

# Special Edition

## EAA AirVenture Oshkosh 2022

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EAA AirVenture Oshkosh 2022 was held Monday, July 25<sup>th</sup> through July 31<sup>st</sup> at Wittman Regional Airport (OSH/KOSH) in Oshkosh, Wisconsin. It featured the best flying machines, top-notch aerobatic pilots, companies, gadgets, forums, celebrities, living legends, veterans and entertainment to keep the attendees staying for the entire week – a week that I look forward to attending each year. AirVenture is a very special week - nowhere else on earth do so many people come together to celebrate airplanes, and through that aviation connection, strangers become family.

After years of restricted events around the globe, the event did not disappoint. With near-perfect weather for the 10,000+ aircraft that flew into Wittman Regional Airport and other airports nearby, and this year's event was "unlike anything else," according to the Experimental Aircraft Association.

This year's daily themes offered plenty of things to do and see. The various themes for each day at EAA AirVenture Oshkosh 2022 varied: *Opening Day / Van's 50<sup>th</sup> Anniversary* (Monday), *Innovation Day / Air Education and Training Day* (Tuesday), *WomenVenture* (Wednesday), *Young Eagles Day / Air Mobility Day* (Thursday), *Salute to Veterans Day / Air Force Global Strike Command Day* (Friday), *United*

*States Air Force 75<sup>th</sup> Anniversary* (Saturday), and *Closing Day / The Big Finish* (Sunday). The main attractions for this year's event featured the 75<sup>th</sup> anniversary of United States Air Force, 75<sup>th</sup> anniversary of the Beechcraft Bonanzas, 50<sup>th</sup> anniversary of the Van's Aircraft, 40<sup>th</sup> anniversary of the FAA Part 103 regulations that created the modern Ultralight movement, 30<sup>th</sup> anniversary of the EAA Young Eagles program, 30<sup>th</sup> anniversary of Zenith Aircraft, 15<sup>th</sup> anniversary of WomenVenture, and the Flight of the Cats.

Just two days before the beginning of EAA AirVenture Oshkosh 2022, a line of thunderstorms rolled through the area. Many of the pilots had already flown in and securely tied down their prized possessions. Many pilots who watched the weather in advanced diverted to nearby airports overnight to stay clear and avoid the risk of damage. Experimental Aviation Association reported that it wasn't as bad as



Image Courtesy of Amy Phillips

it could have been. The strong winds damaged the AirVenture ground's main gate, blew down several smaller exhibit tents, damaged vehicles, campers, trees, Camp Scholler, & a few planes, including a rare Pheasant H-10 (N151N) at the Pioneer Airport (WS17). There were also quite a few aircraft in homebuilt camping that had rudder damage. The good news is that no injuries occurred during all of this.

The day before, July 24<sup>th</sup>, was an interesting day for plane spotting as gusty crosswinds out of the west were gusting as high as 27 knots that made for a 70–90° crosswind for pilots landing on runway 36L/R.

Even the most experienced of pilots were having a heck of a time keeping their planes from having a landing accident. Unfortunately, a few planes ground looped while others had some scary moments where you couldn't believe that their plane didn't get damaged.

On Sunday, July 24<sup>th</sup>, I went to my first ever Chapter Leaders Corn Roast. It was more than a Corn Roast, as they also served hot dogs, bratwursts, hamburgers and a cold drink [either water or pop]. This event was located at the Camp Scholler Chapter's Pavilion in the Camp Scholler Campground, located directly south of the Fly Market on the west side of Paul Woods. This is the same location where the morning Chapters Pancake Breakfasts are held. This event, which required advanced registration, was put on by the staff at EAA and served as a complimentary social venue for chapter officers.

Charlie Becker, EAA Homebuilt Community Manager, Director of Chapters & Communities; John Egan, EAA Chapters Dept. Manager; David Leiting Jr., Program Manager, Young Eagles & Eagle Flights; and Rick Larsen, Vice President, Communities & Member Programming all spoke at the event. They spoke about the chapter's activities that are occurring during the event, the Adirondack chairs, EAA AeroEducate initiative, and the EAA Education Center. They also thanked every chapter member that makes this organization so successful.

If you managed to visit the Twilight Flight Fest at the Fun Fly Zone, you were in for a treat. The event was held on Monday, Tuesday, Thursday, and Friday nights beginning at 8:00 pm. The Twilight Flight Fest featured the returning EAA STOL Invitational,



3D radio controlled flying aircraft, Airythmia, a paramotor flight demonstration team, the Red Bull Air Force Parachute Team, the Patriot Parachute Team and a new act, Opener flying their BlackFly V3, an electric-powered vertical take-off & landing (VTOL) personal air vehicle.

If you arrived ahead of time between 6:30 pm and 8:00 pm on any given night you could see the regular activities such as demonstrations in ultralights, light

sport, light planes, weight-shift trikes, paragliders, and powered parachutes.

Throughout the week, EAA celebrated the 50<sup>th</sup> anniversary of Van's Aircraft. The ever so popular kit aircraft manufacture was especially highlighted on Monday during the airshow with large formation flybys, a special tribute parking area on Boeing Plaza and near the Van's Aircraft booth, and a debut of its brand-new aircraft, the RV-15, which I will explain in depth further on in this recap. Company founder Richard "Dick" VanGrunsven better known as "Van" and his wife; Diane were also in attendance.

Another major milestone celebrated throughout the week was the 30<sup>th</sup> anniversary of the EAA Young Eagles program. The event was especially highlighted on Thursday with a plethora of events such as a Young Eagles Volunteer Appreciation Root Beer Float Special held at the Camp Scholler Chapter's Pavilion in the Camp Scholler Campground for all Young Eagles volunteers that registered ahead of time, a Young Eagles mass photo on Boeing Plaza, a Young Eagles 30<sup>th</sup> anniversary flight by Young Eagles Co-Chairman Jimmy Graham. Other EAA Young Eagles activities throughout the week included a EAA Young Eagles 30<sup>th</sup> anniversary panel at Theater in the Woods, a commemorative 30<sup>th</sup> anniversary EAA Young Eagles exhibit at the EAA Learn to Fly Center, information about the Young Eagles program at the Blue Barn and the EAA Learn to Fly Center, Young Eagles Volunteer Banquet for EAA Young Eagle pilots and coordinators who registered ahead of time, a Gathering of the Eagles benefit, presentation forums, and special flights throughout the week.

The *One Week Wonder* project returned for its third iteration after the successful completions of the Van's RV-12iS (N2018) in 2018 and the Zenith CH 750 Cruiser (N140WW) in 2014. This time, the group of volunteers built a Sonex Waix-B, powered by a Rotax 912iS engine in seven days that started at 8:00 am on July 24<sup>th</sup> and ended at 3:39 pm on July 31<sup>st</sup> at The World's Greatest Aviation Celebration. The goal of the One Week Wonder project showcases to the public in an open setting that anyone can build an airplane. The attendees had the opportunity to pull a rivet on the machine, have their photo taken as a souvenir, and their name included in the logbook.



For the first time at EAA AirVenture Oshkosh, a Boeing 777-300ER, ("ER" for Extended Range) closed out the airshow on July 26<sup>th</sup> by doing a series of flybys.



The Boeing 777 series is most commonly referred to as the Triple Seven. This Boeing 777-300ER is a 2019 model that sports registration number N2749U, and is owned and operated by United Airlines. During their demonstration the announcers talked about the United Aviate program. Aviate is United's industry-leading pilot career development program offering aspiring and established pilots the most direct path to a United flight deck. The first pass was a standard left to right pass across show center with the gear up. The second pass was a down and dirty low-speed pass from left to right. The third pass went heads on with the crowd. The fourth pass was a high-speed pass from left to right. The fifth and final pass was another heads on, but this time they departed and headed back home.

The Lockheed U-2 Dragon Lady (80-1079) assigned to the 1st Reconnaissance Squadron, Beale Air Force Base, California, made a special flyby with three passes between 2:35 pm and 2:50 pm on July 27<sup>th</sup>. This marked its second consecutive appearance at the event.



The first pass was right after the National Anthem. The second pass was a simulated landing approach without a touchdown and then it climbed to altitude. The third and final pass was another simulated landing approach without a touchdown to depart the airspace. It is always so neat to see the U-2 Dragon Lady because they often do not frequently make air show appearances.

On July 29<sup>th</sup>, I went to see *Top Gun: Maverick* that was shown at the EAA Fly-In Theater. The outdoor theater is located at Camp Scholler, the official campground for the EAA AirVenture Oshkosh attendees. This movie broke the EAA Fly-In Theater attendance record that was set by Disney's Planes on August 2, 2013.



Image Courtesy of EAA HQ.

DreamBIG Entertainment brought their DreamBIG Top Gun: Maverick F-18 Experience, an F-18 cockpit that looks like the one that Capt. Pete "Maverick" Mitchell flew in the film.



Image Courtesy of Don Heinze.

Before the movie began, a special flyover consisting of three aircraft from the United States Tailhook Legacy Flight Foundation took place to Kenny Loggins' Danger Zone. Kevin LaRosa II, the cinematographer was also on hand with Hal Bryan, EAA's Senior Editor to introduce the movie. After a short introductory talk, the show-goers were treated to a four-minute sneak peak of *Devotion*, a biographical war drama film that is based on the book *Devotion: An Epic Story of Heroism, Friendship, and Sacrifice* by Adam Makos, which retells the comradeship between naval officers Ensign Jesse L. Brown & Medal of Honor recipient Lt. JG. Thomas J. Hudner, Jr. during the Korean War. After that wrapped up, it was time for the feature film to begin.

I also saw the movie *Wolf Hound* for the first time at the EAA Fly-In Theater. The movie, which was released in 2022, was shown on July 28<sup>th</sup>. The movie is inspired by the real-life German special operations unit KG 200 that shot down, repaired, and flew Allied aircraft as Trojan horses, "Wolf Hound" takes place in 1944 German-occupied France and follows the daring exploits of Jewish-American fighter pilot Capt. David



Holden. The film features real flyable warbirds as well. But, before the movie began a short talk between Hal Bryan, EAA's Senior Editor, and the key people behind the movie Michael Chait & Steven Chait. I highly suggest all aviation enthusiasts to see all of these films.

One of the most interesting exhibit booths that I saw was a man named Stewart McQuillan sitting in a wheelchair next to a helicopter. It turns out, that he is a retired Royal Air Force Captain who is a paraplegic who had his spinal cord crushed while on a flight in a Tornado GR1 at the age of 29. He overcame the odds of not being able to fly again and was granted FAA certification to fly single engine fixed wing aircraft. After being granted that FAA certification, he was not done adding ratings to his portfolio as he was able to add a helicopter rating. When he got the helicopter rating, he became the first paraplegic to fly a helicopter. Now he is a rated pilot in numerous rotor and fixed wing aircraft and is even a flight instructor.

“As a paraplegic, life can have problems and you just overcome it,” McQuillan said. “You don’t get phased out by it. You just make it work.”

