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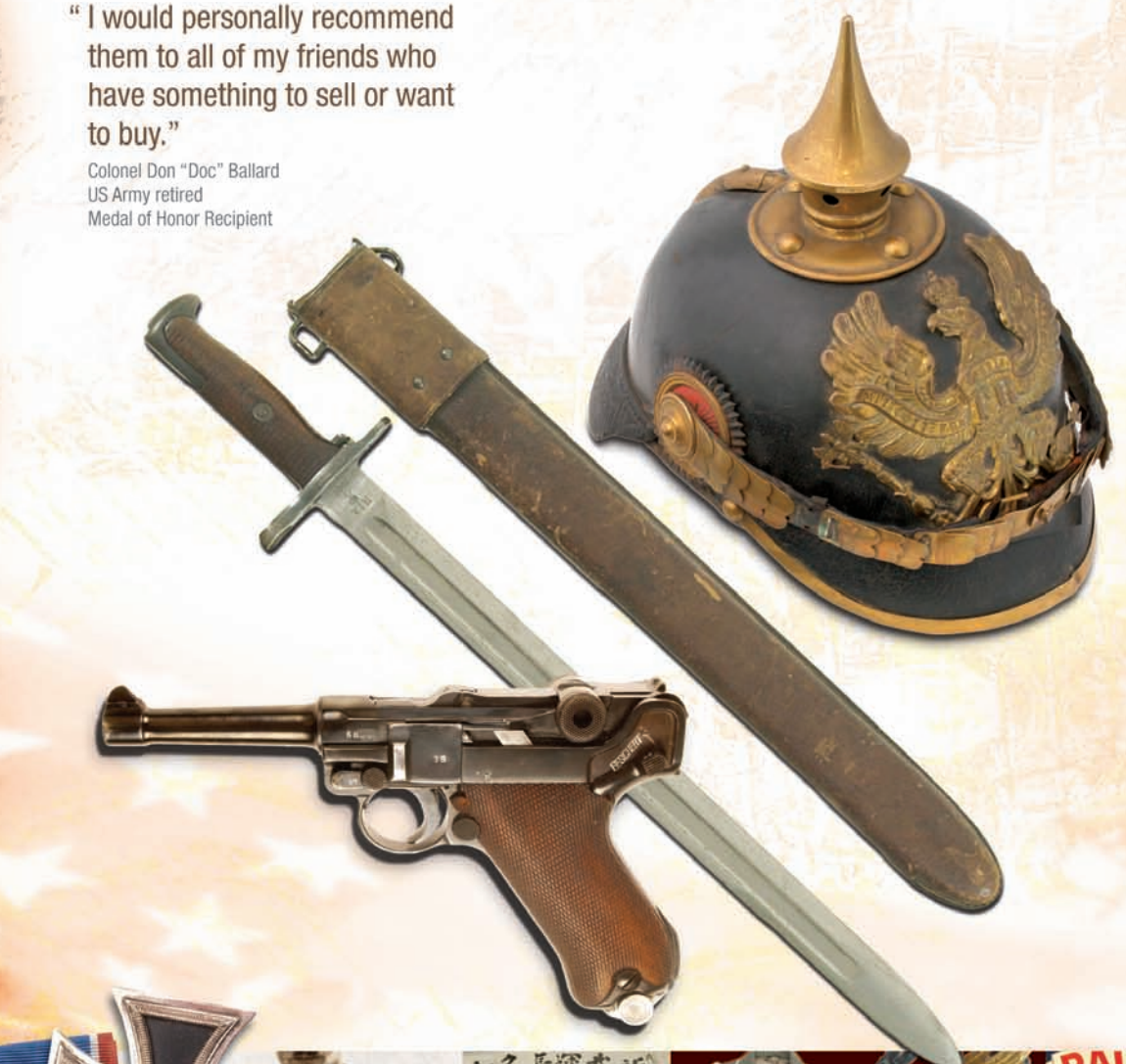

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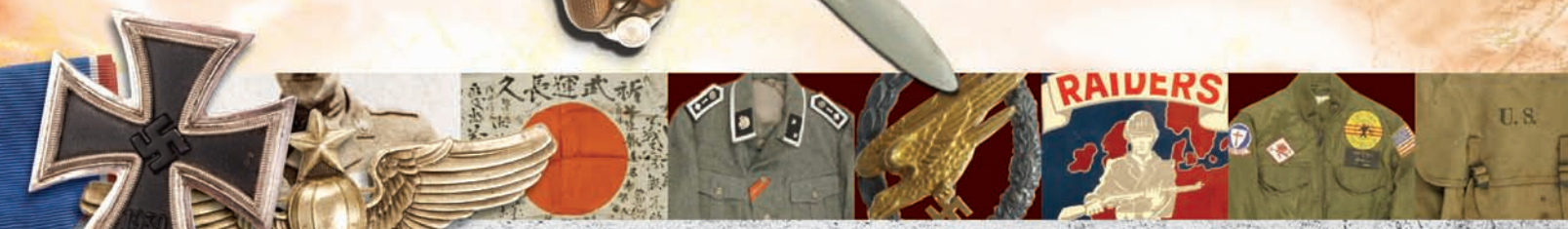

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Cover: Lieutenant General George S. Patton reviews the troops at the front south of El Guettar, Tunisia, March 30, 1943. He would end the war as a four-star general. Photo courtesy of the National Archives.

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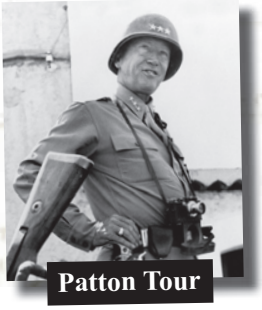

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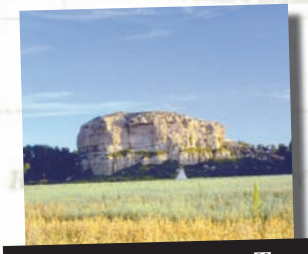

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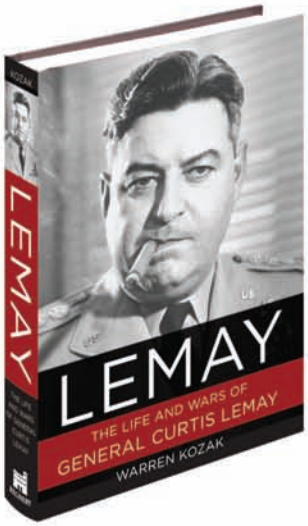
General Curtis LeMay: Hero or Villian?



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Editorial

The release of formerly classified OSS documents reveals the scope of the network and some notable people.

LIKE ANY SPY NETWORK WORTH ITS SALT, THE OFFICE OF STRATEGIC Services (OSS), the U.S. World War II intelligence-gathering agency authorized by President Franklin D. Roosevelt, maintained a tight lid on its activities and the identities of those who were a part of it. OSS files were classified for decades after the war ended. Not until 1981 did Central Intelligence Agency (CIA) Director William Casey, a former OSS man himself, allow a vast number of documents to be transferred to the National Archives.

Since then, documents relating to the wartime activities of the OSS, which was the forerunner of the modern CIA and officially dissolved by President Harry S. Truman in 1945, have been made public from time to time. In August of last year, the National Archives opened 750,000 documents contained in more than 35,000 personnel files pertaining to at least 24,000 former agency employees. Immediately, it was recognized that the size of the OSS was at least twice that of earlier estimates. Even more surprising were some of the names revealed.

Among those in the employ of the OSS during World War II were Julia Child, then Julia Williams, who went on to become a famous chef during the golden era of television. Also included were Academy Award-winning director John Ford, future Supreme Court Justice Arthur Goldberg, presidential adviser Arthur Schlesinger, major league baseball catcher Moe Berg, and actor Sterling Hayden. Also among those employed by the OSS were Kermit Roosevelt, the son of President Theodore Roosevelt; Miles Copeland, father of drummer Stewart Copeland of The Police; and Lawrence Tisch, one-time head of the CBS television network.

In the case of Julia Child, her file revealed that she admitted a personality trait of impulsiveness. As a 28-year-old working girl in Beverly Hills, California, she briefly held the job of advertising manager at W&J Sloane, a furniture store. During a disagreement with her manager, she apparently quit her job on the spot. In a handwritten letter of explanation that is included in her file, Child explained, "I made a tactical error and was out. However, I learned a lot about advertising and wish I had been older and more experienced so that I could have handled the situation, as it was a most interesting position."

Child was hired in 1942 and worked for a time directly with General William "Wild Bill" Donovan, the director of the OSS.

One of President John F. Kennedy's inner circle, Schlesinger worked as an intelligence officer with the OSS in London and generated reports on political events and activities. One reviewer of his application noted, "His understanding and familiarity with the political history of European countries, achieved by years of study and firsthand observation … admirably qualify him for this responsible work."

Apparently, Kermit Roosevelt was considered to have certain connections. One note in his file states, "Sometimes in spite of himself, he finds himself involved in policy matters by superiors who wish to take advantage of his name."

It was Ford's knowledge of videography, which facilitated the review of spy photographs, that brought him into the OSS. By the time he began his tenure with the intelligence-gathering organization, he had already produced films for the war effort and claimed three of the four Oscars he would receive during his film career. Ford became an OSS agent in 1941 and later a close adviser to Donovan. His file documents instances of bravery under fire while filming and that he was wounded.

Tisch had been hired by the OSS as a codebreaker and had always been fascinated by cryptology, even working with various codes as a hobby, while Goldberg had been an attorney in Chicago whose experience with labor issues equipped him to work with labor unions in Europe on behalf of the Allies.

Based on the information revealed in the OSS personnel files, speculation as to the contents of other files to be declassified in the future is tantalizing.

Michael E. Haskew

WWII HISTORY

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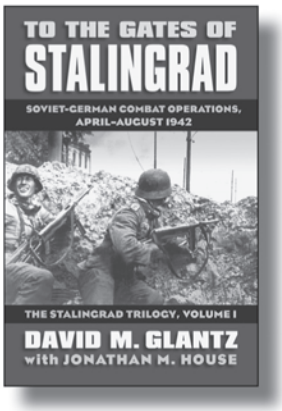

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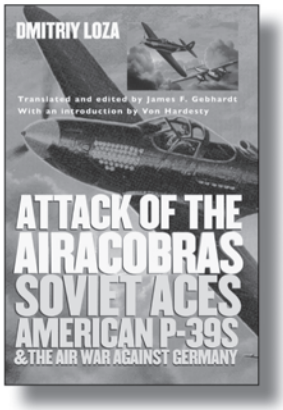

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Pétain: Savior of France

Dear Editor:

Regarding your July 2009 issue about Marshal Philippe Pétain: Most of us subconsciously view the French through British eyes, and the results are often unbalanced even when the facts are accurate. Unlike Colonel De Gaulle, Marshal Pétain remained in France to protect the French people from the Nazis and in this he largely succeeded. But Vichy, although the legal government of France, and the Marshal, its head, were never entirely free agents. They were under the ruthless thumb of the Nazis and, consequently, could not openly support the Allied powers. When one is defeated and largely occupied, one must "collaborate" to even eat. Even our defeated Confederates had to collaborate with the Yankees!

On his own, Pétain kept the Germans out of Spain and most of North Africa and he kept the formidable French fleet out of enemy hands. In November 1942, through his deputy, Admiral Darlan, he brought the French Empire back into the war on the Allied side as he had earlier promised Mr. Churchill.

Pétain did his best to protect the Jews; no French Jews were deported while he was in office, but he had no control outside the small confines of Vichy.

As to the Marshal's romantic life, I have no reliable information except the fact that many French secularists hated him because he was strongly pro-Catholic and tried to restore morality. In any event, nothing he ever did in his personal life prevented him from saving his country—twice. It is no accident that France emerged from both world wars reasonably strong and intact.

Kenneth B. Lynn
Pompano Beach, Florida

Kyushu Invasion

Dear Editor:

Although I found the entire July 2009 issue to be one of the better that I recall, I read with particular interest the article, "Costly Kyushu Invasion?" My uncle was XO on *LST 665* in July 1945 and took pictures of his ship embarking 5th MARDIV LVTs in Hapuna Bay, Hawaii, as rehearsal for the invasion of Kyushu, Japan. That same month he was promoted to CO of *LST 704* and was later part of the occupation force in Sasebo, Japan. During that time he took aerial pictures of Nagasaki as well as pictures of the Japanese "super submarines" *I-14, I-400,* and *I-401*. He passed away many years ago and I regret that I never had the opportunity to talk about these events. I know he would have found the information in the article to be quite incredible, considering what he was preparing to do.

Norman Marten
Bainbridge Island, Washington

USS *Salinas*

Dear Editor:

In "Rattlesnakes of the Deep" by Herb Kugel (May 2009 issue), the USS *Salinas* (AO19) was noted as a U.S. Navy ship torpedoed before we were officially in the war. She was a 1918 vintage tanker good for six knots at 72 turns of her single screw. She was in ballast and the torpedo hit a tank partially filled with ballast water. The torpedo did little damage but ruptured a number of fuel lines. She was dead in the water for 24 hours while the engineers patched together some fuel lines. She then limped into St. Johns Harbor, Newfoundland. They patched her up

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enough so she could proceed to New York for extensive rebuilding. The Navy awarded five Navy crosses to men in her crew.

I joined the *Salinas* in New York as assistant communications officer. Tom Heggen was communications officer. He later went on out to the South Pacific where he wrote *Mr. Roberts*. Several of the characters were obviously based on *Salinas* people.

Our first trip was as a refueling tanker for the escorts of a 100-ship convoy bound for Casablanca. The trip took 18 days.

I believe the *Salinas* wound up as a floating storage tank in Tokyo Harbor at the end of the war.

Lt. Harry P. Staton USNR (Ret.)
Lacey, Washington

Wildcat Pilots

Dear Editor:

The excellent "Flying Leathernecks" by Dorr and Borch in your July 2009 issue misspells the names of two of the Wake Island pilots: Dave Kliewer and Herb Freuler.

Kliewer applied to Harvard Medical School from prison in Japan, enrolled after he was freed, and spent his career as an oncologist in Corvallis, Oregon. He died in 2007, last of the Wake Island pilots.

Craig B. Leman
Corvallis, Oregon

Marine Raiders Used Boys

Dear Editor:

The article about the Boys antitank rifle (July 2009 issue) was most interesting. The author failed to mention that the Marine Raiders also used the Boys. Carlson's Raiders used the Boys during the Makin Island raid in 1942; they shot down two Japanese flying boats. Edson's Raiders used the Boys during the Tulagi-Guadalcanal landings and battles, August 7-9, 1942, the Battle of Edson's Ridge, Guadalcanal, September 12-14, 1942.

Dennis Brennan
Lexington, Kentucky

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By Jon Diamond

Imperial War Museum

Arnhem's Other Urquhart

An obscure British officer expressed misgivings about Operation Market-Garden and shared the name of one of the ill-fated venture's central figures.

THE HOLLYWOOD MILITARY FILM DEVOTEE WILL REMEMBER THE BEGINNING of the epic, *A Bridge Too Far,* when a young British airborne officer named Fuller informs Lt. Gen. F.A.M. "Boy" Browning about Dutch Underground reports of tanks at Arnhem just prior to Operation Market-Garden. In the ensuing dialogue, Browning dismisses the reports; however, Fuller requests a low-level air reconnaissance to confirm or refute them.

After his appeal for the flight is reluctantly granted, Fuller confesses to Browning that "everybody thinks I'm overanxious, sir." Browning retorts, "Fuller, I wouldn't be too concerned about what people think of you. You happen to be somewhat brighter than most of us. Tends to make us nervous."

The name Fuller was fictitious in the film's script, ostensibly to avoid confusion. The real officer portrayed in the film was Major Brian Urquhart, of no relation to General Robert "Roy" Urquhart, commanding general of the 1st British Airborne Division. Brian Urquhart served as an intelligence officer during Operation Market-Garden. Urquhart's rich life straddled both war and peacekeeping missions in the upper echelons of command and decision making.

Born in England in 1919, Brian Urquhart was educated at Westminster School and Christ Church, Oxford. After the outbreak of hostilities between Britain and Germany on September 3, 1939, Urquhart returned to Christ Church, Oxford, but not to remain as a student. He noticed that a recruiting station had been established and he enlisted. Urquhart believed that he had completed a long enlistment form for the Royal Navy. He learned otherwise, when 10 days later, he was ordered to report immediately to the 164th Officer Cadet Training Unit in the Goojerat Barracks at Colchester.

Picking their way through Arnhem, soldiers of the British 1st Airborne Division search for a defensible position as strong German forces close in. Major Brian Urquhart (above), a British intelligence officer, warned of an impending disaster.

He had evidently completed the wrong form and now was a member of the British Army. Urquhart felt that the need to outwit the enemy by superior guile, skill, nerve, and discipline was scarcely even hinted at during training. Minimal attention was paid to the vital subject of communications. In January 1940, after only a four-month course, he was posted as a second lieutenant to the Dorset Regiment. In the spring of 1940, Urquhart was posted away from his 5th Battalion and became intelligence officer to the brigade headquarters.

Urquhart attributed this assignment as a compliment to his acumen, knowledge of languages, and academic background. While at the Army Gas School in Tregantle in Cornwall, the Low Countries were overrun during the German blitzkrieg and Urquhart rejoined his brigade as part of the 43rd Wessex Division. It was the only fully equipped division remaining in the British Isles, being put into

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the General Headquarters Reserve north of London. After some time, his Dorset Regiment was transferred to the Dover area for coastal defense duties, which were quite dull and tedious to Urquhart.

In August 1941, Brigadier Browning, who was then commanding a sister brigade in the Wessex Division, was soon to be elevated to the rank of major general, airborne forces. Browning's mission was to develop the parachute and glider-borne troops of the British Army, and he asked if Urquhart, whom he knew from the Wessex Division, would be available to join his staff as intelligence officer. Urquhart leaped at the opportunity since he had found life in an infantry brigade as "somewhat humdrum."

Some months later, after being seriously injured in a parachute jump, Urquhart was hospitalized from August to December 1942. After that injury, Urquhart would do no more parachuting. After attending the Staff College at Camberley as a young 23-year-old, he rejoined Browning's staff in April 1943 as GSO 2 Intelligence with the rank of major. He became the chief intelligence officer at I Airborne Corps headquarters, commanded by General Browning, at Moor Park at the age of just 25.

Admittedly, Urquhart believed Operation Market-Garden was the "most traumatic experience of my life." Urquhart's job was to try to evaluate what the enemy reactions were going to be and how the British paratroopers and glidermen ought to deal with them. The British airborne troops were going to be dropped at the far end of the operation at Arnhem in the Netherlands, across the farthest bridge over the lower Rhine. From the first inkling of Operation Market-Garden, Urquhart found it strategically unsound.

Urquhart became increasingly alarmed, first at the German preparations, because there were intelligence reports that two SS panzer divisions were in the operations area of the 1st Airborne Division. In fact, the primary units of the II SS Panzer Corps, the 9th and 10th SS Panzer Divisions, had been ordered to the Arnhem area by Field Marshal Walther Model, commander of the German Western Front, on September 3, 1944. Their presence near Arnhem was reported by the Dutch Resistance and had been mentioned in Twenty-first Army Group's intelligence summary on September 10. Dutch Resistance groups regularly provided disconcerting and coherent reports about the 9th and 10th SS Panzer Divisions. The information usually came through the British Second Army via resistance line crossers and Dutch liaison officers working with the I Airborne Corps.

Also, shortly before the start of Operation Market-Garden, British codebreakers at Bletchley Park intercepted and decrypted a number of German messagess that supported the resistance reports. These intercepts included information about the presence of an assault gun regiment and the headquarters of Field Marshal Model's Army Group B near Arnhem. This evidence was still regarded as "thin" because the units were unidentified, with strength unknown, and no one knew whether they were being refitted or merely passing through. However, on September 5, a report specifically mentioned that the 9th and 10th SS Panzer Divisions were ordered to Arnhem to rest and refit. Amid these disparate sources of information, Urquhart "was really very shook up."

Imperial War Museum

Lieutenant General F.A.M. "Boy" Browning.

The troops of the 9th and 10th SS Panzer Divisions were veterans who had suffered heavy losses during the fighting in Normandy. Both divisions included armored elements, which significantly outgunned lightly armed airborne troops. The Supreme Allied Headquarters Expeditionary Force (SHAEF) weekly intelligence summary (produced by Maj. Gen. Kenneth Strong, the SHAEF G2) for the week ending September 16, 1944, stated that the divisions were being equipped with new tanks from a depot in nearby Cleve, Germany.

The British paratroopers carried light weapons, their primary defense against enemy armor being the PIAT (projector, infantry, antitank), which was a 34.5 pound device that threw a 2.5-pound bomb up to 100 yards. Also, the 1st Airborne at Arnhem was to be equipped with a few armored jeeps and 6-pounder antitank guns landed by glider. More than any other factor, the presence of crack German armored divisions rearming and refitting contributed to the virtual destruction of the 1st Airborne Division at Arnhem and the strategic failure of Operation Market-Garden.

Major Urquhart's fears had been growing steadily in the days preceding Operation Market-Garden. Repeatedly, he had voiced his objections to the plan to "anyone who would listen on the staff." By the morning of Tuesday, September 12, with the airborne assault only five days away, Urquhart's doubt about Operation Market-Garden resembled near panic.

Urquhart had presented the Twenty-first Army Group's intelligence summary, a cautious message from General Miles Dempsey's British Second Army Headquarters, to General Browning and his operations officer, Colonel Gordon Walch. Largely because Dempsey's report lacked any kind of confirmation and was, therefore, deemed vague, Urquhart recalled, "They said that I should not worry unduly, that the reports were probably wrong, and that in any case, the German troops were refitting and not up to much fighting."

Urquhart arranged for a photographic reconnaissance of the area by Supermarine Spitfire aircraft and was able to identify armored vehicles in the resulting photographs. When he rushed five oblique-angle pictures from an "end of the run" strip taken by one of the Spitfires, the general was unimpressed. Hundreds of aerial photographs of the Arnhem area had been taken and evaluated in the previous three days, but only these five shots showed the unmistakable presence of German armor. Browning said, "I wouldn't trouble myself about these if I were you. They're probably not serviceable at any rate."

Unlike Browning and others at I Airborne Corps headquarters, General Walter Bedell Smith, chief of staff to General Dwight D. Eisenhower, took the matter gravely enough to recommend strongly that not one but two airborne divisions be employed at Arnhem to counter the threat. With Eisenhower's permission, Smith personally voiced his concerns to British Field Marshal Bernard Montgomery, who "ridiculed the idea and waved my objections airily aside." Thus, Montgomery failed to take either the intelligence or its implications seriously. Others were likewise concerned, but their opinions went unheard in the run-up to the launch of Operation Market-Garden.

Browning dismissed Urquhart's warnings as those of a "nervous child suffering from a nightmare." Urquhart was unaware that some members of Browning's staff considered the young intelligence officer almost too zealous. Urquhart's pessimistic warnings irritated them.

On September 15, two days before the air-

borne landings, the Airborne Corps medical officer visited with Urquhart and told him he was "suffering from acute nervous strain and exhaustion," and ordered him to go on immediate leave or face court martial.

Urquhart himself was worried about the state of mind of the senior officers in the British I Airborne Corps headquarters, who were all extremely gung-ho and were talking about Christmas in Berlin. Some officers joked about taking their golf clubs because the operation was going to be a pushover.

Urquhart remained concerned and later stated, "I tried to get this point of view across and pointed out that if we were going to do it properly, we were going to have to drop the troops in a different place so that they could immediately capture the bridge, and that there was a big question as to whether the relieving troops could get up from Brussels in time."

British XXX Corps, under Lt. Gen. Brian Horrocks, was stuck on the Albert Canal, which was 60 miles away, and the Dutch countryside was polder, essentially flat land kept dry by a centuries-old system of dikes. Urquhart stressed, "The roads were all causeways, which are ideal for an armored force to stop another from advancing. All you've got to do is to disable one tank, and that blocks the whole thing. I simply did not believe that the Germans were going to roll over and surrender. Well I didn't get anywhere with this. Everyone thought that I was hysterical, nervous, and so on."

After General Browning boasted to Prince Bernard of the Netherlands that the Allied forces were going to advance into Germany over a carpet of airborne troops, Urquhart said to his operations officer, Colonel Walch, "I wonder if they're going to be alive or dead airborne troops."

Urquhart believed that Browning's metaphor of an "airborne carpet for the ground forces" lulled many commanders into "a passive and absolutely unimaginative state of mind in which no reaction to German resistance, apart from dogged gallantry, was envisaged." The pessimistic commentary did not go over well for Urquhart, and it hastened his being sent away on medical leave.

Certainly, Brian Urquhart cannot have been thought very ill because nine days later he was summoned and flown at short notice to Brussels to join Browning's headquarters to help sort out the mess he had so vociferously warned about.

Urquhart did not know why he was ordered to return at this juncture and assumed that in the debacle that Operation Market-Garden had become it looked odd for the I Airborne Corps chief intelligence officer to be absent on sick leave. Urquhart was greeted warmly by Browning and his old comrades, but he could not help noticing that talk about the current military situation was kept to a minimum. He noted that the atmosphere was very different from the triumphant and confident tone of the previous weeks.

Imperial War Museum

Battered survivors of the disaster at Arnhem, these British paratroopers surrendered to the Germans after being cut off and fighting heroically during Operation Market-Garden.

Some have contended that it was Browning's management style that accounted for the omission from the intelligence summary in the Operation Market-Garden plan of the references to panzer troops that were found in the plan for an earlier operation, codenamed Comet, that had also been aimed at the same bridges over the Maas, Waal, and Lower Rhine Rivers.

After the war, General Roy Urquhart of the 1st Airborne that was decimated at Arnhem complained that his intelligence staff had been scratching around for "morsels of information." He was informed by Browning that his division was not likely to encounter more than a German brigade supported by a few tanks. The beleaguered 1st Airborne Division had held on at Arnhem against enormous odds for five perilous days, but when it became clear that they were not going to be relieved, what was left of the division was ordered to get across the river by night, leaving the wounded behind.

Out of 10,005 men, only 2,163 were evacuated in this way; 1,200 men were dead and 6,642 were missing, wounded, or captured. Many paratroopers were hidden by the Dutch and escaped months later. Prince Bernhard of the Netherlands later remarked sardonically, "My country can never again afford the luxury of another Montgomery success."

Long after the war, Urquhart realized that the generals, great commanders, and politicians involved, who were so admired during the war, were just like everyone else. "They were vain, they were ambitious, they very often made extremely faulty judgments."

Urquhart remembered that General Browning, perhaps reflecting Montgomery's views and those of "several other British commanders, was thinking about another great breakthrough."

Comparisons were constantly being made between the current situation and the collapse of the German Army on the Western Front in the autumn of 1918. At planning conferences, Urquhart observed "the desperate desire on everyone's part to get the airborne into action." He was appalled at the lighthearted metaphors such as, "it was described as a 'party'—used in reference to Operation Market-Garden."

Urquhart did not feel quite the same after the war, relating that his candid postwar appraisal of the personality flaws among his superiors came later. He had previously regarded the British military hierarchy as if "they were kind of superpeople. I never again trusted famous, glamorous leaders to resist vanity and ambition and make the right mature decision, and get it right."

Just prior to Operation Market-Garden, Urquhart concluded that Browning's ambition to command in battle was a major factor both in the conception of the operation and in his refusal to take the latest news on German opposition seriously. Urquhart believed that in his assessment, he may have done Browning an injustice. After the publication of Cornelius Ryan's *A Bridge Too Far,* he learned that Operation Market-Garden was the "offspring of the ambition of Montgomery, who desperately wanted a British success to end the war."

According to Urquhart, Browning himself, in expressing his doubts about the wisdom and scope of the operation, had used the phrase that Ryan took as the title of his book.

After the Battle of Arnhem, Urquhart requested to transfer out of the I Airborne Corps as soon as possible. Browning said that he regretted Urquhart's desire to leave but understood fully. Browning wrote a letter to Urquhart on his departure suggesting "that it might be as well if our disagreements remained a private matter between us."

Urquhart agreed with Browning. The last thing he wanted was to talk or write about the disaster. Urquhart left the I Airborne Corps "because I was pretty unpopular there. It's unpopular enough to be the one person who opposes something that everybody else wants

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By Roaul Drapeau

National Archives

Accurate Beyond Belief?

The Norden bombsight was advanced but may not have lived up to its designers' expectations.

IN A 1921 BOMBING TEST, U.S. ARMY AIR CORPS GENERAL BILLY MITCHELL'S airmen sank the former German battleship *Ostfriesland*. Although it took 65 bombs aimed at the huge, motionless ship to accomplish the task, the test challenged the primacy of battleships as an offensive weapon. U.S. war planners were already settling on the idea of precision strategic bombing as a way to capitalize on the potential of airpower and avoid the horror of trench warfare, which had been the hallmark of World War I on the Western Front.

This meant eliminating an enemy's ability to fight by destroying its manufacturing centers, transportation, and power infrastructure. However, strategic bombing required precision bombsights that would work from much higher altitudes and speeds than were then being designed into the next generation of bomber aircraft.

The U.S. Navy's Bureau of Ordnance (BuOrd) decided to develop such a precision bombsight, and in 1920 contracted with Carl L. Norden, a Dutch citizen and recent immigrant with a reputation as a clever designer of gyroscopically stabilized systems. Norden finished his masterpiece in 1931. Lieutenant Frederick Entwhistle, the Navy's chief of bombsight development, called it revolutionary, and its design was good enough that it would be used throughout World War II and up to the Vietnam War.

To this day, a legend surrounds the accuracy of the Norden bombsight and the device's role in the Allied victory in World War II. Mostly the result of intense self-promotion by Norden's company, the legend is just that. The bombsight's accuracy never met planners' expectations. Nonetheless, practically every article about the bombsight in the popular media of the day referred to the claim that with the Norden bombsight bombardiers could hit a pickle barrel from 20,000 feet. To help foster the notion of accuracy, Norden used a clever Latin motto, "*Cupa fiat melior muriae: per Norden obibit,*" loosely translated as, "When better pickle barrels are built, Norden will hit them, too." Actually, from that altitude, such a small object would be completely obscured by the bombsight's crosshairs, so the idea of being that accurate is absurd.

National Archives

Mechanics work on a sight head and stabilizer.

Even for larger targets, though, the Norden bombsight's accuracy never could have been as good as the strategic bombing doctrine needed it to be, considering the limited engineering and manufacturing capabilities of the time, unwise design choices, inherent errors in the mechanism itself, the complicated physics of bomb ballistics, the hazards of war operations, inadequate training, and poor reliability.

On December 29, 1944, B-17s drop their bombs on Bingen, Germany with the aid of the Norden bombsight.

Time travel at the speed of a 1935 Speedster?

The 1930s brought unprecedented innovation in machine-age technology and materials. Industrial designers from the auto industry translated the principles of aerodynamics and streamlining into everyday objects like radios and toasters. It was also a decade when an unequaled variety of watch cases and movements came into being. In lieu of hands to tell time, one such complication, called a jumping mechanism, utilized numerals on a disc viewed through a window. With its striking resemblance to the dashboard gauges and radio dials of the decade, the jump hour watch was indeed "in tune" with the times!

The Stauer *1930s Dashtronic* deftly blends the modern functionality of a 21-jewel automatic movement and 3-ATM water resistance with the distinctive, retro look of a jumping display (not an actual jumping complication). The stainless steel 1 1/2" case is complemented with a black alligator-embossed leather band. The band is 9 1/2" long and will fit a 7–8 1/2" wrist.

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The bombsight's reputation was also tarnished and costs raised by unnecessary security precautions, unseemly interservice squabbles, and the wasteful policies of the armed services using it. However, because of the great secrecy surrounding its specifications and performance, Washington's desire to boost public morale, and Norden's publicists wanting to promote the superiority of their monopoly product, the truth was hidden from the public.

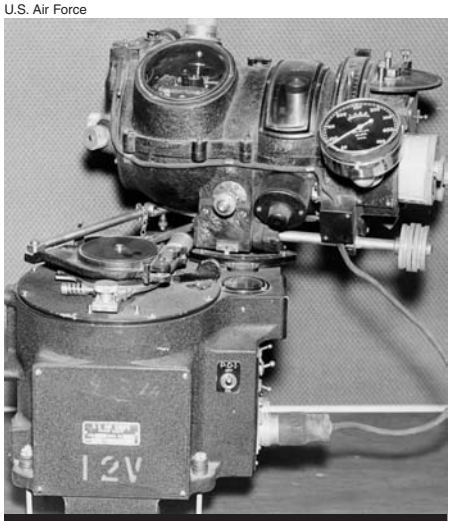
All bombsights attempt to solve the problem of when to release the bomb—usually expressed as the range angle, the angle as measured between a vertical line through the aircraft and the line of sight to the target when the bomb is to be released. When the bomb finally hits the ground in 30 seconds or so, the effect of air resistance on the bomb means that aircraft will have already passed over the target. Finding that exact point in space to release requires knowing the airplane's altitude, vectors of its speed over the ground, humidity, and the effect of air resistance on the bomb. Unpredictable factors such as local variations in gravity, air turbulence, and whether the target is moving also come into play.

All this information is difficult to determine accurately, particularly during the stress of combat, and it can change during the critical last moments of the bombing run. Pitch and roll of the aircraft and evasive maneuvers further complicate matters.

The first operational bombsights appeared during World War I. Simple affairs constructed of sticks, they were not much better than guesswork and a pilot's good eye. They were of the timing type, so called because the bombardier determined the airplane's speed over the ground using a watch. Then, using that speed, along with altitude as determined by the barometer and bomb type as data for ballistic tables, he would set key values in the bombsight. When the target below lined up in the sight, he would release his bombs. To eliminate sideways drift, the pilot would try to fly into the wind, but this tactic exposed the bomber to ground fire for longer periods. The pitching and rolling of the aircraft, as well as inaccuracies in release time and altitude, meant that the timing method was rarely accurate.

Later bombsights such as Norden's were of the synchronous type, in which a motor in the bombsight slowly rotated a mirror in the sighting telescope's light path to cancel out the apparent motion of the ground due to the speed of the bomber. Thus, when the bombardier looked through his telescope, the ground appeared stationary. In principle then, all he had to do was keep the target in the center of his field of view and wait until the bombsight sensed that the aircraft was at the release point. Bombing runs could then be much shorter, often less than a minute. In practice, the method stretched the technology of the time, and while it gave better results than timing sights, it still was by no means as accurate as military planners wanted.

U.S. Air Force



Interservice rivalry contributed to the development of the Norden bombsight. This M-1 Norden was acquired by the U.S. Army in 1932.

Carl Lukas Norden was born in 1880 in Semarang, Java, and soon became known as an exacting, brave, and trustworthy youth, if not also somewhat self-centered and abrasive. He was classically trained in mechanical engineering at Switzerland's respected Federal Polytechnic Institute, where he met Nikolai Lenin, an equally self-disciplined and irascible student with other aspirations. After immigrating to the United States in 1904, Norden worked at several jobs, eventually landing at Sperry Gyroscope Co., where he worked for four years on shipboard gyroscopes. Unsurprisingly, he had personality clashes with Elmer Sperry, quit over a salary dispute, and struck out on his own as a consultant, founding the modestly named Carl L. Norden Company.

Norden, called "Old Man Dynamite" by Navy personnel, was difficult to work with. Contemporaries referred to him as "self-centered, impatient, domineering, driven, abrasive, a perfectionist ... and of the highest ethical standards." He saw himself as a designer, not an inventor, believing that only God could invent. His name did not even appear on the patent for his most advanced bombsight, even though he was clearly the inventor. Norden sought anonymity.

Early in the bombsight's development, the Navy became concerned that the project was too important to be put in the hands of one person, especially one so irascible as Norden. They recommended that he take on a partner and suggested Ted Barth, who had been in charge of gas mask production in World War I. Norden did so, eventually selling out to him but staying on as chief designer. It was a good partnership, because Barth had the important business savvy and diplomacy that Norden lacked. Barth was also an aggressive promoter and was the source of many of the enduring legends about the Norden bombsight.

