggle until the U-boat menace was minimized by May 1943, and a number of Coast Guard craft fell victim to Nazi torpedoes.

One of the earliest was the new 327-foot cutter *Alexander Hamilton*. While towing a disabled Navy supply ship in heavy seas 10 miles off Iceland on January 29, 1942, she was struck by a torpedo. The explosion killed her engine room crew, but the rest of her complement maintained perfect discipline. The cutter listed badly but stayed afloat, and crewmen were taken off by the destroyer USS *Gwin* and an Icelandic trawler. The *Alexander Hamilton* capsized while being towed into Reykjavik. Twenty-six Coast Guardsmen were killed in the action, and six died later of their wounds.

Destroying enemy submarines was the pri-

mary objective of the Coast Guard, and its vessels had played a vital role from the beginning. Two of the first three U-boats destroyed in American waters were sunk by the 165-foot cutters *Icarus* and *Thetis*.

On the afternoon of May 9, 1942, the USCGC *Icarus* was heading from New York to Key West, Florida, when she made sonar contact with a 500-ton U-boat on her maiden war cruise in shallow water off Cape Lookout, North Carolina. After an explosion erupted from a torpedo misfiring or detonating on the shoal bottom, Lieutenant Commander Maurice D. Jester decided to drop a spread of five depth charges. Three more were dropped, and the badly damaged *U-352* was forced to surface. It grounded in 120 feet of water. *Icarus* crewmen swept the submarine's deck with fire from their three-inch gun and machine guns, and the Germans abandoned ship in "clock-like precision."

As the U-boat sank and 33 survivors bobbed in the water, Jester radioed to shore for help because he did not think his cutter could handle so many prisoners. He was ordered to pick them up anyway and take them to Charleston, South Carolina, for interrogation by Naval Intelligence. Meanwhile, on the afternoon of June 13, 1942, Lieutenant Nelson McCormick's USCGC *Thetis*, based in Key West, dropped seven depth charges and sank *U-157* north of Cuba in the Gulf of Mexico.

During the war, cutters and Coast Guard-manned Navy ships sank 11 enemy submarines, while a 12th was destroyed by a Coast Guard patrol bomber. Twenty-eight Coast Guard and Coast Guard-manned vessels were sunk, and 572 crewmen were killed in action. The service's first combat death occurred on board the transport *Leonard Wood* when she was attacked by Japanese planes at Singapore on December 8, 1941. The Coast Guard's wartime death toll was 1,030.

The versatile service excelled in shipboard and aerial search and rescue operations, and its personnel risked their lives in many waters, from Haiti to Algiers to Cherbourg. A total of 4,243 Allied military personnel and merchant seamen were saved by the Coast Guard in the Atlantic and the Mediterranean. These included 1,658 survivors of enemy torpedo attacks along the Atlantic coast, in the Gulf of Mexico, and in the Caribbean. In addition, Coast Guard cutters rescued 810 survivors in the North Atlantic and 115 in the Mediterranean. Hundreds of others were saved by Coast Guard-manned Navy ships.

During Operation Torch, the massive three-pronged Allied invasion of North Africa on November 8, 1942, Coast Guard seamen earned high praise from Navy officers for their "courage, persistence, and intelligence" in handling troop transports and landing craft, sometimes under heavy fire. The Coast Guard personnel—many of them only briefly trained and lacking combat experience—underwent bombing, shelling, and strafing during the invasion, but lost none of their ships. They also downed three German bombers and rescued several hundred survivors from torpedoed vessels. For their heroic leadership, Commander Merlin O'Neill and Lieutenant Commander Charles W. Harwood of the Coast Guard-manned transports *Leonard Wood* and *Joseph T. Dickman*, respectively, were awarded the Legion of Merit, while Commander Roger C. Heimer of the *Samuel Chase* was commended by the British Admiralty for gallantry.

Coast Guard personnel manned cutters, attack transports, and landing craft during the U.S.-Canadian invasions of Attu and Kiska in the bleak, fog-shrouded Aleutian Islands in May-August 1943, and five seamen were awarded the Navy and Marine Corps Medal for heroic rescues. With Allied forces on the offensive on several fronts, the year 1943 proved to be a challenging one for the men of the Coast Guard.

They manned many attack transports, landing craft of all types, and submarine chasers when the British Eighth and U.S. Seventh Armies invaded the eastern and western coasts of Sicily in Operation Husky on July 10. Hampered by winds, rough seas, and soft sand, the Coast Guardsmen braved enemy bombs, strafing, and machine-gun nests to land troops, vehicles, and ammunition. They also cleared mines and prepared the ports of Gela and Licata for handling more equipment and supplies, and again earned high praise from the Navy. Rear Admiral Harold Biesemeier said that the heroes of the western landings were the crews of the landing craft.

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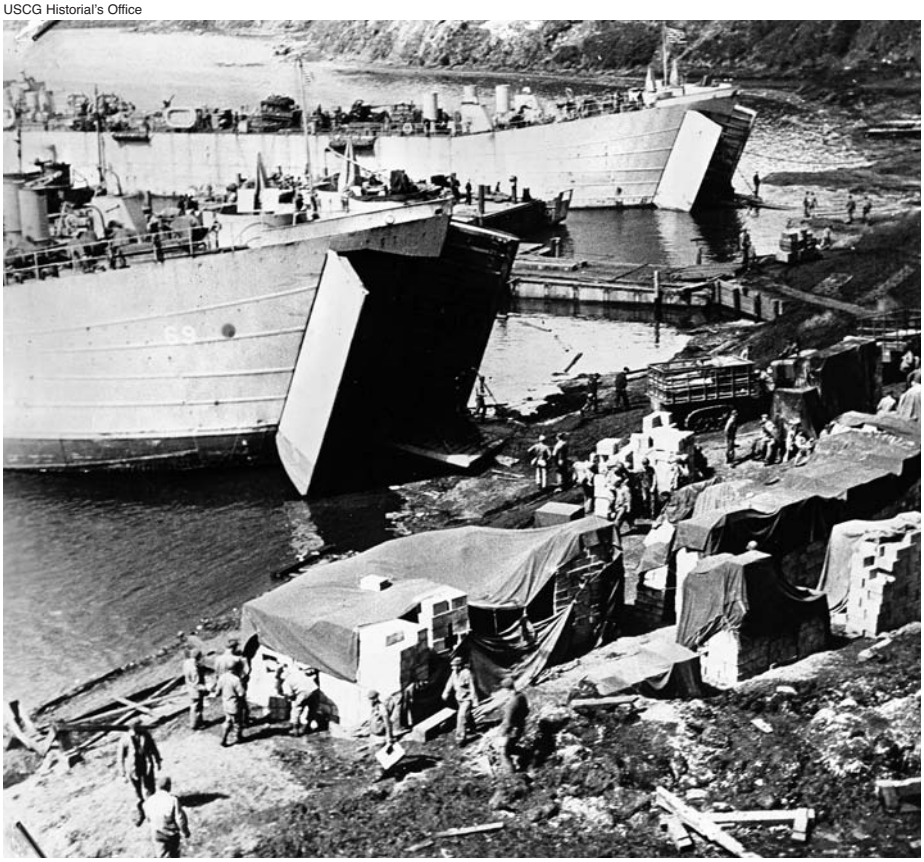

Coast Guardsmen and soldiers of the U.S. Army unload equipment and supplies on a beach in support of Allied landings. Note the large swinging doors of the LSTs (Landing Ship, Tank), which allowed the vessels to transport heavy loads, including tanks and other armored vehicles.

Rear Admiral Samuel Eliot Morison, the Navy's premier historian of World War II, agreed, "If landing and beach craft crews had failed, the entire American part of Operation Husky would have failed, and the British would have been left to carry the war into Sicily unsupported. They did not fail; these young sailors performed marvels of valor and miracles of judgment. All honor, then, to these lads… since they proved themselves to be strong, brave, and resourceful."

A few weeks after Sicily had been secured,

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Coast Guardsmen were again in action as Allied forces crossed the Strait of Messina and invaded mainland Italy. General Bernard L. Montgomery's British Eighth Army seized a bridgehead in Calabria on September 3, and Lieutenant General Mark W. Clark's Fifth Army and the British X Corps at the Gulf of Salerno on September 9. Once more, the Coast Guardsmen endured enemy bombing and shelling as they landed men, tanks, trucks, and supplies on the Salerno beaches. The German defenders counterattacked strongly, and Royal Navy cruisers and destroyers moved in close to shore in support. The entire bridgehead was threatened, and it was several days before the Fifth Army could break out.

After a few months' respite while the Allied armies struggled northward up the Italian boot against stubborn German opposition, the Coast Guard units in the Mediterranean braced for their next invasion role. Operation Shingle was launched January 22, 1944, with the British 1st and U.S. 3rd Infantry Divisions landing at Anzio, behind the German lines on the western coast of Italy, in a bid to outflank the Gustav Line and the deadlocked fighting around Monte Cassino. The invasion initially achieved complete surprise, but Coast Guard-manned landing craft carrying infantry and tanks soon came under heavy fire from enemy artillery and machine guns. One landing craft grounded, another received near-misses, and there were many casualties, but 90 percent of the assault load made it ashore on D-day. However, the Germans rushed more men and weapons to the beachhead, and the Allied forces were hemmed in for four bitter months.

Several thousand miles to the east, more Coast Guardsmen saw much action as American and Australian ground and naval forces went on the offensive in the Pacific theater. After the long struggle to secure Guadalcanal and the Solomon Islands, attack transports and landing craft manned by Coast Guard seamen played a crucial role in many invasions—at Bougainville, Cape Gloucester, New Guinea, the Gilbert Islands, Vella Lavella, the Russell Islands, the Treasuries, the Admiralties, Choiseul, Abemama, New Britain, New Georgia, Rendova, Eniwetok, Biak, Saidor, Hollandi, Wakde, Noemfoor, Emirau, Sarmi, Cape Sansapor, Angor, Morotai, Mindoro, Guam, Tinian, Saipan, Roi-Namur, Kwajalein, Peleliu, Aitape, Mariveles, Cebu, Negros, Subic, Lingayen, Balikpapan, Leyte, Samar, and Luzon.

When Major General Julian C. Smith's 2nd Marine Division made its costly assault on Tarawa in the Gilbert Islands on November 20, 1943, Coast Guard-manned attack transports and landing craft came under heavy fire. One of the transports, the *Arthur Middleton*, a veteran of the Aleutian campaign, served as a receiving ship for many casualties of the bloodiest Marine Corps action in the Pacific war.

The next big challenge for Coast Guardsmen in the Pacific came on February 19, 1945, when Major General Harry Schmidt's Fifth Amphibious Corps invaded the volcanic, sulfurous island of Iwo Jima, 640 miles south of Tokyo. Rear Admiral Harry W. Hill's attack force included 20 Coast Guard-manned transports and landing craft, while seven Navy ships had some Coast Guardsmen in their crews. The landing boats came under increasingly heavy mortar and artillery fire as they carried in the initial assault troops of the 4th and 5th Marine Divisions led by Major General Clifton B. Cates and Major General Keller E. Rockey, respectively. Many landing craft were hit and some broached, but the young Coast Guardsmen—many of them teenagers—kept going in through shell splashes time and again. As the Marines ashore inched their way forward against fierce Japanese resistance, the landing craft coxswains picked up casualties and took them out to the landing ships. The attack transport Bayfield became a makeshift hospital ship.

Then, less than two months later, came Operation Iceberg, the last major offensive of the Pacific war. After several days of naval and air bombardment, General Simon Bolivar Buckner Jr.'s U.S. Tenth Army invaded Okinawa, midway between Formosa and Japan, on Easter Sunday, April 1, 1945. An impressive array of Coast Guard-manned vessels, seven transports, two cutters, and 42 assorted landing

craft, took part in the great invasion, ferrying in men of Major General Roy S. Geiger's Third Amphibious Corps (the 3rd and 6th Marine Divisions) and Lieutenant General John R. Hodge's XIV Corps (the 7th and 96th Infantry Divisions). In addition, six Navy-manned transports had Coast Guardsmen in their crews. Again, the men of the Coast Guard displayed great heroism and fortitude under fire.

The landing craft came under attack by Japanese suicide planes in the early hours of the invasion, and three of them were casualties. When the Coast Guard-manned *LST-884* commanded by Lieutenant Charles C. Pearson was struck by a Kamikaze, she burned brightly and her ammunition cargo exploded. The crew abandoned ship, and men in the water were picked up by other boats. After the heavier ammunition had exploded, Pearson, four other officers, and two seamen boldly returned to the LST, manned the pumps, and tried to douse the fire. Three other officers and 15 seamen voluntarily returned to assist, the fire was brought under control, and the craft was towed away for repair.

While the Marines and Army troops fought doggedly for more than two months to root out and destroy the enemy defenders on Okinawa, the Allied fleet was under constant attack by Kamikazes. The cutter USCGC *Bibb* was subjected to 55 air raids, and her guns downed a Kamikaze. The cutter *Taney*, serving as a combat information vessel, went to general quarters 119 times in 45 days. After being credited with downing four Kamikazes, she splashed a Japanese seaplane.

While Coast Guardsmen played a critical role in the great island-hopping push across the Pacific, many of their comrades served staunchly with the Allied armies fighting to free Western Europe from Nazi domination.

