

My Other Plane
is a

Stearman

by Matt McDaniel



Bob Bowen saddled up and ready for flight. The Stearman is soloed from the aft cockpit where, Bob says, your position further aft of the C.G. gives you a little more time to “feel” the Stearman out during takeoffs and landings.

Aviation is not exactly awash in unassuming personalities. In fact, I'd say that humility is a trait rarely associated with pilots. Yet, I cannot think of a single word which portrays Mr. Bob Bowen more accurately and completely than “humble.” In my experience, Bob is always professional, courteous, and gregarious while being perpetually soft-spoken and understated. Mr. Bowen is no ordinary person or pilot. He is an American hero.

Duty Calls

I once demonstrated a short-field landing to Mr. Bowen in the SR22 he'd recently purchased. He proceeded to best my performance in short order. The tables were turned and I became the student, learning a few short-field tricks that Bob had used during his Army days. Bob explained that he'd flown the burly DeHavilland Caribou into some pretty short strips (think sub-1,000 feet) while in Vietnam. But, there was no braggadocio. Anymore detail than that came from my asking, not his volunteering. Eventually, I learned that Bob flew nearly 1,000 hours and some 700 combat missions in support of the 1st Air Cavalry Division, as an Army aviator. While his missions in Southeast Asia were too varied to detail here, suffice it to say, a “day at the office” was no picnic for Lt. Bowen.

After Bob left active-duty in 1966, he considered pursuing an airline career. Instead, he earned an MBA and went to work for Arthur Anderson Co. (retiring long before the Enron debacle). Bob was often able to fly on work-related business. He did so in his Bonanza, then a C210 and finally a C310. When Anderson changed their policy, Bob's work-flying ended. He found himself flying the 310 mainly at night, after long work days, just to stay proficient on IFR and emergency procedures. After one such flight, he thought, “This is nuts. I'm going to make a major change and just get into sport flying.”

A Leap of Faith

In 1986, Bob visited Air Repair, Inc. in Cleveland, Miss. They were completing two Stearman restorations and Bob was impressed enough to put down a deposit. Having never even sat in a Stearman, Bob was certainly jumping into the unknown, but it was just the change he was looking for. The Stearman is a day-VFR machine with minimal instruments, requiring high seat-of-the-pants piloting skills. Its rich military history appealed to Bob. With a radial engine up front and the little wheel at the back, Bob could feel nostalgic about his Army training in such aircraft as the Beaver. Best of all, the Stearman was perfect for pleasure flying and was the prescribed antidote for Bob's flying blues.

Yellow Peril

Lloyd C. Stearman founded the Stearman Aircraft Company in 1926. He immediately began designing and building aircraft that led to the introduction of the Model 70 in 1934, shortly after Boeing had acquired the company. Both the Army and Navy tested the aircraft; the Navy ordered them immediately, while the Army waited for the improved Model 75 (in 1936) before placing their initial order. Although widely considered to be near-obsolete when it entered military service, it was rugged, reliable and agile enough to perform its mission as a primary trainer with aplomb. So much so, that between 1934 and 1945, more U.S. military pilots earned their wings in a Stearman than any other trainer.

The Stearman was saddled with many colorful nicknames during its career. *Yellow Peril* is said to reference its spirited ground handling, however, many historians believe that moniker referred more to the general danger of primary pilot training at a time when most trainers, not just Stearmans, sported a lot of yellow paint (for example,

Data Chart – 1941 Boeing Model 75 Stearman (Navy N2S-3 Kaydet)