Norden chose the synchronous method for his bombsight, but the difficulties facing him were formidable. First, tiny errors in bomb release time or plane orientation could make the difference between a hit and a miss. Success meant hitting objects that are too small to see from the planned bombing altitude of 20,000 feet. The device would necessarily be very complicated, yet had to be simple to operate and repair, highly accurate, robust under combat conditions, reliable, and need only a short bombing run from any direction relative to the wind. In addition, since an airplane in combat is an unstable platform, buffeted by air turbulence and antiaircraft fire and subject to evasive maneuvers by the pilot, the bombsight's optics needed to be gyroscopically isolated from those unpredictable motions.

Like Thomas Edison, Norden disliked alternating current (AC) and impetuously required the use of direct current (DC) motors with their dirty brushes in his precision device. Further, his aversion to the new field of electronics led him to employ mechanical devices as the basis of his bombsight's operation instead of faster, simpler, more easily manufactured, and more reliable electronic circuits. These biases unnecessarily complicated his bombsight design, introduced errors that curtailed accuracy, and resulted in maintenance headaches.

Carl Norden delivered his first production bombsight in 1939. Its performance during controlled demonstrations was excellent. In April, at Fort Benning, Georgia, four Norden bombsight-equipped Boeing B-17 Flying Fortress bombers targeted a simulated battleship 600 feet by 105 feet in size. Ten out of 12 bombs of various sizes hit the target.

On December 2, 1941, the acting chief of the Bureau of Aeronautics enthusiastically wrote to the secretary of the Navy, "The Norden bombsight is considered to be the principal single factor of superiority which the air forces of this country possess over those of potential enemy countries."

However, as everyone was to learn, there was a big difference between superior results at demonstrations against fixed targets under

ideal conditions and those during wartime. In addition, bitter internecine rivalries between the Army and Navy would create havoc in implementing the bombsight into the armed forces.

The Norden bombsight, later called the Mark 15 by the Navy and the M-9 by the Army Air Forces (AAF), weighed more than 40 pounds. It was an exquisitely complex, but ungainly looking two-piece instrument consisting of a sight head containing a telescope, a vertical gyro, and sighting controls, all perched on top of a stabilizer, an automatic pilot that let the bombardier fly the aircraft during the last portion of the bombing run.

A profusion of knobs, gauges, levers, windows, and indicators protruded from Mark 15's lumpy frame. It was variously called "the golden goose," the "cork and jug," the "football," and other less complimentary expressions. Inside were two high-speed, DC-powered gyroscopes, one for maintaining vertical orientation once set by the bombardier and the other in the stabilizer for azimuth, or heading. These maintained the target in the crosshairs, regardless of any buffeting or maneuvering of the airplane. The bombsight also had an automatic bomb release, since at a 200 mph cruising speed an error in release of only a half second would miss the aiming point by 150 feet.

Brigadier General Eugene Eubank called the bombardier "the most important of our fighting men." The bombardier's job was to enter various parameters into the bombsight and then perform a long series of fine-tuning adjustments leading up to the final automatic bomb release. His duty station was in the plexiglas nose of the aircraft, a very exposed position that led to a high injury rate. As a result, volunteers were few in spite of the favorable publicity and the patriotic 1942 Richard Rodgers tune, "The Bombardier Song."

For the bombardier specialty, an airman went through up to 18 weeks of training, where the best of them attained the rank of distinguished bombardier. For short bombing training runs without any of the fear, smoke, and dust that he would encounter in combat, the average error required for this exalted rank was 172 feet. Yet, a bomb dropped that distance from many targets was unlikely to do any real damage, and standard performance under combat conditions was usually much worse than that.

One of the most vexing problems for bombardiers was reading the bombsight's two bubble sights, mounted at right angles on the vertical gyro's frame. Similar to those on a carpenter's level, they helped level the bombsight in the vertical plane. However, trying to read them while the plane was vibrating, performing evasive maneuvers, and moving through turbulent air was a real challenge. To complicate matters, the size of the bubbles was affected by the widely varying ambient temperature.

Solving the bubble problem was essential because maintaining a level flight path was critical for bombing accuracy, and the bombsight's gyro would keep the sight only as level as the vertical set by the bombardier. BuOrd unsuccessfully experimented with an electromechanical approach to performing the same function as the bubbles.

Hunkered down over his instrument, breathing pure oxygen, distracted by the roar of his bomber's engines, fighter attacks, the impact of antiaircraft bursts, and the racket of his own plane's defensive fire, the bombardier tried to read the fine print on his bombing tables and handheld computers, which were similar to a slide rule, to figure out various speeds, angles, and bomb ballistic parameters. Then, he peered through the telescope at the target, often partially obscured by clouds, haze, smoke, or fire, as he steered the plane to the release point, making dozens of last-minute adjustments. It was amazing that any of them hit anything.

There were dozens of preliminary steps to set up the Norden bombsight. One of the first was

to level the gyroscopes using the bubble sights. Then, the time of fall for the bomb, proportional to the square root of altitude, was entered by presetting the altitude, which in turn set the speed of a motor driving a disk. Trail, the distance behind the plane that the bomb hits—caused by air resistance—was verified from bomb characteristic tables for the planned airspeed and was used to set the position of a roller on that disk. These two settings controlled the angular rate of the telescope mirror, which, along with the gyroscopic stabilization, kept the view of the ground stationary, a key characteristic of a synchronous bombsight.

The drift, or crosstrail, setting tilted the telescope view to compensate for the sideways motion of the bomber that was caused by crosswinds. Finally, the bombardier used his bombing computer to figure out and preset the dropping angle, the calculated bomb release point.

During the last minute or so of the bombing run, the bombardier used a series of knobs to fine-tune the preset values, canceling out both the forward-aft motion and sideways drift of the target in the field of view of his telescope and finally positioning the target so it was stationary, dead center in the crosshairs. After these settings were made, with the autopilot engaged and the gyros keeping all the mechanisms stabilized, the bombardier would then fly the aircraft the last few minutes of the bombing run. The ultimate purpose of the complex, interconnected array of motors, gyros, cams, levers, and cables in the bombsight was then to slowly advance a single indicator until it matched the predetermined dropping angle, at which time the bombsight would automatically release the bombs.

As the war progressed and the needs of the AAF changed, a number of attachments were fashioned to improve the bombsight's performance under various operating conditions without redesigning it. This was an attempt to achieve a universal bombsight that would handle the three important kinds of bombing missions: horizontal, glide, and dive.

These attachments included devices to perform bombing during a shallow dive or glide (GBA), thereby making it more difficult for antiaircraft gunners to get a bead on the bomber; a low-altitude attachment (LABA) to better suit the Navy's needs for torpedo bombing; one to extend the Norden bombsight's vertical range for the AAF; a reflex sight with improved optics for initially locating the target at night; and a "formation stick" so that the pilot could maintain position in formation by flying the autopilot, similar in effect to modern joystick controls.

There were also radar aiming attachments to overcome the adverse weather conditions in Europe and improve bombing through overcast conditions. Even though the radar attachments never resulted in an improved error rate because of the imprecision of early radars, the crews appreciated them since their chances of surviving a bombing mission flying through thick clouds were much improved even if their bombing accuracy suffered.

Another accessory was the intervalometer, a means of releasing bombs at a preset time interval so that they would evenly cover a large area. Without it, salvo bombing released all the bombs at once for a concentrated but not necessarily accurate attack.

The Norden bombsight consisted of more than 2,000 parts such as DC motors, gears, potentiometers, clutches, levers, cams, mirrors, gyroscopes, and specialized components such as gudgeon bearings, cardans, and gimbal rings. Some parts required machining to extremely close tolerances, previously unheard of in a mass-produced device. Typical of his imperiousness, Norden set aside no-smoking areas in his plants to help maintain dust-free conditions and yet violated his own rules by smoking cigars there. No one dared challenge him about it.

The Norden bombsights were such precision devices that parts were not always interchangeable, complicating field maintenance. Lack of skilled machinists was an ongoing problem. Key parts such as the 61 ball bearings were in very short supply, necessitating Norden to set up his own manufacturing plant for them. He even decided to train the workers himself on how to properly make bearings. That plant, the Barden Company (Barth + Norden), still exists. In one of history's ironies, Barden is now part of the German FAG ball bearing group with headquarters in Schweinfurt at one of the factories that Norden's bombsights helped repeatedly attack.

Serious maintenance problems were also caused by vibration of the aircraft, electrical surges, inadequate lubrication, wear, and the brushes for the DC motors that spread their carbon dust into sensitive bearings. The overall complexity of the bombsight and the government's desire to maintain the tightest level of security made its maintenance a continuing problem and adversely affected bombing accuracy. In late 1944, up to 75 percent of some batches of Norden bombsights fell short of specifications, missing targets by 280 feet from an altitude of 20,000 feet when specifications called for 50 feet.

The frequent equipment failures and cold temperatures led to operational problems with the Norden bombsight. The temperature in unheated, unpressurized B-17s at bombing altitude was so cold that the AAF purchased electrically heated blankets for the bombsights to avoid the congealing of lubricating oils and the fogging of the optics. In addition, the complexity of the device, overcast weather conditions, danger from antiaircraft and fighter fire, cold, fear, and exhaustion all contributed to inaccuracy. Even when the bombardier involuntarily rose from his seat as the release point approached, accuracy was affected because of a change in the optical path.

The commencement of World War II forced the Norden Co. to convert from an engineering development facility making precision bombsights by the handful to a high-volume production operation. However, this goal was often stymied because of the complexity of the device and the many engineering changes. As a result, until late in the war, there was a desperate shortage of bombsights. To complicate matters, the Navy required the AAF to purchase bombsights only through them and controlled all contacts between the AAF and Norden, doling units out on an allocation schedule that favored their own needs. BuOrd violated numerous regulations in setting up Norden as a sole-source development and manufacturing entity, but the arrangement suited both parties; BuOrd got its bombsights and Norden had a reliable customer with a never-ending stream of production.Disputes arising from the unusual procurement arrangement produced reams of angry letters between senior officers of the two armed services.

In spite of the rivalry and Ted Barth's exploitation of it to Norden's benefit, it remains a puzzle why the Navy was so adamant about retaining control and satisfying its needs first when the Army clearly had the greater need and the Navy knew it was not using all the units it took. One possible explanation is that the Navy rigidly ordered bombsights and spares for all bombers on which the bombsight was standard equipment, whether needed or not, and bureaucratic inertia prevented the Navy from changing policy. This was in spite of the much greater need on carrier-based missions for dive bombers, which had proven the most effective type of bomber against moving targets. The Norden bombsight was unsuitable for dive-bombers because of the rapidly changing altitude.

During World War II, Norden (and its subcontractors, some of which were Norden subsidiaries) and the Sperry Gyroscope Co. were the major suppliers of bombsights to the American armed forces. Sperry had been encouraged

by the AAF to develop a bombsight for them that would make the AAF independent of the Navy and its Norden sight. Their sight, by Sperry, which first saw combat in 1941, had a number of important engineering advances that should have made its performance and maintenance superior to the Norden unit, but it never lived up to its promise. Also, its decade-long head start and Ted Barth's promotional ability had fully entrenched the Norden Company's business position with the military hierarchy.

Further, the key people in the Sperry project for both the company and the AAF were killed in separate accidents, and Sperry's extensive prewar involvement with companies in both Germany and Japan, including having sold a bombsight to Japan in the 1930s, did not help its position as a supplier of such a sensitive apparatus. Finally, having two such extremely complicated, competing devices created intractable logistics and maintenance problems for the armed services. So, in 1943, after extensive performance tests and intense lobbying by both sides, and less than one year after Sperry's plant began producing its S-1 bombsights for the AAF, Washington decided to standardize on the Norden unit and shut down the Sperry operation.

During the war, Sperry maintained complete silence about involvement in the bombsight business. Even today, its bombsight involvement is described on its website as having made "other instruments for aircraft." In contrast, the mystique that surrounds the Norden bombsight is a direct result of the unrelenting publicity effort maintained by the Norden Company.

As a result of its early successes in demonstrations, the Norden bombsight was highly classified. Although its existence and accuracy were heavily publicized to help boost morale, its details were a closely guarded secret. Since it was one of this country's most important military secrets, no photographs or release of specifications or performance data to the public were allowed. Several popular publications of the day did run articles on the Norden bombsight, although for the most part their attempts to describe it were wrong or sketchy.

To maintain the secret, Washington developed an intricate and highly secure system for shipping and handling the Norden bombsight. However, these handling procedures made efficient maintenance almost impossible and greatly complicated flight operations. The unit had to be kept covered except when in use, have armed guards escort it to and from the aircraft, and required the use of bombsight storage vaults between flights. There was even a much ballyhooed bombardier's oath, with pledges to

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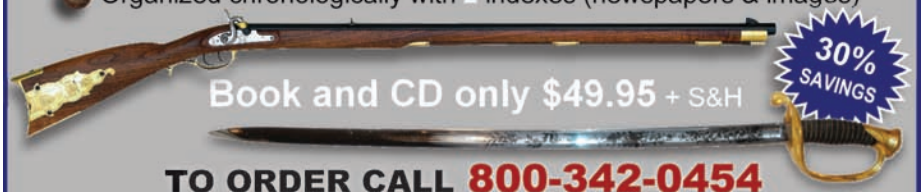

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kill oneself in the event of its imminent capture. Regulations called for destroying the unit with a bullet in its guts, immolating it with a blow-torch-like device, or ripping it out and tossing it overboard.

Secrecy was broken when a Norden Co. employee named Hermann Lang stole the plans for the Norden bombsight, for which he was paid a reported $1,500 by the Nazis. This event must have rattled Norden, who held Germans as untrustworthy and yet employed numerous craftsmen of German descent in the manufacture of his bombsight. In June 1941, the FBI arrested Lang and 28 others on spying charges. Lang was found guilty of espionage by a Brooklyn, New York, district court jury on December 13, 1941, and sentenced to 20 years in prison. He was released in 1950 and deported.

Eventually, the Norden bombsight was downgraded in classification due to difficulties in field maintenance, the large numbers of people involved in its production, and the knowledge that the Germans had recovered bombsights from crashed aircraft. In November 1944, it was finally publicly displayed. The secret was out.

The Germans had their own bombsight, named the Lotfernrohr, or Lotfe. Like Norden's, it was of the synchronous type and had even more elaborate optics. However, captured Lotfes were judged inferior to the American bombsights, and the Germans never used Norden's stolen design. Since they had decided to concentrate on dive-bombing as tactical support for ground attack, precision high-level bombing was not an important part of German war doctrine. Japan never had a bombsight as sophisticated as any of the Allied units, and Japan's need for high-altitude bombing of Allied targets was minimal.

The actual performance of the Norden in combat was good some of the time, but rarely great, and often terrible. Several studies revealed that as few as 5 percent of Eighth Air Force bombs fell within 1,000 feet of the target and the average error for 500-pound bombs dropped in Europe was a whopping 1,673 feet. There are examples of many hundreds of bombs aimed at a single small target with only one or two bombs reaching their mark. Some gross errors were even measured in miles.

Lack of accuracy was an important shortcoming because precision bombing doctrine called for being able to hit targets as small as tennis courts. With a delayed fuse, the 500-pound bomb could blow a crater only some 20 feet in diameter, whereas the bombsight's error was almost always much larger. Direct hits or

massive bomb loads saturating an area were required to accomplish the mission.

When the Boeing B-29 Superfortress bomber *Enola Gay* left the island of Tinian in the Pacific with its top-secret nuclear weapon, Major Thomas Ferebee, the 24-year-old bombardier, used a Norden sight, serial no. V-4120, to aim his bomb from 31,000 feet above Hiroshima. He was 800 feet off his target, but the destructive force of the atomic bomb was so great that it made no difference.

Three days later, Captain Kermit Beahan, the bombardier of the B-29 *Bock's Car,* dropped a bomb on the Mitsubishi Steel & Arms Works in Nagasaki. It was off the mark by 1,500 feet, a small fraction of the destructive radius of the weapon. Thus, with such powerful weapons, the accuracy of the bombsight was less critical.

In successive conflicts, bombsights continued to improve in accuracy and reliability, with radar and other positioning means and with electronic controls instead of Norden's mechanical devices. Simple gravity bombs are still being used for some missions. Yet, even today, in spite of all the technical improvements in bombsight design, they still suffer from the same inaccuracies for the same inherent reason—aerodynamics.

During the Gulf War, Coalition forces dropped some 17,000 precision-guided munitions with mostly pinpoint accuracy, but also 210,000 conventional bombs that missed their targets by an average of more than 300 feet, faring no better than many World War II-era bombs. It was only with the advent of guided munitions that pinpoint accuracy has been achieved. The unknowable variables of bomb aerodynamics and atmospheric conditions ultimately affect the ability to hit the target with an unguided gravity bomb.

National Archives

Major Thomas Ferebee is shown with the Norden bombsight he used to aim the atomic bomb from the Enola Gay above Hiroshima on August 6, 1945.

Even with its faults, the Norden bombsight was a technological marvel for its day. In spite of its many shortcomings, it did help bombardiers achieve the strategic objective of destroying the enemy's infrastructure. What it did not do was meet the planners' unreasonably high expectations for accuracy.

During the Mark 15 Norden bombsight's long history, the U.S. government purchased more than 50,000 bombsights. By 1944, the typical unit cost was about $7,500. However, the cost of the entire program came to more than $1 billion. The last combat use of the Norden bombsight was in 1967, when it was used for dropping acoustic sensors along the Ho Chi Minh Trail in Southeast Asia. Today, the Carl L. Norden Company's role in bombsight development is consigned to history. The company lives on as the Norden Systems Division of Northrop Grumman Corp., making a variety of military avionics systems but no bombsights. □

First-time contributor Raoul Drapeau is a resident of Vienna, Virginia. He works as a high-tech entrepreneur and holds degrees from Cornell University and Rensselaer Polytechnic Institute.

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By John Mancini

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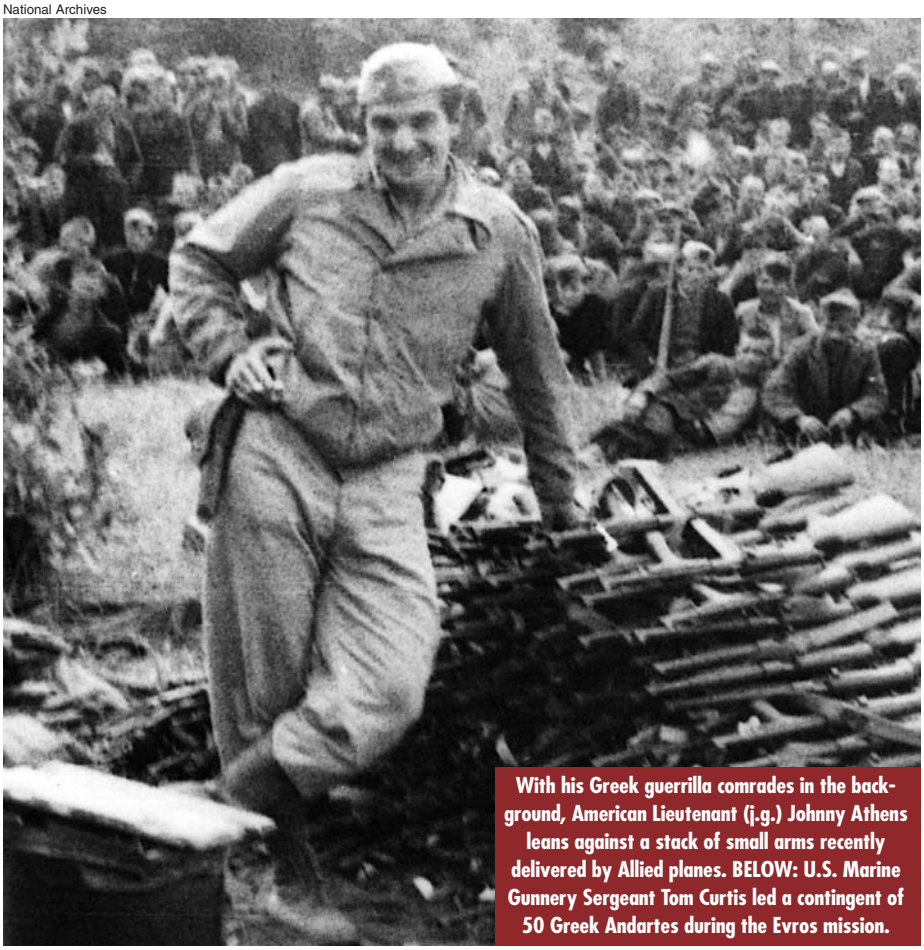

With his Greek guerrilla comrades in the background, American Lieutenant (j.g.) Johnny Athens leans against a stack of small arms recently delivered by Allied planes. BELOW: U.S. Marine Gunnery Sergeant Tom Curtis led a contingent of 50 Greek Andartes during the Evros mission.

Bringing Down the Bridges

The OSS Evros Mission destroyed two key spans linking Greece, Turkey, and Bulgaria.

IN APRIL 1941, GERMAN TROOPS SWARMED INTO GREECE FROM BULGARIA. Despite a valiant defense by the Greek Army and support from the British, the Nazis smashed their battle lines and controlled Greece within weeks. The British evacuated by sea, and the dark shadow of the swastika fell over another Balkan country.

In August 1943, two OSS (Office of Strategic Services, forerunner of the modern U.S. Central Intelligence Agency) agents landed in Greece from a submarine. They were followed by 300 OSS operatives over the next year. These were inserted by sea, air, and land. The OSS agents led Greek guerrillas in ambushes against German troops, destroyed installations, and provided tactical intelligence on the enemy's order of battle. Undercover OSS operatives established spy networks and carried out espionage missions in Greek towns and cities where they obtained economic, political, and military strategic intelligence for secret radio reports. The agents were recruited from Greek refugees in Cairo and from Greek-Americans in the United States.

National Archives

In the spring of 1944, a major OSS Special Operations sabotage mission was authorized by the Joint Chiefs of Staff. Designated the Evros Mission, it began on March 29, 1944, with the infiltration of an OSS team into Greece from neutral Turkey.

Throughout World War II, trains roared across the Turkish border carrying chrome along the Istanbul-Sofia-Salonika railroad line through Greece, Bulgaria, and the Balkans to weapons factories in Germany. Allied diplomatic negotiations could not stop the shipments of the strategic metal, which was used to strengthen tank armor and gun barrels, to the Axis. The only solution was to destroy the railway bridges from Turkey into neighboring Bulgaria and Greece. The mission was given to OSS Special Operations Branch.

On March 29, three members of the mission crossed into the Evros district of Thrace Province in Greece from Turkey. The three men were Captain James G.L. Kellis, U.S. Army Air Corps, who would command the operation; Radioman Third Class Spyridon Kapponie, U.S. Naval Reserve; and Radioman Third Class Michael Angelos, U.S. Naval Reserve. They were accompanied by 2nd Lieutenant Alexander Georgiades, who was a veteran OSS operator along the Greek frontiers with Turkey and Bulgaria. Lieutenant Georgiades was a frequent visitor and friend to the Greek guerrilla forces and had established the groundwork for their cooperation on the sabotage mission. U.S. Marine Gunnery Sergeant Thomas L. Curtis, whose specialty was demolitions, would join the team later by sea along with Lieutenant (j.g.) Everette Johnny Athens, U.S. Naval Reserve, who was second in command and Radioman Third Class George N. Psoinos, U.S. Naval Reserve.

Captain Kellis reported that the team entered Greece via the Evros River. "We marched for approximately five hours until we arrived at the mountain headquarters of the ELAS Andarte (Greek guerrillas). There we met the military and political leaders of the Evros district. The next day we began our negotiations to enlist their cooperation for the severance of communications between Turkey and Europe.

"The Evros leaders were not the easiest lot to deal with. The British had in the past dispatched two missions to that vicinity and both had failed. Their [the Greeks] coolness turned into a wholehearted

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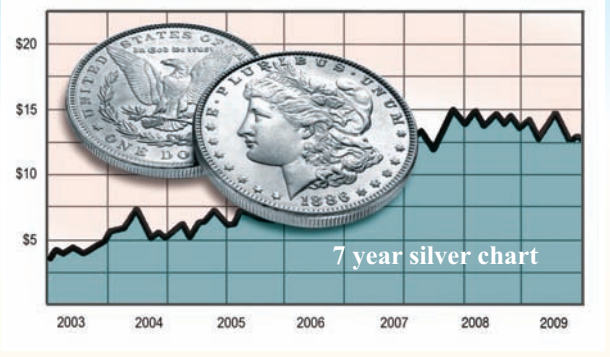

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LEFT: Accused of being a traitor, this Greek guerrilla is questioned extensively concerning information supplied to the Germans. The prisoner was later executed by the Evros Andartes. CENTER: Americans Spiro Cappony, Mike Angelos, and Jim Kellis (left to right) begin preparations for the Evros mission soon after arriving in Greece and locating guerrilla forces. RIGHT: Preparing to destroy a bridge, Greek saboteurs move through extensive brush while wary of being discovered by the Germans.

cooperation after they ascertained our sincerity and realized that we were purely a military mission whose only purpose was the destruction of the enemy. We closed an agreement in which we promised to supply them weapons and they in return guaranteed that they [the weapons] would be used against the enemy. They also agreed to cooperate with us in the destruction of any objectives we deemed necessary to destroy."

The region was in chaos. Civil war had erupted in Greece between the Communists and Royalist Nationalist factions. The OSS team had to establish cohesiveness among the Greek guerrillas and persuade them to put aside political differences, at least temporarily, to effectively fight the Nazis.

"What we found was anything but an Andarte unit," recalled Kellis. "The political tenseness reached such a degree that a virtual civil war was in process during which 800 Greeks were killed. Their weapons were of the 19th century vintage and the lack of ammunition was surprising. There were hardly any Greek officers with them, and in short, we met an unorganized mob. We immediately took steps to prevent any bloodshed among Greeks and until our day of departure only a few Greeks were killed and they were traitors or had cooperated with the enemy. The organization of nearly 1,000 Andartes would require the support of many officers. We immediately enlisted services of 10 former officers of the Greek Army. Our experiment proved successful. The attitude of the Andartes changed very fast and the population started to cooperate with us and stiffened their attitude toward the enemy.

"The enemy immediately noticed those changes and lost no time to make it as uncomfortable for us as possible. They started making arrests in order to terrorize the Greek populace and thus prevent them from supplying us with food. These measures only strengthened the morale of the population."

The Germans deployed a special reconnaissance battalion into the region to eliminate guerrilla resistance; however, the OSS-led Greeks were able to meet the enemy threat. In one engagement, Captain Kellis and a 13-man force were surrounded by the German battalion and fought the numerically superior unit for seven hours before escaping with three slightly wounded Andartes.

On May 3, a U.S. transport plane from Bari, Italy, made an airdrop of explosives, weapons, and ammunition. However, the parachute drop was not sufficient to execute the sabotage mission. Additional supplies and the remainder of the OSS team arrived on the night of May 11. Lieutenant Johnny Athens, Marine Corps Gunnery Sergeant Thomas Curtis, and Navy Specialist Third Class George Psoinos sailed a small fishing boat known as a caïque through the enemy-controlled Aegean Sea to the mouth of the Evros River. Captain Kellis and a group of Andartes waited anxiously on the swampy shoreline in an area saturated with German patrols. Around midnight, Captain Kellis spotted the flash of a signal light glancing off the dark water. He flashed the countersign, and within a few minutes rendezvous with the caïque was made. The small vessel carried more explosives, rifles, and machine guns to arm the Greek guerrillas for the attacks on the bridges. Caïques were used extensively by OSS Special Operations and maritime units for missions in the Mediterranean and Aegean seas.

The Evros Team reflected the interservice diversity of the OSS. The team leader was an Army Air Corps officer, second in command was a Navy officer, and three of the enlisted members were also Navy personnel. U.S. Marine Gunnery Sergeant Thomas Curtis was the only member from a ground combat service. The 29-year-old Marine veteran brought 11 years of military experience to the mission. He had served three years in prewar Hawaii before being assigned as an OSS instructor in map reading and fieldcraft at training sites in Maryland and Virginia. He was transferred to the OSS station in Cairo and served on a number of missions with maritime and special operations units before his assignment to the Evros team.

A crash course on weapon and demolitions use was conducted on May 18-19 in final preparation for the raid. The targets were a bridge near Svilengrad, Bulgaria, and a second one near Alexandropoulis, Greece. Captain Kellis, Lieutenant Athens, and a force of 170 Andartes would assault the Bulgarian site. Gunnery Sergeant Curtis and agent Angelos would lead a force of 50 guerrillas to destroy the Alexandropoulis bridge.

"The detail for the Svilengrad bridge departed on 23 May," remembered Captain Kellis. "For the first two days we traveled through mountains and relatively safe country, but later we crossed into the Evros valley and had to take several security measures. We walked only at night and always followed a zigzag course so as not to give away our direction of march. Our guides were excellent, even though we passed near German and Bulgarian posts they never noticed us. During this march only three persons knew the destination and purpose of the mission. The sabotage team which was the advance element did not know that the main body carried explosives. The main body knew nothing of the sabotage crew."

Captain Kellis's OSS force arrived in the des-

ignated area on May 27. After two days of reconnaissance, they finalized the tactical plan and briefed the Greeks. Captain Kellis reported, "Our plan was: 1. Place sufficient guards to eliminate any interference from a thirty-one man German and Bulgarian guard post, 2. Prevent reinforcements from reaching them, 3. Cut all telephone communications, 4. Carry out the demolitions."

At 10:50 PM on May 29, Captain Kellis and Lieutenant Athens placed the explosives on the cement legs and steel structure of the bridge. Their activity over the next several hours went undetected by the enemy guards. As the job was completed just after midnight on May 30, a German sentry fired a flare and illuminated their movement. Machine gun and automatic weapons fire swept the area. The two OSS agents swiftly ignited a five-minute fuse and raced for cover as rounds smacked into the bridge. Moments later, a spectacular explosion erupted and completely destroyed the huge structure.

Captain Kellis immediately gathered his guerrillas and struck out on a forced march to distance themselves from the Germans as far as possible before daylight. At about 4 AM, German soldiers spotted the Evros team during a river crossing. By that evening a full enemy battalion was in hot pursuit. Captain Kellis and Lieutenant Athens broke off from the main body to rendezvous with Gunnery Sergeant Curtis and the southern raiding force. A Greek officer assumed command of the guerrillas and led the Germans in the opposite direction. After three days of maneuvering, the Greeks executed a well-planned ambush and killed the German commander and all of his staff.

Meanwhile, Sergeant Curtis had left the guerrilla base camp on May 27 and arrived at his objective two days later. The destruction of the southern bridge was also planned for the night of May 30. OSS agent Angelos approached the bridge in the darkness and was confronted by a Greek sentry. Angelos aimed his submachine gun at the astonished guard and told him that he was an American and was there to destroy the bridge. Surprisingly, the sentry volunteered to help but reported there were 30 other guards at a post nearby. Angelos raced back to Sergeant Curtis and reported the development. Curtis ordered a group of his Andartes to take the guard detachment prisoner. Ironically, 25 of the 30 guards also volunteered to join Curtis and his Andarte raiders. The remaining sentries were placed under guard.

Curtis was aware that his force had been spotted by the Germans, and he expected an attack at any moment. He raced to place explosives on the 100-foot steel structure that stood 45 feet high. At 11:30 PM, explosions echoed through the forested hills as the second strategic bridge was completely destroyed. Curtis and his men gazed with pride as debris poured down into the ravine. Muffled cheers and gestures of victory rippled through the Andartes as they watched the destruction of the enemy's valued railway. The men swiftly assembled and withdrew from the target area.

The Evros mission not only destroyed major enemy rail links with Turkey but also energized the Greek guerrilla forces in the region. The successful OSS sabotage raid increased the morale of the Andartes and the civilian population. Recruits swarmed into the mountains to join the fight against the Nazi oppressors. The ranks of the Andartes swelled to the hundreds. The savage civil war that was being fought between the Greek political factions in the area temporarily ceased, and a united front against the Germans was formed. There were approximately 1,500 enemy troops in the Evros region, but the new Andarte offensive against the German garrisons neutralized their offensive capabilities. Three hundred Germans were captured during subsequent operations, and the remainder were either killed or fled across the border for sanctuary in neutral Turkey.

All members of the Evros team were awarded the Bronze Star. Gunnery Sergeant Curtis also received a Silver Star for heroic service with OSS Special Operations in China. □

National Archives

U.S. Navy Lieutenant (j.g.) Johnny Athens smiles aboard the caïque *St. Johns,* which he sailed along with Marine Gunnery Sergeant Tom Curtis across the waters of the Axis-controlled Aegean Sea. The two Americans delivered vital weapons and supplies, which were used during the Evros mission.

John Mancini is a retired U.S. Army colonel. He resides in Sierra Vista, Arizona.

By Blaine Taylor

Italian Aviation Ministry, Rome

Death of Il Duce's Son

An accomplished pilot, Bruno Mussolini was killed in a plane crash, shattering his father, the fascist leader of Italy.

AT 11 AM ON AUGUST 7, 1941, BENITO MUSSOLINI, THE FASCIST PARTY DUCE (leader), premier of Italy, and first marshal of the empire, was just stepping into his private elevator in Rome's Palazzo Venezia when an official rushed up with startling news: "There's been a crash at Pisa, Duce! Your son Bruno is wounded, and his condition is critical."

Stunned, the bald Mussolini steadied himself against the iron lift cage, eyes squeezed shut, and asked softly, "Is he dead?" At the confirmation of his second son's death, asserted the official later, it was "as if something switched off inside Mussolini forever."

As the youngest son, Romano, later remembered, the oldest of the three brothers, Vittorio, said, "'There was a Mussolini before Bruno's death, and a Mussolini after it.' Prior to August 7, 1941 ... despair was not part of his emotional range. The tragedy turned him into a different man whose lost stare, at times, provoked pity."

Il Duce's wife, Rachele Guidi Mussolini, recalled, "What hit me hardest was Il Duce's excruciating silence. It was as if he had turned to stone."

From this time forward, the Italian leader's mood was considered to be entirely unpredictable, although he may have seemed outwardly composed. As he explained to his undersecretary for air, General Francesco Pricolo, "You see me in front of you calm, because that's how I have to show myself, but inside I feel torn with grief."

Later, when Colonel Gori Castellani, commanding officer of the Regia Aeronautica Air Force Squadron No. 274 at Pisa, to which both pilots Captain Bruno and Lieutenant Vittorio Mussolini belonged, arrived to express his condolences, an angry, distraught Duce leaped out of his chair and shouted, "I know what you are here for! I know that you and everyone are pleased that I have had this loss. I don't want to hear anything from you! You can get out!"

Recalled Romano, "My father had an affinity for Bruno, a special fondness that almost seemed to be inspired by a sad premonition of the irreversible events that were going to take place. I remember when Bruno returned from Germany. Il Duce asked him to report on the true capabilities of the German Air Force.

"Evidently, my father distrusted the information he was receiving from Party leaders. Bruno was very clear. His analysis was that, despite the Germans' admirable and widespread efforts, they would lose the war. The defeat would represent the fatal epilogue to a conflict that had set them against the entire world. As for Italy, she would be drawn into Germany's crushing defeat.

"Bruno confided his worries to my mother as well. 'Papa's job is difficult,' he said, 'but what is most dangerous is all of the sabotage. There are oil tankers that reach their destination safely,

Ministry of Defense, Italy

only to be inexplicably blown up moments after they arrive. There are weapons that leave the factories with unbelievable flaws. These are not isolated cases, and they are not accidental. These are acts of widespread sabotage that—in a test of truth—will prove to be absolutely disastrous."

That "test of truth" was to be Fascist Italy's catastrophic participation as an Axis Pact partner in World War II at the side of Adolf Hitler's doomed Third Reich.

According to the *Washington Post* edition of August 7, 1941, "The crash occurred at 10 AM. Il Duce took off in a plane for Pisa immediately with Gen. Pricolo, Chief of the Air Force General Staff. Crews at the field were drawn up in mournful review as the Duce hurried past to the Santa Chiara Hospital where—with Lt. Vittorio Mussolini, his eldest son—he viewed Bruno's body. Then he went to the scene of the crash. Later, Bruno's mother flew to Pisa from the Mussolini summer home at Rimini."

Signora Mussolini's account disputed this aspect: "As soon as we received the terrible news, your father and I," she told Romano, "boarded a plane for Pisa. We were thrashed by a violent storm, as if it

LEFT: During ceremonies in Centrocelle, Italy, on May 28, 1935, the commander in chief of the Italian Air Force, General Guiseppe Valle, Dictator Benito Mussolini, and Il Duce's son Bruno, all three of whom were pilots, engage in conversation. RIGHT: The wreckage of Bruno Mussolini's aircraft lies twisted on the ground following the crash.

