



It raises the comfort bar for premium ANR headsets to cloud nine.

With a heat-absorbing, Outlast® technology head pad to keep you cool and comfortable in flight, a swivel hinge stirrup design that virtually eliminates clamping pressure, and plush leatherette ear seals with memory foam that caress the contours of your head – the DC ONE-X raises the comfort standard for premium ANR headsets.



Even during longer flights, you'll feel like you're on cloud... well, you get the idea.

Call **1-800-298-6235** for more information or purchase direct from David Clark at **www.davidclark.com**.











EAA would like to thank its partners for their support in making your convention special

* * * * PLATINUM LEVEL SPONSORS * * * *









AIRBUS

GARMIN.



* * * * GOLD LEVEL SPONSORS * * *

BendixKing and Honeywell ★ Epic Aircraft ★ Ford Motor Company ★ HondaJet ★ Lightspeed Aviation

Lycoming ★ Mars Wrigley ★ Phillips 66 ★ Redbird Flight

* * * * SILVER LEVEL SPONSORS * * * *

AeroShell ★ Aircraft Owners and Pilots Association (AOPA) ★ Aspen Avionics ★ Cirrus Aircraft ★ Collins Aerospace

Dynon ★ Embry-Riddle Aeronautical University ★ Icom America ★ John Deere ★ PenFed Credit Union

Piper Aircraft, Inc. ★ Pratt & Whitney ★ United Airlines ★ Wipaire

* * * * BRONZE LEVEL SPONSORS * * *

Air Wisconsin Airlines ★ Aircraft Specialties Services ★ American Airlines ★ ASA (Aviation Supplies & Academics)

Bose Aviation ★ Cleveland Wheels & Brakes/Stratoflex/Parker ★ Continental Aerospace Technologies

Covington Aircraft ★ Electroair Acquisition Corporation ★ Flight Outfitters ★ GE Aviation

Gulf Coast / Pacific Coast Avionics ★ Hartzell Engine Technologies ★ Hartzell Propeller ★ Horizon Hobby ★ Jani-King

JP Instruments ★ Lincoln Electric ★ NATCA ★ Pepsi ★ Piedmont Airlines ★ Pilatus Business Aircraft ★ Poly Fiber, Inc

PowerLift Hydraulic Doors ★ Red Box Tools and Foam / Priceless Tugs ★ Rotax Independent Service and Training Centres

RVshare ★ Siemens Digital Industry Software ★ Sonex, LLC ★ Superflite ★ Superior Air Parts, Inc.

SureFly Partners ★ Tecnam Aircraft ★ Tempest Aero Group ★ True Blue Power ★ Van's Aircraft

WACO Aircraft Corporation ★ Williams International ★ Women in Aviation International (WAI) ★ Zenith Aircraft

* * * * PATRON LEVEL SPONSORS * * * *

B & C Specialty Products Inc. ★ DeltaHawk Engines ★ SOFTIE PARACHUTES by Para-Phernalia, Inc. ★ Starr Aviation U.S. Air Force ★ uAvionix ★ Whelen Aerospace Technologies

* * * * SUPPORTER LEVEL SPONSORS * * *

4imprint ★ Arena Americas ★ Crewchief Systems ★ DATC ★ Endeavor Air ★ EnerSys® ★ Forever Lawn Furniture

General Aviation Manufacturers Association (GAMA) ★ GES ★ Goodyear Aviation ★ Green Bay Austin Straubel Int. Airport

Gulfstream Aerospace Corporation ★ Honda Power Equipment ★ MCP Ground Power ★ MGL Avionics ★ Oshkosh Corporation

Scheme Designers, Inc ★ Sherwin-Williams Aerospace ★ UND Aerospace ★ Walkabout Hats ★ WILCO ★ Wisconsin Imaging, LLC

CONTENTS JULY 25-31, 2022

THE REST TO

FEATURES

Happy 50th to Van's Aircraft

What are our members building? RVs! By Hal Bryan

Aim High

75 years of notable USAF aircraft By Hal Bryan

Young Eagles

30 years of inspiring the next generation By David Leiting and Sam Oleson

All Hands In

A look at a few of the volunteers we've celebrated over the past year

By Christina Basken and Sam Oleson

One Week Wonder Returns for 2022

By Christina Basken and David Leiting

Unlike Anything Else

A look at the magic of AirVenture

SOCIATION SOCIATION PAGE 4800 EAA.

A PUBLICATION OF THE EXPERIMENTAL AIRCRAFT ASSOCIATION

EAA / P.O. BOX 3086, OSHKOSH, WI 54903-3086 / PHONE: 920-426-4800

FAX: 920-426-4828 / WWW.EAA.ORG / WWW.EAA.ORG/AIRVENTURE

Welcome Letter

04

Aircraft Anniversaries

/U

Ray Scholars

94

Around the Grounds

104

Performers

120 131

Advertiser Index
Until Next Year

132

PUBLISHER

Jack J. Pelton, CEO and Chairman of the Board

VICE PRESIDENT OF PUBLICATIONS, MEMBERSHIP, AND MARKETING

> MANAGING EDITOR Hal Bryan

ASSISTANT EDITOR Sam Oleson

PUBLICATIONS INTERN Erin Henze

SENIOR COPY EDITOR Colleen Walsh

PRODUCTION COORDINATORAmelia Anderson

GRAPHIC DESIGNER Erica Horst Amanda Hollander

STAFF PHOTOGRAPHER Connor Madison

ADVERTISING MANAGER Sue Anderson

WELCOME LETTER

JACK J. PFITON

TO ALL EAA MEMBERS AND VISITORS:

WELCOME TO EAA AIRVENTURE Oshkosh 2022, our annual convention that also just happens to be the World's Greatest Aviation Celebration. For one magical week, all things aviation converge on what becomes the world's busiest airport, right here in Oshkosh, Wisconsin. We think of it as aviation's family reunion — if you've been here before, I'm sure you'll agree, and if this is your first trip, I think you'll see what we mean.

Oshkosh is a special place, and that comes in no small part from our founder Paul Poberezny's well-known Oshkosh Rules: Treat everyone with kindness, be respectful around all aircraft, and pick up that stray piece of trash you see on the grounds. As you walk around, you really will be hard-pressed to find a single scrap of litter. If you do, you'll likely be competing with other visitors for the chance to pick it up and throw it away properly. That simple fact speaks volumes about EAA members and the pride of ownership they feel for our annual convention, and the civility and camaraderie that make this event different from so many other large gatherings. It truly is unlike anything else.

When you come to Oshkosh, you're surrounded by people from all over the world, all of whom have two things in common — their love of aviation, and the fact that there is nowhere else they'd rather be. That's an infectious attitude, one that not only rejuvenates us as individuals, but has a similar restorative effect on the aviation community as a whole. It's all but impossible to leave Oshkosh without having more friends than you did when you got here.

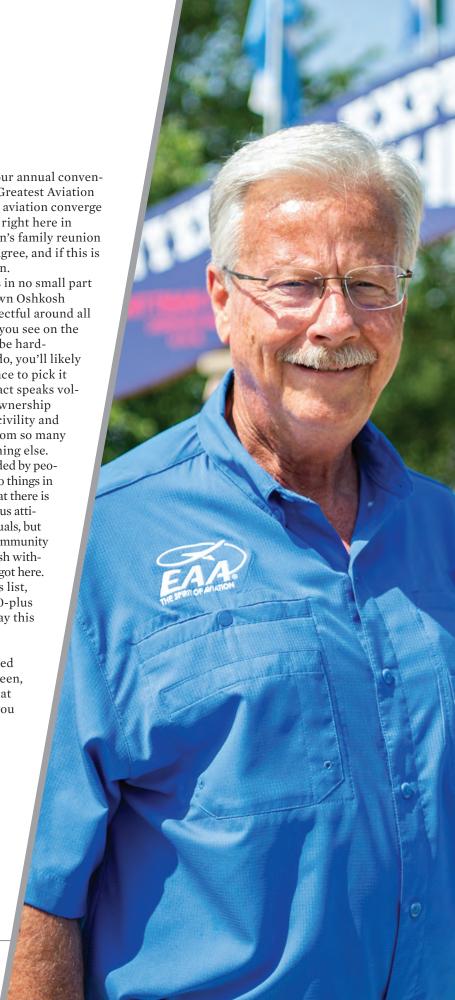
By the way, there's one more rule on Paul's list, and that's to be sure to thank any of our 6,000-plus volunteers you run into. There's simply no way this could happen without them.

So, as you explore this year's AirVenture, whether it's your first visit or you're a seasoned veteran, have fun, stay hydrated, wear sunscreen, and soak up the world of aviation interests that you'll find only in Oshkosh. Thanks to all of you for your support, and most of all, welcome (back) to aviation's family reunion! OSH22

Best regards,

JACK J. PELTON

CEO and Chairman of the Board Experimental Aircraft Association





Join Today!

Loving your time at AirVenture?
Join EAA, and take a piece of Oshkosh home with you!
An EAA membership will give you year-round access to all things aviation.

Save \$8 when you sign up with auto-renewal!



Visit the **EAA Member Center** or any admission building to learn more! **EAA.org/Join.**













WHAT ARE OUR MEMBERS BUILDING? RVS!

STORY BY HAL BRYAN
PHOTOGRAPHY COURTESY OF EAA ARCHIVES

EVERY YEAR AT EAA AIRVENTURE OSHKOSH we

commemorate a number of anniversaries — first flights, major wartime events, historic or record-setting journeys, etc. This year, we're celebrating a company's golden anniversary, as Van's Aircraft turns 50 years old, not to mention excitedly awaiting our first look at the company's latest design, the RV-15. In 1972, Dick "Van" VanGrunsven, EAA Lifetime 3204, founded the Oregon-based company to sell plans and parts for his first commercial design, the RV-3. Since that time, the company has grown to fill a 60,000-square-foot facility, employ some 70 people, and introduce a steadily evolving series of popular homebuilt designs. In 2018, we helped Van's celebrate the unprecedented milestone of 10,000 RVs completed and flying, and now, the company reports that an average of 1.5 RVs are completed every single day.



What Our Wiell



HAPPY 50th to van's aircraft

0

VER THE YEARS, we've done a number of feature stories about various RV models, but we think the best ones are those shared by our members. Starting in 1970, our monthly flagship publication, *EAA Sport Aviation* magazine, has included a section called What Our Members Are Building/Restoring

that consists of member-submitted stories and photos of their prized projects. It's a rare month that doesn't include at least one RV, if not two. As you trace the history of the various RV models over the years, it becomes a cyclical game, counting the months between the time that Van's Aircraft announces a new aircraft and the first time a member submits a photo of their finished project.

So, let's open the virtual scrapbook and take a look back at some of the RVs that EAA members have built and, in some cases, the stories they've shared.

RV-3

This was where it all started, the single-seat RV-3 that Van designed with the goal of total performance, an airplane that wasn't necessarily the best at any one thing, but that was great at many things.

ISSUE: DECEMBER 1974

The first RV-3 has been completed and flown from designer Dick VanGrunsven's plans. Arthur B. Chard, EAA 78705 of Bronson, Michigan, built this beautiful airplane in just 13 months. It is powered by an O-290-D2 Lycoming swinging a 74-inch Sensenich wooden prop.





Every day, Boeing enables a safer, more sustainable, and more connected world. Our 140,000 teammates are making a difference around the world in the communities where we live and work, always moving forward together.

BOEING

HAPPY 50TH TO VAN'S AIRCRAFT





RV-6/RV-6A

The RV-6 series brought two things to the Van's family — side-by-side seating and the choice between a nose wheel and a tail wheel. This introduced the convention of adding an A to the model number to denote tricycle gear.

ISSUE: MARCH 1990

This RV-6 was built by Jerry and Jan Springer. It is powered with a 150-hp Lycoming O-320-E2D turning a Pacesetter 68-by-66 propeller. Completed in 20 months, first flight was July 14, 1989. Jerry is a flight instructor and flies a lot of different aircraft but considers the RV-6 the most comfortable to ride in.

ISSUE: DECEMBER 1994

First flight of my RV-6A was in November 1992. Construction took 25 months. It is equipped with an O-320-D1A Lycoming engine. Gear leg fairings are glassed as part of the leg structure. The Hendrickson wood prop is a "mostly cruise" propeller.

— Emil Mirsepasy, Bellevue, Washington

RV-7/RV-7A

The RV-7/7A series was introduced in 2001, which was actually after the RV-8 and even the RV-9. It's the replacement for the venerable RV-6, offering more interior space and useful load, while maintaining the side-by-side seating of its predecessor.

ISSUE: JANUARY 2006

Equipped with an IO-360, Hartzell constant-speed prop, VM1000, Navaid autopilot, and Garmin CNX 80, the first flight, and all subsequent flights, have been a blast. I would like to thank Don Zane for his fiberglass mastery; my son, Keith, for his help riveting; my wife, Barbara, for the use of the dining room table as a parts storage area; and Jim Kirby for offering his assistance and vast knowledge of homebuilding. I greatly appreciated Van's for its expertise and eagerness to offer remedies and suggestions.

- Hank Grenfell,

EAA 113947; Woolwich Township, New Jersey

ISSUE: MARCH 2004

After looking at several different homebuilt airplanes, I decided to build an RV from Van's. I knew it had to be an RV-7A if I wanted my wife to ride next to me. We received our empennage kit in June 2002, and six months later we received the rest of our guick-build kit. Four months and 10 days later, Dual in the Sun made its first flight. Not bad for a 67-year-old builder and his 68-year-old EAA technical counselor! I can't thank my friend, TC, test pilot, and all-around great RV builder Glenn Barron enough. I also had plenty of help from two other good friends: Jackie Gilbert (RV-8) and Wayne Petrus (RV-8A). A Superior IO-360 with LASAR ignition and a constant-speed three-bladed MT prop powers N181HH. It's an outstanding airplane to fly — only two fingers on the stick to control it!

— Hoyt Highfill,

EAA 694020; Monroe, Louisiana





AIRCRAFT SPRUCE AVIONICS

GARMIN.

With the most comprehensive lineup of avionics upgrades in the industry, Garmin offers solutions for most any budget





Retrofit Your Cockpit with a Digital Upgrade





Dynon Avionics' SkyView is a fully-integrated and comprehensive avionics system







Oversized 2.4" TFT Color Display (240 x 320 pixel) Display ensuring intuitive operation

ICOM

Whether you're in the air or on the ground, trust Icomto keep you in touch before flight.



TRIG

Compact form factor – takes minimal panel space, fits in a compact



BOSE





Built for longevity and with unsurpassed attention to comfort details



technology with Bluetooth wireless and advanced comfort features



AIRCRAFT SPRUCE IS A PROUD

PLATINUM SPONSOR



ORDER YOUR FREE 2022-2023 CATALOG!

1000 PAGES OF PRODUCTS



Aircraft Spruce is the leading worldwide distributor of general aviation parts and supplies. Our orders ship same day, at the lowest prices, and with the support of the most helpful staff in the industry. We look forward to our next opportunity to serve you!

www.aircraftspruce.com
Call Toll Free 1-877-4-SPRUCE

VISIT OUR BOOTH

Visit our booth Hangar A, Booths 1022-1029 to get great discounts and meet our customer friendly Aircraft Spruce Team.



RV-8/RV-8A

Introduced in 1995, the RV-8 was inspired by the RV-4, offering a larger overall design with tandem seating under a fighter-style bubble canopy. The tricycle-gear RV-8A followed a few years later.

ISSUE: SEPTEMBER 1999

I completed this RV-8 from Van's builder-friendly predrilled kit in one year of determined part-time effort with some modifications. Engine and prop are from Van's — O-360-A1A and Hartzell constant-speed prop. Performance is to specs and is very enjoyable to fly. Special thanks to Jason Baranek, area builders, and Bob Baker of Bakersfield Municipal for a superb paint job.

— Larry Lake, EAA 471459; Porterville, California

ISSUE: AUGUST 2001

This is my second RV-8A after an unfortunate fire got the best of the first one. I started on the second airplane in January and finished in December. I took 2 inches off the bottom of the panel for my 6-foot, 6-inch frame. Engine instruments are mounted lower left and lower right. I changed the heater muff and made it 12 inches long on the No. 4 exhaust, and the cockpit is nice and warm on cold Ohio days. I found the airplane everything Van's says it is — and more.

— Michael C. Cooper, EAA 419050; Milan, Ohio





RV-9/RV-9A

While the earlier RVs all offered the chance to throw in some loops and rolls on your way to anywhere or nowhere, the RV-9/9A was built specifically for the cross-country traveler, focused on control stability and fuel economy. Also unlike its predecessors, the tricycle-gear RV-9A was flown before the RV-9 taildragger.

ISSUE: FEBRUARY 2003

My RV-9A project was started in August 2000 and completed two years later. As of September 10, 2002, I have 38 hours, and I still have a few minor things that need attention. But for now I'm just having fun flying it!

- Sam Benjamin,

EAA 346605; Alma, Michigan

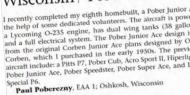
ISSUE: DECEMBER 2005

My RV-9 took me 35 months to complete. The first flight was in November 2004, but wow, was it ever worth the effort. It flies hands-off, and all speeds and numbers are as advertised. This was my first quick-build RV-9. I would like to thank my friends and family for their support, and especially Darrell Ham for transition training in his beautiful RV-7. Like everyone else I can't say enough about the fine customer support at Van's.

— John Gary Hardison,

EAA 626674; Arapahoe, North Carolina

Wisconsin | Pober Ace



80 DECEMBER 2005

North Carolina | RV-9

My RV-9 took me 35 months to complete. The first fli My RV-9 took me 35 months to complete. The first fil November 2004, but wow, was it ever worth the effort. It off, and all speeds and numbers are as advertised. This v quick-build RV-9. I would like to thank my friends and their support, and especially Darrell Ham for transition his beautiful RV-7. Like everyone else I can't say enough the customer support at Van's. fine customer support at Van's.

