

Big Easy Wing



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Happy 2024!

Membership Meeting/

January 13th

10am

Unit Leader—Harold Buchler



Greetings!

What can you say about December except Merry Christmas? The main function that occurred in December was our Wing Christmas Party. The event was

well attended, and the weather cooperated.

As we begin the new year, first let me wish everyone a Happy and Prosperous New Year. In the first week of January, we will be replacing several cables on the hangar door. Once again one of our members, Joey Madere, has agreed to step up and do the replacement. Joey, we cannot thank you enough. To assist Joey, Bill Triay brought his scissors lift to the hangar. The work could not be finished without it. Thanks Bill.



Looking to the future, we will be having our yearly



Ground School on March 9. It is imperative that all members attend and participate. Also in March is the Wing Staff Conference in Dallas. I hope several members can attend and participate. Soon afterward, March 22, 23, and 24, the Belle Chasse Naval Air Station will once again be hosting an Air

Show. Featured will be the Blue Angels. Our Wing will be participating with the Stearman on static display and our PX will be present. Please make every effort to help work the Air Show.

We hope to be visited by several planes, a B-17 and B-25, from Airbase Arizona as the head east to Savannah. They hope to be at the Big Easy Wing between May 6th through the 12th. Also, we have been contacted by representatives of the Gulf Coast Wing about having an event at Lakefront Airport. It is also possible that planes from the Centex Wing might also participate. We will be extending an invitation to the Bayou State Wing.





Pilot—Kris Caldwell

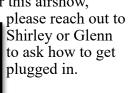


Happy New Year Big Easy Wing!

I'll be covering Operations for Mike Scott while he's off doing great things for America on the other side of the Pacific. I finished my checkout with Mike before Christmas and am looking forward to sharing flight experiences with all our illustrious members as

well as the public in

2024. Airshows are a blast and I know we're all looking forward to our own local airshow at *NAS JRB New Orleans in March*. It will take a good bit of work from all of us but well worth the effort. If you don't have a specific job for this airshow,





In preparation for this airshow and all the events we'll be do-

ing this year, we're going to have our annual ground school in March. This is a good opportunity for everyone to get reacquainted with our "N'awlins Lady" as well as the procedures and practices that we use to keep her flying safely. We'll also pass along useful information to everyone, helping with rides and assisting with getting kids in the Stearman. Please reach out to me if you have any questions. Happy and honored to be working with every one of you!



Executive Officer—Robert Claypool





Adjutant-Shirley Colomb



Happy 2024!

There are about 5 members who have not rejoined. If you have not seen one of your friends then I suggest reaching out to them. I firmly believe it is the personal touch that makes the difference. Also, we all can do a better job at recruiting new members. It looks to be an exciting year, your board has several events on the horizon.

I know the holidays are hectic so if you forgot to rejoin please take the time now to call or text me and I will be happy to take your credit info over the phone. Don't think we do not need you because we do!

Dues may be paid *Online* by going to our BEW website <u>online store</u>, call me or you can mail me a check.

Checks mailed to:

CAF Big Easy Wing c/o Shirley Colomb, Adjutant 281-413-4525 1216 Brockenbraugh Ct Metairie, LA 70005



Safety Officer—Rick Wood



Happy New Year Big Easy Wing!

Well, I hope 2024 will be the best year for our wing.

It is winter and the Louisiana the weather can be anything. January and February are normally the worst weather, so unpredictable, . This next week the temperature is to get below

freezing. Home heaters will be working overtime and space heaters are the worst. Think about where you plan to set a space heater.

Do a quick safety check \square on it.

Keep is a safe distance away from everything and out of harm's way. Turn off when asleep and not home.

Never run an extinction cord under any type of rug

Make sure the extension cord is rated for the Amps the heater pulls.

Everyone have a safe winter and be ready for a busy year in the wing.





Education— Roger Jeffrey



Greetings!

I hosted a visit from a group of fellow East Jefferson High School class of 1970 graduates, on January 4, 2024. We get

together every Thursday for lunch and this Thursday we had lunch at Messina's Runway Café, located in the New Orleans Lakefront Airport terminal building.