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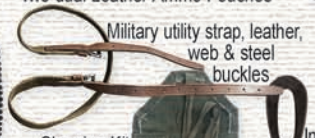

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were a nightmare. The survivors told us that the engines had failed abruptly, and that Bruno had done everything to avoid a crash. They also told us that he had remained composed to the very end, not giving in to panic. His final words were, 'The battlefield, Bappo!' Someone suggested sabotage, and there was an inquiry into that."

Romano, a popular jazz musician after the war who married actress Sophia Loren's younger sister Maria, added, "I must confess that even I have at times doubted that Bruno's death was an accident, because there were more and more traitors within the regime. Still, no proof has ever been found of tampering on his four-engine plane."

Continued the *Washington Post* account, "The funeral will be held tomorrow at the Fascist headquarters in Pisa, where the body—together with those of Bruno's two comrades—was taken tonight. The body will then be taken to Forli and buried Saturday in the cemetery of San Casiano at Pendino Predappio, near ll Duce's birthplace.

"As black shirted aviators carried the three caskets to the Party headquarters, silent crowds threw flowers before them. Il Duce, Vittorio, and Bruno's mother and widow (the former Gina Ruberti) remained some time in the funeral chamber. Gen. Pricolo and other high Party and government officers stood the first watch of a night-long guard of honor."

The late Bruno's more famous sister, Countess Edda Mussolini Ciano, wife of the Italian foreign minister, bit her lip until it bled at the sad funeral, and Premier Mussolini himself reportedly wept in a paroxysm of grief. His mother believed that Bruno came to her in dreams.

Added the *New York Times* the next day, "Capt. Bruno Mussolini was buried in the family crypt ... this morning amid unprecedented evidence of national mourning. To the thousands of persons who turned out in Pisa and along the railroad line to Forli were added many thousands more who flocked in from all parts of Romagna, from which the Mussolinis come ... Among the wreaths sent was one from the military, naval, and air attacheés of the United States Embassy."

In the square before the cemetery where the official ceremony ended, Mussolini, wearing the black cap and belted jacket of the Fascist Party militia of which he was chief, light trousers, and high-topped, black riding boots, stepped up to the assembled diplomats and asserted, "I thank you, gentlemen, for having wanted to pay a last tribute to a soldier of Italy."

The *Times* reported, "Every city in Italy has its flags at half-staff, and in some ways is taking part in the countrywide mourning."

Italian Aviation Ministry, Rome

On May 28, 1935, a dashing Bruno Mussolini climbs into the cockpit of a military plane at an airfield in Centrocelle, Italy.

Added Romano, "A votive lamp burns on his tomb, placed there by the mothers of the airmen of Lucca. I remember that even the English RAF officers who took part in the farewell ceremony paid homage to my brother by sending flowers [here Romano has apparently confused the then-at-war English officers with the still neutral Americans]."

The dead aviator, whose "glorious death" was portrayed as being a shining example of the regime's most Fascist of the armed forces, was also seen as a believer in his father's credo of "Live dangerously."

The Fascist press announced that Bruno died as "another fallen hero of Fascist youth. Bruno died at his post the same as other soldiers during a volunteer test of a warplane," said the *Tribuna.* Virginio Gayda's *Journal of Italy* eulogized the slain youth, "Because he was the son of the Duce, he always participated in the most dangerous of enterprises."

Concluded the *Times*' account, "Premier Mussolini paid reverence beside the bodies of the two others killed with his son, and talked with the wounded men, gathering details of the crash," which had occurred at San Jiusto at Pisa. Altogether, three men—including Bruno—had been killed, and five more were injured." Reportedly, the four-engine, long-range bomber was going to be used by the Regia Aeronautica against the Soviet air force.

Soon after Radio Rome had announced "Bruno's glorious death at his post of combat," condolences poured in upon the father: from (Italian King and Queen) Victor Emmanuel III and Elena of the House of Savoy, from Pope Pius XII," and many others from Tripartite Pact powers, too.

Nine days after the tragic crash, the *Times* ran a follow-up story headlined: Mussolini's Son Cleared. "The commission of inquiry into the plane accident in which Capt. Bruno Mussolini lost his life issued a report today absolving the Premier's son of any blame. At the same time, it was announced that the gold medal for aeronautic valor had been awarded posthumously to the dead pilot."

When Bruno's widow, Gina, brought their daughter Marina with her to receive her late husband's gold medal, Count Galeazzo Ciano saw in his father-in-law's eye "a light that betrayed everything that his iron will had sought to hide: his heart and his sorrow."

Added the *Times,* "The investigators concluded that the accident was caused by "'the improper functioning of the gas switch, due to the great distance between the motors and the pilot's post.'"

In other words, there was a defect in the design of the P-108 four-motored bomber in which Captain Mussolini met his death. The aircraft in question was the Piaggio P-108 Bombardiere bomber that had a limited production capacity since Italy lacked the industrial base to produce heavy bombers during World War II. The P-108, however, had evolved from the P-50-II, and its prototype first flew in 1939 as a cantilever, low-wing monoplane with retractable tail wheel landing gear and four P.12 radial engines.

There were a series of four planned models for different purposes: antiship attack (with a 4-inch/102mm nose gun), bombing, and for both civil and military transportation. Of these four, only the second version was put into production, as a conventional bomber, and this had a rather unusual layout. The P-108B's most unusual feature was the three-level nose that housed, from bottom to top and from front to rear, the bombardier, nose gunner, and flight crew.

Only about 20 were ever built, and some were later adapted as night aircraft with engine flame dampers and a revised nose construction with less glazing and no gunner's position provided. Thus, the principal P-108B version was also the aircraft's sole production model and was a seven-seat plane that boasted four 1,500 horsepower 35 radial piston engines.

The aircraft's performance provided a maximum speed of 267 mph at 13,780 feet, with a climb altitude rate of 16,405 feet in 21 minutes, a service ceiling of 27,885 feet, and a range of 2,187 miles. When empty, the plane weighed 38,195 pounds. Its maximum takeoff weight was 65,885 pounds. The aircraft's armament consisted of eight 12.7mm trainable machine guns in both nose and ventral engine nacelle turrets, two beam hatches, and a pair of remotely controlled wing barbettes, plus a bomb payload of up to 7,716 pounds.

The P-108 project had begun late in the

1930s to supply the Air Ministry's desire for an Italian long-range bomber. The head of the Piaggio design team was Giovanni Casiraghi, who had just returned from a stint working in the United States. Despite the fact that Piaggio built Fascist Italy's most powerful aircraft engines, the firm also had a deserved reputation for mechanical failures. Casiraghi wanted first to model the P-108 on the American-made Boeing B-17 bomber, and then to surpass it.

In 1938, the first test version appeared, the P-50, with its engines mounted in tandem, and the second version adopted four Piaggio P-11 radial engines. The P-108 first appeared in 1939, with four P-12 engines of 1,350 horsepower each. Having duly surpassed the B-17, the P-108 placed second, however, to the Italian-made Cant Z-1014, but it cost double the amount to manufacture the Cant as it did the P-108, and thus the production contract was awarded to Piaggio.

The first prototype crashed, however, and another was not available until spring 1940. After Captain Mussolini's death, the first combat mission, against British-held Gibraltar, was flown in June 1942, followed by later raids on Algeria and against Allied shipping.

In total, 163 Piaggio P-108s were manufactured, but its production run ended on August 31, 1943, a month after the Duce's political overthrow, when an Allied air raid destroyed the Pontedera plant in Tuscany where it had been constructed

Wrote Romano Mussolini in 2006, "The last time I saw Bruno was in Riccione in the final days of July 1941. I remember my brother Vittorio and I having so much fun with him. Vittorio was 11 years older than me, and he rarely honored us with his company ...

"On this occasion, however, we played ball together and roller-skated along the promenade. Bruno, I remember, slipped, and grazed his knee.

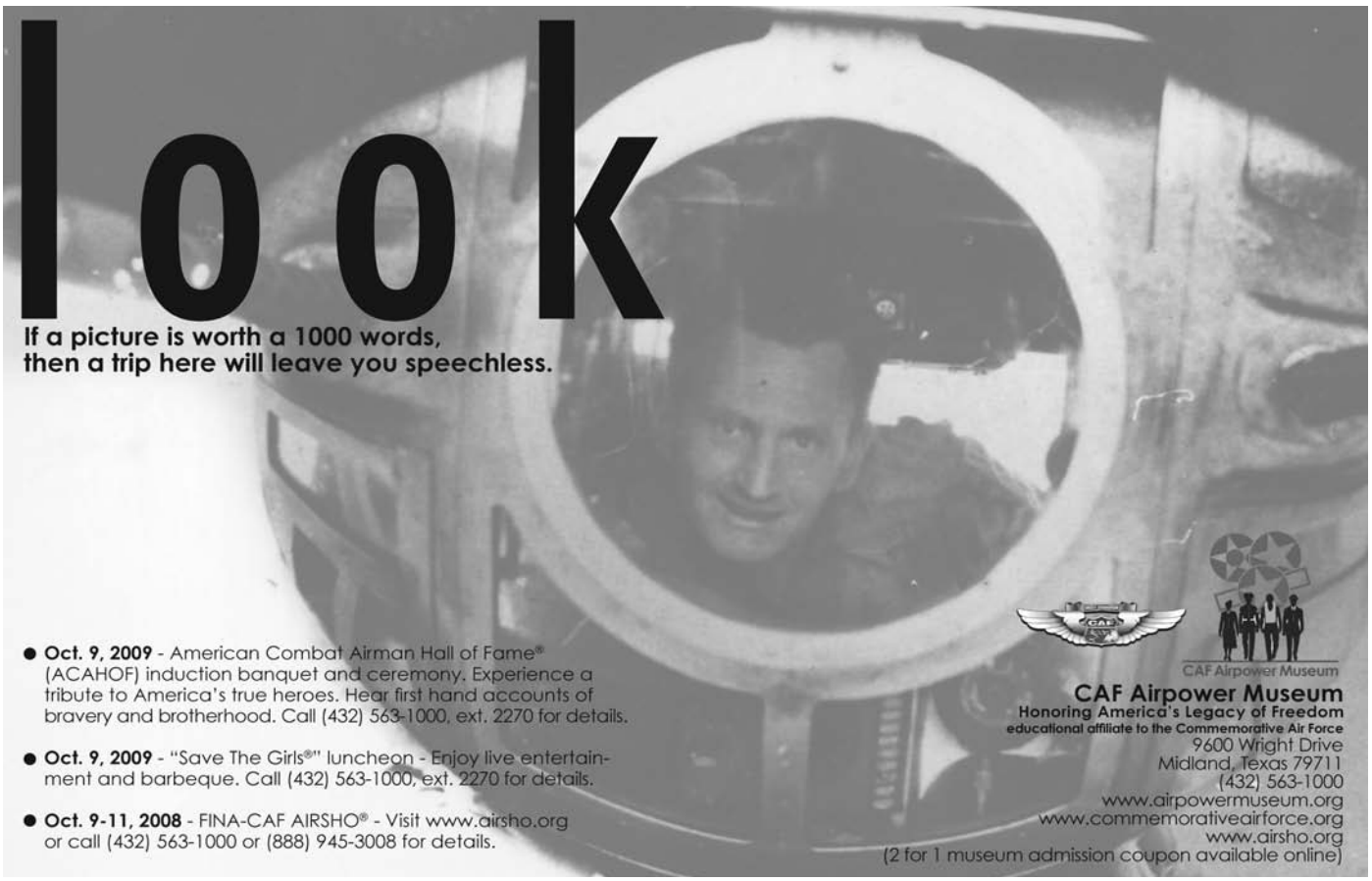
"On Aug. 7, 1941, at 8:50 AM, Bruno took off from the airport in Pisa in the same four-engine plane he had been flying over Riccione a week earlier, and in which he wanted to perform a series of specific flight tests. The large plane labored to lift off the runway, and managed to do so only at the last moment, after hitting a small cottage with one of its wings.

"It then pitched up, and overturned on Bruno's side. Bruno wasn't wearing a protective helmet, and this is probably why he died. The pilot seated next to him—who was wearing a helmet—survived the crash. Four aviators lost their lives in this air disaster along with Bruno. Vittorio was also supposed to be on that airplane, but he had been called to Rome at the last minute, and had decided against joining the flight."

The loss of Captain Bruno Mussolini, the Fascist hero of a trio of wars at the tender combat age of 23, came at an especially vexing time for his father, who was due to meet with Hitler in East Prussia and the German-occupied former Soviet Ukraine in three weeks' time. Moreover, the Fascist Italian "parallel war" at Nazi Germany's side with Great Britain had not been going at all well ever since Il Duce had rashly declared it on June 10, 1940.

Indeed, Mussolini's military decisions were now considered to be even more flawed than before his son's tragic demise. "He had no sense of judgment left," asserted General Pricolo. "He listened to any suggestions put forward," and acceded to one that saw four Italian Army divisions, three infantry and one cavalry, being volunteered to aid his German ally's forces in far-off Russia, even though the Nazis had not asked for them, and despite the fact that Fascist Italy was even then losing its ongoing struggle with the British 8th Army in North Africa.

Later in the war, Il Duce requested that a Catholic Mass be said for his dead son. He also mentioned him in his very last letter to his wife on April 27, 1945, two days before he



Italian Aviation Ministry, Rome

Pilot Bruno Mussolini lost his life when a plane of this type, the Piaggio P108B bomber, crashed near Pisa in August 1941.

was captured and murdered by Italian Communist partisans.

Mussolini even went so far as to publish a small book entitled *I Talk with Bruno,* in which he eulogized the slain aviator as a hero of Fascist hagiography who was virtually unrecognizable to his friends, who remembered him, rather, as the "shy, timid, bullied, wordless, and repressed Bruno" whom they had actually known in life.

Was Mussolini merely behaving as any overwrought father might, given the circumstances? Maybe not, as the premier's widow wrote in 1974: "I ... wonder about the death of our son Bruno ... His plane crashed to the ground on the verge of the runway at the Pisa airport, for some reason which has never been explained. Bruno was a distinguished pilot who had totaled an impressive number of flying hours. He managed to avoid inhabited areas even when his plane was in distress.

"I shall never be quite free of the idea that Bruno—who was also in a position to notice misbehavior and report it to his father—paid for his observations with his life. Whatever one says to the contrary, I saw evidence of too much wickedness to believe that my son's death was only an accident."

The card-playing, music-loving Bruno was credited by Edda in her own 1976 memoirs with having introduced basketball into Italy, and his proud papa even came to see him play once because he was captain of his team. Although he was not known as a particularly affectionate father, leading Bruno to grow up as a somewhat "wordless" youth, Benito did enjoy sometimes shedding his jacket after lunch to play a game of football on the lawn with his three sons, even when mama Rachelle got annoyed at the broken windows!

Athlete Bruno enjoyed racing cars and skiing like his father, and he also boxed. Thrice decorated by Fascist Italy for his flights in both war and peace, Bruno was born at Milan in northern Italy on April 22, 1918, while his wounded World War I veteran father was editing the newspaper *Il Popolo d'Italia* (The People of Italy). Bruno almost did not survive his childhood, however, as he contracted both diptheria and bronchitis in 1919.

During his years of political struggle before being named Italian prime minister late in 1922, Benito sometimes had to hide his wife and children from angry socialists. Young Bruno took Holy Communion for the first time in 1924, when his father was already premier, and his parents were finally married in a religious ceremony in the Roman Catholic Church on December 28, 1925. They had been married in a civil ceremony in 1915.

Benito took his boys to the seashore, and when he lifted little Bruno up in his arms, reportedly, "all the mothers cried." As the boys became teenagers and then young men, however, according to his biographer Laura Fermi, "They lacked intelligence, strength of character, and ambition for posts of responsibility," perhaps a harsh verdict from an avowed anti-Fascist.

Bruno took his first airplane ride when he was but nine, and at 16 in August 1935 was pulled out of school for volunteer service in Il Duce's war with Ethiopia. After an abbreviated training course, he received a pilot's license like his father, older brother, and Count Ciano. Indeed, Il Duce himself pinned on his pilot's golden wings, thus making him the youngest pilot in Italy according to *Time* magazine.

Bruno and Vittorio served as Caproni aircraft pilots in the Aeronautica's famed La Disperata 14th Bomber Squadron, bombing the Adowa battlefield and also defenseless native villages. Count Ciano commanded the 15th Bomber Squadron.

Recalled Romano, "In 1936 ... Bruno had already earned a silver medal for valor in the Ethiopian campaign. In 1937—together with Lt. Col. Attilo Biseo—he set a series of impressive aerial records, risking his life during the Istres-Damascus-Paris air race. The event occurred following a refueling in Damascus, where his S-79 took third position.

"En route to Paris, Bruno and Biseo ran into a violent storm that reached its peak as they were flying over the Alps. I'll quote my brother's account: 'All of a sudden, the flight instruments showed a simultaneous loss of power in three of the S-79's engines. Biseo and I decided not to waste any time, setting course instead for the small airport in Cameri, where we made an emergency landing.'

"My father, who often proudly spoke of his beloved but unfortunate son's adventures, told me the rest of the story: 'The weather was improving, so Bruno was able to set off again for Paris to complete the race at Le Bourget Airport. A few days later, he returned to Italy, where I greeted him officially at Littorio Airport.' My father was exultant, my brother even more so.

"In 1937—again with Biseo—he broke the 1,000 kilometer record with a two-ton load by exceeding a speed of 430 kilometers per hour. This is how the famous Sorci Verdi Squadron was born, with Biseo and several other pilots as members. My father amusingly explained the origin of the squadron name: 'While waiting with Bruno for the new S-79s to be equipped, Bruno addressed the skeptics, who expected little from these aircraft, and said defiantly, 'Go ahead and turn up your noses! When the S-79s begin to fly, we'll give you a hell of a rough time…!'"

During the Spanish Civil War, Fascist Italy sent Italian "volunteers" to fight on the side of Generalissimo Francisco Franco's Nationalists against the Republicans and their Communist allies, and among them was Bruno Mussolini. Romano recalled his late brother's combat service in 2006:

"My brother fought in Spain on Franco's behalf for a month and a half, earning—among other things—another silver medal for valor. The news we received about his accomplishments was often confusing ... An English newspaper even published an article stating that he was dead!

"My mother was constantly afraid. I still remember her heated telephone calls with my father when she learned that Bruno had engaged in a duel with an American pilot, Derek Dickinson, commander of the Red Wings formation.

"If it is, in fact, true that my brother was forced to cede victory because his engine left him in the lurch, he succeeded in landing unharmed only because of a masterful glide on his part.

"Dickinson's Boeing P-26 was riddled with 326 hits, and his hand was wounded. The American pilot spoke about the duel in a series

of interviews to journalists from around the world. The Spanish Civil War was followed with intense interest by the press. Dickinson—assaulted by reporters—embellished his account with ever more astonishing details each time he told it, to the point where he even succeeded in amusing my father."

Back home, young Bruno was thought to be spending too much time in local whorehouses and then was ineffectively sued in 1937 by a poor Roman girl who claimed that he seduced and then abandoned her. Lionized by the press as a genuine Fascist war hero, Bruno also gained unwanted attention when he ran down in his race car an elderly Roman pedestrian named Teresa Velluti. The official police accident report blamed the dead victim for being at fault. Il Duce's son could do no wrong.

In January 1938, Bruno flew with the "Green Mice" from Italy to Brazil, being promoted captain upon his triumphant return home as well as being named general manager of a civilian airline that flew between the homeland and Latin America. That October, the young pilot and airline executive married Gina Ruberti, the daughter of a school inspector and the granddaughter of the Catholic-Fascist minister of finance. Their daughter was born thereafter, and Bruno was also named to the presidency

National Archives

Bruno Mussolini and two fellow pilots seem somewhat relieved to be on the ground after their long flight from Rome to Brazil.

of the Italian Boxing Federation.

Upon Italy's entry into World War II, Captain Mussolini returned to active service in the now obsolete Regia Aeronautica, seeing his first action in a bombing mission in June 1940 over British-held Malta, and that October over Greece. Returning home, he was named to the executive command of the No. 274 Squadron outside Pisa.

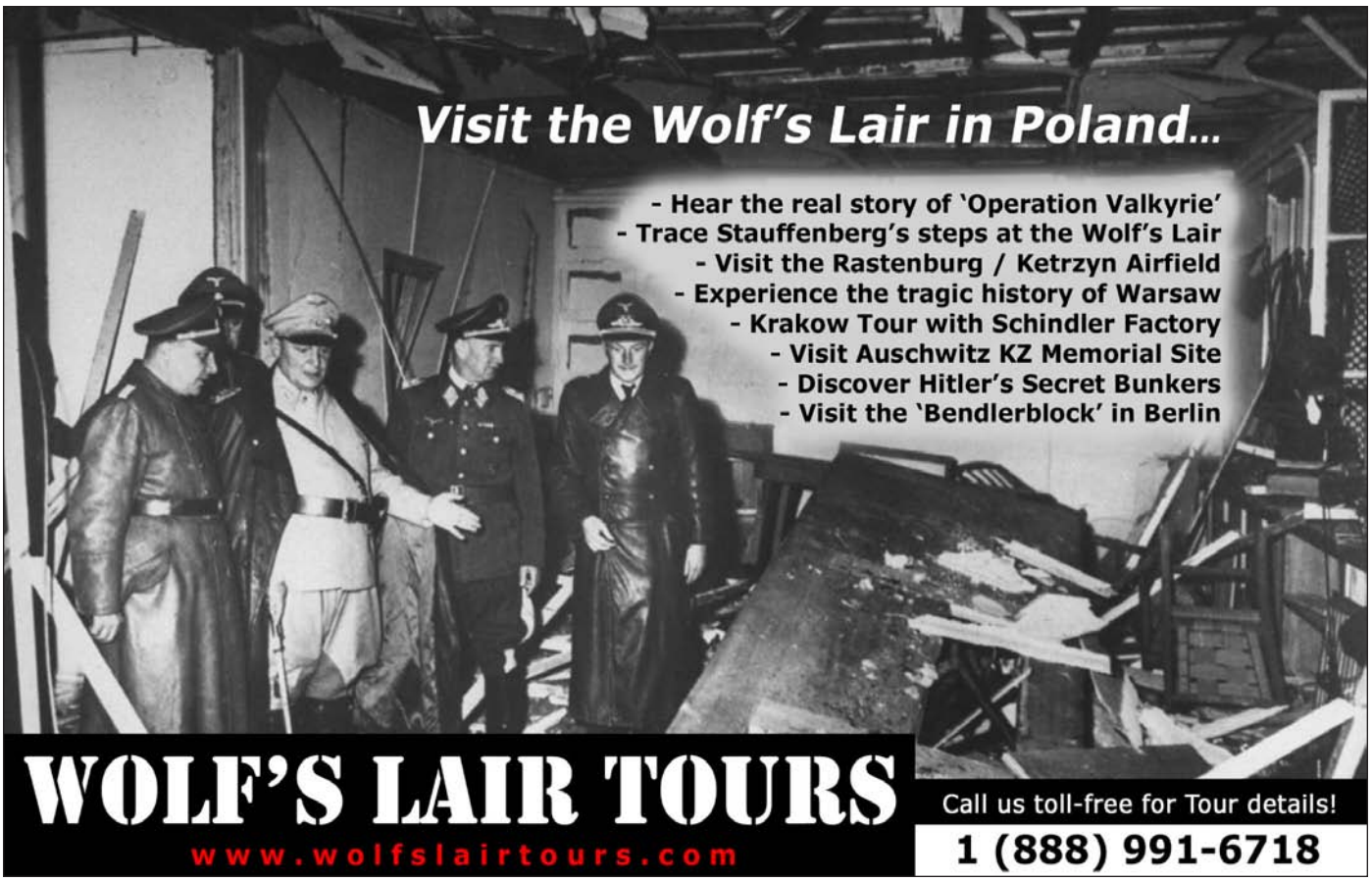
Bruno's death inevitably drew the shattered Duce closer to his remaining two sons, Vittorio and Romano, a jazz musician who died in 2006 at age 79. Three weeks after Bruno's funeral, Mussolini traveled eastward to visit Hitler, who expressed his condolences to his stricken ally. On August 28, 1941, German Reichsmarshal and also fellow aviator Hermann Göring presented the beaming father with a photographic album of his late son's life and career.

Oddly, Bruno's death and most of its aftermath were not covered in perhaps the very best record we have from inside Fascist Italy, the private diaries of the late aviator's brother-in-law, Count Ciano. Ciano was recovering from an operation on his tonsils, which kept him away from his posts during late July-September 1941.

Thus, it remained for the youngest Mussolini male, Romano, to publish the only inside account of his older brother's tragic and sudden death in his excellently detailed 2006 memoir, *My Father Il Duce*.

Laura Fermi's verdict on Captain Bruno Mussolini's death is a bit harsh: "A flight in which no glory was attached, and which had nothing to do with war operations." The former might be true, but not the latter. They also serve who test. □

Towson, Maryland, freelancer Blaine Taylor is the author of six books on the Axis powers during the World War II era, the most recent being his 2007 work Hitler's Headquarters from Beer Hall to Bunker, 1920-45. *In 1996, he published* Fascist Eagle: Italy's Air Marshal Italo Balbo.



A formation of Messerschmitt Me-110 twin-engined fighters serves as escort to bomber formations sent to reduce London to rubble. OPPOSITE: Following the German air raid of September 11, 1940, King George VI and Queen Elizabeth inspect the damage to Buckingham Palace. The raid was a propaganda coup for the British government, which lauded the royal couple as suffering the travails of the common people.

Public Domain

Rain of Terror

The Luftwaffe blitz of London and other major cities tested the mettle of the British people.

BY MICHAEL D. HULL

FIRST, THERE WAS a faint drone, with black specks visible in the sunny sky. Then the drone grew into a thunder, and hundreds of bombers appeared over London.

In the British capital's East End on that afternoon of Saturday, September 7, 1940, people went out into the drab, terraced streets to stare upward. They were horrified to see the Dornier Do-17 and Heinkel He-111 bombers of the German Luftwaffe they had expected a year before, when World War II broke out. The shabby East Enders watched, transfixed and helpless, for a few moments, and then hell came out of the sky.

Bombs whistled down, explosions rocked the city, and many people were killed in an instant. Men, women, and children ran for their neighborhood air raid shelters and subway tunnels as houses, stores, and office buildings burned and collapsed. Bombs tore great craters in the streets and parks.

Whistle-blowing policemen and helmeted air raid wardens bicycled or dashed around, ordering citizens to take cover. Fire engines and ambulances raced back and forth as firemen trained their hoses on burning buildings.

It was a frantic time for the London Fire Brigade. It had been a dry summer, and the level of the River Thames had dropped. There was not enough water with which to fight the blazes. "Send all the bloody pumps you've got!" pleaded a fire officer supervising a 250-acre inferno at the Surrey Docks to his headquarters. "The whole bloody world's on fire!"

More than 300 tons of German bombs smashed a swath through the East End on the first day of the London Blitz.

Eighteen-year-old Len Jones watched shrapnel bouncing off the cobblestones along King Street. "The suction and compression from the high-explosive blasts just pulled and pushed you," he reported. "You could actually feel your eyeballs being sucked out. The suction was so vast, it ripped my shirt. I couldn't get my breath, the smoke was like acid. And these bombers just kept on and on; the whole road was moving, rising, and falling." After an hour, the bombardment stopped. But more was to come.

That afternoon, Reichsmarshal Hermann Göring, the corpulent Luftwaffe commander in chief, had stood with Field Marshal Albert Kesselring, commander of Luftflotte 2, on the cliffs at Cap Blanc Nez, southwest of the French port of Calais, watching a stream of bombers escorted by more than 600 fighters thundering northwestward toward the

ullstein bild

National Archives

ABOVE: A ground crewman prepares a German Junkers Ju-88 bomber for a night attack against an English city during the Blitz. The Ju-88 was fast and highly maneuverable, able to outrun some Allied fighters. The night provided an additional advantage, cloaking the raiders in darkness. BELOW: The interior of a Heinkel He-111 bomber reveals the cramped quarters with which German airmen had to contend during the flights to and from England. The forward gunner, surrounded by plexiglass, appears dangerously exposed to enemy fire.

ullstein bild

London docks. The East End bore the brunt of this and many subsequent German raids. Stepney, Wapping, Canning Town, West Ham, and other East End boroughs were adjacent to strategic targets in London—the docks, serving more ships than any other British port, and armament works, vehicle assembly plants, ironworks, warehouses, and mills.

The severe damage inflicted on the workingclass East End was no accident. Nazi leader Adolf Hitler hoped that the death and injury of civilians might force Prime Minister Winston Churchill to sue for peace, or that the raid would at least cause confusion before the planned invasion of England. Also, the raid was an act of vengeance for the Royal Air Force's retaliatory bombing of Berlin two weeks before. Göring believed that the British would lose "the tiny remainder of their fighters" in the raid.

He was wrong, and the Luftwaffe chief was making one of Germany's crucial blunders of the war. By switching his aerial attacks from Royal Air Force (RAF) airfields, Göring had thrown away his chance of winning the Battle of Britain. While London felt the fury of German bombs, RAF Fighter Command gained some breathing space in which to regroup, patch up its airfields and planes, and be ready for the climax of the Battle of Britain. The Londoners who had watched the dogfight vapor trails high overhead that summer now found themselves on the front line.

Just after 8 PM on that fateful Saturday, September 7, the enemy bombers returned to London. Waves of planes—a total of 318—kept up the attack until 4:30 the following morning. By 10 PM on Saturday, the raid was at its height, with the London docklands lit up by more than a thousand fires. Most of them were out of control, and firemen and citizens perished in the flames and under cascades of rubble.

Two fire watchers stood at the colonnade of St. Paul's Cathedral observing incendiary bombs fall on the city. "It's like the end of the world," said one. The German bombers followed the River Thames, and pillars of smoke guided them easily to the burning docklands. Fires still raging from the afternoon raid illuminated the targets. The East End, a sprawling jumble of docks, warehouses, and Dickensian slums, burned so brightly that the glow in the sky could be seen 30 miles away in northwest Surrey.

Searchlights raked the sky and pinpointed the enemy planes for antiaircraft gun crews, but only two or three raiders were shot down during the night. Barrage balloons lifted a forest of steel cables over London. They were clearly visible in the glowing sky and were not the hazard they were meant to be, but they forced the German planes to fly at a height that diminished their bombing accuracy.

The British capital's docks were now an inferno. Barrels of rum exploded from smashed warehouses, and paint drums flared to white heat. Melting rubber billowed black, choking smoke, and burning sugar cascaded over the wharves and burned on the river surface. Swarms of rats scuttled from burning buildings. Fireboats moved along the Thames, spraying the fiery wharves. But their puny jets were ineffectual against the fires. At the London Docks, the foremen's task was hopeless, and the heat forced their boats back to the Surrey shore.

The biggest blaze of the night raged at the

After a severe German air raid against London on the night of May 10-11, 1940, members of the famed London Fire Brigade bring their hoses to bear on a flaming building in Queen Victoria Street.

National Archives

Surrey Commercial Docks, which had been well worked over by flights of Heinkels. Warehouses, barges, telegraph poles, fences, and even wooden blocks surfacing the roads were burning. Big embers whirled off to start fires several streets away. Beyond, fires engulfed the West and East India Docks. A Royal Navy sailor piloting a small rescue boat along the Thames reported, "Smoke and sparks of all the fires swept in a high wall across the river. It was like a lake in Hell."

The famous Tower Bridge survived this and successive air raids, but a number of other London landmarks would disappear before the war's end. The worst casualties of the night of September 7, 1940, were suffered in the dockland parish of Rotherhithe and in Limehouse and Wapping across the Thames. Entire streets simply disappeared, and families were crushed beneath their falling homes, were burned, or were cut by flying glass. Thousands of homes were destroyed. During that hellish night and within the next few days, London's firemen became frontline veterans and the war's new breed of heroes. Most of them were auxiliaries, and many worked at other jobs. They toiled until exhausted to control the unprecedented fires, keep open evacuation routes, and rescue trapped victims.

During the night raid of September 7, the first of many, almost 2,000 Londoners were killed or wounded. Thousands of East End families were left homeless. The RAF lost 42 planes, and the Luftwaffe 63. When morning came, the fires were still burning. Union Jacks were planted defiantly in the rubble, and signs on the doors of many shattered stores read, "Business as usual." Thousands of dazed survivors shuffled to their collapsed or gutted homes and saved what possessions they could find. They gathered in the center of streets away from falling masonry, and many of them loaded their belongings on pushcarts and trudged off to rest centers or the homes of friends and relatives elsewhere in the city.

London was under siege now, and night after night the melancholy wail of air raid sirens echoed through the historic boroughs. Thousands of Londoners sought nightly refuge in public shelters, Underground stations, or cramped metal Anderson shelters in their backyard gardens. They made themselves as comfortable as possible with blankets, cups of tea and cocoa, sandwiches, and biscuits. They made friends, swapped jokes, played games with their children, sang music hall and national songs, and emerged at dawn when the last all-clear siren sounded.

Some people, for various reasons, made no attempt to go to the shelters when the sirens sounded. Instead, they huddled in closets, under staircases, or beneath sturdy tables, and hoped for the best. A 10-year-old Manchester schoolboy heard his father say, "That's a Jerry; I can tell by the engine." The boy later recalled, "I duly took my cup of tea and squatted between the table legs with my back to the wall. Just as I had settled comfortably, the plane dropped a land mine. There was a tremendous explosion."

After the terrible night of September 7, the Luftwaffe launched a systematic bombing campaign against Britain's other major cities. Sheffield, Birmingham, Manchester, Coventry, Liverpool, Glasgow, Belfast, Bristol, Southampton, Plymouth, Hull, Derby, and Leicester were hammered. The cities were also the locations of vital armaments, aircraft, and steel plants and ports and naval docks. Sticks of bombs, incendiaries, and land mines scourged the cities nightly. Fires raged, masonry fell, familiar land-

marks vanished, double-decker buses lurched into bomb craters, and fire pumps were rendered useless when water mains were damaged. The walls of office buildings and warehouses teetered and toppled as firemen dropped hoses and ran for their lives.

The 1,600-pound German land mines floated down on parachutes, flattening whole city blocks at a time. Firemen, ARP (air raid precaution) wardens, soldiers, rescue squads, and Army UXB (unexploded bomb) teams worked in perilous conditions. Civilians and off-duty servicemen pitched in to help dig victims out of the rubble and tend the wounded. They labored until morning, and they knew that it would all be there to do again the next night. Uncommon heroism became commonplace in Britain's blitzed cities.

Imperial War Museum

ABOVE: Prime Minister Winston Churchill walks out the front door of a bomb-damaged shop in Ramsgate, Kent, following a raid by German bombers on the night of August 28, 1940. Churchill exhorted his people to stand firm against the Nazi aerial onslaught. OPPOSITE: As thick smoke from a raging fire wreaths them, men of the Auxiliary Fire Service attempt to extinguish the blaze after a heavy raid on London during the Blitz.

Although the provincial cities shared the punishment inflicted on London, none of them suffered such prolonged ferocity. Two or three consecutive nights of bombing at a time were more common for them. For London, Sept. 7-8, 1940, was only the first of 57 straight nights of raids—and there were many more to follow.

Night after night, sirens heralded the approach of the German bomber formations. RAF night fighters—Hawker Hurricanes, Boulton-Paul Defiants, Gloster Gladiator biplanes, and Bristol Blenheim light bombers—took off to challenge the raiders. They hunted the enemy blindly, and there was little they could do to prevent the raids.

Searchlight beams knifed and arced across the sky, and the antiaircraft guns thundered. The defense of the cities fell at first almost entirely to the 3-inch, 3.7-inch, and 4.5-inch batteries of Lt. Gen. Sir Frederick Pile's Antiaircraft Command, popularly called "ack-ack." But, as with the RAF, there was little the guns could do. They had no sure way of locating the German planes and no way of firing accurately in the dark.

The sandbagged gun batteries, manned by both men and women of the Royal Artillery, were sited around the major targets. Though their barrages were less than accurate, they were resounding morale builders for the civilians under attack. A 12-year-old London boy reported later how, during the Blitz, "mobile gun units would roar up the road, clamp down, and fire a few salvos before rushing off elsewhere. I don't think they ever shot any enemy planes down, but it helped morale."