When the British, American, and Canadian armies landed in Normandy on the gray, windy morning of June 6, 1944, U.S. Coast Guard units were in the forefront, stronger than in any previous operation and concentrated off Utah and Omaha beaches. Besides the attack transports *Samuel Chase*, *Joseph T. Dickman*, and *Bayfield*, the Coast Guard fleet included 10 tank landing craft, four of which were assigned to the British assault forces, 25 infantry landing craft, and a flotilla of 60 83-foot wooden cutters. The Coast Guard rescue flotilla had been dispersed among the task forces when the 5,000-ship armada moved across the English Channel.

All of the Coast Guard-manned LSTs and LCIs present at Normandy had taken part in the Sicilian and Italian invasions. Coast Guardsmen manned 97 vessels at Normandy, not including landing craft carried by the transports. They crewed landing ships and landing craft at all five invasion beaches, Utah and Omaha (American), and Gold, Juno, and Sword (British and Canadian).

There was fierce resistance at Omaha and the British beaches, and several Coast Guard landing craft were damaged by mines and enemy shellfire, with the loss of many seamen. Four Coast Guard-manned LCIs were destroyed, but some of the damaged ones were salvaged by their resourceful crews and used again. Meanwhile, the 60 rescue cutters ranged across the length of the five beaches and provided an invaluable service. They picked up 400 Allied soldiers and sailors from the cold Channel waters on D-Day and more than 1,000 during the next three weeks. Despite the losses, the June 6 landings proved far more successful than had been predicted.

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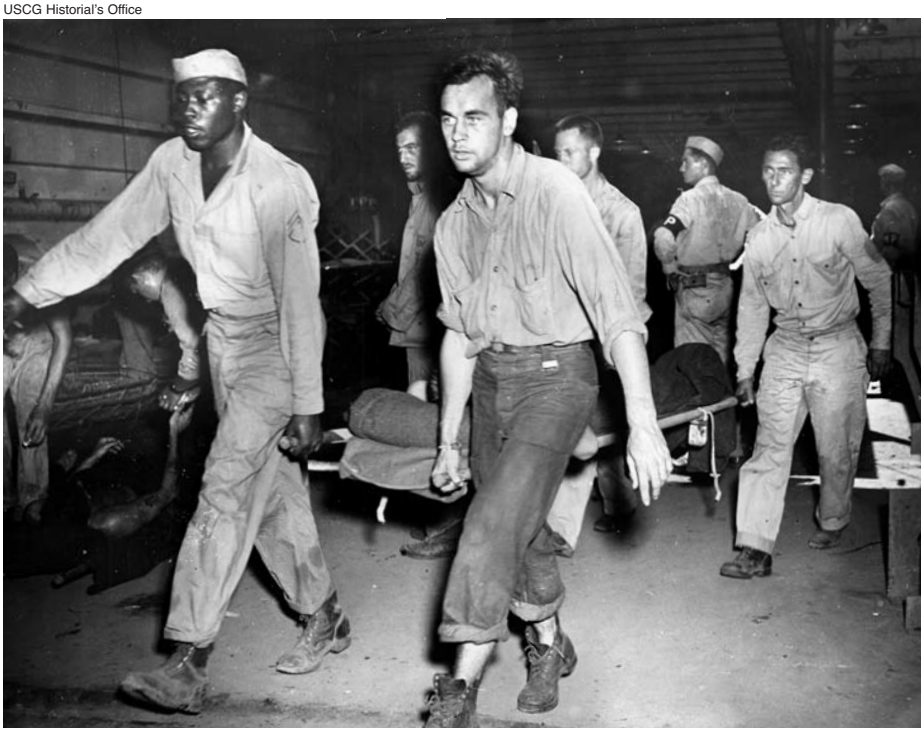


ABOVE: These Coast Guard crewman aboard an LST take a few minutes between watches to carry water, coffee, and food to assist medical personnel in caring for wounded soldiers. OPPOSITE: A Coast Guard crewman aboard a landing craft is shown at lower right as his human cargo of combat troops exits toward the Easy Red sector of Omaha Beach in Normandy on D-Day. This photo was taken while the Americans were under tremendous German fire from the bluffs visible in the distance.

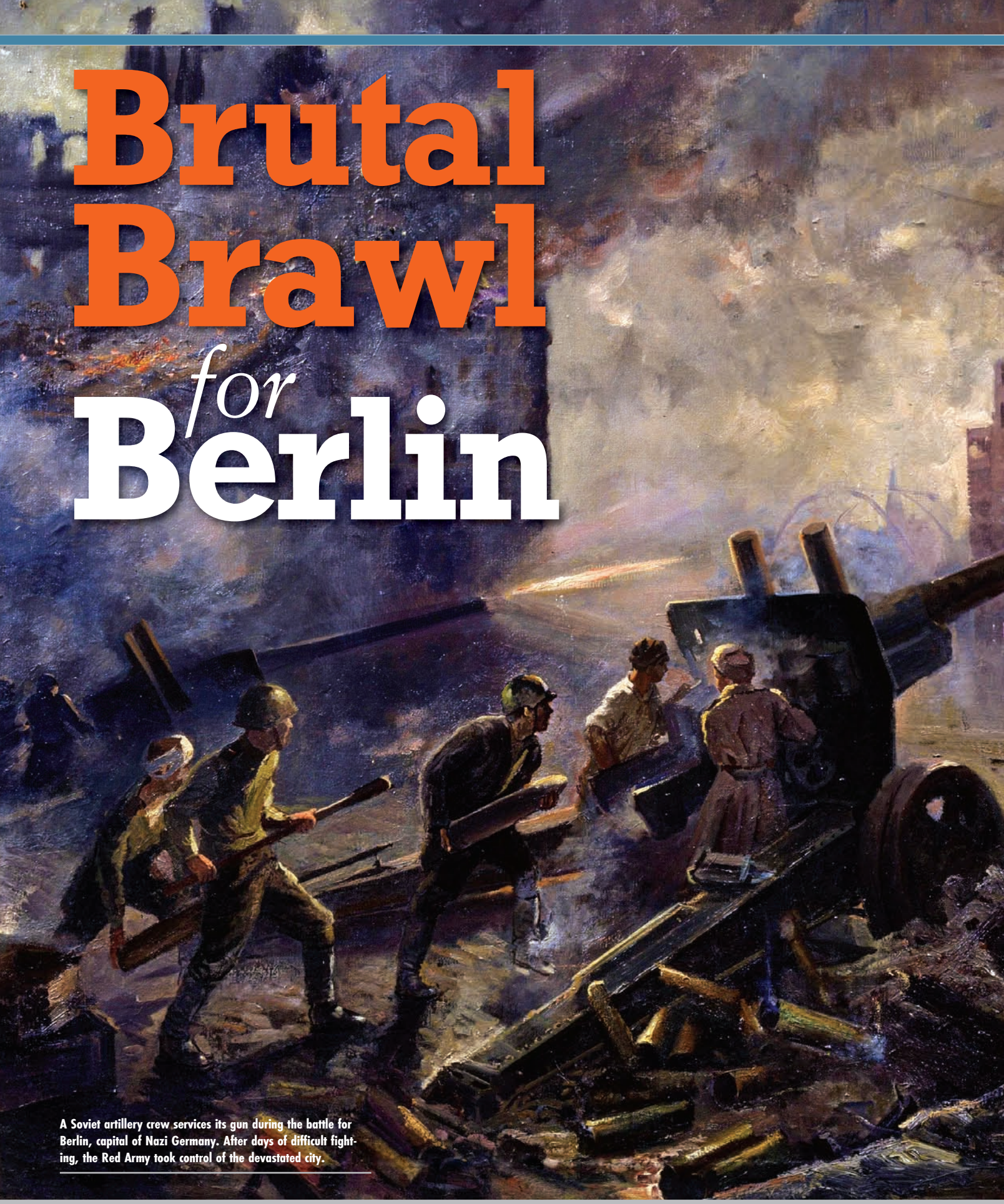
Late in June, a Coast Guard officer had a remarkable experience as Lieutenant General J. Lawton Collins's U.S. VIII Corps was about to capture the strategic port of Cherbourg on the Cotentin Peninsula. Lieutenant Commander Quentin R. Walsh, a port specialist, and Navy Lieutenant Frank Lauer, a Seabee officer, entered the Fort du Homet stronghold at Cherbourg before its German garrison had surrendered. When within shouting distance, the two Americans told the Nazis that all resistance in the city had ended. They were not believed, and the Germans covered them with machine guns. But they held their fire, believing that a large patrol was following the two officers.

Only after accepting an invitation to view the situation in the city did the Germans in the fort realize that Cherbourg had fallen. Walsh and Lauer took 300 soldiers prisoner and liberated 50 American paratroopers who had been held captive there since D-Day. Walsh was awarded the Navy Cross.

Just over two months after the Normandy landings, Coast Guardsmen took part in their last major operation of the European war, the great Allied invasion of southern France (Operation Dragoon) on August 15, 1944. After heavy naval and air bombardment and flanked by Free French Commandos and U.S. Rangers and paratroops, assault troops of Lieutenant General Alexander M. "Sandy" Patch's U.S. Seventh Army and General Jean de Lattre de Tassigny's French II Corps went ashore between Cannes and Rade de Hyeres. Under the command of Rear Admiral Henry Kent Hewitt, more than 800 American, British, Free French, and Canadian battleships, cruisers, destroyers, and escort carriers supported the

Continued on page 74

Brutal Brawl for Berlin



A Soviet artillery crew services its gun during the battle for Berlin, capital of Nazi Germany. After days of difficult fighting, the Red Army took control of the devastated city.

The Red Army sustained heavy losses in its conquest of Berlin in the spring of 1945, ending World War II in Europe. **BY MICHAEL E. HASKEW**

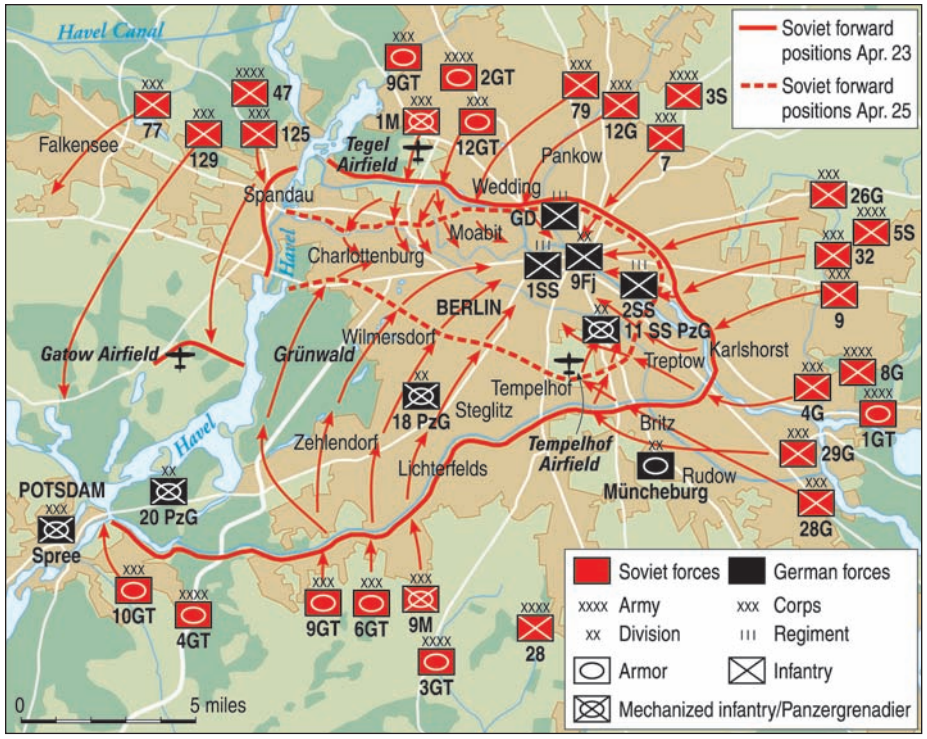
By the end of March 1945, the Western Allied armies were across the Rhine, the last major geographical barrier to an all-out final assault against the Third Reich.

General Dwight D. Eisenhower, supreme commander of Allied forces in the West, had looked forward to the opportunity to destroy Nazi resistance, march triumphantly on Hitler's capital—Berlin—the black heart of the enemy, and end World War II in Europe for good. However, he had recently received word that the Soviet Red Army had crossed the Oder River and was, in some places, less than 30 miles from Berlin.

On March 19, Eisenhower had invited his friend and XII Army Group commander General Omar Bradley to accompany him to Cannes, on the French Riviera, for a few days of rest and relaxation. While there, Eisenhower sought the perspective of his old comrade and fellow member of the U.S. Military Academy graduating class of 1915.

Album/Alamy

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



ABOVE: Soviet armies encircled Berlin and steadily tightened their grip on the city, allowing no German reinforcements in and severely restricting the ability of refugees and straggling soldiers to escape. BELOW: Marshals of the Soviet Union Konstantin Rokossovsky (left) and Georgi Zhukov became rivals during the Red Army effort to take Berlin. That heated rivalry is not apparent in this congenial photo. OPPOSITE: Both the Red Army and the defending Germans sustained heavy casualties during the 1945 Battle of Berlin. In this photo, Soviet soldiers, trucks and tanks prepare to continue the bloody offensive.

National Archives

Eisenhower asked Bradley what he thought about a final, all-out push for Berlin. Bradley thought the effort would cost 100,000 casualties and added wryly that it was "a pretty stiff price to pay for a prestige objective, especially when we've got to fall back and let the other fellow take over."

