WWII QUARTERLY

Curtis 07256

JOURNAL OF THE SECOND WORLD WAR

PATTON'S THIRD ARMY

Panzer Assault in Lorraine

AT THE CONTROLS

Flying the B-17

EYEWITNESS

Surviving the USS *Franklin* Inferno

USMC PILOTS

Air Combat with Joe's Jokers

GALLERY

Terror on the Russian Front

SPRING 2011

$9.99

61

0 74470 07256 0

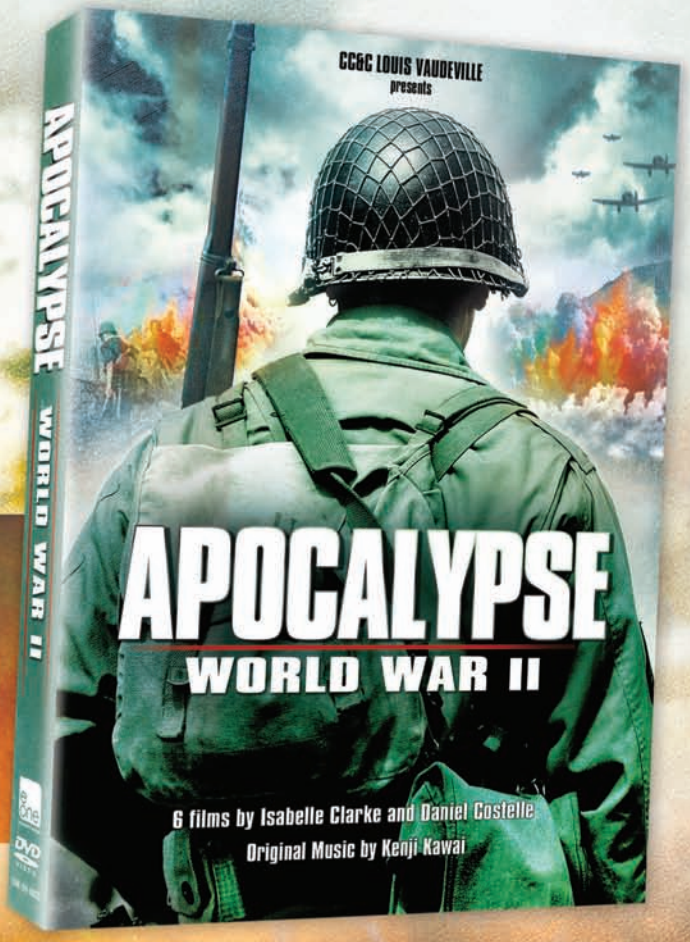
EXPERIENCE WORLD WAR II IN HIGH-DEF

THE FIRST COMPLETELY NEW FILM HISTORY OF THE WAR IN DECADES FEATURING NEVER-BEFORE-SEEN FOOTAGE – COLORIZED AND RESTORED

"CHILLING"
–The New York Times

"ASTONISHING"
–NY Daily News

This landmark documentary series provides an in-depth examination of the Second World War, as seen through the eyes of those who lived through it. Using uncensored footage – most of it previously unseen – the series shows, in breath-taking color, what history's most devastating war was actually like – on the battlefront, in the air and on the sea.



Coming this **MARCH** to **DVD** and **BLU-RAY™**

6 HOURS OF AMAZING FOOTAGE
PLUS 2 HOURS OF BONUS FEATURES
Including a Making-of Featurette and Additional, Never-Before-Seen Footage

AS SEEN ON TV

AVAILABLE AT amazon.com

e one entertainmentone

For military veterans exposed to asbestos, your battle is just beginning.

Military veterans represent over thirty percent of those with mesothelioma, a deadly form of cancer caused by asbestos exposure.

Asbestos was used by every branch of the military between 1930 and the late 1970s. And since symptoms may not emerge for decades, many U.S. veterans are only now being diagnosed.

Sokolove Law helps veterans like you pursue compensation from the companies that produced and sold harmful asbestos to our U.S. military.

You fought for our country. Now it's our time to fight for you.

Call **1-800-396-2331** or go to **www.asbestosvetlawyer.com** to receive a FREE, no-obligation legal consultation. Contact Sokolove Law today to learn more.

You may be entitled to compensation.

CALL NOW!

1-800-396-2331

www.asbestosvetlawyer.com

SOKOLOVE LAW

TABLE OF CONTENTS

WWII QUARTERLY

Page 36

Departments

COVER: General George S. Patton Jr., commander of the U.S. Third Army, 1944. Rue des Archives/The Granger Collection, New York.

Features

WWII Quarterly (ISSN 2151-3678) is published four times yearly by Sovereign Media, 6731 Whittier Avenue, Suite A-100, McLean, VA 22101-4554. (703) 964-0361. *WWII Quarterly*, Volume 2, Number 3 ***Subscription services, back issues, and information:*** (800) **219-1187** *or* write to *WWII Quarterly* **Circulation, WWII Quarterly, P.O. Box 1644, Williamsport, PA 17703.** Hardbound single copies: $19.99, plus $3 for postage. Yearly subscription in U.S.A.: $39.95; Canada and Overseas: $79.95 (U.S.). Editorial Office: Send editorial mail to *WWII Quarterly*, 6731 Whittier Avenue, Suite A-100, McLean, VA 22101-4554. *WWII Quarterly* welcomes editorial submissions but assumes no responsibility for the loss or damage of unsolicited material. Material to be returned should be accompanied by a self-addressed, stamped envelope. We suggest that you send a self-addressed, stamped envelope for a copy of our author's guidelines. **POSTMASTER: Send address changes to WWII Quarterly, P.O. Box 1644, Williamsport, PA 17703.**

Found! The Last Morgan Silver Dollars

Amazing Discovery Hidden in Midwest Farm Cellar

Indiana. A farmer in America's heartland recently cashed in his long-forgotten savings, hidden away for decades in a dusty crate in his cellar—a hoard of the last Morgan Silver dollars minted by the U.S. Treasury before they ceased production for good, in 1921.

Originally purchased from a local bank for face value, the farmer had tucked them away for his retirement. Now these glittering chunks of nearly uncirculated silver history, are being released to the public by GovMint.com. While they last, you can acquire these brilliant, lustrous silver coins for as low as $29.50 apiece. Twenty-coin Bankers rolls and 10-coin Half Rolls are available.

Originally U.S. Silver Dollars were minted and stored in 1,000-coin canvas bags by the Mint.

Survival Against All Odds

By all rights these silver dollars should have been destroyed decades ago. Government silver melt-downs, including the 1918 Pittman Act, which alone destroyed 270 *million* Morgans, have decimated supplies. Millions more were called in by the government and melted for their silver content between 1921 and 1965. Today private hoards account for virtually all the surviving coins. And of those, only a fraction survive in the Virtually Uncirculated condition so coveted by collectors.

Prized Last Year Coins

These last year 90% pure silver beauties still dazzle with their Mint luster and heft. Weighing in at 26.73 grams and a diameter of 38.1 mm, they are the largest American silver coins ever to circulate. Struck from silver mined from the western Mother Lode, they are the legendary coins that built the West. Master engraver George T. Morgan fashioned a radiant profile of Lady Liberty and a majestic eagle as symbols of our nation's strength and prosperity. Today, the long-gone Morgan silver dollars are among the most sought-after coins in America.

Hot Silver Market, Hot Silver Value

Silver prices have jumped over 140% in the last two years fueling the frenzy among avid collectors, investors, and the 130 million new collectors created by the U.S. Mint's highly successful state quarters program.

Today, the market is hot for Silver coins in any condition. This same 1921 Morgan Silver Dollar currently sells elsewhere in the same grade condition for $55 apiece. But while supplies last you can get this original Virtually Uncirculated 1921 Silver Morgan for as little as $29.50 each, in quantity!

Silver Trend Chart: Prices based on monthly averages. ©AMS, 2010.

Money-Back Satisfaction Guarantee

You must be 100% satisfied with your order, simply return it within 30 days via insured mail for a prompt refund of the complete purchase price.

Last 1921 Morgan Silver Dollar **$39** *plus S&H*

Buy More and Save

FIVE 1921 Last Morgan Silver Dollars
$170.00 *plus S&H* **Save $25!**

TEN 1921 Last Morgan Silver Dollars
$315.00 *plus S&H* **Save $75!**

20-COIN ROLL of 1921 Last Morgan Silver Dollars
$590.00 *plus S&H* **Save $190!**

Toll-Free 24 hours a day
1-800-973-3039
Promotional Code LMD265
Please mention this code when you call.

We can also accept your check by phone.
To order by mail call for details.

GovMint.com
YOUR ONE BEST SOURCE FOR COINS WORLDWIDE

14101 Southcross Drive W., Dept. LMD265
Burnsville, Minnesota 55337

www.govmint.com

Prices subject to change without notice.
Past performance is not an indicator of future performance.

BBB ACCREDITED BUSINESS

World War II as a Campaign Issue?

IN THE RECENTLY concluded midterm elections, who could have guessed that World War II would have been a campaign issue for one of the candidates?

We all remember (or should) that when Kansas Senator Bob Dole ran against Bill Clinton 15 years ago in the 1996 presidential campaign, the Republicans touted the fact that Dole had been wounded in Italy in 1945 while Clinton was a draft dodger who did everything he could to keep from being sent to Vietnam.

Apparently, though, the country was more in the mood for a draft dodger than a war hero, and Clinton was elected to the first of his two terms in office.

But, as the World War II veterans reach their 80s and 90s and begin to fade from the scene, so have their presidential aspirations. As far as I know, no World War II veterans ran for national public office this past November.

Which makes what happened in Ohio all that much more interesting. Joshua Green, writing in the October 2010 issue of the liberal *The Atlantic* magazine, revealed that Rich Iott, running for Congress in northwest Ohio's 9th Congressional District, once dressed up as a Nazi (actually 5th SS "Wiking" Division") and took part in historic reenactments. Shocking!

This revelation caused quite a political firestorm. Iott, the Republican candidate and apparently a Tea Party favorite (according to Green) had to do quite a bit of 'splainin' regarding his interest and participation in the reenactment hobby.

Of course, Green made quite a bit of political capital about this situation, including plenty of references to "Nazis" (e.g., the headline "Why is this GOP House Candidate Dressed as a Nazi?" and photo captions making reference to Mr. Iott being seen "at a Nazi reenactment.")—as though Mr. Iott were a closet member of the Skinheads, Neo-Nazi Party, or German-American Bund. (There was no indication in the article that Mr. Iott ever actually espoused Nazi ideology, goose-stepped through Toledo, or attended a Wagnerian opera in full SS regalia.)

A rabbi in a Toledo suburb quoted in the article commented on Iott's hobby: "Any kind of reenactment or glorification of Nazi Germany, to us, would be something unacceptable and certainly in poor taste, if not offensive."

Certainly the sensitivity of groups and individuals who have been victimized by others must be taken into account. Some African Americans who are spectators at Civil War battles may be offended by those who do a Confederate impression. Are we to assume that all who portray Confederates are racists and long for a return of slavery? Or that someone in an Indian Wars uniform has a hatred for Native Americans? Does everyone who dresses as a redcoat at an American Revolutionary War event wish the United States had not broken away from England? Clothes do not necessarily make the man—or accurately display anyone's ideological beliefs, and it is a mistake to make that assumption.

In his defense, Iott said, "Never, in any of my reenacting of military history, have I meant any disrespect to anyone who served in our military or anyone who has been affected by the tragedy of war. In fact, I have immense respect for veterans who served our country valiantly, and my respect of the military and our veterans is one of the reasons I have actively studied military history throughout my life." He added that he has also participated in reenactments as a Civil War Union infantryman, a World War I doughboy, and World War II American infantryman and paratrooper. He said that he and his then-teenaged son had joined the Wiking unit as a part of a shared interest in history, but that they had left the hobby several years ago.

I suspect that some of the readers of this magazine also are reenactors or have participated in reenactments. I, too, spent 25 years in the hobby portraying American soldiers. While some (we're assuming Mr. Green is in this category) might regard reenactors as slightly daft for enjoying chasing other uniformed "living historians" around the woods and shooting blanks at each other, it should be noted that the hobby has a long and wide-spread history.

It is known that in Rome's Coliseum, for example, men would dress up in Legionary armor and reenact battles for the enjoyment of the crowd. Over the centuries, pageants have been held everywhere that represented various historic events, including warfare.

Today, people around the world are involved

WWII History Quarterly Volume 2 ■ Number 3

CARL A. GNAM, JR.
Editorial Director, Founder

FLINT WHITLOCK
Editor
WWIIQuarterly@gmail.com

LAURA CLEVELAND
Managing Editor

SAMANTHA DETULLEO
Art Director

KEVIN M. HYMEL
Research Director

CONTRIBUTORS:
George F. Black, Fred L. Borch, William Caverlee, Robert F. Dorr, Howard Dunbar, Steve Hawkins, Kevin M. Hymel, Peter Kross, Eric Niderost, John Niesel, Amy Goodpaster Strebe, Allyn Vannoy

ADVERTISING OFFICE:

BEN BOYLES
Advertising Manager
(570) 322-7848, ext. 110
benjaminb@sovhomestead.com

MARK HINTZ
Vice President & Publisher

KATHY PAULHAMUS, MARY NOLAN, SANDRA HILLYARD
Subscription Customer Services

KEN FORNWALT
Data Processing Director

CURTIS CIRCULATION COMPANY
WORLDWIDE DISTRIBUTION

SOVEREIGN MEDIA COMPANY, INC.
6731 Whittier Ave., Suite A-100
McLean, VA 22101-4554

SUBSCRIPTION CUSTOMER SERVICE AND BUSINESS OFFICE:

1000 Commerce Park Drive,
Suite 300, Williamsport, PA 17701

(800) 219-1187

PRINTED IN THE USA.

in a variety of period reenactments (for proof, just Google "Military Reenactment Groups"). There are folks in England doing all manner of impressions—the Battle of Hastings, English Civil War, Napoleonic era, World Wars I and II, and everything in between. (The British are especially keen on the ancient Roman period and the American Civil War.)

I have seen Japanese reenactors portraying Wehrmacht troops at one event in Europe, I met French, Belgian, and Italian reenactors who do astonishingly accurate impressions of American and German soldiers, and I know of WWII reenactment units in Russia whose members portray both Soviet and German combatants.

Your editor at a living-history event in 1990.

In the United States, there are also groups reenacting it all—Romans, French and Indian Wars, War of 1812, even Vietnam. So would those such as Mr. Green prefer that only one side be represented at these mock battles? It would be as curious as the displays of German World War II uniforms and equipment in German museums that were, until recently, required to have their swastikas covered. If we never show the "bad guys," how can we teach people what the conflict was all about?

Museums are fine places to see artifacts—in static situations; living-history reenactments are where the public can see these artifacts in use and talk to experts about time periods that should not be forgotten or relegated to dusty bookshelves.

There is a reason why the hobby is called "living history," for when the smell of gunpowder drifts away from the mock battlefields and the ersatz troops march back to their encampments and open them up to their visitors, the most rewarding part of the hobby—imparting one's knowledge of the period being portrayed—begins. It is an important history lesson, even if the person dispensing the knowledge may be dressed as a Confederate or a Nazi.

World War II reenactments that feature participants costumed as the "enemy" may be controversial and offensive to some, and may not be "PC," but they are "history." I would hate to see the Iott incident create a chilling effect for the hobby.

Oh, and the election's outcome? Mr. Iott lost, 117,638 to 81,814 votes, to the Democratic incumbent, Marcy Kaptur. How much news of Mr. Iott's former hobby (he no longer reenacts) hurt him is anybody's guess.

Flint Whitlock, editor

FRED L. BORCH
& ROBERT F. DORR

"Manila John" Basilone: Marine Hero of Guadalcanal and Iwo Jima

"BANZAI! BANZAI!" screamed the Japanese at the top of their lungs as they launched a ferocious night attack against Marines dug in on Guadalcanal. It was October 24, 1942, and the intensity of the Japanese assault in the darkness was terrifying.

Through it all, however, Sergeant "Manila John" Basilone—his fellow Marines gave him that nickname because Basilone had been a soldier in the Philippines in the late 1930s—kept his cool. He was constantly on the move—repositioning the heavy .30-caliber machine guns in his weapons platoon, helping nervous gunners clear jams, and inspiring the Marines in his company to fight on as their battle against overwhelming odds persisted through the long night.

Marine Sergeant John Basilone receives his Medal of Honor in recognition of his heroism on Guadalcanal on October 24-25, 1942.

All photos: National Archives

Basilone's heroism that night was recognized with the award of the Medal of Honor—the first to an enlisted Marine in World War II. Some two and a half years later, on February 19, 1945, now Gunnery Sergeant Basilone again demonstrated extraordinary heroism on Iwo Jima—receiving the Navy Cross for his combat gallantry. This is the story of the hero of Guadalcanal and Iwo Jima—who remains one of the most celebrated Marines in the Corps' history.

Born in Buffalo, New York, on November 4, 1916, Basilone was the son of an Italian immigrant father (a tailor by trade) and one of 10 children. He attended St. Bernard parochial school in Raritan, New Jersey, and finished the eighth grade. Basilone did not go on to high school but decided instead, when he was 18 years old, to enlist in the Army for three years. After completing basic training, Private Basilone sailed first to Hawaii and then on to the Philippine Islands, where he served a tour of duty in the tropics and spent considerable time enjoying life in Manila.

After being honorably discharged in 1937, Basilone went to work as a truck driver in Reisterstown, Maryland. Either civilian life did not agree with Basilone or he missed life in uniform, or both. In any event, believing that life as a Marine would be better, Basilone enlisted in Baltimore, Maryland, in July 1940. He trained at Quantico, Virginia, Parris Island, South Carolina, and New River, North Carolina—which later became Camp Lejeune. Basilone also served at Guantanamo Bay, Cuba, before deploying to the Pacific.

On August 7, 1942, American, Australian, and New Zealand forces landed on Guadalcanal in the Solomon Islands. This was the first major offensive launched by the Allies against the Japanese and its intent was to capture the island in order to have a staging base for future operations against the large enemy base on Rabaul.

The Allies quickly overran the smaller number of Japanese defenders who had been on the island since May 1942. The Japanese, however, fully aware of the

BAND OF BROTHERS | D-DAY TO THE RHINE | IWO JIMA: WAR IN THE PACIFIC | ITALIAN CAMPAIGN | WWII IN POLAND AND GERMANY

Our historians are experts in their field of history and have spent years extensively researching and interviewing hundreds of World War II veterans on the very battlefields on which they fought. To hear them tell these harrowing tales of bravery and courage of America's heroes at the very places where they occurred is the experience of a lifetime.

Visit StephenAmbroseTours.com or call 1.888.903.3329

strategic importance of Guadalcanal, were not finished. On the contrary, the enemy sent some 15,000 troops to Guadalcanal in early October 1942 and planned a major attack to overwhelm the Marine defenders of a vitally important airfield on the island. The Japanese had been building this airfield at the time of the Allied invasion and it was now in American hands; it was renamed Henderson Field (after a Marine aviator killed during the Battle of Midway) by the Americans.

On the night of October 24/25, 1942, some 3,000 Japanese troops attacked the U.S. Marines defending the Lunga perimeter and Henderson Field. Among those defenders was "Manila John" Basilone, who was a part of then Lt. Col. Lewis B. "Chesty" Puller's 1st Battalion, 7th Marines, 1st Marine Division. Basilone was in charge of two sections of heavy machine guns—about 16 men.

Eyewitnesses remembered him fighting "valiantly" against a "savage and determined" Japanese attack. After the enemy had put one of Basilone's gun sections out of action, leaving only two men able to carry on, Basilone picked up a 90-pound .30-caliber machine gun and tripod, ran 200 yards to the silenced gun section, and started firing point blank into the charging Japanese. Then, despite being under continual fire, Basilone repaired another machine gun and personally manned it, gallantly holding his line.

As the Japanese bodies started to pile up in front of his emplacement, the enemy attacked Basilone from the rear—and he killed a number of them with his pistol. Later that night, ammunition for Basilone's guns was critically low and his supply lines were cut off. Once again ignoring the enemy fire around him, Basilone ran some 200 yards through hostile lines to an ammunition point, where he gathered up shells and then battled back to his gunners with the ammunition they needed to defend their position. He apparently crawled and sprinted through enemy fire a second time to obtain much needed ammunition for his guns and, after making it back, continued the battle against the enemy.

Basilone killed at least 38 Japanese soldiers that day—with either a machine gun or his Colt .45-caliber pistol. His hands were blistered from the heat of the machine gun barrel, but he had ignored the pain and continued to fire. Said Marine Pfc. Nash W. Phillips, of Fayetteville, North Carolina, who was in the same unit as Basilone on Guadalcanal: "Basilone had a machine gun on the go for three days and nights without sleep, rest or food.... He was in a good emplacement, and causing the Japs lots of trouble, not only firing his machine gun but also using his pistol."

During the landing on Iwo Jima, Basilone led his men off the beach, destroyed a Japanese blockhouse, and helped guide a tank through a minefield before his luck ran out.

Chesty Puller, recognizing that Basilone was the glue that had held his own platoon together, and contributed immeasurably to the annihilation of a Japanese regiment, pushed hard for official recognition for Manila John. The result was the award of the Medal of Honor with its citation signed by President Franklin D. Roosevelt—making Basilone the first Marine enlisted recipient of America's highest combat award in World War II. Basilone received the decoration in a ceremony in Australia in May 1943.

The Marine Corps then sent Basilone home to the United States on a country-wide war bond tour. A homecoming parade in his honor in Raritan on Sunday, September 19, 1943, drew a crowd of 30,000 men, women, and children. The parade made the national news in *Life* magazine. Fox Movietone News also filmed the event and the newsreel was shown in thousands of movie theaters across the country.

Basilone quickly became a celebrity and was recognized everywhere he went. His neighbors gave him a $5,000 war bond in appreciation for his heroism on Guadalcanal. But, while Basilone understood the admiration, and realized that his efforts had raised more than a million dollars for the war, he was uncomfortable with life on the "Home Front" and wanted to return to the Marine Corps—and the war in the Pacific.

The Marine Corps, however, denied Basilone's request to return to combat. Instead, believing that he could do more by remaining in the States, the Corps offered him a commission as a second lieutenant and an assignment in Washington, D.C. According to one report, Basilone declined the offer, saying: "I'm just a plain soldier and I want to stay one." But another source records that Basilone said

in reply to the offer of a commission: "I ain't no officer, and I ain't no museum piece. I belong back with my outfit."

In late December 1943, after requesting once again to return to the Pacific, Gunnery Sergeant Basilone was assigned to Camp Pendleton, California, where he was assigned to a unit training to deploy to the Pacific. While there, he fell in love with a female Marine sergeant, Lena Mae Riggi. They dated a few months, then married in July 1944. After a short honeymoon on her parent's farm in Oregon, Basilone's unit got orders to sail to the Pacific and Manila John shipped out before Christmas 1944. He never saw his wife again.

Although he did not know it at the time he left Camp Pendleton, Basilone was destined to participate in the Marine amphibious landings on Iwo Jima. This strategically situated eight-square-mile island, located halfway between Tokyo and Saipan, had two good airfields. Since these airfields were only 660 miles—or three hours flying time—from Tokyo, this meant that B-29s flying from Iwo could be escorted all the way to their Japanese targets by P-51 Mustangs and P-47 Thunderbolts. But, while this made Iwo Jima a critical piece of real estate for future Allied combat operations against the Japanese homeland, there were some 21,000 Japanese defenders on the island; the conquest of Iwo Jima would not be easy.

In any event, on February 19, 1945, Basilone waded ashore with his platoon on Red Beach II, located on the southern tip of the island near Mt. Suribachi. It was D-day, and Basilone was a machine-gun section leader in Company C, 1st Battalion, 27th Marine Regiment, 5th Marine Division.

Enemy fire from heavily fortified bunkers was murderous, and everyone was pinned down in the black volcanic sand on the beach. Basilone, recognizing that his men would survive only if they kept moving, yelled at them to "Get off the beach!" Then, shrewdly gauging the tactical situation, he worked his way around the flank, singlehandedly attacking and destroying a Japanese blockhouse with grenades and demolitions, which allowed his unit to capture a nearby airfield.

A short time later, Basilone helped a Marine tank that had become trapped in an enemy minefield and was in danger of being destroyed by mortar and artillery fire. Despite the rain of exploding shells all around him, Basilone managed to guide the tank to safety. But then his luck ran out. Just minutes later, while moving along the edge of an airfield, shrapnel from an exploding mortar shell grievously wounded him. "Manila John" Basilone died about 30 minutes later. He was 27 years old.

An editorial in the *New York Times* singled out Basilone by name for his bravery, and remarked that there had always been Americans like him who were willing to fight for America, despite knowing that their luck would not last. "The finest monument they could have," said the newspaper, "would be an enduring resolve by all of us to this time fashion an enduring peace."

A machine position on Guadalcanal. During a Japanese attack in 1942 Basilone picked up a .30-caliber machine gun, ran 200 yards, and fired point-blank at the Japanese.

For his gallantry on Iwo Jima on February 19, Basilone was awarded a posthumous Navy Cross and his widow was later presented this decoration and his posthumous Purple Heart. The Navy Cross, which ranks second only to the Medal of Honor as an award for combat heroism, is so sparingly awarded that Basilone is the only enlisted Marine to have received both the Medal of Honor and the Navy Cross. He also apparently is the only Medal of Honor recipient to be killed in action after returning to combat.

Basilone is interred in Arlington National Cemetery and has not been forgotten: in July 1949, the destroyer USS *Basilone* (DD 824) was named in his honor. The U.S. Postal Service issued a stamp bearing his likeness in November 2005. New books about him also have appeared in print: James Brady's *Hero of the Pacific,* and Jim Proser and Jerry Cutter's *I'm Staying with My Boys.* Finally, the 2010 HBO miniseries *The Pacific* also features Basilone, with actor Jon Seda playing him.

As for Lena Mae Basilone, she died in June 1999 at the age of 87. She never remarried. □

The development of the U.S. Army's "Walkie-Talkie" SCR-300 backpack radio was a game-changer for frontline troops.

EARLY IN 1945, in the Northern Appenine mountains of Italy, T/5 Harvey, a radioman with the 10th Mountain Division, is carrying his SCR-300 into combat for the first time. His company is part of an advance by the 10th, the only U.S. Army division that has extensively trained for mountain warfare. The 10th's objective is to push the Germans off of the mountainous high ground that they have held for many months despite repeated, persistent attempts by the Americans and British to take the heights. But the mountain troopers of the 10th are up to the task.

Harvey is moving slowly forward with his company commander, monitoring the airwaves for any incoming transmissions. He and his fellow GIs are at the point of the attack in their sector, and soon they run into the German main line of resistance. Heavy firing breaks out directly in front of the Americans, and Harvey hits the deck along with the other mountain troopers. "I could hear the bullets whizzing over my back and smacking in the dirt around me," he recalls.

National Archives

Men of the 1st U.S. Army use a Walkie-Talkie at a crossroads inside Germany. The new SCR-300 radio allowed for better communication over longer distances, allowing frontline troops to speak to their headquarters several miles to the rear.

So Harvey keeps his head down and radios in a contact report. His company quickly gets organized and starts bringing steady return fire to bear in the direction of the German positions. After a short while the enemy fire subsides, and the troopers continue their advance. But soon German rifle fire forces Harvey to hit the ground again—with 35 pounds of radio strapped to his back. He transmits another contact report while, and once more, the enemy bullets buzz close overhead and hit the earth around him.

This same scenario repeats itself many times over the next few days, and Harvey keeps hitting the dirt, the SCR-300 pounding his back, bullets still flying close over his head and smacking into the ground around him—while the radio's antenna is wagging back and forth.

"After a week of this," he relates with a wry smile, "I suddenly realized that whenever we came under heavy fire and hit the ground, most of the other guys around me weren't taking any direct fire at all while I had bullets flying all around me. Then it hit me—it was the radio's antenna that was attracting the German rifle fire! To maintain good reception I had to keep the antenna vertical, which was easy to do as it had a flexible mount. Whenever I was lying prone on the ground, I would swing the antenna vertical. So there I am, my face in the dirt, and there's that antenna poking up, dancing around, and drawing all kinds of attention to me. After the firing stopped, I turned to the captain and told him that I didn't want to carry the radio anymore—I was tired of getting shot at!"

On the World War II battlefield, there were few options for sending messages. One was to send a messenger or runner—who risked getting killed, wounded, lost, or captured. Another was the field telephone. But it was dependent on wire, which, when strung along bushes and trees, or, more likely, just laid on the ground, was easily damaged by boots, tires, tank treads, and exploding munitions. GIs of the U.S.

Army Signal Corps and the U.S. Marine Corps devoted a lot of time to locating and repairing line breaks. All the while, messages weren't getting through unless sent by runner, jeep, etc.

Effective though it was, the field telephone just wasn't portable enough to move out with the troops at a moment's notice. However, as is often the case in peace and war, technology came to the rescue with an innovative, game-changing invention: wireless—better known as a radio.

The vacuum tube made radio possible. These cyndrilical-shaped, glass-enclosed electronic devices were the precursor to the

modern transistor. With a design that was refined throughout the early 20th century, vacuum tubes became increasingly smaller and more robust. By 1940 they were dependable, of compact design (about the size of a small pill bottle), and could be made rugged enough to withstand shock, vibration, heat, cold, and wet. With these attributes in mind, the U.S. Army Signal Corps embarked upon a design program to develop a "Walkie-Talkie"—a portable AM frequency radio that could be carried on a soldier's back.

Prior attempts at designing a portable radio were made in the late 1930s and early 1940s, with some success achieved with the SCR (Signal Corps Radio) 194 and 195 backpack radios, but they were cumbersome and heavy, and had tuning and reliability issues. Another radio that made it to operational status was the SCR-511, issued to the troops in 1942. The 511, with its long, staff-like antenna that was bisected by the coffee can-size transceiver, was given the nickname "Pogo Stick." Designed for

Author Photos

ABOVE: The telephone-like Handset TS-15-A. Note the "butterfly" switch that, when rotated either direction, activated the transmit circuit. LEFT: The harness attached to the BC-1000 radio unit is imprinted with "Mid West Duck & Canvas Co 1943." Note the thick felt pads that have been slipped over the shoulder straps. The felt cushioned the shoulders, vastly improving the comfort of the harness. FAR LEFT: The control panel of the BC-1000 transmitter/receiver, with the hinged cover up.

calvary use, it was outmoded by the time of America's entry into World War II, but saw service nonetheless.

In 1940, Galvin Manufacturing Corporation—maker of Motorola products—had developed the "Handie-Talkie" SCR-536 handheld two-way AM radio that would see extensive use in the upcoming war. But with an effective range of only a quarter of a mile, the SCR-536 was not powerful enough for communications between advancing troops and company/battalion headquarters situated farther back from the front line. Nor was it manually tunable to other frequencies or "channels," thereby limiting its usefulness. A new radio was needed, one that could reliably operate over a longer range, but still be portable enough to not be overly burdensome to the soldier carrying it.

As previously mentioned, the initial Signal Corps design parameters were for a radio that would operate on the AM (Amplitude Modulation) band. However, one of Galvin's engineers, Daniel Noble, was sold on the advantages of FM (Frequency Modulation) design for clear, interference-free radio communication. He met with representatives from the Signal Corps and convinced them of the superiority of FM technology for their new radio.

Noble's confidence in the viability of the

concept and in Galvin's ability to produce such a radio carried the day. Although various sources give differing dates for when these initial design discussions transpired, in 1942 the Signal Corps issued to Galvin Manufacturing a contract for the development of a portable transmitter-receiver utilizing the FM band. It was a high-priority project, and Galvin began design work without delay.

Daniel Noble was tasked with assembling the project team. Joining him were Marion Bond, Henryk Magnuski, Lloyd Morris, and Bill Vogel. The Signal Corps stipulated that the radio, designated SCR-300, was to be powered by batteries, and, weighing no more than 35 pounds, be portable enough to be carried on a soldier's back. The transmitter and receiver would utilize the FM band of 40.0 to 48.0 megacycles, divided into 200 MHz segments in order to yield a total of 41 channels. An operational distance of three miles was specified, with the appropriate noise-cancelling circuits to facilitate clear reception.

Finally, as the unit was intended for extended use outdoors in all types of weather conditons, the radio set had to be resistant to water entry. Noble informed the men that the Signal Corps "placed a life-and-death priority on this program for the infantry."

The SCR-300 team took their responsibility to heart, and by spring 1942 they had two prototypes ready for review. After successfully testing the radios eight miles apart (more than twice the distance called for in the initial specifications), the units were demonstrated for representatives from the Signal Corps. So impressed were they that the go-ahead was given to proceed with the program. Further development and testing led to the production radio, the BC-1000. This unit, when combined with all of the required accessories, comprised the SCR-300 "Walkie-Talkie" radio.

For the Army's final acceptance tests, Galvin's production version of the SCR-300 traveled to the home of the U.S. Army's Armored Force School at Fort Knox, Kentucky. There in the woods and fields the unit was put through its paces, with trials and tests designed to verify the performance characteristics, ruggedness, and

Public Domain

A drawing from the SCR-300 Technical Manual shows the unit in action.

overall quality and usability of the radio. As the results demonstrated at day's end, Daniel Noble's project team had designed a winner that met or exceeded the specifications laid out in the initial Signal Corps parameters.

Full-scale production ramped up following the conclusion of the acceptance tests, with ensuing delivery of operational units to the Army for the purpose of writing the requisite technical manual that would accompany every SCR-300 issued to a radioman. This manual, which was titled "TM 11-242 RADIO SET SCR-300-A," detailed the correct set-up, operation and troubleshooting of the BC-1000 radio and accessories.

Initially assigned to GIs who had completed the required courses on radio communication, the SCR-300 was nonetheless fairly easy and straightforward to use. As such, the unit could be operated by just about anyone after a brief introduction regarding tuning, transmitting, and receiving. Once powered on, the vacuum tubes required a 10-minute warm-up period, then the unit was ready to operate. Select a channel with the tuning dial, adjust the squelch knob (to reduce background noise or "roar" that occurs when the radio isn't transmitting or receiving), and simply push the butterfly switch on the telephone-like handset to transmit, release the switch to receive (as the SCR-300 was a radio, it could not transmit and receive simultaneously), and that was all that was required for basic operation.

One major reason for the SCR-300's ease of use is that Noble's team designed the BC-1000 radio unit with an electronic circuit, called Automatic Frequency Control, that would automatically fine-tune the radio to match the frequency of an incoming signal. This circuit allowed outgoing transmissions from the BC-1000 to be sent out on the exact same frequency, negating the need for a separate tuning control for transmitting. This was a simple concept, perhaps, but an important feature that made the radio easy to use by those who may have to operate the unit if the radioman was wounded or killed. One hallmark of a successful design is simplicity of use, and as Galvin would end up producing nearly 50,000 SCR-300s—many of which remained in use well into the 1950s—the success of the radio's design was clearly proven.

As the Allies were concluding the campaign in Sicily in August 1943, operational planning for the upcoming invasion of Italy was in its final stages. Communication SNAFUs throughout the North African and Sicilian campaigns served to reinforce the immediate need for more effective means of portable communication.

Because of this need, and since there were now enough units available for deployment, Galvin's SCR-300 would be slated to make its combat debut during the invasion of southern Italy. In fact, such importance was placed on including the new radios in the operation that they were transported by air to the invasion staging areas. Alternate shipment by cargo ship was considered too slow, and many times urgently needed items had been "lost" in the vast cargo holds of the hundreds of Allied ships plying the Atlantic. Consequently, assigning precious air transport space to the delivery of the radios ensured they would be in the hands of those who would desperately need them once the bullets started to fly.

Deployed primarily to facilitate timely communications between infantry companies and battalion HQ, the SCR-300s were

also frequently used by forward observers who would spot the fall of artillery rounds, then, if needed, quickly radio back aiming corrections. The practical usefulness of the units, and the dependability of the radio's rugged design, quickly became apparent once the GIs waded ashore in Italy. The U.S. Army was still experiencing many teething troubles in 1943 when fighting the Axis, and the instant communication afforded by the new radios was a godsend to the frontline soldiers and commanders. When there was an immediate need for reserve troops or a concentrated artillery barrage, the SCR-300 was worth its weight in gold.

As production of the SCR-300 continued, the radios were issued to other units and branches of the U.S. military besides the infantry. The Army Airborne, the Marines, and the U.S. Navy all received radios for their own use. By the time of the invasions of northern and southern France in June and August of 1944, Galvin's "Walkie-Talkie" was playing a prominent role in communications in the European Theater of Operations, as it also was with Marine and Army units that were carrying out the island-hopping campaign against the forces of Imperial Japan in the Pacific.

Use of the SCR-300—and any other electronic device for that matter—in the extreme heat and humidity that was encountered in the Pacific Theater required a fungicide treatment if the equipment was expected to function reliably. Galvin employed a fungus-prevention process that applied a protective coat of varnish over the entire assembled circuit board. This coating, along with the rubber grommets that sealed the case sections, were effective at preventing moisture-induced damage to the radio's electronic components.