On Sunday, September 8, during the second night raid, every railway line into the capital from the south was hit by bombs, but even so, commuters made it to work the following morning. They hitched rides on trucks, rode bicycles, or walked. A young Tooting woman thumbed a lift on a truck and then walked to her insurance office in the City (the financial district). When she saw weary firemen still toiling amid rubble, soot, falling tiles, broken glass, and flaming gas mains, she walked over and handed them her lunch sandwiches.

Each dreary morning, the city dwellers who had survived another night of terror strove to cheer each other with a smile or a joke about Adolf Hitler and to carry on some semblance of normal life. Commuters joined rescue workers for breakfast at mobile canteens; office workers cleaned up damaged furniture and sorted out blast-strewn files; deliverymen picked their way through the rubbled streets with bread and milk, and merchants arranged their wares in windowless stores or on curbsides. The Londoners said, "We can take it," and that phrase became their motto in the stern months of 1940-1941 when Britain stood alone against the Axis powers.

In the first half of September 1940, 2,000 civilians were killed and about 8,000 injured. Eighty percent of the casualties were in London. The toll rose steadily. In the third week of that month, 1,500 civilians died—1,300 of them in the capital. During the whole month, 6,954 people were killed, the majority in London. Many Cockneys (city natives) began to feel disgruntled about their ordeal, while more fashionable areas of London—Knightsbridge, Chelsea, Mayfair, and Westminster—escaped the full weight of German bombs. Strict government censorship was in force, and reports of damage locations and casualties were deleted from local newspapers and foreign correspondents' cables.

Soldiers in London regiments stationed in other parts of the country fretted about the fate of their families and homes. Morale sagged. Then, just when there were fears that the usually good-natured Cockneys were growing increasingly restive, and after a procession of angry East End residents had marched in protest to the posh Savoy Hotel in the West End, the Luftwaffe ironically provided a godsend on September 10. Through a navigational fault, a flight of German bombers, on its way

to hit the docklands, veered off course and dropped its bombs on Chelsea and Victoria Station on the fashionable side of London.

One of the bombs hit the northern side of Buckingham Palace, where King George VI, Queen Elizabeth, and their two daughters, Elizabeth and Margaret Rose, were in residence. They had a narrow escape when the bomb exploded in the courtyard. The censors promptly blacked out the story, but Prime Minister Churchill learned of it and was enraged. "Dolts, idiots, stupid fools!" he stormed. "Spread the news at once. Let the humble people of London know that they are not alone, and that the king and queen are sharing their perils with them."

As the gracious royal couple picked their way through the palace rubble the next morning, the queen said, "I'm glad we've been bombed. It makes me feel I can look the East End in the face." When the royal pair later toured bombed out areas of the city, they were greeted with cheers and waving flags. The bombing of the palace boosted national morale by emphasizing the people's common plight.

A new spirit of determination took hold of the Londoners as they endured the nightly raids, and an American journalist reported it all to his radio audience across the Atlantic. On a late September afternoon, Edward R. Murrow, chief European correspondent for CBS Radio, gazed at London from a rooftop. That night, in his resonant, slightly sardonic voice, he began one of his famous broadcasts: "This … is London. I saw many flags flying from staffs. No one told these people to put out the flag. They simply feel like flying the Union Jack above their roof. No flag up there was white."

Nothing captured the drama of a great city under siege more vividly for millions of American listeners than did the broadcasts of the eloquent North Carolinian, who strode about London in a rumpled raincoat and rakish homburg, staying away from air raid shelters because "once you start going into shelters, you lose your nerve." As a Luftwaffe bomber approached his rooftop observation post one night, Murrow reported, "Off to my left, I can just see that faint-red angry snap of antiaircraft bursts. Four searchlights are swinging over in this general direction. The plane's still very high. The searchlights now are feeling almost directly overhead. Now you'll hear two bursts a little nearer in a moment. There they are! That hard, stony sound."

Murrow was impressed by the many unsung heroes he met, such as the soldiers sifting carefully through debris for possible survivors.

Imperial War Museum

"They paid no attention to the bursts of antiaircraft fire overhead as they bent their backs and carried away basketfuls of mortar and brick," he reported. "A few small steam shovels would help, but all the modern instruments seem to be overhead. Down here on the ground, people must work with their hands."

Night after night, the bombs fell, the RAF night fighters took off, searchlights probed the sky, and the Bofors guns boomed. Hundreds of ack-ack guns now ringed London, and several batteries were set up in Hyde Park, "where people can hear them blast off," as Churchill put it. London was taking it and carrying on, no matter how much destruction the Luftwaffe wrought. Rosemary Black, a young war widow, looked through her shattered windows in Hampstead and wrote wryly in her diary, "The papers now say that London has taken the worst punishment from bombing in the history of warfare, even worse than Rotterdam. We are all delighted to hear this."

The autumn leaves began to fall, and the nights grew misty and cooler. Still the sirens wailed, and still the people braced. For many, it was one sleepless night after another as incendiary fires lit up the sky and bombs shook the old city. Forty-four percent of Londoners spent the nights in their homes or garden shelters, and another 44 percent went to public shelters. For most of the latter, this meant the Underground stations. Because there were not enough large, deep public shelters, more and more people had started seeking refuge in the city's subway system. The movement had started in the East End and spread across the capital.

Every evening, as dusk fell and sirens heralded the coming of German aircraft, thousands of men, women, and children streamed into the Underground stations clutching blankets, food, and drink. They rode the escalators to the platforms below and settled in for the night. The trains kept running until around midnight, and travelers had to pick their way among the families sprawled across the platforms. By late September 1940, an estimated 177,000 Londoners were spending their nights underground. They calmly arranged their bedding on the station platforms and chatted, read, played cards, or napped as best they could. Middle-aged wives and widows of the Women's Voluntary Service dispensed sandwiches and mugs of tea.

The Underground dwellers listened to the muffled thunder of bomb blasts and ack-ack guns, and cheered each other by telling bad jokes about Hitler and Göring and singing such popular songs as "Roll Out the Barrel," "Tipperary," "I've Got a Sixpence," "Run Rabbit Run," "The Lambeth Walk," "Hey Little Hen," "Pack Up Your Troubles in Your Old Kit-Bag," and "Bless 'Em All."

Many of the Underground stations' nightly tenants arranged their own amusements, usually sing-alongs and performances by buskers, the musicians who traditionally performed on the streets for people lined up outside theaters and cinemas. At the Aldwych station in the heart of London's theater district, such famous stars as Laurence Olivier, Vivien Leigh, and songwriter-vocalist Ivor Novello arrived after their evening performances to present impromptu songs and sketches.

On the clear, moonlit night of November 14, 1940, a force of 439 Heinkel He-111 bombers droned over Lincolnshire and headed for the arms plants in and around Coventry. At 7:20 PM, 10 pathfinder planes dropped more than a thousand incendiary bombs in the center of the old city. The fires acted like a mammoth beacon for the main German force. The raiders dropped 511 tons of high-explosive bombs, land mines, and incendiaries. They targeted the factories, most of which were located in residential areas. Sixty thousand buildings were damaged, including 111 factories (12 were aircraft plants), 600 stores, 121 office buildings, 28 hotels, and all of the city's railway lines. Much of Coventry was an inferno.

Fires burned out of control, historic buildings collapsed, and rescue teams worked feverishly to reach people trapped in ruined homes. The heart of the city was wiped out. Hospitals were destroyed, centuries-old timbered buildings burned like matchwood, and the devastation of Coventry Cathedral became a symbol of German ruthlessness. The raid claimed 568 civilians dead and 1,256 injured. Of the dead,

165 were so mutilated or charred that they could not be identified and were buried in a common grave.

Coventry was poorly defended. The city had 40 ack-ack guns reinforced by light guns and mobile batteries, and the RAF flew 120 sorties against the raiders. But only one enemy plane was downed. An official report quoted a survivor as declaring, "Coventry is finished." The city's morale was, in fact, battered, yet the workers in the weapons and aircraft plants soon restored and even increased production.

Soon after the Coventry raid, London again felt the awesome power of the Luftwaffe's parachute mines. At Portland Place in the West End, a parachute mine blew up a wing of the British Broadcasting Corp. building, destroyed a hotel, and flattened the surrounding area. Other such mines devastated large areas in Hammersmith, Chelsea, and the City. Some mines and bombs failed to detonate, and hastily recruited two-man teams of technicians were dispatched to defuse them. It was a perilous task that called for courage of the highest order.

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Looking for the fuse of an unexploded 1,200-pound bomb dropped during a German raid on November 25, 1941, Lieutenant R. Davies of London's Bomb Disposal Unit displays nerves of steel. Davies was also credited with saving St. Paul's Cathedral from serious damage by defusing another German bomb.

In the week after the Coventry onslaught, the Birmingham arms factories were targeted. About 900 civilians were killed and almost 2,000 wounded there. Three weeks later, Birmingham was devastated again. Six churches, 11 schools, two cinemas, a hospital, and a crowded air raid shelter were hit. The German raids became more indiscriminate. Shortly before Christmas 1940, the great industrial cities of Sheffield, Manchester, Liverpool, and Hull were targeted by Luftwaffe bombs.

In Sheffield, fire engines were hampered because many streets were blocked by trams (streetcars) welded to their rails by the fierce heat of the fires. Manchester and Liverpool were hit by 250 enemy bombers, and in Manchester five hospitals, three hotels, 20 churches, a theater, a store block, two large air raid shelters, and 11 railway bridges were destroyed. The raids brought hardship to thousands. A Merseyside girl left a shelter one morning for home and found "there was no home." She reported, "All that was left was a pile of bricks. We had nowhere to live except the shelter, and that was to be our home for six months. We had our meals at different relations."

Homelessness was widespread. More than a million homes were ruined or damaged in London, while in the busy port of Hull, a frequent target, 87,000 homes were bombed. Across the whole part of the country attacked by the Luftwaffe almost four million out of 13 million homes were damaged and 200,000 destroyed.

As soon as the German bombers turned away and the all-clear sirens wailed, teams of helmeted, short-sleeved rescue workers got busy digging through the wreckage and rubble for trapped people. They used picks, shovels, and bare hands, and it was backbreaking work that usually continued night and day. They pulled on ropes and used long poles as battering rams to knock down shaky walls, and as they toiled there was the danger of injury or death from falling beams and masonry, and from broken gas mains.

The rescuers listened hard for sounds of life and movements in the rubble. If they heard nothing, they would start sniffing like dogs for the smell of blood. Besides police officers, firemen, and off-duty servicemen, the rescue squads usually comprised plumbers, carpenters, and electricians, and there were countless reports of their tenacity. In London, rescuers dug for 18 hours to locate an injured woman in the cellar of her demolished house. If the buried victim happened to be a child, they continued their efforts for days. One 12-year-old girl was rescued from the ruins of her home after having been buried for four and a half days and nights.

King George, Queen Elizabeth, and Prime Minister Churchill paid many visits to badly bombed districts to assess the damage and cheer the citizens. After one of his walking tours, Churchill wrote, "In all my life, I have never been treated with so much kindness as by the people who have suffered most. One would have thought that I had brought them some fine substantial benefit which would improve their lot in life. When we got back in the car, a harsher mood swept over this haggard crowd. 'Give it 'em back,' they cried. 'Let 'em have it, too.'"

There was a lull in the bombing during Christmas 1940, when the dwellers in the Underground stations decorated makeshift trees and sang traditional carols like "Once in Royal David's City," "Good King Wenceslas," and "O Holy Night." Then came one of the most severe raids on the British capital. December 29 was a quiet Sunday at the end of the Christmas week—until the Luftwaffe formations returned and the sirens echoed shortly before 7 PM.

It was not a major raid from the German viewpoint, with only 136 bombers reaching the target. But they dropped 127 tons of high-explosive bombs and 613 canisters of incendiaries that started 1,500 fires. There were conflagrations in Finsbury, Stepney, and Shoreditch, but more than 1,400 of them erupted in the City. Many of the fires merged to produce two huge infernos, and the whole area between St. Paul's Cathedral and the Guildhall burned. It was the second Great Fire of London.

In spite of government appeals, many City office blocks and warehouses were securely locked against burglars, and many of them had no fire watchers on duty to douse the incendiaries as soon as they landed. Almost all of the churches were locked and unguarded, except for the majestic St. Paul's Cathedral, Sir Christopher Wren's masterpiece. Fire engines rushed to the area, but their crews found themselves confronted by a vast sea of flame. A westerly 50 mile-per-hour wind fanned the flames, and the firemen were unable to draw enough water pressure. Major water mains had been damaged by bombs, and the Thames was at an unusually low ebb that evening.

The raid was a short one, lasting for a couple of hours. The enemy bombers would return later that night, but bad weather was closing in on their bases. Meanwhile, London's financial district burned furiously. Eight churches designed by Wren were destroyed, as well as the Guildhall. Guy's Hospital had to be evacuated; the Central Telegraph Office, the General Post Office telecommunications center, and three city telephone exchanges were put out of action, and five railway stations and 16 Underground stations were closed.

Miraculously, St. Paul's Cathedral was spared. Fire and smoke swirled around it, and the famous dome was hit by sticks of incendiaries, but the fire watchers there—deans, curates, vestrymen, laymen, architects, and other volunteers—fought hard to dampen every fire that broke out.

The year 1941 dawned bleakly for Britons. Large areas of all major cities lay in rubble. The people were weary; they had taken too much for too long. Food and most other essentials were severely rationed. The average family was lucky to eat meat once a week; oranges and bananas had not been seen for months, and there was even a distressing shortage of tea, the national beverage.

There was a bright note, however. Gradually, the island's defenders became able to hit back at the enemy more effectively. With new radar-equipped Bristol Beaufighters, the RAF could now, as Churchill said, "claw the Hun out of the sky." The year 1941 brought more raids, though the Luftwaffe offensive appeared to be losing steam. German losses were increasing, and the British were not collapsing as the Nazi high command had predicted. Nor were the continued raids having a serious effect on British war production.

But the sirens still sounded, and Britons still looked upward with apprehension. The naval port of Plymouth was hammered by bombs in March and April, and the busy Clydebank shipyards were raided on two successive nights that March. The workers and inhabitants fled to the nearby moors when the bombers approached and returned for work in the morning.

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In the aftermath of an August 1941 air raid on a London suburb, a dog named Rip helps an Air Raid Precautions warden during the search for survivors. Dogs were often able to find victims of German bombing who had been buried beneath tons of rubble.

On March 19, bombs killed 750 civilians in London. That May, Liverpool suffered eight successive nights of bombing, while Bristol, Cardiff, Southampton, and the great naval base of Portsmouth were blitzed repeatedly. Meanwhile, bombs continued to fall on Newcastle, Hull, Belfast, and Nottingham. The raids reached a new peak in the second half of April 1941, and Coventry, Bristol, Belfast, Portsmouth, and Plymouth were again devastated.

At 11 PM on Saturday, May 10, sirens began to wail all over London, and the capital was subjected to its most damaging attack of the year and what would turn out to be its last mass bomber raid. During 541 sorties from 11:30 that Saturday night to 5:37 on Sunday morning, the German planes killed more than 1,400 civilians, destroyed 5,000 houses, and left 12,000 people homeless, some of them for the second or third time. Intense ack-ack fire kept the bombers flying high, but they nevertheless inflicted severe damage all over the city. More than 2,200 fires were reported during the night, and for a time 700 city acres were ablaze. The glow of the fires lit the London sky for three days.

Bombs damaged the houses of Parliament, Westminster Abbey, Big Ben, the British Museum, and Westminster Hall and Westminster School. Other bombs hit Scotland Yard, the Salvation Army headquarters, and every main line railway station in the capital. Five hospitals were hit, and every church in the city was damaged or destroyed. The Luftwaffe lost 14 planes.

The long months of bombing raids had begun to wane, and Britons began to enjoy some quiet if uneasy nights. They wondered now what Hitler was up to, and on June 22, 1941, they got their answer when German armies invaded Russia. Although air raids continued sporadically, with York, Exeter, Bath, and Canterbury heavily damaged in March-April 1942, the pressure was off the damp, green, little island and its stubborn people.

The battle for Britain had been won—by careful government planning, by the skillful deployment of limited resources, by technological advances, and above all by the courage of airmen, soldiers, firemen, rescue workers, and ordinary citizens. They had proved that a free people cannot be defeated by airpower alone. □

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BY PAUL FARACE

Rescue at Ladd Reef

Public Domain

A unique sub-to-sub rescue forges unbreakable bonds between U.S. and Dutch submariners in the closing days of World War II.

As the submarine USS *Cod* left Apra harbor, Guam, on the afternoon of June 26, 1945, for her seventh war patrol, her crew of 97 officers and enlisted men were all but certain that their new assignment was to be junk hunting—a thankless and dangerous job that in the words of one *Cod* crewman saw "Uncle Sam risk a seven million dollar submarine and crew to sink a leaky sailboat not worth more than $20,000!" But what lay ahead for *Cod* was a rendezvous with history—and a rescue that would unite submariners of two nations in lifelong bonds of friendship that are remembered 63 years later.

On that early summer day in 1945, thoughts of making history took a back seat to simple survival. A torpedo fire on *Cod*'s previous patrol had nearly caused the loss of the boat and all hands. Three crewmen fought blinding smoke to load and fire the burning electric fish even as the intense heat caused the Torpex explosive in its warhead to melt and begin dripping onto the deck—a prelude to detonation. Despite the timely ejection of the torpedo, *Cod* suffered the loss of one of her crewmen who drowned after being washed overboard attempting to fight the fire. After a patrol like that, the men aboard *Cod* hoped patrol number seven would be a gravy run.

Junk hunting was not a gravy run. After four years of unrestricted submarine warfare, Japan's merchant fleet was decimated. In an act of desperation the Japanese forced native junks plying the coastal waters of the South China Sea to carry tiny cargoes consisting of a few dozen barrels of oil, blankets, rice, or horseshoes to their bypassed garrisons. U.S. subs were compelled to venture into shallow coastal waters to inspect and sink these contraband- carrying junks even as enemy pilots learned to home in on the thick columns of black smoke rising from the burning junks to find a U.S. sub racing for deep water—and survival.

Frequent fire control drills and practice dives kept *Cod*'s crew busy as her diesels drove her toward Batan Island. But no crew is ever too busy for scuttlebutt, and it quickly became known among the crew that few of *Cod*'s sizable cadre of plankowners were happy to risk their necks for the paltry payoff offered by junk raiding. These old hands, who had the most friends on the mounting number of boats declared "overdue and presumed lost," were also uneasy about *Cod*'s new skipper, Edwin M. Westbrook, a veteran of seven patrols in obsolete S-boats. Several of the graybeards felt the young lieutenant commander might be too eager to make his mark in the war—at their expense.

A radio dispatch from the commander of Task Force 71 (CTF-71) decoded on the evening of July 1 assigned *Cod* a junk patrol station off Cam Ranh Bay, French Indochina. The crew's fears were realized. This was prime junk territory, and the few Japanese *marus* transiting the area were well protected by seasoned escorts and nearly continuous air cover.

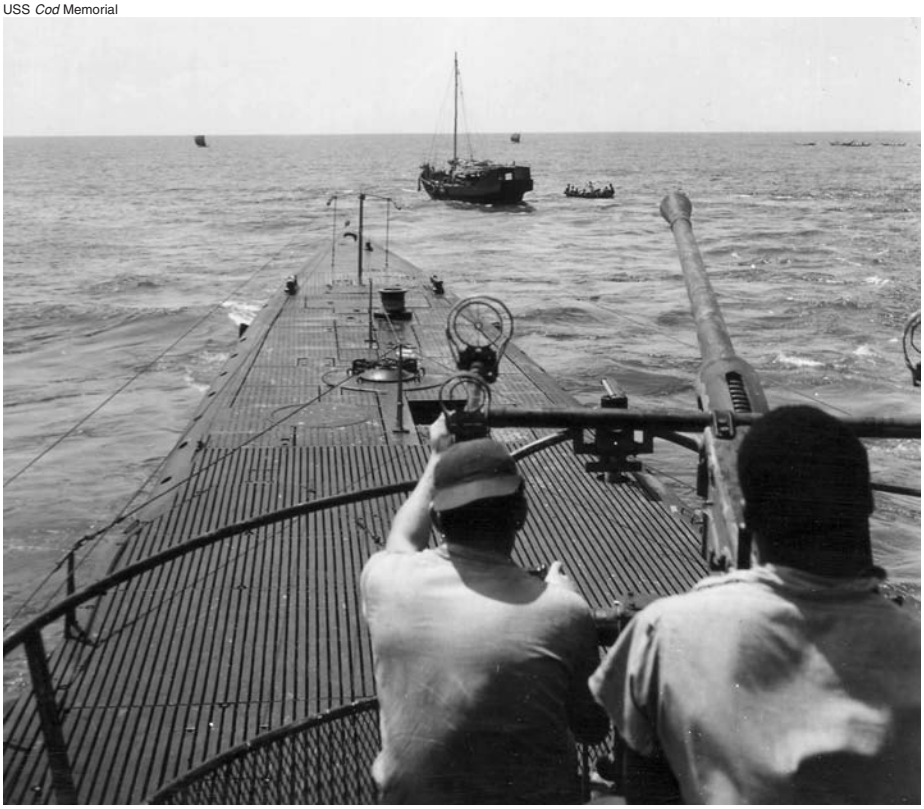
The scuttlebutt aboard *Cod* abruptly changed as news spread about the poor health of one of the new men aboard, Jack Hemphill, fireman second class, who had transferred aboard from one of the relief crews in Guam. Hemphill had not felt well since he was part of the painting gang preparing *Cod* for patrol. Now, after six days at sea, he began suffering acute nausea. Robert M. Purtill, a chief pharmacist mate aboard *Cod*, evaluated Hemphill and reported his diagnosis to Westbrook: acute lead poisoning.

Hemphill was relieved of duties and was confined to his bunk. Over the next several days his condition worsened as his body began swelling like a balloon. Purtill began feeding his patient intravenously and started administering sulfa drugs, but his patient continued to deteriorate.

A crewman aboard the USS *Cod* snapped this photograph with a small camera as the submarine's two tiny boats departed the stranded Dutch submarine *O-19* with a load of rescued seamen. LEFT: The bow of the Dutch submarine *O-19* juts from the water as the vessel lies trapped after running aground on a coral reef in the Pacific.

USS *Cod* Memorial

USS *Cod* Memorial



USS *Cod* Memorial

ABOVE: With sailors manning a deck gun, the crew of the submarine USS *Cod* prepares to investigate a suspicious junk in the waters of the South China Sea. RIGHT: At the beginning of the seventh war patrol of the USS *Cod,* officers relieve the stress with a game of poker. Seated, left to right, are Lieutenant T.C. Hurst; Lieutenant Ken Beckman, executive officer; Lieutenant Commander Edwin Westbrook, the boat's commanding officer; an Australian Army coastwatcher who is being transported to a forward area; Lieutenant Charles Podorean; and Lieutenant (j.g.) Fred Krubel.

The outlook for a successful patrol seemed gloomy as well. Army B-24 Liberator bombers scouting ahead of *Cod*'s course told Westbrook that no enemy shipping was to be found. On the evening of July 5, *Cod* arrived in the vicinity of Cape Padoran and established communication with the submarine USS *Besugo*. After learning that *Besugo* had spent three fruitless weeks patrolling the area, *Cod* relieved her sister sub, and in the words of Westbrook's patrol report entry, "bid her farewell and took-up our lonely vigil."

July 6 passed with only the sightings of a friendly B-24 and numerous local fishing boats. Hemphill, lying in his bunk in the submarine's cramped after-battery berthing compartment, began complaining of even more severe swelling and pain in his right lumbar region. Purtill, running out of treatment options for his patient, began administering doses of an unfamiliar drug, penicillin, from *Cod*'s medical locker. Westbrook decided Hemphill's grave situation warranted a radio dispatch to CTF-71. The message was encoded and transmitted just after midnight on July 7.

Cod spent the daylight portion of July 7 submerged, patrolling three miles off the boundary of the plotted enemy minefields protecting Cam Ranh Bay. Westbrook surfaced *Cod* just after sunset. Within 20 minutes the sub was charging eastward after receiving a dispatch from CTF-71 ordering *Cod* to proceed to Subic Bay, Philippines, so Navy doctors there could treat Hemphill. Throughout the night of July 7, the 312-foot submarine drove through the South China Sea to get Hemphill to a doctor.

At 6:46 AM on July 8, *Cod*'s radio shack received a startling message from CTF-71 informing *Cod* that the Dutch submarine *O-19* had run aground on Ladd Reef, more than 200 miles from her present position. *Cod* was directed to change course for the reef and lend all assistance possible to the stranded Allied sub. Purtill was quickly called to the wardroom where Westbrook asked for good news regarding the sick crewman. Purtill's last check on Hemphill had found him in terrible pain, but the regular doses of penicillin had begun to show slight success in reducing the crewman's discomfort. Grasping at the slim bit of good news, Westbrook felt that risking the life of one of his crewmen for an entire crew of Dutch submariners might be a worthwhile gamble. Within minutes, the gyrocompass repeaters aboard *Cod* swung to a new heading as the sub drove toward Ladd Reef at four-engine speed.

The scuttlebutt aboard *Cod* now focused intently on the latest news of their sick shipmate. As *Cod* made her daylight dash across the South China Sea, two air contacts on the boat's air search radar clearly indicated that the skies overhead could not be relied upon as friendly, even at this late stage of the war. The first contact spotted did not respond to Cod's IFF (identification friend of foe) inquiry, but a second contact 20 minutes later flashed a positive IFF signal. No further contacts, either aircraft or surface, were made that afternoon as the distance closed between the two Allied subs.

Without a clear picture of the situation aboard the grounded Dutch sub, Westbrook prepared to bring the Dutch crew immediately aboard. He assembled a rescue team armed with heaving lines, two of *Cod*'s inflatable boats, and all of her life rings. Below deck *Cod*'s cooks prepared large quantities of hot soup and coffee while empty bunks and dry clothes were readied.

At 8:35 in the fading light of July 8, the dark shape of a submarine loomed in the distance, surrounded by whitecaps breaking over the coral fingers of Ladd Reef. A signal light flashed from the *O-19* giving her exact location on the reef. Hopes of a quick crew transfer for the sake of Hemphill faded as a second message soon blinked across the darkening waters asking that *Cod* attempt a tow at dawn. Before backing *Cod* away from the treacherous reef currents, Westbrook signaled his Dutch counterpart that they would see each other again at dawn. The skipper of *O-19*, J.F. Drijfhout van Hooff, indicated that he had not lost his sense of humor in his dire situation by signaling back, "We will certainly be here."

In *Cod*'s after-battery, Hemphill lay still in his rack, attended by volunteer nurses recruited from among off-duty shipmates.

As the sky in the east brightened with the coming dawn on July 9, *Cod* raised her keel-mounted sound gear and pit sword, flooded down at the bow, and cautiously commenced a bow-on approach to the stricken sub. Powerful reef currents that continuously pulled *Cod* to the east made a stern tow impossible. With less

than 500 yards between the boats, *Cod*'s deck watch was blinded by a terrific rain squall that reduced visibility to less than 200 yards for more than an hour. At 7:21 the rain abated, revealing to Westbrook the sight of a submarine hopelessly aground. Empathizing with his Dutch counterpart, Westbrook was determined to give the towing attempt his best effort.

At 8:06, *Cod*'s deck crew received the first line from *O-19* attached to a length of new 1½-inch stainless steel cable that was secured through *Cod*'s bullnose. At 8:35 on the rising tide, both boats began backing as gunners aboard *O-19* commenced rapidly firing their 88mm deck gun in a desperate attempt to jar their boat from the grip of the reef. At 8:40, the stainless steel line parted with a loud crack.

As crewmen aboard the subs attempted to recover the parted ends of the cable, *Cod*'s SD radar announced the approach of an aircraft that offered no IFF signal. Lookouts aboard both subs nervously scanned the skies for five long minutes until the contact could be identified as an Army B-24. Using *Cod*'s short-range VHF voice radio, Westbrook learned that the aircraft was part of an air umbrella ordered by CTF-71 to safeguard the rescue effort. A Navy PB4Y-2 Privateer electronic surveillance aircraft soon joined the B-24.

At 11:55, with the repaired cable in place, both boats began backing again for a second attempt. Within a minute, the cable broke a second time. Crewmen aboard both boats scrambled to retrieve their ends of the cable as Westbrook ordered his executive officer, Lieutenant Ken Beckman, to take one of *Cod*'s rubber boats and confer with the Dutch skipper.

Arriving aboard the *O-19,* Beckman learned the crew of *O-19* had become very resourceful in their efforts to free their boat. All ballast had been pumped overboard or moved to the stern, the bow torpedoes and all spare equipment now littered the reef around the *O-19*. During the first two tow attempts, massive Kingston valves were closed to seal the ballast tanks of the *O-19* as her low-pressure blowers pressurized them as much as possible. When quickly opened, the Kingston valves explosively released the entrapped air, rocking the 262-foot-long sub a few inches. But Beckman also realized that an unusual offensive feature of the Dutch boat—20 vertical minelaying chutes in her ballast tanks—now doomed her. Coral outcroppings on the reef had penetrated the bottoms of many of the chutes, holding the *O-19* in a death grip.

O-19's officers had one last plan to free their boat, and at 2:16 PM, Drijfhout van Hooff arrived aboard *Cod* to pitch his idea to Westbrook. The *O-19*'s anchor chain could be wrapped around her conning tower and fixed to *Cod* for a final tug attempt during the next morning's high tide. Westbrook was certain that even if the plan worked the chain would likely inflict severe structural damage to the Dutch sub. With the insurance of constant air coverage, Westbrook agreed to try.

Cod's bow maneuvered to within 10 feet of the *O-19*'s stern to allow the Dutch sub's heavy anchor chain to be taken aboard and prepared for use as a towing line. The powerful currents allowed Westbrook to maintain his position for no more than 20 minutes before he was forced to back off and come in for another approach. Crewmen on *Cod*'s bow took constant soundings. The jagged bottom was never more than three fathoms away.

At 4:05 PM, the Dutch skipper returned to his stranded sub, and a cable attached to the anchor chain was passed back aboard *O-19*. The crew of the *O-19* quickly realized their sub's capstan was unable to lift the 80-fathom length of chain and requested *Cod* lift it for them. Unwilling to risk the safety of *Cod* in the shifting currents of the reef with daylight quickly fading, Westbrook signaled to Drijfhout van Hooff that he would return to lift the chain in the morning. He then moved *Cod* several miles off the reef for the night.

The night's scuttlebutt included high marks from the old hands for Westbrook's expert boat handling abilities while fighting the reef currents. The other good news came from Purtill. Patient Hemphill was greatly improved and was able to sit for a short time at one of the tables in the crew's mess. But Purtill had a new medical crisis to deal with—many of the men handling lines topside throughout the day became severely sunburned. Unaccustomed to dealing with equatorial sunshine on submarine war patrols, many of *Cod*'s topside crew shed their foul-weather gear after the morning's rainsquall passed. By the time the light overcast gave way to full sunshine, few realized their

USS *Cod* Memorial

National Archives

ABOVE: Several attempts to free the Dutch submarine *O-19* from the reef on which it had run aground proved unsuccessful. In this photo, American sailors watch the progress in attaching a towline to the marooned vessel. TOP: The USS *Cod* rests at anchor during a lull in her wartime duties.

USS *Cod* Memorial

beet-red skin had already absorbed too much sun. Lieutenant Charles Podorean, *Cod*'s gunnery and torpedo officer, spent most of the day topside wearing only boxer shorts and sandals. Now, as he climbed into his stateroom bunk to sleep, his body shook violently with chills as he tried to fight off the accompanying nausea.

Westbrook finished his breakfast in the wardroom and was on *Cod*'s bridge by 5:47 on the morning of July 10. By 7:15, the first manila line from *O-19* landed on *Cod*'s forward deck as her crew prepared to lift the Dutchman's anchor chain. But Westbrook realized that conditions on the reef had deteriorated overnight—even more powerful currents were pulling *Cod* out of position faster than they did on the previous day. Several hours passed as the murderous currents repeatedly snagged the chain towline on jagged coral outcroppings. Life jackets were inflated and tied to the end of the towline as a marker in an attempt to speed the retrieval process each time *Cod* was forced to drop the line and pull back to make a new approach.

At 9:50 AM, the day's air cover, a PBY Catalina flying boat, made its presence known to the Allied subs below with a low pass over the reef.

Several *Cod* crewmen were put over the side in a rubber boat in an attempt to free the towing rig, which consisted of the bitter end of the *O-19*'s chain, a segment of manila mooring line, and 20 fathoms of 21-thread rope. Westbrook, his nerves frayed by the constant maneuvering, was now chain-smoking as he backed clear once more and began yet another approach to the *O-19*—his final attempt, he declared to the bridge watch.

USS *Cod* Memorial

The fouled rigging was finally freed from the grip of the reef and secured around *Cod*'s bow capstan, which began taking up tension. Crewmen aboard the two subs stared intently as the towing rig was pulled from the water between the two boats. Then at 11:45, just as *Cod* put high tension on the line, it parted for the last time, sealing the fate of the *O-19*.

Cod crewmen stared in silence across the dozen yards of open water at their Dutch counterparts. Most of the Dutch crew was now topside, motionless, staring at what remained visible of the severed towline.

Westbrook ordered a message flashed to his Dutch counterpart: "We will standby to take off personnel."

Westbrook wrote in his patrol report for the day: "Felt almost as bad as the *O-19* skipper at his having to abandon his ship. However, did not see what more we could do. Had worked eight hours yesterday and six today with no progress. Had touched bottom forward ourselves at least once in our many approaches, and did not desire to have two submarines aground. Our towing gear was makeshift, and our personnel, though willing and resourceful, were inexperienced at rigging for a tow. Also, Jap planes or subs might have appeared at any embarrassing moment."

Deck hands lashed together *Cod*'s two yellow inflatable rafts and put them over the side. Lieutenant Thomas Hurst III and crewmen Dan Krusenklaus, Jr., and George McKnight soon boarded them. The trio had to paddle furiously against the powerful currents to reach *O-19* to oversee the crew transfer. At 12:55, the first

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ABOVE: Torpedoes fired by the USS *Cod* slam into a Japanese merchant vessel. The enemy ship sank minutes later. LEFT: Today, the USS *Cod* lies berthed at the waterfront along Lake Erie in Cleveland, Ohio. The vessel remains a memorial to those who were members of the silent service during World War II. TOP LEFT: George McKnight, a member of the crew of the USS *Cod,* holds a rope to steady a rubber boat as Dutch sailors from the *O-19* prepare to board the American submarine.

load of Dutch crewmen was hauled aboard and sent below.

The faces of the *O-19* crewmen clambering aboard, an assortment of ethnic Dutch and Javanese, all bore expressions of total exhaustion, heartbreak, and relief that they were no longer sitting ducks for the nearest enemy ship or plane. Most arrived aboard *Cod* with only the clothes on their backs, a few carried tiny rucksacks. One of the Dutch petty officers cradled a small, carved doll under his jacket—the *O-19*'s good luck charm.

Westbrook ordered Lieutenant Podorean, still suffering from sunburn, to take two of *Cod*'s scuttling charges and lead a demolition team to *O-19* once the next load of Dutch submariners left the rafts. Arriving aboard the Dutch boat, Podorean and his team set about their grim task, noting that the Dutch crewmen preparing to leave their home for the last time could not bear to look at the explosive charges or acknowledge the team's mission. Below decks, the Americans were surprised to find the Dutch sub was fully stocked with beer and spirits, and they helped themselves to samples.

Once the charges were wired and the timers set, their empty canvas equipment bags were filled with souvenirs from the Allied sub—not all of *O-19,* or its libations, would be lost to the reef.

At 2:55, under a brilliant sun, the last boatload arrived aboard *Cod*; among them was Drijfhout van Hooff. Cradled under his arm was the *O-19*'s flag.

Podorean reported to Westbrook that the demolition charges were set with a 90-minute delay, sufficient time for *Cod* to back away from the reef and conduct a trim dive to compensate for the added weight of the 56 Dutch submariners now aboard.

