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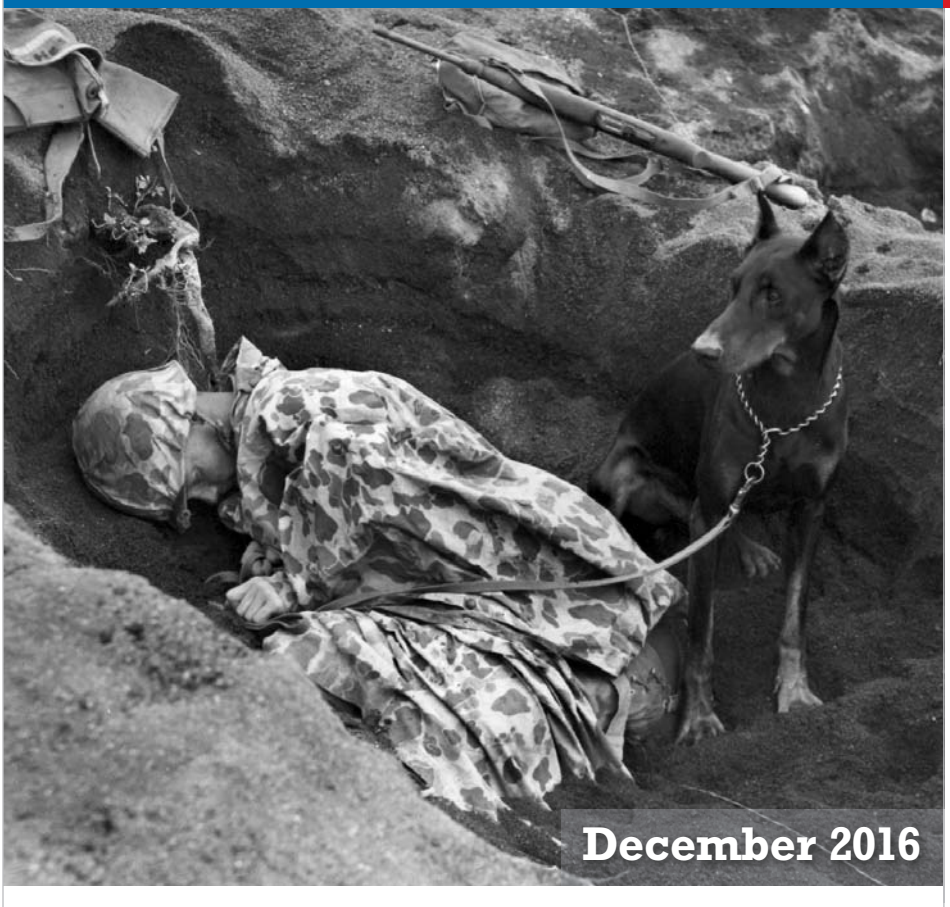

December 2016

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Cover: A German soldier photographed with his Mg-34 during the German invasion of France in May 1940.

See story page 34.

Photo: Scherl/SZ Photo/ The Image Works

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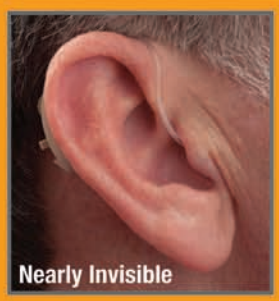

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Editorial

Admiral James O. Richardson is little remembered for disagreeing with President Roosevelt.

SEVENTY-FIVE YEARS AGO THIS MONTH, AIRCRAFT OF THE IMPERIAL JAPANESE Navy wreaked havoc on the U.S. Pacific Fleet while inflicting heavy damage on military installations across the Hawaiian island of Oahu.

Suddenly, the United States was at war. Four bloody years later, World War II in the Pacific ended in victory, but questions about the nation's entry into that war persist three-quarters of a century later.

During the months leading up to the attack on Pearl Harbor diplomatic relations between the U.S. and Japan steadily deteriorated. Each side sent communiqués to the other with demands to preserve the peace that were unacceptable to the respective governments. President Franklin D. Roosevelt's administration wanted the Japanese out of China and Indochina and delivered a stinging rebuke that Japan should begin to abide by the law of nations. The Japanese wanted the U.S. to acquiesce to its burgeoning hegemony in the Far East and on the Asian continent.

Roosevelt backed up his demands with economic sanctions, embargoes on raw materials and critical commodities such as oil and steel, and froze Japanese assets in the United States. He also decided to back up these measures with the flexing of American military muscle.

In the spring of 1940, the U.S. Pacific Fleet engaged in extensive maneuvers, and when the war games concluded in May Roosevelt ordered the fleet to remain at its forward base, Pearl Harbor, rather than return to its permanent anchorage at San Diego, California. The president was confident that the provocative move would "exercise a restraining influence on the actions of Japan."

At least one high-ranking naval officer, however, disagreed. And it cost him his job.

Admiral James O. Richardson was Commander-in-Chief, United States Fleet. He was a career man, graduating fifth in the U.S. Naval Academy class of 1902. A veteran of World War I, he served aboard the battleship USS *Nevada* and commanded the cruiser USS *Augusta* during the interwar years. As Assistant Chief of Naval Operations, he led the search for missing aviatrix Amelia Earhardt and the investigation into the Japanese sinking of the gunboat USS *Panay* on the Yangtze River in China in 1937.

When Roosevelt ordered the Pacific Fleet to remain in Hawaiian waters, Richardson strenuously objected. He believed that the relocation would goad Japan into military action, inviting a preemptive strike. Richardson also cited a lack of faith in approved plans in the event of war with Japan—the so-called War Plan Orange.

In January 1940, he wrote to Chief of Naval Operations Admiral Harold R. Stark, " You are the principal and only Naval Adviser to the boss [Roosevelt] and he should know that our Fleet cannot just sail away, lick Orange, and be back at home in a year or so. Also the probable cost of any war should be compared [with] the probable value of winning the war."

Richardson further decried the war readiness of the U.S. Navy in 1940. Admiral Richard Carney, Chief of Naval Operations in the 1950s, attended a meeting as a young officer in which he heard Richardson "saying in plain and understandable language, that the Navy wasn't ready for war. Step by step, he dismantled my confident belief that the U.S. Navy could win a quick decision."

Thus, for Richardson Roosevelt's decision to move the Pacific Fleet to Pearl Harbor was unthinkable. He made two trips to Washington to discuss the matter with FDR and put his concerns in writing.

In February 1941, the senior command structure of the U.S. Fleet was conveniently reorganized, separating the leadership of the Atlantic and Pacific forces. In the Pacific, Admiral Husband E. Kimmel replaced Richardson, who reverted to the permanent rank of rear admiral and served as an adviser to the Chief of Naval Operations until retiring in 1942. Due to wartime circumstances he remained on active duty until 1947. Richardson died in 1974 at the age of 95.

During 1945 Congressional hearings on the Pearl Harbor disaster, Richardson was called to testify. He candidly related, "I had not requested that the fleet remain in Hawaiian waters, and there was no logical reason for me to make such a request. This was the second time the Department had put the Commander-in-Chief of the United States Fleet in a completely false position ... I did not resent being told to do something by orders from above, but I did resent being told how to do it, particularly when the 'how' made a perfect 'nitwit' out of me."

History seems to side with the ousted admiral.

Michael E. Haskew

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By R. Manning Ancell

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The General with the Plan

George C. Marshall was a general of such ability and vision he had to be kept close to home.

ON NOVEMBER 11, 1943, UNDER COVER OF DARKNESS, PRESIDENT FRANKLIN D. Roosevelt and his key aides sailed down the Potomac River to the new battleship USS *Iowa*, there to meet with three of the four American members of the Combined Chiefs of Staff—Admiral Ernest J. King, General George C. Marshall, and General Henry H. Arnold. Their mission: Sail to North Africa to meet with Allied leaders.

A week before Thanksgiving, the American war leaders arrived at Algeria's port city of Oran. Their final destination was Cairo, where the president's party would join with Prime Minister Winston S. Churchill and Generalissimo Chiang Kai-shek for a top-secret conference to plan what they hoped would be the victorious stages of the war. At the top of the list was the question of an invasion of Europe.

By November 1943 the war was weighted more heavily on the side of the Allies and discussions revolved around a cross-Channel invasion, although Churchill had long been skeptical. Eventually the prime minister acquiesced under pressure from the Americans, who argued the necessity of a full-frontal assault on European soil.

At the Trident Conference in 1943, General George C. Marshall stands at far right. To Marshall's right is Chief of Naval Operations Admiral Ernest J. King. President Franklin D. Roosevelt and Prime Minister Winston Churchill are seated.

It was finally agreed that "Overlord" would take place in May 1944, but command of the invasion was still up in the air as Roosevelt, Churchill, and Stalin huddled with their staff officers, translators, and senior advisers in Teheran, to which the Anglo-Americans had journeyed to meet the Russians. Stalin attempted to force a decision. Upon learning that the commander had not yet been picked, he huffed and puffed and intimated that if his Allies could not decide on who was to command Operation Overlord, then how could they possibly consider launching a second European front in France?

The Teheran conference concluded on November 30 with President Roosevelt noting, "We could agree to a unified command in the Mediterranean but not at the same time as we took up the matter of the Supreme Allied Commander." General Omar Bradley, however, said there was concurrence among the Allied leaders that an American officer, rather than a British general, would assume command. "It was Churchill who raised the point," noted Bradley, "and when he did, Roosevelt readily agreed. Both men had Marshall in mind for the job and although Marshall was not formally appointed, it was assumed by all that he probably soon would be."

All President Roosevelt needed to do, in tapping Marshall to command of Overlord, was issue the order. Stalin's agreement would quickly follow, for he strongly supported Overlord. If FDR wanted it to happen, it would—but it hadn't yet. Clues as to why had surfaced in the weeks before the Teheran conference was set to open.

Throughout the summer of 1943 the Joint Chiefs had voiced concern that Marshall's role, as supreme commander, would abrogate his responsibilities as chief of staff—an unaffordable action at any cost. Admiral King, in particular, was vehemently opposed to putting Marshall in charge of Overlord at such a crucial time. "We have the winning combination here in Washington," King said. "Why break it up?" He argued that Marshall was "indispensable as a member of the Joint and Combined Chiefs of Staff" and "could not be spared, however desirable he might be as supreme commander." He emphasized that "it seemed a poor idea to swap horses in midstream." The other members of the Joint Chiefs, Admiral Leahy and General Arnold, had each arrived at

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the same conclusion and told the president, on separate occasions, "Marshall could not be spared from the Joint Chiefs of Staff."

President Roosevelt, however, gave all the impressions of resoluteness on the issue, even when General John J. Pershing wrote him in September 1943 to urge that Marshall be kept in Washington. Transferring him to a "tactical area, no matter how seemingly important, is to deprive ourselves of the benefit of his outstanding strategical ability and experience," he wrote. "I know of no one at all comparable to replace him as Chief of Staff."

FDR downplayed Pershing's concern in his reply on September 20, 1943: "I think it is only a fair thing to give George a chance in the field," Roosevelt wrote. "The best way I can express it is to tell you that I want George to be the Pershing of the Second World War, and he cannot be that if we keep him here."

A very strong case could be made for General Marshall's indispensability at virtually any point in the war. By the summer of 1943 he was into his fifth year as chief, having been sworn in a matter of hours after German panzer forces stormed across the Polish border just before dawn on September 1, 1939. Fifty-eight years of age at the time, Marshall was the only four-star general on active duty in the Army.

Bear in mind that although Marshall inherited an army on the cusp of war it was, nevertheless, a peacetime army led by an officer corps debilitated by "promotion by seniority." It was not unusual to find captains in their late thirties and early forties, their promotions held in check by the passage of time. The promotion list for brigadier general, as an example, contained the names of 698 full colonels stack-ranked for promotion; in other words, if an opening came up, the colonel at the top of the list would be in line for the star. One of Marshall's earliest challenges was to replace the antiquated promotion system with one that allowed younger men of merit to rise beyond their mediocre counterparts and seniors. Colonel George S. Patton sat at 525 on that 1939 promotion list. Under the existing policy at that time, 524 colonels more senior to him would have to be promoted, quit, or die before he could be considered for a brigadier general's star.

Only a week after Marshall was sworn in, President Roosevelt declared a state of national emergency. Suddenly the new chief of staff faced the formidable task of reshaping the officer corps into a cadre of competent, forward-thinking professionals *sooner* rather than *later.* Time was of the essence. Noted columnist George Fielding Eliot, in a wide-ranging interview held in the State, War, and Navy Building,

National Archives

General George C. Marshall visits American soldiers in Europe in October 1944. These troops are destined to fight the Nazis along the German frontier at the fortified Siegfried Line.

asked Marshall how he would avoid the calamity Lincoln faced in the opening months of the Civil War. Marshall was determined that Roosevelt would not be faced, like Lincoln, with the prospect of a long, grueling search for the right field commanders. On the condition that he published the interview at a later date, Marshall spelled out his thoughts to Eliot:

"The present general officers of the line are, for the most part, too old to command troops in battle under the terrific pressures of modern war. Many of them have their minds set in outmoded patterns, and can't change to meet the new conditions they may face if we become involved in the war that's started in Europe. I do not propose to send our young citizen-soldiers into action, if they must go into action, under commanders whose minds are no longer adaptable to the making of split-second decisions in the fast-moving war of today, nor whose bodies are no longer capable of standing up under the demands of field service. They'll have their chance to prove what they can do. But I doubt that many of them will come through satisfactorily. Those that don't will be eliminated."

For more than four decades George Marshall's only life was the U.S. Army. Commissioned in February 1902 from the Virginia Military Institute, he served with the infantry at home and abroad for more than 37 years before becoming chief of staff. From the very beginning of his career, officers crossed his path with whom he was impressed—and Marshall was not easily impressed—or more likely with whom he was unimpressed. Whether at either end of the scale, Marshall made a notation in his "little black book." Some officers believed it was more in their favor to have made a neutral impression and therefore not appear in the book, rather than risk the 50-50 odds of being notated negatively. Suffice to say that Marshall had a pachyderm's memory that, bolstered by entries in his book, enabled him to reach down and pick people for high command and great responsibilities, often at very junior levels, with unerring accuracy and astounding success.

Case in point: General Omar N. Bradley, who worked closely with Marshall at the Infantry School in the late 1920s. Given two divisions to train early in the war, Bradley was told that he needed to demonstrate his capabilities before being appointed to greater responsibilities. "I trusted his judgment," Bradley said, "and my patience was rewarded by rapid advancement to army and army group command. My case typifies Marshall's rigor in testing his commanders for the critical tasks that lay ahead. He placed us in jobs where he could use our special training and experience. If we did our work well, he quickly entrusted us with a more demanding role. To his subordinates he always gave strong support and great freedom in carrying out their assignments."

One of Marshall's earliest entries in his little book was Walter Krueger, who would lead the Sixth Army in the Pacific during World War II. They met in the Philippines in 1902 when both were green lieutenants. It turned out that Marshall was a bit greener than Krueger, however, but that didn't prevent Marshall from making a positive entry on him. By nature fastidious, facile, and exceptionally straightforward, Marshall admired those qualities in others. Krueger, a Prussian immigrant who worked his way up

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During and after World War I, General George C. Marshall maintained a close relationship with General John Pershing, commander of the American Expeditionary Force in Europe.

from private, was not easily impressed by anyone, but he found Marshall to be "just about the most self-contained lieutenant I ever met in the U.S. Army." He said, "He had a sagacity and thoughtfulness far beyond his years. Or at least I think he had. When you really tried to find out what he was like, he clammed up and you never discovered what he was really thinking."

Self-contained was certainly a more accurate description than introverted because Marshall didn't have a problem expressing himself publicly. He simply was an intensely private person.

Not long after America's entry into World War I, Captain Marshall was sent to Europe with the 1st Division, commanded by Maj. Gen. William L. Sibert. One of the first officers to arrive in France, Marshall took on an exceptional load of responsibility, including acting chief of staff of the division. Training was severely hampered by foul weather and the piecemeal arrival of troops and headquarters staff, including General Sibert, but Marshall nevertheless gave it top priority. Early in September 1918 Sibert was severely criticized for a somewhat lackluster review of his division although circumstances were well beyond his control; he hadn't been in France long enough to personally impact the training of his division. Later, on October 3, Sibert witnessed for the first time the demonstration of a new technique for attacking entrenched troops and when asked by General Pershing for a critique, he faltered. Pershing was furious and berated Sibert in front of his men for his lack of preparation. Reacting instinctively to the injustice of Pershing's remarks, Marshall stepped forward and began speaking, but Pershing was in no mood to listen and began walking away.

Throwing caution aside, he put his hand on the general's arm and said, "General Pershing, there's something to be said here and I think I should say it because I've been here longest."

No one, not even Marshall, remembered exactly what was said but Pershing listened without interruption. When Marshall had finished, Pershing said, "You must appreciate the troubles we have," and turned to walk away.

"Yes, General," Marshall answered, "but we have them every day and they have to be solved before night."

Everyone who witnessed that brief incident, including Marshall himself, believed it was the death knell to a young officer's career. Quite the contrary, it set the stage for a relationship that endured for nearly 30 years, up to the day Pershing died, at the age of 88 in July 1948. In subsequent visits Pershing always took Marshall aside to ask his opinion, knowing his response would be unfettered. After the war, reverting to the rank of captain, Marshall served as Pershing's aide. Their relationship was greater than general and aide; it was more like father and son. The general was best man at Marshall's second wedding in Baltimore and they kept in touch no matter where the Army sent Marshall for duty.

It was no accident that under General Marshall, once he engineered the unshackling of the promotion system's time-honored reliance on seniority, much younger officers began rising rapidly in rank virtually overnight. Many of those first promotions went to officers in whom Marshall had absolute trust and faith, officers who would form the foundation for the war's leadership pyramid. Again, it was no accident that a great number of those early promotions went to "Marshall's Men" from his Fort Benning days.

In the autumn of 1927 Marshall had been rescued from an interminable assignment at the War College and made assistant commandant of the Infantry School at Fort Benning. It came at a time when Marshall was recovering from the untimely death of his wife, Lily, that August and a desk job for which "I thought I would explode." A teaching job, together with the responsibility and authority to make substantive changes in the way the Army taught its best officers was, in Marshall's words, "magical." Moreover, Benning provided the stage upon which the officers who would comprise the Army high command of World War II performed and learned from a master teacher,

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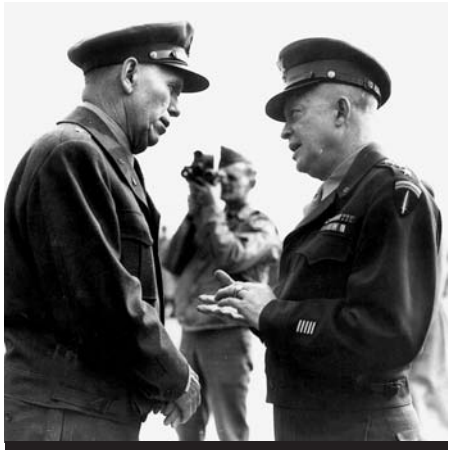

Marshall, right, visits with General Dwight D. Eisenhower in Paris following the liberation of the City of Light from Nazi occupation in August 1944.

whether as members of the staff, instructors, or students.

Although he wasn't an alumnus of Benning, one individual in particular stood out as a sterling example of Marshall's uncanny ability to take the measure of a man and visualize his potential: Dwight D. Eisenhower. Marshall had met Eisenhower only twice before he brought him to Washington early in the war. The first time was in 1930 when, as a major, Ike was assigned to the Battle Monuments Commission. The 40-year-old officer made a distinctly favorable impression on Marshall and, thanks to an entry in the "little black book," Marshall's memory was refreshed when they met briefly a second time 11 years later. By then a lieutenant colonel, Eisenhower was chief of staff of Lt. Gen. Walter Krueger's Third Army. Marshall was invited to witness maneuvers in the spring of 1941 as Third Army was pitted against Second Army. Eisenhower's performance caught his attention.

Brought to Washington by Marshall, Eisenhower jumped from lieutenant colonel to brigadier general on September 9, 1941. From there he enjoyed the most meteoric rise in rank of any general in World War II. By November 1943 he was a four-star general and Supreme Allied Commander in Europe, living at the time in a villa near the ruins of Carthage.

Having arrived at Mers-el-Kebir, near Oran, early on the morning of November 21, the president's entourage continued on by plane to Tunis, where General Eisenhower met them. Ike turned the villa over to the president and invited King and Marshall to stay at his small cottage at La Mersa. That evening Eisenhower had dinner with FDR, then the following morning accompanied him on a tour of the nearby ruins. The president quickly got around to the subject of Overlord: "Ike, you and I know who was chief of staff during the last years of the Civil War but practically no one else knows, although the names of the field generals—Grant, of course, and Lee, and Jackson, Sherman, Sheridan and the others—every schoolboy knows them," Roosevelt said as they walked slowly. "I hate to think that 50 years from now practically nobody will know who George Marshall was. That is one of the reasons why I want George to have the big command—he is entitled to establish his place in history as a great general." Eisenhower nodded but said nothing, his face masking any emotion he felt at that moment.

Roosevelt and his entourage returned to Cairo the first week of December. Apparently Stalin's brief speech a week earlier in Teheran tugged at the president as he thought about appointment of Marshall as supreme Allied commander. FDR finally decided to let Marshall make the decision. He invited the general to lunch on December 5. Marshall recalled that Roosevelt, "after a great deal of beating about the bush," asked me "just what I wanted to do. Evidently it was left up to me." Marshall told the president he wanted to avoid at all costs what had happened time and again in past wars, "the consideration of the feelings of the individual rather than the good of the country." Roosevelt paused for a moment, then said, "Well, I didn't feel I could sleep at ease if you were out of Washington."

That's how Roosevelt broke the news that Marshall would not go to Europe as supreme commander of Overlord. Then FDR asked Marshall to decide who should be appointed but Marshall declined to name anyone, deferring the decision back to the president. "Then it will be Eisenhower," Roosevelt said. Marshall, who had been entrusted to draft high-level correspondence between Roosevelt, Churchill, and Stalin, went into his room and wrote a brief note to the Soviet leader for Roosevelt's signature. It read: "From the President to Marshal Stalin. The immediate appointment of General Eisenhower to command of Overlord operation has been decided upon." The president signed "Roosevelt" directly below. Later, Marshall sent the historic piece of paper to Eisenhower with a brief note written on the bottom: "Cairo, Dec. 7, 43. Dear Eisenhower, I thought you might like to have this as a memento. It was written hurriedly by me as the final meeting broke up yesterday, the President signing it immediately. G.C.M."

Marshall returned to Washington and continued as chief of staff. Who cannot but say that Marshall did not serve his country well then. Or thereafter. There was much more to come. □

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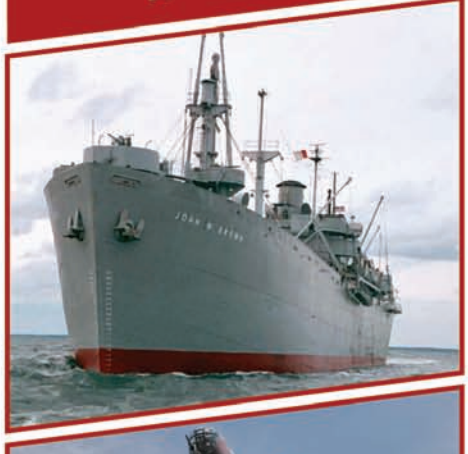

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By Bob Cashner

U.S.M.C.

The Dogs of War

Dogs were used on all fronts and in a variety of roles during World War II.

ANIMALS OF SEVERAL KINDS WERE USED DURING WORLD WAR II BY THE military forces of belligerents both large and small. For instance, despite Nazi propaganda films of mechanized Blitzkriegs consisting of panzers and half-tracks, in reality the majority of the German Army's artillery was still horse drawn.

The list of animals used by the various militaries around the world was diverse and, in some cases, a little odd. In addition to draft horses, pack mules, and carrier pigeons, animal warriors also included Finnish reindeer and camels. When it came to versatility, however, warriors of the canine variety saw service in the widest and most diverse array of military roles, such as message carrying, patrolling, guarding, tracking, mine detecting, search and rescue, and even as antitank weapons.

For their war dogs, the British Royal Army Veterinary Corps preferred the Alsatian, which is merely another name for the German shepherd, but also used dobermans, airedales, and rottweilers. Later, they found high pedigrees to be less important than originally thought. Mongrels with Alsatian blood and even some outright mutts could learn and perform quite well and were capable of being quiet, dependable, and rugged.

The hands-down favorite of the United States Marine Corps in the Pacific Theater was the doberman pinscher. The Doberman Pinscher Club of America organized the Marines' "recruiting drive" and the Dobermans became the official dog of the USMC. They were nicknamed, perhaps inevitably, Devil Dogs, from the German nickname for the American Marines during combat in World War I.

Of the U.S. Army's war dogs, according to the Quartermaster Corps, "In 1942 and 1943, when practically all of the dogs were trained to perform the comparatively simple tasks involved in sentry duty more than thirty breeds of both sexes were considered suitable for military service. Experience revealed, however, that even for sentry duty some breeds were unsatisfactory. Among these were Great Danes, whose large size made them difficult to train, and hunting breeds in general because they were too easily diverted by animal scents. By the fall of 1944 the number of preferred breeds had been reduced to seven, German shepherds, Belgian sheep dogs, doberman pinschers, farm collies, Siberian huskies, Malamutes and Eskimo dogs. Crosses of these breeds also were acceptable."

The Germans regarded German shepherds as the canine "Master Race" and well over half of their war dogs were of this breed, although Doberman Pinschers and other breeds were also used in lesser numbers.

The German Army had special eight-week schools for the training of war dogs, beginning with testing the animals' potential at age six months. For this early examination, the weeding out process required the potential doggy recruit to follow his owner day or night across different terrain, to behave properly in climbing stairs, in going into a darkened room, in crossing ditches and streams, on hearing gunfire, and more. Timid dogs were instantly eliminated from the program.

The Allies had similar initial testing and found that gun shyness alone washed out roughly a third of the potential war dogs right from the beginning. The standard American and British dog training programs were usually of six to eight weeks' duration for sentry dogs, but for those performing more specialized missions training could last up to 12 weeks.

American Army war dogs fell under the auspices of the Quartermaster Services, and their special niche became known as the K-9 Corps. Schools were set up around the country for training courses. Of course, the Army produced a manual on the subject: Technical Manual; TM 10-396, War Dogs, 1 July 1943.

Butch the doberman pinscher stands watch while his handler, U.S. Marine Private Rez Hester, sleeps on the embattled island of Iwo Jima. War dogs were responsible for saving countless lives during World War II in the Pacific.

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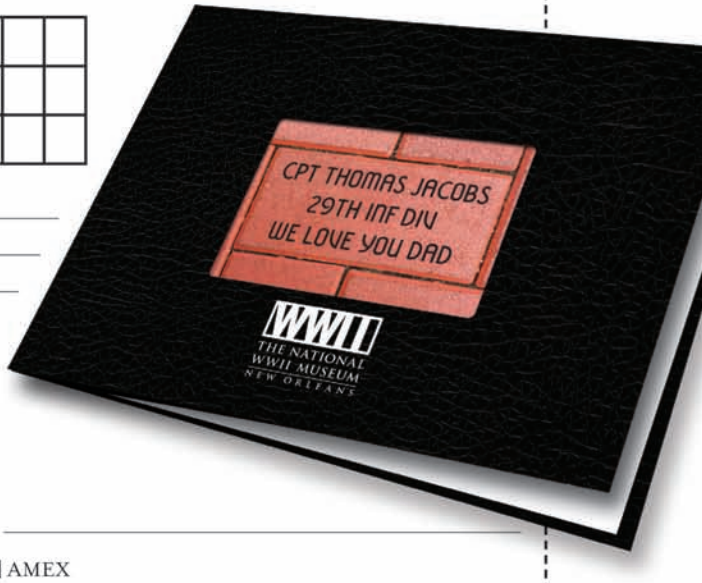

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German soldiers use a dog to search for partisans near the front lines in Russia. The Germans also employed dogs with the guards at their infamous concentration camps.

The British dogs belonged to the Royal Army Veterinary Corps, which had an excellent source of practical knowledge to draw upon when it came to training their war dogs, the Royal Canadian Mounted Police. The famous Mounties in their isolated and far-flung posts had trained and worked with canines in conjunction with their police duties for many years before the war in an era when police dogs were otherwise unheard of.

Like their charges, dog handlers were also specially selected from men who had finished their basic military training. A solid prerequisite was for men who were both friendly and sympathetic to dogs; a dog sensed handlers who were not, and the animal's willingness to perform greatly declined. German schools called for Hundefreunde—dog lovers—and spent approximately as much time on training the handlers as they did the dogs.

Use as messengers was the most common and often the most important role war dogs played. The Germans, in fact, selected only the smartest of their canine recruits for this duty. They provided scent trails for their messenger dogs to follow, using a 10-to-1 mixture of water and a molasses-like substance smelling like root beer, which they dribbled from a container that left a few drops per meter.

British and American training and use of messenger dogs involved two handlers. One would stay at headquarters or a command post while the other handler took the dog to its destination. When released with a message, the dog would return to the other handler. Thereafter the dog could find its way from one handler to the other by memory.

Allied forces considered a messenger dog's maximum range to be about eight miles, usually less. One famous Wehrmacht German shepherd named Caesar was the record setter, delivering a message over 10½ miles in 32 minutes. Each side stressed reliability of messenger dogs over speed. No matter the speed, they would always be faster than a human runner.

During the Italian Campaign, the mountainous terrain made even laying wire communications extremely difficult in some areas, and here there were cases where war dogs were used to help their competition by pulling wire up slopes too difficult for men to clamber up. Such was the landscape that in extreme cases The headquarters of the American Fifteenth Army noted the use of dogs for communication in its after action reports.

Dogs used in conjunction with reconnaissance patrols were known variously as tracker dogs by the Germans, patrol dogs by the British, and scouts by the Americans. These dogs were used mostly at night, moving usually 30 to 40 yards ahead of the human patrollers, and were specially trained to make no noise whatsoever. When the dog scented enemy personnel, it pointed like a bird dog or returned to its handler. The handler could roughly determine the distance to the enemy by the dog's level of excitement.

United States Marines and soldiers in the Pacific Theater from corporal to colonel were almost universal in their praise of the scout dogs assisting them in their battles with the Japanese, from the jungles of the South Pacific to the black sands of Iwo Jima, as indicated in comments from after action reports.

"The idea of all patrol members is that these dogs are of a great value. The lead scouts have great confidence in their knowledge that the dog's instincts are far more acute than their own."

"In my opinion the dogs are very valuable on patrols into unfamiliar territory. Their alert usually comes long before the scouts could detect any enemy presence. However, I would recommend that after alerting the patrol the dog should be moved back into the patrol while the rifle scouts make a detailed reconnaissance of the area. The dogs are too valuable to risk keeping forward after the initial alert."

Sentry or guard dogs were also widely used by both the Axis and Allies. These dogs were found to rely more on sight and sound than smell and needed to be retrained if they were to perform tasks that required scenting and trailing. They were used to safeguard field positions such as command posts, airdromes, and supply dumps, and the Germans made an additional note of their use in guarding important industrial facilities against sabotage. When they were available, American forces found a three-man dog team to be more effective on perimeter guard than a six-man squad.

In the Pacific and the China-Burma-India Theaters, guard dogs were found particularly useful. Japanese soldiers were particularly adept at infiltrating through friendly lines in the dark and often avoided detection by human sentries. Not so the sentry dogs with their keen noses and hearing.

The most sinister of the guard dogs were those of the dreaded German Schutzstaffel, or SS. Reichsführer Heinrich Himmler was himself a dedicated German shepherd owner, and that breed quickly became the mainstay of the SS war dog program. Every concentration camp had its own SS dog detachment, with the animals trained to viciously attack inmates, the fear of such aggression serving, according to Himmler, "to encircle prisoners like a flock of sheep and so prevent escape."

One often overlooked war dog was the draft animal. Some of the minor warring nations had dogs trained to pull small, two-wheeled carts full of machine-gun ammunition or other supplies. Draft dogs were especially popular with the German Gebirgsjaeger (mountain troops), who utilized them to pull carts or sleds in rough, mountainous country. Canadian and American dogsled teams were used to locate and rescue many downed pilots in Newfoundland, Greenland, Iceland, and Alaska where the treacherous northern weather made ferrying American-built aircraft to other fronts a hazardous undertaking. Often, messenger dogs carried small amounts of vital supplies on their return trips from headquarters.

