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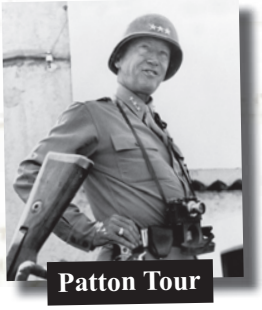

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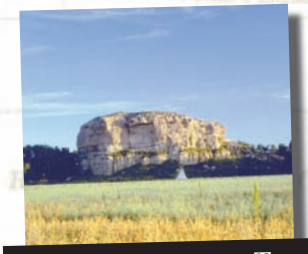

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Cover: An officer peers through the periscope in the control room of a U.S. submarine, 1942. Photo courtesy of the National Archives.

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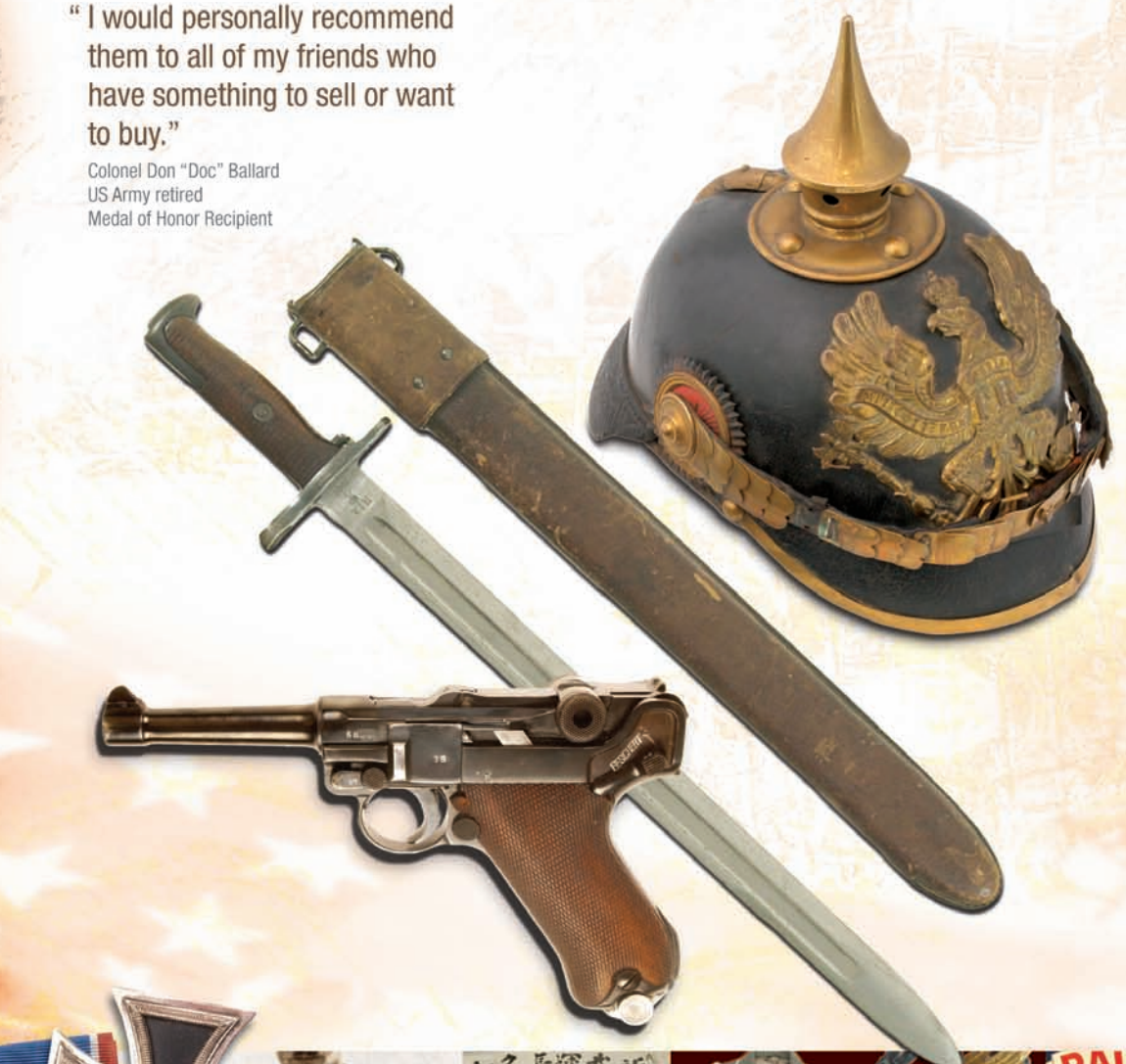

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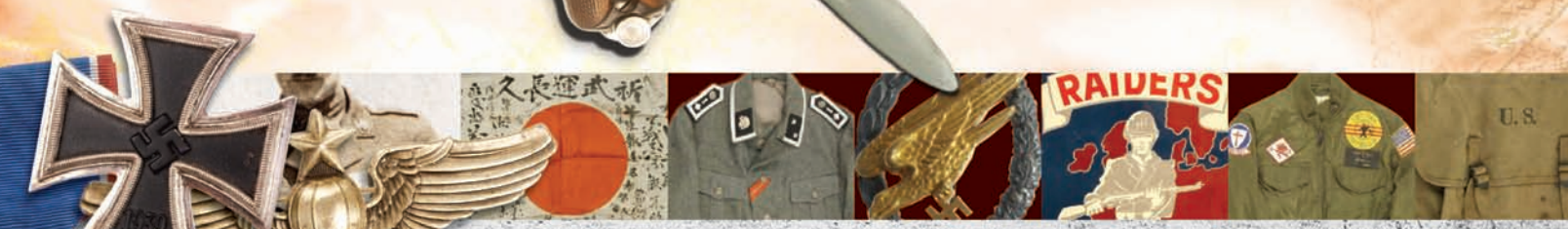

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Editorial

Was Philippe Pétain a traitor or a patriot?

HE WAS, IN THE TRUEST SENSE, A NATIONAL HERO. PHILIPPE PÉTAIN, MARSHAL of France, the hero of Verdun, is, however, best remembered in the modern world as a traitor, a collaborationist who sacrificed the honor of France to make a deal with Hitler and the Nazis.

When the Phony War came to a sudden and violent end on May 10, 1940, the armies of France and Britain were sent reeling by the onslaught of the German blitzkrieg. Clearly, within weeks, the Allied armies in the West were beaten. In desperation, it had been the National Assembly of France itself, seated at the resort town of Vichy, which called upon the elderly icon to assume emergency powers and deal with a situation that had become militarily and politically precarious.

In fairness, it was perhaps a circumstance from which few could have deftly extricated themselves. During the interwar years, Pétain had spoken plainly of his disdain for the political arena, even alluding to his preference for something more autocratic than a representative form of government. When the call to leadership came in July 1940, was Pétain in fact seizing an opportunity, executing a personal ascent to power as a pragmatic politico? In sharp contrast, was the 84-year-old statesman and soldier suffering from some sort of delusion, the onset of senility, or possibly an inability to think globally and comprehend the consequences of collaboration with his country's historical enemy?

Regardless of his motivation or mental state, the fact remains that Pétain and his prime minister, Pierre Laval, administered a pro-German government in the part of France that was not under the military occupation of the Nazis. Their actions and acquiescence resulted in the passage of anti-Semitic laws, the deportation of Jews, and the restriction of personal freedom. Could Pétain possibly have rationalized that his actions were indeed for the benefit and the long-term survival of his beloved France?

In his defense, Pétain did actually remove Laval from office because of his extreme pro-Nazi policies. However, the Germans wanted Laval to continue passive cooperation and had him reinstated. Therefore, Pétain found himself without a viable option—perpetuate and endorse the puppet government at Vichy or resist at his own peril and that of what remained for France.

Three months before the German Army occupied Vichy in November 1942 following the Allied landings on the coast of French North Africa, Pétain was actually arrested by his erstwhile benefactors and taken to Germany. Knowing that the Allies would hold him accountable for his cooperation with Hitler and incarcerated by the Nazis, the aged general was a man without a country.

In April 1945, he was returned to France and faced the tribunal seated by the government of Charles de Gaulle, who had served under Pétain at Verdun nearly 30 years earlier. For his part, Laval was convicted of high treason and executed by firing squad that October. Pétain, however, was sentenced to death and later had that sentence commuted to life in prison, where he died in 1951.

For historians, the puzzle of Pétain is quite intriguing. Like de Gaulle, he was apparently willing to sacrifice personally for the future of France. However, the matter of perspective and political expediency may have guided him more forcefully than his former lieutenant. If Pétain did act in the best interests of France, as he was able to understand those interests, he had gravely miscalculated. If Pétain had sought to preserve the honor of his defeated and occupied nation, he chose the wrong path.

By 1945, the military commander who had fought valiantly for his country had compromised a storied career of service. As for honor, not a shred of his own remained.

Michael E. Haskew

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"How Dare WE!"

Dear Editor:

I was offended and angered as I read the rhetoric of Kevin M. Hymel's article entitled "They Also Served" in the May 2009 issue. As he tried to convey that "Despite prejudice and segregation … they contributed to the final victory," I thought, "How dare he relegate "they," the black soldier, to menial and segregated service!" But as I carefully considered the photographs he included, and the role of the historian to accurately investigate, analyze, and communicate the historical record, I quickly became offended not at Mr. Hymel, but at our government and its policies. I was embarrassed to acknowledge that what Hymel wrote was not careless rhetoric, but simple, ugly truth. Suddenly my reaction became, "How dare WE!"

I commend Mr. Hymel for exposing the problem of racial segregation and prejudice and for his dedication to explaining to us the breadth of service of our African-American patriots. I only wished the article were longer and more comprehensive. There is much more we need to understand and grieve over. My only true complaint of the article was not in the pictures and the words—they were well placed and poignant—but in the title. The title should have simply read, "They Served."

Sincerely submitted,
James R. Gruenberg
Greenville, Ohio

A True Treasure Uncovered

Dear Editor:

In 2002 I was sorting through boxes in my mother's home and I came across an old shoebox. In need of a break I decided to sit down and I looked inside the box. To my amazement I found over 100 photographs that my father, John Wayne Auld, took during the June 6, 1944, Normandy invasion on Utah Beach! My Dad served in the U.S. Navy from 1943 to his discharge in 1945. He was an electrician's mate second class. He drove an LCT across the English Channel during that fateful morning. These black and white pictures were full of various ships, LCTs, LSTs, etc., some of which were sinking from hitting mines. Other pictures are of German prisoners who were lined up on the beach. Some are pictures of German pillboxes on the shore. Fortunately, my father wrote notes on the backs of most of these photos describing what was taking place.

Under the photographs I noticed many clippings that were cut from the Peoria, Illinois, newspaper. They were articles describing the war, including the invasion, up-to-date progress on the war in Europe, a few Ernie Pyle editorial articles, and sad notices of several brave soldiers who died who were fellow students of my father's at Manual High School in Peoria.

No one in my family knew these pictures existed. My father, who died suddenly from a heart attack in 1978, never spoke to anyone about the photographs. As for the newspaper articles, these were cut out and saved by my grandmother, Lucille Auld. Dad must have acquired them from the family after her death.

ABOVE: German prisoners by the sea wall on Utah Beach. LEFT TOP: One of the many German pillboxes. LEFT: John Wayne Auld (in baseball cap) and fellow crewmen aboard an LCT in the English Channel. OPPOSITE: Electrician's Mate Second Class John Wayne Auld poses while painting an LCT.

Sitting there on the floor in my mother's closet I realized I had found a real historic treasure. This was a true gift that will be proudly handed down to my family's future generations.

Catherine Auld Todd
Lincoln, Nebraska

Thank you, Catherine, for sharing your exciting find with us and our readers. We were amazed at the great photos your father took and we are printing as many as we can here.

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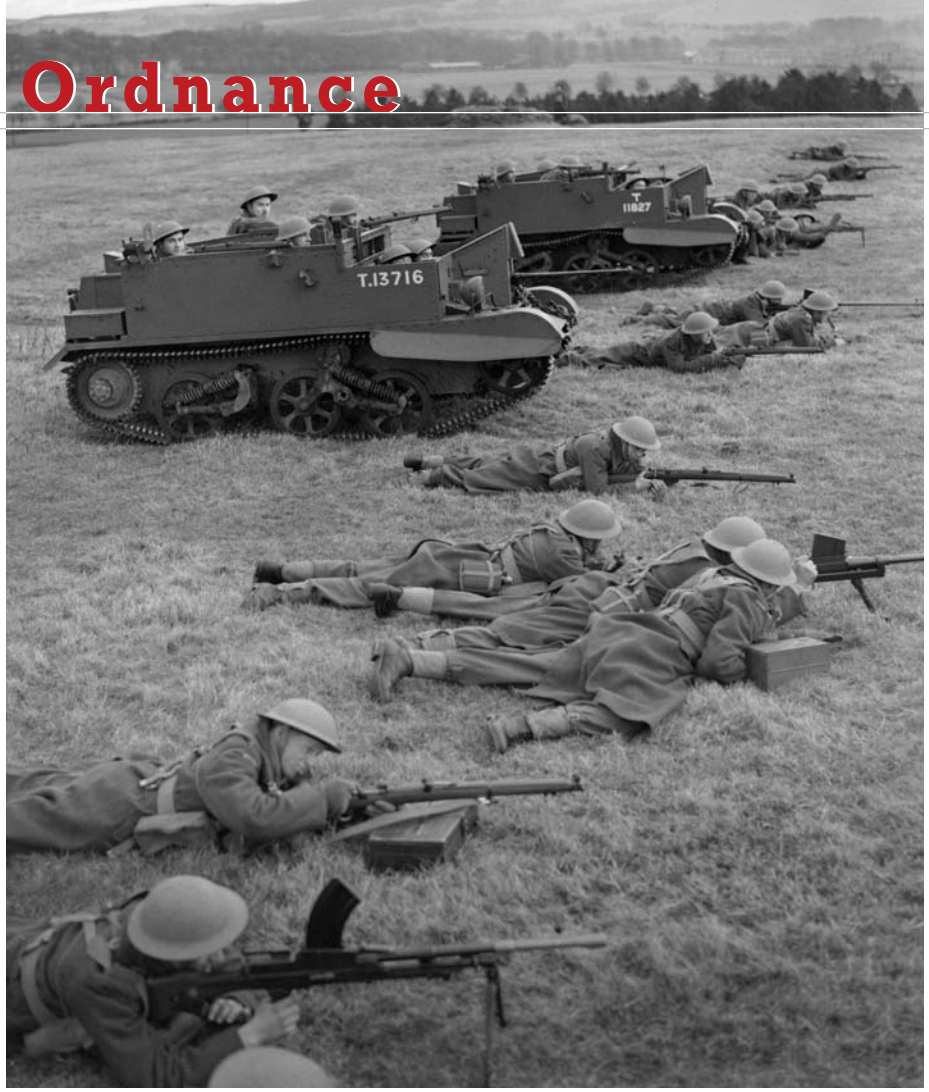
By Bob Cashner



Halting Enemy Armor

The Boys antitank rifle was an early attempt to stop Axis tanks and armored vehicles during World War II.

WHEN THE FIRST TANKS APPEARED IN WORLD WAR I, THEY WERE RELATIVELY lightly armored and protected the crews only against small-arms fire. In addition, much of the armor was riveted. Projectiles striking the exterior of the armor could pop off rivet heads or flake armor from the internal surfaces, creating fragments that would fly around the vehicle interior, causing injuries or death. In fact, British tank crews had to wear protective goggles and chain-mail masks to guard against fragments made by bullets striking close to their open vision slits.

The Imperial German Army's first attempt to give the infantry a man-portable antitank weapon resulted in the company Waffenfabrik Mauser AG creating and manufacturing the first antitank rifle in 1917. This was the Mauser Tank-Gewehr Model 1918, essentially a standard Mauser bolt-action rifle on steroids, firing a huge 13.2mm round and equipped with a bipod. A very unpleasant brute to fire, the T-Gewehr's most impressive feat was that it was being fielded to frontline infantry within nine months of the tank's first appearance on the battlefield.

The Mauser set the stage and ushered in the age of the antitank rifle, or ATR. Most major combatants, with the notable exception of the United States, fielded these weapons during the interwar years and through the beginning of World War II. Countries such as Finland, Switzerland, and Japan went the big-bore route, utilizing 20mm weapons. The Germans and Poles used 7.92mm weapons firing steel- or tungsten-cored small projectiles at incredibly high velocities. To the tanks of the 1930s, these weapons were a potent threat. By 1942, they were hopelessly outclassed.

During a 1940 training exercise in Scotland, Polish infantrymen aim Boys antitank rifles and Bren guns downrange. Universal carriers with other soldiers aboard are also visible.

(All photos: Imperial War Museum)

The British Boys Mark 1, Mark 1*, and Mark 2 antitank rifles were typical of the breed. Originally to be dubbed the Stanchion Rifle, instead the weapon received its name from the designer, Captain H.C. Boys, the Assistant Superintendent of Design for the British Small Arms Committee. Captain Boys died only a few days before his weapon was adopted into British military service in 1937, and the antitank rifle was renamed in his honor. It was often misspelled as Boyes.

The Boys had a three-foot-long barrel, was 63 1/2 inches long overall, and weighed 36 pounds. This particular weapon was a repeater, a bolt-action that was fed by a five-shot detachable box magazine mounted atop the weapon in a fashion similar to the famous Bren light machine gun. Empty cartridge cases were ejected from the bottom of the action rather than the top. Just the loaded magazine weighed some 2.6 pounds, and weight does not endear any weapon to the infantryman.

The Mark 1 Boys initially fired a .55-caliber (13.9x99mm) steel-cored AP (armor-piercing) projectile with a muzzle velocity of around 2,500 feet per second, which was changed to a lighter bullet with a velocity of 2,900 feet per second in the Mark 2 load. Later, an even more effective tungsten-cored APCR (armor-piercing composite rigid) was developed, which boasted a muzzle velocity of well in excess of 3,000 feet per second. This load proved capable of penetrating 20mm of armor plate at 300 yards.

The early production Boys Mark 1 had the circular muzzle brake, which vented gases in all directions. Fired from an otherwise good low-profile position, the rifle regularly kicked up a blast of dust and debris that could give the operator's position away. Later designs featured a flat harmonica-style muzzle brake, which vented all gases to the sides to correct this problem and had the added benefit of being easier to manufacture.

The harmonica-shaped (Mark 1*) muzzle brake or "recoil reducer" helped tame

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ABOVE: Soldiers of the 1st Royal Welsh Fusiliers practice firing their Boys antitank rifles during an exercise along the beach at Etaples in 1940. RIGHT: Armed with Bren guns and Boys antitank rifles, a squadron of Humber Mk III light armored cars of the British 29th Reconnaissance Squadron engage in a field exercise at Shanklin on the Isle of Wight in March 1942.

the weapon's massive kick. In addition, the barrel itself recoiled an inch against a heavy shock absorber mounted in the butt. The improved later version of the .55-caliber Boys Mark 1* not only had the flat muzzle brake, but also simpler fixed sights and a Bren gun bipod to simplify its manufacture. The butt plate itself was heavily padded with rubber. A front bipod and rear grip were also fitted. Still, recoil was quite significant, causing Australian troops who were issued the Boys to nickname it "Charlie the Bastard."

The first combat action for the Boys was actually with Finnish forces during the 1939-1940 Winter War against the Soviet Red Army. Great Britain sent 200 examples of the Boys to Finland. In the hands of the Finns, the Boys reportedly proved adequately effective against the early Soviet tank designs. Tanks such as the T-26 and BT-5 had thin armor and a distressing tendency to catch fire easily. The Finns were impressed enough with the Boys to later purchase another 200 of the weapons from the Germans, who had captured many of them during the campaign of spring 1941 that ended with the evacuation of Allied troops at Dunkirk. The Germans renamed them Panzerbuchse Boyes.

Later, the very first German tanks of World War II to be destroyed by British ground forces fell to a Boys. The 1st/5th Leicesters, who had been sent to aid in the defense of Norway after the German invasion of the neutral country, made a stand at the village of Tretten. Platoon Sergeant Major John Sheppard was commanding a small subunit guarding the right flank of a British position when he noticed German tanks approaching on the far side of the Laagen River. Taking up the unit's .55-caliber Boys, which he had never used before, Sheppard assumed a steady prone position and proceeded to precisely and methodically smack each tank with three AP rounds, knocking out two of them and making the rest back off out of sight.

The success of the Boys, or lack thereof, was also noted during the German invasion of France in May 1940. Despite the fact that the vast majority of the German tanks in use at the time were small, lightly armored Mark I and Mark II panzers, the former originally intended as nothing more than a training vehicle, the Boys was not a decisive factor in the infantry's defense against armor.

Sergeant Edward Doe of the Kings Royal Rifle Corps was not impressed by the Boys: "The Germans had brought the tanks in and they were blasting ... I actually fired the Boys anti-tank rifle for the first time in my life—a terrifying weapon. To even fire, you had to hang onto it like grim death because it would dislocate your shoulder if you didn't. I fired at a tank coming over the bridge that wasn't blown—and I couldn't miss it from about 50 yards away. An officer was right beside me, and I saw this hit the tank and all it had done was to just about knock the paintwork off. It made a noise like a ping-pong ball. The officer who was beside me said to me, 'Leave the blasted thing there, Doe—get the hell out of it.'"

Sergeant William J. Gilchrist of the Irish Guards had considerably better luck with the Boys. A later report confirmed, "France/Belgium 1940: Boulogne 23rd May 1940. Sgt. Gilchrist was in personal charge of an Anti-Tank Rifle which protected the rear of the Battalion during its withdrawal into Boulogne on the 23rd May. For two hours this NCO, with a few men, succeeded in holding their post at a street corner, thus enabling the remainder of the Battalion to move on unmolested. Although under extremely heavy machine-gun fire he showed the greatest contempt of danger and continued to keep his anti-tank gun in action.

He was instrumental in hitting and setting on fire an enemy tank, thus blocking a street down which the enemy were trying to move. Later in the action he himself was wounded but refused to leave his Anti-Tank Rifle until it, and the Bren guns supporting it, became jammed through over firing. Throughout the whole action Sgt Gilchrist showed courage and bravery of a very high order and set the finest example to the remainder of his Platoon."

After losing so much war material at Dunkirk and facing the possibility of a German amphibious invasion, the British were desperate to reequip their armed forces in the shortest time possible. New and improved weapon designs were neglected for the moment; industry concentrated on pouring out as many current weapons from existing assembly lines as possible. Thus, obsolete and obsolescent designs such as the Boys and the 2-pounder antitank gun continued to be produced in great numbers despite their disappointing performance. Approximately 65,000 Boys weapons were manufactured during the war.

The Boys was quickly rendered ineffective as an antitank weapon by rapid improvements in German tank armor. In North Africa, however, it still proved somewhat effective against lighter vehicles and some Italian tanks, such as the Fiat

light tanks and the thin-skinned machine-gun-armed Carro Veloce L3/35 tankettes. In one single engagement in the desert, the 7th Hussars knocked out five of these CV tankettes in rapid order with their Boys antitank rifles.

In the North African campaigns the Boys also found use against bunkers, machine-gun nests, and against infantry at long range. In the stony Western Desert, where the ground was often too hard to yield up good foxholes, infantrymen were forced to make fighting positions of piled stones known as sangers. The impact of the large .55-caliber bullets striking these sangers often produced casualties among enemy infantrymen from splinters and rock fragments. This trick was used again to engage German paratroopers fighting amid the rubble of Monte Cassino during the Italian campaign.

As in Western Europe, the ordinary Commonwealth desert infantryman did not give the Boys rave reviews as an antitank weapon, as attested by one Australian account. "The Italians counterattacked with nine tanks and hundreds of infantrymen. Private O.Z. Neall knocked out three Italian tanks with his Boyes anti-tank rifle, a feat that astounded everyone —the Boyes rifle was noted for its uselessness."

The British Universal or Bren Gun Carrier was a small, fully tracked, open-topped light armored vehicle that was mass produced during World War II and used by Commonwealth forces on all fronts. A total of some 113,000 of these carriers was manufactured, and they can be likened to an armored, tracked equivalent of the American jeep. In addition to the Bren gun, early models were also armed with a Boys ATR to provide some limited anti-armor defense.

In addition to the Universal Carrier, the Boys antitank rifle was also frequently used to supplement the machine-gun armament of numerous other light armored vehicles. These included the Morris CS9 Light Armored Car and Morris Light Reconnaissance Car, the Lanchester 4x2 and 6x4 armored cars, the Humber Light Reconnaissance Car, and the World War I-vintage Rolls Royce Armored Cars.

As the war progressed, some attempts were made to improve the Boys. The Mark 2 was a shortened, lightweight version intended for use with airborne troops, but it was just as ballistically ineffective as its predecessors, and the recoil was even more brutal than the full-size model. A taper (or squeeze) bore barrel was tried to increase muzzle velocity in the same manner that the Littlejohn Adapter tried to extend the useful life of the 2-pounder gun, and experiments were also conducted with the .55-caliber cartridge casing necked down to fire a .303 bullet at extremely high velocity. However, by that time the Boys was already being retired.

ABOVE: As the British engaged in an exercise in southern England in preparation for a potential German invasion in June 1941, this universal carrier, armed with a Boys antitank rifle, has been painted to represent a German armored vehicle. BELOW: Men of the Royal Irish Fusiliers trudge down a road near the French town of Arras in October 1940. Two of the soldiers, in the foreground, share the burden of a Boys antitank rifle.

With the advent of improved infantry antitank weapons utilizing the very effective high-explosive shaped charge warhead, the Boys quickly disappeared. In English and Commonwealth service it was replaced by the PIAT, Projector Infantry Anti-Tank. Essentially a spring-loaded spigot mortar, the PIAT was also rather despised by its users owing to its nasty spring recoil and short range, but its powerful warhead could penetrate some four inches of tank armor.

Although the Boys antitank rifle rapidly became obsolete during World War II, it served its purpose as a stopgap defense against marauding Axis armor. □

First-time contributor Bob Cashner is a resident of Philipsburg, Montana.

By Blaine Taylor

Hero of Verdun

Marshal Henri Philippe Pétain disdained election as president, but became chief of Vichy France anyway.

"I'VE BEEN OLD IN ALL MY RANKS," SAID HENRI PHILIPPE PÉTAIN, CREATED Marshal of France on December 8, 1918, at age 62. Indeed, in 1914, at the outbreak of World War I, he, like German General Paul von Hindenburg that same year, thought that his long military career was finished and was more concerned with buying a pair of gardening shears than donning his uniform once more.

An unmarried philanderer until the age of 64 (when he married at last), Pétain claimed to be still making love at 86 in 1942. In February 1916, when his moment of martial glory arrived at last and he was named commander of the French fortress city of Verdun for the battle with which his name will forever be linked, his boots were found next to those of a lady's slippers outside a hotel door in Paris.

During one of the most extraordinary military careers on record, he helped defeat Imperial Germany in the Great War, was largely responsible for building up his nation's defenses between the two global conflicts, disdained election as president of France when he could easily have won, and chose to remain in France to save what he could from Nazi Germany after the dismal French debacle of 1940.

On October 18, 1934, Marshal Henri Philippe Pétain, the French hero of World War I, stands next to Reichsführer Hermann Göring in Belgrade while attending the funeral of King Alexander I of Yugoslavia, who was assassinated in Marseille. (ullstein bild)

For his troubles, the aged marshal was tried for treason, convicted, sentenced to death, had the sentence commuted, and ended his life in fortress detention on a remote island. After his demise, Pétain remained a controversial figure, and his body was even stolen by grave robbers, but it was eventually returned.

Indeed, few soldiers have had such a roller-coaster ride of a life as this famed soldier of both republican and Vichy France. Altogether, it is a strange tale.

Pétain was born April 24, 1856, at the village of Cauchy a la Tour in the later strategic Pas de Calais region of metropolitan France, and all his long life his farmland virtues reflected his boyhood upbringing there. His family background consisted mainly of peasants, not soldiery, although two family members had fought under both Napoleons, I and III.

Pétain himself decided upon a military life and graduated from the French military academy at Saint Cyr ranked 403rd in a class of 412. His career prior to 1914 was also undistinguished: five years with the 24th Battalion of Chasseurs, and then another five with the 3rd Battalion of Chasseurs.

During 1888-1890, Pétain attended lectures at the prestigious Ecole de Guerre (School of War) and as a captain was assigned to the XV Corps before being named to the command of the 29th Battalion of Chasseurs at Vincennes for the years 1892-1893.

He spent the rest of the decade attached to the staff of the military commander of Paris and also became an officer of ordnance. After more field and teaching commands (Pétain advocated firepower over the steel of the popular bayonet charge), as a colonel he commanded infantry regiments in the years up to 1914.

The early months of the war vindicated his controversial firepower theories, especially as German Maxim guns mowed down brightly colored uniformed French infantry and equally outmoded cavalry squadrons. For his part, Pétain kept his head under fire and earned his later promotions mainly because he had managed to stay alive when so many fellow officers were being killed needlessly chasing after glory in action.

Awarded the Napoleonic Legion of Honor, Pétain advanced from corps to army commander, just as did his 1916 opponent at Verdun, Imperial German Crown Prince Wilhelm, first son and heir to the German kaiser. Pétain

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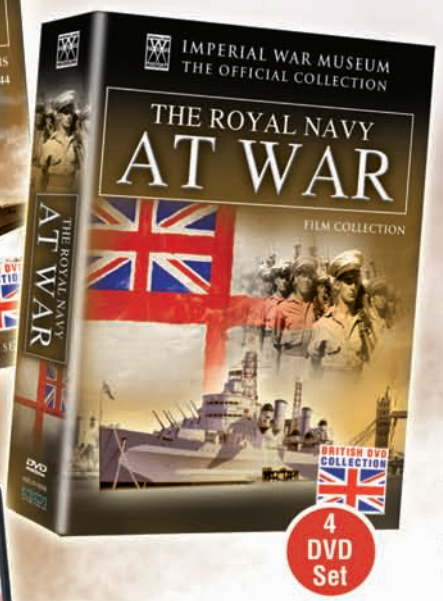

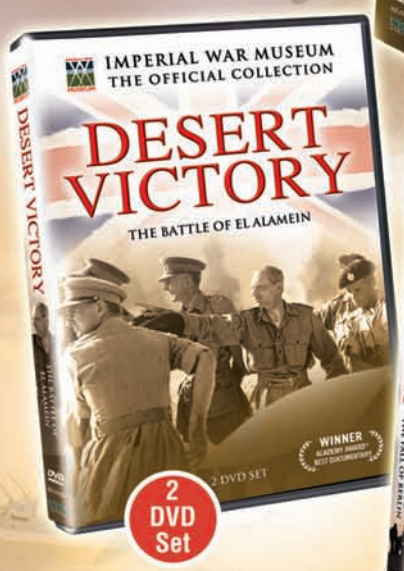

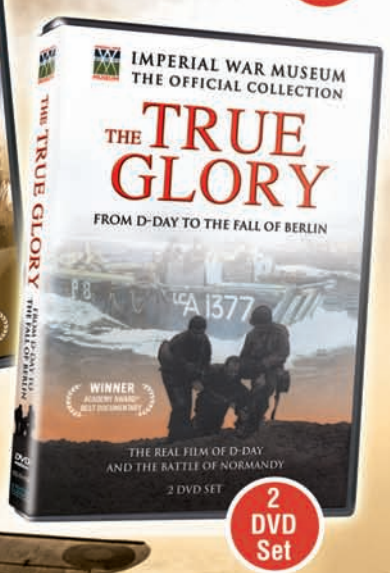

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ABOVE: Following a ceremony on April 29, 1919, during which a number of French and American officers received decorations, Marshal Philippe Pétain of France and American General John J. Pershing walk from the assembly area near Metz. OPPOSITE: On March 8, 1945, French fascist Pierre Laval testifies during the trial of Marshal Pétain for treason. Pétain was convicted and sentenced to death; however, the sentence was later commuted to life in prison by French President Charles de Gaulle. (Both: National Archives)

believed that large guns could achieve a breakthrough, and his visits to the front made him popular with the soldiers at the very time when few other top French or Allied generals were to be seen in the muddy, bloody, rat-filled trenches.