Engine	Continental W-670, 220 HP
Propeller	Hamilton Standard Ground Adjustable (Metal)
Seats	2
Wingspan	32 feet, 2 inches
Length	24 feet, 9 inches
Height	9 feet, 8 inches
Wing Area	297 sq. ft.
Max Gross Weight	2,950 lbs.
Wing Loading (1g)	9.93 lbs./sq. ft.
Power Loading (@MGW)	13.4 lbs./HP
Baggage Capacity	60 lbs.
Fuel Capacity (usable)	46 gal.
Wheels/Tires/Brakes	24-inch diamond-tread tires 18 psi inflation
Landing Gear	Conventional Fixed
Cockpit Flight Controls	Dual sticks
Stall in Landing Config (V_{SO})	55
Stall – Clean (V_S)	55
Rotation (V_r)	60
Best Angle of Climb (V_X)	Unknown
Best Rate of Climb (V_Y)	70
Typical Climb	500 fpm
Cruise Climb	300-400 fpm
Economy Cruise	85
Max Cruise	105
Max Normal Operating (V_{NO})	125
Never Exceed (V_{NE})	186
Flaps Extended (V_{FE})	N/A
Landing Gear Operating (V_{LO})	N/A
Maneuvering Speed (V_A -MGW)	Unpublished
V_{REF} for Wheel Landing	80
V_{REF} for 3-Point Landing	70
All Speeds in MPH.	
Some speeds based on best available data or approximations due to lack of specific info in original aircraft manual (not unusual for many older aircraft).	



the Navy N3N was also often referred to as *Yellow Peril*. Boeing built nearly 8,500 Model 75s for the military; many of them provided to allied nations via the Lend-Lease program. All Stearmans from the Model 70 thru 76 number over 10,000. After World War II, Stearmans became a popular crop-dusting aircraft. Many were converted to 450 hp engines with hoppers installed in the forward cockpit areas. While several were destroyed during such hazardous duty, most survivors have since been converted back to their military configurations, or highly modified and gussied up for airshow work. Once restored to their owner's liking, Stearmans rarely change hands.

Twenty-three Years of Stearman Ownership

The military officially called their Stearmans *Kaydets*. The Army designated their PT-13, PT-17 or PT-18, depending on the engine type. Navy *Kaydets* were N2Ss with a sub-dash-number indicating engine type. Ironically, Bob's Stearman is a Navy *Kaydet*. An N2S-3, it is powered by a 220 hp Continental R-670-4, spinning a metal Hamilton-Standard ground-adjustable prop. However, a wide variety of engine/prop combinations are in use on today's Stearman fleet. N4252 (Ship #339) is meticulously restored to reflect its military heritage. While a myriad of modifications are at Bob's disposal, he's installed only a few non-obvious ones, such as an enlarged internal baggage area and modern radio equipment for those long trips.



Less than half of the 60-plus Stearmans that flew into the Wolford's Farm private airport for a free meal on Friday of the 2009 Stearman National Fly-In. Another 40 or so stayed behind at the convention site in nearby Galesburg, Ill.

For almost a quarter-century he's lovingly maintained and flown #339, giving countless rides, and displaying it. Most recently he's begun introducing his grandchildren to the joys of open-cockpit-biplane flight. While it tends to hibernate during the chilly months in northern Mississippi, it is no hangar-queen the rest of the year. Mr. Bowen says simply, "Twenty-three years later and I just can't seem to give it up."

The 2009 Stearman National Fly-In

I had the distinct pleasure of meeting up with Bob, his lovely wife Sheryl, and their "Stearman buddies" at the annual Stearman gathering in Galesburg, Ill. Over 100 Stearmans of all types and configurations attended. One unique aspect of this event is the daily fly-out, designed to get the Stearmans in the air and their pilots together in a variety of settings. Bob suggested we mount up for the fly-out to Wolford's Farm, which hosts a free lunch spread for the Stearman crowd at its private grass runway.

Once airborne, Bob graciously gave me control. Immediately obvious was the huge amount of drag the 220 hp was being asked to overcome. While 220 hp is plenty in a sleek monoplane, it's just adequate with two fat wings, an uncowed radial engine, a maze of flying-wires, and two open cockpits to pull around. Nonetheless, flying the N2S was a joy. Everything about its in-flight handling was simple and predictable. An effective elevator trim and the leverage of the long control stick allow the pilot to easily overcome any control heaviness. Large power changes have relatively small effects.

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Bob Bowen

PERSONAL DATA:

Age: 68

Born: Cleveland, Miss.

Living: Holly Springs, Miss.

Status: Married to Sheryl for 31 years, three kids, two grandkids

Education:

Mississippi State University; B.A. in History and Political Science (1959-63)

U.S. Army, active-duty (1963-66), separated as a 1st Lieutenant
Emory University; MBA (1966-68)

Georgia Army National Guard (1966-68), separated as a Captain

Occupation: Retired in 1999 as partner in charge of audit and business advisory practice for Memphis and Little Rock offices of Arthur Anderson & Company.

