

BERLIN EXPRESS



RESTORING

A MIGHTY MITCHELL

THE ONGOING EFFORTS TO RETURN EAA'S B-25 TO THE AIR

BY HAL BRYAN

"YOU KNOW, AS A KID I watched *Thirty Seconds Over Tokyo*, and all those other movies ... I think that's what really started the whole process," said Kirk Fjetland, EAA 867374, president of EAA Chapter 237 in Blaine, Minnesota. "This is really historic, something that's 70-something years old. I think a lot of people get a better perspective of what the greatest generation went through and how they sacrificed."

The 70-something Kirk is talking about is a North American B-25 Mitchell medium bomber, an airplane that has belonged to EAA since 1972 and is now undergoing restoration, thanks to volunteers like Kirk and the members of his and other chapters from around the country.



CLICK THIS VIDEO
TO SEE MORE ABOUT EAA'S B-25 RESTORATION



Kirk and some of the army of volunteers who have stepped up to make this project possible.

THE B-25

was designed and built by North American Aviation and was derived from the earlier NA-40 prototype, which lost a government contract to the airplane that would become the Douglas A-20. The updated design, designated NA-62 by the manufacturer, was ordered straight into production as the B-25 by the U.S. Army Air Corps in September of 1939, bypassing the typical prototype and evaluation phases.

The first Mitchell, named in honor of Gen. William “Billy” Mitchell, an early and passionate proponent of military air power, flew in August of 1940, and two dozen were built that year. Powered initially by two Wright Cyclone R-2600 radial engines of 1,350 hp, the tricycle-gear bomber sported a distinctive greenhouse nose section and “twin tails,” vertical stabilizers mounted on the outboard ends of the horizontal stabilizer. Smaller than strategic bombers like the B-17 and B-24, the B-25 is still a good-sized airplane at nearly 53 feet long with a wingspan of slightly less than 68 feet. And speaking of the wings, the first several airplanes exhibited some stability issues that were traced to their constant dihedral. Starting with the 10th airframe, all subsequent B-25s were built with a gull wing that used dihedral from the fuselage to the engine nacelles, then introduced a slight anhedral from the engines outboard. Over time, the engines were eventually upgraded to Wright Cyclone R-2600-13 14-cylinder radials, each putting out 1,700 hp.

While the details varied by model and mission, B-25s generally carried a crew of six: a pilot, a copilot, a bombardier/navigator, a flight engineer and radio operator who did double duty on the turret and waist guns, respectively, and a tail gunner. The airplane could carry a bomb load of up to 3,000 pounds as far as 1,350 miles at a cruise speed of about 230 mph and a ceiling of more than 24,000 feet.



In all, more than 9,800 were built, and while they were most prevalent in the Pacific, they saw action in every theater of World War II. Multiple variants were developed over the years to support various missions, including high-level, low-level, and skip bombing; ground attack and close air support; airborne radar; and VIP transport. Several hundred went to the U.S. Navy and Marine Corps as PBJ-1s, and they were also used by Allied air forces including those of Great Britain, Canada, France, Australia, Brazil, the Netherlands, the Republic of China, and the Soviet Union as part of the Lend-Lease program.

The B-25's most famous contribution to the war effort by far was, of course, the Doolittle Raid. In April of 1942, the United States was still reeling from the surprise attack at Pearl Harbor just four months earlier. That event brought the country fully and finally into WWII, and left the people on the home front feeling not only outraged, but also a bit helpless with any semblance of victory against an enemy so far away seeming all but impossible.

Lt. Col. James "Jimmy" Doolittle was no stranger to impossible things; prior to the war he was a successful race pilot, winning the Schneider, Bendix, and Thompson trophies — and these after he pioneered instrument flight in 1929. On April 18, 1942, Doolittle led a flight of 16 B-25Bs on an audacious bombing mission of his own design, flying the bombers from the deck of an aircraft carrier, the USS Hornet, something that the original designers would never have imagined possible. Doolittle's Raiders caused modest amounts of physical damage to their targets in Tokyo and four other cities, but the psychological impact cannot be overstated. Proving that the Japanese weren't invincible bolstered morale at home every bit as much as it

weakened that of the enemy. We look forward to commemorating the 75th anniversary of this valiant and remarkable mission at EAA AirVenture Oshkosh 2017.