Bradley's observation resonated with Eisenhower, and he was correct in that the military conquest of Berlin, either by forces from the East or West, would be followed by the implementation of shared occupation of the capital city, which was 100 miles deep inside the proposed post-war Soviet zone of occupation. Eisenhower thought for a while and then broke protocol, directly contacting Soviet Premier Joseph Stalin to inform him that the Western Allied armies intended to occupy the Ruhr, the industrial heart of Germany, rather than assaulting Berlin directly. If their efforts could be coordinated, Eisenhower would leave to the Red Army the nasty business of fighting it out with diehard Nazis in the streets of Berlin.

And so it was. On April 1, 1945, Stalin called two of his most prominent and successful commanders to the Kremlin in Moscow. He asked the rivals, Marshal Georgi Zhukov of the 1st Belorussian Front and Marshal Ivan Konev of the 1st Ukrainian Front, point-blank, "Who will take Berlin?"

Konev quickly retorted, "We will!" Both commanders had played key roles in the smashing Red Army operations leading up to this watershed moment. The Soviets had booted the Nazi Wehrmacht out of Russia after a bloody months-long war of attrition, and Soviet offensive operations in 1944 from Odessa in the south to Leningrad in the north had become known as "Stalin's Ten Blows." In the spring of 1945, East Prussia, the Baltic States, and Pomerania were already occupied by the Soviets, and the time had come for supreme retribution, the utter destruction of the enemy and the capture of Berlin, the lair of the "Fascist beast."

Stalin gave Zhukov and Konev succinct orders for the coming Battle of Berlin. Konev was to approach the city from the south, while Zhukov came up from the north and east. The two massive Fronts (roughly equivalent to Western army groups) would strangle and then trample the Berlin defenders in a massive pincer, squeezing the Germans in an ever-shrinking defensive perimeter until they were annihilated.

Two weeks later, the end game began as the Red Army, poised along the banks of the Oder and Neisse rivers, unleashed a furious artillery bombardment. Well over a million troops were committed, and Konev advanced 13 kilometers the first day while Zhukov pushed toward the Seelöw Heights, a promontory just east of Berlin.

Zhukov had underestimated the resolve of the Seelöw Heights defenders, remnants of German Army Group Vistula under the capable command of Colonel General Gotthard Heinrici. Although substantially outnumbered and outgunned, these Germans were inculcated with Nazi fervor and willing to die in order to hold the ridge. Just before the Soviets unleashed their terrible initial bombardment of the Seelöw Heights, the Germans had pulled back from their frontline bunkers and machine-gun nests. Therefore, much of the Soviet artillery fire failed to inflict serious damage.

As Zhukov's troops and tanks moved forward, they were met with galling fire while German tanks and tank-killing infantry squads stalked them. The Germans inflicted heavy dam-

age on the Soviet armored vehicles—made easy targets as they were silhouetted by their own searchlights. Zhukov's advance stalled. Four days of horrific fighting were required for the 1st Belorussian Front to break through at Seelöw Heights, and in the wake of the Red Army advance 30,000 Soviet soldiers were dead while 12,000 Germans had been killed in action.

When reports of Zhukov's delay reached Stalin in Moscow, he flew into a rage and ordered Konev to redirect the wide sweep he had planned with the Ukrainian Front spearheads and send his tanks directly toward Berlin. Stalin's order intentionally fanned the flame of the rivalry between Zhukov and Konev, both commanders vying for the prestigious honor of capturing the Nazi capital city. Casualties were a secondary concern in the race to take Berlin.

Four days after the Red Army offensive was launched, Adolf Hitler observed his 56th birthday. April 20, 1945, was a somber occasion as the Nazi leader emerged from the underground Führerbunker, a subterranean labyrinth of two levels 50 feet below the garden of the Reich Chancellery amid a cluster of administrative buildings known as the Citadel near Berlin's Königsplatz. The Führer was above ground just long enough to pat the cheeks of several boys who had displayed conspicuous bravery fighting the marauding Soviets. He congratulated them for their courage and awarded them the Iron Cross.

Even as he smiled faintly, Hitler was a physical shambles, a shadow of his former self. His hands shook noticeably, most likely due to progressive Parkinson's Disease. A chemical cocktail of Benzedrine eye drops laced with cocaine kept him somewhat alert, but he shuffled as he walked, hunched in an ill-fitting overcoat. He suffered from severe stomach pain and consumed barbiturates to induce fitful sleep. He was prone to moments of dejection followed by outbursts of uncontrollable rage. The walls were closing in.

Soviet long-range artillery marked the Führer's birthday by opening fire on the center of Berlin, and Hitler received word that Zhukov had broken through at Seelöw Heights. Just as the Soviet guns were preparing to open fire, a Red Army news correspondent happened upon several artillery pieces at the ready. He wrote later, "'What are the targets?' I asked the battery commander. 'Center of Berlin, Spree bridges, and the northern Stettin railway stations,' he answered. Then came the tremendous words of command: 'Open fire on the capital of Fascist Germany.' I noted the time. It was exactly 8:30 a.m. on 22 April. Ninety-six shells fell on the center of Berlin in the course of a few minutes."

Konev was charging across open country, legions of the superb T-34 medium tanks supporting the infantry with the 3rd Guards Army and the 4th Guards Tank Army in the van. There was more disturbing news. A third Soviet Front, the 2nd Belorussian under Marshal Konstantin Rokossovsky, had breached the lines of the 3rd Panzer Army and begun a thrust toward Berlin as well. The old men and boys of the Volkssturm and the Hitler Youth were already in the lines to bolster the hodgepodge of German Army and Waffen SS units poised for the death struggle in Berlin.

By April 25, a Guards rifle regiment of the 1st Ukrainian Front made contact with troops of the U.S. 69th Infantry Division at Torgau on the Elbe River, splitting the Third Reich in two. On the same day, Soviet forces completed the encirclement of Berlin. The western advance of the 1st Ukrainian Front prevented the German 12th Army, under the command of General Walther Wenck, from coming to the aid of the Berlin defenders, and the 4th and 9th Panzer Armies were surrounded as well.

Immediately, Soviet probing attacks tested the defenses of Berlin proper, which the Germans had arranged in three concentric rings, further identified in nine sectors. The outermost ring stretched roughly 60 miles, its circumference including the outskirts of the capital city. It was a mere shell of a defense, consisting primarily of roadblocks, shallow trenches, mounds of rubble blocking roadways, and barricades of felled trees and otherwise useless vehicles. The advancing Red Army units breached this thin line swiftly and in several locations prior to their main assault.

The second defensive ring ranged about 25 miles and incorporated shell-scarred buildings and other obstacles in its composition. Favorable terrain and stations along the route of the S-Bahn, Berlin's public transportation system, were included. The inner ring took advantage of the huge, stoutly constructed buildings that had once housed the departments and ministries of the Nazi government. German soldiers turned these buildings into defensive strongpoints bristling with machine-gun emplace-

ullstein bild

ABOVE: Demolished vehicles and damaged buildings are shown in this stark landscape of Berlin shortly after the battle in the spring of 1945. The Brandenburg Gate looms in the background. RIGHT: The Nazis impressed old men and boys to fight in the last days of the Third Reich. These two teenagers in German uniform were lucky to be alive when the fighting was over.

Both: National Archives

ments and anti-tank positions on each floor. Six gigantic concrete-reinforced flak towers, each of them studded with heavy antiaircraft guns, were part of the inner circle. These massive structures were virtually impregnable to artillery fire or aerial bombardment unless they received a direct hit.

Eight of the nine defensive sectors were labeled A through H and radiated from the center of Berlin through the defensive rings and outward to the perimeter. The ninth, designated Z, was heavily defended, primarily by a fiercely loyal contingent of Hitler's personal SS bodyguard. Berlin was a sprawling city, encompassing 340 square miles, and the defenders also made the most of the natural barriers that were available. The course of the Spree River was heavily fortified, as were the Teltow and Landwehr Canals.

To a man, the Red Army soldiers knew that their primary objective was the Citadel, where the nexus of Nazi government had presided in its collection of imposing buildings north and east of the Tiergarten, a large residential district and park that included the formerly world famous Berlin Zoo.

While estimates of the strength of the German defenders in Berlin vary widely, it is believed that from 100,000 to 180,000 soldiers of the SS, Hitler Youth, and Volkstürm had been scraped together under the command of General Helmuth Weidling, who was personally appointed by Hitler on April 23 to lead the defenders during the death throes of the Reich.

The Red Army advanced toward the center of the Nazi capital on four primary axes, moving along the Frankfurter Allee from the southeast, Sonnenallee toward the Belle-Alliance-Platz from the south, further from the south toward the Potsdamer Platz, and straight toward the Reichstag from the north. Although a symbol of the German state, the Reichstag building had not been in use since 1933, when it was gutted by a devastating fire probably set by the Nazis and then blamed on Communists. Still, the structure was a powerful symbol of the German nation, and its capture would be symbolic of the Soviet victory.

The Soviets quickly penetrated the outer defenses of Berlin, and on April 26, the 8th Guards and 1st Guards Tank Armies battled through the second defensive ring. They soon crossed the line of the S-Bahn and assaulted Tempelhof Airport. West of this action, the 1st Belorussian Front fought for two days to reach the banks of the Spree and entered the suburb of Charlottenburg.

Fighting reached the Tiergarten on April 28, and that same day the Potsdamer Strasse Bridge across the Landwehr Canal was taken intact. After dawn on the 29th, the 3rd Shock Army stormed across the Moltke Bridge over the Spree. To the left of these troops, the Reichstag building fronted the Königsplatz. The old structure, already scarred with the black stains of the great fire, was defended by roughly 6,000 German soldiers, while the approaches were heavily mined and machine-gun nests were scattered about. A few artillery pieces and a handful of available tanks had also been committed to the Reichstag defense.

As they moved against the Reichstag building, the Soviets also assaulted the Interior Ministry building. Progress was slow as the Germans contested every yard of territory and every floor of the structure. Early on the 30th, Red Army troops occupied Gestapo headquarters on Prinz Albrechtstrasse, but a furious German counterattack forced them out. Nevertheless, most of the diplomatic quarter was in

Soviet control by the end of the day.

The fighting for the Reichstag raged, meanwhile, as the 79th Rifle Corps began its decisive attack on the structure. Brave soldiers of the 150th Rifle Division sprinted across the open ground of the Königsplatz in a frontal assault while German machine guns spewed bullets and sent many attackers spinning down in midstride. As other Soviet divisions joined the Reichstag assault, three attacks were thrown back with heavy losses between 4:30 a.m. and 1 p.m. on April 30. Firing from more than a mile away, a German 128mm gun mounted atop the flak tower at the Berlin Zoo inflicted a heavy toll on the Soviets.

Tanks and self-propelled assault guns were brought up to blast the Germans from the rubble of the Reichstag. They clanked into the open space of the Königsplatz and pounded away at point-blank range. At noon, a false report was flashed stating that the red hammer and sickle banner of the Soviet Union was flying above the shattered Reichstag, but in truth the Soviets were still paying in blood for every yard. At the time, they were more or less only halfway across the Königsplatz.

Commanding the 150th Rifle Division, Major General V.M. Shatilov was worried that the premature report of the Reichtag's capture might reach the higher echelons of Red Army command, perhaps even the Kremlin and Stalin himself. If that happened and the communique was later recognized as inaccurate, Shalitov feared the repercussions—and perhaps his own future. He ordered his soldiers to redouble their effort to take the Reichstag.

As the horrific day wore on, the Soviets tried again and again to dislodge the Reichstag defenders. By 6 p.m., they had been battering the building for 14 hours. At last, intrepid teams moved forward with small mortars to blast open entryways and doors that had been obscured by rubble. Forcing their way inside, the Soviets engaged Germans in a melee of hand-to-hand fighting. Here and there soldiers fought in single combat. The battle raged on every floor, even as a small detachment of soldiers worked its way around to the rear of the building and found an unguarded stairway to the roof. Moments later, Sergeants Meliton Kantaria and Mikhail Yegorov dashed toward an equestrian statue just at the roofline and jammed the red banner into an available space. It was minutes before 11 p.m. local time.

Despite this symbolic victory on the night of April 30, the Reichstag building was still the scene of heavy fighting and was not declared secure until May 2 when 2,500 Germans surrendered, staggering into captivity and an

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ABOVE: Red Army soldiers work their way through the rubble of a destroyed building in Berlin. Wary of snipers, the Soviet troops were compelled to clear streets, buildings and houses of stubborn German defenders. BELOW: These old men of the Nazi Volkssturm assemble with rifles, soon to be committed to the defense of Berlin. The German defenders were decimated in the fight for the Nazi capital city.

Wikimedia Commons - Bundesarchiv, Bild 146-1979-107-10 / Falkowski / CC-BY-SA 3.0

uncertain future. Famous newsreel footage and photographs of the red banner's raising were staged, actually taken during a reenactment of the triumph on May 3.

On April 30, the hinge of fate swung fatally for the beleaguered defenders of Berlin, running low on ammunition and supplies, exhausted, but holding as they were able. That morning General Weidling informed Hitler that within hours the Red Army would be in control of the center of the city. In the dank netherworld of the Führerbunker, Hitler had already begun preparing for the last macabre act of his 12-year Nazi rule.

While the concussions of Soviet shells shook dust and bits of concrete from the Führerbunker ceiling, he doled out cyanide capsules to the few fanatical loyalists around him and poisoned his Alsatian dog, Blondi, to test their potency. During the night of April 28, he had dictated his two-part last will and testament, a rambling document rife with anti-Semitic drivel blaming the German people for the catastrophic defeat. He blamed the war on international Jewry and declared, "It is untrue that I or anyone else wanted the war in 1939. It was desired and instigated exclusively by those…statesmen who were of Jewish descent or worked for Jewish interests."