John Gary Hardison, EAA 626674; Arapahoe, Nort

FLEECE FOR ALL OCCASION



EAA Mail Orders
P.O. Box 3086
Oshkosh, WI 54903-3086

As the weather starts to get a little chi what better way to stay warm than EAA logo fleece? Available in a vest, fi and quarter zip pullover.

tures of	
FULL ZIP JACKET	VEST
	Navy
Navy \$37'00	E30615 S -
E30653 S - XL . \$37.99	E30616 XX
E30654 XXL \$41.99	Forest
Forest	
P20655 S - XI \$37.99	ESKRIT
E30656 XXL \$41.99	E30618 XX
	Red
Red \$27.00	E30621 S
E30657 S - XL \$37.99	E30622 X
E30658 XXL \$41.99	Yellow
Vellow	
E30659 S - XL - \$37.99	E30639 S
E30660 XXL \$41.99	E30640 X
E30000 AAL	
OUARTER	ZIP PULLOVI

QC/Mila				
Navy	E30668	S = XL : .\$35.99	E30	
Forest	E30686	S - XL \$35.99	E30	
Red	E30689	5 - XL . \$35.99	E30	
Yellow	E30691	S - XL535.99	13	



my birthday, septons, but with a service of the control of the con

HAPPY 50™TO VAN'S AIRCRAFT



★ EAA Technical Counselor: Mike Denman,

Randy Lervold

Washington | RV-6A

Washington | RV-6A

After nine years of on-and-off building, my RV-6A finally flew on March 26. It flies straight and fast, and after a checkout with Mike Seagar, Fm very comfortable with it. Power is an XP-360 with Ellison Seagar, Fm very comfortable with it. Power is an XP-360 with Ellison Structure Body Injector and Harzzell blended-airfoil prop. Instruments include a Dynon D-10, DigiFlight II autopilot, Becker comm and transinched and Monroy Traffic-Wash II as a bas as illi-down instrument panel for easy access to wiring and a sliding canopy with a titudy panel for easy access to wiring and a sliding canopy with a titudy feature to easily toss a couple of fold-up blkes in the back. Thanks to feature to easily toss a couple of fold-up blkes in the back. Thanks to feature to easily toss a couple of fold-up blkes in the back. Thanks to feature to easily toss a traffic Alrpark, and to my wife, Barbara.

Bun Parks, EA 519869; Parkside Alrpark, Washington E-mail: Dparks@spiritosic.com

E-mail: Dparks@spiritone.com

Wisconsin | RV-10

VVISCORSITI | KV-1U

On February 12 1 took my RV-10 for its first flight. The building process took me just over 24 months and 1,900 hours. My favorite part its panel, with a three-screen Chelton system including traffic information service and WSI Aviation Forecasting. Climb is about 2,100 mation service and WSI Aviation Forecasting. Climb is about 2,100 thanks go to my wife. Without her advantance and attitude this dream would never have come true. Most of the build is documented at when you're paid to to learn along the way, but when you lift off that first time, you're paid back in full for all the sweat.

Tim Olson, EAA 587342; Elk Mound, Wisconsin





North Carolina | RV-8

North Carolina | RV-8

Miss Izzy litted off in March 2006, after more than three years of construction. It has a Teledyne Mattituck Lycoming 10-360 with Aerosport free Injection, dual Light Speed electronic lightling and a Whial Wind Ized Injection, dual Light Speed electronic lightling and which will read in the stand electronic flight information system (EFIS), SL30 ana/comm, Garnini 327 transponder, and mation system (EFIS), SL30 ana/comm, Garnini 327 transponder, and ranto autopliot with altitude hold. Interior is by Tighthiline Interiors, better the Windowski and plant is Duffort Imron 1 applied myself. Interiors to Steve Clasgow for lending a third hand whenever needed, Thanks to Steve Clasgow for lending a third hand whenever needed, leaver mastered rivet bucking but always provided encouragement and shared the dream of flight.

Ron Schreck, EAA 662612; Gold Hill, North Carolina

CALIFORNIA RV-7A

OUR RV-7A TOOK TO the air for the first time in May 2009 after 32.00 hours over four years and nine months. A Lycoming 10-360-MIB and a Hartzell Constant-speed 19-360-MIB Our aircraft has all the bells and whisteds in coupled to a Tru Trak autopilor with roll coupled to a Tru Trak autopilor with roll helped with the panel. Steve at Flying Kolors steering Aerotronics of Billings, Montana, helped with the panel. Steve at Flying Kolors in Riverside, California, applied the paint. Committed of the Committee of the Committe in Riverside, California, applied the paint.

Me are routinely seeing 195-plus mph at
han 8 gph. Thanks to my wife. Cindy, EAA nan 8 gpn. 1 nanks to my wite, Cindy, EAA 1988, for helping with the construction and Pporting this project.

Gablin, EAA 741986; Calimesa, California m: увытк<u>сшинэт.com</u> ical Counselors: Wendell Hoatson & Fred LaForge



SOREN N754TA YOOK TWO and a half years to complete and first flew in September 2009, N754TA is propelled along quite nicely by a Jabirur 3300 120-hp engine. The instrument includes a Stratmaster Entires for all parts. includes a Stratomaster Enigma for flight information and engine monitoring. XCOM radio, Becker Iransponder, angle of attack Indicator, and Trio Avionics two-axi postion. It also has I started this project and postion that the started this project finished it just after grid flight training and endorsement. Special thanks to my wife. Lourdes, for her patience and support during this great adventure. includes a Stratomaster Enigma for flight

Bob Carson, EAA 822053; Highland Village, Texas

STARDUSTER ONE

STARDUSTER ONE

Finished this project without the help and advice of every pilot in Eagle
in Georgia Specially the technical support for Wayne Owens. The
certificate was received on March 13, 2010, and my first flight took place
0.1 Installed a Jabiru 3300 swinging a Sensenich wooden propeller. Gross

ountered on first temperatures, s I am now perature. The were fixed by lin, and I have elevator. V, EAA 646776;

TEXAS SONEX SONEX N754 TA TOOK TWO and a half

PENNSYLVANIA RV-12

OUR RIV-TWAS TABRED IN SEPTEMBER 2008 and signed off by the FAA on January 26, 2010. It was Straftsen and January 26, 2010. It was straftsen and belonging to EAA Chapter 85 of Zelienople, Pennsylvania. The sheet metal construction went together smoothly and with minimal problems. Edden Loran, who accommoded as fiberglass KtS/Pulsar airplane, took the lead during this phase of construction and blue paint scheme. The group members are Bob McMillin inspired the yellow and blue paint scheme. The McMillin, Bob Winkle, Larry Gaichas, Elden Lorah, and me.

Chuck Lotz, EAA 676163 lienople, Pennsylvania mail: chaz.lotz.daedalusvi@eaa857.org



TENNESSEE HUMMEL BIRD

TENNESSEE HUMMEL BIRI
MY HUMMEL BIRD PROJECT was built in
honor of its designer, the ten Morry
Hummel. It was built from plans
or 3.0-month period. The plane
has been signed of and is a legal 103
ultralight. I door and is a legal 103
ultralight. I door and is a legal 205
morry proud. It came in at 250.5
pounds with brakes, canopy, and a 1/2 Morry proud, It came in at 250.5 pounds with brakes, canopy, and a 1/2 VW engine by Scott Casler. The first flight was on October 3, 2004.

Robert Miller, EAA 610072 Nashville, Tennessee E-mail: skypuprbm@aol.com

www.eaa.org 71

RV-10

Van's Aircraft offered something with the RV-10 that no other RV before it could match — four seats. The company touted that the RV-10 was built for those whose "mission includes more than two people, and [who] like airplanes that perform and handle well." Unlike previous models, the RV-10 is only available with a nose wheel.

MA

ISSUE: DECEMBER 2006

On February 12 I took my RV-10 for its first flight. The building process took me just over 24 months and 1,900 hours. My favorite part is its panel, with a three-screen Chelton system including traffic information service and WSI Aviation Forecasting. Climb is about 2,100 fpm. It has a 260-hp IO-540 and two-bladed Hartzell prop. The biggest thanks go to my wife. Without her assistance and attitude this dream would never have come true. There's a lot to learn along the way, but when you lift off that first time, you're paid back in full for all the sweat.

— Tim Olson,

EAA 587342; Elk Mound, Wisconsin

RV-12

The RV-12 was designed from the start to be eligible for the light-sport aircraft category, and it was the first design that Van's offered as a complete aircraft as well as a kit. Like the RV-10, the RV-12 is only available with tricycle gear.

ISSUE: OCTOBER 2010

Our RV-12 was started in September 2008 and signed off by the FAA on January 26, 2010. It was constructed by a group of six craftsmen, all belonging to EAA Chapter 857 of Zelienople, Pennsylvania. The sheet metal construction went together smoothly and with minimal problems.

Elden Lorah, who has constructed a fiberglass KIS/Pulsar airplane, took the lead during this phase of construction. Bob McMillin inspired the yellow and blue paint scheme. The group members are Bob Mapel, Bob McMillin, Bob Winkle, Larry Gaichas, Elden Lorah, and me.

— Chuck Lotz,

EAA 676163; Zelienople, Pennsylvania



RV-14/RV-14A

With the RV-14, Van's returned to its roots with a two-place, side-by-side, full aerobatic design available with either conventional or tricycle gear. The company advertises the RV-14 as having the "roominess of an RV-10 in a two-seat airplane."

ISSUE: JANUARY 2018

My RV-14A, C-FAXO, took its maiden flight on October 14, 2017, with my friend Bill Funk at the controls. C-FAXO has a Lycoming IO-360 engine with 10-to-1 pistons and a roller cam turning a constant-speed Hartzell two-bladed propeller. The Garmin panel was built by SteinAir and includes two G3X touch screens, a GTX 45R transponder, GTR 20 and GTR 200 comm radios, a GMA 245 audio panel, a GTN 625 GPS navigator, a GMC 307 autopilot, a G5 EFIS, and a Vertical Power VP-X Pro electronic circuit breaker system. The slow-build kit was a real pleasure to build. I would like to thank my wife, Deborah, for her encouragement and support.

Thank you to my friends Bill Funk and Mervin Friesen for the extra hands when needed, Mark Elste of Dyno Power Xperimental for the custom engine, John Funk for the paint, RT Signs for the graphics, and Classic Aero Designs for the interior. After four years in the shop, I am looking forward to some great flying hours.

— Bob and Deborah Giesbrecht,

EAA 172500; Steinbach, Manitoba, Canada

ISSUE: FEBRUARY 2018

This is our recently completed RV-14. The first kit arrived around New Year's Day of 2013, and my father, Gordon Clement, began building. He was a first-time builder and very much enjoyed the experience. He built nearly every day until the summer of 2014. In September of that year he passed away after a battle with cancer. My family was left with a partially completed airplane (wings and a tail) and a decision to make. Ultimately, we decided to see the build through and enlisted the assistance of our friend and RV-8 builder Allen Holcombe. He did a beautiful job finishing the build and paint work. The aircraft was deemed airworthy in late 2016 and first flown in February 2017. Since then, I have flown the airplane nearly 140 hours including a trip to Oshkosh. I am thrilled that we were able to see out my father's dream and finish the RV. It is an incredible airplane that is very special to my family. The RV-14 has a Dynon SkyView and a Garmin GTN 650. It is also equipped with a Lycoming IO-390 that is rated at 210 hp. I did not understand why people like RVs so much until I began flying this one. They truly are a great allaround airplane; you just can't beat it! osн22

— Zak Clement,

EAA 1165286; Cleveland, Georgia





A Better Way to Fly

At Airbus, we want to be known not just for our exceptional products and services, but for the positive impact we have on the world and its citizens. That's why we are developing commercial aircraft concepts to achieve zero-emission flight, exploring various technology pathways to lead the way in decarbonizing aviation, and pioneering sustainable aerospace for a safer and more united world.

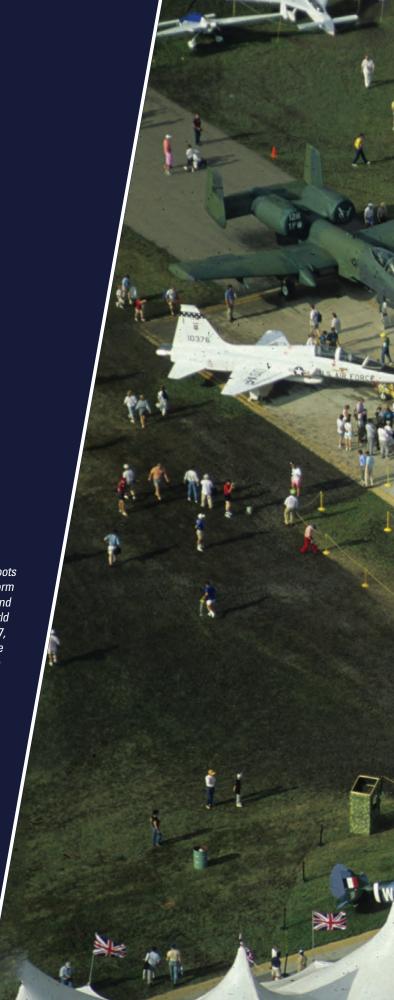


AIM HIGH

75 YEARS OF NOTABLE USAF AIRCRAFT

BY HAL BRYAN

THE TRADITIONS of the service can trace their roots back to the birth of U.S. military aviation in the form of observation balloons flown in the Civil War and developed as part of the U.S. Army during the world wars. However, it wasn't until September 18, 1947, that the United States Air Force (USAF) first became an independent armed service. At EAA AirVenture Oshkosh this year, as we honor this milestone anniversary, we look back at some of the aircraft that have served the USAF over the last 75 years. Whether restored and flown as warbirds or serving on active duty — in some cases after decades — you're sure to spot some of these types as you wander the grounds of the World's Greatest Aviation Celebration.







THE FORMATIVE YEARS — 1947–1950

During the first three years of the USAF's existence, new mission-based naming conventions were rolled out. The most notable change being the redesignation of "pursuit ships" like the Mustang as "fighters." So, the early days of the Air Force were supported by familiar types with new names. For example, the P-51 became the F-51, and the radical P-82 Twin Mustang was redesignated the F-82.

Piston engines provided power for transports like the Douglas C-47 Skytrain and the C-54 Skymaster (military versions of the DC-3 and DC-4, respectively) and the XC-112, which led to the development of the company's DC-6, an aircraft that the USAF used as the C-118 Liftmaster. A new version of the classic Lockheed Constellation came into USAF service as the C-121, as did Boeing's C-97 Stratofreighter. Bombers still relied largely on piston power as well. As Boeing upgraded the B-29 into the B-50, Convair introduced the first iteration of the massive B-36 Peacemaker, and Northrop rolled out its radical new B-35 flying wing prototypes. Some medium bombers like the B-25 Mitchell soldiered on, though the Douglas A-26 (designated B-26 starting in 1948) was used more extensively in the postwar period. North American's newest trainer, the radial-powered T-28 Trojan, first flew in 1949, though the venerable T-6 Texan it replaced managed to stick around for quite a while.

But even though piston engines powered much of the fleet during the USAF's formative years, it was clear that jet propulsion was the way of the future. The Lockheed F-80 had first flown as the P-80 before the end of World War II and led to the development of one of the most successful jet trainers of all time, the T-33 Shooting Star, which first flew in 1948. The F-80 also led to the F-94 Starfire, the first operational USAF jet with an afterburner. Republic's F-84 Thunderjet was introduced into USAF service in November 1947, while the most famous fighter of the era, the North American F-86 Sabre, made its first flight a month earlier.

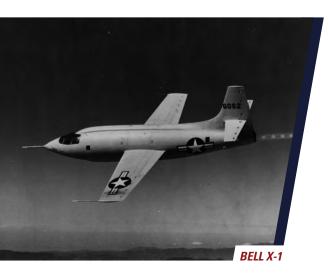
In 1949, Convair added four J-47 turbojets to the B-36D to bring its total number of engines to $10 - \sin x$ turnin', four burnin' — making the huge bomber a literal marker of the transition from piston to jet power. Northrop converted its B-35s to jet power, proposing them for USAF service as the B-49, but the program was canceled. The North American B-45 Tornado four-engine jet bomber entered service in April 1948, and Boeing's B-47 Stratojet made its first flight in December 1947, though it didn't start its quarter-century USAF career until 1951.

One of the new service's first victories wasn't over an enemy force but an invisible barrier — a legendary "demon" that lurked out there at the edge of the envelope. On October 14, 1947, Capt. Charles "Chuck" Yeager flew the Bell X-1 *Glamorous Glennis* to a speed of Mach 1.06, officially exceeding the speed of sound in level flight for the first time in history.

The fledgling USAF was committed to demonstrating its ability to project power anywhere in the world. Based on the British grappled loop-hose system, Boeing produced the service's first aerial tanker, the KB-29, giving the USAF its first operational midair refueling capability.







On February 26, 1949, a Boeing B-50 Superfortress named *Lucky Lady II* took off with a crew of 14 from Carswell Air Force Base in Texas and turned east. While airborne, the *Lucky Lady II* was refueled four times by KB-29 tankers — first over the Azores and then over Saudi Arabia, the Philippines, and Hawaii. The B-50 landed at Carswell on March 2, having flown 23,452 miles in 94 hours and 1 minute and completing history's first nonstop flight around the world. Equally as impressive as the distance covered was the accuracy of the crew's planning — after nearly four days in the air, they landed two minutes ahead of their ETA.

BACK INTO BATTLE — 1950-1953

In 1950, with the start of the Korean War, the service was still in the early stages of transitioning from piston-engine fighters like the Mustang to jets like the F-80 and F-94, the F-84, and later, the iconic North American F-86 Sabre.

While the B-47 entered service in 1951 and the B-52 first flew the following year, the USAF bombers used in the conflict were primarily still propeller-driven, with Boeing B-29 Superfortresses filling the strategic bomber (and tanker) role while the Douglas B-26 Invader was relied on extensively as a medium bomber. The North American B-45 Tornado, the U.S. Air Force's first four-engine jet bomber, also served during the war, albeit in a reconnaissance role. Other bombers provided strategic reconnaissance support as well, including the Boeing RB-50 Superfortress and, briefly, the Boeing RB-17 Flying Fortress. The airplane that literally embodied the USAF transition from props to jets, the Convair RB-36, conducted high-altitude reconnaissance missions over Chinese Manchuria and portions of Soviet East Asia.