Our B-25, construction No. 98-21433, was assigned serial No. 43-4432 when it was first accepted by what was then the U.S. Army Air Forces in late December of 1943. As an H-model, when it left the factory, it would have had a blunt, solid nose fitted with four fixed .50-caliber machine guns and a massive 75 mm cannon, essentially the same as the main gun used on several models of the venerable Sherman tank. Ours was the 327th H-model off the assembly line of the thousand or so that were built. The airplane served out the war in a low-key role as an administrative aircraft, stationed at bases in Washington, Colorado, and California, and was at one point modified for use as a trainer.

The airplane was sold as surplus shortly after the war and changed hands several times over the next 20-plus years. It was heavily modified for use as an executive transport and spent a few years in service of

Woolworth's heiress Barbara Hutton and her husband, Dominican diplomat, race car driver, polo player, and maybe-assassin Porfirio Rubirosa. Then, in 1968, after a stint with Long Island Airways, Filmways Inc. and the legendary Tallmantz Aviation got involved and decided that N10V ought to be in pictures. As it was for many movie stars of the day, step one was a nose job. The airplane was given a J-model greenhouse nose section, historically inaccurate but giving it the traditional look that, to some people, makes a B-25 a B-25. In 1967, Tallmantz assembled N10V with 17 other flyable B-25s to begin production on *Catch-22*, director Mike Nichols' adaptation of Joseph Heller's bitter satire about life in wartime.

SPECS

AIRCRAFT MAKE & MODEL:

North American B-25H Mitchell

LENGTH: 51 feet, 4 inches

WINGSPAN: 67 feet, 7 inches

HEIGHT: 15 feet, 9 inches

MAXIMUM GROSS WEIGHT: 35,000 pounds

EMPTY WEIGHT: 19,600 pounds

CREW: 5-6

POWERPLANT MAKE & MODEL:

Two Wright Cyclone R-2600-13 14-cylinder radials

HORSEPOWER: 1,700

CRUISE SPEED: 230 mph

MAXIMUM SPEED: 275 mph at 13,000 feet



No detail is too small—or too inaccessible—when it comes to a restoration like this one.



VIEW OUR B-25 RESTORATION FLICKR GALLERY



DOOLITTLE AT AIRVENTURE

The year 2017 marks the 75th anniversary of the Doolittle Raid, and we'll be commemorating that anniversary in a big way at EAA AirVenture Oshkosh.

We're expecting at least 16 B-25s to arrive on Monday, July 24, and they'll be participating in a dramatic re-enactment of the Raid planned for Wednesday, July 26. The airplanes will also be on public display throughout the week giving visitors the chance to get a good close look.

In addition, a special Theater in the Woods program is planned for Wednesday night that will highlight the history of Doolittle and his crews.

"This is a real privilege for us," said Rick Larsen, EAA's vice president of communities and member programs, who coordinates features and attractions at AirVenture. "We're proud to be able to help commemorate such a pivotal point in the history of World War II. Seeing 16 B-25s in the air over Oshkosh is going to be truly spectacular."

Alongside star Alan Arkin and just about every other working actor in Hollywood at the time, our B-25 played two roles in the film, a VIP transport for Orson Welles' Brig. Gen. Dreedle and a bomber named *Berlin Express*, complete with nose art that features Hitler himself in the crosshairs. The movie takes place in Italy, but the scenes with the B-25s were shot at a purpose-built air base set in Mexico, the remains of which still survive today on an area known unofficially as "Catch-22 Beach." N10V and the other B-25s logged more than 1,500 hours of flying time during the three-month shoot that generated about 14 and a half hours of film. If that ratio — flying more than 100 hours for every hour of film shot — seems remarkable, then consider the fact that, of that 14 and a half hours, just 17 minutes ended up being used in the final cut of the picture. Such are the vagaries of Hollywood economics.

The film, released in 1970 against the backdrop of the Vietnam War, is considered a classic by some and an acquired taste by others. Regardless, those 17 minutes of B-25 flying, in particular a mass short-interval takeoff sequence, are not to be missed. Once filming had wrapped, Tallmantz sold 13 of the airplanes at an auction at Orange County airport. An orthodontist, warbird collector, and accomplished air race pilot from Merced, California, Dr. William Sherman Cooper, bought N10V in May of 1971. Cooper was killed in a crash while practicing aerobatics in his Pitts Special a year later, and the B-25 was donated to the EAA Aviation Foundation.