In the deep snow, thick forests, and rugged terrain of the Ardennes during the Battle of the Bulge, the mechanized and motorized American forces found they could not find or get to

DOCTOR'S MEMORY BREAKTHROUGH

One Simple Trick to Reversing Memory Loss

World's Leading Brain Expert and Winner of the Prestigious Kennedy Award, Unveils Exciting News For the Scattered, Unfocused and Forgetful

By Steven Wuzubia
Health Correspondent;

Clearwater, Florida: Dr. Meir Shinitzky, Ph.D., is a former visiting professor at Duke University, recipient of the prestigious J.F. Kennedy Prize and author of more than 200 international scientific papers on human body cells. But now he's come up with what the medical world considers his greatest accomplishment — A vital compound. so powerful, it's reported to repair… even regrow damaged brain cells. In layman's terms — Bring back your memory power. And leave you feeling more focused and clear-headed than you have in years!

Dr. Shinitsky explains this phenomenon in simple terms; "Science has shown when your brain nutrient levels drop, you can start to experience memory problems and overall mental fatigue. Your ability to concentrate and stay focused becomes compromised. And gradually, a "mental fog" sets in. It can damage every aspect of your life". Not only do brain cells die but they become dysfunctional as if they begin to fade away as we age. This affects our ability to have mental clarity and focus and impacts our ability to remember things that were easy for us to do in our 20's and 30's.

Scientists think the biggest cause of brain deterioration in older people is the decreased functioning of membranes and molecules that surround the brain cells. These really are the transmitters that connect the tissues or the brain cells to one another that help us with our sharp memory, clear thinking and mental focus, even our powers to reason well. "When we are in our 20's" according to Dr. Shinitzky "our body produces key substances like phosphatidylserine and phosphatidic acid"…unfortunately they are believed to be critical essential nutrients that just fade away with age, much like our memories often do leading to further mental deterioration.

As we get older it becomes more frustrating as there is little comfort when you forget names… misplace your keys…or just feel "a little confused". And even though your foggy memory gets laughed off as just another "senior moment," it's not very funny when it keeps happening to you.

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Dr. Meir Shinitzky, Ph.D. a former visiting professor at Duke University and a recipient of the prestigious J.F. Kennedy Prize

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the wounded in many tough areas. Colonel Norman Vaughan, already famous in sled dog circles, flew in 200 sled dogs, mostly Malamutes and Huskies, as well as their mushers, from Arctic commands, intending to use them as dog sled ambulances. The only way to get them quickly to where they were needed by the ground forces was to drop them by parachute. His superiors dismissed this ridiculous idea, but the personal intervention of Lt. Gen. George S. Patton, Jr., saved the plan and the dogs became paratroopers.

The first active duty airborne dog, however, was supposedly a British collie named Rob, who was purported to have made 20 combat jumps while serving with the British Special Air Service commandos in North Africa.

The strangest and most gruesome use of war dogs came on the Eastern Front. In early 1942, Operation Barbarossa found the Soviets hard-pressed. They had lost vast numbers of tanks and antitank weapons in 1941, their industries were in the process of relocating to the Urals, and they were desperate for anything to stop the German panzers. Enter the dog mine; dogs were trained to run under enemy tanks with anti-tank mines attached to their backs.

Dogs were fitted with a canvas body harness rather like a version of the modern dog back-

National Archives

War dogs and their handlers stand ready for inspection during training. Thousands of families across the United States offered their animals as dogs to be trained by the military for the war effort.

packs. To the harness was attached to either a wooden box or packets of high explosive, as much as 25 pounds. A wooden dowel known as a tilt rod detonator protruded upward from the dog's back to trigger the explosives when it crawled beneath a panzer, in theory destroying the tank with a blast to the thin bottom armor. This method was, obviously, a single-shot weapon.

The idea may have looked good on paper, except to the poor dogs, but it left something to be desired when put into practice in combat.

Training involved feeding the dogs beneath tanks. However, the smells, sounds, and sights of a Soviet tank were quite different from those of a German tank. In the fog of war, with explosions and bullets flying, it was not unrealistic for the dogs to become confused or panicked. They were just as likely to run under a friendly tank as an enemy tank. Additionally, once the German Army learned of the *Hundminen* the intelligence was quickly disseminated throughout the front and orders were given to shoot all dogs on sight. While there were a few successes, the idea was short-lived indeed, although it was reported that the Viet Minh later attempted to use dog mines against French vehicles in Indochina.

A more noble and humanitarian task that was common during World War I was the use of first-aid or Medical Corps dogs. These animals located wounded men among the dead and saved countless lives. Russian medical dogs of World War I were trained to drag wounded men to safety. This mission was continued mainly in the European Theater during World War II, most notably in the casualty-heavy fighting on the Eastern Front.

German first-aid dogs were trained to ignore men who were standing or walking and con-

centrated only on men lying on the ground. When a wounded man was found, the dog seized his holder, a short strap hanging from his collar, and ran back to his handler. The handler then leashed the dog, who led the medics back to the wounded soldier.

The British found search-and-rescue dogs of great value on the home front. In 1940, when Britain stood alone before the might of an undefeated Nazi Germany, the Luftwaffe droned over the isles dropping bombs on the cities below in an unsuccessful effort to break the will of the British people. Civilian casualties mounted to over 40,000 dead and more than three times that number wounded. Soldiers, firemen, and police used dogs to find survivors in the rubble of the bombed-out buildings.

World War II even had canine heroes who were official members of some units, received their own ranks, and were awarded decorations for bravery. American doggie daredevils included Chips, a mongrel of shepherd, collie, and husky heritage with a penchant for doughnuts, who served with the 3rd Infantry Division. On the Sicily beachhead, the tired soldiers who had slogged ashore with Chips stopped for a breather when they found shelter, they thought, behind a ruined pillbox. In violation of the cardinal rule of his K-9 training, Chips broke away from his handler and ran away. The men found out the reason for this outrageous breach of etiquette a moment later when one of the Germans' dreaded MG-42 machine guns opened up on them. The gun, however, quit firing momentarily before it could inflict any casualties. Advancing on the machine-gun nest, the GIs found Chips, despite a bullet wound received in his charge, holding down the German gunner by his throat and thus "encouraging" the surrender of the rest of the gun crew.

Soviet Red Army soldiers and their antitank dogs, wearing white winter camouflage, head for the front as the Germans close to within a few miles of Moscow in 1941. The dogs were trained to run under German tanks with mines strapped to their backs, blowing themselves up and taking the vehicles with them.

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

By Jon Diamond

Naval History and Heritage Command

Revolver Pressed into Service

The Colt Commando remains a collectible handgun that was used in World War II.

MANY HANDGUN ENTHUSIASTS' BLOG ENTRIES RECOUNT HOW THEY STUMBLED onto a local gun show table only to find a dull-finished revolver that clearly bore the impression "Colt Commando .38 Special" on the left side of the barrel. The revolver's inclusion in the realm of World War II handgun ordnance remains an ongoing curiosity almost 75 years after the firearm's introduction.

Although Samuel Colt did not invent the revolver, his designs played a major role in the popularization of it with the ensuing shift away from earlier single-shot pistols. Colt received a British patent on his improved revolver design in 1835 along with two American patents the following year. For a variety of reasons, Colt's early production companies from 1837-1842 ended in failure. In 1846, during the Mexican War, Colt designed a new revolver prototype that was further revised by Captain Samuel Hamilton Walker.

This larger caliber Colt Walker was manufactured at the armory in Connecticut. The Colt Walker was initially ordered and used by a group of mounted law enforcers in Texas that later spawned the famous Texas Rangers. With the success of the Colt Walker, Samuel Colt started yet another of his own business ventures in 1848, which seven years later became the Hartford, Connecticut-based Colt's Patent Firearms Manufacturing Company, now shortened to Colt's Manufacturing Company (CMC).

In the late 19th and early 20th centuries, Colt worked closely with and profited from his relationship with the famous gun designer John Moses Browning, producing his many models of machine guns, the Browning Automatic Rifle (BAR), the Model 1903 and Model 1908 .45-caliber semiautomatic pistols and, the most famous .45-caliber Model 1911. Because of its incredible stopping power, the M1911 became the standard sidearm for the U.S. Army in World War I and as the M1911A1 in World War II. By 1918, CMC had produced and sold 425,000 of the famous Browning-designed M1911. During both world wars, CMC delivered approximately 2.5 million M1911 and M1911A1 semiautomatic pistols to the U.S. government alone.

Prior to U.S. entry into World War I, orders for the M1911 pistol from both the United Kingdom and Canada had become backlogged up to three years. Since the CMC could not furnish enough semiautomatic pistols to keep up with the demand, during World War I the U.S. Army decided to accept the Colt New Service revolvers chambered for the .45 ACP round. Thus, out of necessity, the M1917 revolver was developed as a substitute weapon. This revolver manufacturing pattern would repeat itself 25 years later, pertinent to the evolution of the Colt Commando, as World War II unfolded.

From the 1870s until the middle of the 20th century, the terms "Colt" and "revolver" were synonymous in the police world. With the U.S. Army's adoption of the M1911 semiautomatic pistol, military sales of Colt revolvers were waning. The Colt Army Special 38, produced from 1908-1927, was somewhat of a misnomer since it was utilized mainly by police forces and not the U.S. Army. Part of the Colt Army Special 38 appeal to police departments was that the revolver allowed for the use of more powerful ammunition like the .38 Special round. The term ".38 Colt Special" is nothing more than the .38 Smith & Wesson (S&W) Special cartridge, which was produced in 1899 and was a more powerful shell than the .38 Long Colt, with a different headstamp. In 1927, since the Army had never bought the Army Special 38 but many police depart-

Ensign Frederick Joyce, a U.S. Navy pilot, wears his Colt Commando service revolver in a leather holster. Approximately 1,800 Colt Commando .38 Special revolvers were issued to air crews in the Navy early in World War II.

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Saipan - Explore the invasion beaches where hundreds of Japanese jumped to their deaths

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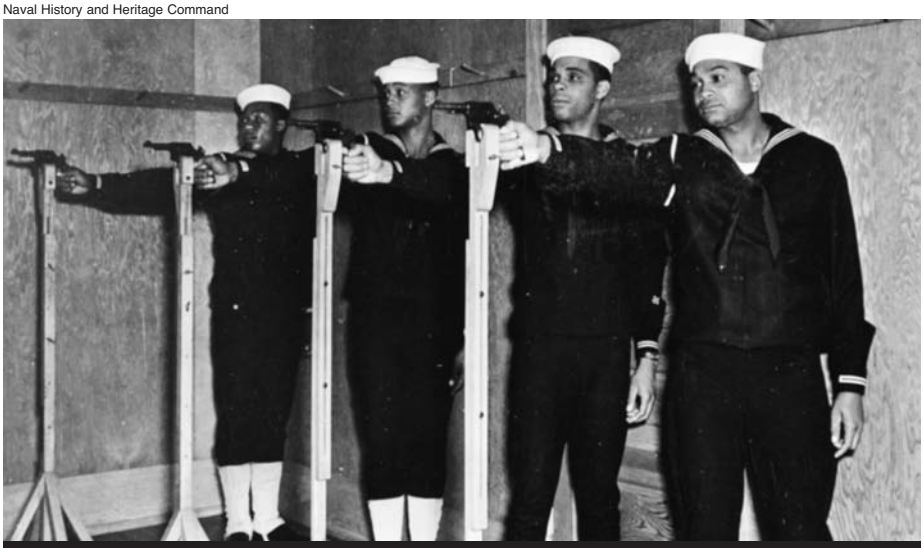


ABOVE: U.S. Navy Shore Patrol trainees practice marksmanship on the firing range with their Colt Commando revolvers at the Great Lakes Naval Training Station, Illinois, in November 1943. RIGHT: With its imprint on the left side of the barrel, the distinct profile of the Colt Commando is recognized by gun enthusiasts today.

ments had, the CMC made some minor alterations to this revolver, changed the name to the Official Police revolver, and continued making it until 1969.

Colt revolvers were the most popular law enforcement handgun in the world with the Official Police revolver being emblematic in that role among municipal and state police forces, becoming a huge commercial success for the CMC. Before U.S. entry into World War II, the Official Police model was bought by the U.S. Army to issue to military police. Other armed federal agency workers in the Federal Bureau of Investigation (FBI), the Treasury Department, Coast Guard, and Postal Inspection Service also adopted the Colt Official Police revolver as their standard service weapon. This handgun utilized a six-round cylinder as its feed system. The double-action revolver was chambered for a variety of cartridges including the .22 Long Rifle (LR), .32-20, .38 Special, .38/200, and .41 Long Colt. The Official Police revolver was manufactured with four-, five-, and six-inch barrel lengths.

In 1927, the modifications made on the 1908 Colt Army Special 38 for the Official Police revolver included a rounded, checkered cylinder latch; wider rear sight groove; matted topstrap; checkered trigger; and a better quality, highly polished blued finish. Also standard was the Colt Positive Lock, which prevented accidental firing, unlike the S&W .38 revolvers. This was achieved by interposing a steel bar between the hammer and frame that stopped the firing pin from reaching a primer unless the trigger was pulled through a complete stroke.

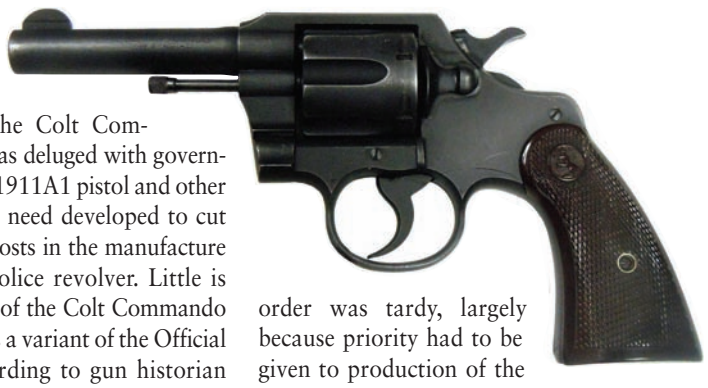
The production of the Official Police revolver would be interrupted with the advent of the Colt Commando at the outbreak of World War II. The necessity arose for the Colt Commando as the CMC was deluged with government orders for the M1911A1 pistol and other guns, and a desperate need developed to cut production time and costs in the manufacture line of the Official Police revolver. Little is known about the role of the Colt Commando during World War II as a variant of the Official Police revolver. According to gun historian Charles Pate, "Many more [Commandos] were used by the military than is commonly known."

Due to appeasement and delayed rearmament, along with the debacles in northwestern Europe with staggering loss of personal sidearms during the Dunkirk evacuation and others, the British Purchasing Commission bought and had shipped to the British Isles almost 50,000 Official Police revolvers between May 1940 and June 1941. These weapons bore British markings, were chambered for the .38/200 cartridge, and typically had five-inch barrels as well as a military-style lanyard ring on the butt of the handgun.

When the U.S. became a belligerent in World War II, the Army recalled all of the modern weapons, such as the M1911A, from the National Guard and then later equipped the various state units with nonstandard guns such as older model revolvers and a series of 12-gauge pump-action shotguns. A large number of contracts for newer model .38 revolvers were awarded to gun manufacturing firms to arm the National Guard units as well as security personnel to protect vital armament plants, boat-building facilities, and federal buildings. The Defense Supplies Corporation (DSC) had the role of providing arms for these state military and nonmilitary personnel as the enormous war matériel-generating process after December 7, 1941, grew exponentially.

While the standard sidearm for three decades had been the M1911A1 .45 semiautomatic pistol, the War Department had a stock of old 1917-era S&W and Colt .45 ACP revolvers that took moon-clips. The growing war machine was still in need of a good .38-caliber revolver for prisoner of war camp guards, aircrew, criminal investigators, counterintelligence personnel, factory guards, and other personnel.

The initial order for 2,500 Official Police .38 caliber revolvers with four-inch barrels was given by the DSC to the CMC just four days after the Pearl Harbor attack. An additional request for 2,500 Official Police revolvers was submitted to the CMC, but the delivery of the



order was tardy, largely because priority had to be given to production of the M1911A1 .45-caliber semiautomatic pistol. In August 1942, the U.S. War Production Board issued an urgent request to the DSC for 20,000 Colt Official Police .38 Special revolvers with four-inch barrels. Some of the DSC orders were ultimately diverted to S&W, the major CMC competitor. About 70,000 S&W pistols were procured by the U.S. Navy during World War II. This revolver, the Victory Model, was a version of their Model 10 Military & Police (M&P) .38 Special handgun. These revolvers saw extensive action overseas in the hands of Navy pilots and became the standard issue for naval air crews and shore-based personnel alike.

The CMC responded to the War Department that it could commercially provide more four-inch barreled Official Police revolvers at $28 apiece. However, the government balked and wanted to pay about $25 per gun. The problem with the Colt Official Police revolver, although it was perfectly suited for its role as a service sidearm, was that it required extensive hand finishing, which necessitated a lot of skilled labor and time. This made the Colt Official Police Revolver rather expensive and slow to produce.

New Male Potency Formula Makes "The Little Blue Pill" Obsolete

Scientific advance made just for older men.
Works on both men's physical ability and their desire in bed.

By Harlan S. Waxman
Health News Syndicate

New York – If you're like the rest of us guys over 50; you probably already know the truth… prescription ED pills don't work! Simply getting an erection doesn't fix the problem" says Dr. Bassam Damaj, chief scientific officer at the world famous Innovus Pharma Laboratories.

As we get older, we need more help in bed. Not only does our desire fade; but erections can be soft or feeble, one of the main complaints with prescription pills. Besides, they're expensive… costing as much as $50.00 each.

Plus, it does nothing to stimulate your brain to want sex. "I don't care what you take, if you aren't interested in sex, you can't get or keep an erection. It's physiologically impossible," said Dr. Damaj.

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The study asked men, 45 to 65 years old to take the main ingredient in Vesele® once a day. Then they were instructed not to change the way they eat or exercise but to take Vesele® twice a day. What happened next was remarkable. Virtually every man in the study who took Vesele® twice a day reported a huge difference in their desire for sex. In layman's terms, they were horny again. They also experienced harder erections that lasted for almost 20 minutes. The placebo controlled group (who received sugar pills) mostly saw no difference.

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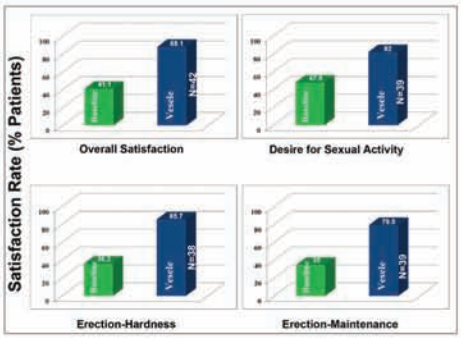

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Only a limited number of bottles are available during this special discounted promotion. Consumers who miss out will have to wait until the next discount promotion is made available. But this could take weeks. The maker advises your best chance is to call 1-800-865-6507 early.

The Army Ordnance Department was concerned about this, and CMC decided to make changes to the Official Police model to save both money and time in its manufacture. Concurrent with revolver manufacturing, there was an overriding need for the M1911A1, and this, too, was occupying much of the CMC factory's time. These production requisites hastened the development of the initial Commando prototype, which was shipped by CMC to the War Department on September 21, 1942, with an Official Police serial number 717520.

At the War Department, a Captain Baker approved of the Colt Commando prototype. Two other Colt Commando prototypes with Official Police serial numbers 724348 and 724347 were shipped to the Springfield Ordnance District (SOD) and to the Office of the Chief of Ordnance on October 27 and November 2, 1942, respectively. Then, the full-scale production of the Commando began in earnest in late November 1942. When Colt Commando serial numbers were utilized, the first revolver was 1747 and was shipped to the Office of the Chief of Ordnance on November 26, 1942. The initial batch of Colt Commandos, including two-inch barreled Junior Commandos, was shipped to the War Department on December 7, 1942, the first anniversary of the Pearl Harbor attack.

The CMC implemented several cost-cutting measures to meet the government's price point as well as shorten the manufacturing time to meet the demand for revolver production. The Colt Commando was simply a cheaper version of the Official Police model made more quickly for wartime service. From a Commando manufacturing standpoint, CMC eliminated unnecessary exterior polishing, giving the revolvers a dull, parkerized finish instead of the usual high-polish bluing of the steel. The term "parkerizing" is synonymous with bonderizing, phosphating, or phosphatizing. It was a method developed by Richard M. Parker, Jr., as a means to protect steel surfaces from corrosion and increase the handgun's resistance to wear through the application of a chemical phosphate conversion coating. Parkerizing is considered to be an improved zinc or manganese phosphating process.

In addition, the trigger, hammer, and cylinder latch of the Colt Commando revolver all lacked the usual metal checkering that was characteristic of the Official Police model. Checkered walnut grips with metal medallions were replaced with "Coltwood" on the Commando. These were essentially reddish-brown molded plastic grips, which early on were known for shrinking, leaving gaps in the fit to the handgun's frame.

Both: Library of Congress

ABOVE: A woman works with a milling machine at one of the manufacturing facilities producing firearms for the military in World War II. The U.S. government awarded contracts to numerous firearms manufacturers, including Smith & Wesson and Colt. BELOW: Two officers with the U.S. Army Railway service carry their Colt Commandos in holsters on their right hips.

The cost of the Official Police model now fell from $28 to less than $25 per unit for a Colt Commando. This latter revolver would then be the handgun to arm military police and armament installation and security guards through the DSC and merchant ship crewmen via the U.S. Maritime Commission.

Approximately 49,000 Colt Commandos were purchased by the U.S. government during World War II. Based on factory results, the U.S. Army directly procured more than 16,000 Commandos, while only about 1,800 went to the U.S. Navy in the early war years. The remainder of the manufactured Commandos was purchased through Army Ordnance contracts. A total of 12,800 Commandos were issued to U.S. Military Intelligence, the Counterintelligence Corps, the newly formed Office of Strategic Services (OSS), and other intelli-

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gence organizations.

About 3,450, of the roughly 49,000 Commandos produced were in two-inch "snub" variants that were commonly termed Junior Commandos. These short-barreled revolvers would primarily serve overseas and behind enemy lines among the espionage agents and military intelligence liaisons of the OSS. Only a few shipments of two-inch revolvers were made for stateside civilian use, and these were produced late in the war. Regular production of the original two-inch barreled Junior Commandos began in March 1943. These revolvers had a round front site and bore the marking "CONN" abbreviated for Connecticut, since the handguns were manufactured in Hartford.

The American officers of the OSS Special Operations (SO) branch had the primary missions of gathering military intelligence, conducting sabotage, and training local resistance fighters, while avoiding direct contact with the enemy. These operatives often carried just a small pistol for self-defense. Since detection of these handguns was immediately incriminating, the stronger desire was for these agents to carry the shorter and more compact two-inch barrel Commando concealed in a pocket. In addition to the Colt Commando of both two- and four-inch barrel lengths, the Colt M1903 and the M1911A1 semiautomatic pistols were also employed by OSS personnel.

Using the two-inch barreled Junior Commando was not problematic for gunfire accuracy since British intelligence operatives of the Special Operations Executive (SOE) in 1940 began learning the Fairbairn-Sykes method of pistol shooting. William Fairbairn and Eric Sykes were both former pistol experts on the Shanghai Municipal Police Force. As described by military and espionage historian Terry Crowder, an intelligence operative would assume a forward-crouched stance with "one foot placed in front of the other as if running or stooping." The handgun was to be fired from the "hip level with a crooked arm." This method was contrary to the orthodox military-type target shooting style of holding the pistol's rear sight at "eye level with the arm fully extended and then taking aim."

Both Fairbairn and Sykes trained future SOE agents to fire two shots quickly after drawing their hidden handgun on targets less than four yards away. OSS agents shortened many of the four-inch Commando barrels to two inches. Two shots fired in rapid succession without taking the time to re-aim the revolver enhanced the stopping power of the shorter barreled handgun and further disoriented the target at the reduced distance.

A variety of other markings also appeared on the Colt Commandos. Some had a small Ordnance Department "bomb" marking, which was similar in appearance to the number 8. Others were stamped with GHD, the Army inspector's initials, Lieutenant Colonel Guy H. Drewry, on the left side of the frame. Later Commando revolvers sometimes had a "P" on the upper left frame that was associated with defense plant use.

In 1945, the military realized that the end of the war was in sight, so the Commando revolver contract with CMC was ended with the factory still having about 1,500 guns undelivered. After the war, CMC resumed production of the Official Police revolver. The prewar highly polished blue finish reappeared, but the plastic "Coltwood" grips were maintained until as late as 1954, when the checkered wooden grips were reintroduced. Due to both competition and the costs of manufacturing, CMC ceased production of the Official Police model in 1969 with more than 400,000 of them having been made.

Many states that had received Commandos for their National Guard units passed them on to Civil Defense, prison staff, police, and military schools in the late 1940s-1950s. As an intriguing side note, early in World War II the U.S. Army withdrew the M1911A pistols from the Alabama National Guard to distribute them to regular U.S. Army soldiers. The Alabama National Guard immediately placed an order for Colt Commandos to replace the M1911A pistols, perhaps 200 in all. Before the Commandos were delivered, Army Ordnance reissued .45 semiautomatics to the state National Guard.

When the Colt Commandos arrived, they were placed in storage and never issued. They remained in storage for 68 years, from 1943 to March 2011. This batch of new Colt Commandos, still boxed in Cosmoline, was placed on sale as surplus by the Alabama National Guard.

The Colt Commando was produced during wartime for the sake of both manufacturing expediency and cost reduction in a booming rearmament economy. The revolver fulfilled its role in arming a broad swath of military and nonmilitary personnel. Today, the appearance of a Colt Commando generates curiosity among those interested in both the lesser known weapons of World War II and the nuanced history of revolver firearms production.

Jon Diamond practices medicine in Harrisburg, Pennsylvania, and is a frequent contributor to World War II History.

By John W. Osborn, Jr.

National Archives

Warriors on Water

The British Special Boat Service performed extraordinary missions during World War II.

"WE WERE TO BE TERRORISTS. OUR JOB WAS TO TERRORIZE THE GERMANS," one former member said dramatically. Another more prosaically likened it to poaching: "Creep in, set the traps, hang about, collect the spoils, and get away without being caught."

Both descriptions were equally appropriate in describing one of the least known special forces units of World War II. Although British, it owed its origin, ironically, to the Germans. They had designed a collapsible sporting canoe, effective for both shallow water and deep, rougher seas, called a Folbot. A British officer, Major Roger Courtney, discovered it paddling the length of the Danube on his honeymoon, and he went on to organize a unit of the craft to raid Mediterranean ports. It caught the eye of the legendary founder of the Special Air Service, Colonel David Stirling, and he brought it into the SAS as its Folboat Section.

The Folboat Section "carried out many brilliant operations," according to Stirling, none more so than during the run-up to Operation Torch, the Allied landings in North Africa in November 1942.

It landed General Mark Clark on an Algerian beach for his critical meeting with Vichy French officers, smuggled French General Henri Giraud out of occupied France, laid marker guides for the landings, and raided Oran Harbor. After Stirling's capture, the SAS was broken up. The Folboat Section was established as its own independent unit, the Special Boat Squadron, later the Special Boat Service (SBS), on March 17, 1943. Its first commander was 24-year-old Lt. Col. George, 2nd Earl Jellicoe, son of the World War I Admiral John Jellicoe, who commanded the Royal Navy forces during the pivotal Battle of Jutland.

Jellicoe organized and trained the SBS at a base at Haifa, Palestine, with never more than 100 men under his command at any time. Starting with Folboats launched from submarines, the SBS moved up to caiques, Greek fishing schooners the SBS valued for their range, endurance, and the fact that there were too many of them in use for the Germans to attempt to search them all, and finally to fast motor launches.

The SBS fought its way through the Mediterranean, the Aegean, and the Adriatic, on the Dodecanese and Dalmatian Islands, in Italy, Greece, Yugoslavia, and Albania. The SBS would paddle, sail, or speed from out of the darkness into an enemy harbor, either to silently attach limpet mines to shipping or loudly shoot up and blow the place apart, sometimes continuing inland to commit sabotage.

"The SAS liked to burst gallantly through the front door," an SBS captain remarked, "while the SBS preferred to slip in at back through the bathroom window."

Although Jellicoe commanded and its accidental founder Roger Courtney was in it, the most important figure of the SBS would in fact not be British at all. "In England," remembered Jellicoe, "I met a marvelous Dane named Andy Lassen."

Lassen was a 20-year-old cadet-officer aboard a British merchant ship in the Persian Gulf the day he heard of the early morning German blitzkrieg against Denmark, leading a veritable mutiny to reach the nearest port. From there he headed straight to England to join what there was of a free Danish army. Too impatient for regular soldiering, he joined the Special Operations Executive.

By the time Jellicoe acquired Lassen for the SBS, he had already earned the first of eventually three Military Crosses. But their association almost ended before it could get properly started—in a bar back in Palestine. "I must have said something that offended him and ignited his quick fuse," remembered Jellicoe. "Two or three minutes

Imperial War Museum

ABOVE: An SBS corporal sharpens his fighting knife prior to a mission. TOP: Brandishing an assortment of automatic weapons, members of the elite British Special Boat Service pose for a photographer during an exercise in a Greek village. The SBS conducted some of the most dangerous clandestine missions of World War II.

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A hero of the SBS, Anders Lassen, who was killed in action late in World War II, stands in the back of a group of his comrades. Several Folboats, the SBS transportation of choice, are seen in the background of this photo.

later I found myself getting up from the floor."

Jellicoe would have been in his rights seeing Lassen in the stockade for the rest of the war; instead he had him spend it in the thick of the deadliest, most desperate SBS operations of the conflict. "He was brave with such a calm, deadly, almost horrifying courage," another officer said, "born of a berserk hatred of the Germans who had overrun his country. He was a killer, too, cold and ruthless—silently with a knife or point-blank range with a pistol. On such occasions, there was a froth of bubbles round his lips, and his eyes were dead as stones."

The last operation for the SBS in World War II was against a network of German pillboxes and machine-gun posts in Italy after midnight on April 9, 1945, led, aggressively from the front as always, by Anders Lassen.

The heroic Dane's sergeant major, Leslie Stephenson, had his doubts: "All our success had come from stealth, but now we were used for an infantry assault that, considering our type of soldiering, was a suicide mission."

But Lassen evidently did not care. He had impatiently, angrily, been kept from action for months, but shortly before this fight had talked ominously for the first time about possibly not making it back.

Lassen was making sure the Germans did not survive the onslaught, singlehandedly knocking out two pillboxes and a machine gun with grenades. "He forgot where he was," one of his men remembered. "He forgot about taking cover. He forgot every damn thing except going forward."

At the next pillbox he heard a shout of "Kamerad!" and ordered Stephenson and the others to stay back as he approached it alone. He disappeared from view around the side. Then there was a burst of machine-gun fire. Seconds that seemed as long minutes to Stephenson passed. Then, "SBS, SBS, Major Lassen wounded. Here."

Stephenson dashed to find the Germans gone and Lassen on his back. "Who is it?" the wounded man asked.

"Steve."

"Good. Steve, I'm wounded. I am going to die."

Stephenson put a morphine tablet on Lassen's tongue, assuring, "We're going to get you back."

"No use, Steve. I'm dying and it's been a poor show. Don't go any further with it. Get the others out." These were Lassen's last words.

There was understandable bitterness inside the SBS for such a loss in what was regarded as a pointless attack with the war's end so close. But there had already been another loss, the full extent of the tragedy not known for decades.

The half dozen men of Mission LS24 had disappeared in the Aegean in April 1944, the only SBS operation never to return. "The war is over but they remain listed as 'missing,'" an officer sadly wrote in 1947. It was not until

ABOVE: After returning from one of their trademark covert operations, these SBS men pose proudly with the ensign of the Kriegsmarine, the German Navy. BELOW: Boat Service men set out on the dangerous Santerine Raid, in which they killed 30 enemy soldiers.

Imperial War Museum

the 1980s that the terrible truth came out. They had been captured, tortured, and executed by the Germans.

Tragedy became international scandal over the role played in their fate by an officer named Kurt Waldheim. During his international career, culminating as secretary-general of the United Nations from 1971-1982, Waldheim's story that he was medically discharged from the German Army in 1941 with a leg wound sustained on the Eastern Front had been accepted without scrutiny. But, while running for Austria's ceremonial presidency in 1986, the truth came out. Waldheim had served through the entire war, including in the intelligence unit responsible for the interrogation and elimination of Mission LS24.

Continued on page 82

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The German concept of mobile warfare was conclusively proven when the Wehrmacht breached the French defenses at Sedan in May 1940.

BREAK

The attack was beginning despite the widespread lack of artillery support, engineers, or armor. Normally this would be a recipe for disaster.