As indispensable as the SCR-300 proved itself to be in the field, one inherent characteristic of a portable radio could render the unit useless: battery life, or, more specifically, inavailability of replacement batteries. This could turn the radio into nothing more than 35 pounds of dead weight on an infantryman's back. To minimize the possibility of such scenarios, the Army and Marines made replacement batteries a high-priority supply item, similar in importance to ammunition and rations.

Public Domain

In another image from the Technical Manual, the unit is shown in a lighter weight configuration using only the essential components.

One radioman who was interviewed for this article went ashore in southern France with the 103rd Division in fall 1944. He recalls few problems with obtaining replacement batteries throughout his seven months in combat. From the port of Marseilles to Brenner Pass in southern Austria, he doesn't recall having to go any extended amount of time with a dead battery.

The multi-voltage SCR-300 batteries—available in two sizes—were more complicated than a single-voltage jeep or truck battery. The 15-pound BA-70, with an operational life of 20 to 25 hours, was the first SCR-300 battery produced. It was later followed by the lighter-weight (9 pounds) BA-80, which had an operational life of 12 to 15 hours. Inside of both battery assemblies were three groups of power cells, with each group supplying a different voltage. A 4½-volt group powered the filaments of the 18 vacuum tubes, while a 90-volt group powered the receiver plate. Power from the third group of 60 volts was combined with the receiver's 90-volt cells to provide the 150 volts required by the transmitter plate.

With the existing battery technology of the day, such a diverse power supply required a large physical package. As a result, the lower two-thirds of the SCR-300 unit was occupied by the battery, which connected to the BC-1000 receiver/transmitter via a thick seven-prong cable. The inclusion of such heavy-duty components as the cable; the rubber grommets between case sections; hinged seal covers over the headset, handset, and relay jacks; strong steel outer case; and the compact but sturdy circuit board construction played a big role in the radio's ruggedness, the benefits of which were experienced firsthand by frontline troops.

Throughout World War II, the SCR-300 radios distinguished themselves under combat conditions in hot weather and cold, wet and dry. Battalion and company commanders finally had a dependable radio that was truly portable, allowing instantaneous communications regarding immediate tactical needs and actions. Forward observers were able to quickly call in the U.S. Army's substantial artillery assets, making corrections rapidly and often with devastating effects on enemy infantry and armor.

Marines fighting int the jungles and on the islands of the Pacific could coordinate with Marine armor via the "Walkie-Talkie," bringing much-needed heavy, close-in firepower to bear on Japanese pillboxes, caves, and strongpoints.

And, of course, untold numbers of American and Allied lives were saved by the timely and accurate communication allowed for by Galvin Manufacturing Corporation's SCR-300 Radio Set. The U.S. Army placed such importance on the development of the radio that they awarded Daniel Noble the Certificate of Merit for his role in the design and production of the "Walkie-Talkie."

Thanks to its dependability, rugged construction, and ease of use, by the end of the war Daniel Noble's design saw extensive use in combat with the Marines, Army Infantry and Airborne, Army Air Force, and Navy.

Portable in theory, and portable when put into use, Galvin Manufacturing Corporation's "Walkie-Talkie" was arguably one of the most useful items provided to U.S. servicemen during World War II—even though that "dancing" antenna may have brought a few more enemy bullets zipping over the radioman's head! □

PART ONE OF A THREE-PART SERIES

BOGGED DOWN IN LORRAINE

Patton's Third Army found itself mired in a morass as it struggled against fuel shortages, flooded rivers, and fresh German panzer units in September 1944. **BY WILLIAM E. WELSH**

By mid-September 1944, the U.S. Third Army was poised to strike at the soft underbelly of Adolf Hitler's Third Reich along a fabled corridor in northeastern France used for centuries by armies tramping across Europe.

Having raced 400 miles from the hedgerows of Normandy to the forested banks of the Moselle River in less than one month's time, Lt. Gen. George S. Patton's troops had fought desperately to secure bridgeheads in the Lorraine region from an enemy that had at last turned like a cornered animal and bared its fangs. As blue skies gave way to rainy spells signaling autumn's approach, the U.S. Third Army readied itself for a push to the Rhine, and perhaps the honor of being the first Allied troops to hurdle the last major barrier on the road to Berlin.

Two days earlier, Patton had told Maj. Gen. Manton Eddy that his XII Corps would lead the way. "I was certainly very full of hopes and saw myself crossing the Rhine," Patton said.

But various factors were at work to derail those hopes. A severe shortage of fuel in the early days of September slowed Third Army's advance to a crawl, giving the Germans time to rush reinforcements from as far away as Italy to cover thinly defended sectors. By the time the Third Army had gained a firm foothold on the east bank of the Moselle in mid-September, the masterminds of the German high command had hatched plans for a bold strike to regain the initiative.

Out of a morning mist that clung like a tight-fitting garment to field and forest on September 18 rumbled factory-fresh Panther tanks toward a thin screen of men and machines guarding the Third Army's right flank at Lunéville, in the northeast corner of France. With their high-velocity guns, the Panthers easily knocked out the Yanks' vehicles. Panzergrenadier formations then swept forward to clear American antitank, machine-gun, and rifle positions.

The attack, which came as a complete surprise, was being orchestrated by one of the Third Reich's most talented panzer leaders, the diminutive General der Panzertruppen Hasso von Manteuffel, whom Hitler had plucked from the Eastern Front with his staff to drive Patton's forces back across the Moselle. Manteuffel's goal, as head of the 5th Panzer Army on the Western Front, was to transform Lunéville into a base from which to roll up Third Army's flank on the east bank of the river. The fight that began that morning touched off an 11-day running tank battle that raged across the hills of southern Lorraine and tested the resourcefulness of two of World War II's most gifted practitioners of the art of mobile warfare.

Patton arrived in France exactly one month after the D-Day invasion to set up the operational command for Third Army. His training and experience in cavalry operations and his experience serving with the U.S. tank forces in World War I served as solid preparation for the challenges he would face as a commander when the United States declared war on Japan and Germany in December 1941.

Patton had served with competence and distinction with the U.S. forces throughout Operation Torch, the invasion of North Africa.

Men of the U.S. 5th Infantry Division hug the walls in one of the suburbs of Metz in early September 1944. Patton's rapid advance across France came to an abrupt halt at Metz, due to fuel shortages, deteriorating weather conditions, and increased enemy resistance.

All photos National Archives unless credited otherwise

Against light opposition, he had secured Morocco during the opening phase of Torch and ably led the U.S. II Corps when selected to replace Maj. Gen. Lloyd Fredenhall after the debacle at Kasserine Pass.

General Dwight D. Eisenhower, who was the supreme commander of Allied forces in North Africa at the time, picked Patton to lead the U.S. Seventh Army in the invasion of Sicily in July 1943. In little more than a month's time, Patton, together with his archrival British General Bernard L. Montgomery, commanding the British Eighth Army, liberated the strategic island from Axis control.

Patton might have been destined to oversee U.S. forces in the invasion of France

ABOVE: Patton with General Manton Eddy (left), commander of XII Corps, and General Horace McBride, commander of the 80th Infantry Division. RIGHT: On September 8, men of the 5th Infantry Division cross the Moselle River near Dornot, France, five miles south of Metz.

the following year, but his inability to control his emotional outbursts and a personal sense of honor and duty that blocked him from sympathizing with the trials and tribulations of frontline troops caused him to stumble. In a widely publicized incident, he slapped and cursed a soldier suffering from battle fatigue in a field hospital in front of staff and patients. The media and public back home were outraged that a general would treat an enlisted man in such a manner. As a result, Eisenhower ordered him to make a personal apology to the soldier and also to everyone present at the time of the incident.

Patton was relieved of command in the wake of the incident but was not dismissed from war service. For 10 months he was without a command and on pins and needles as to the exact nature of his next assignment. Rather than give command of the U.S. First Army in the D-Day invasion to "Old Blood and Guts," Ike gave it to Lt. Gen. Omar Bradley, a commander who had served directly under Patton in North Africa and Sicily. Patton would now report to Bradley. The reversal of fortune gnawed at Patton from the outset of his service in France.

PATTON WAS CHOMPING at the bit to get at the Germans as soon as he arrived in France, and Bradley received permission from Ike to activate Third Army on August 1. Following the disaster at the Falaise Gap in August, where the Germans suffered 300,000 casualties, resistance had been light as the surviving German units raced east toward better defensive ground in the Ardennes and Alsace-Lorraine regions. Because of the heavy losses the Germans had sustained after the Normandy breakout, the Allies enjoyed a substantial advantage over the Germans in equipment, which amounted to a 2-to-1 advantage in artillery and nearly a 20-to-1 advantage in tanks.

As Patton's Third Army approached the Meuse River in late August, it paused before pushing into the Lorraine region. Third Army, which formed the right wing of Bradley's 12th Army Group, was composed of Maj. Gen. Walton Walker's XX Corps and Eddy's

XII Corps. Walker's corps consisted of the 5th and 90th Infantry Divisions and the 7th Armored Division, while Eddy's corps, at that time, consisted of the 35th and 80th Infantry Divisions and the 4th and 6th Armored Divisions. Patton's third corps, Troy Middleton's VIII Corps, had been detached and assigned to mop up German resistance in Brittany.

Using speed to its advantage, Third Army roared across two bridges over the Meuse River on August 31 before German forces could demolish them and slow the American advance. But Patton's dash ground to a halt shortly after it crossed the Meuse. This was because Third Army, and the other Allied armies racing to its north, had stretched their supply lines until they snapped. Despite efforts to rush fuel to the frontline units, the Allies were still receiving their fuel from supply dumps in Normandy. By August 30, Patton's army was receiving only about 32,000 of the 400,000 gallons of fuel it required to run all of its tanks and vehicles. For a five-day period at the beginning of September,

Patton's Third Army remained idle as German forces to their east regrouped and entrenched behind the Moselle.

Eisenhower issued orders in late August to all of his top commanders outlining a two-pronged offensive against western Germany in which the principal targets were the Ruhr and Saar industrial areas. The bulk of men and supplies would be detailed for the primary thrust toward the Ruhr in the north, but a secondary thrust through Lorraine was considered worth undertaking to stretch German forces along the Western Front.

Lorraine, situated in northeastern France, consists of a large plateau interspersed with forests, lakes, fields, and towns, through which the upper stretches of the Meuse and Moselle Rivers flow. It was significant to the Allies because it offered a gateway between the Ardennes and Vosges Mountains, through which Allied forces might reach Germany. The western boundary of Lorraine is formed by the Moselle Valley and the eastern boundary by the Saare River. Lying astride Third Army's route of advance were the key cities of Metz and Nancy, both of which are located on the east bank of the Moselle. The Germans did not intended to give up either without a fight. The historic city of Metz included an extensive system of man-made fortifications from previous wars.

The task before Third Army was to establish bridgeheads across the Moselle that

ullstein bild/The Granger Collection, New York

would enable it to capture the two strategic towns. From there, Third Army would advance along a northeast route of march toward the fortified West Wall. Once it captured the section of the West Wall protecting the Saar factories, Third Army's next objective would be to cross the Rhine and seize Frankfurt. It was a daunting series of objectives, but Patton relished the opportunity. Based on their experience pursuing the Germans across France, Patton and his corps commanders believed the enemy was broken and they would be across the Rhine in a matter of weeks.

While waiting for fuel to arrive with which to resume his eastward advance, Patton received good news from Bradley on September 4 that he would soon receive reinforcements in the form of Maj. Gen. Wade Haislip's XV Corps, which would guard his right flank against German forces retreating up the Rhone Valley. That same day Third Army received about 240,000 gallons of fuel, which was sufficient to resume its advance the following day.

ABOVE: With his surprise counteroffensive, General der Panzertruppen Hasso von Manteuffel proved a worthy opponent to Patton. LEFT: A German Panther Ausf. A, covered in camouflage—and camouflaged soldiers—prepares to engage U.S. forces in the Lorraine region, September 1944.

Patton immediately issued orders to Eddy and Walker to proceed with reconnaissance-in-force missions to determine the best points at which to cross the Moselle. Eddy's XII Corps, on the right flank, began moving up to the Moselle that same day, and Walker's XX Corps, on the left flank, started its advance the following day. Eddy was tasked with locating possible crossing points above and below Nancy, while Walker was instructed to do the same above and below Metz. Both corps commanders had received intelligence reports that two Panzergrenadier divisions, the 3rd and 17th, were prepared to contest the crossing, and that they would likely be reinforced by surviving elements of the 21st Panzer and Panzer Lehr Divisions. By September 7, U.S. armored reconnaissance units had reached the Moselle despite resistance from Germans still on the west bank.

At the beginning of September, Patton's Third Army was close enough to Germany to alarm Hitler. To protect the fatherland, Hitler ordered all German forces on the Western Front to hold their positions on the Moselle to allow engineers to make much-needed improvements to the West

Wall fortifications.

Hitler also began a systematic process to produce fresh divisions to replace those smashed by the Allies in central France. On September 2, Hitler issued orders for the creation of 25 new divisions, most of which were to be given the designation of Volksgrenadier. In addition, he ordered the creation of 10 new panzer brigades, numbered 101 to 110, each of which would boast a battalion of approximately 45 Panther tanks. A follow-on series of panzer brigades, numbered above 110, would contain a battalion of Panthers and a battalion of Mark IVs. Hitler also reappointed General Field Marshal Gerd von Rundstedt, who had been relieved of his command in June, to oversee Germany's forces in the west.

Because the raising of fresh Volksgrenadier divisions and panzer brigades would take time, Hitler transferred two crack divisions, General Hans Hecker's 3rd Panzergrenadier and General-Lieutenant Eberhard Rodt's 15th Panzergrenadier, by train from the Italian front. Although Hecker's division was at nearly full strength, Rodt's had been depleted as a result of nearly a year of hard fighting.

ABOVE: An American soldier, carrying a .30-caliber Browning water-cooled machine gun M1917A1 in addition to his personal M3 .45-caliber sub-machine gun (aka "grease gun") moves into position near Metz. LEFT: An American runs for cover as artillery and mortar fire lands around him near Dornot, France.

Most of the forces opposite Patton's Third Army belonged to the German First Army, which was part of General-Colonel Johannes Blaskowitz's Army Group G. Hitler planned to increase the forces opposite Patton to the point that they would be capable of launching a strong counterattack that would rock Third Army back on its heels.

In preparation for his counterattack, Hitler made several key command changes. On September 6, he sacked First Army commander General der Infanterie Kurt Chevallerie in favor of General der Panzertruppen Otto Knobelsdorff, who would lead German forces covering the line from Sedan to Nancy. Hitler also made preparations for the creation of a new Fifth Army to be led by Manteuffel.

Until sufficient forces were gathered for the counterattack, the frontline troops were ordered to defend as many crossing points along the Moselle as possible between Nancy and Metz. First Army's center, which was anchored at Metz, was the responsibility of SS General-Lieutenant Herman Priess, commanding the 13th SS Corps, while First Army's left wing at Nancy was entrusted to General der Panzertruppen Heinrich Freiherr von Luttwitz, commanding the 47th Panzer Corps.

From Metz to Nancy the Germans were deployed on the east bank of the Moselle as follows: the 559th Volksgrenadier Regiment opposite Thionville, Division Number 462 (partially composed of zealous officer cadets from the Metz service schools) and the 17th SS Panzergrenadier Division at Metz, the 3rd Panzergrenadier Division opposite Pont-a-Mousson, the 92nd Luftwaffe Training Regiment opposite Marbache, the 3rd Parachute Replacement Regiment in front of Nancy in a westward loop of the river, and the 553rd Volksgrenadier Regiment inside Nancy. All of these units suffered serious armored and antitank deficiencies. Despite the impressive numbers, the only armored unit initially available to Knobelsdorff was the 106th Panzer Brigade, one of the first of the newly formed panzer units with a full battalion of Panther tanks,

which constituted First Army's thin operational reserve.

On Patton's left wing, Walker's XX Corps began probing the Metz defenses on September 7. Maj. Gen. Leroy Irvin's 5th Infantry Division pushed across the swollen waters of the flooded Metz River the following day to gain a precarious bridgehead at Dornot, five miles south of Metz. Constant shelling from German long-range guns stationed at Fort Driant, an elevated outpost on the west bank of the Moselle, made it impossible for U.S. engineers to lay a bridge at that crossing. What's more, a series of determined counterattacks by the 17th SS Panzergrenadier Division kept the U.S. infantry from expanding the bridgehead. After 48 hours of hard fighting, the bridgehead was abandoned.

North of Metz, Third Army's left flank lay exposed, and Knobelsdorff sent the 106th Panzer Brigade to attack the Americans in an effort to keep them off balance and slow their efforts to cross the Moselle. Although the 106th Panzer Brigade was led by veterans from the Eastern Front, its crews had received very little training and the brigade suffered from a severe shortage of communications equipment essential to coordinate an assault. Nevertheless, Knobelsdorff secured permission from Hitler to use the brigade for a quick strike provided he return it to First Army reserve within 48 hours.

After some confusion as to the location of their target, which was Maj. Gen. Raymond McLain's 90th Division of Walker's XX Corps, the Germans regrouped on the evening of September 7 and advanced after midnight in two columns through the village of Briey toward the American position. Having failed to reconnoiter the American lines, the Germans blundered into a hornets' nest.

The main column found itself in the midst of the 90th Division headquarters at 3 AM, and several Panthers engaged an M4 Sherman guarding McLain's command post situated on a knoll. The German armored column continued south, hoping to stampede the American soldiers into abandoning their positions. But the Americans stood their ground. McLain issued orders for the nearest infantry regiments to converge on the enemy column.

At daybreak, the 358th Infantry Regiment attacked the column with a wide range of antitank weapons including bazookas, 3-inch guns, and 105 mm howitzers. The turning point in the battle came when a U.S. artillery observer directed more than 300 howitzer rounds onto a

German column lined up on a sunken road in preparation for an assault on the village of Mairy. The strike destroyed five Panthers and 20 half-tracks. When the Germans attempted to withdraw, they found their escape route blocked by the 359th Infantry Regiment moving east to cut them off. Altogether, the 106th Panzer Brigade lost 30 tanks and 60 halftracks, which greatly reduced the role it would play in subsequent operations.

Irwin's 5th Infantry Division made another effort to secure a bridgehead across the Moselle at Arnaville, a short march south of Dornot, on September 10. This time the engineers were able to construct a bridge under the cover of darkness, but the bridgehead was again subjected to concentrated shelling by long-range guns from the Metz defenses and also from counterattacks by various elements of all three of the German Panzergrenadier divisions defending the Moselle. Against such odds, a breakout at that location was not deemed feasible.

Men of the 35th Infantry Division cross the Marne-Rhine Canal, September 15, 1944.

Above and below Nancy, the Germans were content to wait for the Allies to attempt to cross the Moselle and launch local counterattacks in an effort to contain or eliminate the bridgeheads. Eddy planned to isolate Nancy in a double envelopment. He sent one regiment from Maj. Gen. Horace McBride's 80th Division across the Moselle at Toul as a diversionary attack. But the main attacks were made by the bulk of the 80th Division north of Nancy, and by Maj. Gen. Paul Baade's 35th Infantry Division south of the city.

Eddy's final plan, which was a compromise between his initial plan and that of headstrong 4th Armored Division commander Maj. Gen. John Wood, called for Brig. Gen. Holmes Dager's Combat Command B (CCB) to assist the 35th Infantry Division south of Nancy, and Colonel Bruce Clark's Combat Command A (CCA) to be held in reserve to exploit whichever crossing offered the most promise for a rapid breakout.

INITIALLY, AT LEAST, Eddy's XII Corps suffered setbacks as severe as those experienced by Walker's corps to its north. Having reached the Moselle as early as September 5, the 80th Division attempted to gain a foothold on the eastern bank at Pont-a-Mousson. A spearhead of the 317th Infantry Regiment crossed the river in boats, but the following morning they were bombarded by German artillery and mortars, which forced them into their foxholes. The next morning, elements of the 3rd Panzergrenadier Division overran the bridgehead, killing 300 Americans.

But there were simply too many crossing points for the Germans to contest every one with such promptness as they had shown at Dornot, Arnaville, and Pont-a-Mousson. At Toul, where a great bend in the Moselle channeled the Moselle away from Nancy, the Germans were content to allow McBride's 319th Infantry Regiment to cross unopposed on September 5. Nevertheless, the Germans established strong defensive positions in two dilapidated French fortresses that effectively blocked the western approaches to the city. The Americans captured the northern fort almost immediately, but German paratroopers held out in the southern fort for five days.

By September 10, Baade's 35th Infantry Division was in force along the western bank of the Moselle south of Nancy. The 134th Infantry Regiment was ordered to cross on the left below Nancy, and the 137th Infantry Regiment on the right. The 134th was fortunate to find a bridge intact and threw a battalion across the river. But its fortune ended there. That evening German artillery brought down the bridge, and the 104th Panzergrenadier Regiment attacked with armor support in the dark of night, overrunning the bridgehead. Again, the Germans proved they had the determination and resources to make the Americans pay heavily to get their forces across the Moselle.

Still, the 137th Infantry Division that same day managed to establish several small bridgeheads on the eastern bank. Not content to wait for the infantry, the vanguard of Dager's CCB managed to ford the Moselle at Bayon, where the river's height was substantially lower because water was diverted to fill canals on each side.

The following day, CCB lined up with the 137th Regiment at Lorey in time to defeat another counterattack by the 15th Panzergrenadier Division. On September 12, engineers had laid a 168-foot pontoon bridge across the Moselle that enabled the rest of the 35th Infantry Division and the remaining tanks of CCB to cross to the east bank, Two days later, CCB had pushed through light enemy resistance to reach the Marne-Rhine

ABOVE: An American M4 Sherman tank provides covering fire as men from the 320th Infantry Regiment, 35th Division, advance near the Marne-Rhine Canal. BELOW: Trying to make their tanks and other vehicles inconspicuous to American aircraft, German troops cover them with tree branches in a town near the Moselle River.

ullstein bild/The Granger Collection, New York

Canal seven miles beyond the Moselle.

Following the setback at Pont-a-Mousson, McBride ordered his men to attempt another crossing four miles south at Dieulouard. The men of the 317th Infantry Regiment managed to cross a bridge left intact and braced themselves for a counterattack. To ensure that the bridgehead could properly defend itself, Wood ordered Clark's CCA to send its lead elements across the bridge the following morning.

As expected, the Germans counterattacked at 1 PM on September 13 just as CCA began crossing the bridge. The 37th Tank Battalion, led by the hard-charging Lt. Col. Creighton Abrams, brushed aside German resistance and turned north to gain the east-west road leading to Nomeny.

This dramatic entrance to the battle by CCA caught the Germans off guard and paid large dividends. In the first day alone, CCA's vanguard had advanced nearly 20 miles and destroyed a dozen enemy tanks and 85 half-tracks and captured 350 prisoners. With the vise tightening on Nancy, Blaskowitz ordered the 553rd Volksgrenadier Division to pull out of the Nancy pocket before it was cut off.

Abrams received orders from Wood to pivot south toward Arracourt, where he would be in a position to link up with CCB and complete the encirclement of Nancy. Although ordered to avoid German forces concentrated at Chateau-Salins, Abrams nevertheless overtook an armored column from the 15th Panzergrenadier Division and, in another stunning attack, captured or destroyed 26 armored vehicles and took 400 prisoners. Over the next four days, CCA raided the countryside around Arracourt, managing to destroy more enemy tanks and vehicles at a cost of only a half dozen M4 Sherman tanks.

Two days before, Bradley had called Patton and First Army Commander Maj. Gen. Courtney Hodge to his headquarters at Dreux and informed them that the supply situation was dire. If Third Army was unable to cross the Moselle by September 14, Bradley told Patton, it would have to go over to the defensive.

The very notion was unpalatable to Old Blood and Guts. "Had I not secured a good bridgehead by that time, I was to stop arguing and assume the mournful role of a defender," Patton said. On the day of the deadline, Patton reported to Bradley that the southern wing of Third Army had broken out of its bridgeheads and was in position to continue pushing east.

Bradley, who found the report satisfactory, passed the news to Eisenhower that Third Army was indeed across the Moselle in strength. Patton spent so much time cajoling Bradley for permission to continue his advance east and additional reinforcements that he was seemingly oblivious to the stiffening enemy resistance and to evidence that the Germans were amassing sub-

stantial reinforcements in the Nancy sector.

But his cajoling paid off, as Bradley had been working hard to ensure that Haislip's XV Corps, which had been helping to clear the lower Seine of German forces, would join Third Army on its southern flank. Haislip's arrival in early September disrupted a key element of Hitler's plan for a counterattack against Third Army by denying the Germans a staging area on the west side of the Moselle from which they might isolate American forces on the east side.

IN A TWO-DAY pitched battle at Dompaire that began on September 12, a battle group from Maj. Gen. Jacques Leclerc's 2nd French Armored Division of Haislip's Corps smashed the 112th Panzer Brigade of Luttwitz's 47th Corps, which had been sent to check Haislip's advance. The Germans failed to reconnoiter enemy positions, and their replacement tank crews were no match for Leclerc's veteran troops.

As a result, the 112th Panzer Brigade lost 69 of its 90 tanks. Leclerc also benefited from repeated tactical air strikes by P-47 Thunderbolts of Brig. Gen. Otto Weyland's XIX Tactical Air Command. The destruction of the 112th Panzer Brigade occurred less than a week after the equally embarrassing debut of the 106th Panzer Brigade on Third Army's northern flank. Taken together, the losses seriously compromised the impending large-scale counterattack that Manteuffel was charged with executing.

Patton began drafting plans for Third Army's advance east toward the Rhine as early as September 14. He did not expect to encounter substantial resistance until he reached the West Wall. "I was convinced then ... there were no Germans ahead of us except those we were actually fighting. In other words, they had no depth," Patton said.

His plan called for a narrowing of the front, with two corps abreast and one in reserve. Once Third Army reached the West Wall, Patton intended to concentrate his forces to achieve a breach. He was confident that Eddy's 35th Division, with close support of the 4th Armored, could achieve a breach and hold it open to allow Third Army's armored divisions to punch through the wall. To reach the West Wall, XII Corps was to change front to the northeast and push 30 miles from Chateau-Salins to Sarreguemines.

Though Patton had hoped XII Corps would be ready to resume its advance on September 16, Eddy informed Patton that his troops would not be ready to resume their eastward advance until the 19th, after they had mopped up German forces behind their lines. The delay would prove a costly one. Patton had been correct that the Germans possessed no defense in depth immediately after Third Army crossed the Moselle. But by the time Eddy was ready to resume his advance, Manteuffel's Fifth Army had materialized as if out of thin air.

As Third Army firmly established itself on the east bank of the Moselle at Nancy, capturing not only crossing points but also key crossroads on the east bank, the Germans had to postpone their counterattack several times and continually revise it to adjust to new events. Indeed, the advance of Haislip's XV Corps prevented German forces from assembling for their attack on the west bank of the Moselle, where they might cut off the forces on the east bank. Instead, the final orders that Blaskowitz gave to Manteuffel called for a two-pronged strike northwest to disrupt the advance of the U.S. 4th Armored Division and retake the crossroads at Chateau-Salins.

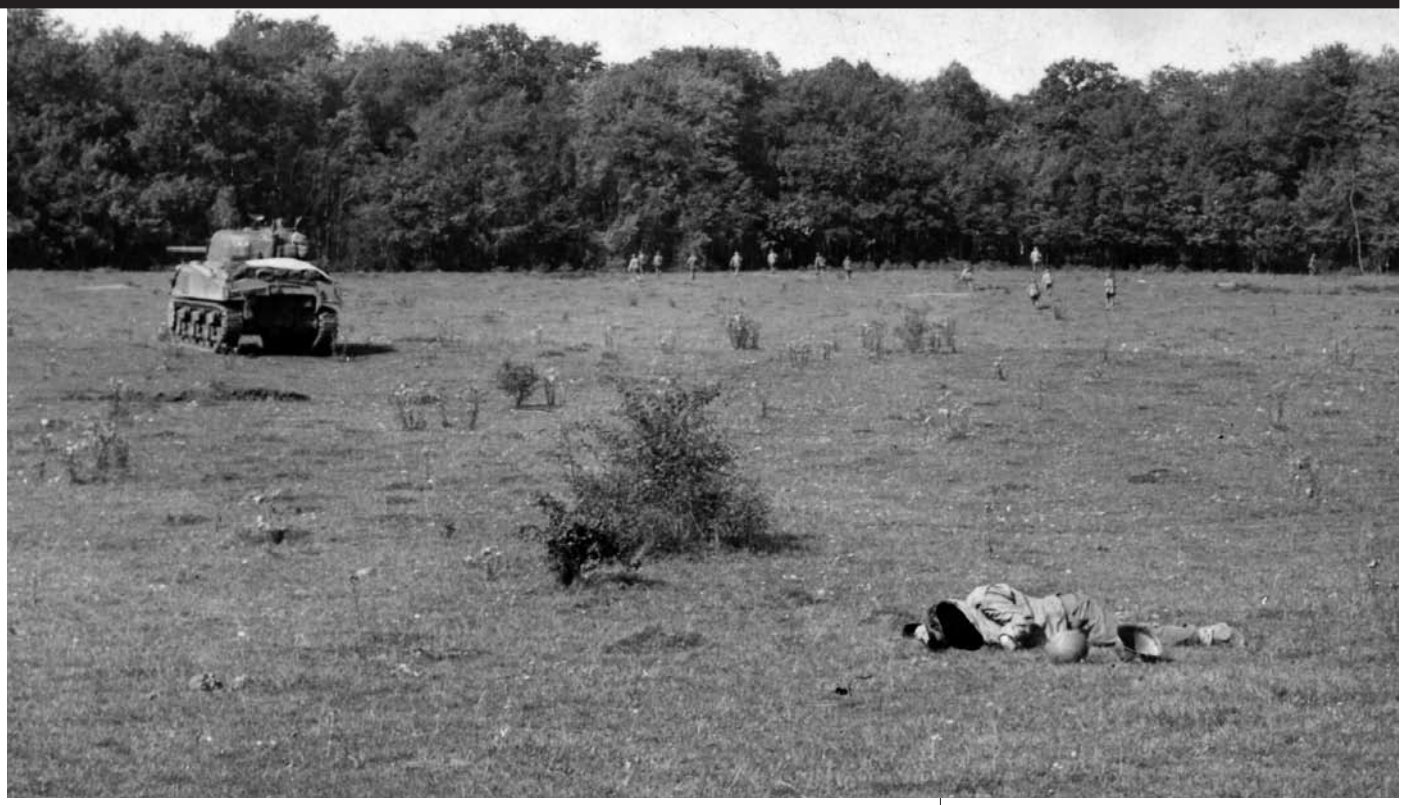
Men of the 35th Division clear Dombasle, France, on September 15 after crossing the Marne-Rhine Canal.

Hitler, who reluctantly agreed to a far less ambitious counterattack than initially envisioned, issued orders for the German attack to begin on September 18. Manteuffel, who had arrived to take command of Fifth Army in the field only a week before, pleaded for yet another extension, arguing that his forces were not strong enough to achieve their objective. His pleas fell on deaf ears, and he prepared to make do with the untrained and understrength units he had been given.

The reconstituted Fifth Panzer Army was inserted into Blaskowitz's Army Group G between First Army to the north and the Nineteenth Army to the south. Luttwitz's 47th Panzer Corps, constituting the left flank, consisted of the understrength 21st Panzer Division, the untested but intact 111th Panzer Brigade, and the remnants of the 112th Panzer Brigade. General der Panzertruppen Walter Krueger's 58th Corps, which formed the right wing, comprised the 15th Panzergrenadier Division and the also untested but intact 113th Panzer Brigade.

Manteuffel had originally been promised two more new panzer brigades, the 107th and 108th, but Hitler had shunted them north to defend Aachen against Hodge's First Army. Luttwitz and Krueger received their orders two days before the start date. The initial objective for both was Lunéville, which would become a staging area for a drive north to Chateau-Salins. Luttwitz would strike north toward Lunéville, while Krueger would push west along the south side of the Marne-Rhine Canal toward the town.

The new panzer brigades each had a battalion of Panzergrenadiers drawn from the



American infantry, accompanied by a Sherman tank, enter a line of woods at the Forêt de Champenoux, near Nancy, which was also the site of a battle in 1914. A censor's pen has concealed the face of a dead GI in the foreground.

three Panzergrenadier divisions already in Lorraine. The 111th and 113th Panzer Brigades boasted two tank battalions, one of 45 Panthers and the other of 45 Mark IVs. The 112th Panzer Brigade decimated by the clash at Dompaire, had only two dozen serviceable tanks. For its part, the 15th Panzergrenadier Division had three dozen Mark IV tanks. Significantly, none of the panzer brigades had either organic artillery or reconnaissance vehicles.

Scouts from the U.S. 42nd Cavalry Squadron detected a German column approaching from the south toward Lunéville at 7 AM on September 18. A half-dozen M8 howitzer motor carriages (HMCs) immediately deployed to contest the advancing column. The Panthers knocked out three of the lightly armored HMCs in short order. Despite the ferocity of the attack, the cavalry held on for four hours before it finally withdrew into the town.

AMERICAN RADIOS CRACKLED throughout the morning with requests to rush immediate support to Lunéville. Elements of the 4th and 6th Armored Divisions, the latter which had been serving as Third Army's rear guard, and other units began converging on the town in response. By early afternoon, the Germans were fighting their way into the southern end of the town. Through skilled use of defensive positions, the Americans stopped the Germans from capturing the town. Some of the hardest fighting was done by the 704th Tank Destroyer (TD) Battalion.

The type of close-range fighting that day is exemplified by an encounter between an M18 Hellcat of the 704th against a pair of Panther tanks. 2nd Lt. Richard Buss, commanding a platoon of M18s, ordered one of his vehicles to take up a well-protected position behind a railroad embankment with only its barrel visible. From there, the vehicle fired an armor-piercing shell into the side of a Panther in a field 300 yards away.

"Suddenly, I saw the billowing of flames," Buss said. "The flames were transparent orange, rising with startling swiftness. They rose through the branches of the trees to a height of 60 feet. When I looked for a second target, it was gone."

With that measure of skill, the 704th managed that day to destroy eight Panthers without losing a single tank destroyer. When Manteuffel learned that the 111th had become bogged down in Lunéville, he ordered it to break off the engagement and bypass the town to the east. As for Patton, he incorrectly dismissed the action as nothing more than another failed local counterattack. "I was determined that the attack on the Siegfried Line should go on in spite of what had happened in Lunéville," he said.

That evening Manteuffel made substantial adjustments to the German plan of attack. Because Haislip's corps threatened his left flank, a substantial part of Luttwitz's corps was directed to take up a defensive stance. To compensate for a reduction in forces, the main objective was switched to a strike toward Nancy to relieve those elements of the 553rd Volksgrenadier still fighting their way out of the tightening pocket.

Manteuffel's attack for the following day involved a coordinated strike toward Arra-

To defend against the more heavily armored German tanks, American armor takes cover behind an embankment near Moncel, France. Overhead, P-47s surprised the German tanks and helped drive them off.

court using the 111th and 113th Panzer Brigades from Luttwitz's and Krueger's corps, respectively. Unfortunately for the Germans, the 111th Panzer Brigade became lost in unfamiliar countryside and didn't reach the staging area at Bures until late afternoon on the 19th. This meant that two columns of tanks and half-tracks from the 113th would have to carry the objective themselves.

The eastern thrust of the 113th Panzer Brigade's attack that day was aimed at Companies C and D of the 37th Tank Battalion guarding the eastern and southern approaches to Arracourt. When a column of 11 panzers appeared out of the mist that morning, three were immediately knocked out at close range by Shermans belonging to 1st Platoon, Company C, of Abrams's 37th Tank Battalion in concealed positions.

The Germans, in an effort to regroup, turned southwest to escape the ambush. Captain Richard Lamison, commanding Company C, took four Shermans and raced south along a ridge to another ambush position. The Shermans popped over the crest of the ridge and opened fire on the enemy tank column at a range of 900 yards, destroying five enemy tanks by striking them in the side. The Shermans then retreated behind the crest of the ridge and reappeared at another point to finish off the three remaining Panthers.

Meanwhile, the western thrust of the 113th Panzer Brigade that morning ran headlong into a platoon of four Hellcats from the 704th TD Battalion, which had been informed of an attack that morning and taken a defensive position in a depression in the landscape. A major firefight developed that resulted in the destruction of seven enemy tanks at the cost of three Shermans.

The Germans attacked again in the vicinity of Rechicourt in the afternoon, but after losing another nine tanks they broke off the action. The initiative then shifted to the Americans when a task force from Companies A and B of the 37th Tank Battalion swept through Rechicourt, driving the Germans beyond the town.