In 1997, he started the development of the AeroLeg, and in 2001 it became the only FAA-approved device to put paraplegics behind the stick. It is a device that attaches to your right leg. It has a separate pneumatic hand control just for the thumb, which is what lets you control the legs, both the ankle and knee; each necessary to fly a helicopter. With this, the pedals controls the antitorque of the helicopter (which control torque, the natural tendency of the helicopter to turn in the opposite direction of the blades). With this device, you are still able to enjoy the passion that you have for aviation.

With the help of the Permobil wheelchair and a gantry-system, Stewart was able to build a Rotorway 162F that he modified and built specifically for him. With this design, he can have others do the same.

The goal of his helicopter, N988VV, & his non-profit foundation, National Veterans Vocational Village (NV3) is to raise awareness for veteran suicides.



The registration number on his homebuilt helicopter features 988, the help hotline for suicide and crisis.

The paint scheme is red, white, and blue which is a tribute to all the veterans and first responders.

You can check out their website [here](#), and a touching tribute [here](#). You can also learn more about McQuillan [here](#), [here](#), and [here](#).

Costruzioni Aeronautiche Tecnam debuted their newest model, the Tecnam P2010 *Gran Lusso* (Great Luxury) to the world. It is the latest in the P2010 line of four-seat, highwing, fixed-gear line. It utilizes a liquid-cooled, four-cylinder 170-hp Continental CD-



170 with DOHC (double overhead camshaft) that can be operated on diesel or Jet-A. The diesel version burns an average

of 5.2 gph and has a 961 nm. range at about 140 KTAS. The engine is controlled by a FADEC system, thus meaning there is no propeller rpm lever, and no mixture control. Other features include, a new panel layout, Garmin GMC 707 autopilot with electronic stability protection, Garmin GCU 475 FMS keypad, polished aluminum trim wheel in the center console, new parking brake, double housing for mobile phones, improved USB ports, relocated electric rudder trim, updated wing tips with integrated LED lights, metallic paint and premium interior options, including carbon fiber inserts. This machine will cost \$626,750 (base price).

The Daher Kodiak 900, a high-wing, utility, unpresurized, single-engine turboprop that has a fixed tricycle landing gear and is suitable for STOL operations from unimproved airfields made its world debut at the event. The 900 features a 3.9-foot longer fuselage and a 900-shaft-horsepower Pratt & Whitney PT6A-140A supplants the 700-shaft horsepower Pratt & Whitney PT6A-34 in the Daher Kodiak 100. It has a Hartzell five-blade composite, 97-inches, constant speed, feathering, reversible propeller.



Some of the new features include a new nose section, flap track fairings completely faired in the cargo pod, cargo pod is now in the airframe, sports wheel fairings, auto fill control controller for the TKS fluid. The

airplane comes standard with single point refueling, something that was an option on the older model.

This model will become standard with luxury six passengers seats in the cabin, although it can be configured to eight, ten, or even twelve (where it is legal for 12). The seats also feature for the first time, arm rests on both sides. Maintenance costs have been significantly reduced due to the improvements made to the removal of the parts for easier and quick inspection.

The cockpit is pretty much the same as the Kodiak 100 Series III. Some of the cockpit features are a Garmin G1000 NXi, Garmin GFC 700 autopilot with electronic stability protection, Dual GPS, AHRS, ADC, Dual Garmin GMA 1360 audio panels, Garmin GTX 345R Mode-S transponder with ADS-B in/out, Garmin Synthetic Vision, and 406 MHz ELT w/ remote switch and GPS enable.

It has a cabin width of 37.7 ft, height of 16.1 ft., wingspan of 45 ft., cabin length of 227 in., cabin width of 57 in., basic empty weight of 4,470 lbs., max ramp weight of 8,100 lbs., max takeoff weight of 8000 lbs., basic useful load of 3,630 lbs., payload with full fuel of 1,430 lbs., and a cargo volume of 309 cu. ft. Its performance on the takeoff ground roll is 1,015 ft., landing ground roll is 1,460 ft., rate of climb at sea level is 1,724 fpm., max. ceiling of 25,000 ft., and a max. cruise speed/endurance/range w/45-min rsv @12,000 ft./ 156 kt./6.8 hr./1,129 nm., max endurance (loiter) speed/endurance/range w/ 45-min rsv @12,000 ft. 102 kt./9.2 hr./955 nm.



The new model will sell for about \$500,000 more than the Kodiak 100, which will remain in production. The new model will cost roughly \$3.5 million in the standard six seat passenger configuration. This model is intended to be delivered to customers in the year 2023.

Sitting next to the Daher Kodiak 900 was the Daher TBM 960, a high-performance single-engine turbo-prop business and utility light aircraft. The Daher TBM 960 was introduced to the world earlier this year at the 2022 SUN 'n FUN Aerospace Expo in

Lakeland, Florida. The 960 model is the fifth model in the highly successful 900-series. It has a Pratt and Whitney Canada PT6E-66XT Turboprop that is controlled by a dual-channel full authority digital engine control (FADEC) that are linked to an Engine and Propeller Electronic Control System (EPECS)—a first for the TBM line.



Some of the cockpit features are a Garmin G3000 integrated flight deck, Daher's e-copilot, icing protection system, flight monitoring, Electronic Stability and Protection system, Under-speed Protection system, Emergency Decent Mode function, Garmin HomeSafe (an emergency Autoland system), Garmin GFC 700, Garmin GWX 8000 doppler weather radar with advanced surveillance, Garmin GDL 60.

Some of the specs include: Nominal Horsepower of 850 shp, Wingspan of 42.1 feet, length of 35.22 feet, height of 14.29 feet, cabin Height of 4 feet, cabin length of 13.29 feet, cabin width of 3.97 feet, forward baggage hold of 110 pounds, basic empty weight: of 4,784 pounds, max takeoff weight of 7,615 pounds, max payload of 1,468 pounds, fuel at max payload of 1,398 pounds; 209 gallons, fuel of 292 gallons usable, max cruise speed of 330 ktas, @FL 280, ISA conditions, range of 1,585 nm @308 ktas., max rate of climb of 4,000 fpm., max operating altitude of 31,000 feet, takeoff distance (over 50-foot obstacle) of 2,535 feet [sea level, ISA], and a landing distance (over 50-foot obstacle) of 2,430 feet [sea level, ISA].

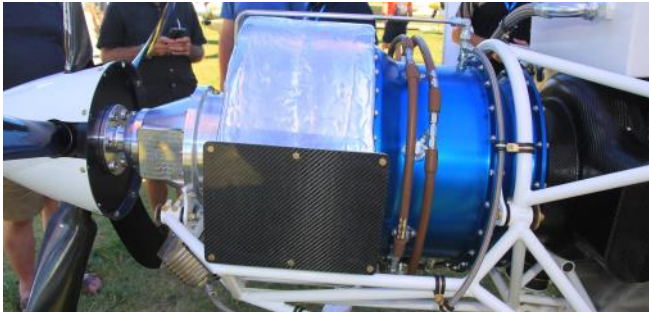
With its stylish good looks, added safety features and handling characteristics, the TBM 960 will be the choice for many customers. It is listed at about \$4,778,964.00.

TurbAero, an Australian company exhibited a metal mockup of its TA200TP Talon recuperating engine with a 5-blade Inconel FLAIR-2 certified DUC Propeller on a Van's RV-7A. They are designating this as RV-7T. Typically, the Van's RV7/7A features a Lycoming IO-320 or Lycoming IO-360 engine. But they aren't just limiting this design to this specific model, but also to other experimentals that can accom-



modate these engines, but with TurbAero's experimental design, they've replaced the Van's RV-7A with a new firewall forward package.

The firewall package exhibited is aviation grade. The fuel and oil systems were almost completely hooked up as the engine that was featured on display was an alloy model mock-up that closely resembled the actual model. The engine from the forward firewall to the spinner is approximately 6" wider than the version seen last year and also comes with a new cowl design.



The initial TA200TP Talon specifications state it can put out 200 hp on takeoff with a maximum continuous power of 190 hp while burning 12.6 gallons per hour at 150 hp using Jet A fuel. The engine uses a unique innovative design called "Recuperative Technology". This technology provides improved fuel efficiency when compared to other traditional turbine engines. The Talon has a gas generator section which uses reverse flow annular combustion, a free turbine section, and a reduction gearbox with the gas generator using a radial compressor and an axial turbine. The power section uses an axial turbine as well. They hope to have the engine up and running in the first quarter of 2023.

Dewey Davenport flew a 1918 Fokker D.VII Replica (N5118F) from Auburn, Indiana to the show for the very first time. He, along with Andrew King, are experienced barnstormer and vintage aircraft pilots who are some of the caretakers of this replica. They started construction on this aircraft in the early 1990s and was able to finish it 2009. Then 10 years later it lifted into the air for a successful first flight.



The original Fokker D.VII was a German World War I fighter aircraft designed by Reinhold Platz of the Fokker-Flugzeugwerke. The original engine was a

Mercedes D.III, a six-cylinder single overhead camshaft valvetrain liquid-cooled inline built by Daimler. The engine that they installed is a Gypsy Queen 30, a British six-cylinder engine. On a British made aircraft, the propeller spins the opposite way than an American aircraft. So, this means you need to make adjustments to your rudder pedals as you need a left rudder instead of right rudder. The wheels features brake discs and it has a steerable tailwheel in the back to help you on pavement. The cockpit is wooden and the instrumentation consists of a tachometer, altimeter, airspeed, and other engine gauges. The exterior design features lozenge pattern one in pink, green, blue, white, and gray. The name "Julie" is written on the top wing, a tribute to owner Buck Toenges' wife, the tail features an Iron Cross, and a faux bullet hole painted vertical stabilizer.

When I heard the early announcement that a Brunner Winkle Bird would be attending the event, I just had to check it out in person, as I have not seen this specific type. The Brunner-Winkle Bird is a three-seat aircraft that was primarily used for training and joy riding. In 1928 Joseph E. Brunner and William E. Winkle founded the Brunner-Winkle Aircraft Corp. In total, around 240 Birds were built with 11 different versions by the company between 1928 and 1931.

The version that we saw on display was the BK version, which was developed from the B version. N727Y (c/n 2037-16) is registered in the FAA database as the *Perth Amboy Bird*, owned by Mike Pangia, and built in the year 1930.



But, the history gets more amazing as Charles Lindbergh also owned this magnificent machine. Since Lindbergh owned the airplane, it has changed numerous owners. From 2000-2012, it was down for 12 years in which it was restored to airworthiness status. A few months later, N727Y was damaged in a landing accident. The good news was that the damage was repairable. Now, fast forward to the year 2022, and N727Y was awarded the Silver Age Outstanding Open-Cockpit Biplane award at the event for being in magnificent airworthy condition. I was truly honored to see this open-cockpit biplane in person.