A few minutes after midnight on April 29, Hitler had summoned a low-level Nazi official from the front line to perform a civil service of marriage to his long-time mistress Eva Braun, who refused to evacuate from the bunker. It was a surreal exercise as the two declared their Aryan lineage, and the Führer's personal secretary Martin Bormann and Propaganda Minister Joseph Goebbels served as witnesses. During the reception that followed, guests sipped champagne and mused about the most painless and efficient methods of suicide so as not to fall captive to the vengeful Red Army.

At 2:30 a.m. on the 30th, Hitler assembled his staff and muttered goodbyes. He held his final military briefing at noon, useless as it was. He ate his final meal—a vegetarian lunch—two hours later, and spent a few final moments with Bormann, Goebbels, and others of his trusted inner circle. Then, he and Eva retired to their private quarters and committed suicide. Their bodies were carried up the long staircase to the garden of the Reich Chancellery, where a shallow grave was dug, the corpses doused with gasoline and then set alight. The disposition of the bodies was carried out quickly as Soviet artillery shells fell quite close.

The death of the Führer preceded the fall of the Nazi capital by only a few hours. While the drama of Hitler's demise played out, the Soviet 5th Shock, 8th Guards, and 8th Guards Tank Armies were steadily advancing down the famed Unter den Linden, drawing nearer to the Reich Chancellery and the Führerbunker. Hitler had issued orders to General Weidling to attempt a breakout from the stranglehold, but most of those who scattered were simply on their own. Many died, shot down in the streets. Berliners were subjected to the terror their own troops had wrought in the East—their homes pillaged, old men beaten and murdered, women old and young raped repeatedly.

Retribution had come, a Götterdämmerung that the German people had for so long believed was inconceivable. By the evening of April 30, only about 10,000 German soldiers, sworn to fight to the death, continued to resist the hordes of Red Army troops and tanks that roamed the shattered city. Soviet field guns continually pounded the Air Ministry building on the Wilhelmstrasse, a fortress that had been built intentionally with concrete and steel reinforcement

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ABOVE: During the advance on Berlin, Soviet soldiers ride atop tanks as they grind their way through a city in East Prussia. The Soviets were merciless and committed many atrocities against the civilian population in retribution for German brutality earlier in the war. OPPOSITE: German prisoners carry a wounded comrade in a blanket as they make their way down a Berlin street in the spring of 1945. These captives are walking past a Soviet ISU-152 self-propelled gun.

Wikimedia Commons

to withstand bombing and ground assault.

Soldiers of the 3rd Shock Army worked their way along the northern edge of the Tiergarten and took on a few German tanks that rallied to oppose them. While they fought the Nazi armor, these troops maintained pressure on the Reichstag building, where fighting was still underway. After destroying the German tanks, elements of the 3rd Shock Army moved in cooperation with the 8th Guards Army and cut the center of Berlin in half.

On May 1, General Hans Krebs, chief of the German Army General Staff, sent a message to General Vasily Chuikov, commander of the 8th Guards Army and a hero of the great victory at Stalingrad in 1942-43, the turning point of World War II on the Eastern Front. Krebs informed Chuikov that Hitler was dead, and he asked for terms of surrender. Chuikov was not charitable. His response was succinct. Nothing other than unconditional surrender would be satisfactory.

Krebs responded that he did not have such authority, and the fighting continued.

At the same time, individual German soldiers or small groups of those trying to save themselves began to abandon their posts, filtering through the ruins of Berlin and hoping to reach the Western Allied lines where they might surrender to the British or Americans and avoid the harsh vengeance of the Soviet troops whose people had suffered so much at the hands of the Nazis earlier in the war. A relative handful of them were successful, some crossing the Havel River at the Charlottenbrücke Bridge, but most met their ignominious fate in a hail of Red Army bullets and artillery shells.

The Reich Chancellery was firmly in Soviet control by the morning of May 2, and in the predawn hours, General Weidling had already sent a communique to Chuikov asking for a meeting to conclude the great battle. Weidling was told to make his way to the Potsdamer Bridge at 6 a.m. He was transported to Chuikov's headquarters, and within an hour a cease-fire was prepared. At Chuikov's request, Weidling issued an order for German troops to lay down their arms and wrote that order by hand with pen and paper. He also made a recording of the same instruction, and Soviet trucks blared the message from loudspeakers as they cruised the shattered streets of Berlin.

Even so, there were several pockets of diehard Nazi troops intent on fighting to the death, most of them SS men still under the mad spell of Hitler and Reichsführer SS Heinrich Himmler. The flak tower at the Berlin Zoo was one of the last scenes of fighting until finally 350 Germans stumbled into the daylight and gave themselves up.

The great Battle of Berlin was over. The Red Army was victorious, but the casualties had been immense. During their drive from the Oder and Neisse to the Nazi capital, at least 81,000 Soviet soldiers had been killed and well over a quarter million wounded in battle. There were scattered reports that in their zeal to please their master, Stalin, rivals Zhukov and Konev had even authorized their troops to fire on one another to gain the upper hand and claim the victory.

Estimates of German losses range as high as 100,000 dead, 220,000 wounded, and nearly a half million taken prisoner. Civilian casualties were horrific, and roughly 100,000 residents of Berlin had died, some by their own hand. For some Germans, the vengeance of the Red Army was, perhaps, a fate worse than death.

In the wake of the Battle of Berlin, the victorious Allied leaders did follow through on their plan to divide Germany into zones of occupation. Berlin, too, was divided, and just as Bradley and Eisenhower had believed, the powers shared in the occupation of the city. In that occupation were sown the seeds of the Cold War and a half century of a nation divided ideologically and territorially between East and West. ■

Michael E. Haskew is the editor of WWII History magazine. *He has written numerous books and articles on military history and resides in Chattanooga, Tennessee.*

GREY GHOSTS

THE U.S. MARINE CORPS' FIRST NIGHT FIGHTER SQUADRON SCORED AERIAL VICTORIES AGAINST JAPANESE INTRUDERS.

BY PATRICK J. CHAISSON

IT didn't take long for Rear Admiral William F. Halsey, Jr., to notice how exhausted the men all seemed. Newly appointed as Commander, South Pacific Area, Halsey had just arrived on Guadalcanal in the Solomon Islands to inspect conditions there. The date was November 8, 1942.

At the airfield, First Marine Division Commander Maj. Gen. Alexander A. Vandegrift enthusiastically welcomed his high-ranking guest to CACTUS (code name for Guadalcanal). Vandegrift's 20,000 soldiers, sailors, and Leathernecks had been steadfastly holding this strategic lodgment against relentless Japanese attacks for three months now. The strain of near-constant combat was beginning to tell on them, though, as Halsey observed during a jeep tour of the front lines.

An aide described how the admiral "talked with a large number of Marines, saw their gaunt, malaria-ridden bodies, their faces lined with what seemed a nightmare of years" that day. After dark, "Bull" Halsey experienced for himself this living nightmare endured by every American on Guadalcanal.

It began when an enemy destroyer entered Ironbottom Sound and traded shellfire with Marine artillery batteries on shore, forcing the

Library of Congress

A Lockheed PV-1 Ventura bomber is shown in flight in the Solomon Islands. During the early days of the Solomons campaign the Ventura was modified to serve as a night fighter with the squadron based at Guadalcanal's Henderson Field.

OVER THE SOLOMONS

All: National Archives

ABOVE: This photo of the Marine Corps of the ground support facilities for night fighter squadron VMFN-531 was taken at Sterling Island in early 1944. The image shows the SCR-527A radar apparatus and the fighter control center. RIGHT: Lieutenant Colonel Robert Bisson (left) served as the Ground Control Intercept detachment for night fighter squadron VMFN-531. Lieutenant Colonel Frank Schwable (right, pictured in 1935) served as the squadron's first commanding officer.

visiting admiral into an air raid shelter. Later, the sound of unsynchronized aircraft engines high overhead again sent CACTUS defenders diving back into their bunkers.

"Washing Machine Charlie," a two-engined bomber, had announced its presence. For several hours this nocturnal pest circled around just beyond the range of American antiaircraft guns, occasionally dropping a flare or anti-personnel bomb. It was a harassment tactic designed to keep those manning the perimeter awake, scared, and miserable.

The raid robbed Halsey of any rest that night. In his postwar autobiography, he blamed this on fright, not the noise itself. He repeatedly told himself, "'Go to sleep, you damned coward!' but it didn't do any good; I couldn't obey orders."

Admiral Halsey flew out of Guadalcanal after sunrise, but the memory of his unsettled night there remained fresh. Some weeks later, he wrote Maj. Gen. Ross E. Rowell, commander of Marine Aircraft Wings Pacific, with a proposed remedy to nocturnal irritants like Washing Machine Charlie.

"Current night nuisance raids over CACTUS are lowering combat efficiency of our troops through loss of sleep and increased exposure to malaria during hours of darkness spent in foxholes and dugouts," Halsey claimed. "Recommend that minimum of six night fighting aircraft with homing radars … plus ground equipment be dispatched CACTUS earliest time."

Rowell forwarded the admiral's request to Marine Corps Commandant Lt. Gen. Thomas Holcomb in Washington for an answer. It then became Holcomb's duty to inform Halsey of an embarrassing fact: The USMC could not send six radar-equipped interceptor aircraft to Guadalcanal. In fact, one year into the Pacific War, his Marines did not yet possess a single operational night fighter.

"In the beginning," recounted U.S. Marine Corps historians, "there were no planes, no pilots, no American precedents, very little recognition of the need for night fighters, and extremely primitive equipment for locating enemy planes." Clearly, the Leathernecks would need help if they ever hoped to intercept hostile aircraft during the hours of darkness.

By 1941, the British Royal Air Force (RAF) had made great strides toward perfecting an early-warning system that employed radio waves to determine the distance, direction, and speed of approaching warplanes. This so-called "radar" (an acronym for "radio detection and ranging") played a crucial, even decisive, role in the Battle of Britain fought that previous summer.

To counter the threat from nocturnal bombers, British scientists rapidly developed an ingenious microwave radar that could be mounted inside a high-performance aircraft. Night fighters could now be precisely guided toward a target by ground control intercept (GCI) stations, then utilize their own short-range aircraft interception (AI) systems to close in for the kill. For some time, the RAF had been employing radar-fitted Boulton Paul Defiants in this role with modest success.

In November 1941, USMC Major Frank H. Schwable received orders assigning him as a Special Military Observer to the United Kingdom. Schwable, 33, was a 1929 graduate of the U.S. Naval Academy who went on to earn his aviator's wings shortly thereafter. His prewar assignments included service as a Marine pilot in Nicaragua, as well as duty with the Navy's Bureau of Aeronautics.

Before leaving for England, Schwable was instructed "to get all the information you can on the organization and operations of [RAF] night fighting squadrons, paying particular attention to the operational routine, squadron training, gunnery, and tactical doctrine." He spent three and a half months there, even attending the fighter director school at Stanmore, until a new assignment brought him home the following spring.

While Major Schwable was overseas, much preliminary work on the U.S. Navy and Marine Corps night fighter program had begun. Permission was granted to license-build AI and GCI radars in the United States; these sets were designated the SCR-540 and SCR-527A, respectively. And in March 1942, Commandant Holcomb directed that a total of eight 12-plane USMC night fighter squadrons be activated— but the first of these squadrons was not scheduled to take wing until January 1, 1945.

Evidently, the Marine Corps brass did not consider night fighter operations a high priority. That summer, however, freshly promoted Lt. Col. Schwable helped convince headquarters to push the activation of these squadrons forward by three years. Thus, on July 25, 1942, Marine Night Fighter Squadron VMF(N)-531 was authorized, with Schwable named as its first commanding officer. The unit would organize and train at Cherry Point Marine Air Station, then being constructed out of a North Carolina swamp.

"We started with nothing," Frank Schwable would recall later. "In fact, we were the first combat squadron to move into one of the new hangars down there." Conditions at Cherry

Point were so austere that Schwable's office, tucked into the corner of an unheated shed, was furnished solely with "three packing boxes. That was our desk and that was our chair."

New personnel arrived steadily. Among the first men to report aboard were Majors John D. Harshberger and Robert O. Bisson. Harshberger, an early convert to night fighter operations, served as second-in-command. Bisson, although a rated aviator, took charge of VMF(N)-531's GCI detachment. Harshberger and Bisson were soon promoted to Lt. Col., an unusual arrangement that reflected both the organization's large size and its highly technical, specialized mission (a typical USMC fighter squadron rated one major as commanding officer). This was anything but a typical outfit, as the "Grey Ghosts" (their squadron nickname) were learning.

Frank Schwable, meanwhile, struggled to find an aircraft his squadron could take to war. Not ready yet were purpose-built night fighters like the Northrop P-61 Black Widow, a warplane that was already plagued by numerous design problems and wouldn't become operational until late 1944. Single-seat Navy interceptors such as the Vought F4U-2 Corsair and Grumman F6F-3E/N Hellcat, fitted with AI radar, were set to reach the fleet possibly as early as mid-1943, but that still wasn't soon enough. Someone (possibly Schwable) even suggested the British send over a dozen radar-equipped Bristol Beaufighters in a reverse Lend Lease exchange.

The U.S. Navy's Bureau of Aeronautics (in charge of supplying aircraft to the Marine Corps) finally settled on a highly modified version of the Lockheed-Vega PV-1 Ventura patrol bomber for this requirement. Twin-engined and with a usual crew of three (pilot, radar operator, and top turret gunner), the Ventura stood at the top of a short list of airplanes that could carry aloft the bulky SCR-540 air interception radar set. It would take months to make all the necessary conversions on VMF(N)-531's 12 PV-1s, though, and flight crews needed immediate practice in nighttime navigation, takeoff, and landing.