Total losses for the day were five Shermans and more than 40 Panther and Mark IV tanks. The light losses suffered by Abrams's battalion were a result of his crews using their mobility to offset the advantage enjoyed by the Panther's long, high-velocity 75mm gun over the Sherman's short 75mm gun. The American tank crews also benefited from a hydraulic turret that allowed them to swing into firing position faster than the Germans' slower hand-cranked traverse.

Patton drove to the XII Corps front on September 19, where he met first with Eddy and later with Wood. Patton told Wood to strike east the following day in the belief that it would keep the Germans off balance. "This I felt was particularly true against the Germans, because as long as you attack them, they cannot find the time to plan how to attack you," Patton said.

THE 37TH TANK BATTALION would get no rest on September 20. Most of CCA had shifted north to prepare for an advance east in the direction of the West Wall, leaving artillery and other support units at Arracourt. When a column of tanks from the 111th Panzer Brigade appeared that morning out of the fog, it was left to the gunners of the 191st Field Artillery Battalion to fight off the attack. When word reached Clark that morning of another determined attack by the Germans, he ordered the entire combat command to turn back to Arracourt and sweep the area.

Near Moncourt, just east of Arracourt, a platoon of Mark IVs and towed anti-tank

guns ambushed Abrams's Company C, leaving a half-dozen M4 tanks mangled. The tank battle raged well into the afternoon as Company B arrived to help Abrams hold back the Germans. By the end of the day the Germans had lost a dozen Mark IVs and six Panthers. It was an unusually costly day for the Americans, who lost a dozen Shermans.

After two days of hard fighting, the two sides braced for more of the same. Fearing Hitler's ire, Blaskowitz berated Manteuffel for failing to make any noticeable gains and ordered him to continue the counterattack regardless of the losses incurred. Meanwhile, Patton acknowledged that he might have to delay his advance east. "It might be impossible to complete the mission which we started out on, but we could kill a lot of Germans trying," he told Eddy.

HITLER, WHO HAD NEVER liked Blaskowitz, sacked him on September 21. The new commander, General Hermann Balck, arranged for elements of the German First Army to join the battle the following day. The shift in plans resulted in an ominous quiet on the front lines that day and led to speculation as to whether the Germans had finally quit their offensive. As the Americans prepared to resume their push east, the vanguard of CCA shifted north toward Chateau-Salins. This meant that CCA was now on the left flank of the Arracourt-Juvelize salient and CCB was on the right.

Out of the fog on September 22, the remaining tanks of the 111th Panzer Brigade punched like a steel fist through CCA's cavalry screen around Juvelize. In short order, more than a half-dozen M5 Stuart tanks sat smoldering and crumpled in fields near the town. Once again, Company C of the 704th TD Battalion rushed forward to delay the advance supported by P-47s firing rockets and machine guns.

The Hellcats bought precious time for Companies A and B of the 37th Tank Battalion to rumble north from Lezey toward the battlefront. Company A, advancing on the left, gained high ground west of Juvelize, and with substantial artillery support, it checked the momentum of the enemy armor pushing south.

Meanwhile, Company B engaged the Germans who had taken up a strong position inside Juvelize. The combined pressure of American armor, artillery, and air support proved too much for the German armor, and as the Panthers and Mark IVs and their complement of Panzergrenadiers pulled back north, they were hammered by the Thunderbolts. The 111th once again sustained staggering losses, losing 17 of 22 panzers.

Manteuffel, who knew the attacks were hopeless but was under orders from Balck to continue regardless of the cost, threw the remnants of the 111th and 113th against CCA again the following day, only to suffer further tank losses. Equally devastating was the loss of both panzer brigade commanders during the two-day assault on CCA's left flank. During the fighting around Juvelize, the Americans lost 14 Shermans and 7 Stuarts. The fighting resulted in the final destruction of two panzer brigades. By the end of the day on September 22, the 111th Panzer Brigade had only seven tanks from an original strength of 90 when the offensive started a week before.

Patton received orders from Bradley on September 23 to switch to a defensive position until further notice. Events in the northern sector made it necessary to divert precious fuel and ammunition to British and American units in that sector, which meant that Third Army would have insufficient resources to sustain prolonged offensive action. The news came as a hard blow to Patton, whose spirits had been riding high with the prospect of pushing through the West Wall to the Rhine. In addition, Eisenhower and Bradley had decided to transfer Haislip's XV Corps to Lt. Gen. Jacob Dever's Sixth Army leaving Patton once again with just two corps. In response to the changing circumstances, Patton issued orders on September 24 for CCA to pull back from Juvelize to Arracourt to lessen its exposure to any subsequent enemy attacks.

A GI examines a knocked-out StuG IV near Lunéville, France. The StuG IV had no rotatable turret; the entire vehicle had to be aimed in the direction of the target.

Balck expanded the fight by committing units from Knobelsdorff's First Army to the battle on September 24. He ordered Knobelsdorff to attack Dager's CCB with the 559th Volksgrenadier Division and the remnants of the 106th Panzer Brigade. Unlike Manteuffel's forces, Knobelsdorff's had artillery with which to support an attack. A heavy artillery barrage preceded

ABOVE: A super-heavy 240mm M1 howitzer blasts German positions to break up an enemy tank attack. Maximum range was over 25,000 yards. OPPOSITE: Shermans line up in an unidentified French city, September 27, 1944, in preparation for a continuation of the drive toward the German border.

an attack near Chateau-Salins by two regiments supported by tanks across flat ground against U.S. forces in defensive positions on a long ridge.

The Sherman crews could do little to deter the advancing Panthers because of the excellent sloped and thick frontal armor the enemy tanks possessed. To descend the ridge and maneuver against the Panthers would have exposed the Shermans to the Panthers' highly effective guns. The Shermans therefore attempted to use the ridge for cover and engage the Panthers head-on, with disappointing results.

Although the day was cloudy and wet, two squadrons of P-47s from the 405th Fighter Squadron were able to navigate to the area using their cockpit instruments and instructions from ground spotters. They swooped in at extremely low level, catching the German tank crews by surprise. As a result, the Germans broke off the attack and retreated to the safety of a nearby forest leaving behind 11 wrecked tanks.

Because Knobelsdorff had no better luck than Manteuffel against the Americans, Balck returned control of the offensive back to Manteuffel. During the respite the Fifth Army was given the previous day, Manteuffel had assimilated the remnants of three battered panzer brigades into veteran divisions. The German high command also reinforced the Fifth Panzer Army with Gen. Lt. Wend von Wietersheim's 11th Panzer Division.

In effort to ensure greater success, Manteuffel ordered a detailed reconnaissance of enemy positions. German scouts reported to the Fifth Army commander that the crossroads of Moyenvic, four miles northeast of Arracourt and three miles west of Juvelize, was unguarded and could readily serve as the gateway for an attack. Having mustered 50 tanks for the attack, Manteuffel ordered Wietersheim to capture Moyenvic and inflict as much damage as possible on CCA. The Germans gained considerable ground on the morning of September 25, but the attack ground to a halt when the Germans were unable to dislodge CCA units from high ground northeast of Arracourt.

The attack on the 25th was not substantial enough to disrupt a shuffling of U.S. forces in the Arracourt sector. The 37th Tank Battalion was sent to the rear to rest and refit. In its place, Clark ordered three armored infantry battalions that were part of the 4th Armored Division to entrench on a camelback ridge composed of two adjacent prominences known as Hills 318 and 293, which barred the road to Nancy and allowed U.S. guns to sweep German positions to the east and south.

In addition, Wood ordered CCB to shift to CCA's right flank to cover the ground between Rechicourt and the Marne-Rhine Canal. To cover CCB's former position in the line, Baade's 35th Infantry Division advanced to a new position west of Chateau-Salins. The Germans, who observed the Americans pulling out of Juvelize, occupied the abandoned town the following day.

MANTEUFFEL'S PLANS FOR September 27 called for Wietersheim's 11th Panzer Division to seize the camelback and Arracourt, opening the road to Nancy. The plan called for a diversionary attack at daybreak by elements of the 11th Panzer Division against the 10th Armored Infantry Battalion atop Hill 265, another key position held by the Americans. The main attack would come from the town of Bures to the south, where Manteuffel had scraped together a battle group composed of 30 tanks and assault guns to capture the camelback.

The Germans attacking toward Hill 265 captured several key towns, one of which was Xanrey, a few miles northwest of Arracourt. Yet Abrams's 35th Tank Battalion counterattacked in the afternoon and recaptured the town in a fight that inflicted substantial casualties on the Germans.

Meanwhile, the main attack that morning by the Germans against the 51st Armored Infantry Battalion of Dager's CCB occupying the camelback was broken up by the concentrated fire of six artillery battalions. Wietersheim ordered the battle group to break off its attack until the following day so that reinforcements could be sent to Bures. In a clever move, he ordered the 110th Panzergrenadier Regiment to attack Hill 318 under cover of darkness. The Panzergrenadiers methodically fought their way up the southern slope, clearing Americans from their foxholes. By dawn the Germans had seized the

crest of Hill 318.

Control of the crest of Hill 318 shifted back and forth on September 28. Both sides employed heavy guns to shell enemy forces clinging to their respective slopes. While the fighting raged, P-47s flew repeated sorties against Bures, through which the Germans were funneling fresh troops and ammunition into the battle. Desperate to achieve their objective, the Germans toiled throughout the day to construct strongpoints and establish camouflaged positions on the southern slope to support their attack. Charging up the slope after nightfall, the Germans once again seized the crest, forcing the Americans to retreat to the northern slope.

THE GERMANS ATTACKED along the entire line on September 29, and Wietersheim committed his final reserve of 40 tanks to the fight for Hill 318. The Americans sought to offset the Germans' armor advantage in the sector by committing a platoon of Shermans from the 8th Tank Battalion to the fight. The day dawned with a thick blanket of fog shrouding the crest of the hill. The Shermans, which went into action in the morning, knocked out eight enemy tanks in quick order.

Before more German tanks could ascend the hill, P-47s swooped in with bombs and rockets after the fog burned off, breaking up a counterattack. Although the Panzergrenadiers on the crest had managed to hold on during the morning, the combined pressure of American ground fire and air strikes finally broke the enemy's nerve and the ground troops began retreating down the southern slope in the afternoon.

To the north, German infantry launched a determined attack to seize Hill 265, but they could not prevail against entrenched forces with a clear advantage in artillery support. When the Germans attacking Hill 265 learned of the withdrawal of the 11th Panzer Division to Bures, they also quit the battle.

Like his counterpart, Balck was loath to go on the defensive but found he had no choice. Balck requested that Rundstedt provide Army Group G with three fresh divisions and 80 additional tanks and assault guns to continue the fight. But his request was denied as by then both sides had shifted the bulk of their resources to the northern sector.

Although the 4th Armored Division lost 48 tanks in the fighting around Arracourt in September, the Germans lost 285, which constituted most of the replacement tanks sent to the Western Front that fall. From the standpoint of losses in men and equipment, the Arracourt battles were a resounding victory for the Americans. Still, Walker's XX Corps remained stalled before Metz, even though Eddy's XII Corps had advanced well beyond its Moselle bridgeheads.

Patton's triumph of the summer in which Third Army raced across France against light opposition had given way to the hard reality of bitter fighting along the Moselle line. Patton's notion that Third Army could cross the Moselle with ease and cover the 40 miles from the river to the West Wall in a matter of weeks had been shattered by Manteuffel's determined, if futile, counterattack in September.

Patton had seriously underestimated the Germans' ability to recover from setbacks and mount a tenacious defense as the Western Allies neared the German border. The initial counterattacks against Third Army's bridgeheads should have convinced him that the enemy was regaining strength. Old Blood and Guts's fixation with supply problems and haggling with his superiors over reinforcements had dis-

Continued on page 96

Opening The VENONA FILES

A top-secret agency helped the United States keep tabs on its Soviet ally during and after the war. BY PETER KROSS

ON FEBRUARY 1, 1943, a group called the U.S. Army Signal Intelligence Service, the forerunner of the modern-day National Security Agency (NSA), began a project to intercept and analyze diplomatic signal traffic sent by an ally of the United States: the Soviet Union. The undertaking went by the code name "Venona."

Only in recent years has the NSA been releasing to the public portions of its voluminous files on the Venona Project, and what we are learning changes the way we look at our history in ways that could not have been thought of only years before. The Venona Project gives the modern-day historian a clearer view of just how much our wartime Soviet ally penetrated the U.S. government under the administration of President Franklin D. Roosevelt, as well as our military and national defense industries, during World War II. The files also shed a bright light on the mentality of the Cold War that dominated U.S. foreign policy for almost 50 years.

Venona was the brainchild of Colonel Carter Clarke, the chief of the U.S. Army's Special Branch, a division of the War Department's Military Intelligence Division. During 1943, Colonel Clarke picked up signals that a possible Soviet-German peace deal was in the works, and he wanted to find out if the rumor was true. He ordered his small code-breaking unit to read all Soviet diplomatic traffic being sent from the United States to Moscow. The colonel's crack team of code breakers was able to pick up copies of Soviet messages via international cable traffic being sent over the wires. Through hairsplitting months of trial and error, the analysts were able to crack the Soviet code. What they discovered was not information leading to a separate peace, but a massive Soviet espionage penetration operation of the highest levels of the American government.

The headquarters of the Venona Project was located in a remote site in Virginia called Arlington Hall. From this secure location, the code breakers worked on thousands of pages of cables being intercepted from Soviet diplomatic missions around the world.

The Soviet official entrusted in 1943 with handling these messages was Pavel Fitin, chief of the foreign intelligence directorate of the MGB (Ministry of State Security) in Moscow. Fitin ran five different espionage branches in the United States: (1) commercialties such as the Amtorg Trading Corporation handling all information coming from the U.S. Lend-Lease program to the Soviet Union; (2) the use of Soviet diplomats as intelligence agents; (3) direct relations with MGB headquarters in Moscow; (4) the running of the GRU-Soviet Army General Staff Intelligence Directorate (GRU, Soviet military intelligence); and (5) the GRU-Soviet Naval Intelligence Staff.

As time went on, the Legal Resident Agent at the Soviet embassy in Washington, D.C., Anatoli Gromov, who arrived in the United States in September 1944, took over intelligence duties. He was later to run a secret American spy unit operated by an American called Gregory Silvermaster. The files on Gromov say that he "was to take over the activities of the Government network following his arrival."

By the time the Venona analysts were able to make headway in breaking Soviet traffic, the war had ended. But in the 1950s they learned that the Soviet Union, one of the United States' main allies in World War II, had penetrated the super-secret Manhattan Project, in which U.S. scientists were working in total secrecy to develop the atomic bomb.

The year 1945 was pivotal as far as gathering information on Venona was concerned. In that year, a Soviet code clerk working in the Russian embassy in Ottawa, Canada, Igor Gouzenko, defected to Canadian authorities with hundreds of pages of top-secret documents. Gouzenko told the Canadians that the Soviets had a mole inside their intelligence system. He also named numerous officials who were working for the Soviet Union and passing national secrets. Among the names of alleged spies were such notable

RACE RESULTS

LIBERTY UNDER THE LAW

DAILY, 10¢

VOL. LXXII — IN THREE PARTS ★★★ — SATURDAY MORNING, JUNE 20, 1953 — 42 PAGES

ROSENBERGS DIE

Pair Executed for Atom Spying

END OF TRAIL—Summons to de

Supreme Court and Eisenhower Reject Couple's Last Pleas

OSSINING, N.Y., June 19 — Atom Spies Julius and Ethel Rosenberg died in Sing Sing Prison's electric chair shortly before sundown today. The executio followed quickly after the Suprem Court set aside a stay of execution gran ed Wednesday by Justice William Douglas and President Eisenhower's r fusal to grant them clemency.

SING SING PRISON, N.Y., June 19 Atom Spies Julius and Ethel Rosenb were ordered electrocuted late today betraying their country's secrets to R and threatening the lives of millio bringing the world closer to an atomic

The Department set the time f doomed ple's death in Sing Sing P after a day of suspense in preme Court denied their final Eisenhower again refused

Denno announced first the team would be put to dea death chamber "before p.m. (5:30 PDT) today at first execution would come and a few minutes later,

Time Together

starts at sundown, and before that time, lated were announced after ask the Rosenbergs if t until tomorrow night. meet their last afterno of regular prison fare.

WEST BERLIN'S OFFICES WRE

Anti-Communist Mob

ELEGATES
IAL TALK
Communist Radios
S. in POW Escapes

Clouds Clamp
Cool Damper
Summer Near

Roosevelt administration officials as Alger Hiss; Harry Dexter White, the second-highest-level person in the Treasury Department; Lauchlin Currie, one of FDR's confidants; and the atomic espionage ring led by Julius Rosenberg.

The arrest of Julius Rosenberg would eventually lead to the jailing of his wife, Ethel; her brother, David Greenglass; Harry Gold; and British scientist Klaus Fuchs, among others. The Venona files include numerous files on all these individuals, as well as their cover names. These documents give historians a detailed report on just how all these people interacted with each other and the extent to which they were involved in espionage activities against the United States during the war.

Another prominent person who came forward to document the allegations made by Igor Gouzenko was Elizabeth Bentley, a former MGB courier in Washington.

Venona analysts were able to match the cover names originating from the Soviet cables to real people and places. For example, "Kapitan" was FDR, "Antenna" and "Liberal" were Julius Rosenberg, "Enormoz" was the Manhattan Project, "Babylon" was San Francisco, and "Good Girl" was Elizabeth Bentley, a plain, matronly woman in her mid-30s.

One of the best analysts at Arlington Hall in 1946 was Meredith Gardiner, who was able to decipher messages going between MGB headquarters in Moscow and their consulate in New York. Among the clues Gardiner found was the fact that the MGB had spies operating in Latin America and that they had many discussions about the 1944 U.S. presidential election. From 1947 to 1952, Arlington Hall analysts broke all Russian traffic between the Soviet Union and the United States. In 1953, U.S. code breakers were aided considerably in their work when they managed to get a copy of a partially burned Russian codebook relating to this message traffic.

The Soviets did have a general inkling of what the people at Arlington Hall were doing. When Elizabeth Bentley went over to the FBI with her information on Soviet espionage activities in the United States, she reported that British intelligence officer Kim Philby, a trusted World War II veteran of the British spy service and covert Russian agent, had given the Soviets some details concerning Venona back in 1944. When Philby was working in Washington in the early 1950s, he often went to Arlington Hall and met with American analysts, many of whom he befriended.

Besides the Manhattan Project, Venona was one of the most highly secret projects operating during World War II. The senior members of the Army and the FBI gave knowledge of Venona to only a privileged few people in the Roosevelt administration with a "need to know." In fact, the CIA was not brought into the fold until 1952, and even then it did not receive all deciphered messages until 1953. Oddly enough, it was deemed that President Franklin D. Roosevelt did not have a "need to know."

The declassified documents on the Venona Project that were not released to the public until the 1990s tell of the high-level intrigue and suspicion among the top intelligence branches of the American government during and after the war that caused them to limit the knowledge of Venona to only those people deemed able to share it.

One of the first messages inside the U.S. government relating to intelligence sharing of the Venona Project came in 1950 from a Mr. V.P. Keay to Alan Belmont, a high-ranking FBI official. In the memo, the writer said that a certain Captain Joseph Wenger, the deputy director of the Armed Forces Security Agency (AFSA), advised a Mr. Reynolds that a great deal of pressure was being brought to bear on an Admiral Stone, who was director of the AFSA, to distribute the Venona materials.

Mr. Keay wrote that General Carter Clarke, then the director of the Army Security Agency, had advised "Mr. Reynolds in extreme confidence that Admiral Stone had indicated a desire to disseminate [blank] material at least to the Central Intelligence Agency. At that time, General Clarke resisted the desires of Admiral Stone and was successful in having General [Omar] Bradley issue instructions to Admiral Stone that [blank] material would only be made available to the FBI. Captain Wenger suspects that the existence of [blank]. He stated that Admiral Stone does not know what the outcome will be but promised to keep Mr. Reynolds fully advised before any action is taken."

The memo goes on to recommend that the FBI should not disseminate the Venona material to "any other American agency than the Bureau. General Bradley is advised as to the

The Russians made their most important penetration of the U.S. government when they planted high-level agents in the OSS—the United States' elite intelligence-gathering organization—during World War II.

contents and, if a specific item is developed which either Admiral Stone or General Bradley believes should be made available to CIA or any other American agency, it might be handled as a special case and arrangements perfected that the information could be brought to the attention of the CIA without jeopardizing the source of information."

The infighting in Washington among the top military and law enforcement leaders about the dissemination of the Venona transcripts was ongoing during this period, and tempers flared among the participants. Two of these adversaries were the aforementioned General Clarke and Admiral Stone. According to the declassified documents in the Venona files, General Clarke was not too happy when he learned that Admiral Stone was being made privy to the work of the Army Security Agency regarding the Venona material. Admiral Stone believed that President Roosevelt and Admiral Roscoe Hillenkoetter, who would later become the first director of the newly created CIA begin-

All: National Archives

LEFT: Colonel (later General) Carter Clarke, director of the Army Security Agency. CENTER: American Communist and Soviet courier Elizabeth Bentley was turned by U.S. into a double agent. RIGHT: German-born Klaus Fuchs, British nuclear scientist who worked at Los Alamos, gave Soviets many A-bomb secrets.

ning in May 1947, should be given access to Venona.

Just why President Roosevelt, the commander in chief of the armed forces of the United States, was not automatically on the list of Venona recipients is hard to fathom. But those in the loop deemed that, for some unexplained reason, FDR would not be made privy to Venona.

The files say that General Clarke "vehemently disagreed with Admiral Stone and advised the Admiral that he believed the only people entitled to know anything about this source were [blank] and the FBI." In time, Clarke had a meeting with General Bradley, and the general agreed with his stand that "he would personally assume the responsibility of advising the President or anyone else in authority of the contents of this material if it so demands."

It was determined that the FBI would handle all the Venona dissemination and that it would not provide this sensitive information to any other government organization or person without prior approval.

In May 1952, a meeting between certain members of the AFSA and the CIA was held to discuss the latest news concerning the Venona tapes. The representative of AFSA was Oliver Kirby, the assistant head of the Russian section of that agency. In a previous interview between two FBI agents and Mr. Kirby, he said that on May 20, 1952, he and Captain Jeffery Dennis, the head of the Russian section, had a meeting with Jason Paige and William Harvey, both of the CIA. The meeting was arranged by General Walter Bedell Smith of the CIA and General Ralph Canine of AFSA. Before the meeting took place, Captain Dennis was told by his superiors that "no collateral information received by AFSA from the Bureau was to be shown or discussed with the CIA representatives."

At the meeting, the two CIA representatives were shown summaries of Venona messages but they did not include any identification made by the FBI. The CIA men said they were interested in receiving more information in regard to the penetration by the Soviets of the Office of Strategic Services (OSS) in 1944-1945. Mr. Harvey and his colleague were particularly interested in learning more about a British diplomat and secret Soviet spy named Donald MacLean (one of the so-called Cambridge Five), as well as information on a British scientist named Klaus Fuchs who had access to the super-secret Manhattan Project.

This meeting was long ranging and took about three and a half hours. Among the topics discussed was that the intercepted messages took place between New York and Moscow, and that other information was picked up between Canberra, Australia, and Moscow.

Mr. Kirby explained to the CIA representatives that AFSA was not "in the identification business"—rather, that was the job of the FBI and that he could not give that type of information to the CIA. "They tactfully suggested that such details would be available only through the Bureau."

In his interview with FBI agents, Mr. Kirby said "he did not find it necessary to explain to the CIA the extent to which the material has been published and made available to the Bureau and he was not asked any such question. He said further that he was not asked, and did not tell the CIA representatives of the fact that the Bureau has furnished to AFSA in considerable detail the results of our investigations. He stated that the CIA representatives indicated that they intended to approach the Bureau regarding certain aspects of this problem."

In an interesting aside, Mr. Kirby said that he did not inform Meredith Gardiner, one of the prime analysts at Arlington Hall who first broke the Venona files, about this meeting because "he did not want Gardiner placed in the position of having to answer questions regarding the extent of the material and the identifications made from the material."

This was not the last episode that both sides would have in their ongoing feud over the sharing of the Venona materials.

By June 1952, a tentative agreement by the CIA and the FBI was cemented in order for the latter to be given certain access to Venona materials. An internal memo inside the FBI written by Alan Belmont to Mr. D.M. Ladd specified what types of information the CIA would get. The CIA wanted information relating to MGB penetration of the OSS and cases where the CIA had a real interest.

After much haggling, an agreement to share information with the CIA was hashed out by General Smith of the CIA and General Canine of AFSA. The intelligence that was to be provided to the CIA related to "activities of the MGB in the United States and relates to a limited degree to MGB activities in other countries." This information was provided to William Harvey and Jason Paige, who had previously met with representatives of AFSA. Harvey said

that he needed information on former employees of the OSS who had been secretly working for the Russians, even though the FBI was reluctant to provide such material. It was finally agreed that any discussions with the CIA should be restrictive and limited to these two categories in order to ensure that no further secrets would be inadvertently revealed.

As vice president, Harry Truman was not made privy to the Venona transcripts, and after the death of President Roosevelt in April 1945, he still wasn't fully informed of all the details of the program. He was, however, given routine debriefings on the most important aspects of the materials on a regular basis.

One person who did have total access to the Venona decrypts was FBI director J. Edgar Hoover. He was apprised of the details in a memo written by FBI agent Ladd in the spring of 1951. In the memo, he was informed that the FBI was investigating Soviet penetration operations against the United States from April 1944 to May 1945. He was told, however, that the initial FBI inquest showed that MGB agents had been involved in their spying activities many years later. The most important aspect of the memo was that the Soviets were mainly interested in gathering as much information as they could on the United States' atomic energy program (i.e., the Manhattan Project). Other important aspects relating to the MGB were the infiltration of the U.S. government and the infiltration of Trotskyite and White Russian activities.

Hoover was told that the FBI had a source who provided them with much of their information pertaining to Venona, but often it was "fragmentary and, in addition, the Soviet's extensive use of code names makes identification difficult."

Hoover was further informed that the FBI had positively identified 108 people who were involved in Soviet espionage activities, that 44 others had been further identified by other sources, and that 64 people were still unknown. An additional 64 people whose names were previously not known were now under investigation.

The most important aspect of the Venona files was the identification of many members of the Roosevelt administration who were secretly spying for the Soviet Union during World War II. Many of these people were confidants of the president and had considerable influence in the administration.

One of these men was code-named "Jurist," who was identified as presidential adviser Harry Dexter White, once the administrative assistant to the former secretary of the treasury. White operated in 1944, and the Venona transcripts say that he reported to the Soviets on a conversation between then Secretary of State Cordell Hull and Vice President Henry Wallace; he also reported on Wallace's trip to China. "On August 5, 1944," the transcripts say, "he reported to the Soviets that he was confident of President Roosevelt's victory in the coming elections unless there was a huge military failure. He also reported that Truman's nomination as Vice President was calculated to secure the vote of the conservative wing of the Democratic party." It was also mentioned that Jurist was willing to perform any self-sacrifice on behalf of the MGB but was afraid that his activities, if exposed, might lead to a political scandal and have "an effect on the elections."

National Archives

ABOVE: Ethel and Julius Rosenberg, convicted of giving U.S. atomic secrets to the Soviets, were executed on June 19, 1953. BELOW LEFT: Nuclear engineer Russell McNutt, who helped build Oak Ridge atomic plant, may have given secrets to Soviets. BELOW RIGHT: Ethel Rosenberg's brother, David Greenglass, a Soviet spy who worked on the Manhattan Project, served 10 years in prison.

Both: National Archives

In 1937, White worked as the assistant director of the Division of Monetary Research in the Treasury Department. Although White was an informer for the Soviet Union, he was not a "card-carrying" member of the Communist Party of the United States—just one who was loyal to its cause. White's Soviet controllers were often annoyed with him, saying that he wasn't providing enough valuable intelligence for them, but the spy, or "mole," consistently gave them as much information as he could.

The files also show intelligence interest in a young scientist named Theodore Hall who came to their attention in November 1944 when he made a trip to New York, probably to see his MGB controllers. Hall was working as a physicist at the secret atomic bomb research facility in Los Alamos, New Mexico, as one of the wunderkinds on the project. He was a supplier of information for the MGB, which now had a pipeline into the most secret U.S. government project. Hall used an intermediary named "Beck" who, in turn, gave the data to another person named Saville Sax, who forwarded it to the Soviet consulate.

When Hall first approached the Russians, a member of the American Communist Party named Bernard Schuster did a background check on him, and Hall was brought into the fold. In all, there were eight Venona cables referring to Hall's espionage activities, beginning with his recruitment in November 1944 through his work at Los Alamos ending in July 1945. Hall was a brilliant young man, having graduated from Harvard at age 18. When Hall arrived in New York on leave from Los Alamos, he contacted his old roommate, Saville Sax, another Russian sympathizer. While in New York, Sax con-

Alger Hiss, former U.S. State Department official, was indicted by a grand jury for perjury after Whitaker Chambers, a former Soviet spy working in Washington D.C., told the House Un-American Activities Commission that Hiss was a spy.

tacted the MGB, told them about his friend Hall, and became intertwined in the plots against the United States regarding the Manhattan Project. Sax traveled to New Mexico, where he picked up information provided to him by Hall. The names Theodore Hall and Saville Sax were a huge find for modern-day historians when the Venona files were finally declassified.

The Russians made their most important penetration of the U.S. government when they planted high-level agents in the OSS—the United States' elite intelligence-gathering organization—during World War II. At the start of the war, the United States had no organized intelligence services and in the aftermath of the Pearl Harbor attack, that task proved to be the number one item on FDR's agenda.

The OSS was headed by William Donovan, a World War I Medal of Honor recipient, New York lawyer, and Republican. FDR knew Donovan from his stint in New York politics, and although Donovan was in the opposition party, the president respected him for his integrity and honor. When he started the OSS, Donovan was not particular whom he hired; he was looking for the best and brightest—men and women who could do the job without asking too many questions. In that regard, Donovan hired a number of people who had Communist leanings, if not outright sympathizers. The Venona transcripts reveal that at least a dozen people employed at the OSS were Communist sympathizers who provided the MGB with valuable information during the war.

Among them were Donald Wheeler, one of their most important assets and a former Treasury employee. Wheeler worked on German issues for the OSS and passed his information to the New York Soviet resident. The MGB said that Wheeler was of "especially great interest" and that the information he sent was "a rich source of material" on Germany's economic program. The OSS soon realized that Wheeler was a Communist but decided to let him remain in his position. Wheeler provided the Soviets with the names of a number of OSS agents and ultimately left the OSS for the State Department. His identity as a Soviet mole was given to the FBI by Elizabeth Bentley, a high-ranking Soviet mole who changed sides and became a reliable source for the FBI. Bentley was responsible for unearthing a number of high-profile American government agents who were secretly employed by the OSS as well as other government departments.

Duncan Lee was a Yale graduate and a lawyer who worked for Bill Donovan's law firm before joining the OSS. He joined the OSS in 1943 and also reported to Elizabeth Bentley whom he knew only by her code name, "Helen." He supplied the Russians with information on the OSS's relationship with Polish intelligence, but at times his intelligence take was not what the Russians were looking for. Bentley later told the FBI that Lee was not really eager to work with the Russians for fear of being arrested by the FBI. After Bentley's defection, the Russians deactivated Lee in 1945.

Franz Neumann, code-named "Ruff" by the Soviets, worked in the OSS's foreign division and supplied the Russians with information from various American foreign diplomats to Washington. From his position at the Research and Analysis Branch of OSS, Neumann provided the Soviets with personal communications from American ambassadors serving in overseas posts to OSS headquarters. However, by 1943, the Russians wrote that "Ruff does practically nothing" but was instrumental in informing the Russians that Allen Dulles was speaking with certain members of the German underground who were planning to overthrow Hitler. After his service at the OSS, Neumann joined the staff of the Nuremberg War Crime Trials and moved to Germany after the war.

Among the declassified Venona transcripts, the ones that most changed the way modern-day historians look at the Cold War revolved around Julius and Ethel Rosenberg and Alger Hiss, whose cases dominated the postwar era and highlighted the so-called McCarthy era in 1950s America. This article cannot describe in total the entire Rosenberg-Hiss

Continues on page 94

The USS *Franklin* (CV-13) lists 13 degrees to starboard after being hit by two bombs from a Japanese plane on March 19, 1945. The previous October the carrier had survived a kamikaze attack. Note the bent mast and the crewmen running for safety on the flight deck.

All photos National Archives unless credited otherwise

I Survived THE USS *FRANKLIN* *Inferno*

A "Big Ben" crewman recounts his brush with death—and the loss of so many friends.

BY GEORGE F. BLACK AS TOLD TO HOWARD DUNBAR

Prologue: *On March 19, 1945, the Essex-class carrier USS Franklin (CV-13), dubbed "Big Ben," lay 50 miles off Honshu, one of Japan's Home Islands. From her decks warplanes were taking off to attack targets on shore. In response, a lone Japanese plane attacked the Franklin with two bombs with deadly accuracy.*

Hundreds of men aboard the carrier lost their lives (921 to be exact, and 254 wounded) in the ensuing explosions and fire, but through the heroic efforts of surviving members of her crew, she was kept afloat, earning the title "The Ship That Wouldn't Die." Two officers—Lieutenant Commander Joseph T. O'Callahan, one of the ship's chaplains, and Lieutenant (j.g) Donald Gary—were awarded the Medal of Honor for their heroic efforts to save fellow crewmembers.

One of the crewmen forced to abandon ship was Radioman 3rd Class George Fain Black. This is his story.

"Up all hammocks—rise and shine—up all hammocks." The resounding voice of the master-at-arms was followed by a punch of his truncheon to the bottom of my sack where my buttocks caused a blimp in the contour of my bedding. It was a sudden shock, which abruptly concluded a deep stupor. I had not had enough sleep; I had been relieved of an eight-hour watch at 2400, and my wristwatch showed that it was 0330.

I swung out and grabbed the line at the overhead hook, landing feet first. The mess cooks were pulling the mess tables from the bulkhead racks and were pulling the legs out into lock position when the truncheon struck again and the MAA announced, "Mess for the airedales, clear the mess hall." [Airedales are crewmen working for an air group on an aircraft carrier who have "aviation" in their rating, e.g., aviation machinist mate. They were a different group than those crewmen who worked on the ship itself.]

We had recently left the U.S. Navy staging area at Ulithi Atoll in the South Pacific and were heading north. The tropical weather was changing. No longer were we in hot and humid compartments—it was getting chilly on the ship. I shuddered and changed my skivvies under the daunting eye of that old salt, the MAA. He was a Bos'n first class, and it was clear enough he wanted me out of the way.

Jumping into my dungarees and shoes, I snapped the heavy life jacket around my chest and, with helmet in my hand, started trying to figure out where I was going. Breakfast for the crew is at 0800. The same problem was with Ellis and Martin, two other radiomen on the same watch. "Let's go to Radio Five and hunker down in there." It can just barely accommodate three people with all the radio equipment

and mobile walkie-talkie equipment.

As we arrived on the flight deck, all the planes had their wings folded and were tied to the deck with cable hawsers. Working our way in serpentine fashion through the plane moorings, we came to the starboard flight deck catwalk, descended to the side, and pulled on the hatch dogs to get inside the small compartment. Closing the hatch, we then arranged ourselves to get the best possible comfortable positions in a very cramped space. The three of us dropped off immediately into slumber, content with the warmth of the preservers and our helmets for pillows.

WE MUST HAVE slept soundly, all huddled together, for two or three hours when suddenly the battened hatch opened. The cold gush of air was a wake-up alarm. There stood on the catwalk our chief warrant radio technician, who was as surprised as we were, packed like sardines in a can. Instinctively, we all felt we had been caught, but this old salt knew why we were there and he brushed aside our explanations, being well aware that we were the radiomen who had no bunks or compartments for off-duty and sleepless times.

He just said that we should get out on the catwalk so he would have room to check all the radio equipment strategically placed there for emergency use in combat, should the ship lose main communications. We three left for breakfast as the airedales started revving up the F4U fighter engines for take off as combat air patrol at dawn. We escaped being put on report.

Getting a leg up on the chow line since I was already in the mess hall, I finished breakfast and headed aft to a ladder, passing Omer Simms, a Fort Worth native, who was at the serving line issuing instructions to the mess cooks, one named Gayle, a 17-year-old, towheaded boy from Post, Texas. Up the ladder to the superstructure, I joined Gerry Morse, who was heading to the communications office. He yelled to me to stay out of the way of the airedales on the flight deck and double-time to the radio shack one deck above.