Members of the Popular Grove Vintage Wings and Wheels Museum and EAA Chapter 1414 at the Popular Grove Airport (C77) in Popular Grove, IL, flew their immaculate full-scale replica of a 1918 Curtiss JN-4D Jenny (N1DP) to the biggest general aviation event of the year. At the event the team won a Bronze Lindy Award in the Vintage Category for being the Replica Aircraft Champion.



The team arrived before the EAA AirVenture Oshkosh NOTAM went into effect. The trip for the Jenny from C77 to Pioneer Airport (WS17) in Oshkosh, WI, took approximately two hours. A chase plane flew alongside the aircraft and they made one scheduled stop at Hartford Municipal Airport (HXF/KHXF) in Hartford, WI. The team then tugged and walked with the Jenny through the EAA AirVenture Main Gate Admissions and the EAA AirVenture grounds to the Rose Memorial Plaza in Vintage Airplane Area, where they remained for the week.

The project for their full-scale replica of a 1918 Curtis JN-4D Jenny began in the fall of 2016 and finished in the fall of 2021. During the early phase of the project, the team studied blueprints and even visited a few museums who have a Jenny on display to get the specifications they needed. The Jenny they have is 95% spruce, while the instrument panels and rib gusset are mahogany, and white ash for the longerons. To achieve the proper curve in the longerons, they were placed in a PVC tube filled with water and allowed to soak for 48 hours. Then they were put in a steam box for a couple hours, removed, clamped into form, and allowed to dry in the form for a week.

Volunteers acquired through a donation an original eight-cylinder, 500-cubic-inch, 90-horsepower OX-5 Curtiss engine believed to be about 100 years. Parts on the engine had to be replaced such as three cylinders; crankshaft and front seal, and the X-bracket where the carburetor mounts. Other parts had to be overhauled. Meanwhile, the instruments for the panel are period correct. The Jenny has a max speed of 65 kts. and a cruise speed of 52 kts. The panel features a clock, water temperature gauge, oil temperature gauge, compass, tachometer, and an altimeter. The seats are built with aluminum seat backs and spruce,

plywood, and aluminum seat bottoms, all the way through the upholstery.

The wheels that they have were originally chrome. But they sandblasted and removed the chrome and painted them with Eastwood Satin Black Chassis Paint. They also removed the disc for the brake caliper. Although, the original Jennys did not have tire treads, these do. The tires were ordered through a local Harley-Davidson shop. The aircraft also has no tailwheel and a tailskid instead, so it has to be operated off of a grass runway. The registration, N1DP, has a historical reference. Don Perry, who worked on the project as the leader, mentioned that his grandfather, Dominick F. Perry (1898-1925) or D.P. for short learned to fly in a Jenny.

This machine is absolutely fantastic and true to the original. If you have not seen a Curtiss Jenny in person, I suggest that you do because the barnstorming era is a fantastic early part of our history. There are numerous in museums state side and a few flyable replicas including this full-scale replica, which you can visit and see at the Popular Grove Vintage Wings and Wheels Museum and one at the EAA Aviation Museum.



For those that are or have been stamp collectors, or just didn't get to see the plane at AirVenture 2022, a Curtiss Jenny (38262) is portrayed on one of the rarest and most valuable US postage stamps—the Curtiss Jenny 24¢ Invert. There are only 100 of these rare stamps in existence. The biplane pictured in the design is the famous JN-4-H Jenny modified by replacing the front cockpit with a mail compartment.

While I was at the Droni Aerospace exhibit booth, I had the chance to interact with the team and the opportunity to sit in the completed cockpit of their Droni H1. While I was inside the cockpit, I was able to simulate flying the H1 with a pair of VR goggles. The experience was incredible and I was amazed at how easy it was to fly.





The Doroni H1, is a two-seat eVTOL with ducted fans in the main wing and canard, and a pair of small pusher props at the rear of the fuselage. It has eight ducted propellers (two propellers per duct and two propellers for forward flight) and ten electric motors. The H1 uses three touchscreen monitors to control the flight, the user experience, navigation, landing, cameras, lights, ventilation, mood lighting, and wipers. The aircraft, as of now, can be piloted manually, with hopes of it being flown remotely in the future. The fuselage is made of carbon fiber composite and the canopy covers the cockpit with windows in each side door. The wings sports winglets for both the high canard and rear high wing, and the landing gear is a fixed-wheel quadricycle landing gear. If one or more of the propellers goes out, the Distributed Electric Propulsion (DEP) kicks in to land the onboard occupants to safety. Top speed: 140 mph. Cruising Speed: 100 mph. Range: 60 mi. Charge Time 15-20 minutes. Flight Time: 40 minutes.

Leo Flight Corporation was an exhibitor at this year's EAA AirVenture Oshkosh. Their display included their ArcSpear, ArcSpear Mini, CanopE-Jet Powered Paraglider, and LX-1 prototypes.



The [ArcSpear Mini](#) is a super-fast, all-electric jet powered quadcopter that weighs 46.2 lbs., has a max throttle thrust with a top speed of 180 mph, cruise speed of 120 mph, and a range of 18 miles on 18AH, 6s (25v) liPro batteries.

The price for the drone with batteries is \$9,995.00 and for the FPV System, Radio, and Long Range 1,795.00.

The [CanopE-Jet Electric Jet Powered Paraglider](#) is the world's first all-electric, jet powered paramotor system capable of a single pilot weighing 250 lbs. With an empty weight of 49 lbs., and a flight time of

about 25 mins., the CanopE-Jet Electric Jet Powered Paraglider can go 70 mph. Price: \$17,995.00.

The star of the show for Leo Flight Corporation was their LX-1 (LEO Experimental prototype-1) prototype, a manned eVTOL that uses their all-electric jet propulsion system. The [LX-1](#) serves as the skeleton testbed for the system that will go into the LEO Coupe flying car.



They plan to have this achieve a speed of 250 mph with a range of 300 miles on a single charge. The final version will run no less than 200 small vertical jets, each being 4.4 inches in diameter and producing 11.7 lb. of thrust for a total of over 2,300 lb. of thrust. The price will be about \$459,000.

One of the most unique electric vertical takeoff and landing (eVTOL) aircraft on display this year was the [AIR ONE](#). AIR ONE is being developed by AIR, an Israeli company. They originally debuted the full-size prototype at the Kentucky Derby, then In July, AIR ONE completed its first hover, and then made its first trip to EAA AirVenture Oshkosh.



The AIR ONE seats two people comfortably in its beautiful panoramic glass cabin. It has four sets of counter-rotating propellers, driven by eight battery enabled motors that can deliver a peak of 771 horsepower (575 kW). It will cruise at 100 mph and go a max speed of 155 mph. They claim it will reach a range of 110 miles in a 1-hour flight time. One of the most amazing features of this personal aircraft is that



you can fold the wings and store it in your garage to reduce the cost of renting a hangar.

As with most eVTOLs at the event, they are still working with the FAA for certification and still undergoing testing and designing. At a base price of just \$150,000, this eVTOL can be yours.

Ampaire Electric EEL made its world public debut at the EAA AirVenture Oshkosh for a very short brief stay on Boeing Plaza, which included a demonstration in front of the air show crowd during Tuesdays show. The Ampaire Electric EEL is a retrofit of a Cessna 337 Skymaster and is a hybrid electric aircraft developed by U.S. company Ampaire, established in Hawthorne, California. The forward piston engine of a Cessna 337 Skymaster (a push-pull aircraft) is replaced by an electric motor powered by a battery, in a parallel hybrid configuration.



Behind the helm of the aircraft was renowned pilot extraordinaire, designer, builder, and test pilot, Reno Air Racer Elliot Seguin. Elliot has a total time of more than 3400 hours in over 95 types and over 1000 hours testing.

On Elliot's way to the event, he set a record on July 21<sup>st</sup> for the longest nonstop flight ever made by a hybrid electric aircraft, when he flew 986 nm. from Mojave Air & Space Port (MHV/KMHV) in Mojave, CA to Hays Regional Airport (HYS/KHYS) in Hays, KS. When he resumed on July 22<sup>nd</sup> for the second and final leg of his journey, he flew 574 nm to the destination airport, Wittman Regional Airport (OSH/KOSH) in Oshkosh, WI. The journey took him 1,135 miles and three airports, but he and the company were happy to show the world the achievements they had done.

A beautifully restored Westland Lysander Mk.IIIA (C-FVZZ) owned by 2711283 Ontario Inc. won two Lindy Awards in the Warbirds category this year for Best Liaison and the Phoenix Award, the highest achievement in craftsmanship and dedication in the preservation of aviation history accomplished in restoration was one of the more interesting Warbird and liaison aircraft on display.

There are about 24 complete Lysanders in the world today, but only three are currently airworthy -- C-



FVZZ, a 1942 Westland Lysander Mk.IIIA; G-AZWT, a 1938 Westland Lysander Mk.IIIA; and G-CCOM, a 1939 Westland Lysander Mk.IIIA. The Lysander that visited the event, C-FVZZ, is the only airworthy Lysander on North American soil.

The Westland Lysanders primary purposes were reconnaissance, short takeoff and landing, artillery spotting, general communications, and clandestine flights. Westland Aircraft produced this aircraft immediately before and during the Second World War. The aircraft got its name, Lysander, after a Spartan military and political leader, who famously defeated the Athenian navy at the Battle of Aigospotamoi in 405 BCE. The first Lysanders entered service in June 1938 and had a short career as they were retired in 1946 as they made very easy targets for the *Luftwaffe* even when escorted by Hawker Hurricanes.

In 1972, Mike Potter bought Lysander C-FVZZ from a farm near Weyburn, Saskatchewan, Canada. In 1977, Harry and Anne Whereatt of Assiniboia, Saskatchewan, Canada started the restoration process. Although the Whereatts never flew this Warbird, they however, restored it to its Royal Canadian Air Force (RCAF) tow target and liaison role. Then in May of 2007, collector Michael Potter founder of Vintage Wings of Canada purchased it, where they thoroughly inspected and made much needed repairs. On June 18, 2010, it had its first post-restoration flight; then it was sold in 2019 to new owners, John Carswell and Tim Hicks of 2711283 Ontario Inc., where it will be kept in the Vintage Wings of Canada collection.



It is a strange aircraft in that the pilot has no control over the slats and flap arrangements. If you increase the angle of attack by raising the nose, aerodynamic pressure will extend the slats which will also at the same time drive the flaps. In addition it has a wingspan of 50', a length of 30'6", height of 14'6", empty weight of 4,365 lb., and a max takeoff weight of 6,330 lb. It has a maximum speed of 184 kts., a 56 kts. stall speed, range of 520 nmi., and a service ceiling of 21,500 ft. It can also be equipped with 0.303 in. Browning machine guns and optional spat-mounted stub bombs

The aircraft displayed at EAA AirVenture Oshkosh 2022 is equipped with these items: a Garmin aera 500, BendixKing KY 97 VHF Communication Transceiver, Kannad 406 AF ELT, Beckers ATC-4401-1-175 Transponder, and a Gill G-641 Battery. The Bristol Mercury XX serial #57337 is a British nine-cylinder, air-cooled, single-row, piston radial engine that powers the De Havilland PD4310-2 propeller. It also has a type AVT 86 MB Hobson Carburetor and type SP9/6 Watford Magnetos. The Warbird's airframe is currently painted in classic silver to represent a National Steel Car railcar, where 104 were built under license in Canada.