Clusters of gray-clad German infantrymen braved the torrent of enemy fire, carrying assault boats right up to edge of the Meuse River. On the opposite bank, French soldiers crouched in their bunkers and trenches as German aircraft roared overhead, bombing and strafing, paying particular attention to the French artillery positions within range of the river. The Luftwaffe pilots were determined to keep French heads down with a storm of bombs and bullets. Men on both sides braved fire to accomplish their respective missions on the afternoon of May 13, 1940.

On the German side of the river, Lt. Col. Hermann Balck urged his men forward. His command, Panzergrenadier Regiment 1 of the 1st Panzer Division, was tasked to get across the river and establish a bridgehead. The situation was already unfolding against his unit. Earlier in the day, the least German movement drew artillery fire, keeping the German troops pinned in their hastily dug foxholes and entrenchments. Their own artillery was hopelessly mired in a traffic jam rearward and could not get there in time. The boats for the crossing had arrived, but the operators had not. The only thing that had gone right was the Luftwaffe's air attack. The aviators' efforts had been so successful the French gunners had reportedly abandoned their guns and refused to return to them.

It was here that Balck's meticulous training and leadership came into play. He had trained his men to operate the boats themselves, planning against just such an occurrence. Now he did not have to wait. The French artillery's cessation had an immediate effect on his men. Just minutes earlier they were lying in slit trenches, trying to avoid the maelstrom of steel flying mere inches above them. Now they leaped from cover and got the boats into the water. Ordering his regiment to cross the Meuse, Balck climbed into a boat, set on accompanying the first wave.

The German troops huddled in the fragile inflatable boats; they were at their most vulnerable point with nothing to protect them from enemy fire. Bullets fell like hail. Balck, always one to lead from the front, impressed his men by his willingness to share the risks of combat. It would enable him to get the most out of them now and in the future. Today, however, the crossing was quick as the Meuse is only a few hundred feet wide.

It took only minutes for Balck and his men to scramble ashore while the boats returned for the second wave. The Panzergrenadiers hurriedly attacked the first line of bunkers nearest the riverbank. Within a short time they carved out a small perimeter and steadily began to expand it. The battle for Sedan was well underway; its outcome would soon decide the fate of France itself.

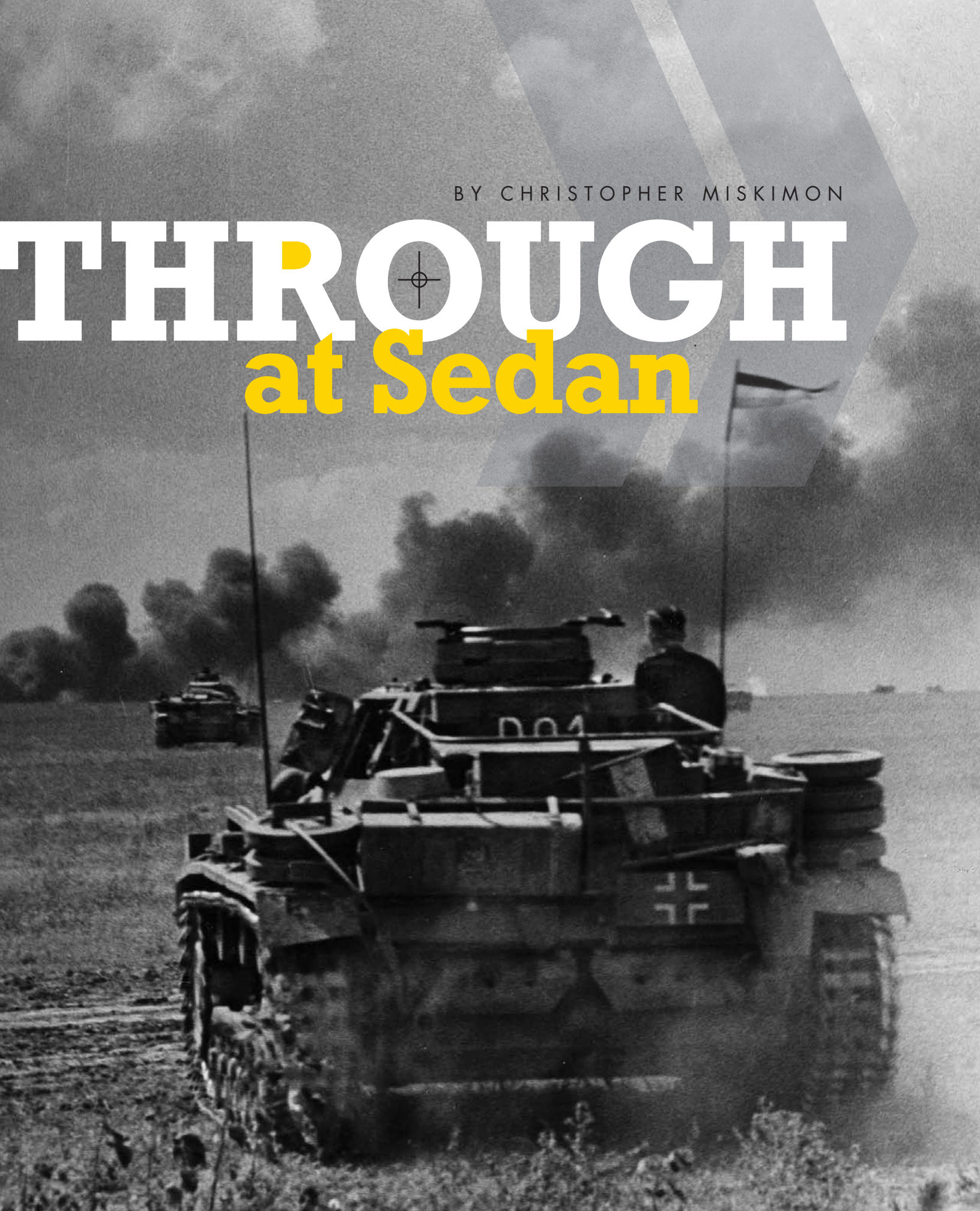
Alamy Images

RIGHT: As smoke billows in the distance, German tanks advance rapidly across an open plain somewhere in France. The Germans won a significant victory at Sedan, using the Ardennes Forest as their gateway to the west, just as they had done in 1914. ABOVE: A pair of French soldiers man a machine gun position and await the oncoming Germans.

AKG Images

BY CHRISTOPHER MISKIMON

THROUGH at Sedan



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LEFT: German half-tracks and panzergrenadiers advance across the Belgian section of the Ardennes on May 10, 1940. A small force of Belgian infantry slowed the 1st Panzer Division for several hours, before the Germans pushed through. ABOVE: German Army morale was high, while the morale of French soldiers was not nearly as strong, and it quickly collapsed as the Germans breached their defenses at Sedan.

The blitzkrieg legend has stayed with the German Wehrmacht to this day. The term itself was made famous by the Western press; the Germans referred to the concept as *bewegungskrieg,* or war of movement, only rarely using the term *blitzkrieg* at the time. Nevertheless, the word has gained common usage since and there is no better example of it than the Battle of Sedan in 1940. It was a critical point in the Nazi invasion of Western Europe; if the Germans were held up here it could have fatally doomed the entire effort into stalemate. Success would mean victory and revenge over hated France, which imposed harsh terms at the end of World War I.

Both France and Britain entered the war just days after the Third Reich attacked Poland on September 1, 1939. The war since then had been marked by a lack of combat in the West. British pundits labeled it the "Sitzkrieg" due to the inactivity. An American senator called it the "Phony War." This low tempo was just what the Nazis needed; they were unprepared to fight a two-front war, and their western defenses were manned by underequipped second-rate troops. They did not waste this precious time but instead began planning their campaign to knock France out of the war. With luck, this would cause Britain to negotiate, leaving Germany in control of mainland Europe.

The German plan was the brainchild of General Erich von Manstein. He was unhappy with the existing plan, which he feared would not achieve the fast, decisive victory Germany needed. It called for one army group to demonstrate in front of the Maginot Line to keep the force occupying it in place. A second group would advance through the Ardennes region and southern Belgium, acting as a pivot point for the main effort, an attack by a third group that would sweep through the Netherlands and northern Belgium to drive the Allies back until the Channel ports were captured. To Manstein, this was an unimaginative repetition of the World War I Schlieffen Plan, which ultimately ended in four years of stalemated trench warfare.

Instead, Manstein devised a plan that could trap the Allies away from their lines of communication and end the war quickly. His plan also involved three army groups. Army Group C would still attack the Maginot Line to keep the troops manning it focused away from the real action. Army Group B would invade Belgium and the Netherlands using a large number of airborne troops and just enough armored divisions to make it look like the main thrust was occurring there. This would hopefully draw the Allies' main armies north into Belgium. In actuality, this was just what the French expected to happen. Army Group A, with the bulk of the tank and mechanized units, would be the primary force. It would attack through the Ardennes Forest, which was thought impassable to heavy forces. Once through, it would quickly cross the Meuse River and strike for the English Channel coast. This would cut off the Allied armies in Belgium and place them in a position to be annihilated if they would not surrender.

Army Group A would send its best units through the Ardennes first in the hopes they would quickly get to the Meuse River, crossing it between Sedan and Namur. This included the panzer divisions supported by motorized infantry units of both the Heer (Army) and Waffen SS. If they could get across the river quickly, it would allow the Germans to get behind the French lines and make their break for the coast. It was difficult but not impossible. The roads through the Ardennes were narrow, and only a few of them ran east to west. Moving so many divisions through the area quickly would require using both lanes of each road for westbound traffic. Even worse, the units would have to abandon the usual rules for spacing; they would be packed together almost bumper to bumper, making them vulnerable to air attack. To offset this risk the Luftwaffe would deploy much of its fighter strength over the area to beat back any Allied air attacks. Likewise, large numbers of antiaircraft guns would accompany the advancing German columns.

Among the subunits of Army Group A was the XIX Panzer Corps, commanded by General Heinz Guderian, Germany's premier *bewegungskrieg* theorist. Aggressive and confident, he was a good choice for such a daring operation. Under his command were the 1st, 2nd, and 10th Panzer Divisions along with the attached Grossdeutschland Infantry Regiment, an elite Army unit that would later be expanded to divisional strength. Photographic evidence of the

campaign shows the armored divisions were well equipped with PzKpfw. III and IV tanks, the best the Wehrmacht possessed at the time, though not available in great numbers. Each division also contained motorized infantry and artillery.

On the Allied side, French planners were convinced the main German thrust would come through the Netherlands and Belgium, believing a large army could not quickly move through the Ardennes. The Allies' Plan D was created for this eventuality. This plan would send three French armies and the entire British Expeditionary Force northward into Belgium to meet the German attack along the Dyle River. The Royal Air Force and French Air Force would prioritize their effort in this sector, leaving the Ardennes and Sedan defended by second-rate French units and some Belgian cavalry. To the south, the Maginot Line would stop any attacks from Germany itself.

Though the Germans have since become known for their tanks, during the Battle of France they actually had fewer tanks than the Allies. Moreover, French tanks were more heavily armed and armored than their Wehrmacht counterparts. Several factors served to negate this advantage, however. French tactics dispersed most of their tanks among their divisions in an infantry support role. The Germans concentrated their panzers to strike decisive blows where needed and exploit breakthroughs. German tank crews were usually better trained, and their vehicles were all equipped with two-way radios, allowing them to communicate and coordinate during battle. Only a few French tanks had radios at all, reducing many of them to using signal flags and other methods, which distracted tank commanders from controlling their crews. The French were also quite deficient in antiaircraft guns; most of those they had were obsolete. In terms of aircraft the Germans were dominant in numbers and overall quality. The German Junkers Ju-87 Stuka could act in the role of artillery with its accurate dive-bombing capability.

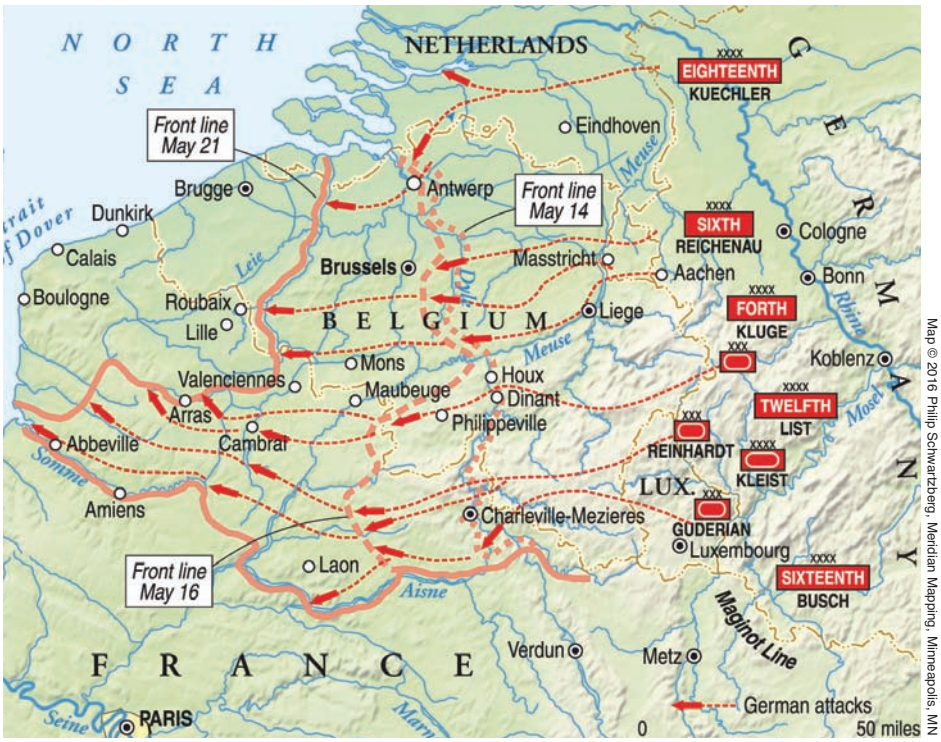
Perhaps the worst discrepancy was in the area of morale. The Germans were eager to balance the scales of the last war and regain lost pride. Their officers were trained to lead from the front and share hardships. French enlisted men in Sedan were often billeted in stables next to the horses. They were under orders to wear their helmets, gas masks, and cartridge belts when on duty. However, their officers would disregard this order and walk around without the encumbrance, leading to feelings of discontent. The French government was also dealing with political instability and even sabotage in factories making war material by underground communist groups. While many Germans lacked enthusiasm for the war and the rationing it brought, they had faith in their military's capabilities, bolstered by the recent campaigns in Poland and Norway.

The French 2nd Army was the force responsible for defending Sedan. Commanded by General Charles Huntziger, it had gained fame at the Battle of Verdun in World War I. The Army's X Corps—composed of the 55th Infantry and 3rd North African Divisions, later bolstered by the 71st Infantry Division—was the main unit to engage at Sedan. The 2nd Division Legeres de Cavalerie (2DLC), or light cavalry division, was the scouting and screening element for the 2nd Army.

The battle for France began on the morning of May 10, 1940. At 5:30 AM, Guderian's XIX Panzer Corps crossed the border into Luxembourg. By 10 that morning the leading German units had crossed the next border into Belgium. To the north, Army Group B was making a convincing demonstration with its tank and airborne troops, including the spectacular seizure of the Eben Emael fortress using a handpicked team of paratroopers. These efforts caused the Allies to believe the main thrust was indeed coming from the north and sent their forces to counter it. Meanwhile, the real main thrust was making its way through the thick Ardennes Forest, filling the roads with vehicles while overhead Luftwaffe fighters raced forward to keep back enemy reconnaissance or attack planes.

The Belgian section of the Ardennes was defended by a small force of Chasseurs Ardennais, infantrymen reinforced with a small number of tanks, some equipped with 47mm antitank guns. They were too small a force to defend the entire region, so their tasks were to delay the enemy, destroy lines of communication, and then withdraw to rejoin the main Belgian army to the north. Since their army lacked the resources to defend the area, it was expected the French Army would take over responsibil-

THE FRENCH HIGH COMMAND, CONVINCED THE MAIN ATTACK WOULD COME FROM THE NORTH, ORDERED THE AIR FORCE TO CONCENTRATE ITS STRENGTH ON THAT FRONT. EVEN SO, FRENCH RECONNAISSANCE FLIGHTS REVEALED THE LARGE GERMAN MOVEMENTS COMING THROUGH THE ARDENNES.



Map © 2016 Philip Schwartzberg, Meridian Mapping, Minneapolis, MN

General Heniz Guderian's command advanced rapidly across France on the southern flank of the German onslaught. Guderian is considered by many historians to be the father of the blitzkrieg.

ity for the Ardennes.

Toward that end, the Chasseurs prepared demolitions and created a number of obstacles in the Germans' path but had to abandon them before French troops arrived to utilize them. This made it easier for the Germans to clear the obstacles since they were not covered by fire. At the town of Martelange, two companies of the Chasseurs did not get the word to retreat and maintained their positions, opening fire on the advancing Nazis of the 1st Panzer Division. They were able to delay the German advance for several hours, the only real resistance Guderian's troops faced from the Belgians on May 10.

When General Huntziger learned of the German invasion on the morning of May 10, he immediately dispatched the 2 DLC to the Ardennes. The division's advance guard ran into the leading elements of the 10th Panzer Division late in the morning near the town of Habay-La-Neuve. It was a meeting engagement, meaning both units were advancing and essentially ran into one another. The French cavalrymen were quickly overwhelmed by the German panzers and fell back that evening with heavy casualties, heading for the nearby Semois River, only 10-15 miles from Sedan.

The next day the Germans moved on from the Martelange area and ran into another French cavalry unit, the 5 DLC, in the vicinity of Neufchateau, Belgium. This unit was also roughly handled by the Germans and forced to retreat. General Huntziger allowed them to fall back to the Semois River alongside the 2 DLC but ordered them to hold the river line no matter the cost. To bolster the cavalry he sent an infantry battalion from the 55th Division, which was digging in at Sedan. By that evening they were all situated on the west bank of the river.

This movement would prove to have unintended and disastrous consequences for the French in front of Sedan. The unit to the north of 5 DLC was the 3rd Spahi Brigade, part of the French 9th Army. Normally these two units would coordinate with each other to ensure no gaps in the line along the army boundary. On May 11, this did not happen properly, and when the commander of the Spahis learned of 5 DLC's retreat he ordered his own unit to fall back behind the Meuse River, several miles farther west. At this point the Spahis had not even contacted the advancing Germans. As a result the left flank of the French cavalry was now open and unguarded. By the afternoon of May 11, the 1st Panzer Division's motorcycle reconnaissance battalion found the open flank and reported it. By that evening the Germans were across the Semois River at Mouzaive, roughly 10 miles north of Sedan.

Overhead, another French miscalculation worsened the situation. The French high command, convinced the main attack would come from the north, ordered the Air Force to concentrate its strength on that front. Even so, French reconnaissance flights revealed the large German movements coming through the Ardennes. Air Force General Francois d'Astier noticed these reports and forwarded them to the high command, including references to large mechanized and armored forces accompanied by bridging equipment. He reported what appeared to be a major movement toward the Meuse River, but the high command kept to its assessment of the main thrust coming from the north. The French X Corps commander, General Pierre-Paul-Charles Grandsard, later said he never received any reports from the air force. This left him unprepared for what was coming.

On May 12, the Germans resumed their advance with 1st Panzer reinforcing its bridgehead over the Semois at Mouzaive and crossing at nearby Bouillon. By mid-day German engineers were building a bridge over the river as French artillery shells landed around them. Overhead, French warplanes dropped bombs in an attempt to delay the enemy. A few miles south the 10th Panzer was able to get across the Semois between the towns of Herbuemont and Cugnon. The 2nd Panzer was delayed fighting some enemy units that appeared to the north and did not get across. Still, two of XIX Panzer Corps' three divisions got over the Semois and advanced on Sedan. As night fell over the battlefield, both leading divisions arrived at the

All: National Archives

ABOVE: French soldiers service a World War I-vintage 75mm gun from a camouflaged position. Ammunition was in such short supply that the French gunners were restricted to 30 rounds per day. With the French Air Force concentrating in the north, German air power silenced many French guns. RIGHT TOP: The Germans bypassed the fixed fortifications of the Maginot Line and assaulted the French through the sparse defenses of the Ardennes Forest. RIGHT BOTTOM: A Junkers Ju-87 Stuka dive bomber screams down on a target in France. The dive bombers silenced French artillery and broke up several French counterattacks.

Meuse River; their French opponents retreated to the opposite bank without putting up a fight or even a delaying action.

Now the real fight for Sedan was set to begin. German and French units stared at each other from across the Meuse. Behind the Germans a series of columns were strung out through the Ardennes Forest, desperately trying to get forward and join the attack. These columns contained most of their artillery and engineer assets. The French believed this meant the Germans would not try to cross until those assets could be brought forward, giving them time to prepare further. They also believed the French Air Force would fly sorties the next day to blunt this attack. To stiffen the defense the French high command committed the XXI Corps, composed of one armored and one motorized division. They began moving toward Sedan on May 11.

General Grandsard also positioned another infantry division, the 71st, between the 55th and 3rd North African to reinforce the Sedan front. The 55th had lost the battalion sent forward to assist the cavalry and was redistributing its troops. Both infantry divisions were short of antitank and antiaircraft guns, but the 55th Division possessed double its normal allocation of artillery. A number of corps-level artillery units were also attached to the 55th, giving it 140 guns under its control.

Also on May 12, Guderian met with his superior, General Ewald von Kleist, who ordered Guderian to force a crossing of the river by the following afternoon. Guderian was concerned about the 2nd Panzer Division, which still had not arrived. Kleist insisted on maintaining the offensive and believed the element of surprise could be achieved with a quick attack. Guderian agreed and made a hasty plan based on one he developed as an exercise the previous February. The 1st Panzer Division would make the primary effort. It would cross the Meuse just north of Sedan, seizing the high ground of La Marfee, which overlooked the city. To ensure success the division would be reinforced by the Grossdeutschland Regiment, a battalion of combat engineers, and the entire artillery pool of the three divisions in XIX Corps. The 10th Panzer would cross the river south of Sedan and protect the left flank of the corps while the 2nd Panzer would do the same on the corps' right flank at the French town of Donchery, west of Sedan. Once across, the corps would be poised to strike west toward the coast, cutting off the Allied armies to the north and achieving the German operational objectives.

Preparation for the attack began on May 13, as each German unit struggled to get into its proper position for the afternoon attack. The limited road network still restricted their speed, and from across the Meuse French artillery fired at any target observers could find. One French general later wrote, "What a chance for the artillery to strike hammer blows, to put into practice the 'swinging concentrations' which are the crowning glory of the 500-page general instruction on artillery fire!"

Unfortunately for the French, their guns were restricted to only 30 rounds per day, greatly reducing the amount of fire they could mass upon the Germans across the river. The gunners had to limit their fire, feeling the need to conserve ammunition for later fighting. General Grandsard and his staff were still assuming it would take the enemy perhaps a week before they would be ready for a crossing attempt.

The German artillery was still trying to get into position through May 13, struggling with all the other supporting troops trying to get into their assigned places. Instead, the Germans used their marked superiority in air power to mount a heavy attack. The Luftwaffe used a combination of level bombers and Stuka dive bombers to lay down a barrage from the air, which shocked the French with its intensity. This allowed Lt. Col. Balck the reprieve he needed to get his panzergrenadiers across the Meuse.

It also tipped the commander of the French 55th Division, General Pierre Lafontaine, that the main enemy attack was coming soon. He signaled the corps commander, General Gransard. In response Gransard ordered his corps reserves, composed of a pair of tank battalions and two infantry regiments, forward so they could counterattack any German assault that developed. The French were still reacting too slowly, however. It took until dusk for the reserve units to even begin moving, and by then it was too late.

With the French artillery knocked out of the battle, the Germans moved up what tanks and antiaircraft guns they could to place the French river defenses under direct fire. At 4 PM, the boatloads of infantrymen began crossing the river, with Balck among those in the leading craft. Though his memoirs mention a lack of artillery support, other sources point out a short, sharp barrage laid down by German guns to suppress the defenders immediately before the crossing operation began.

German troops use rubber rafts to cross a river somewhere in France. Lt. Col. Balck accompanied his men across the Meuse near Sedan where the first waves of German infantry took heavy casualities.

Either way, the German infantry started across. Despite the artillery and air attacks, heavy fire greeted them, causing heavy casualties for the first few waves; one estimate placed the dead and wounded at fully half the infantry Balck took with him. Nevertheless, they pushed forward and seized a bridgehead. Their efforts paid off; they were able to knock out enough French bunkers to allow the following waves to get across practically unharmed. The engineers also got forward and began building a pontoon bridge at 6:30 PM. By sunset the heights on the southern bank were in German hands.

The 10th Panzer had a more difficult time but still managed to create a small bridgehead of its own. It took some casualties from a few French guns that had not been destroyed by the Luftwaffe. Some French bunkers were cleared by assault pioneers using demolition charges. The French defenders resisted fiercely, but by night-

Bundesarchiv Bild 101II-Ege-030-14; Photo: Hermann Ege

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ABOVE: Well-trained and disciplined German troops rush down a dirt road in France with supporting armored vehicles close by. German troops were much better trained and equipped than their French adversaries in 1940. LEFT: General Hermann Balck, a senior German commander during the execution of Case Yellow, the invasion of France and the Low Countries, receives congratulations from Hitler on the stunning victory. OPPOSITE: Troops from the 1st Panzer Division escort French prisoners across a pontoon bridge over the Meuse on May 14. Although some French troops gave a good account of themselves even after their lines were breached, many surrendered en masse.

fall the Germans held the heights at Wadelincourt. The 2nd Panzer, on the XIX Panzer Corps right flank, was initially rebuffed in its attempt to cross the Meuse. That unit made another attempt and by 8 PM had created a small lodgment as well. Now there were three separate German forces across the river with the rest of Guderian's corps pushing hard to expand the bridgehead. Guderian himself came across as soon as he could; being at the front gave him the best idea of what was happening. Expecting air attacks, he ordered the corps' flak brigade brought forward as well.

Initially Guderian was ordered to maintain his position, consolidate his gains, and remove the remaining enemy threat to the German flanks. "I would not and could not put up with this order, as it meant forfeiting surprise and all our initial success," he later said. He successfully argued for a continuation of the attack for another 24 hours to "widen the bridgehead."

Back in the 1st Panzer Division's area, Hermann Balck decided to continue his attack even though darkness had fallen. His troops were worn out from their earlier exertions, but once again Balck's leadership spurred them to further efforts, as he would later speak of in a postwar interview. "At Sedan, my combat leaders told me that they were finished—that they just simply couldn't advance anymore, and I said, 'Fine. Whoever wants to stay here can stay here. I'm leading the attack on the next village,' and of course, the entire regiment sprang up as one man to follow me."

Balck's determination paid off; that night the unit advanced unopposed six miles to the town of Chemery. This had further effects for the neighboring 2nd Panzer Division at Donchery. The French units resisting there became worried about being flanked by Balck's troops and fell back. This allowed 2nd Panzer to seize its own high ground at Croix-Piot by 10 PM. The German lodgment was steadily growing deeper, and the engineers finished their pontoon bridge overnight, allowing armored vehicles to cross the Meuse.

The cumulative effect of these German successes was the disintegration of the French 55th Division. Many of the division's men were older reservists with inadequate training, as unprepared for the rapidity of the German advance as their leaders. The French reserves, which finally started moving at nightfall, ran into the fleeing troops from the 55th Division, delaying their movement even further. In an attempt to stem the German tide, General Grandsard divided those reserves into two groups and instructed them to counterattack the German 1st Panzer Division's bridgehead at 4:30 AM on May 14.

Each French group contained an infantry regiment and a tank battalion. The first group, the 213th Infantry Regiment and 7th Tank Battalion, would strike at Chemery. The second group, the 205th Infantry Regiment and 4th Tank Battalion, would move through Bulson slightly to the southeast. If successful, the counterattack would catch Balck's regiment in a bad position, exhausted and at the end of their advance.

Due to the confusion of the battle and the congestion on the roads, such a French victory proved elusive. Neither force was able to attack on time; the first group managed to advance at 7 AM on May 14. By then, the Germans had managed to get antitank guns across the Meuse along with some of 1st Panzer's tanks. Lt. Col. Balck still felt it was a critical moment when his regiment was in the most danger. At the time he believed a French armored brigade supported

by aircraft was attacking his unit.

The battle lasted for two hours with the French halfway to Chemery before a German tank force hit them in the flank. Balck considered the French poorly trained but brave. Soon the wrecks of 50 French tanks littered the battlefield. It was obvious that the Nazi superiority in radio communication was decisive, allowing them to engage the French effectively. The French tanks were simply too slow and badly coordinated. Overhead the aircraft supporting them were older models, which proved vulnerable to antiaircraft fire. By 9 AM, the attack was over, the French retreating in disorder. The second French group never managed to launch its attack at all.

The failure of the French counterattack badly affected the 71st Division as well. Its commander, General Joseph Baudet, felt his left flank and command post were exposed and ordered them pulled back. When the rest of the division saw this happen, they pulled back as well despite the lack of orders. Now two French divisions had fallen apart. The German bridgehead was becoming more secure by the hour. More German tanks were crossing the single pontoon bridge, with more lined up awaiting their turn to get over the Meuse.

The lines of vehicles were indeed a tempting target. During the afternoon of May 14, every available Allied bomber was sent to hit the bridgehead. They flew right into the gunsights of XIX Panzer Corps' flak brigade and squadrons of Luftwaffe fighters. Many aircraft were lost, and little damage was done.

Finally, another French unit, the XXI Corps, was brought forward for another counterattack. Composed of the 3rd Armored Division and 3rd Motorized Division, this force was ordered to attack at 4 PM on May 14 from south of the bridgehead and push toward Chemery to force the Germans back across the Meuse.

At the same time, Guderian was ordering his 1st and 2nd Panzer Divisions to resume their advance, breaking out of the bridgehead. The 10th Panzer Division was still having trouble getting all its tanks over the river and was not yet ready to move. The two ready divisions would strike to the west across the Ardennes canal, while the bridgehead would be protected by the infantry of the Grossdeutschland Regiment.

A concentrated French counterattack could have spoiled the German plan. Strangely, however, the XXI Corps' attack was cancelled and the armor-heavy force was instead dispersed across a 12-mile front, destroying its ability to effectively resist a focused German thrust. The French high command soon countermanded its order and commanded the corps to reassemble and counterattack as soon as possible on May 15.

The XXI Corps commander issued a new order for the attack, but not until 11:30 AM on May 15. Rather than an armored thrust, it was to be an infantry attack with the tanks in support. The tanks had already been dispersed, and it took time to recall them. The attack had to be postponed twice; once to 3 PM and then again to 5:30 PM. Finally, it was cancelled altogether. It was France's last opportunity to strike at the bridgehead.

On May 15, while the French were mired in confusion, the Grossdeutschland Regiment struck out to seize the high ground around Stonne, south of the lodgment. They went up against a combined force of French tanks and infantry. The Germans had only a few antitank guns to support their riflemen, but after difficult fighting the French were pushed back. This secured the German XIX Panzer Corps' southern flank. The rest of the corps now advanced to the west.

The 1st Panzer division seized Bouvellemont on the night of May 15. Once again, Balck's panzergrenadiers were in the lead despite their exhaustion. Meanwhile, 2nd Panzer defeated the French 53rd Division a few miles to the north. It was the final act of the Battle of Sedan. Nothing remained between the panzers and the French coast.

The Battle of Sedan was a critical event in the fall of France. The Germans were prepared to carry out their new war of movement; they had trained extensively for it. Their military was in many ways designed for short, sharp campaigns.

The French military suffered from problems in morale and was more capable of refighting World War I than embracing new concepts. This allowed the aggressive Germans to control the tempo of the fighting from the beginning. When the French could not react quickly and appropriately, the result was four years of brutal Nazi occupation, ended only through a combined Allied effort.

Bundesarchiv Bild 146-1978-062-24; Photo: Unknown

THE BATTLE OF SEDAN WAS A CRITICAL EVENT IN THE FALL OF FRANCE. THE GERMANS WERE PREPARED; THEY HAD TRAINED EXTENSIVELY FOR IT. THEIR MILITARY WAS IN MANY WAYS DESIGNED FOR SHORT, SHARP CAMPAIGNS.

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BY May 8, 1945, Adolf Hitler had been dead for more than a week. Germany was in the act of formally surrendering to the Soviets and the Western Allies, so occupying Red Army troops in the eastern German town of Brunn were not expecting to witness what may have been World War II's last dogfight over Europe.