At 3:45, *Cod* surfaced and approached to a point about 1,000 yards off the starboard beam of *O-19* to await the detonation of the charges. At 4:27, a column of black smoke spewed out of the conning tower of *O-19*. A moment later the thunderclap sound of the detonation rushed past *Cod*'s position.

Westbrook now prepared to fire his first shot of the war as a submarine commander. Realizing that most of the men had never seen a torpedo explosion, he invited off-duty crewmen to come topside. At 4:36, the second charge detonated, sending more smoke skyward along with one of *O-19*'s deck hatches.

A minute later a Mark 14 torpedo, set for a depth of zero feet to allow it to pass over the reef, was fired at a point just abaft the *O-19*'s conning tower. Once the firing button was pushed, the tracking party scrambled up the hatch to the bridge, intent on seeing the effects of their handiwork. Thirty-four seconds later a flash engulfed *O-19*'s conning tower as a massive black and brown cloud of debris surged skyward.

Cheers and exclamations among *Cod*'s crew were quickly stanched as they realized the Dutch crewmen among them were weeping. Many of the *Cod*'s crew soon wiped their own moist eyes as the contingent of Dutchmen began singing "Het Wilhelmus," their national anthem.

As the smoke cleared, Westbrook noted a massive hole in the side of *O-19,* but the tough Dutch sub had not budged an inch. At 4:43 a second Mark 14 was fired, this time at the after torpedo room of *O-19* in the hope it would also detonate the two torpedoes stowed there. The fish broached about 100 yards short of its target before plunging back under. A moment later it glanced off a coral head and leaped out of the water to slam against the Dutch sub. Instantly, a second flash, followed by an even larger explosion, disintegrated the stern of *O-19* and left the boat a smoking wreck.

Virtually every off-duty crewman was topside to witness the spectacle. As the thunderclap of the detonation reached *Cod,* the men realized that pieces of *O-19,* large and small, were now flying toward them. The submariners scrambled for the limited protection afforded by the tiny free-flooding storage area in the aft end of *Cod*'s conning tower superstructure as debris from *O-19* splashed into the water surrounding them.

Not wanting to loiter at the reef any longer than necessary, Westbrook called his gun crew to action. Over the next 10 minutes, *Cod*'s 5-inch, 25-caliber deck gun pumped 16 rounds into the shattered hull.

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USS *Cod* Memorial

ABOVE: Following the safe arrival of the *O-19* crew in Australia, a rousing party was held to celebrate. The *O-19,* however, could not be freed and was destroyed to prevent its falling into Japanese hands. TOP: Officers of the Dutch submarine *O-19* stand on the deck of their rescuing submarine, the USS *Cod.* The rescue of the Dutch crew marked the most unusual event during the American submarine's wartime service.

With the boat now burning and holed along its hull, Westbrook backed *Cod* away from Ladd Reef a final time and headed toward Subic Bay. Glancing backward, Westbrook noted that *O-19* had taken on a slightly greater list but was still held fast by the reef. Westbrook wrote in his patrol report that he "wished my first torpedo fired had been at a slant-eye instead of this. Could appreciate the captain's feelings as he silently watched his boat being destroyed."

Belowdecks two complete submarine crews occupied a space hardly large enough for one. *Cod*'s chief cook, George Sacco, busily prepared a double order of fried chicken, mashed potatoes, biscuits, green beans, and carrots for supper. Ice cream, made in *Cod*'s ice cream machine, would be served for dessert. The Dutchmen, resigned to a seemingly inexhaustible supply of canned beef stew aboard *O-19,* were amazed at the galley fare aboard *Cod.*

Over dinner in *Cod*'s wardroom, the Dutch officers described how *O-19* rushed from its home base in Fremantle, Australia, to deliver special mine warfare training equipment to the new Allied submarine base at Subic Bay. Their superiors told them that their offensive patrol could commence only after they delivered their cargo. Heavy overcast for most of the previous week had prevented van Hooff and his navigator from obtaining star fixes for celestial navigation. Relying on dead reckoning alone, van Hooff expected to pass the dangerous shoal waters by a comfortable margin.

That margin vanished in an instant with a terrible screeching sound just after 4 AM on July 8. In an instant, men and loose equipment hurled against the forward bulkheads of the sub. *O-19,* driving at 18 knots with as much of her hull above water as possible to make her best speed, came to a complete stop in just 60 feet. *O-19*'s engineering officer, who had the watch, immediately ordered full astern, but the only result was heavy vibration throughout the boat as the tips of her twin screws clattered against coral. Realizing they were sitting ducks once the sun rose, the Dutch captain quickly encoded and transmitted an urgent plea for help to CTF-71.

The three-day trip to Subic Bay was calm if uncomfortable aboard the U.S. submarine. According to *Cod* crewman Howard Dishong there was congestion around the crew's heads, but no accidents occurred. Like many of *Cod*'s crew, Dishong turned his bunk over to the guests and slept at his duty station among the diesels. The additional bodies made the air below decks very stuffy despite the continuous operation of *Cod*'s air conditioning plant. Westbrook responded by periodically closing *Cod*'s main air induction valve and allowing the diesels to draw their air through the forward torpedo room hatch. The result was a wind tunnel effect through the boat that greatly improved living conditions.

Cod moored alongside the tender USS *Anthedon* in Subic Bay at 8:37 on the morning of July 13. After a brief farewell among the two crews, the Dutchmen were transferred to the tender. Drijfhout van Hooff remained in

Continued on page 78

Patton's End

The final days of the war in Europe showed both the brilliance and the vain glory of the American general.

BY EARLY 1945, HITLER'S ARMIES WERE almost exhausted. With most of Poland in Soviet hands and the Ruhr in ruins from Allied air attacks, the replenishment of fuel, ammunition, and weapon stocks had almost come to a halt, and coal and steel production had been reduced to a fifth of what it had been only six months earlier.

On the Eastern Front, the Soviet winter offensive had reached a line less than 100 miles from Berlin, and although in the West the Siegfried Line was still basically intact and the Rhine had yet to be crossed, it was clear that with American divisions arriving in Europe at the rate of one a week it was only a matter of time before the Third Reich collapsed in chaos and disaster. Still, Hitler refused to consider surrender.

The success and speed of the Soviet advance had in fact presented the Western Allies with a serious problem: unless they broke through to the North German plain within a few weeks, Stalin would almost certainly seize control of virtually the whole of Germany, including its Baltic and North Sea ports.

The Supreme Allied Commander in Europe, Dwight D. Eisenhower, had issued his outline plan for the first phase of the advance into Germany on the last day of 1944. It called first for the destruction of the German forces west of the Rhine, following which Field Marshal Bernard Montgomery's 21st Army Group (British and Canadian) was to make the main

Run

BY MAJOR GENERAL MICHAEL REYNOLDS

National Archives

ullstein bild

Soldiers of the Third Army fire across the Rhine River at Mannheim. The soldier on the left fires a Browning Automatic Rifle, while the soldier on the right employs an M1 rifle. The Rhine River was the last natural obstacle into the heart of Germany. RIGHT: Third Army commander George S. Patton Jr. completed World War II as a four-star general. He began the war wearing two stars.

drive to the North German Plain, north of the Ruhr, while General Omar Bradley's 12th Army Group (American and French) made a complementary, but secondary, attack from the Mainz–Frankfurt area northeast to Kassel. The overall objective of the plan was to effect "a massive double envelopment of the Ruhr to be followed by a great thrust to join up with the Russians."

After studying it, Monty came to the conclusion that it did all he wanted in that it put the weight in the north and put the Ninth American Army under his command. Even more amazingly, it gave him the power of decision in the event of disagreement with Bradley on the boundary between the 12th and 21st Army Groups.

Ike's detailed plan for the Rhineland campaign, which was to precede the thrust into Germany proper, saw Monty's 21st Army Group, with the Ninth U.S. Army under command, seizing the west bank of the Rhine from Nijmegen to Düsseldorf. During this phase, Bradley's 12th Army Group was to maintain an aggressive defense. Then, while Monty prepared to cross the lower Rhine, Bradley was to secure the river from Düsseldorf to Köln, following which General George Patton's Third Army would "take up the ball" and thrust eastward from Prüm to Koblenz. At the same time, the Third and Seventh U.S. Armies would be responsible for securing crossings over the Rhine between Mainz and Karlsruhe for the

forces destined to carry out the thrust south of the Ruhr.

Needless to say, Bradley was far from happy to see Monty being given not only the main role, but also a complete U.S. army. With two-thirds of the Allied Expeditionary Force now made up of American troops, he had wanted, not surprisingly, the main effort to be made by American troops under American command. Indeed, he envisaged all four U.S. armies driving into central Germany with the British, Canadian, and French armies being relegated to flank protection. He was bitterly disappointed when his plea fell on deaf ears.

Inevitably, Patton was furious when he was told that his Third U.S. Army was to adopt a posture of "aggressive defense," while Monty's 21st Army Group launched a major offensive.

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Third Army soldiers pile out of a half-track to search for a German sniper. As German resistance began to crumble, the Americans found themselves fighting lone snipers and children with antitank weapons.

On February 4, he wrote to his wife, Beatrice, telling her that if she heard he was on the defensive, "It was not the enemy who put me there. I don't see much future for me in this war. There are too many safety-first people running it."

Patton was certainly not going to be defeated by the safety-first people, and he chose to view the order to adopt a posture of aggressive defense as meaning that he could "keep moving towards the Rhine with a low profile." He told his staff that the Third Army was going to carry out an "armored reconnaissance," but that it would be done with seven divisions and that the initial objectives were Prüm, Bitburg, and the vital city of Trier on the Mosel River. Furthermore, he told his commanders to make sure that their units were always fully committed so that they could not be removed from his command and placed in Eisenhower's new theater reserve. He wrote in his diary: "Reserve against what?...Certainly at this point in the war no reserve is needed—simply violent attacks everywhere with everything."

On February 10, Bradley telephoned Patton to tell him that Ike was transferring divisions from the 12th Army Group to General Bill Simpson's Ninth U.S. Army. The latter was now, of course, part of Monty's army group. Patton replied that as the oldest and most experienced serving general in the theater he was damned if he would release any of his divisions or go onto the defensive, and that he would resign rather than comply with such orders. He clearly had no intention of really resigning, but he withdrew his threat anyway when Bradley suggested that he owed too much to his troops to even consider it. Nevertheless, in early February Patton lost the 17th Airborne and 95th Infantry Divisions to Simpson and Monty.

The area in which the Third Army was operating during February 1945, the Eifel, is hilly, heavily forested, and bisected by three fast-flowing rivers, which at that time were swollen by the snow and rains of the worst winter in 38 years. Patton wrote later, "The crossing of ... these rivers was a magnificent feat of arms."

The campaign, carried out in appalling conditions, cost a total of 42,217 battle casualties and a staggering 20,790 nonbattle casualties, but it was eventually successful. By March 1, Patton's troops had captured Prüm and Bitburg; Trier fell a day later. Ike's headquarters had estimated that it would take four divisions to capture the former Roman provincial capital of Trier, but Patton was able to send a message saying, "Have taken Trier with two divisions. Do you want me to give it back?"

On March 5, General Courtney Hodges's First U.S. Army finally went on the offensive. Köln fell on the 6th, and to everyone's amazement, by 4 PM on the 7th a bridge had been secured over the Rhine, roughly halfway between Köln and Koblenz—the Ludendorff railway bridge at Remagen. "We were quite happy over it, but just a little envious," wrote Patton later.

American bravery and initiative had ensured that the bridge, although prepared for demolition, was secured intact. But the euphoria soon disappeared the following day when, sadly for Bradley, Eisenhower gave orders that to provide the necessary number of divisions to Simpson's Ninth Army for Monty's northern push, no more than four were to be committed at Remagen and that for the time being at least the bridgehead was to be held but not developed.

This, in fact, also made sense tactically since beyond the bridge for about 12 miles were heavily forested mountains crossed by poor roads, making further advance against any kind of determined resistance extremely difficult. Even so, by the 17th, when the bridge finally collapsed, there were six American divisions in a bridgehead 10 miles deep and 30 miles wide.

On March 5, as the First U.S. Army launched its attack, Patton finally obtained Eisenhower's authority to advance into the rest of the Rhineland Palatinate. Bradley told him to "take the Rhine on the run," and on March 10, just three days after the Remagen bridge was captured by the First Army, Patton's 4th Armored Division reached the river north of Koblenz. It had advanced 55 miles in less than 48 hours. On the 13th, Patton ordered his divisions across the Mosel and through the Hunsrück, a mountainous area to the east of Trier thought by SHAEF (Supreme Headquarters Allied Expeditionary Force) to be too difficult for armor. Nevertheless, by the 22nd he had eight divisions on the Rhine from Koblenz to Ludwigshafen.

With that, Patton's campaign west of the Rhine was over. It had cost another 7,287 casualties, but the Third Army engineers were ready, and Patton, desperate to cross the great river before Monty, decided that his men should make a feint at Mainz and cross at once at Oppenheim. By daylight on the 23rd, six battalions were over the river for a loss of only 28 men killed and wounded, while other infantry

and engineer units had crossed just to the north, at Nierstein, without opposition. Patton telephoned Bradley: "Brad, don't tell anyone but I'm across ... there are so few Krauts around there they don't know it yet. So don't make any announcement. We'll keep it secret until we see how it goes."

However, the Germans soon became aware of the crossings and after heavy Luftwaffe raids on the Third Army pontoon bridges during the day, Patton called Bradley again that evening: "For God's sake tell the world we're across ... I want the world to know Third Army made it before Monty."

In fact, the world already knew. At Bradley's headquarters that morning, Patton's representative had announced that the Third Army had crossed the Rhine at 10 PM on March 22, "without benefit of aerial bombing, ground smoke, artillery preparation and airborne assistance." Clearly, this was a dig at Montgomery, who was using all these assets at that very moment to assist his crossing of the same river.

On the day his first troops crossed the Rhine, Patton issued General Order Number 70 to his Third Army and to his supporting XIX Tactical Air Command: "In the period from January 29 to March 22, 1945, you have wrested 6,484 square miles of territory from the enemy. You have taken 3,072 cities, towns, and villages, including among the former: Trier, Coblenz, Bingen, Worms, Mainz, Kaiserslautern, and Ludwigshafen. You have captured 140,112 enemy soldiers and have killed or wounded an additional 99,000, thereby eliminating practically all of the German 7th and 1st Armies. History records no greater achievement in so limited a time ... The world rings with your praises; better still General Marshall, General Eisenhower, and General Bradley have all personally commended you. The highest honor I have ever attained is that of having my name coupled with yours in these great events."

The following day George Patton crossed the Rhine on a pontoon bridge at Oppenheim. Halfway across he undid his trousers "to take a piss in the Rhine. I have been looking forward to this for a long time," he wrote in his diary. Another report says that he added, "I didn't even piss this morning when I got up so I would have a really full load. Yes, sir, the pause that refreshes." He had not only beaten Monty across the famous river, he had relieved himself in it two days before Winston Churchill! On arrival on the eastern bank he deliberately stubbed his toe and "fell, picking up a handful of German soil, in emulation of ... William the Conqueror," who allegedly did the same thing on arriving on the shore of England in 1066.

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General Patton celebrates crossing the Rhine River by relieving himself in it. "The pause that refreshes," he called it.

On March 23, after gaining his first bridgeheads over the Rhine, Patton had written to his wife, "I am scared by my good luck. This operation is stupendous." But alas, his luck was about to run out, at least temporarily, in what became known as the Hammelburg raid.

Patton's son-in-law, Lt. Col. John Waters, had been captured in North Africa in February 1943. It seems that Patton learned on or shortly before March 23 that Waters was being held in a German prison camp, Oflag XIIIB, three miles south of Hammelburg and some 60 miles east of Frankfurt. How he found out remains a mystery. The camp in fact held some 1,230 Americans and about 3,000 Serbian officers, former members of the Royal Yugoslav Army.

On March 25, Brig. Gen. William Hoge, the commander of the 4th Armored Division, received an order from his corps commander, Maj. Gen. Manton Eddy, telling him to mount a special task force (TF) to liberate Oflag XIIIB. On the same day, Patton's general factotum and bodyguard and a former sergeant in Patton's headquarters in World War I, Major Al Stiller, arrived at Hoge's headquarters and announced that he had been ordered by Patton to accompany the TF. Not surprisingly, both Eddy and Hoge were unhappy with the idea of a raid some 40 miles behind enemy lines, and they expressed their concerns. This brought Patton to XII Corps on the 26th, and he ended up giving Hoge a direct order over the telephone "to cross the Main River and get over to Hammelburg." Apparently it was at this point that Hoge turned to Stiller, who had been listening, and was told that Patton's son-in-law was one of the prisoners in the camp.

The TF organized for the raid came from Lt. Col. Creighton Abrams's Combat Command B (CCB) of the 4th Armored Division. Its commander was a young captain named Abraham Baum, and it comprised 16 tanks, 27 half-tracks, three 105mm self-propelled guns, and a total of 294 officers and men, including Al Stiller. Quite how the TF was meant to carry back some 1,200 released American prisoners remains a mystery—the total seating capacity of the vehicles was well under 500. Be that as it may, the basic plan was relatively simple. CCB would cross the Main River and make a hole in the German defenses, following which TF Baum would drive flat out for the camp. It was hoped that the raiding party would be safely back behind U.S. lines in less than 24 hours.

Task Force Baum set out at 7 PM on the 26th, and by first light on the 28th it had ceased to exist. Although the American prisoners were freed for a time, the raid ended up in chaos. Nine members of TF Baum were killed, 32 wounded, including Baum, and 16 were never seen again. Every vehicle was lost, and most of the prisoners and the raiding party ended up back in the camp, including the reason for the raid, John Waters, who was badly wounded. He was still in Oflag XIIIB when a unit of the 14th Armored Division, part of the Seventh Army, reached the camp on April 5.

Waters's life had been saved by a Serbian doctor. Patton sent his personal doctor, Charles Odom, to look after him and arranged for him to be airlifted to Frankfurt. This preferential treatment apparently caused resentment among some of the other wounded. On April 5, Patton wrote to his wife, "I feel terrible. I tried hard to save him and may be the cause of his death. Al Stiller was in the column and I fear he is dead. I don't know what you and B [his daughter] will think. Don't tell her yet ... We have liberated a lot of PW camps but not the one I wanted." On May 1, Stiller was found unharmed in another PW camp at Moosburg in southern Germany.

Officially, the Hammelburg raid never happened. When Patton visited Baum in the hospital to award him a Distinguished Service Cross, he told him he had done "one helluva job." Baum replied that he could not believe the general would send his men on a mission like that to rescue one man.

Patton allegedly replied, "That's right, Abe, I wouldn't." After Patton left, his aide told Baum the raid had been classified Top Secret and that he was to use discretion when discussing it. Baum interpreted this to mean that his TF would get no recognition and that he

and his men had been "screwed again."

Needless to say, Patton blamed everybody except himself for the failure of the Hammelburg raid, including Bradley, Eddy, and Hoge. In his April 5 letter to his wife, he wrote, "My first thought was to send a combat command but I was talked out of it by Omar and others."

Patton went even further in his diary, where he claimed that he sent only two companies instead of a complete combat command "on account of strenuous objections of General Bradley."

This accusation, however, seems to have been contradicted by Bradley who wrote later, "It was a story that began as a wild goose chase and ended in tragedy. I did not rebuke him for it. Failure itself was George's own worst reprimand."

In his own book, *War As I Knew It,* Patton certainly blamed Eddy and Hoge. "I intended to send one combat command of the 4th Armored, but, unfortunately, was talked out of it by Eddy and Hoge."

But for all Patton's subsequent claims that he had no knowledge of Waters's presence in Oflag XIIIB until nine days after the raid, and that it had been launched only to divert German attention and ease his army's advance, those most closely involved at the top level—Hoge, Abrams, Baum, and Stiller—all believed that the raid had been launched for one reason only and that was to rescue Patton's son-in-law. They remained silent at the time to protect their army commander, and it was long after the war, in 1967, before one of them, Creighton Abrams, stated openly that the raid had been launched solely because Waters was in the camp.

It is quite clear from Patton's letters to his wife that this was true. Three days before the raid he wrote, "We are headed right for John's place and may get there before he is moved, he had better escape or he will end up in Bavaria…." On the day of the raid he wrote again, "Last night I sent an armored column to a place 40 miles east of Frankfurt where John and some 900 PW are said to be. I have been as nervous as a cat all day as everyone but me thought it was too great a risk; I hope it works. Al Stiller went along. If I lose the column it will possibly be a new incident but I won't."

The Hammelburg raid was another potentially disastrous point in George Patton's career, but President Franklin D. Roosevelt's death on April 12 diverted the attention of his superiors and, perhaps more importantly, the press. As Patton put it so delicately in his diary two days later, "With the President's death you could execute buggery in the streets and get no further than the fourth page."

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Generals Omar Bradley (far left), Patton, and Dwight D. Eisenhower examine precious paintings in the Merkers salt mines. Patton's assistant, Charles Codman, can be seen in the background.

On March 27, Patton had moved his headquarters from Luxembourg City to Oberstein, 20 miles east of Kassel. It was its first move for 14 weeks, but at last he was commanding from German soil, and in that period his army had fought its way through nearly 300 miles of German territory. He continued to "beg, coax, demand and threaten" his commanders in his desire to drive ever deeper into Hitler's Reich, and he was constantly on the move, visiting his commanders and troops and attending meetings with other army commanders and his superiors.

During his travels in April, Patton noticed several things that displeased him. One was that his "Army was going to hell on uniform. During the extremely cold weather it had been permissible, and even necessary, to permit certain variations, but with the approach of summer I got out another uniform order."

Another thing he noticed was "great carelessness in leaving gasoline cans along the road, so issued an order that the Assistant Quartermaster General of the Third Army was personally to drive along the road, followed by two trucks, and pick up all the cans he found."

Patton also noted "that practically every enlisted member of the Medical Corps had captured a civilian automobile or motorcycle, with the result that we were wasting gasoline at a magnificent rate and cluttering up the road. . . We therefore issued an order for the sequestration of these vehicles."

On April 10, Patton's intelligence staff warned him that the Germans were setting up a partisan movement, the so-called Werewolves, and that they might well try to land a small glider-borne force near his forward HQ with the mission of killing him. His reaction was typical. "I never put much faith in this rumor, but did take my carbine to my truck every night."

On the 12th, Patton had two unusual experiences—one exciting and one distressing. Five days earlier, Manton Eddy had told him that one of his XII Corps units had discovered a number of sealed vaults 2,000 feet deep in a salt mine at Merkers, 60 miles west of Erfurt. When Eddy went on to say he had no idea what was in the vaults, Patton allegedly responded, "General Eddy. You blow open that…vault and see what's in it."

Eddy did as ordered and found the entire German bullion reserve—4,500 bars of gold with an estimated value of more than $57 million along with millions of reichsmarks and dollar bills, paintings by great masters such as Titian and Van Dyck, some of which Patton thought were worth "about $2.50, and were of the type normally seen in bars in America," and many other treasures. Eisenhower, Bradley, and Patton visited the mine on April 12. As they were lowered down the mine shaft, Patton, according to his aide, said, "If that clothesline (the elevator cable) should part, promotions in the U.S. Army would be considerably stimulated."

To which Ike replied, "OK, George, that's enough! No more cracks until we are above ground again."

Afterward, the three commanders went on to the recently liberated concentration camp at Ohrdruf, less than 30 miles west of Erfurt, where the scenes inevitably shocked and disgusted them. Eisenhower and Bradley spent that night at Patton's headquarters, and after dinner Ike told Patton that he planned to halt the First and Ninth Armies on the Elbe and direct his Third Army southeastward toward Czechoslovakia. But as Patton was getting ready for bed, he turned on the radio and heard a BBC announcer report the death of President Roosevelt. He immediately informed Ike and Bradley, and they discussed what might happen. It seemed to them very unfortunate that at so critical a period in their history they should have to "change horses." Actually, subsequent events demonstrated that it made no difference at all.

On April 15, Patton visited the Buchenwald death camp, 10 miles to the east of Erfurt and only three miles from the famous town of Weimar, where he "could not stomach the sights he saw ... [and] went off to a corner thoroughly sick." As a result he gave orders that

the inhabitants of Weimar were to be made to walk through the camp and see for themselves the results of the bestiality of their countrymen.

On April 16, Bradley gave Patton the order he had been expecting since his conversation with Ike on the 12th. His army was to change the direction of its advance from east to southeast and move toward the so-called German national redoubt. This meant it would be moving parallel to the Czechoslovakian border. Patton did not believe in the national redoubt any more than he believed in the Werewolf movement, but he gave the necessary orders. Then, on the 17th, he flew to Paris for a 24-hour break.

On arrival, he visited his son-in-law, John Waters, in the hospital and found him much improved and being prepared for evacuation to the United States. According to his lifelong friend, Everett Hughes, Patton stayed in the George V Hotel and they had dinner together and drank "until the weesome hours."

At breakfast on the 18th, Patton learned from the *Stars and Stripes* newspaper that he had been promoted to the rank of full general. He wrote later, "While I was, of course, glad to get the rank, the fact that I was not in the initial group (Bradley and Devers) and was therefore an 'also ran' removed some of the pleasure."

At the time, though, he was thrilled to find that when he arrived at Orly Airport to fly back to Germany, not only had his aide, Colonel Charles Codman, found four-star collar insignia for him to wear, but also his plane had a four-star pennant flying outside and a four-star general's flag and a bottle of four-star cognac inside.

The Third Army's final offensive began on April 19. By then the Second British Army had reached the Elbe at Lauenburg, the First U.S. Army had crossed the Elbe at Magdeburg and taken Leipzig, and the Ninth U.S. Army had crossed the same river and taken Brunswick.

For his last offensive, Patton developed a system known as the Third Army War Memorial Project. It consisted of firing a few salvos into every town approached, before even asking for surrender. According to Patton, "The object of this was to let the inhabitants have something to show future generations of Germans by way of proof that the Third Army had passed that way."

The beautiful city of Passau, Germany, was one of the last victims. It was bombarded for 36 hours before Patton's men entered the smoldering ruins.

On the 20th, Patton flew to XII Corps to say goodbye to his great friend Manton Eddy, who was being evacuated with very high blood pressure, first to Paris and then, like Waters, on to the States. On his return journey he had a very narrow escape from death himself. In order to cover the long distances involved in commanding his army and attending conferences with his superiors, Patton had, since arriving in Normandy, often flown to his destinations in a Piper Cub light aircraft. Usually a reasonably safe way to travel, this was not so on this particular day.

Patton suddenly "noticed some tracers coming by the right side of our plane which, at the same instant, dove for the ground, very nearly colliding with a plane that looked like a Spitfire. This plane made a second pass, again firing and missing ... On the third pass, our attacker came in so fast and we were so close to the ground that he was unable to pull out of his dive and crashed, to our great satisfaction."

"THE ONE HONOR WHICH IS MINE AND MINE ALONE IS THAT OF HAVING COMMANDED SUCH AN INCOMPARABLE GROUP OF AMERICANS, THE RECORD OF WHOSE FORTITUDE, AUDACITY, AND VALOR WILL ENDURE AS LONG AS HISTORY LASTS."

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A Sherman tank smashes through the gate of the POW camp at Hammelburg as American and British soldiers wave and celebrate.

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ABOVE: Eisenhower, again with Patton (left) and Bradley, listens as a translator explains some of the torture techniques used at the Ohrdruf concentration camp. BELOW: Third Army soldiers march past a German woman in Frankfurt am Main on their way to Czechoslovakia.

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It turned out that the pilot of the Spitfire was a Polish officer serving with the RAF. He had presumably mistaken the Cub for a German Fieseler Storch. A second life-threatening incident occurred on May 3, when an oxcart "came out of a side street so that the pole missed us (in a jeep) by about an inch."

Patton is alleged to have exclaimed, "God, what a fate that would have been. To have gone through all the war I've seen and been killed by an ox."

By April 26, Patton's headquarters was located 75 miles northwest of Regensburg. His leading units had entered the city that same day and had quickly established bridgeheads over the Danube. The Third Army was thus poised to move into either Czechoslovakia or Austria. Both the American and British chiefs of staff had agreed that Czechoslovakia was a political prize that should be denied to Stalin, but Eisenhower, ever fearful of a major "blue on blue" incident with the Red Army, said he did not believe Patton could get to Prague before the Soviets and ordered a halt at the border some 100 miles southwest of the capital.

Bradley, and of course Patton, believed Prague could have been liberated within 24 hours. On May 2, Patton was told that the Seventh U.S. Army was to take over responsibility for reducing the national redoubt and that his army was to halt. His headquarters had moved 19 times since arriving in Normandy and had covered 1,225 miles. Two days later, at 7:30 PM on the 4th, Ike finally agreed that his army could cross the Czech border—but he was to halt again at Plzen, 55 miles from Prague. At this time the Third Army was, according to Patton, at its greatest strength in the war—18 divisions of just over 540,000 men. On the 6th, Bradley telephoned Patton. He was worried that, having heard of an uprising in Prague against the Germans, he might ignore the order to halt.

"You hear me, George ... halt!" he yelled. Patton wrote later, "I was very much chagrined, because I felt, and still feel, that we should have gone on to the Moldau river [in Prague] and, if the Russians didn't like it, let them go to hell."

Early on the morning of May 7, Bradley called Patton and told him the Germans had surrendered. "It takes effect at midnight, May 8th. We're to hold in place everywhere up and down the line. There's no sense in taking any more casualties now."

On the same day, together with the Under Secretary of War, Robert Patterson, who was staying with him, Patton flew to a village near the Austro-German border about 100 miles east of Munich, to see a group of Lipizzaner stallions from the Spanish Riding School of Vienna. They had been handed over to one of his units for safe keeping from the Russians.

Although Patton agreed, "These horses will be wards of the U.S. Army until they can be returned to the new Austria," his private view of the whole event, expressed in his diary, is interesting and, in view of his love of horses and riding ability, perhaps surprising. "It struck me as rather strange that, in the middle of a world at war, some twenty young and middle-aged men in great physical condition, together with about thirty grooms, had spent their entire time teaching a group of horses to wiggle their butts and raise their feet in consonance with certain signals from the heels and reins. Much as I like horses, this seemed to me wasted energy. On the other hand, ... to me the high-schooling of horses is certainly more interesting than either painting or music."

At his normal morning briefing on the 8th, exactly two and a half years since he had landed in Morocco, Patton told his staff this would be the last such meeting in Europe. "I think most of them realized I was hoping to have some more briefings in Asia," he said.

The day after the fighting officially ended, Patton issued General Order Number 98, which outlined the Third Army's successes and claimed that it had advanced farther in less time than any other army in history—just over 1,300 miles in 281 days. He had, of course, either conveniently forgotten or purposely ignored the fact that Monty's Eighth Army had advanced some 1,850 miles from Alamein to Tunis in 201 days!

Patton went on to claim that his army had killed or wounded at least half a million Germans and captured another 956,000. The general order ended, "During the course of this war I have received promotion and decorations far above and beyond my individual merit. You won them; I as your representative wear them. The one honor which is mine and mine alone is that of having commanded such an incomparable group of Americans, the record of whose fortitude, audacity, and valor will endure as long as history lasts."

Patton's postscript to the war in Europe was written later. "I can say this, that throughout the campaign in Europe I know of no error I made except that of failing to send a Combat Command to take Hammelburg. Otherwise, my operations were, to me, strictly satisfactory. In every case, practically throughout the campaign, I was under wraps from the High Command. This may have been a good thing, as perhaps I am too impetuous. However, I do not believe I was and feel that had I been permitted to go all out, the war would have ended sooner and more lives would have been saved. Particularly I think this statement applies to the time when, in the early days of September, we were halted, owing to the desire, or necessity, on the part of General Eisenhower in backing Montgomery's move to the north. At that time there is no question of doubt but that we could have gone through and across the Rhine within ten days. This would have saved a great many thousand men."

The claim that he could have crossed the Rhine within 10 days in early September 1944 is typical of Patton, and one that neither of his direct superiors, Ike or Bradley, believed possible.

Patton held a press conference on VE Day, during which he forcibly expressed his views on the Soviets. Pointing to a map of Central Europe he said, "What the tin-soldier politicians in Washington and Paris have managed to do today is ... to kick hell out of one bastard and at the same time forced us to help establish a second one as evil or more evil than the first ... This day we have missed another date with our destiny, and this time we'll need Almighty God's constant help if we're to live in the same world with Stalin and his murdering cutthroats."

Later that day in a farewell meeting with Cornelius Ryan and another correspondent, he confirmed his views on this subject. "You cannot lay [sic] down with a diseased jackal. Neither can you do business with the Russians ... I just couldn't stand being around and taking any lip from those SOBs."

George Patton took no great pleasure in the events of VE Day. He already knew that despite his lobbying of many influential figures in Washington, he had no hope of being assigned to the Pacific Theater. As he put it to his III Corps commander, Maj. Gen. James Van Fleet, "There is already a star [MacArthur] in that theater and you can only have one star in a show."

Patton was also depressed because he knew there would be a rapid reduction in the strength of the U.S. Army in Europe, and he believed this was inviting disaster. On May 7, he had pleaded with the visiting Under Secretary of War, Robert Patterson, "Let's keep our boots polished, bayonets sharpened and present a picture of force and strength to these people [the Soviets]. This is the only language they understand and respect. If you fail to do this, then I would like to say to you that we have had a victory over the Germans and have disarmed them, but have lost the war."

When Patterson told him that he did not understand the "big picture," but asked Patton what he would do about the Russians, he allegedly replied that he would keep the U.S. Army in Europe intact, delineate the border with the Soviets, and if they did not withdraw behind it "push them back across it …We did not come over here to acquire jurisdiction over either the people or their countries. We came to give them back the right to govern themselves. We must either finish the job now—while we are here and ready—or later in less favorable circumstances."

Needless to say, such ideas were totally unacceptable to the politicians in Washington—and indeed to most of the American soldiers in Europe. All they wanted to do was to go home. □

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The last German holdouts surrender to Patton's soldiers in Vseruby, Czechoslovakia, on May 4, 1945. There are four days left in the war.

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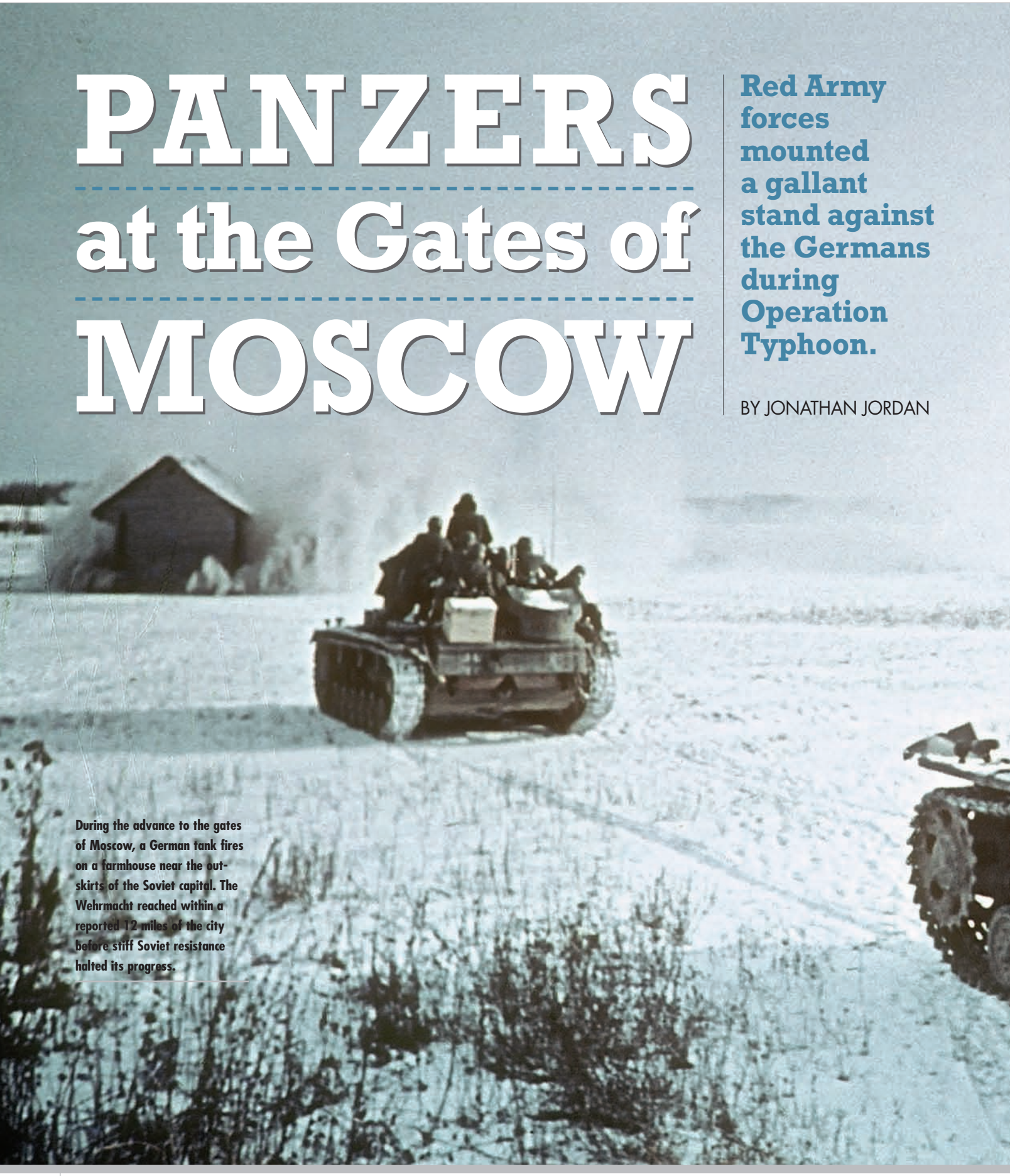
PANZERS at the Gates of MOSCOW

Red Army forces mounted a gallant stand against the Germans during Operation Typhoon.