A pair of rare fighters paid a visit to the event as a 1943 Messerschmitt Bf 109G-6 (N42109) owned by FTR ESC LLC. and a 1959 Hispano Aviación HA-1112-M1L Buchón (N90602) restored to look like a Messerschmitt Bf 109G-10 owned by Avenger LLC. were in attendance. Both had a large gathering around their machines as this marked a first-in-attendance at this event for a Messerschmitt Bf 109G and a Hispano Aviación HA-1112 Buchón. N42109 won two Lindy Awards at this year's event for Grand Champion-World War II and the Phoenix Award, the highest achievement in craftsmanship and dedication in the preservation of aviation history accomplished in restoration. N90602 also won a Lindy Award in the Judges' Choice for Foreign Fighter category.

The 1959 Hispano Aviación HA-1112-M1L Buchón (N90602) is owned by Avenger LLC., and is currently part of the Erickson Aircraft Collection in Madras, Oregon.



This aircraft was once owned by renowned aircraft collector Connie Edwards. This aircraft was used in the *Battle of Britain*, a 1969 British war film documenting the events of the Battle of Britain. It was also used in *Dunkirk*, a 2017 war film depicting the Dunkirk evacuation of WWII.

On April 21, 2017, N90602, made its first post-restoration flight following restoration at the Erickson Aircraft Collection in Madras, Oregon. It was restored with an Allison V-1710 engine, an original Bf 109G-10 cowling and a Bf 109G-10 tail. It holds about 105 gallons and burns an impressive 60 gallons an hour. N90602 has been painted as a tribute to Col. Hermann Graf, a WWII German Luftwaffe fighter ace.

A very rare German WWII fighter aircraft, a 1943 Messerschmitt Bf 109G-6 (N42109) owned by FTR ESC LLC. and owned by Bruce Winter made its post-restoration world debut at this year's event. The fighter seen was an original Erla-built that was recovered from Lake Sviblo (*Sviblo Ozero*, *Свибло озеро*, in Russian) on the Estonian-Russian border in 1990. It had been struck by Russian anti-aircraft flak during the war in 1944. The pilot was able to survive this accident.



The Messerschmitt BF-109s was Nazi Germany's most important fighter aircraft. It was the best fighter in the world in 1940 as it was faster than the Supermarine Spitfire and could carry a more effective armament. In 1942, it would be slowly phased out by the Focke-Wulf Fw 190s. When the USA brought in their Boeing B-17 Flying Fortresses & the North American P-51 Mustangs, the BF-109s were no longer playing offense, and thus the Luftwaffe would retire them completely in May 1945.

After it was recovered from its watery grave in 1990 it was transported to Moscow, Russia. The fighter aircraft changed hands numerous times over the years. Around 2012, a group traveled to a town outside Munich, Germany to look at it. At that point they bought it and transported it to North American soil where it would get restored by Midwest Aero Restorations Ltd. in Danville, Illinois in a painstakingly 10-year restoration process. The entire airplane needed a lot of care from the corrosion it suffered, but the team did a miraculous job with limited sources, blueprints, and items they had by creating additional parts. The wings were rebuilt in 2015, the fuselage was completed in 2018 and it flew in May 2022 with an original



Daimler-Benz DB 605A engine. It holds 108 gallons and burns 60 gallons an hour. The G-6 variant picks up weight because it has a heavier armament load-out.

An old girl got its wings back just in time for this event and attendees had the wonderful opportunity to see this 1942 Douglas DC-3C-S1C3G (N983DC) that is affectionately known as *Yukon Sourdough*.



In 1942 it started its life out as a Douglas C47A-5-DK Skytrain that flew for both the United States and Canadian Air Forces. After its wartime service, Air North, a Canadian airline and cargo operator based in Whistler, Yukon, Canada, purchased the plane in 1982, registering it as CF-OVW, a Douglas DC3C-S1C3G. The airliner and cargo operator named it *Yukon Sourdough* and repainted it yellow and green, which livery it still sports today.

After its career with Air North in 1998, *Yukon Sourdough* was sold to the EAA, thus receiving an FAA airworthiness certificate and registration number N983DC. After its brief stay with the EAA, it was purchased in the early 2000s by Blue Ridge Piedmont & Chesapeake Airways.

In 2012, she was damaged in a tie down accident caused by a microburst at the Hagerstown Regional Airport (HGR/KHGR) in Hagerstown, Maryland. The result of this caused significant damage tearing a hole near the tailwheel while also damaging five frames in the fuselage and the skins. The repair process was finished about four years ago. After this repair, the team thoroughly checked the engines to make sure everything was up to flying standards. Once that was done, the plane had its first post-restoration flight on July 12, 2022, after sitting on the ground for nearly a decade. Now, after making its post-restoration world debut here, they plan to keep this DC-3C airworthy and fly it to air shows.

As of 2022, John Mosley, Founder of John's 360° Coatings and Hangar 360° Aircraft Services became the newest caretaker of N33VW, a 1956 Douglas DC-3C-S1C3G nicknamed *The Wabbit Expwess* which received a Lindy Award for Vintage – Transport Category Runner-Up at this year's event.

Before, Mosley owned the airplane, it was owned by the Cavanaugh Flight Museum in Addison, Texas,

which did a phenomenal job in restoring, maintaining, and flying it. Mr. Mosley decided to give it a fresh overhaul by updating its nose art and by giving it a fresh paint job. The previous nose art *Mr. C, It's Tuesday*, was named and pictured after James "Jim" Cavanaugh, Sr. It also had the markings C8 added, which is no longer the case.

Now, it's nicknamed *The Wabbit Expwess* after the 438<sup>th</sup> Troop Carrier



Group who used the nose art on a Douglas C-47 Skytrain. The nose art is a cartoon character famously known as Bugs Bunny. The 438<sup>th</sup> Troop Carrier Group was active

from June 1, 1943, to November 15, 1945. The group trained for and participated in airborne operations, flew resupply and reinforcement missions to combat zones, evacuated casualties, and hauled freight in the European Theater. The tail sports the company logos for Mr. Mosely, John's 360° Coatings on one side and Hangar 360° Aircraft Services on the other. The invasion stripes remain the same as when the Cavanaugh Flight Museum owned it. The last thing he removed for the paint overhaul job was the construction number that was visible in big numbering, 320401. Overall, the changes that Mr. Mosley did to his newly owned machine are fantastic. He will keep this beast flying for all to see.



Lewis Air Legends' 1943 Grumman F4F-3 Wildcat (N12260) took part in the Flight of the Cats reunion throughout the event. This is the only airworthy F4F and F4F-3 in the

world today. The retrieval process of extracting N12260 from Lake Michigan by A and T Recovery took place in late 1991 and a restoration team consisting of Dick Hansen and Jim Porter took two and half years to get this naval carrier-based fighter aircraft roaring back in the air. A and T Recovery had a very difficult time recovering it because it was standing upright, nose down in 210 feet of water. In a depth of 210 feet of water, water temperatures are close to 38° F range and they decided to send a diver down for this risky operation. The operation was risky because at that depth in ten minutes you feel the effects of nitrogen narcosis on your body. The aircraft had no attachment points and you never ever sling an aircraft because that risks damage. The lifting point they chose was the tail tie down, which flipped the aircraft upside

for them to complete the lift by then opening the Dzus fasteners.

This aircraft was originally ditched in Lake Michigan in May of 1994, during pilot training operations off the carrier *USS Wolverine (IX-64)*, thus, never seeing combat in the Gulf War.

The WWII aircraft currently reuses almost everything in the cockpit except for the throttle quadrant and the plexiglass. The wings needed additional restoration, and Ezell Aviation took charge of that. It's truly remarkable on how many reusable items they could use on this machine. However, the original airplane had an electric propeller while this one does not—it uses a Pratt & Whitney R-1830 series engine. The aircraft is painted in the markings of Lieutenant Commander Edward “Butch” Henry O'Hare, a famous naval aviator who became the navy's first fighter ace awarded the Medal of Honor in 1942.

The warbird was then sold to Steve Craig of Lawrence, Kansas, and he sold it in 2007 to Rod Lewis of the Lewis Air Legends. While in the inventory with Lewis, Conrad Huffstutler, President of Lancair International, Warbirds pilot, and Warbirds restorer did additional restoration work to a point where both were satisfied in flying it again; and because of that, it was here for the second consecutive year in a row.

Rod Lewis of the Lewis Air Legends also brought a pristine example of a 1949 Grumman F8F-2 Bearcat (N14WB).



This aircraft was assigned to several squadrons, but remained in storage and undelivered. In 1963, it fell into private collector hands and changed through numerous collectors, including Commemorative Air Force, World Jet Inc., Whittington Bros, Inc. and Lake Air before being picked up by the Lewis Air Legends in 2008. From 1980 to 1988 it was on loan to the EAA Aviation Museum, and in 2007 it raced at the National Championship Air Races with Dave

Morss, who took it to an 8<sup>th</sup> place silver finish in the Unlimited Class. *De-Chrome Cat* wears an authentic Bearcat paint scheme and is equipped with all new or overhauled systems including electrical, radios, avionics, and hydraulics.

Fagen Fighters Museum of Granite Falls, Minnesota, brought their Hellcat to partake in the Flight of the Cats festivities for the second consecutive year. N9265A is a 1944 Grumman F6F-5 Hellcat that bears the nickname *Death N' Destruction*.



This Grumman F6F-5 Hellcat was built in 1944 and served two tours with the Strike Fighter Squadron 14 (VFA-14) Tophatters, then with Fighter Squadron 80 (VF-80), and finally with the Naval Air Station Squantum in Quincy, Massachusetts. After its navy service, it fell into numerous private collectors hands. In 1978, Charles Nichols of the Yanks Museum of Chino, California, owned this machine. Then in 2017, Evan Fagen of the Fagen Fighters Museum visited the Yanks Air Museum where he grew a fascination for the Hellcats and eventually would be able to strike a deal to purchase it in 2017.

Once in Evan Fagen's possession, he took N9265 to Jim Maloney, Steve Hinton, and Steven Hinton's Fighter Rebuilders of Chino, California, where a two-and-a-half-year restoration process took place to get it into pristine condition. The Pratt & Whitney R-2800



engine's overhaul took place at Anderson Aeromotive in Grangeville, Idaho. The post-restoration flight took place on January 3, 2021, and in July at that year's EAA AirVenture Oshkosh, it won a Grand Champion World War II Warbird award while Fighter Rebuilders collected the Golden Wrench award.