They were watching entranced as a Red Air Force pilot entertained them with a one-plane air show. He expertly put his Yakovlev Yak-9 single-engine fighter through a series of intricate rolls, climbs, dives, and stalls while the infantrymen below applauded. Suddenly, a lone German Messerschmitt Me-109 dove on the unsuspecting Russian, riddling his Yak with machine-gun bullets and 20mm cannon shells and sending it spinning toward the German countryside. As the stunned soldiers gathered around the oily bonfire that seconds earlier had been a lethal flying machine, the Luftwaffe pilot banked westward toward his final landing. Erich Hartmann, aerial warfare's supreme ace, had just scored his last kill—number 352.

The son of a doctor, Hartmann was born on April 19, 1922. It was a hard time to be German. Just 3½ years after its defeat in World War I, the Fatherland was helpless before its victorious, unsympathetic enemies. Political upheaval, poverty, and the worst inflation in history made life in Germany difficult, destitute, and dangerous. Jumping at the opportunity to escape this situation, Dr. Alfred Hartmann moved his practice to China. Despite the language barrier he got on well with his new patients, who were grateful to have such a skilled physician to tend their many maladies. They gathered at his office daily and gladly paid their bills on time. Being German, Dr. Hartmann was not generally associated with the European colonial powers that Asian nationalists were increasingly resisting. Nevertheless, when he found the severed heads of three British acquaintances on stakes outside his door one morning in 1929, he decided to gather up his beautiful wife Elisabeth and two little boys and return home, where he set up a new practice in Stuttgart.

During the 1930s, while their country underwent drastic changes, Elisabeth and her sons embraced the national craze of gliding. Her eldest, Erich, developed a passionate love of flying, becoming one of many young Germans addicted to the sky. By the time Hitler came to power in 1933, an entire generation of Germany's young men were yearning to be aviators.

Erich Hartmann was born too late to participate in the Third Reich's early period of conquest from 1939 until mid-1942. In fact, when the European war broke out in September 1939, he had just been conscripted, at age 17, into the Hitler Youth. Still, he was enthusiastic about the war. It would give him the opportunity to pursue his dream of flight, so as soon as he graduated from high school in the spring of 1940, he enlisted in the Military Training Regiment based at Neukuhren, East Prussia. A free spirit, he would never completely conform to the restrictions of Nazi German military life. Also, he was emotionally distracted. He was madly in love with 16-year-old Ursula Paetsch, and the two were planning to marry as soon as possible.

Hartmann's fun-loving inclinations and determination to stay closely in touch with his fianceé frustrated his regulation-bound flight instructors, but his flying ability became apparent as he quickly mastered the deadly but notoriously difficult to fly Me-109D. Unwilling to wash out such a terribly gifted student, the instructors tolerated his lack of self-discipline as he continued to impress them in training.

As the pivotal summer of 1942 broke over war-torn Europe, Hartmann approached his final stages of training with typical brilliance, scoring 24 hits on a small, fluttering, infamously hard to hit drogue target towed by another plane on June 30. This was by far the best his instructors had ever seen from a trainee in his first attempt at aerial gunnery. One of Hart-

ACE OF ACES

Erich Hartmann amassed a remarkable tally of 352 aerial victories during World War II.

BY KELLY BELL

Two Me-109s of Jagdgeschwader 52 (JG 52), the highest scoring Luftwaffe fighter wing of World War II, take on Soviet Yak 9 fighters in the skies above the Eastern Front in this painting by acclaimed artist Robert Taylor titled *Knights of the Eastern Front*. JG 52 was the home squadron of the two highest scoring fighter aces of all time, Erich Hartmann and Gerhard Barkhorn.

mann's future comrades on the Russian Front, Wilhelm Batz, literally took years to achieve such marksmanship. Considering Batz would finish the war with 237 kills, Hartmann's ability was apparent.

After graduating from flight training, Erich was allowed a short visit to Stuttgart to see his parents and Ursula. Then, his superiors, anxious to get this deadly young hawk into action, rushed him to the Russian city of Maikop, where he joined Jagdgeschwader (Fighter Wing) 52, or JG-52. He would spend the rest of the war in the East, but first he had to overcome a shaky start.

En route to their posting, he and three other novice second lieutenants passed through Krakow, Poland. There were no Me-109s stationed at the local Luftwaffe airfield, but the base commander had four Junkers Ju-87 Stuka dive bombers he needed delivered to Mariupol on the north coast of the Sea of Azov. He told the rookies that if they flew the Stukas to their destination they would have no trouble arranging transportation to nearby Maikop.

Although utterly unfamiliar with the Ju-87, the first two lieutenants managed to lift off safely, but Hartmann and his last companion were another story. As Hartmann taxied down the dirt runway, his plane's brakes failed, and he crashed into the air traffic controller's wooden hut at the end of the landing strip, destroying both shed and plane. When the last youngster attempted to get airborne, his engine caught fire. When he tried to make an emergency landing, he somersaulted his Stuka.

The commander, knowing he would be held responsible for the destruction, rushed the two "baby pilots" into the cargo bay of an eastbound Junkers Ju-52 transport plane before they could inflict more havoc. Hartmann's introduction to the convulsing Russian Front was as chaotic as the massive battles raging along its endless length that autumn of 1942.

JG-52 was already established as a top Luftwaffe unit upon Hartmann's arrival. His commanding officer, 27-year-old Colonel Dietrich Hrabak, was immediately impressed with the fearless confidence of this new arrival. Considering Hrabak already had 60 kills and wore the Knight's Cross, his opinion carried weight. He instantly had a high estimation of Hartmann. Hrabak immediately commenced versing the newcomers on all the aspects of combat flying not covered in the flight schools—fine points that could only be gleaned and honed in battle.

"Up to now all your training has emphasized controlling your aircraft on operations, that is, making your muscles obey your will in flying your aircraft," Hrabak said. "To survive in Russia and be successful fighter pilots you must now develop your thinking. You must act aggressively always, of course, or you will not be successful, but the aggressive spirit must be tempered with cunning, judgment, and intelligent thinking. Fly with your head and not with your muscles."

Hrabak's instructions to just arrived neophytes were always a great asset to them, saving many of their lives. Also, the free-spirited Hartmann liked the informality of the airmen at the front. Germany had been at war for three years by this point, and the tide was about to start turning. Never before had the Third Reich needed such young men as Erich Hartmann. Unfortunately for the Fatherland, there were far too few of his caliber.

On October 10, 1942, Hartmann was assigned to the wing's III Gruppe, III/JG.52, which was based on the banks of the Terek River north of the Caucasus Mountains. Posted to 7th Staffel, the 20-year-old neophyte reported to the squad's commander, Major Hubertus von Bonin, who was much in Hrabak's mold, believing flying skill was more valuable than military modus operandi. Bonin informed the surprised recruit that rank did not determine which pilot commanded during combat operations. Whoever held the highest kill tally was in command while the units were airborne. A higher scoring lieutenant could chew out his commanding colonel in the heat of aerial battle, and not one word would be said about it after the planes landed. This state of affairs was perfect for Hartmann.

His first dawn patrol was October 14, and it was almost his last. He flew as wingman for Sergeant Edmund Rossmann, who had 80 kills at that time. Rossmann could teach as well as he could fight and usually managed to bring his rookie wingmen home. He had barely enough skill to save this one, though.

The Image Works

After climbing to 12,000 feet, the two-plane element followed the Terek River to the city of Prokhladny, where Rossmann spied a formation of Soviet aircraft strafing a German supply column that was trying to leave the city. Radioing for his green wingman to follow, Rossmann dove at the Russians while a confused Hartmann (who still had not spotted the targets) followed close behind. After a plunge of almost a mile, he finally picked out the Red Air Force flight that Rossmann had been zeroing in on all along.

Instantly livid with excitement, Hartmann overreacted and rammed his plane's throttle up to full speed, rashly cut in front of Rossmann, and drew a bead on the closest Russian, pressing his fire button at 300 yards. Cleanly missing his target high and to the left, he found himself closing too fast to correct his aim. Pulling up at the last instant, he barely avoided a collision and managed to level off, but found himself "surrounded on all sides by dark green aircraft—all of them turning behind me for the kill … ME!"

Choking on fear, he pulled up into a cloud, where he was thankful to hear Rossmann's calm, matter-of-fact voice over the radio telling him, "Don't sweat it. I watched your tail. I've lost you now that you've climbed through the clouds. Come down through the layer so I can pick you up again."

Easing lower until he was just beneath the overcast, the first thing Hartmann saw was a single-engine fighter coming straight at him. Thinking it was another Russian, he threw his Me-109 into a steep dive while yelling into his microphone that he was being chased. Leveling off just over the treetops he listened for a response, but by then Rossmann's voice over the radio was too garbled for him to understand. Terrified, he churned full speed to the west until he lost his pursuer.

After outrunning the other plane, he continued to hurtle toward friendly airspace until his engine suddenly sputtered into fuel-starved silence. At such low altitude he did not have time to lower his landing gear. A full 20 miles short of his airfield, he belly landed in a choking cloud of dust. A squad of German infantrymen was passing by in an armored car. Amused at how shaken he was, they gave him a lift back to Soldatskaya. By the time he got there, Rossmann had landed and informed the colonel of Hartmann's actions on the patrol. Bonin was waiting when the armored car arrived.

The "enemy" aircraft Hartmann had fled from in terror after dropping from the clouds had been Rossmann's, and this was just one of seven major flying misdemeanors Hartmann had committed on this single flight. He had detached from his element leader without

ABOVE: On July 7, 1943, during the Battle of Kursk, Hartmann downed seven Russian planes. Painting, *Sting of the Black Tulip,* by Robert Taylor. OPPOSITE: The highest scoring fighter ace of all time, Erich Hartmann exits the cockpit of his Me-109 fighter plane on the Eastern Front. Hartmann was credited with 352 aerial victories during World War II.

authorization, flown into Rossmann's line of fire, gotten lost in the clouds, disobeyed Rossmann's order to rejoin him, gotten lost while returning, and destroyed a valuable plane without inflicting any damage on the enemy. As von Bonin's voice grew hoarse from shouting, he banished the unhappy amateur to three days of toiling with the ground crews. At the end of his sentence, Hartmann had grease-caked hands and a new regard for discipline in combat.

After getting back into the air, Hartmann resumed flying with Rossmann and studied the veteran's fighting philosophy. Early in the war Rossmann had suffered a severe arm wound and was thus unable to yank his plane through the tight gyrations required for close-in dogfighting. His incredible eyesight saved his career, making it possible for him to pick out targets at extreme distances, diagnose each situation according to its unique characteristics, and then plot how he would carry out his personal unorthodox specialty of long-range surprise attack. His victims seldom saw him, exploding in flames before he was close enough for them to realize he was targeting them. He used these sniper's tactics to bag Russians with monotonous regularity while his brother pilots charged bull-like into Soviet flights, downing victims in erratic bunches while taking almost as much abuse as they dished out. They would then coax their smoking machines back to base, barely making it there if at all. Rossmann, unscathed, would be waiting in the canteen.

Hartmann commenced copying Rossmann's style of approaching aerial battlefields in a patient, methodical fashion, but unlike his mentor Hartmann had no lame arm and was able to whip his Me-109 through tight turns, climbs, and dives. With his own phenomenal marksmanship he was able to meld Rossmann's rare ability to mortally wound victims at long range with the other pilots' favored tactic of point-blank gunnery. Erich Hartmann received his first taste of blood on November 5, 1942.

He was part of a four-plane formation called a *schwarm* that took off at noon to oppose Red Air Force attacks on Wehrmacht armored and supply columns outside the city of Digors. Hartmann was first to spot the enemy formations and was shaken by their numerical superiority. He counted 18 Ilyushin Il-2 Shturmovik ground attack aircraft escorted by 10 Lavochkin Lagg-3 fighters. Hartmann's little formation was commanded by a 1st Lt. Treppe, who ordered him to lead the charge.

With Treppe following closely, he took advantage of his optimal position above and behind the enemy. Diving through the surprised escorts before they could react, he pulled up and opened fire on the Shturmovik at the formation's extreme left. He was dismayed as his machine-gun bullets and 20mm cannon shells bounced harmlessly off his target, which the Germans ruefully called the "Flying Tank." One of JG-52's veterans, however, had informed Hartmann that the Shturmovik had a vulnerable underside.

Simultaneously banking and diving, he almost hit the ground before pulling up, closing to just 200 feet, and opening fire on the Russian's thinly protected oil cooler. As thick black smoke gushed from his underbelly, the Shturmovik pilot dropped from formation and headed eastward in a shallow dive in hopes of finding a clear area to belly land. Hartmann was right behind him.

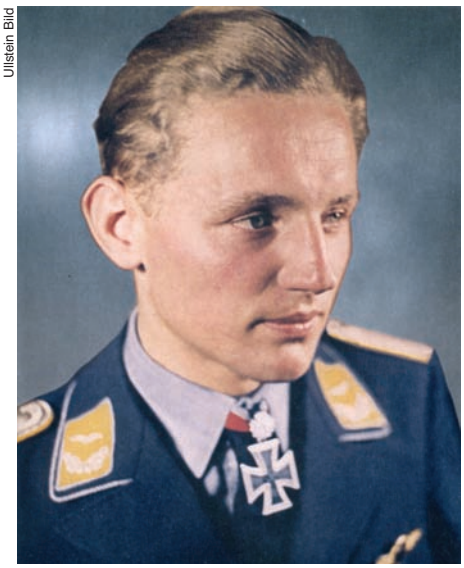
As the thrilled young German drew a bead to finish off his first kill, the Il-2 suddenly blew up in a hail of debris. One of the twisted fragments plunged into the Me-109's engine cowling, and flames now erupted from his own plane. He crash landed and climbed from his aircraft's wreckage just in time to see his maiden kill hit the ground in a cloud of smoke, flames, and dust a mile to the east. Again he hitched a ride with a squad of infantrymen. He regaled them with the narrative of his first aerial victory, completely forgetting that although he had now downed a Russian machine he had also destroyed two German airplanes. Even so, he would barely survive an illness.

Hartmann contracted a fever that almost killed him. He spent the next month in the military hospital at Piatigorsk-Essentuki, being discharged the second week in December just as the Red Army closed its massive jaws around the hapless German 6th Army in Stalingrad. Germany's "Blond Knight" would have no shortage of opportunities to whet his swiftly

Wikimedia

ABOVE LEFT: Major Wilhelm Batz tallied 237 victories with JG 52. ABOVE RIGHT: Lieutenant Colonel Dietrich Hrabak commanded JG 52. Hrabak scored 109 aerial victories during World War II. BELOW: After downing 150 enemy planes, Erich Hartmann earned the Knight's Cross, and later received Swords and Diamonds and Oak Leaves. All three pilots served with the West German Air Force after World War II.

Ullstein Bild



developing talents as the cold, cloudy Russian heavens filled with Soviet aircraft. Hartmann and his comrades spent few daylight minutes on the ground except to have their toiling Me-109s rearmed, refueled, and briefly serviced.

As he developed his fighting style Hartmann was able to get closer and closer to his targets before opening fire, fatally damaging them, and then sheering aside to safety at the last instant. He came to further appreciate this whites-of-the-eyes approach after he began flying as wingman for 1st Lt. Walter Krupinski, who carried the point-blank method to its extreme. Flying with total abandon and without bothering to maneuver, Krupinski would hurtle like a charging bull into Russian formations and spray ordnance into every target he could get in his sights. His marksmanship was marginal, but he fired so many rounds that numerous targets were inevitably hit in each shootout. By war's end he had 197 kills.

By following Krupinski, Hartmann had more targets of opportunity than were normal for a wingman, who typically was tasked with protecting his element leader's tail. This trigger-happy lieutenant missed or barely nicked so many aircraft that his wingman was constantly, as he described it, "filling in the holes Kruppi left."

Krupinski encouraged Hartmann to continue practicing his ambushing skills, but the youngster kept unconsciously emulating his idol Rossmann by opening fire from too great a range. Krupinski was constantly yelling over his radio, "Hey Bubi! Get in closer! You're opening fire too far out!"

"Bubi" means "lad" in German, and it was perfect for the young airman. Before long the entire fighter group picked up on it. The Russians, however, would soon hang other monikers on him.

By the end of April 1943, Hartmann had completed his 100th combat mission and had eight kills. He was promoted to element leader but was still absorbing the methods of the other senior pilots in his group, combining them into a single, unique fighting style that would make him a legend.

By May 25, his tally had risen to 14, but that morning he had a near death experience when he collided with a LaGG-3 fighter and had to glide back to his own lines for a crash landing. He had been at the front for six months now, and the honeymoon was over. Still weak from the near-fatal fever, his nerves were starting to fray from the strain of constantly flying into massive swarms of Soviet warplanes. Also, the front had reversed direction—moving west instead of east. The realization that his side was going to lose did little for his morale. Hrabak sent him back to Stuttgart for a month-long reunion with his parents and Ursula, but rather than rejuvenate the young pilot the leave would have the opposite effect.

Hartmann returned to a Germany that was being scorched by mile-wide shoals of four-engine bombers of Britain's Royal Air Force and the United States Army Air Forces. For the first time in history it was possible to completely destroy cities from the air, and while the threat to his loved ones disheartened him mightily it also infused him with a burning determination to do everything in his power to cut into the inexorable advance of his country's enemies. Maybe his family could not fight the aerial menace, but he certainly could.

When he returned to JG-52, his comrades could see the change in him. He was no longer the happy-go-lucky, bubbly Bubi who was everybody's precocious little brother. He was a silent, grim young warrior who could hardly wait to get into the air and destroy the enemy. Marshal Josef Stalin's air legions were now facing their greatest one-man nemesis.

On July 5, Hartmann knocked down four Lavochkin La-5 fighters. He added four more two days later. Krupinski no longer had to tell him to close to within kissing distance before opening fire. Only when Hartmann's targets filled his sights did he press his fire button, smothering his marks in hits and sending them down in flames.

He had fully overcome his amateur's impetuousness and was possessed by the skill every wily veteran needs to successfully prey on his enemy. Late on the afternoon of August 3, he shot down another La-5, bringing his total to 50 aerial victories. Earlier in the war many German pilots had earned the Knight's Cross for this achievement, but by this point the tottering Reich's requirements had risen. Still, he would be recognized for his heroism.

At this point Hartmann was given command of the Group's 9th Staffel (9/JG.52). He was almost constantly airborne during daylight hours, tearing gaps into the huge formations supporting the Red Army's first major summer offensive. His whole wing was flying four sorties daily and downing Soviet machines in bunches. Still, the red star-emblazoned airplanes droned endlessly from the east. These were the biggest air battles in history, and they just kept growing with the arrival of another autumn.

Hartmann finally earned his Knight's Cross by downing his 150th plane during a patrol on October 29. The two-week leave he received thrilled him more than his medal. Out of respect for his accomplishment, no one flew his finely tuned Me-109G while he was gone. The machine was emblazoned with a bleeding heart pierced by an arrow and the word "Uschi," Ursula's nickname. While in the air he used the call sign "Karaya One" (Sweetheart One), and by now the enemy knew this sobriquet as well as did his own side. The Russians even recognized his voice, and when they heard it or his call sign over the airwaves they would prudently give him a wide berth. They would not deprive him of targets for long, though. He had had another incredible adventure.

Late in August antiaircraft fire downed him over Russian lines. Belly landing in a field of sunflowers, he was quickly surrounded by Soviet infantrymen. He did such a masterful acting job of feigning serious internal injuries that he not only fooled the infantrymen, but also a Red Army doctor the soldiers delivered him to in a nearby village. Pretending to be comatose, he lay still as death as he was loaded onto a captured German truck and sent eastward, presumably to one of the notorious Soviet POW gulags.

When his guards were distracted by a forma-

tion of Stukas passing overhead, Hartmann leaped from the vehicle and pelted westward amid a barrage of small-arms fire, losing his pursuers in a field of six-foot-tall sunflowers. When he spied an enemy patrol that night, he followed it to the front and under cover of darkness made it to German lines. He was not out of danger yet.

A trigger-happy, teenaged German sentry shot at Hartmann, putting a Mauser bullet through his pants leg. The boy was so nervous because a few days earlier German-speaking Russians had ambushed his unit. There was no way he could get back to his outfit that night, so the German infantrymen he had come upon handed him a rifle. He helped them wipe out a patrol of drunken Russians that had strayed into German territory.

Hartmann's odyssey left his nerves in shreds, but it was another month before his superiors could spare him a rest. Autumn rains finally slowed the inexorable Soviet onslaught, and he was able to go on leave. German pilots on the Russian Front in 1943 were possibly the busiest men in history.

of it that they were also too far from Hartmann's borrowed plane for him to attack them. In January 1944, he had the artwork removed. No longer so recognizable, he quickly shot down another 50 warplanes in January and February despite being grounded by bad weather much of that time.

JG-52 tore through its hapless enemies early in 1944. By this time the group's pilots were so battle tested that their aircraft were essentially extensions of the nervous systems of the young men flying them. Mechanically honed to operative perfection by expert ground crews, the machines reacted instantly and perfectly to the slightest touch at their controls. The cold Russian skies were filled with the smoke trails of crashing Soviet aircraft, yet sheer weight of numbers would be a major deciding factor. The vast Red Army advanced relentlessly westward. The same was true in the air.

Frantic to rid themselves of the hated and feared Black Devil of the South and unable to instantly recognize his no longer decorated plane, Soviet pilots adopted a measure that was

Hartmann repeatedly swerved out of the Russian's line of fire, but the Yak pilot did not shoot. Bubi realized in shock that the man was trying to ram him. Radioing for his wingman, a Lieutenant Wester, to climb to a safe distance, Hartmann began throttling back so he could bank his plane in a tighter than usual turning radius in hopes of making the enemy overshoot him, but the Red pilot was good. He would not let Hartmann get behind him. He suddenly yanked his plane upward, turned, and charged the Me-109. Both pilots opened fire simultaneously and missed. Hartmann did a split-s, dove to treetop level, and stayed there for the moment.

As Hartmann had hoped, his opponent lost sight of him, and after circling in a futile pattern while Bubi expertly stayed directly under him, the Russian turned eastward for home. With his Me-109's camouflage blending in with the ground under it, Hartmann slowly ascended from under his unsuspecting foe, closing to just 50 feet before opening fire. The Soviet pilot turned his Yak over, dropped from its cockpit, and yanked his ripcord, floating to earth deep

Bundesarchiv Bild 1011-633-3849-08. Photo: Ritter

During their glory days flying against the Red Air Force on the Eastern Front, pilots of Luftwaffe JG 52 prepare for takeoff as ground crewmen remove chocks and head for cover. Note the 20mm cannon protruding from the nose of the Me-109.

With an eye for aesthetics, Hartmann had had his plane decorated with an unusual and distinctive black tulip petal design on its nose cone. By year's end the Soviets had not only figured out the menace of the call sign Karaya One but could recognize his uniquely adorned aircraft. They were calling him the "Black Devil of the South" and placed a bounty of 10,000 rubles on his 21-year-old blond head. No one seemed interested in claiming the reward, however, as whenever his plane was recognized Red airmen would avoid him like a leper. He tried to trick the enemy by having his wingman fly the black-nosed Me-109, but the Russians steered so clear

literally suicidal. Throughout the sectors in which JG-52 operated, Russian airmen took to deliberately colliding with Me-109s they thought might be Hartmann's. His closest call with these Red Air Force kamikazes came late in February.

Hartmann and a wingman were patrolling over Romania, far from the front, on watch for Soviet pilots who had been strafing German columns in the area. Hartmann was almost lulled into carelessness by the serenely empty sky, but instinct made him look over his shoulder. About 600 yards to his rear and slightly higher, a lone Yak-9 was bearing down on him.

in German territory. Hartmann hurried back to base, commandeered a Fiesler Storch reconnaissance plane, flew back, and personally picked up his latest victim, flying him back to JG-52's airfield.

Stalin had decreed that any Soviet soldier who allowed himself to be captured was, by falling alive into German hands, committing high treason and would be dealt with accordingly when and if he was "liberated" by his own side. When Hartmann presented his prisoner to his Luftwaffe squadron, the young Russian seemed delighted to have survived but became furious when his captors informed him

he was not to be shot. The Germans eventually realized he had no motive to escape and allowed him to wander their airfield unchaperoned for two days before shipping him to wing headquarters for interrogation.

As another spring broke over western Russia, Hartmann continued refining his dogfighting techniques. He found that by refraining from reacting to approaching enemy aircraft until the last second he could often pick up critical information on his opponent that he would miss by responding too quickly. He learned that second-rate and inexperienced airmen tended to open fire from too far away. Such pilots invariably went down in flames under his gunfire. If the approaching Russian held fire until the last moment, though, it was certain he was a battle tested, competent veteran.

Bubi developed a tactic specifically for these situations.

As his adversary reached optimal firing range, Hartmann would twist his Me-109 into the tightest turn possible and then simultaneously shove the stick forward while kicking the bottom rudder, sending his plane downward. When his opponent would attempt to copy the difficult maneuver, he would be distracted by the abrupt shift from positive to negative G forces.

At this point Hartmann would pull up into positive G force just as his confused foe began to experience weightlessness. Before the Russian could regain his orientation, Bubi would dive beneath him, pull up, and drill his underside. Hartmann called this stratagem his "personal twist regulations," and tried to teach it to his comrades, but few had the skill to master it.

Hartmann received the oak leaves to his Knight's Cross from the Führer himself at the Eagle's Nest in Berchtesgaden on March 4, 1944. At this time the Red Army was massing its resources for the coming summer offensive, Operation Bagration. The baby-faced, 22-year-old pilot prodigy, his tunic heavy with decorations, returned to the front just in time for the most intense fighting of his career.

Throughout June and July, while the Allies landed far to the west in Normandy, the Red colossus tore apart the Wehrmacht in the east. Hartmann and his comrades of JG-52 seldom left their cockpits as they did their best to stem the unending stream of ground-attack Shturmoviks. By now it was second nature to the Blond Knight to swoop under the flying tanks and hit their sole weak spot. On July 1, he expended just 120 rounds in flaming three Il-2s in one dogfight of just a few minutes' duration. This brought his tally to 250, and that night while he and his brother pilots were celebrating this lofty score, they received a radio message that he was being awarded the swords to his Knight's Cross. His second meeting with Hitler was unforgettable.

It was August 3, 1944, when Hartmann reported to the Wolf's Lair, the East Prussian headquarters where the Fuhrer had survived an attempt on his life two weeks earlier. The frail Hitler had lost all affability.

Signal

In this rare color photograph, an aircraft believed to be an Me-109 of JG 52 undergoes repairs somewhere in Russia. German maintenance crews struggled mightily to keep their planes in the air due to shortages in spare parts and fuel.

Hartmann listened in shocked silence as Hitler ranted hysterically against Germany's professional officer corps, calling them all traitors and incompetents. Then he attempted to reassure Bubi that all was not lost, that new weapons systems would soon be jumping from the drawing boards and into combat, where they would send the Third Reich's teeming enemies into headlong retreat. Hartmann wanted desperately to believe this, but he had been at the Eastern Front long enough to realize Hitler and his high command had mortally underestimated the Soviet Union three years earlier. Apart from its seemingly endless reservoir of men and material and the copious supplies it received from the Western Allies, it was simply too big to be completely occupied. Even if Germany somehow managed to reverse the front's westward movement, there would always be plenty of room for Stalin's legions to fall back and stage counterattacks. This realization made him forget his new decoration as he headed back to fly against impossible odds.

Despite the time he missed by going on leave, Hartmann scored 32 more kills from July 20 to August 22. Fifteen squadrons could have been made from the number of warplanes he had now destroyed, and his JG-52 comrades were also knocking down multitudes of planes. Yet for every one they torched, 10 more Soviet aircraft came droning from the east.

On August 23-24, Hartmann ignored terrible weather while downing 19 more planes. He was summoned to Wolf's Lair to receive the diamonds to his Knight's Cross. Arriving at the compound he amazed the Führer's hulking SS bodyguards by refusing to surrender his sidearm before being ushered into Hitler's presence, telling the SS he would sacrifice his lofty award rather than be insulted by such palpable distrust from the leader he had served. He was allowed to keep his pistol and became only the seventh day pilot to receive the diamonds.

At the luncheon following the ceremony, Hartmann sat to Hitler's right, and the two men discussed the situation in the East, the Allies' strategic bombing offensive, possible changes in flying strategy, and modifications to the training of new pilots. Both of them likely realized, however, that any such major changes should have been made at least two years earlier.

By this time Hitler's main hope was that a political rift might break down the Allied coalition, slowing the inexorable advances from east and west and giving Germany's brilliant scientists time to perfect the next generation of revolutionary weaponry. By this point Hitler had given up hopes of outright victory but thought perhaps his new wonder weapons might stabilize the fronts and enable him to negotiate an armistice.

Because of an incident he had personally witnessed, this scenario did not appear particularly far fetched to Hartmann. He and his squadron were finishing an interception mission against Soviet bombers over Budapest when a formation of American P-51 Mustangs suddenly dove into the melee. The astounded Germans watched as the Russian escort fighters turned

and attacked the Americans, enabling all the fuel- and ammunition-bereft Luftwaffe fighters to escape.

Before Bubi could return to his unit, he received notification that Reich Marshal Hermann Göring had decreed that he was to be reassigned to a ground posting rather than risk being killed fighting for what Göring evidently realized was a lost cause. General of Fighters Adolf Galland talked Göring into retracting the transfer.

Hartmann then received another set of orders informing him he was to be reassigned to a group equipped with the new Me-262 jet interceptors. By then he was implacably attached to JG-52, and his desperate pleas to stay with his outfit led to these orders, too, being rescinded. He would spend 10 miserable years bitterly regretting this decision.

Realizing his state of physical exhaustion, military doctors managed to convince Hartmann to report to the Luftwaffe rest and recuperation center at Bad Wiessee. After he arrived there he got a great idea. Braving swarming Allied ground attack aircraft, he hopped a train to Stuttgart, gathered up Ursula, and returned with her to Bad Wiessee, where they were married on September 9, 1944. Eight days later he bade her farewell and returned to the front. Although neither of them knew it yet, Ursula was already pregnant with a son Erich Hartmann would never see.

As the war's final winter descended on the Eastern Front, Bubi and his comrades in the air and on the ground were thrilled by news of the faraway Battle of the Bulge, but the news the Nazi propaganda organs kept promising, that the Western Allies had been pushed back into the English Channel, never came. As reality set in, the pilots of JG-52 stopped fighting with the hearty vigor this brief glimmer of hope had given them. It was replaced with resigned desperation.

In March 1945, Hartmann was ordered to report to Jagdverband 44, a newly organized jet unit. Because of his unfamiliarity with the Me-262 he was to fly as a wingman rather than remaining at the point. Flying behind another pilot was totally unacceptable to Bubi, who had no desire to leave his beloved Me-109 outfit. As soon as he reported to Galland's new jet airfield at Lechfeld, he was delighted to receive new orders to return to JG-52, where he resumed cutting into the crumbling Reich's deadly enemy. From the group's base in Czechoslovakia, Colonel Hermann Graf had repeatedly requested Hartmann's return to his miserably overworked outfit.

By this time the Blond Knight's outfit was stationed outside the town of Deutsch-Brod. On his next patrol he got another taste of the tension between Germany's enemies. He and three other pilots were all that were available to intercept a huge gaggle of Red Air Force bombers and escorts bound for Prague. Positioning their patched-up Me-109s above the ragged formation of Petlyakov Pe-2 and Lend-Lease American Bostons, the foursome prepared to make a plunge through the escorting Yak-9s and into the bombers. At this moment Bubi glimpsed another large flight of approaching fighters. They were American P-51 Mustangs, and they warily took up a position just above the Yak-9s.

With the Americans and Russians suspiciously eyeing each other, Hartmann realized they were too distracted to notice the tiny Luftwaffe formation lurking over them, and when the Germans attacked their foes would not notice in time to head them off. Still, the vast numerical imbalance would limit Hartmann and his men to just one pass.

Plunging full speed through the three tiers of targets, Bubi flamed two Americans, passed through the Russian fighters without firing, and then knocked down a Boston. Continuing downward until leveling off just above the treetops, the Germans looked back to see the Yaks and Mustangs tearing into each other in a massive, swirling dogfight. The Me-109s had hurtled through the hostile formations at such speed that the Americans and Russians did not recognize them as German. With each side thinking the other had attacked, it they turned on one another. For the moment the embryonic Cold War was quite hot.

In the closing months of the war in Europe, the Western and Eastern Fronts drew so close together that Hartmann encountered numerous Allied warplanes. The Blond Knight shot down seven Mustangs for his only non-Soviet kills. On May 8, 1945, he shot down the Yak-7 over Brunn for victory number 352, making him the highest scoring ace in military history.