Pétain held embattled Verdun by a variety of techniques, such as dogged determination, inspiring the troops to fight on, ordering a railroad to be built along with a road to supply the men at the front, and thus he emerged as the vaunted "Victor of Verdun." Following the failure of the Nivelle Offensive and the subsequent mutiny of the French Army in the spring of 1917, Pétain was named commander in chief of the army, crushed the mutiny, and served in tandem with General Ferdinand Foch, who was chief of the general staff, after 150,000 Frenchmen had been killed in a single month.

To quell the mutiny, Pétain's discipline was harsh and swift; among other things, he threw soldiers overnight into no-man's-land between the French and German lines to teach them a lesson. Pétain also initiated a "defense in depth" of the French positions with the use of both planes and tanks. French Premier Georges Clemenceau, meanwhile, was more impressed with the aggressive Foch than with the defensive Pétain, who nonetheless asserted, "I am waiting for the Americans and the tanks" to win the final round of the four-year struggle with the Germans.

Pétain was thought to be a good tactician, not a master strategist, and for that reason Clemenceau backed Foch for the overall post of generalissimo of all the Allied armies, while Pétain 's British counterpart, Field Marshal Sir Douglas Haig, supported him instead for this position. The last major German offensive of the war, the so-called "Kaiser's Battle," the second of the Marne, was conceived to take Paris. It began in March 1918, and on April 14, Foch was appointed generalissimo to blunt it.

In 1918, as later in 1940, Pétain displayed a streak of defeatism in the face of the initial German victories as he defended Paris instead of maintaining contact with Haig's British Expeditionary Force (BEF), a fact that Winston Churchill would recall 22 years later in meetings with the marshal as France slid down the slippery path to its doom under the Nazis.

Nevertheless, on November 11, 1918, as the Germans proposed an armistice, Pétain wanted none of it, preferring instead a French invasion of Alsace and a French-American thrust into the German Rhineland to cut off the retreating German Imperial Army and thus prevent a future World War II. Marshal Foch overruled him, however, and the war ended with the Germans on the western side of the Rhine River.

In 1920, the newly married marshal thought again briefly of retirement, bought an estate, and settled down to raise chickens and make his own wine until he decided once more that power beckoned too strongly from Paris.

According to biographer Nicholas Atkins, "Between 1920-31, he sat on all the key military committees; in 1925, he returned to active service…; in 1931, he was elected to the French Academy, and in 1934, he briefly served as minister of war. Thereafter, a number of newspapers spoke of him as a future head of government, and although he distanced himself from these campaigns, his appetite for office had not diminished. In March 1939, he accepted the ambassadorship to Spain."

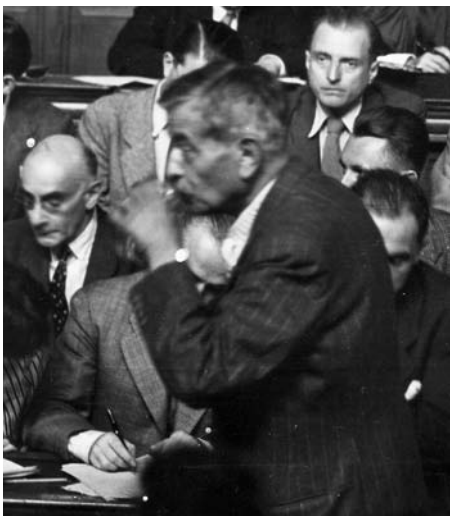
During this period, Pétain's marshalship was

associated with the glorious victories of World War I, and he himself especially with that of Verdun; indeed, over the years, he became the most popular of all the surviving marshals and outlived them all as well. Pétain was given posts that he was not skilled for, however, a fact that escaped public scrutiny, if not that of his able, acerbic ghostwriter and rival, Colonel Charles de Gaulle.

"With his eyes fixed firmly on the past," in Atkins's unique phrase, while in military power, the aging marshal prepared France to fight the war of the future entrenched in the lessons learned only from the last struggle, a common failing of many generals.

The two men, Pétain and de Gaulle, collaborated on a book on French infantry usage, but de Gaulle differed with his venerable superior on the employment of armor in the next war as well as on the near total reliance on such static defenses as the stationary Maginot Line. Although Pétain recognized the value of airpower because he had experienced it during 1914-1918, the marshal did not support the concept of an independent air force such as advocated by Italo Balbo in Fascist Italy, Hermann Göring in Nazi Germany, and Billy Mitchell in the United States.

Politically, Pétain despised most French



politicians of his day, preferring instead to admire such right-wing generals as Primo de Rivera and Francisco Franco in Spain, Göring in the Third Reich, and Colonel Josef Beck in Poland, and he would emulate all of them once he came to office as head of the government of Vichy France in 1940.

Pétain was, however, neither a fascist nor a Nazi, but a closet anti-Semite who believed in the family unit as a social building block (although he had no children of his own), and whose later political creed was simply stated as work, family, fatherland. Pétain looked first and foremost to the French Army as the repository of these values, and he perceived the enemies of France to be all of the established political parties, particularly the socialists and communists.

By the time the Germans conquered France in 1940, Atkins believes, "The marshal was physically and mentally decrepit," yet he was perceived by most of the French public as the man who had come home from Madrid to save his country from disgrace and dishonor and to make all of their own lives better. In this respect, again, Pétain played in 1940 much the same role that von Hindenburg took on in 1925 when he was elected president of Weimar Germany.

Pétain came out for an armistice with the now victorious Germans, and as the undisputed victor of Verdun in the last war, the aged marshal was in a uniquely qualified position to do so without any loss of face for either himself or France. Indeed, Adolf Hitler, Hermann Göring, Foreign Minister Joachim von Ribbentrop, and Field Marshal Wilhelm Keitel all showed great respect upon meeting him, as had Generalissimo Franco earlier.

Pétain told the French people that he was giving them "the gift of his person," that he would not flee to London as de Gaulle had done, nor

Marshal Philippe Pétain meets Hitler during the Führer's trip to Spain, France, and Italy from October 21-28, 1940. Pétain, a hero of World War I, became infamous as a traitor during World War II. (National Archives)

to the French Empire in North Africa as he had been urged to do by Churchill. Rather, he would stay in metropolitan France and see the German occupation through with the French people. Later, at his 1945 trial for treason, he would call himself the "shield of France," and de Gaulle its "sword." Pétain held the homeland together until the Allies could rescue her, he avowed.

For the next two years, from the town of Vichy, which was Pétain 's seat of government, all power was vested in this one man, with the hated politician Pierre Laval acting as his German-approved deputy. Under this duo, anti-liberal laws were passed, French slave labor was shipped off to work in the Third Reich, and Jews were allowed to fall into the clutches of the German SS and Gestapo for shipment to Auschwitz and extermination.

For the first time since 1789, France possessed no national representative body. Mail was opened routinely, and eavesdropping on telephone conversations became a common occurrence.

Nevertheless, there was created a "cult of the marshal" akin only previously to those of Napoleon and Joan of Arc, with Pétain's hero-worship cresting with bags of mail containing 2,000 personal letters to him arriving daily. Pétain was always shown in military uniform, with "his upright figure, broad shoulders, and piercing blue eyes," according to Atkins.

Although the marshal consistently refused to join the Tripartite Pact in its ongoing fight with Churchill's stubborn England, when Hitler invaded the Soviet Union on June 22, 1941, Pétain permitted right-wing French fascists to don German uniforms and fight in the East as volunteers alongside like-minded Dutch, Belgians, and Spaniards.

The great dilemma for Marshal Pétain was what to do if the Allies invaded North Africa, which they did during Operation Torch in November 1942. Following light resistance on the beaches at Oran, Algiers, and Casablanca, the Vichy forces there went over to the Allies, leading Hitler to retaliate with an immediate invasion of unoccupied France. With this invasion of November 11, 1942, there were now a trio of Frances: that of Marshal Pétain at Vichy, of Admiral Jean Darlan (soon to be assassinated) at Algiers, and of General de Gaulle in London (Free France).

There was soon to be a fourth, as the prospect of an Allied invasion of metropolitan France neared ever closer—the resistance within the country itself.

As these events unfolded, Pétain wanted to act as an intermediary between the Third Reich and the United States in an alliance against Josef Stalin's Russia, and indeed, President Franklin D. Roosevelt kept his trusted assistant Admiral William D. Leahy as ambassador to Vichy for some time, much to de Gaulle's constant irritation.

Following the success of the Allied invasions of France (Operations Overlord at Normandy in June and Dragoon in August 1944 in the

south of France), the marshal and Laval were removed by the Nazis to Castle Hohenzollern in Germany as the Reich was poised to receive the first attack on German soil by French troops since 1813.

With the end of the war fast approaching, the marshal was escorted to the Swiss border by the Germans on April 22, 1945, but was returned to France, where Gaullist French General Pierre Koenig refused to either salute him or shake his hand for his wartime conduct as "the chief" at Vichy.

In Paris at his Gaullist postwar trial for treason, the aged marshal began his defense by reading aloud a prepared statement into the record: "It is the French people who, by its representatives gathered in the National Assembly on July 10, 1940, entrusted me with power. It is to the French people that I have come to make my account. The High Court, as constituted, does not represent the French people, and it is to them alone that the Marshal of France, Head of State, will address himself."

He spent the rest of the trial silent and alone in the middle of the courtroom, wearing his uniform with a sole decoration, the Military Medal, allowing his attorney to make his case for him.

Upon Pétain's conviction as a traitor and his death sentence, de Gaulle intervened to commute it to life imprisonment to be served at Fort du Portulet in the remote southwest of France. He later claimed that it was his intention to keep Pétain there for two years before allowing him to end his life in retirement at Villeneuve-Loubet, but in November 1945, the aged prisoner was removed instead to the Ile d'Yeu, an island south of the Brittany Peninsula known today for its water sports facilities.

"Sliding into senility and haunted by hallucinations—including one of a roomful of naked women…" according to Atkins, it was on this remote spot, like Napoleon I, that Marshal Pétain died on July 23, 1951, aged 95. He was buried on the island as well, despite his expressed wish to lie alongside his dead troops at Fort Douaumont at Verdun.

A band of right-wing fanatics in 1973 exhumed his body, and with it headed off for the fortress city of Verdun, but the marshal's remains were discovered in a garage outside Paris and returned to the lonely Ile d'Yeu, where they remain still. □

Towson, Maryland, freelancer Blaine Taylor has published six books on World War II, the latest being Hitler's Headquarters from Beer Hall to Bunker, 1920-45 *(2007) as well as studies on Pearl Harbor and Imperial Japanese Admiral Isoroku Yamamoto.*

By Glenn Barnett

Free France Resurgent

Charles de Gaulle maintained French participation in world affairs and sought to leverage Stalin and the Soviet Union for political benefit.

ON THE EVENING OF JUNE 16, 1940, MARSHAL HENRI PHILIPPE PÉTAIN WAS appointed Prime Minister of France. It was a critical time. In the previous six weeks the German Army had overrun everything it its path. Two French armies were destroyed in Belgium, the British Expeditionary Force was evacuated from the Continent at Dunkirk, and Paris had surrendered. Only twice had French counterattacks in late May temporarily blunted the German onslaught. Both of these attacks were led by a colonel named Charles de Gaulle.

The next morning, Pétain asked the Germans for surrender terms. At the time the old general (he was 84) was arguably the most respected man in France. He had been a hero during World War I, but over the intervening years he had become sympathetic to fascism. On the same day, de Gaulle, now a minor member of the government, elected not to surrender. Instead, he flew to England to carry on the war. He did not take this step lightly. Pétain had been his mentor for many years and was his son's godfather. But the honor of France dictated to de Gaulle that he must not surrender.

De Gaulle had been an undersecretary in the French government for only 12 days. He had been promoted to general less than a month earlier. He was virtually unknown outside the military establishment in France. The Vichy French government disavowed him and soon condemned him to death.

As France announced its capitulation in the war, de Gaulle urged his countrymen to fight on. On June 18, British Prime Minister Winston Churchill, over the objection of his cabinet, allowed de Gaulle to make a five-minute speech to France on the BBC. That call to arms was the beginning of a career that within four years would make him the best known Frenchman in the world and eventually the greatest Frenchman of the 20th century.

But in June 1940, de Gaulle was alone, nearly broke, and a virtual ward of Great Britain. Few of his countrymen rallied to his cause, the cause of fighting on in a movement he called the "Free" French (later the Fighting French). The British were not entirely supportive. When de Gaulle sought to recruit soldiers from French refugees of the Dunkirk evacuation and those still in Britain following the abortive Norway campaign, he was stymied by British authorities who sought to recruit these same men into their own ranks. As it was, many of the French soldiers opted to be repatriated to France now that their war appeared over.

De Gaulle steeled himself against British interference and French indifference by declaring, "Je suis la France" ("I am France"), the embodiment of French glory and grandeur. He insisted to friend and foe alike that he and France were to be treated as a great nation. By the force of his will and obstinate personality, he would eventually make it so.

If the British were difficult to deal with, the Americans were worse. President Franklin D. Roosevelt and the State Department still recognized Pétain and his Vichy government as the legitimately elected government of France. Even after the United States entered the war, it maintained ties with Vichy. Roosevelt's attitude, fostered by Vichy politicians, was that de Gaulle was an upstart and potential dictator. He was certainly not elected by anyone to anything.

When Hitler turned his attention toward the Soviet Union in

General Charles de Gaulle, leader of the Free French, meets with Georges Bidault, a commander of the French Resistance, in front of the Arc de Triomphe in Paris. The date is August 26, 1944, following the liberation of the City of Light.

(All photos: National Archives)

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Free French and American troops, veterans of the fierce fighting in the border region of Alsace along the French frontier with Germany, are reviewed by General Charles de Gaulle on February 14, 1945.

June 1941, de Gaulle found an important new ally. He wrote to Stalin praising Russia's efforts to stem the tide of Nazism. In September of that year, even as German panzers overran the Ukraine, the Soviet government recognized de Gaulle's movement as the legitimate government of France. It was far more recognition than he had received from either the British or Americans. Though a fervent anticommunist, de Gaulle was grateful for the support.

Off the coast of Newfoundland lie two French islands, St. Pierre and Miquelon, the remnant of France's North American colonial empire. The two islands were under nominal Vichy control and through a treaty between the United States and Vichy were effectively neutralized. On Christmas Day 1941, de Gaulle's tiny navy seized them. The people of the islands welcomed the Free French, but the U.S. State Department was furious.

De Gaulle's actions had violated the agreement with Vichy and smacked of a violation of the Monroe Doctrine. The United States threatened to evict the Free French forces. De Gaulle declared that any American interference would be met with gunfire. The State Department backed down. De Gaulle had scored a minor victory for his view of France and its right (and his) to dominion over all of French territory.

In 1942, as support for de Gaulle's movement began to take root, he concentrated on bringing the French empire under his control. He failed at Dakar in West Africa when the colonial governor, loyal to Vichy, resisted a Free French invasion. De Gaulle was successful elsewhere, though, bringing French Equatorial Africa under his authority. When Syria and Lebanon were occupied by the British Army, the Free French set up shop there as well.

De Gaulle was anxious that French troops participate in the struggle against the Axis. From former Vichy troops stationed in the Levant he was able to form two legions, which he offered to the British to help with the fight in Libya. Though hard pressed in their struggle against German General Erwin Rommel, the British commander declined de Gaulle's offer.

Enraged by this snub, de Gaulle offered a legion of French troops to Stalin to fight with the Russians on the Eastern Front. When Stalin accepted the offer, the British changed their minds and soon 12,000 French troops fought alongside the Allies in North Africa. A squadron of Free French fighter pilots did serve with the Soviets on the Eastern Front.

Yet, de Gaulle was still mistrusted by the Americans, who refused to share with him any planning for the upcoming Operation Torch, the invasion of North Africa. Churchill bowed to American wishes to keep de Gaulle in the dark. De Gaulle fumed at being excluded from military actions affecting French territory. He was so upset that when an aide woke him to announce that the American armies had landed in Morocco and Algeria his first words were, "Well, I hope the Vichy people drive them into the sea." He soon rallied and made a radio address in support of the American actions.

Moscow continued to support de Gaulle and his movement in public, but when the Big Three met in Tehran, a meeting from which de Gaulle was purposely excluded, Stalin complained to Churchill and Roosevelt that France was a pitiful nation that surrendered without a fight. After the war, he argued, the French did not deserve the status of a major power, and its colonies should be taken away.

By early 1944, all of France's overseas possessions except Japanese-occupied Indochina recognized the authority of the Free French. De Gaulle now had over 300,000 mostly colonial troops under his command. But these were entirely dependent upon Anglo-American support for equipment, arms, fuel, food, and pay. Only a few divisions were fully mechanized.

The Americans had another insult for de Gaulle. He was kept totally in the dark about Operation Overlord, the invasion of Western Europe through France on June 6, 1944. Roosevelt, aside from his personal dislike of de Gaulle, feared that his organization might leak information and imperil the landings. Thus, the Free French leader was unaware of the coming assault against Hitler's Atlantic Wall until June 2, 1944. Then, de Gaulle was summoned to London to meet with Churchill and General Dwight D. Eisenhower, the Supreme Allied commander, who informed him of the plans and elicited his support. De Gaulle had always insisted that French troops be involved with the liberation of his homeland. Eisenhower agreed. The first Allied troops to reach Paris were Free French forces.

By November, much of France was in Allied hands, and de Gaulle had consolidated his control over the country. He then set out to implement a French foreign policy independent of the Anglo-Americans. He requested a meeting with Stalin to discuss Franco-Russian relations and postwar arrangements with regard to Germany. He said nothing of his visit to Russia to his Western allies, but Stalin kept them informed.

On November 28, 1944, after flying through Cairo and Tehran, de Gaulle landed at Baku on the Caspian Sea. He toured the ruins of Stalingrad before arriving in Moscow by train on December 2, in the midst of a blizzard.

The two men began their talks by discussing

African American Women Honored for WWII Service

Unique in the annals of American history, the women of the 6888th Battalion formed the only all-women, all-African-American unit sent overseas during World War II. From February 1945 until the guns fell silent three months later, the women of the 6888th Central Postal Directory Battalion delivered mountains of mail that had backed up in cold, drafty warehouses in Birmingham, England. Despite encountering both sexism and racism in the segregated military, they accomplished their mission ahead of schedule. When the war ended, they were shipped to France, where they pitched mail in Rouen and Paris.

The women of the 6888th received no parades, no ceremonies and no "thank you" when they returned home. The U.S. Army corrected that mistake on February 25, 2009, when Colonel David Griffith presented three surviving members of the group with official U.S. Army Freedom Team Salute certificates of thanks at a ceremony at the Women in Military Service for America Memorial at Arlington National Cemetery. "It's always good to make it right," said the Griffith about the event. Alyce Dixon, a veteran of the unit, appreciated the Army honor, declaring to the audience: "Thank God I've lived to be a hundred and one to see this beautiful ceremony." □

ABOVE: The first members of the 6888th undergo inspection in England. LEFT: Alyce Dixon receves an Army Veteran pin from Colonel Griffith.

- Kevin Hymel

the fate of postwar Germany. De Gaulle proposed that France and Russia set the agenda for occupation of the defeated Reich. But Stalin had already had long discussions on the subject with Churchill and Roosevelt. He was not going to let de Gaulle dictate any peace terms. Postwar plans must include the Americans and British.

Instead, Stalin proposed a bilateral treaty similar to one he had already signed with Churchill. That would put French relations with the Soviets on the same footing as the British. De Gaulle was intrigued. In return, Stalin asked that the French recognize the so-called Lublin Committee as the legitimate government of Poland. This committee was made up of Polish communists who were backed by the Russians. They were an alternative and rival

En route to a meeting with Soviet Premier Josef Stalin, French leader Charles de Gaulle stands at the entrance to the railway station in Moscow on December 1, 1944. Accompanying de Gaulle is Soviet Foreign Minister Vyacheslav Molotov (right).

to the Polish government in exile, which had been operating in London since 1939. De Gaulle refused. He knew the Polish men in London from his own days in exile, and he would not sell them out. The talks between de Gaulle and Stalin stalled on this point for several days.

There was some tension and grumpiness. In a private moment, Stalin let it be known that little could be gained by an alliance with a country that surrendered to Germany in just five weeks. Perhaps hearing of the snub, de Gaulle uttered indiscreetly that the difference between France and Russia was that the Russian troops had more room to run away.

While Stalin had reported his discussions with de Gaulle on a bilateral treaty to Churchill and Roosevelt, he did not tell them about his suggested recognition of the Lublin Committee, which he knew they both opposed. Churchill wrote back to Stalin that he would prefer a three-party treaty among Britain, France, and Russia. Stalin informed de Gaulle of Churchill's wishes, knowing that the proud Frenchman would bristle at British interference. De Gaulle rejected a tripartite treaty but still would not sell out the Polish government in exile.

Both de Gaulle and Stalin knew that the coming Red Army occupation of Poland would settle the issue but, as so often was the case with de Gaulle, honor came first.

The talks were still deadlocked on the last night of de Gaulle's visit. Stalin threw a lavish dinner for his guest. During the evening he made a series of 30 toasts, mostly to his own ministers and military men. In each one he praised the man named but then threatened his

life if he failed to perform.

After dinner, Stalin had planned for the diplomats to watch a film together. De Gaulle refused. If nothing was going to come of the treaty he was going to bed to prepare for his departure in the morning. De Gaulle spent a restless night fearing that his trip to Russia had been in vain and that he would lose honor over this failure of his personal diplomacy.

Talks continued between the two men's subordinates until early morning, when Stalin dropped his demand for recognition of the Lublin Committee. Instead, de Gaulle agreed to send an unofficial French representative to that committee.

With this stumbling block out of the way, de Gaulle returned to the Kremlin in the early morning to sign the treaty with Stalin, who praised the Free French leader for his stubborn diplomacy. The two men were all smiles. The treaty strengthened de Gaulle's hand at home, for now the French communists would not threaten his government but join it. Their newfound friendship did not include an invitation to the Yalta Conference in February 1945. Once again, France and de Gaulle were excluded. De Gaulle released a statement that France would not be bound by or responsible for the decisions made at Yalta.

Roosevelt declared that American troops would be withdrawn from Europe two years after the surrender of Germany. That left the Russians as the military colossus of the European continent. Churchill could not allow it. He now took de Gaulle's side in arguing for French participation in postwar Europe.

Stalin and Roosevelt disagreed. Roosevelt soon came around to Churchill's way of thinking, however, and Stalin conceded that France might participate in the division of postwar Germany as long as the French occupation zone was carved out of British and American territory. Russia would not give up an inch of eastern Germany.

In the end, the French were allowed to occupy the Rhineland, German lands west of the Rhine River, the territory France had occupied after World War I. France was also accorded membership in the United Nations Security Council. World War II ended with France once again among the ranks of the world powers thanks largely to the stubborn tenacity of Charles de Gaulle and his pragmatic diplomacy with Soviet Premier Josef Stalin. □

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By Alan Alpers

World's First Smart Weapon

Following numerous setbacks and disappointments, the Bat was proven under combat conditions.

ON MAY 27, 1945, U.S. NAVAL RESERVE LIEUTENANT LEO KENNEDY WAS patrolling from his station at Yonton Field in Okinawa. These were the closing months of the war in the Pacific, and Kennedy's mission was to destroy any enemy shipping he could find. Hanging from the outboard stations of his Consolidated PB4Y Privateer aircraft were two very secret, odd-looking, wooden glide bombs.

Kennedy's squadron had been equipped that April with the new weapon, and so far the results had been mixed. This new glide weapon, carrying a 1,000-pound bomb in its belly, had shown it could certainly do damage, but it had not exactly hit what its operators had targeted.

As Kennedy came upon a clearing of clouds, a jackpot target suddenly emerged below. As the ships began defensive firing, Kennedy turned his plane out of range. Once safe, he repositioned his aircraft toward the enemy and called to his weapons officer to see if he could "clutch-in." In moments, the weapon "saw" the target and was released. Kennedy and crew could throttle back, remaining well out of reach of any return fire, and watch the weapon silently drift toward the target, a Japanese destroyer.

Seconds later, the weapon blew off the bow of the ship, and within minutes the destroyer sank. Active guided smart weapons had just been introduced into warfare. The Bat, the first autonomous homing bomb, had debuted.

Only three days later, Kennedy and his squadron, VP-109, set out for the target-rich environment they had preyed upon the previous day on the Yangtze River, near Shanghai, China. Four Privateers, three equipped with Bats, began the attack by sinking an oiler and picket boat and severely damaging a 4,500-ton freighter. On the next pass, they continued, damaging two 700-ton attack transports, a 4,000-ton freighter, two lightships, a 600-ton oiler, and seven picket boats.

On the ensuing run, the lead plane, while preparing for a Bat drop, was surprised by anti-aircraft fire from an unseen source and was severely damaged. Two crewmen were badly injured, and their radio was knocked out, so they could not warn their comrades of what lay ahead. The next plane inbound was on a strafing run. It was also hit and severely damaged. Following in the third plane was Lieutenant Kennedy. Suddenly, a 20mm shell exploded in his cockpit. Kennedy was killed instantly. His injured copilot and crew managed to get out of the area and limp the plane home, crash landing at Yonton with a damaged nose wheel in zero-zero visibility.

The very next day, battered and bruised, the squadron was relieved at Okinawa and ordered to retire to Tinian for rest and repair. Kennedy, from Ethlyn, Missouri, was buried in the First Marine Division Cemetery No. 1 in Okinawa that morning, before the squadron left. Later that year, he was awarded the Purple Heart and the Presidential Unit Citation posthumously. His family probably never knew of the top-secret weapon he had carried, only that he died in an aerial attack over China. The Bat, being the first successful "smart weapon," represents a milestone in U.S. military history.

Bat was produced for the Navy as an anti-ship weapon stemming from design work done by one of the divisions of the World War II National Defense Research Council (NDRC) established by Congress. The NDRC comprised resources from various agencies and was headed by Dr. Vannever Bush, who had an office in the executive wing of the White House and reported directly to President Franklin D. Roosevelt without any military intermediaries. Bush was Roosevelt's adviser on all scientific matters.

The NDRC, which had many divisions, developed much-needed new technologies for the war

TOP LEFT: An operational guided bomb is mounted beneath the wing of a Boeing B-17 Flying Fortress bomber. TOP RIGHT: The BAT development team included a number of scientists and designers, such as, left to right, R.C. Newhouse, H.K. Skramstead, O. McCrackin, D.P. Tucker, L.P. Tabor, Dr. Hugh L. Dryden, Hunter Boyd, and Ralph Lamm. (Public Domain)

effort. The Manhattan Project was the most notable. Some others were radar, sonar, variable-timed (VT) fuses, missiles (absent the then classified term "guided"), rockets, and more. Division Five of the NDRC was responsible for the radar guidance of missiles. It was for this missile work that a unique partnership was formed for the development of Bat. Curiously, the National Bureau of Standards (NBS) took a leading role. Today, the NBS is known as the National Institute of Standards and Technology (NIST).

The National Bureau of Standards was, at that time, the primary agency of the United States in scientific matters. Besides maintaining the national standards for weights and measures and the characteristics of the physical elements and their isotopes, it established a wide variety of product specifications, such as shoes for postmen and the military, tombstones for government cemeteries, dams for rivers, and hundreds of other things the government buys.

As an agency supporting the NDRC during the war, the NBS took on design and engineering roles in air-to-surface missiles and VT fusing, as well as pioneering work on turbojet engineering for aircraft. In aerodynamics, the NBS employed people—the most notable being Dr. Hugh Dryden, the future deputy administrator of NASA—who applied the scientific principles of mathematics and physics to develop aerodynamic theory. The bureau operated a modest-sized wind tunnel at its campus on Connecticut Avenue in Washington, D.C. The NBS also had a facility to test rocket propulsion with a vertical motor test stand that looked like a long industrial chimney, confining ensuing exhaust and noise skyward. So, it was natural for the NBS to be involved in the NDRC missile efforts as far as aerodynamics was concerned.

Under the auspices of the NDRC, NBS did design work on four different, yet similar-looking missiles. NBS had the RHB, or radar homing bomb; the SRB, send-receive bomb; the TCG bomb, or television command-guided bomb; and the ARM, or antiradar missile. All four used the same basic airframe and carried the same 1,000-pound general purpose warhead. The RHB served as the predecessor of another system, the Pelican, and the SRB was the predecessor of the Bat. Robin and Moth were the Navy versions of the TCG and the ARM, respectively.

All used simple, low-cost elevons on the wings for control, with the elevons going up or down in synchronism for pitch and opposite of each other for roll-to-turn. Gyros provided stabilization. The airframes were made of steamboat plywood with O-shaped body frames. The Rudolph Wurlitzer Organ Company, still famous for making jukeboxes and organs, made the wooden bodies with their expertise in bending plywood. Steel straps from the wings held the bomb in place.

A BAT missile is lifted into position on a PB4Y aircraft prior to a mission in the Pacific. The BAT was actually tested in combat as the war against Japan neared its close.

The main center for the crucial developmental radar work, however, was the radiation laboratory at the Massachusetts Institute of Technology (MIT), known as the RadLab. The missile seeker effort at RadLab was innocuously identified as the Department of Industrial Cooperation (DIC), a subterfuge name to thwart espionage attention. The RadLab was a center of scientific experts thrown together, primarily by Wall Street financier Alfred Loomis, to quickly develop newly emerging technologies during the war and urgently transition these discoveries to production for the war effort.

Loomis had money, influence with Bush, and an enthusiasm for science, as well as personal relationships with top scientists of the era. He was committed to the war effort and did not waste any time establishing a site for new radar technology. Loomis was a key player when the British decided to share their top-secret advancements in radar (one being the cavity magnetron) with the United States in hope of gaining production assistance and support.

The story of the Bat, it could be said, began with Commander Delmar Fahrney, who, in 1936, observed trials of remotely controlled aircraft conducted by Britain's Royal Air Force. Fahrney was so impressed that upon his return to the States he convinced his Navy superiors of a need for a similar effort.

In 1936, Project Dog was launched, with the Navy taking two Stearman Hammond JR-1 twin-boom, single-seat aircraft and converting them to radio-controlled flight. These aircraft were flown from an accompanying TG-2 Curtiss "mother" aircraft. In 1938, Fahrney introduced the first "assault drone" by attempting to dive-bomb a pilotless N2C-2 into the target ship USS *Utah* in a Naval demonstration.

With war looming in Europe, the Navy remained interested and continued to fund the assault drone (AD) program, converting obsolete aircraft while striving to improve the technology for delivering these drones against various ship targets.

As far back as 1937, RCA had pitched an idea to the Bureau of Ordnance (BuOrd) for a glide weapon that used radio control coupled with the new technology of television guidance. They had experimented with Fahrney's assault drone. At that time, the concept was dropped by BuOrd. However, by 1940, RCA was convinced the time was right, and now their proposal might stir some interest. That year, they subsequently pitched their design to the NDRC to use television guidance in development of a glide bomb. The NDRC agreed to fund experiments.

By 1941, RCA had subcontracted for some test models and scheduled a November demonstration at Muroc Dry Lake Bed in California, now Edwards Air Force Base. Their intent was to gather flight characteristics data on their proposed television-guided glide bomb. They had convinced the NDRC they had a sound idea, and the NDRC had assigned the television and radio control guidance work to RCA. Dr. Hugh Dryden, as a world-renowned expert in aerodynamics, was appointed as a consultant for RCA's concept weapon.