BY JONATHAN JORDAN



During the advance to the gates of Moscow, a German tank fires on a farmhouse near the outskirts of the Soviet capital. The Wehrmacht reached within a reported 12 miles of the city before stiff Soviet resistance halted its progress.

THE WAR MAP gave Adolf Hitler every reason to be confident. Operation Barbarossa, Germany's invasion of the Soviet Union begun on June 22, 1941, had succeeded spectacularly on nearly every front. One Soviet army after another had been smashed as Germany's Ostheer, its army in the East, plunged deep into the industrial heart of Josef Stalin's vast Eurasian state. By September, Hitler's legions were within sight of Leningrad, while to the south German and Romanian divisions had swept across the north shores of the Black Sea, threatening vital petrochemical and agricultural production within the vulnerable Ukraine and Crimean regions.

Between the two sectors, Army Group Center, under Field Marshal Fedor von Bock, had taken 610,000 prisoners and destroyed 5,700 enemy tanks. Bock's soldiers had conquered land as far eastward as the Russian city of Smolensk and were now less than 180 miles from the Soviet capital.

It was time, Hitler decreed, for a push against the center—toward Moscow.

Operation Typhoon, the campaign Hitler predicted would be "the last, great, decisive battle of the war," was the result of a debate between Hitler and the army high command, Oberkommando des Heeres (OKH), over the war's military objectives. From the beginning of Barbarossa, Hitler had insisted that the Wehrmacht give top priority to the destruction of Soviet field armies, and only afterward to the capture of strategic assets in the north and south. Prestige targets like Moscow did not figure prominently in Hitler's planning, and as late as August 1941, his orders to OKH stressed that "the most important missions before the onset of winter are to seize the Crimea and the industrial and coal regions of the Don, deprive the Russians of the opportunity to obtain oil from the Caucasus and, in the north, to encircle Leningrad and link up with the Finns, rather than capture Moscow."

But August brought smashing German successes to the north and south of the Eastern Front, lending credence to intelligence reports that the Soviet regime teetered on the brink of collapse. Moreover, a tempting cluster of Soviet divisions seemed to be massing west of Moscow around the cities of Vyaz'ma and Bryansk, ripe for encirclement by Hitler's fast-moving panzer spearheads.

Hitler thus allowed himself to be persuaded by OKH and his field generals to launch a

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ABOVE: During the autumn of 1941, German SS troops slog along a muddy road near Moscow. Resolute Red Army defenders and harsh weather combined to doom the German effort to capture the Soviet capital city. TOP RIGHT: Muscovite civilians were mobilized on October 12, 1941, to prepare the city's defenses against the threat of imminent German attack. Here, women dig one of many antitank trenches which ringed the city. RIGHT: Marshal Georgi Zhukov took command of the Red Army troops defending Moscow on October 5, 1941. Later in the war, he led Soviet forces in the capture of the German capital of Berlin.

major attack against forces defending the Soviet capital. On September 6, he issued Führer Directive 35, which called for the destruction of Soviet armies opposite Army Group Center, to be followed by the pursuit of Soviet forces along the Moscow axis.

To put Führer Directive 35 into operation, the staffs of Army Group Center and OKH prepared plans for Operation Taifun (Typhoon), a massive offensive along a 150-mile front employing 15 panzer divisions, eight motorized divisions, and 47 infantry divisions—a total of about 1.9 million men. For the attack, Army Group Center assembled 4,000 heavy artillery pieces, 549 combat aircraft, and as many as 1,700 tanks. For once, Hitler's generals would enjoy numerical superiority over their Soviet opponents in addition to their well-known qualitative edge.

The plan called for a double envelopment of Soviet frontline forces at the rail hub of Vyaz'ma on the Smolensk-Moscow highway. Col. Gen. Hermann Hoth's Third Panzer Army would surround Vyaz'ma from the north, while Col. Gen. Erich Hoepner's Fourth Panzer Army would attack from the south. Farther south, Col. Gen. Heinz Guderian's Second Panzer Army would encircle the defenders at the crossroads center of Bryansk. Once Vyaz'ma and Bryansk were encircled and their defenders wiped out, the Soviet capital would presumably be enveloped or overrun, as circumstances dictated. Guderian would strike out for Bryansk on September 30, and the main thrust would begin on October 2.

If the Ostheer had a weakness, it was its logistical tail. Captured rail lines were handling only around half to two-thirds of their former capacity, while competing demands by garrison commanders in Poland squeezed supplies passing through to the front. To make matters worse, Typhoon's six armies had only four major railheads from which to draw ammunition, fuel, and food, and the armies could not operate far from these railheads, given poor road networks and Germany's chronic shortage of motor transport. Two-thirds of Germany's artillery was still horse-drawn as Operation Typhoon began. Of the 13,000 tons of supplies per day needed to sustain Army Group Center's 70 divisions, its motor pool was able to supply just 6,500 tons over decrepit Russian roads.

If the situation looked daunting for the German planners, it was far worse for their Soviet counterparts. The grim task of defending Moscow fell primarily to the Western Front, or army group, commanded by Lt. Gen. Ivan Koniev. Koniev's front consisted of six rifle (infantry) armies, a five-division cavalry group, and three reserve rifle divisions, and it was supported to the south by the three-army Bryansk Front under Lt. Gen. Andrei Yeremenko. These two fronts, plus a six-army reserve front under Marshal Semyon Budenny (which had two armies plugging gaps in the front line), had been engaged in piecemeal counterattacks at Stalin's insistence since August and were considerably worn down, so that each Soviet army was, more or less, the equivalent of a German corps.

While the Western, Bryansk, and Reserve Fronts amassed 95 divisions with 864,000 combat troops, they labored under crippling disadvantages. All three were seriously short of heavy artillery, combat aircraft, and medium tanks. The average rifle division—composed largely of ill-trained recruits—was around 5,000 to 7,000 soldiers, less than half the authorized strength of around 14,000. To make matters worse, the deeper German columns drove into Soviet territory, the less Stalin tolerated a strategy of trading space for time, which limited his generals' options.

The battle for the Soviet capital opened on September 30, with a lightning attack by Guderian's panzers, which struck northeast toward the transportation hub of Orel and due north toward Bryansk. Guderian's veterans smashed five divisions and ripped open the southern flank of the Soviet Thirteenth Army. On October 3, his panzers rolled into Orel so rapidly they overtook trams clattering down Orel's streets, and the Thirteenth Army fled toward Bryansk.

Typhoon's main effort began on October 2, when the Third and Fourth Panzer Armies turned on the Soviet defenders around Vyaz'ma. Third Panzer, based in Smolensk, hit the juncture of Koniev's Nineteenth and Thirtieth Armies, rupturing the two armies' flanks. In two days, it captured bridges over the Dniepr River, opening the northern door to Vyaz'ma.

South of Vyaz'ma, Hoepner's Fourth Panzer

Army attacked on a narrow front and broke through Budenny's Forty-third Army, holding its LVII Panzer Corps in reserve to exploit the breakthrough. On the way, it dismantled Budenny's Thirty-third Army, a second-echelon formation, and by October 5 Hoepner had bored a hole in Soviet lines wide enough to throw LVII Panzer Corps into the enemy rear east of Vyaz'ma.

While Bock surged forward with his armored divisions, his three infantry armies (the Second, Fourth, and Ninth) succeeded in pinning the Soviet Sixteenth, Twentieth, Twenty-fourth, and Fiftieth Armies. Fierce pressure prevented those four defending armies from either retreating or coming to the aid of their hard-pressed comrades around Vyaz'ma and Bryansk.

At the time Typhoon was launched, the Kremlin was still preoccupied with its Ukrainian front; it took three irreplaceable days before Stavka, the Red Army high command, awoke to the threat posed by Army Group Center and summoned reserves from the Urals, Central Asia, and the Far East. To the north, General Koniev threw whatever reserves he could find into a futile counteroffensive to halt the Third Panzer Army, but these unlucky units were driven back with heavy losses. In the center, Marshal Budenny's Reserve Front, which comprised largely militia or reconstructed units, collapsed entirely before the weight of the Fourth Panzer Army's assault, and by October 4 Budenny's front was virtually destroyed. Stalin, furious with the performance of his generals, sacked Koniev (and considered executing him), replacing him on October 5 with his top commander from Leningrad, General Georgi Zhukov.

By October 6, the Soviet picture had grown worse. Koniev's orders to his Sixteenth, Nineteenth, and Twentieth Armies to retreat toward Vyaz'ma could not be heeded due to the intense pressure from Bock's Fourth and Ninth Armies. Budenny's Thirty-second Army, which guarded the approaches to Vyaz'ma, collapsed under withering armored attacks from north and south of the city, and on the morning of October 7, panzers linked up east of Vyaz'ma, forming a pocket that trapped some 400,000 soldiers from the Sixteenth, Nineteenth, Twentieth, Twenty-fourth, and Thirty-second Armies. That evening, five German infantry corps, plus heavy artillery and Luftwaffe bombers, were called in to begin the *kessel* (cauldron) battle that would result in the destruction of 25 rifle divisions and five tank brigades over the next five days.

Farther south, General Guderian closed the Bryansk pocket, although his mobile forces were delayed when his fuel supply gave out on October 3. Three days later, his panzers finally reached Bryansk, and by October 9 he had loosely encircled the Soviet Third, Thirteenth, and Fiftieth Armies. But Guderian failed to seal the pocket effectively, and from October 9 to 13 large portions of the Third and Thirteenth Armies limped away, while parts of at least seven rifle divisions managed to escape the cauldron.

All told, the first phase of Typhoon was another disaster for the Red Army. Despite the imperfect closure of the Bryansk pocket, Bock estimated that his army group had captured 673,098 prisoners, killed around 300,000 defenders, and destroyed or captured 1,277 tanks and 4,378 artillery pieces. The Red Army had lost 64 rifle divisions, 11 tank brigades, and 50 artillery regiments—about one million men—during Typhoon's first two weeks, and Hitler's propaganda minister, Joseph Goebbels, confidently informed foreign correspondents, "The annihilation of Timoshenko's [sic] army group has definitely brought the war to a close."

East of Bryansk, Guderian's spearhead, the XXIV Panzer Corps, sat idle at Orel for two days of excellent weather while supply convoys went back to Novgorod-Seversky to bring up more fuel. When Guderian resumed his drive toward Tula, an ordnance center along the Orel-Moscow highway, a fierce counterattack by Soviet T-34 medium tanks slowed his progress at the Lisiza River. By October 7, the first light snows began to fall, and despite artillery and Stuka dive-bomber support Guderian's spearhead ground to a halt before Soviet

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Bursting Soviet artillery shells send shrapnel, earth, and debris raining down on German soldiers near Moscow. The intensity of this bombardment is apparent on the faces of the frightened German soldiers in the foreground.

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ABOVE: The lack of winter clothing, as seen in this photograph of German troops awaiting orders outside a command post near Moscow in November 1941, hampered the efforts of the Wehrmacht to capture the Soviet capital city. BELOW: Wary Soviet infantrymen remain alert as the Germans approach defensive positions in a forest near Moscow in October 1941.

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delaying actions at the roadside town of Mtensk. Soon the Russian *razputitza,* or "period of mud," set in, immobilizing Guderian's mechanized forces until winter freezes hardened the roads.

Reflecting complete confidence in its ability to take Moscow at will, OKH convinced Hitler that Stalin's Northwestern and Southwestern Fronts could also be destroyed while an all-out lunge at Moscow was attempted. Ninth Army and Third Panzer Army, therefore, were ordered to send detachments north to Rzhev and Kalinin (respectively 200 and 120 miles northwest of Moscow), which they captured by October 14. Guderian was similarly directed to dispatch his XLVIII Panzer Corps south toward Kursk. The result was a dilution of Army Group Center's armored strength at the time Zhukov was placing every available platoon on the likely approaches to the Soviet capital.

While the Vyaz'ma pocket was being liquidated, a halfhearted German pursuit under Hoepner's Fourth Panzer Army commenced, using the SS Das Reich Motorized Infantry Division as its spearhead. Before long, however, Das Reich was stopped cold on the Minsk-Moscow highway by two newly formed tank brigades equipped with the excellent T-34 medium tanks. The two tank brigades fought tenaciously for four days, delaying Fourth Panzer Army's push toward Moscow and giving Zhukov some badly needed time to move forces—including strategic reinforcements from Siberia—into position at Borodino, Yelnya, and Mozhaisk, a trio of strongpoints west of Moscow.

Guderian's delays in pushing beyond Orel, unexpectedly fierce Soviet resistance around Borodino, and the diversion of part of Army Group Center toward Kalinin gave Zhukov time to throw together parts of 18 rifle divisions and 11 tank brigades—around 90,000 men—to hold back the gray tide. He set up a new defensive line about 75 miles west of Moscow, centered around three cities on the main approaches to the capital—Volokolamsk, Mozhaisk, and Maloyarsoslavets. But by October 15, Bock was ready to attack once again.

Maloyarsoslavets, guarded by the Forty-third Army, was the next of Zhukov's positions hammered by the powerful LVII Panzer Corps. The city fell on October 18, but Soviet defenders were reinforced by the Thirty-third Army and managed to prevent Hoepner's panzers from exploiting the breach. To the north, meanwhile, savage fighting at Volokolamsk further delayed the German advance until October 27, when snow, rain, and mud began to affect Bock's mobility in a serious way.

At Mozhaisk, Zhukov faced his most serious crisis. There, the SS Das Reich and 10th Panzer Divisions met stiff resistance at the nearby town of Borodino, which was guarded by the 32nd Rifle Division, some 50 tanks, and a like number of artillery pieces. It took two days for Hoepner's panzers to grind through the defenses there, but by October 18 Das Reich had blasted its way into Mozhaisk, 55 miles from Moscow. With the fracture of the Mozhaisk Line, Germany now occupied roughly 600,000 square miles of former Soviet territory. Zhukov was running out of room.

The significance of the German victory at Borodino was not lost on Muscovites. In 1812, Napoleon's success there had opened the doorway to French occupation of Moscow. Residents began fleeing the capital, and the government evacuated most offices to the east, although Stalin and the Army's high command remained within the city.

As the fate of Moscow hung in the balance, Bock's logistical vulnerabilities began catching up with him. Miserable weather and muddy roads had hampered his ability to move supplies—especially fuel and ammunition—to frontline troops. That, plus a lack of supply trains reaching his railheads, meant that from

October 24 into November Army Group Center was forced to halt and settle for a war of attrition that it could ill afford. The only German gains over the next few weeks would be along Guderian's sector to the south.

Guderian's objective after seizing Orel was to capture Tula, 100 miles south of Moscow. Having been stymied at Mtensk until October 11, then spending 11 days bringing up additional fuel and ammunition, on October 22 Guderian sent his XXIV Panzer Corps with three infantry divisions and flanked the Soviet defenders the following day. Six days later, Guderian's spearheads were able to pierce defenses south of Tula and attempt a direct assault on the city.

In a heroic last-stand effort, local militia, NKVD security troops, and antiaircraft crews fought off Guderian's lead units just long enough for the 32nd Tank Brigade and two rifle divisions to come to their rescue. Deep mud limited Guderian's mobility until the surrounding roads froze; Tula, like Moscow, gained a respite for the moment.

Guderian prepared to renew his assault on Tula by bringing up the rest of his army in a flanking movement to the east, but by early November Second Panzer Army had bypassed so many smaller Soviet units that Guderian's right flank was seriously exposed. He posted his LIII Corps on the right to deal with threats to his line of communications, but spoiling attacks by the Soviet Third and Fiftieth Armies set off a 10-day running battle that further delayed Guderian's drive on Tula until November 18 and forced Second Panzer Army to consume vital ammunition and fuel stocks.

By the end of October, the vast human resources of the Soviet empire had begun collecting on the Moscow axis. That month, Zhukov received 10 rifle divisions, 19 armored units, a cavalry division, five divisions of militia, and one airborne corps. During November, he would receive another 22 rifle divisions, 17 rifle brigades, 14 cavalry divisions, four armored units, and 11 ski battalions. By November 15, Zhukov and Koniev (whom at Zhukov's request had been given command of the armies fighting at Kalinin) had assembled 38 infantry divisions, three tank divisions, and a dozen cavalry divisions, plus another 14 tank brigades. While many of Zhukov's units would be thrown into combat with little or no training, he now had sufficient numbers to make a decent stand around his capital.

West of Moscow, Zhukov deployed seven armies—from north to south, the Thirtieth, in the north near the Moscow Sea and Volga Reservoir; the Sixteenth, along the Lama River; the Fifth, behind Mozhaisk at the town of Tuchkovo; the Thirty-third, along the Nara River south of the Minsk-Moscow highway; and the Forty-third, farther up the Nara. Below that, the Forty-ninth Army was charged with holding back Guderian's panzers from the road below Tula, while the Fiftieth Army held Tula proper.

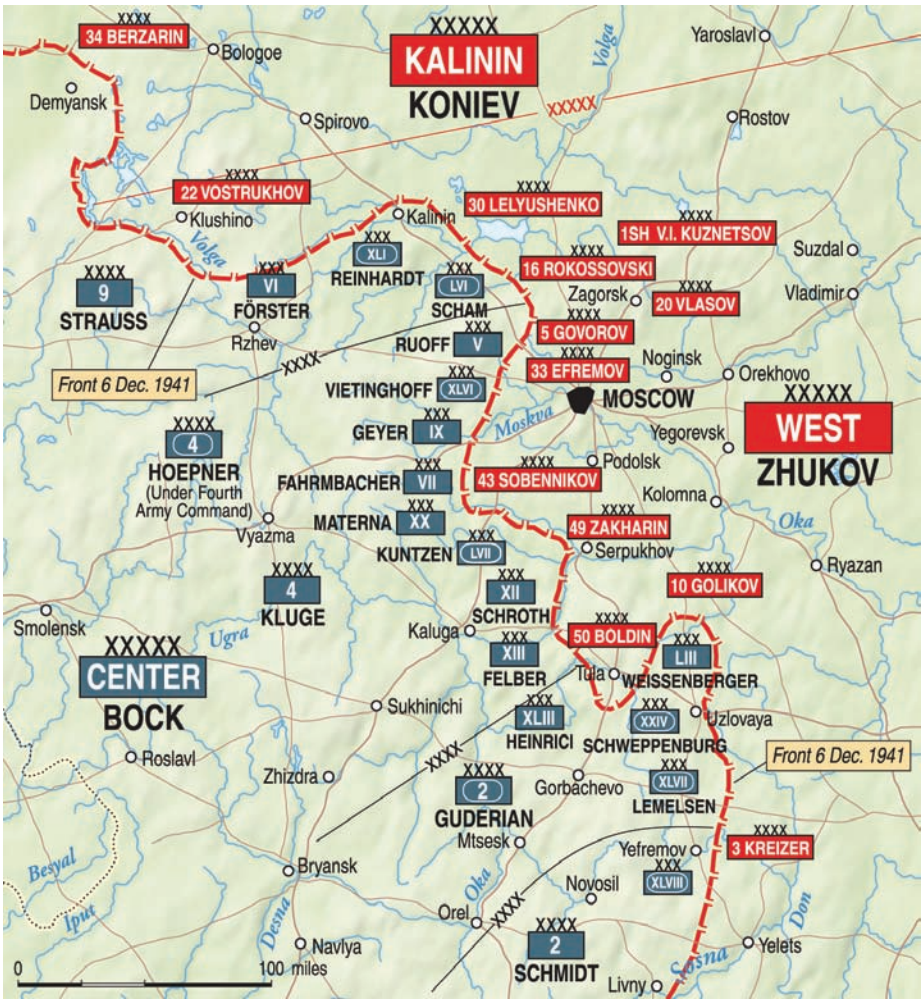
Zhukov, whom Stalin had warned would face a firing squad if German jackboots touched Moscow's streets, did not wish to repeat the mistakes made by Stavka when it had dispersed its strength in piecemeal counterattacks. A ruthless man who occasionally had incompetent generals shot as examples to others, Zhukov was not afraid to give Stalin his unvarnished military opinion. However, Stalin once again insisted upon offensive action, and Zhukov had no choice but to appease the dictator by conducting a number of spoiling attacks that dispersed his reserves but did little to create decisive results.

In Berlin, Hitler faced the same crossroads decision that Napoleon faced at Smolensk 129 years before: should he press on toward Moscow, or should his men go into winter quarters and rebuild their strength? OKH intelligence reports claimed that the remaining defenders were demoralized remnants of defeated field armies, plus a scratch collection of untrained militia and NKVD troops. Hitler predicted to the Wehrmacht's operations chief, General Alfred Jodl, "One final heave, and we shall triumph." Thus, on November 12, OKH ordered Bock and his army commanders to resume their offensive on November 15.

The second phase of Operation Typhoon called for Bock to encircle Moscow with another double envelopment. The Third and Fourth Panzer Armies (a total of 18 divisions) would attack from the north, while Guderian's Second Panzer (nine divisions) would capture Tula and drive toward Moscow from the south. To keep Zhukov from reacting to these flanking movements, Field Marshal Guenther von Kluge's Fourth Army would launch pinning attacks with his 14 infantry divisions along the Nara River.

The plan seemed sound, but its execution, Bock knew, would be difficult. He had the

Map © 2009 Philip Schwartzberg, Meridian Mapping, Minneapolis, MN



equivalent of about 38 divisions for this last phase of Typhoon—roughly half the number that participated in his initial onslaught. To the north, the Third Panzer Army had committed its reserves around Kalinin, while local Soviet counterattacks forced Bock to deploy the Second and Ninth Armies on his exposed flanks.

Bock's logistical constraints also had not eased. He had no significant stockpiles at jumping-off points for his men, and the OKH quartermaster department, unable to supply Army Group Center's requirements of 30 trains per day, simply cut the army group's quota by one-fourth; even that reduced amount did not get through to Bock's forward railheads. It would be a close battle for both armies.

National Archives

Advancing during their successful effort to recapture Klin, Soviet tanks with infantrymen aboard dodge German artillery shells. Numerous German units narrowly escaped annihilation during the fighting near Moscow.

The final struggle for Moscow opened with a three-division attack by Ninth Army's XXVII Corps, supported by the 1st Panzer Division, against Maj. Gen. Dmitri Lelyushenko's Thirtieth Army at the Moscow Sea. The Thirtieth, still recovering from bitter fighting around Kalinin, fell back toward Klin, 52 miles from the capital. This retreat allowed Third Panzer Army to move over the Lama River, 60 miles from Moscow.

On November 18, the main German thrust began as Fourth Panzer Army's V Corps and XLVI Panzer Corps, six divisions in all, ripped open a hole between the Thirtieth and Sixteenth Armies. The Sixteenth, commanded by Maj. Gen. Konstantin Rokossovsky, was forced to withdraw east toward Istra, 36 miles west of Moscow, leaving a gap between the two armies that Hoepner obligingly exploited with two corps.

By November 23, Klin was in German hands, and Thirtieth Army was in peril. But with Koniev launching division-sized counterattacks from the Kalinin region, Bock could not afford to leave his left flank open. He ordered Col. Gen. Adolf Strauss's Ninth Army to assume the defensive and keep Koniev's forces away from his panzers moving against Moscow.

While Thirtieth Army was falling back toward the Volga Reservoir, 35 miles north of the Kremlin, Rokossovky's Sixteenth Army, west of Moscow, was taking a beating around Istra. There, his 78th Rifle Division, newly arrived from Siberia, was putting up a desperate defense against the SS Das Reich Division. The 78th conceded the town on November 27, but not before inflicting 926 casualties on Das Reich and taking a good deal of the fight out of that elite unit. In addition to inflicting German casualties, the battle for Istra bought Zhukov critical time to establish yet another defensive line 21 miles northwest of Moscow.

Time was, for the moment, on Zhukov's side. The delaying actions around Klin and Istra allowed him to withdraw troops east and avoid another pocket disaster, while harsh weather and supply shortages seriously hampered Bock's ability to move forward. But Bock had one last attack left in his army group, and no one knew whether it would end inside or outside the Kremlin walls.

On November 27, advance units of the LVI Panzer Corps managed to reach the Moscow-Volga Canal, but they were thrown back by lead elements of the First Shock Army, and forward momentum on the north side of the capital was lost. Northwest of Moscow, on November 30 the 2nd Panzer Division captured the town of Krasnaya Polyana, 17 miles away, but fierce resistance by Rokossovsky's army, increasingly severe weather, and fuel shortages stopped Hoepner's advance there.

To the south, around Tula, Guderian spent late November fending off counterattacks against his line of communication and gathering fuel to launch one last attack. Meanwhile, at Tula, the Red Army moved replacements into Lt. Gen. Ivan Boldin's Fiftieth Army. Spoiling attacks by Boldin's Siberian 413th Rifle Division damaged Guderian's right flank badly enough to require him to throw off divisions to protect his flank, delaying his planned encirclement of the city.

It was not until November 24 that Guderian was able to send his XXIV Panzer Corps northeast of Tula in an effort to encircle the city. But his all-out effort ground down against unexpectedly strong Soviet defenses, and Guderian, to his disgust, received no help from the plodding Kluge, whose Fourth Army provided negligible support from its divisions north of Guderian's advance. Although German tanks briefly cut the Tula-Moscow highway on December 3, the next day armor dispatched by Zhukov forced Guderian to withdraw from the city's outskirts and stand on the defensive.

South of the Minsk-Moscow highway, Kluge's army sat idle through the late November maelstrom, keeping watch along the Nara River and giving Zhukov the opportunity to move units from his Fifth and Thirty-third Armies north to assist the hard-pressed Rokossovsky. It was not until the early hours of December 1 that Kluge launched a four-division attack against well-prepared Soviet defenses. Kluge's troops performed superbly, but by then Hoepner's Fourth Panzer Army had been stopped, and there was little that the Fourth Army could do at this late date. After Zhukov moved his reserves back to the center to support the crumbing Thirty-third Army, Kluge retired across the Nara, effectively quitting the battle. As Zhukov later commented, "In the absence of attacks at the center we were able to shift all our reserves, down to divisional reserves, from the center of the front to parry the enemy's strike forces on the flanks."

Hitler's Wehrmacht had reached its high-water mark. From the Moscow suburb of Khimki, less than 12 miles from the Kremlin, reconnaissance troops allegedly could see the gleaming onion domes of the city in the dis-

tance. But they were dangerously low on fuel and ammunition. They had sustained around 155,000 casualties and lost over 700 tanks in the second phase of Typhoon, and although OKH did not know it, the Red Army now held a numerical advantage. On December 8, Hitler agreed to suspend offensive operations, citing uncooperative weather, but ordered Bock to hold all conquered territory.

Unbeknownst to OKH, three fresh armies—the First Shock, Tenth, and Twentieth—had arrived at Moscow, and on November 30 Stalin approved a counteroffensive proposal employing six armies. The new armies lacked significant armor, but Zhukov planned to use them to pull the steel fangs out of Bock's panzer divisions.

Soviet counterattacks began on December 5 at the north end of the line, east of Klin, where the Third Panzer Army deployed three panzer and two motorized infantry divisions. Col. Gen. Hans Reinhardt, who had replaced Hoth as commander of Third Panzer after Typhoon's launch, made the mistake of keeping his few operational tanks, only around 80 or so by now, close to his front lines. They were therefore unable to act as a mobile reserve to plug cracks in his front and were vulnerable to a rapid thrust.

On the morning of December 6, Thirtieth Army flung three rifle divisions and two tank brigades at Reinhardt's overstretched 14th and 36th Motorized Infantry Divisions. The First Shock Army joined in the attack, and Twentieth and Sixteenth Armies began pressing attacks along the juncture of the Third and Fourth Panzer Armies. Reinhardt ordered Third Panzer to fall back upon Klin, while Hoepner withdrew Fourth Panzer Army to Istra.

ullstein bild

ABOVE: With their hands up, German soldiers capitulate to Soviet troops. Many of those Germans who surrendered during the fighting on the Eastern Front died in captivity. Others were held for years after the end of the war. BELOW: With the front line no more than 20 miles away, newly arrived Soviet tanks roll through the streets of Moscow to bolster the city's defenses.

National Archives

As Hoepner and Reinhardt were pulling back, the Soviet Fifth Army joined the battle, and Third Panzer suffered heavy losses in artillery and vehicles as Reinhardt tried to cobble together a Kampfgruppe (battle group) from two panzer divisions to hold back the red tide. Miserable weather and fuel shortages impeded cooperation between the two panzer armies, and by December 11 Rokossovsky had pushed the Germans out of Istra. Bock's left wing was in danger of collapse.

On December 12, Rokossovsky moved in for the kill, sending two tank brigades, two motorized regiments, and two cavalry units around Third Panzer Army to cut off its line of retreat. His force captured the road from Klin on December 14, isolating four panzer divisions plus the hard-pressed 14th Motorized Infantry Division. Leaving behind much of their heavy equipment, the divisions trapped at Klin forced open the road to Kalinin just long enough to escape the rapidly closing noose, and by December 15 Third and Fourth Panzer Armies again were in retreat.

To the south, around Tula, Boldin's Fiftieth Army, plus reinforcements from the I Guards Cavalry Corps and the newly formed Tenth Army, battered Guderian's front and flanks. At the same time, Stavka sent two reinforcing armies toward Tula, and by early December those armies had converged upon Second Panzer's flanks. As in the north, three of Guderian's infantry divisions were threatened with encirclement, but all managed to withdraw southwest with heavy losses. Soviet thrusts at the juncture between Fourth Army and Second Panzer Army threatened to isolate Guderian, and by December 12 he was in retreat toward Orel. Moscow had been saved.

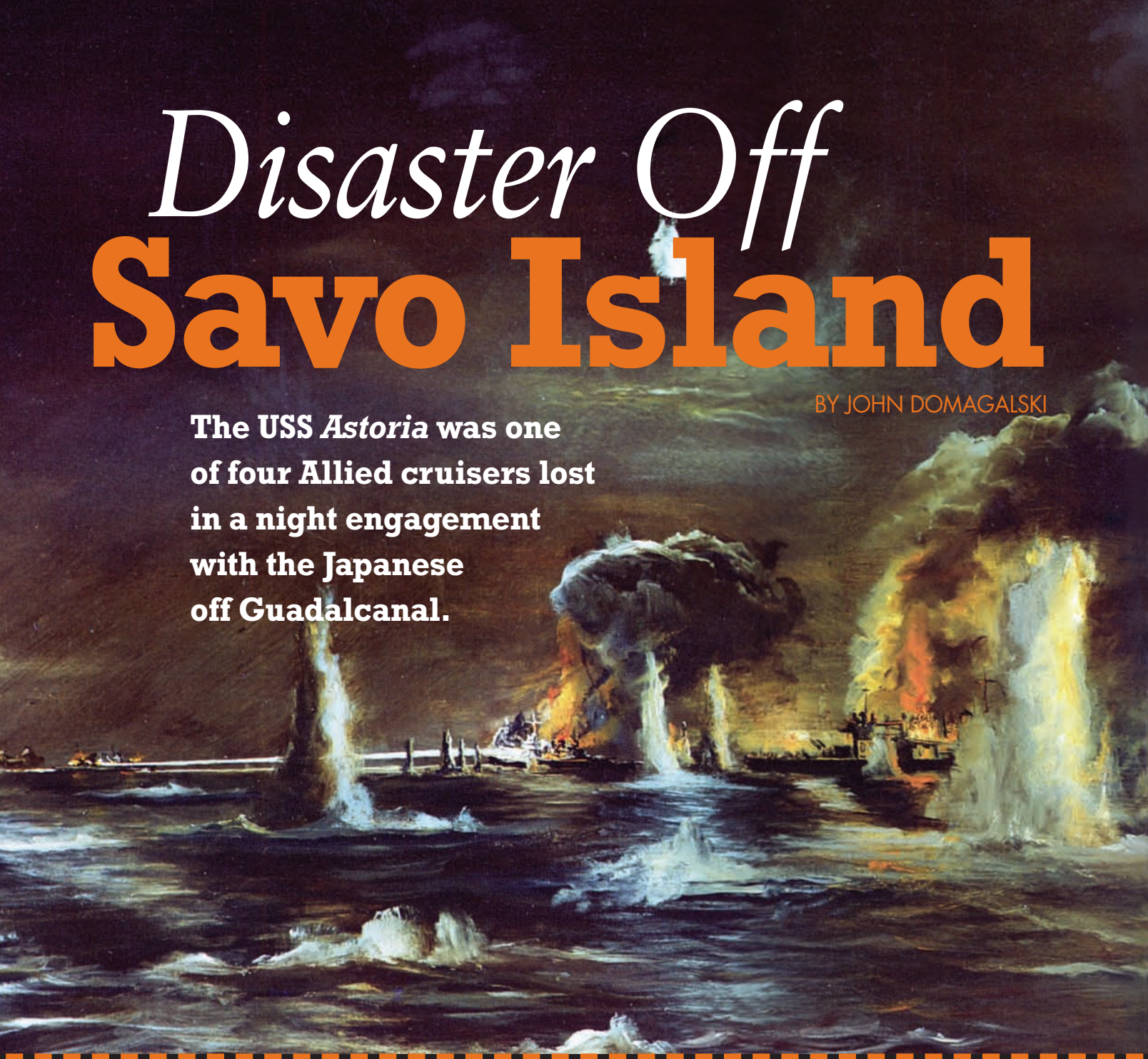
Operation Typhoon was a near run thing for the Soviet Union. From September 30 to December 15, the Red Army sustained roughly 1.5 million casualties (some 350,000 in December alone), and the Soviet government had been forced to evacuate its capital. Army Group Center, for its part, lost over 150,000 men.

Continued on page 77

Disaster Off Savo Island

BY JOHN DOMAGALSKI

The USS *Astoria* was one of four Allied cruisers lost in a night engagement with the Japanese off Guadalcanal.



Admiral Ernest King could not believe what he was reading. The graying 63-year-old chief of U.S. naval operations had been awoken from his sleep. An overdue message from the Guadalcanal battle zone had finally arrived at his headquarters during the early morning hours of August 12, 1942.

In showing King the memo, Captain George Russell simply said, "It isn't good." A naval battle had taken place off Savo Island near Guadalcanal. The American warships guarding the approaches to the landing zone on the island's beaches had been surprised at night by a Japanese naval force. Four Allied heavy cruisers had been sunk. The nearby troop transports, still unloading precious supplies, were not harmed. However, they were being pulled back due to the imminent threat of additional attacks.

King would later consider the Savo Island battle the low point of the war. He said, "That, as far as I am concerned, was the blackest day of the war. The whole future then became unpredictable." The last of the four cruisers to go down was the USS *Astoria* (CA-34).