EAA staff and volunteers fully restored the airplane starting in 1975, removing the airplane's movie livery and repainting it as the *City of Burlington*, including nose art that honored our home state of Wisconsin. The airplane flew in these colors for several years, even hopping rides for visiting VIPs like Sen. Barry Goldwater, until it was damaged after a gear failure on landing. At that point, it underwent a cosmetic restoration and was moved into the EAA Aviation Museum's Eagle Hangar, where it remained for the next few decades. Everyone seemed to assume it would fly again one day, but nobody knew how or when.

And then, John Hopkins, EAA's director of aircraft maintenance, had a chat with Kirk who, along with other members of his chapter, was volunteering as they do every year at AirVenture. They were towing the B-25 out of the Eagle Hangar for outside display when Kirk asked if EAA had ever thought about restoring the airplane. John said that it was something that had been considered, but that it would require some external financial support and would have to rely heavily on volunteer labor. Speaking up immediately on behalf of his chapter, Kirk said "We'll do it!"

Four months later, John called Kirk and said, "Yeah, we've got the B-25 in the hangar. Come on over!" Kirk rallied the troops from his chapter, and they did just that, coming to EAA's Kermit Weeks Flight Operations Center for regular visits, starting in January of 2015.

Kirk, who retired from the Navy without ever spending time aboard ship, is now a sport pilot who flies an L-4. He joined Chapter 237 about nine years ago. He wasn't a pilot at the time, but he'd been intrigued by aviation his whole life.

"It was always an interest of mine when I was a little kid. I made all kinds of model airplanes and had them hanging from the ceiling, that kind of stuff," he said. He credits his fellow chapter members with encouraging and mentoring him as he got more involved.

"And then I didn't show up for a meeting," he said. "Next thing you know I was president." Other than a one-year break while he was living in Texas, he's been president ever since, and the chapter has grown to around 150 members. Kirk's fellow Chapter 237 member Curt Stoltz, EAA 152038, a retired U.S. Air Force technical writer, has nothing but nice words to say about him.

“Kirk is a silver-tongued devil,” he said, laughing. “He gets to talking to people, and he can talk them into anything and everything.” Over the years, “anything and everything” has included expanding Chapter 237’s tradition of making multiple trips to Oshkosh to volunteer, in addition to the two weeks its members spend here during AirVenture. Over the years, they’ve done everything from working on buildings and washing airplanes to performing an engine swap on EAA’s B-17, *Aluminum Overcast*.

One of the first things Chapter 237 members did on the B-25 project was to remove all the glass. Then John asked them if they were up for a bigger challenge: N10V was due for another nose job. Kirk and Curt agreed, unsurprisingly, and a short while later, a B-25 nose section was on the way to Minnesota for a six-month refurbishment. Chapter members redid the entire thing, fabricating new parts as needed, including all new stainless retainer clips made from steel package strapping. Thanks to a cabinet-maker in the group, the bombardier/navigator’s station got an all new seat made from laminated oak.

“Bombardiers back then weighed maybe 150 pounds,” Curt said. Knowing that people tend to come in larger sizes these days, he told the builder, “I want you to make that so I can sit, myself, in that seat through 500 hours of turbulence and not break that seat.”

Six months and at least that many hundreds of man-hours later, the nose was done and brought back to EAA to be mated to the airplane. Asked if he was pleased with the work they’d done, John’s response was typically to the point: “They did an excellent job — yeah, they did a great job.”

Kirk is justifiably proud of his chapter and its ongoing involvement in the restoration.

“I tell you what, I’ve got the most talented, dedicated, and motivated people ... in the world,” he said. “We can do anything. Build airplanes, fix electronics, data systems, carpentry work — you name it, I’ve got somebody in the chapter that can do that.”

Eventually, people from other chapters heard about the project and started asking how they could get involved, so Kirk was asked to put together a multi-chapter work party. In mid-March, he brought 15 people from nine chapters from around the region to spend the weekend chipping in.

People like Bob Coverdill, EAA 9009923 and president of Chapter 29 in Champaign, Illinois. He’s retired from the Air Force and, like Kirk, was fascinated by aviation his whole life but didn’t start flying until he got involved with his local EAA chapter. Speaking of his dad, who was a ferry pilot in WWII, Bob said, “He’s my hero in many ways, and it’s why I’m involved in airplanes today.”

Rich Brekke, EAA 427264, a retired police officer from Chapter 631 in Rice Lake, Wisconsin, who flies a Cessna 170, also looks to his father — a WWII Mustang pilot — for inspiration on the project. “The older I get and the more I look at these things, the more I understand just how incredibly brave those guys were,” he said.