After lunch I took the group to our hangar, where they thoroughly enjoyed the tour, and seeing our Stearman, along with the other planes in our hangar. They were very inquisitive and showed much interest in our organization. I demonstrated our computer flight simulators and explained to them our educational program. They had a chance to "fly" a Cessna 170 on the flight simu-



lator and see how easily you can crash if you lose control! It was a fun visit for all.

Opportunities such as this are a great way to show the community what we are about and to increase awareness of our programs. I piqued the interest of some of the group when I mentioned that we sell rides in the Stearman and would keep them posted on the availability dates. I'm sure some of them will be back.

Also, I want to thanks Bill Triay for donating a Stearman wing. We will use this in the education of youth and the community on the construction of the Stearman.



. Bel-Aire 4000

("A Beautiful Frankenstein")

First Impressions: The Bel-Aire 4000 is not a restoration or a kit-built plane, but a one-of-a-kind creation. Modeled after a *Travel Air 4000*, the *Bel-Aire 4000* is the creation of Bill Bardin (EAA#562007), along with Gerry Belchern and Nick Fratangelo and has some truly innovative design features. This graceful and well-engineered biplane is a delight to fly over the countryside and makes all the troubles of the world below disappear.

Background: If you think the Bel-Aire 4000 bears a remarkable resemblance to the Stearman Kaydet series (PT-13/17/N2S), there's a reason. Lloyd Stearman was the designer of the Travel Air Model A. The Travel Air 2000/3000/4000 were all developed from Stearman's initial design, and it's clear that the iconic WWII trainer was a direct descendant of his Travel Air Model A. In fact, the Travel Air Manufacturing Company was founded by the "Dream Team" of early aircraft visionaries. In 1925, Clyde Cessna, Walter Beech, and Lloyd Stearman founded the company in Wichita, Kansas. Three years later, Wichita became known as the Air Capital City of the U.S., with Travel Air producing more aircraft than any other aircraft manufacturer in North America. The Travel Air 4000B



was an immensely successful aircraft for passengers (room for two in the front cockpit), pilot training, air mail, and as a sport plane. Charles Lindbergh actually flew a Travel Air 4000 on airmail routes between Chicago and St Louis. In 1929, seven of the 20 contestants in the first Women's Air Derby race from Santa Monica, CA to Cleveland, OH flew Travel Airs, including the winner, Louise Thaden.

The Bel-Aire 4000 is fabricated with parts from four different aircraft, a car, two women's handbags and contains no wood! The 4000 is the second aircraft built by Bill Bardin; his first was modeled after a 1925 Travel Air 2000. The Travel Air 2000 originally came with a 90-horsepower water-cooled Curtiss OX-5 V-8 engine. Bardin's Bel-Aire 2000 was powered by a Chevrolet 383 V8 engine with a hand-carved wood prop. The wooden wings were exactly duplicated from Travel Air 2000 wings. Bill's entire career has been one working with metal, first as a master welder, and later as a mechanical construction engineer. It was only natural that he wanted his second Bel-Aire to be all metal.

Design Characteristics: With only basic Travel Air drawings as a template, Bill began a project that essentially made him both an aircraft engineer and a test pilot. It seems unfair to compare this beautiful airplane to the hideous Frankenstein from Mary Shelly's classic, but parallels do exist! The upper wings are from a Piper PA-12 Super Cruiser and the shorter, lower wings are from a PA-22-108 Colt. The wings are arranged with a positive stagger; the top wing located forward of the lower one. Aluminum N-strut bracing transfer thrust loads and adds rigidity, while stainless steel wires with javelin struts, prevent torsion and vibration. The bottom wing ailerons drive the upper ailerons with a bell crank and slave linkage rod. While the airfoils are different from the original, the wing square footage is the same as a Travel Air 2000. Using homebuilder innovation, Bill built a hinged door into the unused right lower wing fuel tank to use as a small baggage compartment. There is an additional storage compartment in the fuselage just forward of the front seat. The angular windscreens are from a Stearman and give it slightly more wind protection than the original curved Travel Air windscreens. The fuselage is constructed of fabric-covered (ceconite) 4130 chrom-moly steel, far stronger than the original chromium-molybdenum alloy steel. The tail feathers are all welded aluminum tubing and elevator trim is accomplished with cables connecting the trim wheel to a jackscrew in the tail.