Launched at the Puget Sound Navy Yard on December 16, 1933, the *Astoria* was the second ship of the New Orleans class of heavy cruisers. Among the last group of cruisers designed to be within the guidelines of the Washington Naval Treaty of 1922, the New Orleans class emphasized protection. Although slightly smaller than previous classes of "treaty cruisers," the New Orleans ships featured thicker belts of side armor, increased protection around the magazine areas, and stronger deck armor. The *Astoria* as built had a main battery of nine 8-inch guns mounted in three turrets. Secondary armament consisted of eight 5-inch single-mount guns placed roughly amidships, four to a side,

In this painting of the Battle of Savo Island by artist John Hamilton, the American cruisers *Quincy, Astoria,* and *Vincennes* are hit by torpedoes and shellfire from Japanese warships. Along with the Australian cruiser *Canberra,* the three U.S. vessels were all sunk by the morning after the battle.

and eight machine guns. Wartime brought the addition of an assortment of antiaircraft guns mounted at various points around the ship.

The *Astoria* was no stranger to action prior to her participation in the Guadalcanal operation. She began the war cruising with the carrier *Lexington* on a mission to deliver planes to Midway Island. The task force was located about 420 miles southeast of Midway when Pearl Harbor was attacked. Subsequent months saw the *Astoria* involved primarily in carrier escort duties. She participated in the Battles of Coral Sea and Midway. During the latter battle, she briefly served as the flagship for Rear Admiral Frank Jack Fletcher after the carrier *Yorktown* was abandoned. By late summer the *Astoria* was under the command of Captain William Garrett Greenman. The 53-year-old Greenman had taken over as the commanding officer of the cruiser on June 14, 1942.

Early August meant an exhausting stretch of long and difficult days for the crewmen aboard the *Astoria.* Since departing Koro Island in the Fijis on July 31, the crew had been in an almost constant state of readiness. The United States Navy was now on the offensive in the eight-month-old war with Japan, and the *Astoria* was in the thick of it. Since the landing of the Marines near Lunga Point on Guadalcanal and the smaller nearby island of Tulagi on the morning of August 7, the *Astoria* had helped fight off two Japanese air attacks and stood guard duty covering the approaches to the landing zone. More of the same routine was expected in the days to come.

Upon the initial approach to Guadalcanal, the *Astoria* had operated with her sister ships *Vincennes* and *Quincy* as part of a fire support group designated Task Group 62.3. When the

U.S. Navy

fire support role ended, the cruisers became part of a larger screening group. Under the command of British Rear Admiral V.A. Crutchley aboard the cruiser *Australia,* the operations of the screening group centered on protecting the transport ships. Positioned off the landing zone, these were the ships that carried the Marines, equipment, and supplies that made up the invasion force. Their survival was vital to the success of the Guadalcanal operation.

During daylight hours the cruisers took up antiaircraft positions in close proximity to the transports. In the evening, the screening group guarded the sea approaches to the landing zone against the possibility of an attack by Japanese surface forces. To cover all possible points of entry to the area, Crutchley divided his screening force cruisers into three main groups; each was originally designated a name based on the lead cruiser of the formation.

Patrolling south and east of Savo Island, the *Australia* group comprised the heavy cruisers *Australia, Canberra,* and *Chicago*. The Australia group later became known as the south group of cruisers. The *Vincennes* group, later known as the north group, contained the *Astoria* and *Quincy* in addition to the name ship. Under the command of Captain Fredrick L. Riefkohl of the *Vincennes,* this group covered the east to west distance between Savo Island and Florida Island. Covering the eastern approaches to the landing zone were the light cruisers *San Juan* and *Hobart*. The latter area was deemed by Allied commanders as the least likely avenue for a Japanese surface attack. Each cruiser group was screened by two destroyers with additional radar-equipped picket destroyers stationed beyond the approaches.

The night of August 8 began much like the previous night. At twilight the Astoria moved out of her daytime antiaircraft position and into her preassigned evening patrol area as part of the north group of cruisers. She took up position as the last ship in the column of cruisers about 600 yards directly behind the Quincy. The destroyer Helm was positioned 1,500 yards off the port bow of the lead cruiser, Vincennes. The destroyer Wilson occupied a similar position off the lead cruiser's starboard bow.

The group patrolled the perimeter of a box that was roughly five miles per side. Turning 90 degrees in column to the right every 30 minutes, the group cruised at a speed of 10 knots, making the appropriate adjustments in time and speed to execute the corner turns as scheduled. Just before midnight rain squalls over Savo Island began to slowly move to the southeast, ultimately ending up between the north and south groups of patrolling cruisers.

The *Astoria* stood at condition of readiness two. Under this arrangement, normally used when the possibility of a surprise attack existed, the crew stood alternate watches of four hours' duration. Two guns in each of the cruiser's three 8-inch main turrets were manned. All nine guns were loaded with shells but were not primed. Lookouts scanned the horizon for enemy submarines, which were reported to be operating in the area. Captain Greenman was aware that a group of Japanese surface ships had been sighted earlier in the day some 400 miles away in the vicinity of Bougainville Island. Surely the picket destroyers or the south group of cruisers would sound an early alarm if and when the enemy surface ships arrived in the area.

U.S. Naval Historical Center

The USS *Astoria* fires its 8-inch guns during gunnery practice off Hawaii in July 1942. Within minutes of meeting the Japanese off Savo Island, the *Astoria* was in flames.

The stroke of midnight ushered in the start of a new day—Sunday, August 9, 1942. The 12 to 4 AM mid-watch had just begun aboard the *Astoria*. Men coming on watch settled into their positions across the cruiser. Weary sailors coming off watch set out for a brief four hours of rest before rotating back on duty.

Among those coming off watch was Seaman 2nd Class Norman Miller. He went below for a quick shower. Unable to sleep in his bunk, he decided to go topside. This was not unusual given the hot conditions that existed below deck. He ended up lying down on some life jackets near the 20mm guns that were located just above turret number three.

Lieutenant Commander J.R. Topper had begun his watch on the bridge as the supervisory officer of the deck just prior to midnight. A few minutes later Lieutenant (j.g.) N.A. Burkey, Jr., assumed his watch as officer of the deck. Among other sailors taking up their watch positions on the bridge were Quartermaster 2nd Class Royal Radke and Seaman 2nd Class Don Yeamans. Aboard the *Astoria* since June 1941, Yeamans was part of the quartermaster crew. Radke would serve as the lead quartermaster for the watch. Captain Greenman retired, fully dressed, to his emergency cabin located immediately adjacent to the pilot house.

Above the bridge, Seaman 1st Class Lynn Hager arrived for his watch at sky control. He put on his headset and tuned into the JV communications circuit. His first order of business was to test communications to the bridge. Everything appeared to be working properly. From the bridge came the following request: "Keep a sharp lookout on our own formation and all around." He then moved over to his lookout station on the starboard side next to the 1.1-inch gun director, adjusted his binoculars, and began to search the horizon.

Deep below the main deck, Ralph Boone began his watch in the after engine room. The Machinist Mate 2nd Class had been aboard the *Astoria* since May 1940. He knew the ship well and soon went about his duties of conducting routine maintenance. In all parts of the ship, the men on watch went about their duties unaware that disaster lay less than two hours ahead.

The events that would lead to disaster for the men of the *Astoria* began to take shape shortly after the Japanese had learned of the American landings on Guadalcanal and Tulagi. At about 2:30 PM on August 7, the Japanese heavy cruiser *Chokai* sortied from Simpson Harbor, Rabaul. Aboard was Rear Admiral Gunichi

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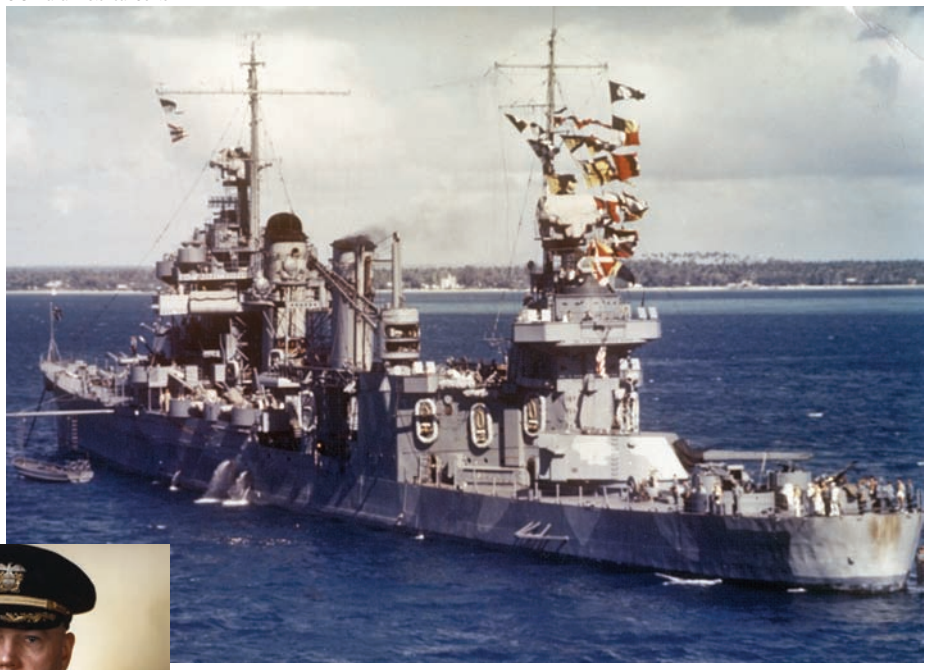

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ABOVE: This rare color photo shows the cruiser USS *Quincy* at Noumea, New Caledonia, on August 3, 1942, just four days prior to the U.S. invasion of Guadalcanal. LEFT: Captain Samuel N. Moore commanded the USS *Quincy* during the Guadalcanal operations. The warship's career ended with its tragic loss off Savo Island.

Mikawa, the commander of the newly formed Eighth Fleet. From the bridge of his flagship, Mikawa would personally lead an audacious counterattack. The bold plan called for a surprise night attack against American shipping in the Guadalcanal area about 675 miles southeast of Rabaul.

Mikawa had assembled a powerful force of five heavy cruisers, two light cruisers, and a single destroyer. The attack force would enter the Guadalcanal area on the south side of Savo Island and move east to attack American shipping before departing the area by traveling north between Florida and Savo Islands. The journey south from Rabaul would take the Japanese force to the east of Bougainville and then southeast through a narrow passage in the Central Solomons known as "The Slot" that led directly to Guadalcanal. By the afternoon of August 8, the force had passed to the northeast of New Georgia on its final approach to Guadalcanal.

With scout planes launched in advance to reconnoiter the Guadalcanal area, the Japanese approached Savo Island at a high rate of speed. The scout planes reported the approximate positions of the two Allied cruiser forces positioned around Savo Island as well as the disposition of the transports. Just after 1 AM on August 9, the force passed undetected near the destroyer USS *Blue* stationed northwest of Savo Island. Both radar and lookouts failed to spot the Japanese ships as they moved through the south passage around Savo and directly toward the south cruiser force. By this time Admiral Crutchley had already departed the area with the *Australia* for an urgent meeting of commanders off the landing zone.

In a series of events that occurred in rapid succession, the Japanese force approached and surprised the unsuspecting cruisers on patrol southeast of Savo Island. Among the first American ships to sight the approaching Japanese was the destroyer *Patterson*. She immediately sent an emergency message over TBS (Talk Between Ships) radio, "Warning! Warning! Strange Ships Entering Harbor!" It was 1:46 AM. Almost immediately, Japanese float planes dropped bright flares in the vicinity of the transports off Lunga Point, illuminating the cruisers *Canberra* and *Chicago*.

Then, the shooting started. Hit 24 times in less than five minutes, the *Canberra* was quickly turned into a blazing inferno. The *Chicago,* hit by a torpedo in the bow, failed to make contact with the Japanese cruisers as they sped past. Captain Howard Bode of the *Chicago,* left in charge of the south force by Crutchley, failed to send out a warning to Captain Riefkohl aboard the *Vincennes*.

At the approximate time of the *Patterson*'s warning message, *Astoria*'s Officer of the Deck Burkey was acknowledging a course change from the *Vincennes* over TBS radio. The cruiser group was turning slightly off schedule. As a result, the *Patterson*'s warning message was not received. A few minutes later Lt. Cmdr. Topper felt what he thought was a distant underwater explosion. Although he attributed it to a destroyer dropping depth charges, the noise was most likely torpedoes from the Japanese battle with the southern cruisers. Captain Greenman was not notified and remained asleep in his emergency cabin.

Lieutenant Topper was not the only one to hear underwater noises. In the after engine room, Machinist Mate Boone was in the process of checking the shaft alleys. The task, considered routine maintenance, was done to ensure that the shafts were properly turning. Boone suddenly heard strange noises in the water. He thought that there were problems with the shafts and immediately reported the sounds to the chief machinist mate who was in charge of the engine room. The chief promptly told him to check the shafts again.

At sky control, Seaman 1st Class Hager heard the distant sound of an airplane. Other lookouts soon reported hearing planes overhead. Hager twice reported this information to the bridge, and the latter report occurred at about 1:30 AM. Lieutenant Arthur McLaughlin, the officer in charge of the six-man watch on duty at sky control, ordered sky forward and sky aft to keep a sharp lookout.

Upon hearing the reports of planes overhead, Topper immediately went to the starboard side of the bridge. Listening intently he could hear only the sound of the blowers that were located right behind turret one. He then went to the starboard window of the pilot house and looked forward and to the right. Nothing seemed amiss with the other ships in the formation.

The first indication that something was wrong appeared a short time later. Lynn Hager sighted a string of four or five flares from his post at sky control. He estimated the distance was 5,000 yards from the *Astoria*. A relative bearing of 180 degrees put the flares off the *Astoria*'s stern. Hager believed that the flares had been dropped from planes, and he reported his sighting to the bridge. At first the flares did not seem to be burning very well as they hung in the misty atmosphere. However, after lowering a short distance, the flares soon began to burn brightly. Lieutenant McLaughlin ordered Hager to report to the bridge the need to sound general quarters.

At about the time Hager's report of flares reached the bridge, Topper yelled for Burkey to call the captain and stand by to sound general quarters. He then ran out the portside door of the pilot house and identified a string of four aircraft flares about 5,000 yards off the port quarter. It was about 1:50 AM.

The gunnery department sprang into action at the first sight of the flares. Gunnery Officer Lt. Cmdr. William Truesdell, saw the flares just as a lookout reported the sighting of three Japanese cruisers. He immediately ordered all of the remaining main battery guns loaded and then requested the officer of the deck to sound general quarters. Sighting information was already flowing into the main battery plotting room where Lieutenant (j.g.) Dante Marzetta and his men were quickly calculating a firing solution. The enemy cruisers were thought to be 5,500 yards away at a target angle of 315 degrees.

The Japanese cruisers, speeding northwest toward the *Vincennes* group, had their guns aimed at the American cruisers as early as 1:47 AM. Lookouts aboard the *Chokai* could clearly see that the last ship of the American column, the *Astoria,* did not have her main battery turrets trained in battle positions. To the Japanese it appeared that the northern force of cruisers would also be surprised. With the command to commence firing given at 1:50 AM, the *Chokai* immediately switched on her searchlight, illuminating the *Astoria* at a distance of 7,800 yards.

Within seconds the Japanese flagship's first main battery salvo fell off the *Astoria*'s port bow, short and to the left. Following the lead of their flagship, other Japanese cruisers similarly opened fire against the *Quincy* and *Vincennes.* Less than two minutes later the *Chokai*'s second main battery salvo fell off the *Astoria*'s port side.

By this time Gunnery Officer Truesdell had requested permission to open fire. When no reply came from the bridge, he gave the order himself at about 1:53 AM. The *Astoria* suddenly shook from the blast of an eight- or nine-gun salvo. Directed at the *Chokai,* all shots missed.

Confusion reigned aboard the bridge of the *Astoria* as the key officers of the watch were initially unaware that enemy cruisers had been sighted. Officer of the Deck Burkey, on the TBS with the *Vincennes* acknowledging a planned course change, had not carried out Topper's request to call the captain. Quartermaster Radke observed a distant ship opening fire and immediately pulled the general quarters alarm without having the orders to do so. Noticing the absence of the captain, the junior officer of the deck, Lieutenant (j.g.) John Mullen rushed to get Greenman.

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TOP: The crew of the USS *Astoria*'s No. 3 gun, a 5-inch weapon, works feverishly during gunnery practice in the spring of 1942. ABOVE: The sleek cruiser USS *Vincennes* steams ahead during naval maneuvers off Hawaii in July 1942. The *Vincennes* was a victim of superb Japanese night fighting skills during the Battle of Savo Island.

The fourth main battery salvo left the *Chokai* at about 1:53 AM as the cruiser was almost 6,800 yards from the *Astoria.* Falling about 500 yards short, the salvo was correct in deflection. The Japanese gunners were close to having the *Astoria*'s number.

With the general alarm sounding, Captain Greenman entered the pilot house just as the main battery fired. Trying to grasp the situation at hand, he noted the flares in the distance and his ship being illuminated by a searchlight. He immediately questioned Topper, "Who sounded the general alarm? Who gave the order to commence firing?" Topper replied that he had not given either order. Concerned that the *Astoria* was firing on friendly ships, Greenman gave the order to cease fire. Truesdell immediately informed the bridge that he was firing at Japanese cruisers.

The gunnery officer requested urgent permission to resume fire. Captain Greenman looked up to see a salvo straddle the *Vincennes* off in the distance. Less than a minute later he saw the *Chokai*'s fourth salvo fall just short of the *Astoria.* He immediately gave the orders to sound general quarters and open fire. Greenman then ordered the ship to full speed and turned the *Astoria* slightly to port to better position her in relation to the targets and to keep clear of *Quincy*'s firing line.

The general quarters alarm sent sailors scurrying about the *Astoria* heading to their assigned battle stations. Men seemed to be racing in all directions on and around the bridge. Royal Radke stayed on the bridge as lead quartermaster, while Topper went to central station. Don Yeamans was in position on the port side pelorus, an extended point out from the bridge, with his headset tuned into the JV circuit. From his vantage point he observed the confusion on the bridge as the battle started.

He recalled, "Everyone was running around like the devil." He turned to look out to sea. "I could see something on fire off in the distance." The flames were likely the burning *Canberra,* whose men had already endured what the *Astoria*'s crew was about to experience. Also rushing to his bridge battle station was Ensign Thomas Ferneding. Aboard the *Astoria* for less than a year, Ferneding served as the cruiser's signal officer.

At about 1:55 AM, the *Chokai*'s fifth salvo hit the *Astoria* amidships, scoring at least four direct hits with 8-inch armor-piercing shells. The hits started fires on the boat deck and in the hangar area. The cruiser's seaplanes, fully fueled in anticipation of an early morning launch, were quickly set aflame. The fires served as a target for Japanese gunners, who no longer needed the aid of searchlights.

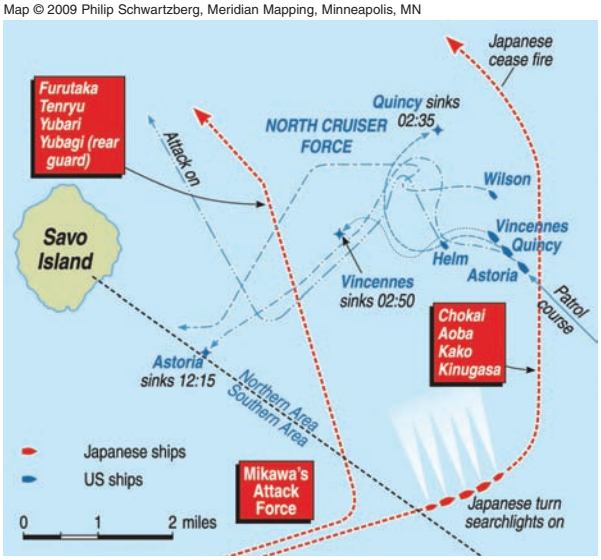
The *Astoria* returned fire with a six-gun salvo. Fired from the two forward turrets, the shells fell short of their intended target. The two forward turrets now reached the limit of their turning radius on the port side and could no longer be brought to bear on the lead Japanese cruiser. The U.S. cruiser could now only return fire with turret three, which had temporarily lost power. A turn would later correct the situation and shift the firing to the starboard side.

Shortly after the *Astoria* fired her salvo, turret one was hit three times. Most likely coming from the same 8-inch salvo, one shell pierced the face plate while the two remaining shells hit the barbette. All personnel within the turret and barbette were killed. Another turn of the cruiser allowed her only available turret, number two, to fire its two guns.

The *Astoria* now came under extremely con-

centrated fire as additional Japanese cruisers directed their guns upon her. During a six-minute stretch beginning at 2 AM, the *Astoria* was hit time after time by shells both large and small. During the onslaught the forward engine room was filled with smoke from a hit above and had to be abandoned. The number one fireroom was hit and all occupants killed. The main fire risers were severed, cutting off the water supply needed to fight the now raging fires amidships. An 8-inch shell pierced the protective shield around the number eight 5-inch secondary gun on the port side, hitting the ready service ammunition box and blowing a large hole in the deck. The fire in the hangar area now burned out of control. Most of the secondary 5-inch batteries eventually fell silent, with the majority of their crews killed at their battle stations.

Map © 2009 Philip Schwartzberg, Meridian Mapping, Minneapolis, MN



Surprised by a strong Japanese naval force less than a week after American Marines had landed on Guadalcanal, four Allied cruisers were lost in the debacle of the Battle of Savo Island.

During the hail of gunfire, a direct hit on the chart house killed the *Astoria*'s navigator, William Guy Eaton. The 42-year-old lieutenant commander was most likely killed instantly. Also felled in the same blast was Chief Quartermaster Leo Brom. The shell had hit just inside Don Yeamans's position at the port side pelorus. "There was just a steel wall between us," he recalled of the area. The force of the blast knocked him off his feet and ruptured his eardrums. The next thing he knew, two sailors were helping him up off the deck asking if he was okay.

Ralph Boone never completed his routine maintenance. He was just about to start his second check of the shaft alleys when general quarters sounded. "I grabbed my lifejacket and flashlight," Boone recalled as he raced to his battle station. At general quarters he would become part of a repair party that assembled in the mess hall. The room was located right above the after engine room.

Shortly after he arrived on station, the mess hall was hit by a Japanese shell. It caused a tremendous explosion and started a fire. Boone was not injured, but others around him were not so fortunate. Another machinist mate, A.L. McCann, was seriously wounded in the foot and ankle. Boone called out for a first aid kit. Ensign Hugh Davis immediately appeared with one in hand.

"I was preparing to put on a tourniquet when another shell hit nearby and destroyed the first aid kit," said Boone, who decided to carry the wounded man to the after battle dressing area where he could receive better treatment. Passing through the crew quarters, he was stopped by Water Tender 2nd Class W.T. Duffy who had been on the JV phone. Duffy informed Boone that the after battle dressing area had been hit and was on fire. Unsure of what to do next, Boone gently laid McCann down into a bunk bed. He was soon recruited to help plug a shell hole one deck below and never saw the wounded man again.

In his position above the hangar, Seaman 2nd Class Miller had been seriously wounded in both legs. He was just about to fall asleep when the battle started. To escape his precarious position he was lowered by rope to the top of turret number three. Shortly thereafter, he was pushed off the turret and onto the main deck. With a life jacket on, he was lowered by rope into the water. Sometime later he was pulled aboard a life raft and was eventually picked up by a destroyer.

The situation aboard the *Astoria* was getting worse. Throughout the stricken cruiser, a grisly scene was being repeated. Wounded men were clinging to life. Some had been badly burned, while others were missing limbs. The deck was slick with blood.

The bridge personnel still had control of both steering and engines. Communications lines were still open with central station, which was believed to be intact. There were no major fires reported below the main deck. However, the ship was on fire amidships, turret one was out, and most of the secondary gun batteries had been silenced. At about this time the engineering officer reported to the captain that there was serious trouble in the boiler rooms and that the ship had begun to lose power.

At this juncture the starboard side of the *Astoria*'s bridge was raked by gunfire, most likely from the heavy cruiser *Kako*. Among the bridge personnel who went down was the helmsman, Quartermaster 1st Class Houston Williams. Boatswain's Mate 1st Class Julian Young, also wounded from shrapnel, made it to his feet and took the wheel. Just then the *Quincy* appeared off the port bow, a mass of flames. It appeared as though the ships would collide. Captain Greenman ordered a hard turn to port. Young threw the wheel to the left, and the *Astoria* passed safely astern of her sister ship.

The gunfire had also seriously wounded Ensign Ferneding in the right leg and heel. "I went to stand up and collapsed," he would recall of the moment. Ferneding had been standing just inside the pilot house on the starboard side. Yeoman 2nd class Walter Putman propped him up against the bulkhead and gave him a cigarette.

After the hit on the chart house, Quartermaster Radke went about attending to the wounded as best he could. The captain's orderly soon told him to relieve Young at the helm. The wounded boatswain's mate was near the point of collapse. Someone needed to have control of the wheel to continue the zigzag movements that the captain had been ordering. Radke took the wheel and discovered that steering control had been lost. Steering was immediately shifted to central station. The speed of the *Astoria* was now seven knots.

Turret two trained out to the port side to take aim at a searchlight that was once again illuminating the ship. The source of the light was most likely the Japanese cruiser *Kinugasa*. With the main fire control system down, the turret fired under local control. These would be the last shots fired by the *Astoria*. The salvo missed the *Kinugasa* but scored a direct hit on the number one turret of the *Chokai*. The searchlight was soon extinguished. Enemy gunfire now began to subside. At last it appeared that the battle had passed by the *Astoria*.

Above the bridge at sky control the situation was deteriorating as enemy gunfire exacted a heavy toll. The last order that Lynn Hager had received over the JV circuit from the bridge was to "Get those damn searchlights." The communication circuit then went dead. Hager later reported, "Men up on the sky control kept dropping. They were scattered around the decks." An officer left the position to try to bring some wounded men down to sick bay and returned reporting that the sick bay had been destroyed. Hager took off his useless headset and began to assist the wounded. When sky control was evacuated, he made his way

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ABOVE: This photograph taken from the deck of the Japanese cruiser *Chokai* shows flares illuminating the American cruiser USS *Chicago* and the Australian cruiser *Canberra* on the night of August 8-9, 1942. RIGHT: Rear Admiral Gunichi Mikawa commanded the Japanese Eighth Fleet, which held the upper hand throughout the Battle of Savo Island.

down to the communication deck.

At about 2:15 AM, the *Astoria* lost power. Moments later, Lt. Cmdr. Truesdell, coming down from the director high above, entered the pilot house and informed the captain that the ammunition clipping room directly above the bridge was on fire. With ammunition already starting to explode, he recommended that the bridge be abandoned. To those remaining on the bridge, it appeared that the entire ship aft of the main mast was a mass of flames. Greenman wasted no time ordering the abandonment of the bridge area. He passed word that all able-bodied and wounded men were to assemble at the forecastle, near the front of the ship. The captain himself took up station on the communication deck, just forward of turret two.

Truesdell stayed behind to direct the evacuation of the wounded from the bridge area. He searched all the upper levels to ensure that everyone was out. The able-bodied did the best they could to help the wounded down. Unable to leave under his own power, Ensign Ferneding was lowered to safety after a rope had been tied around him. Don Yeamans climbed down a ladder and made his way toward the front of the ship. Everything seemed to be on fire.

By 3 AM, about 400 men, including many wounded, had gathered near the forecastle. Captain Greenman began to assemble the facts as to the status of his ship. It appeared that no serious fires existed below the second deck. The engine rooms were thought to be watertight. The ship had a list of three degrees to port, reason unknown. Large fires in the vicinity of the well deck, secondary gun batteries, and boat deck prevented access to the after part of the ship. Conditions near the stern were not known.

With all water mains ruptured, a bucket brigade was organized to attack the flames. It was hoped that the fires amidships could be beaten back. Sailors worked feverishly fighting the flames but with little success. The decks near the captain's cabin became so hot that a plan to treat the wounded in that area had to be abandoned. Captain Greenman soon became concerned about the forward magazines. He ordered both the 8-inch and 5-inch magazines flooded. The flooding of the 8-inch magazine appeared to have been successful, but explosions heard in the vicinity of the 5-inch magazine cast doubt as to whether the flooding of that area worked. The captain became increasingly concerned that the 5-inch magazine would detonate.

Coming down from the bridge, Yeamans could feel the main deck getting hot. He knew that he was near one of the magazines but had no idea if it had been flooded. He thought that he heard someone yell "abandon ship" and quickly jumped over the side. It turned out that no such order had been given. He was picked up by the destroyer *Bagley* after spending three or four hours in the water.

At about 4:45 AM, the captain decided it was time to abandon the stricken cruiser. The *Bagley* was requested by blinker to come alongside the *Astoria*'s starboard bow. Maneuvering into place, the destroyer nudged her bow right up to the side of the cruiser. Wooden planks, normally used for painting the side of the ship, were put in place to establish a crossing. Once the wounded were safely transferred to the destroyer, able-bodied personnel began to leave the *Astoria*.

As the *Bagley* pulled away, a flashing light was seen near the stern of the *Astoria*. The after portion of the cruiser did not appear to be on fire as first thought. The destroyer acknowledged the signal and then turned her attention to picking up survivors who were scattered about the sea.

Under the direction of Commander Frank Shoup, the cruiser's executive officer, survivors had assembled near the stern of the ship. Commander Shoup had been forced to abandon his station due to intense fires. About 150 men, including about 30 wounded, gathered near the fantail. The 1.1-inch machine gun mounts on the main deck near the stern and turret three remained manned although the latter had no power. Looking forward, the men aft could see intense fires. They assumed that the entire forward part of the ship was ablaze.

Shoup ordered the wounded evacuated. Four life rafts filled with the most serious cases cast off from the *Astoria*'s stern in search of a destroyer. They were later picked up by the *Wilson*.

Commander Shoup then organized a bucket brigade. The group began to work at the starboard entrance to the hangar. Using buckets and 8-inch powder cans, they worked to beat back the flames. Their efforts were aided at about 3:00 AM when a light rain began to fall. About an hour later the noise of a gas-powered pump was heard coming from somewhere near the forward part of the ship. Between 4:30 and 5 AM, the bucket brigade had worked its way onto the well deck where progress was eventually blocked by an oil fire. About that time, the *Bagley* was seen departing near the *Astoria*'s bow and signaled by flashlight.

Taking stock of the situation, Shoup and the chief engineering officer, Lt. Cmdr. John Hayes, came to the same conclusion. The *Astoria* could be saved. They felt that there was a good possibility that the cruiser could even get under way on her own power. Shortly after daylight the

Bagley pulled up close to the *Astoria.* A series of shell holes was observed just above the waterline on the port side of the cruiser. Captain Greenman soon reboarded his stricken ship.

Commander Shoup told the captain, "I think we can save her." Greenman immediately formulated a plan of action.

After additional wounded were taken off the cruiser, a salvage crew of about 325 men began the effort to save the *Astoria*. The group consisted mostly of engineers, signalmen, and other specialists. Most of the officers also participated. The *Bagley* took off to transfer the remaining survivors to a transport just after 6 AM. The effort to save the *Astoria* was soon in full swing. Three firefighting parties were organized to continue the work against the flames. Another group was assigned the grim task of collecting dead bodies and preparing the corpses for burial at sea.

Lieutenant Commander Topper, also the ship's damage control officer, led a party below decks in an effort to determine the extent of the damage below the waterline. A 5-inch shell hole was found on the starboard side. It had been plugged and appeared to be holding. Several small fires were found and extinguished. The after magazines appeared to have been properly flooded. The group secured all watertight hatches and openings on the second deck and below.

Engineering personnel also went below to examine the various engine and fire rooms. Some of the rooms proved to be inaccessible due to debris or heat from nearby fires. Engineering Officer Hayes concluded that he could attempt to make steam from fireroom number 4 only. With both the forward and after batteries exhausted and the middle batteries destroyed near the well deck, all electrical battery power was found to be gone.

At about 7 AM, the minesweeper *Hopkins* came to the area to provide assistance. An old destroyer converted to a minesweeper, the vessel transferred a gas-powered pump and hose to the cruiser to aid in the firefighting effort. A power cable was also passed over with the hope that it could be spliced into the *Astoria*'s system. Captain Greenman felt that the best chance to save the *Astoria* would be to get her into the shallow waters near Guadalcanal. He requested that his cruiser be taken under tow. Accordingly, the *Hopkins* backed her stern up to the cruiser's rear so that a tow line could be passed between the ships. It took two attempts, but the *Astoria* was soon under tow. The *Hopkins* eventually was able to make three knots.

The destroyer *Wilson* arrived on the scene at about 9 AM. Positioning herself off the *Astoria*'s starboard bow, she soon began to pump water into the fires. The stream continued for almost an hour. Around 10 AM both the *Wilson* and *Hopkins* were called away. Captain Greenman was soon advised that the destroyer *Buchanan* would arrive to continue the firefighting effort. The transport *Alchiba* was also dispatched to take up the tow line

Although some progress had been made on the flames above deck, the fires below were increasing in intensity. A large fire was burning out of control in the wardroom area. Several small explosions below decks occurred, followed by a much larger one at 11 AM. The larger explosion appeared to have originated below and just behind turret two. The *Astoria*'s list to port began to increase, first to 10 degrees and then to 15 degrees. The holes, which had been just above the waterline, were now taking in water. A failed attempt to plug them was made with mattresses and pillows.

Lieutenant Commander Topper was standing on the forecastle when he felt the rumble of another internal explosion. Looking over the port side he noticed yellow bubbles coming to the surface near turret two. He immediately ordered all personnel to leave the area and then rushed to report this information to the captain.

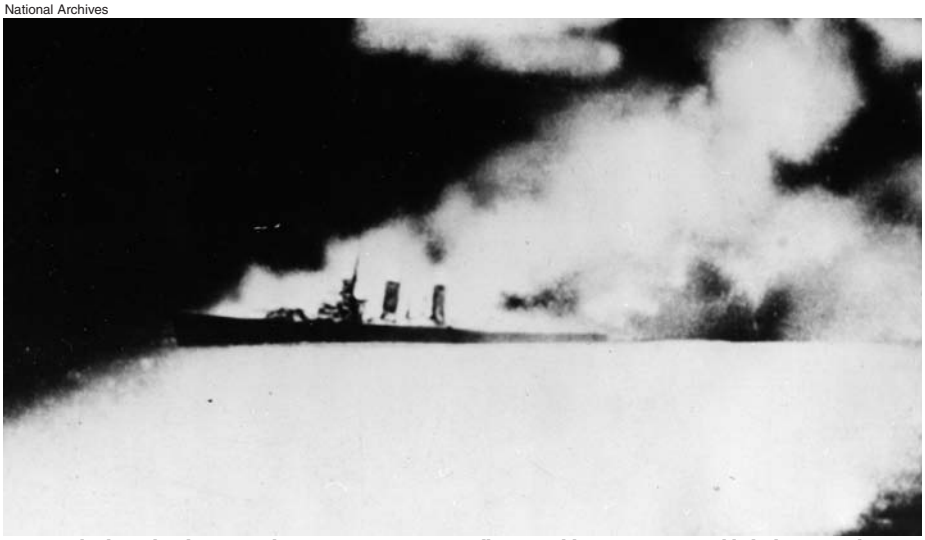
The *Buchanan,* now on station off the starboard bow of the cruiser, prepared to continue the firefighting effort. Captain Greenman made his way forward for a firsthand review of the efforts. The cruiser's list was now increasing rapidly. The senior officers gathered to discuss the situation. Topper, Executive Officer Shoup, and Engineering Officer Hayes all felt that it was time to abandon ship once again. Captain Greenman readily agreed. Preparations were made for the *Buchanan* to move to the starboard quarter to take off personnel. All hands were ordered to make their way toward the stern of the ship.

Before Captain Greenman and his officers could make their way to the fantail, the *Astoria*'s list had reached 30 degrees. It became apparent that the cruiser was not going to stay afloat much longer. At noon Captain Greenman gave the order to abandon ship. Men began to jump into the water as the *Buchanan* stood about 300 yards distant. As Greenman and Shoup departed the ship for the last time, the list had increased to 45 degrees. The *Astoria* turned over to her port beam and began to sink stern first. Her bow rose slightly above the water, and she disappeared at 12:15.

One of numerous casualties suffered during the Battle of Savo Island, perhaps the most complete defeat of a force in combat during the proud history of the U.S. Navy, the USS *Astoria* was nevertheless a gallant ship whose crew labored long to save her. The sacrifice of one Australian and three American heavy cruisers off Savo Island, however, proved not to be in vain. Seven months later, the island of Guadalcanal was secured, and the long road to victory in the Pacific took a major step forward.