Fagen Fighters' 1944 Grumman F6F-5 Hellcat is nicknamed *Death N' Destruction* to match the Grumman F6F Hellcat that Ensign Donald “Don” McPherson flew during World War II. Don was awarded the



Distinguished Flying Cross while w/ Fighter Squadron 83 (VF-83).

Lewis Air Legends brought their two Grumman F7F-3 Tigercats, *La Patrona* and *Here Kitty, Kitty*.



*La Patrona* (formerly known as *Big Bossman*) sports registration number N805MB. It is a Grumman F7F-3 Tigercat, photo-reconnaissance version and was manufactured in 1945, but was delivered too late to be assigned to a combat unit. In 1989, Robert Waltrip registered the fighter as N800RW when the ground-up restoration was completed February 10, 1989. The aircraft previously had been displayed at the Lone Star Flight Museum in Houston, Texas.



In 2002, it was sold to an owner who decided to enter it into the National Championship Air Races and registered it as N805MB. Then in 2008, the current owner Rod Lewis purchased it, where it has continued to be on the racing circuit.

*Here Kitty, Kitty* has registration number N700F, and just like *La Patrona*, it is a Grumman F7F-3 Tigercat, photo-reconnaissance version that was manufactured in 1945.

It was also delivered too late to be assigned to a combat unit and is also an air racer. In her career from about 1961 to 1978, it served as a fire-fighter tanker. After its fire-fighting days were over, they removed the belly retardant tank and plumbing, and the Grumman Tigercat went to the Reno Air Races circuit. The warbird changed hands a couple times before being purchased in 1980 and relocated to the Air Zoo in Kalamazoo. In 2009, Lewis Air Legends bought the aircraft and decided to keep it on the air racing circuit with Stewart Dawson at the controls.



The aircraft that was the highlight of the event for me was a 1989 Mikoyan Gurevich MiG-29UB Fulcrum (N29UB) owned by Jared Isaacman, Founder & CEO of Shift4 and Founder & Former CEO of Draken International.

The highly anticipated 1989 Mikoyan Gurevich MiG-29UB Fulcrum (N29UB) [arrived in style](#) on July 28<sup>th</sup> with a slew of jets from Jared Issacman's fleet. The jets that accompanied it were a 2007 Bombardier Global Express (N82EM), 1979 Dassault-Breguet Dornier Alpha Jet A (N572AJ), 1981 Dassault-Breguet Dornier Alpha Jet A (N512XA), 1978 Aero L-39C Albatros (N138EM), 1980 Aero L-39C Albatros (N137M), and a 1982 Aero L-39ZA Albatross (N135EM).

The Global Express was the first one to arrive, followed by the vintage jets who made their grand entrance in a victory formation pass.



The Global Express did a single pass and then landed after another pass from the Alpha Jets and MiG-29UB. Then, the three L-39s did a few more formation passes as did the MiG-29UB and the Alpha Jets. After that, the team did their break from for-



mation to land while the MiG-29UB remained in air as it did a go around, while the Alpha Jets and Aero L-39s landed. The MiG-29UB finally touched down bringing with it a lot of smoke and the deployment of its parachute to decelerate.

The [Saturday demonstration](#) that the team put on featured the MiG-29UB Fulcrum, two Aero L-39 Albatroses, and two Alpha Jets. The crowd was able to see the Fulcrum takeoff, and the first pass featured all the jets in victory formation. Then the group broke up into two elements featuring the Fulcrum in the lead with two Alpha Jets. The other group featured two Albatroses flying in a two-ship formation. The pilot of the Fulcrum, Jared Issacman, treated us to two zoomie passes. It was exhilarating to see the MiG-29 doing the afterburner pass because of the large trailing black smoke. When doing zoomies, it burns 176 gallons of fuel a minute. The Alpha Jets landed first followed by the Albatroses and then the



Fulcrum. This demonstration was very awe inspiring to see.

The [Sunday, and final, performance](#) for this team featured the Mikoyan Gurevich with Jared Issacman doing solo maneuvers. Some of the maneuvers included a gear down dirty pass, a high-speed, and a tight radius turn pass.

After his very-short demonstration, he departed the airspace to head back home. However, while the Alpha Jets, Albatrosses, and Express did not fly during this show, it was still very cool to see this rare sight in the sky.

If you visited the Warbirds area when the team arrived, you could have seen N572AJ, N512XA, N138EM, N137M, and N135EM up close and in person. However, N82EM and N29UB were parked on the other side of the airport away from the spectators. This immaculate Fulcrum had its first post-restoration flight on January 23, 2011, with Doug Russell, United States Air Force test pilot and John T. Sessions, Owner and Founder of the Historic Flight Foundation/Historic Flight Museum. Before that, it served in the Ukrainian Air Force as a trainer since it is the two-seat version. In 2006, John T.

Sessions, & Tim Morgan, owner of Morgan Aircraft Restorations took possession of N29UB (c/n 50903014896). But the road from the international market to the United States was an interesting one as the jet was divided into two shipments in Ukraine, one by way of the Atlantic with the Klimov RD-33-2S GTDE-117 Turbostarter engines and wings and the other by way of the Pacific with the fuselage due to a fear of being hijacked or seized. During the transit, it made a stop in China without the official papers, where it sat for two-years while legal action was taken to get it back in possession and to continue with its journey. Since it came to the United States it has had a remarkable 510 hours flown.

In 2011, John T. Sessions sold the Fulcrum to Paul G. Allen. Paul was an American business magnate, computer programmer, researcher, investor, and philanthropist. He co-founded Microsoft Corporation with childhood friend Bill Gates. In addition, he was also big in the aerospace industry as a pilot, an aircraft collector, Co-Founder & Chairman of Vulcan Aerospace,



Co-Founder of Mojave Aerospace Ventures, Founder of Stratolaunch Systems, and Founder of the Flying Heritage & Combat Armor Museum.

The jet didn't travel far to its new owner as Paul was also located at Paine Field (PAE/KPAE). On October 18, 2018, Paul died from cancer at the age of 65, and his estate put his entire collection up for sale, including this rare jet.

When the listing of this rare pristine jet hit the marketplace, Jared Isaacman, Founder & CEO of Shift4 and Founder & Former CEO of Draken International had to jump on this opportunity. For Jared, this is another aircraft for his personal enjoyment. When it was listed on the marketplace, it had a remarkable 570 hours of total time on the air frame and 60 hours on the engines since being overhauled. The jet now sports the Arctic Ghost Camouflage to match the other jets in his fleet. The jet previously sported the Original Gray Camouflage paint and the black panther with red gleaming eyes across the nose. Paul Allen's MiG-29 is in good hands with Jared Isaacman.



A rare and beautifully restored 1959 Snow Aeronautical S-2A (serial number 1025). The S-



2A was on display at the Air Tractor exhibit area located on Boeing Plaza. After eleven years of work, it had its first post-restoration flight in late 2021 by Air Tractor Chief Test Pilot Mike Rhodes. Powered by a 240 hp Continental W670 series radial engine, this vintage open cockpit agricultural aircraft has very minimal climb performance and is very slow. One of the key differences you will instantly spot is the windshield has been modified to be taller so the pilot can sit comfortably when flying. This was a treat to see at the show.

A Boeing B-29 Superfortress returned to EAA AirVenture Oshkosh for the first time since 2019. A Boeing B-29A-60-BN Superfortress named *Fifi*, owned by the Commemorative Air Force, flew over the event this year. *Fifi* was nearby at the Appleton International Airport (ATW/KATW) in Greenville, Wisconsin, giving rides as part of the CAF AirPower History Tour from July 25<sup>th</sup> to July 28<sup>th</sup>, and was able to make the event. In addition, *Doc*, a Boeing B-29-70-BW Superfortress owned by Doc's Friends, Inc.



was on static display on Boeing Plaza for ground tours. This iconic four engine bomber was also available for rides at the nearby airport where *Fifi* was located.

The Boeing Company brought its newest ecoDemonstrator, a Boeing 777-200ER (Extended Range) (N861BC) powered by a Rolls-Royce Trent 800 to the event for the very first time. This airplane, previously used as a passenger jet, arrived on July 24<sup>th</sup> at 8:22 pm and departed on July 28<sup>th</sup> at 2:31 pm. It was open for public tours from July 25<sup>th</sup> through July 27<sup>th</sup>, and I was very fortunate to tour the inside of this aircraft.



This is a special year for the program as it is celebrating its 10<sup>th</sup> anniversary with a special livery; and during that time it has converted nine different aircraft. On their current version, the Boeing 777-200ER, they will test 30 new technologies aimed at improving safety, efficiency, and sustainability. One consistent focus across each platform is sustainable aviation fuel (SAF). By 2030, the company has committed to delivering all its commercial planes with the capability to operate on 100% SAF. When they are not operating on 100% SAF blend, they will use a 30% SAF with 70% conventional jet fuel.



Another highlight of my tour was when they mentioned "additive manufacturing." This allows Boeing to design parts of a lower weight that use less energy and produce less waste in the manufacturing process. The most noticeable differences can be found to the auxiliary power unit (APU) exhaust duct support panel and an engine bracket.

Boeing is testing a slew of other features such as an environmentally friendly refrigerant that does not contain potent greenhouse gasses if it leaks, a new fire suppression discharge to eliminate the use of Halon 1301, a water conservation system that will save more than 400 lbs. of water per flight, a wearable next-generation head-up display (HUD) from Elbit Systems called the SKYLENS, a hands-free latch and lock to reduce the frequency of hand touches, a self-disinfecting lavatory with embedded ultra-violet (UV) lights, tray tables made with natural materials, and other innovative ideas.

For the first time ever, a Delta Air Lines jet took part in the festivities at AirVenture Oshkosh. The Airbus A-330-900neo (New Engine Option (N411DX) arrived on the morning of July 25<sup>th</sup>, and was open for public tours during its brief stay. The livery features a special Team USA scheme that was designed by Shane Edwards, Window Seat, and Carey McKay, with the collaboration between Delta and Team USA. Their collaboration, which will last for eight years,



will see them take our Olympians & Paralympians to the Beijing 2022, Paris 2024, Milano Cortina 2026, and Los Angeles 2028 Olympics. The vibrant colors and tribute livery for our athletes and partnership collaboration made this unique jet must-see.

On Friday, July 29<sup>th</sup>, the Yellow Ribbon Honor Flight returned for the first time since 2019 as Yellow Ribbon Old Glory Honor Flight #58 took to the skies on a 2016 Airbus A-321-231 (N167AN).



The aircraft sported a special livery dubbed *Flagship Valor*. The livery is a flying tribute that depicts major military conflicts and the six characteristics that embody the Medal of Honor recipients who have done extraordinary acts. In defining moments, these brave men and women saved lives, ignoring the imminent danger they found themselves in, even if those decisions cost them their own lives. American Airlines is proud to share the rich history defined in six words -- courage, sacrifice, integrity, commitment, patriotism, and citizenship. They were also honored to showcase *Flagship Valor* at 'The World's Greatest Aviation Celebration'.