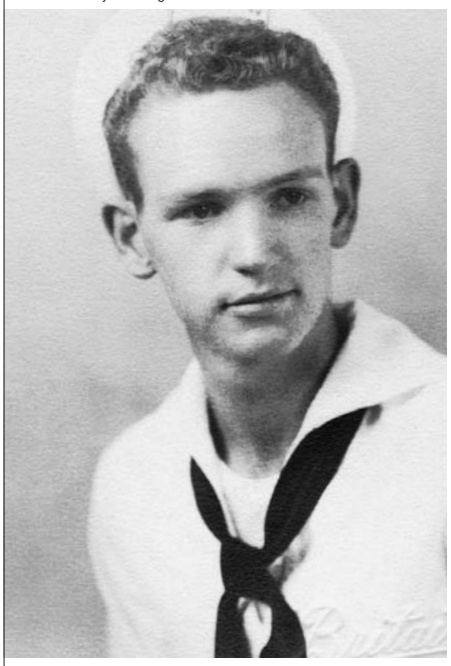
"Goose" Bigusiak greeted me at the hatch and pointed me to my position. Morris Perlman arose and handed me his earphones, and I slipped into his position and they placed a helmet over the phones. Goose said I was on the "Jump Fox"—code word for direct channel to CINCPAC back at Pearl. I was backup operator to Tom Kirk. For the next several hours we received many messages. Suddenly, the special secret call sign of the day ditted through my earphones and Kirk and I went to work. At one time he leaned over to see what I had typed in on the code mill and nodded his satisfaction to me. Goose stood behind us and just as we got the dah-dit-dah—"K"—indicating end of message, he spun the papers from both our mills and yelled for a Marine orderly to take the clipboard to decoding.

Tom and I both realized we had done something important, yet not what we had received in the coded message. Our eight-hour-long continuous watch was tiring. After hearing dot-dashes constantly for eight hours, you get "dit happy," slang for radiomen who say they still hear the dah-dits after going off watch.

Returning to my billet in the mess hall, I was determined to stay out of trouble. Having no comfort of an assigned compartment with bunk and locker, I milled about trying to look busy but sat down atop a bomb rack and was watching the bomb boys busy at work. Then an officer appeared and walked over to me. He was smiling but he said immediately that getting caught sitting would get me on report. Then I saw the gold cross on his collar and knew he was a chaplain. I tried to explain my predicament that I had just gotten off duty but had no bunk or compartment to go to. He told me to go to his office, which housed the ship's library.

The chaplain was Grimes Weldon Gatlin, a lieutenant in the chaplain corps from Tyler, Texas, and a minister of a church there. Lieutenant Gatlin, who was nicknamed "Gats" by the crew, said I could sit in the library when off duty when it was open, and it would be okay to nap there.

Photo courtesy of George Black



He would see the captain about four of us "sparkies" who had no place to go or sleep and see if he would relent and let us "borrow" bunks in the radio gang compartment. Gats told us later the captain refused and we would just have to wait until somebody got killed. "George, don't get caught sleeping in the library. It will get you a captain's mast," said Gats.

The gum-chewing ensign from the communications office appeared, carrying his clipboard. He nodded to Tom Kirk and me and edged his board across the desk for us to see. It said, "LUCKY DAY MARCH 17TH NIMITZ." That was yesterday and now just old news, as the very first Navy air strike against the Japanese Home Islands was launched on that day and authorized Admirals Ralph Davison and Gerald Bogan to launch sorties carrying the new air-launched rocket called "Tiny Tim," the prototype of the Sidewinder missile used today.

For about 36 hours we had been in battle condition "Yoke Zebra," in which we battened down the ship's hatches to have a watertight ship under battle conditions. The last opportunity for sleep came at a rest pause in the radio shack. I was without sleep now for more than a day and I could hardly tell a dot from a dash. Goose Bigusiak allowed me to get a nap in an area that was hidden behind the transmitters and out of the passageway. I covered up under a pile of life jackets, hidden, with my helmet being my pillow.

ABOVE: While burning from bow to stern, the *Franklin* erupts in a giant ball of flame that signals a tremendous internal explosion. OPPOSITE: Radioman 3rd Class George Black.

Upon being relieved from watch at 2400, I grabbed a sandwich made with leftovers in the mess hall and hit the hammock fully clad. At 0230 someone jerked on the hammock, telling me to get out; swinging out, I straddled a 500-pound bomb just under my hammock, not knowing it was there. Ordnance crewmen were pulling it by on a bomb cart and arming it for transport to the bomb elevator to the flight deck.

Not suspecting what was below me and in very deep slumber, not having been awakened by all the noise, I was scared out of my wits when I landed on that bomb. I yelled aloud in fear, and they got a laugh out of that. It was just like jumping out of the chute onto a big bull. I put on my helmet and went back to Radio One for safety; because of fateful misfortune that was to be my last trip within the ship. I was never to return.

When you are confined within compartments for hours and days and never see daylight or dark, you can get lost in time; looking at a bulkhead clock doesn't help much. I adjusted just like everyone else to General Quarters and an occasional meal, little sleep, and longing for a deep sleep in my hammock.

AT 0700 ON MARCH 19, 1945, I was surprised by a gum-chewing ensign (naval officer of lowest rank) who burst into the radio room shouting, "Black, your relief is just behind me. You have five minutes' head start for breakfast and in double time, before breakfast for the crew is sounded. After chow, report to Radio Operations Room Two and relieve them there. We will be at General Quarters just before daylight."

Behind the ensign was Morris Perlman, another radio operator who was my relief; he took my earphones. Goose yelled at Kirk and me to follow him at double time. That was the last exchange between Radioman Perlman and me. He would be killed at the radio station that I had just vacated. Why I lived and he died is beyond any explanation.

The master-at-arms received us in a dead run. He motioned left for Goose and right for me. I refused and ducked left to follow Goose. I was just not going to get caught away from him during combat. Then the MAA jerked Kirk to go right to the forward mess hall while Goose and I went left to the after mess hall. Gayle Bowen said he was peeling spuds at the time and not in the serving line.

I think it was powdered scrambled eggs being served. I had just sat next to Goose at the mess table and shoveled in a mouthful or two when the highway to the stars appeared.

The Japanese bomb did its work at that moment. The explosion was on the starboard side and the bomb wracked the entire ship and especially the flight deck immediately above where we were sitting. More than 2,500 pieces of bomb ordnance for our airplanes was ignited by the explosion. The airplanes, gasoline, and machine-gun ammunition exploded as well at that instant.

In the mess hall, 50 sailors were having breakfast. We were thrown clear across the dining area, hitting the bulkhead and a pile of stacked sea bags and hammocks. No more stars—only a deep blackness, falling, falling into a blackened abyss.

With a few others who managed to stagger to our feet, I looked for Goose, and in the confused clamor that ensued I finally recognized him, as he had a blackened face caused by the flash of cordite. From the ladder up two decks to the hangar, a long group of sailors were in a serpentine line around all the bombers loaded and ready for combat, waiting their turn for food to be served. All of them—more than 250—instantly lost their lives. This would be made quite evident to me in a few hours.

Follow the leader. That I did. By my own count later, 13 of us headed for the port-

side ladder to ascend to the hangar and hence to the gallery deck on the starboard side at the very stern end of the flight deck. Omer Simms, distinguished by his white uniform and apron, headed for his portside 20mm and 40mm gun station, opened the overhead hatch to the hangar two or three inches, and slammed it shut again, saying the hangar deck was ablaze and we would have to retreat and go another way. Goose ordered the hatch from the mess shut and battened as smoke and fire was coming from there also. Trapped.

The lights were still working. The PA system blurted out GQ, but after a few notes it died away. The compartment contained six bunks, the ladder, a scuttlebutt [water fountain], and a phone. Someone

ABOVE: In a risky maneuver, the cruiser USS *Santa Fe* (CL-60) pulls alongside the listing *Franklin* in an attempt to rescue survivors and extinguish fires. OPPOSITE: Crewmen survey the damage and look for survivors among destroyed aircraft on the USS *Franklin.*

in the group grabbed the phone to reach the ship's operator and announced the phone was dead. We were very cramped in this small area. Somebody ordered us to grab towels and wet them in the scuttlebutt and also use mattress covers to cool ourselves and strain out bad air so we could breathe better. Next, two to a bunk, lie there, be still, breathe easily and quietly, and wait for help. The heavy explosions came constantly, and the really ship-shaking ones came intermittently. The scuttlebutt went dry, but the air vent was still giving us good oxygen.

Everyone was praying quietly, and we would rearrange ourselves after each bomb blast. Listing to starboard commenced, and one man opined out loud that we must have been torpedoed.

MINUTES BECAME HOURS. Omer was 15 years older than the rest of us teenagers, and he took charge. He checked the wheel on the overhead hatch and burned his hands—too hot to handle. Everyone was unanimous that we were heading into capsize and nobody knew that we were in there, trapped. Then another explosion occurred, this time directly over us. Smoke started pouring into the vent. So did water. Omer said we had to go up to the hangar to find a way off the ship, as we were now listing much more. The explosion was of a bomber directly over us. It ruptured air vents and also a water pipe on the hangar portside. The water cooled off the hatch.

With much effort Omer, in a very cramped space, muscled the hatch cover open to about 75 degrees and yelled for us to follow, one at a time. It now became a race in time to get 13 men out before we were consumed by smoke and asphyxiated. I started yelling the number count as each squeezed through the hatch. Four, then five, eight, nine, and I pushed number 10 through by his buttocks; 11 and then I was coughing and reeling in agony. Number 13 had on the only gas mask and could breathe better, and he motioned me up the steps and gave me a big push. I turned and grabbed him by the shoulder and pulled him clear. We were crouched together inside the burned-out body and fuselage of a simmering bomber.

There was the light of day straight across to the starboard gun mounts. The hangar deck was full of bomb holes, the flight and gallery deck had fallen in, and among all of it were the dead. I was blinded by smoke and almost stepped into a blackened hole but held up and turned another way. The top turret guns on a bomber up forward were blazing away and the ship lurched, spinning the plane around, and the .50-caliber bullets streaked across our heads, missing only by inches; we could not duck down because of debris.

A lifetime of thought swam by. By the time we reached the gun mounts and got some fresh sea air, you could not hear a thing. The heat was intense; we could now duck down for protection from shrapnel but not from the heat. Only the March wind served as a coolant. We were now slowing down, but not yet dead in the water.

Goose said that the ship would probably capsize, and in a shrill, high-pitched voice he yelled to me: "George, I can't swim. You are on your own; decide for yourself." I did not answer but turned to see if any of the others were going to jump, and I would take

their helmet and stay with Goose. Seconds later, just forward of us, a high-octane aviation gasoline tank exploded in a swoosh. Frank Turner, an old salt from Hurst, Texas, told me in a symposium at Fort Worth College that the tank was filled with napalm.

My instincts were reversed in a microsecond. I found myself in a big leap into the water 30 feet below me without a raft, without a life jacket, without an inflatable belt, without any sort of flotation device. Big Ben was still in movement and sailed away shaking and belching and exploding and moving out of control. She was still under attack, and escort vessels were assisting with gunfire from a distance. I saw this battle from a front-row seat just like the shot-down pilot Ensign Gay did at the Battle of Midway.

I created a flotation device with my dungaree shirt, as I had been taught at Camp Wallace on Galveston Bay, and rebuttoned it up and tied the sleeves in knots; it did keep me afloat and from exhausting myself. I spotted two men, who had jumped ahead of me. They had a small inflatable flotation device thrown to them by a passing destroyer. There we were, three of us, clinging on for life. We watched until we could see no more of the fleet, only Big Ben's smoke, which rose high in the air; then we saw nothing at all.

I did not know the two others. One was from Waco, Texas, and that is all I remember about him. He was hurt and groaning. A destroyer went by us at flank speed and turned clear of us lest they swamp us with their wave. They threw a large round "donut" in the water as they sailed past. It was just too far away for me to swim to it. The other sailor was unable to hold the Waco sailor until I got back, so the decision was to just let the donut go—too far away, too far back. Then we were all alone.

THE DAY GREW LONG and we drifted into swells, and they were getting fierce. The Waco sailor just could not handle those large waves. I kept telling him to hold his breath, hold his nose, close his eyes, and I would use both my arms under his armpits. He just had to keep the saltwater out. He was vomiting and gurgling, so I held on tight to him, and we went through many large waves that way. Then the third sailor told me he was dead. I said I felt movement but along came another big swell, and this time he spun around in my arms and I could see his face.

Let him go, he is done. I didn't want to do that, but another big wave came, and when I scrambled to the surface again all I could see of him was one hand, and then he was gone. Then the two of us, at either end of the flotation device, kept afloat, each of us anchored the other at the other end. The swells did not subside, and in one of hundreds that came at us, the other sailor just did not surface, and when he let go, the float on his end rose into the air. I was now alone. The only sound was the roar of the waves, and that continued endlessly.

Where was the Navy? Anybody out there? Nobody to hear me recite the 23rd Psalm. Nobody listening to me praying the Lord's Prayer, the Apostle's Creed—just talking to myself. I sang the tune "Deep in the Heart of Texas" many times. It was getting dark, or at least my vision was getting dim.

I heard a noise—a roar—above the sound of the waves, but a roar it was and it was getting louder. It was a plane, and it was headed toward me in a dive. *Oh boy, if it's a Zero, then I hope he is a bad shot, as I am just not going to dive under the water—I will never come up.* He was one of ours. He began to pull up about 100 feet over me and wave his wings, dropping marker dye into the water near me, and then pulled up and disappeared. There was a good chance for me, a very good chance. *Just hold on and pray.*

It must have been about 30 minutes later that I saw a mast appear on the horizon, it bobbed and waved and then I could see its superstructure and then its full body coming directly at me. It was a destroyer. From the forecastle a deckhand positioned a line; suddenly the ship backed her down and squatted in the water and hove to. The line was thrown accurately and fell upon me. I clutched it with all my might and wrapped a loop about my shoulders. The destroyer then moved ahead and pulled me into a cargo net amidships. I clung on for dear life, but my legs didn't work. Two sailors came over the side and tied me in, and they heaved and I came aboard, passing under the safety line.

I was handed a coffee mug and I took a gulp of it—whiskey; it came out my nose and gagged me. And once again the highway to the stars appeared.

AT THIS POINT in the story another unusual event took place. I had planned to write a detailed account of this event, but after a good first start I put it aside for other activities. On August 22, 2006, I received a telephone call from Rex Lovelady, who was president of my fraternity when I pledged Tau Tau Tau (now Alpha Tau Omega) in 1946.

During the rush and pledge, Rex had told me that he was a fighter pilot whose squadron was on the *Enterprise* and they had assisted in getting our survivors picked up and escorted us all the way back to Ulithi Atoll. We mentioned the coincidence and the matter was dropped. I last saw Rex Lovelady in Amarillo in 1951. But in 2006 he called me from his home in Shamrock, having met up with Steve Self, another fraternity brother and ex-sailor in Canyon City.

As we discussed our 55-year separation, the conversation drifted into World War II, and Rex reiterated that he had assisted in the recovery of survivors of the *Franklin*. I recalled our conversation of a half century earlier and, because I had commenced this writing, I had to ask him if he ever dove his plane down on a survivor and dropped his dye marker. Rex said he surely did do that. I said it could have been me, and he agreed.

Of course, we will never know, but it is a strange coincidence that while I was writing this article he was curious enough to find out what happened to me after college.

It could certainly have been Rex Lovelady who dove and dyed the water leading to my survival. I would like to say that it indeed was Rex. If it wasn't him, it should have been.

Clang, clang, clang, all hands man their battle stations. From a deep unawareness to a split-second rousing from sleep, and being quite stirred up and revived, I bounded from my bunk, hitting the deck; my legs crumpled under me and I fell. Trying to get erect was just not possible. I was naked. *Where are my clothes? Where am I?*

Struggling on all fours, I attempted to find a ladder to follow the others up. I was grabbed and pushed aside and told, "All survivors stand aside; all survivors remain belowdecks." I was knocked clear and to the deck once again. *Clothes, clothes, I need clothes*. A huge pile of wet clothes was in the corner. I sifted through the sea-sodden pile for my shirt. I forgot—I left it in the sea. I struggled to put on a pair of dungaree jeans. *I need shoes. No shoes. Shirt I will wear, one stenciled with another name.*

Now I was wringing wet and waterlogged. *I need water. Whomp, whomp,* 40mm guns were firing. I realized I was on a destroyer. I saw no one I knew. *What do I do?* Just then a destroyer sailor went through the hatch and I could see the weather deck. Then I got a glimpse of the *Franklin*. She was still afloat; her list was corrected. The hatch slammed shut and there I was with a lot of others, all of us confused. *What do I do?*

"Black, Black, come over here." I recognized Charles Robert Campbell, Jr.—Radioman 2nd Class. I needed water. He struggled with me to the next compartment, the mess hall, and handed me a coffee mug. I gulped the first mouthful and gagged. The coffee had salt in it. *I can't drink that*. Campbell tasted it and said it was pure joe. "George, drink it down." I tried again, and it was salt. "You're full of seawater; keep drinking and get some liquid in you." I drank three or four salty cups of coffee. Regaining some composure, I asked where we were and what time it was. March 20 was the answer. We were on the USS *Hunt,* a destroyer, and we were heading south, probably back to Ulithi.

Swishing a belly full of joe, I said I was hungry. The mess cooks were at GQ but food was available. I ate a plateful, not having had a meal for more than two days. "Get back in your bunk and stay there. Don't get in the way of the crew." That I did. From that morning to nighttime I slept soundly, but on occasion sleep was interrupted by lots of activity. It took all day and into the night, but we managed to get away from the Japanese mainland and were now out of range.

I started looking for friends. No friends were about. I started looking into everyone's face, and I didn't see any of the 13 who were in our group, trapped. Bigusiak was not aboard; neither was Simms the cook. Campbell said he was trapped in Radio One but got to the flight deck during all the explosions. He said a radioman from his group was in sick bay, all shot up. I knew the guy. Then the realization hit me right between the eyes. I was the only survivor of the 13 trapped in the gun station. The realization was just too much to take. I could not stop sobbing.

Finally, the storekeepers and laundrymen looked to our needs. My clothes were put in the dryer, and it was good to get dry and warm. I picked out a shirt with some seaman's name stenciled on it—he didn't claim it, he was buried from the starboard side. Campbell told me the radioman had died, and did I want to be the other sideboy with him. I said yes, but I needed shoes.

One of the destroyer men overheard and asked my shoe size. He said his would fit me and I got his dress shoes, shiny as hell. He said he had been out there 18 months with no liberty, and for me to wear them. Now that I was shod, Campbell and I went on deck and picked up the stretcher on signal. The captain held a Bible and his voice carried with the wind. We raised one end and slipped the sailor out into the water. It was a sunny, brisk day and we were nearly at flank speed encircling the *Franklin* as we headed south.

I have lost his name in my mind after 60 years, but he was a nice and likable guy. I wrote his parents and described the sea burial, a traditional Navy ceremony.

The next day we were allowed to walk about on the weather deck. It was not like on a carrier 900 feet long; you had to have sea legs on a bucking destroyer. The *Alaska,* a heavy cruiser, came alongside, and there then appeared the chief warrant officer radioman, Admiral Davison's staff radio officer. I was surprised to see him; he was going aboard the *Alaska* and back to the main fleet on the flagship *Hancock*. The transfer was to be made by breeches buoy at a fast speed. He said he had done this twice before in the Coral Sea and at Midway. An old salt, he grinned as we placed him in the buoy and strapped him in. We then sent a wounded man over who needed a doctor, because a corpsman was all we had on the *Hunt*.

Let me count the days. Five, I think, and the huge lagoon at Ulithi welcomed us back. The men on the *Hunt* bid us good-bye. I still had on someone's shoes. A launch picked us up and we went up the gangway on the USS *Grant*, an Army ship manned by the Coast Guard.

ABOVE: A survivor of the USS *Franklin* is pulled from the water by crewmen of the *Santa Fe.* OPPOSITE: Survivors of the USS *Franklin* paddle in a raft thrown to them by the *Santa Fe.*

I slept in; a morale officer awakened me, saying go to the weather deck for a boxing match and movies at dark. I would rather have slept. *You need some R&R, sailor.* It was an order. Out of the sack, up the ladder to the main deck. Quite a crowd. Jack Dempsey, a Coast Guard morale officer was going to be the referee. He was the world heavyweight champion in the 1920s and 1930s. After the match they set up a screen and projector to show us a movie, and while we were getting arranged in the twilight there was a sudden burst of light and a loud swoosh. As we looked just to port abeam of us, the USS *Randolph* at anchor just took a big hit from what we were told was a kamikaze, a suicide plane on a one-way mission.

(In 1980 I went aboard the USS *Yorktown* at the Charleston Navy Yard wearing my *Franklin* cap and three *Randolph* guys spotted me, and we had quite a gabfest. All three recalled this incident I saw and said they had several casualties over it.)

It was announced that all *Franklin* personnel would disembark to the USS *Oneida.* We were going back to Pearl.

"NOW HEAR THIS. All *Franklin* personnel will transfer from the portside by gig to the *Oneida* commencing at 0800. All sea bags and gear will be carried by the owner to the weather deck for unloading." A sailor near me mused, "What the hell are they talking about? Gear? What gear? I ain't got no gear." Very funny. All I could do was laugh at myself. There I was wearing dungarees that didn't fit and a dead sailor's shirt—no socks—but a pair of dress shoes so shiny that you could use them for a mirror and comb your hair—but no comb.

My face full of freckles was now a face full of blisters and scabs. My first- and second-degree facial flash burns were healing. My glasses were gone so I struggled with myopia. The hypothermia and dehydration reduced my weight to about 120. I had trouble hearing—everything had a ring to it. Combat fatigue—you betcha; about all of us had it. Other than that I was just fine.

The sight of wounded men was just beginning to materialize. Iwo Jima, after six weeks of heavy fighting, had been secured. Remnants of the badly wounded were being gangplanked over to the *Oneida*. Scores of them were coming aboard in a steady stream. Each and every one was wrapped with gauze bandages, sometimes from head to foot. Sometimes you saw one with his head uncovered and you just gazed at the situation in silence. These were U.S. Marines, what was left of them, and they were going home. They were a bunch of teenagers just like the rest of us and they were carried gingerly, one by one, to the massive sick bay, which was quickly filled. Yessir, folks, I would have taken off my hat, if I'd had one, to the golden Marines.

Anchor aweigh, and the rest of us were

stuffed like sardines into the sleeping compartments belowdecks, mine being two decks below the water line. What do you know—I ran into Gerry Morse from the communications office and we buddied up together, which lasted until the end of the war.

It was March 20-something, 1945. As we got to sea it was announced that Iwo Jima was over and the island was ours. We noticed strange-looking ships acting as escort for several hospital ships. Gerry and I identified them as British from their flags. There was an aircraft carrier serving as submarine defense. The war in Europe had Allied armies nearing Berlin, and the British Fleet had emerged in the Pacific to finish off the war. The HMS *Illustrious* was identified as our escort and protector. She was too slow for our fast attack carriers but most valuable in submarine warfare, and her planes were deadly and expert in killing subs.

We had been three days at sea and were now in the backwaters of the war between the ports of Ennui and Monotony, or so we thought. Gerry and I were sitting in my bunk below the water line. An interruption of a sense of sound, an arousing sensation or vibration—we sensed an explosion. In a microsecond we were up the ladder to the next deck bunking level in a dead run; the guys there couldn't understand why we were in double time (they were above sea level) and onward to the next level, the weather deck, and through an open hatch.

GERRY TURNED FORWARD, and I followed in hot pursuit. We got to the portside gun deck and General Quarters blew. We had the canvas off and a magazine out and in place. Gerry loaded and I put myself in the shoulder grooves in firing position. I would have fired at anything that moved. Some minutes went by, and I had full movement of the gun and was ready. It turned out to be a submarine attack rather than aerial. The backwater Navy gunners arrived and told us to secure from the gun mounts and get below. I kept my eye on the open waters, and Gerry opened up on them saying, "Where have you guys been? You're late here and supposed to be protecting us." They had a cavalier attitude and seemed uncaring. A gunnery officer appeared and ordered Gerry and me below, and some harsh words were exchanged.

Gerry headed below, but we passed the sick bay and the hatch was locked in an open position, and in he went with me at his heels. These poor Marines were panicky. There

ABOVE: Crewmen attend church service in the ruined hangar deck of the *Franklin* after arriving at the New York Navy Yard in April 1945. LEFT: A photographer aboard the destroyer USS *Hunt* (DD-674) captures the transfer of an injured *Franklin* survivor—one of 429 she picked up—to the battlecruiser USS *Alaska*. The *Alaska* then shepherded the *Franklin* to a port on Guam.

they were, blinded and bound bedfast in all shapes and fashions and completely helpless. There was not a single medical corpsman in the entire ward. Gerry went from bed to bed saying comforting words, and I started emulating him. After a few minutes some medics did appear, and I think we had them settled down. One Marine was trying to get out of bed with a leg elevated almost to the overhead. Gerry grudgingly turned the matter over to the latecomers and we headed below.

Secure from GQ. Some time later we were informed that the British fleet killed the Jap sub. But this incident did not end the excitement on board of the backwater Navy.

We were in the mess hall during mess. I never did find out what it really was, but a steam cooker of some sort in the galley got too much pressure, and it blew out with a pretty good bang. I was positioned nearest one of the hatches and nearly got trampled trying to get out of the way. I did get hit in the shoulder so I jumped into the corner and let the entire mess area evacuate. As I was nearly one of the last ones out, a big fat cook muscled me and yelled, "Why is everyone running away? Come and help!" I looked at him incredulously with the thought that he simply did not understand what was going on. He was ignorant of the beating everyone had taken, and news of the *Franklin* was top secret then and for another two months.

The blue haze to the port side came into view, and Gerry and I figured out it was Barbers Point on Oahu. Not too long after that, our guess was confirmed when Diamond Head became clearly visible. We were nearing the net area leading into Pearl, and into the channel we went. Our ship had first entry requirements, as it needed to offload all the wounded. Orders to stay at our bunks were issued to keep clear the main weather deck to handle a very long line down the gangway.

Troop carriers formed a convoy, and scores of *Franklin* survivors were delivered to the Aiea receiving station and placed in long lines. The word got out and the area quickly filled with gawkers and curiosity seekers. Of all places, several radio-school sailors in the class behind me had just arrived from stateside, and I must say all of us were quite a spectacle of ill and thinly clad (now war veteran) sailors.

One of our officers arrived and informed us we were on R&R for several weeks and would be placed FFT (for further transfer) awaiting delivery of our personnel files. Food and sleep and rest—man, show me my bunk. Movies tonight. I was not interested in any movie. Well, this one was a Navy war movie fresh out from Hollywood. Gerry was being insistent that I go. It was open air with a big screen and hundreds of guys sitting on bleachers. It was one of those "buy war bonds" films, full of patriotism and even more full of just plain old propaganda. When our ships opened fire and the hero did a special stand up in the face of the enemy, something stirred suddenly just next to me. A sailor I did not know took his shoes off, stood up, and threw both shoes into the screen. Well, that interrupted things, and the Shore Patrol arrived and bodily threw him into a van truck. I don't think he was taken to the brig; what was needed was the psycho section in the sick bay. The word got around (scuttlebutt, we call it) that some were taken out of our ranks and we were never to see them again.

One of the four radiomen who slept in hammocks in the after mess hall was R.L. Tipton of Fort Worth, Texas. "Tip" was not on the starboard watch but was assigned port. We had been in the 50th graduating class at the Naval Armory in Indianapolis, and he had shared experiences with the other three, me, Martin, and Ellis. I learned that he was one of the badly wounded and was in the hospital at Aiea, which was nearby. As I recall, Gerry Morse and I got permission to go see him, and we boarded a bus to make the trip. Tip was in a large group of those with multiple wounds and when we located his bed it was hard to identify him, as his legs were casted and elevated and his torso and head were heavily bandaged. Though he was glad to see us, Tip was exhausted and in pain. He was scheduled to be shipped out

Continued on page 96

The world's first female military pilots—American and Soviet—helped win the war.

BY AMY GOODPASTER STREBE

Flying for HER COUNTRY

IN 1941 TWO EVENTS took place on opposite sides of the world that forever impacted the history of women in aviation. On the morning of June 22, 1941, Nazi Germany invaded the Soviet Union in a massive operation named Barbarossa. Six months later, in the early-morning hours of December 7, 1941, the Japanese attacked the American naval base at Pearl Harbor, thus inciting the United States to join World War II.

Thousands of American and Soviet citizens, fueled by patriotism, eagerly volunteered for the armed forces. From the onset neither country could anticipate the tremendous human and material resources that would be required to win the war. The international conflict provided opportunities to serve that were unprecedented in history. For the first time the United States and the Soviet Union recruited female pilots to fly military aircraft for their countries.

The United States, under the direction of Jacqueline Cochran, formed the Women Airforce Service Pilots (WASP) program in which, from 1942 to 1944, more than 1,000 female flyers ferried aircraft from factories to air bases throughout the United States. The WASPs flew more than 60 million miles in 78 different types of aircraft, from the smallest trainers to the fastest fighters and the largest bombers. The WASPs also flew every type of mission except combat, and 38 women pilots gave their lives in the service of their country. In the three years during which the WASP program was active, the female flyers flew 80 percent of all ferrying missions in the war.

In the Soviet Union, Marina Raskova, famous for her historic 1938 flight to the Far East, put a similar program into place. In October 1941 she formed the all-female 122nd Composite Air Group, which trained pilots, navigators, mechanics, and ground crew for three new regiments: the 586th Fighter Aviation Regiment, the 587th Day Bomber Aviation Regiment, and the 588th Night Bomber Aviation Regiment. A little more than 1,000 women flew a combined total of more than 30,000 combat sorties, producing at least 30 Heroes of the Soviet Union, including at least two fighter aces. Two of the regiments received the elite "Guards" appellation, and at least 50 Soviet airwomen are believed to have been killed in action.

Despite the differences in their aerial operations and military status throughout the war, the American and Soviet female pilots had much in common. Both groups of pilots shared a deep love of flying and a desire to help their countries defeat the scourge of fas-

(Left to right) WASPs Frances Green, Margaret Kirchner, Ann Waldner, and Blanche Osborne at Lockbourne Army Air Base, Columbus, Ohio, in front of the B-17 *Pistol Packin' Mama,* named in honor of female pilots.

cism. The women, many of whom were in their late teens and early twenties, were patriotic, idealistic, and determined. Yet despite the official support of the female pilots by the air force, the flyers of both nations faced discrimination—from the mistrust and prejudices of male pilots and military personnel, as well as from the physical challenges and training. The women formed close relationships due to the dangers of flying and the deaths of their fellow pilots.

After the war the WASPs—deactivated in 1944—found themselves excluded from postwar aviation. It took 33 years, until 1977, for them to achieve veteran status. Soviet female pilots were likewise barred from their postwar military as Soviet offi-

Courtesy The Woman's Collection, Texas Woman's University

National Archives

WASP Tilda Winfield on a photographic mission at Frederick, Oklahoma, in an Amy basic trainer A-6.

cials told them to disregard their wartime experiences and return home. Moreover, despite the Russian women's unprecedented opportunity to fly military aircraft during World War II and their achievements in combat, their moment in history was brief and later largely forgotten by the Soviet public once the war came to a close.

With peace came the reestablishment of gender stereotypes, and female pilots in both nations found that their place in society was not in the cockpit of a military airplane, but in the home as wives and mothers. The airwomen had fulfilled a temporary need created by the war, and were expected to return to their prewar roles in society. There was seemingly no room for female pilots in postwar military aviation.

IN THE 1930s Jacqueline Cochran became known for her outstanding achievements in the field of aviation. In her long aviation career, Cochran would go on to set more speed, distance, and altitude records than any other pilot of her time, male or female—even more than her friend Amelia Earhart, whom she met in 1935 when the two competed in the Bendix Trophy Race which, two years before, had been open only to men. Neither woman won in 1935, but in 1938, Jackie won first prize, beating every man in the race.

In 1939 the Civil Aviation Authority (CAA) began a program of pilot cadet training in American colleges, and many young women enthusiastically signed up for flying lessons. By June 1941, more than 2,000 female pilots across the country had learned to fly. That same month, however, women were dropped from the program to make room for more men, as America's involvement in the war became imminent.

Cochran sensed early in the war that women would be needed as pilots, and she eagerly sought the opportunity to bring female aviators into the war effort. In September 1939 Cochran wrote to Eleanor Roosevelt, telling her that, given the dramatic events happening in Europe, it was not too soon to begin thinking about the idea of using American female pilots in noncombat roles, thus releasing men for combat duty overseas if the United States became involved. The effective use of women pilots, Cochran argued, "requires organization in advance." She intended to organize such a group of female pilots. The First Lady thanked Cochran for her letter and assured her of women's contributions in the war should the need arise. Ultimately, Roosevelt's influence and support of women's causes helped facilitate the establishment of the WASP program.

In March 1941, Cochran attended an aviation awards ceremony at the White House and met General Henry H. "Hap" Arnold, chief of the U.S. Army Air Corps, and Clayton Knight, who directed American recruiting efforts for the British Air Transport Auxiliary (ATA). After Congress signed the Lend-Lease Act into law on March 11, 1941, the ATA had the authority to ship or fly planes to England. With every possible qualified pilot involved in combat, the British ATA was desperate for recruits from neutral nations. The organization enlisted many of Britain's female pilots to ferry planes around the United Kingdom. But the transoceanic hops necessary to deliver the bombers, Knight told Cochran, were proving to be a fearsome deterrent to his recruitment efforts.

Cochran offered Knight her help, and it was not long before she was piloting a Lockheed Hudson bomber from Montreal to ATA headquarters in Prestwick, Scotland, becoming the first woman to pilot a bomber over the North Atlantic. Cochran recruited a group of 25 American female pilots to serve in the British ATA and accompanied them to England for training with the British female pilots, who were already ferrying aircraft. While abroad, Cochran formulated a plan to create a similar program for female flyers in the United States.

While Cochran was busy lobbying Washington to authorize a women's military flying program, another well-known female aviator was quietly working on a plan to include female pilots in the war. Twenty-seven-year-old Nancy Harkness Love was a well-connected and highly experienced pilot who was married to Colonel Robert Love, deputy chief of the Air Transport Command. Nancy Love wrote to Colonel Robert Olds, who was then head of the Air Corps Ferry Command, with a proposition similar to Cochran's—to enlist 50 to 60 women with extensive flying experience (at least 500 hours logged and a commercial pilot's license) to ferry aircraft from factories to points of embarkation.

Cochran and Love could not have been more different in their personalities and personal ambitions. Cochran was determined, aggressive by nature, and persuasive. Despite her humble beginnings and lack of a formal education, Cochran learned to speak the language of the U.S. Army Air Forces (USAAF) and was unbending in her resolve to incorporate female flyers into the military's war machine. Love, on the other hand, was a child of privilege. She was bright, well educated, and tenacious but sought only to join and influence the Air Transport Command—not to create an entirely new women's flying program, as Cochran planned.

IN CONTRAST, Cochran desired full control, whereas Love was satisfied relinquishing many of the chief administrative duties for more time in the cockpit. Despite the differences in the two women's understanding and use of power, they were somehow able to work together for two and a half turbulent years, though they seldom met face-to-face.

Love pushed for an elite group of female pilots on a squadron level to join either the Air Transport Command or Ferry Command as an auxiliary unit attached to the Air Corps. Cochran recommended the establishment, under her direction, of a complete, full-fledged women's flying training program, geared to produce thousands of ferry pilots. Although Cochran ultimately prevailed, Love succeeded in creating the Women's Auxiliary Ferrying Squadron (WAFS), whose members would be the first to fly aircraft from the factories to the air bases. The 28 original WAFS members had an average of 1,100 hours of flying time when they were accepted into the program.

Courtesy The Woman's Collection, Texas Woman's University

Courtesy Timeline Films

National Archives

LEFT: Jacqueline Cochrane, director of the WASP program during World War II, leans against the propeller of a P-51 in a postwar photo. CENTER: Marina Raskova, who formed the Soviets' first all-female military flying organization, is pictured before the war. RIGHT: Nancy Harkness Love did much to open military cockpits to women.

Upon learning of Love's new group of female ferrying pilots, Cochran convinced General Arnold that in light of the attack on Pearl Harbor and America's entrance into the war, more female pilots were needed than the WAFS could supply. Arnold agreed, and on November 16, 1942, Cochran established the Women's Flying Training Detachment (WFTD) at Howard Hughes Airport in Houston, Texas, with an initial class of 25 women, who were required to have 200 hours of flying and a commercial pilot's license.

The mission of the WFTD was to perform whatever flight duties the USAAF required within the United States. Like the WAFS, these pilots ferried planes, but they also tested and flew aircraft reported to have mechanical problems; delivered planes in need of fixing to repair depots; performed check flights on repaired planes; broke in new engines; towed targets for anti-aircraft gunnery practice; flew searchlight tracking missions; simulated bombing, strafing, and smoke-laying missions for troop training; moved aircraft from base to base; towed gliders; and instructed male pilot cadets.

When the classes outgrew their existing facility, Cochran's female pilots moved to Avenger Field in Sweetwater, Texas. The west Texas town was small, dry, isolated, and wide open—the perfect place, Cochran thought, to train her female pilots to fly planes the Army way.