Interestingly, Rich isn’t the only one on the team with a law enforcement background. There’s George Crabtree, EAA 867461, and Mark Vander Bloomen, EAA Lifetime 582474, both from Chapter 1577 in Three Lakes, Wisconsin. George is a deputy, and Mark is a police chief, and for their first visit, they were getting their hands dirty and their arms tired scrubbing engine cowlings. The task wasn’t glamorous, but the meaning wasn’t lost on either one.

“It feels like going back in time,” George said, and Mark agreed.

“There are so many stories with this aircraft,” Mark said. “Everybody that’s touched it, flown it, been a part of it, and just the privilege of being part of that story is too lucrative of a draw to pass up. This was a no-brainer for me.”

They may not really fire, but the machine guns that adorn the airplane certainly look the part.



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Bob Viltz, EAA 361572, of Siren, Wisconsin, is a retired machinist and former Army combat engineer. His reason for working on the project, stripping paint on the wings and doing some rivet work on the fuselage, seems appropriately to the point for someone who used to clear minefields for a living. "I like doing this stuff."

While working on the B-25's No. 2 engine, Charlie Tejchma, EAA 1084554, from Chapter 578 in Fremont, Michigan, was happy for the chance to learn so much on the job.

"It's something new for me. This is virgin territory, so to speak," he said. "There's so much to it; it's exciting to be part of it."

The one who traveled the farthest for the first multi-chapter work weekend was Cliff King, EAA 286077, who came all the way from Chapter 944 in Chillicothe, Missouri. He flies a 172 and is building a Zenith CH 750, and did some work on an underwing access panel. He summed up his experience with just two words: "It's incredible."

HOW YOU CAN HELP

You have the chance to help save history by supporting the restoration of EAA's B-25H Mitchell. EAA has just launched a private fundraising campaign with a target of \$400,000 to finance the remainder of the restoration and establish a reserve fund for future maintenance and operational costs.

Built in Inglewood, California, in 1943, EAA's B-25 served with the U.S. Army Air Forces and then starred on the silver screen in the classic film *Catch-22*. The aircraft was originally restored in the 1970s by EAA volunteers and is currently undergoing another major restoration.

Through volunteer work and the gathering of donations, this aircraft will once again return to the sky. Visit www.EAA.org/B-25 for more information on how you can support the restoration of this classic bomber, or you can send your check directly to:

EAA/B-25
P.O. Box 3086
Oshkosh, WI 54903

Please indicate on the memo line that your donation is specifically meant for the B-25 restoration.



The definitive B-25 greenhouse nose looks better than the new, thanks to the tireless efforts of EAA chapter 237.

The work parties have been an undeniable success. With the support of volunteers like these, the B-25 is already looking better than ever. The wings have been cleaned and stripped, the control surfaces are all being re-covered, air show smoke systems have been installed in both engines, and all of the wiring and every hose has been or soon will be replaced.

In addition, the interior, which was effectively gutted during the corporate conversions in the '60s, is being redone. Bulkheads that were drilled through several times for various reasons are being rebuilt, and John is avidly sourcing some small original accessories that will make it look like a bomber again. The executive interior work that was done did bring a couple of advantages, however. First, the airstair makes it considerably easier to get in and out of the airplane, and second, the structure around the bomb bay is wide open, meaning that people can get back and forth from the aft section of the airplane to the flight deck without shimmying along up near the ceiling as is the case with most B-25s.

As with any project, there's still a long way to go — and a lot of financial resources required — but, thanks to people like Kirk and the armies of volunteers he helps assemble, it's clear that this particular Mitchell is in good hands.

"We were all put on Earth for some purpose," Kirk said. "Well, maybe this is mine." We can't overstate how lucky we are that Kirk and countless other volunteers feel that way, that's for sure. If you're coming to AirVenture Oshkosh 2017, you'll have a chance to see the results of their ongoing efforts to get this airplane back in the air firsthand.

We think you'll be impressed.



Watch for more updates on the B-25's progress here in *Sport Aviation* magazine, as well as on our website, blog, and social media channels. **EAA**

Hal Bryan, EAA Lifetime 638979, is senior editor for EAA digital and print content and publications, co-author of two books, and a lifelong pilot and aviation geek. Find him on Facebook, Twitter, and Instagram at *halbryan* or e-mail him at hbryan@eaa.org.