The largest and heaviest helicopter in the United States military, a Sikorsky CH-53E Super Stallion was on Boeing Plaza for display Monday & Tuesday, (July 25<sup>th</sup> & July 26<sup>th</sup>) before departing after the



Tuesday airshow. R/N 165249, C/N 65-643 came from Marine Heavy Helicopter Training Squadron

302 (HMHT-302), Marine Corps Air Station New River. The Sikorsky CH-53E Super Stallion is a heavy-lift helicopter that was developed from the Sikorsky CH-53 Sea Stallion. The interesting thing about this helicopter is that both the tail boom and the rotors can be folded to save space on naval vessels. The helicopter is powered by three General Electric T64-GE-416 /GE-416A turboshaft engines with 4,380 shp each. A typical crew consists of five people -- two pilots, one crew chief/right-side gunner, one left-side gunner, and one tail gunner. It has a length of 99.1 ft, width of 78.7 ft, height of 27.8 ft, empty weight of 33,226 lb., MTOW of 73,414 lb., a speed of 170 kts., a range of 3,843 nmi and can be loaded with three GAU-21 machine guns. Seeing this huge beast in person for the first time was amazing, and I hope you all get to do this before this craft gets retired.

It's not every year at EAA AirVenture Oshkosh that you see a Northrop Grumman E-2 Hawkeye! If you had the chance to see this distinct all-weather carrier-capable tactical airborne early warning (AEW) aircraft up close, you were in for a treat. Two beautifully maintained Northrop Grumman E-2C Hawkeye 2000s (165812 and 165828) from Airborne Command & Control Squadron 120 (VAW-120) "Greyhawks", Naval Station Norfolk, Virginia wowed the crowd while they did their two-ship E-2 Hawkeye Demo airshow routine on Friday. On Saturday, 165812, was located on Boeing Plaza, for the attendees to see the aircraft up close and interact with the crew.



Northrop Grumman E-2 Hawkeyes feature a 24-foot diameter revolving radar rotodome attached to the fuselage. The rotodome is the antenna of a powerful air surveillance radar and rotates at six rpm and can be retracted two feet to facilitate stowage aboard a carrier ship.

Both 165812 and 165828 started their life out as an E-2C Hawkeye and then received an upgrade to the E-2 Hawkeye 2000 series. Some of the E-2C Hawkeye 2000 conversion upgrades include a Raytheon mission computer upgrade (MCU), a Lockheed Martin



advanced control indicator set, cooperative engagement capabilities (CEC), satellite communications, and new navigation and flight control systems. It's remarkable that after 30 years of service, this aircraft remains a vital part in our military inventory.

The Perlan II (N9011E) owned by the Perlan Project Inc. made its second ever visit to the event after making their EAA AirVenture Oshkosh debut in 2015. On Tuesday, July 26<sup>th</sup>, during the event, the Perlan II made its first public demonstration flight during the airshow. The short demonstration wowed spectators as a 1989 Grob G 520 EGRETT (N4510) towed and released the glider in front of the spectators.



This exact glider displayed has broken four world records, including their most recent record on September 2, 2018, as Jim Payne and Tim Gardner reached an altitude of 76,124 ft., surpassing the 73,737 ft. attained by Jerry Hoyt on April 17, 1989, in a Lockheed U-2; the highest ever subsonic flight. The Lockheed SR-71 Blackbird still holds the overall record altitude for level flight of a crewed airplane, at 85,069 feet.

The Perlan II is unique as it is an American mid-wing, two-seats-in-tandem, pressurized, experimental research glider that was designed by Greg Cole and built by Windward Performance for the Perlan Project. It has a length of 33.33 ft., a wingspan of 83.83 ft., a height of 7.25 ft., a gross weight of 1,800 lbs., a maximum rate of climb at sea level of 1,400 fpm, and a service ceiling of 90,000 ft. During flight the cabin pressurizes to approximately 8.5 psi. The glider is equipped with a drogue chute for higher altitudes and a ballistic chute for lower altitudes. In 2023, the team is planning to set a new goal of reaching 90,000 feet in Argentina.

The very rare Grob G 520 EGRETT (N4510) that arrived was stationed on Boeing Plaza for visitors to see, and I believe this marked the first time that one has appeared at this event. Arne Vasenden and his company Av Experts LLC. owns N4510. The Grob G 520 EGRETT is a turboprop long-endurance, high-altitude reconnaissance and surveillance aircraft built by Grob Aircraft. This aircraft is currently used to tow the Perlan II. Both aircraft were seen during a demonstration during the Tuesday, July 26<sup>th</sup> airshow, where the Grob towed and released the Perlan II (N9011E) glider.

The most unique things about the EGRETT are its long, slender (high aspect ratio) wings, large exhaust port and large fuselage. The name EGRETT comes from three companies -- E-Systems, Grob Aircraft, and Garrett. Also, as the aircraft were not intended to tow gliders, the engineers and designers had to make a retrofit to accommodate the need of this specific one. The G520s use a four-bladed Hartzell HC-EAP-5/E1990K constant-speed propeller and a Honeywell TPE331-14F-801K turboprop engine that produces 750 shp.



This aircraft has several Fédération Aéronautique Internationale (FAI) World Records including:

- Absolute Altitude without Payload (53,574 ft.) - September 1, 1998,
- Altitude in Horizontal Flight without Payload (53,276 ft.) - September 1, 1998,
- Time to Climb to 15,000 meters (40 min. 47 sec.) - September 1, 1998
- Absolute Altitude with Payload: Open Weight Class for Turboprop Aircraft (51,024 ft.) - March 31, 1994, and
- Absolute Altitude with Payload: Medium Weight Class for Turboprop Aircraft (51,024 ft.) - March 31, 1994.

Lowell Manary of Montrose, Colorado, brought his unique homebuilt 2019 Jurca MJ-51-C Sperocco (N3LM) to display all week at the Homebuilt Hangar and this was my first time seeing it. His airplane made his grand appearance at the event in 2021, where it won the Homebuilt Plansbuilt Grand Champion Gold Lindy Award.

His Sperocco is all wood, save for aluminum wheel wells and compound curve fairings made with composites. He also has a Ribblett 37A315 Series Airfoil installed instead of the standard NACA airfoil, a Frise Aileron, an overhauled Lycoming IO-540-A1D5 engine that was from a Piper Aztec, and a Whirl Wind WWA-RV-10 propellor.



He had to fabricate all parts including fiberglass parts, canopy, windshield, and steel parts. It cruises at 178 kts. at 10 gph, stalls at 52 kts, and carries 59 gallons of fuel. and has an approach speed of 70 kts. You can also land this machine without adding any flaps and to do that you have to add 10 kts. to the stall and approach speeds. If you missed seeing this amazing homebuilt machine, I guarantee it'll be a while before you see another one.

ScaleBirds returned to EAA AirVenture Oshkosh with a buzz as they are showing off their ScaleBirds P-36A prototype, N936SB (think about the 9 as a backwards P) that. This design is a 55%-scale replica that you can build on your own that is based on the WWII era Curtiss P-36 Hawk.



The engines they chose are all based on the light sport and sport category. The prototype is sporting a Verner 7U engine, seven-cylinder, 120 hp radial engine. The kit also includes the cowling with gun sights. The company expects an average build time to be 1300-1500 hours.

The initial inspections are that it has an overall length of 17.3 ft., wingspan is 23.6 ft., gross weight of 12.32 lbs., empty weight of 901 lbs., useful load of 331 lbs., and a fuel volume of 18 gal. It has a stall speed at sea level of 54 KIAS, maneuvering speed of 99 KIAS, cruise speed at altitude of 120 KTS, max level flight speed of 130 KTAS, velocity - never exceed 158 KTAS - and a dive speed of 176 KTAS.

The expected price for the kit is in the \$40,000-\$45,000 range as the kit uses T6061 Aluminum for cost savings and corrosion resistance. The control surfaces are fabric and the landing gear is fixed. If all goes to plan, they expect to wrap up flight testing by the time the 2023 event rolls around.

A prototype SF-1 Archon (Sports Fighter 1) designed by G-Aerosports in Palaistra, Florina, Greece made its North American and United States debut at the event. Archon is the ancient Greek title for someone or something having power, authority, or influence; a master or ruler. Currently, Fisher Flying Products in Dorchester, Ontario, Canada, has the worldwide manufacturing rights while SportairUSA of North

Little Rock, Arkansas, will support and distribute the aircraft.

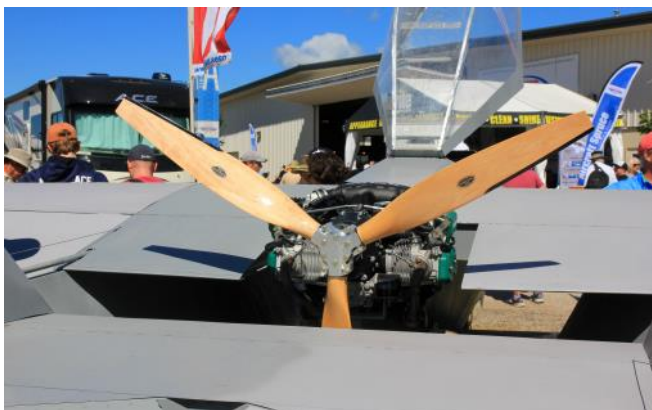
While the display prototype had a Rotax 912iS engine, Archon can be fitted with the Rotax 912 series, Rotax 915 series, AeroMomentum AM13, AeroMomentum AM15, and Heron turboprop GVA-130 engines. The propeller and engine are behind the pilot. The gear is retractable and all parts are pre-cut, pre-drilled, and pre-welded as needed.



The Archon has a wingspan of 25 ft., length of 26 ft., height of 7 ft., empty weight between 650-750 lbs., 22 gal. fuel tank capacity, 80-140 hp engine, stall speed of 39 kts., cruise speed of 96 kts., never exceed speed of 135 kts., maneuvering speed of 78 kts., and flaps of 70 kts. It will have a load factor of +4/-2 G, a 500 ft. takeoff distance, and will climb 1,000 ft/min.

Archon will only be sold as a quick build under the 51 percent rule or as a completed aircraft. Included in the quick build kit is all necessary hardware and material to build an SF-1 Archon, except the engine, avionics, propeller, and paint. At the event it had a show special of \$34,900 with a \$1,000 refundable deposit. Customers who have ordered a kit are expected to receive theirs by mid-2023.

With a sleek and eye-catching look of a modern military fighter, the SF-1 is a perfect fit for anyone who wished to be a military fighter pilot. The SF-1 is much cheaper to own and operate than a military fighter. It can be built on your own, the engines are much quieter than the afterburning turbofan engines of their noisy counterparts. Overall, this design is one that caught my eye at the show.