Once Cochran had the facilities and a base of trained female instructors, she began accepting female flight cadets into an intensive training program. The applicants, required to be experienced pilots, were found largely from a list maintained by the CAA of the country's 3,000 licensed female pilots. As word leaked out about the women's flying program, over 25,000

applications from all over the country poured into Cochran's office. Women from a variety of backgrounds—actresses, secretaries, dancers, college students, nurses, mothers, and socialites—eagerly applied. Ultimately, 1,830 pilots were accepted into pilot training.

On August 5, 1943, the WAFS and WFTD merged to form the Women Airforce Service Pilots (WASP), with Cochran as director of the WASP and its training division, and Nancy Harkness Love as director of the Ferrying Division. In the 25 months the WASP program was in existence, 1,074 women successfully completed the grueling six-month training program at Avenger Field and earned their silver wings.

Despite the WASPs' nonmilitary status, the women were required to adhere to Army regulations. They slept in barracks six to a room, with 12 sharing a single bathroom. "There was no privacy—none at all," remembered WASP Marty Wyall. "We just learned to live together." The all-women's air base created a sensation, and in the first few weeks over 100 planes with male crews reported mysterious engine problems and requested emergency landings at Avenger Field. Cochran promptly banned all unauthorized landings, and Avenger Field became known as "Cochran's Convent."

The WASPs, like many women in wartime America, yearned to do something meaningful to help the war effort. The unprecedented opportunity for these women to fly military aircraft for their country gave the pilots a unique sense of pride and purpose, and they welcomed the chance to do their part for Uncle Sam. Juliette Jenner Stege was a successful dancer on Broadway before becoming a WASP. "My friends in show business tried to convince me not to join the WASP," said Stege, who graduated in the 44-W-3 class. "They would say to me, 'You're just a dumb chorus girl—you're going to get yourself killed.'" Stege ignored her friends' advice and took flying lessons on Long Island. "It's important to learn not to say no," she said. "You have to take risks in life."

The trainees were awakened every morning at 6 AM by the sounds of reveille. After

Courtesy Pearl Judd and The Woman's Collection, Texas Woman's University

WASP trainees from class 44-W-8: (left to right) Mary Jackson Kinney, Anne Dailey Marshall, and Joanne Blair Martin in front of an AT-6 at Avenger Field in Sweetwater, Texas.

breakfast their day was spent in physical training, ground school (which included instruction in mathematics, physics, map reading, chart reading and navigation, engines, weather, code, and communications), and flying. The pilots received more than 210 hours of military flight instruction at Avenger Field.

For flying, the WASPs were issued men's flight suits that were many sizes too large for them. "Surplus Army mechanics' olive drab overalls, size 44 and up, dubbed 'zoot suits,' replaced our civilian clothes, while cosmetics and fancy hairstyles became relics of the past," WASP Doris Brinker Tanner later wrote.

The fear of every WASP trainee was "washing out" of the program. It was a genuine fear, too, as only the best pilots went on to earn their wings. After six months of military pilot training, the trainees gave a big sigh of relief once graduation day arrived.

THE FEMALE PILOTS caught the attention of Walt Disney, who had the artists at Walt Disney Studios design a cartoon mascot for the WASP. Most U.S. military units in World War II had cartoon mascots, which decorated everything from jackets to bombers. The WASPs' "Fifinella," or "Fifi," as she was nicknamed, originated from the children's book *The Gremlins,* written in 1942 by Roald Dahl, who was at the time a young RAF pilot. His book told of imaginary creatures that played tricks on pilots. He named male mischief makers "gremlins"; a female one was a "fifinella" or "fifi." WASP felt Fifi was not as mischievous as a male gremlin. "She kept the sand out of your gas tank and kept the engine running," said Nonie Horton Anderson. Betty Jane ("B.J.") Williams added, "Fifi helped us come home safely."

Following graduation, the WASPs were dispersed to air bases throughout the country, where they took up assignments transporting aircraft across the United States. They ferried the bulk of new aircraft from the factories to training bases and embarkation points and flew combat-weary planes to repair depots, then did the after-service checkout, often when male pilots would not. They towed targets for live ammunition anti-

aircraft battery practice, as well as air-to-air gunnery. The WASPs conducted weather reconnaissance and participated in smoke-laying missions during maneuvers. They were employed as instructors, and did everything from radio-controlled and instrument test flying to thousands of engineering tests and utility tests.

Some graduates, like Ann Baumgartner Carl, became test pilots. Many WASPs also went on to pursuit training, where they learned to fly fighters like the P-51 Mustang, while others became qualified to fly in bombers like the B-17 and B-29. Twenty-two-year-old Dora Dougherty Strother was one of only two WASPs chosen to fly the B-29.

LIEUTENANT COLONEL Paul W. Tibbets, Jr. (who later piloted the *Enola Gay*, which dropped the first atomic bomb on Hiroshima, Japan), recruited Strother and Dorothea "Didi" Johnson Moorman to fly the huge bomber to demonstrate to the male pilots that it could be flown. Tibbets was determined to prove to these men that not only could the B-29 be flown, but it could be flown by women. The women were given only three days training in Birmingham, Alabama, to learn how to fly the heavy bomber. After an anxious check ride when one of the engines caught fire, the WASP successfully flew the B-29 (christened *Ladybird*) to Clovis Army Air Field in New Mexico. In 1995 Strother received a letter from a male pilot who was on that historic flight: "I realize that it was a long time ago but I want to thank you for helping me that day at Clovis. You came to show us that the B-29 plane was not one to be feared. You were the pilot that day and you demonstrated your excellent flying skills and convinced us that the B-29 was

Courtesy The Woman's Collection, Texas Woman's University

a plane that any pilot would be proud to fly. From that day on we never had a pilot who didn't want to fly the B-29."

With each new success, Jacqueline Cochran was convinced that her WASPs were making a difference in the war. It troubled Cochran, however, that her female pilots were still considered only volunteer civil servants with no official military status. With General Arnold's backing, Cochran helped to reintroduce a bill in Congress to make the WASP a women's service within the U.S. Army Air Forces. (The first bill, introduced in September 1943, was ignored). On June 21, 1944, HR4219 (named the Costello Bill after Rep. John Costello of California, who introduced it) was defeated by 19 votes, despite vigorous lobbying efforts by Arnold and Cochran. Not since the beginning of the war had any legislation supported by the Army Air Forces been voted down.

There are many reasons for the defeat of the WASP militarization bill. By early 1944, air superiority had been achieved in Europe, and American male pilots began returning home. Flying schools were being shut down so civilian pilots were now faced with the draft—not to be pilots, but to be foot soldiers in the infantry. If the male pilots took over the WASPs' flying jobs, they could avoid the draft. They launched an aggressive campaign against the WASPs in the media and on Capitol

Courtesy The Woman's Collection, Texas Woman's University

ABOVE: WASP Shirley Slade takes the controls of a B-26 at Harlingen Army Air Field in Texas. LEFT: Four WASPs view an aerial chart on the wing of an AT-6 trainer.

Hill. The protests of the male pilots coincided with a growing backlash against the idea of women "freeing men to fight" as men returned home from the war to find women in coveted flying positions.

Newspaper accounts from this period illustrate how traditionalists both in and out of Congress were becoming increasingly concerned about women's growing independence and economic power and feared they would not return to their "rightful" roles of homemaker, mother, and low-wage employee when the war ended. These factors, accompanied by tremendous social pressures facilitated by the media, constituted a powerful lobby against passage of the bill that sought to militarize the WASPs.

The defeat of the Costello Bill meant that

the WASPs would remain civil servants without the benefits given to full-fledged members of the U.S. military. The WASPs were denied benefits under the GI Bill, including life insurance, medical coverage, education assistance, and home mortgages. It was not until 1977 that President Jimmy Carter granted the WASPs veteran status. The WASPs felt the sting of their quasi-military status directly whenever a fellow pilot was killed.

Because they had not been officially accepted into the Army Air Forces, the government refused to pay for the bodies of deceased WASPs to be shipped home for burial or pay for funeral expenses. The female pilots collected the necessary funds themselves and often accompanied the bodies of their friends on the long train ride home.

The WASP program was cut short when it was officially terminated on December 20, 1944, eight months before the war ended; it was the first of the women's services to be disbanded. In the words of WASP Doris Brinker Tanner, "The battle to give women equal opportunity in military cockpits was lost." Although the airwomen proved that the experiment had been successful, the WASP program could not hold up under the social pressure brought on by negative publicity in the media and a powerful lobby of male civilian pilots who wanted the female pilots' jobs.

After a lengthy battle for militarization, General Arnold and Jacqueline Cochran were forced to accept defeat. The stunned WASPs packed their bags and returned home, while planes remained at airfields across America waiting to be delivered until male pilots could be trained to fly them.

Despite criticism of the WASP program that developed in the media as a result of their attempt to militarize while male pilots returned from overseas duty, the female flyers earned the respect of male pilots as well as many top-ranking military officers. In the end, they proved that women were physically capable of piloting military aircraft.

General Arnold, a staunch supporter of the WASPs, was the keynote speaker at the graduation of the last class on December 7, 1944: "We will not again look upon a women's flying organization as experimental. We will know that they can handle our fastest fighters, our heaviest bombers; we will know that they are capable of ferrying, target towing, flying training, test flying, and the countless other activities which you have proved you can do.... We of the Army Air Force are proud of you; we will never forget our debt to you."

The backlash of official government action against the WASPs hurt the pilots profoundly and bewildered them, but they clung to the knowledge that their service record had been outstanding. Some of the female pilots were later commissioned in the new U.S. Air Force, but not on flying status. The majority of the WASPs married, started families, or returned to college or their prewar jobs. Although some continued flying after the war, the WASPs forever cherished the memories of their days as America's first female military pilots.

Raskova used her personal relationship with Stalin to convince him that female pilots should be used in the war. She also emphasized the young women's strong patriotic feelings and their desire to fulfill their duty to their country.

Thousands of miles away, another accomplished female flyer was preparing to organize a group of young female pilots to defend Soviet Russia. Marina Raskova, one of the most venerated and best-loved female aviators of the USSR, is largely unknown in the West. Founder of the world's first all-female air regiments during WWII, Raskova, who rose to the rank of major, became the first female navigator in the Soviet Union and commanding officer of the 587th Day Bomber Aviation Regiment, subsequently renamed after her death, in 1943, as the 125th M.M. Raskova Borisov Guards Bomber Aviation Regiment. Raskova served as a role model for her fellow aviators, male and female, not only for her tremendous skill and personal courage, but for her ability to make decisions and lead under severe and often difficult circumstances.

Born in Moscow on March 28, 1912, Marina Mikhailovna Malinina aspired to be an opera singer, but a middle-ear infection at age 15 pushed her life down another path. Raskova chose instead to study chemistry and engineering and later mastered the theory of air navigation. She became the first woman in the USSR to earn the diploma of professional air navigator, going on to become an instructor at N. Ye. Zhukovsky Air Force Engineering Academy in Moscow.

As an instructor, Raskova taught military navigation to male officers who, although initially skeptical of her knowledge and abilities, later admitted that they were now convinced of women's capabilities in aviation. The academy rewarded Raskova by sending her to the Central Flying Club at Tushino, near Moscow, for flying lessons, which she completed in August 1935. After her training, Raskova became an instrument flying instructor and taught advanced navigation for command personnel.

By the mid-1930s, Raskova became involved in a greater number of important aviation-related events, and in August 1935 she took part in her first independent flight as a pilot. On July 2, 1938, Raskova again established a new women's long-distance record when she flew (as navigator) with pilot Polina Osipenko and co-pilot Vera Lomako in an MP-1 nonstop from the Black Sea to the White Sea, having taken off in Sevastopol and landed in the vicinity of Arkhangel'sk on Lake Kholmovskoye. The route lay across four different air masses—tropical, continental, polar, and arctic—and required tremendous skills by the crew. The aviators set an international women's straight-line distance record when they flew 3,695 miles. As a result of this record-setting flight, Senior Lieutenants Osipenko

and Lomako, as well as Lieutenant Raskova, were awarded the Order of Lenin.

Not long after this flight, pilot Valentina Grizodubova, with Stalin's support, arranged for an aircraft to be assigned to them for a flight to the Far East (with Osipenko as co-pilot). It was an ANT-37 (a converted long-range DB-2 bomber) nicknamed *Rodina* ("Motherland") by Grizodubova. In addition to flight training, the three women practiced firing rifles and pistols. The flight was delayed after Raskova developed appendicitis; in September 1938 a state commission canceled the flight because of the lateness in the year and anticipated bad weather. Stalin, however, overruled the decision, and the *Rodina* took off on September 24, 1938.

During the course of this mission, overcast skies completely obscured all visual landmarks, leaving radio signals as the only means of orientation. When the radio station ceased transmitting, there was nothing to do but continue on, the plane eventually running out of fuel. Raskova's crew position in the nose of the aircraft was hazardous for a crash landing, so she was ordered to parachute from the plane over the taiga, a dense, swampy, forested area of Siberia. Raskova landed in the swamp, and it was not until 10 days later that she finally came upon her aircraft and was reunited with Osipenko and Grizodubova. The story of Raskova's flight was widely publicized, and her courage and stamina caught the imagination of the Soviet people.

Raskova spent several months recovering from the leg injuries she sustained as a result of the historic flight. Not only had Raskova proven her courage and skill in flying, but her youthful beauty also helped to attract the interest of the Russian people. At age 26 she was a national celebrity, a recipient of the second Order of Lenin and the Gold Star of Hero of the Soviet Union. Raskova, Grizodubova, and Osipenko became the first women to receive the country's highest honor and the only women to receive it before the war. The flyers were elevated to the equivalent status of American movie stars in the USSR, and they received significant attention from the press.

Raskova would inspire hundreds of young women to fly for the Soviet Union when the time came to defend it. Despite her fame and the pressures placed on her during the war, Raskova was known for her friendliness and her down-to-earth nature. She became the idol of many, including Soviet ace Lidiya Litvyak, who would become the first woman in history to shoot down an enemy aircraft; she reportedly kept pictures of Raskova in her notebook. The aircrew of the *Rodina* met for the last time on March 8, 1939, at the Pilots' Club on International Women's Day. Osipenko was killed two months later in a plane crash. Stalin served as one of the pallbearers at her funeral.

When Germany invaded the Soviet Union on June 22, 1941, Raskova, who was working as a civil defense volunteer at the time, began receiving hundreds of letters from female pilots eager to use their flying skills in the war. In October, after getting the full support of Stalin, Raskova set in motion a voluntary recruitment of female flyers, and the 122nd Aviation Group was born.

Raskova used her personal relationship with Stalin to convince him that female pilots should be used in the war. She also emphasized the young women's strong patriotic feelings and their desire to fulfill

National Archives

Courtesy The Woman's Collection, Texas Woman's University

Courtesy Timeline Films

LEFT: Mariya Dolina served as acting squadron commander of the 125th M.M. Raskova Borisov Guards Dive Bomber Regiment. She flew 72 bombing missions and continued to serve in the Soviet Air Force after the war. CENTER: WASP Ruth Dailey in a P-38 at Love Field, Dallas. RIGHT: Pilot Nataliya Meklin of the 46th Guards Night Bomber Aviation Regiment and a Hero of the Soviet Union. She flew 980 night bombing missions.

Courtesy Timeline Films

ABOVE: Soviet fighter pilots Lidiya Litvyak, Ekaterina Budanova, and Mariya Kuznetsova. OPPOSITE: Lidiya Litvyak was the first female pilot to shoot down an enemy plane.

their duty to their country. Despite those in the Kremlin who believed that combat was not a woman's affair, Raskova's persistence won out. Before giving her his blessing, however, Stalin reportedly cautioned Raskova, "You understand, future generations will not forgive us for sacrificing young girls."

Three female combat aviation regiments were formed under the auspices of the 122nd Aviation Group: the 586th Fighter Aviation Regiment (Yak-1 fighters), which would later become part of the 270th Bomber Division of the Eighth Air Army; the 587th Day Bomber Aviation Regiment (Pe-2 bombers); and the 588th Night Bomber Aviation Regiment (Po-2 biplanes). In February 1943 the 588th was renamed the 46th Guards Night Bomber Aviation Regiment in recognition of its outstanding achievements, and the 587th Regiment became the 125th Guards Bomber Aviation Regiment.

The 46th was the only one of the three original regiments that remained exclusively female throughout the war (the other two regiments incorporated some men). The regiment flew a total of 24,000 combat missions and was the most decorated of the women's regiments, with 23 of its members being awarded the Gold Star of the Soviet Union (by 1990), five of them posthumously. The female pilots would later be nicknamed *Nachthexen* ("Night Witches") by their German counterparts, who came to fear their successful aerial tactics in the wooden Po-2 planes they flew on night missions.

In the Soviet Union, women took up arms themselves in defense of the Motherland. Nearly one million Soviet women fought in uniform and performed all kinds of combat duties during the war. In contrast, by the end of World War II, approximately 350,000 women had served in the U.S. military in noncombat roles. For Soviet women during the Great Patriotic War, the image of Mother Russia seemed to embody not only the caring and protective qualities of a mother, but also the self-sacrificing and courageous traits of a warrior, defending her country as she would her own child.

NOT ONLY WAS THE 1930s a decade of rapid industrialization in the Soviet Union, but it was also considered the Golden Age of Aviation. There was a surge in aviation programs, both civilian and military. Because the Soviet Union had the distinction of being the first country in the world to proclaim legal equality for women in 1917, the military flying schools and Osoaviakhim (the Society for Cooperation in Defense and Aviation-Chemical Development) could not legally refuse entry to qualified women. It was through Osoaviakhim, a paramilitary organization, that most Soviet women received flight training.

Founded in 1927 to train teenagers and young adults in quasi-military skills such as defense and chemical warfare, marksmanship, and parachuting, by the 1930s Osoaviakhim began developing a network of air clubs to provide flight training in light aircraft. Officially, Soviet women were encouraged to participate in all facets of Osoaviakhim training, though many women encountered obstacles when applying. By 1941, 100 to

150 air clubs had been established; one out of every three or four pilots was a woman.

The female pilots and navigators who were recruited for Marina Raskova's 122nd Composite Air Group soon after the German invasion were subjected to a rigorous training program and, in the case of the pilots, one that crammed nearly three years of flying experience into just a few months. The women's instruction, equipment, and ultimate assignments were identical to those of their male counterparts.

A significant proportion of the ground crews attached to the regiments were women as well. Responsible for maintaining and preparing the aircraft for their often numerous daily missions, the armorers and mechanics handled ammunition boxes and machine-gun belts, made quick-time repairs, and attached heavy bombs, often working without cover in subzero weather. The ground crews were as dedicated as the aircrew, and they grew close to their pilots and aircraft.

WHILE RASKOVA SET to work to form the women's air regiments, the Germans were advancing closer to Moscow. Soviet citizens learned from radio reports that Moscow was in imminent danger of occupation. It was imperative that the female pilots be trained quickly so that they could participate in aerial combat in defense of their country. Raskova personally interviewed every volunteer. Most of the women wanted to be used as pilots, but navigators were badly needed too, and Raskova chose pilots with a technical education to fill the navigator slots.

A minimum of 500 flying hours was required of women who desired to serve as fighter or bomber pilots. Uniforms were issued, but as there were no women's uniforms, the recruits were forced to wear the oversized flight suits of male airmen, similar to the clothing given to the WASPs. Pants could be hitched up with belts and the cuffs could be rolled up, but footwear was a problem. If the oversized uniforms made them look ridiculous, the men's boots made the women look clumsy. Pilot Raisa Aronova recalled: "They gave us men's clothing, right down to the underwear."

National Archives

The day after the women were issued their uniforms, Raskova received orders to send the aviation group immediately to Engels, a city on the Volga River north of Stalingrad, to complete the formation and training there. In Moscow there was panic among its citizens as the Germans drew closer. During the night of October 16-17, 1941, when the women departed for Engels, 100 trains carrying 150,000 people reportedly left Moscow.

These first trainees were greeted by exceptionally cold weather after spending nine days on the train. Once they arrived in Engels, studies began in earnest. During the next few months, the members of the 122nd underwent an extremely condensed, intensive course of training. There were 10 courses a day plus two hours of drill; navigators studied Morse code for an additional hour and rose earlier than the other students, who slept on average five or six hours a night.

To prepare the trainees for the difficult conditions at the front, Raskova would sometimes sound an alarm in the middle of the night, requiring everyone to dress and form up outdoors by putting on their overcoats over their nightshirts, making them march around the airfield with the cold wind blowing on their bare legs. For many of the women who were barely out of their teens, military life was a difficult adjustment. Some of the girls had never been away from home before. Conditions were poor at the front, and the women were forced to cope with an entirely new way of life.

Marina Raskova oversaw all aspects of the women's combat training. She drove herself hard and was sometimes so exhausted she did not have the strength to undress at night and slept on top of her bed in her uniform. To her trainees, she encompassed immeasurable energy and endurance. "When we were in training we would sit in our dugout around the stove and she [Raskova] would sing to us," said Valentina Kravchenko, a navigator in the 587th Day Bomber Aviation Regiment. "She'd say, 'Girls, when the war is over' ... and she'd look at us in our unattractive flying suits that made us look like bears ... 'After the war you'll wear white dresses and pretty shoes, and we'll have a big party. Don't worry; we're going to win the war.' "

Tragically, Raskova did not live to see victory. While in the process of transferring her regiment to the front at Stalingrad on January 4, 1943, the plane she was piloting crashed after being caught in a heavy snowstorm and dense fog, killing all four crewmembers aboard. Raskova, who had been commander of the 125th Regiment for only a few months, never got to experience combat herself.

Raskova's death came as a great shock to her fellow pilots and countrymen. Her regiment pledged to become worthy of bearing Raskova's name when the honorary title of Guards was conferred on it on September 23, 1943. For Galina Brok-Beltsova, a navigator with the 125th Guards Regiment, Raskova was a powerful role model to her young pilots. "For inspiration we had a portrait of Raskova at our base, and we each carried a picture of her in a pocket on the leg of our flight suits," she said. "The pocket had a clear covering over it, so we could see her picture. We all called ourselves 'Raskovsi,' belonging to Raskova. She was brave, and so we were brave."

Raskova was posthumously awarded

the Order of the Patriotic War, First Class, and her ashes were interned in the Kremlin Wall beside those of Osipenko. Raskova had been acutely aware that she and her fellow female flyers were making history. In May 1942 she had told the members of the 588th, after accompanying them to the front near Stavropol: "I believe that all of you will come back as heroes. Epics and songs will be composed about you. You will be glorified by future generations."

By the late spring of 1942 the women received orders to go to the front. On the morning of May 23, 1942, garrison commander Colonel Bagaev made a short speech to the crews of the 588th who soon would be experiencing their first taste of combat: "Today, for the first time, a woman's regiment leaves our airfield for the front. You do not fly on awesome machines, but on training aircraft. And it's true that you yourselves are not excessively awesome in appearance. But I am certain that in these light-winged airplanes, you will be able to inflict heavy blows on your enemy. Let fly with you my fatherly wish: success to you and combat glory!"

"The stress was huge," said Irina Rakabolskaya, chief of staff of the 588th Night Bomber Aviation Regiment. "We were keen to show we could fight as well as, if not better than the men. When they first saw us, they didn't take us seriously. They called us silly girls who should still be playing with dolls. They didn't believe we could fly. They were very derogatory. But in six months, their attitude changed completely. In 1943 our regiment was the first in the division to be awarded the honor of becoming a Guards regiment."

One of the best-known Soviet female pilots in the war, who became famous for being a double ace, was Lidiya (nicknamed "Lilya") Litvyak. A senior lieutenant as well as a flight commander of the 73rd Guards Stalingrad-Vienna Fighter Regiment, 6th Fighter Division, Eighth Air Army, she also served in the 586th as well as two other fighter regiments. Born August 18, 1921, in Moscow, Litvyak learned to fly at a young age. Striking in appearance and small in stature, she made a powerful impression on everyone who came in contact with her. A lover of nature, she is said to have decorated the inside of her cockpit with wildflowers found near the airfield, and legend has it that she painted a white lily on the fuselage of her aircraft. No one could have predicted that this petite blond pilot (she had to have the pedals of her plane adjusted so she could reach them), who liked to fashion colorful neck scarves out of parachutes, would prove to be such a deadly adversary in the skies.

Courtesy Timeline Films

Three Soviet women of the 46th Guards Night Bomber Aviation Regiment in their oversized leather flying uniforms. The woman in the middle has a pistol tucked into her belt.

On September 13, 1942, Litvyak would go down in history as the first woman in the world to shoot down an enemy aircraft. She downed two German fighters that day in an intense air battle over Stalingrad that reportedly involved a German ace named Erwin Maier who was a three-time recipient of the Iron Cross. He had scored his 11th victory three days earlier. Maier was forced to bail out of his aircraft, and once captured on the ground, he asked to meet the Russian ace who had shot down his plane.

National Archives

HANNA REITSCH: NAZI GERMANY'S FIRST LADY OF FLIGHT

As the world's first female test pilot, Hanna Reitsch set more than 40 aviation altitude and endurance records in a career that spanned five decades. Reitsch was the first woman to fly jet planes and rocket planes and the only woman to fly a robot V-1, known as a buzz bomb, modified for pilot control. She was also the first woman to fly over the Alps in a glider.

Born on March 29, 1912, in Hirschberg, Silesia, an eastern province of Germany, Reitsch is best known as Nazi Germany's famed aviatrix. Unlike the Allied powers, who allowed qualified women to fly military aircraft during the war, Adolf Hitler was firmly opposed to women flying in combat. Reitsch, having gained notoriety flying experimental aircraft, was hired by the Luftwaffe in 1937 as a test pilot. She was the first woman to be awarded the Iron Cross during the war and given the honorary title of flight captain by Hitler himself. In 1938 Reitsch became the world's first female helicopter pilot when she flew a Focke-Achgelis helicopter inside the exhibition hall at the Berlin Motor Show.

On April 25, 1945, German General Ritter von Greim asked Reitsch to fly with him

National Archives

Yekaterina Krasnokutskaya flew an ambulance plane carrying Russian Army wounded.

When the 21-year-old Litvyak stood before him, he stared in amazement. In disbelief he demanded proof that she had indeed been the pilot he had fought with. After Litvyak described in detail their dogfight (which had been her first), Maier was forced to believe her account. When Maier had accepted the bitter truth, he knelt down beside her and ceremoniously offered her his Swiss-made gold watch—a great luxury in Russia at that time. Litvyak's response to the gesture was to say, "I do not accept gifts from my enemies," after which she abruptly turned and walked away. For a pilot of her limited experience to achieve two kills in a single day (especially one involving a fighter ace) was an amazing accomplishment.

After being wounded on several occasions, Litvyak was reportedly shot down near the town of Krasny Luch in the Luhansk region of Ukraine on August 1, 1943, in an air battle in which approximately nine Soviet and 40 enemy aircraft took part. It was not until 1979 that the remains of a woman believed to be Litvyak were discovered near the Ukrainian village of Dmitreivka. Her body was said to have been found buried under the wing of a Yak-1. Because DNA testing was not available at the time, it has not been proven conclusively that the body of the female pilot recovered is Litvyak's.

The young Soviet female flyers were fueled with intense feelings of patriotism and a deep desire to help their fellow citizens defeat the ruthless Nazi invaders. Like the American WASPs, they sought the opportunity to serve their country in its hour of need. The Russian women were in a unique position, however, to inflict direct blows to the enemy, and downing a German aircraft became retribution for the lost lives of their friends and fallen comrades.

Despite the female pilots' proven heroism, the USSR soon forgot their wartime contributions. In 1945 Soviet society encouraged women who had fought at the front to discard their uniforms and return home to reestablish their prewar roles as housewives and mothers. After World War II, Soviet aviation remained off limits to women. It would be several decades before female pilots were given the opportunity to fly military aircraft again.

In 1972 the WASPs held a reunion in Sweetwater, Texas, and more than 300 WASPs, former flight instructors, and Army staff attended. Bruce Arnold, the general's son and a retired Air Force colonel, arrived from Washington, D.C.,

to Berlin to meet with Hitler, who had summoned the Luftwaffe general to his underground bunker beneath the Chancellery. Berlin was under siege and surrounded by Soviet troops. Many believed this to be a suicide mission. On the final leg of their perilous flight into Berlin, von Greim was forced to fly as low as possible so as not to attract the attention of enemy fighters above. Below them they could clearly see the faces of Russian soldiers aiming rifles and antitank weapons at them. Suddenly, von Greim was hit. Reitsch immediately reached for the stick and throttle and struggled to gain control of the aircraft. Von Greim lay unconscious. Fuel gushed from the wings and Reitsch feared that an explosion was imminent. Reitsch managed to land the plane on a street near the Brandenburg Gate, trying hard to navigate around the rubble and potholes.

Once inside the bunker, Hitler, according to Reitsch, exclaimed, "Brave woman! There is still some loyalty and courage in the world." Hitler, knowing that the end was near, gave Reitsch and von Greim a poison capsule in case they wished to end their lives. Reitsch remained inside Hitler's bunker for two days. On Hitler's orders she escaped from Berlin with von Greim, flying the last German plane out of the besieged capital shortly before the city fell to the Red Army.

Reitsch was captured after the war and interrogated for 18 months by American military intelligence officers. Reitsch's father, fearing Soviet occupation, shot and killed his wife and his other daughter, her three children, and the family's maid before turning the gun on himself in a grisly suicide pact. Hanna was devastated by the loss of her family. Only her older brother, Kurt, who was serving in the German Navy, survived.

After her release, Reitsch moved to Frankfurt am Main. She continued to break world aviation records flying gliders until her death from a heart attack on August 24, 1979. Reitsch remains one of the world's most accomplished female pilots. □

Courtesy Timeline Films

in place of his late father, who had been an important advocate for the female pilots during the war.

At this historic reunion the WASPs made two important decisions. The first was to promise to meet every two years. The second decision, remarkably more ambitious than the first, was to right the wrong that had been done to them 28 years earlier and pursue a new militarization bill in Congress. With the women's movement in full swing, and the offer of assistance by Bruce Arnold, who had been a legislative liaison for the Air Force, the WASPs believed that the timing was right for them to finally achieve their goal.

By the mid-1970s American women were signing up for the all-volunteer armed forces. For the first time in history, women were being admitted to the nation's elite service academies. Ten women began training for the U.S. Air Force in September 1976 and were touted as the first women military pilots. The WASPs, who knew better, were insulted by their country's short-term memory, and they worked even harder to bring their case to Capitol Hill and prove that they had been America's first female military pilots.

Within a few months an amendment was added to a veterans' bill in the U.S. Senate that would grant the WASPs full military status and make them eligible for veterans' benefits—32 years after they had been deactivated. Senator Barry Goldwater, a former World War II Ferry Division pilot, who had been based at New Castle AAFB and had flown with the female ferry pilots, sponsored the bill.

It did not take long, however, for veterans' organizations to come out against the amendment, as they did in 1944. Protective of their benefits, they argued that other groups, such as the Merchant Marines and the Civil Air Patrol, who also served during the war, might make similar claims to veterans' rights. Collapsing under pressure, the House Veterans' Affairs Committee killed the proposal. Senator Goldwater and Bruce Arnold promised the WASPs they would keep up the fight and not give up the battle in Congress.

IN MARCH 1977 the WASP bill was reintroduced. This time, every female member of Congress co-sponsored the legislation. The WASPs' cause caught the attention of the media, and all across the country WASPs circulated petitions and organized letter-writing campaigns. The former female pilots who gathered in Washington, D.C., worked hard to show members of Congress who and what they were—complete with scrapbooks, correspondence, photos, and official documents saved and treasured for more than 30 years.

Two months later, on May 25, 1977, WASP Dora Doughtery Strother testified before the Senate Veterans' Affairs Committee. The testimony Strother gave outlined for the first time before Congress the history of the entire WASP program, highlighting the arguments that supported militarization. "This is the first time the rank-and-file members of the WASPs have had a chance to tell their story," she said. "We have waited many

years for this opportunity."

Strother continued to point out the many aspects of the WASPs' training as well as flying assignments during the war that were strictly of a military nature. The testimony she gave to Congress undoubtedly helped to clear up many misunderstandings that existed about the WASPs during World War II.

Despite strong opposition to the WASP bill by the American Legion and the Veterans Administration, the House passed the WASP amendment to the GI Bill Improvement Act of 1977 on November 3, 1977. The next day the Senate also approved the legislation. For the former airwomen who had worked hard to be recognized for their achievements during the war, 1977 would be called the year of the WASP. President Jimmy Carter signed the WASP bill into law on Thanksgiving Day, November 23, 1977.

DESPITE BEING ALLIES in World War II, the WASPs and Soviet female pilots seemed by many to be worlds apart in their ideology, wartime aerial missions, and military status. During the war the airwomen only heard rumors of the other group's existence. Forty-five years after the end of the war, the American and Russian women aviators met face-to-face in a historic reunion in Moscow. The women who were at the 1990 meeting have commented on the strong bonds of sisterhood they experienced with their female counterparts. Even the use of translators did not inhibit their feelings of camaraderie that transcended cultural differences.

The dangers and risks inherent in the women pilots' wartime flying assignments, coupled with their patriotic spirit and love of aviation, drew them close together in a way that only individuals who have faced fear and death intimately can know. Gender was the defining factor in both the creation and dissolution of both groups of airwomen. They suffered discrimination and prejudices from male aircrews and military personnel, and they also earned their respect. The women flyers' very existence in wartime aviation challenged the assumptions of masculine authority and attempted to redefine existing gender boundaries.

But, as is often the case during a time of war when society is turned on its head, once stability and peace were reestablished, the American and Russian women pilots were told that their services were no longer needed. The return to prewar societal roles was emphasized in both countries, and the aviators who had sacrificed and achieved so much during the conflict, were prohibited from taking part in the postwar military.

The accomplishments of female pilots in the 1930s set an important precedent for the World War II airwomen to follow. Although it took another 30 years for American women to be allowed into the cockpits of military aircraft, and an additional 20 years before they would be allowed to fly in combat, without the achievements of the WASPs, it is unlikely that women's presence in modern military aviation would have been assured.

For the Soviet female pilots, their participation in the Great Patriotic War resulted from a way of thinking that persists in Russia today. Perceived as temporary solutions to current problems, Russian servicewomen are not on a par with their male colleagues. Female military pilots were discouraged from seeking combat roles, and little evidence exists to show that they have been given the opportunity to fly in battle since 1945. In modern-day Russia, despite its deeply rooted socialist past that boasted gender equality, the idea of female soldiers is an anomaly.

In many ways, the experiences of the American and Soviet airwomen in World War II were exactly how one WASP described it: "a magical bubble—a lucky accident in history." The female pilots did not immediately change the course of aviation history, nor were they successful in altering the societal norms of their day. But by their courage, professionalism, and determination, the first female military pilots in history, who spread their wings in World War II, set a precedent for subsequent generations of women in aviation.

On March 10, 2010, the Women Airforce Service Pilots were awarded the Congressional Gold Medal in a ceremony at the U.S. Capitol. Sixty-five years after the end of the war, the first women to fly American military aircraft were officially recognized by a grateful nation. □

Courtesy The Woman's Collection, Texas Woman's University

ABOVE: In 1990, a group of WASP veterans traveled to Moscow to meet their Soviet counterparts. Pictured (left to right): Charlyne Creger, Barbara Ward Lazarsky, Soviet pilot Nadezhda Popova, 46th Guards Night Bomber Aviation Regiment, Marjorie Osborne Nichol, unidentified Russian official, and Marty Wyall. OPPOSITE: A member of the 46th Guards Night Bomber Aviation Regiment receives a medal during an awards ceremony.

TRACINGS *of*

A Russian artist showed the world his perspective of Germany's brutal invasion of the Soviet Union. BY KEVIN M. HYMEL

OPERATION BARBAROSSA, the German invasion of the Soviet Union in June 1941, showed the world the extent of Nazi brutality. As the German Army rolled east, it left pillaged homes and leveled cities in its wake. German occupation soldiers slaughtered civilians and enslaved others to work in the German war industry. Women were raped and partisans hung in public.

The horrors of the enemy invasion inspired Russian graphic artist Dementi Shmarinov to create something special. A native of Kazan, Shmarinov studied art at N.A. Prakhov's studio in Kiev and D.N. Kardovskii's studio in Moscow. He made a name for himself in the 1930s illustrating characters from Dostoevsky and Tolstoy novels. He also designed a number of political posters at the beginning of the war.