Three future pioneers were observing this demonstration of the RCA glide bomb. Dr. Dryden, who consulted on the flight characteristics, is the youngest person ever to receive a Ph.D. from the Johns Hopkins University, graduating in 1919 at the age of 20. He immediately went to work for the National Bureau of Standards, which hired him for his doctoral work in the new field of aerodynamics. In 1927, he achieved notoriety after he published a groundbreaking report on the aerodynamics of aircraft bombs. At this time, Dryden was chief of the Mechanics and Sound Division of the bureau and an NDRC consultant.

Navy Commander Delmar Fahrney, who later rose to the rank of rear admiral, is arguably one of the main players in the development of guided missiles, having first developed pilotless drones and then later assault drones for the Navy. He claims to have originated the concept of radar-guided weapons.

After the war, he was the initial commanding officer at the Naval Air Missile Test Center at Point Mugu and in that role oversaw most of the emergent guided missile programs of that era, including the postwar work on the Bat. Fahrney is as prominent as anyone in discussions of the development of guided missiles.


This PBY2 aircraft was modified to carry smart weapons and flew against the Japanese late in the Pacific War. The smart weapons of the World War II era were the forerunners of the modern bombs guided by lasers and other technology.

Lieutenant Colonel George Holloman was a veteran of the U.S. Army Air Forces and achieved notoriety by test-piloting the first automated landing of an aircraft at Wright Patterson Air Field in 1937. He remained involved with drone experiments and later would run the Army Air Forces' parallel efforts for RHB (Pelican) and SRB (Bat). Holloman was killed in a plane crash on Formosa on March 19, 1946. The air force base near Alamogordo, New Mexico (White Sands), is named in his honor for his pioneering work in the development of missiles.

Three models were demonstrated by RCA during the Muroc event. All worked poorly. However, the promise of these weapons remained compelling. The result of this demonstration was that the work would continue, and Dryden was given directorship for vehicle design. The Bureau of Standards was to design the weapon, and Vidal Research Corporation was given a contract to produce the prototypes.

The resulting distinctive airframe shape was the brainchild of a designer at NBS, Hunter Boyd, who had previously worked with a number of early aircraft designs. Not much is known of Boyd. Ralph Lamm, the Bat and Pelican's receiver/guidance designer and a colleague of Boyd, once said, "He was an outstanding aerodynamics engineer, who could look at a drawing of an airfoil and tell you what its flight characteristics would be." The problem with Boyd's designs, in Lamm's estimation, was that, if anything, "they were too stable and would not accept much control correction."

Designed originally to carry an Mk 34 2,000-pound bomb with 160 pounds of guidance equipment, early test models of the glide weapon had a 12-foot swept wing and twin vertical tail surfaces at the ends of a horizontal stabilizer. Smaller models were developed for testing at Eglin Airfield in Florida to work out stabilization. Automatic stabilization was achieved in later tests from Lakehurst, New Jersey, using gyros—the first technical milestone. Dryden's team developed the elevon approach as the vehicles only needed controllable surfaces, initially using radio signals from a police-type transmitter. The smaller, 1,000-pound test design was later adopted for its more favorable weight when placed on an aircraft's outboard station. Concurrent with this effort, by March 1942, BuOrd had a team following the experiments in radar homing technology being conducted at the RadLab at MIT. The team, headed by Navy Lt. Cmdr. Dundas Tucker, had, among other things, responsibility for addressing the issue of bombing through overcast conditions. The Navy also had a vital simultaneous interest in the development of antisubmarine weapons to use against German U-boats effectively operating along the U.S. East Coast.

Radar was the promising technological solution to address both the overcast and submarine targeting issues. However, experimentation with radar-guided bombs revealed the problem of a high angle of approach, thus having a technically substantial reflectivity problem with the return signal from the ocean surface. A weapon with a lower angle of approach to the target would have much less difficulty with this problem. Eventually, Tucker's team generally believed that the AD program, under the direction of Fahrney, could provide the needed low-angle approach required. It so happened that Fahrney's Project Roger under the AD program was already exploring the use of radar in attack vehicles.

Fahrney's response to the BuOrd team was enthusiastic; however, his resources and time were limited. Fahrney later recalled that he advised BuOrd that the Bureau of Aeronautics had only aircraft-type weapons under development (a program dubbed Project #115), but that "the Army Air Forces (in Holloman's project) had made many successful drops of standard bombs fitted with wing and tail surfaces, which the NDRC had developed via Dr. Dryden at NBS." Fahrney was keenly aware of Dryden's progress since the two had watched the initial failed endeavors of RCA at Muroc Lake in November 1941.

As rapidly as personal computing technology progresses today, radar technology progressed during the early 1940s, beginning with the onset of Germany's hostilities in World War II. There was constant pressure from the Navy leadership to use radar to solve targeting issues

and to implement any developments quickly.

One original concept emerged as Pelican. This glide bomb could address the issue of overcast bombing and nighttime and beyond-visual targeting, and the scientists involved felt technical issues could be quickly resolved. Initially, Dryden's radar-homing missile could house only a receiving unit and used the parent drop aircraft as the radar-signal initiator, or illuminator. The patrol aircraft would thus find the target with its large nose radar, wait for the missile to "see" a reflection, and begin its homing on the mother aircraft's reflected signal once released.

Because radar equipment quickly reduced in size, MIT engineers soon found they could put a small enough transmitter into the nose of a glide weapon, actually downsizing the front end a bit, and make the weapon completely self-guiding. This derivative was enthusiastically pursued while the issue of standoff was dealt with, as it was obviously better not to have the aircraft flying toward any target while attempting to keep it illuminated. Pelican did have a longer range but did not offer the "fire and leave" option.

This new send/receive version would then, simultaneously, send out its own radar signal with that of the mother aircraft. When the weapon apparently saw what the nose radar in the plane saw, it would be locked on and released, guiding itself autonomously toward the target with no human in the loop. The newly emerging effort became known as the SRB, and Bat in Navy circles.

While these developments took place, the initial Pelican design was deemed ready for service, and 3,000 at a rate of 300 per month were ordered into production. Disappointing results during concurrent field testing quickly reversed this decision, however, and the weapon was returned to development. Production was scaled back to 800 units. It is not clear how many actually were produced. By now, the Navy brass, enamored of the idea of adding fire-and-forget capability to the overcast bombing issue, decided to scrub the Pelican's deployment in favor of the soon to be available Bat. Additionally, the RadLab had been fidgeting for months to get out of Pelican guidance work, believing it no longer made sense to pursue perfecting the less-favorable system. Pelicans were stripped of their classified electronics for reuse in the Bat program.

At one point, the ever-frugal NBS staff toyed with putting the new Bat SR unit into the already delivered Pelican airframes. This could be done for about $10,000 a unit, which was considered a bargain. Navy officials balked at the idea, unhappy with Pelican's reputation, further delay-

ing possible war use of the new technology called SR. Thus the PMB, or poor man's Bat, which never really became a program, failed to go into development although it reportedly was successfully demonstrated to Navy officials and could have sped up technical understanding of real-world warfare challenges.

The Bat program was established on January 7, 1943. By December 1944, the BuOrd felt the research had progressed to the point of introducing the weapon into the Pacific Theater. Today, what is known as "operational evaluation" had to take place before too few opportunities to use the new secret weapon were available. Three thousand Bats were ordered into production. By the end of hostilities, about 2,580 Bats remained in inventory.

"The Bat," as it was dubbed by Captain Dundas Tucker while part of the "Washington Project," eventually became known as SWOD Mk-9 (Special Weapons Ordnance Device Mk-9) by the time it was introduced in the Pacific. It carried a 1,000-pound general purpose bomb, had a 10-foot wingspan, and was around 12 feet long. The total weight was between 1,600 and 1,700 pounds depending on the variant. Launch speed was between 140 and 210 knots, and once released it flew between 170 and 320 knots.

Three squadrons with specially adapted Privateer aircraft were slated to introduce this new weapon in combat. Patrol squadrons VP-109, VP-123, and VP-124 were dispatched from Pearl Harbor to the South Pacific to use the weapon under any "correct" conditions and then report to an eager Navy brass in Washington, D.C. All the training was brief, with VP-109 receiving the least amount, only 10 days, before leaving for the South Pacific.

Leo Kennedy had first seen the weapon dropped in a twice-failed demonstration for admirals in Pearl Harbor in April, just before the squadrons headed off for their new assignment at Puerto Princessa, Palawan, Philippines. Despite these failures, enthusiasm continued for the new weapon.

The squadron's orders were to engage in "locating and reporting enemy surface forces and aircraft [with] destruction of enemy targets within the capability of the search plane desirable." On April 23, Kennedy found his opportunity while patrolling with his squadron mate, Lt. Cmdr. George Hicks. In two separate drops, however, both their Bats failed to find the target. Five days later, after these duds were launched, Hicks and Lieutenant Donald Chay released three more of the weapons during one attack with far more spectacular results.

While patrolling at Balikpapan, the two pilots spotted a large Japanese troop transport that was docked. Staying well out of range and presumably not yet spotted by the enemy, Hicks clutched-in his Bat and released the weapon. Meanwhile, Chay did the same and launched his first of two Bats. As the Bats approached silently, suddenly there were massive explosions caused by the 1,000-pound payloads of these missiles.

Hicks's Bat missed the transport but hit a 600-ton freighter in the line of sight directly behind the target. The freighter and dock were completely destroyed. Chay's Bat hit a 600-ton freighter directly in front of the targeted ship. Chay's second Bat then homed in, apparently on target. However, during the last 2,000 feet or so, the weapon turned 45 degrees and headed toward shore, striking a large oil storage tank and causing a violent explosion. These particular Bat strikes were still determined unsuccessful. The weapons officers were convinced that the weapons "saw" the target, and yet the targeted ship was not struck.

Back in Washington, D.C., there was disappointment and some embarrassment because the oil facility that had been obliterated was on a no-strike list, a site once belonging to the British, who were hopeful of reacquiring it as the Japanese retreated. Officials would have to explain things to the British and also reveal something about the existence of the classified smart weapon.

The weapon had potential, but its use parameters were limited. It was heavy and thus reduced an aircraft's patrol range. The radar guidance did not work well against land backdrops, so the squadron searched for ships on the open sea. With little training, a hot, humid environment, and dusty airfields, the wooden glide-bomb did not perform as hoped. Four civilian scientists from the NBS were sent to keep the units functional.

When a Bat finally did hit a target, enthusiasm swelled. As fewer targets were found, VP-109 soon moved to Yonton Field, Okinawa, where more Japanese shipping could be located. Tucker, the Bat's program manager for BuOrd, came along to encourage the Bat's use by the squadron.

By the end of the war, just a few months after the Bat's introduction, reviews of the weapon were mixed, but all agreed the potential was exciting. If it had been available earlier in the war, the Bat could have had a major impact. Certainly, more technological issues could have been identified and overcome. Obviously, it could make a dramatic difference in any future conflict.

After the war, Navy brass were still keenly interested in the potential of smart weapons. The Bat had worked, at least somewhat, and

given the experience in the South Pacific there was hope that a dedicated technological study could improve the system. Project TED was initiated at the Pilotless Aircraft Unit (PAU), Naval Air Station Mojave, on September 27, 1946, further evaluating the Bat for fleet use. Just four days later, this unit was officially transferred to the new Naval Air Missile Test Center (NAMTC) at Point Mugu, California. Fahrney was put in charge of the center, reuniting him with the ancestor of the weapon he first observed with Dryden in 1941.

The purpose of Project TED was to evaluate the missile performance and its radar homing while modifying and shipping 300 Bat missiles to the Pacific Fleet Patrol Squadron. Two versions of the missile existed at this time, Bat-0 and Bat-1, with Bat-1 being slightly more advanced. A total of 150 of each type of Bat was to be evaluated.

At the project's conclusion in March of 1949, nine modifications were made to improve the Bat's accuracy. The most intriguing involved the tail. Placing the weapon on the PB4Y-2B aircraft had caused the tail shape to be changed for clearance of the aircraft's wing flaps. These adjusted tails were considered a possible cause of several failures at the flight termination of the weapon. With more than four inches taken off the missile tail's top, it was determined that drag had changed, causing the radar to provide an "up" command correction as the last usable guidance signal just before impact. Thus, the weapon overshot the target consistently. Trimming the bottom portion in an equal fashion solved the problem.

The ASM-N-2 BAT (SWOD Mk 9) was a glide bomb constructed of steel and wood which carried a warhead fashioned from a 1,000-pound general purpose bomb.

The final NAMTC report concluded that 17 of the 20 drops were successful, renewing the weapon's viability. By February 1948, typical ranges had extended to more than nine miles with a launch altitudes of more than 11,000 feet. The following year, a recommendation was made to retrofit all existing Bat missiles with nine modifications and to ensure a large supply of spare parts was available because damage in transit was likely. Further work was still necessary on some electronic components.

Demonstrations in war games in Hawaii later that year were unimpressive—four failures in a row. Also the weapon was quickly outdated by developing technology. Homing missiles with rocket propulsion were coming to the forefront as the Sparrow and Sidewinder programs emerged. Additionally, the experience with the hot and humid environment of the South Pacific doomed consideration of any missile with a wooden airframe.

By 1953, the program was over, with the remaining airframes stripped down to become aerial targets. A few remained as test vehicles for new ARM seekers (which became the Corvus Program) and were dubbed Battu's (Bat test units).

With only a few years of development, a last-minute introduction into the war, and a short life in the operational inventory, the Bat remains in obscurity despite its milestone status. It remained classified until after the war, and even then only a few details were available or they were not made public until the early 1960s. The Bat is recognized as the first true smart weapon. □

First-time contributor Alan Alpers writes from his home in Ridgecrest, California.

Costly Kyushu Invasion?

BY SAM McGOWAN

Recently declassified documents reveal the preparedness of Japanese forces to meet an American invasion.

During the more than half a century since the end of World War II, there has been much speculation about what would have happened if President Harry Truman had not dropped the atomic bomb on Hiroshima and Nagasaki and the invasion of Japan had actually taken place. Until recently, one document had not been available to researchers, the one that tells not what the Japanese military leaders intended to do, but what actually had been done, what was available to defend against an Allied invasion of the Home Island of Kyushu, and what the actual defenses were.

Immediately after U.S. troops occupied Japan, U.S. intelligence officers began interrogations of Japanese officials. The U.S. Sixth Army G-2 section, including the Marine V Amphibious Force, interrogated the officers of the Japanese Second General Army, the organization responsible for the defense of Kyushu, and its subordinate units, which Sixth Army forces would have fought had the invasion taken place. The report of those interrogations was published on December 31, 1945, but was immediately classified Top Secret and hidden from public view. It remained so for more than a half century. Since 2006 the document has been publicly available through the U.S. Army Combined Arms Research Library at Ft. Leavenworth, Kansas. The information contained in that document provides a much more accurate assessment of what the U.S. Sixth Army would have faced if it had invaded southern Kyushu as planned.

After U.S. troops invaded the Philippines, the Japanese Imperial High Command debated the Allies' future actions. Various possibilities were considered—landings on the coast of China, an invasion of Formosa, a landing in Korea, and landings on one of the Japanese Home Islands. Some Japanese officers correctly deduced that the initial landings would most likely be on the southern portion of the island of Kyushu to establish airbases preparatory to a larger movement against Tokyo itself through the Kanto Plain, a deduction that became more likely when U.S. troops invaded the Ryukyu Islands in April 1945.

The Ketsu-Go plan was drawn up to meet that eventuality. The plan for the defense of the homeland against invasion was developed in early 1945 and approved by the Imperial High Command in March. It was designed to defeat an Allied invasion fleet as far

This depiction of U.S. landing craft headed for an uncontested beach in the Home Islands of Japan was painted by U.S. Navy artist Standish Backus. The bloodless occupation of Japan followed the dropping of two atomic bombs.

U.S. Navy Combat Art Collection

Everyone was enlisted in the defense of the Japanese homeland. Here, an officer of the Japanese Army instructs a group of housewives in the use of bamboo spears.

from Japan as possible, and if any troops actually reached Japanese shores, they were to be annihilated on the beaches. Ketsu-Go called for thousands of special attack aircraft (kamikaze) to be hurled at an invading fleet while it was still at sea, and instructions were given to convert the nation's remaining aircraft for "crash-landing" operations.

The Imperial Navy would sortie and engage the enemy fleet at sea. Should the approaching enemy continue, it would be attacked by thousands of smaller suicide ships and submarines as it approached Kyushu and by small boats laden with explosives after it anchored offshore. The combination of suicide air attack and naval action would concentrate on the troop transports and was expected to extract a horrible toll before the invading troops even reached shore and, if everything went as planned, would cause the enemy fleet to withdraw. Although the Imperial High Command realized that Japan could not win the war, it hoped that by defeating an invasion fleet, Japan would be able to secure a negotiated peace that would avoid the unconditional surrender demands put forth by U.S. President Franklin D. Roosevelt following the Casablanca Conference. But Japan's military situation changed considerably after the plan was drawn up, and by the time the country surrendered without the first U.S. soldier setting foot on the soil of the Home Islands, the goals of the plan had become quite ambitious, as the Second General Army interrogations would reveal.

It was generally believed that Japan kept its best troops at home to defend the homeland, but such a belief flies in the face of the psychology of the militarists responsible for taking the country to war. Until mid-1944 when U.S. forces captured Saipan, Japan's military leaders and the troops they led were convinced that they were invincible and that their forces would defeat Japan's enemies thousands of miles away from the homeland. Consequently, only four divisions of the Imperial Japanese Army—roughly 70,000 troops—remained in the Home Islands when Japan launched its offensive into Southeast Asia in December 1941. That number rose to only 11 divisions—approximately 165,000 men—by mid-1944.

Although U.S. troops landing on Saipan in June 1944 caused the Japanese to consider the possibility of an invasion of the Home Islands, real preparations for home defense did not begin until early 1945, when it became apparent that the Home Islands were threatened. By mid-1945, the Imperial Japanese Army had built up a homeland military force of an estimated 1.5 to 1.9 million men organized into 53 divisions and support units, but nearly all of those divisions had been organized within the preceding six months and were made up of recent recruits and reservists, many of whom were no older than 16 or as old as 60.

The bulk of the Imperial Japanese Army remained overseas in China, Manchuria, and Southeast Asia. Hundreds of thousands were in the Philippines, New Guinea, and on Pacific islands where they had been isolated and cut off from resupply, reinforcement, and evacuation to the homeland. Of the 14 divisions on Kyushu when the war ended, seven had been organized since May, and their personnel had minimal military training. Not only was their training inadequate, Japan's arsenals lacked the arms to equip new units. Less than a quarter of the light machine guns needed were available and only half of the necessary rifles. Bayonets were in short supply, and mortars were used in place of artillery. With the country's factories being bombed into rubble and its cities turned to ashes by constant Boeing B-29 Superfortress firebombing raids, there was little likelihood an adequate supply would ever be produced.

It was also believed that Japan's best troops were brought home to defend against invasion. Except for a few divisions that transferred from Formosa and Manchuria (two former Manchurian divisions were on Kyushu), Japan's deployed military forces remained overseas throughout the war. Although there were an estimated five million men in the Japanese military at the end of the war, less than half were in the Home Islands and the only ones overseas that still had lines of communication with the homeland were those in China, Manchuria, Indochina, and Korea. Even those lines were threatened by Allied air and sea power.

The Japanese Army remained intact—the only one of Japan's armed services that did—but by mid-1945 it was hardly an army of battle-tested elite troops. Few soldiers in Japan had ever seen battle and since the country was never invaded, never would. Even the troops returning from Formosa and Manchuria lacked combat experience. Formosa was a Japanese possession and the only combat in Manchuria since the 1930s had been against communist partisans, who were more interested in revolution than in defeating Japan.

When General Douglas MacArthur's staff began planning Operation Downfall, a two-pronged invasion of Japan, in the spring of 1945 there were three Japanese divisions and one independent brigade on Kyushu, a total of

some 62,000 men. In May, after the surrender of Germany and the Battle of Okinawa, the Japanese high command began reinforcing the large island in anticipation of an invasion. Two divisions were brought out of Manchuria while another came down from Hokkaido, Japan's northernmost island, and the 40th Army headquarters transferred up from Formosa to take charge of the defense of the western sector of southern Kyushu.

The bulk of the reinforcement consisted of establishing and activating new units using troops already on the island in other capacities supplemented by new recruits and recalled reservists. By the end of the war, Japanese strength on and near Kyushu had increased to 14 divisions, including four in northern Kyushu, plus seven infantry and three tank brigades. An antiaircraft division and two fortification units along with assorted headquarters and a communications brigade completed the forces on Kyushu and nearby islands. Most of these units were activated after May 1945. At the time of the surrender, there were 78,283 men in northern Kyushu who would have been held in reserve and 276,550 in southern Kyushu who were to meet the invading forces—a total of 354,833 men. No further reinforcement before the invasion was expected.

Kyushu is a large island nearly 200 miles long with a width ranging from 80 to 120 miles of mostly mountainous terrain. The Downfall plan called for U.S. troops to occupy and secure only a 3,000-square-mile area on the southern end, a mostly rural region separated from the rest of the island by a mountain range spanning the entire width. Sixth Army intelligence reported a total of 735,000 Japanese military personnel from all services on Kyushu and nearby islands (25,000) at the time of the surrender, including some from units that were passing through Kyushu ports in transit to other destinations. The rest were army base and support troops, along with naval and air force personnel and recently mobilized civilian volunteer units.

Japan's third largest naval base was at Sasebo, but the Japanese navy had all but ceased to exist because of heavy losses and lack of fuel, leaving thousands of shipless sailors to serve in various roles on the island, including manning guns that had been removed from battleships for use as coastal artillery. The numbers of total military personnel were also swelled by the presence of numerous recent naval recruits. While the naval personnel could have been used to fill in the ranks of combat units, most had received little training in ground combat and would have been a stopgap measure rather than an effective fighting force. Plans were made for naval personnel to take over duties from army personnel such as coast watching and manning of fortified positions protecting Kyushu's harbors, but they had not been implemented by the time of the surrender. Air force personnel consisted of pilots and maintenance and support people for the approximately 800 aircraft that were on the island.

A large percentage of the total were base and support troops, along with members of the recently established Peoples Volunteer Fighting Corps who were being used in support roles directing traffic, communications, supply, and transportation, but would have been organized into combat units as the prospect of invasion became more imminent. Although the Sixth Army report gives no estimate, presurrender intelligence reported roughly 140,000 "civilian volunteers" in southern Kyushu and over 400,000 in the north. Their most important role was as human pack mules delivering supplies to combat units because Allied air attack had rendered motorized transportation on the island useless and the Japanese were depending on porters and pack animals as the primary means of transportation. Animals were used to transport supplies to distribution points from which they were delivered to the field by human porters. Japanese officers revealed that the much-touted Home Defense Forces that were supposed to greet the invaders with pitchforks, awls, and wooden pikes had yet to be formed and did not exist on Kyushu.

With rifles over their shoulders and bayonets lashed to their belts, Buddhist monks march in step under the watchful eye of a Japanese soldier. This drill took place on the grounds of their Buddhist temple.

As with the army, Japan's air forces, both army and naval, were committed overseas at the beginning of the war. Unlike the army, which was built up in the homeland with new recruits, Japan's air forces were severely depleted as the war continued. While they achieved a reputation of invincibility early in the war, by the end of 1942 they had lost control of the skies and over the next two years

became so reduced that when U.S. B-29s commenced operations over Japan from the Marianas in November 1944, the American airmen found themselves opposed by only 375 Japanese fighters. It was not until the commencement of the firebombing raids the following spring that Japan began increasing its home fighter defenses, and even then the increase was minimal. Remarkably, Japanese aircraft manufacturers produced over 28,000 aircraft in 1944 alone, but few remained in Japan, which until November was mostly out of range of Allied bombers. Large numbers were lost in training and ferrying accidents before they even reached the combat zones, and thousands were grounded for lack of fuel and parts.

When Okinawa fell into Allied hands, the Imperial High Command realized it was just a matter of time before the enemy would be landing in the Home Islands. To combat the threat, they intended to defeat the invading fleet while it was still at sea. Massive use of special attack air units was expected to destroy dozens of troop transports before they reached the vicinity of the landing beaches. An effort was made to convert as many aircraft as possible for special attack or crash-landing use, a conversion that consisted primarily of mounting a bomb. Because of the lack of combat planes, the army and navy turned to the trainers, transports, and other support aircraft that remained in the inventory to increase numbers and guarantee success. New weapons designed for special attack use such as human-guided bombs and rocket- and jet-powered flying bombs were put into development, although they were not produced in large numbers.

It was commonly believed that Japan had thousands—perhaps as many as 10,000—special attack aircraft available to use against an Allied invasion fleet. Such a number was put forth by some Japanese interrogated after the war and was included in monographs published in 1946. It was believed that kamikaze attacks would have started while the invasion fleet was somewhere between Okinawa and Kyushu and would have continued through the landings and against the troops after they were ashore. The Second General Army officers told a different story.

In answer to the question of how many combat-type aircraft they expected to have available and how they were to be used, they replied that they had 800 bombers and that most would be used in the special attack or crash-landing role against the transports while the invading force was still at sea. They also stated that a reserve of some 70 percent—560 aircraft—would be held on Kanto and in Korea for use against later landings. In short, the Japanese officers revealed that there were fewer than 1,400 airplanes, not 10,000, available for use against an invasion of the Home Islands.

The Japanese indicated that although some aircraft would initially be used as conventional bombers, as the attacks continued they would also be ordered to the crash-landing role. They stated that there were no plans to use kamikazes against troops during and after the landings and that no air support was planned for the ground troops as the supply of aircraft would be exhausted in attacks on the fleet. The officers also responded that there were no jet-powered missile launching sites on Kyushu at the time of the surrender. Ten possible launch sites in northern Kyushu had been surveyed, but construction was never begun. They further revealed that rocket-powered aerial bombs were still in the experimental stage and were not yet in the inventory.

It has often been asserted that the Japanese had hidden thousands of airplanes in underground facilities and caves on Kyushu, but such assertions are not supported by the Second General Army interrogations report. Second General Army officials revealed that 20 airfields on Kyushu were intended for use by the special attack and conventional air units. The airplanes had been dispersed away from the airfields, and as of August 17 when hostilities ceased, U.S. air strikes had not substantially hampered their effectiveness.

When an invading fleet was detected, the aircraft would be towed to the airfields from their hiding places and sent out in a mass attack. These attacks would continue until the fleet of aircraft had been exhausted. Reportedly, some airplanes were dispersed as far as five miles from the airstrips from which they would be launched.

In response to the question of how much damage they expected the air units to do to the invading force, the Japanese replied, "Ten percent." Expectations were that more than a third of the aircraft would be intercepted and destroyed before they reached the Allied fleet but that the remnants would be able to inflict enough damage to troop transports to disrupt the landings. Such an expectation was exceedingly optimistic. Only one in nine of the special attack aircraft used during the Battle of Okinawa survived long enough to actually attack a target, and proportionally few of those actually sank a ship. Thirty-six small vessels and destroyers were sunk by kamikaze attack off Okinawa, and 164 ships received damage of varying degrees. With the expected presence of Allied aircraft over Kyushu and the invading fleet in large numbers at the time of the invasion, it is doubtful that even one out of 10 aircraft on the island would have made it to the transports, let alone launched a successful attack.

The military situation at the time of the invasion dictated that Japanese air attacks could have been successful only if they were carried out at night, yet few Japanese pilots in 1945 had the experience for night operations. Those who were rated for night operations were marginally qualified at best. The average Japanese pilot in 1945 had barely 100 hours flying time; pilots in the special attack units had even less. During the battle for Okinawa, Allied fighters were not covering Kyushu, and aircraft could take off and assemble without interference.

The situation had changed by the end of the war. Kyushu was under constant air attack and would have been under an umbrella of U.S. Army and Marine fighters flying from airfields in the Ryukyus prior to and during the invasion, while Navy carrier aircraft would have covered the fleet. Any airplane that took off in daytime would likely have been spotted and shot out of the sky within minutes. Even night take-offs would have been detected by the Northrup P-61 Black Widow night fighters that patrolled the skies over the island during hours of darkness.

By 1945, the Allies had developed effective

night fighter capabilities while naval antiaircraft used radar and proximity fuses, which greatly increased the effectiveness of the shipboard guns. Any airplanes that reached the fleet would have been shot down before they struck a target. Without their own radar, it would have been very difficult for any Japanese pilots to spot ships on the surface except during moonlight, and even then they would have a hard time differentiating between a transport and an escorting vessel.

The Japanese would have had difficulty determining whether an approaching fleet was the invasion force or another combat sortie into their waters by the Pacific Fleet. The only means of identifying an invasion fleet was to determine if there were transports involved. By the time of the Japanese surrender, Allied carrier aircraft were operating against targets in Japan almost daily, and surface ships frequently came close enough to land to shell shore installations. The first surface attack was on July 14 when the U.S. Third Fleet shelled a foundry at Kamaishi, and since that time a number of attacks had been carried out.

Ketsu-Go plans called for the Imperial Navy to sortie in force and intercept the invaders, but by August 1945 the navy had ceased to exist. U.S. and British carrier aircraft hit what remained of the Japanese fleet at Kure, and by the end of July had put it completely out of action. A strike by Seventh Air Force B-24 Liberator bombers put a postmark on the fleet's demise. The Second General Army officers reported that only 12 destroyers and 40 submarines were expected to be available to defend against invasion. The destroyers were to be used to launch 50 "human torpedoes" against the Allied transports as they stood offshore, and the submarines would patrol the waters south and east of Kyushu.

Thirty midget submarines were also to be used against the transports, while 100 small submarines would operate out of the Bungo Straits off northern Kyushu. The destroyers and submarines would have to penetrate a screen of U.S. Navy destroyers and cruisers to get close enough to the transports to do any damage and they would have been subject to air attack both at their shore installations and at sea.

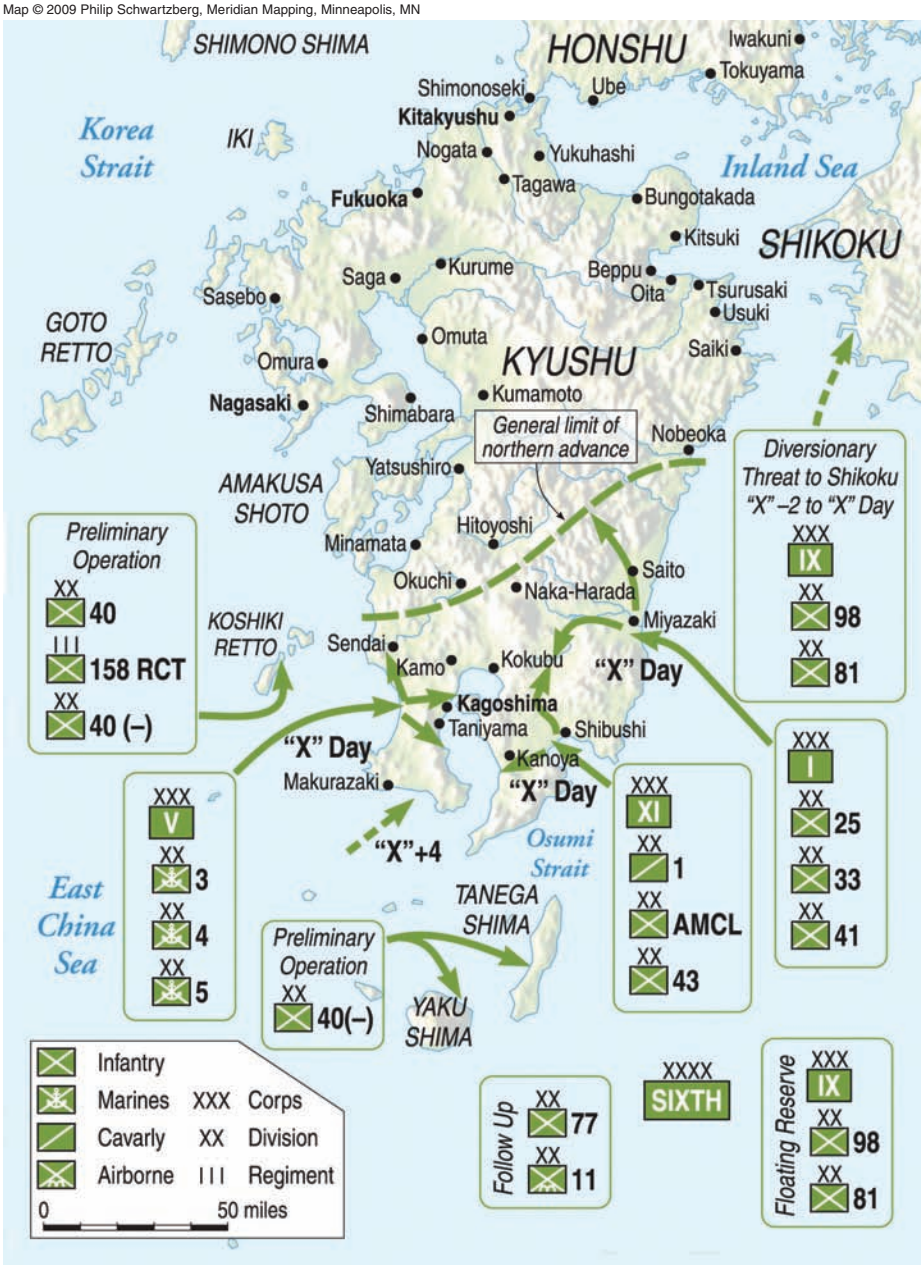
In addition to what remained of the Japanese navy, the army intended to deploy 1,000 small boats, each laden with 550 pounds of explosives, to crash into the sides of the transports. The 40th Army commander revealed that the boats assigned to his sector had yet to arrive in southern Kyushu when the war ended. He also stated that no definite tactics had been developed for their use, but they would probably have been sent out at night. His counterpart with 57th Army stated that the boats in his sector would have been sent out at night in groups of around 30 but did not indicate whether his boats had been delivered when the war ended. In addition to the 10 pecent they expected to destroy by air attack, the Japanese hoped to sink 60 transports with the assortment of surface suicide weapons and submarines.