Van's Aircraft announced its first strut-braced high-wing, all-aluminum, two-seat, backcountry model, the RV-15 at EAA AirVenture Oshkosh 2021, shocking the aviation world. Traditionally, all the company's previous designs were low-wing models. But now in the company's 50<sup>th</sup> year, that has changed with this design. Van's began working on the RV-15 in 2019 and built the prototype at the company's headquarters in 2021, and the first flight took place in June of 2022.



In July, at EAA AirVenture Oshkosh 2022, it made its worldwide debut to the public.

This aircraft is so new that it only has about 45 flight hours (at the time when it arrived to AirVenture) under its skin as it is still undergoing flight testing and modifications. Kits are not yet available to purchase, but that did not stop the attendees from flocking to this aircraft to see its unique design.



The prototype aircraft (N7357) sports a Lycoming IO-390-EXP119 that puts out 220 hp with a Hartzell 80-inch Trailblazing three-blade, constant-speed propeller. At AirVenture, the maximum gross weight is 2,050 pounds, features large Fowler-style flaps that extend to 50°, LP-4-3 Blind Rivets that match perfectly to its CNC parts, and a unique customized airfoil co-designed by Steve Smith. The tail is an all-flying stabilator type with a trim tab plus an anti-servo tab. They chose this type as it can provide better pitch results, weight savings, and can be removed for easy access. The two passenger doors are large in nature, with steel-tube-framed plexiglass, and can be

removed with quick-release pins in seconds for open-door flying. The baggage compartment is comparable to a Cessna 180 Skywagon, but the RV-15 is just a bit wider as it's 22 7/16 by 19 3/4 to accommodate your everyday backcountry needs.

Brian Hickman designed the unique landing gear that is awaiting approval for its patent-pending design. The main gear wheels and tailwheel features large Monster Shock absorbers that can take a brutal landing without any issues, something that we have not yet seen on any Van's RV models before. The main gear that was shown at the event had 6" Berringer Wheels & Brakes, but, they plan to use 26" Bush Wheels.

The prototype version has two side-by-side seats in the front with other options that could be in the works such as an additional third seat option in the back or for a 2+2 setup option for those who wish to bring less baggage. Another thing they teased was an RV-15A, a tricycle landing gear variant. But, as of right now, their primary focus is on the tail wing version. Also, you might have noticed the missing right copilot seat and there is a good reason for that as that's been replaced with a fuel tank. Of course, the fuel tank will not stay in that spot as it will be placed in the wings.



Between now and EAA AirVenture Oshkosh 2023, things can change and they will because Van's doesn't have a kit or performance/specification numbers available. With that in mind, Van's is well on its way to survive another 50 years plus.

In the early 2000s, Precision Aeronautical Engineering (PAE) of Camarillo, CA. purchased the rights to the design, the prototype, parts inventory and tooling from the company founders Jim and Peggy Stewart. However, PAE found themselves in legal trouble that had to be settled in court and in 2007, Scale Replica Fighters and Stewart 51 Partner, LLC. recovered all the rights to their assets. In 2011, Stewart 51 Partner LLC. consolidated ownership. In 2022, Stewart 51 Partner, LLC., made the trip to EAA AirVenture Oshkosh.

The Stewart S-51 Mustang is an American aerobatic all-aluminum homebuilt replica of the North American P-51D Mustang at approximately 70% scale and features lots of rivets. The airfoil is the same NACA 66-215/-216 as the legendary P-51 Mustang as are the 6.50 x 800 wheels. The S-51 has some of these features as mentioned retractable landing gear for all three-wheels, flaps, 4-bladed Hartzell Propeller. The

front seat is roomier than the backseat. The center panel of the windscreen is 1/2-inch thick, and the side panels and bubbly canopy are both 1/4-inch. Neither the engine nor the avionics are included with the kit. Builders do like to use a Chevy 454 cubic inch cast iron block, a 502 Cubic Inch Chevy big block or a 540 cubic inch All Aluminum Keith Black Block for their engine. So, with all these North American P-51 Mustang replicas in circulation, Stewart 51 is the most accurate. The plane can carry 70 gallons of fuel, cruise at about 230 kts, stall at about 239 kts, and has a maximum speed at about 239 knots., and has a



of publication.

structural g limit of +9/-4.5. The current prices for the kits were not available as

SAW Revo or Saurenman Aero Works Revolution, designed by Eddie Saurenman and manufactured by Orange Aircraft made its worldwide debut at this year's show. SAW Revo is an unlimited ultralight-weight aerobatic airplane. The wings can be removed in less than 20 mins. making it easy to load on a trailer for transportation. The power plant on the prototype version we saw is a 80 hp Rotax 912 UL with a 3-blade 72 WhirlWind fixed pitch prop. However, the production aircraft intends to be powered by the UL350 engine with full inverted fuel and oil systems.



The airframe features a carbon fiber wing, 3130 steel for the fuselage assembly, AL7075 for the main landing gear, steerable lightweight tailwheel, titanium firewall, and a single-seat bubbly canopy, a 4-in-1 stainless steel exhaust system, oil cooler system and an electric starter. The cockpit features two air vents, a baggage compartment behind the composite pilot's seat, Hooker Harness, and manually adjustable rudder pedals with differential toe brakes. For the systems it has a 15A alternator, 12V battery, and standard panel equipment -- airspeed indicator, altimeter, mechanical accelerometer, magnetic compass, slip and skid indicator, CHT/EGT, oil press/oil temp gauges, VHF and a transponder.

It has an overall length of 17.56 ft., wingspan of 19.58 ft., horizontal tail span of 7.30 ft., vertical tail span of 4.55 ft., aspect ratio of 5.33, and a mean aerodynamic chord of 3.62 ft. The machine can be powered by an 80 hp or 100 hp Rotax 912 UL. It has a fuel capacity of 12 gal., oil capacity of 3 qts., coolant capacity of 4.4 qts, and uses 4.5 gallons of fuel per hour. It has a takeoff roll of 300 ft., landing roll of 550 ft., rate of climb of 1000/1500+ fpm, rate of climb of 122 kts., endurance of 2.5 hrs. with 30 min. reserves, endurance of 350 mi., 47 kts. stall speed at gross, 44 kts. stall speed at min., and load limits of +/- 8g.

Sling Aircraft, a South African aircraft manufacturer based at Tedderfield Airpark, Eikenhof, Johannesburg South brought in three Sling High Wings. The models made their grand debut to the North American, United States, and EAA AirVenture Oshkosh crowd at this year's event. The company first introduced this model at EAA AirVenture Oshkosh in 2019.

So, how exactly did Sling Aircraft bring their Sling High Wings - N915HW & the prototype ZU-SHW (tricycle versions) and N669JP (taildragger version) to North America so that they could show it off at EAA AirVenture Oshkosh? They took the long journey that saw them go 8,902 nautical miles on eight legs in ten days. Their flight route looked like this:

- July 17 - Lanseria Int'l Airport (FALA) to Quatro de Fevereiro Int'l Airport (FNLU) - 1,321 nm in 9.5 hrs.
- July 19 - Quatro de Fevereiro Int'l Airport (FNLU) to Kotoka Int'l Airport (DGAA) - 1,179 nm in 9.1 hrs.
- July 21 - Kotoka Int'l Airport (DGAA) to Nelson Mandela Int'l Airport (GVNP) - 1,663 nm in 12.5 hrs.
- July 23 - Nelson Mandela Int'l Airport (GVNP) to Grantley Adams Int'l Airport (TBPB) - 2,101 nm in 13 hrs.
- July 24 - Grantley Adams Int'l Airport (TBPB) to Lynden Pindling Int'l Airport (MYNN) - 1,245 nm in 9.6 hrs.
- July 26 - Lynden Pindling Int'l Airport (MYNN) to Fort Lauderdale Executive Airport (KFEX) - 250 nm in 1.9 hrs.
- July 26 - Fort Lauderdale Executive Airport (KFEX) to Bowman Field (KLOU) - 774 nm in 5 hrs.
- July 27 - Bowman Field (KLOU) to Wittman Regional Airport (KOSH) - 369 nm in 2.5 hrs.







Now, let's get back to the details of this four-seat, single-engine, high-wing homebuilt aircraft. The most noticeable things are that it has no struts, the doors are large, the cabin is all fiberglass, the tailcone is aluminum, and the wings are high, which is a first in their product line. The Sling High Wing can be flown with the doors off and it has a parachute recovery system.

The cockpit features upholstery, side panels, carpets, and an instrument panel. Inside the one I looked at had a Garmin G3X Touch EFIS, a Garmin G5 backup EFIS, a Garmin GTR 200 COM radio, Garmin GTX 35R remote transponder, Garmin GSA 28 autopilot system with Garmin GMC 507 autopilot control panel, Garmin GAD 27 multifunction system interface, and a Garmin GMA 245R Bluetooth Audio Panel. You can also customize your instrument panel to fit your needs.



The High Wing is powered by a 141-hp, turbocharged, fuel-injected Rotax 915iS engine and an Airmaster three-bladed, constant-speed propeller. It has a max speed of 155 KIAS, a cruise speed of 145 KTAS, a stall speed of 49 KIAS, a takeoff distance of 720 ft., a landing distance of 590 ft., and a service ceiling of 18,000 ft. ASL. It burns 7.4 gph on an eight-hour endurance and the fuel is located in wings. It also has a 45-minute reserve tank. The wingspan measures 31.3 ft., has a length of 23.6 ft., a height of 8.6 ft., and a cabin width of 46 in. It has an empty weight of 1,279 lbs. and a gross weight of 2,315 lbs. The price for the quick build kit will be around \$119,000 with an estimated completed price will be around \$248,000.

ScaleWings of Strasswalchen, Austria brought a 70% true-to-scale aircraft based on the legendary North American P-51 Mustang, dubbed the SW-51 Mustang to the event for the very first time. The SW-51 Mustang is an Austrian ultralight, light-sport aircraft, and homebuilt aircraft. This aircraft was previously marketed as the FK-Lightplanes FK51 Mustang, and was initially produced by FK-Lightplanes of Krosno, Poland, who introduced it publicly to the market at the AERO Friedrichshafen in 2013.



So, how exactly did ScaleWings bring their SW-51 Mustang, S/N #001, registration number LY-PSI to North America so that they could show it off at EAA AirVenture Oshkosh? First, they disassembled it, loaded it up, and transported S/N #001 aboard a Boeing 747-400ERF (PH-CKB), where it took the transatlantic flight. Secondly, it got transported on a trailer to the Fond Du Lac County Airport (FLD/KFLD) in Fond Du Lac, Wisconsin. The third and final part of their journey saw them fly from the Fond Du Lac County Airport to Wittman Regional Airport (OSH/KOSH) in Oshkosh, Wisconsin.

Getting back to the details of this 70% scaled replica, the aircraft is made of 100% carbon-fiber. If you look very closely at the craftsmanship, you'll notice that it does not feature any flush rivets and screws, by using just carbon fiber. Instead, they kept it as light as possible, but true to the legendary look of a real P-51 Mustang as if it has 10,000 flush rivets.