BARBAROSSA

ABOVE: ***The Fascist Horde.*** **OPPOSITE:** ***The Return.***

BARBAROSSA

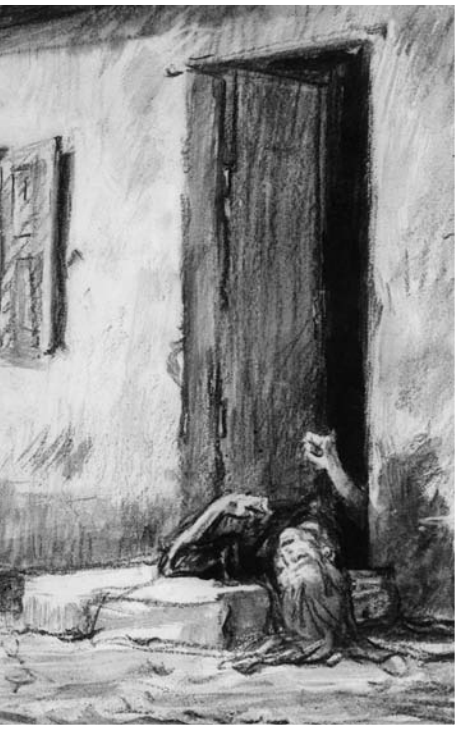
ABOVE: ***The Fascist Horde.*** **OPPOSITE:** ***The Return.***

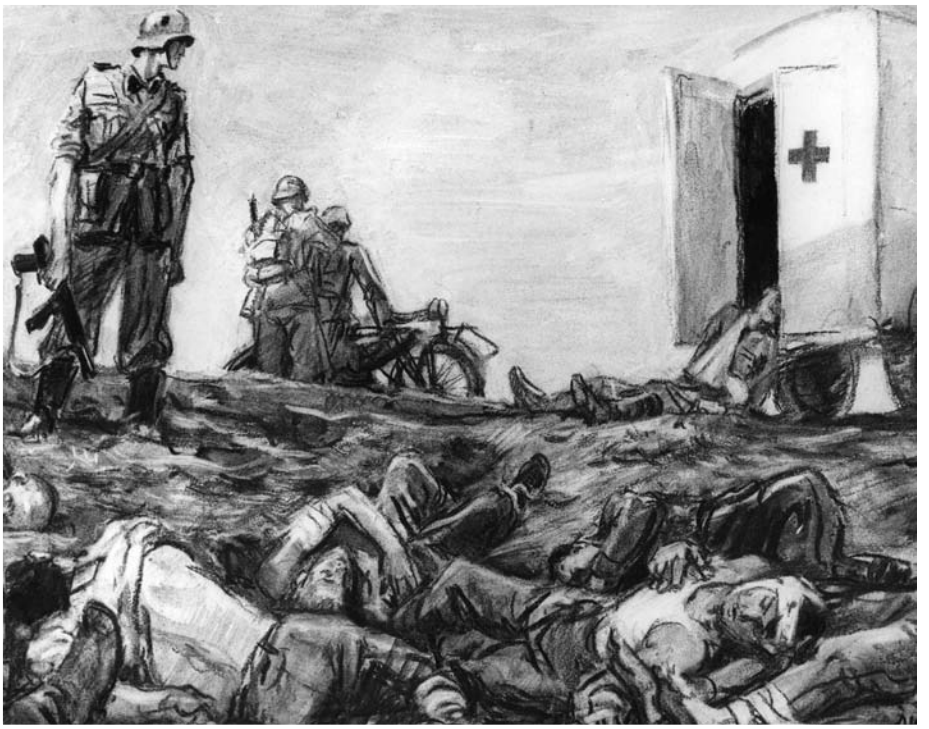
But as the German Army penetrated deeper into his beloved Motherland, the 35-year-old Shmarinov sketched a number of charcoal and black watercolor easel works vividly conveying the suffering and courage of the Soviet people in their struggle against the enemy. In 1942, his angry and impassioned collection, entitled *We Won't Forget, We Won't Forgive!*, went on display at the Tretyakov Gallery in Moscow. The collection was seen in the United States after the Office of War Information photographed the collection for distribution back home.

To each design Shmarinov gave a simple, brief title. The words counted little, the images told the story. With gritty and sometimes disturbing detail, he showed death and depravity at the hands of the Germans. Most of his Russian characters were civilian women and children, while the Germans soldiers were intimidating, stark automatons, wielding rifles and submachineguns. The last sketch of the collection reveals a single image of hope—a Russian soldier on horseback, returning to a destroyed town to comfort a distraught woman.

Shmarinov's powerful series was awarded the State Prize of the USSR in 1943, and, later, Shmarinov himself was awarded the Order of Lenin for his contribution to the Great Patriotic War. He survived the war to become the People's Artist for the Soviet Union in 1967. □

TOP ROW LEFT: ***Rapers.*** **RIGHT:** ***Execution.*** **BOTTOM ROW LEFT:** ***Into Captivity.*** **CENTER:** ***The Robber Army.*** **RIGHT:** ***Dispatched.***





RIGHT:
Our troops have come.

BELOW:
Mother.

ABOVE:
Execution of a Partisan (Tanya).

LEFT:
Refugees.

HOTEL *from* HELL

BY ERIC NIDEROST

Shanghai's infamous Bridge House Hotel was a place of torture and death for untold numbers of Chinese and Allied prisoners.

BY THE 1930s, Shanghai was already a legend in its own time—the most modern, populous, and decadent city in China. The Shanghainese worshipped Western culture, and the stylistic Art Deco architecture was all the rage. High-rise buildings sprouted like mushrooms until there were more skyscrapers in Shanghai than anywhere else in the world outside of New York and Chicago.

Bridge House was a good example of these buildings. The eight-story hotel's name derived from the North Szechuan Road Bridge that spanned nearby Soochow (now Suzhou) Creek. Built around 1935, it was an ordinary Chinese hotel, one of many in the growing metropolis. The architecture was typical for the period, with an off-white façade and Art Deco touches.

Despite its architectural details, this building at 478 North Szechuan Road was so ordinary as to be anonymous. Yet it was destined to be the most infamous and dreadedplace in all Shanghai—the Japanese equivalent of the Gestapo's Columbia-Haus in Berlin. Hundreds, perhaps thousands, of people were imprisoned here from 1937 to 1945, many suffering unspeakable torture at the hands of brutal Japanese captors.

The story of Bridge House is a harrowing tale of agonizing pain and obscene brutality but also of human courage and endurance in the face of death. Its first victims were Chinese, but after Pearl Harbor a steady stream of Allied civilians and POWs found themselves incarcerated there. The portals of Bridge House were unmarked but should have borne a legend echoing that of Dante's Inferno: "Abandon All Hope Ye Who Enter Here"

This hellish hostelry cannot be fully understood without some background history. Shanghai, in the 1930s, was divided into three different entities. The International Settlement was a product of China's weakness in the 19th century. Technically Chinese soil, it was really a separate enclave ruled by a 14-man Shanghai Municipal Council (SMC). There were five British councilmen, two Americans, two Japanese, and five Chinese.

The French Concession was, in essence, a colonial possession of France, adjoining the International Settlement but rarely cooperating with it. The rest of the city was known as Greater Shanghai. Before 1937 it was ruled by the Chinese central government based in Nanking (Nanjing), which appointed its mayor and other functionaries.

Japanese troops rampage through a burning section of Shanghai, China, January 10, 1937. After the city was occupied, the Bridge House Hotel, converted into a prison by the dreaded Kempeitai secret police, became a place of torture and death.

When the Sino-Japanese War broke out in the summer of 1937, Chang Kai-shek, the Chinese head of state, decided to make a stand against the invaders at Shanghai. The Chinese proved courageous fighters, contesting every inch of their soil, but after three months of bloodshed, the Japanese gained the upper hand. Battered Chinese divisions retreated up the Yangtze River, leaving the Japanese in control of Greater Shanghai.

Conquest followed the usual patterns. The Japanese established the Dadao (Chinese for "Great Way") Municipal Government, a body that was supposed to be dedicated to reform. It was a transparent ploy, and even the simplest Chinese coolie could not fail to recognize the government's true nature as a Japanese puppet.

In reality, the Japanese, like the Romans, had "made a desert and called it peace." Whole sections of the Chapei District had been laid waste because of the fighting, while other districts were ruthlessly stripped of anything of value. Every pipe, appliance, and bathroom fixture that could be found was ripped out of buildings and turned to scrap.

But the Japanese could not take over the International Settlement without risking war with Britain and the United States. The Settlement became a "Lonely Island," a small

ullstein bild


老舊眼藥
五華牌

patch of unoccupied ground in a Japanese "sea." Technically, the Japanese did have a foothold in the Settlement, namely the Chapei and Hongkew Districts. Hongkew in particular was eventually home to some 30,000 Japanese, so many that it was dubbed "Little Tokyo."

The Anglo-American "core" of the Settlement, which included the famous Bund waterfront, was separated by a snaking waterway called Soochow Creek. It became a kind of unofficial international boundary, like the Rio Grande in North America, albeit on a much smaller scale. Several bridges crossed the creek, including Garden Bridge, where Japanese sentries patrolled one end of the span and British troops guarded the other, the "Bund" side.

IT WAS PROBABLY about this time that Bridge House was established as a prison by the Kempeitai, the Imperial Japanese Army's ruthless military police—Westerners called them gendarmerie. The hotel was certainly up and running as a clandestine prison by 1937.

The Kempeitai acquired a sinister reputation as time went on. Chinese staff and hotel guests were presumably evicted, and the rooms were converted into cells and torture chambers. Bridge House became not just a prison but the regional Kempeitai headquarters for Shanghai.

During the "lonely island years," 1937-1941, victims were Chinese. Most Westerners were completely unaware that the hotel was now a prison even though it was a mere two blocks from Shanghai's classically designed Central Post Office, an impressive landmark even today. People bought stamps and posted letters (though there were Japanese censors on the premises), little knowing that others were being tortured to death just a three-minute walk away.

Temporarily safe on neutral ground, courageous Chinese, American, and British journalists exposed Japan's atrocities and lust for conquest. One of these was John Benjamin Powell, editor and publisher of the *China Weekly Review* and *China Press*. Outspoken and unafraid, Powell was pro-Chinese and made no apologies for it.

Hallett Abend, correspondent for the *New York Times,* was another thorn in the Japanese side. Abend exposed Japanese aggression and was not shy about naming names.

Major General Saburo Miura, who headed the Shanghai Kempeitai from 1939 to the end of 1940, took a particular dislike to Abend. Two armed thugs invaded Abend's apartment in Broadway Mansions, searching for materials the American had written allegedly "insulting the Japanese Army." His apartment was ransacked and Abend himself was brutalized and badly beaten. It was a foretaste of what was to come.

Ironically, Broadway Mansions was in Hongkew, in the Japanese-dominated section of Shanghai. Knowing this, Abend was in the process of moving to the other side of Soochow Creek when the assault occurred. In spite of his grievous injuries, Abend was lucky. He lived on the 16th floor, and the Kempaeitrai agents could have flung him out the window to his death.

Abend finally left Shanghai in the fall of 1940, so was spared the terror to come. In July 1940, the Japanese issued a blacklist of foreign and Chinese journalists who were earmarked for "deportation;" John B. Powell's name was on the top of the list. Shortly thereafter, a Japanese agent tried to assassinate Powell near the American Club on Foochow (now Fuzhou) Road.

Powell was hit in the back by a foreign object, nearly knocking him over. The editor discovered to his horror it was an unexploded Japanese hand grenade. In his haste, the would-be assassin had failed to fully pull the pin. Thereafter, Powell worked largely at night.

Others were not so fortunate. It was open season for Chinese editors foolish enough to take an anti-Japanese stand. Tsai Diao-tu's severed head was found in the French Concession with a note tied to it that read, "Look! Look! The result of anti-Japanese elements." Many more assassinations followed, no doubt orchestrated by the Kempetai.

The hell of Bridge House was revealed after December 8, 1941, the day the Japanese took over the International Settlement in the wake of Pearl Harbor. Since Japan was at war with the United States and Great Britain, there was no need to observe diplomatic niceties, or render even lip service to international law. The Kempeitai, called "Japan's Gestapo," seemed hell bent on living up to the comparison.

The Kempeitai had several categories of victims. First on the list were British and American journalists, men who had dared to insult the Japanese nation by exposing the truth about its Army's brutal activities.

Next were bankers and corporate executives—mostly American, British, and a few other nationalists—who had been living in Shanghai when war broke out. If they were financiers or bankers, they could be forced to cooperate, or even be tortured to reveal "hidden funds." Foreign businessmen were suspected of espionage, and tor-

"I took a deep breath as I went through the big doors of Bridge House. I turned and looked at the warm sun and wondered if I'd ever see it again."

—Commander Columbus Darwin Smith, USNR

ture might loosen tongues to gain "information." The vast majority of these "espionage rings" were products of Japanese paranoia and fantasy that bordered on the delusional.

As the months progressed. Allied POWs were incarcerated in Bridge House. Usually there were "in transit," destined for another prisons, but they suffered beatings and privations while at 478 North Szechuan Road. The last category of inmate is perhaps the strangest of all—Japanese soldiers who were "insubordinate," or had refused duty.

For the first few days after the Japanese takeover of Shanghai, all was fairly normal.

Author's Collection

A postcard view of Shanghai and the waterfront of Soochow Creek. The stark white building at the far right is the Bridge House.

It was a deceptive calm before a terrible storm. Most of the men marked for apparent arrest still remained at liberty. Lulled into a sense of euphoria by this sudden turn of events, the Anglo-American community breathed a collective sigh of relief.

TRUE, THE JAPANESE had taken over places such as the American Club, forcing residents like Powell to vacate within two hours, but at least there were no arrests. The roundups began a few days later. Kempeitai agents broke into John Powell's room at the Metropole Hotel in the wee hours of December 20, 1941. As the American was taken into custody, his rooms were thoroughly searched for "evidence." His *China Weekly Review* and *China Press* offices had been shut down and sealed, but Powell still had papers, letters, and other materials with him in his rooms. The apartment was ransacked.

Powell was taken by elevator to the lobby and hustled outside into a waiting car. It was only a short drive across Soochow Creek to Bridge House. One can well imagine the thoughts that ran through Powell's head during this trip to hell. He was initially told that he'd only be "questioned." There was no hint of permanent incarceration, at least not at this stage.

Soon American military personnel began to be held at Bridge House. Lt. Cmdr. Columbus Darwin Smith, USNR, skipper of the gunboat USS *Wake*, was at first treated as a POW. After an unsuccessful escape attempt, he was sent to Bridge House for Kempeitai "investigation."

"I took a deep breath as I went through the big doors of Bridge House," Smith later remarked. "I turned and looked at the warm sun and wondered if I'd ever see it again." Scores of other victims no doubt felt the same.

In the early months the Japanese showed relative restraint with British and American prisoners, perhaps because Allied consular staff were still there, waiting to be repatriated to their home countries. Once the diplomats were gone, the mistreatment and torture grew worse.

Hugh Collar was British, the director of Imperial Chemical Industries. As chairman of the British Resident's Association, he was a high-profile target responsible for the actions of his fellow countrymen. Before he was arrested, Collar tried to get food parcels to Bridge House prisoners. Eventually he found himself a Bridge House victim himself.

Collar left a detailed, chilling account of his arrest and subsequent stay at the infamous prison. He noted that arrests were usually carried out around 2:00 AM, when the victim was sleepy and disoriented. Like Powell, Collar was driven to Bridge House and processed without delay. The prisoners had to remove their shoes and surrender all items in their pockets. These were placed in an envelope and carefully labeled

ABOVE: Lieutenant William Farrow, one of the Doolittle Raiders, was a prisoner at Bridge House. He was executed by Japanese firing squad, October 15, 1942. TOP: Lieutenant Commander Columbus Darwin Smith, commander of the river gunboat USS *Wake*, was captured by the Japanese and held at the Bridge House for a month." OPPOSITE: A blindfolded American aviator—perhaps a member of Doolittle's Raiders—is escorted from a plane by Japanese soldiers. The Japanese stated that any airman shot down over Japan during the raid would be executed.

with the prisoner's name.

Prisoners—men and women alike—were then shoved into cells. Powell recalled that there were 15 cells in Bridge House's main building. The newsman had cell number 5, which was enclosed on three sides. The fourth side had a door, which was built of wooden bars some six inches thick, spaced about two inches apart. There was also a space in the door where food was delivered on a sometimes irregular basis.

Cells seem to have varied in diameter; Collar remembered a "ten by ten" foot chamber, while Commander Smith recalled his cell was "ten by twelve" feet. Whatever the dimensions, each cell was crowded with a dozen or more inmates. It was a newly arrived prisoner's first taste of the horrors to come.

BRITISH BUSINESSMAN Henry Pringle described the cells as having wooden bars on two sides and wooden walls on the other two sides. The floor was a sort of wooden platform that was raised about two inches above a concrete floor. Since the place was unheated, prisoners suffered from cold as well as torture.

As his or her eyes adjusted to the dim light, a new prisoner would see "perhaps twelve, fifteen, or twenty shapeless lumps you assume to be people," according to Collar. Almost simultaneously, the cell's stench would assault one's nostrils—a sickening odor of human waste, unwashed bodies, and death.

After a few weeks behind bars, prisoners looked like filthy scarecrows, with matted hair and long, unkempt beards. Smith recalled prisoners were "as filthy as human beings could be."

Worse still, some inmates were suffering from loathsome diseases, while the bloodied bodies of others showed the marks of recent torture. Toilet "facilities" consisted of a hole in the floor, or a bucket, infrequently emptied.

Powell found that he literally had no place to sit down, but another prisoner recognized him and motioned him over. The man was Rudolf Mayer, brother of Louis B. Mayer, famed head of MGM Studios in Hollywood. Mayer had no idea why he had been arrested, except perhaps to seek ransom from his brother, one of the most powerful men in the movie industry.

Mayer explained to Powell that there was a space for him against the wall—a precious spot, because one could lean against it. The space had been recently vacated by the death of a Korean prisoner. Bayoneted by a Japanese guard, the Korean was allowed to die of blood poisoning in great agony.

Prisoners were forced to sit or squat in rows on the cell floor, often for hours at a time, in the Asian style, sitting on their heels, which was and is an unnatural position for most Westerners; this facilitated counting.

Heads had to be bowed and faced in the direction of Tokyo, in token of their submission to Emperor Hirohito, Japan's "living god" and "Son of Heaven."

Cells were alive with vermin; rats were everywhere. Powell once awoke with a rat tugging at his hair. Prisoners were permitted a two-minute "wash" every week or so, the water provided by a cold-water faucet in the courtyard; no soap was provided to the prisoners. Clothes were never washed and were soon crawling with lice.

Chinese prisoners were treated with special contempt. Japanese guards seemed to take special delight in punishing Chinese for the slightest "infraction" of the rules. When a Chinese prisoner was caught smoking a smuggled cigarette, he was badly beaten. Later, the man developed beriberi and died after a Japanese doctor "treated" him. When another Chinese man was beaten, Powell counted 85 blows with bamboo cudgels before the man's screams and moans finally ceased.

Most Chinese prisoners refused to be broken by their hated enemy. Lt. Cmdr. Smith became friends with a Chinese man named Wang Lee. Lee, about 30, was quick-witted and agile, with the body of an athlete. Although Lee was an assassin, a killer for hire, a not-uncommon profession in prewar Shanghai, Smith grew to admire him for his courage and resilience.

From time to time Japanese guards would line up the prisoners for a head count. One

day, a burly guard ordered Lee to step forward. When Lee obeyed, the guard smashed him in the face with his fist. It was a sledgehammer blow, delivered at full force, and Lee went down on the floor. The Chinese got up, smiling, though a thin trickle of blood seeped from his lips. The guard felled him again, and again Lee got to his feet, shaken but still smiling, which seemed to enrage the guard even further.

The guard hit him a third time, and for a third time Lee was sent sprawling, only to recover and get up again. By the fifth or sixth time, Lee's face looked like raw hamburger, but he still managed to smile though bruised and bloody lips. This went on and on, until Lee was knocked unconscious by the 13th blow. Satisfied, the guard left Lee on the cell floor.

Smith and the others tried their best to help Lee, but there was little they could do. There was no medicine, no bandages, not even water to wash away the blood. After five hours, Lee finally regained consciousness, battered but triumphant. "I could have done better than that!" he boasted. Lee explained that the guard was humiliated by his inability to deliver a knockout blow. "He lost face badly," Lee declared. "He will be a laughing stock among his men!"

Many British and American businessmen had no idea why they were arrested and imprisoned, yet they were still tortured by sadistic Japanese thugs. Some inmates were among the most prominent members of the Anglo-American Shanghai community, men like Sir Frederick Maze, head of Chinese Maritime Customs; J.M. Mackay of the National City Bank; and Freddie Twogood, director of Standard Oil.

Some were apparently guilty by association. Ellis Hayim was a prominent member of the Sephardic Jewish community and head of the Shanghai Stock Exchange. In the late 1930s, Jewish refugees escaping Nazi persecution flooded into Shanghai, one of the few places on earth willing to accept them. Hayim and other Jewish leaders set up soup kitchens and provided homes and shelter for the penniless unfortunates.

Hayim's social work brought him into association with Sir Victor Sassoon, a millionaire businessman and real estate developer. Sassoon was a British Jew who was unabashedly pro-Chinese and pro-Allies. During the 1937-1941 period, Sassoon traveled abroad and made statements that condemned the Japanese military; he was lucky enough to be out of the country when the Japanese took over. If arrested, he most assuredly would have been one of the first to experience the "hospitality" of Bridge House.

CHEATED OF THEIR PREY, the Japanese arrested Hayim and his wife. They were also suspicious of Hayim's many parties before the war, affairs that featured such guests as American Rear Admiral William Glassford.

Most Anglo-American "plots" existed only in the feverish minds of Kempeitai officials. There was one group, however, that did attempt to set up a sabotage and espionage operation in Shanghai just before Pearl Harbor. This was OM Shanghai (Oriental Mission Shanghai), a branch of the British espionage network Special Operations Executive (SOE).

In May 1941, the fledgling OM Shanghai was given a leader in the person of Valentine St. John Killery, a businessman and former member of the Shanghai Municipal Council. Killery recruited agents, who were given code names and told to be prepared to act in time of war. In retrospect, the effort was doomed from the start, largely because the "agents" were much like Killery himself—middle-aged British businessmen with no experience or training in covert operations.

Members of OM Shanghai included William J. Gande, a 55-year-old liquor importer; Edward Elias, a 42-year-old stockbroker; and W.G. Clarke, a 65-year-old former deputy commissioner of the Shanghai Municipal Police. These men were loyal, courageous, patriotic, and British to the core.

There seems to have been no attempt to recruit native Chinese into OM Shanghai, itself a fatal error. These prominent members of the Anglo-American community were white Europeans in a sea of Asians and, as such, stuck out like sore thumbs. They could hardly have blended in with the local population, so it was easy for the Kempeitai to monitor their movements.

Brave but inept, the OM Shanghai collapsed like a house of cards a few days after Pearl Harbor. On December 17, 1941, W.G. Clarke was taken into custody

and hauled off to Bridge House. Tortured almost to the point of death, he was thrown into John Powell's cell. "I saw he was in severe pain," Powell later recounted. "He was suffering from several boils on his neck; they had become so infected and swollen, because of lack of medical attention, that his head was pressed over against his shoulder."

Clarke, in agony, whispered to Powell that he feared he was going to die. The two men recited the Lord's Prayer, which seemed to give the sufferer some comfort. He was later removed to a hospital.

The other members of OM Shanghai, some six or seven men in all, were arrested 10 days after their unfortunate colleague. All were then sent to Bridge House for torture and interrogation. Another prisoner caught sight of William Gande after the latter was coming back from questioning: "He looked extremely ill and worn," the prisoner recalled, "and his head was swathed in bandaging which, from its appearance, had been there for many days."

Gande was lucky to get even a dirty bandage because medical treatment at Bridge House was medieval at best and nonexistent at worst. For example, John Powell began to have pain in his feet, largely because of the poor diet and forced squatting on the cold floor for weeks on end. Forbidden to move, blood circulation in his feet grew sluggish, and then was virtually cut off. Powell's feet also developed beriberi, swelled to twice their size, then grew black with gangrene.

There were Japanese doctors and nurses at Bridge House but they were more sadists than Samaritans. In fact, like many of the Nazi doctors at the concentration camps, they seemed to delight in making their patients suffer.

Powell also developed a badly swollen, infected finger. After two weeks of begging for treatment, he was taken to the dispensary. A Japanese medico, Powell later recalled, "literally trimmed all the skin off my finger" without anesthetic. Japanese soldiers "stood about the room and appeared to enjoy my grimaces."

The pain one endured from hospital "treatment" was a foretaste of the real agony to come. Sooner or later, inmates would be summoned for interrogation—questioning that almost always involved torture. Bridge House's appalling conditions were bad enough, but torture was the prison hotel's real claim to enduring infamy.

Prisoners would sometimes wait for weeks to be called, the sheer terror of what was to come growing in their minds with each passing day. Guards would come to a cell, call out a name, and then drag the victim upstairs to the torture chambers. The prisoners left behind could often hear the screams of victims echoing through the building.

Hugh Collar explained that "every night you hear the thumps, and shrieks and groans, and wonder, quaking inwardly, how you will be able to take it." Tortured men and women were deliberately returned to their cells, bloody, mutilated, and semiconscious, so that other inmates could see what was in store for them.

Then, finally, another prisoner would be summoned for his or her first interview. The first questioning might take place in the Kempeitai offices on the fourth floor. Powell recalled that the offices of a Lieutenant Yamamoto had a narrow balcony. His guard would laugh, look over its edge, and point down to the pavement below. The Japanese had a habit of getting rid of prisoners by throwing them off tall buildings.

A week or two later, more serious interrogations began. Once the prisoner reached the interrogation chamber, he or she would be stripped completely naked. This was done deliberately to make a victim feel helpless and vulnerable. At first, questions were routine and usually biographical. Name, age, address, names of relatives, friends, and job description were all recorded.

"After the first searing pain you don't feel anything anymore for a bit; you are out cold, but the coming around is pretty terrible, too."

—Hugh Collar

Smith claimed in his memoirs that he bluffed the Japanese out of torturing him by pulling rank and declaring as an American Navy officer he "wouldn't allow" any abuse. In 1992, though, another former Bridge House prisoner, Marine Charles Brimmer, laughed at Smith's written allegations. "In my experiences," he recalled, "the Japs would not have cared if he was MacArthur himself. They did what they did regardless of rank."

During interrogation two guards were hovering around the prisoner's chair. They were permitted to smoke, and at first appeared relaxed and cheerful. But when they were finished, they extinguished their cigarettes on the victim's naked body—at times on the prisoner's genitals—producing painful burns. Smith said he did not suffer this treatment—the Japanese were inconsistent—but did know cellmates who did. Some had between 200 and 400 burns all over their bodies.

BUT THE REAL TORTURE was yet to come. A prisoner would be taken back to his or her cell and not summoned again for a week to 10 days. It was all part of the "softening up" process, designed to break a person's will and spirit.

Eventually a prisoner would be tortured. A favorite was the "water cure." The victim was held down and forced to consume water from a five-gallon can. Urine and kerosene would also be added to the revolting mixture. After a victim's abdomen was swollen, filled to bursting, he would be beaten on the stomach with a light steel rod. Sometimes, a Kempeitai soldier would literally jump on the victim's water-filled body.

Hugh Collar left an account of what it was like to be given the water cure. "After the

first searing pain you don't feel anything more for a bit; you are out cold, but the coming around is pretty terrible, too."

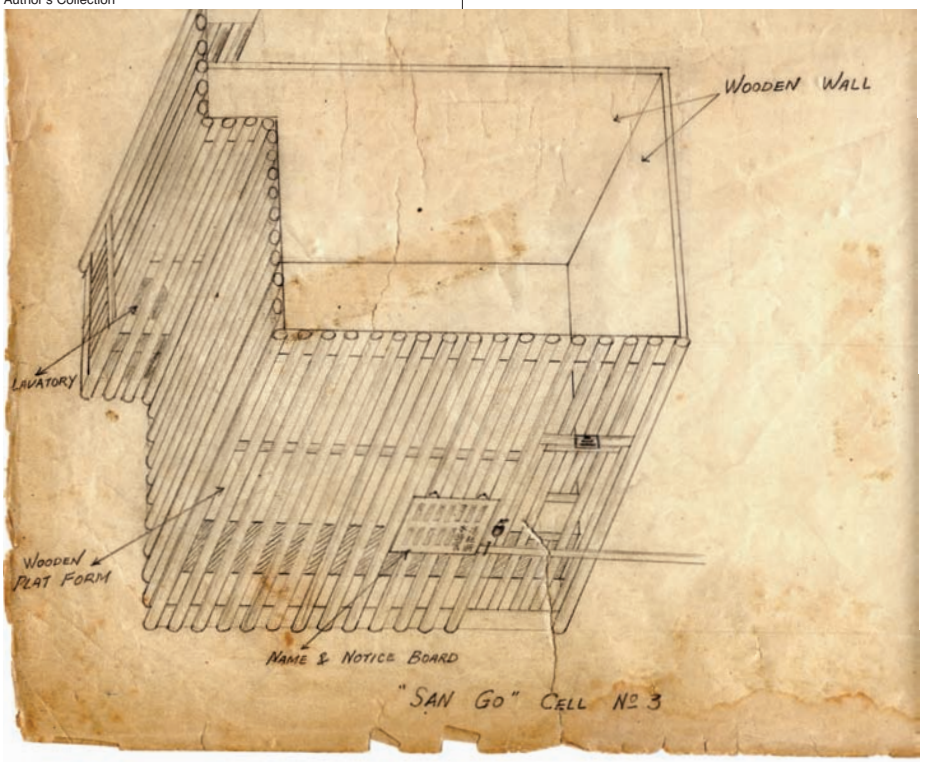
The water cure was not only painful; it was often fatal. Smith recalled that two Chinese prisoners who had been given the water cure were returned to their cells, dead. Sometimes, after weeks of torment, victims would literally lose their minds, moaning and babbling insanely.

OTHER TORTURES included electric shocks to various parts of the naked body, particularly the genitals. Women were not exempt from the pain and humiliation of these sessions. One Russian woman was thrown back into her cell in terrible condition. Electric shocks had been applied to her nipples, and various sharp objects brutally inserted into her private parts. When she still would not talk, her fingernails were pulled out and her jaw was broken by a heavy blow.

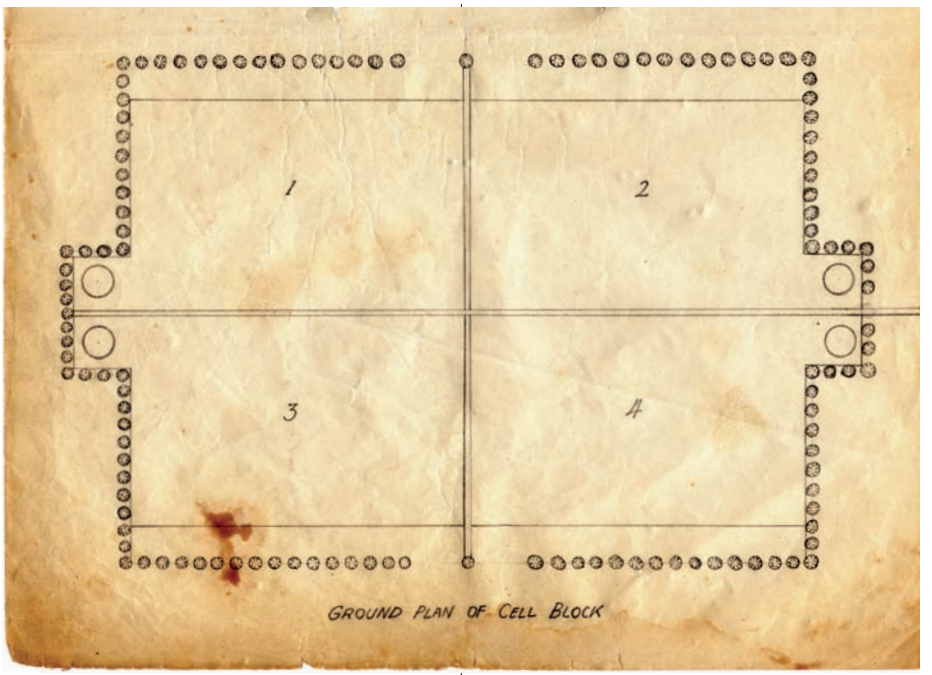
Smith wasn't the only American serviceman to be held in Bridge House. The ex-hotel also housed other Allied military prisoners, men who usually had "lost" their POW status in Japanese eyes. Japan had never signed the Geneva Convention, so they felt free to deal with POWs as they pleased.

Smith discovered this fact to his dismay after an early, failed escape attempt with several other POWs, including U.S. Navy Commander Winfield Scott Cunningham of Wake Island and Commander John B. Woolley of the Royal Navy. By surrendering when their garrisons were overrun (instead of fighting to the death or committing suicide), they had done the "unthinkable" by "deserting" to the Japanese Army in time of war. Further, following their capture after breaking out of Bridge House, Smith and his companions were considered criminals and treated even more harshly.

Author's Collection



Henry Pringle's drawing of the prison cells in Bridge House.



The Doolittle Raiders were another group of "special guests" of the Empire of Japan who suffered brutal incarceration at Bridge House. The Doolittle Raid, named after Lt. Col. James H. "Jimmy" Doolittle, was one of the great exploits of the war. Sixteen B-25 bombers and 80 airmen took off from the carrier USS *Enterprise* on April 18, 1942, to bomb targets in Japan.

The raid was a success, and a great morale boost to the American people after a string of depressing defeats at the hands of the Japanese. Tokyo, Nagoya, and Yokohama were all bombed and, although damage was light, the psychological impact on the Japanese high command was immediate and profound.

Low on fuel, all of the B-25s had to ditch in the sea or crashed after the crews bailed out. With one exception, the bombers went down in China, where local Chinese civil-

ians or partisans rescued them and took them to safety. Unfortunately, eight crewmen from bombers No. 6 and No. 16 were captured and treated as war criminals.

These Bridge House prisoners included Lieutenants William Farrow, Robert L. Hite, George Barr, Dean E. Hallmark, Robert J. Meder, Chase J. Nielsen, engineer/gunner Sergeant Harold Spatz, and bombardier Corporal Jacob De Shazer.

INITIALLY, THE CAPTIVES were flown to Tokyo, where they endured the "water cure" and beatings and were hung suspended by their arms. After two months, the eight POWs were flown to Shanghai, where they were thrown into a dirty cell at Bridge House with 15 Chinese prisoners, two of them women. Rations were scanty, including some nearly inedible bread and congee, a kind of rice porridge

The Doolitle prisoners endured Bridge House's "hospitality" for 70 days, then they were transferred to another prison. However, since the Japanese considered Doolittle's aviators "war criminals," three of the captives—Farrow, Hallmark, and Spatz—were executed on October 15, 1942.

As the war dragged on, there seemed to be no end to Bridge House's prisoners. Some were lucky enough to be released and repatriated when a prisoner exchange was arranged between the U.S. and Japanese governments. About 1,500 Japanese living in the United States were swapped for 639 Americans, some Canadians, and a few South Americans in an arrangement that took place in June 1942. The Western captives sailed on the Italian liner *Conte Verde,* with the actual exchange occurring on the neutral island of Portuguese Mozambique. After two or three exchanges, the program was halted and no more exchanges took place after August 1942 until the end of the war.

The welfare of American, British, and Dutch citizens in Shanghai was the responsibility of Swiss Consul General Emile Fontenel but he was forbidden from ever visiting Bridge House. Before leaving the infamous prison, the prisoners were forced to sign a statement that they were in "good health" and "all right." The signed statements were supposed to assuage Fontenel's suspicions about the prison.

John Powell was one of those lucky enough to be on the exchange list. Even before repatriation, he had been transferred to Shanghai's Kiangwan prison, which had better food and living conditions—at least compared to Bridge House.

Before leaving Kiangwan prison, he was forced to sign one of the "good health" statements, but Powell was far from "all right." When he entered the prison, he weighed 160

Japan's Dreaded "Gestapo"

The Kempeitai were the military police of the Japanese Imperial Army. Literally translated, the name means "Law Soldier Regiment." Westerners of 1930s generally called them "gendarmerie"

In Western countries, "military police" are associated in the public mind with keeping order among off-duty personnel, such as arresting drunken servicemen. The Kempeitai had a much more sinister role, especially during World War II. There was no right of habeas corpus and suspects were considered guilty when arrested. The Kempeitai also enjoyed almost complete autonomy and freedom from restraint.

The Kempeitai had many missions, including counterintelligence and counterpropaganda. Sometimes they would act as agents of the Japanese Army, sweeping districts to "requisition" supplies. At other times the sweeps would be for human victims. Areas often would be searched for young women to be used as sex slaves in Army brothels–the so-called "comfort women."

Like Germany's Gestapo and SS, the Kempeitai generally performed the Japanese government's dirty work with enthusiasm and zeal. They were responsible for rear-area security, running POW and forced-labor camps, and conducting reprisal raids. In the latter instance, certain districts would be deliberately put to the torch, their inhabitants raped and murdered.

The dreaded Kempeitai also ran the special camps–places like Unit 731, where the most horrific medical and other experiments were performed on thousands of American, Chinese, European, and Korean prisoners.