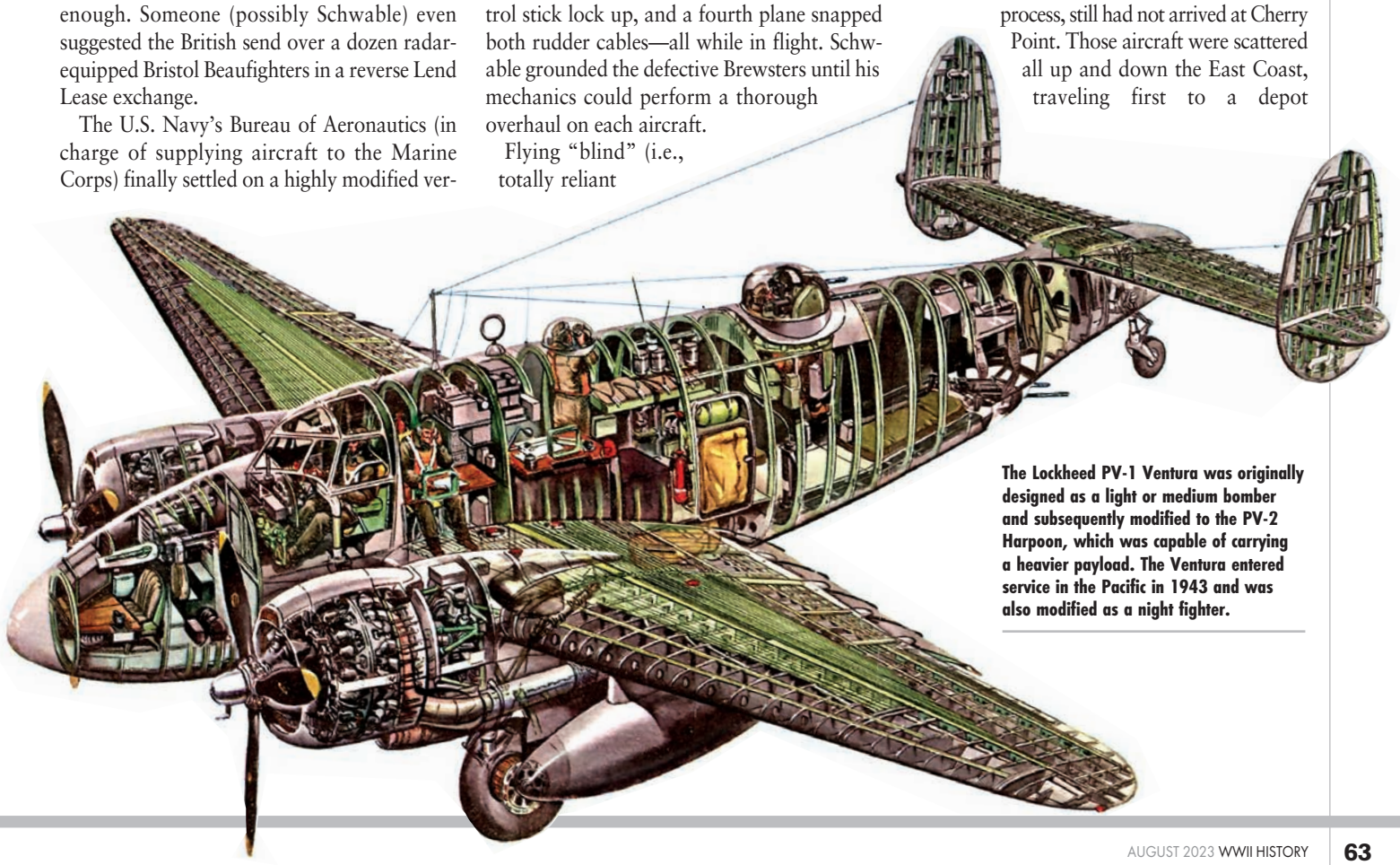
In October the Grey Ghosts acquired two North American SNJ-4 and one Curtiss SNC-1 trainer aircraft, but they required additional planes to accommodate the squadron's growing flock of newly assigned Marine aviators—most of whom had come straight from flight school at Pensacola, Florida. Several Brewster SB2A-4 Buccaneer scout-bombers, "repossessed" from a Royal Netherlands Air Force contract, came to the squadron in December. These Brewsters caused a great deal of trouble, to put it mildly.

First, the Brewsters' instrument panel placards were all written in Dutch. Their propellers' electrical contacts frequently burned out, and the main landing gear struts often collapsed on landing. Over the span of 14 days, one SB2A-4 experienced a hydraulic failure, another shed its tail-wheel locking pin, one more had its control stick lock up, and a fourth plane snapped both rudder cables—all while in flight. Schwable grounded the defective Brewsters until his mechanics could perform a thorough overhaul on each aircraft.

Flying "blind" (i.e., totally reliant on instruments) was a skill every night fighter pilot had to master. Marine Corps aviators did receive basic instruction in all-weather navigation at Pensacola, but more training was needed. A reservist named Major Karl S. Day ran an intensive "attitude instrument flight school" at Fort Worth, Texas, using Douglas R4D-3 Skytrain transports. The Grey Ghosts attended Day's course, afterward gaining new confidence in their ability to aviate without being able to see anything outside the cockpit.

Meanwhile, VMF(N)-531's ground controllers learned the intricate business of guiding ("vectoring," as they called it) a fighter aircraft toward an interception point from which the flight crew could then take over with its short-range radar. Getting that night fighter to an ideal interception point meant putting it 600 feet astern and slightly below its prey on the same course and speed; no easy task, given the temperamental electronics then in use. It demanded constant practice; whenever weather conditions permitted, the Grey Ghosts were up in their undependable Brewsters, following GCI's vectors to locate a target plane flying somewhere in the darkness.

Throughout the spring of 1943, VMF(N)-531 trained, organized, and received the equipment it needed to fight. Yet the squadron's PV-1 Venturas, delayed by difficulties with the conversion process, still had not arrived at Cherry Point. Those aircraft were scattered all up and down the East Coast, traveling first to a depot



The Lockheed PV-1 Ventura was originally designed as a light or medium bomber and subsequently modified to the PV-2 Harpoon, which was capable of carrying a heavier payload. The Ventura entered service in the Pacific in 1943 and was also modified as a night fighter.

Both: National Archives

ABOVE: Marine night fighters operating in the Solomon Islands encountered numerous types of Japanese aircraft. Among them was the Aichi E13 A floatplane, designated "Jake" by the Allies. RIGHT: The night fighter pilots of VMFN-531 scored their first aerial victory against the Japanese in downing a Mitsubishi G4M bomber like this one, known to the Allies by the code name "Betty." OPPOSITE: The nose of this Lockheed Ventura night fighter has been modified to accommodate airborne radar and four additional .50-caliber machine guns. This photo was taken as the Ventura of VMFN-531 sat on the landing strip at Vella Lavella in the Solomon Islands on January 13, 1944.

in Norfolk, Virginia, where six nose-mounted .50-caliber machine guns and a gunsight were installed in each plane. They then went to Quonset Point, Rhode Island, to be fitted with SCR-540 radar and Identification Friend or Foe (IFF) transponders. These top-secret electronic interrogators communicated with ground and ship-based stations, allowing controllers to know the location of all the planes in the chaos of combat.

But installing all this equipment took time. By June 2, the Grey Ghosts had on hand just three Lockheeds—none of which worked properly. Pilots complained of a poorly placed gunsight mount that blocked their view of the altimeter and that also vibrated loose in flight. Radar sets frequently malfunctioned, while oxygen and electrical systems also proved unreliable. Every day, it seemed, another problem arose with VMF(N)-531's Venturas that had to be fixed before the squadron could ship out. In no way was the squadron going to make its projected overseas movement date of July 15, 1943.

Frank Schwable kept his superiors informed of these disappointing developments in a series of technical reports: "45 to 55 minutes to climb to 20,000 feet," he wrote of the PV-1s' inferior performance at altitude. "Very little maneuverability…above 15,000 feet. Very slow acceleration in level flight above 10,000 feet."

In all official correspondence, Lieutenant Colonel Schwable characterized the Lockheed as a "makeshift" night fighter. Yet his personal notes, written while en route to Hawaii, reveal the squadron commander's doubts about this deeply flawed warplane his Leathernecks would fly into battle: "It is only if the Japs are more stupid than anybody thinks they are and come down to 15,000 ft. do we even stand a chance to knock them down—if we can go fast enough to catch them! If we lack speed expert vectoring may put us in a position to do some good, but if the Japs fly thousands of feet higher than our planes can physically be pushed up to, there's not one damned thing on God's green earth we can do about it."

The Grey Ghosts resigned themselves to doing what they could with what they had. Continuing troubles with the hastily modified Venturas obliged them to deploy in three groups beginning on August 1. Six PV-1s and their flight crews set sail from San Diego aboard the escort carrier USS *Long Island*, while other vessels carried into the South Pacific VMF(N)-531's ground echelon and its GCI detachment. All remaining air crewmen would follow along once their fighters became operational.

Toward the end of August, Schwable and Harshberger arrived on Guadalcanal and learned their squadron now fell under the command of Marine Air Group 21 (MAG-21). The two officers also saw for themselves just how much had changed there in the nine months since Admiral Halsey sent up his request for night fighter support. A detachment of Army Air Forces Douglas P-70s now guarded this major Allied staging base against nocturnal prowlers, while six radar-equipped U.S. Navy F4U-2 Corsairs from VF(N)-75 were due in any day at a forward airstrip on Vella Lavella, 250 miles to the northwest.

American, Australian, and New Zealand forces had seized a number of strategic islands during their relentless march up the Solomons chain toward the massive Japanese base cluster at Rabaul, New Britain. Some objectives, such as Munda on the island of New Georgia, required an invasion force to clear out enemy defenders before construction engineers could build landing fields and supply depots. Other stepping stones on the way to Fortress Rabaul—Vella Lavella and the Russell Islands—had not been occupied by Japanese troops and were

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quickly transformed into Allied outposts.

Admiral Halsey now focused his attention on the island of Bougainville in the northern Solomons. Landings at Cape Torokina were set for November 1, but the invasion fleet remained vulnerable to enemy night intruders—especially fast, well-armed Mitsubishi G4M1 "Betty" bomber aircraft flying out of Rabaul. Large numbers of Aichi E13A "Jake" floatplanes also posed a nocturnal threat to unarmored American transport ships.

To help counter this menace, the Grey Ghosts deployed to Banika airfield in the Russell Island group beginning on September 11, 1943. There, mechanics began stripping their Lockheeds of de-icing equipment, cabin heaters, and armor plate in an attempt to increase high-altitude performance. This highly irregular weight control program lightened each Ventura by as much as 1,000 pounds, resulting in noticeably improved airspeed and rate of climb.

Schwable flew VMF(N)-531's initial night patrol on September 16. That date also marked the squadron's first battle loss, which occurred when Lieutenant John E. Mason, S/Sgt. Ralph W. Emerson, and Corporal John J. Burkett disappeared while on a routine patrol near Guadalcanal. An extensive air search turned up no sign of the missing PV-1.

Throughout September and October, flight crews completed 47 sorties and made 17 interceptions of Japanese aircraft over Bougainville without scoring one kill. This dismal start to combat operations was due chiefly to inexperience, lack of proper ground control, and poor maintenance.

Stuck at the end of a long supply chain, VMF(N)-531 was—to make matters worse—the sole Marine Corps unit equipped with PV-1 aircraft. Often, the only way to obtain repair parts was to beg or barter for them from neighboring Ventura-equipped Royal Australian or New Zealand Air Force squadrons. Replacement radar components had to be wheedled out of U.S. Army stocks on Guadalcanal. Maintenance personnel faced an unending and largely unrecognized struggle to keep their planes flying and radars functioning.

In the meantime, Lieutenant Colonel Bisson's ground control intercept technicians had been detached from the squadron and were operating in support of the Bougainville invasion from Pakoi Bay on the northwestern end of Vella Lavella. On October 31, Marine controllers Major Thomas E. Hicks and S/Sgt. Eugene J. Gleason directed U.S. Navy Lieutenant Hugh D. O'Neil of VF(N)-75 up against a marauding G4M1 Betty. This was the first air-to-air victory by a radar-equipped night fighter of the Pacific Fleet.

The Grey Ghosts got on the scoreboard at 0418 hours on November 14, when a Ventura named Coral Princess was coached onto an enemy plane by destroyer-based fighter directors. The PV-1's radar operator, T/Sgt. Charles H. Stout, made initial contact with the target (a G4M1 Betty from 702 Kokutai based on Rabaul) at a range of 6,000 feet. Maneuvering in for the kill, pilot Captain Duane R. Jenkins and top-turret gunner Sergeant Thomas J. Glennon then fired three bursts that sent their prey into a fiery death dive about 50 miles southwest of Bougainville.

Tragically, Jenkins, Stout, and Glennon were lost in action three weeks later. On December 3, Coral Princess and her crew rushed in to aid a friendly convoy under attack by 15 to 25 Japanese bombers and torpedo planes. Shipboard observers saw at least one bogey (likely a Betty belonging to 751 Kokutai) fall in flames to Jenkins' guns before all radio and radar contact with his Ventura ceased. No trace of the aviators or their Lockheed was ever found.