ABOVE: As smoke billows from the stricken Japanese naval base at Kure, American bombers fly high above and release another payload of destruction. Japanese cities and military installations in the Home Islands were laid waste from the air. OPPOSITE: Fearing another large bombing raid by American aircraft, Japanese civilians in the Ginza District of Tokyo take cover in doorways and a recently dug trench as a U.S. reconnaissance plane flies overhead.

Several minefields had been established off Kyushu, but the heaviest concentrations were off Nagasaki and other port cities to defend against submarine attack. About 200 mines had been sown off each of the expected Kyushu landing areas, and there were plans to establish extensive minefields off the beaches that had not been carried out when the war ended. No plans had been made to use underwater obstacles to disrupt the landings.

The Japanese had made no plans to use any form of chemical warfare, at least in part due to adverse world opinion and because they knew they could not compete with Allied efforts. Nor were they expecting its use by U.S. forces—with one exception. They were prepared for the use of poison gas against their troops as a desperate measure on the part of the Allies if they were successful in repelling the invaders. At least some of their men had been equipped with gas masks and protective equipment for that eventuality. No preparations had been made to protect the civilian population against such weapons. Japan had a nuclear development program, but all of its components had been destroyed by a B-29 attack. Japan's nuclear experiments were not a topic of Second General Army interrogation.

While the main goal of the Ketsu-Go plan was to defeat the invaders while they were still



The primary American landings on the Japanese Home Island of Kyushu were scheduled to take place in the south. Although strong resistance was expected, recently declassified information indicates that the Japanese were not as well prepared as originally believed. OPPOSITE: This Japanese Ohka suicide aircraft was captured by American forces during the fighting on the island of Okinawa. The Ohka was nicknamed "Baka," or fool, by the Americans.

at sea, the defenders knew that thousands of U.S. troops would reach shore. Previously, Japanese commanders had allowed Allied troops to come ashore on Pacific islands essentially unmolested, then launched fierce attacks after they were on land. At Kyushu they intended to defeat the invaders at the water's edge, and their troops were dispersed with this in mind. They had deduced the general vicinity where U.S. troops were likely to land and had placed defenses accordingly. But they had not determined the exact locations of the landings and, consequently, their defenses were dispersed over a wide area.

One-fifth to one-third of the Japanese troops in southern Kyushu were positioned right on the beaches to oppose the Americans as they came out of their landing craft, with the heaviest concentrations positioned in areas offering little natural concealment. The senior Japanese commanders realized their forces on the beaches would be severely depleted by Allied air attack before the invasion but counted on enough men surviving to successfully combat the landings.

Armament for an infantry battalion consisted of 1,000 rifles, two 70mm guns, 12 heavy machine guns, 31 light machine guns, two 75mm guns, four 37mm antitank guns, and a proportionate number of mortars. Artillery units were given 500 rounds per gun, and troops were issued enough small arms ammunition for "one battle." Each battalion was expected to fight until death, and no provisions were made for resupply.

The first line of defense would be a thin line of foxholes and machine-gun positions located at the edge of the dunes on the beaches themselves. They would be backed by reinforced positions on higher ground behind them, with the strongest positions to the rear, from which counterattacks would be launched against U.S. troops who reached the beaches. But there were no in-depth defenses, and the Japanese had made no plans for them. Their only strategy was to inflict heavy casualties and keep the enemy troops from establishing a beachhead.

Camps were established primarily in underground bunkers or in natural caves in the limestone and lava predominant in the region. There were plans for tunnels to provide interconnecting positions and allow undetected troop movements, but defensive preparations were in various stages of completion ranging from 60 to 90 percent when the war ended. Reinforced positions were set up in the high ground behind the beaches, the defenses taking advantage of natural caves and rock shelters supplemented by manmade bunkers.

Artillery was important to the Japanese defense plans, but Sixth Army interrogators learned that the senior officers realized what they had was inadequate to accomplish their objective of defeating the invaders on the beaches. Artillery was allocated to the various divisions with no centralized means of concentrating on a specific area. Artillery was not to be used against the amphibious forces until after they were ashore, evidently as a means of conserving ammunition.

Not only were the Japanese short on guns, their plans for the disposition of those they had were lacking; there was no centralized fire control system and communication between units for coordinated fire was practically nonexistent. Their intent was mainly to use artillery as flanking fire on the beaches to cover areas where troop concentrations were sparse. Antiaircraft defenses on Kyushu consisted of only 410 guns of all types, mostly positioned around important facilities and airfields. Due to their small number, no plans had been made for antiaircraft units to be used in the land battle although they were expected to defend them-

selves if U.S. ground forces approached their positions. Some high-angle naval antiaircraft artillery had been removed from ships and positioned as coastal defense weapons.

Total tank strength in southern Kyushu amounted to 275 vehicles including self-propelled guns, but all were medium to light and no large tanks were believed to be on the island. They would be outmatched by the American Shermans. The principal use of tanks would be on the Miyazaki beaches and in the vicinity of Ariake Bay, working with infantry. The 1st Special Tank Unit, with 27 light tanks, was positioned near Miyakanojo to defend against airborne operations. More than 100 tanks were to be in dug-in positions around Lake Ikeda for use in the antitank role.

The principal means of antitank defense would be with infantry weapons consisting of small bombs mounted on long poles. There was a shortage of bazooka-type antitank weapons, so they were considered as secondary defenses along with tank traps and antitank artillery. No mines had been laid, and although the ground commanders hoped to use them, none appeared to be forthcoming when the war ended. Senior commanders concluded that aerial and naval bombardment would explode most minefields, and the explosives used for them would be put to better use as blasting powder.

Just how effective the Japanese defenses would have been is open to conjecture. Unlike the situations at Iwo Jima and Okinawa where reinforced defenses were set up off the beaches, at Kyushu the main effort was to be on the beaches themselves. Previous strategy was built around concealment and protection from air attack and bombardment during the landings, followed by fierce resistance from reinforced positions as troops moved inland. Japanese troops on both islands had managed to survive long enough to inflict heavy casualties by taking shelter underground. Few troops on Kyushu would have this luxury. The Japanese had adopted a strategy of complete annihilation of the landing forces before they could establish a beachhead, and the troops were positioned at the water's edge where they would be vulnerable to air attack and naval bombardment.

For the invasion to take place, the Allies would have to have strong land-based air units within striking distance of the beaches, a requirement that was met with the capture of Okinawa and Ie Shima in the Ryukyus. Far East Air Forces, which consisted of the Fifth and Thirteenth Air Forces that had been part of MacArthur's command and Seventh Air Force from Nimitz's forces, began moving fighter and bomber squadrons onto Okinawa as soon as the airfields at Kadena and Naha had been secured.

Seventh Air Force fighter-bombers began strikes on Kyushu in May and were joined by Fifth Air Force fighters and B-24s as soon as the squadrons were brought up from the Philippines. Far East Air Forces offered a far more powerful strike force than the single-engine carrier aircraft that had been the mainstay of operations in the Central Pacific. Its fighter groups were equipped with twin-engine Lockheed P-38 Lightnings, single-engine Republic P-47 Thunderbolts, and North American P-51 Mustangs that doubled as interceptors and fighter-bombers. Heavy bomber groups flew B-24s, while the primary medium bomber was the North American B-25 Mitchell, many of which had been modified as "strafers." Two B-25 models were equipped with 75mm cannons.

Australian War Memorial

Light bomber squadrons operated Douglas A-20 Havocs, which were also equipped with gun packages in the nose. By 1945, several squadrons had been equipped with the Douglas A-26 Invader, which had been developed as a replacement for both the A-20 and B-25 strafers, and which featured 14 forward-firing 50-caliber machine guns. Marine squadrons flew Chance-Vought F4U Corsairs, Grumman TBF Avengers, and B25s.

The Japanese had deduced the most likely areas where the Allies would land, but their troops were not concentrated exactly at the actual landing points and in some cases were many miles away. Much of the troop strength on southern Kyushu was actually positioned well to the north of the intended landing beaches. The 40th Army, with three divisions and an independent brigade, was responsible for the defense of the southwestern portion of the island. Because of the possibility of landings on the southern end of the Satsuma Peninsula, the 125th Independent Mixed Brigade (7,313 men) was positioned there. The three divisions— 303rd (12,213 men), 206th (21,354 men), and 146th (17,459 men)—were strung out along the southwest coast. A fourth division, the 77th (15,640 men), was held in reserve farther north where it could be ready to move to reinforce either of the two armies. The beaches where the Marines would be landing were in the 206th area.

The 57th Army, with five divisions, two infantry brigades, and two tank brigades, was positioned to defend the east coast and inland portions of the island. The Japanese were expecting the landing at Sumiyoshi, a town several miles north of the actual landing beaches. Three divisions—212th (21,351 men), 154th (17,341 men), and 156th (17,429 men)—were positioned well north of the intended landings south of Miyazaki, with the two southernmost divisions intended to remain static regardless of where the landings took place. Elements of the 212th Division, which was to move to reinforce other units, were actually north of the Allied line of advance.

The 25th Division (25,804 men) was positioned farther inland to defend the Kobayashi Plain against paratroop attack and it was intended primarily to be held in reserve until needed to reinforce the troops on the beaches. Not aware that MacArthur was adamant in his refusal to use paratroopers in the invasion even though the War Department pushed for them, the Japanese kept much of their tank strength and several thousand troops inland to defend against airborne operations on the plains.

Only the 86th Division (20,614 men) was located within the area of the two planned inva-

sion beaches on the east side of the island. It was positioned behind the head of Arikake Bay, the southernmost of the southeast landing beaches. Japanese defenses at Miyazaki were mostly north of the landing beach, but coastal artillery had been established around Ariake Bay. One of the brigades was actually positioned on an offshore island, while the other was at the head of Kagoshima Bay. The Japanese anticipated simultaneous landings on at least three sites, but were not sure of the actual target. They had also grossly underestimated the size of the U.S. invading force. Consequently, U.S. troops would be numerically superior on each beach.

With the few roads under close watch by Allied aircraft and the railroads already rendered useless, Japanese troop movements would have been difficult if not impossible. As long as they remained concealed, the Japanese troops had some protection against air attack, but once they were on the move they would be easy to spot from the air. Their only reasonably safe avenues would have been along footpaths through the hills under the cover of darkness.

National Archives

Fires mark the destruction caused by an American air raid on Kyushu on March 18, 1945.

The Ketsu-Go plan called for additional reinforcements to be shipped over from Honshu, but with U.S. ships and submarines operating on the Inland Sea and the sky controlled by U.S. aircraft, it was unlikely many would have been able to get through. The only possibility for reinforcement would have been across the narrow strait that separated the two islands, but even if they managed to reach Kyushu safely, new troops would still be over 150 miles from the invaders—and would be under constant air attack during their journey south.

Construction of a tunnel connecting the two islands had begun in 1937, but the project had been halted when war broke out. The Allies were not aware that construction had been halted, and MacArthur's staff had developed a plan to seal the tunnel using remote-controlled air/sea rescue boats laden with explosives. The Japanese officers knew that reinforcement was unlikely and their only option was to fight to the death in hopes of preventing the U.S. forces from establishing a beachhead.

Operation Olympic, the plan for invading Kyushu, called for three landings with three divisions each, along with supporting units, at three locations. U.S. Sixth Army troops would land just south of Miyazaki on the east coast and near Koyama on Ariake Bay on the southeast and then drive inland to capture the region around Miyakanojo and southwestward toward Kagoshima Bay.

The V Amphibious Force's three Marine divisions would land on the southwest side in the vicinity of Kushikino and drive eastward to Kagoshima Bay, a maneuver designed to cut off all Japanese troops to the south of the invasion beaches. A defensive line would be established to the north on a northeast-southwest line to protect the airfields that would be established on the Miyazaki and Miyakanojo Plains.

Each landing force would consist of over 100,000 combat troops along with artillery and tanks. The total strength of the assault force would be more than 424,000 men, with an additional 172,000 as follow-up for a total of 596,000 troops. The Japanese were expecting only 300,000. The total planned strength of the invading force as Olympic was drawn up in May was 766,700 men—including combat engineers, communications and support personnel, and Far East Air Forces personnel—and more than 134,000 vehicles that would move to Kyushu with the air combat groups. The invading force would be equipped with what are called "force-multipliers" in today's military lexicon in the form of powerful air and artillery components that made it effectively even larger.

Sixth Army interrogators learned that the Japanese really had no specific plan for a coordinated defense. They had merely deployed their strength in the general vicinity of the expected landings and given the commanders instructions to fight until death. Even so, the 40th Army commanding general had decided that his forces were inadequate to defeat the invaders on the beaches without reinforcement, so he had made plans to withdraw to prepared positions in the hills overlooking them.

There seemed to be no communication between the army and naval and air forces at command levels beneath that of the 16th Area Army headquarters, which was located on the north end of the island nearly 150 miles away. The Japanese ground forces could expect no air support while they were subjected to constant air attack. They would also be under constant bombardment from Pacific Fleet battleships, cruisers, and destroyers operating just offshore. Their only defense against air attack and naval bombardment was to get as close to the U.S. troops as possible in hope that this would reduce the effectiveness of air and naval fire support.

The invading troops would be supported by the most powerful forces yet assembled in the Pacific War. General MacArthur's staff had taken note of the problems faced by the Marines on Iwo Jima and the Tenth Army on Okinawa and compared them with their own experiences to make air superiority over the invasion area by land-based aircraft a prerequisite for the invasion to take place. General George Kenney, MacArthur's chief airman, had become convinced early in the war that carrier-based aircraft alone were not adequate to cover a beachhead, and experiences on Iwo Jima and Okinawa had proven him correct.

Initial planning for Olympic called for the assignment of 40 Far East Air Forces combat groups with almost 3,000 bombers and fight-

ers to airfields in the Ryukyus and Bonins with the mission of controlling the skies over southern Kyushu, interrupting enemy surface transportation, and destroying ground defenses in advance of the invasion, then providing support for ground forces. Ten additional groups had been added to the plan by July. As soon as airstrips could be prepared, some fighter squadrons and light and medium bomber squadrons would move northward to Kyushu.

Additional land-based air power would be provided by Twentieth Air Force, the command organization for the B-29s, which was an independent unit under the direct command of Army Air Forces chief General Henry "Hap" Arnold in Washington and was not counted as part of the invading force. By mid-1945 there were already more than a thousand B-29s operating from bases in the Marianas, and Lt. Gen. James H. Doolittle's Eighth Air Force was setting up shop on Okinawa with more of them.

The mission of the B-29s was to maintain pressure on Japanese industry and other strategic targets, although they could be used against defenses on Kyushu if needed. Such a need would have been unlikely since Far East Air Forces had several heavy bomber groups equipped with B-24s in the Ryukyu and Bonin Islands. Far East Air Forces also had its own heavy bombers because two squadrons of Consolidated B-32s were forming in the Philippines. Additional air striking power would be provided by the air groups on the carriers of the U.S. Pacific Fleet, with more than 1,900 aircraft expected to be in Japanese waters by the time of the invasion. Far East Air Forces and U.S. Pacific Fleet air power alone amounted to nearly 5,000 combat aircraft—and this did not include the B-29s. In addition, Britain's Royal Air Force had agreed to deploy 10 bomber squadrons to Okinawa to support the invasion, and an additional 10 squadrons were in the works.

The U.S. Joint Chiefs of Staff planned for air power to drop more bombs on Japan before the invasion than had been dropped on Germany during the entire course of the war. Far East Air Forces fighter bombers began operating over Kyushu in May, shortly after they moved into airfields on Ie Shima, and the intensity of their attacks rapidly increased as more squadrons arrived in the Ryukyus. The P-38s, P-47s, and P-51s shot up basically everything that moved. They were joined in their low-altitude attacks by A-26 and B-25 strafers. Far East Air Forces A-20s were preparing to move to Okinawa when the war came to an end. Four-engine B-24s struck railroad marshaling yards, port facilities, and other strategic targets on Kyushu, while B-25s concentrated on bridges, railroad trestles, and tunnels.

General Douglas MacArthur, leader of the Allied forces occupying Japan, steps down from his C-54 transport aircraft, *Bataan,* at Atsugi airfield near the city of Yokohama. The U.S. 11th Airborne Division had secured the area only days earlier.

When Japan announced that all able-bodied men and women were part of the homeland defense, Fifth Air Force adopted the attitude that there were no more civilians in Japan. By August 4, two days before the mushroom cloud appeared over Hiroshima, the air attacks had become so intense that Fifth Air Force fighter pilots came back from a sweep over Kyushu to report that civilians were waving white flags all over the island. It was just the beginning. During the last weeks prior to D-day, strikes on Japanese defenses in southern Kyushu would intensify.

The invaders would also be supported by the entire U.S. Pacific Fleet. Throughout the war, the U.S. Navy used its older battleships to support amphibious operations, and even if the ships were old, some were equipped with huge 16-inch guns that could hurl a 2,700-pound projectile over 25 miles. Even the oldest ships carried 14-inch guns that fired 1,400-pound projectiles. Either gun could knock out a bunker complex with one salvo. Cruisers and destroyers carried smaller artillery, but were still capable of directing a tremendous amount of firepower against positions ashore. The naval force that would assemble to support the landings would be the largest yet seen in the war.

Had the invasion actually taken place, there can be no doubt that the Japanese would have fought fiercely and casualties among the landing troops could have been heavy during the initial assault. But the Sixth Army report indicates that the Japanese defenses were weaker than has been advocated and were not well organized. The U.S. Joint Chiefs of Staff advised President Truman that there was no way to determine an exact figure, but gave a rough estimate of some 40,000 killed in action on Kyushu.

By mid-July, the Joint Chiefs and MacArthur's staff had come to realize that an armed invasion was never going to take place and began making plans to carry out the Operation Blacklist plan that had been drawn up for a peaceful occupation of Japan. Preparations were put in motion in early August for the Far East Air Forces Troop Carrier Command and the Pacific Air Transport Command to prepare to transport the 11th Airborne and 27th Infantry Divisions to Japan to begin the occupation.

On August 15, Japan's acceptance of surrender terms allowing Emperor Hirohito to keep his throne but mandating a U.S. occupation of the country was received in Washington, D.C. Ten days later, two Fifth Air Force P-38 pilots, Colonel Clay Tice, commander of the 49th Fighter Group, and his wingman, Flight Officer Hall, landed at Nittagahara airfield on Kyushu, claiming they were low on fuel. A B-17 equipped for air/sea rescue landed a few minutes later. The airmen were greeted in a friendly manner by Japanese soldiers, who provided pumps and hoses to transfer fuel from the B-17 to the fighters. □

A professional pilot, author Sam McGowan is a frequent contributor to WWII History. *He resides in Missouri City, Texas.*

Ribbentrop *at*

The son of the German foreign minister survived a day of heavy fighting during the Battle of Kursk.

BY GEORGE M. NIPE, JR.

On the morning of July 12, 1943, a climactic engagement of the Battle of Kursk was about to take place. The last fortified elevation on the road leading to the key town of Prokhorovka, designated as Hill 252.2, had been taken by the German 1st SS Panzergrenadier Division "Leibstandarte" after ferocious fighting on the previous day. The blasted, smoldering hill was occupied by the division's half-track battalion, commanded by SS Standartenführer (Colonel) Jochen Peiper.

Although the distance from the hill to the edge of Prokhorovka was just three kilometers, the Leibstandarte's advance was halted because its flanks were exposed. On the right, the 2nd SS Panzergrenadier Division "Das Reich" had been occupied turning over sections of its front to the 167th Infantry Division and did not advance. To the left, there was an undefended five-kilometer-wide gap between Leibstandarte's western flank and the town of Wassiljewka, which was on the southern bank of the Psel River. Wassiljewka was held by a reinforced panzergrenadier battalion of the 3rd SS Panzergrenadier Division "Totenkopf."

Operating in the gap between the two divisions were elements of a Soviet tank brigade that posed a constant threat to the single dirt road that was Leibstandarte's main supply route. Leibstandarte commander General Theodor Wisch sent his Aufklarüngsabteilung (reconnaissance battalion) into the gap, but the battalion's light armored cars and half-tracks could not take on Russian tanks in a pitched battle. In spite of this potentially dangerous situation, the commander of the II SS Panzer Corps, SS Obergruppenführer (Lt. Gen.) Paul Hausser, intended to attack and capture Prokhorovka on July 12.

First Lieutenant Rudolf von Ribbentrop was the son of the German foreign minister, Joachim von Ribbentrop. He was in the thick of the fighting at Prokhorovka.

Hausser and chief of staff Werner Ostendorff planned to assault Soviet forces defending Prokhorovka from three sides. The most important role in the attack was assigned to Totenkopf, commanded by SS Brigadeführer (Brig. Gen.) Hermann Priess. At first light, the 100 tanks of Totenkopf's panzer regiment would cross the Psel River west of Wassiljewka, then push six kilometers northeastward to the Karteschewka-Prokhorovka road. This road extended across the width of the Psel River bend, from Karteschewka on the west to the village of Petrowka, which was five kilometers northwest of Prokhorovka.

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Prokhorovka

A Red Army tank advances cautiously through a burning village during the climactic tank battle at Kursk in July 1943. The Soviet victory at Kursk helped turn the tide on the Eastern Front.

Having crossed the Psel River at that point, Totenkopf's panzers could strike into the rear of the Soviet troops defending Prokhorovka, as well as eliminate a key Soviet artillery position. The subsequent destabilization of the Soviet defensive position would signal the beginning of the second phase of Hausser's attack, which was to be carried out by Leibstandarte's panzers. Commanded by SS Obersturmbannführer (Lt. Col.) Georg Schönberger, the panzer group included Leibstandarte's tank battalion, the half-track battalion, and various support vehicles. Taking advantage of the expected disruptive effects of Totenkopf's attack, Schönberger was to attack Prokhorovka from the west.

In the next phase of the attack, Das Reich's Regiment "Deutschland" was to smash through the Soviet front southwest of Prokhorovka. When Regiment Deutschland penetrated the Soviet defensive position, Das Reich's panzer group, stationed two kilometers behind the front at the village of Oserowskij, was to strike through the gap, then turn south and roll up the Russian line parallel to the division's front. This attack was intended to seize forward positions from which to attack Prokhorovka from the south.

Hausser's plan of attack emphasized mobility and surprise in order to attack the Soviet forces defending Prokhorovka. It was a classic German panzer operation featuring sequential assaults upon Prokhorovka from the north, south, and west. The plan was a good one and would probably have worked if Prokhorovka had been defended only by the exhausted Soviet infantry and combat-weakened tank brigades that the German juggernaut had decimated in seven days of battle.

However, unknown to Hausser and Fourth Panzer Army commander Col. Gen. Hermann Hoth, the plan would be upset by the arrival of strong formations from the Soviet strategic reserve. The 5th Guards Army's 33rd Rifle Corps with three rifle divisions and Lt. Gen. P.A. Rotmistrov's 5th Guards Tank Army arrived throughout July 11. The 5th Guards Tank Army, assembled in and around Prokhorovka, possessed about 590 tanks and would be supported by more than 200 tanks of the 2nd and 2nd Guards Tank Corps. The II SS Panzer Corps records show that the three SS divisions possessed 232 operational tanks on the morning of July 12, 1943.

In spite of postwar German officers' claims to the contrary, no doubt due to embarrassment, these very substantial Soviet forces had arrived completely undetected by German intelligence or air reconnaissance. There is no mention of any unit of Rotmistrov's army, the 33rd Rifle Corps, or the observation of large movements of Soviet armor in the intelligence records of either the II SS Panzer Corps or the Fourth Panzer Army before the battle.

Rotmistrov intended to launch a powerful frontal attack with the 18th and 29th Tank Corps against Leibstandarte and elements of Totenkopf. He planned to attack Das Reich with the attached 2nd and 2nd Guards Tank Corps. Rotmistrov held the powerful Guards Mechanized Corps, equipped with 212 tanks, in reserve. The 29th and 18th Tank Corps were to advance from Prokhorovka through a five-kilometer-wide corridor that extended to the southwest from Prokhorovka. The corridor was bordered by the Psel River on the northwest and a 30-foot-high railroad embankment to the southeast. During the night, as the Russian tanks assembled, the roar of great numbers of tank motors was heard by German forward observers, and the corps records mention this fact, but no one could say what the motor noise meant.

Early on the morning of July 12, all uncertainty was removed.

Major General I.F. Kirichenko's 29th Tank Corps attacked through the southern half of the corridor with all three brigades of his corps on line—a total of about 170 T-34s and T-70s. The 31st and 32nd Tank Brigades, with perhaps 120 tanks, converged upon Hill 252.2. South of the rail embankment, the 55 tanks of Kirichenko's 25th Tank Brigade, supported by the 169th Tank Brigade, charged toward Leibstandarte's 1st SS Panzergrenadier Regiment. Kirichenko kept none of his armor in reserve, gambling that he would overwhelm the German defenders in the first wave.

Ribbentrop looked to the east and was so startled that he could hardly believe his eyes. Along the entire division front, purple smoke shells were soaring into the air.

Major General B.S. Bakharov's 18th Tank Corps advanced through the northern half of the Psel corridor on Kirichenko's right. The more than 60 tanks of the 181st Tank Brigade, commanded by Lt. Col. V.A. Puzyrev, headed directly toward Wassiljewka. The 60 tanks of the 170th Tank Brigade, commanded by Lt. Col. V.D. Tarasov, were on Puzyrev's left, and passed north of Hill 252.2. Bakharov held his 110th Tank Brigade and the 36th Heavy Tank Regiment in reserve. To the south, the 2nd and 2nd Guards Tank Corps roared from their assembly areas toward Das Reich's positions with perhaps 200 tanks between them.

When the attack began, the commander of the only German tanks near Hill 252.2, Rudolf von Ribbentrop, was asleep.

Obersturmführer (First Lieutenant) von Ribbentrop, the commander of Leibstandarte's 6th Panzer Company, did not have to be in Russia in 1943. He was the son of German Foreign Minister Joachim von Ribbentrop, and since he had three years of combat experience by the summer of 1943, he undoubtedly could have obtained a soft military post in Germany. However, Ribbentrop chose to fight with his comrades, in a division that was always at the hottest spots on the Eastern Front. On July 12, he experienced combat so terrible and violent that he would feel born again to have survived the inferno.

Soviet tanks and infantrymen move forward together to rout German defenders from several strongpoints. Note the Red Army soldier lying prone atop a tank's hull, his automatic weapon at the ready.

When the 5th Guards Tank Army began its attack, Ribbentrop's 6th Company, with only seven operational Panzer IVs, was in reserve a short distance west of Hill 252.2. The other companies of the panzer battalion were dispersed farther to the west in the direction of the Oktjabriskij State Farm. It was expected that it would take hours before Totenkopf's panzers could reach the Karteschewka highway, strike down its length, cross the river, and then attack Prokhorovka from the rear. Many of the Leibstandarte tankers were fast asleep, even though the rumble of heavy guns could already be heard in the distance. By 8 AM, artillery boomed from the north, announcing that Totenkopf was about to begin its drive toward the Karteschewka highway.

Signs of unusual activity developed along the front to the east. Overhead, flights of Soviet fighters were seen winging westward, escorting squadrons of Ilyushin IL-2 Sturmovik ground attack planes. Luftwaffe fighters closed at high speed from all directions, and tracers floated lazily upward from German flak batteries. Machine-gun fire rattled all along the front lines, and the volume of artillery fire from both sides grew heavier in the first hours of daylight.

While Ribbentrop slept, five brigades of Russian tanks were racing into the Psel River corridor at full speed, bouncing over ditches, hillocks, and hedges. Rotmistrov mistakenly believed that the SS divisions possessed scores of heavy Tiger tanks and ordered his tankers to close with the SS panzers at top speed and fire upon them from point-blank range. This meant that the Russian fire was wildly inaccurate because, unlike modern tanks, neither German nor Russian tanks had mechanisms to keep the barrels level while moving. Rotmistrov's order was a tactical mistake that needlessly caused the loss of hundreds of Russian tanks and their crews. In fact, Leibstandarte had only four operational Tigers on July 12, and Das Reich had only one. Totenkopf's 10 Tigers were all on their way across the Psel River when the Soviet attack spilled out of the corridor.

Ribbentrop was startled from his sleep by a messenger who told him that he had been summoned to battalion headquarters. SS Sturmbannführer (Major) Martin Gross explained that there were numerous reports from forward infantry positions of loud motor noises coming from the east. Gross ordered Ribbentrop to go forward to the panzergrenadier battalion command post to see if he could determine what was happening. Ribbentrop commandeered a motorcycle and rode to a railroad underpass that provided shelter for the battalion headquarters. He discovered that there were no new reports, and he returned to his company.

Heinz Trautmann, the loader of Ribbentrop's tank crew, offered Ribbentrop coffee and hot food. While he had been gone, the 19-year-old gunner, Kurt Hoppe, had filled every nook and cranny inside the tank with cannon shells. The radio and bow machine gunner was 18-year-old Harry Berger. Walter Schüle, Ribbentrop's driver, had the reputation of being the best tank driver in the entire battalion.

As he raised his coffee cup, Ribbentrop looked to the east and was so startled that he could hardly believe his eyes. Along the entire division front, purple smoke shells were soaring into the air. Purple smoke meant enemy tanks. Ribbentrop dropped his coffee and leaped into his tank as Schüle gunned the motor. Ribbentrop radioed his platoon leader, SS Untersturmführer (2nd Lieutenant) Walter Malchow, instructing him to cover the left flank of the company. The tank motors roared as Ribbentrop led his company of seven Panzer IVs up the slope of Hill 252.2.

When the company moved over the crest of the hill, T-34s could be seen moving through the corridor to the north at a range of 800 to 1,000 meters. The panzers halted and opened fire, scoring hits on the Russian tanks at that distance. When Ribbentrop looked forward once again, he was shocked by what he saw. Barely

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ABOVE: A pair of German panzergrenadiers manning a defensive position pause as a mammoth Mark VI Tiger Tank rumbles past. The open steppes of Russia proved ideal country for the maneuverability of tanks and armored formations. OPPOSITE: Two German panzers roll forward warily as pillars of smoke rise from disabled armored vehicles. Kursk pitted large German and Soviet tank formations against one another. The fighting at Prokhorovka, nicknamed the Gulley of Death, was particularly bitter.