Kempeitai personnel were Japanese soldiers, and it was not uncommon for high-ranking individuals to be transferred out of the organization and given a field command. The notorious General Hideki Tojo, who became Japan's prime minister and chief of the Imperial Japanese General Staff, once served as an officer with the Kempeitai.

Once the Japanese Army established itself in a location, the Kempeitai would find a place to set up a headquarters. Bridge House was just such a headquarters for the Shanghai area. In terms of organization, there were 65-man sections called *buntai,* which were further divided into subsections of 25 called *bunkentai.*

There were three general categories of Kempeitai: the uniformed police, or Kaimu han; the administration officials, Haikin han; and finally the special-duty troops or Tokumu han. Criminals seemed to have been routinely recruited for the force, with an emphasis on sadists and sociopaths. Such men were not squeamish and could be relied upon to beat, torture, and rape with a measure of enthusiasm, even enjoyment.

It must be said that occasionally–very occasionally–some decent men could be found in Kempeitai ranks. Lt. Cmdr. C.D. Smith remembered that two Japanese English translators actually protested when they witnessed acts of torture and brutality. Their protests fell on deaf ears.

It has been said that absolute power corrupts absolutely. This is certainly true of some Kempeitai officers–men like General Saburo Miura. Miura was head of the

Author Photo

pounds; when he was finally released, he was a wasted 75 pounds, little more than a living skeleton.

By some miracle, Powell was transferred from Kiangwan to Shanghai's General Hospital. His heath marginally improved but he was in severe pain from his bloated, blackened feet. The gangrene that had set in was so serious there was talk of amputation.

Once repatriated and back in the United States, Powell underwent a series of treatments and operations. There was little the doctors could do—first his toes, and then the front portions of his feet were amputated, leaving him with only heel stumps. Courageous as always, he learned to walk again with the aid of specially built shoes. Sadly, Powell died in 1947, his health broken by his ordeal.

Some of the British were also repatriated, while others sat out the war in internment camps. Those repatriated included members of OM Shanghai. As before, prisoners were forbidden to spread "false rumors" about their experiences. When some Americans revealed the tortures and obscene cruelty of Bridge House, the Japanese branded the stories as "lies."

Bridge House continued to operate until the end of the war. When Japan surrendered in 1945, Kempeitai officials and soldiers at Bridge House went to work destroying all incriminating evidence. It was said that several bonfires in the courtyard were kept blazing for days. When all evidence was destroyed, the Kempeitai stripped Bridge House of anything valuable, loaded the booty onto trucks, and drove away.

The Bridge House today. Now an apartment building, its residents have no idea of its history.

Bridge House fell into obscurity, and its subsequent history after 1945 is somewhat obscure. At one time or another, it was remodeled, becoming an apartment building instead of a hotel. Bridge House, with stores on the ground (first) floor, where giggling Chinese teenaged girls shop for the latest fashions, is still occupied today, its residents apparently unaware of its infamous past.

For anyone who cares to look, there is a small plaque but no real memorial to the time when the former Art Deco hotel was devoted to torture and death rather than housing and commerce. □

Shanghai area in 1939-1940, and he used the unlimited Kempeitai powers to his own advantage. There was an area in Shanghai that was commonly called the "Badlands," a Japanese-controlled area that was deliberately cultivated by the Kempeitai as a vice zone.

Miura was receiving money from the opium dens, houses of prostitution, and other nefarious activities. Greedy for more profit, Miura wanted to extend his criminal empire into the International Settlement but was frustrated before Pearl Harbor. When *New York Times* correspondent Hallett Abend uncovered evidence of Miura's corruption and passed it on to American officials, the Japanese general was incensed.

It was at this time that two agents surprised Abend and searched his apartment for evidence of anti-Japanese writings. The masked agents forced Abend to his knees and beat him savagely. For his own safety, the journalist—a marked man and a target for Miura's assassins—finally left Shanghai. Late in December 1940, Abend returned to the United States, a rare victim who escaped his Kempeitai tormentors. □

COMPARING THE OLD AND THE NEW:
An interview with airline pilot Robert Trammell.

BY WILLIAM CAVERLEE

FROM 747 TO

DELTA AIR LINES and former Northwest pilot Robert Trammell, 45, has made numerous 747 flights on Asian routes across the Pacific. Trammell, of Monroe, Louisiana, has been a pilot for 25 years, logging over 15,000 hours. He's flown across the North Pole, across Russia, has flown to Europe, Tokyo, Hong Kong, the Philippines.

In his spare time, Trammell serves as a volunteer curator at Chennault Aviation and Military Museum in Monroe, spending long hours there between his Delta tours. Recently, he had the chance to fly on a B-17G that came to Monroe as part of the Collings Foundation "Wings of Freedom Tour."

The B-17, named "Nine-O-Nine," had arrived in Louisiana along with a B-24 and a P-51 Mustang. When invited, Trammell leaped at the chance to ride in an authentic Flying Fortress and to examine the entire aircraft while in flight, from the bombardier's to the tail-gunner's positions. I interviewed Trammell an hour after he touched down in Monroe.

WILLIAM CAVERLEE: Today, you came into Monroe on a World War II B-17G. Where did you begin the flight?

ROBERT TRAMMELL: We flew here from the Talullah/Vicksburg airport near the Mississippi line. It was a fairly short hop from Talullah to Monroe, doing 180 miles per hour at about 2,500 feet.

WC: You're a modern-day, professional airline pilot, and you just logged your first hours in a B-17.

RT: Right, in an airplane that flew over Europe, that dropped bombs on Germany, that flew combat missions. To be on such an aircraft was amazing. The first thing that struck me was that these World War II pilots were flying over a continent where they had few navigation aids. For the most part, a sextant, dead reckoning, radio navigation, and the landmarks that they could spot on the ground.

Today, I operate by satellite navigation. When I fly over the Pacific, I have satellites, global positioning, and internal navigation systems. We're in constant radio contact; we know where we are at all times. When those guys were flying their missions in World War II, they were in contact with no one except each other. When they got hit or shot down, they were either dead or prisoners of war. At one point today, I went up into the nose to the bombardier's seat and looked out and tried to imagine peering down through the Norden bombsight, tried to imagine being in combat. The 21- and 22-year-old kids that flew those airplanes were much, much older than their years. I can't even imagine doing what they did.

WC: When you were in the pilot's cabin, looking over the B-17's instruments, what did you think?

TRAMMELL: How did they do it? That's all. How did they do it? They had very few instruments to tell them ... well, up from down. Nowadays, for instance, we have attitude indicators that have bright colors on them, that have individual degree marks. The B-17 attitude indicator was just a simple white line with a little airplane symbol on it. And the World War II pilots would be flying in the clouds with that! Also, you can't really hear anything. For 10 hours, under the constant roar of those radial engines, you were

All photos courtesy of the Collings Foundation unless credited otherwise

The Collings Foundation's restored B-17G "Nine-O-Nine," painted in the colors of the 91st Bomb Group, 323rd Squadron, is escorted by a twin-engined B-25, "Tondelayo."

B-17

deaf by the time you finished one of those missions.

WC: And in your 747?

RT: We're cushioned. It's like being in a rocking chair in your house. When you get in a modern-day airplane, you've got the outer skin, the insulation, and the inner skin. You're sitting up there nice and quiet and you don't even realize you're going along at 600 miles per hour.

WC: In other words, for you in the front of a 747, you're not hearing the same roaring noise that we passengers back in coach are hearing?

RT: No, not at all. We hear a different sound. We don't hear the engines—I'll tell you that—at least not very much. On the B-17, all four of those radial engines are constantly rumbling. A radial engine makes a deep thumping sound. The whole airplane vibrates. A modern airplane doesn't vibrate like that.

WC: Did you feel much turbulence in the B-17?

RT: Oh, sure. And when I was standing

U.S. Air Force

Public Domain

ABOVE: Looking down on the hatch cover of the B-17's ball turret. TOP: The cockpit of a B-17. RIGHT: Delta Airlines pilot Robert Trammell in his usual "office"—the cockpit of a Boeing 747-400. OPPOSITE: Trammell poses with the "Nine-O-Nine" before his ride.

up trying to walk around, I was constantly banging my head on the ceiling. When you hit your head, you're hitting sharp edges, cables, and wires. In the B-17, the wires are all exposed. You're actually bumping into these things. You could even get your hair caught, I realized.

WC: What did you notice when you touched the side of the plane, the bare metal?

RT: The cold. The rattling. Obviously, you won't get that in a modern jet because the plane is so well insulated. But in the B-17, when you're up at altitude, the temperature is minus 50, and, of course if you touch your hand against that bare metal, it will stick. There's just a thin sheet of aluminum separating you from the outside world.

WC: When you were in the pilot's cabin today, did you recognize the instrument panel?

RT: Oh yes, I recognized everything.

WC: How about the throttle in the center?

RT: Sure, those are standard throttles, controlling the engine speed. You also have mixture controls and prop controls. The World War II pilots had to know how to adjust all three. That's why, today, the Collings Foundation pilots flew so low to the ground. Because when you keep your mixture rich, and your props at cruise speed, it's easier to stay close to the ground rather than higher up. During the war, pilots were flying at 25,000 feet and they had to lean the mixture out. When you're leaning mixtures, you're basically pulling back until the engine is almost starved of fuel. The air is so thin up there, you can't have a lot of fuel going through it.

WC: In the 747, do you make similar adjustments?

RT: In the jets? Oh, it's all done by computer. The fuel is monitored as we get higher. The higher you go, the less fuel goes in the engine. That's why airplanes work better at higher altitudes because they're more fuel efficient. You use less fuel because there's less oxygen to burn.

WC: Do you have a yoke in your 747?

RT: Yes, there's a yoke much like the one in the B-17. The Airbuses I've flown have joysticks like a fighter. Off to the side, a side stick. But the B-17 is a Boeing product. It's

a little strange to think about it, but today in the B-17, I was simply going from a Boeing product of 2010 to a Boeing product of the 1940s.

WC: Now with a yoke, you pull back?

RT: Yes, pull back to go up. Push forward to go down. Same as in any airplane. On the B-17, with a turn, though, it's the ailerons only. On a jet you have spoilers out there that kill lift on a wing in order to help it turn. Well, it's a little more complicated than I'm making it sound, but, in a way, our ailerons only work at certain times.

WC: What did you notice on takeoff and landing?

RT: They were pretty much the same as I'm used to. The only surprising thing was that the B-17 rolled much, much slower on takeoff. I said to myself, hey, we're really creeping across the runway here! Later, at landing, when they put it on the ground, it was nice and soft with those huge tires—two, big, monstrous tires. They're like balloons. So the landing was nice and easy. The Collings Foundation pilots did a great job.

Photo: Nell Calloway, Director, Chennault Aviation and Military Museum

WC: The B-17 is a tail-dragger, right?

RT: Yes, a tail-dragger.

WC: And the 747?

RT: Oh, nowadays, we all have nose wheels. Everything modern has a nosewheel. Most of the World War II aircraft had tail wheels. Did you notice the B-24 sitting out there today? You could barely see its nose wheel because the framework is all reinforced up in there. And the B-29, of course, had a nose wheel. And those planes definitely steered better. You can see better with a nose wheel. On a tail-dragger, you've got to look out over the nose or off to the side when taxiing. But, in a way, the B-17 is easier to land than some planes today. When you fly a 747, you're not really landing it—it's landing itself. I mean, yes, I'm sitting up there as pilot, but when the 747's main gear touches down, I'm still 100 feet in the air. Whereas on the B-17 when you land, you're maybe 15 feet in the air. You've got a lot more feel for landing in a B-17 than in a 747.

WC: Of course, when these guys were flying, they were being shot at, too. What was the effect of a piece of shrapnel or a Messerschmitt bullet on a B-17?

RT: The Germans actually had cannons on their fighters. They had two machine guns and one cannon. At least the 109s did, I think. Because the Germans believed in that large cannon shell for bringing something down. And the shells would just go right through if it didn't hit something. Just right through the sheet metal. The aluminum on a B-17 is probably about the thickness of 10 sheets of paper. In other words, there's not much there.

WC: Now the theory, from my history reading, is that the B-17 was so well armed it was supposed to be a defensive weapon as well as a bomber.

RT: It was supposed to be.

WC: But nothing stops a piece of shrapnel.

RT: You can't stop shrapnel or cannon fire. When a Messerschmitt is gaining on you at 400 miles an hour, it's an extremely hard target to lead. That's why it was so difficult to shoot a fighter down by machine-gun fire from a B-17. You're shooting a .50 caliber gun that has a rate of fire of, what, 600 rounds a minute? And you've got, I think, 500 rounds per gun, so you have about a minute's worth of ammunition to fly a 10-hour mission with.

WC: We were both in the B-17 a little while ago, in the nose, where the bombardier and navigator were sitting, and it looked like there were oxygen lines and cables going everywhere.

RT: Yes, you saw control cables for the rudders, for the ailerons, and the elevator.

WC: These are all mechanical?

RT: Yes, they're connected to the wings and the tail. They're running all the way through the interior of the aircraft.

WC: How about computerized hydraulics?

RT: Not on the B-17. I believe that only the wheels and the ball turret had hydraulics.

WC: Otherwise, it was just mechanical cables?

RT: Correct. Whereas on the 747, it's all hydraulic.

WC: How many backup systems do you have on your 747?

RT: Several. It just depends.

WC: For every function?

RT: Right.

WC: What about the B-17?

RT: There were no backups at all! That's it. When you see pictures of those airplanes coming in with a chunk of the tail missing, they were coming back on sheer skill . . . and luck. Plus, if you're over a combat zone, you have the noise and chaos of the machine guns firing, and the entire crew yelling over the headsets. As I said, I'm stunned to think of what they went through.

WC: And they were freezing.

RT: Yes, they were freezing to death on top of all that.

Photo: Nell Calloway, Director, Chennault Aviation and Military Museum

WC: With open windows!

RT: Yes! Those guys were in their sheepskin suits. And the suits were supposed to be heated, but I've always heard that the heaters malfunctioned. They didn't work that well.

WC: And how about the navigator? How did he do his work wearing gloves?

RT: He had to pull his gloves off to calculate his positions.

WC: And many of those navigators were trained right here at Selman Field in Monroe, Louisiana, right?

RT: Exactly. This was the largest navigation school in the country during World War II. Over 15,000 officers received their commissions here and went on to fly in both theaters of the war.

WC: Did the pilots of the B-17s have detailed knowledge of their planes?

RT: Oh, they really knew everything back then. Those guys had to know the ins and outs of every inch of that airplane.

WC: Back to the instruments that they had in 1940. Were these just basic navigational, operational instruments?

RT: Right. Pitot-static tubes. In a sense, we still operate under the same principles. We still have Pitot-static instruments today but the inputs go into a computer and the data comes up on computer screens for us to see, whereas these guys were getting raw information, and they were having to correct for ... well, everything. It's so rudimentary, so basic. And, of course, the pilots didn't have anything to navigate with; they were strictly flying the airplane, and the navigator was telling them where to go. And imagine that navigator; he's having to identify cities on the ground or else use the stars. And that's the only way he had to get to a destination; that and dead reckoning. Just flying at a certain speed for a certain time and hoping you arrive at the right place.

WC: Did you walk through the whole airplane?

RT: I did. That was the main reason I took the flight. I wanted to get a feel of what it was like to move up and down the airplane during flight. I roamed from the pilot's compartment to the top-gunner to the waist-gunners to the tail. And I was surprised to see how small the interior of the airplane was. In places, a person could actually touch both sides. I'm six feet tall and I had to bend over everywhere while going through.

WC: You couldn't stand up?

RT: No, I couldn't stand up anywhere in the airplane, except in the radio operator's hatch.

WC: So if you were a waist-gunner ...

RT: You were hunched down the whole time. Those guys were continuously in a squat. But your adrenaline was running. You're not really thinking of anything. And time speeds up, I've read, when you're in combat.

WC: And the ball turret?

RT: I tried to look inside, but the Collings Foundation pilots had it wired shut for safety reasons. Strange, but it didn't really look like anything was holding the ball turret in there.

WC: But there's a cradle holding it in place, right?

RT: Yes, a cradle.

WC: Could you have gotten into it at six feet tall?

RT: It would have been tight. I don't think I could. That was another way in World War II that a lot of guys died. If a ball-turret gunner were wounded, sometimes they couldn't get the hatch open to get the guy out. If the hatch got jammed, or if they had a wheel shot out, or the landing gear was damaged, the ball turret gunner just ... died. My dad was telling me about a friend of his in World War II. On one mission, the ball-turret gunner became trapped and the airplane was making a belly landing. And my dad's

The B-17 "Nine-O-Nine" and the P-51C Mustang "Betty Jane" in flight. OPPOSITE: Trammell poses with one of the .50-caliber waist guns. Note the narrowness of the fuselage.

friend and the whole crew talked to the gunner all the way down, until they heard him screaming over the intercom, and then they had to unplug their intercoms. As a modern pilot today, I can't even imagine that. Because, in many ways, I'm completely isolated. Even though I'm in the air and I'm still dealing with everything they did, the weather, landing on instruments, and things like that. I'm not getting shot at. I'm not in an airplane that's just your basic flying machine.

WC: Just a thin metal skin?

RT: Right, just a metal skin designed to carry bombs. There's no comfort at all.

WC: And in your 747, you're nice and warm?

RT: Yes. I even have a restroom I can go to.

WC: Today, when we looked from the nose back toward the rear of the B-17, there was a little passageway that you had to literally crawl on your hands and knees through to get to the bomb bay, which was the next thing you saw.

RT: Right, it's in the center of the airplane. It's not that long either, around six feet. And there's only a little six-inch-wide passageway to walk through between the racks of bombs.

WC: Did you go back to the tail gun?

RT: No, that was blocked off. But I don't think I could have gotten into the tail, either. I'd say the tallest you could be was about 5'5" to get in some of these places. And not broad-shouldered. You definitely had to be a little guy to get back into these crawl spaces.

WC: How many engines did they need to come home on?

RT: I've heard of them coming back on one. Skimming across the English Channel. I've heard of it being done. Dumping everything, burning the engines off, coming back on one. But the yaw had to be incredible.

WC: Yaw?

RT: The twisting of the airplane.

WC: The back and the front?

RT: Right. When you're in training, they teach you all that, how to operate when you lose one engine, what it's going to feel like, but even so, the rudder can't compensate, with only one engine turning.

WC: I once asked a private pilot about the World War I radial engines and he said that the rear of the plane tries to get in front.

RT: Right, that's called torque and P-factor, because, of course, for every action there's an equal and opposite reaction, and, with the propellers twisting, the airplane is trying to turn a certain way. That's why you often hear the term "right rudder." The torque is causing the airplane to turn to the left and so you have to push in on that right rudder to keep it from yawing.

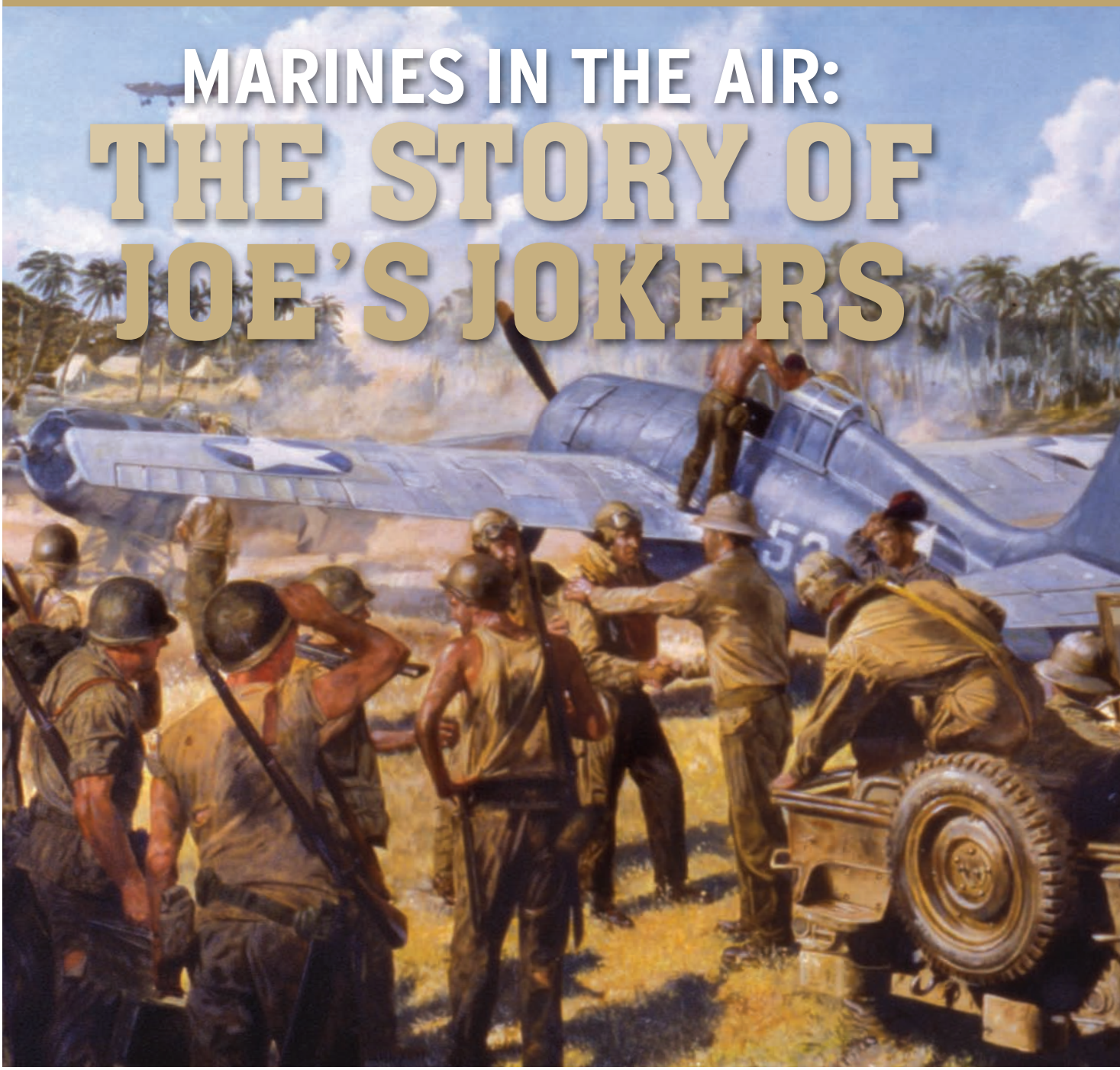
WC: What about the four Wright-Cyclone engines on the B-17?

RT: Well, with all of them working you don't have the same torque effect that you have on a single-engine airplane like the P-51. On the B-17, what you have to worry about is when you lose an engine. At that point, you have the yaw coming in. The P-51 takes a lot of right rudder on takeoff to compensate for the unbelievable torque of the propeller, whereas the four B-17 engines counteract each other.

WC: Today, when you saw the Collings Foundation pilot start the engines, did he start with the No. 1?

Continued on page 97

MARINES IN THE AIR: THE STORY OF JOE'S JOKERS



Led by Medal of Honor recipient Joe Foss, VMF-115 compiled an outstanding combat record. **BY ALLYN VANNOY**

"AS A RETURNING flight of Marine SBDs, dive bombers, were setting down on the airstrip, one of the planes lost a bomb which had failed to release during the mission. The bomb skidded down the runway and came to a stop in the middle of the field. No one knew if the bomb was armed. Everyone was ducking for cover. Where it lay it was preventing other planes from landing. So, Al Tierny, from St. Paul, Minnesota, and I volunteered to go out and get the bomb off the runway. We jumped in a small truck with a hoist and went out and hooked the bomb up, lifted it off the ground, and got it off to the end of the airstrip, permitting the waiting aircraft to land." So reported Lance Corporal Robert Vannoy, who was not only an aircraft armorer, but also held a marksman's badge.

According to my father, Lance Corporal Robert Vannoy, this was part of "life" on a Marine airstrip in the South Pacific.

The entry of the United States into World War II saw a rapid expansion of the Marine Corps' air arm, reaching a peak by 1945 of five air wings, 31 groups, and 145 squadrons, with just over 100,000 personnel.

For the first two years of the war, Marine air spent most of its time protecting the fleet and land-based installations from attacks by enemy ships and aircraft. This began to change after the Battle of Tarawa in late November 1943, as air support for ground troops as flown by Navy pilots was found wanting. After the battle, Marine General Holland M. "Howling Mad" Smith recommended that "Marine aviators, thoroughly schooled in the principles of direct air support," take over the job.

One of the squadrons, Marine Fighter Squadron 115 (VMF-115), officially became part of Marine Fleet Air on July 1, 1943, at Marine Corps Air Station (MCAS), Santa Barbara, California. Its commanding officer, Major Joseph J. Foss, took charge of the unit on July 17. Foss was already a legend as the Marine Corps' leading ace and a recipient in May 1943 of the Medal of Honor (in late 1942 and early 1943, he shot down 26 Japanese planes in 44 days).

One can only imagine what it felt like for the members of the squadron—both pilots and ground personnel. It must have been an amazing experience for a bunch of young men to come together at such a time and place. In the summer of 1943, optimism was in the air as the war in the Pacific seemed to be in the process of turning in the United States' favor—even though there was still a great deal of fighting ahead. Santa Barbara, northwest of Los Angeles, was (and is) a fantastic setting. Add to this an amazing new aircraft, the F4U Corsair, and a commander who was already a national celebrity (Foss's picture appeared on the June 7, 1943, cover of *Life* magazine; he had just returned from fighting at Guadalcanal, where he became the first American pilot to duplicate Eddie Rickenbacker's number of kills in World War I). How could these Marines not have wanted to excel in their new roles?

As VMF-115 was starting to get organized, Major Foss was in the process of completing a war bond tour across the United States after being awarded the Medal of Honor. The unit was officially known as the "Silver Eagles," but he asked the Walt Disney studios to design an "unofficial" insignia for the squadron that

In this James Dietz painting, *Foss's Bluff Saves Guadalcanal,* ground troops at Henderson Field thank squadron leader Joe Foss for his aerial heroics that saved the island airstrip. In October 1942, flying Wildcats, Foss, the leading Marine Corp fighter ace, and his men fought off a Japanese attack of 100 bombers by bluffing them into thinking there were more American planes than there actually were.

All photos National Archives unless credited otherwise

ABOVE: Ground crewmen install one of the Corsair's six .50-caliber machine guns. BELOW: Marine mechanics at an air field work on a jeep engine.

would exemplify a more aggressive, devil-may-care attitude. The final insignia was an animated, happy, diving Corsair smoking a cigar—Foss's trademark—complete with goggles and flowing silk scarf, across a five-card royal flush with a joker and the squadron's nickname: "Joe's Jokers."

The unit received its first F4U Corsairs on July 31, 1943, replacing several Grumman F4F Wildcats. The Corsair was a magnificent plane, called by some the "most beautiful prop-driven fighter of all time," that would go on to be one of the top fighter aircraft of the war. It was built around a 2,000 horsepower Pratt & Whitney R-2800 Double Wasp 18-cylinder radial engine with fuel injection, internal supercharger, twin Bosch magnetos, disc brakes, and a master hydraulic system. It had a top speed of 417 miles per hour, a maximum ceiling of 36,000 feet, and it was armed with six .50-caliber machine guns. Deciphering the model number, F4U, F is for fighter, 4 indicates the fourth fighter built for the Navy by the manufacturer, and U designates Chance-Vought, the builder. There was also an FG version made by Goodyear.

BUT THE FIRST new Corsairs off the assembly line had mechanical problems. Their engines tended to cut out above 21,000 feet. After three or four pilot deaths, Foss requested that higher headquarters provide an expert to look into the problem. Two days after he requested assistance, a man arrived whom he had tried to meet years earlier as a boy in Sioux Falls, South Dakota: Charles Augustus Lindbergh. Yes, that Charles Lindbergh.

As an aeronautical engineer, Lindbergh was a troubleshooter for military aviation. After working with the squadron for a month, Lindbergh solved the problems with the Corsair and in the process hit it off with the members of the squadron, as well as with Foss, who told him that he was welcome to fly with the squadron any time. (Lindbergh took him up on the offer many times.)

With an authorized strength that included some 40 pilots, the bulk of the unit was in the ground support element, or aircraft maintenance personnel. A member of the maintenance staff, Charlie Romine, described the organization. The squadron's table of organization for the aircraft maintenance crew called for a leading chief, an MT sergeant (master technical sergeant), as the top NCO, who came under the squadron's engineering officer. The leading chief's duties were to coordinate the activities of the line chief and engineering chief. The line chief, also an MT sergeant, supervised all crew chiefs, who conducted preflight inspections, maintained the aircraft, and supervised minor repairs. The engineering chief oversaw periodic engine checks, problem analysis, major repairs, and the general condition of the aircraft. However, operational reality was different from the table of organization as crew talents of the new "Air Marines" developed and functions became smoother. The need

for the leading chief to coordinate and provide detailed direction decreased, the unit becoming a close-knit organization.

The squadron underwent a transformation as the group of young men that had been thrown together became a highly efficient organization in a short time. Most of the Marines were just 18, 19, or in their early 20s, but all were Marine volunteers. They were radiomen, mechanics, ordnance technicians, and other specialists—trained, but without practical experience. They quickly realized the importance of their duties and the squadron's operational mission.

Ground personnel understood that their whole reason for being was to keep the Corsairs in the air and in fighting condition. Therefore, they had a great deal of admiration and respect for the pilots, the men who would be putting their lives on the line every time they went up. The pilots lived in their own world and developed a strong brotherhood, having a special kind of pride, independence, and confidence, which some misread as arrogance.

Given Foss's previous overseas experience, he wanted to have the best-equipped squadron possible, and not just in terms of aircraft. The unit also had a portable sawmill, rumored to have been provided by one of Foss's admirers, along with an ice-cream-making machine and a ton of ice cream mix. Another addition was a machine shop, which was attached to provide a greater degree of self-sufficiency. The machine shop was housed in a large trailer equipped with lathes, a mill, a grinder, welding equipment, and all the appropriate tools and fixtures.

As an added bonus for the squadron, Foss's newfound fame and Hollywood connections brought a number of entertainers to the base to put on shows for the men. These included comedian Bob Hope, actor Gary Cooper, singer Bing Crosby, and bandleader Kay Kyser.

For the next seven months the squadron trained at Santa Barbara and prepared to go into combat. But "routine" operations resulted in numerous crashes due to pilot error and mechanical failures. The loss of 15 pilots during this time provided a reminder of the cold realities of war.

FOSS WAS GIVEN a great deal of freedom in organizing the squadron; he was allowed to choose his own top officers: Greg Loesch, executive officer, a veteran with eight and a half air victories who had been Foss's second in command in VMF-121; and Big Bill Freeman, engineering officer, with five victories and three engineering degrees—mechanical, electrical, and aeronautical. The three men had served together in VMF-121 during the heady days on Guadalcanal in the fall of 1942. (Loesch was later killed at Santa Barbara when he and his wingman collided in midair. Freeman would later add a sixth kill to his record.) Foss also selected five other veteran officers to be part of the squadron.

On February 12, 1944, squadron members were ordered to pack their sea bags, combat equipment, and rifles, and were trucked to San Diego. Once there, they boarded the seaplane tender USS *Pocomoke* (AV-9) for transport to Guadalcanal. The ship weighed anchor the next day.

While en route they stopped at Pearl Harbor, then headed for Espiritu Santo in the New Hebrides, arriving on March 4, with brief stops at British Samoa and the Fiji Islands. Next the ground support personnel were put up in a tent camp next to Henderson Field on Guadalcanal—now a backwater and support base for the fighting taking place farther northwest in the Solomons.

While the squadron was in transit, the senior commanders in the Pacific were planning how and where to use it. Though General Douglas MacArthur, supreme commander of Allied Forces in the Southwest Pacific Area (SWPA), had planned to capture the Japanese base at Kavieng on New Ireland, Admiral William (Bill) Halsey, commander of the South Pacific Area, believed that a bypass operation was in order and that the seizure of a site in the St. Matthias Group would provide a quick and cheap alternative to neutralize Kavieng and complete the isolation of the key Japanese stronghold at Rabaul. Halsey won; the island selected was Emirau, approximately 90 miles northwest of Kavieng.

The island, located approximately one and a half degrees south of the equator, is at the northern end of the Bismarck Archipelago. A coral island with dense vegeta-

BELOW: The author's father, Marine Lance Corporal Robert Vannoy. LEFT: Major Joe Foss (left) and Charles Lindbergh. Although a civilian consultant, Lindbergh flew some 50 combat missions.

Author's Collection

tion, it had once hosted a leper colony and was populated by snakes, reptiles, and disease-carrying insects. It was also home to a population of tropical bats with wingspans of two to three feet, numerous small lizards, and foot-long praying mantises. Guards who pulled duty at night found a jungle illuminated by the glow of green radiant light produced by mushroom fungus—like a thousand eyes staring back at them.

On March 20, 1944, the 4th Marines (formerly the 2nd Marine Raider Battalion) landed unopposed on the island, followed by naval construction battalions (Seabees), who set about building an airstrip. The strip was cut across the island as the trees and topsoil were removed, the coral leveled to a white, flat surface as hard as concrete.

In mid-April, VMF-115's ground support echelon loaded their equipment on board LST (Landing Ship, Tank)-488, the personnel embarking on a transport, the USS *George Clymer* (AP-57) from Guadalcanal, and arriving at Emirau on April 20. The pilots reached the island with their aircraft on May 2, having picked up their Corsairs at Espiritu Santo. Unfortunately, during the process, one pilot, 1st Lt. Jack Aldrich, lost his life on takeoff.

> **"The battle was fierce, and our losses were heavy among the dive bombers and torpedo planes going into Rabaul because they had to go right down onto the target."** —Major Joseph J. Foss

The squadron, now part of Marine Air Group 12 (MAG-12) of the 1st Marine Air Wing, began air operations on May 3. Eventually, other units on the island included Marine dive bombers and torpedo bombers.

With the help of the Seabees, the Marines cleared ground and then constructed what was described as an "impressive" mess hall, an officer's mess, tents with wood floors and frames for pilot living quarters, and many other amenities in an effort to make life on the island as bearable as possible. Also constructed was an amphitheater using a long hillside from which they removed the trees. A movie projector was placed near the top of the hill, and a screen at the bottom.

The unit, independent and somewhat isolated, was given a certain amount of indi-

ABOVE: The victims of crash landings, these Marine Corsairs in a Leyte scrap yard were salvaged for parts. LEFT: A squadron of Corsairs prepares to take off from an unidentified island airfield. Foss's unit was one of 145 Marine squadrons that took part in the Pacific campaign.

vidual entrepreneurship. It wasn't long before enterprising individuals developed markets for used jeeps, sidearms, whiskey, souvenirs, and scarce aircraft parts. An assortment of sidearms appeared that included revolvers, German Lugers, and .45-caliber semiautomatics. The Marines also carried sheathed knives, most not being service-issued.

By mid-May, Emirau was a full operating partner in the ring of Allied bases surrounding Rabaul, with the pilots creating havoc over Kavieng and New Britain in an effort to neutralize the Japanese strongholds. Operations were carried out in conjunction with Allied air units on Green Island, Bougainville, and Treasure Island. But by the time the squadron was deployed, the backbone of Japanese aviation had been broken in the South Pacific, and so there were few opportunities for air-to-air combat.

Unexpectedly, in May, Charles Lindbergh showed up, cashing in on Foss's promise to let him fly with the squadron. For the next month he flew missions, searching for ships and attacking ground targets. Flying from morning till night, he taught the Marines tricks that included how to significantly extend their range. Foss remembered Lindbergh as a thorough pilot—not one to take unnecessary risks and never flying without a map. But on one occasion Foss had to take him to task for a solo second pass when making a strafing run on an enemy supply dump with all the antiaircraft guns in the area concentrating fire on his plane.

The squadron's missions included escort for SCAT (South Pacific Combat Air Transport) flights, patrol boat cover, dawn and dusk combat air patrols, searching for life rafts or distress signals, strafing Japanese warehouses and barges, airstrip alert for interception of possible "bogies," "Dumbo" (PBY rescue planes) escort, bomber escort, and reconnaissance. Missions ranged over New Hanover, Byron Strait, Kavieng, Djual Island, Balgai airstrip, New Ireland, and, of course, Rabaul, the main Japanese naval base on New Britain at the northwest end of the Solomon chain.

The Allies were hitting Rabaul at least once, sometimes twice, a day. Foss said, "The battle was fierce, and our losses were heavy among the dive bombers and torpedo planes going into Rabaul because they had to go right down onto the target."

The first combat casualty of the squadron occurred on May 22, when, during a mission over New Ireland, anti-aircraft fire struck the plane of 1st Lt. Percy M. Hall, Jr., causing it to crash and explode. Two days later the engine of 1st Lt. Kenneth L. Meyer's plane failed in flight, and he was drowned after crash-landing in the ocean.