With far fewer military aircraft being deployed by modern air forces, it is highly unlikely that any pilot will even threaten Erich Hartmann's status as warfare's supreme aerial ace. His JG-52 comrade Gerhard Barkhorn is second with 301 victories. Hartmann's phenomenal vision, accuracy, and flying skill not only made him the most successful dogfighting military aviator in history, but also brought him through the horrors of the World War II without a scratch.

After landing following his last patrol, Hartmann learned of Germany's surrender. He and the remaining pilots and ground personnel of JG-52 burned their Me-109s and surrendered. Along with the Third Reich, this greatest of all fighter groups had passed into history.

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National Archives

Wikimedia

Pilots of JG 52 rev the engines of their Messerschmitt Me-109 fighter planes in preparation for takeoff from a snowbound airfield on the Eastern Front during the winter of 1943. The severe cold caused mechanical problems, while snow and ice limited fighter operations. LEFT: Erich Hartmann, left, confers with fellow JG 52 ace Gerhard Barkhorn. The two men were the only fighter aces to score more than 300 victories in the history of aerial warfare. Between the two of them, they destroyed 653 planes.

Survivors remember the infamous attack on Pearl Harbor.

BY MARK CARLSON

One of the defining images of the 20th century is the horrifying moment when the battleship USS *Arizona* exploded in a cataclysmic fireball at 8:10 AM on Sunday, December 7, 1941. The Japanese attack on Pearl Harbor catapulted the United States into the most destructive war in human history.

Nearly every American who is old enough can remember where they were and what they were doing on December 7. But there were thousands of young men whose lives and destinies were forever changed in those hours as the Japanese planes tore into the heart of the U.S. Pacific Fleet.

Today the number of men, survivors who served on the ships moored along Ford Island's famous Battleship Row is dwindling. Old men now, they are white haired with slow movements and shuffling feet, but their minds, filled with visions of an apocalypse they never imagined, are as sharp as ever.

On that peaceful Sunday morning nearly the entire fleet was in port. The battleship *California* was moored far ahead of the paired *Maryland* and *Oklahoma*, *Tennessee*

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and *West Virginia*, *Arizona* and the repair ship *Vestal*, and the lone *Nevada*. *Pennsylvania* was in drydock at the Navy Yard near the destroyers *Cassin* and *Downes* and the minelayer *Oglala*. More destroyers and submarines were tied to piers past the Navy Yard.

The target ship *Utah* and cruisers *Helena*, *Honolulu*, *Detroit*, and *Raleigh* were on the west side of Ford Island. All in all, more than 90 vessels were in Pearl Harbor that morning.

At 7:55 AM the roar of aircraft engines shattered the early morning air. The first attack by 183 bombers and fighters was carefully planned to close in from all directions in a deadly inescapable web of destruction.

The Japanese aircraft carrier *Akagi*'s 1st VT Squadron's 12 Nakajima B5N "Kate" torpedo bombers, led by Lt. Cmdr. Shigeharu Murata, swept in a turn from the southeast to line up on the oblivious ships of Battleship Row. Behind them were 12 more from the carrier *Kaga*. Sixteen Kates from the carriers *Hiryu* and *Soryu* came in from the southwest toward the west side of Ford Island. Each carried a 1,870-pound Type 91 torpedo, specially modified to run in the shallow waters of the harbor. They were also fitted with two warheads to defeat the battleships' armor belt.

This harrowing photograph of Battleship Row under attack on the morning of December 7, 1941, was taken from a Japanese plane. Adjacent to Ford Island in Pearl Harbor lies the battleship USS *Nevada* at left, while the USS *Arizona* belches smoke and flame to the right. Outboard of the *Arizona* is the repair ship USS *Vestal*. Continuing left to right, the USS *West Virginia* is outboard of the USS *Tennessee* while the capsized USS *Oklahoma* sits outboard of the USS *Maryland*. ABOVE: A Japanese Mitsubishi A6M Zero fighter fitted with an external fuel tank takes off from the flight deck of the aircraft carrier *Akagi* on the morning of December 7, 1941.

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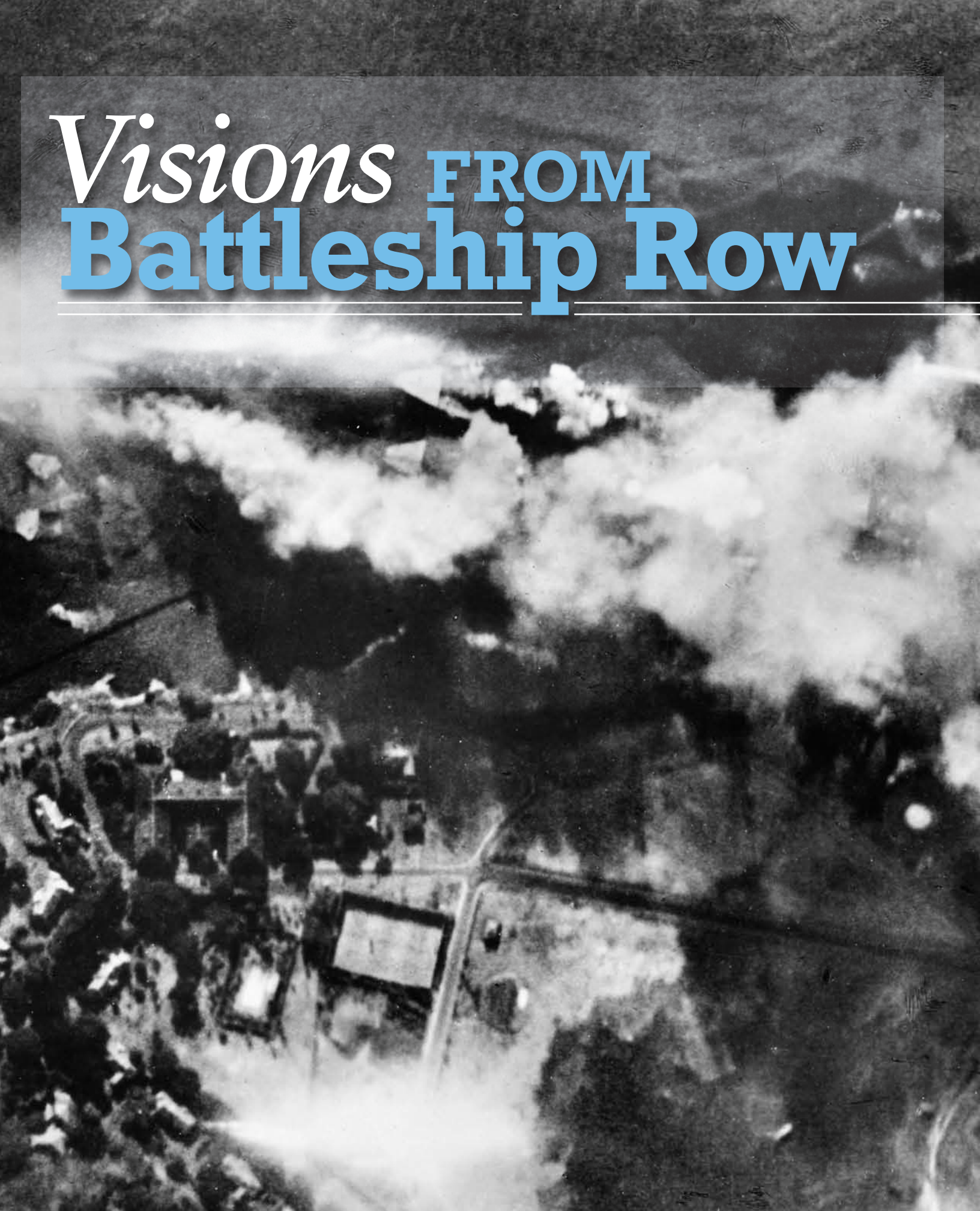
Visions FROM Battleship Row



Far overhead, 30 Kate level bombers from the *Akagi* and *Kaga* put their crosshairs on the scrubbed teak decks of America's vaunted battle fleet. Under the fuselages of the Kates were 1,700-pound Type 99 armor-piercing bombs modified from 16-inch naval shells.

Lieutenant Commander Kakuichi Takahashi's 27 Aichi D3A1 "Val" dive bombers from the carrier *Shokaku* attacked the Ford Island Naval Air Station and Hickam Army Air Field with 550-pound Type 98 general-purpose bombs. Another 27 dive bombers from the carrier *Zuikaku* went after Wheeler Airfield and Schofield Barracks. Forty-four Mitsubishi A6M Zero fighters provided an air umbrella for the attacking bombers.

None of the American sailors, Marines, soldiers, or airmen knew they were about to go to war. The *Vestal* was tied up on *Arizona*'s port side. "We were there to do some work on her," said Radioman John Murphy of Oxnard, California. "I was coming off my watch, but wanted something to do. The officer of the deck suggested I go 'next door' to the *Arizona* and make a mail run. I had to wait for the OOD (officer of the day) to sign the weather report before I could go over. The sky was clear and quiet. Nothing was happening."

The *Nevada* was tied up aft of the *Arizona*. Her band was just finishing Morning Colors when the Kates bore in and released their torpedoes.

Oklahoma was outboard of *Maryland*. "I was going to go ashore on liberty and was in the shower," said Yeoman First Class Ray Richmond. "Suddenly it felt as if someone had picked up the ship, shook it, and dropped it. I hit the overhead."

Thinking of the Army's habit of dropping sandbags on ships for practice, he thought. "Oh, those Army planes are dropping really big sandbags on us."

"But then," he continued, "the ship shuddered again, and I heard the general alarm and bolted for the door. I was naked as a jaybird, but I went to my battle station on Number 5 Port 5-inch, 51-caliber gun." Richmond felt the huge battleship start to heel over to port from three torpedo hits. "Then the lights went out."

John Murphy was waiting for the OOD on *Vestal*. "We saw these planes coming in low," he recalled. "One man said, 'Why is the Army practicing on Sunday morning? Then the bombs began falling. I ran to the radio room and got to work. One of the first messages I picked up was 'Air Raid Pearl Harbor. This is not a drill!' No kidding, I thought."

Vestal took two hits. "One bomb hit the crew's mess and the other scored a hit where we stored the steel plate," remembered Murphy. "If that steel hadn't been there, the armor-piercing bomb would have gone right through the bottom of the ship."

At berth F-6 astern of *Oklahoma* at the very center of Battleship Row was USS *West Virginia*. Known with affection to her crew as the "Wee Vee," her distinctive cage masts and those of the USS *Tennessee* stood out clearly against the early morning sky.

In *West Virginia*'s Quartermaster berth was Seaman First Class Stuart Hedley of West Palm Beach, Florida. He related, "I was in my dress blues and looking forward to going ashore to a picnic. Then the P.A. called out, 'Away all fire and rescue crews! Then the bugler, that would have been Marine Corporal Richard Fisk, blew the General Alarm. I ran up five decks to my quarters to grab my hat, and a bos'n's mate kicked me in the seat of the pants and yelled, 'Get to your battle stations on the double! This is the real thing!'"

Upon reaching the main deck Hedley saw planes coming in from all directions. "I saw a torpedo plane going over us, and the pilot was laughing like anything."

The 33,500-ton battleship was hit by seven torpedoes in all, causing the ship to heave as Hedley climbed up the ladder into the bottom of Number 3 turret, just aft of the superstructure. On top of the turret was a catapult and two Vought OS2U Kingfisher floatplanes. "I climbed into the turret," recalled Hedley. "I was at the pointer station of the port 16-inch gun while my friend Crosslin was at the gun trainer's seat. There was a bulkhead between us and the starboard gun compartment. A small hatch down near the deck was dogged down tight."

Aboard the *Tennessee,* 17-year-old Seaman Second Class Jack Evans of Corcoran, California, was on duty. "On Friday we had been told we would be getting an inspection by Rear Admiral Isaac Kidd (commander of Battleship Division 1) on Monday. So we polished all the brightwork and locked the ammunition for the

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ABOVE: Frantically working to cut through the hull and reach sailors trapped inside the capsized battleship USS *Oklahoma,* men employ blowtorches and listen for the tapping of distress signals. The effort to reach the trapped sailors went on for several days. BELOW, left to right: Seaman 1st Class Stuart Hedley, Radioman John Murphy, Seaman 2nd Class Jack Evans, and Yeoman 1st Class Raymond Richmond were eyewitnesses to the Japanese attack on Pearl Harbor on December 7, 1941.

Courtesy of the author

"I was looking forward when the *Arizona* blew up. I hung on because the explosion made the mast whip back and forth in the hot blast and I thought it would snap. When I looked back the *Arizona* was about 20 feet out of the water. Then her keel broke in to and she sank.

—Jack Evans, aboard the *Tennessee*

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This startling color still frame from a film reel captures the moment the catastrophic explosion doomed the battleship USS *Arizona*. A Japanese bomb fashioned from a modified artillery shell detonated a forward powder magazine and caused the devastating explosion that killed 1,177 Americans.

deck guns away in the magazines. I had just finished my cleaning station and was in the uniform of the day, white shorts, black socks and shoes, white pullover and cap. I was standing in our living space in the forward battle dressing station when General Quarters sounded. One of my mates said, 'This is a helluva note for the ship to hold a drill in port on Sunday morning.' Then a bos'n's mate said, 'This is no drill!' When I reached the main deck, I saw Ford Island totally wrecked. Zeros were strafing the planes and a hangar had its door hanging off. I could see we were in trouble."

Nevada's crew scattered to its battle stations when the bombs and torpedoes came in. Down in her crew's quarters was Woodrow "Woody" Derby of South Dakota. "I was in my bunk, reading. A few minutes before 0800 the alarm sounded. I went to my battle station in the magazines for the broadside guns. We were all down there and on alert. I couldn't see a damn thing."

Two of the battleship's boilers were still on line. Just after 8:05, a Kate dropped a torpedo that struck her port side, causing some flooding. "I felt the ship shuddering from the guns up on deck," said Derby. "There was one big lurch, and we looked around, but none of us knew we'd been hit by a torpedo."

Jack Evans climbed the ladder on the outside of *Tennessee*'s foremast. "There were about eight of us in the foretop," he said. "The foretop was like a metal bucket with a roof and a waist-high metal shield. We were about 122 feet off the water and could see everything. My job was to report aircraft to the fire control center phone talker. I saw plenty. I looked north toward the center of the island and watched the smoke rising from Wheeler Field and Schofield Barracks. To the east past the *West Virginia* and *Oklahoma* a really big column of smoke was rising over Hickam. I saw this one plane with fixed landing gear fly right over our bow. The man in the rear seat looked at me. If I'd had a potato I could have hit him."

Oklahoma was listing heavily to port, and *West Virginia*'s entire port side was a mass of smoke and boiling water from the torpedo hits. The Kates and Vals continued their deadly dance. *Nevada*'s captain ordered the engine room to prepare to get underway. He wanted to clear the harbor and have room to maneuver.

In *Vestal*'s radio room John Murphy was busy intercepting and passing on the scores of frantic radio messages filling the airways. "Another man came in and slammed the hatchway shut and dogged it tight," he remembered. "It was on the side facing the *Arizona*."

Arizona had been hit with one bomb on her afterdeck, but worse was yet to come.

The pilot of a Kate bomber flying at 1,500 feet dropped an armor-piercing bomb on *Arizona*'s starboard forecastle. What happened next was seen by virtually everybody in the area. The bomb impacted just forward of the second turret and plunged through several decks down to the space between Number 1 and Number 2 Handling Rooms, igniting propellant for the forward guns in an incandescent

detonation that tore the heavy armored steel of the proud ship like tissue paper as it blew out her bottom.

Jack Evans was still in his lofty perch 120 feet over the water. "I was looking forward when the *Arizona* blew up. I hung on because the explosion made the mast whip back and forth in the hot blast, and I thought it would snap. When I looked back the *Arizona* was about 20 feet out of the water. Then her keel broke in two and she sank."

The wave created by the concussion lifted *Tennessee*'s aft end several feet out of the water as an inferno of burning fuel oil enveloped her stern.

Murphy said, "Suddenly there was a huge roar outside, and our ship rolled way over. It sounded like the whole world had gone up. If that hatch hadn't been dogged down, everybody in the radio room would have been killed."

In *West Virginia*'s Number 3 turret, Stu Hedley and Crosslin were listening to the sounds of battle. "Crosslin said, 'Stu, let's see what's happening out there,' and pulled the sight cap off the periscope. We both looked out, and bam! There went the *Arizona*. Over 30 bodies flew through the air. It was terrible to watch."

Arizona had turned into a twisted blazing funeral pyre for 1,177 officers and men.

Another bomb fell toward Hedley's turret. "It hit the wing of the OS2U floatplane on the catapult over the starboard gun," he said. "The admiral's plane next to it was blasted off the turret. The bomb came right through the five inches of steel into the starboard gun compartment. It didn't explode, but it hit the recoil cylinder on top of the gun. The burning fuel from the plane ignited the glycerin in the cylinder in a flash fire and killed 11 men."

The hatch between the two 16-inch guns was torn loose and flew past Hedley and Crosslin, slamming into the port bulkhead. "The blast threw us back eight feet into the elevating screw," Hedley recalled. "Crosslin said, 'Stu, let's get the hell out of here!'"

By this time *West Virginia* was listing at least 15 degrees to port. "We were on the port quarterdeck," Hedley continued, "and the water was up to my knees. We saw the *Oklahoma* capsize, and I was sure we were going to roll over."

Lieutenant C.V. Ricketts, a damage control officer, ordered the voids between the battleship's armor belt and hull flooded. This saved the *West Virginia* from the fate of the *Oklahoma*. She settled herself into the mud of the harbor bottom.

Jack Evans watched as a bomb struck the corner of *Tennessee*'s Number 2 turret. Splinters from the blast mortally wounded Captain Mervyn Bennion of the *West Virginia* as he directed the battle from his ship's flying bridge. Bennion died in the arms of Captain's Orderly Doris Miller, who would later be awarded the Navy Cross for heroism in defending the ship. Bennion's last words were "Abandon ship!" He posthumously received the Medal of Honor.

Tennessee was hit again. Hedley commented, "Another bomb hit Number 3 turret just at the hole where the gun comes through and killed about four men."

Meanwhile, Ray Richmond and his crewmates were struggling to climb out of the black prison of the *Oklahoma,* lying on her port side. She had initially been hit by three torpedoes, and two more struck as she rolled over. "I was feeling my way along in the dark and finally reached a room with a deck hatch," he said. "Sailors were being pulled up by hands reaching down through the hatch. I looked up and realized they were of Commander Kenworthy, the captain, and the executive officer, Lieutenant Commander Hubbard. But I was too short to reach them, and they suggested I go out through the casemate of the nearest 5-inch gun."

Richmond found himself looking down at the water, 20 feet below. "The water between us and the *Maryland* was burning, filled with bodies and swimming men. The *Oklahoma* was almost upside down," he said.

Richmond realized he would have to jump far out to clear the armor blister at the waterline. He jumped as far as he could but hit hard on his lower back against the riveted steel. "I felt a shock of intense pain. I couldn't feel my legs, and I had to use my arms to scoot down the hull. It was like thick metal shingles," he recalled. "Then I slid into the oily water and ducked under."

The *Maryland* was about 50 feet from *Oklahoma*. Richmond added, "As I swam I pushed bodies away from me and when I came up for air, I had to use my hands to clear a space of oil so I could get my head out and breathe."

More than 400 men were trapped in *Oklahoma*'s hull. Richmond finally reached a rope ladder on the side of the battleship. "There were a bunch of men trying to get up that ladder, and they kept using my head for a step."

Near exhaustion, the sailor almost didn't make it up to the *Maryland*'s deck. Richmond concluded, "Then a man reached down and pulled me up by my hair."

Vestal's commander, Captain Cassin Young, had been blown over the side into the water when the *Arizona* exploded. The executive officer, suddenly in nominal command, assessed the situation. The ship had taken two bomb hits and was right up against the burning battleship. The water was on fire, and hundreds of men were dead or dying. He ordered the crew to abandon ship. Murphy said, "Captain Young managed to climb back up a ladder to the deck. He countermanded the abandon ship order and got us underway and beached us on Area Landing."

On the *West Virginia* Hedley and Crosslin reached the starboard rail and looked at the spreading film of burning oil in the water between themselves and the *Tennessee*. "We were going to shinny over on one of the

A U.S. Navy motor launch pulls sailors from the water in this colorized image of the stricken battleship USS *West Virginia*. Hit by several Japanese torpedoes, the *West Virginia* quickly settled to the bottom of Pearl Harbor in an upright orientation due to quick counterflooding to control the list from the torpedo strikes.

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hawsers like the other boys were doing,' he said. "But then a Zero flew right between the *Wee Vee* and the *Tennessee,* machine gunning the boys out on the hawsers."

Hedley spotted the extended barrel of one of the 5-inch guns. "I asked Crosslin, 'Have you ever run down a railroad rail? You see those 5-inch guns? We're going to run across those barrels and jump down on the *Tennessee*. So we did. When we got there we were told to get to the beach. 'How?' I asked a chief petty officer. 'Swim, you idiot!' We stripped down and

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jumped into the water and swam underwater to the beach of Ford Island. Every time I came up to breathe I inhaled hot, burning air."

At 8:45 the second wave of bombers came in. Seventy Val dive bombers from *Akagi, Kaga, Hiryu,* and *Soryu* had been ordered to hit the American carriers, but with none in port, concentrated their bombs on the remaining ships around Ford Island and the Navy Base. Twenty-seven Kates led by Lt. Cmdr. Shigekazu Shimazaki from *Shokaku* hit Kaneohe Naval Air Station on the east end of Oahu. *Zuikaku*'s Kates, under Lt. Cmdr. Ichihara, returned to Hickam and Bellows Field and Ewa Marine Air Station.

"The dive bombers came in and put 14 bombs in the water on *Tennessee*'s starboard side," Evans aboard the *Tennessee* said. "The Japs didn't hit the ship at all. But the bombs killed a lot of swimming men and destroyed all the ship's boats."

Nevada was underway and steering past the burning hulk of the *Arizona,* the sunken *West Virginia,* and the capsized *Oklahoma. Nevada,* the only moving ship, attracted the attention of the Vals of the second wave.

Wilson continued, "We were hit by three more bombs as we moved down toward the harbor mouth. I went on deck shortly after we got moving and just thought, 'Oh my God!' I was stunned about all those burning ships. The water was on fire, and the *Arizona* was just a big tower of fire and smoke. We were going to beach her at Hospital Point, but I guess it was

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ABOVE: The battleship USS *Tennessee* is wedged against its mooring quays by the hull of the sunken USS *West Virginia,* which took several torpedo hits during the attack on Pearl Harbor. Engineers used dynamite to free the hull of the trapped *Tennessee,* which was repaired and modernized to later return to service. BELOW: The only capital ship of the U.S. Navy to get underway during the attack on Pearl Harbor, the battleship USS *Nevada* lies beached at Hospital Point and on fire after taking several bomb hits. The *Nevada* was repaired and returned to service, bombarding German shore installations during the D-Day landings in France. LEFT: A Japanese Aichi D3A Val dive bomber is seen in flight during the attack on Pearl Harbor. The Val is easily identified with its fixed landing gear. The aircraft was the frontline Japanese carrier-based dive bomber for much of World War II.

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not a good place to be, so the harbor tugs pulled us over to the opposite bank and we settled into the shallow water."

Evans watched *Nevada* go by from *Tennessee*'s foretop. "The only big ship moving was the *Nevada*. She was low in the water and the bombers went after her."

Ray Richmond, after his escape from the *Oklahoma,* was able to get some clothing and then helped out at an antiaircraft gun. He fought alongside the gunners for two hours. "When it was all over I collapsed in pain," he said. "I didn't learn until later that my back was broken."

Jack Evans also didn't escape the attack unharmed. "I didn't realize some fragments from that first bomb on turret Number 2 had hit my legs until after the attack was over," he said. "One of my buddies said, 'Hey Jack, you're hit.' I looked down and saw four tracks of dried blood running down both legs. I didn't want the Purple Heart, but I got it."

Stu Hedley went to the infirmary on Ford Island, and after being given clean clothes, began helping to care for wounded men.

By 9:45 it was all over. The attackers headed back to their carriers and returned to Japan. In their wake they left battleships on the bottom and heavily damaged along with several sunken and damaged cruisers, destroyers. and support ships. Army, Navy, and Marine aircraft were burning on the runways across Oahu. And 2,403 Americans were dead. Over the next several days, holes were cut into the hull of the capsized *Oklahoma* to free 32 trapped sailors. Of her crew of 1,398 officers and sailors, 429 died. The hospitals were choked with the wounded and dying.

Continued on page 82

The First Canadian Parachute Battalion jumps to victory on D-Day, June 6, 1944.

Sergeant William R. Kelly crashed through the treetops, slamming to a stop when his parachute canopy caught on some branches. Hopelessly entangled in his suspension lines, the Canadian paratrooper found himself hanging upside down with his face immersed in fetid swamp water. Kelly found he could breathe only by lifting his head up against some 60 pounds of equipment pressing against him. Wearying rapidly, the exhausted para wondered if each gulp of air might be his last.

Throughout the early hours of June 6, 1944, more than 20,000 American, British, Canadian, and Free French airborne soldiers jumped or rode by glider into Normandy, France, as the advance guard of a massive Allied invasion code-named Operation Neptune, the invasion phase of the Operation Overlord, the Allied assault against Hitler's Fortress Europe. It was pure chaos. A combination of poorly marked drop zones (DZs), vicious German antiaircraft fire, and inexperienced troop carrier aircrews conspired to scatter most of these parachutists all over the Norman countryside.

Some jumpers, misdropped over the English Channel, disappeared without a trace. Others, like Sergeant Kelly, landed far from their DZs in marshes or flooded areas. For these men, survival often depended purely on luck. Kelly was fortunate; other Canadians heard his struggles and quickly cut him loose.

Sergeant Kelly cheated death that night but could not stop to celebrate his deliverance. He knew Operation Neptune's success depended on the airborne forces to carry out their vitally important missions. Thousands of paratroopers—soaked to the skin, lost, cut off from their officers and with much of their heavy equipment

During an exercise in February 1944, troopers of the 1st Canadian Parachute Battalion descend earthward from their Douglas C-47 Dakota transport aircraft. Throughout the war, the Dakota was an airborne workhorse and always in short supply. INSET: During a training exercise in April 1944, Major H. Fraser helps Lieutenant R.C. Hilborn of the 1st Canadian Parachute Battalion adjust his harness. This jump was conducted from a static balloon.

Both: Library and Archives Canada

EVERY MAN AN EMPEROR

BY PATRICK J. CHAISSON

missing—nevertheless began advancing toward the objective.

Canada, one of the Allied powers, watched with alarm as German sky soldiers spearheaded the Axis conquest of Belgium, Norway, and Crete in 1940-1941. While determined to form its own airborne force, Canada's War Cabinet recognized this would be possible only with considerable support from its British and American allies. Arranging that assistance took time, but finally on July 1, 1942—Canada Day—the 1st Canadian Parachute Battalion (1 CAN PARA BN) was established. Major Hilton D. Proctor became its first officer in command.

The organization consisted of four companies: three maneuver units designated A, B, and C Companies, as well as Headquarters Company, which contained heavy weapons, signals, administrative, and intelligence elements. A total of 26 officers and 590 enlisted soldiers made up the battalion's wartime strength, with recruits coming from across the Canadian Army. Unit leaders wanted tough men for a tough job. The ideal volunteer was "under 32 years of age, with a history of participation in rugged sports or in a civilian occupation or hobby demanding sustained exertion." Soldiers training in Canada, and those already deployed to the United Kingdom, were all accepted for parachute duty.

As Canada did not yet possess a jump training facility, volunteers were sent either to the British parachute school at RAF Station Ringway or the U.S. Army's airborne center at Fort Benning, Georgia. Approximately 85 soldiers went to Ringway, where during a demanding 16-day course they made eight jumps from tethered balloons and British drop aircraft. Everyone else, however, trained with the Americans.

Starting in August 1942, about 55 Canadians per week entered the arduous month-long basic parachute course at Fort Benning. Brutal heat and merciless Yank instructors tormented the trainees; men "double-timed" everywhere while push-ups—dozens of them—became a favorite punishment for even the slightest infraction. Officers and men suffered alike, although some enlisted soldiers delighted in "throwing the lieutenant around" during judo training.

Students were reminded of parachuting's special hazards when on September 7, 1942, their battalion commander, Major Proctor, was killed while making his first jump. Lt. Col. George F.P. Bradbrooke stepped forward to replace Proctor, and training continued.

Becoming jump-qualified filled every man who completed the course with a sense of pride and confidence. "They felt they could take on the world," remembered Private E.J. Scott. Paratroopers also enjoyed wearing the symbols of their new status: a maroon beret, jump wings, and the blood-red Corcoran boots issued at Benning and bloused in the American style.

While some Canadians remained behind to receive additional instruction in communications and parachute rigging, most of Bradbrooke's soldiers moved on to their new base at Shilo, Manitoba, in April 1943. This facility was still not ready for them, however. A shortage of everything from uniforms to weapons to jump aircraft meant there was more "make-work" on the schedule than actual combat training. Many men, their bodies and spirits honed to a fine edge of readiness, rebelled against this enforced inactivity.

At the same time, discussions between Canada and the United Kingdom resulted in the assignment of 1 CAN PARA BN to the British 6th Airborne Division (6 AB DIV) for duty overseas. Upon learning this news, the men celebrated. Soon they would experience the action that each soldier had struggled so hard to experience. Few realized then that the Canadians' training had just begun.

Following an uneventful Atlantic crossing in late July 1943, the paratroopers of 1 CAN PARA BN moved to Carter Barracks, Bulford Camp, on Salisbury Plain in central England. There they learned their outfit was now part of 6 AB DIV's Third Parachute Brigade (3 PARA BDE), commanded by Brigadier S. James Hill. Nicknamed "Speedy" for his blistering pace on

forced marches, Hill was a 32-year-old professional officer who had commanded the British First Parachute Battalion during heavy fighting in North Africa.

Brigadier Hill extended a warm welcome to his Canadians. After inspecting the battalion, he wrote of its men, "These were soldiers who wanted to fight and the sooner the better." But, Hill cautioned, an aggressive spirit alone will not win wars. As 1 CAN PARA BN settled in, he took note of the unit's many training deficiencies that would require correction before it was ready for action.

First, every trooper who had qualified at Fort Benning required familiarization on British parachute equipment and techniques. This meant attending a conversion course at Ringway, which upset many men until they realized the RAF instructors there behaved far more humanely than their American counterparts back in Georgia. Canadian paratroopers liked the British "X" harness and its quick-release buckles, while the landing falls taught at Ringway proved superior to the U.S. method.

They did not like how the British exited an aircraft. For delivering paratroops, the RAF modified obsolete bombers by cutting a circular hole in the belly through which jumpers dropped. Men who did it wrong "rang the bell" by striking their jaw on the rim as they exited, usually resulting in the loss of a few teeth. Unlike the Americans, British paras did not use reserve parachutes—a cost-saving measure that unnerved some Canadian jumpers.

But the worst blow to the Benning-trained paratroopers' morale came down in an order requiring them to remove their American jump boots. Maintaining the proper uniform was a key element of unit discipline, so the men (with much grumbling) put aside their prized Corcorans for the black brogans and web anklets worn by all members of 3 PARA BDE. They were now ready to train.

Fortunately, there was no better training officer in the Royal Army than Brigadier Hill. "My four rules of battle," he explained to the Canadians, were "number one, speed—we [have] to get across country faster than anyone else; two, control—no good commanding unless you have discipline and control; three, simplicity (in thought and action); and four, effective fire power or fire effect."

The battalion's most glaring deficiency, Hill saw, was marksmanship. "As a parachutist," he noted, "you have the minimum of ammunition to accomplish the stiffest task." This meant that "every shot must be fired to kill." Canadian paras spent many hours on the range, bringing their skill with rifle, pistol, Sten, and Bren guns up to 3 PARA BDE's exacting standards.

Another vital component of Brigadier Hill's individual training program was physical fitness. Every day after reveille there was a two-mile run, followed by calisthenics designed to build stamina. The battalion also regularly made forced marches with full battle kit in all weather. Every month unit members walked 15 miles in three hours while carrying all their equipment, and in October 1 CAN PARA BN shattered brigade records by finishing a 50-mile road march in 17 hours flat.

As winter approached, Hill's focus turned toward unit level training. Together with the rest of 3 PARA BDE, the Canadians conducted several large-scale field problems held as rehearsals for the coming invasion of Western Europe. Junior officers learned to control their platoons while all ranks practiced taking on leadership roles in case their commanders were lost, captured, or killed. Observing these exercises, Hill would occasionally stop a private soldier and quiz him on the mission.