The Air Force relied heavily on WWII-era holdovers — including the Douglas C-47/C-53 Skytrain and C-54 Skymaster, and the Curtiss C-46 Commando — to transport people and materiel. The Fairchild C-119 Flying Boxcar, however, was a new design developed from the company's earlier C-82 Packet. Douglas also introduced a burly new transport, the C-124 Globemaster II, a successor of the original Globemaster, the Douglas C-74.

L-birds pulled their weight in the war as well, with types like the Piper L-4 Grasshopper, the Stinson L-5 Sentinel, the Aeronca L-16, the North American/Ryan L-17 Navion, and the Cessna L-19 Bird Dog all seeing USAF service at the time. The Air Force also employed aircraft types more traditionally associated with other services — including helicopters like the Sikorsky H-5 and H-19 Chickasaw and flying boats like the Grumman SA-16 Albatross and Consolidated OA-10 Catalina — for patrol as well as search and rescue. Specially modified B-17s and B-29s also served in the search-and-rescue role, dropping lifeboats to downed airmen.

PHOTOGRAPHY BY **SCOTT SLOCUM**WWW.EAA. ORG

23

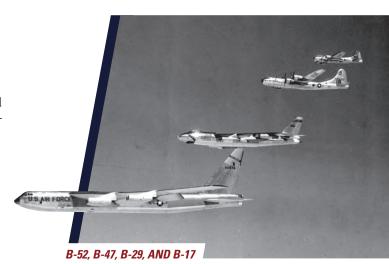
THE COLD WAR SIMMERS — 1954-1963

There isn't a single airplane that stands as a symbol of the might of the USAF from the Cold War and beyond — there are just too many contenders in too many categories. But if there were, it would have to be the Boeing B-52 Stratofortress conventional and nuclear bomber, the backbone of the USAF Strategic Air Command. First flown in 1952, the longrange (more than 8,800 miles without refueling), heavy-lifting (up to 70,000 pounds of ordnance), eight-engine behemoth entered service in 1955. After a series of upgrades, the type is expected to serve into the 2050s. It's not impossible that AirVenture Oshkosh 2055 could celebrate a staggering 100 years of service for the mighty Stratofortress.

This era also saw the introduction of a pair of light, twin-engine jet bombers, the Douglas B-66 Destroyer and the Martin B-57 Canberra, the latter produced under license from the British English Electric Canberra. The B-57 was introduced in 1954, and the last reconnaissance variant was retired by the USAF in 1983. To this day, three modified versions still fly with NASA for weather research. The B-66 served not quite two decades, from 1956 to 1975.

If the B-52 was and is the most iconic jet bomber in Air Force history, to many people, the Convair B-58 Hustler was the coolest. The aptly named Hustler was a four-engine, nuclear-capable bomber with a top speed of Mach 2, and it looked more like a fighter — a scaled-up version of the company's F-102 or F-106. While the airplane never saw combat, during its comparatively brief decade of USAF service, the Hustler set multiple speed records.

Bombers weren't the only things getting faster. The latter part of 1954 brought with it a new breed of fighter, the North American F-100 Super Sabre. Kicking off the famed Century Series, the Super Sabre was the first USAF fighter capable of supersonic speeds in level flight. The "Hun" served in the United States for 25 years, eventually being adapted for close air support and reconnaissance roles.









WONDER, INSPIRATION, LEARNING



Members make the National Air and Space Museum what it is: a source of wonder, inspiration, and learning for millions of people from across the country and around the world.

Join us as a partner in our mission to commemorate, educate, and inspire the next generation of pilots, innovators, and explorers.

For gifts of \$35 or more, your annual membership offers you:

Subscription to Air & Space Quarterly

Invitation to annual Flight Jacket Night, events, and exhibition previews Advance notice about Museum programs and lectures Discount at Smithsonian Museum Stores and IMAX® Theaters Stunning annual Wall Calendar

Join, renew or give a National Air and Space Society membership.

Visit s.si.edu/AirVenture to learn more.





The F-100 was followed, logically, by the McDonnell Douglas F-101 Voodoo, which entered service in 1957. The Voodoo was originally designed as an interceptor and fighter escort, but like the F-100, it also ended up serving as a fighter-bomber and reconnaissance platform. Next in the series was Convair's F-102 Delta Dagger. As the name implies, the F-102 had a sharp delta-wing design — it looked fast but needed additional development before it was capable of exceeding Mach 1.

While the Republic XF-103, a planned Mach 3 interceptor, never got past the mock-up stage, the Lockheed F-104 Starfighter, a product of Kelly Johnson's famed Skunk Works, certainly did. Known as "the missile with a man in it," the sleek T-tailed Starfighter with the impossibly short wings was the first fighter capable of sustained speeds of Mach 2.

Next in line was the Republic F-105 Thunderchief, also introduced in 1958. Unlike so many other fighters of the era that evolved into a ground attack role, the "Thud," as it was often known, was built as a fighter-bomber from the beginning, eventually carving out its place in history flying suppression of enemy air defenses missions. These were given the nickname "Wild Weasel" because they'd bait enemy surface-to-air missile sites into powering up their equipment and then home in on the radar emissions to destroy the installation.

Convair's second delta-wing fighter, the F-106 Delta Dart, was the last purpose-built interceptor in USAF service, with subsequent fighters developed from the start as multirole designs. First flown in 1956 and introduced in 1959, the Delta Dart set speed records later that year, flying more than 1,500 mph. The F-106 was retired by the Air National Guard in 1988, and by NASA 10 years later. While the naming conventions of U.S. military aircraft are peppered with exceptions and resets, the F-106 was the last true Century Series fighter to enter service.

But it almost wasn't. In 1956, North American built three prototypes of the F-107, a fighter-bomber based in part on the F-100, but the type never entered service. The company went on to design a Mach 3 interceptor called the XF-108 Rapier, but it never progressed past the mock-up stage. The Bell D-188A, which could have been the F-109, was a proposed Mach 2 vertical takeoff and landing fighter that also ended life as a mock-up.

And then there was the airplane known briefly as the McDonnell Douglas F-110A Spectre, a later variant of a carrier-based fighter originally built for the U.S. Navy. The airplane eventually became the F-4C Phantom II, which went down as one of the most capable combat aircraft in U.S. history.

The post-Korean War era brought three new cargo airplanes to the USAF fleet, including the Fairchild C-123 Provider, which was developed from a late-1940s assault glider design; the heavy-lifting Douglas C-133 Cargomaster; and, introduced in 1956, the ubiquitous Lockheed C-130 Hercules. The Hercules is considered a tactical airlifter, able to operate in and out of short, unimproved strips just about anywhere in the world. The C-130 has been in production for more than 67 years, and in addition to its primary role as an "anything, anywhere, anytime" transport, the venerable Herky Bird has been adapted for use as a gunship, maritime patrol aircraft, weather research platform, firefighter, and aerial refueler.



THE STAR OF THE COLD WAR-ERA X-PLANES WAS ALMOST CERTAINLY THE NORTH AMERICAN X-15. FIRST FLOWN IN 1959, THE X-15 WAS A TRUE ROCKET SHIP. CAPABLE OF EXTRAORDINARY ALTITUDES AND SPEEDS.

Speaking of refueling, 1956 saw the first flight of another stalwart in the USAF fleet: the Boeing KC-135 Stratotanker. Developed from the "Dash 80" prototype in parallel with the company's landmark 707 airliner, the latest iterations of the Stratotanker can carry up to 150,000 pounds of fuel that can be transferred to other USAF aircraft via a "flying boom," or to U.S. Navy types using a drogue adapter. Like the C-130 and the B-52, the KC-135 has seen multiple upgrades and refits over the years and is expected to remain operational until 2040, a remarkable 87 years after the type's introduction and 75 years after the last original Stratotanker rolled off the production line.

In 1953, the need for information during the Cold War led the Air Force to create a request for proposal for a high-altitude reconnaissance aircraft. The USAF requested proposals from three companies — Martin, Bell, and Fairchild — but it was a fourth company, Lockheed, whose unsolicited bid would ultimately win the contract. Its proposal, known internally as the CL-282, became the U-2 in 1955, the powers that be choosing the "utility" designation to lightly obfuscate the aircraft's real purpose. Like the B-52, KC-135, and the C-130, the U-2 remains in continuous service more than 60 years after its introduction.

The star of the Cold War-era X-planes was almost certainly the North American X-15. First flown in 1959, the X-15 was a true rocket ship, capable of extraordinary altitudes and speeds. Powered initially by a pair of engines, and then an upgraded single-rocket engine, the X-15 was carried to an altitude of about 45,000 feet by a B-52 mother ship and then dropped, after which the X-15 pilot would ignite the rocket(s), accelerate, and climb.

The X-15 was flown by a total of 12 pilots, both USAF and civilian, eight of whom exceeded the 50-mile altitude minimum defined by the United States as the edge of space, thus qualifying them as astronauts. The X-15 was also the first manned hypersonic aircraft, ultimately flown by Air Force Maj. Pete Knight to a speed of Mach 6.7, or 4,520 mph, setting a category record that remains unbroken.

PHOTOGRAPHY COURTESY OF **EAA ARCHIVES**WWW.EAA.ORG 2.

AIM HIGH







BACK EAST — 1964-1975

While the period from the mid-'50s to the mid-'60s was all about building up the USAF fleet, the next decade was about putting that fleet to use. That's not to say that there weren't some remarkable, capable, and innovative aircraft introduced in that era, just that the Air Force, like the rest of the country and much of the world, was focused on the war in Vietnam.

One aircraft that had been in service for some time really came into its own during the war in Southeast Asia, the Douglas A-1 (formerly AD) Skyraider. The Skyraider, which had proven its mettle in Korea serving with the U.S. Navy and Marine Corps, joined the Air Force in a specialized role, providing air cover for helicopter combat rescue missions. These missions, where the Skyraiders were given the call sign Sandy, helped save countless U.S. lives.

The de Havilland Canada Caribou, a twin-engine transport with remarkable short takeoff and landing capabilities, entered service with the U.S. Army as the AC-1 in 1961. In 1966, all of the Army's Caribous were transferred to the USAF as part of an agreement between the chiefs of staff of the two services.

While the Caribou, alongside the larger C-130, excelled at tactical airlift operations, the Air Force wanted something bigger — and then it wanted something bigger than that, and Lockheed rose to the challenge on both counts. The C-141 Starlifter, a four-engine jet transport, first flew in 1963 (on the 60th anniversary of the Wright brothers' flight, as it happens) and entered service about two years later. When appropriately configured, the Starlifter was capable of carrying as much as 92,000 pounds of cargo (a typical maximum was closer to 70,000 pounds) or as many as 154 troops or 80 patients on litters.

The Starlifter's big brother, the C-5 Galaxy, first flew in 1968 and entered USAF service in 1970. After a series of upgrades, the current C-5M Super Galaxy, among the largest aircraft in the world, can carry a payload of more than 280,000 pounds over a distance of more than 2,100 miles without refueling. While the Starlifter was retired in 2006, the C-5 lives on, with the type marking a half-century of service in 2020.

The Vietnam era saw the introduction of the U.S. Air Force's first "swing-wing" aircraft, the General Dynamics F-111. The F-111, known mostly unofficially as the Aardvark thanks to its long nose, was a multirole aircraft, both tactical and strategic, serving as a nuclear-capable bomber, a ground attack aircraft, and, ultimately, a reconnaissance and electronic warfare platform. The airplane entered USAF service in 1967, and the final EF-111s were retired in 1998.

A pair of unconventional twins saw action in Vietnam, observation and light attack aircraft that served notably in the forward air control (FAC) role. In 1967, the first to be introduced to the USAF was the Cessna O-2 Skymaster, a military variant of the civilian centerline-thrust Cessna 337. Two major variants were produced, the O-2A, which carried light armament including bombs and rockets, and the O-2B, which was specifically kitted out with loudspeakers and leaflet dispensers used for psychological warfare.

Shortly after the O-2 entered service, the Air Force acquired the North American Rockwell OV-10 Bronco. The twin-boom, twin-turboprop Bronco served, as all FAC aircraft did, directing strikes, performing after-action bomb damage assessments, and reconnaissance. Later USAF variants were configured as light strike aircraft. The Air Force retired its OV-10s in 1991, but in 2015, two were brought out of retirement as an experiment and deployed overseas, flying more than 100 close air support combat missions over Iraq and Syria.

This era also saw the introduction of the Lockheed A-12, a high-speed reconnaissance aircraft originally built for the CIA. The A-12 was developed into the iconic SR-71 Blackbird, which entered service in 196. The Blackbird, slightly larger than the A-12, was capable of speeds in excess of Mach 3, or more than 2,200 mph, at altitudes of 85,000 feet. At those speeds and altitudes, the SR-71 was virtually untouchable — if a missile was fired at it from the ground, the Blackbird would simply outrun it. The SR-71 was retired in 1990, but, like the OV-10, it was briefly called back into service. The USAF permanently retired the Blackbird in 1998, though NASA flew two of them for research purposes for another year after that.

NEW GENERATIONS — 1975–1999

After the war in Vietnam, the 1970s and 1980s brought a new generation of USAF aircraft across multiple roles. Although it first flew in 1972, the McDonnell Douglas F-15 Eagle didn't enter service until January 1976, too late to see action during the war. The F-15 is an air superiority tactical fighter, and it was later developed into the two-seat strike platform, the F-15E Strike Eagle. With 50 years since its first flight, the F-15 is still in production and is considered one of the most successful fighters in service today.







PHOTOGRAPHY COURTESY OF **EAA ARCHIVES**WWW.EAA.ORG

29



The General Dynamics (now Lockheed Martin) F-16 Fighting Falcon was introduced in 1978 and, like the Eagle, is considered to be an extremely successful and versatile multirole aircraft. It's also among the most numerous, with more than 4,500 produced so far, roughly four times as many examples as the F-15. In addition to the USAF and the Reserve and National Guard, F-16s are used by the U.S. Navy as aggressor aircraft, and by the air forces of more than two dozen other countries.

Arriving between the Eagle and the Falcon was the A-10 Thunderbolt II, more commonly known as the Warthog. Form follows function with the A-10, and that function is to carry a big gun, the 30 mm GAU-8/A rotary cannon that can turn enemy armor to dust with a single "brrrt." The airplane also carries a diverse ordnance package including rockets, missiles, and bombs, on a series of hardpoints under the long, straight wing. The airplane was built for rugged, low-speed maneuverability and survivability — A-10s are famous for bringing their pilots home, safely ensconced in the titanium bathtub that is the Warthog's cockpit, even when the airplane is badly damaged.

As part of a program meant to supplement the venerable KC-135, McDonnell Douglas built the KC-10 Extender as a tanker, and it was introduced in 1981. Based on the company's DC-10 airliner, the Extender has been in service for more than 40 years, though only about 60 were built.

One of the most unusual aircraft in USAF history, the Lockheed F-117 Nighthawk, a twin-engine attack aircraft generically referred to as a stealth fighter, was introduced in 1983. Rumors and disinformation about the existence of the airplane were rampant in popular culture, until it was finally publicly revealed in 1990, after nearly seven years of service. Public predictions of a sleek, curvy fighter, generally referred to in popular culture as the F-19, were dashed by the appearance of the black, faceted, and angular construction of the real thing. The F-117 saw combat in the invasion of Panama and developed an outstanding reputation after its performance in the Gulf War. The USAF retired the Nighthawk in 2008, but some examples have continued to fly, presumably for training purposes.

While the Nighthawk was somewhat inaccurately referred to as a stealth "fighter," the Northrop Grumman B-2 Spirit absolutely fits the description of stealth bomber. First flown in 1989, the B-2 is a low-profile, high-altitude heavy bomber, whose design hearkens back to Northrop's original flying wings of the late 1940s. With a radar cross section reportedly only slightly more than 1 square foot, the Spirit is meant to get in, deliver conventional or nuclear ordnance, and get out, ideally before the enemy has any idea what hit them.















While the B-2 was built to avoid detection, there's not much that's subtle about the Rockwell B-1 Lancer, a swingwing supersonic strategic bomber that looks — and flies and sounds — like a big fighter. (Although, to be fair, the B-1's radar cross section is drastically less than its older brother the B-52.) The B-1, something of a spiritual successor to the B-58 Hustler, had to fight a series of bureaucratic battles before it ever saw combat. The Lancer, also known as the Bone (B-one), first flew in 1974, but the program was canceled for several years. When it was reinstated, development continued and the production version, the B-1B, entered service in 1986.

Developed by McDonnell Douglas in the 1980s, the now-Boeing C-17 Globemaster III was introduced in 1995 as replacement for the C-141. The C-17 sits between the C-130 and the C-5 as a jet transport capable of fulfilling both tactical and strategic airlift missions. While it's only slightly larger in terms of length and wingspan than the C-141, the C-17 can carry nearly 100,000 more pounds of cargo than its predecessor. It's slightly slower than the Starlifter, with a slightly smaller range, but the latest Globemaster can operate in and out of much shorter runways, even those that are unimproved.

THE TURN OF A CENTURY —— 2000 – PRESENT

The first of the so-called fifth generation of fighters, the Lockheed Martin F-22 Raptor was introduced in late 2005, about eight years after the type's first flight. The Raptor combines stealth design elements with Mach 2-plus speeds and cutting-edge avionics and weapons systems to make a capable tactical air superiority fighter that can also serve in ground attack and electronic warfare roles. The type first saw action in Syria in 2014, dropping GPS-guided bombs on enemy targets, though the Raptors were used mainly for reconnaissance in that deployment.

Lockheed Martin also designed and developed the F-35 Lightning II, which first flew shortly after the F-22 was introduced. Produced in three different variants, the Lightning II found its way into USAF service in 2016, in the form of the F-35A. While the B-model used by the Marines is capable of short takeoff and vertical landings, Air Force F-35s operate conventionally.