Employer: Now self-employed, running a cattle and farming operation on family farm in northern Mississippi.

Hobbies: Flying and upland hunting.

AVIATION DATA:

Earliest Aviation Memory: I grew up in a farming area and vividly remember watching the crop dusters (mostly Stearmans) and Ag aviation. I also remember as a youngster when the giant Convair B-36 Peacemakers would fly over our school, literally rattling the windows with a rumbling so loud that the teacher would have to stop talking.

First Flight: 1956, in an Aeronca Champ owned and flown by the owner of a large crop dusting service in Cleveland, Miss.

Aviation Mentors: Sumpter Camp, owner of flying service in Starkville, Miss. He retired with over 50,000 hours, all of which were in GA aircraft. He learned to fly in St. Louis in 1926. His flight instructor was Charles Lindbergh. Also, Kell Lyon, my first flight instructor. When he retired, he had over 12,000 hours in the Stearman.

First solo: 1961; Cleveland, Miss.; in a 1952 Cessna 170B (the same make, model and year that I've owned for the past nine years and am selling now to make room for the Maule I bought last summer). This was right after my sophomore year in college.

Initial Training: First flight and solo in summer of 1961, got my private the following summer (after my college junior year), then got another 40 hours in my final year of college through the Army ROTC flight training program.

Private Certificate: 1962; entered the Army as a 2nd Lt. in the fall of 1963. After completing Artillery school, went to Ft. Rucker, Ala. for fixed-wing flight training. I guess I was a slow learner – I was taught to fly three separate times (twice while in college; once in the Army). Received my wings in late 1964, then attended multi-engine transition in the DeHavilland CV-2B Caribou, which I flew in operational units the next two years. The final year, my Aviation Company flew 18 Caribous across the Pacific to Vietnam, where I flew almost 1,000 hours and 700 combat missions in support of the 1st Air Cavalry Division.

Instrument Training: Received instrument, commercial and multi-engine ratings through military competency. Army instrument training was in the DeHavilland U-6A Beaver (with one "coffee grinder" VOR – try holding at an intersection with that!)

Aircraft Owned: Beech Bonanza (1970-1978), Cessna 210 (1978-1980), Cessna 310 (1980-1987), Piper J-3 Cub (1980-1986), Stearman (1986-present), North American T-28B (1996-2003), Cessna 170B (2001-present...but, it's for sale), SR22 G1 with Avidyne Entegra System and TKS (2004-present), Maule M-7-260C (2009-present).

Proudest Accomplishments in Aviation: Taking so many World War II pilots flying in the Stearman. What stories they had! Also, the many medical evacuation missions flown under very adverse weather conditions to get wounded to field hospitals.

All-time Favorite Flight: Probably the Caribou flight across the Pacific. It was a great adventure.

Total Time: 4,000+ hours



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The Stearman is not built for speed, and running the engine hard is going to create more noise and vibration, burn a lot more fuel and do little to advance your arrival time. Bob encouraged me to use sedate power settings for engine limitation and practicality reasons, keeping us mostly in the 80-90 mph range. Add some power to climb at 70-75 mph; reduce the power and descent is nearly automatic. I felt obligated to try some steep turns and stalls, both were benign and, well, almost boring. Even the adverse yaw that so many airplanes of this era have in abundance, was less than I anticipated. It's nothing a normal amount of coordinated rudder can't overcome. Although, I would bet it is a different story in Stearmans converted with four ailerons (top and bottom wings) and 450 thirsty horses up front.

While I am a professional pilot and I thoroughly enjoy taking various airplanes through their paces, I didn't want to miss the point of Stearman flying. The experience was not one of absorbing "the numbers" for me. It was about enjoying the rushing airstream, the tick-tick-ticking of the radial engine, the whistle of the struts and flying wires, and the endless expanse of yellow fabric above, below, and all around me.

Of course, all flights (romantic or otherwise) must end at some point! And so it came my time to flirt with *Yellow Peril*. With no flaps to lower or fancy knobs to fiddle, it's all about needle, ball and airspeed. Seventy mph on final set us up for a three-point landing. I flaired when it felt right, stopping at what looked like the three-point attitude and was rewarded with a beautiful cushioned arrival and the aroma of freshly cut grass. Beginners luck, for sure.