The fiercely competitive Canadians had been hardened physically and mentally during their time in England. They could shoot, move, and communicate as well as any para and were especially skilled in the art of night fighting. The battalion also possessed a unique sense of initiative. Each man understood what had to be done to achieve his unit's assignment and could be trusted to act in the absence of orders. They were ready.

On May 31, 1944, the soldiers of 1 CAN PARA BN moved to a transit camp near the airfields from which they would depart for France. Officers and men gathered in heavily guarded briefing tents to examine terrain models of their objectives in France. They learned they were jumping into Normandy, near the city of Caen, with orders to cover the east flank of the entire Allied invasion.

The ground there was divided by two rivers, the Orne and the Dives. Several bridges spanning these waterways would, if captured or blown, restrict enemy movement throughout

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the region. High ground dividing the Orne and Dives River valleys, known as the Bavent Ridge, dominated the surrounding pastureland. Thickly wooded hedgerows, which the French called bocage, split farmers' fields and made for excellent defensive terrain.

The Orne and Dives bridges were major objectives. Furthermore, enemy gun emplacements at the Merville Battery posed a severe threat to the Allied landing beaches and had to be seized. German troop concentrations in the villages of Varaville and Bréville blocked access to the Bavent Ridge—these strongpoints also needed to be neutralized. Otherwise, an enemy counterattack coming down off this high ground could drive a wedge into the Allies' flank and possibly doom the entire invasion.

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ABOVE: During ceremonies at Fort Benning, Georgia, 20 enlisted men and two officers of the 1st Canadian Parachute Battalion receive their coveted silver wings, which designate them as qualified jumpers and graduates of the U.S. Army parachute school. LEFT: A private of the elite 1st Canadian Parachute Battalion prepares to jump from an Armstrong Whitworth Whitley bomber modified to carry paratroopers. OPPOSITE: During training on the Salisbury Plain in England, troopers of the 1st Canadian Parachute Battalion hunker down during a simulated attack.

Opposing 6 AB DIV was a jumble of second-rate coastal defense troops backed by well-equipped veterans and PzKpfw. IV tanks. Occupying positions along the Orne River estuary was the 716th Infantry Division, led by Lt. Gen. Wilhelm Richter. Lt. Gen. Josef Reichert's 711th Infantry Division held a portion of the Normandy shore from the mouth of the River Dives eastward past Caen. These so-called static divisions were manned by low-quality soldiers (including Russian, Polish, and Ukrainian "volunteers" led by German officers) and had little in the way of transport or supporting artillery.

More formidable was the 21st Panzer Division, commanded by Maj. Gen. Edgar Feutichtinger. Stationed east of Caen, this mechanized formation was kept in reserve for use as a counterattack force. Efficient and heavily armed, the 21st Panzer could pose a serious threat to lightly equipped Allied paratroopers.

Indeed, the men of Maj. Gen. Richard N. "Windy" Gale's 6 AB DIV faced many challenges as they prepared to invade Normandy. Their mission was straightforward—protect the landing beaches from German counterattacks—but executing this task required daring, split-second precision, and not a little luck.

Both of Gale's parachute units, 7,000 men of the 3 and 5 PARA BDEs, would jump starting at 0020 hours onto DZs between the Orne and Dives. Their mission was to rapidly seize or demolish a number of bridges in the region before enemy garrisons could react. Part of this scheme included a coup de main in which six glider loads of infantry would grab intact key crossings over both the Caen Canal at Benouville and the Orne River near Ranville. The 6th Airlanding Brigade, coming in by glider later on D-Day, acted as Maj. Gen. Gale's battlefield reserve.

The key task of destroying the Merville Battery went to Brigadier Hill's 3 PARA BDE. Hill in turn gave this tough assignment to his 9th Parachute Battalion, reinforced by engineers equipped with flamethrowers and explosive charges deemed necessary to disable the four 150mm guns supposedly emplaced there. The 8 PARA BN, another element of Brigadier Hill's command, was charged with wrecking several strategic bridges near the villages of Bures and Troarn.

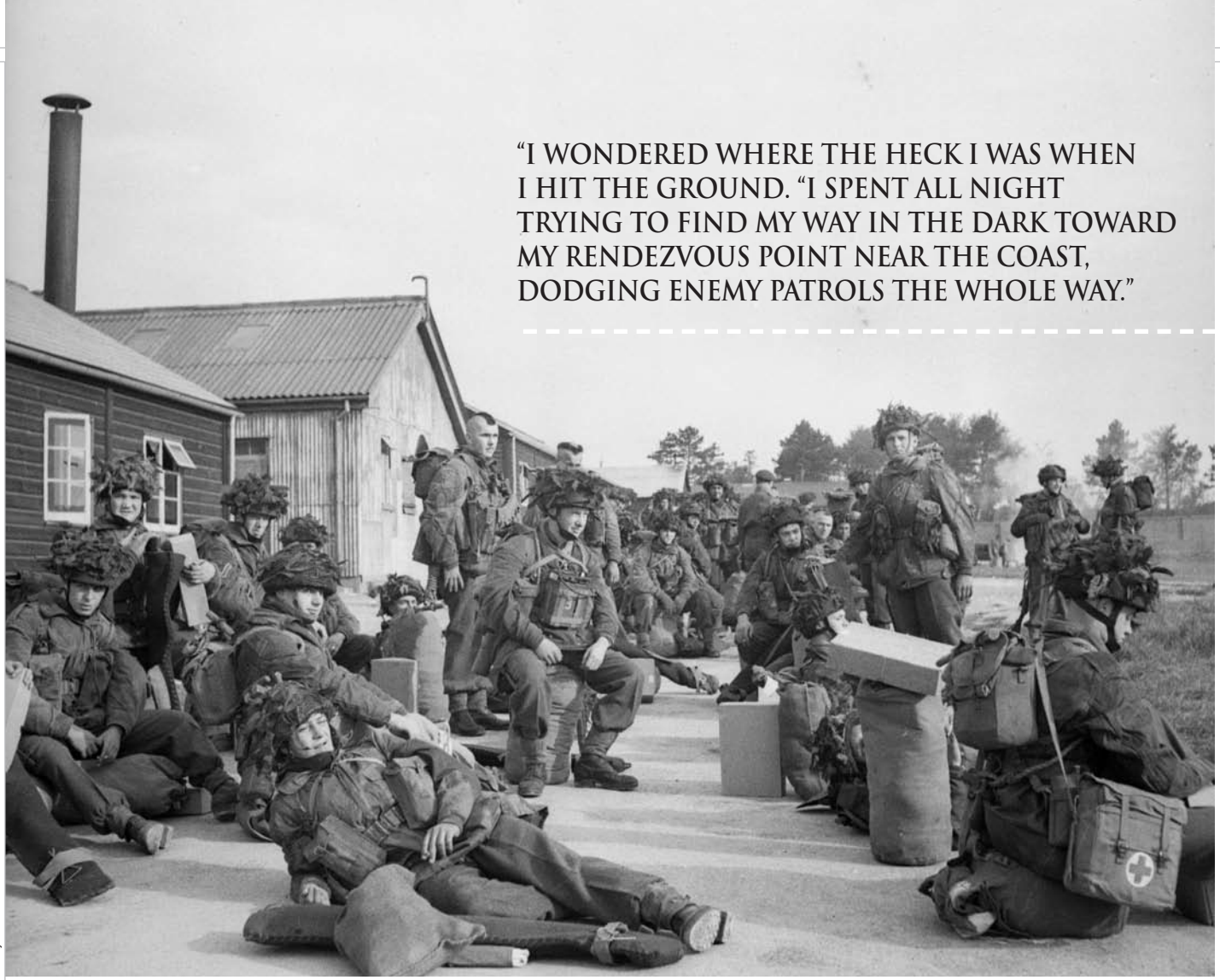
Lieutenant Colonel Bradbrooke's 1 CAN PARA BN also received a challenging assignment. The Canadians were to neutralize an enemy strongpoint and secure the brigade DZ at Varaville, as well as help demolish a number of bridges outside that village and farther east at Robehomme. A final task was to cover 9 PARA BN's assault on the Merville Battery. Once they completed these missions, the Canadians would seize and hold the hamlet of le Mesnil, a strategic crossroads on the Bavent Ridge.

Bradbrooke's men spent days analyzing the mission. Company C, Major H. Murray MacLeod commanding, was responsible for protecting the pathfinders who were to mark DZ "V" west of Varaville. They would then capture a command post in town and assist British sappers with the destruction of a nearby bridge. Company A, under Major Don Wilkins, drew the difficult job of guarding 9 PARA BN's flank as it assaulted the Merville Battery. Soldiers of Company B, led by Major Clayton Fuller, would blow the span at Robehomme before rejoining their battalion at le Mesnil.

The Canadian plan was a risky one. Its success depended on many factors. Above all, 1 CAN PARA BN had to be dropped accurately and on time. Bradbrooke's soldiers would then need to assemble quickly, recover their equipment, and strike out for widely separated objectives at night against a determined, well-prepared enemy. They were about to prove their fitness, fighting skills, and initiative in the ultimate test of war.

As the men assembled one final time at their transit camp, many paras contemplated how they would perform in battle. Brigadier Hill, no stranger to combat himself, stepped forward to offer words of encouragement and warning: "Gentlemen, in spite of your excellent training and detailed briefing do not be daunted if chaos reigns—for it certainly will."

Those who survived the Normandy drop



"I WONDERED WHERE THE HECK I WAS WHEN I HIT THE GROUND. "I SPENT ALL NIGHT TRYING TO FIND MY WAY IN THE DARK TOWARD MY RENDEZVOUS POINT NEAR THE COAST, DODGING ENEMY PATROLS THE WHOLE WAY."

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would later remark how prophetic Hill's comments were.

Late in the afternoon of June 5, the soldiers of 1 CAN PARA BN began moving to their departure airfields. Company C emplaned at Harwell, flying in converted Armstrong Whitworth Albemarle bombers of 38 Group, RAF. The rest of the battalion was trucked to Down Ampey, where Douglas C-47 Dakota transports crewed by 46 Group stood by.

At Down Ampey, Chaplain George Harris "was waiting with a prayer book in his hands," as one correspondent described. "His face was daubed with camouflage paint, he wore a green jumping smock and there was a crash helmet at his feet. The Canadians knelt and, as a stormy sun set over the woods, prayed and sang a hymn. After the blessing they turned, buckled the last straps, and filed to the planes."

The jumpers, overloaded with parachute, ammunition, and equipment, had to be pushed into their aircraft. Sergeant Dan Hartigan reported that "every man carried two pounds of plastic explosive primed with a screw-cap detonator, a No. 74 antitank grenade, several Mills bombs, and, in the assault companies, every second man carried four loaded Bren machine-gun magazines or four two-inch mortar shells, and smoke bombs for covering assaults." Many Canadians stuffed extra gear into leg bags, which they were to carry out the door and release before landing. Vickers machine guns, radios, and three-inch mortars were packed into containers and dropped along with the paras.

One jumper, however, leaped eagerly into the Dakota that would take him to battle. Jonny Canuck, an Alsatian/shepherd mix, served as the battalion's war dog. Jonny and his handler, Sergeant Peter Kowalski, would parachute into France to provide early warning of enemy infiltrators thanks to the canine's specially trained nose.

Fourteen Albemarles carrying Company C and the pathfinders took off from RAF Harwell starting at 2308 hours on June 5. Another 36 Dakotas with the remainder of 1 CAN PARA BN aboard departed Down Ampey airfield around 2320 hours, all en route to Dropping Zone "V" on the outskirts of Varaville. Inside one Dakota, Sergeant Harry Reid pondered his situation. "I was engrossed in my own thoughts, mostly about what was to come this night. It was hard to believe we were really on our way to fight…. I wondered how many of us might not make it back and how I would behave under fire."

The chaos that Brigadier Hill predicted did not take long to appear. "As we crossed the beach all hell broke loose," remembered Corporal G.H. Neal of Company A. " I was standing in the doorway when a solid wall of tracer bullets came up to meet us. Heavier ack-ack shells were exploding around us and the plane was jumping with each explosion."

John Ross of Company C jumped from an Albemarle. "When the green light came on, the first man threw out a bicycle or some other piece of equipment with its own parachute, then he brought his knees together and was gone. He was quickly followed by nine others."

Ross's group made an accurate jump. "Our

plane was one of only four, I think, that dropped us right on the drop zone. Most other planes were scattered all over Normandy. I personally landed almost exactly where I was supposed to land."

This bit of good luck was the last Company C would enjoy for a while. The British pathfinders landing with Ross discovered the Eureka radio transmitters they were supposed to place on DZ "V" had mostly been shattered on landing. Many of the beacon lamps intended to light the way for following waves of transports were also lost or inoperative. Worse, huge clouds of dust raised by an ongoing RAF bombing mission almost completely obscured the drop zone.

Heavy antiaircraft fire forced many transport pilots to take evasive action. Yet their sharp maneuvers made it even more difficult for navigators to find the DZ, as well as tossing the anxious paratroopers around like pinballs inside their planes. Bill Lovatt, a 19-year-old private, remembered, "As I approached the door I was flung back violently to the opposite side of the aircraft in a tangle of arms and legs." Somehow, Lovatt made a successful jump.

To escape the flak, some pilots sped up. "The plane was going much too fast," said Captain John Simpson. "When I went out the prop blast tore all my equipment off…. All I had was my clothes and my .45 revolver with some ammo." Indeed, over 70 percent of the battalion's communications gear, support weapons, and equipment bundles were never recovered. Many troopers also lost their leg bags, which were ripped away during the jump.

Private Jan de Vries landed far from his intended DZ. "I wondered where the heck I was when I hit the ground," he later recalled. "I spent all night trying to find my way in the dark toward my rendezvous point near the coast, dodging enemy patrols the whole way."

Several planeloads of jumpers came down in marshes or flooded zones. "Looking out of the plane it looked like pasture below us, but ... I landed in water," remembered Private Doug Morrison. "The Germans had flooded the area a while back and there was a green algae on the water so it actually looked like pasture at night from the air."

The battalion commander also made a water landing. "I personally was dropped a couple of miles away from the drop zone in a marsh near the River Dives," Lt. Col. Bradbrooke stated, "and arrived at the rendezvous about one and a half hours late and completely soaked."

The jump had been a disaster. Fully half the battalion's officers were lost, dead, or captured; the fate of Operation Neptune might well hinge on those still able to follow orders. Their years of training now began to pay off. Individually or in small groups, the soldiers of 1 CAN PARA BN got moving. They had work to do.

Major Murray MacLeod was supposed to have more than 100 men from Company C assembled on DZ "V" for the Varaville attack. Instead, a mere 15 Canadian paras were on hand when the aggressive officer began his assault at 0030 hours. MacLeod could not tarry. The main drop was due to occur at any time, and a German position at the Chateau de Varaville threatened the entire area. It had to be eliminated.

After collecting another five troopers along the way, Major MacLeod positioned half his force to provide covering fire while he led the rest up into an abandoned gatehouse. From there MacLeod could observe an elaborate defensive position, complete with a 75mm gun, in the Chateau's courtyard. He estimated there were at least 100 German soldiers facing his 20 Canadians.

The enemy announced its presence by putting a 75mm round through the gatehouse roof. MacLeod's men returned fire with a PIAT antitank launcher, which missed. The Germans' next high-explosive shell was more accurate,

Courtesy of the 1st Canadian Parachute Battalion Association

Courtesy of the 1st Canadian Parachute Battalion Association

ABOVE: The destruction of the Robehomme Bridge, shown in this photograph taken from an aerial reconnaissance plane in March 1944, was the responsibility of Company B, 1st Canadian Parachute Battalion. BELOW: Digging in along a dirt road in Normandy, paratroopers of the 1st Canadian Parachute Brigade prepare to hold their ground against any German counterattacks. This image was taken on June 8, 1944, two days after the paras had jumped into France. OPPOSITE: Troopers of the 1st Canadian Parachute Battalion relax in an assembly area as they await orders to proceed to their designated airfield and board transport planes for the perilous D-Day jump into Normandy.

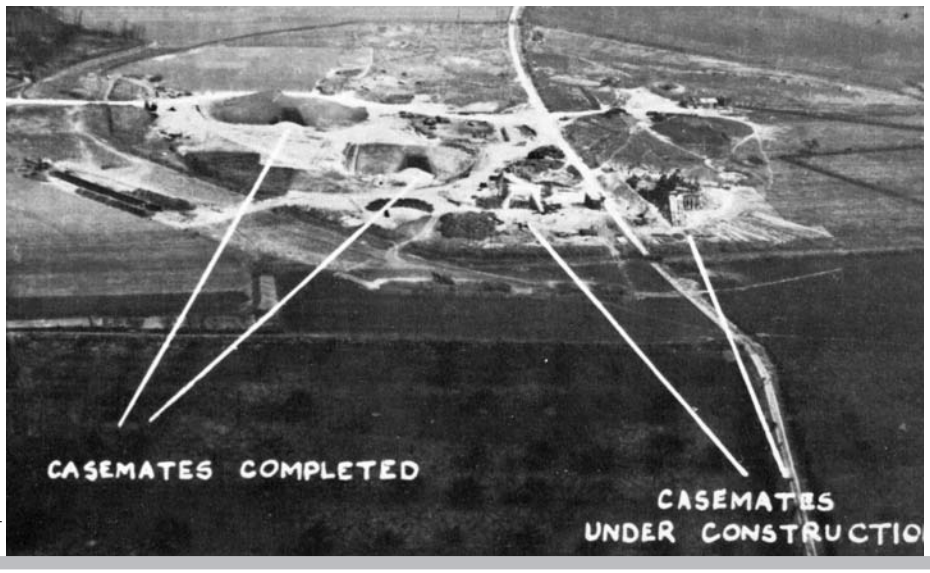
though, killing three paras outright while mortally wounding the major.

Captain John P. Hanson, company executive officer, took over and settled the men in for a siege. By daybreak another 15 misdropped paras had trickled in, adding their two-inch mortar and Bren guns to the fight. Well-trained Canadian riflemen began taking a deadly toll on their foes—at 1000 hours the Germans lost heart. Some 43 enemy soldiers came out under a white flag of surrender, and 1 CAN PARA BN's primary D-Day objective had been achieved.

Back on DZ "V," Lieutenant John A. Clancy of Company A could wait no longer. At 0600 hours the young platoon leader gathered everyone he could find—21 men in all—and headed out for the Merville Battery. Earlier that morning 150 soldiers from 9 PARA BN had successfully stormed that fortification, albeit with heavy losses. Clancy's men arrived in time to help their British comrades care for the wounded before escorting 9 PARA's survivors to an assembly area. The Canadians then moved out to join their parent battalion at the le Mesnil crossroads.

Bundesarchive Bild 101I-721-0373-05; Photo: Theobald

ABOVE: German troops advance toward the town of Breville, France, a week after the Allied invasion. British tanks and infantry failed to take and hold the town, and subsequently the Canadian paratroopers of the 1st Battalion joined in to secure the important objective. BELOW: This aerial view provides some understanding of the tremendous task faced by the Allied paratroopers who assaulted the formidable Merville Battery on D-Day, June 6, 1944. Troopers of the 1st Canadian Parachute Battalion were to support the capture of the battery.



Imperial War Museum

John Kemp, a sergeant with Company B, narrowly missed landing in the Dives River following his early morning jump. Pausing to gather a few mates, Kemp struck out for his objective at Robehomme. "Everybody got together pretty quickly," he remembered, "and on our way to the bridge we heard a bicycle bell ringing. We had some French-Canadians in our battalion, and we managed to bring down this bicycle rider who turned out to be a girl, and we found out from her where the Robehomme Bridge was. As a matter of fact, she led us to the bridge."

Eventually, 30 Canadians converged on Robehomme. With Major Clayton Fuller in command, they dug in and awaited the arrival of some British sappers who were supposed to help blow the span. By 0300 hours, Fuller could stand by no longer. Collecting all the paras' high explosives, a team of men under Lieutenant Norman Toseland set off a charge that weakened but did not collapse the structure. Fortunately, a detail of airborne engineers showed up shortly thereafter to finish the job.

It was now past dawn, and Major Fuller could observe many well-armed enemy soldiers blocking his route to the battalion rendezvous at le Mesnil. Rather than risk the annihilation of his small force, Fuller chose to hide out during daytime and move overland only after nightfall. Picking up stragglers from several 6 AB DIV units along the way, Company B finally reached its destination at 0330 hours on June 8.

Meanwhile, the machine gunners, mortarmen, and signalers of Headquarters Company assembled on the le Mesnil crossroads. With most of their Vickers guns, mortars, and radios lost or damaged, these soldiers were pressed into duty as riflemen by Lt. Col. Bradbrooke. Officers urgently directed newly arriving troopers into the battalion's growing but still tentative defensive line.

Bradbrooke knew his men had successfully accomplished all their D-Day missions but were now entering a dangerous phase of the operation. Lacking heavy weapons and reliable radio

communications, 1 CAN PARA BN was especially vulnerable to an enemy counterattack—something for which the Germans were notorious. Every moment spent preparing battle positions would pay benefits for the Canadians once their foe began striking back.

Fortunately, the terrain around le Mesnil was well suited for defensive operations. Dense hedgerows—bocage country—restricted an attacker's mobility while offering ready-made cover for dug-in defenders. A small group of aggressive fighting men could effectively stymie even large-scale assaults providing they were led well and resupplied on a regular basis.

The dreaded German counterattack finally came on June 7. After infantry probes fixed the Canadians' location, artillery and mortar barrages began pouring down relentlessly. "We were shelled for 12 hours straight," remembered Private Mervin Jones. "No one was hurt, but it was sure hard on the nerves."

Apart from the shellfire, German snipers also exacted a heavy toll on 1 CAN PARA BN. They specifically targeted leaders, as John Kemp recalled. "I was the fifth to take over as the Company Sergeant-Major," he said, explaining how enemy sharpshooters looked for men wearing sergeants' stripes. "It got so we didn't wear ranks anymore."

The Canadians maintained an active defense, though, using their night-fighting skills to stealthily infiltrate behind the lines and gain information on enemy locations, activity, and plans. These reconnaissance missions kept the foe off balance but held many dangers for those paras performing them. Sergeant Bill Dunnett compared the fighting around le Mesnil to "men hunting [each other] through the woods and narrow lanes" of the bocage.

Paratroopers endured daily artillery barrages, constant sniper activity, and occasional enemy probes. Taken together with short rations, limited drinking water, and an unnaturally warm Norman summer that caused unburied bodies to rapidly decompose, the Canadians' endurance was sorely tested. "Many of our people became beat, really beat," said Lieutenant John Madden. "I remember shaking sentries awake I don't know how many times." But the paras held firm.

While enemy forces could not break through at le Mesnil, they did discover a seam in the Allied defenses farther north near Bréville. On June 10, German troops seized this village, splitting open 6 AB DIV's position on Bavent Ridge. Recognizing the threat this breakthrough posed to his division, Maj. Gen. Gale pushed reinforcements forward to retake Bréville. For two days British infantry, supported by tanks, tried and failed to plug this dangerous gap in the lines.

The situation worsened when a massive enemy counterattack stormed out of Bréville on the afternoon of June 12. Hammered by assaulting infantry and armor, Gale's men wavered and then broke. Brigadier Hill, observing this crisis, called on his trusted Canadians to help shore up the British defenses. "Come on chaps, nothing to worry about," the doughty Hill said as he personally led 40 paras forward against the advancing foe.

By nightfall, 6 AB DIV had recaptured Bréville. The scratch force from 1 CAN PARA BN had done its part, often fighting hand to hand until the Germans were repulsed. Their improbable victory came at heavy cost, however. Only 20 soldiers—half of those who set out with Brigadier Hill—returned to le Mesnil with him that evening.

The Canadians remained in place until June 17, when they briefly came off the line for a badly needed breather. Eight days later the paras were back at le Mesnil, where near constant fighting marked their summer. Enemy artillery, snipers, and booby traps continued to pick men off, and while replacements did arrive in July it was a tired, undermanned battalion that led the Normandy breakout in August. Not until September 4 was 1 CAN PARA BN brought back to England for rest, refitting, and training in preparation for its next operation.

Casualties were severe. During its time in France, the battalion suffered 25 officers and 332 other ranks killed, wounded, or missing. On D-Day alone, 1 CAN PARA BN lost three officers and 18 enlisted men killed or died of wounds, one officer and eight men injured, and three officers plus 83 other ranks captured. Of 541 paras who made the jump into Normandy, only 197 returned unhurt to England that September.

The Canadians saw infantry service in the Ardennes before making another combat jump in March 1945 as part of Operation Varsity, the airborne crossing of the Rhine River. They advanced far into Germany, meeting Russian troops at war's end, and were among the first of Canada's forces to be repatriated after V-E Day. Though their battalion was deactivated shortly thereafter, those who served with this elite organization could take great pride in its unrivaled record of mission success.

Field Marshal Bernard Law Montgomery, writing after the war, summed up the unique combination of aggressiveness, initiative, and expertise exhibited by the soldiers of 1 CAN PARA BN. "They are firstly all volunteers and are toughened by physical training," Montgomery wrote. "They have 'jumped' from the air and by doing so have conquered fear…. They have the highest standards in all things, whether it be skill in battle or smartness in the execution of all peacetime duties. They are in fact men apart—every man an emperor."

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Two troopers of the 1st Canadian Parachute Battalion fire their PIAT antitank weapon at oncoming enemy armored vehicles near the town of Lembeck, Germany, in March 1945. Within weeks, World War II in Europe was over.

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THE GREATEST DISASTER

Defeat in the Battle of Savo Island was a stunning blow to Allied naval forces off Guadalcanal.

BY DAVID H. LIPPMAN

AMID RAIN, LIGHTNING, AND DARK, the British admiral and American general picked their way through choppy seas to the transport USS *McCawley,* off the coast of Guadalcanal. Maj. Gen. Archibald Vandegrift of the U.S. Marine Corps was exhausted. Britain's Rear Admiral Victor Alexander Crutchley, commanding the Allied Screening Force, an Australian-American mix of six heavy cruisers, two light cruisers, and eight destroyers, looked "ready to pass out."

So did the senior officer on *McCawley* they were going to see, Rear Admiral Richmond Kelly Turner, who commanded the American amphibious assault forces that were riding waves off the invaded islands of Guadalcanal and Tulagi that evening.

There was good reason for all three men to be fatigued. In the three days since they had led the invasion, none had been able to sleep. Now the three officers were losing their carrier-based air cover, and the transports would have to pull out without fully unloading their supplies. This was a grave issue, but their crisis was about to become far worse—in minutes, they would be helpless spectators to the greatest defeat at sea in the history of the United States and Royal Australian Navies.

Operation Watchtower was the first Allied Pacific offensive of World War II. In early 1942, Fleet Admiral Ernest J. King was determined to drive the Japanese north through the Solomon Islands chain and up that jungle road to Tokyo.

The task was given to Vice Admiral Robert Ghormley, and the plan called for an invasion of two islands in the Solomons, the capital at Tulagi and Guadalcanal, a larger island south of Tulagi. Between them sat Savo Island, a dead volcano.

The assault was assigned to the 1st Marine Division under Vandegrift. Turner would command the invasion force of transports. The assault's air cover would come from Vice Admiral Frank Jack Fletcher's three carriers, and its close-in defense and gunnery support from Crutchley's group. It was the first offensive mix of British, Australian, and American naval forces in battle.

Planned for September, the invasion was moved up to August 1 because the Japanese were building a runway for land-based planes on Guadalcanal. The base was a clear threat to American communications with Australia and New Zealand. Watchtower moved into high gear. Delays pushed the assault back to August 7.

Meanwhile, the invasion's leaders met on Fletcher's flagship, the carrier *Saratoga,* at Koro on July 26. There Fletcher outlined his plans. The carrier force would stay south of Guadalcanal. Turner would take the transports in with the cruisers and destroyers to protect him, under Crutchley. Fletcher then dropped his bombshell: he would withdraw his three carriers 48 hours after the invasion.

Turner was outraged. Withdrawing the air cover would jeopardize the operation. It would take longer than that to unload all the supplies. Vandegrift agreed. But Fletcher was firm. As fleet commander at the carrier battles of Coral Sea and Midway, two of his carriers had been sunk beneath his feet.

The whole force headed for Guadalcanal and Tulagi on July 31, and Crutchley finally had a chance to operate with his cruisers and destroyers. Some he knew already. The British-built County-class heavy cruisers HMAS *Australia* and HMAS *Canberra* had worked with the American heavy cruiser USS *Chicago* for some months, directly under his command.

But the new cruisers assigned to him, USS *Vincennes, Quincy,* and *Astoria,* had not. More importantly, despite long traditions of valor, professionalism, and ingenuity, the U.S. Navy did not actually have standard operating procedures for surface naval battles. Except for disastrous actions in the Java Sea under Dutch command in February 1942, the U.S. Navy had not fought a surface battle since 1898, and that against a decrepit Spanish Navy. U.S. Navy task group commanders were expected to determine their procedures on the

Australian War Memorial

The cruiser HMAS *Australia* takes evasive action as her antiaircraft batteries chatter away at attacking Japanese torpedo bombers during the opening phase of the Battle of Savo Island on August 8, 1942.

spot, which could lead to difficulties with tactical communication and coordination.

But at least the force could count on solid leadership. Aged 48, Crutchley was a veteran sea dog with an immense red beard, holder of a Victoria Cross from World War I, and had fought surface actions in World War II.

As the Allied force steamed north, Crutchley worked out his tactical plans in his cabin on *Australia*. He was reluctant to put his complex and poorly coordinated force into a single unit, fearing it would come apart in the stress of battle. Later battles would prove him right—the Americans would try that tactic in four major naval engagements in the Solomons and take harsh losses.

Instead, he chose to divide his force. His own group, used to working together, would guard the southern approach to Guadalcanal up to Savo Island as the Southern Group, while the three American cruisers would patrol the area between Savo and Tulagi. The Northern Group would be headed by the senior American officer, *Vincennes*' skipper Captain Frederick "Fearless Freddie" Riefkohl. Each group would have three heavy cruisers and two destroyers.

To the east, Crutchley posted his light cruisers, USS *San Juan* and HMAS *Hobart,* to guard against a flanking move. And finally, he intended to put two destroyers on outpost duty, USS *Blue* and USS *Ralph Talbot,* which would head out before sunset and patrol, *Ralph Talbot* northwest of Savo, *Blue* southwest of Savo, all night long. They had the best radar capability of all his destroyers, a range of seven to 10 miles.

Turner approved Crutchley's plans, and on the night of Friday, August 7, the invasion force steamed from the west into what would soon be named Ironbottom Sound between Guadalcanal and Tulagi. At 6:50 AM, the Marines stormed ashore.

There was no resistance on Guadalcanal. On Tulagi and its nearby islands, the Marines ran into determined defense, with Japanese troops radioing their headquarters in Rabaul, on the island of New Britain, for help.

The messages reached Admiral Gunichi Mikawa, who commanded the Japanese Eighth Fleet. He commanded the surface warship punch in the area from his flagship, the heavy cruiser *Chokai,* and the four warships of Cruiser Division Six assigned to him: *Aoba, Kinugasa, Furutaka,* and *Kako*. Backing them up were the two light cruisers *Tenryu* and *Yubari*, and a single destroyer, *Yunagi.*

Mikawa ordered seaplane tenders and supply ships loaded with reinforcements for Guadalcanal, fighters and bombers to fly 600 miles from Rabaul to Guadalcanal to attack the enemy ships, and his own scattered warships to assemble at Rabaul for a swift counterattack. He intended to hurl his five heavy and two light cruisers in one coiled fist, making a night attack on the enemy to destroy their fleet and transports.

The plan seemed foolhardy. The Americans had air superiority and plenty of reconnaissance planes to spot and track Mikawa's force, so it would not have the advantage of surprise. It would have a limited amount of time to get into the Guadalcanal area by night and a limited amount of time to get back out. The American warships had radar to control their guns, a major advantage in night fighting.

But Mikawa and his men were unperturbed. The Imperial Japanese Navy trained hard for night battles. The Japanese may have lacked radar, but they trained the most skilled lookouts to serve by night. They could spot targets as far as four miles—8,000 meters—away, even on dark nights. Their searchlights were superior to the American equipment.

Most importantly, unlike their American opponents, Japanese heavy cruisers were armed with torpedoes, in as many as eight tubes, the greatest in the world. Japan's oxygen-fueled Long Lance torpedo was 24 inches in diameter, had a speed of 50 knots, a range of nearly four miles, and exploded on impact with the power of its 1,210-pound warhead. By comparison,

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The opposing admirals during the Battle of Savo Island were Japan's Gunichi Mikawa and Victor Crutchley of the British Royal Navy. BELOW: A Japanese Mitsubishi G4M Betty bomber makes a torpedo run against American ships of the Tulagi invasion force. This photo was taken on August 8, 1942. The blazing ship in the distance is probably the transport *George F. Elliott*.