An all-Marine interception took place shortly after midnight on December 6, when GCI controller Captain Owen M. Hines brought Squadron Executive Officer Lt. Col. Harshberger's PV-1 (named Gertie the Goon) behind a twin-float "Jake" from the Buka-based 938 Kokutai over Bougainville. In the Ventura with Harshberger were radio operator T/Sgt. James S. Kinne and gunner S/Sgt. Walter E. Tiedeman, as well as a co-pilot, 1st Lt. Wilbur E. Birdsall. Approaching within 800 feet of the bogey, pilot and gunner simultaneously fired a burst of .50-caliber rounds that instantly set it ablaze. Witnesses on the ground later confirmed this aerial victory.

Starting in December, the Grey Ghosts began flying frequent "night harassment" missions armed with 100- or 500-pound bombs. Targets

included enemy camps beyond Allied lines at Bougainville, as well as resupply barges sailing back and forth from the nearby Shortland Islands. Harshberger, an especially pugnacious warrior, enjoyed these raids, while Schwable preferred to employ his PV-1s as night fighters. The cerebral Schwable and fiery "Iron John" Harshberger made a good team, though, together establishing a command climate dedicated in equal part to technical precision and aggressive action.

Three more Lockheeds and their flight crews arrived at Banika in mid-December, helping to take on the burden of three-to-five nightly patrols and harassment raids. Typically, the squadron commander and his executive officer each flew twice a night, in addition to their administrative responsibilities. Training newly arrived aircrewmen also took up a considerable amount of Lt. Col. Schwable's time.

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ABOVE: The tail section is all that is left of a Lockheed Ventura on the island of Leyte in the Philippines. This aircraft and others were victims of a Japanese raid that occurred during the final months of the war in the Pacific, probably in late 1944. OPPOSITE: A pair of Lockheed Ventura bombers wings their way toward Brunei on the island of Borneo in early 1945. These aircraft are armed with rockets and bombs to carry out their mission.

After almost four months in combat, the Grey Ghosts' leader had flown well over 100 hours without a single kill to his credit. That all changed on the evening of January 12, 1944, when Schwable, radio operator S/Sgt. Robert I. Ward, and gunner Sergeant William T. Fletcher took their PV-1 (named Chloe) out over Bougainville's Empress Augusta Bay.

Their first two contacts that night disappeared into a cloud bank, but at 2156 hours ground controller Captain Thompson S. Baker vectored the Ventura's crew onto a third bogey, 12 miles away and heading northwest. Five minutes later, Ward acquired the target on his scope. It was a Nakajima B5N "Kate" torpedo bomber from the carrier *Zuikaku*'s air group, which Schwable and Fletcher sighted visually at a range of 3,000 feet. Closing to within 500 feet of the Kate before opening fire, their point-blank barrage ignited its fuel tank. Schwable, banking hard to avoid the explosion, remembered feeling "a scorching heat as [my] right wing cleared the flaming mass."

This interception illustrated how well-trained ground controllers and flight crews working together could locate, approach, and destroy enemy intruders. But poorly disciplined U.S. Navy gunners often interfered with the Grey Ghosts' missions. Marine officers could rarely convince their naval counterparts that, for all the morale-building effects of shipboard antiaircraft gunfire, these pyrotechnic displays knocked down far fewer Japanese bombers than the night fighters. Frank Schwable remembered that he "got shot at oftener by friends than by the enemy."

On January 30, the last of VMF(N)-531's Lockheeds arrived in theater. With the GCI detachment now set up on a new base in the Treasury Islands, the squadron's air echelon moved forward to Barakoma airfield, on Vella Lavella. PV-1s began operations from Barakoma two days later.

Frank Schwable scored again on the night of February 5-6, when Army controllers steered Chloe into position behind a Betty bomber belonging to the 751st Kokutai flying high over Dampier Strait. Pushing the Ventura to its maximum combat ceiling of 15,000 feet, Schwable and his gunner riddled their target with three bursts of .50-caliber gunfire. The Betty then "fell off into a vertical spin," and wreckage and an oil slick were found the next day to confirm their aerial victory.

The squadron suffered a major loss on February 9, when the PV-1 carrying 1st Lt. Clifford W. Watson, S/Sgt. Jack H. Shirk, and Sergeant George E. Brogna crashed on takeoff during heavy weather at Barakoma. There were no survivors.

Later that same night, Lieutenant Colonel Harshberger and the crew of Gertie the Goon encountered a dangerous enemy over Empress Augusta Bay. Vectored onto a bogey at 0329 hours, Harshberger urged his worn-out Lockheed up to the target's reported altitude of 15,000 feet. At a range of two miles, radar operator T/Sgt. Kinne acquired the enemy aircraft on his scope and guided them in for an attack.

As Harshberger's Ventura neared its quarry, Kinne saw his radar image split into two "blips." This meant there were a pair of Japanese planes out there, something the top turret gunner quickly confirmed. Sergeant Tiedemann identified them as two Bettys in tight formation, only 2,000 feet ahead.

As Harshberger approached, both bombers opened fire on him with their 20mm tail cannon. Enemy fire disabled five of his six nose guns, as well as knocking out a radio set mounted just behind the pilot's head. His gunner engaged the two aircraft, putting "one burst into the tail gunner of the 'Betty' on the right [which then peeled off right out of range]," as an aircraft action report detailed. Tiedemann "then swung back on the bogey to the left and [fired] three bursts." The Betty (from 751 Kokutai) "started to glow internally" and took on the appearance of a brightly lit sieve before nosing into a fatal dive.

Returning to Barakoma nearly out of fuel and without radio communications, Gertie the Goon's crew endured a friendly antiaircraft barrage before managing to land safely. Harshberger summed up the mission thusly: "Never had so much fun in my life!"

For the Grey Ghosts, February was turning out to be an especially eventful month. On the 15th, Lt. Col. Schwable and crew downed a Jake, followed two nights later by another one (both floatplanes belonged to the 938 Kokutai). This marked Frank Schwable's fourth and final kill; after 269 combat hours and 72 missions, his time as squadron commander was over. On February 18, 1944, "Iron John" Harshberger

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took charge of VMF(N)-531.

The new commanding officer certainly led by example, bringing down a Jake over Bougainville on February 19. That same night, however, 1st Lt. Thaddeus M. Banks, S/Sgt. Burnell C. Bowers, and Sergeant Gilbert Jones went missing in action during a low-level barge-hunting sortie. After sunrise, search aircraft identified fragments of their Lockheed floating in the Solomon Sea.

While the Grey Ghosts kept up a busy schedule of patrols and harassment raids, the foe now seemed reluctant to send aircraft out after dark. Apart from one Jake shot down by 1st Lt. Jack M. Plunkett, S/Sgt. Floyd M. Pulham, and S/Sgt. Michael J. Cipkala on February 19, there had been no interceptions over Bougainville for nearly a month.

Harshberger, staging out of an airstrip on Torokina, scored his final victory of the war on March 14. Together with Kinne and Tiedemann in Gertie the Goon, "Iron John" made a head-on pass against a twin-float seaplane they misidentified as an Aichi E16A1 "Paul." Postwar records indicate this was in fact another Jake from 938 Kokutai, which immediately disintegrated under their guns.

The squadron's war diary recorded a great tragedy on March 21. "Lts. Pierce and Birdsall…flew formation towards Vella Lavella [when] about 0630 Lt. Pierce's wing clipped Lt. Birdsall's wing," it read. "Pierce's PV-1 burst into flames. Lt. Birdsall's plane went into a spin." Both aircraft crashed into the sea, witnesses stated, leaving eight crewmen dead.

VMF(N)-531's time in the South Pacific was nearing its end. The squadron made no hostile contacts throughout the month of April, while newly arriving Navy and Marine outfits flying faster, more capable Hellcats or Corsairs took on an increasing number of night patrol missions. On May 6, Lt. Col. Harshberger turned over command of the Grey Ghosts to Captain James H. Wehmer and headed home.

Iron John's record of achievement included four confirmed kills, along with an amazing 756 combat hours accrued over 100 missions. Harshberger and Schwable, pioneers of Marine Corps night fighter operations, each received the Distinguished Flying Cross for their exploits over Bougainville.

The squadron did achieve one last air-to-air victory, however. On May 11, pilot 1st Lt. Marvin E. Notestine, radar operator Sergeant Edward H. Benintende, and gunner Corporal Walter M. Kinn chased an unwary Jake into Rabaul's Simpson Harbor, blasting their target out of the sky as it prepared to make a water landing. This, VMF(N)-531's 12th kill, was the only one made without radar guidance.

The Grey Ghosts flew their final mission over Rabaul on July 14 and then undertook a lengthy trip Stateside. The squadron was disbanded at Cherry Point that September, but did not remain dormant for long. On October 13, 1944, VMF(N)-531 reactivated with orders moving it to Marine Corps Air Station Eagle Mountain Lake, Texas. There it would become the first USMC unit to field Grumman's F7F Tigercat night fighter.

Japan surrendered before the Grey Ghosts could take their hot new interceptors into battle, but VMF(N)-531's record of service in World War II remains a remarkable one. At the cost of six PV-1 Venturas and 20 crewmen lost in action, the squadron received credit for one dozen aerial victories during its 10-month tour of duty over the northern Solomons.

All this had been achieved while operating a warplane that, in Lt. Col. Schwable's opinion, was "entirely unsatisfactory as a night fighter." Yet his men made the best of their antiquated equipment. The Grey Ghosts of the Solomons demonstrated how Marine flight crews and ground controllers working closely together could protect amphibious forces afloat and ashore during the hours of darkness. Never again would Washing Machine Charlie fly unchallenged in South Pacific skies. ■

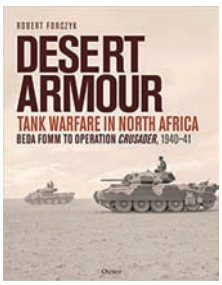
Author Patrick J. Chaisson is a retired U.S. Army officer who writes on a variety of historical topics from Scotia, New York.

| By Christopher Miskimon |

The Mechanization of War in the Desert

> Large, sweeping tank battles were the hallmark of World War II in North Africa.

BENITO MUSSOLINI DREAMED OF A NEW ROMAN EMPIRE CENTERED around the modern nation of Italy. "The Mediterranean will be turned into an Italian lake," he said. Toward that end, he declared war on the United Kingdom in 1940. Skirmishes between the two nations began almost immediately along the border between Italian-occupied Libya and the British in Egypt. Initially, neither side could mount a major offensive, but since most of the border was protected by nothing more than a four-strand barbed wire fence, raids were easy to conduct. British General Richard O'Connor immediately ordered such attacks to begin. The British used mobile columns with armored cars and light tanks to quickly cross the frontier and strike isolated outposts.



British success helped force the Italians to act. Under pressure from Mussolini, Italian Marshall Graziano and General Gariboldi invaded Egypt with a large, but poorly mechanized army in September 1940. This force did include four tank battalions. Graziano moved cautiously, afraid of getting overextended before reinforcements could arrive. Facing only light resistance, the Italians soon reached Maktila, west of Sidi Barrani. There, they dug in, forming a string of fortified camps.

The British slowly reinforced, including 50 Matilda II tanks mounting a small 2-pounder gun but so heavily armored they were all but immune to Italian anti-tank weapons. Slowly O'Connor formed a plan to attack the Italian camps. The British selected the camp at Nibeiwa for their first target. It was well protected, but aerial reconnaissance had detected gaps in the minefields on the northwestern side. The British moved a force of two divisions—7th Armoured and 4th Indian—around the Italians to the west of their camps.

The attack began in the early morning hours of December 9; while the Italians had prepared defenses, they were still taken by surprise. British artillery had kept the Italians awake all night with diversionary bombardments. Now more artillery struck the camp, beginning at 7:15 a.m. Twenty minutes later British tanks and infantry moved in, including 32 Matildas. As they approached the northwest entrance to the camp, the British shot up several Italian M11/39 tanks which sat unoccupied outside the gate. Cannon fire pounded the Italian tanks while British tank crews used machine guns against the Italian tanks crews who tried to get to their tanks.

Six Matildas entered the camp and engaged Italian artillery and anti-tank guns. Italian infantry attempted grenade attacks on the British but failed completely. The Italian guns could not penetrate the Matilda's frontal armor, although all the British tanks suffered damage to their exteriors from the Italian fire. The Italian guns were methodically knocked out. More tanks and two battalions of British infantry arrived at the camp, and Italian resistance began to falter although it took two more hours before it ceased. After Nibeiwa fell, the British moved on to the other camps, which soon fell, although the defenders did exact a toll in vehicles and men.

The fighting along the Egyptian frontier was just the beginning of years of combat in which the tank played a major role. Capable of wide-ranging maneuver in the desert, tanks proved decisive in many battles, and the combatants expended much effort in keeping their tanks in service or quickly replaced when lost. The story of armor in the desert is revealed in ***Desert***

In this painting by British war artist W. Krogman, Matilda II tanks rush past the burning hulks of German armor and fire their guns at distant targets. The Matilda in the foreground is emblazoned with a Union Jack on its hull.

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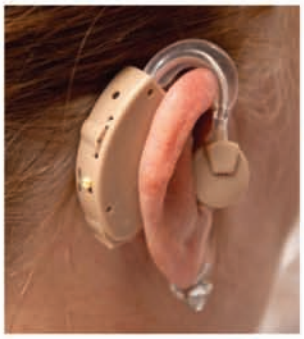

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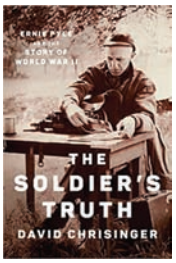
Armour: Tank Warfare in North Africa, Beda Fomm to Operation Crusader, 1940-41 (Robert Forczyk, Osprey Books, Oxford, UK, 2023, 336 pp., maps photographs, appendices, bibliography, index, $45, hardcover).