OSHKOSH 2022 PHOTOGRAPHY BY **DAVE WITTY**





Like the F-22, the F-35 is considered a stealth design and can fulfill multiple roles as both a tactical fighter and a strike aircraft.

One of the longest journeys from first flight to active service was undertaken by the V-22 Osprey, a tiltrotor aircraft intended to combine some of the best features of a helicopter with the range and speed of a traditional fixed-wing turboprop aircraft. Built in partnership by Bell Helicopter and Boeing, the Osprey first flew in 1989, but it didn't achieve what's called initial operational capability with the USAF until 2009, two years after the hybrid aircraft was put in service by the U.S. Marine Corps. The USAF uses the CV-22 variant as part of the service's special operations command for long-range troop transport and insertion, as well as combat search and rescue.

Like the KC-10 before it, the Boeing KC-46 Pegasus is a tanker based on an existing airliner (in this case, the 767) that was meant to eventually replace the classic KC-135. First flown in 2015, the KC-46 entered USAF service in 2019. Roughly 50 have been built so far, but the Air Force is expected to eventually procure a little more than three times that many over the next several years.

INTO THE WILD BLUE YONDER

As you enjoy AirVenture this year and challenge yourself to spot as many aircraft mentioned here as possible, take a moment to remember the courage, dedication, and sacrifice of all of those who have served in the United States Air Force. For 75 years, the brave men and women of the USAF have protected our nation and its interests, and lived up to their motto of "Fly-Fight-Win." OSH22



THE KING AIR 360 TURBOPROP

The Next King Rises

Updated Airframe, Standard Autothrottle, Stunning New Interiors

When facing adversity, we persevere.

When confronting new challenges, we push ahead.

When the obstacles, barriers and uncertainties mount.

We rise above.

BEECHCRAFT.COM/HEIR-OF-EXCELLENCE









HISTORY OF THE YOUNG EAGLES PROGRAM

In May 1992, the Experimental Aircraft Association announced a monumental goal that would forever shift the landscape of youth aviation programs. The goal: provide 1 million young people between the ages of 8 and 17 an aircraft ride by the centennial of powered flight on December 17, 2003. The initiative was dubbed the Young Eagles program.

At 1:01 p.m. on July 31, 1992, the Young Eagles program officially took flight during EAA Oshkosh 1992. Tom Poberezny, EAA's president from 1989 to 2010, provided the first three Young Eagles flights in a Piper Twin Comanche. Aboard this flight were Kenny Toson, Lesley Poberezny, and Audra Chaimson. By the end of Oshkosh '92, the first 142 Young Eagles flights had taken place. Only 999,858 Young Eagles left to fly!

Within the first month of the program, more than 1,100 youths experienced their first Young Eagles flight. This was a great launch, but there was momentum to be gained. To put it into perspective, more than 100,000 kids would need to be flown each year to reach the goal. As EAA members and chapters tend to do, they banded together in an effort that would position Young Eagles as the world's leading youth aviation program.

EAA Chapter 579 of Aurora, Illinois, made the goal of supporting 1 percent of the 1,000,000 flights. Spoiler alert: Chapter members exceeded the goal by 205 Young Eagles. Come the end of 2003, EAA Chapter 579 was responsible for 10,205 Young Eagles flights.





CELEBRATING 30 YEARS OF YOUNG EAGLES

30 FLIGHTS FOR 30 YEARS —

Young Eagles pilots who fly 30 youths between August 1, 2022, and July 31, 2023, will be awarded a commemorative polo shirt.

YOUNG EAGLES 30TH ANNIVERSARY PINS —

The Young Eagles program would not be possible without the amazing ground volunteers. Chapters can request commemorative pins to award to ground volunteers.

YOUNG EAGLES 30TH AND BEYOND —

Recruiting new Young Eagles pilots is critical to the long-term health of the program. Pilots who fly their first Young Eagles between August 1, 2022, and July 31, 2023, will be entered into a monthly drawing to win a Lightspeed Zulu 3 headset.

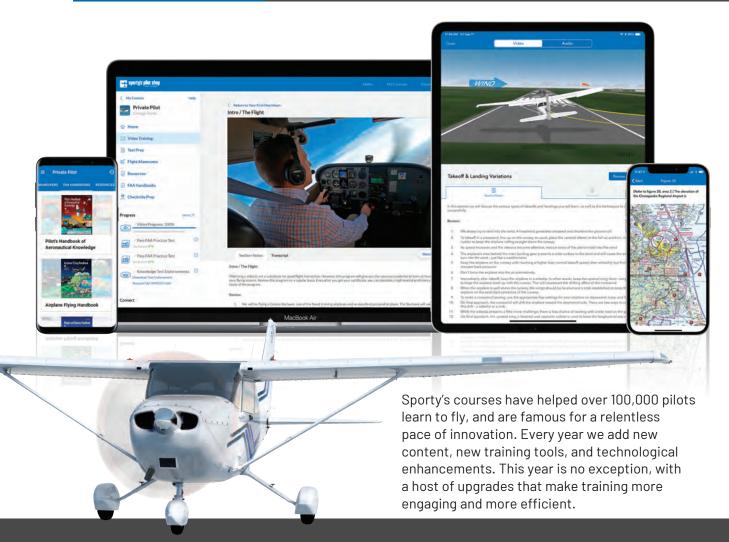
EAA AIRVENTURE OSHKOSH 2022 ACTIVITIES

- Thursday, July 28, 2022, is Young Eagles Day at AirVenture.
 - » 1:30 p.m. Young Eagles participant and volunteer group photo on Boeing Plaza.
 - » 2:00 p.m. Commemorative flight to re-create the first Young Eagles flight.
 - » 7:00 p.m. Young Eagles panel at Theater in the Woods
- Free Young Eagles buttons available.
- Young Eagles 30th Anniversary Exhibit at EAA Four Corners.
- Special flight activities all week long.
- Commemorative shirt-and-hat combo available for purchase at EAA retail locations.

LEARN MORE AT EAA.ORG/YE30



PILOT TRAINING COURSES





New TV apps: All-new Apple TV app with review quizzes, new Amazon Fire TV app, new Android TV app, plus Chromecast and Roku support.



Audio training: Listen to each segment when you can't watch the video, on the go or while you work out.



PowerStudy test prep: Every feature online, in the iOS app, or in the Android app: advanced study modes, complete learning history, and custom quizzes.



Flight instructor portal: Share your progress in the course and complete a pre-solo test that's sent to your instructor.



New video segments: Cover the latest changes to airspace, tips for flight planning with Garmin avionics, and new ForeFlight weather tools.



Lifetime updates: Every time you log in to the online training portal or open up the Pilot Training app, you'll have access to the latest video segments and test question updates.

THREE COURSES AVAILABLE:

LEARN TO FLY

INSTRUMENT RATING

COMMERCIAL

\$279 EACH



SPORTYS.COM/COURSES

YOUNG EAGLES

In addition to EAA Chapter 579, chapters all over the country began hosting Young Eagles rallies. These rallies, which are still the most common chapter activity 30 years later, infused a whole new energy into the Young Eagles program. Not only were the kids able to go for a flight, but the chapters added additional elements such as mini ground school sessions, hands-on activities, static display aircraft, flight simulator opportunities, and the ever-popular pancake breakfast. Rather than just an airplane ride, kids were now treated to a fun morning at the airport. The doors to aviation were being opened a bit further, and the families in attendance were now getting a glimpse into the aviation opportunities that awaited the Young Eagles.

Outside of the Young Eagles rallies, individual Young Eagles pilots were busy providing flight experiences on their own time. Although flying with the ultimate goal in mind, pilots soon began to realize the joy they received from the flight was just as great as the joy brought to the youth. This renewed sense of joy and passion further encouraged pilots to take up more Young Eagles.

Hal Bryan, managing editor for EAA's publications, perfectly captured this sense of joy: "Flying Young Eagles is supposed to be an act of charity, of sorts, but for me it's nothing but the best kind of selfishness — I get far too much out of it to view it any other way." If you have ever supported the Young Eagles program, you know the exact feeling.

By the late 1990s, more than 100,000 Young Eagles were being flown each year, by 8,000-plus volunteer pilots.

This surge in activity carried the program to the 1,000,000 kids flown goal, and by the end of 2003, 1,033,692 Young Eagles had been treated to the experience of a lifetime.

As the Young Eagles program transitioned to its second phase, the philosophy was slightly changed. Yes, EAA still wanted to introduce as many youths as possible to aviation, but the quality of the Young Eagles flight became the focus. By providing a more personalized experience, youths participating in the program would be treated to a more impactful flight.

The Young Eagles Flight Plan was launched in 2009 in an effort to create an even more valuable experience for youth participants. Thanks to the support of Embry-Riddle Aeronautical University, Young Eagles are eligible for a free EAA student membership. Sporty's Pilot Shop also began offering its private pilot ground school, Sporty's Learn to Fly Course (valued at \$279), to all Young Eagles free of charge. As Young Eagles progress through the program, they can earn a free flight lesson voucher. At the conclusion of the course, they can even receive their endorsement for the FAA knowledge test. Longtime presenting sponsor Phillips 66 has also generously supported the Young Eagles program, even offering fuel discounts to volunteer pilots. Other companies that graciously help make the program possible include United, the official airline of EAA Young Eagles, and supporting sponsors Garmin, the Academy of Model Aeronautics (AMA), Lightspeed, and Global Aerospace.

Thirty years removed from the first Young Eagles flight, we are privileged to bear the responsibility of carrying this program into the next three decades. As the program has grown, we've continually added elements to further engage the kids, and more and more youth aviation programs have cropped up all over the country. Some are dedicated to youth aircraft builds; others help kids find a career path in aviation. No matter the specific structure, each program is doing its share to further educate and inspire the next generation of aviators. However, when you dig into these amazing programs, you quickly learn that a Young Eagles flight is often the catalyst for youths to get involved.

The Young Eagles flight is still a transformative experience, inspiring youths to find their own aviation pathway. As EAA members and chapters around the country are harnessing that inspiration, the Young Eagles program will continue to be on the leading edge of youth aviation opportunities.

PROGRAM MILESTONES

JULY 31, 1992:

Tom Poberezny provides the first Young Eagles flight at the EAA fly-in convention.



OCTOBER 25, 2003:

Andrew Grant becomes the 1 millionth Young Eagle following a flight from Rick Ellis from Freeport, Illinois.



JULY 28, 2016:

Jodie Gawthrop becomes the 2 millionth Young Eagle following a flight with Harrison Ford at EAA AirVenture 2016.



JULY, 28, 2022:

The 30th anniversary is launched at EAA AirVenture Oshkosh 2022.



IN THEIR OWN WORDS

CHRISTINA BEHR-ANDRES, EAA 1168285

We had just sent off our last Young Eagles participants for the morning rally and started packing up our forms and leftover certificates and logbooks when a mom approached me to say that her son was now ready to take his flight. He had been signed up for an earlier time slot, but when it was his time to meet his pilot and take his flight, he was scared and started to cry. The parents told me they had driven two hours to get to our rally and wanted their 12-year-old son, obsessed with all things aviation, to take his first flight. They asked for some time to talk to their son to calm him down and encourage him to go ahead with the planned flight. I told the parents that we would do our best to accommodate the delay. I told the boy that he would have an opportunity to fly with an impressive pilot.

The pilot for this flight was our chapter's Ray Aviation Scholarship recipient from last year, Wylie Howe, who had gotten his ticket a few months prior. This was his first Young Eagles rally, and he had already flown a few Young Eagles that morning in a Cessna 162. Wylie was enjoying giving others the same opportunity he had a few years prior as a Young Eagle at one of our semiannual rallies.





Fly with Zulu

Stop by the Lightspeed booth at Lot 259 right outside of Hangar B and wear to compare the best ANR headset in aviation!

Learn more at LightspeedAviation.com



YOUNG EAGLES

When the mother had asked for another opportunity for her son to fly at the end of the rally, I saw that Wylie was fortunately available again and asked if he would be willing to take up another Young Eagle. He agreed, and I set aside my cleanup tasks and escorted the Young Eagle and his family to the aircraft. They did their educational preflight and got into the airplane. The boy maintained a look of stoic determination, and they departed. The flight was successful, and they returned safely with the parents watching intently from the terminal building and taking lots of pictures.

When they landed and parked, I escorted the parents back again to the aircraft to meet their son and his pilot. When the door opened, there were smiles all around. After the boy exited the aircraft, I told him that he should be so proud of himself for overcoming his fears. Many people, when faced with life's challenges, have neither the fortitude nor opportunity to overcome them. What a great lesson to learn at the age of 12, and what a privilege to be part of this experience.

This is why I am a Young Eagles coordinator and fly Young Eagles.

JAMES ALWIN, EAA 1078604

My Young Eagles flight was my first experience in aviation, along with a daylong summer camp between my fifth and sixth grade years. This was my first time in a small airplane, and the pilot allowed me to sit left seat and fly around for a while. This experience made me decide that aviation was something I wanted to pursue. I started taking flying lessons the following year at my local airport, and took my ground school from Sporty's through the Young Eagles program. I got my EAA membership soon after in 2012 and have been a member ever since. I also attended every year of AirVenture since 2013. I soloed at 16 years old and got my certificate the next year at 17. Shortly after this I gave my first Young Eagles ride and have continued to give back to the program that got me started.

At Oshkosh, I toured the College Park and talked to the representatives from several colleges. After touring several, I decided to pursue a degree in unmanned aircraft system operations at the University of North Dakota, where I am scheduled to graduate in the spring of 2023. Through college I have participated in the Air Force ROTC program where I plan to commission as a second lieutenant in 2023 as a pilot selectee.

I did not have an EAA chapter at my local airport and did not get heavily involved in EAA chapter work until I went to college. At UND I joined EAA Chapter 1342 and dove in headfirst to all things chapter related. I became chapter president in spring of 2020. I held this position until December 2021, where I stepped down from president and was elected as vice president. During this time our chapter had no events in 2020 due to COVID-19 mitigation measures. In 2021 we returned to two out of three of our pre-COVID events. One of these was a large fly-in coordinated with EAA Chapter 380, where we organized a Young Eagles rally that resulted in 101 new Young Eagles. I personally flew 17 of them.



HOW TO GET INVOLVED

BECOMING A YOUNG EAGLES PILOT CAN BE COMPLETED IN FIVE SIMPLE STEPS!

Meet EAA's pilot guidelines, including being an active EAA member.

- Complete EAA's Youth Protection Training.
- Join a chapter or order Young Eagles supplies.
- Complete the Young Eagles flight registration/waiver paperwork.
- Take flight fly Young Eagles.

LEARN MORE AT EAA.ORG/EAPILOTS



EAA CHAPTER 93 EVOLVING THE PROGRAM

While the Young Eagles program has done a tremendous job exposing the world of general aviation to youths over the past 30 years, there are still some underserved portions of the population. Susan Schwaab, EAA 343885, and EAA Chapter 93 in Middleton, Wisconsin, are looking to change that.

A former Boeing 777 pilot for United Airlines, Susan became more involved with Chapter 93 after retiring a few years ago and had an idea for involving more youths from underserved communities by hosting what she calls Young Eagles special events.

"We contact local agencies and nonprofits, and identify youth from these underrepresented communities and find kids that would be interested and excited about being a part of the program," Susan explained. "The purpose of the Young Eagles special event program is to introduce youths from underserved and underrepresented communities to the world of aviation in order to instill competence, envision new possibilities, and provide inspiration for future goal setting. We limit the number of kids to eight, approximately. And we assign them a time slot, and then they come one at a time.



MAKE THE PERFECT LANDING

Your Embry-Riddle degree helps set a course for success

Enrolling in an aviation-related degree program at Embry-Riddle Aeronautical University puts you on the leading edge of an industry that offers unparalleled career paths.

In addition to the academic foundation provided by expert instructors, you'll get vital hands-on experience in glass cockpit aircraft, labs that replicate the nation's airspace, state-of-the-art maintenance facilities and unrivaled aviation simulators.

With campuses in Florida and Arizona and a range of online offerings, Embry-Riddle opens new doors to aviation opportunities around the globe.

embryriddle.edu

EMBRY-RIDDLEAeronautical University

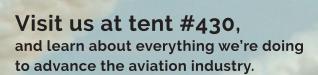
YOUNG EAGLES

"So they get a lot of one-on-one attention, and we have volunteers and their pilots greet them when they come. And then they do a mini ground school with their pilot. They go out and do the preflight with their pilot, and get a flight that lasts 30 to 40 minutes. They get a mini flight lesson. So they get to do the one on one with their pilot and fly the plane themselves. Then they come back and are greeted again by volunteers. ... It's really a very focused program, rather, and differs from public events in that way that it's more a one-on-one thing for kids. It's really amazing to see the difference in these kids. When they first show up at the airports, they're super shy and scared. And by the end, they're just beaming. It's so rewarding seeing these kids go through this program."

Susan plans on operating this Young Eagles special events program for years to come and hopes other EAA chapters might consider starting a program of their own to open up chances to underserved portions of the community.

"Exposure is everything," Susan said. "Besides focusing on kids of color, I also focus on girls. And several of my volunteer pilots are females. I think exposure and just seeing other people that look like them doing these things is a huge factor for them. They don't know the world of aviation even exists, for the most part, and they think that that's not for them. And then they can come to the airport and see people like them doing these things and hear stories. And that in itself is very powerful. ... I'd like to hopefully offer the opportunity for other chapters to think about maybe bringing their Young Eagles programs to communities that would otherwise not even realize it exists. I'm excited for other chapters to reach out and increase diversity at their airports."







FUELS & LUBRICANTS

GROUND VOLUNTEERS MAKE IT ALL POSSIBLE

Dave Deweese, EAA 748952, has been involved with the Young Eagles program for about 20 years, not as a pilot but as a ground volunteer. The operations that happen on the ground are vital to any successful Young Eagles rally, and Dave has played an integral role in that regard for EAA Chapter 32. As Dave explained, the ground crew makes sure the entire process runs smoothly and efficiently.