THE DESTROYER *PATTERSON* SPOTTED THE ENEMY, FIRING OFF A RADIO MESSAGE: "WARNING! WARNING! STRANGE SHIPS ENTERING HARBOR!"

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the Americans regarded the idea of arming their heavy cruisers with torpedoes as obsolete and did not do so.

At 4:30 PM on August 7, Mikawa led his task force to sea to fight the enemy in the best samurai tradition. Mikawa's force steamed down the gaps between the Solomon Islands chain—a route that would later be called The Slot—without interference, spotted by passing Boeing B-17 Flying Fortress bombers of General Douglas MacArthur's command in Australia. The American planes reported "six unidentified ships sighted," but no more—no position, course, or speed.

Meanwhile, Japanese bombers attacked the American ships, putting a bomb into the destroyer *Mugford*, resulting in minor damage and killing 22 men.

That afternoon, Mikawa told his staff that his plan was a run-in by night, followed by a torpedo attack. He would take his chances with being spotted by day during the race down on the 8th.

On the Allied side, Crutchley's ships went to their positions, and everything was quiet, the ships steaming back and forth—the Southern Force in a straight line, the Northern Force in a box patrol.

The next morning, August 8, Mikawa launched his seaplanes to check out Guadalcanal, and more Japanese bombers headed for the island.

When the raid came in at noon, the bombers were greeted by a massive barrage. The Japanese hit the destroyer *Jarvis* and a bomber crashed into the transport *George F. Elliott*, setting off a fire that soon raged out of control. The transport was abandoned. The destroyer *Hull* tried to sink it with four torpedoes and that failed. The *George F. Elliott* lay abandoned and smoking all through the night.

Meanwhile, the Japanese ships steamed southward, through sticky tropical heat, unhampered but spotted. The American submarine *S-38* reported them, as did land-based coastwatchers, but the major report was made by a Royal Australian Air Force Lockheed Hudson patrol bomber flown by Sergeant Will Stutt. He tried to radio in his sighting, but his radio failed, so he flew back to his base at Milne Bay, which took two hours and 16 minutes. He immediately made his report at 12:42 PM, but that vital—and ambiguous—message did not get to Crutchley until 6:17 PM.

All the warning messages were delayed or mishandled—some went through Pearl Harbor, others through MacArthur's command, and *McCawley*'s radio room could not even monitor the coastwatchers' network. The unified

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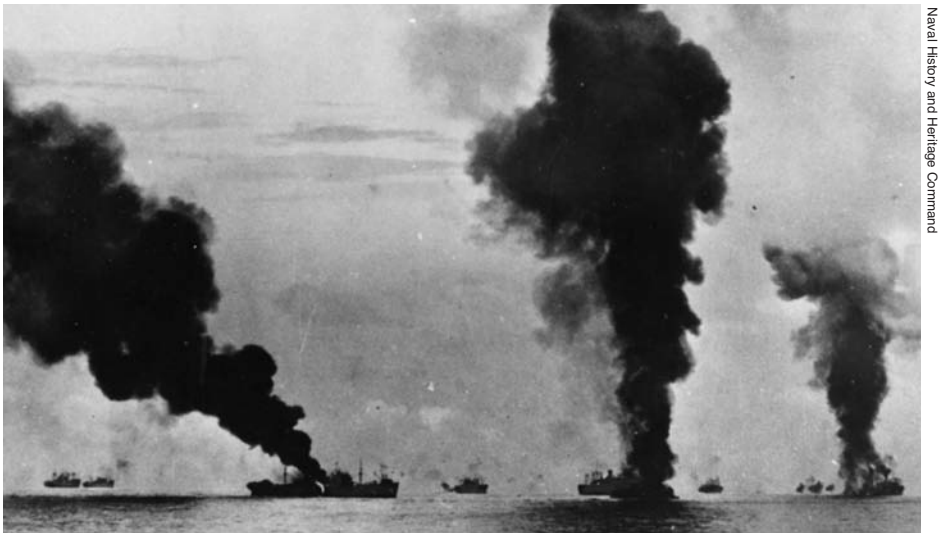

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ABOVE: The Japanese cruiser *Chokai,* flagship of Admiral Gunichi Mikawa at Savo Island, fires a salvo during exercises before the outbreak of war in the Pacific. BELOW: This photo was taken shortly after the one above and depicts the burning transport *George F. Elliott,* hit by a Japanese plane, at left center. The other columns of smoke are from Japanese aircraft that have been shot down and crashed into the sea.

communications nets of later invasions had not been developed yet.

But it all seemed academic as long as Fletcher's carriers were standing southeast of Guadalcanal. If the Japanese tried to attack by night, they would be caught coming and going by the carrier planes.

The bombshell hit when Fletcher radioed Ghormley at 6:07 PM: "Total fighter strength reduced from 99 to 78. In view of large numbers of enemy torpedo and bomber planes in area recommend immediate withdrawal of carriers. Request you send tankers immediately to rendezvous decided by you as fuel running low."

By the time Fletcher sent this message, he was heading south to fuel, so the recommendation was an order. Worse, his two issues were not true. He had 83 fighters—more than at Midway—and his warships were not low on fuel. Historians would later heap fury upon Fletcher's decision, some calling it "cowardice."

Nonetheless, with the air cover departing, Turner's transports—still unloading—would be open to Japanese attack. They would have to flee Guadalcanal. Turner summoned his two commanders to his flagship at 8 PM.

Mikawa's ships, however, were still plunging southward. At 7:15 PM, Mikawa signaled his ships and men: "Let us attack with certain victory in the traditional night attack of the Imperial Japanese Navy. May each one calmly do his utmost."

At 8:30, an exhausted Crutchley was summoned to the powwow on *McCawley*. He had barely slept for three days, taking short catnaps on his flag bridge. He ordered the senior skipper of the Southern Force, USS *Chicago*'s Captain Howard Bode, to take charge, saying, "I may or may not be back later," and steamed off on *Australia* into the dark at 9:23 PM.

Oddly, Crutchley did not let Riefkohl on *Vincennes,* commanding the Northern Force, know he was leaving, although he did send a generic radio message to his nearby ships to that effect.

Nobody seemed alert that evening. The Japanese shot off last-minute reconnaissance

National Archives

A Japanese combat photographer snapped this image of the Battle of Savo Island from the deck of the crusier *Chokai.* Flares light up the dark sky and silhouette the cruisers USS *Chicago* and HMAS *Canberra.*

seaplanes from their heavy cruisers, and they zoomed over the two Allied forces. Incredibly, the defenders assumed they were American planes, even when they dispensed flares to illuminate the scene. All five skippers—Frank Getting on *Canberra,* William G. Greenman on *Astoria,* Riefkohl on *Vincennes,* Bode on *Chicago,* and Samuel N. Moore of *Quincy*—hit the sack. Nor did Bode, as temporary boss of the Southern Force, put *Chicago* in line ahead of *Canberra*. He figured that such maneuvering in the dark, with submarines possibly about, would be dangerous. He stayed second in line.

At the 10:30 PM conference, the three leaders faced facts—Turner's transports would have to withdraw in the morning, leaving the Marines short on supplies. When the meeting broke up before midnight, it took Crutchley an hour to return to *Australia,* and he saw the flares. He figured that meant a Japanese submarine attack, so he decided to stay with Turner's screen until dawn. So now nobody was awake and in command in the battle area.

But on the other side, Mikawa was in command, and his force was on the final portion of its sprint, passing Savo at 12:40 AM. Three minutes later, *Chokai* lookouts spotted a ship headed toward them from the starboard side, five miles away. Mikawa adjusted course away from the intruder—the watchdog *Blue*—and incredibly the destroyer did a 180-degree turn, having neither spotted the Japanese with radar or lookouts. Then another scare—a ship was just north of Savo, steaming away, which turned out to be an inter-island schooner. Mikawa made another course correction and evaded this ship. Then Mikawa gave his final orders: *Yunagi* to drop out of formation to keep an eye on *Blue* and the smoking *Jarvis* ... all engines on 30 knots ... torpedoes ready.

At 1:25, *Chokai*'s lookouts spotted *Chicago* and *Canberra* nine miles ahead of them, silhouetted by the burning *George F. Elliott*. At 1:33 AM on Sunday, August 9, Mikawa gave the order, "All ships attack!"

The nearest defending ship was *Jarvis,* and the Japanese treated her to a dose of torpedoes, which all missed. *Jarvis* was unable to respond, and Mikawa's ships raced in on their first major target, the Southern Force. At 1:36, Mikawa yelled, "Independent firing!"

Flares popped from Japanese seaplanes over the force, illuminating them, and the destroyer *Patterson* spotted the enemy, firing off a radio message: "Warning! Warning! Strange ships entering harbor!"

It was too late. The Japanese cruisers cut loose with their torpedoes, heading straight for *Canberra*, followed by a barrage of 8-inch shells. Getting raced to his cruiser's bridge and ordered "Starboard 35" to unmask his guns. But a Japanese shell slammed into the plot room, wrecking it. Another smashed the radio room's transmitters, and another hit square on the bridge, killing Gunnery Officer Lt. Cmdr. D.M. Hole instantly, mortally wounding Getting, and severely wounding everyone else on the bridge. The next salvo also hit the bridge and slammed into the cruiser's engine rooms, setting them ablaze and cutting off steam and electrical power. *Canberra* took on a 10-degree list to starboard. The ship could neither move nor address her damage nor fire her armament.

To add to *Canberra*'s misery, postwar studies suggested that the critical torpedo hit that punched out her engines did not come from a Japanese ship, but from her escorting destroyer on the starboard side, *Bagley,* whose jittery captain hurled four torpedoes, one of which apparently slammed into *Canberra* instead of the Japanese.

Canberra fired only a few shots in her own defense. On the wrecked bridge, the executive officer, Commander J.A. Walsh, took over a dying ship.

The next cruiser was *Chicago*, and when the flares lit up the night Bode was summoned to the bridge. He arrived just in time to learn of dark objects approaching and ordered star shells to be fired. The bridge lookout reported three wakes in the water, which had to be torpedoes. Two missed *Chicago*, but at 1:47 AM the third tore a hole in her bow, mangling steel plates and peeling back steel. A vast column of water flew into the sky, covering the ship as high as the foretop, and the foremast's tip crashed onto the radar fire director, putting it out of the game.

Bode tried to fight back, firing 5-inch star shells to illuminate the scene for his 8-inch main battery. The shells failed to ignite, the radar did not spot a target, and *Chicago*'s guns were silent for the whole battle.

So was her radio. Incredibly, having spotted the enemy, Bode did not send a message to the Northern Force about his group's disastrous encounter with the enemy.

Nobody with the Northern Force reacted. Crewmen and officers were exhausted … radio messages were only semi-coherent due to atmospherics … lightning and rain squalls were impacting nerves and visibility… and Riefkohl did not know Crutchley had departed. When Japanese seaplanes flew over the force just before the attack, the Americans assumed that they were friendly because they had their running lights on.

At 1:43 AM, *Vincennes*' radio room received the big message from *Patterson* about strange ships entering the harbor, but it was not relayed to the bridge. *Quincy* got it too and passed it to the bridge, but did not tell gunnery. *Astoria* never received it. Neither did *Australia,* as she lacked American TBS (Talk Between Ships) radio. The Northern Force cruisers steamed northward at a steady 10 knots, heedless of the disaster that had befallen their sister ships.

Meanwhile, the Japanese headed northeast, straight toward the Northern Force. The Japanese ships broke their neat formation, with *Furutaka, Tenryu,* and *Yubari* cutting close to Savo Island, while *Chokai* and the other three cruisers raced farther east. Why they split up was never clear, but the damage they inflicted was:

17 torpedoes fired in six minutes, only three hits, but enough to wipe out the Southern Force without suffering a single hit. The two columns were now about to strike the American line from both ends at the same time.

Japanese torpedo men reloaded their tubes, and *Chokai*'s massive searchlights snapped on, illuminating the three American cruisers, guns trained in. Mikawa ordered his ships to open fire at 1:47 AM.

On *Vincennes,* Lt. Cmdr. Miller, the officer of the deck, noted star shells and what appeared to be gunfire to the south and summoned Riefkohl, who had spent the last 21 hours on the bridge. Riefkohl peered into the low clouds through his binoculars and suggested the Southern Force was firing on an enemy destroyer sneaking into the sound. The last thing he wanted to do was fire on his own ships, leave the northern entrance unguarded, or cause chaos, as he lacked direction from Crutchley.

When the Japanese searchlights flew on, Riefkohl assumed they were American lights and told his radiomen to signal them, "Turn those searchlights off of us. We are friendly." He also rang up speed to 20 knots. Then he waited for word from Crutchley.

On *Astoria,* supervisor of the watch Lt. Cmdr. J.R. Topper had just completed the ship's scheduled turn when he felt an underwater explosion nearby, saw the starshells, and yelled for the officer of the deck to summon Greenman.

Meanwhile, *Astoria* opened fire with a full salvo, on the orders of Gunnery Officer Lt. Cmdr. Truesdell, who saw the flares and responded with one of the few displays of initiative that night, identifying the targets as Japanese "cruisers of the Nachi class!"

Greenman sprinted into the pilothouse and asked, "Who sounded the general alarm? Who gave the order to commence firing?"

Topper said he had not and did not know who had.

"Topper," Greenman said, "I think we are firing on our own ships. Let's not get excited and act too hastily. Cease firing."

Topper agreed with his skipper and passed the word to do so. "What are you firing at?" the bridge talker asked Truesdell.

"Japanese cruisers," Truesdell yelled back. "Request permission to commence firing."

The talker made Truesdell sound tougher, saying, "Mr. Truesdell said for God's sake give the word to resume firing."

The Japanese opened fire on the American ships, and the bridge crew saw shell splashes short and ahead of them. "Our ships or not, we've got to stop them," said Greenman, still afraid he was shooting at his own ships.

The third salvo on *Astoria* was 300 yards short, the fourth 200 yards short, but the fifth hit *Astoria* amidships directly on her two seaplane catapults with their vast store of gasoline, oil, fabric, and wood created by two SOC-3 biplanes, setting off a massive fire. Another shell silenced Turret I. More salvos smashed the bow, gun deck, and bridge, killing the navigator, chief quartermaster, signal officer, and helmsman.

Greenman phoned the engine room and got horrible news ... Engineering Officer Lt. Cmdr. Hayes was abandoning the after engine room due to fires overhead, and the boilers could only do eight knots. More Japanese shells were whistling in, tearing *Astoria* apart. Topper reported hits and smoke all over the ship ... Turret I ... No. 2 Engine Room ... the Marine compartment ... the fire main-raisers ... a direct hit on No. 1 Fire Room ... no water topside to fight the fires ... Turrets II and III firing raggedly in local control.

Astoria was suffering an ordeal, but not as dreadful as *Quincy*. Her supervisor of the watch, Lt. Cmdr. Billings, did not realize the gravity of the situation until Japanese searchlights illuminated his ship as the new officer of the deck, Lieutenant Clarke, was taking over. Clarke sent a quartermaster to awaken Captain Moore and had the ship's bugler sound general quarters into the public address system.

When Moore reached the bridge, he made a right decision and then a wrong one. The right one was to order his guns to open fire on the enemy searchlights. The wrong one was to order his ship's recognition lights turned on—he thought the opposing vessels were friendly. His officers did so, but the Japanese simply poured shells into *Quincy*'s hull, setting the seaplane on the portside catapult ablaze. The fire had the same impact on *Quincy* as on *Astoria.*

More shells cascaded down, one tearing through the pilothouse, killing the executive officer, the navigator, the damage control officer, fatally wounding Moore, and shooting off half the side of Billings' face. Billings staggered to the wing and said, "I'm all right, I'm all right. Keep calm, everything will be all right. The ship will go down fighting."

Moore yelled, "We are going down the middle. Give them hell!" Then he slumped to the right of the wheel and muttered orders to transfer control to battle station II and that the ship should be beached. It did not matter. Japanese shells shredded *Quincy*'s hull. Communications, steering, engine power, and guns all soon were

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The guns of the Australian cruiser *Canberra* fire a salvo during a night exercise. During the Battle of Savo Island the cruiser was able to fire only a few rounds before it was so severely damaged that it could no longer participate in the fighting. LEFT: On the fateful day of the Battle of Savo Island, the cruiser USS *Chicago* is shown maneuvering off the island of Tulagi in the Solomons.

out of action.

Assistant Gunnery Officer Andrew climbed up to the bridge for orders to find it strewn with bloodied bodies, and the quartermaster struggling with a useless wheel. "The captain is dead," the quartermaster said. "He told me to beach the ship, but I can't steer." At that moment, Moore tried to rise from the deck, collapsed, and died.

Leadership fell upon Lt. Cmdr. Harry Heneberger, the gunnery officer, who ranked seventh in the chain of command. Once in control, he ordered a full main battery salvo, but the enemy targets had passed astern, and Turrets I and II could not fire until the aft director had the target bearing. Heneberger gave the necessary orders, but Japanese shells hit their targets first, jamming Turret III in train. Heneberger shifted control back to forward, but Japanese shells hit Turret II, which exploded it. Turret I was put out when a shell started a fire in the upper powder room. *Quincy* was out of action.

Vincennes was still in action, though. But Riefkohl wanted orders from Crutchley, especially a decision on whether to use searchlights to illuminate the Japanese. But Crutchley was not there, and while Riefkohl dithered the Japanese trained their own searchlights on *Vincennes*. Riefkohl then made the wrong decision. He assumed the light was the Southern Force and sent a blinker message telling the intruders to get their lights off of his ships. The Japanese answered his message with a salvo of armor-piercing shells, which tore apart the armored tube of the conning tower, cutting communications to the bridge. Another shell hit amidships, and like the other three cruisers, set *Vincennes*' seaplanes afire.

As *Vincennes* turned to port to avoid the oncoming *Quincy,* Japanese torpedoes whacked home into "Vinny Maru's" hull, hitting her No. 1 and No. 4 Fire Rooms. More Japanese shells slammed into her main steam lines, fire mains, and main battery control. A hit on the aft director blew it right off the *Vincennes*. The ship was left dead in the water.

It was the same below decks on *Quincy,* where chief engineer Lt. Cmdr. Eugene E. Elmore clambered down into the engine room, never to be seen again. Ensign Cohen, four years out of Annapolis, was at his general quarters station in No. 1 Mess Hall over the engine room. He heard the blast of shells punching into the adjacent No. 2 Mess Hall, opened a hatch, and saw it ablaze. Then *Quincy* shook from a torpedo hit. Cohen tried the escape hatch to the well deck above them. It was open, but flames roared in. Both fire and engine rooms filled with smoke and flame.

Below decks on *Vincennes* there were fewer survivors as the ship took torpedoes right in the engine rooms, two or three from *Chokai* in No. 4 Fire Room, one from *Yubari* in No. 1 Fire Room, leaving behind no survivors. A violent explosion hit *Vincennes,* and she began to list and settle to port.

Quincy continued to suffer. When the port catapult was hit by a Japanese 6-inch shell, the plane exploded and sent flames and shrapnel flying in all directions. Fuel spilled across the deck, bursting into flames. Damage control parties hooked up hoses to hydrants and found no water pressure. The lightly wounded carted off the more seriously wounded and the dead.

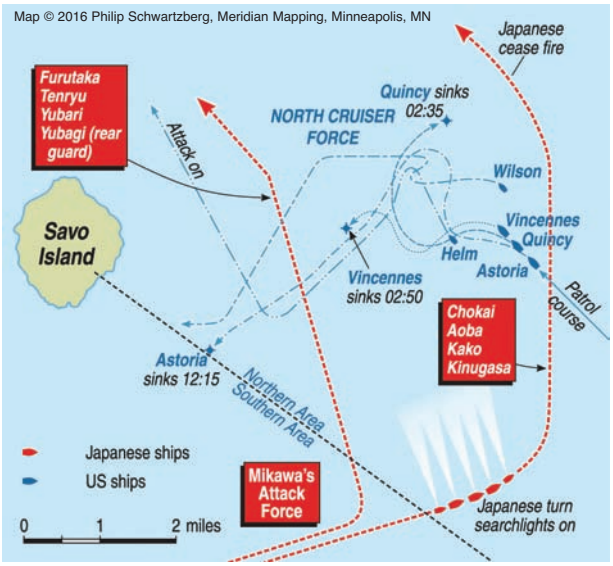
With the order given to abandon ship, *Quincy* sailors found life jackets were securely tied in bundles to keep them out of the way, floater nets were lashed to baskets high up on bulkheads, and rafts were secured atop gun turrets, making them impossible to reach in an emergency. Sailors climbed flaming bulkheads and turrets to free rafts and floater nets.

Her screws still turning, *Quincy* shuffled toward Tulagi. She sank at 2:55 AM, in 500 fathoms, taking 370 officers and men with her to the bottom.

Vincennes' battle lasted all of 18 minutes. The first shell smacked her at 1:51 AM and hit the bridge. The second blasted the carpenter's shop, the third the hangar deck setting off major fires, and the fourth blasted Batt II, ripping the radio antenna trunks. More shells whistled home, smashing searchlights and battle phones, cutting power to turrets, and rupturing fire mains.

Riefkohl ordered a 20-knot speed and headed left toward his pals in the Southern Force, unaware he was going between two enemy columns of heavy cruisers. Despite the long odds, *Vincennes* fought back, firing a salvo at *Kinugasa*. But it was not enough against the barrage. More Japanese shells smashed the "Vinny Maru," pulverizing her movie locker, searchlight platform, and the forward medical station where Navy surgeon Commander Blackwood, in his 60s, was killed along with his entire medical team. The mess attendant whose jaw he was sewing up ran from the compartment, holding the jaw with his hand, with only a leg scratch.

Riefkohl turned hard right to escape the barrage, calling for 25 knots but only got 19. As *Vincennes* turned, two torpedoes gored through her port side. A hit in main battery control aft killed the control officer there, and two more shattered Turrets I and II. A steam line burst, and the forward magazines had to be flooded down. Steering power failed in the pilothouse, and control was shifted to steering aft. Riefkohl called for a frantic left turn, but the engine room responded to neither telegraph nor the messen-



ABOVE: Allied cruisers and destroyers were ill prepared to take on the skilled Japanese naval squadron that attacked during the Battle of Savo Island on the night of August 8, 1942. The Allied vessels failed to utilize their radar to the fullest and were not properly positioned. BELOW: Lieutenant Commander Harry B. Heneberger, gunnery officer aboard the cruiser USS *Quincy* during the Battle of Savo Island, points to a map as he describes the abortive engagement after the battle had ended. OPPOSITE: The burning cruiser USS *Quincy* was photographed by a Japanese cameraman at the height of the Battle of Savo Island. In this image, the doomed cruiser is illuminated by flares, searchlights, and the roaring flames that were consuming her before she plunged to the bottom.

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"I WAS IN COMPLETE IGNORANCE OF THE NUMBER OR THE NATURE OF THE ENEMY FORCE AND THE PROGRESS OF THE ACTION BEING FOUGHT."

ger who was sent down. He never returned.

Just after 2 AM, the Japanese fixed their powerful lights on *Vincennes* and hurled more shells at her, jamming the forward director in train and smashing the machine shop, the forward mess hall, the starboard catapult tower, the well deck, the radar room, and even carrying off the cruiser's battle ensign.

A Japanese 8-inch shell smashed Turret II, knocking out the last of *Vincennes*' guns. The gunnery officer reported to Riefkohl, "Captain, we have absolutely no guns to fire with. Everything is out."

With that, the Japanese moved off, and Riefkohl turned to the lugubrious task of abandoning ship. The list increased steadily, and the skipper ordered all life rafts over the side and wounded men into life jackets. Two doctors and their corpsmen stood their posts at dressing stations to the end.

At 2:30 AM, Riefkohl gave the "abandon ship" order, and he gloomily stared about his ship—now a shambles—then was washed off the deck of his command at 2:40 AM. Luckily, he found a raft, and in it was the mess attendant with the busted jaw, still holding it with one hand. The mess attendant ignored his pain to render what help he could.

Vincennes sank around 2:50 AM. She had suffered at least 56 large-caliber shell hits and six torpedo hits.

Astoria finally started firing despite failures in powder and shell hoists. Turret III fired only three salvos before losing power. Turret II got off a few shells and was about to fire on a near target to port when all power failed. Good thing, too. She was aiming at *Quincy*.

With *Astoria* defenseless, the Japanese gunners shredded her upper works. Most of the shells landed between 2:01 and 2:06 AM and then stopped at 2:15. Truesdell emerged from Director I to see nothing but fire. He clambered through fire and bodies to the bridge to tell Greenman he should leave, as the ammunition room over his head was on fire. Greenman headed for the area forward of Turret II on the communications deck and ordered all wounded brought down to the forecastle. Truesdell went to ensure all wounded had been carried off. He reported to Greenman that there was a chance *Astoria* could be saved.

At 2:25 AM, Greenman ordered all hands topside. Hayes made sure everyone got out of his engine rooms—not many did—then passed out. He was carried up above.

Forward, Greenman saw *Astoria* had a list of three degrees, fires were raging unchecked, fire mains ruptured, and 400 men on the forecastle, 70 of them wounded and many dead. He ordered a bucket brigade, but the fires were too huge. At least the 8-inch magazines had been flooded. If the 5-inch magazines could be flooded from the bucket brigade and a handy-billy pump, disaster could be prevented.

Greenman signaled for the destroyer *Bagley* to come alongside, and she did so, nudging bow to bow. The ships were lashed together, and *Astoria*'s men were taken off, Greenman last, at 4:45 AM.

While this nightmare was going on, two admirals struggled with the situation. On his flagship *Australia,* Crutchley could only watch helplessly at the spectacle of lightning, flares, and the flash of gunfire to the west. He wrote later, "I was in complete ignorance of the number or the nature of the enemy force and the progress of the action being fought."

Crutchley radioed to Riefkohl and Bode to find out what was going on, but got no answer from *Vincennes*—for obvious reasons, her radio was out of action—and a strange one from *Chicago* at 2:45 AM, which said, "We are now standing toward Lengo on course 100." Bode had taken *Chicago* straight ahead. Bode amplified: "*Chicago* south of Savo Island, hit by torpedo, slightly down by bow. Enemy ships firing to seaward. *Canberra* burning on bearing 250 five miles south of Savo. Two destroyers stand by *Canberra*."

Crutchley reported to Turner: "Surface action near Savo. Situation as yet undetermined."

With the situation fluid, Crutchley was understandably reluctant to steam to the sound of the guns, not knowing if he would find himself the sole warship amid an enemy task force.

On the opposing side, Mikawa and his task force were rounding the northwestward curve passing out of the action, and the scattered Japanese ships were regrouping and reporting damage to themselves and the enemy. The Americans had not done much damage: a near-miss by *Chicago* on *Tenryu* had wounded two men. *Kinugasa* was hit in the starboard side near the waterline by *Patterson,* and another shell from *Vincennes* had damaged the port steering control room with one killed and one wounded. *Aoba* suffered a hit in a torpedo tube. The only serious damage was suffered on the flagship

Chokai. Three 8-inch shells from *Quincy* had torn open her flag plot, killing 34 men, wounding 48, and burning all the charts. If the shell had landed 15 feet forward, it would have killed Mikawa and his whole staff.

Even so, the admiral was unshaken, probably because the Japanese damage was minor compared to the horror he had inflicted on the Americans. Now he had to make the biggest decision of the night, and that call would result in the biggest mistake of the evening: whether or not to continue east and attack the American transports, still fully loaded with vital supplies.

There was nothing between him and those unarmed freighters but *Australia* and her six destroyers, and he could brush them aside with ease. The big problem was time. First he would have to regroup his ships, then steam into the transports' assembly area and spend time shelling the enemy ships.

The longer he stayed off Guadalcanal, the greater the chances of being within range of the American carrier planes after dawn. Without air cover, Mikawa's proud cruisers—so powerful by night—were sitting ducks under the tropical sun. He decided not to push his incredible luck any further, not knowing that Fletcher had withdrawn his carriers already.

At 2:23 AM, Mikawa flashed the order to his ships: "All forces withdraw. Force in line ahead, course 320, speed 30 knots."

But the battle was not over yet. As Mikawa's ships steamed back north of Savo Island heading for Rabaul, they spotted the northern American guardship, *Ralph Talbot,* still pacing back and forth in accordance with her orders. Nobody had summoned her to battle. The Japanese wasted no time, slapping searchlights on her and opening fire at 7,000 yards, the first salvo short.

The tin can's skipper, Lt. Cmdr. Joseph Callahan, saw the green dye splashes and, like everyone else that night, thought they were friendly shells. He lit his masthead recognition lights and yelled on TBS, "You are firing on Jimmy. You are firing on Jimmy."

Yubari obligingly answered "Jimmy" with more shells, and two of them hit *Ralph Talbot,* blasting the No. 1 torpedo tube and wardroom, killing the doctor, Lieutenant E.N. Kveton, and a patient he was treating. The shell set the compartment ablaze.

Callahan fired four torpedoes back at the Japanese, and all missed. Another Japanese shell hit *Ralph Talbot*'s No. 4 5-inch gun mount, blasting the crew. More shells struck *Ralph Talbot* below the waterline, and Callahan drove his ship into a rain squall and out of the fight, which saved her. Mikawa's force raced past *Ralph Talbot* into the dark, shuffling into antiaircraft formation to face the dawn, headed for Rabaul, safety, and glory.

Meanwhile, about 1,000 U.S. and Australian sailors floated in the water in various stages of shock, exhaustion, injury, and wounding. Some 600 sailors were grouped around the pall of smoke over *Quincy*'s grave, and Lt. Cmdr. Andrew assembled a collection of rafts and nets and about 100 men, including Ensign Cohen, who kept jumping from the nets to swim into the night to save a man in trouble.

Around *Vincennes* the scene was the same, but *Astoria* still floated despite the display of ammunition cooking off. Men in the water from all three ships worried that the exploding ordnance would kill them, too.

The destroyer *Ellet* reached the *Quincy* crews and began taking them aboard, many grievously wounded.

Vincennes' survivors were picked up by M*ugford* and *Helm*. At 8:30 AM, Riefkohl climbed aboard *Mugford*. The mess attendant followed, still holding his jaw.

Two cruisers' fates remained in the balance: *Astoria* and *Canberra*. On *Bagley,* Commander Shoup told *Astoria*'s Captain Greenman, "I think we can save her." Greenman selected a party of 300 men in *Bagley* to do so, and all officers volunteered to join the party.

But despite Greenman's best efforts *Astoria*'s list was gaining, fires still raged, and shells were still exploding. At about 11 AM, a heavy blast was heard below aft of Turret II, and everyone saw sickly yellow gas bubbles emerge on the port side.

The portside patches had given way, and the ship was sinking. For the second time that day, Greenman yelled, "Abandon ship," and this time for good. Once again Greenman was last to go as the ship turned on her port beam, settled by the stern, and sank at 12:15 PM.

Canberra's fate had been settled earlier.

National Archives

Naval History and Heritage Command

ABOVE: A searchlight aboard the Japanese cruiser *Yubari* scans the blackness near Savo Island for targets. The Japanese were well trained in night fighting and utilized the superb Long Lance torpedo to deadly effect during the battle. RIGHT: Although seriously damaged by fire from the Japanese cruiser *Yubari,* the destroyer USS *Ralph Talbot* managed to escape destruction at Savo Island by cloaking itself in a nearby rain squall.

"IT SHOULD HAVE BEEN THE ENEMY WHO SHOULD HAVE PAID, WHEREAS HE APPEARS TO HAVE GOT OFF FREE."

Turner ordered at 5 AM that *Canberra* had to be ready to join him at 6:30 AM for the retreat from Guadalcanal or be destroyed. As *Canberra* was dead in the water and burning fiercely, Commander Walsh, running the cruiser while his captain lay dying, ordered the ship abandoned.

The destroyer *Patterson* had been alongside since 3 AM, on Bode's orders, fighting fires and aiding the wounded. At 5:15, *Patterson* called in *Blue* to help evacuate the cruiser amid light rain. *Canberra,* listing 15 degrees, was blazing smartly amidships.

Patterson took aboard 400 men, 100 of them wounded. Just before 7 AM, *Canberra* was clear, and the destroyer *Selfridge* moved in for the execution. She hurled 263 rounds of 5-inch shells into the burning *Canberra*, which did not sink. *Ellet* added 105 more, and *Canberra* defiantly remained afloat. *Selfridge* tried her torpedoes, but like most American fish of the time they malfunctioned. Finally, *Ellet* hit the target, and *Canberra* sank a little after 8 AM. Her crewmembers, lining the decks of the American destroyers, cried at the sight.