The main landing gear uses a scissor-type linkage with eight external bungee cords per leg. Hanging just below the bungee cords on the landing gear, is a 10-amp Champion wind-driven generator. I knew the wheels looked different and was surprised to learn they are lightweight spun aluminum wheels from a Ford Mustang GT spare tire! Ground steering is accomplished with a Maule tailwheel assembly and Grove brakes.

Powerplant: A 1929 Travel Air 4000E came with a 165 horsepower Wright J-6-5 Whirlwind 5-cylinder radial. For the Bel-Aire 4000, Bill chose the tried and true seven-cylinder Continental W670-6A as his powerplant. The W670 delivers 220 horsepower at 2,075 rpm to a 102-inch McCauley fixed pitch propeller. Three 18-gallon fuel tanks are all in the top wing and provide 54 gallons of gravity-fed fuel to the Bendix-Stromberg carburetor. The exhaust manifold is from a Stearman PT-17, and the dish pan shielding is from a Vultee BT-13. There is a clever step welded at the top of the exhaust manifold, which helps during refueling of the tanks on the top wing. And no, it doesn't conduct much heat, so there is no danger of melting your sneakers during a "turn and burn" fuel stop!

Preflight/Startup: Access the cockpits via the left wing, but take caution not to trip over one of the bracing wires on the non-skid walkway. You can grab the upper wing handholds and lower yourself into the extrawide front cockpit. The forward cockpit has basic flight instruments, stick and rudder but no brakes. The pilot sits in the slightly narrower rear cockpit, and an indented step in the fuselage makes stepping in easy. The aft cockpit contains all instrumentation required for VFR flying and navigation. The pilot sits in a "bomber-style" seat with attractive deep leather pockets on either side. Bill made and modified these pockets from matching women's handbags and are handy for just about anything the pilot may need in flight!



Takeoff: Takeoff happens sooner than one might expect, especially if anticipating Stearman-like performance as I was. Four Piper Cub-series wings on the same aircraft mean a lot of lift is being generated! By the time there is enough speed to raise the tail, the high-camber wings are ready to climb, whether you apply backstick pressure or not. Takeoff will occur in 600 feet or less. Climb-out at about 65 mph will yield a 600-700 fpm climb rate.

Flight Characteristics: The Bel-Air is a stable plane. The build team kept the dihedral angles for both the PA-12 wing and the PA-22 Colt wing. With these significant dihedrals, even with four ailerons, you won't be doing any snappy aileron rolls. The rectangular elevators are large and translate to a large amount of pitch authority. The Piper US35B airfoil is known for soft stall and low speed characteristics. Combine that with two incidences on two wings, and you always have a flying wing with a mild demeanor. Surprise, surprise – the slow speed and stall characteristics are remarkably similar to the Piper Cub series! The control

The control characteristics are indeed perfect for an afternoon sightseeing tour. Cruise speed tops out at about 90 mph with 1850 rpm and will burn about 13.5 gph and .5 quart of oil per hour. If you're trying to deliver the mail somewhere in the dead of night, you can fly for over 3.5 hours!

Landing: Make your approach at 70 mph. Since there are no flaps to configure, selecting carburetor heat is all that is required. You can choose from a turning approach starting abeam the numbers or execute a steep approach with sideslip; both allow the pilot to maintain sight of the runway. While bungee shocks can absorb a lot of sink on touchdown, it also turns that downward kinetic energy straight back into upward kinetic energy! I learned that if you make a three-point landing, ensure it truly is a full-stall landing and not a quasi-wheel landing. Being in the no-man's land between a three-point and wheel landing is not recommended for any taildragger, but especially the Bel-Air due to its bungee gear and relatively small rudder. Any sink will launch you skyward or at least make you light on the wheels. Without the tailwheel firmly planted on the deck, tailwheel steering is non-existent. With this lesson learned, my next full-stall, three-point landing was much less exciting!

Wrap-Up: The Bel-Aire 4000 pays admirable homage to the successful and iconic Travel Air 4000 while making significant modern upgrades. This gorgeous machine should be an inspiration to homebuilders everywhere. It demonstrates that ideas, innovation and old-fashioned hard work can turn concepts into reality – and a beautiful one at that!



On the web:
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