"At the beginning of our meeting, we'll have a safety briefing and pair up ground crew with pilots," Dave said. "I will go and grab one or two or three Young Eagles, depending on the size of the plane. I will go find them in the crowd, introduce them to the pilot, and we will walk them across the ramp. That's where some of the safety stuff comes in. I wear a bright orange vest and make sure the parents and the kids are close to me. Then I will stand, generally in front of the plane, while the pilot does the preflight. Make sure nobody gets in the way, the prop's clear, that the passengers aren't getting anywhere close to the plane.

"Once we've got the preflight done, load up our Young Eagle passenger, then I will generally stand out in front of the plane and do marshaling duties, which in our case is not anything exotic. ... We have a radio, and I've got an app on my phone. We'll keep an eye on where the plane is and when it's coming in. At that point, I'll gather up the parents, if I can. I'll go out to the ramp, wait for the pilot to return, bring out certificates and logbooks, and get ready for the next passenger."

Like many longtime volunteers, Dave not only enjoys the aviation side of things, but also has developed many close friends through his time with Young Eagles. Plus, witnessing countless youths take their first flight apprehensively, if not downright fearfully, and returning with a smile on their faces has made the past two decades worth it.

"I'm surprised how many of the kids and parents will come to an event with almost a fear, a real trepidation about general aviation, small aircraft," he said. "This is a frightening thing I'm doing, this might be dangerous. And once they've been exposed to it and had a flight, it completely changes their attitude. For people who don't have a particular interest in small aircraft, like I do, they may never consider being a pilot, or taking on an aviation career, just out of this fear or fog that's in their mind. To be around it and find that it's enjoyable and an exciting, fun thing to do, it's interesting. I think it's opening a lot of people up to the aviation and STEM fields, where we really need more people getting into it." OSH22





EAA Young Eagles -Free Flights for Youths Age 8-17

Five Steps to Becoming a Young Eagles Pilot

- 1. Be a current EAA member
- 2. Complete EAA's Youth Protection Training
- 3. Join an EAA chapter or order your own supplies
- 4. Meet pilot currency, insurance, and airworthiness requirements
- 5. Complete flight waiver and fly Young Eagles!

Learn more at the EAA Blue Barn or EAA Learn to Fly Center and enter to win a Lightspeed Zulu 3 headset.



EAA.org/YEPilots



Take Flight with Young Eagles

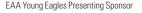
After your flight, take part in the Young Eagles Flight Plan free of charge!

- 1. Young Eagles Flight (FREE)
- 2. EAA Student Membership (\$48 value FREE)
- 3. EAA AeroEducate Age-based STEM activities
- 4. Sporty's Learn to Fly Course (\$279 value FREE)
- 5. Free Flight Lesson and Reimbursement for the FAA Knowledge Exam (\$305 value - FREE)

Find a flight at YoungEagles.org







Official Airline of EAA Young Eagles

EAA Young Eagles Flight Plan Partners

EAA Young Eagles Supporting Sponsors















ALL HANDS IN

A LOOK AT A FEW OF THE VOLUNTEERS WE'VE CELEBRATED OVER THE PAST YEAR

BY CHRISTINA BASKEN AND SAM OLESON

VOLUNTEERS MAKE EAA AIRVENTURE Oshkosh

— and just about everything else EAA does — possible. Over the past year or so, we've highlighted numerous volunteers in EAA Sport Aviation as part of the Volunteer Spotlight feature within the Member Central portion of the magazine. Sadly, this cannot capture all of the thousands of volunteers who give so much to the community every year. So, next time you see a volunteer at AirVenture or elsewhere, however they are pitching in to make EAA better, be sure to thank them for it. It's the least we can do. Here are a few of our favorite Volunteer Spotlight profiles over the past 12 months.





ALL HANDS IN

LEE AND PAULA CREVIER

LEE, EAA 355459, AND Paula Crevier, EAA 477989, began volunteering with EAA in 1991 and have helped out in a variety of areas, including Pioneer Airport, the Ultralights area, convention headquarters, and basically anywhere else needed.

"From '91 to '97, we only did convention and various things in the Ultralights area at that time," Lee said. "Then I became a chairman of what we call two-up operations, which was handling the vendors that were giving their demonstration rides and waivers and stuff like that. In '97, a two-place trainer was donated to EAA, a Flightstar. We started with EAA at Pioneer Airport, flying the Flightstar to get it ready for convention."

Lee said the first year Paula flew the Flightstar at EAA, Tom Poberezny had her take a CNN reporter up to film a live broadcast of the opening sequence of Oshkosh '97 from the back of the ultralight-type trainer.

"We called her Miss Hollywood after that," Lee said. "Then she got to fly a lot of dignitaries over the year, including the FAA administrator and others that would come down, and she'd take them up in the Flightstar. She did that until 2003."

Over time Lee served many roles, including chairman of the Ultralights area until he retired from that position in 2019. He currently volunteers his time to help with preconvention setup, including acquisitions and budget and tent requests.

Paula also served as co-chairman of the Ultralight Barn for a while before she began volunteering at convention headquarters where she's been assisting with issuing golf carts, scooters, and Gators for the past five years.

Having been involved as volunteers for three decades now, Lee and Paula have developed strong friendships, which, along with genuine enjoyment of their duties, has kept them coming back to Oshkosh.

"Good people," Lee said. "We have a lot of friends ... I mean there was just a lot of people that we met that we knew, and we didn't know they were up there like that until we went up there. Then we ended up with the camping group, and it's like, 'Okay, you go there, you get to camp, you get to see the friends that you made from Canada.' It's like an annual thing to go up there and touch base with people you've made friends with for years and years."





SUE GERENCSER

FOR THE PAST 18 years, Sue Gerencser, EAA 1049125, has been helping out with a variety of maintenance-related projects around the EAA AirVenture Oshkosh grounds prior to convention. For her dedicated service for nearly the past two decades, Sue was named the 2021 Dorothy Hilbert Award winner at EAA AirVenture Oshkosh 2021 in July.

The Dorothy Hilbert Award is given to a female volunteer who exhibits the passion, dedication, and devotion for volunteerism that Dorothy presented throughout her life and time spent at EAA AirVenture Oshkosh.

Sue's favorite duty prior to convention is setting up the numerous flags around the grounds, but she's involved with a number of other projects as well, including cleaning buildings, setting up picnic tables, cleaning showers, assisting with gardening and the thousands of flowers at AirVenture, and crafting.

When Sue received the initial email that she'd been named the Dorothy Hilbert winner for 2021, she thought it was a joke.

"I went to delete the email because I thought it was a joke," Sue said with a laugh. "I don't feel like I've done anything extraordinary to win anything, and I didn't say anything to anybody for about three days, and finally, I told my husband. I said, 'Read this because I think it's a joke, and I'm going to delete it.' Well, he already knew about it, but he didn't tell me. That was my first thing was 'This is a joke, I'm going to delete the email."

As someone who admitted that she doesn't necessarily attend AirVenture for the airplanes, Sue pointed out that her experience with other volunteers and the enjoyment they as a group get out of volunteering, particularly crafting, makes it all worth it.

"The other volunteers and I started doing crafts in the ladies tent," Sue said. "Several of the little girls that I worked with, their mothers would come back the next year and tell me, 'The girls could hardly wait till they could get back to Oshkosh and work with Miss Sue.' I heard that a dozen times at least, because I enjoyed working with the girls, with the kids. The ladies tent is so enjoyable. So many women, they wouldn't come and I don't think their husbands would come if they couldn't go to that tent."



BendixKing + Honeywell: Shared DNA from concept to cockpit

Did you know that BendixKing systems share some of the same DNA as Honeywell avionics built for business aviation aircraft? It's an advantage BendixKing leverages as a division of Honeywell.

The common strand is you, the pilot. Our team relentlessly focuses on your flying experience. In fact, it informs all our future technology.

BendixKing and Honeywell develop avionics for all kinds of aircraft, so we can push the envelope when it comes to new products. We leverage our investments and scale our offerings. Straight from larger-bodied aircraft but personalized to your cockpit.

This year, BendixKing and Honeywell are introducing new technology that revolutionizes safety, efficiency, and the in-flight experience at Oshkosh 2022.

Visit us at pavilion #289-292 to see how we are shaping the future of generation aviation with:

- Autopilots and indicators
- Flight Decks and Displays
- Navigation and Communications
- Terrain, Traffic and Weather
- Connected Aircraft
- Audio Panel and Accessories





ALL HANDS IN



PAM RATLIFF

PAM RATLIFF, EAA 310504, has been an active member of EAA Chapter 91 in Lee's Summit, Missouri, for around 35 years, serving as chapter secretary and treasurer.

"From very early on when I was a new member practically, our secretary died," Pam said.
"Then I was secretary/treasurer for about 27, 28 years, and I was very active with the chapter. I helped our president with many things. I helped with fundraising for our hangars. We built four hangars, and I was very instrumental in helping collect the money to get the first one off the ground, and then from there, we built three more. Some of them, I was actually physically out there working. I've always been at anything that we've done. I got the pancake breakfast started, and I've always been at all the pancake breakfasts, either cooking or collecting money, or whatever needed to be done."

At AirVenture, Pam has volunteered in a number of capacities, including in the Ultralights and Homebuilts areas.

"I started out by just saying I wanted to volunteer, and they put me up at the front entrance welcoming people or something," Pam said. "We had a building up toward the line that we had celebrities in, and we had Chuck Yeager who I was escorting. I did that, and then after that, I started working registration for the Ultralights area. Then I moved down to Homebuilts, which is where I worked for quite a few years, I don't

know how many years, quite a few. My best friend is Larry Young, who has also been in Homebuilts, dispatching the welcome wagon, and I was in the building selling tickets for the week and all the things that go on in there. If anything was to be done, like nominating people for a Major Achievement Award, I think there are about six or seven of us who received that. I was the one who would write and submit the applications."

During her years as a volunteer with Chapter 91, Pam has seen the chapter become very active, and she's happy she could help contribute to its growth.

"Well, it was a do-nothing group for a while, and after a time, after I'd been in it for say four or five years, we got more vital, got more involved," she said. "We just stirred things up more and found things to do, and then the big thing was building the hangar. That was our first really big project, and I just jumped right in with two feet and helped raise money. We had different kinds of projects and donations and that kind of thing. It just gives me some satisfaction, especially when you're among a bunch of people who are so involved and vital and interested in a particular subject. I just like being involved when I can."

In 2021, Pam was named an EAA Volunteer of the Year. "I was surprised because I think they had submitted an

application, oh about six or seven years ago, and nothing came of it, and that's when I was actively participating. I didn't know what to think," Pam said. "I called Oshkosh, and I talked to Brenda. I said, 'Can you tell me who nominated me?" I found out eventually that it was Mike Dooley, our current president, which I talked to him and I said, 'I thought that was very nice."





CARL FRANZ

CARL FRANZ, EAA 511275, is a longtime volunteer with EAA and is the 2021 recipient of the Tony Bingelis Award, after serving as a technical counselor for almost 20 years. Carl has also been volunteering at the Builders Education Center during EAA AirVenture Oshkosh since 2003, where he is now the chairman.

The Tony Bingelis Award recognizes EAA technical counselors for dedicated service and/or significant contributions in assisting members to build and restore aircraft. Carl was presented with the Tony Bingelis Award at AirVenture 2021.

Through his years of service as a technical counselor, Carl has exemplified this idea, humbly serving his fellow aviators.

"[Carl] has been an active tech counselor, even throughout the [pandemic]," said Director of Chapters and Homebuilding Charlie Becker.

Tony Bingelis, after serving in World War II, completed several homebuilts. Starting in 1972, Tony wrote almost 300 separate how-to articles for *EAA Sport Aviation*. He also wrote four books on homebuilding practices. Tony was inducted into the EAA Homebuilders Hall of Fame in 1995 and the Texas Aviation Hall of Fame in 2002.

Recipients of the award are carefully chosen by a committee of their peers as outstanding examples of people whose contributions have positively affected members' aircraft building or restoration projects.

Throughout his time has a technical counselor, Carl has put his knowledge from Tony's books to use.

"I read all of Tony Bingelis' books when I was building my airplane," Carl said. "I have passed that information on to the people I work with."

Despite all he does, Carl wasn't expecting the award. "I was speechless. It was a considerable shock to me," Carl said. "I've learned a lot from the people I've worked with, and I just try to share that knowledge."

BILL ZIERDT

BILL ZIERDT, EAA 685278, has been involved with EAA as a volunteer since 2000. As a former Army helicopter pilot who has flown a variety of types, Bill began as an announcer during AirVenture when there was anything happening with helicopters on the field.

"The announcers at EAA are generally pretty good, but they didn't have anybody who knew about the rotary wing," Bill said. "I elbowed my way in with the guy who runs it. I said, 'Hey, give me a shot at this.' He said, 'Well, do you know anything about helicopters?' and I said, 'Oh, yeah.""

Throughout his time serving in Vietnam, Bill said he had the opportunity to fly just about everything up through the helicopters of the '70s.

"But primarily [I flew the] the UH-1 series," Bill said. "I was the test pilot for the Cobras. I flew both armed and slick helicopters."

In addition to announcing during the show, Bill also volunteered at Pioneer Airport throughout the summer giving tours.

In 2021, Bill was named an EAA Volunteer of the Year, an award that recognizes members who represent the very definition of volunteerism by giving their time, talents, and knowledge for the betterment of EAA and EAA programs.

Bill said he was surprised when he found out that he had been named.

"I wasn't aware that I was in the running or whatever it amounts to," Bill said. "It was a surprise, and it verified what I was doing all those years."

Like many volunteers, Bill began his involvement because of his interest in aviation, but he has grown to enjoy it so much because of the people he gets to spend time with during AirVenture.

"Well, there are 18 of us who are the rotary-wing team up there [in the announcer's stand], and we get together once a year, spend a week together, and everybody goes home," Bill said. "They're really a neat bunch of people, and that's the key to the whole thing." We were sorry to have learned shortly before press time that Bill had recently died. Our condolences to his family and to all his life had touched. - Ed.





STEPHEN LEONARD

STEPHEN LEONARD, EAA LIFETIME 286293, joined the EAA Aeromedical Advisory Council (AAC) in the 1980s and has been assisting EAA members and pilots, as well as the organization, with medical-related issues ever since. As part of the council, he's been an active participant in shaping aviation medical policy as well as personally assisting fellow members.

"[The Aeromedical Advisory Council] was initially formed to provide aviation medical advice to Paul Poberezny so he could take informed positions when working with the FAA to help shape regulations," Stephen explained. "That role has expanded, and because the FAA medical team regularly attends AirVenture, the council members have had the chance to develop mutually productive, personal relationships with them. They trust us, and we are able to provide important input into their policy decisions. The greatly expanded special issuance program — and the development of criteria for AMEs [aviation medical examiners] to verify qualifications and issue certificates on the spot for a number of conditions that previously required deferrals — are direct results of ideas and input from our council. Finally, we are available as a resource to EAA members to guide them toward resolution of certification problems that they have had."

In addition to his volunteer work with the AAC, Stephen is part of the government host team during the week of AirVenture.

"Just as with so many of the other chairmen of various volunteer groups, they asked me to participate in the government host team, which if to the extent that there are FAA physicians around, they tend to pair them up with me, but we also serve as hosts as the title indicates to government officials from here and around the world," Stephen said. "I was escorting Lt. Gov. Kleefisch around for a couple of years when she was in office and spent an afternoon with Sen. Johnson one time and the Dominican Republic's aviation authority medical people one year. I mean people obviously come to AirVenture from all over the world, and they need people who are knowledgeable about EAA and understand what's going on to serve as their hosts, hosts and guides, and that's what I do as a member of that team. I'm not in any leadership role. I just go to the meeting every morning and get my marching orders."



Stephen said one of the many reasons he started volunteering during AirVenture, and continues to do so, is because he gets to share the excitement for aviation with friends.

"EAA has certainly been a major part of my life for 30-plus years, as has aviation," Stephen said. "That first time I came up there and I flew, I was a medium-time pilot. I'd been flying for about nine years at the time and flew up in a rented Beech Debonair, I think. As I was touching down on Runway 36, the controller said, 'Blue Beechcraft make an immediate left turn on the grass. You got a flight of four F-15s overtaking you.' I got the wheels on the ground and pulled off into the grass, and these four beautiful Eagles came screaming by as they landed ... and that started the excitement, and it's been there ever since. Like so many of the million or so people who show up every year, it's simply a refresher to my soul to be there, and it's a chance to reconnect with friends that I only ever see there every summer."

In 2021, Stephen was named a winner for the Brown Arch Brick Award, and he said it was a huge honor.

"EAA is the grassroots and has provided an opportunity to help other pilots and to really get to know the system well, and to feel like I have some input into how the FAA operates," he said. "It's always nice to be recognized. Like every other EAA volunteer, I don't do it for recognition. I do it because I love aviation and I love helping pilots, but if EAA wants to turn around and say thank you, that feels good."

54 OSHKOSH 2022 PHOTOGRAPHY BY ANDREW ZABACK



and dependable on and off the ground. This is why pilots trust Icom.

- Panel Mount: A220 feature rich, easy to install even in tight configurations.
- · Handhelds: A25 and A16 Series the perfect backup Comms.
- Mobile: A120 with built-in ANC, reducing background noise for airport environments.



Visit the Icom booth #2027 July 25th - July 31st 2022.











A120

A16 Series

www.icomamerica.com/avionics sales@icomamerica.com





ALAN FARKAS

AS THE FORMER VOLUNTEER chairman of the EAA Legal Advisory Council, Alan Farkas, EAA Lifetime 681323, has spent many years assisting EAA members on a variety of legal and FAA-related issues, as well as advising the organization on a number of matters. An aviation attorney based in Chicago, Alan joined the Legal Advisory Council (LAC) in 2005 and served as its chairman from 2011 to 2021, stepping down as chair at EAA AirVenture Oshkosh 2021.

Since joining the council, Alan has made himself available to EAA members to discuss a plethora of different aviation-related legal questions on a daily basis.