200 meters in front of him appeared 15 Russian tanks, then 30, and finally the entire 31st Tank Brigade burst into sight. Another group of 60 or more tanks, belonging to the 32nd Tank Brigade, was also racing toward the hill.

Deciding that their only chance for survival was to move and act aggressively, Ribbentrop ordered the company to open fire. Firing, then maneuvering, the seven Panzer IVs started down the hillside. A speeding Russian tank swerved to a halt 100 meters in front of Ribbentrop, the T-34 rocking on its suspension. The Russian tank commander was so completely engrossed in rotating the turret to get the German tank in his sights that he failed to simply turn his tank into position to fire. Gunner Hoppe had just fired the tank's cannon, and Trautmann did not have another round loaded yet. To gain a few vital seconds for Hoppe to acquire this new target, Ribbentrop ordered Schule to first drive past the Russian tank and then turn to face the T-34. Schule was already changing gears to move the Panzer IV forward before the order came. The panzer passed the T-34 at a distance of only a few meters while the Russian commander frantically tried to turn his turret fast enough to get the German tank in his sights. He was a second too late!

As soon as the Panzer IV's gun came to bear on the T-34, Hoppe pressed the electric firing button. The tank rocked backward from the recoil of the gun, and the 75mm shell instantaneously penetrated the armor of the Russian tank. A second later the T-34's ammunition detonated in a thunderous explosion, blowing the entire turret off its mounting ring. The turret whirled into the air, then slammed into the ground, narrowly missing the front of the Panzer IV. Ribbentrop ordered Schüle to move forward while he selected another target for his gunner.

During the first few minutes of the fight, Ribbentrop's tank managed to avoid being hit due to the cool actions of the crew, but not all of the company was so fortunate. Two Panzer IVs were hit during the initial exchange of fire and burst into flames. Platoon commander Malchow's panzer knocked out two Russian tanks before his tank was hit. A sudden, stunning impact jolted his tank and the engine failed. The driver could not restart it, and noxious fumes filled the interior of the tank. Malchow's gunner continued to fire at Russian tanks as they raced past, putting five more out of action. Suddenly, the smoldering engine caught fire and smoke billowed into the tank.

Malchow ordered his crew to bail out only seconds before the tank exploded. The five men leaped into a nearby ditch as Soviet tanks carrying Russian infantry sped by them on either side. The Russian tanks all seemed to be heading down the reverse slope toward the tank ditch that had been part of the Soviet defensive system that Leibstandarte had crossed on July 11.

The T-34s continued to race westward at full speed, apparently unaware that the deep tank ditch lay in front of them. At the last second, some of the T-34 drivers saw the danger and tried to turn, often swerving into the path of a following tank. Others hurtled over the edge and smashed into the bottom of the ditch. Since most Russian tanks did not have radios, there was no way for the Soviet tank commanders to warn their comrades following behind them. Smoke from burning tanks and clouds of dust thrown up by churning tracks hid the single narrow passage that SS pioneers (engineers) had blasted through the ditch. Unable to find a crossing, the T-34s milled around on the reverse slope while Peiper's grenadiers began to attack them with magnetic antitank mines or improvised explosive charges.

In the midst of the maelstrom, Ribbentrop's tank moved constantly, firing on Soviet tanks as it moved toward German lines. At one point Ribbentrop's Panzer IV overtook a group of Russian infantry who were unaware that a German tank was behind them. The tank ran straight through the screaming men, crushing some underneath the grinding tracks and cutting down others with machine-gun fire. The terrified survivors dove into ditches or disappeared behind burning tanks.

Hoppe knocked out a dozen or more T-34s while following them from behind as Schüle maneuvered behind knocked-out Russian tanks or hid in dense clouds of smoke. Ribbentrop had just ordered Schüle to turn the tank toward the German lines and safety when disaster struck. Hoppe had just knocked out a 14th T-34 when a Russian shell struck the sight aperture and drove the mechanism into his face. With his gunner bleeding and unconscious and the gun sight

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inoperable, Ribbentrop abandoned all stealth and raced toward the German lines.

Miraculously, the tank reached safety. Ribbentrop waved down an orderly passing by on a motorcycle and shouted to the man to have a tank and new gunner brought forward. Incredibly, Ribbentrop intended to return to the battle on the hill, but before he could do so he was ordered to rejoin the battalion for a counterattack against the hill. Incredible as it may seem, three of the company's seven tanks survived the battle.

At first glance it seems miraculous that any of Ribbentrop's tanks could possibly have survived. However, Ribbentrop was convinced that he owed his survival to an inefficient Soviet crew configuration and an inexplicable lack of communications capability. In the summer of 1943, Soviet tanks had only a two-man turret crew, consisting of a loader and the tank commander who also had to serve as the gunner. In the heat of battle, the tank commander had to acquire targets, turn the turret, and aim and fire the gun. Therefore, Russian tank commanders had no opportunity to observe terrain, detect threats from the flank and rear, or direct the tanks under his command. For a Russian tank commander to observe the battle around him, he had to leave his gun, stand in the copula, and open the hatch to look around. This left his gun unattended and the tank defenseless. Faced with that choice, the Russian tank commanders stayed at their cannons with the turret hatch firmly closed. All they could see was the image visible through the gun sight.

In contrast, all German tanks of the period had a three-man turret crew, consisting of a gunner, loader, and vehicle commander. The sole responsibility of the tank commander was to direct the crew of the tank in combat. He could guide the driver, take advantage of terrain features, scan 360 degrees for threats (or opportunities), and choose targets for the gunner. By means of a throat microphone the tank commander was able communicate with each member of his crew. Every tank commander could also communicate with any other tank by use of a shortwave radio.

Russian tanks did not have the same communication ability because the only tanks that were normally equipped with radios were those of battalion and sometimes company commanders. Thus, once engaged in battle, Russian tank unit commanders could not communicate with the tanks under their command. This was a critical failing because the efficient conduct of modern tank warfare is not possible without instant communications between small-unit leaders and the individual tanks under their command. Lacking this ability, Soviet tank units were unable to react to the ever-changing events of battle in a coordinated fashion, especially in battles of movement.

By the time Ribbentrop and his crew reached safety, the 1st SS Panzergrenadier Regiment had repulsed attacks of the 29th Tank Corps' 25th Tank Brigade and the 169th Tank Brigade, inflicting heavy losses upon the Russian tanks. After suffering losses from the 88mm guns of Totenkopf's flak battalion and attacks by German Ju-87 Stuka dive bombers, the 18th Tank Corps' 181st and 170 Tank Brigades pulled back from Wassiljewka. The two tank corps then turned south, intending to attack Leibstandarte's exposed flank near Oktjabriskij State Farm.

Leibstandarte's panzer battalion was by then fully involved in the counterattack upon Hill 252.2 and could not disengage. Panzer regiment commander Schönberger ordered his Tiger company to block the Soviet attack. The four remaining operational Tigers rumbled into the path of the approaching Soviet tank brigades. Untersturmführer Michael Wittmann was temporarily in command of the company because regular company commander Heinz Kling had been seriously wounded the day before.

Far to the north, the Soviet T-34s and T-70s could be seen approaching at high speed and firing rapidly. In any event, even at short range the 76.2mm Russian shell could not penetrate the frontal armor of a Tiger. Unfortunately for the Russians, the 88mm guns of the Tigers could reach out and inflict death and destruction at ranges beyond 2,000 meters.

Immediately, the Tigers began to kill T-34s and T-70s as the high-velocity 88mm shells penetrated the Soviet armor with ease. Columns of black, greasy smoke climbed into the sky, marking the spots where Russian tanks burned. The Tigers knocked out more than 30 Russian tanks before the survivors recoiled to the east and were drawn into the cauldron around Hill 252.2. During the fighting, the tank of Lt. Col. V.D. Tarasov, commander of the 170th Tank Brigade, was

Continued on page 74

Flying Leathernecks

Marine aviators of Fighter Squadron 211, or VMF-211, looked up in frustration as Japanese war planes thronged over Pearl Harbor on December 7, 1941. The attack took them completely by surprise. Not one of their portly Grumman F4F-3 Wildcat fighters was able to get into the air to battle Japan's vaunted Mitsubishi A6M Zero fighters.

Captain Robert E. Galer, at Ewa Air Station that morning, looked up and shook his head vigorously at the sight of the red "meatballs" painted on the wings of the Japanese planes. At Ewa, four Marines were killed and 33 aircraft were torched. The contingent of squadron VMF-211 that was not at sea aboard the aircraft carrier USS *Lexington* (CV 2) that day lost nine Wildcats on the ground. It was the last time Marine Wildcat pilots were caught flat-footed.

The Wildcat had become the standard Navy and Marine fighter soon after Grumman engineer and pilot Robert L. Hall took the F4F-2 prototype aloft for its first flight on September 2, 1937. The F4F-2 was not really the second version of Grumman's fourth fighter, as its designation suggested. It was a new aircraft, powered by a 1,050-horsepower Pratt & Whitney R-1830 Twin Wasp radial engine, with a max-

Marine F4F Wildcat pilots in the Pacific learned to love their stubby-winged fighter.

BY ROBERT F. DORR AND FRED L. BORCH

In this painting by war artist Jack Fellows, Grumman F4F Wildcat fighter pilot Henry T. "Hammerin' Hank" Elrod scans the skies above Wake Island for Japanese aircraft on the morning of December 12, 1941. The defenders of Wake Island were among the first American heroes of World War II.

imum speed of 385 miles per hour, and armed with six .50-caliber machine guns.

The Wildcat's Navy service has become better known than its Marine Corps duty. The Wildcat was the fighter piloted by Lieutenant Edward "Butch" O'Hare, of Navy Squadron VF-42 aboard the USS *Lexington,* who was credited with shooting down five Mitsubishi G4M "Betty" bombers in five minutes near Rabaul in a furious dogfight on February 20, 1942. O'Hare was awarded the Medal of Honor.

But long before that happened, Marines were wringing out the Wildcat when the Japanese attacked the American outpost at Wake Island. VMF-211 followed up its Pearl Harbor losses by losing seven more Wildcats on the ground at Wake on December 8, 1941, but the squadron's pilots also scored victories. First Lieutenant David S. Kliever and Technical Sergeant William Hamilton of VMF-211, flying from Wake, shot down a pair of twin-engine Mitsubishi G3M2 Type 96 "Nell" bombers on December 9. Captain Henry T. "Hammerin' Hank" Elrod, also of VMF-211 and soon to be briefly the most famous Marine pilot in the world, also shot down a Japanese aircraft that day.

During the heated defense of Wake, Marines

All photos: Collection of Robert F. Dorr

ABOVE: Wildcat fighters fly in formation in the South Pacific on September 22, 1943. Although the Grumman F4F was not as nimble as its Japanese Zero adversary, it was well armored and packed a heavy punch with .50-caliber machine guns. TOP: Taxiing on the runway at Henderson Field on Guadalcanal, this Grumman F4F Wildcat fighter has just landed after arriving from an aircraft carrier. The external fuel tank attached to the right wing extended the fighter's range.

kept their Wildcats flying by cannibalizing wrecked aircraft, improvising tools, and hand making some parts. When the Japanese attempted their first landings on the morning of December 11, 1941, four Wildcats attacked the invasion force with 100-pound bombs and .50-caliber machine-gun fire. That was when Elrod achieved a direct hit on the Japanese destroyer *Kisaragi,* apparently sinking the ship and forcing the Japanese invasion fleet to retire temporarily.

On December 21, 1941, the Japanese returned, reinforced by carrier aircraft. Just two Wildcats survived to attack a 39-plane raid from the Japanese carriers *Soryu* and *Hiryu.* Zeros quickly shot down one Wildcat, but the second shot down two of the raiders before its pilot, Captain Herb Frueler, was wounded. Frueler struggled home and crash-landed, wrecking Wake's last Wildcat.

When "Hammerin' Hank" Elrod no longer had a Wildcat to fly, the 36-year-old captain demonstrated that Marines are, first and foremost, riflemen. Elrod assumed command of a flank of the line set up to make a last stand against the Japanese landing. He conducted a spirited defense, enabling his fellow Marines to repulse waves of attacking Japanese and to provide covering fire for unarmed ammunition carriers. Elrod seized a discarded automatic weapon, gave his own firearm to one of his men, and fought on—losing his life. He received a posthumous Medal of Honor.

In the air battles of the early Pacific War, Marines found themselves equally outfought. The Wildcat was simply outperformed in aerial duels with the vaunted Zero at Wake, Coral Sea, and Midway. The Wildcat was the Marines' standard fighter amid the heat, stench, and muck at Henderson Field on Guadalcanal.

The 1st Marine Division captured the nearly completed airfield on August 7, 1942. From its unpaved strip, Marine aviators did some of the toughest flying of the war. To the pilot of an F4F Wildcat taxiing at Henderson in a torrential downpour, struggling through geysers of water and mud, the list of enemies included bad weather, corrosion, primitive conditions, and even tropical disease. It was hard to stay ready to repel the next wave of Japanese bombers when you had to pluck leeches from your skin with a bayonet, or run to the head to disgorge the foul water and poor food.

On August 20, 1942, Major John L. Smith's VMF-223, the "Rainbow" Squadron, launched from the escort carrier USS *Long Island* (CVE

1), and landed at Henderson to set up shop. On August 24, accompanied by five Army Bell P-400 Airacobras, Smith intercepted a Japanese flight of 15 bombers and 12 fighters. VMF-223 pilots shot down 10 bombers and six fighters, with Captain Marion Carl scoring three of the kills. Carl became the first Marine air ace of the war, Smith the second Marine Wildcat pilot to rate the Medal of Honor. Another Marine, Captain Joe Foss, racked up 26 aerial victories and also received the nation's highest award.

So did Major (later Brig. Gen.) Robert E. Galer, the Pearl Harbor survivor who now commanded squadron VMF-224. Galer scored 13 aerial victories and waged a point-blank campaign against the Japanese for 29 days.

At Guadalcanal, Japanese bombers typically approached 26 at a time in V formation. Wildcat pilots sought to avoid Zeros and get at the bombers. Their hit-and-run tactics forced the Zero pilots to use precious fuel. After dogfighting began, the Americans learned the importance of teamwork, finding that reliance on one's wingman was crucial and that no lone wolf survived for long.

The Wildcat was no Zero. The Japanese fighter was light and fast and had cannon as well as machine guns. The American fighter was sturdier and gave the pilot a much better chance of surviving if he was hit. As they gained experience, Marines learned how to coax greater maneuverability from their Wildcats. They learned how to make better gunnery compensate for the lesser killing power of their guns.

In the same class as Carl, Smith, Foss, and Galer, one of the great Wildcat pilots at Guadalcanal was Lt. Col. Harold W. "Indian Joe" Bauer. Bauer was a U.S. Naval Academy graduate who commanded Marine Fighter Squadron VMF-212, the "Devil Cats." He shot down 11 Japanese aircraft and paid the highest price to win the nation's highest award.

When Marines landed on Guadalcanal and seized Henderson Field in the first U.S. offensive action of the war, Bauer's squadron was at Efate, New Hebrides, preparing to enter the fray. Bauer left them there and flew down to Guadalcanal to inspect the airfield, which was under constant Japanese air attack. On September 27, 1942, he borrowed a Wildcat from friend and rival Carl, took off to intercept approaching Japanese bombers, and shot one down.

Also during his so-called inspection visit, Bauer shot down four Japanese Zero fighters on October 3, 1942. His squadron had not reached the combat zone yet, and he was already an ace.

The Japanese mounted a major effort to dislodge the Marines in a furious counterattack. It happened just when Bauer was bringing his "Devil Cats" to Guadalcanal on October 8, 1942. Bauer found a Japanese air raid under way. In the waters off the great island, Japanese Aichi D3A "Val" dive-bombers were swarming down on the USS *McFarland* (AVD 14), an ex-destroyer, now a freighter, carrying aviation fuel and ammunition that were desperately needed on Guadalcanal.

Bauer pounced on the dive-bombers as they withdrew. Although low on fuel, he gave chase. A 55-gallon external fuel tank was stuck beneath the right wing of his Wildcat, reducing his airspeed and maneuverability. Still, Bauer dived from 3,000 to 200 feet and closed on the Japanese warplanes. He had superb targets and a full load of ammunition. Bauer shoved throttle, mixture, and prop controls to the firewall, overtook the dive-bombers from behind, and began squeezing off bursts. In a matter of minutes, he sent three Vals falling in flames into the sea near Savo Island.

On the day of that fight, Bauer was placed in charge of all fighter operations on Guadalcanal. On November 14, 1942, he took off to investigate a Japanese convoy of 11 troop transports escorted by 11 destroyers bearing down on Guadalcanal—the big heft behind the enemy's planned counteroffensive.

Bauer attacked the ships and was met by Japanese fighters. He battled Zeros and shot two down. But bullets ripped into his Wildcat. Unable to maintain control of the F4F, he parachuted into the sea.

Aloft with Bauer in the midst of that slugfest were Foss and Major Joe Renner. Foss and Renner raced back to Guadalcanal, traded their Wildcats for a J2F Duck amphibian, and took off to attempt to locate Bauer at sea. Darkness closed in before they could complete the search. No one ever saw Bauer again. A recommendation for a Medal of Honor for him was approved in May 1943.

Wildcat pilots fought on, often caught up in a love-hate relationship with an aircraft that was a kind of ongoing good news, bad news story. "A fire hydrant with wings," said former Captain Thomas M. "Tommy" Tomlinson. "The barrel-like, mid-wing configuration of the Wildcat gave it a certain raffish appearance."

Said Tomlinson: "It was anything but a beauty, and it didn't handle well in the wrong hands. For takeoff, the Wildcat required especially careful handling, because the fuselage blanked the rudder, and it had a nasty tendency to veer to port. The tail wheel had to be locked and checked and it didn't perform well in a crosswind. Until you got the tail off the ground, you had to concentrate on stick and throttle every second. In short, being a pilot of the F4F Wildcat was a full-time job."

Tomlinson said that in a dogfight with a Zero, the Wildcat could not maneuver the way the Zero could. But, he added, "The Wildcat was a solid, stable gun platform. Once you got past the awkward arrangement of some of the instruments and controls, the Wildcat was probably about as good an airplane as you were going to get in the early days of the war. If you mastered it, you could probably stand a chance of beating that Zero, but the real answer was a newer and better fighting machine."

Tomlinson was at Ewa and Guadalcanal as

Captain Thomas M. "Tommy" Tomlinson, a former Wildcat fighter pilot, sits in the cockpit of his Chance Vought F4U-1 Corsair fighter on Guadalcanal. The Wildcat helped hold the line against the Japanese during the early days of the Pacific War.

a member of Fighter Squadron VMF-214, the "Swashbucklers." He is quick to take affront at anyone who thinks the VMF-214 terminology belongs to the "Black Sheep," the famous Vought F4U Corsair squadron later in the war that was led by the ambitious Gregory "Pappy" Boyington. "I was in VMF-214 when it began, at Henderson Field on Guadalcanal, living in a coconut grove, with an outdoor head and not much in the way of amenities," Tomlinson said.

As Tomlinson sees it, Boyington "heisted" the identity of his squadron. "Those of us who were in the squadron at the beginning saw more fighting and shot down more Japanese airplanes than the squadron did later when its identity was swapped and it became Boyington's outfit." Long before Boyington came along, the commander of the VMF-214 "Swashbucklers" was Major George Britt.

Said Tomlinson: "After the Japanese no longer had any hope of taking back Guadalcanal, on April 7, 1943, they launched the biggest raid they ever sent against the island—67 Val dive-bombers escorted by 110 Zeros. We intercepted them with portions of three Army and four Marine squadrons flying Wildcats, F4U Corsairs, P-38 Lightnings, P-39 Airacobras, and P-40 Warhawks. Our 'Swashbucklers' squadron was credited with shooting down four Vals and six Zeros over Cape Esperance.

"I found myself going after one of those Val dive-bombers," Tomlinson continued. "The six .50-caliber guns in the F4F-4 Wildcat were lubricated with cosmoline, which thickened in the extreme cold at high altitude and could prevent the guns from working. When I locked onto the last Val in the Japanese formation, five of my six guns froze and refused to fire. I gave it some throttle and got up right behind him, which gave me a close-up look at the two men in the Val. I could see the disturbed reaction of the gunner in the rear cockpit of the Val. He was shooting at me when my bullets hit him and chewed him up. This was not pretty at all. I knocked off pieces of the Val and got it smoking, then banked near Lunga Point just in time to get away from a brace of Zeros."

That battle over Guadalcanal was one of the last in the Pacific for the Wildcat. Thereafter, only two squadrons in the Ellice Islands continued to fly the F4F. In June 1943, Tomlinson's squadron converted to the F4U Corsair.

William P. Boland's squadron did not. "Ours was the last squadron to fly the Wildcat fighter in combat," said Boland. "We were still flying Wildcats when other Marines were defeating the Japanese in air battles while flying Corsairs and Hellcats.

"My squadron was VMF-441. It was one of the very few Marine squadrons to actually be commissioned in the combat zone, organized on October 1, 1942, at Tafuna airdrome, Tutuila Island, American Samoa, with Major Daniel W. Torrey as our first commander. Torrey was due for assignment elsewhere, so, on December 4, Captain Walter J. Meyer became our commander. Torrey, Meyer, and most of the Marines in Samoa had been fighting on Guadalcanal, and to them Samoa was a pleasant backwater after months of harsh fighting—a place of respite and refuge. The war was a lot less active there."

Boland said that by this late juncture in the war Marines knew a lot about how to use the Wildcat effectively against the Zero. "The cockpit was spacious and comfortable," he recalled. "You just had to get used to the plane's annoying features, like the hand crank to put down the landing gear, but every airplane had its idiosyncrasies.

"From Samoa, we flew missions against bypassed Japanese outposts like Wotje and Maloelap. Later in the war, of course, VMF-441 flew a lot of combat in Corsairs—the squadron produced seven aces—but the Wildcat period was mostly unremarkable. At least, it was unremarkable until they decided to send a bunch of us to Funafuti. That island was only beginning to have an American presence but it would eventually become a staging base for the invasion of Tarawa."

First Lieutenant (later Maj. Gen.) Ralph H. "Smoke" Spanjer was one of Boland's fellow Wildcat pilots at Funafuti. "I was part of a four-plane advanced echelon to fly north from Samoa to the Ellice Islands," said Spanjer, recalling Squadron 441's initial move to Funafuti. "With external tanks we flew 700 miles with only one stop at the French island of Wallis and arrived over Funafuti. A PBY Catalina escorted us during the flight.

"To our dismay, the Navy Seabees' desire for our protection exceeded their constructive efforts and we were forced to land on barely 1,500 feet of unprepared coral surface. The next day, we were alerted for our first business and did, in fact, chase a Japanese 'Emily' flying boat but lost it in some rather severe weather."

On March 27, 1943, the SCR 270 ground radar operated on Funafuti by the Army's 5th Defense Battalion detected the approach of unknown aircraft. Boland and Spanjer were launched against a possible radar target. They were soon in hot pursuit of four, twin-engine Mitsubishi G4M Type 1 "Betty" bombers.

"This was the latest in high-speed Japanese bombers," Spanjer said. "Our tired F4Fs were

ABOVE: The stubby Wildcat was not a sleek, highly maneuverable aircraft like the Mitsubishi Zero. However, the fighter was a stable gun platform while its armor offered its pilot something the Zero did not—greater survivability. RIGHT: Captain William P. Boland poses in the cockpit of his Wildcat at Funafuti, August 9, 1943. His VMF-441 squadron was one of the last to fly the Wildcat in combat.

straining to get in position for an attack. On the first pass, Captain Boland shot down the lead bomber, which exploded under fire of his six .50-calibers. Contrary to the official squadron history, my guns did not jam immediately. I maneuvered behind the number four 'Betty,' got off several bursts, and was able to inflict some damage before my guns froze. Captain Boland and I made one additional flat pass but the bombers outdistanced us."

Boland, Spanjer, and other Marine Wildcat pilots spent the next four months hunting in vain for Japanese warplanes during daylight hours. During the dark, they caught accurate strings of Japanese bombs on the installations on Funafuti. The night bombing raids inflicted severe damage to an Army Air Corps squadron operating Consolidated B-24 Liberators from the island. It soon became apparent to the Marines that their problems were being caused by a lone Japanese "Nell" bomber that scouted out the island daily from high altitude. Even after regular night bombing attacks by the Japanese became few and far between, the lone "Nell" kept flying reconnaissance missions high over their heads, as if the Japanese were thumbing their noses at the Marines. According to Spanjer, Boland began to regard that Nell in very personal terms.

"No one wanted to get that Nell more than Boland," said Spanjer. "He began what some later interpreted as a one-man campaign to defeat that solitary Japanese bomber."

Another member of Squadron 441, Captain Norman Mitchell, had similar recollections. "The Japanese were scouting down through Nanomea and sometimes as far as Nukufetau," said Mitchell, referring to other islands near Funafuti in the Ellice chain. "We saw that Nell bomber almost daily. William P. Boland got aboard a PT boat and had the PT boat drop him off with a New Zealand coast watcher on the island of Nanomea, where he observed the Nell's operation for about a week. During that time, we sent up a section of two F4F Wildcats from Funafuti every day to attempt an intercept over Nanomea. Boland tried from his position on the ground to vector the Wildcats up to attack the Nell. The Wildcats carried extra fuel tanks under the wings to give them loiter time and 'reach' to catch the bomber. The Nell eluded us every time

"We just couldn't get him," Mitchell said. "Our communication seemed to be working. Our radar seemed to be working. We seemed to know where the Nell was, and Boland was giving us excellent guidance over the radio. But somehow, that Japanese heckler managed to escape from us every time. Every one of us

ABOVE: Lieutenant Colonel Harold W. "Indian Joe" Bauer flew the Wildcat in combat above Guadalcanal, scored 11 victories, and was awarded a posthumous Medal of Honor. He parachuted from his disabled fighter and was never seen again. TOP: Major Robert E. Galer survived the Japanese attack on Pearl Harbor and went on to command U.S. Marine Fighter Squadron VMF-224. Galer was also a recipient of the Medal of Honor.

wanted to get the Nell and we began to think it was not going to happen."

The Marines learned after the war that the Nell was from a Japanese unit called the 755 Kokutai, operating out of Tarawa. While the war was going on, they did not know the Japanese names of their units or airplanes.

Spanjer shared Boland's frustration. "For weeks, our Wildcats had been trying to catch up with that Nell," said Spanjer. "Some of the missions were flown from Funafuti to Nui—where the Nell spent a lot of time. That was a round-trip of 280 miles, which meant that even with wing tanks the Wildcats wouldn't have time to spend more that a few minutes attempting the kill. We tried for weeks to meet the enemy plane, sometimes missing only by minutes. On July 17, 1943, we believed we came within a minute or two of nailing the Nell."

On August 8, 1944, Boland took off in a two-plane section with 1st Lt. Samuel G. Middleman on his wing. Soon afterward, the Army radar people told them there was an apparent Japanese aircraft over Nui, another island in the Ellice group. That meant a marathon flight of 140 miles each way, from Funafuti to Nui.

"It was a good thing the F4F Wildcat was so comfortable," Boland said.

On that mission, everything broke right. "Once again, our communications worked. Once again, our ground-radar worked," said Boland. "This time, we really knew where the Nell was. We had wanted to get that Nell for a long time. We managed to come up behind the Japanese bomber. I made a firing pass from the left rear quadrant and sent some .50-caliber into him. The Nell started to disintegrate and sent back pieces of debris that narrowly missed me. The pilot somehow had enough control to get the bomber down to very low altitude before he lost it. The Nell went down in Nui atoll, in water so shallow it didn't sink. People told me the wreckage of that Nell was still readily visible in Nui lagoon 30 years later in 1974."

Boland later commanded fighter squadrons VMF-215 from November 1944 to February 1945 and VMF-321 from March to August 1945. "I flew other fighters," he said, "but the Wildcat enabled me to bag that bomber after weeks of trying."

The American industrial heartland turned out 7,825 Wildcats during World War II, including 1,988 F4F models built by Grumman and 5,837 FM versions from General Motors. Foster Hailey, correspondent for the *New York Times,* summed up the Wildcat's impact on history in 1943: "The Grumman Wildcat, it is no exaggeration to say, did more than any single instrument of war to save the day for the United States in the Pacific."

Marine pilots agreed. □

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Hollywood's Dream

BY HERB KUGEL

World War II came to the Hollywood motion picture studios, the "Dream Factories" as they were sometimes called, the day after Pearl Harbor.

"Hollywood became a military camp. Within a day ... studio trucks and drivers were transporting army troops and equipment, studio arsenals were stripped of prop (weapons) and ammunition to fortify under-supplied posts along the West Coast ..." wrote Bruce T. Torrence, in his book, *Hollywood: The First Hundred Years*.

Movie studios mobilized their firefighting equipment, and the beautiful sands in front of Hollywood's luxurious Malibu Beach homes were soon overrun with soldiers as Hollywood's yachtsmen donated their entire fleet to the Coast Guard. The physical resemblance of several of the Dream Factory studios with their large complexes of buildings to nearby aircraft factories was suddenly a cause for frightening concern. Warner Brothers Pictures took a unique if not too patriotic action in an effort to prevent Japanese bombers from mistaking Warner's Burbank lot for nearby Lockheed Aircraft Company buildings. Studio set painters were ordered to paint a 20-foot arrow on the roof of a soundstage that lined up toward Lockheed. Next to the arrow, the painters inscribed in large letters: LOCKHEED THATAWAY.

The motion picture industry served admirably during World War II.

Factory at War

Comedians Bud Abbott and Lou Costello are seen in a still photo from the film *Buck Privates*. The importance of maintaining morale on the home front was recognized by the U.S. government, and Hollywood produced a number of patriotic films during the war years. OPPOSITE: A 1942 movie poster touts the exploits of American servicemen during the heroic defense of *Wake Island*. Early in the Pacific War, the American people were in search of heroes, and the silver screen helped to present them to the population at large.

Universal/The Kobal Collection

There were rapid studio changes dealing with civil defense. Most of the studios quickly erected sandbag air raid shelters. Some of these were equipped with cards, dominoes, and dart games, a few were equipped with pianos and even wired up for jukeboxes. What went into a bomb shelter was often determined by who was to use it. Many of the studios had segregated shelters separating executives, stars, technicians, and extras, but a Warner Brothers executive, when asked about an early studio air raid drill, replied, "Oh, it was a big success. The *Life* [magazine] photographers were there and got swell pictures," related Richard Lingeman in his book, *Don't You Know There's a War On? The American Home Front, 1941-1945*.

While this was going on, studios rushed to copyright titles such as *Sunday in Hawaii, Wings Over the Pacific, Yellow Peril, Yellow Menace,* and *The Stolen Bombsight*. While the studios haggled over *V For Victory,* Metro-Goldwyn-Mayer rapidly renamed its new Eleanor Powell-Red Skelton musical from *I'll Take Manila* to *Ship Ahoy,* and Paramount quickly cancelled *Absent Without Leave*, a film about an AWOL soldier. Six studios competed for ownership of the title *Remember Pearl Harbor.*

The studios began to learn how to deal with the military as the rules for filming quickly changed. Although the rules relaxed somewhat later in the war, initially no cameras were permitted near military reservations, dams, or war plants. Filming from the sea was forbidden in all harbors from Seattle to San Diego. Filming on a train became suddenly impossible as the government requisitioned all available rolling stock. Night filming was made impossible by air raid blackout regulations.