One last cripple remained, *Ralph Talbot,* but nobody knew where she was. With her radio room shot out, dead in the water, and listing 20 degrees, she was in parlous shape. Through judicious patching, *Ralph Talbot* was able to restore power, and at 12:10 PM Callahan rang his engine room. The destroyer headed off at 15 knots to rejoin the fleet.

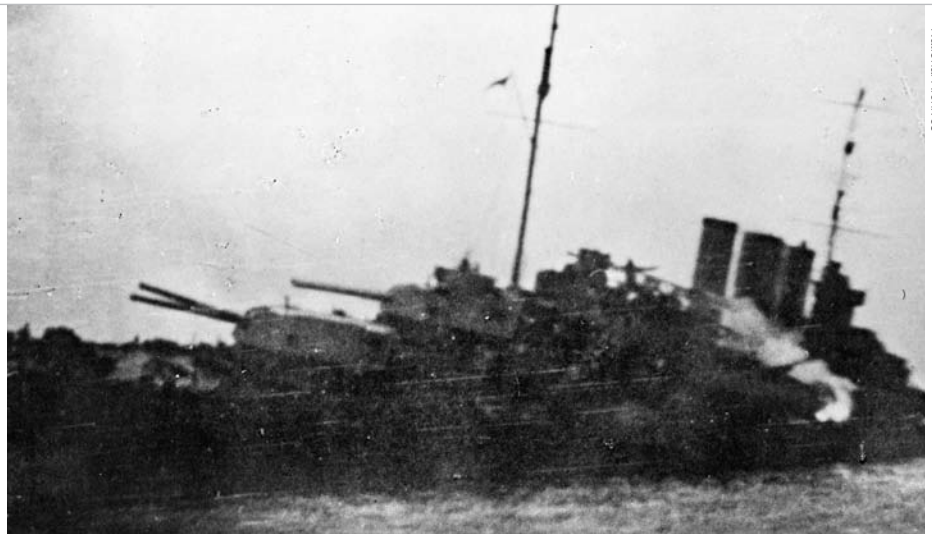
Chicago turned up at 9 AM, making 15 knots with her damaged bow and spewing oil. Crutchley ordered Bode to pump out the flooded compartments and head home as quickly as possible.

With the survivors aboard, the sound cleared, Fletcher in retreat, the sky empty of American planes, lacking surface ships to protect him by night, and wounded survivors to take home, Turner had to make the tough decision—stay or run.

The problem was that not all the supplies had been unloaded. Turner knew he could not leave that day and ordered his ships to resume unloading, hoping there would be no submarine or air attack.

There was none. Instead, Japanese airmen spotted *Jarvis,* down at the bow and trailing oil. They put all their energy on her and sank the damaged destroyer. All 246 members of its crew, including Lt. Cmdr. Graham, died.

The battle was not quite over yet. Mikawa and his merry men were heading home, and the victorious admiral detached the four warships of Cruiser Division Six to head for Kavieng to fuel. On Monday, August 10, at 8 AM, the cruisers were triumphantly steaming along without



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ABOVE: The Australian cruiser *Canberra* is photographed on the day after the Battle of Savo Island. Hit repeatedly during the engagement, the cruiser was wracked by explosions and fire. BELOW: On the day after the battle, the Japanese cruiser *Kako* was hit by four torpedoes from the American submarine S-*44*. The cruiser sank in five minutes and 35 crewmen were killed.

destroyer escort northwestward, 100 miles from Kavieng, when the U.S. submarine *S-44,* under Lt. Cmdr. John R. "Dinty" Moore, spotted them 9,000 yards off, headed straight for him. It was a perfect setup, and when the last ship in the quartet was 700 yards away, Moore fired four torpedoes. The elderly S-class boats used different torpedoes from the ones that gave the rest of the Navy fits, and all four slammed into *Kako*'s hull. *Kako* sank in five minutes, taking 34 men to the bottom with her, the first installment of revenge.

Savo had been an immense Allied disaster. *Quincy* lost 370 dead, *Vincennes* 332, *Astoria* 216, *Canberra* 84, *Ralph Talbot* 11, *Patterson* eight, and *Chicago* two. It all added up to 1,024 American and Australian bluejackets dead and 708 wounded. The loss of *Jarvis* the next day put an additional 247 dead on the balance sheet.

Just as importantly, the Allies would have to pull their supply ships away from Guadalcanal, leaving the Marines there below the minimum amount of supplies needed to hold the island.

In comparison, the Japanese suffered a mere 35 dead and 51 wounded in the battle, and a further 34 dead and 48 wounded when *Kako* was sunk.

First to report on the mess was Crutchley. On board *Australia,* he wrote personal letters to Turner and to the Royal Australian Navy's leadership asking why *Blue* and *Ralph Talbot* had not reported Mikawa's force, and there had been no enemy report from anyone. "The fact must be faced that we had adequate force placed with the very purpose of repelling surface attack and when that surface attack was made, it destroyed our force ... the only thing that can be said is that the convoy was defended but the cost was terrific and I feel that it should have been the enemy who should have paid, whereas he appears to have got off free."

New Jersey-based author David Lippman is a frequent contributor to WWII History. *He also maintains a website dedicated to the daily events of World War II.*

By Christopher Miskimon

Remembering the Winter War

Finland fought its own short, tragic war against the Soviet Union as the rest of Europe entered World War II.

"YOU CAN RUN, BUT YOU WILL ONLY DIE TIRED!" LT. COL. AARO PAJARI GAVE his battalion this dire warning on December 8, 1939, as the invasion of his homeland raged. He had taken command of his unit, the 16th Infantry Regiment, only the day before. What he found appalled him. His men, both veterans and recruits, were utterly demoralized by the rolling Soviet advance and seemed on the edge of panic.

It was not an auspicious beginning to Pajari's command. The Red Army had reached the edges of a pair of lakes named Tolvajarvi and Hirvasjarvi. On the western shore of Tolvajarvi sat a village of the same name. Pajari's immediate superior realized something had to be done to restore the front and bolster his soldiers' flagging morale. He decided an immediate attack was the only thing to be done; accordingly, he devised a daring assault on the Soviet rear area. Pajari would lead the attack himself, which would instill confidence among his men.

Pajari gathered volunteers for the bold move, which would be the first offensive action Finnish troops undertook during the brutal war with the Soviets. It began with a company-sized attack on the enemy front line. The move was a feint, designed to attract Soviet attention away from the impending assault on their flank. The Finnish infantry was met with heavy fire; the unit's commander was soon cut down. It was the second commander the company had lost in a week. The Finns quickly began to fall back. The repulse was a costly one, but it served its purpose.

Meanwhile, Pajari led a pair of raiding parties across the thick ice of Lake Tolvajarvi. They quietly moved around a Soviet force on nearby Kotisaari Island. In the dark the two groups soon became separated, however. The lost group then came to the edge of the ice, with freezing open water ahead. Unable to find a way across, the group had no real choice but to return to friendly territory. The attack was fast losing momentum. Only the last party, led by Pajari himself, remained to carry out the plan.

Still, these Finns fared better. The group came across a roving Russian patrol and quietly killed its members with their puuko knives. Continuing forward they spotted their objective, a Soviet battalion bivouacked near a bridge. Beyond them in the blackness, Pajari could see the campfires of two more battalions; an entire regiment lay asleep before them, and Pajari wanted to take them all. The Finns spread out along a ridgeline and opened up on the first Soviet position with a withering fire so surprising and intense not a single round came back at them.

With the first enemy unit neutralized, the Finns moved on to the second. The situation became so confused that the remaining two Soviet battalions opened fire on each other. Their mission complete, the Finns snuck away as the Soviets continued to shoot at each other for hours. The only casualty of the night was Pajari himself. While skiing back he collapsed of a heart attack, a condition he had hidden. This was the price he paid for Finland's first victory of the war.

The Winter War between Finland and the Soviet Union was a bitter contest that would have far-reaching effects on World War II and the Eastern Front. It is the story of a Finnish David wounding a Soviet Goliath; it is also the story of a small nation trapped between two large powers at war and paying the price of geography. The tale is well told in ***Finland at War: The Winter War 1939-40*** (Vesa Nenye, Peter Munter, and Toni Wirtanen, Osprey Publishing, Oxford, UK, 2016, 304 pp.,

The Winter War of 1939-1940 was brief but savage. This group of Finnish soldiers is representative of many that inflicted more than 300,000 casualties on the invading Soviets.

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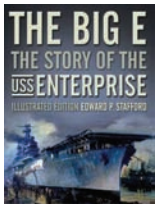
maps, photographs, appendices, bibliography, index, $34.95, hardcover). The book reveals how the Finns courageously defended their nation against a Soviet war machine which could sustain enormous losses and still continue to grind its opponents remorselessly down.

The authors, all veterans of the Finnish military, have obviously poured much effort into this volume, and it shows in the detailed accounts and thorough storytelling. Major personalities down to regimental and task force leaders are covered in sidebars, putting faces to the names mentioned in the text. Osprey Publishing is known for its well-illustrated editions, and this work's imagery is best described as lavish. Battle scenes, the home front, and media coverage of the war are all shown in photographs seldom seen outside Finland. This exhaustive history of the Winter War, the first in a two-volume set, gives the reader a very complete retelling.

Finland at War: The Continuation and Lapland Wars 1941-45 (Vesa Nenye, Peter Munter, and Toni Wirtanen, Osprey Publishing, Oxford, UK, 2016, 336 pp., maps, photographs, appendices, bibliography, index, $40.00, hardcover)

This is the companion volume to the previous review, published together. It completes the story of Finland's journey through the maelstrom of World War II. The end of the Winter War saw the Soviet Union in possession of territory previously in Finnish control. Nazi Germany took notice of this and courted the Finns to join in the assault on the Soviet Union. At the time Germany had been successful everywhere; Finland became an ally of the Third Reich and acted to regain what was taken from it the previous year.

However, as the war progressed Germany's fortunes waned. The Soviets brought their considerable weight to bear once again. Eventually the Finns had to make a difficult deal; they ceased resisting the advancing Soviets and instead turned on their former allies, forcing German troops out of Finland. The history is a tragic one of a nation trapped and without good choices. This book has all the strengths of its companion, detailed accounts of the action, excellent illustrations, and good maps. Together these two books round out the story of Finland's war experience.



The Big E, the Story of the USS Enterprise: Illustrated Edition (Edward P. Stafford, Naval Institute Press, Annapolis, MD, 2016, 576 pp., maps, photographs, index, $75.00, hardcover)

The aircraft carrier USS *Enterprise* was referred to by Secretary of the Navy James Forrestal as "the one vessel that most nearly symbolizes the history of the navy in this war." The storied ship took part in almost every major naval battle of the Pacific War. It escorted the *Hornet* during the Doolittle Raid and fought at Midway, Santa Cruz, Guadalcanal, the Philippine Sea, and Leyte Gulf. Along the way it earned 20 battle stars.

The ship's crew garnered thousands of stories of the war, and it seems as though all of them are included in this book. It is filled with almost day-by-day accounts of missions and shipboard life. The illustrations are equally extensive, making this coffee table book a pleasure to look through. Scenes of a busy flight deck are mixed expertly with shots of attacks in progress and views of the crew at work and play. The author, now sadly deceased, was a career naval aviator, and his knowledge of this subject adds materially to the quality of the book. The original edition was written in the 1960s. This updated and illustrated version is

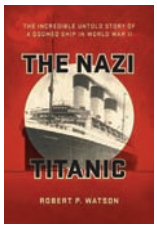
a tribute to the ship and those who fought—and sometimes died—aboard her.

The Secret War: Spies, Ciphers and Guerillas (Max Hastings, HarperCollins Press, New York, 2016, 640 pp., illustrations, notes, bibliography, index, $35.00, hardcover)

The story of spies and intelligence is a critical part of the history of World War II. Massive amounts of espionage, codebreaking, and research had to occur to enable many of the war's victories. Britain had a long established worldwide network owing to its empire; it also possessed a technical study base second to none. The Soviet Union possessed a vast network of spies and was able to infiltrate both enemy and ally with seeming ease. Even the Americans, usually considered relative novices, had their notable successes, such as their codebreaking and ruses at Midway. Though only rarely as dramatic as stories of the battlefield, the intelligence front was as vital to victory.

This new work by famed historian Max Hastings is a one-volume history of the covert war. He posits the Allied victory was achieved in large part by success on the intelligence front. The Western powers were made stronger by their innovative use of civilian technology and personnel combined with military efforts. The advances made in electronic communications were particularly significant. All these arguments are cogently made and supported, making the book enjoyable and informative to read, a mix of gadgetry, calculation, and human drama.

The Nazi Titanic: The Incredible Untold Story of a Doomed Ship in World War II (Robert P. Watson, Da Capo Press, Boston, 2016, 292 pp., maps, photographs, notes, bibliography, index, $25.99, hardcover)



The German luxury liner *Cap Arcona* spent over a decade ferrying wealthy passengers across the Atlantic Ocean to the distant shores of South America. That tradition ended with the beginning of World War II; the Third Reich took over the ship and converted it into a floating barracks. Two years into the war it was even used in a propaganda film about the famed *Titanic*.

Afterward the ship languished until it was eventually filled with concentration camp inmates. Tragically, with the war just days from ending, the Royal Air Force bombed the ship, mistakenly believing it was transporting SS men to Norway. The *Cap Arcona* quickly sank, taking with it more than 4,000 prisoners, some two and one-half times the loss of the *Titanic*. Despite the magnitude of the tragedy, few know about it today, as word of the incident was lost amid the news of Hitler's death and the war's end.

Using a combination of scholarship and clear prose, the author makes the experiences of those who fatefully went aboard the *Cap Arcona* come to vivid life. Truly this is a story of people forced into the most horrible conditions and faced with a terrifying death in the icy waters of the Baltic Sea. Their tale is well told, from the hellish trains that took them to the ship to the dreadful air attack that sealed the fates of so many unnecessarily. It is a fascinating and moving story.

The Kamikaze Hunters: Fighting for the Pacific 1945 (Will Iredale, Pegasus Books, New York, 2016, 416 pp., maps, photographs, notes, bibliography, index, $28.95, hardcover)

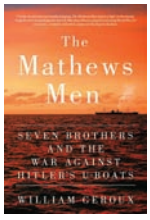
Great Britain was rejoicing in May 1945. The war in Europe was over, and the government declared a two-day

holiday to celebrate the occasion. A group of British sailors and airmen, 6,000 miles away in the Pacific Ocean, had little cause for merriment, however. The British Pacific Fleet was engaged in a life-or-death struggle against the penultimate weapon of desperation: the Japanese kamikaze. These suicide attackers would take a horrifying toll of Allied ships and crew until war's end, diving their bomb-laden aircraft into the hulls of enemy ships in the hope of shattering morale and forcing back the vast fleets that were daily drawing a constricting line around Japan itself. The fact that it was a forlorn hope did not stop them from trying.

The British Pacific Fleet was home to the 1st Aircraft Carrier Squadron, the largest such group the Royal Navy ever assembled. From the decks of these ships flew the pilots who would protect the fleet from kamikazes by engaging them as far from the fleet as possible. They flew American-built Vought Corsairs and British-made Supermarine Seafires, the naval version of the famous Spitfire. Time and again they went into harm's way to guard Allied sailors from the racing death that sought to hit at them from above.

This is a well-written and thoroughly researched book, full of detail and stories relayed by the participants themselves. The book stands out even further due to its subject matter. The fight against the kamikazes is widely thought, even in England, to have been the province of the U.S. Navy alone. This new work shows the courage and sacrifice of the British aviators who fought just as hard and risked just as much toward the same goal. It is a fitting testament to them.

The Mathews Men: Seven Brothers and the War Against Hitler's U-Boats (William Geroux, Viking Press, New York, 2016, 373 pp., photographs, notes, bibliography, index, $28.00, hardcover)

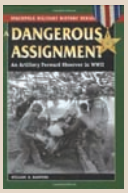


The Merchant Marine was one of the unsung organizations of the American war effort. The overwhelming bulk of the troops, weapons, equipment, fuel, food, and raw materials went from the United States to its Allies aboard transport ships crewed by merchant seamen. Getting to their destinations required those ships to navigate through waters patrolled by German submarines intent on sending them to the bottom. If a ship were sunk, its survivors had to endure freezing waters, fiery oil slicks, and stormy seas. Nevertheless, the Merchant Marine's sailors did their job with courage and steadfastness,

New and Noteworthy

The Home Guard Companion (Campbell McCutcheon, Casemate Publishers, 2016, $16.00, hardcover) This is a reprint of both the original manual for the British Home Guard and a humorous edition of life in the Guard during the war combined into one book.

SOE: Churchill's Secret Agents (Terry Crowdy, Shire Publications, 2016, $14.00, softcover) The SOE was the Allies' premier espionage organization in World War II. The author reveals its training, methods, and actions.



A Dangerous Assignment: An Artillery Forward Observer In World War 2 (William B. Hanford, Merriam Press, 2016, $12.95, softcover or download) The author was a forward observer in the 103rd Infantry Division in Europe. This memoir relates his experiences fighting in the Vosges Mountains and elsewhere.

The Bridgebusters: The True Story of the Catch-22 Bomb Wing (Thomas Cleaver, Regnery History, 2016, $29.99, hardcover) *Catch-22* is a classic work of war fiction. This book looks at the real-life unit that inspired the book.

"I'm the 82nd Airborne Division!": A History of the All American Division in World War II After Action Reports (Robert P. Anzuoni, Schiffer Publishing, 2016, $69.95, hardcover) The story of the division is told through its own official documents. Over 400 original photographs accompany the text.

13th Fighter Command in World War II: Air Combat over Guadalcanal and the Solomons (William Wolf, Schiffer Publishing, $59.95, hardcover) This storied unit fought in the South Pacific, where it usually took a back seat to Marine flyers in the press. It nevertheless fought with distinction.

despite being treated as second-class citizens compared to members of the armed services. They suffered a significantly higher casualty rate than any of them but did not even qualify for GI Bill benefits.

The story of the Merchant Marine is told through the experiences of the extraordinary Hodges family. The family's seven brothers all went to sea from Mathews County, Virginia, an idyllic locale home to many seafarers who served during World War II. The men from Mathews County served on merchantmen throughout the combat zones, doing their part to ensure soldiers and Marines got ashore to take the fight to the enemy. In turn, the author has ensured these sailors' own tales are known to students of the war.

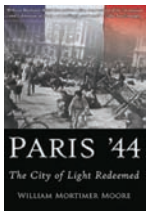
The Heart of Hell: The Untold Story of Courage and Sacrifice in the Shadow of Iwo Jima (Mitch Weiss, Berkley Caliber, New York, 2016, 413 pp., photographs, bibliography, index, $28.00, hardcover)

Two days before the Marines assaulted the beaches on the Japanese-held island of Iwo Jima, a dozen small gunboats were sent in to help bombard the island

and pave the way for the invaders. These gunboats were converted LCIs (landing craft, infantry). Normally such small vessels would ferry ashore Marines, but these were modified to carry a number of light guns and rocket launchers to provide close-in support and hit positions close to shore. The sailors who manned these gunboats were an important piece in the overall scheme of fire support for the Marines when they would be at their most vulnerable, in the opening hours of the landing.

The author has focused on one of these gunboats, *LCI-449*, telling its story through a combination of interviews, letters home from the crewmen, and archival documents. It is a tale of both courage and brotherhood; the Japanese artillery could shoot back at the nearby gunboats, and it took great devotion from the sailors to keep their boats in the fight and help their Marine brethren ashore.

Paris '44: The City of Light Redeemed (William Mortimer Moore, Casemate Publishers, Havertown, PA, 2015, 557 pp., maps, photographs, notes, bibliography, index, $34.95, hardcover)



The liberation of Paris was a more complicated affair than is often portrayed. It was a sensitive political issue as well as a military one. Exactly which Allied ground forces would free Paris became the subject of much discussion. The Anglo-American armies, which provided the bulk of the troops fighting the Nazis, had their claim. The Free French forces, supplied by the Americans, wanted to take Paris as a matter of national honor. The French Resistance, which had carried the fight to the Germans as best they could before the invasion, also had a claim.

Simulation Gaming

BY JOSEPH LUSTER

DEVELOPER LION GAME LION PREPARES TO UNLEASH A LONG-AWAITED WORLD WAR II SHOOTER, WHILE NINTENDO SOMEHOW MAKES TANK BATTLES CUTE.

RAID: WORLD WAR II

PUBLISHER STARBREEZE STUDIOS • **GENRE** SHOOTER • **SYSTEM** PS4, XBOX ONE, PC • **AVAILABLE** SUMMER 2017

Raid: World War II is part of the limited but exciting resurgence of World War I and II shooters that are on the not-so-distant horizon. Originally revealed back in 2015, the latest updates have the first-person WWII shooter coming to PlayStation 4, Xbox One, and PC in summer 2017, and Croatian developer Lion Game Lion has teamed up with Starbreeze Studios to publish. The results may not be the most realistic portrayal of the events of World War II, but they are grounded in real combat scenarios, so it'll be exciting to see how it turns out.

True to its title, *Raid: World War II* puts players in the role of raiders during the war. The four-player cooperative action will include a variety of undercover missions for the Allies with a healthy dose of Nazi gold plundering on the side. One example of a mission players will be undertaking centers on the advanced Nazi radar codenamed Heimdall. With Nazi troopers and anti-air guns protecting its rooftop location, it's up to a team of reckless raiders to break in, make their way up the tower, and take out the radar before it can further the enemy's war efforts.

Prior to the more recent console announcement, *Raid: World War II* had a showing at E3 2016, and it brought a moody announcement trailer along for the ride. In it, oddly faceless Nazis discuss the ghostlike appearance of four raiders, who stole 10 crates of gold bars and left a mess of bodies and a haunting message for the Nazis in their wake. If the stylish, occasionally creepy cinematics are anything to go by, the team might just be cooking up something more interesting than your average shooter.

Between this, *Battlefield 1*, *Battalion 1944*, and a few other first-person projects coming in the next year or so, it's nice to see trends at least slightly inching away from modern and future warfare. It remains to be seen how successful Lion Game Lion and Starbreeze will be in producing another faithful and gripping World War II shooter, but we'll certainly be giving *Raid: World War II* a shot when it launches next summer.

TANK TROOPERS

PUBLISHER NINTENDO • **GENRE** TANK BATTLER • **SYSTEM** Nintendo 3DS • **AVAILABLE** WINTER

Nintendo kicked off September with another of its semi-regular Nintendo Direct presentations, which are live streams that typically run for an hour and either announce new games or show off fresh footage of upcoming releases. In this case it was another focused on Nintendo 3DS, and one of the surprise games was a cute little tank-based outing titled *Tank Troopers*. While it's not specifically set in World War II, it clearly takes inspira-

The citizens of Paris might also rise up, though some of them were certainly past collaborators with the Nazis. The Germans might give up the city or destroy it, as they had so often on the Eastern Front.

It was a complex issue, and the author of this new work delves into the subject matter to separate myth from fact. He shows how French General Charles de Gaulle was planning for a military liberation of the city even in 1943. It was all part of his plan to reestablish France as a relevant nation. The text deftly shows the competing interests and the intrigues of each party to achieve a free Paris for their own ends. □

tion from popular online games like *World of Tanks*, giving tank battles a portable-friendly twist with a heavy lean on customizability.

Tank customization is primarily based on characteristics that are unique to each of the game's tank-pilot troopers. Depending on who you choose to play as you'll be able to use special abilities that definitely launch this one into the realm of pure tank fantasy. Abilities include attacks that freeze enemies, paint balls that can be launched to obscure your opponents' view, or electric shocks that will freeze a tank right in its tracks.

The visual style on display is cartoony enough to support all of those different abilities. Each character is distinct, with an almost *Mega Man*-esque aesthetic that highlights their individual abilities. There's the fur collar-clad freezing soldier, a massive tanker with a super-sized bandolier of tank bullets, a not-subtle electric soldier complete with spiky hair and lightning bolts on his uniform, and so on. The character designs themselves are hit or miss, but there aren't exactly a lot of war games out there that feature the likes of energetic nurses and squat, polarizing magnet men.

Tank Troopers has both online multiplayer and local options thanks to Download Play, with up to six players able to get in on the action. The objectives are as straightforward as can be: Take down the other team and earn plenty of points in the process. While *Tank Troopers* seems to be a fairly multiplayer-centric title, there will also be a mode for solo play, but Nintendo didn't reveal too much about it at the time of the initial announcement. Hopefully this turns out to be a fun party game take on tank battles, because it serves up a nice counterpoint to the typically grim fare on the shelves.

Top Secret

Continued from page 32

In the end it was established he had been on leave at the time and was too junior, as a lieutenant, to order or stop anything . But his claim that he knew nothing about it was found hard to accept. It seemed likely he would have heard of something so important later, or if he did not it was because he did not want to know, given the unit's record of more war crimes.

In the end Kurt Waldheim could not escape the moral taint of LS24 and other war crimes. When he did win the election, Great Britain and the United States immediately withdrew their ambassadors from Vienna, sending no replacements, and Waldheim sat out his term internationally ignored.

Anders Lassen was posthumously awarded the Victoria Cross, but it was the only recognition that the Special Boat Service got out of the war. Fighting in such obscure corners of the conflict, it had never attracted the attention of the renowned Commandos, the Special Air Service, or the Long Range Desert Group, and the buccaneering, piratical image it enjoyed repelled the more conventionally minded, such as Prime Minister Winston Churchill.

During an astonishing exchange in Parliament in 1944, Churchill was asked, "It is true, Mr. Prime Minister, that there is a body of men out in the Aegean Islands, fighting under the Union Jack, that are nothing short of being a band of murderous, renegade cutthroats?"

Churchill found himself in the rarest of situations for him—at an utter loss for words. "If you do not sit down and keep quiet, I will send you to join them," was all he could say in frustration.

The Special Boat Service was disbanded in September 1945, then was later reestablished in the Royal Marines. It struggled on for years, understaffed, underfunded, a career waystation, the more famous SAS mocking that its initials stood for "Shaky Boats." The SBS finally made its new reputation in the Falklands War, including crucially locating what became the landing beach at San Carlos Bay.

Accepting just one candidate in 25, the Special Boat Service is now acknowledged as one of the toughest and most secretive units of its kind in the world. Further serving in locales like Bosnia and the Persian Gulf, it has lived up to what could have been its motto in World War II. "By Guile, Not Strength."

Author John W. Osborn, Jr., has contributed to WWII History *on numerous occasions. He writes from his home in Fort Myers, Florida.*

Battleship Row

Continued from page 55

At first the attack appeared to be a decisive and crushing Japanese victory. In fact, Pearl Harbor was the biggest mistake the Japanese made in the war. They failed to destroy the drydocks, repair facilities, and fuel storage tanks. No American carriers were in port on December 7. The submarine base received only moderate damage. So the Navy, long committed to a war of big guns against big guns, was forced to use the ships left to it, the aircraft carrier and submarine. These ships proved to be the most influential in the defeat of the Japanese Empire.

The sunken *California, Nevada, West Virginia, Cassin, Downes,* and *Oglala* were all salvaged, repaired, and returned to service. So were the damaged *Tennessee, Maryland, Pennsylvania, Helena, Raleigh, Honolulu, Detroit,* and many others. Only the *Arizona, Oklahoma,* and *Utah* were beyond salvage.

John Murphy remained aboard the *Vestal* during the Solomons, Gilberts, and Marshall Islands campaigns until the summer of 1944, then went on to Anti-Submarine Warfare School. Jack Evans served in the Pacific until ordered to Navy pilot training and later worked in the Pentagon under Admiral Arliegh Burke. He flew as a pilot for 30 years and retired as a full captain. *Oklahoma*'s Ray Richmond spent the next year in a body cast and learning to walk again. A gifted artist, he was sent to the Navy Recruiting office in New York, where he created several posters and designed the famous "Sea Bee" emblem for the Navy's Construction Battalions.

Woody Derby was still aboard the *Nevada* when the battleship was shelling Utah Beach in preparation for the D-Day invasion of Normandy on June 6, 1944. Stu Hedley was serving aboard the destroyer USS *Massey* when the Japanese surrendered in Tokyo Bay. He later became the chaplain of the Pearl Harbor Survivors Association.

"You know what?" Hedley asked. "Anchored in Tokyo Bay right by the USS *Missouri,* where the surrender documents were signed, was my ship, the *West Virginia.* She was almost the first American battleship to be sunk at Pearl Harbor, but she went on to be there for the end. I felt great knowing the *Wee Vee* was there. They didn't manage to sink her after all."

Author Mark Carlson has written on numerous topics related to World War II and the history of aviation. His book Flying on Film—A Century of Aviation in the Movies 1912-2012 *was recently released. He resides in San Diego, California.*

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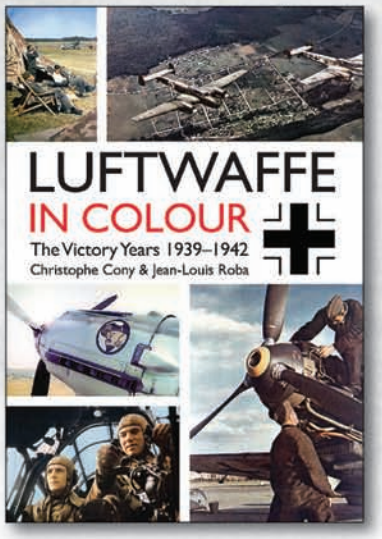

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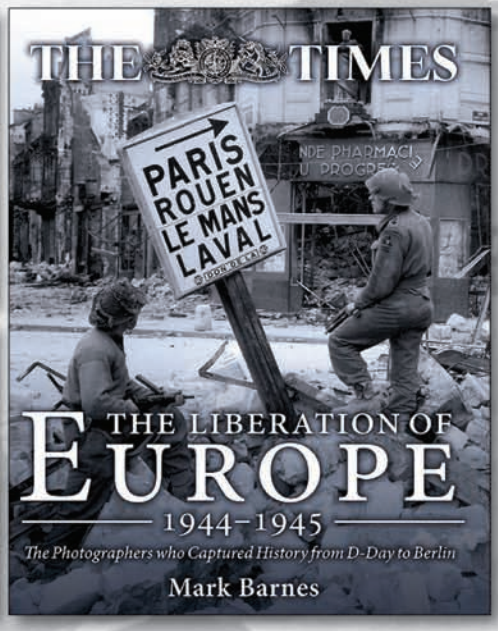

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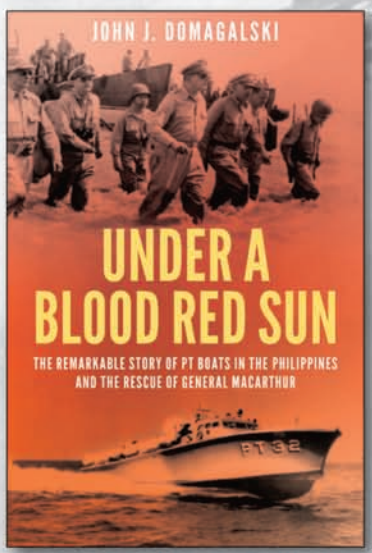

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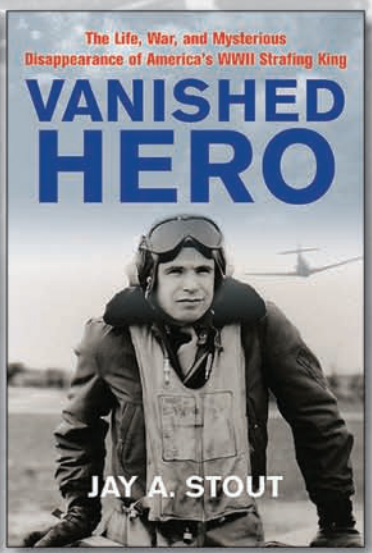

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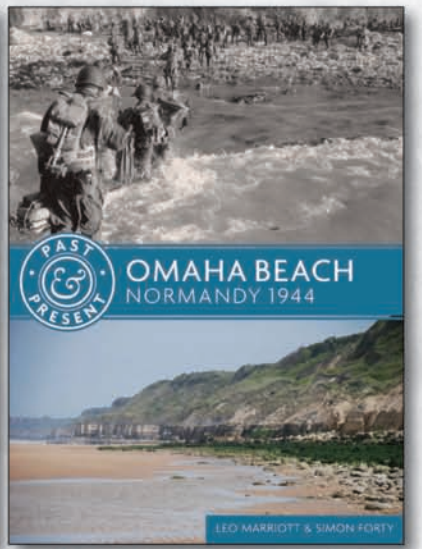

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