"We have direct contact with the members, and we get exposed to the full, broad array of the membership in the issues that they raise," Alan explained. "For somebody that is interested in aviation law, it's an embarrassment of riches, the kinds of questions that the members bring to us. Everything from issues that arise from their own private grass airstrips to issues that involve sophisticated jet operations. Concerns with the FAA, concerns with manufacturers and kit building, just everything you can possibly imagine."

In addition to those duties that take place year-round, Alan also volunteers during the week of AirVenture, where he is involved with forums about legal issues, staffs the advocacy booth in the membership center for Q&A sessions, and also serves on the government host committee.

"The politicians, the regulators that come to AirVenture — we as an organization, we as members have an interest in making sure that they know and understand what it is that

they're regulating," Alan explained. "And I can give you all sorts of examples of very, very high level people that have never seen a homebuilt aircraft before, have never seen a kit aircraft being built before, have never seen the different types and variety of aircraft. It's important that they walk away from EAA with an understanding of the various facets of the industry. So as government hosts, that's our job. Now it's fun, it's enjoyable. I've met fascinating people doing that, but the mere fact that we're enjoying it doesn't mean that it's not valuable and important."

Although Alan stepped down as the LAC chairman, he continues to serve on the council as he thoroughly enjoys what he does as a volunteer for EAA and is glad he can help out members, and the aviation industry as a whole, through his service.

"I have a strange skill set, and I make a living spending far too much time doing things that don't necessarily move the ball in a positive direction, dealing with accidents, litigation, and bad events," he said. "My practice also involves transactional stuff that I would say is benign, but isn't really doing anything to make the world a better place. My work with the members is rewarding. It's enriching. I'm making a positive impact. And to be able to use that weird skill set to do things, to help people, is a rare opportunity."





DOUGLAS CONCIATU

FOR NEARLY 30 YEARS, Douglas Conciatu, EAA Lifetime 53419, has been an active member of EAA, flying Young Eagles every year, mostly from his home airport in Ray, Michigan. He ranks ninth among Young Eagles pilots across the organization, flying more than 2,400 Young Eagles in that time frame. He has also been an EAA AirVenture Oshkosh volunteer at the Blue Barn, and in past years, he volunteered to fly Young Eagles at Pioneer Airport in Oshkosh during the summer months.

For his volunteer service for the past three decades, Douglas earned the 2021 Phillips 66 Aviation EAA Young Eagles Leadership Award, presented at EAA AirVenture Oshkosh 2021. The award recognizes outstanding Young Eagles volunteers who have supported the future of aviation by going above and beyond the basic Young Eagles flight.

"Being part of the Young Eagles has been an incredible experience. I find so much joy in helping kids of all ages learn to navigate the sky, gain confidence in themselves, and truly embrace the spirit of aviation," Douglas said. "I am honored to be recognized by Phillips 66 and the Young Eagles community, and I look forward to participating in everything the organization has to offer for young, aspiring pilots across the country."

Douglas never thought flying would become a lifelong passion. A self-starter, he began his interest in aviation in high school by reading industry magazines and learning as much as he could about the ins and outs of taking to the skies. At the age of 16, he achieved his first solo flight and received his pilot certificate at 17.

Although piloting was never his full-time career, Douglas found time to fly as much as he could, while maintaining his day job in public safety before he retired. In addition to being a Young Eagles pilot, he is an independent flight instructor at Ray Community Airport (57D).

"One summer, I gave a boy a Young Eagles ride at Pioneer Airport, and years later, he found me at Oshkosh to share that he was enrolled at the University of North Dakota, studying aviation. It's stories like this that make what I do with the Young Eagles and the EAA so incredibly special. That feeling you get when you've impacted someone's life is unmatched, and I'm very grateful to continue what I love and guide younger generations so they, too, can find a passion for flight."

Not only does Douglas have a love for aviation, but his wife, Marla Smith, EAA Lifetime 739104, is also actively involved with the Young Eagles. Although she is not a pilot, she has volunteered with the ground crews at the Young Eagles rallies and coordinated rides alongside her husband. She and Douglas, in fact, met at AirVenture 13 years ago and enjoy coming back to Oshkosh every summer. OSH22



OUR WORLD, TWO MISSIONS, FLY YOURS

Daher has the most efficient solutions to match your flying requirements. The TBM very fast turboprop aircraft sets the standards for cruise and range performance, while the workhorse Kodiak 100 is best-in-class for STOL and off-airport operations. Both share a high-level of operational safety – equipped with the world's most reliable turboprop engine, advanced avionics, and featuring highly robust airframe construction.

DAHER, WHERE SAFETY - AND EFFICIENCY - COME FIRST. kodiak.aero I tbm.aero



TEM

KODIAK



ONE VVEEK VVONL RETURNS FOR 20

BY CHRISTINA BASKEN AND DAVID LEITING

THANKS TO THE SUPPORT of Sonex Aircraft, we're excited to announce the return of the One Week Wonder for EAA AirVenture Oshkosh 2022. Starting on Sunday, July 24, at 8 a.m., a group of volunteers will build a Sonex Waiex-B, powered by a Rotax 912iS engine, to be completed and ready to taxi one week later, on Sunday, July 31.

"The One Week Wonder event brings excitement and enthusiasm to others in the community by showing what it looks like and feels like to build an aircraft from a kit," said Charlie Becker, EAA's director of chapters and homebuilding.

Just as it has in previous years, the One Week Wonder build in 2022 will provide an excellent opportunity to show the world that anyone can build an airplane. Attendees will have the chance to pull a rivet, and have their photo taken as a souvenir.





ONE WEEK WONDER RETURNS FOR 2022



HOW IT STARTED

THE ONE WEEK WONDER program was inspired by the unique experience that unfolded in Workshop 5 at EAA Oshkosh 1976.

Chris Heintz, EAA 78029, designer and engineer, showed up on opening day with the crazy idea that he would build and fly a homebuilt Zenith during the course of the convention. News spread fast around convention grounds, and soon attendees were buzzing with excitement. To achieve this goal, Chris needed to recruit some help.

Recruiting help at Oshkosh wasn't a hard task. Asking aviation enthusiasts to take part in a homebuilding project was like asking a little kid if they wanted ice cream. However, convincing folks they could build *and* fly a finished airplane in just nine days proved to be a little harder.

Chris was a firm believer in the homebuilding movement, and he harbored the desire to persuade folks interested, but not ready to take part in building, into taking the plunge. The goal was to lift common misconceptions, fears, myths, and concerns surrounding homebuilding, and what better way to do so than to build an aircraft in full view of and with the help of the unconvinced.

Chris was successful in his mission and had a complete, flying Zenith in just 550 person-hours. A complete airplane was not Chris' only accomplishment. He had also just convinced thousands of folks that homebuilding was achievable, and that is perhaps the biggest accomplishment.

ONE WEEK WONDER

THOSE BELIEFS AND IDEAS that Chris brought to the 1976 convention were fueled by pure passion for aviation. EAA's mission is to share The Spirit of Aviation, and that is exactly what he did.

In 2014, EAA took inspiration from Chris and launched the One Week Wonder program at AirVenture. More than 2,500 people shared the building experience through the project, transforming a standard Zenith CH 750 Cruzer kit into a flyable aircraft in just seven days.

Volunteers had a blast participating in the project, and in 2018 EAA launched the second One Week Wonder project: a Van's Aircraft RV-12iS kit.

"It was a huge accomplishment for the team at Van's Aircraft and all of our volunteers," Charlie said. "We had 100 core builders plus over 2,500 people that helped pull a rivet on the aircraft. I thought it turned out awesome. The energy all week was very high."









ONE WEEK WONDER RETURNS FOR 2022









MAKING AN IMPACT

A YEAR FOLLOWING THE completion of the RV-12iS at AirVenture, EAA set off on a One Week Wonder Tour with the airplane to represent the homebuilt aircraft movement, demonstrate the capability of modern homebuilt aircraft, and visit with EAA members across the country.

The tour kicked off from Van's Aircraft headquarters in Salem, Oregon, where David Leiting and Serena Kamps from the EAA staff began their southern-bound flight. With early stops at EAA Chapter 495 in Roseburg, Oregon, and EAA Chapter 1027 in Willits, California, David and Serena were able to meet many long-time EAA members who rarely, if ever, are able to make the annual trip to EAA AirVenture Oshkosh. Making the trek to Oshkosh is no small feat no matter where you depart from, but traversing the Continental Divide takes a tremendous amount of effort and planning. Creating stronger connections with these members was an added benefit to this trip.

Following stops in the San Francisco Bay Area with EAA Chapters 1268 and 20, the tour made its way to Southern California, for a visit at EAA Chapter 465 in Paso Robles, California. However, the busiest day of the tour was on day six, when the One Week Wonder stopped at the Santa Monica and Van Nuys airports. The afternoon was spent visiting historic EAA Chapter 1 in Riverside, California.

Ray Stits, renowned aircraft designer, convinced Paul Poberezny that a great benefit to EAA and the homebuilt aircraft movement would be the formation of EAA chapters. Bringing the One Week Wonder to the home of EAA Chapter 1 at Flabob Airport was a special moment, as it demonstrated just how far the homebuilt aircraft movement has come, and the importance of local EAA chapters to supporting the mission of EAA.

Following the visit at Flabob, the tour made a short overnight stop at EAA Chapter 7 in Long Beach, California. The next morning, David and Serena ended their portion of the trip, by heading west to EAA Chapter 1614 in Chandler, Arizona. Here, EAA staff members Tom Charpentier and John Egan took over the controls of the tour to head northeast bound, back toward Oshkosh.

The second half of the trip was a bit more spaced out, with stops at EAA Chapter 179 in Albuquerque, New Mexico; Oklahoma City area chapters 1612, 24, and 1098; and EAA Chapter 91 in Lee's Summit. Missouri.

The final day of the trip, as with most cross-country flights, was impacted by a storm system moving across the Midwest. This allowed for an impromptu visit to EAA Chapter 75 in the Quad Cities.

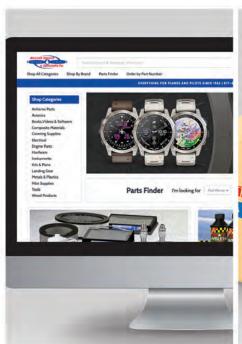
By the end of the tour, the One Week Wonder stopped at 14 EAA chapters across 12 cities. Over the course of 12 days, 2,660 miles were flown in a light-sport aircraft (LSA) built in just seven days. This trip was a true testament to the progress made within the homebuilt movement and demonstrated the amazing capability of modern aircraft kits.

64 OSHKOSH 2022 PHOTOGRAPHY BY JASON TONEY



.. AIRCRAFT SPRUCE

Everything for Planes & Pilots









WE ARE A PROUD SPONSOR OF THE 2022 AIRVENTURE FLY-IN!



















































































ORDER YOUR FREE 2022-2023 CATALOG! 1000 PAGES OF PRODUCTS!



VISIT US IN HANGAR A: 1022-1029 FOR SHOW SPECIALS AND PROMOTIONS!

www.aircraftspruce.com Call Toll Free 1-877-4-SPRUCE

ONE WEEK WONDER RETURNS FOR 2022



LEARNING TO FLY IN A ONE WEEK WONDER

THE 2018 ONE WEEK Wonder, a Van's RV-12iS, later became part of EAA's Employee Flying Club (EEFC) fleet of aircraft. The EEFC was formed to educate staff members, to provide them an affordable way to fly, and to offer a pathway to earn their pilot certificates and ratings, as well as stay proficient through continued education.

EAA's multimedia journalist Christina Basken was one of many staff members who learned to fly in EAA's OWW RV-12 through the flying club.

"I had such an amazing experience learning to fly in the 12," she said. "Before coming to EAA, I had very little exposure to aviation. I'll admit I was one who was very nervous to fly an airplane that wasn't factory built — simply because I had no prior knowledge of homebuilding and kit airplanes. By the end of my first flight in the RV-12, my appreciation for homebuilding had grown immensely.

"On my first lesson, my instructor had me sit in the airplane to feel how it would move, respond to my input, and learn where everything was located. The first thing that came to my mind was not 'yup, this looks like it was built in someone's garage;' it was 'wow, this is really nice!'

"I fell in love with the RV-12 on first flight. The phrase 'one-finger flyer' is used a lot, and often used to exaggerate the handling characteristics of an airplane, but in my experience, the RV-12 is the perfect example of a 'one-finger flyer.' Every input felt smooth and effortless. It wasn't long before I felt connected to the airplane with every input I'd make, and for a beginner, that was an incredible confidence booster!

"In addition to the fantastic handling characteristics, the bubble canopy provided me with an amazing view! With the vents open, it felt as if I was flying a Cub with the doors off! Better yet, I didn't have any metal bars obstructing my view. Going out for low and slow Sunday afternoon flights were some of my favorite flying memories. In fact, I never really viewed the 12 as a means for transportation from one place to another, but more of a fun way to go sightseeing!

"After earning my sport pilot certificate, I took the RV on a couple trips around Wisconsin. One of the best experiences in my journey to earning my certificate in a One Week Wonder was seeing how excited people would get when I'd land at different airports and they'd recognize the airplane, and say, 'Hey! Is that the One Week Wonder from 2018? I think my name is somewhere on it!'

"Van's did a great job designing this aircraft, and it's been a real blast to fly. Coming from knowing close to nothing about homebuilt aircraft, and now knowing so many co-workers and airport strangers-turned-friends that have had a hand in building an airplane that I am so fond of is incredibly special."







Unsurpassed Quality at a Price you can Afford

MACHINE SHOP CUSTOMERS QUALIFY FOR NEW PARTS DISCOUNTS





ONE WEEK WONDER RETURNS FOR 2022



2022 ONE WEEK WONDER: SONEX WAIEX

EAA IS EXCITED TO be bringing back the One Week Wonder event to AirVenture 2022, and we are happy to be doing it with a Sonex aircraft. Oshkosh is a special place for obvious reasons; it became home to EAA's headquarters, hundreds of thousands of people around the world know Oshkosh as the stomping grounds for the World's Greatest Aviation Celebration, and it's also home to Sonex Aircraft.

While the Waiex might look different due to its Y-tail, its specifications and performance numbers are identical to those of the Sonex-B. The B-models feature more cockpit space, a center "Y-stick" option, electric flaps, more panel space, and a 4-gallon increase in fuel capacity.

This particular Waiex will be a first for Sonex, as it will include the factory-designed installation of a Rotax 912iS powerplant. In addition to the generous support of Sonex Aircraft and Rotax Aircraft Engines, this year's One Week Wonder is made possible by MGL Avionics, AeroLEDs, Aircraft Specialty Flightlines, Aircraft Spruce & Specialty, Crow Safety Gear, David Clark, Flightline Interiors, Midwest Panel Builders, Sandia Aerospace, Scheme Designers, Sensenich Propeller, Sherwin Williams, Toucan Exhaust, True Blue Power, and WBParts.

One Week Wonder is truly an EAA member-driven event. Members volunteer to build the aircraft, and members can even help decide what it will look like when it's done! EAA kicked off the 2022 One Week Wonder event in March with a Pick the Paint contest where members were able to vote their favorite paint scheme from 10 options. If you missed the initial announcement, there's still time to get involved in helping us pick the paint scheme. The selection of paint schemes will be narrowed down, and the final selection will take place via voting during AirVenture while the aircraft is being built. OSH22





SPECIFICATIONS

AIRCRAFT MAKE & MODEL: Sonex Waiex-B **CERTIFICATION:** E-AB

LENGTH: 18 feet, 1 inch WINGSPAN: 22 feet HEIGHT (STANDARD GEAR): 51 inches

MAXIMUM GROSS WEIGHT: 1,150 pounds EMPTY WEIGHT: 620 pounds FUEL CAPACITY: 20 gallons SEATS: 2

POWERPLANT MAKE & MODEL: Rotax 912 iS HORSEPOWER: 100



sporty's pilot shop Learn to fly here!

SENTRY PLUS

MEET THE NEXT GENERATION OF ADS-B RECEIVERS

A first of its kind OLED display. An unmatched 18-hour battery life. A next generation flight data recorder with G-meter. Sentry Plus includes all the essential features that made its predecessor the best-selling weather receiver in aviation, plus powerful upgrades to create the ultimate iPad accessory.



SUBSCRIPTION-FREE WEATHER



NEW SAFETY FEATURES

CO DETECTOR

- 1 Integrated OLED screen
- 2 Incredible battery life up to 18 hours
- 3 Next generation flight data recorder
- Built-in G meter displays real time status

5 Improved carbon monoxide sensor

AHRS FOR BACKUP ATTITUDE

- 6 Auto power on/off
- 7 Works with smart charging plugs
- 8 Smart network joining for on-board WiFi

NOTABLE CELEBRATIONS

Happy Birthday!

A variety of aircraft are celebrating at EAA AirVenture Oshkosh 2022

BY HAL BRYAN

EVERY YEAR, EAA AIRVENTURE Oshkosh becomes home to thousands of aircraft. Some of them are here to be displayed or perform in one of the air shows, while others form the centerpieces of thousands of campsites. In some cases, though, there's another reason, one that's cause for specific celebration — the anniversary of an aircraft type's first flight or introduction. At the time of

this writing, we know of several types that are here to celebrate this year. So, as you walk the convention grounds, when you see one of these airplanes, be sure to stop and wish it a happy birthday. In addition, the U.S. Air Force turns 75 this year (see feature story), and the world of ultralights turns 40, so take some time to help them celebrate as well.

PHOTOGRAPHY BY LEONARDO CORREA LUNA



75 YEARS

BEECHCRAFT BONANZA

THE BEECH BONANZA, ONE of the most popular general aviation aircraft of all time, was introduced in 1947. The Bonanza, initially recognizable by its distinctive V-tail, has been produced continuously for 75 years, longer than any other aircraft type. More than 100 Bonanzas of all eras come to Oshkosh together every year as part of an AirVenture mass arrival, and we expect record numbers in 2022.