Paramount's filming of the war film *Wake Island* illustrated the problems the studios suddenly faced. The Japanese first attempted to invade Wake Island on December 11, 1941. Paramount began filming *Wake Island,* even while the outnumbered U.S. Marines' heroic defense of the little island was still in progress. Paramount's camera crews studied U.S. government photos of Wake Island taken before the war and concluded that California's Salton Sea and the land around it was the ideal location for filming *Wake Island*. However, Paramount now had to deal with a naval air facility near the Salton Sea. Although this meant the studio had to comply with naval air security regulations, Paramount managed to make a deal with the Navy. Studio technicians constructed a 4,000-foot clay airstrip in the desert, one mile west of a Navy seaplane base. Paramount then relinquished the base to the Navy after finishing filming. The runway and buildings were used by the Navy for several years.

RKO/The Kobal Collection

Actor Tom Neal appears in the role of a Japanese soldier in the film *Behind The Rising Sun*. Hollywood makeup artists have worked their magic to help the actor to appear Japanese. The film was directed by Edward Dmytryk and released in 1943.

The studios were used to filming all war scenes in and around Los Angeles, territory that the military now had to protect. Keeping track of Hollywood war photography against the real possibility of Japanese attacks forced the Army to decree that all battle scenes, especially those involving air combat, were to be filmed in Utah.

On May 6, 1942, the studio executives and stars received a body blow. The War Production Board issued an order setting $5,000 per picture as the limit that a studio could spend on materials for the creation of a new set. The studios had always spent lavishly on their sets. Now they had to change quickly. Scenes were rehearsed off camera, cutting down the number of retakes and hence the amount of film used. Still photographs were used instead of movies for wardrobe, makeup, and other tests. Movie credits were reduced and advertising trailers eliminated. The reprinting of approved takes was forbidden. Scriptwriters rewrote scripts to include as few different background locations as possible, and their scripts were often stamped with SAVE PAPER, SAVE YOUR JOB. Even nails were straightened and reused.

The changes were prolific in all areas. Wood replaced concrete and masonry. When a fire scene was filmed, asbestos was made to look like wood. Hidden gas jets were then ignited and, with no damage, the film director had what appeared to be a very realistic fire with which to work. Multiple-use sets were created. While their framework was permanent, windows, doors, and fireplaces were removable. Studios swapped expensive movable sets, such as ship replicas. Hardware fixtures were replaced with glass or plastic, and expensive car chase scenes that wasted rubber tires and gasoline were stopped. The government had ruled that each studio was limited to the purchase of two pounds of women's metal hairpins per month. Hairpins were checked out of the dressing room, used, then checked back in, sterilized, and reused. The list of changes went on and on, but they did the job. New movies kept coming throughout the war.

Nevertheless, there was one government change that caused panic among the stars and executives. On October 27, 1942, the Government Economic Stabilization Office's director, James F. Byrnes, announced legislation to freeze wages. Salaries were to be limited to $25,000 a year beginning on January 1, 1943. A total of $67,000 per year was allowed with expenses. However, to the relief of many, this action was rejected by Congress.

In 1944, as many as 250 Hollywood employees were earning more than $100,000 per year, and 50 of these were making more than $200,000 per year. There were other studio changes, some going back to before America went to war. In July 1941, five months before the attack on Pearl Harbor, a multipart adventure serial appeared in the *Saturday Evening Post* magazine. The serial, *Aloha Means Good Bye,* was intriguing. It began aboard a fictitious Japanese freighter sailing from Vancouver, British Columbia, to Hawaii. The story, about a Japanese espionage plot, served as a basis for the Warner Brothers film, *Across the Pacific.* The film began preproduction in early December 1941, just before Pearl Harbor. The original script featured a Japanese attack on the Hawaiian Islands, but after the real attack the film's settings were quickly moved to the Atlantic Coast and Panama.

Charles Einfield, Warner Brothers' director

of advertising and publicity, summed up the studio's reasons for changing the locale, reasons that reflected the hurt of many Americans: "We felt it wise to leave Pearl Harbor out of it, for all this can do is remind us of defeat."

The American public did not hear Pearl Harbor mentioned on the screen until the early 1942 release of *A Yank on the Burma Road*. The reference to Pearl Harbor takes place in a scene obviously added after the film was completed. The hero, reading a letter from home, mutters, "So they bombed Pearl Harbor, did they?" The line is quoted in the online *New York Times* Film Review archives.

However, there were more than just name and script changes. Japanese-American studio employees, many of them with years of fine service, were summarily ordered not to report for work until the government ruled on their status. They never came back to work again. They were forcibly pushed from their homes to inland relocation camps.

The studios also faced other changes related to personnel. They began to feel a shortage of veteran male actors when men like James Stewart, Clark Gable, and Henry Fonda enlisted. In general, those who complained about actors enlisting belonged to one of two small groups. There were those who complained that the actors did more good for the nation by providing fine entertainment to boost morale. The second group, complaining quietly, was much more mercenary. They were the enlisting stars' agents who lost large commissions when their clients gave up their salaries to join the Army or Navy. The manpower losses were somewhat alleviated by new actors, often men whose only real claim was that they were unfit for military service and could, thus, stay and work through the war.

The studios faced the additional problem of obtaining enough competent actors to play the many German and Japanese villains in the war films that were going into production. Much was on the line because "Hollywood's story editors ... [were preparing] ... a schedule of Pacific War movies reaching well into 1945," wrote Alistair Cooke in his book, *The American Home Front 1941-1942*.

German villains proved no problem. There were many European refugees in Hollywood, many fine actors, most but not all of them Jews, who managed to escape the Nazis. For example, in the classic film *Casablanca* (1942), Peter Lorre played Ugarte, the man who murders two German couriers, an event that gets the story going. Lorre, a Jew and a successful actor, left Germany when Hitler came to power. There were other émigré actors in *Casablanca*. S.Z. Sakall, who played the waiter Carl at Rick's Café, was a Jewish refugee, and Conrad Veidt, who played the key Nazi officer. Major Heinrich Strasser, was also a refugee. Although not a Jew, Veidt was in love with a Jewish woman. They married, escaped to England, and then came to America where Veidt made a living playing, among others, both World War I and World War II German villains. Another émigré appearing in *Casablanca* was Paul Henried, an Austrian actor who left Europe in 1935. He played Victor Laszlo, the underground leader married to Ilsa Lund (Ingrid Bergman).

The situation regarding actors to play the Japanese villains was sadly different when the Japanese-Americans were herded together and expelled from their West Coast homes. The studios searched everywhere for actors who could play Japanese soldiers, sailors, and spies. Many hand-to-mouth Chinese-American bit players suddenly became well-paid actors. Caucasians sometimes played Japanese roles. In the same year he worked on *Casablanca,* Peter Lorre played the sadistic Japanese agent Baron Ikito in Universal's *Invisible Agent*. In *Behind the Rising Sun* (1943), actor Tom Neal, his eyes carefully slanted by the RKO makeup department, played the Americanized son of a Japanese diplomat. There were fine Chinese actors who could have played these parts, but Asian actors were never cast in significant roles.

The studios radically changed the public's perception of their glamour girls. They wanted their lead actresses to be viewed as doing their bit for the war, which, of course, many of them gladly did. Bette Davis was a driving force in the creation of the Hollywood Canteen. The glamour girls did everything from collecting typewriters for the military (Maureen O'Hara) to making posters about saving scrap metal (Rita Hayworth). However, Veronica Lake, an actress famed for her long hair, performed what was probably the most unusual service. The government asked Lake to cut her hair short. Too many young women working in defense plants modeled their hair after Lake's and were being seriously injured when their long hair caught in the machinery they operated. By cutting her hair, Lake ruined her career.

Many of Hollywood's glamour girls were involved in the war in another way. They became the pinup girls, the girls whose photos were pinned to walls and lockers wherever Americans were serving. These pinups, while sometimes a link to a wife or girlfriend, were often just a serviceman's link to home and women in general. Hollywood was more than glad to supply pinup photos, which were good publicity. Ingrid Bergman, for example, was on the cover of *Yank* magazine.

No matter what else, however, Hollywood made its living through entertainment. Especially in late December 1941 and early 1942,

United Artists/The Kobal Collection

Jack Benny and Carole Lombard (center) played starring roles in a farce titled *To Be or Not to Be,* which was directed by Ernst Lubitsch and appeared in theaters in 1942. Lombard was killed in a plane crash during a war bond tour before the film was released.

people needed to laugh, and Universal Studios found a format for much World War II comedy with two former burlesque and radio stars, Bud Abbott and Lou Costello, and their slapstick brand of humor. Abbott and Costello starred in the zany movie, *Buck Privates,* a film in which they become trapped in an Army induction center and ended up enlisting. There was Abbott and Costello's slapstick comedy, spiced with the music of the three Andrews Sisters, suitably dressed in Women's Army Auxiliary Corps (WAAC) uniforms and singing "Boogie Woogie Bugle Boy from Company B." Abbott and Costello completed four movies for Universal within 10 months. In that period, together with *Buck Privates,* they "served" in the Navy and Army Air Forces, respectively with *In the Navy* and *Keep 'Em Flying*. The fourth movie, *Hold That Ghost,*

Library of Congress

Famous for her Oscar-winning role in *Gone with the Wind,* actress Hattie McDaniel (center) served as chairperson of the Negro Division of the Hollywood Victory Committee. Here she leads a group of performers to Minter Field to entertain the troops stationed there.

carried the same blend of comedy and music but had nothing to do with the military.

Comedian Bob Hope's wisecracks were very popular. In *Caught in the Draft* (1941), Hope played a famous Hollywood star who wants to get married in order to avoid being drafted. However, he falls for a colonel's daughter, played by Dorothy Lamour. To impress her, he pretends to enlist in the army but soon learns he has really enlisted his agent and his assistant as well as himself.

Not all attempts at comedy succeeded. *To Be or Not To Be* (1942) was a farce about a troupe of Polish actors trapped in the Nazi occupation of Warsaw. It was a fine film starring Carole Lombard and Jack Benny, but it did not please many people who found little to laugh about in the Nazi takeover of Warsaw. The film was Carole Lombard's last movie. She died in a plane crash on her way home from a war bond rally. Left desolate by her death, Clark Gable, her husband, joined the United States Army Air Forces and served as a gunner on bombing missions over Europe.

In World War II, the value of the movie cartoon was considerable. Its role in comedy was obvious, but Hollywood soon learned that it could also be used for propaganda and training. One especially fine cartoon was Walt Disney and RKO's Academy Award-winning *Der Fueher's Face* (1942), in which Donald Duck dreams he is a Nazi. The Disney organization produced a great many military training cartoons.

By 1943, nearly 40 percent of the films Hollywood produced were musicals, and this percentage remained constant for the duration of the war. However, musicals had changed. They were not the 1930s "clambake shows" in which little if any plot existed except as an excuse to hold the songs together. In the 1940s musicals, the songs were an integral part of the story, and this was a format that was well received. Dark, film noir movies were popular as well.

If Hollywood was in the entertainment business, it also went into the propaganda business. In early April 1942, 45-year-old Frank Capra, formerly a famous Hollywood film director and now Major Frank Capra of the Army Signal Corps Reserve, was nervously getting ready for his Pentagon meeting with the United States Army chief of staff, General George C. Marshall. Capra was escorted to his meeting by his immediate superior, Colonel Lyman Munson, Jr., the man who had just been made head of Information Services, a unit composed of sections for news, radio, pamphlets, and film. Marshall wanted to talk to Capra alone. As the Italian-born Capra later wryly recalled in his autobiography, *The Name Above the Title, An Autobiography,* "Not being a military man, I didn't fully realize this was tantamount to a private audience with the Pope."

Capra and Munson stopped at a hall door with the sign CHIEF OF STAFF over it. Capra recalled Munson laying down the rules of the meeting: "Give your name to the guard inside ...When he says go in, walk into Marshall's door without knocking. And don't salute. If he's busy, walk over to the chair at the right of his desk and sit down. Shoot straight, Frank, and with a few words."

Capra recalled that his mouth was "cottony." He did not salute Marshall, a man he later described in his autobiography as "gray, spare ...[and physically] undistinguished." However, Capra, ever the movie director, did add that he thought Marshall "could be cast as a sad-eyed Okie watching his soil blow away."

Capra and Marshall spoke for an hour. Capra remembered it as an unnerving conversation, especially when he was told what his assignment would be. Marshall began by informing him that the United States was going to raise a citizen army of about eight million men. Although this citizen army would outnumber the regular army's professional soldiers by about 50 to one, it was the critical job of the professionals to turn these eight million uncertain rookies into soldiers. They would have to train young men who had been uprooted from civilian life and who, for the most part, had seen guns only in magazines and movies.

Most important, many of these young men were uncertain why America was in the war, so more than just training was involved. Capra recalled Marshall telling him, "They [the American citizen army] will prove not only equal but superior to totalitarian soldiers if ... they are given answers as to why they are in uniform, and if the answers they get are worth fighting and dying for. I think films are the answer, and you are the answer to such films ... I am asking you to tell our young men why they must be in

uniform and why they fight."

Capra was ordered to make a series of documented factual-information films to explain to America's soldiers why they were fighting. He had just two problems with his order. He had never made a documentary, and at that moment he was the only man in the film section of his unit. He was troubled. How could he compete with a documentary like Leni Riefenstahl's *Triumph of the Will,* a record of the Nazi Party Congress in Nuremberg in 1934 and an acknowledged masterpiece of filmmaking?

Then, in a stroke of absolute brilliance, he realized that although he could never make a better documentary than *Triumph,* he could use the film against itself by changing its soundtrack: "Where Riefenstahl had the Nazi hordes marching ... to the beat of synchronous military band music, Capra ... used the same footage to urge American soldiers on to victory over Hitler's demonic legions (Nazi knife rips into another country) ..." wrote Thomas W. Bohn and Richard L Stromgren in their book, *Lights and Shadows, A History of Motion Pictures.*

Capra, in spite of Army Signal Corps politics and considerable resistance from the Signal Corps officer bureaucracy, succeeded in making the *Why We Fight* series of propaganda films. Capra was not the only fine American documentary filmmaker. Among others, Louis De Rochemont's *The Fighting Lady* (1944) was an Academy Award-winning documentary film dealing with life aboard an unnamed aircraft carrier before and during its conflict in the Pacific.

De Rochemont was one of the pioneers in newsreel photography, and he carried newsreel techniques into his "Newsdrama of the Pacific." The carrier, the *Fighting Lady* in the film, is unidentified because of Navy wartime security restrictions, but it was the USS *Yorktown* (CV-10). At the end of the film, some of the sailors who appeared in it are introduced, but the narrator then informs the audience that they died in action after the motion picture was completed. The film received the Academy Award for Best Documentary (1944).

The powerful documentary, *The Battle of San Pietro,* directed and narrated by John Huston, who like Capra was serving in the U.S. Army Signal Corps, was uncompromising in its reality. According to *Time* magazine, May 21, 1945, "*San Pietro* is in every respect as good a war film as any that has been made; in some respects it is the best."

The film is a 30-minute record of one of the bitter and bloody battles for the Liri Valley in Italy in late 1943. It is a story told chiefly in terms of what the soldiers of one infantry regiment went through. As *Time* reported, the film has no flag waving, no claims of victories, only the grim truth that there would be just a thousand more "after shots of soldiers' dog tags nailed to rough wooden grave markers."

Library of Congress

Bette Davis and John Garfield (right) were leaders in the Hollywood Canteen entertainment effort. Actors Jack Carson and Jane Wyman (left) were among the stars who contributed their time and talents to the canteen. Here, admiring soldiers seek autographs and promotional photos.

"We see survivors smiling wearily, but the voice-over undercuts the relaxed moment," continued *Time,* which then went on to quote the soundtrack. "Many among those you see alive here have since joined the ranks of their brothers-in-arms who fell at San Pietro.... Ahead lay ... more San Pietros, greater or lesser, a thousand more."

The Army brass, unhappy with the film, complained it was pacifistic and ordered the attachment of a two-minute introduction by the commander of the Italian campaign, General Mark Clark. The uncomfortable looking Clark was photographed insisting that San Pietro was "key" to the region and that the cost in deaths "was not excessive." Huston responded to Army criticism by stating that he made the film in profound admiration for the courage of the foot soldier, but *Time* reported that he then added, "Well, sir, whenever I make a picture that's for war—why, I hope you take me out and shoot me."

The Army banned the film. Later, it also banned Huston's *Let There Be Light,* these being the only two films banned by the Army during World War II. *Time* reported that in 1945 General George C. Marshall reversed the ban, stating, "This picture should be seen by every American soldier in training. It will not discourage but rather will prepare them for the initial shock of combat."

There were two significant service-related films released after the war, both made in 1946. In *Let There Be Light,* Huston and a team of cameramen spent three months at New York's Mason General Hospital, documenting an intensive eight-week, mass production program of therapeutic treatment for what were then described as "psychoneurotic" illnesses. The first release of this poignant and stark film was suppressed by the Army until 1980, when pressure by Huston and others forced its release.

The second film, *The Best Years of Our Lives,* was an honest Hollywood effort to tell the story of three veterans struggling to readjust to civilian life. Supporting actor Harold Russell, who had lost both hands while serving in the Army, was given two Academy Awards, one as Best Supporting Actor and the other was a special award for giving hope and courage to fellow veterans. Russell had trained himself to use two hooks as hands.

On December 10, 1941, the Hollywood Victory Committee was founded. Its purpose was to provide a platform to allow stage, screen, television, and radio performers not in military service to contribute to the war effort. This contribution was made primarily by going on the road and providing entertainment to military people wherever they might be. As there was

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Legendary Undersea Warrior

The submarine USS *Rasher* proved to be the scourge of Japanese shipping in the Pacific.

BY KELLY BELL

U.S. Navy

At 12:30 AM, October 9, 1943, Commander Edward S. Hutchinson spotted his first targets as a submarine commander. His boat, USS *Rasher,* was on her maiden war cruise out of Brisbane, Australia, and every man in her was eager for his first taste of blood.

They were off Ambon when they sighted a pair of freighters that were zigzagging in antisubmarine patterns, deliberately making stalking difficult and protracted, but Hutchinson was tenacious. Throughout the night he trailed the careening targets, slowly bringing his boat within torpedo range. By the time he was able to commence his attack it was dawn. He fixed the targets in his periscope sights and fired a six-torpedo spread. Four missed, but the other two ripped open *Kogane Maru.* The 3,132-ton freighter went down swiftly while her sister ship blindly dumped depth charges that killed no one but hapless seamen who had jumped from *Kogane Maru.* With the surviving ship hurrying for shallow water and her crew doubtless radioing news of the attack and its location, Hutchinson, exultant over his first kill, turned his sub back to the open sea.

On December 20, 1942, workmen had broken the ice at the end of a ramp of greased fir tree trunks leading from the dry dock into the Manitowoc River outside Manitowoc, Wisconsin. The boat launched that sub-zero day was the U.S. Navy's Gato-class submarine USS *Rasher*. Her hull number was 269, and she weighed 1,806 tons. Her construction had commenced the previous May 4, and she was the first of 28 submersible warships constructed by the Manitowoc Shipbuilding Company during World War II. There were six 21-inch torpedo tubes opening from the forward torpedo room, and the after torpedo room brandished four such tubes. During each of her combat patrols, *Rasher* would carry 20 torpedoes.

The 39-year-old Hutchinson, *Rasher,* and her first crew were delivered to the Navy on June 7, 1943. By the end of August, all training and loading were complete and the sub embarked

Tense moments aboard a U.S. submarine stalking an enemy vessel somewhere in the Pacific are captured in *Up Periscope* by war artist George Schrieber. American submarines accounted for so much Japanese merchant shipping that they were instrumental in the Allied victory in the Pacific War.

for Brisbane for a brief refit and combat indoctrination. After these final preliminaries her next date was with the enemy.

New boats with rookie crews were usually sent to sedate sectors, but for state-of-the-art *Rasher* and her splendidly trained crew this rule was overlooked. Hutchinson and his command would steam into the Makassar-Celebes sector, which was thick with Japanese supply vessels and warships. By September 24, the last preparations were complete, and America's future premier attack submarine sallied north from Brisbane to commence hunting.

By October 13, *Rasher*'s patrol circuit brought her back to Ambon, and at 1 PM four Japanese ships chugged from the harbor while a sub-hunting floatplane circled above them. Two of the vessels were destroyers escorting for a pair of freighters, and when one of the six torpedoes Hutchinson fired at them proved defective and detonated seconds later, the destroyers were alerted to the sub's presence long before her crew had expected.

Screaming for his diving officer to head for

the depths, Hutchinson also ordered full speed to hasten the process. Passing the 90-foot mark, the Americans were thrilled by four reverberating reports as their torpedoes slammed into the 3,217-ton *Kenkoku Maru,* sinking her in 11,000 feet of water.

The destroyers commenced depth charging, but *Rasher* reached the thermal barrier where sharply differing temperatures in layers of water cause inaccurate sonar readings. Chief Pete Sasgen counted 24 hollow blasts fading away to the west as the frustrated sub hunters could not catch their quarry's scent. Two hours later the Americans surfaced to find the area deserted.

Suspecting the destroyers and surviving transport had retreated into the harbor, Hutchinson stayed put for the next 24 hours. His prey never reappeared, and the following night he received an intelligence report directing him to the shipping lanes around the Talaud island chain 550 miles to the north. An enemy convoy was expected to pass through this vicinity about October 17, and the Allied command gave it high priority.

Despite breakdowns in two of the boat's four diesel engines, the submariners arrived at the Talauds on schedule but found only small sailboats and assorted fishing vessels. If the fifth-column operatives had been right about a convoy in the area, it had apparently taken a different route. The hunting turned very poor.

It was 2:30 on the afternoon of October 31 before Hutchinson's lookouts spied a tanker's masts poking over the horizon near the Celebes coast off Watcher Island. It was an old ship but so laden with crude oil that its decks were almost awash. Again a worrisome floatplane buzzed overhead, so the hunters trailed about seven miles behind their quarry for 5½ hours until the plane had to depart to refuel.

The ship was evidently headed for the Japanese-held port of Manado, and before it rounded the Minahassa Peninsula, Hutchinson lined up his aft tubes and fired three torpedoes at 10:04 PM. Two minutes and 29 seconds later, two of the warheads impacted and blew the rusty oiler into a spectacular petroleum conflagration. The vessel turned out to be much smaller than the skipper had estimated. The late *Koryo Maru* had weighed just 589 tons but had been loaded with the most highly prized cargo afloat.

The hunters now headed north to just above the equator and the Balikpapan-Truk-Palau shipping lanes. On the afternoon of November 8, Hutchinson was in the conning tower making a standard periscope sweep when he noticed a column of smoke and a tall mast on the horizon. Barking orders to his men, he kept the target in

All photos: National Archives

ABOVE: The pennant of the USS *Rasher* records a litany of destruction. BELOW: USS *Rasher* plows through the Pacific Ocean at flank speed in preparation for another war patrol. During the course of the war in the Pacific, *Rasher* sank 18 enemy vessels and accounted for nearly 100,000 tons of shipping.

sight as he maneuvered his boat into position for a stern attack. A spotter on the tanker's deck trained his binoculars directly on the approaching periscope but somehow overlooked it. An escorting patrol boat was churning about 2,000 yards to the oiler's port side, but Hutchinson gave it little thought as he aligned his ship and shot three torpedoes from 13,000 yards. Two of the fish hit and blew off the old tanker's stern. It was the 2,046-ton *Tango Maru.* Unfortunately for the hunters, this victim had been empty and there was no roiling bonfire to punctuate her passage. The submariners would not have had time to watch anyway.

The patrol boat had been just 1,000 yards from the sub when the torpedoes exploded, and this time the periscope was seen. Bearing down on the raider at full speed, the ship began unloading depth charges before the Americans could reach the temperature gradient. Although some of the bombs went off close enough to rattle the sub, none were near enough to damage her. By 6:39, Hutchinson felt secure enough to surface. He found the seascape serenely empty.

Late that night the submariners sighted three more ships in the Makassar Strait and immediately set out after them, but, at 1AM on the 9th, another vessel popped up on a course approaching the other three and converging on *Rasher.* Hutchinson had been sweeping around in a wide arc to attack the targets broadside, but to continue on this course would bring the newcomer alongside him. If he torpedoed the new arrival, his primary prey would be warned and escape. He elected to abort his end run and change course to approach the original targets in a risky, high-speed surface charge.

Turning around, *Rasher* advanced straight on the unsuspecting merchantmen in the bright moonlight while her men primed their last six torpedoes. As the attackers bore in, the victims inadvertently made the attack easier by swerving 45 degrees left, positioning themselves on either side of the submarine, and making for easy simultaneous bow and stern shots. At 1:22 AM, the sub spat out four missiles from her fore tubes and two from the aft. Seconds later, the right-hand cargo vessel fired a signal flare to alert the escorting destroyer that something was afoot. Someone had seen either the torpedo wakes or the periscope, and the destroyer swung around to counterattack. A handful of randomly dropped depth charges went off far from *Rasher.* It was a fair swap—all six torpedoes missed. It was time for Hutchinson to head for port.

Following his productive cruise on *Rasher,* Hutchinson was promoted to command of Submarine Squadron 22. Lt. Cmdr. Willard R. Laughon took Hutchinson's place. Thirty-nine-year-old Laughon was fresh from antisubmarine patrol duties off Bermuda.

Following extensive drilling to help Laughon and his crew, many of whom were newcomers as well, mesh into a smoothly operating unit, *Rasher* weighed anchor on December 19 with orders to lay a minefield in the shipping lanes off Indochina's Mekong Delta. Following this assignment, she was to commence a normal hunting patrol.

Late on the night of January 3, 1944, Laughon eased his boat into the shallows off the Indochinese coastal island of Poulo Condore and set out 11 magnetic mines. As the Americans moved back toward deep water, they received a message from the cryptographic section.

Counterintelligence had learned of a convoy heading north from Singapore. It was expected to pass through *Rasher*'s current patrol area around 6 PM on the 4th. Laughon was ordered to rendezvous with sister sub *Bluefish* and await the approaching tankers. The subs found each other with little difficulty, and Laughon and *Bluefish* skipper, Commander George Porter, laid plans to assail the convoy simultaneously from both sides.

The sea hunters located their quarry right where they had been told to expect it, and

Laughon immediately bore in from the right and fired three torpedoes at the third ship in line. Seconds later, *Rasher* was rocked when one of the fish exploded prematurely just 400 yards into its run. Japanese sailors instantly opened up a wild barrage with deck guns. As Laughon whipped his boat around to bring his stern tubes to bear, he heard blasts behind him as Porter attacked another ship from the port side.

In the gathering darkness it was difficult to draw a bead on the frantically maneuvering targets. Unable to get a firing angle for his aft tubes, Laughon turned toward his intended and charged. At this point, one of the oil-glutted ships exploded in horrific splendor. It was the one *Bluefish* had shot, and it seemed at least one of *Rasher*'s initial volleys had hit.

As Laughon positioned to finish off the cripple, the presumably undamaged, 10,000-ton *Kiyo Maru* suddenly cut in front of him. In his confusion, this vessel's helmsman set his ship up for destruction. *Rasher* launched a half dozen torpedoes at the fat target and again was jolted as two more faulty warheads detonated within seconds. Two minutes and 27 seconds later, one of the four operative torpedoes slammed into the tanker.

Surfacing, Laughon saw a tanker bolting south at full speed. Yelling for all-ahead, he set out to attempt to pull ahead of the oiler, turn, and fire from broadside in the classic end-around attack stratagem.

Passing the blazing *Hakko Maru,* hit minutes earlier by *Bluefish, Rasher* reached her desired position and swung around to line up her aft tubes. After firing four torpedoes from 1 1/2 miles, the submariners listened intently. Seconds later, two of this spread exploded prematurely, but not quite two minutes after that the other pair struck squarely. The unfortunate tanker went up like a Roman candle, hurling burning crude oil and shreds of the vessel's hull hundreds of yards in every direction. Twenty minutes later, nothing was left on the surface except a burning oil slick.

It turned out this vessel had been the same *Kiyo Maru* that *Rasher* had hit moments earlier. The damaged ship Laughon had almost torpedoed had been Porter's sinking kill, *Hakko Maru,* which in the gloom Laughon mistook for *Kiyo Maru.* A third tanker in this strangely unescorted convoy escaped after taking *Rasher*'s first shot.

After a brief conference in which they compared notes and confirmed each other's kills (Porter's *Hakko Maru* was 6,046 tons), the skippers declared the chaotic, profitable engagement finished.

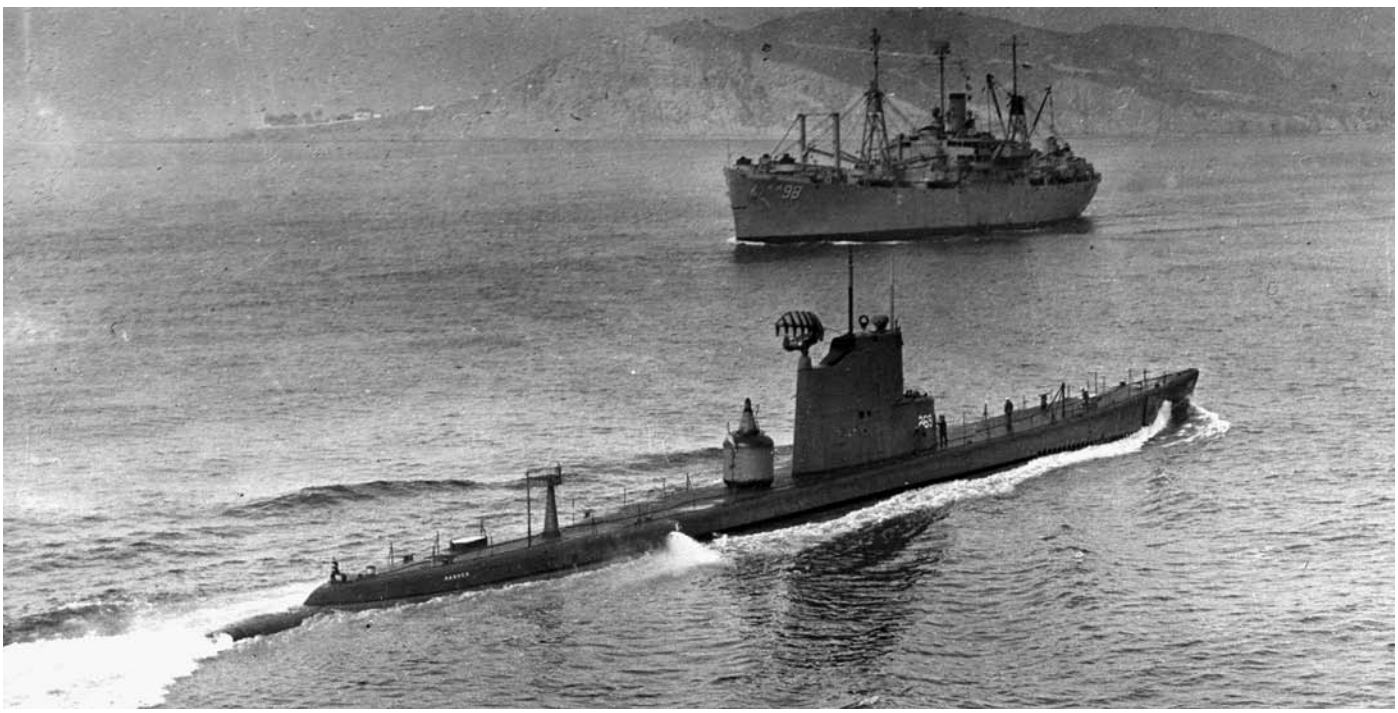
Late on the night of January 11 Laughon missed with a four-shot spread fired at a small freighter convoy off Phan Rang. One of the fish exploded so soon after leaving the tube that the concussion broke lightbulbs in the sub and knocked paint chips from the superstructure.