The daily flight schedule was frenzied, and flying the Corsair in battle was a whole new experience for the veteran pilots, requiring a very different approach from the earlier Grumman F4F Wildcat. Foss said, "I'd lead the squadron in at a high altitude until we were within striking distance of the target. Then the guys would peel off, rolling over onto their backs for power dives at the target below. [Though] dive bombing did not hold the same excitement and challenge that dogfights did, it was no less dangerous. Night attacks were particularly hazardous."

Life settled into a routine of launching daily combat missions and aircraft maintenance operations. To break the tedium, some of the Air Marines built outrigger canoes from scrap Corsair belly tanks and used Seabee-supplied dynamite to fish the waters around the island.

Despite their creature comforts, the Marines were living on the edge of a rotting, stinking jungle with little opportunity

Here, Marine Major Theodore Olsen, commanding officer of VMF-313 (right), stands in front of his badly damaged Corsair. He was later killed in action.

for liberty. Operating near the equator in sweltering heat, the Marines labored under a blazing sun as their daily dress was reduced to cut-off dungarees, open shirts or T-shirts, and baseball caps.

By July 1944, VMF-115 had 49 officers and 249 enlisted men, 15 F4Us, and five FG-1As that were flying thousands of hours and conducting hundreds of missions each month.

ON AUGUST 10, 1944, Foss, now a lieutenant colonel, left Emirau for Bougainville because of recurring attacks of malaria. He was eventually sent back to the States for treatment. Major John H. King, Jr., the squadron's executive officer, assumed command on September 21.

In an effort to break the monotony of daily base life, and seeking an opportunity to "get into the action," two young ground crew Marines, John Gunther and Robert Vannoy, found a chance to do more than work on aircraft. A squadron of PT boats was based at Emirau, and Gunther's brother was a skipper on one of the boats. Unbeknownst to any of VMF-115's officers, after a day of maintenance work the two Air Marines would go down to the dock area around dusk to join the PT crews that were preparing to head out on their nightly raids, usually along the coast of New Ireland. The crews appreciated the relief—a chance to stay ashore and get some rest. Vannoy said, "Operating the .50-caliber machine guns, we'd shoot up the Japanese barges or shore installations. Also, the boats would transport Australian scouts or coast watchers."

In addition to air operations, Emirau served as a way station for a small party of Australian soldiers, outstanding jungle fighters with their distinctive "Digger" headgear, who were part of a reconnaissance group. Navy PT boats would drop a squad or scouting party on a beach at night near Kavieng or Rabaul and rendezvous to pick them up later.

For some time, Marine Maj. Gen. Ralph J. Mitchell, commanding the 1st Marine Air Wing, had been pressing to get the unit a more active role in Pacific operations. On October 20, 1944, Allied landings took place on Leyte Island in the Philippines and the need for increased air support was quickly felt. General MacArthur requested that Marine Air be brought forward to the Philippines to provide additional support for the Army. In late November, the four fighter squadrons of MAG-

JOE FOSS AND CHARLES LINDBERGH

Aviator and Medal of Honor recipient Joe Foss.

Joseph J. Foss (April 17, 1915–January 1, 2003) was born on a farm near Sioux Falls, South Dakota. When Foss was 12, he saw Charles Lindbergh while the "Lone Eagle" was touring with his *Spirit of St. Louis* airplane.

In 1933, upon the death of his father, Foss took over the running of the family farm, but the crops and stock were destroyed by dust storms. He then worked at a service station to pay for books and college tuition at the University of South Dakota—and for flying lessons. By 1940, after earning a pilot certificate and a degree in business administration, he enlisted in the Marine Reserves to join the Naval Aviation Cadet program.

After being designated a Naval Aviator and commissioned a second lieutenant, Foss served as an instructor and later attended the Navy School of Photography, at which time he was assigned to Marine Photographic Squadron 1 (VMO-1). Eager to see combat, he qualified in Grumman F4F Wildcats while still assigned to VMO-1 and was eventually transferred to Marine Fighter Squadron 121 (VMF-121) as the executive officer. In October 1942, the squadron was deployed to the South Pacific and became part of the Cactus Air Force on Guadalcanal ("Cactus" was the code name of the island). On combat missions, he led a flight of eight Wildcats that became known as Foss's Flying Circus. He shot down his first Japanese plane, a Zero, on his first combat on October 13, but was nearly killed himself.

By the time Foss left Guadalcanal in January 1943, his Flying Circus had shot down 72 Japanese aircraft, Foss being credited with 26. For his actions he received the Medal of Honor from President Roosevelt in a White House ceremony and appeared on the June 7, 1943, cover of *Life* magazine.

He eventually became a general in the Air National Guard after the war, the first president of the American Football League, presi-

12 (VMF-115, -211, -218, and -313) were alerted to make ready to move.

In early December, the four squadrons moved from Emirau via Hollandia and Peleliu to the Philippines, a distance of 1,957 miles. On the morning of December 3, 66 Corsairs in a series of V formations appeared over Leyte. An advance party of Air Marines on the ground recalled with pride marveling at the magnificent sight as the aircraft approached their new base at Tacloban on Leyte.

THE SHORESIDE AIRFIELD was overcrowded as aircraft were parked in double rows along both sides of the strip. Right along the water a number of wrecked Navy aircraft littered the edge of the surf—planes from Navy CVEs (small aircraft carriers) that had been sunk during the Battle of Leyte Gulf. Because of the need to keep the strip open, any plane that crashed on landing was simply pushed off the runway and into the surf to make room for others.

The squadron operated from Tacloban for only a short period, but during that time there was considerable activity. The strip was bombed by the Japanese on a fairly regular basis.

At about dusk one day, an air-raid warning sounded, alerting everyone to the approach of an unidentified aircraft. A Japanese twin-engine transport with wheels and flaps down was preparing to land. Making its turn-in to the landing approach the plane came in over some Navy ships at anchor just offshore, which spotted it, their anti-aircraft guns lighting up the sky. Both sides of the strip were packed wingtip to wingtip with Army, Marine Corps, and Navy fighters. Seeing the plane flying through a hail of fire in flames, personnel along the flight line and working on the parked aircraft dove for cover. The plane was carrying a suicide squad of Japanese soldiers armed with explosives that had intended to land on the field and wreak havoc. Even as the plane was still in the air and on fire, several of them leaped from it, landing among the parked fighters. The transport then exploded in a huge fireball. Two nearby Corsairs, with full gas tanks, detonated in quick succession. Afterward, charred body parts and aircraft debris littered the area. Cleaning up was a gruesome task.

"The Army flight was to strike first, by dive bombing, and we were to follow with a masthead attack.... As the last Army bombs were falling, our Corsairs were in position and coming in fast and low. The Japs never saw us coming until we started to shoot."

—Captain Rolfe F Blanchard

Conditions at Tacloban were primitive. The muddy strip had practically no taxiway. Because of the overcrowding, conducting operations was difficult even in good weather. As a result, several Army and Marine squadrons were moved seven miles away to a field at Tanauan, where an airstrip of Marston mat had been laid over the sand. This reduced the crowding at Tacloban and improved operating efficiency, while also making it a less lucrative target for the Japanese. But, on occasion, the personnel on the ground found themselves ducking for cover whenever a Japanese fighter would slip into the landing pattern among their returning aircraft, usually tailing a group of American planes at about dusk. Some of the Japanese pilots spoke English well enough to fool the control tower into granting landing approval. They would approach the field and then either unload a few bombs or make a strafing sweep through the area.

VMF-115's missions included bombing

dent of the National Rifle Association, and governor of his home state of South Dakota.

Charles Lindbergh went from hero to villain to hero again. Born in 1902 near Little Falls, Minnesota, he was an unknown airmail pilot until his historic solo flight from New York to Paris in 1927. Suddenly he was thrust into the national spotlight and regarded as one of America's great aviation heroes, drawing huge crowds wherever he went.

In the 1930s, however, Lindbergh, impressed with Nazi Germany's advanced aircraft program, praised the Third Reich while criticizing President Franklin D. Roosevelt's foreign policies. Lindbergh became a leading spokesman for the antiwar America First Committee—a group opposed to the United States' becoming involved in European politics and a possible new war. Germany even awarded Lindbergh a special medal (which he later returned). Advocating that the United States sign a neutrality agreement with Germany, he resigned his commission in the Army Air Corps in April 1941 after Roosevelt publicly denounced him. Lindbergh was widely vilified by the American

Lindbergh was photographed with the famous *Spirit of St. Louis* after his history-making 1927 flight to Paris.

public as being a Nazi sympathizer and an anti-Semite. Some even accused him of being a traitor.

Once Japan attacked Pearl Harbor, Lindbergh changed course and supported America's entry into the war. He tried to reenlist, but his request was refused. In April 1944, Lindbergh went to the Pacific as a civilian adviser to the U.S. Army and Navy and flew approximately 50 combat missions against the Japanese. After the war he maintained a low profile until his death from cancer in 1974. □

ABOVE: A Marine Corsair fires a salvo of rockets at Japanese positions on Okinawa. OPPOSITE: A flight of Corsairs over a Japanese-held island, March 1944. In the hands of a skilled pilot, the F4U was equally adept at bombing, strafing, or aerial combat roles, and was called "Whistling Death" by the enemy.

attacks on enemy airfields, on Japanese installations at San Isidro Bay, and on enemy convoys, as well as escorting sorties to cover patrol boats, "Dumbos," supply drops, and flying air cover for Army landings at Ormoc and Mindoro.

During December 1944, the squadron lost 11 aircraft to various causes while being credited with four and a half enemy aircraft destroyed in air-to-air actions.

Captain Rolfe F. Blanchard described a joint mission by 30 Army P-40s and 28 F4Us against Japanese shipping: "The Army flight was to strike first, by dive bombing, and we were to follow with a masthead attack ... in three waves spaced far enough apart to allow the preceding wave's bombs to detonate safely. When the ships were sighted, the Army started peeling off in groups of two or three planes and dove from 10,000 to about 5,000 feet, released bombs and pulled back through the overcast. They accomplished nothing except to make interesting splashes in the water and wake up the Japs. AA [anti-aircraft fire] immediately became very intense. As the last Army bombs were falling, our Corsairs were in position and coming in fast and low. The Japs never saw us coming until we started to shoot."

A total of six hits were scored, sinking two transports and causing slight damage to a destroyer. In a follow-up mission the next day, VMF-115 pilots scored hits on the destroyer *Uzuki,* sinking her.

Ground action soon pushed west on Leyte, concentrating in the Ormoc area. As Japanese forces were shattered, they were split into isolated pockets, some melting away into the jungle hills. From the airstrip the Marines could see the campfires of the Japanese who had taken refuge in the hills. Flight operations were also harassed by the occasional sniper.

AS PART OF AIRFIELD security, some of the Air Marines participated in operations against the Japanese die-hards, referred to as "head hunting." Five or six Marines, along with Philippine Army scouts, would go out searching for the Japanese soldiers. Lance Corporal Vannoy said, "I went out about four times. We would take along dynamite to blast them out of the caves, if need be. On one occasion one of them approached us acting as if he wanted to surrender, but he wasn't showing his hands. We were in a position where we couldn't back up, so I had to shoot him. We found a couple of grenades hidden on him."

As ground combat operations moved across the Philippines, air activity was winding down on Leyte. In late February 1945, the squadron received orders to move to Zamboanga on Mindanao, to an airstrip called San Roque Airfield, in order to support operations on the island.

All the Marines assigned to the Zamboanga invasion force were Marine Air support personnel—basically technicians, but still combat riflemen. LSTs picked up the Marines of MAG-12 at Leyte to transport them to Mindanao.

The Army's invasion force, supported by cruisers and destroyers, landed near Zamboanga on March 10, the Japanese opposing it with mortars and artillery fire. The next day the advance ground elements of VMF-115 began unloading equipment and personnel from their LSTs on the beach and then moved inland to the nearby airstrip.

THE AIRSTRIP, once captured, was renamed Moret Field, after Lt. Col. Paul Moret, a Marine aviator killed at New Caledonia in 1943. The Marines secured the area, though their position suffered heavy shelling during the night. The next morning the Air Marines discovered that the Army units in the area had pulled back before the artillery barrage and that the Marines had been the front line during the night.

The first planes landed on Moret Field on March 14, 1945. Air strikes were conducted so close to the field that the ground personnel could watch napalm drops from the flight line. The pilots were barely out of the traffic pattern before starting their runs. The field continued to receive shelling, but with little effect. As local hostilities subsided, the Marine Corsairs supported landings on the islands of Sanga Sanga, Bongao, and several others.

The war in the Pacific was winding down.

In the spring and early summer, some members of the ground support element had earned sufficient points to return to the States. Then, following Japan's surrender, the squadron moved on to northern China in October 1945.

During the course of the war, Marine aviators were credited with shooting down 2,355 Japanese aircraft while losing 573 of their own in combat, producing 120 aces, and earning 11 Medals of Honor. F4Us would claim 2,140 of the shootdowns at the loss of only 189 Corsairs.

For its part, VMF-115 conducted 5,856 combat sorties, shot down six and a half enemy planes, and lost 28 aircraft and nine pilots of its own in operations in the Pacific. For its efforts the squadron earned several honors, including a Presidential Unit Citation and a Navy Unit Commendation. The squadron also received a Philippines Liberation streamer and a Philippine Presidential Unit Citation—a rare achievement among Marine outfits, because few USMC units operated in the Philippines.

Although a fighter squadron, the Air Marines found themselves providing ground support to the Army, conducting operations to isolate and destroy cut-off Japanese garrisons, and occasionally fighting Japanese troops on the ground—with every Marine a rifleman.

In a proud tradition, even today, VMF-115 (now VMFA-115), in a tribute to its original Marine veterans, occasionally goes by the name "Joe's Jokers." □

The 1st Infantry Division Museum puts visitors into the heart of the action.

ONE OF AMERICA's finest military museums, the 1st Division Museum near Chicago, presents the history of America's oldest division—from its inception in World War I, through World War II, the Cold War, the jungles of Vietnam, and Desert Storm. Located in the midst of the 500-acre Cantigny Park in Wheaton, Illinois, the museum is visited by over 140,000 people annually and is known for its realistic exhibits and immersing galleries.

The story of how the museum became located 25 miles west of Chicago can be traced back to the battlefields of France in World War I. There a "citizen soldier" commanded

ABOVE: The snow and cold of the Battle of the Bulge are captured in this highly realistic diorama.
RIGHT: In the North Africa Gallery, a German Afrika Korps mannequin mans an antitank weapon.

the 1st Battalion, 5th Field Artillery of the 1st Division at the Battle of Cantigny, which was the first American victory of World War I. That citizen soldier was Robert R. McCormick, the 37-year-old publisher of the *Chicago Tribune*. The war would be a defining moment in his life. And for many years he would host reunions for his fellow 1st Division comrades on his estate in Wheaton, which he renamed "Cantigny" to commemorate his division's achievement.

Colonel McCormick passed away in 1955, but in his will he left his estate "for the recreation, instruction, and welfare of the people of the state of Illinois." To honor his service with the division, the original museum opened in 1960 in the renovated stables on the estate in what is now the visitors' center. It moved in 1992 to its current 38,000-square-foot building.

In the main exhibit hall, visitors go through the ruins of the tiny French village of Cantigny and walk down a World War I trench. They then follow the World War II division through North Africa and Sicily where the Big Red One was led by the likes of Terry Allen, Teddy Roosevelt Jr., and Clarence Huebner. They sit in a landing craft on D-Day and walk onto Omaha Beach before entering a German bunker and then face an oncoming Sherman tank in the Battle of the Bulge. They meet World War II correspondent Jack Thompson to learn his story before seeing an actual door from Nuremburg Prison. Visitors then trek down a jungle trail in Vietnam and on to Desert Storm.

The 1st Division Museum at Cantigny has, as its mission, to preserve, interpret, and present to the public the history of the 1st Infantry Division in the broader context of American military history in order to promote learning about American military heritage and affairs. It does this in a variety of ways besides the galleries. There is an exciting outdoor collection of military vehicles and equipment. The "tank park" has seen generations of children climbing on the various tanks and artillery pieces from World War I to Desert Storm, enjoying and learning as they play. Each piece of equipment has a sign explaining what it is and how it worked.

Also located in the museum is the Colonel Robert R. McCormick Research Center, home to the museum's library, archives, and photo collections. It has been described by Pulitzer Prize recipient Rick Atkinson, author of *An Army at Dawn* and *The Day of Battle*, as "among the finest unit archives in the world." It is

All photos courtesy of the 1st Infantry Division Museum at Cantigny Park

ABOVE: After viewing a short film on the Normandy landings, the theater turns into a landing craft and the visitor enters this stunning re-creation of Omaha Beach. BELOW: One of several tanks guards the entrance to the 1st Infantry Division Museum at Cantigny Park in Wheaton, Illinois, outside of Chicago.

home to a collection of more than 10,000 military books, including rare unit histories and drill and doctrinal manuals; some 100,000 documents pertaining to Colonel McCormick and the *Chicago Tribune* during his tenure as its owner, 1911 to 1955; and more than 50,000 official and personal records of the 1st Infantry Division, 1917 to the present. Among the latter are more than 500 oral histories of 1st Division veterans. The museum is currently working with the active 1st Infantry Division to document its most recent history in the Balkans, Iraq, and Afghanistan.

The museum is located at:

1 S 151 Winfield Rd.,

Wheaton, Illinois (just south of Roosevelt Rd.)

Operating Hours:

Tuesday-Sunday 10:00-4:00 (10:00-5:00 between Memorial Day and Labor Day).

The museum is closed in January and open select days in February, so please call ahead.

Parking is $5.00. Admission to the museums on the estate is free.

For more information call (630-668-8185) or go to www.firstdivisionmuseum.org.

Venona Files

Continued from page 35

cases because of space constraints, but the most relevant material released in the Venona files makes for fascinating reading and does much to explain that McCarthy's efforts to root out Communists in government, although later discredited, weren't all a matter of paranoia.

Alger Hiss had been one of America's most respected diplomats, serving in Washington since the 1930s. For members of that generation, his name invokes memories of a time when the Communist threat seemed to be just around the corner.

The fallout from the Hiss case pitted liberals and conservatives against each other—a battle that continues to this day. Now, almost 60 years after the trial of Alger Hiss, new revelations may finally put to rest the question of whether Hiss was an agent for the Soviet Union during and after World War II.

A number of the Venona cables implicated Hiss as a Soviet asset who went by the code name "Ales." The files also report a meeting between a KGB officer and a GRU officer whose source in Washington was "Ales." Another file linking Hiss to Soviet intelligence comes from a cable to Moscow from its agent "Vadim"—who was, in reality, Anatoli Gromov, the station chief of the NKVD (the forerunner of the KGB), in which he reports a conversation between agent "A" and "Ales."

The Venona files say that "A" was Iskhak Akhmerov, one of the most important Soviet spies in the United States during the war. This same intercept says that "Ales" had been working for the Soviets since 1935. The files buttress the Hiss-Russia relationship in that "Ales functioned as the leader of a small group of neighbors probationers, for the most part consisting of his relations." (In the Venona transcripts, "neighbors" refers to members of the American Communist Party.) The tapes also say that "Ales" went on a separate trip to Moscow after the Big Three meeting in Yalta in February 1945. The record proves that Hiss went to the Soviet capital on a plane carrying U.S. Secretary of State Edward Stettinius, along with two other career diplomats.

With the release of the Venona files, it now seems that historians finally have answered the riddle of what role Alger Hiss played during World War II and the Cold War. However, partisans on both sides of the political divide will undoubtedly interpret the newly released files with an eye toward vindication for their own point of view.

Fifty-eight years have passed since the June 19, 1953, execution of Julius and Ethel Rosenberg in Sing Sing prison on espionage charges for their involvement in stealing America's atomic secrets during World War II—a case that still creates passionate debate over their death sentences and to what extent they were both involved with the Soviet Union's espionage operations. With the end of the Cold War, America's most prominent code-breaking service, the National Security Agency, as well as a former Soviet intelligence officer who knew the Rosenbergs well, have shed new light on the role they performed for the Soviets during the war.

The Russians gave Julius Rosenberg two code names: "Antenna" and "Liberal." From 1944 to 1945, the Venona analysts picked up 21 cables referring to him. They learned that by May 22, 1944, Rosenberg's spy network operating out of New York City was flourishing. Julius recruited Alfred Sarant, a classmate at CCNY who had previously worked at the Signal Corps laboratory at Fort Monmouth, New Jersey.

The early Venona files also report that the Russians provided Julius with his own camera in order to copy stolen documents at his home. Additionally, Rosenberg recruited a man named Russell McNutt, code-named "Fogel," who was a civil engineer at the Oak Ridge, Tennessee, plant that made components for the atomic bomb. In 1944 the KGB said that McNutt's recruitment was "one of the year's main achievements."

Julius also brought into his spy cell friends and colleagues such as Morton Sobell, William Pearl, and his wife's brother, David Greenglass. Another person who aided Rosenberg was an American soldier named Harry Gold who was an intelligence operative and courier for the Soviet GRU.

A retired Russian spy who was close to the couple during the war, Alexander Feklisov, provided more information on Ethel and Julius Rosenberg's wartime espionage activities. In 1977, Feklisov gave a number of high-profile interviews to American news organizations regarding his knowledge of the Rosenberg case. He said he met with Julius in the summer of 1946 in a New York restaurant and gave him $1,000 in expense money. Prior to that date, Feklisov said that, between 1943 and 1946, he met with Julius in New York more than 50 times, helping him to establish his espionage network.

He emphatically told his interviewers that although Ethel Rosenberg was aware of her husband's work for the Russians, she had no direct contact with any member of Soviet intelligence. Of Ethel Rosenberg, the Venona documents say that she "knows about her husband's work, but is in delicate health and does not work." When questioned about Julius's role in stealing America's atomic secrets, Feklisov said that he played only a minor role in the affair.

The new information provided by the Venona transcripts, as well as by Alexander Feklisov, adds new details to the case. The Rosenbergs' sensational trial and execution came at a time in American history when Cold War hysteria and McCarthyism were at their height. Whether they were its first victims or pawns in a larger game of Cold War politics is still being debated.

By the time the Venona project ended, more than 3,000 letters from the Soviet Union to their personnel in the United States had been read. The Freedom of Information Act led to the opening of the Venona files, and in 1995 the world learned of its contents.

Who knows what other historical treasures are still hidden in the vaults of the National Archives that may yet still shed more light on the secrets of our Cold War past? □

Lorraine

Continued from page 29

across the Moselle as quickly as possible. What's more, his decision to advance on a broad front ran contrary to the general understanding that it was necessary to concentrate forces to create a sizable breach worthy of exploiting in the enemy's main line.

Patton would face significant leadership and tactical challenges in the region in the months following the Arracourt clashes. His high hopes for a rapid advance to the West Wall would be dashed as heavy rains over the next two months restricted Third Army's tank columns to primary roads and sharply curtailed tactical air support. Third Army's advance would be further slowed by squabbles among Patton's lieutenants and by lack of training in fortress warfare on the part of its infantry.

To succeed in Lorraine, Patton would have to exercise careful planning, make quick tactical adjustments, and adjust his goals and expectations when the weather failed to cooperate. The Lorraine campaign would test Patton and his men as they had never been tested before. □

The next installment of this three-part series on Patton in Lorraine covers the six-week period from early October through mid-November 1944, when Third Army grappled with how to capture the Metz fortress and clear German forces once and for all from the Moselle line. After Third Army received a bloody repulse in early October attempting to take Fort Driant, a formidable bastion of the Metz fortifications on the river's west bank, Patton became convinced that only by enveloping Metz from the east could he force its garrison to surrender. Though Walker's XX Corps would be responsible for putting Metz in a stranglehold, Eddy's XII Corps would play a vital role in driving back German forces back to the West Wall. Subsequently, Third Army brought its full might to bear in an all-out offensive launched November 8 in an effort to dislodge German forces from the Moselle line once and for all.

Inferno

Continued from page 45

with a large group of sailors and Marines.

The news was out about the first main landings on Okinawa, and we all mused that our Task Group 58 was the vanguard and we took the first hits. Nurses broke into the conversation telling us we had stayed our time limit, so we left. I recall turning back to face Tip, gave him a salute and a smile. I never saw him again.

I recall that about 11 badly wounded expired and were buried in the National Cemetery on the mountainside of Oahu in an ancient volcano crater called "the Punch Bowl." In the 1980s I went back to Pearl and on up into the Pali to see these guys. The Bureau of Burials had names of those buried there, of course, but there was no designation of any Franklin sailors. Wandering all over the rows of white crosses, I did stumble onto one that was Ernie Pyle, who was buried there, having been killed on Ia Shima. He was the serviceman's newspaper reporter and got into the trenches where the action was to get his story.

Next was the delivery of a Navy quartermaster purchase order. I had lost everything. Fitted with new glasses and a full sea bag of clothing and equipment, I was detailed by jeep over to Ford Island Naval Air Station and given my orders to report to a new assignment on Maui, a unit kept in secrecy called NACTU (PAC), which was the abbreviation for Night Attack Combat Training Unit.

I slung my sea bag and hammock into the bomb bay of a Douglas dive-bomber and took to the air, flying over the islands of beautiful Hawaii. Farewell to Pearl.

Epilogue: *George Black remained in Hawaii for several more months where he trained in radar and on a top-secret direction finder. The war ended on September 2, 1945, when the Japanese, reeling from the atomic bombing of Hiroshima and Nagasaki, signed the articles of surrender.*

Although she was repaired and sent back to sea, the USS Franklin, like so many heroic ships, reached an inglorious end.

She was decommissioned in 1947 and sold for scrap in 1966.

Shortly before his discharge from the Navy (including a brief stint aboard the USS Zuni, ATF-95—a Navajo-class fleet tug), Black recalled an incident at the discharge center that showed how emotionally fragile he was from his combat experiences:

"About 50 sailors in our group were sent on but a few of us were retained for other matters. None of us had signed on to join the reserves. The room darkened and a Technicolor movie about the Navy, patriotism, and wartime propaganda filled the screen and then one big battle scene appeared. The film was about the Franklin in all its glory and gore. My brain snapped and a cold sweat broke out. I was having flashbacks after seeing the real thing.

"I just was completely caught off balance and lost it. When the lights came on I was the center of attention. I was the only spectator not signing up for the reserves. Being separated from the rest, I was sent to sick bay and was interviewed by one of the doctors. I figured out he was a shrink who was asking me a lot of questions.

"I finally gave him a straight answer that I did not appreciate being blindsided by a combat film that included me and a lot of my dead friends. Though he was trying to help, I was being evasive now. I just wanted to go home. He paused and stared at me, and I think he was making a diagnosis. Finally, he accepted my reasoning for the very embarrassing episode I had made and signed my medical papers. I would have done or said anything to keep from being deprived of my train ride home. It was a mistake that caused me untold anguish for another 10 years for concealing my emotions. A big black dog had climbed up my back.

"It seems I am always at the forefront of menacing situations and always seek to escape when confronted by overwhelming odds. When at peril on the sea, Saint Elmo, our patron saint, always intercedes and I stand back blindly, completely consumed by another harrowing escape. Not a hero, just there as a witness, an expert in survivorship." □

B-17

Continued from page 81

RT: Yes, he started with No. 1 and worked his way across. Well, actually, this morning, they had smoke coming off the No. 3, so they had to crank it first and then start the other three and then they taxied the airplane and took a brief flight to make sure there wasn't going to be a fire or anything before we boarded it. So we boarded with all four engines running. We came up from behind, with all the engines running and the wind hitting us like a storm. An interesting moment.

WC: In your 747, what is the standard crew?

RT: We have two copilots and two captains. We have two sets of pilots. One crew flies half the time and then the other crew will come in and fly the rest. Of course, in World War II on the B-17, the two pilots flew for 10 or 12 hours straight.

WC: So, no relief pilots on the B-17?

RT: No time for sleep there! They were too busy being shot to pieces. I'm still stunned to think of those pilots in the B-17. That was real flying. You were in touch with everything. When you've got cables running to the control surface and your yoke is cocked a little bit because the cables are stretched and you're trying to bump it with the yoke to keep it straight—now that's flying. When I'm in the 747, the yoke is always perfectly straight, the rudders are always true, everything is right where it should be. But when you're in a B-17, those cables get stretched, the airplane gets a little bent. It's all up to you to keep the airplane in the air.

WC: So today, as a professional, commercial pilot, you were getting a rare look at this airplane from the 1940s?

RT: I cannot fully describe the thrill. I didn't imagine it would be such a thrill. After flying for 25 years, for over 15,000 hours, I didn't think I could get this excited about being in an airplane. And I did. Just to see and imagine flying a B-17 in the 1940s gave me a new insight about aviation, a new appreciation of what those airmen did back in World War II. □

Howard Dunbar of Houston, Texas, is an IBM retiree. This is Dunbar's first magazine article. As a next-door neighbor to George Black, he says, "I love him greatly since my own dad told me of seeing the *Franklin* when it was hit. I was about 12 years old and never thought that I would live right across the street someday from a survivor. My dad is gone but I see my dad some in George, and also see the kind of people that our country had to produce to win that huge, tragic war."

Allyn R. Vannoy, whose father, Robert, was a member of VMF-115 and is quoted in this story, has written numerous magazine articles and is the co-author of *Against the Panzers: United States Infantry Versus German Tanks, 1944-1945*. He lives in Hillsboro, Oregon.

William E. Welsh is a professional writer/editor residing in Vienna, Virginia. He has written more than 30 articles on topics ranging from the Middle Ages to World War II for various military enthusiast publications, including Sovereign Media's *Military Heritage* and *WWII History* magazines. His most recent articles in *WWII History* focused on the battles of the Reichswald and Seelow Heights.

Amy Goodpaster Strebe is the author of *Flying for Her Country: The American and Soviet Women Military Pilots of World War II*, and *Desert Dogs: The Marines of Operation Iraqi Freedom*. She is a lecturer and one of the leading experts on the women pilots of World War II. She has written articles for the *Wall Street Journal*, *Flight Journal*, and *Russian Life* among other publications. Strebe also wrote the foreword to Anna Timofeyeva-Yegorova's autobiography, *Red Sky, Black Death: A Soviet Woman Pilot's Memoir of the Eastern Front* (2009). Strebe, the holder of a Master's degree in history in 2003 from San Jose State University, serves on the board of directors of the National WASP World War II Museum in Sweetwater, Texas. Strebe is also the volunteer Ombudsman at U.S. Coast Guard Sector San Diego, where her husband is on active duty. She resides in San Diego with her husband and two children.

William Stroock of northern New Jersey is a professional writer with more than 45 publishing credits to his name. He has also published a novel about Operation Desert Storm titled *A Line Through the Desert*. He is an adjunct professor of history at Raritan Valley Community College and an editor with the Alexandrian Defense Group, a think tank dealing with insurgency and counterinsurgency issues. He is married with two daughters.

John Niesel of Fort Collins, Colorado, has his late grandfather, a HAM radio operator, to thank for his interest in tube-based wireless communications. John shares the history of World War II through his writing, his picture-framing business, Framing History, and with 10th Mountain Division living-history presentations. He is the author of *Howitzers, Grasshoppers and the Holy Right Hand*—the recollections of a World War II artilleryman and forward observer who at war's end assisted in the recovery of both the Hungarian Crown Jewels and Hungary's most revered religious relic.

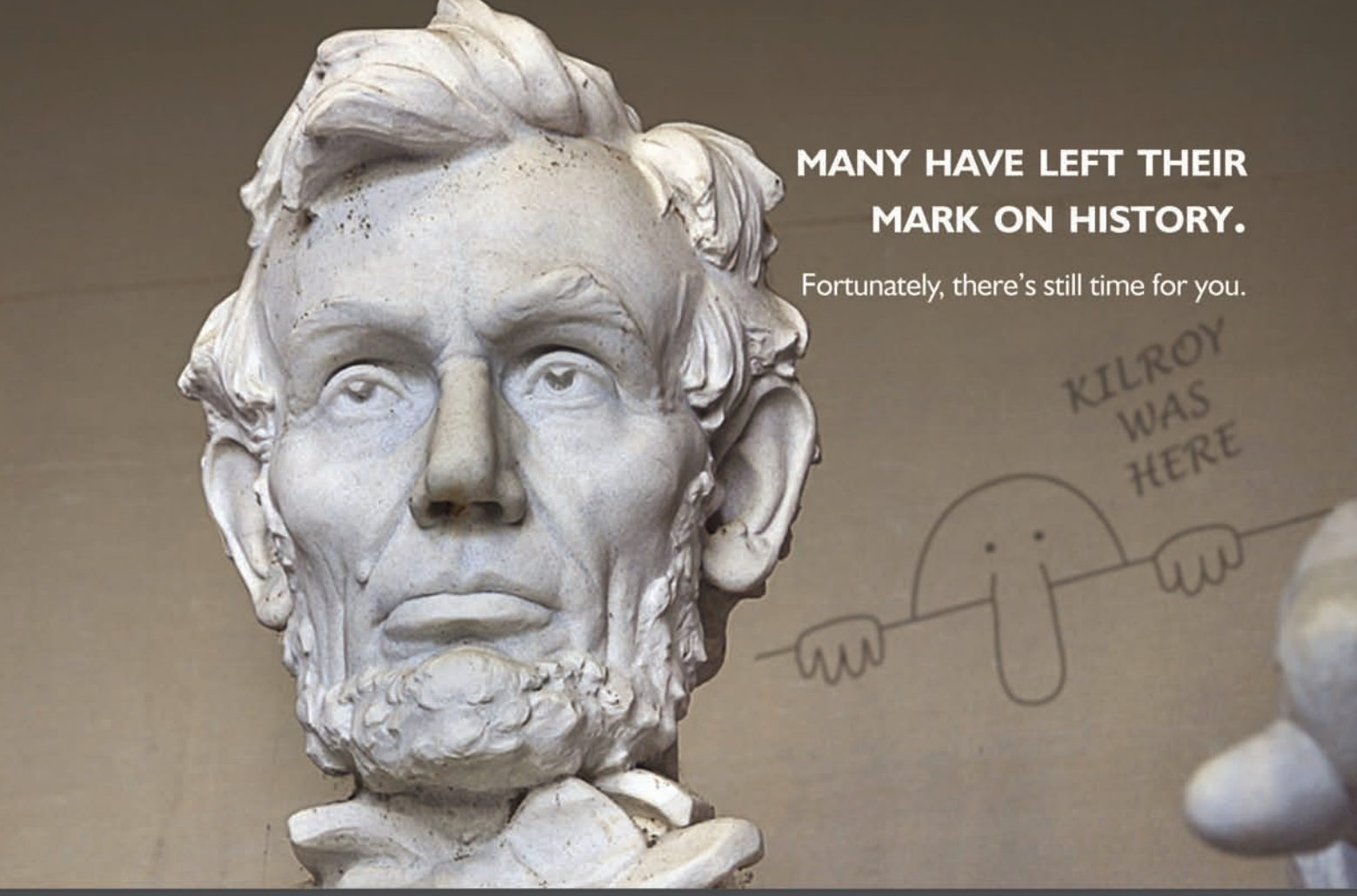
Fred L. Borch retired from the Army after 25 years and is now a military historian in Charlottesville, Virginia. He is the author of *For Military Merit: Recipients of the Purple Heart*. His e-mail address is: borchfj@aol.com.

Dick Winters, Famed "Band of Brothers" Commander, Passes Away

Time has claimed another of "The Greatest Generation." Major Dick Winters, who commanded E Company, 506th Parachute Infantry Regiment, 101st Airborne Division—the fabled "Band of Brothers," a unit made famous by historian Stephen E. Ambrose and then in the HBO series of the same title—passed away on January 2, 2011, at the age of 92.

Many of his men felt Winters should have been awarded the Medal of Honor for leading them from Normandy all the way to the Eagle's Nest and the Nazi leaders' retreat at Berchtesgaden in Bavaria. In the end, Winters enjoyed something even more precious than the nation's highest award for valor: the undying love and respect of the men under his command.

Several books about Winters, some written by E Company veterans, have appeared in recent years, and all have extolled his personal courage. Winters also wrote his own autobiography, *Beyond Band of Brothers.* Wherever and whenever men speak of bravery and devotion to duty, they will speak of Dick Winters.



MANY HAVE LEFT THEIR MARK ON HISTORY.

Fortunately, there's still time for you.

American Military University offers 100% online undergraduate and graduate degree programs in history and military history that allow students to choose from a general program of study to areas of concentration ranging from "Ancient and Classical History" to "War Since 1945." These affordable programs are designed for working adults who seek to balance academic study with work and family commitments without sacrificing the quality of their education.

Convenient & Affordable

- 100% Online, with flexible weekly schedules
- 8 and 16 week courses start monthly
- Small class sizes—no cohorts
- No on-campus residency requirements

SLOAN-C AWARD WINNER

2009 & 2010 Effective Practices Award
2009 Ralph E. Gomory Award for Quality Online Education

AMU

LEARN MORE AT amuonline.com/history

OR CALL 877.777.9081

American Military University **Push your mind. Advance your career.**