60 YEARS

DYKE DELTA

DESIGNED BY JOHN DYKE, EAA Lifetime 3566, the Dyke Delta is named for its striking delta-wing configuration. The prototype JD-1, which first flew in 1962, had room for a single pilot and two passengers, while the JD-2 was a bit bigger and could carry three passengers. It's estimated that about 50 were built.

60 YEARS

BOWERS FLY BABY

THE FLY BABY TRACES its roots to an EAA design competition that was kicked off in 1957. The contest took longer than expected, but Pete Bowers' Fly Baby was chosen as the winner at the 10th annual fly-in in 1962. More than 5,000 sets of plans were sold, and 500 Fly Babys were built, engendering an avid following that continues to this day.



AIRCRAFT ANNIVERSARIES

NOTABLE CELEBRATIONS



VAN'S AIRCRAFT

IN 1972, DICK "VAN" VanGrunsven, EAA Lifetime 3204, introduced the single-seat RV-3, a low-wing aerobatic taildragger that started a revolution. Since that time, Dick's company, Van's Aircraft, has produced thousands of kits across multiple models, and more than 11,000 of them have been built and flown by customers. (See feature story.)



50 YEARS

VARIVIGGEN

LEGENDARY DESIGNER BURT RUTAN, EAA Lifetime 26033, showed the world of homebuilders what a "tail first" canard design could do when he introduced the VariViggen, a low-wing two-seater with a pusher engine. This design led to the VariEze and Long-EZ, which went on to define the category of composite homebuilts.

50 YEARS

RAND ROBINSON KR-1

FIRST FLOWN IN 1972, the KR-1 is a low-wing single-seat taildragger with manually retractable gear. Built from a mixture of wood, foam, and fabric, the KR-1 and its successor, the KR-2 series, is a fast and efficient homebuilt that cruises at very high speeds on just 80 hp.



Lycoming Engines Forums

AT EAA AIRVENTURE OSHKOSH 2022

Join our FREE training sessions to learn more about Lycoming engines and to hone your service skills. Registration starts 30 minutes before each event at Lycoming's Training Tent located in Booth #277-282.

Piston Engine Service School

Lycoming Engine Assembly			Lycoming Engine Disassembly			
Mon	1:00 pm - 3:00 pm	Lycoming Booth	Mon	9:30 pm - 11:30 pm	Lycoming Booth	
Tues	1:00 pm - 3:00 pm	Lycoming Booth	Tues	9:30 pm - 11:30 pm	Lycoming Booth	
Wed	1:00 pm - 3:00 pm	Lycoming Booth	Wed	9:30 pm - 11:30 pm	Lycoming Booth	
Thurs	1:00 pm - 3:00 pm	Lycoming Booth	Thurs	9:30 pm - 11:30 pm	Lycoming Booth	
Fri	1:00 pm - 3:00 pm	Lycoming Booth	Fri	9:30 pm - 11:30 pm	Lycoming Booth	
Sat	1:00 pm - 3:00 pm	Lycoming Booth	Sat	9:30 pm - 11:30 pm	Lycoming Booth	

In addition to attending our classes, visit the Lycoming booth to view our display engines and genuine Lycoming parts, learn the latest Lycoming news, meet members of the Lycoming team, and more.

Forums

Lycoming Thunderbolt Engine			Lycoming Engines EIS Overview		
Mon	8:30 am - 9:45am	Forum Stage 6	Tues	2:30 pm - 3:45 pm	Workshop Class C
Wed	11:30 am - 12:45 pm	Forum Stage 6	Thurs	1:00 pm - 2:15 pm	Workshop Class C
Fri	8:30 am - 9:45 am	Forum Stage 6	Fri	2:30 pm - 3:45 pm	Workshop Class C
Sat	10:00 am - 11:15 am	Forum Stage 6	Sat	11:30 am - 12:45	Workshop Class C

Lycoming Engines Care & Maintenance

Monday 3:00 pm - 3:45 pm AOPA Program Pavilion

Find us on social media to follow Lycoming's activities during #OSH22













AIRCRAFT ANNIVERSARIES

NOTARI E CEI ERRATIONS



40 YEARS

CGS HAWK

THE AWARD-WINNING CGS HAWK family was introduced in 1982 and includes both single-seat ultralights and two-seat light-sport aircraft. Hawks are equipped with three-axis controls and constructed from aluminum tubing and Dacron envelopes or conventional aircraft fabric.

40 YEARS

FISHER FLYING PRODUCTS

WHILE THE COMPANY WASN'T officially founded until a few years later, Fisher Flying Products traces its roots to 1982 and the Fisher Barnstormer, a single-seat tricycle-gear ultralight biplane. The Barnstormer led to a number of popular kit and scratchbuilt designs, including the Celebrity, the FP-404, the Avenger, the Dakota Hawk, and many more.



Thank you

to all the sponsors of EAA's One Week Wonder project

The One Week Wonder project is located at Four Corners across from the EAA Merchandise Center.

Stop by, pull a rivet, and be part of the experience!

Presented by:





Supported by:

































40 YEARS

ROBERTSON B1-RD

THE ROBERTSON B1-RD IS a classic design built specifically to meet the requirements of the then-new FAR Part 103 ultralight vehicle regulations in 1982. The simple and affordable B1-RD is an open, high-wing taildragger with a small engine mounted on the leading edge of the wing.

Blow off some steam.

Get IFR-Rated Glass for Under \$5K

New Features Available Now!

Looking to replace your old-style vacuum gauges with electronic displays? The Evolution E5 is a drop in replacement providing advanced functionality and the ability to grow with your needs.

- Provides a path for removal of vacuum pump*
- · Replaces your old attitude indicator and HSI
- Built-in GPSS Roll Steering
- Interfaces with your existing avionics and most autopilots
- Starting at \$4,995

Don't settle for limited digital replicas of your existing mechanical gauges. Get the most cost-effective certified IFR rated glass in the market. The Evolution E5.



Evolution E5 Dual Electronic Flight Instrument

See us in Hangar B at EAA AirVenture 2022

"In most circumstances. Actual vacuum pump removal will vary by aircraft.

Copyright 2021 Aspen Avionics Inc. "Aspen Avionics," "Evolution Flight Display System," and the Aspen Avionics aircraft logo are trademarks of Aspen Avionics Inc. All rights reserved.

U.S. Patent No. 8,085,168, and additional patents pending.



www.aspenavionics.com

AIRCRAFT ANNIVERSARIES

NOTABLE CELEBRATIONS

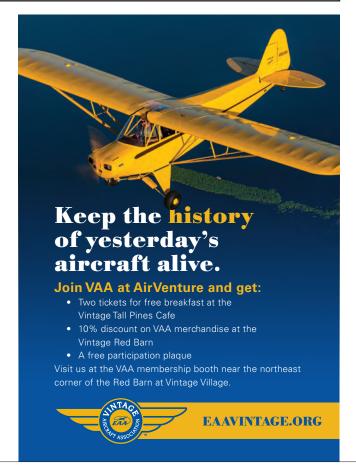


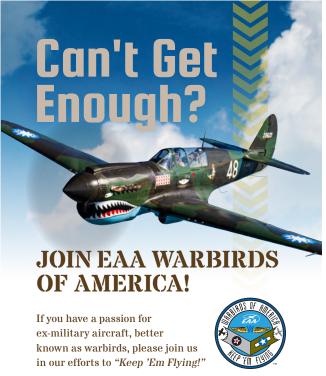
40 YEARS

SORRELL HIPERLIGHT

INSPIRED BY THEIR POPULAR and innovative Hiperbipe aerobatic biplane, Oregon's Sorrell brothers introduced the Part 103-legal Hiperlight ultralight. Like its bigger sibling, the Hiperlight is an enclosed, negative-stagger biplane taildragger. The company also built a two-seat light-sport version of the Hiperlight, but the ultralight version has proven to be the most popular. OSH22







Join or renew at Warbirds-EAA.org or stop by

the Warbirds HO during AirVenture.

OSHKOSH 2022 PHOTOGRAPHY BY EAA ARCHIVES







We meet you where you are. Whether you're learning, growing, or simply flying.

ForeFlight's essential, integrated aviation app is the preferred platform for leveraging Jeppesen's worldwide chart coverage. From your discovery flight to your PPL and beyond, we're with you every mile.

DISCOVER MORE

foreflight.com/jeppesen

FOLLOW ALONG







UNLIKE ANYTHING ELSE

A LOOK AT THE MAGIC OF AIRVENTURE







One Size Fits None.



No two pilots are the same, and their proficiency training shouldn't be either. That's why Redbird Pro constantly measures your knowledge and skills in nine key areas of proficiency to generate a personalized training plan full of articles, quizzes, and flight simulator scenarios that help you improve the weakest parts of your flying. With every training event you complete, you become a more proficient pilot — and Redbird Pro becomes an even better training partner.

Start your free 30-day trial today.







UNLIKE ANYTHIING ELSE







UNLIKE ANYTHIING ELSE



Advanced Craftsmanship. Elevated

DESIGN

Eco-Drive | Purposeful Power

PROMASTER





CITIZEN

BETTER STARTS NOW

UNLIKE ANYTHIING ELSE







SIGN UP FOR EXPERIMENTAL AIRCRAFT ASSOCIATION (EAA) DISCOUNTS. WATCH SAVINGS TAKEOFF.

You work hard for flying time, so our EAA discounts work hard for you. EAA members are now eligible for valuable discounts on compact utility tractors through the free John Deere Rewards program. Because you don't just care about aviation. You care about excellence and savings too. Sign up today at JohnDeere.com/EAA

SEARCH "JOHN DEERE IR TRACTORS" FOR MORE

Shown with optional features. John Deere, the leaping deer symbol and John Deere's greer and yellow trade dress are the trademarks of Deere & Company.



UNLIKE ANYTHIING ELSE





ALPHA BRAVO

COLLINS

DELTA

ECHO

FOXTROT

GOLF

HOTEL

INDIA

JULIFT

Come see us in hangar B, booth 2162 & 2058

We are Collins Aerospace. With our customers we chart new journeys and reunite families. We protect nations and save lives. We fuse intelligence and partnership to tackle the toughest challenges in our industry. And every day, we imagine ways to make the skies and spaces we touch smarter, safer and more amazing than ever.

AEROSPACE REDEFINED



Collins Aerospace

collinsaerospace.com

© 2022 Collins Aerospace. All rights reserved



GRAND PRIZE

Restored 1946 Piper J3C-90 Cub

or \$25,000 CASH

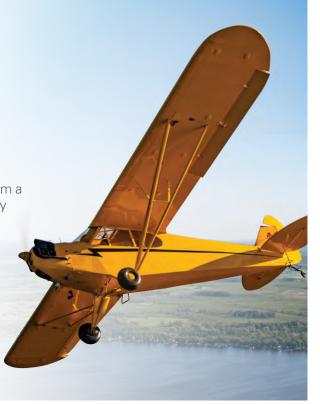
Featuring certified aluminum ribs, spars, and ailerons from a Dakota Cub wing kit, Univair PA-11 struts, two Air Energy 12-gallon wing tanks, and an immaculate interior with a useful load of 358 pounds.

ONLY 3,000 raffle tickets are available | \$100 per ticket

EAA.org/AircraftRaffle

Purchase your ticket at the EAA Aviation Museum™ during normal business hours, at certain events throughout Wisconsin or on the EAA® AirVenture® Oshkosh™ grounds during AirVenture 2022. The drawing will be held on July 31, 2022 at 3:30 p.m. at the AirVenture Member Center, EAA AirVenture Oshkosh, 3000 Poberezmy Road, Oshkosh, Wisconsin.

When you make a raffle ticket purchase, you are supporting the educational and outreach programs and activities of EAA. The 2022 Aircraft Raffle and all entries are governed by the 2022 Aircraft Raffle Official Rules. Winner is responsible for all applicable taxes. For official raffle rules, prize information and further details, please visit EAA.org/AircraftRaffle.









Ever Considered Flying as a Professional Airline Pilot?

Flying for an airline is an exciting and rewarding career. Members of the Air Line Pilots Association, the largest airline pilots' union in the world, are here to chat with you about what it's like to fly the line and the steps you can take to become an airline pilot.

Visit us in booth #329, just blocks from Boeing Plaza.



#ALPAatOsh22 #ClearedToDream

Check out our webpage at www.alpa.org/oshkosh for presentations and scheduled activities.

In addition, learn more about becoming an airline pilot at ClearedtoDream.org.

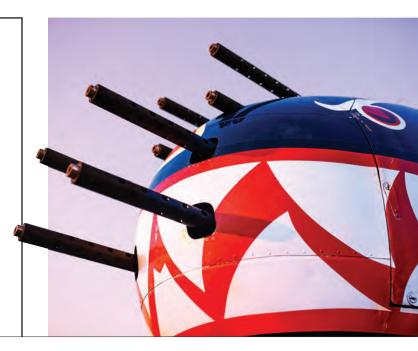








An Air Nation Group Company www.AirNationGroup.com





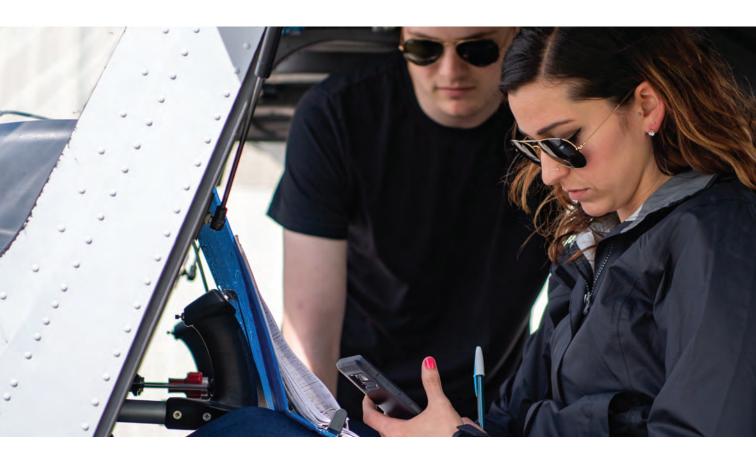
E1000

GX

UNPARALLELED PERFORMANCE.

2,254/2,399 ft Takeoff/Landing Distance* | 1,560 nm Max Range | 333 ktas Max Cruise

VISIT US ON CELEBRATION WAY.



Ray Aviation Scholarship

Helping dreams soar



THREE YEARS AGO, IN 2019, a unique opportunity arose in the flight training world. The Ray Foundation, founded by James C. and Joan L. Ray, was looking to inspire more young people to develop an interest in aviation and eventually become pilots. James Ray, a former B-17 pilot during World War II, established the organization in 1963. The mission? To encourage the potential of children and teens by helping them develop life skills such as self-discipline, self-confidence, and self-reliance. With James' passion for aviation, the focus of that mission centered on aviation and aerospace-related education programs and organizations. Partnering with EAA in 2019, the Ray Foundation donated \$1 million that would go toward training for aspiring pilots, establishing the Ray Aviation Scholarship Fund.

The Ray Foundation has generously increased its donation amount. In 2022, the scholarship fund stands at \$1.55 million. That money is distributed to EAA's extensive chapter network to award to deserving candidates associated with individual chapters. Chapters apply to be a part of the scholarship fund and then choose their own Ray scholar, who is mentored by the chapter as part of the flight training process.

David Leiting, EAA's Eagles program manager, initially managed the scholarship program upon its creation and explained how it exceeded its goals in year one. "Beginning in 2019 when we first unveiled the program, we had the \$1 million given to us by the Ray Foundation," David said. "So our goal was to be able to help 90 scholars in 90 chapters, but thanks to some chapters contributing their own funding or stretching the dollar a little bit, we were able to get 97 chapters and 105 scholars involved."





In the past three years, more than 430 individuals have gone through or are currently in the Ray Aviation Scholarship program.

EAA Chapters Senior Manager John Egan pointed out that the scholarship is more than just money for flight training. It will help prepare student pilots well beyond their private pilot certificate.

"It's a life lessons scholarship" he said "It's a

"It's a life lessons scholarship," he said. "It's a scholarship about managing finances. They have a lump sum of money that they have to manage. It's about managing time. It can be a long lonely road to pursue your pilot certificate. And you have to keep going. ... But it's also about making decisions. These are for high school students. So, you have to make a decision on how to spend your time. You're going to be going to the airport two times a week or at least scheduling yourself two times a week. And that may force you to make a decision on what you give up with your time. It's a scholarship about life lessons and becoming mature, as well as earning a \$10,000 scholarship to learn to fly."

In the past three years, more than 430 individuals have gone through or are currently in the Ray Aviation Scholarship program. There are numerous characteristics of successful Ray scholars, but the common theme is a true passion for aviation. Here are just a few of their recent success stories.

"When I look at EAA and the role that it plays as part of the program, it really comes down to what happens locally with the chapters," David said. "Any time you wave \$10,000 out in front of somebody it's appealing, but when you wave it out in front of a group of passionate members like the chapters that understand the opportunity that they have to take that \$10,000 and give it to an aspiring pilot who is 17 years old, who has been a youth member of the chapter for a couple of years and received a couple of Young Eagles flights, that's something that our chapter network is extremely passionate about."

The program, which is also supported by Lightspeed, has seen immense growth since its start, both in the number of scholars and the number of chapters getting involved, which David said has been great to see.

RAY SCHOLARS

CREATING PILOTS





TOBIAS POBANZ, JASON LABBY

BY JIM MURPHEY, EAA CHAPTER 1093 SCHOLARSHIP COORDINATOR

In 2021, chapter 1093 was awarded two Ray scholar opportunities.

The first of these went to Tobias "Toby" Pobanz, EAA 1406421, a 17-year-old John Glenn High School senior. Tobias is planning to study aviation science, and eventually find a career in commercial aviation. Chosen for his enthusiasm and interest in all things aviation, Toby says so far his flying experiences have been nothing but amazing. "I can't remember a single lesson when I did not have fun; even when I don't do everything perfectly, I still find flying so much fun!" We agree, Toby, because that is exactly how we feel.