Because the mines had taken up so much room, *Rasher* had been unable to carry a full inventory of torpedoes on this patrol and now had just one left. When the skipper informed COMSUBPAC (Pacific Submarine Command) of the situation, he was ordered back to Fremantle, Australia. In Buton Passage on the evening of the 17th, Laughon fired his last shot at a 10,500-ton Aikoku-class cargo vessel, and this torpedo exploded only 20 seconds after firing. On January 24, *Rasher* docked in Fremantle's harbor.

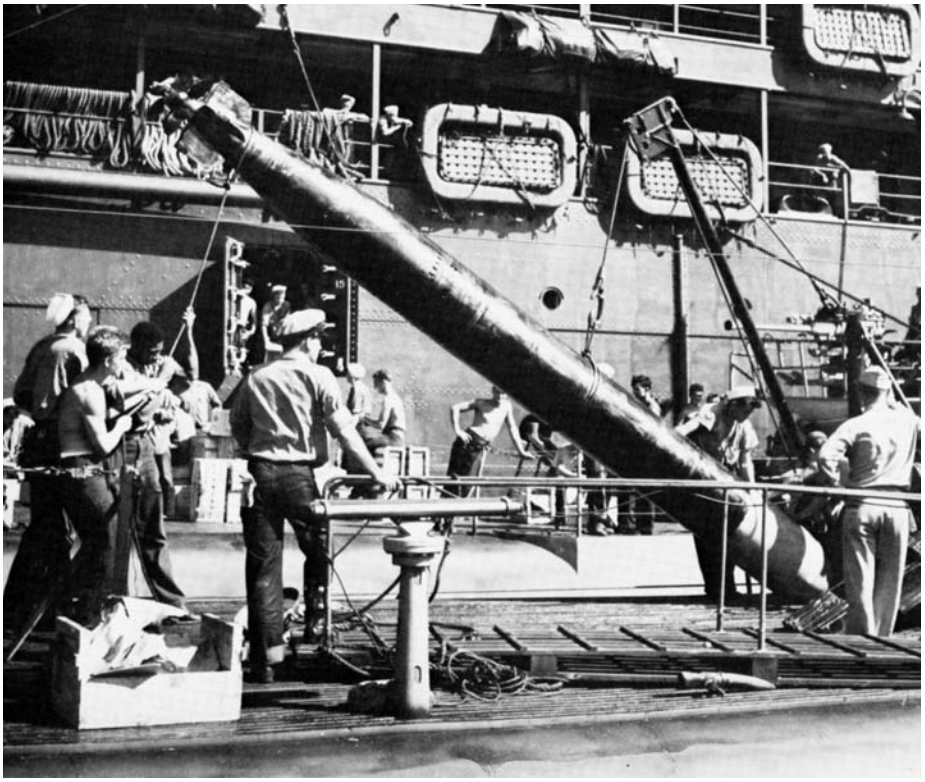
While his crew rested and his boat was serviced, Laughon learned his next tour was for the Surabaya-Ambon lanes north of Bali. After patrolling there, *Rasher* was to shift her attention to the Celebes Islands, north to the Talaud chain, returning via the Molucca, Ceram, and Banda Seas. Subs returning from these sectors reported few unescorted targets and that Japanese destroyers were doing a better job of anti-submarine attacks. Also, there had been a noticeable increase in air patrols.

This perilous situation was one Laughon would have to expose his crew to even more than normally, for he was instructed to also photograph convoys, their escorts, and coastal fortifications. On February 19, *Rasher* set out on her third war cruise armed with new, improved Mark-14 torpedoes.

On the 24th, Laughon received instructions to rendezvous with the submarine *Raton,* commanded by Lt. Cmdr. James W. Davis, and search the Raas Strait for a pair of supply ships



The highly successful submarine USS *Rasher* cruises on the surface of the Pacific as a U.S. Navy support vessel steams nearby. *Rasher* compiled an impressive record in combat against the Imperial Japanese Navy and the Japanese merchant fleet.



Using a crane to lower a torpedo through their submarine's forward torpedo hatch, U.S. submariners position the weapon to be moved onto a skid with rollers and then along a track to storage racks or directly into a torpedo tube.

that were expected there on the evening of February 25. Early that morning, *Rasher* and *Raton* met. After making plans to cooperate, they commenced hunting just before 5 PM.

At 5:30, lookouts aboard *Rasher* spotted the masts of the cargo carriers. As he worked his way ahead of the ships, Laughon radioed Davis to inform him of the convoy's position. Moments after 7 PM, *Rasher* shot four improved torpedoes at the lead target an instant before slewing to the right to set up on the second mark. By the time her killer was on this new heading, the 6,200-ton target had been ripped wide open. Four minutes later she sank. Like an earlier victim of this sub, her name was *Tango Maru.*

Meanwhile, Laughon was receiving a transmission from *Raton,* informing him that Davis was ready to help out in any way needed. *Rasher* and her men needed no assistance as they lined up on 4,797-ton passenger-freighter *Ryusi Maru* and fired four more fish. One impacted amidships, a second under the stack, and a third blasted open the stern. *Ryusi Maru* was seriously overloaded, her Plimsoll line well under water. Weighty and savaged as she was, it is surprising she took six minutes to sink.

A couple of small patrol boats had been escorting the freighters, and they now searched for survivors in the heavy seas rather than trying to attack the Americans. The subs did not interfere with the lifesaving operation and steered off in different directions after Laughon delightedly radioed an apology to Davis for "hogging the show."

The next morning, *Rasher* arrived off Cape Mandar and steered through the Makassar Strait at a leisurely clip. There was little to see for almost a week, but on the evening of March 2, the surfaced submarine passed through a flotilla of small fishing boats whose crews evidently reported her to the Japanese.

Bombers began appearing the next morning. The first one did not see *Rasher* as her radar man gave enough warning to dive to safety before the warplane appeared, but the next one, at 9:54 AM, slipped beneath the radar beam by skimming the waves at 300 miles per hour.

Within 30 seconds, the sub was under and plunging. Two bombs exploded far above her as she passed 120 feet. Laughon wondered if the planes might be covering ship movements. About an hour after the second bomber's pass, *Rasher* surfaced and her men broke out binoculars.

Sharp-eyed Seaman First Class Robert Cashel spotted a thin column of smoke on the western horizon at 11:50 AM. Freighters were heading southeast, presumably to deliver arms, ammunition, and sundry supplies to the Japanese garrison on the Minahassa Peninsula. Submerging his boat, Laughon ordered full speed in hopes of cutting off the convoy, which had three escorts. The end-around worked, and the Americans caught up with two rows of freighters with a torpedo boat on each side, and one trailing. Overhead was a twin-engine Mitsubishi Ki-21 "Sally" bomber.

Approaching from port, Laughon was dutifully snapping photos through his periscope when the targets abruptly veered south. He later wrote in his report that he surmised the enemy had received news of *Rasher*'s sighting by the planes earlier in the day. The sub was still 8,000 yards from the ships, and it was unlikely it had been spotted.

Turning south with his targets, Laughon waited for dark when the bomber departed to refuel. The hunters surfaced and headed for the convoy at 17 knots but were spotted by gunners on one of the transports and bracketed in a hail of shellfire from the port escort as it peeled off to attack.

The boat chased *Rasher* 10 miles before turning back. *Rasher* was right behind her. Laughon's radar had malfunctioned, so he decided to barge directly into the fleet in a surprise assault.

Covered by darkness, the Americans cheekily charged to 1,500 yards from the nearest ship, fired three torpedoes, turned right, and fired three more at the following vessel. As the first spread smashed home, Laughon swung his boat to line up her stern tubes on a third target, but she was too close. The stricken vessel was a troop carrier with masses of panicked soldiers spilling over her railings, and the ship Laughon had hoped to drill next was advancing on him under full steam. She was just 600 yards away and closing. Worse, one of the escorts was on the way, her searchlight playing madly over the dusky, churning seascape.

The second torpedo salvo had missed, but there was no time to worry about it as the ponderous transport bore down on the sub. "Take her deep! 300 feet! Flood negative!" rasped Laughon. The massive steamer's crew were rolling depth charges from her decks, and the escort was joining in the barrage. The bombs began detonating as *Rasher* passed 180 feet, rattling her but doing little damage. Moments later, she was under the thermal barrier and the infuriated Japanese were dropping their charges on sonar ghosts. The corpse of the 6,484-ton *Nittai Maru* passed *Rasher* en route to the bottom.

By midnight, all was clear topside, and Laughon surfaced his boat. Passing through a flotilla of lifeboats filled with sodden Japanese infantrymen whose comrades had been too

panicky to rescue, the submariners headed for the shipping lanes off Balikpapan, where Laughon thought the convoy might be bound.

The Americans found the convoy right where they expected it and aimed two missiles at the closest ship at 3:02 AM on March 5. There were still bugs in the works, and both torpedoes ran too deep, streaking harmlessly under the target. The freighters' crews were still unaware they were under attack, so Laughon turned his back and shot four properly functioning missiles from the after tubes. At least two fish hit, setting off the same pandemonium as the night before.

Plowing through the blazing chaos of explosions, screaming men, and hammering deck guns, *Rasher* moved clear and loaded her last four rounds, easing back into the combat perimeter where she was opened up on by two escorts. Laughon hurriedly drew a bead on a third ship, fired the final missile quartet from long range, and bellowed for a withdrawal. A full four minutes later the Americans heard four distinct warhead detonations.

By 6:30, *Rasher* was clear of pursuers and received a radio message to return to Darwin for reprovisioning and a quick return to her hunting grounds. While in port the crew were infuriated to learn that since they had not actually seen their victims of the March 5 attacks sink they would not be awarded kill credits for this engagement.

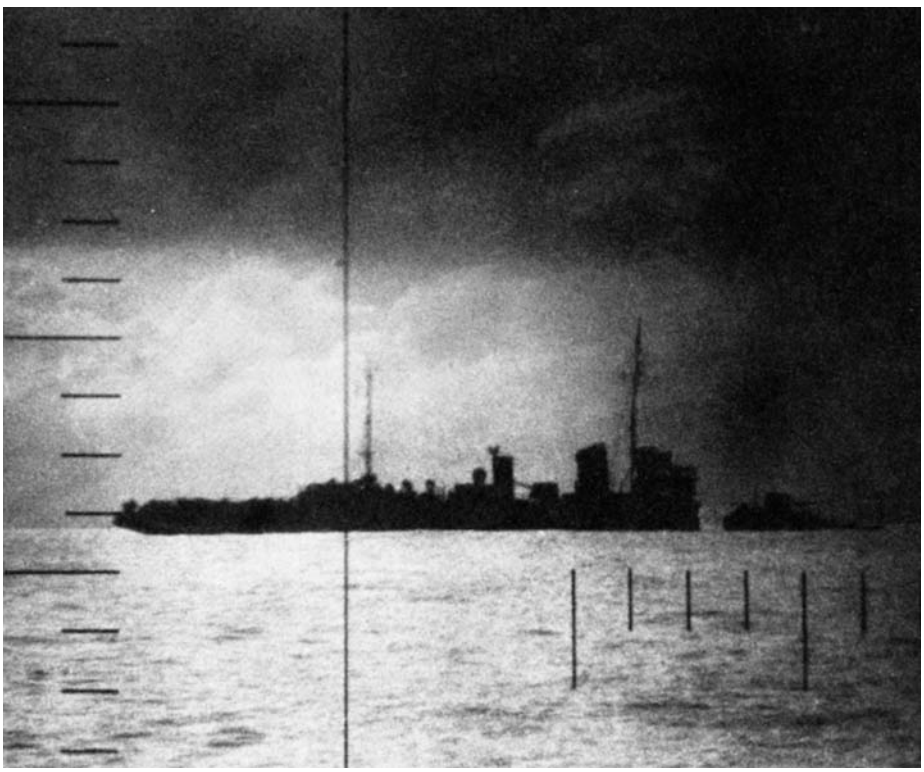
By March 9, the sub was again outbound. She had just passed the barrier islands bordering Timor when a crucial radio message was received. Navy codebreakers in Hawaii suspected that Admiral Mineichi Koga was assembling a task force of aircraft carriers, battleships, heavy cruisers, and destroyers at Surabaya, Java. U.S. Admiral Ralph Christie was concerned that, being just 1,000 miles from the Australian mainland, this new anchorage was the last stop before a possible attack on Fremantle-Darwin.

Christie ordered Lt. Cmdr. Chester Nimitz, Jr., son of the Pacific Fleet's commander in chief, to patrol the approaches to Lombok Strait in his sub, *Haddo,* and watch for a major sortie. Nimitz's radar picked up several large ships at long range, but *Haddo* was unable to pull within visual range.

Laughon was ordered to turn west and take up a position above Lombok Strait in case Koga's fleet came that way. If it did, *Rasher* was to fire a few shots and then sound the alarm. By March 12, Laughon and his sub were at their post.

They spent the next two weeks dodging swarming antisubmarine air and sea patrols, and on the 19th uncorked a four-torpedo spread at a Japanese sub. All four missed, and both boats hastily quit the area before things got testy.

There was still no sign of Koga's armada, but on the morning of March 27 sonar detected a distant line of vessels. It was not the anticipated task force, but a four-ship freighter convoy escorted by four minesweepers. Sandwiching the zigzagging targets between *Rasher* and Panerungan Besar Island, Laughon approached with his standard resolute aggression and fired six torpedoes at the first two ships in the line. One missile hit the first vessel, 2,750-ton *Nichinian Maru,* just behind her stack. Thirteen seconds later three more torpedoes mortally wounded the second target. At this point, *Nichinian Maru*'s cargo of ammunition ignited and blew her to bits. The other vessel went under about an hour later.



Shot through the periscope of an American submarine, this photograph records the final moments of a Japanese patrol craft torpedoed off the coast of Formosa. Often, submarines were obliged to fire their torpedoes at a target and make a hasty getaway rather than linger to observe the results of their work.

After the escorts fruitlessly depth charged, Laughon crept close in an attempt to snipe at the remaining pair of freighters, but three bombers suddenly appeared, and the submariners prudently backed off and made their escape through Lombok Strait.

Despite seemingly incontestable proof via photographs taken through the periscope that *Rasher* had scored two kills in this encounter, postwar research based on intercepted Japanese radio traffic credited Laughon and his crew with sinking only one ship, the *Nichinian Maru,* in this battle.

On March 29, the hunters were delighted to be ordered back to Fremantle. The Koga crisis never materialized. When the Allies assaulted the Marshall Islands, Koga abandoned any plans he may have had for attacking Australia, ordering his forces to forsake their bases on Truk and relocate west.

Before the next patrol started, Laughon was instructed to move his boat to Darwin for final preparations. On May 8, she weighed anchor and steamed north into her favorite hunting grounds.

Two days later, Laughon deftly slipped his boat into the middle of a convoy off Buru. He drilled two torpedoes into a tanker and one into her escort, setting the oiler ablaze and crippling her guardian. Still, so many of Rasher's torpedoes missed in this shootout that she was out of them by the time it was over. Although the tanker, 1,074-ton Choi Maru, did not sink, her vital cargo of crude oil burned to the last drop.

Following what his crew called the Battle of Buru, Laughon received wireless instructions to open sealed orders. He was to take up a position in the Java Sea off Surabaya. Warplanes from the carriers USS *Saratoga* and HMS *Illustrious* would be making an attack on Surabaya on the 17th, and *Rasher* was one of eight sub-

marines detailed to stand by and pick up downed airmen.

No planes went down in *Rasher*'s area, and after the raid she was ordered back to Darwin for fuel and ammunition. She arrived on May 21, and set out again the same day on a foray through the Molucca Passage.

On the evening of the 29th, right after spectacularly popping open the 2,601-ton, gasoline-laden freighter *Anshu Maru, Rasher* received a critical message. Sister subs *Bluefin* and *Cabrilla* had discovered a large Japanese task force headed for the island of Biak, which General Douglas MacArthur's forces were desperately trying to wrest from the Japanese. If the Allies could take Biak, they would have a precious base for their bombers that was just 600 miles from the Palaus chain. Laughon set course for the Talaud Islands, which were on the fleet's last reported heading, but found nothing. On June 2, he was ordered to Davao Gulf and late that night came across part of the flotilla.

The Japanese were moving too fast for *Rasher* to get in range, but Laughon's wireless report killed the suspense as to the fleet's whereabouts. Then the rest of the Biak-bound attack group appeared. Laughon again sounded the alarm, and was sighted by the warships. Realizing the essential element of surprise was gone, the Japanese gave up on the operation and returned to Mindanao. *Rasher*'s mere presence had helped to assure victory on Biak.

The submarine returned to the Celebes Sea. On the afternoon of June 8, the crew celebrated the first anniversary of their submarine's commissioning by sinking the 4,000-ton tanker *Shioya Maru*.

On the 14th, *Rasher* sprayed torpedoes into another Celebes convoy, sinking the 3,183-ton transport *Koan Maru*. At noon the next day, Laughon put his last two missiles into what he thought was the 5,072-ton *Kizan Maru* outside Ambon Bay, then dove to escape the pair of sub chasers escorting her. Just before the depth charges started going off, the Americans heard a protracted, rumbling explosion that led them to assume they had polished off another victim, but when they later surfaced they were mystified to find nothing on the rain-lashed surface.

Despite the whole crew hearing the torpedoes explode, followed by what sounded like a magazine or a fuel hold blowing up, Laughon decided to not claim a kill in this latest engagement. On June 23, *Rasher* arrived at Fremantle.

Christie was unwilling to risk his prized hunter on another patrol, so he detached Willard Laughon from *Rasher*'s complement and assigned him to the staff of the 7th Fleet's Submarine Command. Laughon arrived at his new posting a celebrity, having commanded one of the most famous subs in the Pacific.

Rasher's new skipper was veteran submariner Commander Hank Munson. With two Navy Crosses from earlier action in submersibles, he was the sort of fire-eating leader this untouched crew needed. His performance would be devastating on the coming patrol.

As Japan's war fortunes steadily soured, U.S. subs ranged ever closer to the Home Islands in search of a shrinking assortment of targets. With the Allied invasion of the Philippines looming, *Rasher* and *Bluefish* were ordered to the South China Sea off Luzon.

Traveling separately, the subs embarked for their hunting grounds on July 29, 1944, arriving August 4. As soon as he reached the rendezvous point (*Bluefish* arrived a few hours later), Munson found a juicy target in the 4,739-ton passenger-cargo ship *Shiroganesan Maru*. He approached by cutting just 700 yards directly in front of two sub chasers escorting the target. This maneuver was so brazen the Japanese were not watching for it. Drawing a bead from perfect right angles at 1,350 yards, Munson fired a half dozen fish, then dove to escape in advance the coming depth charging. The undersea mariners heard five distinct hits followed by the metallic screeching of a ship breaking up. Moments later, *Rasher* was almost lost through human error.

A rookie torpedo man held two of the forward torpedo room's poppet valves open too long after the missiles were launched, and seawater instantly cascaded into the boat's fore. Dangerously front heavy, *Rasher* nosed over and commenced an almost vertical plunge into the mile-deep South China Sea basin. Designed to safely go no deeper than 312 feet, she dove to almost 500 feet before her men were able to level her via precise pumping and blowing.

On August 8, *Rasher* and *Bluefish* joined forces. Munson and *Bluefish*'s skipper, Commander Charles Henderson, laid plans that would make this cruise one of the greatest Allied naval victories of the war. First the pair of sharks had to weather a week-long typhoon. The tempest finally began to clear on the 17th, and Munson received a radio report of a large convoy headed his way from the north. Before contact could be made, the weather closed in again, making searching doubly difficult, but at 10:09 PM radar detected the quarry.

A two-column flotilla of more than 20 Japanese ships was headed directly at *Rasher* (she had become separated from *Bluefish* during the storm). Through a moonless downpour, Munson bore in, swung around, and fired two stern torpedoes into a gasoline-filled tanker that erupted into a blinding, 1,000-foot fireball. As escorts opened confused salvos on empty ocean and each other, Munson lined up on the biggest target on his radar screen, shot his six bow tubes at her, swapped ends, and fired four after missiles at the next largest, then pulled back to watch the results.

In perhaps the most productive single torpedo volley fired by any submarine in history, three of the torpedoes from the fore tubes smacked into their mark and set her alight. This first spread's fourth shot missed its target, but seconds later lucked into an unseen ship beyond the first one. Moments after this, three of the aft fish plowed into the starboard hull of the aircraft carrier *Taiyo*. The last stern tor-

FRIENDLY FIRE NEARLY SANK THE SUBMARINE USS *RASHER*.

On the night of November 9, 1943, an Imperial Japanese Navy patrol boat spotted the submarine USS *Rasher* just south of Sabang Point, Celebes. When the enemy scattered flares in the sky above the Americans, they illuminated not only *Rasher,* but also a Japanese sub to her starboard. The Japanese vessels opened up with 40mm guns, and Commander Edward S. Hutchinson's engineers went to work squeezing every ounce of power from *Rasher*'s engines. Churning along on the surface at 20.5 knots, *Rasher* soon outdistanced the other submarine and held steady four miles ahead of the patrol craft for two hours. Only when they neared the dangerous waters off Cape Laga did the Japanese give up the chase.

Dodging patrol boats and destroyers, *Rasher* made it to the Allied submarine safety zone off western Australia on the morning of November 24 and was promptly attacked by a Navy Black Cat PBY-4 Catalina flying boat, whose overzealous young crew did not respond to the submariners' recognition flares and radio signals, instead dropping four 500-pound bombs on their enraged comrades.

The charges missed. Had they struck *Rasher,* the submarine's own countrymen would have tragically accomplished a feat the Imperial Japanese Navy had proven unable to do during more than two years of combat in the Pacific. □

pedo missed the carrier but hit another previously unnoticed vessel behind *Taiyo*. Munson later described the escorts as "rushing around like rats in a cage," as their crews searched for what they may have thought was more than one sub.

Taiyo sank like an ax head, and at 11:27 another line of supply vessels blundered into Munson's path. He fired his last four bow missiles at the leading ship, turned and shot the final pair of stern fish at the second vessel. Three of the fore torpedoes hit their mark, an ordnance ship that exploded with such violence it illuminated the storm-lashed Luzon coast like midday. The fourth bow shot malfunctioned, veered right, and caught a transport 1,400 yards beyond the late ammunition carrier. The after torpedoes drilled a big cargo ship following the first one hit.

By this time *Bluefish* had drawn in range of the now scattered convoy and attacked two tankers that crossed her path while fleeing from *Rasher*. Also, the American sub *Spadefish* had been monitoring Munson's radio transmissions and had hurried to join the fray. She sank a troop transport chased past her by *Rasher*.

At midnight, Munson prowled his boat back to the scene of the first shots to see if any targets remained. The ship struck by his final bow shot was limping south with an escort. Munson tracked them on radar until the transport disappeared from the screen, presumably sinking. The vessel hit by the two stern torpedoes escaped sinking by grounding herself on a nearby beach. Passing clumps of oil-coated Japanese sailors clinging to overturned life rafts, Munson tracked two more of his cripples as they headed for Port Curimao's seashore. He hoped to finish them with his deck guns before their skippers could run them aground, but with dawn approaching he refused to become greedy and turned his killer shark for the open sea. The stormy night was over and had brought a great victory for the Americans.

The unfortunate convoy had been designated HI-71 by the Japanese and was effectively destroyed by the *Rasher*-led attack. The few ships not sunk or crippled turned back, never making it to their assigned destination in the Philippines. The fighting would have been terribly prolonged had the huge haul of soldiers, weapons, fuel, aircraft, and ammunition been delivered.

At the time the submariners did not know the identities of the victims of their devastating nighttime assault. Postwar research fixed *Rasher*'s kills for the night of August 18-19, 1944, as the 20,000-ton *Taiyo*, 17,537-ton passenger-cargo ship *Teia Maru*, 9,849-ton oiler *Teiyo Maru*, and the ship that ran aground off Port Curimao as the 542-ton freighter *Eishin Maru*. *Rasher* and her crew sank at least 52,667 tons on this patrol, if the August 6 destruction of *Shiroganesan Maru* is included. During that fiery night the Japanese also lost the 6,500-ton tanker *Hayasui* to *Bluefish*, and the 9,589-ton troop carrier *Tamatsu Maru* to *Spadefish*. During the four-hour torpedo attack the Americans sank a minimum of six ships totaling 64,017 tons and put several more out of commission.

It was the sort of heroic productivity *Rasher* had been part of since her arrival in the Pacific, but it was to be a magnificent finale. After her Philippine Sea combat extravaganza, she made her way to San Francisco to be dismantled and rebuilt literally better than new. She later went on a sixth war cruise under Commander Ben Adams, and a seventh and eighth under Commander Charles Nace, but scored no more kills on the target-bereft ocean she had helped clear of the Japanese enemy. Her confirmed tally at war's end was 18 ships sunk totaling 99,901 tons. Her actual score was almost certainly greater since several of her victims likely went under but were never verified. Other quarry were damaged beyond repair.

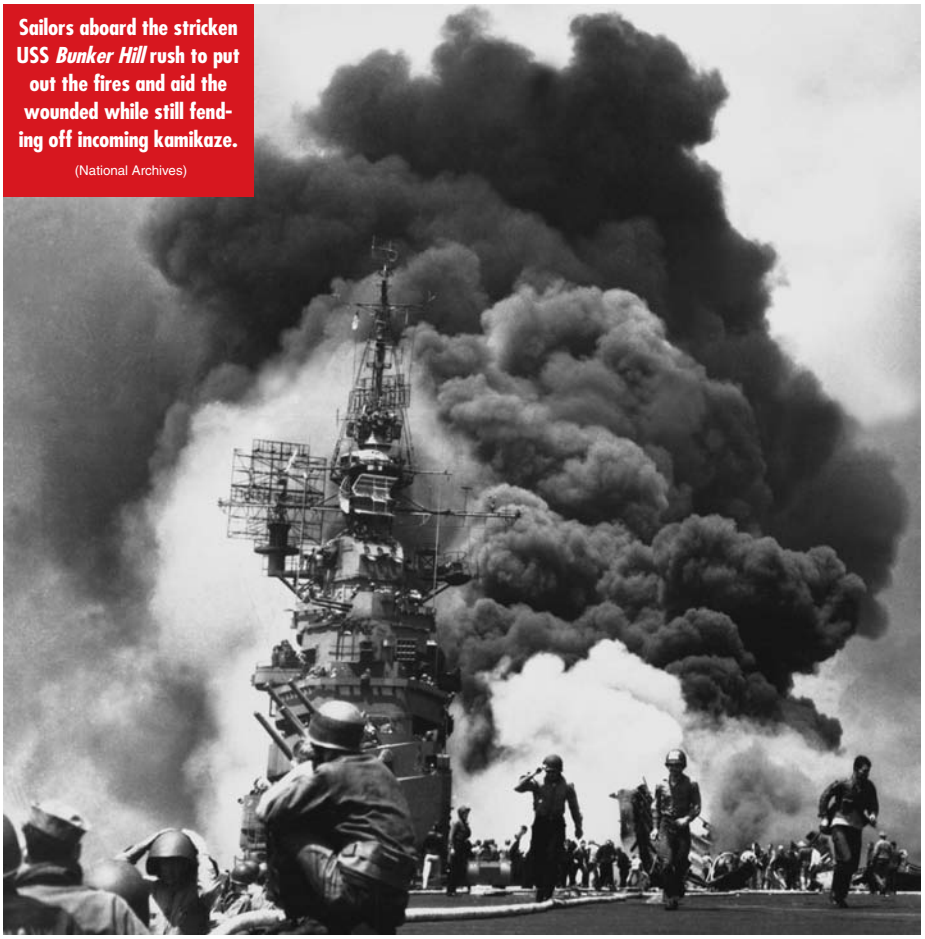
Rasher was as sleek and beautiful as she was deadly. Her men loved her, but her demise was much less than she deserved. Relegated to auxiliary and training duties in peacetime, she was eventually decommissioned, cut up, and sold for scrap in 1971.

At least the legacy of this remarkably successful submarine survives. Soldiers of all callings need only to look back on her chronicle for the kind of inspiration that will take them above, beyond and, sometimes, below. □

Working from his home in Tyler, Texas, author Kelly Bell has been writing professionally since 1981. Specializing in military history, he has contributed to a number of publications. He is a former newspaper staff writer.

From October 9, 1943, through August 18-19, 1944, USS *Rasher* and her crew were responsible for confirmed sinking of 18 ships totaling 99,901 tons. It was a remarkable record for a single submarine.

By Mason B. Webb

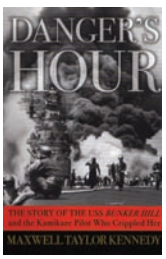


Sailors aboard the stricken USS *Bunker Hill* rush to put out the fires and aid the wounded while still fending off incoming kamikaze. (National Archives)

Ordeal of the USS *Bunker Hill*

A new book chronicles the struggle to save the stricken aircraft carrier and the mission of the Japanese kamikaze pilot who gave his life in an attempt to sink her.

AT EXACTLY 9:58 AM, ON MAY 11, 1945, A JAPANESE KAMIKAZE PILOT NAMED Kiyoshi Ogawa radioed his base 350 miles away that he had spotted the American fleet lying off the coast of Okinawa. With Ogawa was a formation of 18 dive-bombers, all of the other pilots either eager, or resigned, to die for the emperor in a suicide mission.



Pushing his plane into a steep dive, Ogawa aimed for an aircraft carrier—the base of the vital island structure in the center of the USS *Bunker Hill,* which held Admirals Marc Mitscher and Arleigh Burke. Ogawa's last radio transmission was, "Now I am nose-diving into the ship." Seconds later, tearing through a blizzard of heavy antiaircraft fire, he loosed his single bomb onto the flight deck and then he and his plane rammed at high speed into his target, killing himself and dozens of Americans aboard the ship. The carrier was instantly engulfed in smoke, flame, and flying debris.

In *Danger's Hour: The Story of the USS Bunker Hill and the Kamikaze Pilot Who Crippled Her* (Simon & Schuster, New York, 2008, 515 pp., photos, bibliography, index, hardcover, $30.00) author Maxwell T. Kennedy recounts the story of the kamikaze pilot and the stricken aircraft carrier.

Although badly damaged, the *Bunker Hill* stayed afloat and continued to battle the swarms of suicide planes with her antiaircraft weapons while other sailors worked to fight the fires and aid the wounded whose burned and mangled bodies were scattered everywhere.

In an act of extreme courage, the captain of the cruiser *Wilkes-Barre* pulled alongside the crippled carrier to assist in fighting the fires and bring aboard the injured.

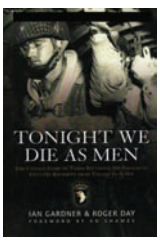
For hours the *Bunker Hill* burned and threatened to explode, but still the rescue and fire-fighting efforts went on. Only through the unparalleled courage of hundreds of men at the risk of their lives was the *Bunker Hill* saved from sinking.

Yet the carnage was staggering. The kamikaze attack—the single most destructive suicide mission of the war—took 393 American lives and wounded more than 250 others.

In *Danger's Hour,* drawing upon years of research and firsthand interviews with both American and Japanese survivors of the devastating aerial assault, Kennedy has crafted a superb, pulse-pounding account of the attack, the months that led up to it, and the tragic aftermath.

This is an absolutely stirring book that should be on every collector's bookshelf.

Tonight We Die As Men: The Untold Story of Third Battalion, 506 Parachute Infantry Regiment, from Toccoa to D-Day, by Ian Gardner and Roger Day, Osprey, Oxford, UK, 2008, 350 pp., photos, bibliography, index, hardcover, $27.95.



Taking their title from a brief prayer by 3rd Battalion commanding officer Lt. Col. Robert Lee Wolverton (who would be killed during the early morning hours of D-Day) said shortly before boarding a C-47 "Skytrain" aircraft for the flight to Normandy, Gardner and Day have produced a highly detailed study of one battalion's harrowing first weeks fighting in France.

As Ed Shames, a veteran of the 506th, writes in the foreword, *Tonight We Die As Men* is "the most detailed history ever written about

You deserve a factual look at . . .

Israel's Defensive Response to Gaza

Was Israel using "disproportionate force?"