We then enjoyed a leisurely lunch, along with the 60 or so other Stearman crew and the local farm families who'd prepared the grub. Bob again entrusted #339 to me for our return to Galesburg and we made a number of landings on their grass runway, practicing both three-point and wheel landings. While I was pleased with my performance,

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Bob Bowen poses with his 1941 N2S-3 Stearman, in Navy N2S-3 markings. Ironically, Bowen was an Army aviator in the Vietnam era, rather than a Naval aviator in the World War II era, as his plane's markings might suggest.

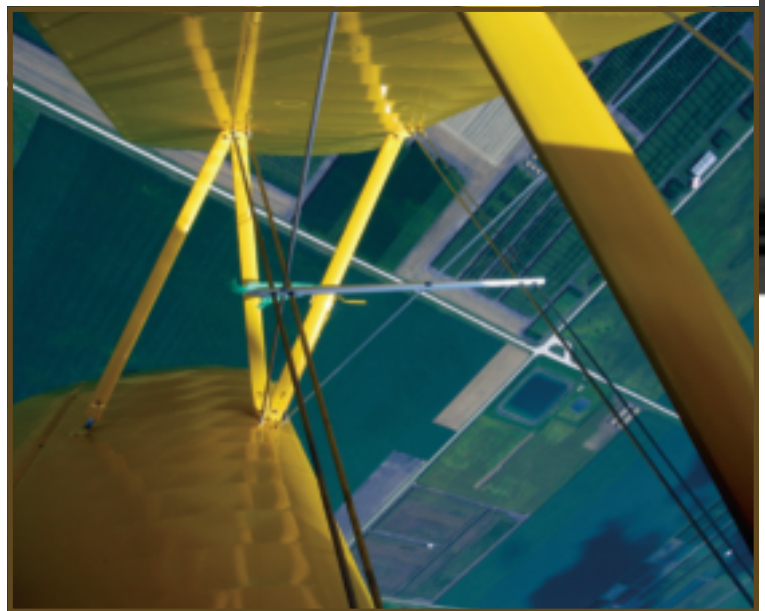
The view from inside the Stearman is both excellent and awash in yellow fabric. Here, Bob and the author view the emerald-green fields from a slightly unusual perspective.

I give most the credit to the light winds, the forgiving grass and the calm voice of Bob behind me. I imagine my broad smile lasted for many hours thereafter.

Heroes Unknown

One can only guess how many Vietnam soldiers owe their lives to Bob and his crew. Not only did his risky combat missions support their ground operations in critical ways, but his medical evacuation missions delivered many a soldier from almost certain death on the battlefield. According to Bob, many of his Vietnam contemporaries still have mixed feelings about their roles in that war. He says in some respects he does too, but that he's always been proud of the role he played in taking soldiers out of harm's way. I'm sure Bob doesn't know the number of men he saved and it's unlikely that many of them have ever heard of Lt. Bob Bowen. Anonymity is often the fate of a hero. [COPA](#)

Author's Note: With this eighth installment of the series, we continue to introduce Cirrus Pilot readers to some of the many COPA members who own and fly multiple aircraft. If you know a COPA member who owns/flyes multiple aircraft types and wish them to be considered for inclusion in this series, please drop me an email at: matt@progaviation.com.



About The Author: *Matthew McDaniel is a Master and Gold Seal CFII, ATP, MEI, AGI, IGI and CSIP. In 20 years of flying, he has logged nearly 11,000 hours total, over 4,000 hours of instruction-given and over 2,500 in Cirrus aircraft. As owner of Progressive Aviation Services, LLC (www.progaviation.com), he has specialized in Technically Advanced Aircraft and Glass Cockpit instruction since 2001. He is a member of the Avidyne National Flight Safety Team and is currently teaching clients nationwide, via personal flight training and seminars, and providing a wide variety of contract pilot services. He's also an airline and corporate pilot, having flown a wide variety of airliners and corporate jets. He holds five turbine aircraft type-ratings and has logged time in over 70 different aircraft types. Matt can be reached at: matt@progaviation.com or (414) 339-4990.*