*Yellow Jacket*, the SW-51 demo plane that flew at Oshkosh on July 25<sup>th</sup>, is powered by a 141-hp Rotax 915iS turbocharged engine and an adjustable four-blade MT composite propeller. The landing gear and tailwheel are fully retractable.

The plane seats two people comfortably, has dual controls, and when flying alone, the pilot sits in the front seat. The plane is also fully aerobatic and has an optional ballistic recovery parachute from Galaxy GRS.

ScaleWings SW-51 Mustang Specs	Ultralight (EU)	S-LSA (USA)	Experimental (700kg)	Experimental (1200kg)
<b>Empty Weight</b>	340 kg.	330 kg.	340 kg.	650-750 kg.
<b>Max. Takeoff Weight</b>	1,323 lbs.	1,323 lbs.	1,323 lbs.	2,646 lbs.
<b>Never Exceed Speed</b>	215 kts.	120 kts.	215 kts.	323 kts.
<b>Max Loads</b>	+6 g. / -4 g.	+6 g. / -4 g.	+6 g. / -4 g. Aerobatics	+6 g. / -4 g. Aerobatics
<b>Engine</b>	Rotax 912iS 100hp Rotax 915iS 140hp	Rotax 912iS 100hp	Rotax 912iS 100hp Rotax 915iS 140hp	Chevrolet LS V8 300HP Chevrolet LS V8 Supercharger 600HP

Sonex Aircraft announced its two-seat, side-by-side variant of the Sonex SubSonex JSX-2, the Sonex SubSonex JSX-2T on July 10, 2019, just a few days prior to that year’s EAA AirVenture Oshkosh. Now, Sonex Aircraft has unveiled its prototype version the Sonex SubSonex JSX-2T at their company headquarters located on grounds of Wittman Regional Airport during their annual Sonex Aircraft Open House and Homecoming Fly-In that took place on July 24, 2022, a day before this year’s EAA AirVenture Oshkosh. After the Sonex Aircraft Open House & Homecoming Fly-In wrapped up, Sonex transported their JSX-2T on a trailer to their exhibit in the Homebuilt Aircraft Display area.

Although the JSX-2T is not completely built yet, we still got a pretty good idea of what it was going to look like - even with the wheels, engine, and avionics noticeably absent. The jet can be powered with a PBS TJ-100 turbojet engine or the more powerful PBS TJ-150 turbojet engine and the wings can be easily removed. It carries 10 more gallons than the single place design.

At the beginning of July, Sonex announced the acceptance of refundable kit reservation deposits to get customers in-line for the JSX-2T kit shipment with a deposit amount of \$15,000. The quick build EAB kit goes for \$66,000 and the ultra-quick build kit goes for \$74,000 with an estimated total build cost that includes the kit, engine, avionics, and upholstery of under \$155,000.

Specs	JSX-2	JSX2-T (early estimates)
<b>Length</b>	16' 6"	18' 7.75"
<b>Wingspan</b>	18'	21' 9.6"
<b>Wing Area</b>	60 sq ft.	87.2 sq. ft.
<b>Height</b>	N/A	5' 8.2"
<b>Cabin Width</b>	24"	42"
<b>Empty Weight</b>	500 lbs.	620 lbs.
<b>Max Gross Weight</b>	1,000 lbs.	1,500 lbs.
<b>Fuel Capacity</b>	40 US gal.	50 US gal.
<b>Baggage Capacity</b>	N/A	40 lbs.
<b>Stall Speed</b>	50 kts.	63 kts.
<b>Cruise Speed</b>	210 kts.	174+ kts
<b>Range</b>	420 nmi + 30 min reserve	360 miles + 30 min. reserve
<b>Never Exceed Speed</b>	260 kts.	202 kts.
<b>Load Factors (Utility)</b>	+4.4 Gs -2.2 Gs	+4.4 Gs -2.2 Gs
<b>Load Factors (Aerobatic)</b>	+ 6 Gs -3Gs	+ 6 Gs -3Gs





## Looking ahead to EAA AirVenture Oshkosh 2023

EAA AirVenture Oshkosh 2023 will be held from Monday, July 24 through Sunday, July 30, 2023, at Wittman Regional Airport (525 West 20th Avenue, Oshkosh, Wisconsin 54902). 2023 will mark the 70<sup>th</sup> anniversary of the founding of the Experimental Aircraft Association with many great happenings will happen at this event. You do not want to miss attending this event in 2023 and I am sure it is already marked on your calendar.



Adam Santic, Newsletter Editor-in-Chief and Michael “Mike” Goulian, Aerobatic Legend



1935 Waco YKC-S (N15232).



Kermit Weeks, Aviation Legend & Aircraft Collector and Adam Santic, Newsletter Editor-in-Chief.



1985 Howard DGA-6 Replica (N273Y) owned by Doug Rozendaal.



Lt. Col. George Hardy, Tuskegee Airman, signing autographs



1929 New Standard D-25 (N928V) owned by Triple D. Aviation LLC.







2021 Van's RV-14 (C-FCGA) owned by Steve Thorp of Flight Chops.



2018 Van's RV-12iS (N2018) owned by the EAA Inc.



2005 Van's RV-8 (N188PD) owned and built by Paul Dye.



2007 Van's RV-3B (N159SJ) that was built by Richard Johansen.



Flight of the Cats (Top-to-Bottom): 1945 Grumman F7F-3 Tigercat *Here Kitty, Kitty* (N700F), 1949 Grumman F8F-2 Bearcat *De-Chrome Cat* (N14WB), 1944 Grumman F6F-5 Hellcat *Death N' Destruction* (N9265A), and a 1943 Grumman F4F-3 Wildcat (N12260).



Van's Aircraft 50<sup>th</sup> anniversary celebration with various Van's RV models during the air show.



Chapter members Bob Johnson & Shellie Darr's homebuilt 2014 Van's RV-8 (N647P).



Chapter member Dean Maupin's 2001 Van's RV-8 (N235LH). This RV-8 was built by former chapter member Lyle Hefel. Image Courtesy of Dean Maupin.





Matt Younkin performing in his Twin Beech C-18S.



Aaron Fitzgerald performing in his 1985 MBB Bo 105.



Nathan Hammond performing in his 1956 de Havilland DHC-1B-2-S5 Chipmunk.



Red Bull Air Force Parachute Team



Adam Baker's new paint scheme that he has on his 2012 Extra 330.



Bob Carlton performing in his Super Salto Jet Sailplane, a 1984 Start & Flug GMBH. H101 Glider.



Adam Baker's new paint scheme that he has on his 2012 Extra 330.



Jim Peitz performing in his 1986 Beechcraft F-33C Bonanza.



2018 Steve Henry's homebuilt Just Highlander (N622SC).



1945 Grumman TBM-3E Avenger (N81865) owned by TBM Avenger Inc.



Steve Gromak's homebuilt 2017 Just SuperSTOL (N223ST).



1969 Aero Vodochody L-29 Delfin (N3249). This vintage jet is owned by former chapter member Robert Schwartz.



Pilatus PC-6 Porter (N776PC).



1952 Douglas AD-4N Skyraider *Naked Fanny* (N959AD) owned by East Iowa Air Inc.



1981 Dornier DO28 A-1 (N81RS).



Gene McNeely in his 1941 North American AT-6C Texan.





1955 Douglas EA-1E Skyraider (N65164) owned by the Cavanaugh Air LLC.



1949 Douglas AD-4 Skyraider (N23827) owned by Training Services Inc.



This 1946 Bell P-63F Kingcobra (N6763) that appeared at the event is no longer with us. On November 12, 2022, this Kingcobra and a 1944 Boeing B-17G Flying Fortress *Texas Raiders* (N7227C) collided at the Commemorative Air Force Wings Over Dallas Airshow. Everyone on N6763 and N7227C died.



2019 Panther Sport (N87XP).



1944 Douglas B-26B Invader *Silver Dragon* (N99420) owned by A-26 Invader Inc.



Lockheed Airtrooper (N100GR).



2007 Jabiru J250 (N596J).



Mike Patey's highly modified Carbon Cub E3 - better known as *Scrappy* returned for the second consecutive year.



2014 Murphy Radical (C-GNSF) owned and built by Marco Probst.





Kent Pietsch doing his famous Interstate S-1A-65F Cadet World's Smallest Landing routine.



Ken Rieder in a Van's RV-8 and Adam Baker in a Extra 330.



Patty Wagstaff performing in her Extra 300LC.



Alex Browne, of Petaluma, California, won the AOPA Sweepstakes' 1978 Grumman American AA-5B Tiger (N28860).



United States Navy Legacy Flight: 1945 Chance Vought F4U-4 Corsair *Korean War Hero*, two Boeing FA-18F Super Hornets from the Rhino Demonstration Team, and a 1945 Goodyear FG-1D Corsair.



United States Air Force Heritage Flight: Andrew McKenna's 1944 North American F-51D Mustang, 1944 North American F-51D Mustang *Happy Jack's Go Buggy*, United States Air Force F-35A Lightning II Demo Team featuring Maj. Kristin "BEO" Wolfe, and a 1944 North American/Aero Classics P-51D Mustang *The Brat III*.



United States Navy Legacy Flight: Rhino Demonstration Team, 1945 Chance Vought F4U-4 Corsair *Korean War Hero*, and a Lockheed Martin F-35C Lightning II.



Bob Cowgill, of Culpeper County, Virginia won the 2022 EAA Aviation Foundation's 1946 Piper J3C-90 Cub (N6615H).





United States Air Force C-17 Globemaster III Demo Team.



Dell Collier performing in his a highly modified 1929 Waco Taperwing.



1947 Hawker Siddeley Mk. 10 Sea Fury (N15S0).



1945 de Havilland DH.98 Mosquito (N114KA).



1989 Mikoyan Gurevich MiG-29UB Fulcrum (N29UB) owned by Jared Isaacman.



2023 AOPA Sweepstakes' 1953 Cessna 170B (N3224A).



Bally Bomber, a 1/3-scale B-17 bomber, built by Jack Bally, Sr. (1940-2020) and is currently owned by Lawrence Neu out of San Antonio, Texas.



United States Marine Corps MV-22 Osprey Demo Team.



United States Navy E-2D Hawkeye Demo Team.



## Chapter 75 Merchandise Now Available

As mentioned at chapter meetings, the baseball caps are now available with the EAA Chapter 75 logo. The caps are of a nice quality as the logo is embroidered. The caps are available for purchase for \$10.00 each and can be delivered personally to you at the next chapter function. We have lots of caps in stock. If you want the hat shipped to you, that can be done for \$17.00. Please mail a \$17.00 check to Marty Santic, 3920 E. 59th St., Davenport, Iowa 52807. If you would like a cap delivered, please send an e-mail to: [marty.santic@gmail.com](mailto:marty.santic@gmail.com).



Baseball Cap in Light Khaki

**THE LANDINGS**

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**Always Remember.....  
Time Spent Flying is NOT Subtracted from  
Your Lifespan!  
- Dave Higdon, Jr.**

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