Having absorbed over 10,000 rockets aimed at its towns and cities and having issued innumerable warnings, Israel finally decided to defend its citizens. It bombarded Gaza by air and by sea and ultimately invaded it. The "world community" is concerned and enraged about Israel's having used "disproportionate force" in its response. Is that a valid complaint?

What are the facts?

Some History: In order to understand what is happening, some historical review is in order. Israel captured Judea/Samaria (the "West Bank") and the Gaza Strip in June 1967, in a defensive war against three Arab states. Since then, Israel signed peace treaties with Egypt and with Jordan. It has returned the vast Sinai to Egypt. Attempts at peace with Syria have been unsuccessful so far. Although there have been many attempts to make peace with the Palestinians, Israel's most immediate neighbors, that has until now proven to be elusive. There have been any number of "interim" agreements, but a final peace agreement covering all aspects and all demands has not yet been reached.

> "Before [peace can be attained] terrorist Hamas must be totally eliminated."

With the concurrence and support of the US and of Israel, the Palestinians installed a Palestinian Authority (PA) to represent and to govern them. In order to move the peace process forward, former Israeli Prime Minister Ariel Sharon decided to unilaterally disengage from Gaza. It was a very difficult and wrenching decision because 9,000 Israeli citizens who had been living there for generations had to be evacuated. Twenty-one communities had to be dismantled. Since then, there is absolutely no Israeli presence – civil or military – in Gaza.

In June 2007, Hamas wrested control over the Gaza Strip from the PA in bloody fighting. Hamas, classified as a terror organization by the United States and by most civilized nations, is openly dedicated to the destruction of Israel and for "carrying the banner of Allah over every inch of Palestine." Immediately after seizing power, Hamas began to fire rockets into Israel. It is estimated that so far close to 10,000 rockets have been launched, 3,000 alone in 2008. Even one rocket would be considered an act of war by any country. Constant barrages of rockets on Israel by Hamas are obviously intolerable. If a neighboring country would fire rockets against our cities we would respond with massive force. And that is exactly what Israel is doing.

Was Israel's Response Disproportionate? Article 51 of the UN Charter is quite clear that any nation has the right to engage in self-defense against armed attack. The response has indeed to satisfy the principle of proportionality. But it is not correct to claim that Israel has violated that principle by killing more Hamas terrorists than the number of Israelis killed by Hamas rockets. There is no legal equivalence between the deliberate killing of civilians, which is what Hamas is doing by lobbing its rockets into Israeli cities without strategic significance, and the targeted killing of Hamas militants. The law is clear that any number of combatants can be killed to prevent the killing of even one innocent civilian.

In its air and ground operations against Gaza Israel went to unprecedented lengths to avoid killing civilians. In an area such as Gaza, one of the most densely populated areas in the world – and in view of Hamas's custom of locating its rocket launchers and other military installations in the middle of residential areas and even in mosques, using civilians as shields – that becomes particularly difficult. In what is certainly unique in the history of warfare, Israel, in its respect for human rights, dropped tens of thousands of leaflets over Gaza and placed telephone calls to warn residents of non-military installations to get out of the way of military action. The accusation that Israel is using "disproportionate force" is absurd.

What were Israel's war aims? The "world" most insistently demanded that an immediate cease fire be arranged. Remarkably, that same "world" did not utter a word or lift a finger when thousands of rockets fell on Israel. Israel cannot be expected to terminate its defensive action in Gaza until a comprehensive solution to the crisis can be reached. One can only surmise what Israel's war aims were, but in all likelihood, at the very minimum the following: • Full dismantling of all military power of Hamas, including destruction of stockpiles of rockets and other weapons. • Increased Egyptian supervision of the border crossings between Gaza and Egypt. • Return of kidnapped Israeli soldier Gilad Shalit.

Israel cannot possibly conclude a peace agreement with those who are sworn to destroy it and continue on that path. The PA, though still nursing impossible dreams of the division of Jerusalem and the "return" of the 1948 refugees, is amenable to diplomacy and can be dealt with. Final solutions have so far been unavailable, but there is indeed hope for ultimate success. The US government will wish to play a positive role in that. But before that, terrorist Hamas must be totally eliminated. That is the principle and the main goal of Israel's action against Gaza.

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the battles that began the drive to free the European continent of the German armies.... Many books and accounts have been written about the invasion of Normandy, but never have you read one that has been more accurate about the facts and events of this period of warfare."

The battalion's D-Day objective was to land at Drop Zone D and seize control of two small wooden bridges—one for foot traffic and the other for vehicles—over the Douvre River east of Carentan. The mission was vital, for the Germans had built the bridges a few months earlier to enable them to rush reinforcements into the coastal area in the event of an Allied landing.

The fierce and costly battle for these two bridges is the focus of *Tonight We Die As Men*. The Germans, too, knew well the importance of the bridges and would not relinquish them without an all-out fight.

The two British authors take the reader back to Toccoa, Georgia, and the initial training received (some would say endured) by the men of the 506th Parachute Infantry Regiment, commanded by Colonel Robert F. Sink, then on to airborne training at Fort Benning, Georgia, and Camp Mackall, North Carolina. They also flesh out the personalities mentioned in the book so that by the time the regiment is in England and preparing for its baptism of fire in Normandy the reader has developed a fondness for each trooper.

This personalizing of the men also serves to intensify the feeling of loss when the soldiers are killed in the savage fighting on D-Day and the month after. Of the 575 officers and men who jumped on D-Day, the 506th lost 93 killed and 73 listed as missing in action. Scores more were wounded.

It will be hard to find a better book about a single airborne battalion in World War II than this one.

Last Man Standing: The 1st Marine Regiment on Peleliu, September 15-21, 1944, by Dick Camp, Zenith Press, St. Paul, MN, 2008, 308 pp., photos, maps, bibliography, index, hardcover, $28.00.

During six days on the small tropical island known as Peleliu in the Palau group, one of the bloodiest, most hard-fought, and controversial battles in U.S. Marine Corps history took place.

At the time, the American invasion and subsequent battle seemed like a necessary evil. In early 1944, American military planners and intelligence experts believed that the airfields and other facilities the Japanese had built on Peleliu and the neighboring islands posed a serious threat to General Douglas MacArthur's promised return to liberate the Philippines.

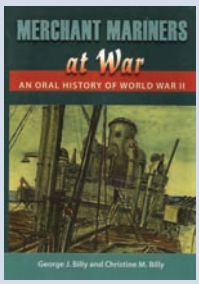
Thus, as the American sweep westward across the Pacific gathered momentum the decision was made to neutralize Peleliu in an operation dubbed "Stalemate." The 1st Marine Regiment, a component of the 1st Marine Division, was one of the American units selected to make the invasion, and *Last Man Standing* is the gripping story of their heroic and expensive assault.

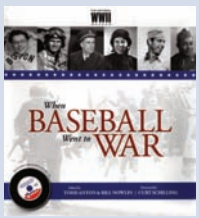
In the intervening years since the battle's end, many historians and strategists have declared that Peleliu was not worth the blood and treasure expended to take it—that it could have been bypassed and its defenders left to wither on the vine. Yet, the 17,000 Marines (and 11,000 soldiers of the Army's 81st Infantry Division) crawling through the sand and unrelenting enemy fire had no such option. Their orders were to take the island no matter what the cost—just as the 11,000 Japanese defenders had orders to hold the island, even if all of them must perish in the process.

Short Bursts

Merchant Mariners at War: An Oral History of World War II, by George J. Billy and Christine M. Billy, University Press of Florida, Gainesville, 2008, 322 pp., photos, bibliography, index, hardcover, $30.00.

The Allies could not have won World War II without the lifeline of supplies that gave Great Britain, the Soviet Union and, after America's entry into the war and deployment overseas, the U.S. all the tanks, trucks, food, fuel, ammunition, and other vital equipment needed to defeat the Axis powers. Yet, the story of the Merchant Marine is a story that has largely gone unnoticed, underreported, and underappreciated (see the article about the Merchant Marine in *WWII History,* January 2007 edition).





Naval history has almost exclusively centered around the combat vessels—the battleships, cruisers, destroyers, and aircraft carriers. Yet, the thousands of cargo ships that plied the dangerous waters in which lurked enemy submarines were manned by courageous sailors who braved blockades, torpedoes, bombings, and horrendous weather and sea conditions to deliver the essential goods.

Going a long way to rectify the problem of this branch of service's invisibility is *Merchant Mariners at War,* an excellent chronicle by a husband and wife team of experts. George J. Billy is the chief librarian at the U.S. Merchant Marine Academy and his wife Christine was the assistant to the public information officer at the Academy. They know of what they write.

Deftly combining official records and oral histories by 59 Merchant Marine Academy graduates who served in World War II, the authors have crafted a fine portrait of the men and ships who made victory possible. The stories of privation, hardship, and heroism captured in this book will go a long way in convincing readers of the vital role played by this neglected branch of service.

When Baseball Went to War, edited by Todd Anton and Bill Nowlin, Triumph Books, Chicago, 2008, 244 pp., photos, audio CD, hardcover, $27.95.

Unlike many of the pampered athletes of today, yesterday's sports heroes realized that the true definition of heroism was not hitting a homer un in the bottom of the ninth, but putting one's life on the line when one's country is in peril.

One day after Japanese bombs fell on Pearl Harbor, the Cleveland Indians' star pitcher Bob Feller enlisted in the U.S. Navy and volunteered for combat duty. He was the first major leaguer to do so, but would not be the last. Hundreds of other professional players soon followed Feller's lead and traded their baseball uniforms for Army, Navy, Marine, and Air Corps uniforms.

Anton and Nowlin have collected a sparkling series of essays and scores of revealing photographs to chronicle the battlefield exploits of famous ballplayers, many of whom went on to be inducted into the Baseball Hall of Fame.

Included in this outstanding work are brief wartime bios of such diamond luminaries as Feller, Joe DiMaggio, Warren Spahn, Ted Williams, Yogi Berra, Jerry Coleman, Johnny Pesky, and many others. Also included is a complete listing of all of the major leaguers who served in World War II, and a roll of honor of major and minor league ballplayers who were killed during the war.

When Baseball Went to War is the perfect book for the military buff and baseball fan.

Working closely with two of the regiment's battalion commanders and drawing upon additional interviews, extensive oral histories, and a treasure trove of photographs from the USMC History Division, retired Marine Corps colonel and military historian Dick Camp recreates the ferocious tempo of the battle as it was experienced by the men and their officers.

Here is the story of the legendary "Chesty" Puller leading his decimated regiment against fortifications manned by fanatical enemy soldiers who refused to surrender and who wanted only to take as many Americans with them as possible before they died.

Here also are the stories of a U.S. Marine Corps general refusing Army reinforcements, of a badly wounded battalion commander refusing evacuation while his men were still under fire, of men clinging to their positions by their fingernails in the face of certain death, knowing that only by superhuman effort could defeat be averted.

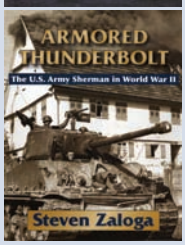
Most of all, Camp's work is a richly detailed, deeply moving story of desperate combat and of valor among comrades joined against impossible odds.

Battleship Oklahoma, by Jeff Phister, with Thomas Hone and Paul Goodyear, University of Oklahoma Press, Norman, 2008, 256 pp., photos, bibliography, index, soft cover, $19.95.

Launched in March 1914, the battleship USS *Oklahoma* (BB-37) is probably the most famous American warship never to have fired a shot in anger.

Deployed too late to take part in World War I, it was sunk during the opening minutes of the Japanese attack on Pearl Harbor on December 7, 1941. Much of the book deals with the frantic efforts made by her valiant crew during and in the minutes immediately following the attack to rescue trapped and wounded shipmates and prevent the ship from sinking.

In one passage describing efforts to reach men caught in nearly flooded compartments days after the attack, Phister writes, "Believing the rescuers were still in the vicinity, [Carpenter's Mate Walter F.] Staff decided to try to access the linen compartment again. Moving sideways to the bulkhead, he reached below the water and pushed. Whatever had wedged it shut was gone because it opened with relative ease. He knew the linen compartment was wider than the one they were in, so he assumed there would be a larger pocket of air on the high side. Positioning himself in front of the opening, he told [Jackson P.] Centers to follow him. They both entered, sealing the hatch behind them. A short time later, they heard voices. They had not been abandoned." The book contains many more accounts of bravery and heroism above and beyond the call of duty, and is a fitting tribute to a valiant but doomed ship manned by a proud crew. Highly recommended.



Armored Thunderbolt: the U.S. Army Sherman in World War II, by Steven Zaloga, Stackpole Books, Mechanicsburg, PA, 2008, 360 pp., photos, bibliography, index, hardcover, $34.95.

The M4 Sherman tank was arguably the most famous of all the World War II tanks. Although not the toughest in terms of armor protection or firepower, it helped the Allies win the war just by its sheer numbers (nearly 50,000 were built from 1942 to 1946) and its relatively easy repairability and rugged reliability that kept it going even while the enemy's tanks were breaking down.

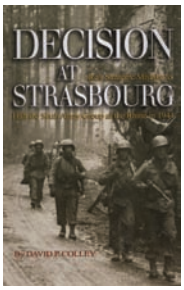
Numerous books have been published about the Sherman, but Steve Zaloga's richly illustrated volume is packed with a comprehensive text and hundreds of detailed, never before seen photos found in few, if any, other histories of the famed tank.

The author closes with the postwar role played by Shermans in armies all over the world and includes several appendices that show technical drawings, chart technical and production data, and provide strength and loss statistics. All in all, one can truly call this book, "Everything you ever wanted to know about the Sherman tank."

As Zalonga makes clear, the Sherman may not have been the best tank of World War II, especially in head to head engagements with foes like the German Panther and Tiger, but the combination of sound design, innovative tactics, well trained crews, mechanical reliability, and mass production made the Sherman a war winner.

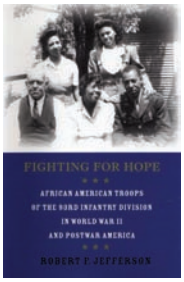
Highly recommended for anyone with even the slightest interest in armored warfare in general and this American original in particular. □

This is truly a book that won't soon be forgotten.



Decision at Strasbourg: Ike's Strategic Mistake to Halt the Sixth Army Group at the Rhine in 1944, by David P. Colley, Naval Institute Press, Annapolis, MD, 2008, 251 pp., photos, maps, bibliography, index, hardcover, $34.95.

In late November 1944, just a day before Lt. Gen. Jacob Devers's Sixth Army Group was scheduled to launch a bold attack across the Rhine River into Germany, General Dwight Eisenhower called a halt to the operation—a puzzling decision.



The U.S. Seventh Army and French First Army, both of which comprised Devers' Sixth Army Group moving northward from the French Riviera following the Operation Dragoon landings there in August 1944, were poised at the banks of the Rhine near Strasbourg—the first Allied force to reach the swiftly flowing river that divides Germany and France.

Cross-river patrols discovered the fact that the opposite bank was nearly devoid of German troops and the situation was ripe for exploitation. Yet, inexplicably, Eisenhower told Devers to stand down.

At the moment the order to halt was issued, Lt. Gen. George Patton's Third Army was heavily engaged against German forces in the Lorraine region. Had Devers been allowed to proceed with his assault, many historians believe, the Germans fighting Patton would have been dislodged and Patton could have driven into Germany—and perhaps have shortened the war by six months.

Until now, few have ever heard about this lost opportunity, nor have historians fully explained why Ike stopped Devers or conjectured on what the possible outcome of such an attack might have been.

As one of Ike's possible motives for canceling the crossing Colley points to a personality clash between the supreme commander and Devers. Eisenhower disliked Devers and had little confidence that the attack, under Devers' leadership, could succeed.

Colley, basing his book on the opinions of several high-ranking generals, including Patton, is not shy about offering his view that Devers' attack would have been a bold and likely successful maneuver that could have dramatically shortened the war and saved thousands of American lives. As events turned out, the Allies did not cross the Rhine until March 1945, five months later.

This is an intriguing "what if" book that explores questions that have gone unanswered for more than six decades. Not to be missed.

Fighting for Hope: African American Troops of the 93rd Infantry Division in World War II and Postwar America, by Robert F. Jefferson, Johns Hopkins University Press, Baltimore, MD, 2008, 321 pp., photos, bibliography, index, hardcover, $55.00.

That the United States discriminated against black soldiers, sailors, and airmen during World War II is well known. Even at a time when America was fighting to defeat the Nazi regime which espoused racial and ethnic hatred, the U.S. military was engaged in maintaining the nation's status quo of "Jim Crow" segregation.

Black (then called Negro or colored) officers were forbidden from using whites-only officers' clubs. Black troops were not integrated into white units. Black sailors could serve aboard

>> Simulation Gaming

By Eric T. Baker

WWII Pacific Theater has both mega- and mini-battles.

The third game in the Strategic Command series from Fury Software for the PC is **Strategic Command: WWII Pacific Theater**. The previous SC games were set on the land in Europe and North Africa but contained fleet and air units to supplement the ground forces that were the focus. *WWIIPT* is focused on the fleet and air units, but contains ground forces as well. This is a big game that comes with a mega-campaign that starts the war on December 7, 1941, and lets it run until 1947 if needed, encompassing five major and 23 minor nations.

In addition to the mega-campaign the game also has eight mini campaigns focusing on single battles in the war, from Midway to Iwo Jima. Players are best advised to play at least a couple of these smaller campaigns first to get an idea of how the game works. There are 20 different unit types in the game and each is rated in 30 different characteristics. Units can be upgraded and things like their combat air patrol type can be set manually.

For all the it does well, and that includes the improved speed of the AI in directing the opposing forces, the thing *WWIIPT* lacks is the ability to zoom its maps in and out. Instead there is a smaller strategic map that shows what part of the Pacific the tactical map is displaying, but the need to scroll around to see what units the player has in the area instead of just being able to pull back and find out takes some getting used to. Still, these are the prices that gamers pay to have their favorite conflicts modeled at something more than the arcade level.

Speaking of strategic gaming in Europe, Paradox Interactive has released **Hearts of Iron II: Anthology**. This box contains the original game plus its two expansions, *Doomsday* and *Armageddon*. The three products together let the player model WWII from the 1930s until well into the 1960s as the game allows technology and diplomacy from the postwar era to develop in an ongoing "hot" war situation. Players who haven't yet tried this series now have an easy and inexpensive way to pick up the complete thing. ■

U.S. Navy ships, but only in lowly capacities, such as mess stewards. Black airmen flew in black-only squadrons. Most blacks who enlisted or were drafted served only as "service" personnel, such as truck drivers and stevedores.

It was widely believed by the white establishment at the time that black warriors could never be as courageous or as hard-fighting as their white counterparts. It was only when President Harry Truman integrated the armed forces in 1947 that the wall of American apartheid began to be torn down.

Yet, the record shows that blacks, when given a chance, could be every bit as good—if not better—than their white comrades in arms. For example, Dorrie Miller, a black mess steward aboard the battleship USS *West Virginia,* manned a machine gun during the Japanese attack on Pearl Harbor and, at the risk to his own life, carried his mortally wounded commander to a place of safety. The Tuskegee Airmen, a group of all-black aviators, proved with their sterling combat record that they were equal to white American pilots and even better than the Germans.

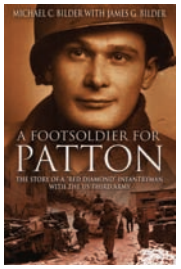
Now comes a fascinating history that shows how African-American military men and women seized their dignity through barracks culture and community politics during and after World War II. Drawing on oral testimony, unpublished correspondence, archival records, memoirs, and diaries, author Robert F. Jefferson, an associate professor of history at Xavier University in Cincinnati, explores the curious contradiction of war effort idealism and entrenched discrimination through the experiences of the 93rd Infantry Division.

Led by white officers, and with presumed substandard fighting abilities, the division was largely relegated to support roles during the advance on the Philippines, seeing action only later in the war when U.S. officials found it unavoidable.

Jefferson discusses racial policy within the War Department, examines the lives and morale of black GIs and their families, documents the debate over the deployment of black troops, and focuses on how the soldiers' wartime experiences reshaped their perspectives on race and citizenship in America. He finds in these men and their families incredible resilience in the face of racism at war and at home and shows how their hopes for the future provided a blueprint for America's postwar civil rights struggles.

Integrating both social history and civil rights movement studies, *Fighting for Hope* examines the ways in which political meaning and identity were reflected in the aspirations of these black GIs and their role in transforming the face of America.

An important and timely book, especially given the recent historic changes in the American political scene.



A Foot Soldier for Patton: The Story of a "Red Diamond" Infantryman with the US Third Army, by Michael C. Bilder with James G. Bilder, Casemate, Philadelphia, 2008, 294 pp., photos, hardcover, $32.95.

One of many remarkable recent memoirs, *A Foot Soldier for Patton* takes the reader along on a harrowing journey from the hedgerows of Normandy beginning in July 1944, until the final collapse of Nazi Germany in May 1945, when Third Army and the 5th Infantry Division had pushed all the way into Czechoslovakia.

Michael Bilder, who had emigrated to the U.S. from Germany before the war, took part in all five of Third Army's major campaigns across the continent, sometimes even acting as interpreter for American officers interrogating German POWs.

Bilder, assisted by his son James in a true labor of love, has put together a startlingly frank, often humorous, and deeply penetrating look at combat and army life from an ordinary GI's point of view. For example, Bilder recounts a couple of incidents at Caumont, in Normandy, where the 5th was engaged in heavy fighting. "I saw one officer who wore hand grenades on his hips like six shooters. While we were fighting in the hedgerows, a piece of shrapnel from a German grenade hit one of the grenades he was wearing and detonated. As he lay dying, all he said over and over again was, 'What's gonna happen to my men?'

"At the other extreme, we saw an officer confiscate a German motorcycle we had just captured so that it could be used to deliver messages. That was reasonable enough, but before turning it over to headquarters, he decided to take a joy ride in a combat zone. We found his body near the German lines. He had been shot and picked clean of valuables, right down to his Notre Dame ring."

Later, during a firefight in August 1944, Bilder was tossing grenades at a group of enemy soldiers while the rest of his squad was advancing toward the foe. He writes, "I must have been overly anxious because one of our guys yelled out, 'Bilder, hold those grenades longer! The krauts are throwing them back!'"

A Foot Soldier for Patton is filled with these kinds of vignettes and personal remembrances, the kind that only the best memoirs can deliver. □

ribbentrop

Continued from page 47

knocked out and Tarasov himself was killed.

While the fighting raged on Hill 252.2 and in the corridor, the 2nd and 2nd Guards Tank Corps had attacked Das Reich's defensive positions south of Prokhorovka. Unfortunately for the Russian tankers, the division possessed an unusually large number of 50mm and 75mm antitank guns. Dozens of Russian tanks were knocked out by concealed German batteries. The few tanks that penetrated the SS lines had no infantry support and were easy victims for tank killer squads. However, late in the day, a group of about 25 T-34s pushed past the town of Kalinin and approached Oserowskij.

Das Reich's panzers ambushed the Soviet tanks, destroying almost all of them. The Panzer IV commanded by 20-year-old Untersturmführer Hans Mennel knocked out six T-34s during the engagement. Mennel's feat, mentioned in corps dispatches, almost singlehandedly blunted the Soviet thrust. Das Reich's panzer battalion did not lose a single tank during the engagement, its only combat of the day.

Totenkopf's panzer regiment was not so fortunate. After crossing the Psel River, it then advanced northward toward the Karteschewka-Prokhorovka road. Instead of encountering exhausted Russian infantry belonging to the battered 52nd Guards Rifle Division, Bochmann's panzers found fresh troops of the 33rd Guards Rifle Corps' 95th and 42nd Guards Rifle Divisions dug in along successive defensive lines. The Soviet defenses were studded with antitank guns and entrenched tanks supported by batteries of heavy artillery and rockets. The panzer group fought its way through to the Karteschewka road shortly before midnight. However, this success cost Bochmann more than 40 tanks, mostly due to fire from camouflaged Russian antitank guns and artillery.

After dark, recognizing the danger posed by Totenkopf's armor, Rotmistrov dispatched the 24th Guards Tank Brigade and the 10th Guards Mechanized Brigade to block the road leading to Petrowka. The 18th and 29th Tank Corps, battered but not destroyed, pulled back into defensive positions in the Psel River valley east of Wassiljewka.

Although the SS divisions had knocked out hundreds of Russian tanks, the Soviets had not even committed all their reserves. The Germans, on the other hand, had no reserves left to throw into the battle since Hitler had decided to abandon Operation Citadel, his offensive against the Kursk salient. The Soviet armor remaining in the corridor threatened to capture the bridges at Wassiljewka and isolate Totenkopf's panzer group on the north bank of the river. It was a danger Hausser could not risk. On the following day, he ordered division commander Priess to pull his tanks back to the southern bank of the river.

When the fighting ended on the evening of July 12, scores of Russian tanks were left smoldering in Leibstandarte's sector between the Psel River and the railroad embankment. According to Soviet accounts, the 18th and 29th Tank Corps had only 200 operational tanks on July 13, which meant that these two corps alone had lost approximately 160 tanks. In addition, the 2nd and 2nd Guards Tank Corps, already weakened in previous fighting, were decimated in the fighting against Das Reich.

The SS divisions claimed so many destroyed tanks that Fourth Panzer Army headquarters was skeptical and issued a directive regarding the counting of knocked-out enemy tanks. Following this implied rebuke, corps commander Hausser came to Hill 252.2 and inspected the battlefield personally. He counted 93 Russian tanks knocked out just in the vicinity of Hill 252.2; he marked each with a piece of chalk to arrive at an exact figure.

In contrast, Leibstandarte had lost only 17 Panzers, a ratio of nine Russian tanks lost for every German tank knocked out, but the division had spent its last mental and physical strength during the horrific fighting on July 12. Seven consecutive days of combat, fatigue, horrific heat, and heavy casualties (especially among irreplaceable small-unit leaders) had exhausted the division. The following day, after a desultory advance, Wisch pulled his panzers back behind Hill 252.2. The division did not attempt any further offensive operations during Operation Citadel.

Ribbentrop's extraordinary combat leadership was recognized by division commander Wisch with a prompt recommendation for the Knight's Cross. The award was speedily approved and presented to the tank commander on July 15, 1943. Approval for the Knight's Cross normally took many months, if not longer. Typically modest, Ribbentrop used the occasion to recognize the skill of his crew as the major factor in his success. Ribbentrop survived the war, as did his driver Walter Schüle, and in the late 1990s they gathered as many survivors of the company as possible in order to put their remembrances of July 12, 1943, on paper so that their experiences would not be lost. □

Harrisonburg, Virginia, resident George M. Nipe, Jr., is the author of Decision in the Ukraine, Summer 1943.

hollywood

Continued from page 59

racial segregation in the services during World War II, black actress Hattie McDaniel became the chairperson of the Negro Division of the committee, which organized events from January 1942 through August 1945. During its four years, it arranged for celebrities to travel more than five million miles to entertain soldiers.

The committee's final report took credit for providing 56,037 free appearances by 4,147 artists in 7,700 events. This included 13,555 playing days by 176 artists on 122 overseas tours. Hollywood entertainers worked regularly at United Service Organization (USO) centers throughout the world.

The Hollywood Canteen was a unique creation designed to offer food, conversation, dancing, and entertainment to visiting servicemen and servicewomen. Many actors, together with craftspeople and artisans of all types, supported the canteen's building, maintenance, and operation. Actors Bette Davis and John Garfield, together with composer and businessman Jules Stein, were the driving forces behind its creation. Various unions and guilds in the entertainment industry paid for all costs of renovation and construction, and the canteen was operated entirely by people who worked in one way or another in the entertainment industry.

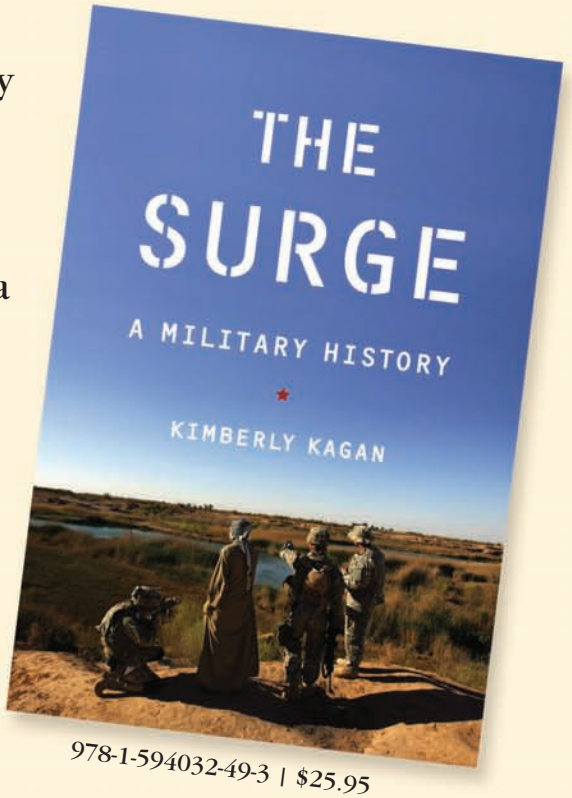
Glamorous stars volunteered as servers, cooks, and dishwashers, to say nothing of dancing with soldiers and sailors. Other stars entertained regularly. While the Hollywood Canteen was mostly visited by Americans, military personnel from any Allied country were welcome. The only price of admission was wearing a uniform. Everything else was free. The canteen opened in October 1942, and in September 1943, its one millionth guest, a sergeant, walked in and received a kiss from glamour girl Betty Grable. The Hollywood Canteen entertained more than three million servicepeople before it closed on Thanksgiving Day, November 22, 1945.

The Hollywood Dream Factory accomplished a great deal more as its stars directly and indirectly helped sell billions of dollars in war bonds. Perhaps as important as anything the Dream Factory accomplished, it made room for escapism and entertainment in the lives of a great many soldiers, sailors, and civilians during grim times. □

Herb Kugel, of Granville Ferry, Nova Scotia, previously wrote for WWII History *on the topic of war bonds.*

"Kim Kagan has that rare ability to write clearly and with insight about a complex and multi-faceted war. Her account details the ways in which the American military developed and applied counterinsurgency principles in Iraq, at a time when many said the war was unwinnable or even lost. This is an indispensible guide to those who wish to understand how the U.S. military adapted to Iraq's politicial landscape, and how it began turning failures into successes."

— John McCain



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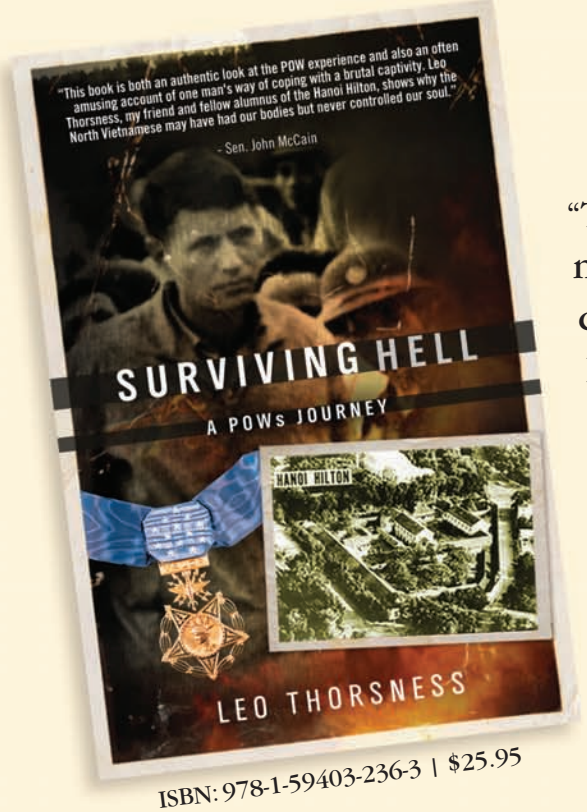

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