The author provides expert analysis of the various factors affecting armored warfare in the African desert. The book examines tank and doctrinal development before the war and how it evolved after hostilities began. The book also reveals how the combatants organized their various tank units and how they fared in actual combat. The narrative is focused on the tactical and operational levels of the war, showing how tank crews used their vehicles. The book is well illustrated with period photographs and plenty of the artwork this publisher is renowned for. There are many vignettes of small unit actions, giving the reader a view of the fighting from the turret hatch. A series of appendices provides additional information on tank details and deliveries to North Africa.



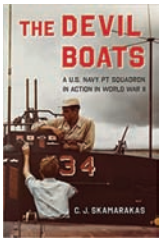
The Soldier's Truth: Ernie Pyle and the Story of World War II (David Chrisinger, Penguin Press, New York, 2023, 368 pp., photographs, notes, bibliography, index, $30, hardcover)

On December 16, 1943, journalist Ernie Pyle climbed Mount Sammucro, near the Italian town of San Pietro Infine. Horrible fighting had left the valley below the mountain wrecked. Dead American soldiers lay where they died; the Graves Registration units had not arrived yet. The dead lay mixed with shell holes, abandoned weapons, cartridge cases and blood-soaked bandages. Ernie's guide was a Pfc from East St. Louis, Illinois, named Fred Ford. The soldier was tall and had two weeks of stubble on his face. "He looked sort of ferocious but turned out to be pleasant and friendly," Pyle wrote. On their way back down, German shells fell around them, causing them to run for their lives "… going so fast the rocks we kicked loose couldn't even keep up with us." He noted men went up and down that mountain sometimes several times a day, carrying water to their comrades posted at the top or to reinforce during a German attack. It was only the start of Pyle's experiences at San Pietro.

Ernie Pyle was America's most famous and beloved frontline correspondent during World War II. The author retraces Ernie Pyle's wartime steps, going where the famed writer did, relating what he saw with what Pyle wrote about. The book is interesting and has a smooth narrative, making it easy to read and engaging.

The Devil Boats: A U.S. Navy PT Squadron in Action in World War II (C.J. Skamarakas, Stackpole Books, Lanham, MD, 2023, 264 pp., maps, photographs, appendices, notes, bibliography, $32.95, hardcover)

"Devil Boat" was a nickname given by the Japanese to American Patrol Torpedo (PT) boats during World War II. They saw service in a variety of roles including interdicting enemy shipping, raids, reconnaissance, inserting commandos behind enemy lines and air-sea rescue. PT boats and their crews proved versatile and daring, often



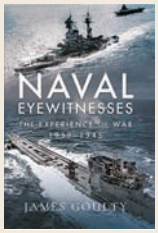
improvising to carry out missions for which they had never been trained. In the southwest Pacific, Motor Torpedo Boat Squadron 25 carried out all these duties and more. Its PT boats generally operated at night and in pairs. When a mission involved a fight, the boats' cannon and machine guns were the primary weapons; the torpedoes were rarely used in the actions these sailors fought. Help was usually far away, so the crews were on their own.

The author uses the experiences of Squadron

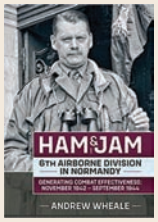
New and Noteworthy

The Allied Air Campaign Against Hitler's U-Boats: Victory in the Battle of the Atlantic (Timothy Good, Frontline Books, 2022, $42.95, HC) Most U-Boats were destroyed by aircraft. Covers the development of Allied navy air power.

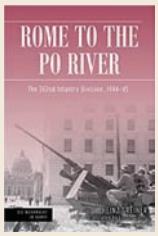
Hitler's Air War in Spain: The Rise of the Luftwaffe (Norman Ridley, Air World Books, 2023, $34.95, HC) The Luftwaffe, used the Spanish Civil War as a testing ground for its weapons and theories. The conflict proved a microcosm for World War II.



Naval Eyewitnesses: The Experience of War 1939 – 1945 (James Goulty, Pen and Sword Books, 2022, $49.95, HC) Surveys the war experiences of British sailors, focusing on the individual, with many interesting vignettes.

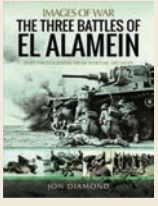


Ham and Jam: 6th Airborne Division in Normandy (Andrew Wheale, Helion Books, 2022, $59.95, HC) The 6th Airborne seized all its D-Day objectives. Covers how the unit was formed and organized and evaluates its performance.



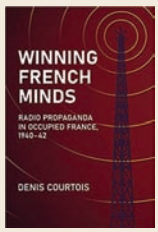
Rome to the Po River: The 362nd Infantry Division, 1944-45 (Heinz Greiner, Casemate Books, 2023, $45, HC) This series reprints battle reports of German units by German veterans. They provide insight into German actions and planning.

Nightstalkers: The Wright Project and the 868th Bomb Squadron in World War II (Richard Lawless, Casemate Books, 2023, $44.95, HC) This secretive unit evaluated classified technology in the Pacific, hunting enemy ships at night. Reveals the squadron's technology, pilots, and missions.



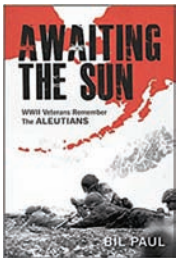
The Three Battles of El Alamein: Rare Photographs from Wartime Archives (Jon Diamond, Pen and Sword Books, 2023, $34.95, SC) This photobook commemorates the heavy fighting at El Alamein with a selection of dramatic images.

Flawed Commanders and Strategy in the Battles for Italy, 1943-45 (Andrew Sangster and Pier Paolo Battistelli, Casemate Books, 2023, $37.95, HC) Looks at the flaws and errors of the major commanders in the complex Italian Campaign, including the German Field Marshal Albert Kesselring.



Winning French Minds: Radio Propaganda in Occupied France, 1940-42 (Denis Courtois, Casemate Books, 2023, $45, HC) Radio was used as a propaganda tool by all the war's participants. This work examines British and Free French efforts in this arena during the early years of the war.

25 to represent the hundreds of PT boat crews who served in the Pacific during the war. The book is well-researched and thoroughly detailed. The text provides an in-depth look at the operations of PT boat units and their wide-ranging effects on the war, minor events when taken individually but in sum disproportionate to the boats' size and small crews, mainly reservists and draftees on their first overseas deployments.



Awaiting the Sun: WWII Veterans Remember the Aleutians (Bil Paul, Schiffer Publishing, Atglen, PA, 2023, 230 pp., maps, photographs, notes, bibliography, index, $24.99, hardcover)

The Aleutian Islands were the only North American territory to be invaded and occupied by an Axis power during World War II. When American forces arrived to retake these remote islands from Imperial Japanese troops, the fighting went on for over a year and claimed over 3,800 killed on both sides. Combat on these northern islands could be intense and harrowing, fought under difficult conditions. After the fighting ended, boredom and isolation became a new enemy, less deadly but equally implacable. The weather and terrain were hard on both men and equipment; even today bits and pieces of vehicles, aircraft and abandoned artillery dot the island landscapes, along with decaying military bases. Both American and Japanese monuments honor the men who died there.

The author incorporated over 200 veteran accounts into this volume on the war in the Aleutians. They are well blended and give the reader a sense of the hardships the men endured along with the experiences of everyday life. The text spans the period from the war's start to after its end, as men waited to go home and resume their lives.

Waffen SS Soldier versus Soviet Rifleman: Rostov-on-Don and Kharkov 1942-43 (Chris McNab, Osprey Books, Oxford, UK, 2023, 80 pp., maps, photographs, bibliography, index, $23, softcover)

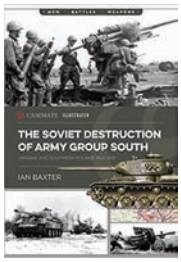
Waffen SS units made up only a small part of the German Wehrmacht, but they found frequent use as "fire brigades" across the Eastern Front. Sent to threatened areas of the front lines, SS troops gained a reputation for ferocity in action. Their primary opponent, the Soviet infantryman, was usually a conscript lacking in training and equipment, often poorly led. However, there were a lot of them, and over time the survivors gained in skill as they went through the meat grinder of combat. The better-trained Germans were often innovative, while the Russian soldiers were brave, tough, and tenacious. As the war turned against Nazi Germany, Waffen SS units mounted strong defenses and counterattacks which were often overwhelmed by repeated Soviet assaults that continued despite heavy casualties. It was a bloody school for the Soviets, but its lessons would take them to Berlin just a few years later.

Using studies of each side's recruitment, training, equipment and tactics, the author compares Waffen SS and Soviet infantry during a critical time in the war on the Eastern Front. The fighting at Rostov-on-Don and the Third and Fourth Battles of Kharkov provide the examples, bolstered by the extensive illustration and original artwork this publisher is known for. The book effectively illustrates key differences between the two fighting forces.

Lucky Hitler's Big Mistakes (Paul Ballard-Whyte, Pen and Sword Books, South Yorkshire, UK, 2022, 310 pp., maps, photographs, glossary, bibliography, index, $34.95, hardcover)

From the time he served in the German Army during World War I through to the early years of World War II, Adolf Hitler seemed to lead a charmed life. In his early years he survived the Great War, his nation's postwar economic doldrums and his part in the Nazis' initial coup attempt. After coming to power, he survived a number of assassination attempts and sex scandals and capitalized on events to increase his power over the German people. As he kept pushing, first in the Rhineland and later in Czechoslovakia, his luck held. When the war started in 1939, the initial victories over Poland, France, the Low Countries, Denmark, and Norway were often attributed to his military and political skill. However, as the war continued, his luck ran out. He spread his forces too thinly, invading the vast Soviet Union and declaring war on the United States.

The author of this new book argues Hitler rose to rule Germany largely through his luck, the unwillingness of his opponents to decisively engage with him, and his ability to capitalize on opportunities. As the war widened and dragged on, however, his incompetence as a strategic thinker and military leader became obvious. The book raises a number of interesting points, and its assertions are well made. It pokes holes in the mythology surrounding Hitler, showing him to be a twisted and hateful yet ultimately very human and flawed person.



The Soviet Destruction of Army Group South: Ukraine and Southern Poland 1943-45 (Ian Baxter, Casemate Books, Havertown, PA, 2023, 128 pp., maps, photographs, bibliography, index, $28.95, softcover)

After the destruction of the German Sixth Army at Stalingrad in February 1943, the German Army Group South began a slow westward withdrawal, inexorably pressed by advancing Soviet forces of what would eventually be named the First through Fourth Ukrainian Fronts. The Germans attempted to hold at the Dnieper River, but Soviet forces battered their way across and even isolated German forces on the Crimean Peninsula, who had to be evacuated across the Black Sea to avoid capture and defeat. When Operation Bagration effectively destroyed Army Group Center in mid-1944, the pressure on Army Group South greatly increased as it was starved of reinforcements and targeted by more Soviet troops. Soon the Germans were forced back into Poland and Romania, fighting their last, futile campaigns in Eastern Europe against an increasingly skilled and capable foe. The final remnants of Army Group South surrendered in early May 1945.

Full of photographs, color drawings and good maps, this new book explains the Soviet offensives against Nazi Germany's southern arm with extensive visual detail. Many of the images are rare or previously unpublished. The text is well-written and provides good detail on the major actions and course of the various campaigns.

Darkest Christmas: December 1942 and a World at War (Peter Harmsen, Casemate Books, Havertown, PA, 2023, 230 pp., maps, photographs, appendix, notes, bibliography, index, $32.95, hardcover)

The darkest, deadliest Christmas in human history occurred in December 1942. Around the globe, as Christians celebrated their holiday of peace and goodwill, peoples of many different faiths and beliefs continued to slaughter one another. The war's outcome was still much in doubt; millions of soldiers were locked in combat across the Eastern Front, in the skies over Europe and over the vast spans of the Pacific

Simulation Gaming

BY JOSEPH LUSTER

LIGHT UP THE VR SKIES WITH A NEW *WAR THUNDER* SPINOFF; TAKE ON HORDES OF ZOMBIES WHILE DRUNK

ACES OF THUNDER

PUBLISHER GAIJIN ENTERTAINMENT
GENRE FLIGHT COMBAT • **SYSTEM** PlayStation VR2

The *War Thunder* series recently revealed plans to deliver an aerial combat spinoff titled *Aces of Thunder* in the most immersive way possible. The latest entry is currently in the works for PlayStation VR2, the new virtual reality unit that's specifically designed to take advantage of the PlayStation 5 console's advanced hardware, and if early looks are any solid indication, it seems like an intense way to put yourself at the heart of the dogfight.

Thanks to the PSVR2, which offers a high-resolution screen, motion sensing, eye tracking and new controllers with haptic feedback and touch sensing, players can look forward to feeling as if they're smack dab in the cockpit of one of the many iconic planes of World War II. Eager aviators will have full control over all flight systems within their respective aircrafts, making for the most thorough experience next to actually learning how to fly.

Among the featured planes are the P-51 Mustang and Spitfire, with future add-ons to introduce combat aircraft from other eras. It's worth noting that *Aces of Thunder* will operate on a paid model, so there will likely be a bunch of content available for purchase beyond everything that launches with the base game. Hopefully some of those add-ons will be available for free, too, but we know there will at least be a lot of customization options available to players.