On July 27, 2005, the Clatsop County, Oregon, board of commissioners unanimously approved a resolution proclaiming August 9th of each year USS *Astoria* Day. Located in the northwest corner of the state, Astoria is Clatsop County's largest city. The proclamation serves as a small but lasting tribute. □

National Archives



Apparently down by the stern, the cruiser USS *Quincy* is illuminated by Japanese searchlight beams and pummeled by accurate torpedo and shellfire. The *Quincy* was one of four Allied cruisers lost at Savo Island, with the *Astoria* the last to sink.

John Damagalski is a graduate of Northern Illinois University and a resident of the Chicago area.

By Mason B. Webb

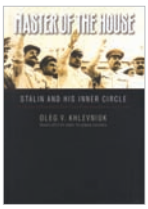
National Archives

This 1941 poster, urging Soviet women to join the fight, reflects Stalin's speech of July 3 which stressed the need for unity in the struggle against the Germans.

Stalin's Contributions to Victory

Four new books detail war on the Eastern Front.

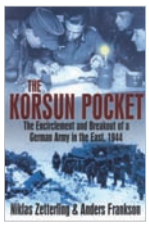
IN THE WEST, THE SOVIET UNION'S CONTRIBUTIONS TO THE ALLIED VICTORY over the Third Reich are generally unknown or underappreciated. While a variety of reasons contribute to this lack of knowledge or appreciation, it must be acknowledged that the Soviets suffered greatly (an estimated death toll of 20 million Soviet civilians and military) and fought heroically against the German invaders long before any American troops set foot on the European continent.



Indeed, it is accurate to say that, had Josef Stalin's Soviet Union not prevailed against Adolf Hitler's Germany and decimated the enemy's forces on the Eastern Front, the U.S. and Britain would not have enjoyed the successes they did from 1943 to 1945. Hitler might even have won the war.

We recently received four new books that go a long way in providing Western readers with a clearer picture of the immense role played by the Soviet Union.

In *Master of the House: Stalin and His Inner Circle* (Yale University Press, New Haven, CT, 313 pp., 2009, bibliography, index, hardcover, $38.00), author Oleg V. Khlevniuk, a senior research fellow at the State Archive of the Russian Federation and a renowned expert on the life of Josef Stalin, goes behind the curtain to reveal the secret workings of the dictatorship.



Using previously unavailable documents from the Soviet archives, Khlevniuk focuses on the top organ in Soviet Russia's political hierarchy—the Political Bureau of the Central Committee of the Communist Party ("Politburo")—and on the political and interpersonal dynamics that weakened its collective leadership and led to Stalin's rise to supreme dictator.

Khlevniuk challenges the existing theories and assumptions on the workings of the Politburo, uncovering along the way new information about Stalin's previously hidden political machinations.

A thoughtful, well-researched, scholarly, yet very readable work that goes far to explain much and give the reader a solid grounding in Soviet-style wartime politics. Translation work is by Nore Seligman Favorov.

In *The Korsun Pocket: The Encirclement and*

You deserve a factual look at . . .

The New Anti-Semitism

Who are its advocates? What are its goals?

The Holocaust, in which over six million Jews were brutally murdered by the Nazis and their enthusiastic collaborators, happened over 60 years ago. So terrific were the events that – even today, about two generations later – nobody would wish to identify himself with them. Yet, a new anti-Semitism is now rearing its head. It is important to be aware of it.

What are the facts?

Who are the new anti-Semites? The new anti-Semites do not publicly proclaim their desire to bring about a second Holocaust or to subject the Jews to mass murder or annihilation. The hatred is aimed against the state of Israel, which, according to the new anti-Semites, represents all that is evil in the world and which is the main violator of human rights and guilty of virtually every other abuse that can be conceived. This poison is now so widespread that a poll taken in Europe not too long ago found Israel to be the greatest menace to the peace of the world – far ahead of such murderous regimes as those of Iran or of North Korea.

> "...the viciousness, volume and consistency of this criticism against Israel is such that it cannot be considered as anything but anti-Semitism..."

The leaders and instigators of this new anti-Semitism are concentrated on the political left, its most active and vocal spokesmen being found in our prestige universities. Such is the anti-Zionist (anti-Semitic) focus of the left that, almost incomprehensibly, it includes a fair number of Jewish professors and other "intellectuals," not just here in the United States, but even in Israel itself.

Those on the extreme left call for the abolition of the State of Israel outright, although they do not tell us what they propose to do with the five million Israeli Jews. They would presumably be left to the tender mercies of the Arabs, who would, of course, have no greater joy than to emulate or perhaps even to "improve" on the Nazi model and to give "final solution(!) to the Jewish problem" once and for all. That isn't going to happen, of course, not because anybody in the world would lift a finger to prevent it, but because, fortunately, Israel is a very strong and most capable nation.

A death wish for Israel. In deference to "world opinion" and also to the wishes of the United States, Israel has allowed itself to be pressured into innumerable concessions to those who are sworn to destroy it. But it seems clear that, when the chips are really down, a most decisive response on the part of Israel can be expected. With the possible exception of Carthage during the Punic Wars, almost 2500 years ago, no country in the world, no country in recorded history, has ever been threatened with extinction. Israel is the one exception. Fueled by the extreme left, the "legitimacy" of Israel is a constant topic of discussion. The abolition of the "Zionist entity" gets serious attention, even in the hallowed halls of the United Nations. Iran feverishly pursues the Holy Grail of atomic weapons. Its president has publicly declared – not once, but repeatedly – that Israel is a "tumor" that must be excised and that it must be wiped off the map of the world. Medium-range missiles (so far, fortunately without atomic warheads) are being paraded through the streets of Teheran, with signs attached to them, shamelessly giving their destination as Jerusalem. A few eyebrows are being raised around the world, but otherwise nothing is being done about it.

Because the memory of the Nazi Holocaust still lingers after all these years, the new anti-Semitism is disguised as the socially more acceptable "anti-Zionism." It is pursued and propagated by the radical left. Every leftist demonstration – be it about the war in Iraq, against globalization, for or against whatever else – does inevitably include appeals against "Israeli subjugation of the Palestinians," the "occupation of Palestinian lands by Israel," or simply asks for the elimination of Israel. Sadly, quite a few Jews, having been saturated with leftism from their early years, participate in such demonstrations.

While the propagation of the new anti-Semitism by prestige universities started in Europe (mostly in England), it has found fertile ground in the universities of the United States. The active participation in the new anti-Semitism by the American clergy (beginning with the Presbyterians) is a scandalous reality.

Surely, not everybody who criticizes Israel is an anti-Semite. The actions of Israel, just as the actions of any other countries, are subject to examination and criticism. But the viciousness, volume and consistency of this criticism against Israel is such that it cannot be considered as anything but anti-Semitism – the new anti-Semitism, disguised as anti-Israelism or anti-Zionism. The foolish professors and the hypocritical preachers are besotted by their leftism and by their hatred against Israel and America. Overt vilification of America has to remain muted – it's somewhat dangerous to be too outspoken about it – but Israel, perceived as the satrap and the handmaiden of the United States in the Middle East, is an easy target. Nobody should be fooled. Anti-Semitism is anti-Semitism in whichever way it may be disguised.

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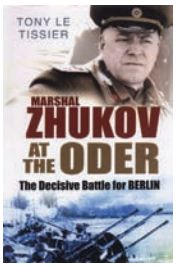
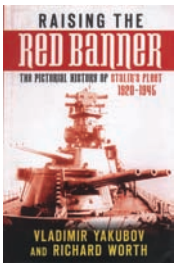
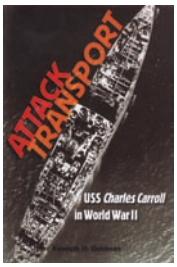






Breakout of a German Army in the East, 1944 (Casemate, Philadelphia, 2008, 374 pp., photographs, maps, bibliography, index, hardcover, $32.95), Swedish authors Niklas Zetterling and Anders Frankson have crafted a superb and highly detailed study of Germany's second Stalingrad—the defeat of another enemy army.

In January 1944, six divisions of Army Group South found themselves surrounded following a massive counteroffensive mounted by the 1st and 2nd Ukranian Fronts of the Red Army. As Stalin ordered his forces in for a battle of annihilation, the wily German commander, Field Marshal Erich von Manstein, took steps to extricate the trapped divisions without waiting for Hitler's approval. But his efforts then bogged down due to the fierce winter and even stiffer Soviet resolve. It appeared that the men in the pocket were doomed.

Low on supplies, an airdrop of food and ammunition not nearly enough to sustain life and combat effectiveness, the surrounded German units decided to try a last-ditch effort—an explosive breakout, led by the 5th SS Division Wiking. Incredibly, the escape was mostly successful, with the Germans able to squeeze out of the pocket but forced to leave behind most of their wounded and heavy weapons.

The Korsun Pocket is a well-written, fast-paced chronicle of what desperate men facing certain death are capable of achieving.

In ***Marshal Zhukov at the Oder: The Decisive Battle for Berlin*** (Sutton Publishing, Chalford, UK, 2008, 308 pp., photographs, maps, bibliography, index, hardcover, $37.95), author Tony Le Tissier provides readers with a brilliant analysis of what Soviet armies were doing in the East while British and U.S. forces were heading eastward during the opening weeks of 1945.

While still recovering from the shock of the German counteroffensive known as the Battle of the Bulge, the Americans found themselves stuck trying to break through German resistance along the Siegfried Line and in the Hürtgen Forest. On the other front, however, the Red Army was having better success; Stalin expected that Zhukov's armies, less than 50 miles from Berlin, would soon be sweeping into Berlin and bringing about a swift conclusion to the war.

Meanwhile, however, the Soviets ran into a solid wall of incredibly fierce resistance—much of it conducted by boys and old men and the remnants of battered German divisions—who knew that they were the last line of defense and the only ones who could prevent an early collapse of the Fatherland.

For two months a bloody stalemate took place on the Eastern Front until the Soviet bridgeheads north and south of the German fortress at Küstrin were united and the resistance overcome. Next came the bloody April battles for the Seelöw Heights, the last line of defense to the east of Berlin. Once this strategic position was wiped out, the road to the German capital was clear.

Le Tessier, a British author with several books about the battle for Berlin to his credit, has drawn upon considerable material not previously available to construct in spellbinding fashion the final months leading up to the end of the Third Reich.

Vladimir Yakubov and Richard Worth have combined their considerable knowledge and talents to bring us a history of a little-known aspect of the Soviet military machine, the navy. In ***Raising the Red Banner: The Pictorial History of Stalin's Fleet, 1920-1945*** (Spellmount Publishers, Chalford, UK, 2008, 224 pp., photographs, hardcover, $39.95), readers are finally given a look at this little-known subject.

Yakubov, a Russian-born U.S. Navy veteran, and Worth, author of the acclaimed *Fleets of World War II,* tell the neglected story of the impressive but troubled growth of the Soviet Navy, the obsolete collection of the Czar's warships inherited after the 1917 revolution, an event that led to Russia's capitulation and takeover by Communist leaders.

With scores of photos and charts and chapters on battleships, cruisers, destroyers, submarines, and other surface vessels, plus ordnance data and major supporting units, this is the first book to cover in detail the history and composition of the Red Navy. Extremely valuable for anyone wanting authoritative naval information about one of WWII's major

Short Bursts

Embry-Riddle at War: Aviation Training During World War II, by Stephen G. Craft (University Press of Florida, Gainesville, 2009, 316 pp., photographs, bibliography, index, $34.95).

The story of how American aviators were trained for service in World War II has, until now, been largely neglected. With the publication of *Embry-Riddle at War,* much of that information gap has been spanned.

In October 1939, Embry-Riddle, a private flight instruction school, opened for business in Miami. It quickly became one of the country's largest facilities for the training of pilots, mechanics, instructors, and aircraft factory workers. By 1944, some 26,000 people had received training at the school.

In his new book, Stephen G. Craft, a professor at Embry-Riddle Aeronautical University, examines the varied components of aviation training, the evolution of a civilian company's contributions to the war effort, the lives and experiences of those who attended the school, and the role played by Florida during the war.

All in all, a fascinating look at an often overlooked aspect of World War II.

F6F Hellcat at War, by Cory Graff (Zenith Press, St. Paul, MN, 2009, 160 pp., photos, schematics, bibliography, index, softcover, $24.99).

A new addition to Zenith's oustanding "At War" series, *F6F Hellcat at War* is bound to get any naval aviation buff's blood stirring. Over 100 photos, many in color, present the complete history of this legendary, carrier-launched warbird from its initial design and development in the mid-1940s by Grumman Aircraft Corporation at its Long Island factory to its successful combat career in the Pacific. While the F6F was not the fastest or most maneuverable fighter, pilots loved their Hellcats because they were incredibly tough, marvelously powerful, and easy to fly. During the last two years of the war, Hellcats dominated the skies over the Pacific, turning enemy aircraft into flaming meteors and tallying an astounding kill ratio of more than 19 to 1.

combatants.

All four of these books are recommended.

Two recently published books by sons of men who served on U.S. Navy attack transports explore the role of two ATs in World War II—but in entirely different ways. ***The Lady Gangster: A Sailor's Memoir***, by Del Staecker (Cable Publishing, Brule, WI, 2009, 172 pp., photographs, maps, hardcover, $23.95), and ***Attack Transport: USS* Charles Carroll *in World War II,*** by Kenneth H. Goldman (University Press of Florida, Gainesville, 2008, 320 pp., photographs, maps, bibliography, index, hardcover, $29.00), offer revealing perspectives of life aboard wartime attack transports.

ATs were the unsung naval heroes of the war and, for the most part, they are all but forgotten today except by their aging crews, the combat troops who sailed on them, and the families of the veterans.

This lack of recognition is curious for, after all, attack transports were needed to ferry vast numbers of troops across thousands of miles of ocean in order to engage enemy forces holed up on islands and foreign shores.

But ATs were more than just passenger ships; they often found themselves under fire by enemy submarines, surface vessels, and aircraft, and frequently had to battle for their lives—and the lives of the men on board. It was a dirty, dangerous business with little of the glamour associated with cruisers, carriers, battleships, and the like.

Staecker's book is a combination of his father's memoirs as a sailor aboard the USS *Fuller,* called both "The Lady Gangster" because many of her crew were from Chicago and the "Queen of the Attack Transports," and the unique way he got his father to finally open up and talk about his wartime experiences. As such, the book puts Irvin Staecker front and center.

Goldman's book, on the other hand, admittedly subordinates the role played by his father, Robert, in telling the story of the "Lucky Chuck." Goldman, a Hollywood scriptwriter, does supplement excerpts from his father's wartime diary and letters home with those of other crew members to capture the boredom, fears, excitement, and humor shared by sailors aboard any ship at war. Anecdotes and memories collected from a number of interviews give *Attack Transport* an immediacy lacking in many operational histories.

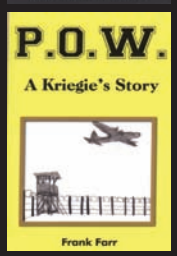
Staecker's book grew out of an 18-hour father-son car trip in 1967 from Florida to Illinois with a broken car radio. The two had

Through compelling accounts, previously unpublished photos, and detailed engineering drawings, Graff does an excellent job of tracing the Hellcat's lineage and its manufacture, then its role as one of the most feared fighters of the war.

First to Fall: The William Edward Cramsie Story, by Wayne G. Sayles (Clio's Cabinet Press, Gainesville, MO, 2009, 221 pp., photographs, softcover, $16.95).

This fine little book was born when the author came into possession of the West Point class ring of a U.S. Army aviator, the first member of the Class of 1943 to be killed in action. Cramsie, the pilot of a Douglas A-20 Havoc light bomber, was downed in the English Channel in April 1944, his body never recovered.

Yet, somehow, his class ring survived and after more than half a century the author came to own it, a mysterious act that prompted him to dig deeply into the past, discover who Lieutenant Cramsie was, and to write a book about the strangely metaphysical aspects that led to a spiritual bonding of the present with the past.

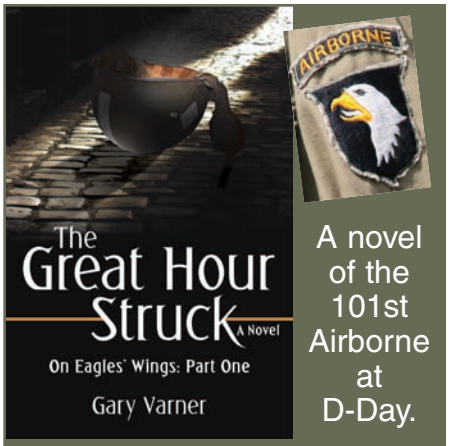


P.O.W.—A Kriegie's Story, by Frank Farr (Authorhouse, Bloomington, IN, 2008, 176 pp., photos, softcover, $14.95).

Tens of thousands of soldiers, sailors, and airmen were taken prisoner during World War II, but there seem to be relatively few books by or about them.

That is one reason why it is refreshing to come across this self-published memoir by a Boeing B-17 Flying Fortress navigator of the 91st Bomb Group. Lieutenant Farr was wounded on his second mission over Germany and shot down on his 17th, during the great aerial battle over Merseburg on November 2, 1944, often called the greatest aerial battle of the war. The 91st lost 13 out of 37 B-17s on that mission. Farr then spent six months in captivity as a kriegie, or a prisoner of war, most of that time at Stalag VII-A.

A fine, well-written memoir that accurately and poignantly describes life behind the wire. □



A novel of the 101st Airborne at D-Day.

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| By Eric T. Baker |

Men of War *is not for the faint of heart.*

Men of War from 1C Company for the PC is a real-time strategy game set during World War II. Its three campaigns—Russian, German, and Allied—are set in Europe and North Africa. The Russian campaign is set in Rostov during November 1941 and asks the player to halt the German advance. The German campaign is set between 1941 and 1943 and models the

landing on Crete and the war in Libya. The Allied campaign is set in the same time period and models the battles in Algeria and Tunisa.

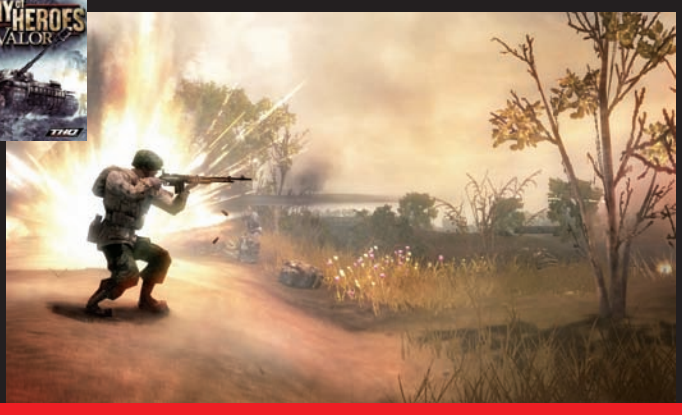
What sets *MoW* apart from so many other WWII RTS games is how hard it is. The player never has the advantage in any scenario; his forces are always outnumbered. In addition, there is not the simple "rock, paper, scissors" of unit types. Victory in *MoW* comes from exploiting cover and line of sight rather than from matching the right units against the opponents. This is more realistic than many RTS games, but it is a demand that is hindered by the poor path- finding of the various units.

Another advantage of *MoW* over other RTS games is that the terrain is completely destructible. Trees, buildings, sand bags, and on and on. All of it can be blown up or run over or knocked down. Which is part of the problem with the path-finding. Tanks prefer to go through obstacles instead of around them, which can negatively impact an entire battle if that obstacle was going to be another unit's cover. All in all, *MoW* is not for the faint of heart. Like real war, it demands constant attention to all the details.

Company of Heroes: Tales of Valor for the PC from THQ is a "stand-alone expansion" of the base *Company of Heroes* game. In practice this means that players who have the original *CoH* game will be seeing the old game engine and its units used in new ways. Players who don't have the game will be able to play these single-player and multiplayer campaigns straight out of the box. There are three of each type of campaign, although the single player ones are shorter than "campaign" implies and the multiplayer ones each have only one map.

The scale of *CoH:ToV* is also smaller than that of similar games built on similar game engines. One each of the single- and multiplayer campaigns has the player commanding only a single tank. These campaigns are actually quite fun as being able to focus on commanding and leveling up with new abilities a single unit is a nice break. New for this expansion is the ability to manually aim the tank's gun, but since the player can't also manually drive the tank, he will probably end up letting the AI do the shooting as well.

As well as this engine tweek, there are also some new units in the game, but they are added in as replacements for existing units, so the net amount of units doesn't change. For instance, the German Schwimmwagen replaces the German motorcycle units. It's actually one of the most useful units in the game because it can back up. Overall, players who have never played *CoH* are better off starting with the original game. Players who own *CoH* will have to decide if the price is worth the new elements.



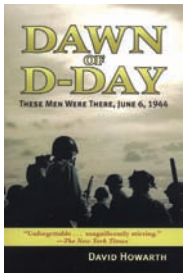
For players who find themselves taking World War II in general, and the Soviet parts of it in particular, too seriously, Mezmer Games has an answer. No need to worry about historical accuracy or if the maps model the right battlefields in their stress-relieving RTS game for the PC, **Stalin vs. Martians**. Set in the WWII time period, as much as it is set anywhere, this digital download game pits the Soviet forces against the menagerie of the invading Martians.

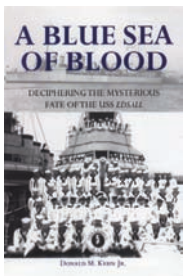
There is clear homage to Mel Brooks in this game as the promotional campaign spends as much ink on the score and the alleged dancing of Stalin as it does on the game play, but the game does have 12 missions. The RTS is arcade style with power-ups instead of leveling and reinforcements that come fast and furious. It's not giving anything away to say that the ultimate unit is a giant Stalin himself. Either this sort of thing works for you or it doesn't, but for those who enjoy a little silly now and then, *SvM* is as silly as it comes. ■

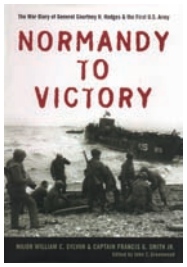
been making uncomfortable small talk until the son (Del) asked, "Dad, will you tell me what you did in the war?"

The father's answer is the firsthand account of the *Fuller* and its courageous crew who braved enemy attacks while delivering troops and supplies during many of the toughest battles in the South Pacific. It is also the poignant tale of how a simple question forged a lasting bond between father and son.

Both books have a charm all their own and get two thumbs up.







Dawn of D-Day: These Men Were There, June 6, 1944, by David Howarth (Skyhorse Publishing, St. Paul, MN, 2008, 255 pp., photographs, maps, softcover, $14.95).

Before his death in 1991, David Howarth was one of Britain's finest and most prolific chroniclers of World War II, and *Dawn of D-Day,* a republishing of his 1959 classic, *D-Day, The Sixth of June 1944,* is arguably Howarth's finest book.

In it, he brilliantly breaks down all the facets of the immensely huge and complex Operation Overlord into easily read chapters that never fail to capture the broad scope of the plan while focusing on the derring-do of the men who were called upon to carry it out.

Howarth had a fine gift for descriptive narration. For example, he writes that a platoon of 82nd Airborne troopers were on their way to capture a key bridge: "At last, [James R.] Blue thought, things were getting interesting. This is what he had come for. Then he saw his first German. A motorcycle and sidecar came up from the bridge, and the rider did not seem to see the parachutists before it was too late to stop. He came on, and succeeded in passing all forty riflemen at point blank range, because none of them could fire without risk of hitting their friends on the opposite side of the road. He nearly got through with his life, but not quite. The machine gunner shot him in the back as he rode away towards Sainte-Mère-Eglise, and the motor bike crashed into the hedge. It was terribly easy."

From the early planning stages of Operation Overlord to the moments when it became clear that the Allies' great gamble had succeeded, Howarth captured it all. It is a shame that he is no longer with us.

A Blue Sea of Blood: Deciphering the Mysterious Fate of the USS **Edsall,** by Donald M. Kehn, Jr., Zenith Press, New York, 2008, 286 p., photographs, maps, bibliography, index, hardcover, $26.00.

At 6 PM on March 1, 1942, the U.S. Navy destroyer USS *Edsall* (DD-219) and fuel ship USS *Pecos* (AO-6) came under fire by Imperial Japanese Navy aircraft from a task force operating in the Indian Ocean, some 360 miles south of the American naval base at Tjilitjap, Java.

In *A Blue Sea of Blood,* his first book, author Kehn does a masterful detective job in delving into long-sealed Japanese records, previously unknown material from crewmembers' families, and U.S., Dutch, and Japanese documents to reveal, as completely as possible, what happened to the *Edsall* and her crew.

After detailing *Edsall*'s prewar service in the 1920s, Kehn explores her brief but heroic World War II actions. For example, on January 20, 1942, she became the first U.S. destroyer to participate in the sinking of a full-sized enemy submarine (*I-124*) in World War II.

While performing convoy escort duty in late February 1942, *Edsall,* along with the destroyer *Whipple* and the seaplane tender *Langley*, were attacked by a swarm of Japanese Mitsubishi G4M "Betty" bombers. Langley was so badly damaged that she was abandoned. *Edsall* rescued 177 survivors; another 308 were saved by *Whipple*. After transferring her load of survivors to *Pecos* off Christmas Island, *Edsall* sailed for Tjilitjap but was attacked by surface ships and dive-bombers during the Battle of the Java Sea and sunk.

A handful of *Edsall* survivors were picked up by Japanese vessels and incarcerated in POW camps; all later died in captivity. In 1952, five headless skeletal remains of *Edsall* crewmembers were found in a grave in present-day Indonesia, indicating that they had been beheaded by their captors.

In this detailed, comprehensive look at a doomed ship and her dutiful crew, Kehn examines how the *Edsall* was used by both sides in their propaganda efforts and how her heroic service and final battle were relegated to obscurity in naval histories.

The U.S. lost 71 destroyers in World War II. Most of them, sadly, have been forgotten by all but the aging veterans who once served on them or their family members. With the publication of the riveting *A Blue Sea of Blood,* it

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is unlikely that the *Edsall* and her crew will be forgotten any time soon.

Normandy to Victory: The War Diary of General Courtney H. Hodges & the First U.S. Army, by William C. Sylvan and Francis G. Smith, Jr., edited by John T. Greenwood (University Press of Kentucky, Lexington, 2008, 575 pp., photos, maps, bibliography, index, hardcover, $50.00).

During Operation Overlord, Maj. Gen. Courtney Hicks Hodges was Omar Bradley's deputy commander of the First U.S. Army; when Bradley was promoted to command 12th Army Group, Hodges succeeded him as head of First Army.

For an ordinary man, such a promotion might have been daunting, for First Army was destined to be involved in the bulk of the fighting on the Continent, but Hodges was no ordinary man, as his wartime diaries, written primarily by two of his aides, Major Sylvan and Captain Smith, make abundantly clear.

Although Hodges did not personally write the diary, he controlled its contents so that it reflected his viewpoints and concerns. As such, it is filled with the small details that inevitably crop up during battle and make war a uniquely personal adventure.

For example, this entry for March 14, 1945: "General Huebner [1st Infantry Division CG], anxious to get into the scrap once again, called on [Hodges] at ten o'clock this morning and stayed for lunch. He told [Hodges] a wonderful story of a GI who engaged in a brisk fight outside of Gemund, refuged underneath a Boche tank which had been 'knocked out.' During the course of the fighting, firing constantly with his carbine, he accounted for 9 Boche. Suddenly the tank moved on, leaving a bewildered and flabbergasted GI lying in the middle of the road. In General Huebner's words, 'he flagged it the hell out of there.'"

Hodges and First Army were in the thick of the fighting in Europe—from the hedgerows of Normandy to the liberation of Paris to the battles along Germany's Siegfried Line and Hürtgen Forest to the Battle of the Bulge. First Army troops were the first to cross the Rhine at Remagen. Later, units of First Army linked up with Soviet forces at the Elbe. "Been there, done that," could have been Hodges's motto. His range of experiences among officers was second to none.

As part of the AUSA's "American Warriors" series, *Normandy to Victory* makes for interesting, insightful reading about the many command decisions and facets of responsibility faced by an Army commander. Highly recommended. □

profiles

Continued from page 13

to do. But if you turn out to be right, you get seriously unpopular."

Urquhart admitted that it is "inconceivable that the opinion of one person, a young and inexperienced officer at that, could change a vast military plan ... Once a group of people have made up their minds on something, it develops a life and momentum of its own which is almost impervious to reason or argument. This is particularly true when personal ambition and bravado are involved. In this case even an appeal to fear of ridicule and historical condemnation would not have worked. The decision had been taken at the highest level, and a vast military machine had been set in motion. The opinions of a young intelligence officer were not going to stop it."

The Arnhem tragedy had a permanent effect on Urquhart's attitude toward life: "I never again could quite be convinced that great enterprises would go as planned or turn out well, or that wisdom and principle were a match for vanity and ambition."

After his transfer, Urquhart took over an armored car squadron, which was to move slightly ahead of the Allied advance and take German scientists and industrialists into Allied custody. He and his squadron arrived at the Belsen concentration camp "more or less by a mistake because we didn't get the radio message telling all the troops to stop."

After the Belsen experience, Urquhart felt strongly that human rights were something that simply had to be developed into an international rule. It was not good enough, he said, to try to "rely on people to behave reasonably well: they don't." The Nazis were an extreme, but they were not unique.

After the war, Brian Urquhart's professional life was a history of the United Nations itself. He was personal assistant to the first secretary-general, Trygve Lie, and subsequently served in various capacities, including working with Ralph Bunche, the winner of the 1950 Nobel Peace Prize, between 1954 and 1971. After 1972, Urquhart was one of the principal political advisers of the UN secretary-general and served as the under-secretary general for special political affairs working on Lebanon, Israel, Palestine, and Namibia, among others. He retired from the United Nations Secretariat in 1986. □

Jon Diamond lives and practices medicine in Harrisburg, Pennsylvania. He is a frequent contributor to WWII History *and is currently working on a book,* Britain's Military Pariahs.

Continued from page 61

Particularly crippling for the Ostheer was the loss of heavy equipment—as many as 800 tanks, 983 artillery pieces, 473 heavy mortars, and 800 antitank guns were destroyed or abandoned during December alone.

Perhaps the greatest damage to the Nazi war machine was psychological. The "subhuman" Slavic troops had shattered the myth of Wehrmacht invincibility. Hitler's confidence in his generals was irredeemably shaken, and in short order he relieved the head of OKH and took personal command of the Army. He sacked Bock, three of the six army commanders involved in Typhoon (Guderian, Hoepner, and Strauss), and four of the 22 corps commanders.

The first phase of Operation Typhoon, culminating in the liquidation of the Vyaz'ma and Bryansk pockets, was brilliantly conceived and almost flawlessly executed. Its few shortcomings can be attributed to logistical shortages and to Guderian's failure to close the Bryansk pocket aggressively, allowing a number of Soviet troops to escape to Tula, where they would join the reconstituted Fiftieth Army in defense of that city.

The operational pause during early November, when the Red Army was reeling, was due to structural flaws in the Ostheer that prevented adequate fuel and ammunition from reaching Army Group Center's front lines. By the time Bock was ready to resume his attack, both numbers and climate had begun to favor Zhukov.

It was the second phase of Operation Typhoon, the last push to Moscow, that was the most flawed of all. Harkening back to the German experience at the Marne in World War I, when Germany might have defeated France had it thrown in its last reserves, both OKH and Bock were prepared to commit every remaining soldier on the assumption that the Red Army simply had no reserves left. Hitler allowed himself to be persuaded by overly optimistic reports claiming that the Red Army and Stalin's dictatorship had sustained so many casualties that they could be toppled with one last shove. When trained reinforcements arrived from Siberia and the Far East, and when Stavka proved capable of forming fresh armies, the critical assumption underlying Hitler's lunge against the Soviet capital evaporated. The Soviet Union would not suffer the fate of Poland, France, and the Low Countries. □

Jonathan W. Jordan resides in Marietta, Georgia. He is the author of the book Lone Star Navy, *published in 2006.*

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Subic Bay while his crew thumbed a plane ride back to Fremantle.

Cod topped off her fuel tanks and returned to the French Indochina coast to continue her junk-hunting mission. Over the next month *Cod* boarded and sank more than 23 junks laden with enemy supplies. Twice she was strafed and bombed by Japanese aircraft. One *Cod* boarding party was trapped aboard the junk they were inspecting when a strafing Japanese aircraft forced to the *Cod* to crash dive. The men drifted in the Gulf of Siam for two days believing *Cod* had been sunk before being rescued by the submarine USS *Blenny* and returned to their boat.

Westbrook finally got a chance to attack a small, well-protected Japanese convoy, but all of his torpedoes missed. After dark, in very poor visibility, as Westbrook approached for a second attack on the convoy his surface radar burned out, thwarting his attempt to track the ships for the remainder of the night. In the morning two other U.S. subs also attacked the convoy. All their torpedoes missed as well.

On the morning of August 4, *Cod* was released from her patrol station and ordered south to Fremantle. Arriving at the sub pier on the morning of August 13, *Cod* was greeted by the crew of *O-19,* who invited their new friends to a formal thank-you party scheduled the next night at the Dutch officer's club across the harbor.

At the party, the submariners and their dates enjoyed live music, food, and the potent local Swan lager. As the band finished a polka, someone grabbed the microphone on the bandstand and announced that radio stations were reporting that Japan was seeking surrender terms. The two submarine crews, who realized that they had survived the war, celebrated as long lost family into the next day.

Within a few weeks *Cod* was heading back to the United States. In the final days of her commissioning, *Cod* crewmen designed and commercially produced battle flags to document their wartime exploits. Featured prominently on the flags is a martini glass over the name "O-19" to commemorate the only rescue in naval history involving submarines of two nations and one hell of a thank-you party that followed. Also on the flags, located just below the Navy's twin dolphin submarine insignia, is the Onderzeedienst submarine service ribbon of the Royal Netherlands Navy, commemorating *Cod*'s unique status as an adopted submarine of the Dutch Navy. That honor was bestowed by members of the Dutch high command between the many toasts at the party.

Westbrook and Drijfhout van Hooff became close friends after the war. While serving as a naval intelligence officer in Singapore in the early 1950s, Westbrook had a Navy plane fly over Ladd Reef and film the wreckage of *O-19* as a memento to his Dutch friend, whom he often chided by saying, "There is no justice in this job, you lost your boat on a reef and make Admiral. I saved your hide and only made Captain!"

Cod was recommissioned in 1951 to help train NATO antisubmarine forces in the Atlantic. *Cod*'s crew finally got their gravy run—several in fact. Cod's Cold War cruises took her to exotic harbors throughout the Caribbean, including Curaçao and the Netherlands Antilles, where van Hooff was captain of the port.

Westbrook died in 1973, not long after returning to his home in Burlingame, California, from a visit to van Hooff's home in the Netherlands.

Decommissioned in 1954, *Cod* was later taken out of mothballs and towed to Cleveland, Ohio, in 1959 to serve as a naval reserve trainer. *Cod* was transferred to civilian custody in 1976 to begin service as a memorial to the men of the Silent Service who gave their lives in defense of their nation. In 1986, she was declared a National Historic Landmark in recognition of her status as the last unmodified World War II fleet submarine in existence.

While researching *Cod*'s history at the National Archives in 1992, her civilian caretakers discovered long-forgotten color movies of *Cod*'s last war patrol, featuring the rescue of the *O-19* crew. The films were given their first showing at the next *Cod* crew reunion only a few weeks later. Seeing themselves on the screen as young men performing a historic rescue again brought tears to the eyes of nearly everyone present. Later reunions would include several *O-19* crewmen.

Today, *Cod* also serves as a rallying point for members of the Northeast Ohio Dutch-American Heritage Society, who help *Cod*'s memorial crew mark the anniversary of the rescue each year with a reenactment of the *O-19*'s flag transfer followed by a picnic at the *Cod*'s dock. Participants in the reenactment, like many visitors, love to have their picture taken under *Cod*'s World War II scoreboard. There, in addition to the many Japanese kill flags, is a martini glass painted above the name *O-19* that commemorates a unique rescue and an enduring friendship between two sub crews. □

Paul Farace has worked in journalism for a number of years while also serving as the curator of the USS Cod *Submarine Memorial in Cleveland, Ohio.*

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