Once you get the hang of dashing through the skies, you'll be able to put your skills to the test against other players in a variety of competitive online battle modes, including team versus team, single duels and other modes with custom settings. All of this is currently being handled by a new in-house team at developer Gaijin Entertainment, complete with members who have experience working on the main *War Thunder* game. At the time of this writing there's no concrete release date in place, but hopefully it will be in our hands, whisking us away for some memorable high-flying moments by the time or shortly after this issue is on stands.

BROKEN LINES: THE DRUNK AND THE DEAD

PUBLISHER SUPERGG.COM • **GENRE** STRATEGY • **SYSTEM** PC, PS5, Xbox Series

It's time to venture into uncharted territory with narrative-driven alternate timeline tactical RPG Broken Lines, which just unleashed a DLC expansion titled *The Dead and the Drunk*. The macabre slice of downloadable content is currently available on PlayStation 5 and Xbox Series, as well as PC via Steam and GOG, and like many WWII game expansions before it this one pits players against a relentless horde of zombies. That's not the only hook now that the update has arrived, though.

The setting and the intense tactical combat remain the same, only now you'll have to employ your brand of strategy to take down a battlefield

full of the undead with a little help from the flask on your hip. This three-way conflict includes both old and new enemies, with a story taking place across six different levels complete with new bosses that will put even the most seasoned of skills to the test.

As the title of the DLC implies, this isn't just about the dead. While you face off against reanimated corpses, pagan altars and other mysterious occult phenomena, you'll be able to take the edge off by picking up a bottomless keg of liquid courage. Taking swigs over the course of the campaign will deliver additional perks and abilities, so while it's always advisable to drink responsibly in real life, that doesn't quite pertain to the skin-of-your-teeth action on display in *Broken Lines: The Dead and the Drunk*. Hey, we'll take what we can get when it comes to fending off the zombie apocalypse, even if it puts our liver at as much risk as the rest of our bodies.

Broken Lines is an interesting tactical offering, featuring a combination of turn-based planning and real-time action. Many of your major decisions have permanent consequences, so it's important to both think fast and think ahead to plan accordingly for the future. Will you leave a village full of the hiding enemy so civilians don't get caught in a firefight, for instance, or set the village on fire and hope the right folks know how to escape in time? Or will you confront the rookies on your squad and tell them they'll have to learn to survive for a few days without food or work harder to distribute rations equally? You can even choose to finish the mission at hand or escape if the going gets too tough, but the results are something you'll have to reckon with. These difficult choices pave the way for multiple endings, so there's good reason to go back and try missions more than once for the most favorable outcome.

We're always open for more *Broken Lines*, so *The Dead and the Drunk* comes just when we were hankering for another taste. If you're already playing then this expansion is a no-brainer, pun very much intended, but now there's even more content available to those jumping into battle for the first time. ■

Ocean. The holocaust continued as soldiers fought in North Africa and sailors did the same in the frigid waters of the North Atlantic. During 1942 the Allies had major successes, but victory was still a distant hope. Still, in a few places, people carried out acts of kindness and mercy toward one another, in some cases even those who did not follow the Christian faith. American soldiers stationed in India put on a celebration for Polish refugee children, while in the prison camp at Cabanatuan in the Philippines, Japanese guards allowed the prisoners to receive Red Cross food packages.

This new book focuses on how people around the world passed the most important holiday in the Christian world during one of humanity's most difficult years. It provides an interesting look at one of the war's lesser-known facets. It is well researched and organized, with a good selection of photographs highlighting the author's narrative.

Japanese Conquest of Burma 1942: The Advance to the Gates of India (Tim Moreman, Osprey Publishing, Oxford, UK, 2023, 96 pp., maps, photographs, bibliography, index, $24, softcover)

The Japanese invasion of Burma in January 1942 pitted its well-trained, mobile, and hard-hitting Fifteenth Army against a conglomerate Allied force composed of British, Commonwealth, Indian and Burmese troops in various states of training, equipment and experience. The Allies conducted a long retreat to the north and west across hundreds of miles of rough terrain and jungle rife with disease and crossed by poor roads. Along the way the Japanese troops proved superior, all but destroying the 17th Indian Division at Sittang Bridge in February 1942. Rangoon fell the next month, and the subsequent battles pushed the Allies almost into India. The surviving Allied troops were now experts in fighting and surviving in the jungle; however, they would carry these lessons forward to later campaigns.

This new volume in Osprey's Campaign series tells the story of one of the war's most epic fighting retreats. The success of Japanese light infantry tactics is contrasted with the unprepared Allied troops, who nevertheless occasionally proved dogged in the defense. Major leaders on both sides are highlighted, along with force composition and detailed coverage of the critical battles of the campaign. The book has the usual high quality of illustration and original artwork normal for this publisher. ■

Coast Guard

Continued from page 51

landings. British Prime Minister Winston Churchill watched the invasion from aboard a Royal Navy destroyer.

Among the large armada of landing craft were the Coast Guard-manned transports *Bayfield*, *Samuel Chase*, *Joseph T. Dickman*, and *Cepheus*, the Navy transports *Barnett*, *Charles Carroll*, *Arcturus*, and *Betelgeuse* with some Coast Guardsmen in their crews, the 327-foot cutter *Duane*, and Coast Guard-manned infantry and tank landing craft, including veterans of the Sicily and Italy invasions. There was only sporadic fire from enemy shore batteries, and the Riviera landings went smoothly. The only casualty was an LST which was hit and had to be beached.

During the war, the Coast Guard added some footnotes to naval history. In 1943, the weather ship *Sea Cloud*, a converted yacht that had belonged to Joseph E. Davies, President Roosevelt's ambassador to Russia, became the first racially integrated vessel in U.S. naval service. In June 1944, the USCGC *Cobb*, a converted merchantman, was the site of the first landing of a helicopter on board a ship.

The Coast Guard performed all manner of gallant service from 1941 to 1945, yet its personnel, like those of the Merchant Marine, were among the war's unsung heroes. As Admiral Nimitz observed, the Coast Guard "sometimes lost its identity because it was grouped with the Navy." But he was unstinting in his praise for the service's efficiency, dependability, and "selfless devotion to duty."

Returned to the Treasury Department by the Navy on January 1, 1946, the Coast Guard resumed its longtime law enforcement and search and rescue functions. It also pioneered and developed electronic aids to navigation, collected weather and scientific data, maintained icebreaking patrols at both poles, in the Great Lakes, and on other inland waterways, enforced harbor, Merchant Marine, and boating safety regulations, and intercepted refugees and drug smugglers.

Its 82-foot cutters and large ships were busy during the red scare and Caribbean crises of the early 1950s, and more than 50 craft and 8,000 Coast Guardsmen saw action in the brown water war in South Vietnam. They destroyed almost 2,000 Communist vessels at a cost of seven deaths and 53 wounded. ■

The late Michael D. Hull wrote for WWII History *on a variety of topics. He resided in Enfield, Connecticut.*

Patton

Continued from page 43

and halftracks carrying armored infantrymen. American artillery smashed into the small town at the base of a hill, but an enemy shell killed the artillery observer who was supposed to call off the barrage. The tanks drove directly into the artillery explosions. Some lost their way while halftracks stopped and their infantry dismounted to fight German infantry and paratroopers. Then a telephone pole fell on a halftrack further back in the column, blocking the road. Only three tanks, followed by a halftrack and two more tanks, made it out of the town. The artillery fire finally subsided when an American pilot flying over the battlefield realized what was happening and called it off. Abrams and some other tankers worked to wrestle the pole out of the way for vehicles to pass.

Patton's entire drive to relieve Bastogne now consisted of five tanks and a halftrack. Boggess continued to lead the way, ordering his men not to stop but to fire into the woods on either side of the road as they went. The halftrack following the three lead tanks fell far enough behind that the Germans were able to throw a string of mines across the road. The halftrack hit one and exploded, causing the following two tanks to pull over and remove the other mines. Patton's entire Third Army attack was now down to three tanks.

After more tense driving and firing, Boggess spotted a pillbox on the right side of the road and sent three 75mm rounds into it. His tank then slowed down as he spied the area. On his left, he saw two soldiers in American uniforms. He ordered the men to show themselves, explaining that he was with the 4th Armored. One of the men responded, "I'm Lieutenant Webster of the 326th Engineers, 101st Airborne Division, glad to see you."

With that greeting, Bastogne was relieved. Gaffey called Patton again about three hours later and told him the good news. "It was a daring thing and well done," Patton wrote. "Of course, they may be cut off, but I doubt it." He immediately called Bradley and told him. Bradley had earlier heard from Major General Ernie Harmon, the commander of the 2nd Armored Division, who had reported stopping the German 2nd Panzer Division on the northern side of the Bulge. The entire German offensive, north and south, had been stopped. Bradley called General Walter Bedell Smith, Eisenhower's chief of staff, and told him, "As near as we can tell, this other fellow has reached his high-water mark today." Soon after, Patton received a note about the state of McAuliffe's 101st: "Losses light/Morale high/Awaiting order to continue offensive."

Reaching Bastogne proved a harsh campaign. Because of the snow and cold, the normal killed-to-wounded ratio flipped. Instead of suffering one dead to three wounded, Patton's infantry suffered three dead to one wounded. Snow would quickly cover wounded men, causing medics to miss them, leaving them to freeze to death. Despite the losses and Patton's constant complaining about his army's slowness, he proudly declared in his diary, "The speed of our movements is amazing even to me [;] it must constantly surprise the Germans."

Patton credited the breakthrough to Colonel Blanchard, the commander of CCR and Abrams' commanding officer, whom Patton had served with at Fort Benning, Georgia. Still, he worried it might be a trap. "I hope that the troops making the advance don't get bottled up too," he wrote Beatrice. "My prayer seems to be working." Three days later, he would write Beatrice again, declaring, "The relief of Bastogne is the most brilliant operation we have thus far performed," adding, "Now the enemy must dance to our tune not we to his."

Before Patton went to bed that night, he looked at the bigger picture of the campaign. While he spent the last four days shuffling troops to deliver the most strength where he thought they could make a difference, he blamed Eisenhower for not giving him any extra forces for the most important task of the campaign. Still, he considered the enemy spent. "The German has shot his wad," he penned in his diary. "Prisoners have had no food for three to five days."

Still, he should have been proud. The relief of Bastogne was Patton's victory. While the 101st Airborne paratroopers and other tankers and soldiers from remnant units could pat each other on the back for having outlasted the German SS, armor, and infantry, it was Patton with his relentless attacks who broke the German bond on the vital crossroads town on the snowy hills of Belgium. But he had little time to celebrate his achievement. The campaign to erase the Bulge would be a much harder fight.

An editorial in the *Washington Post* summed up Patton's success in the relief of Bastogne and on all his battlefields, likening him to America's fireman. "It has become a sort of unwritten rule in this war that when there is a fire to be put out, it is Patton who jumps into his boots, slides down the pole, and starts rolling."

While the editorial did delve into Patton's troubled past, it credited him with repeatedly demonstrating, "…that when a jam develops, he is the one who is called upon to break it." ■

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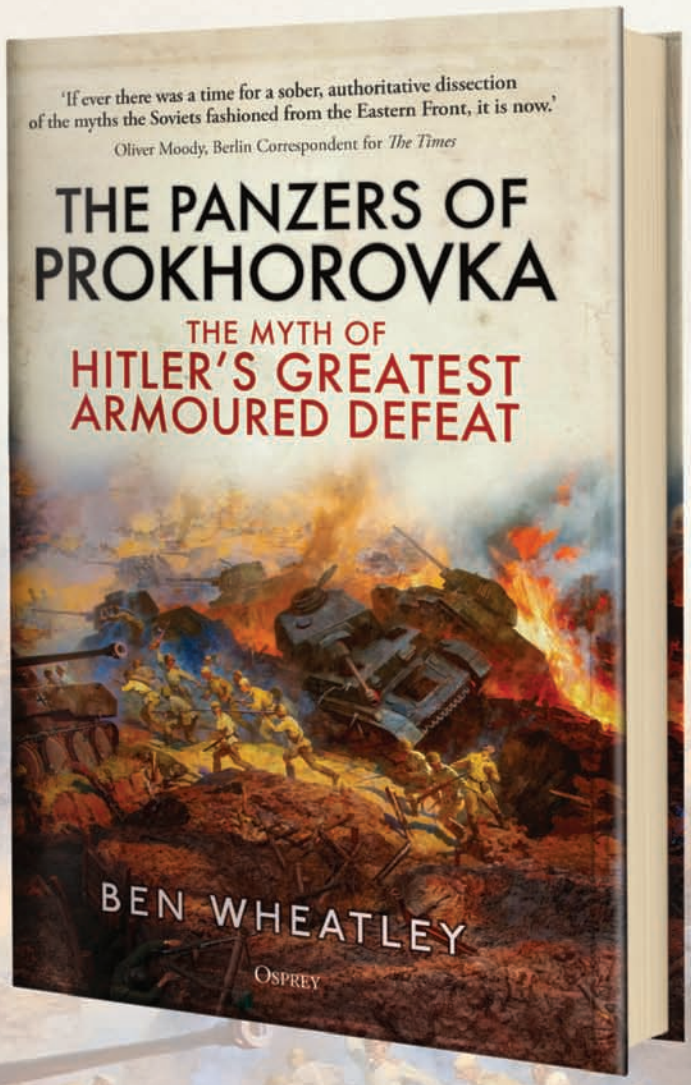

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This ground-breaking new study of the battles of Kursk and Prokhorovka will transform our understanding of one of the most famous battles of the Second World War, widely mythologized as the largest tank battle in history.

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