About the Ray Aviation Scholarship Toby said, "The award is amazing because it gives kids the opportunity to receive training and move forward in aviation, something which most families cannot afford. I began with Young Eagles, where kids find out if [aviation] is something they are passionate about. The [scholarship] then allows them to pursue aviation and follow their dreams at a young age."

Our second 2021 Ray Aviation Scholarship went to Jason Labby, EAA 1438368, a native Midlander and graduate of H.H. Dow High School.

"I passed the airport many times growing up, but never thought to get involved," he said. Having caught the flying bug, Jason is studying aviation flight science at Western Michigan University.

"My goal is to fly as a career, and I'm open to all opportunities, including corporate, airline, or cargo," he said. "Aviation is something I have found a passion for, and would enjoy having a career related to that passion."

Jason's flying experience began with flight training in the summer of 2021. Quickly learning the basics and seen as a solid aviation student early in his training, he was picked to be our second 2021 EAA Ray scholar.

"Learning landings has been the most difficult part of training so far, but with much practice I am starting to get better," he said. "On December 14 this year I completed my first solo, one of the coolest experiences in my life. I am honored to receive the Ray scholarship. I believe it is a great program, and I take it very seriously. I am very excited for the opportunity it is giving me to achieve my first objective, that of becoming a private pilot, and for the motivation to continue on my aviation journey."

As you well know, flight training is not a piece of cake. We have all stumbled, and losing heart happens. So, when you meet one of these young gentlemen, or any of our fine scholarship awardees, introduce yourself and take a moment to thank them for their efforts to achieve their goals and become respected members of our aviation community. Smile with them, and extend your offer to share your aviation knowledge and experience, and just a little of your time. This is The Spirit of Aviation.

MEGAN LOKSTET

BY RAQUEL LINCOLN, EAA 1306824, EAA CANADIAN COUNCIL

With clear skies and calm winds, EAA Chapter 63's first Ray scholar, Megan Lokstet, EAA 1447987, became a pilot on December 10, 2021. While juggling university classes, a parttime job, and flight training through forest fire smoke and 30-plus-degree Celsius temperatures, Megan was motivated and dedicated to become a pilot. She has become an enthusiastic ambassador for EAA and Chapter 63, assisting in Young Eagles flight coordination and successfully organizing a Young Eagles Day, full of aviation instruction and activities for local youths.

Megan was asked what she found was her greatest challenge. Her response? "Power-on stalls, with flaps! Those were by far the hardest for me!" What did Megan say she found the "easiest" flying skill to master? She chalked up her experience from glider pilot training in the Royal Canadian Air Cadets as invaluable in mastering slipping. Short days and mild winter temperatures will foster Megan's next goal: her night rating.

Thank you to all the Chapter 63 members who provided encouragement and mentorship to Megan. We appreciate those who have donated toward building our next Ray



Aviation Scholarship Fund and look forward to supporting our next future pilot.

We congratulate Megan and look forward to seeing her around Lyncrest (CJL5) Airport.

Thank you, Megan, for a job well done. We are very proud of your achievement.

VISIT US ON CELEBRATION WAY & AT THE SEAPLANE BASE



WE ARE HIRING

Apply Now at wipaire.com/careers



\$2,500 HIRING BONUS & DAY SHIFT ONLY

651.451.1205 South St. Paul, MN (KSGS)

TYLER PAULET, BRETT TUSTIN

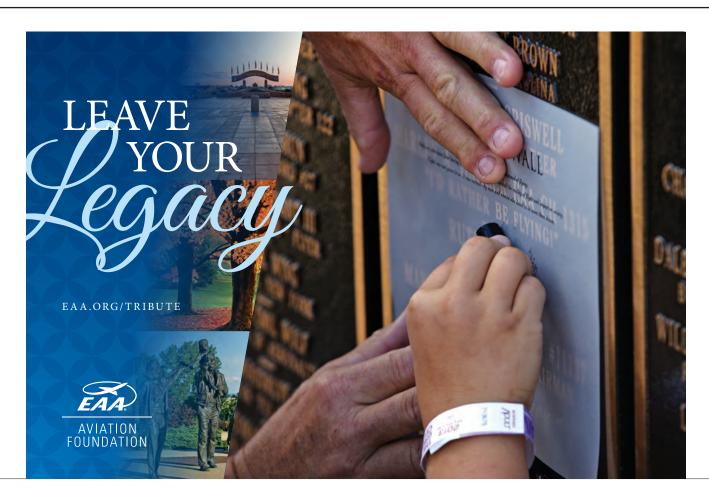
BY RAQUEL LINCOLN, EAA 1306824, EAA CANADIAN COUNCIL

In February, EAA Chapter 63 was notified it would be awarded another Ray Aviation Scholarship! After spreading the word in Manitoba's aviation community, local flight schools, and to youth organizations, many applications were received. A diverse panel of men and women, young and old, with a variety of aviation experience independently reviewed all submissions. Virtual interviews were held with the top three candidates.

Despite not being selected as the Ray scholar in 2021, Tyler Paulet did not let that discourage him from pursuing his dream of becoming a commercial pilot — he became more determined and motivated than ever to work toward a better application for the 'next time.' During his service

as a member of the Royal Canadian Air Cadets, Tyler participated in two years of ground school. He volunteered as a marshal during Young Eagles rallies, volunteered at many fundraising events for the Canadian Cancer Society, and worked two part-time jobs to pay for flight training on his own. With the passion of aviation in his blood, Tyler currently works as a ramp attendant with Perimeter Aviation, while attending high school and flight school. Having recently reached the milestone of his first solo, Tyler said being selected as a 2022 Ray scholar will give him the boost he needs to complete his private pilot's licence by the end of the summer.

When a selected Ray scholar has already achieved their first solo, they qualify for a reduced amount from the original \$10,000. This leaves the chapter the ability to apply the remaining funds to another worthy candidate.







RAY SCHOLARS

CREATING PILOTS

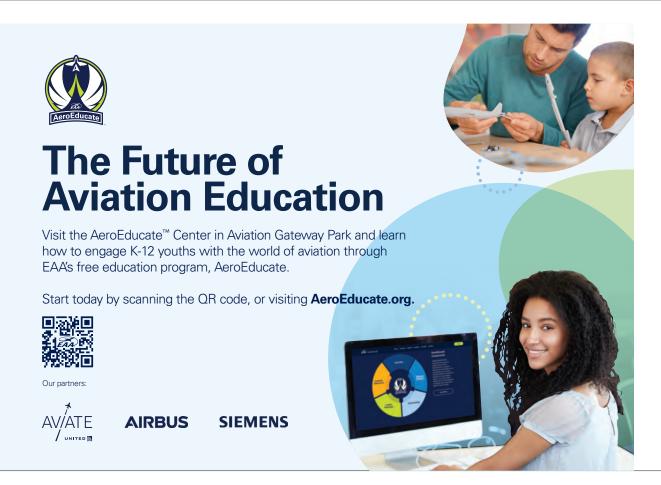


TYLER PAULET, BRETT TUSTIN (CONT.

BY RAQUEL LINCOLN, EAA 1306824, EAA CANADIAN COUNCIL

While flying from the right seat of a friend's 172 and hanging out and helping at Chapter 63's Young Eagles rallies, Brett Tustin decided his destiny is to become a commercial pilot. No stranger to hard work and determination, Brett persevered through the challenges of a debilitating injury he received on the way to a promising hockey career. Once Brett decided aviation was his pursuit, he joined the Royal Canadian Air Cadets program, continued to deliver for Meals on Wheels, and started a job as a ramp attendant with Northway Aviation, while maintaining impressive marks in school. Brett has acquired his restricted radio operator certificate and written student pilot permit, and is working on ground school. Being selected as Chapter 63's Ray scholar has given Brett the confidence and financial momentum to pursue his dream.

EAA's Chapter 63, based out of Lyncrest Airport (CJL5) just outside of Winnipeg, Manitoba, congratulates both 2022 Ray scholars and is looking forward to mentoring both young men in achieving their aviation goals. OSH22



Pick up your favorite 2022 Souvenirs







WE ARE RADIO CONTROL









A Tour of the Grounds

The neighborhoods of EAA AirVenture Oshkosh



It simply isn't possible to see everything at our annual convention, even if you're here for the entire week, so here's a quick virtual tour of the grounds to give you the lay of the land.

THE NORTH 40

First up is the north end of Wittman Regional Airport, where you find an overwhelming sea of airplanes that makes up the North 40. Whether it's your first time at Oshkosh or you've come for years, it's hard not to stare in awe at the 5,000 airplanes that, with their accompanying tents, seem to cover every little bit of the color spectrum, not to mention the grass. At first you'll struggle to make out individual types as the rows run together, seemingly endlessly. After an adjustment period, you'll make sense of things and start to see some familiar airplane faces, and probably some unfamiliar ones, too.

Heading farther east, we come to a gate. Despite already seeing thousands of airplanes and their pilots, we are just at the beginning of our journey, not the end of it.

WARBIRDS

As we continue east, we come to the Warbirds area, home of our EAA Warbirds of America division. Always popular amongst newcomers to the aviation world, this is the home of former military aircraft that are now owned and operated by civilian pilots.

The warbirds are organized broadly by role and type, in typical structured military fashion, fittingly enough. First up are the L-birds, pristine examples of liaison aircraft dating back as far as World War II. They share a border with our reenactor camp, home of dedicated history buffs who appear to be transplants from the 1940s. As we progress through Warbirds, we'll arrive at the home of the aircraft we call "Red Stars." These are foreign warbirds, mostly trainers, including many Chinese Nanchang CJ-6s, along with their cousins from the former USSR, the Yakovlev Yak-18s and Yak-52s.

Continuing on, we come to the Beech T-34s, along with the North American T-28s, and countless examples of the many variants of the iconic T-6

Texan. As we continue our journey, trainers give way to transports and bombers. Here you'll find an eclectic mix of everything from Cessna UC-78s and Beech C-45s to A-26s, B-25s, and C-47s. Depending on the year, a Fairchild C-123 or maybe a flying boat, like a PBY or Grumman Albatross, will call this spot home for the week. At the east end of Warbirds, we enter the jet age. From the Lockheed T-33 and North American F-86, to Cold War spoils like the Soviet-era L-29 Delfín and L-39 Albatros trainers and MiG-15 fighters, the variety is remarkable.

Moving on from the jets, as hard as that can be to do, you'll find yourself immersed in naval aviation, walking among storied classics like F4F Wildcats, F4U Corsairs, TBM Avengers, and maybe a Dauntless or Helldiver. At this point, we're headed back to the west, and reaching an area known as Fightertown. This is where you can find a score or more of P-51 Mustangs, in addition to a Yak-9, a couple of P-40s, a P-38 or two, and potentially a Spitfire.



AROUND THE GROUNDS

MORE TO DO

HOMEBUILTS

If we head south, we get to the airplanes that started it all for EAA — homebuilts. Starting on the west end of the area, there is a campground that may remind you of the North 40, with one key difference — all of these airplanes were painstakingly built by EAA members. Across from homebuilt camping, you'll see a sea of Van's Aircraft RVs.

Zigzagging back to the east takes us into homebuilt showplane parking, where proud builders show off their prized projects. You'll see everything from early classics like Pietenpols and Baby Aces to highend "fast glasses" like Glasairs and Lancairs. You'll see Kitfoxes, Thorps, Stardusters, GlaStars, even a Dyke Delta or two. Then you'll come to the canards, largely classic Burt Rutan designs like the VariEze and Long-EZ, but you'll also spot some Cozys and Velocitys in there as well.

A tour of the Homebuilts area is a monument to perseverance. Anyone can build an airplane, but it takes a special blend of dedication, patience, support, and encouragement to see the project through to the finish. We can help with the support piece; tucked in right next to Homebuilts is our forums and workshops area. If you want to learn to weld, rivet, or work with fabric covering, or to discover any other skill you might need to build your own aircraft, you can start right here.



WHATEVER YOU FLY, **EAA INSURANCE SOLUTIONS**HAS YOU COVERED.

- > General Aviation
- > Non-Owned
- > Flying Club
- > Aerobatics
- > Warbirds
- > Vintage

- > Powered Parachutes
- > Trikes
- > Flight Instructors
- > Flying Clubs
- > Aircraft Projects

Learn more at **EAA.org/Insurance**



Administered by Falcon Insurance Agency, Inc.







BOEING PLAZA

Continuing south, we pass through the main exhibit area, home to most of the 800-plus exhibitors who travel from around the world to show off their latest aircraft, avionics, pilot supplies, you name it. Take a look at the control tower as we pass by, in particular the banner proclaiming it the world's busiest. With as many as 3,000 aircraft movements per day, they're not kidding.

At the center of it all is the aptly named Celebration Way that runs from our Main Gate at the west to the area known as Boeing Plaza at the east end. This is where you'll see C-5s and C-17s alongside an A320 or a 737, frontline jets like the F-22 and F-35, in addition to B-17s, a B-24, or B-29, among many others.





PHOTOGRAPHY BY CHRIS MILLER WWW.EAA.ORG 107

MORE TO DO







AEROBATICS AND AIR SHOWS

Between the plaza and the flightline you'll find Aerobatics, the home base of EAA's International Aerobatic Club. Wander through this area and you'll see Pitts biplanes — from classic S-1s to the sturdy Model 12s with their 400-hp Russian-built radial engines. You'll see those same big radials on Yak-54s and Yak-55s, alongside such other aerobatic mainstays as Extras, Decathlons, Christen Eagles, and more.

This general area also marks the main show center for the air shows that take place every afternoon — and on Wednesday and Saturday nights — at Oshkosh.

CAMPING AND NIGHTLIFE

On the southern fringe of the plaza, you'll come to the Theater in the Woods, home to hours of fascinating programing each evening, featuring notables and celebrities from all aspects of the aviation world. A bit farther west you'll find the Fly-In Theater, a massive outdoor screen where we show a major motion picture every night. The Fly-In Theater, in turn, is adjacent to Camp Scholler, our on-site drive-in campground. Camp Scholler, like the fly-in itself, must be experienced to be understood. It officially opens about a month in advance, and quickly and steadily ramps up to become a city in and of itself, with a staggering one-week population of more than 40,000 people. It's a city that never sleeps, the kind of place where friendships are forged and rekindled year after year. If the fly-in itself is a family reunion, a stay in Camp Scholler is a trip back to your old hometown, even if you've never been here before.

THE EAA AVIATION MUSEUM

If we were to double back to the northwest (nobody ever said this tour was going to be simple), we'd come to the EAA Aviation Museum, the new EAA Education Center, and Pioneer Airport. This area is easy to miss, but don't. The museum is home to more than 200 historic aircraft, including such rarities as the prototypes for the Taylor Aerocar, Van's RV-1, and the Breezy; one of four XP-51s (the oldest P-51 in existence); and the remarkably sleek and retro-futuristic 1938 Bugatti 100P racer. Like AirVenture itself, the museum offers the chance to see a tremendous variety of aircraft, in addition to other supporting artifacts, interactive exhibits, and numerous forums and film presentations.

Newly added on to the museum is the EAA Education Center. Split into two parts, here you can find the Pilot Proficiency Center and the Youth Education Center. The Pilot Proficiency Center features a state-of-the-art skill-building and training center for general aviation pilots. It combines relevant safety forums with challenging simulator training sessions that address key flight safety issues. The new facility will focus on improving pilots' overall aeronautical decision-making skills. The Youth Education Center brings aviation-centric experiences to the EAA Aviation Museum year-round. The 15.000-square-foot Youth Education Center will provide youths, their parents, and their teachers access to interactive and project-based activities that inspire and nurture the next generation of aviators.

Facing the museum is Pioneer Airport, a grass airstrip with several period hangars that house another 40 of the museum's display aircraft. We use this airstrip year-round to provide museum visitors with rides in vintage biplanes and to offer free rides to kids as part of the EAA Young Eagles program. During the fly-in, part of Pioneer becomes a heliport, where we operate a fleet of vintage Bell-47 helicopters that take visitors on aerial tours of the grounds, and this is also where a number of visiting helicopters are parked. The majority of Pioneer, however, is transformed into KidVenture, which, as the name makes clear. encourages children and teens to explore several areas of aviation, including flying and building aircraft, through hands-on activities, speakers, simulators, and demonstrations.



MORE TO DO

VINTAGE

Continuing south along our original track brings us to the next neighborhood: Vintage. This is a haven for those who love old airplanes, as the newest type you'll see was built in 1970, and most of them are considerably older than that. Just as with Warbirds, the Vintage area is broadly grouped by type. As we head south, you'll see the past grand champions on your left, then Antiques on your right. By definition, these are the oldest of the old, constituting airplanes built before 1945. As you meander through these rows, you'll see Staggerwings, Stinsons, Howards, and Cubs. There'll be timelessly beautiful biplanes from companies like de Havilland, Travel Air, and Fleet, and gleaming examples of rarities like the Spartan Executive or a Harlow PJC-2.

Farther south, you'll transition from Antiques to Classics — aircraft built between 1945 and 1955. This is where you'll find the Aeronca Champs, Cessna 140s and 170s, Bellanca Cruisairs, and early Bonanzas. At this point, you'll also see a number of twins, usually a stable of Beech 18s, oftentimes with a Lockheed Electra or two in the mix, and scores of Ercoupes all parked together, across from a proud group of Cessna 195s in a well-marked area of their own.

Continuing south, there's a loose and gradual transition from Classics to the newest of the old, the category known as Contemporary, for vintage aircraft built between 1956 and 1970. This area is home to a wide variety of types, including early Cessna 172s and 182s, some more Bonanzas, early Piper Cherokees, Mooneys, and more.

Like Warbirds, a trip through Vintage is a trip back in time; in this case, though, it's one that celebrates the personal side of aviation history.



110 OSHKOSH2022 PHOTOGRAPHY BY BRADY LANE



ULTRALIGHTS

The tour now finds us leaving Vintage and arriving in Ultralights, an area now known as the Fun Fly Zone. Especially exciting this year, the ultralight community is celebrating the 40th anniversary of Part 103, the FAA rule that established what an ultralight is. The Fun Fly Zone is an airport within an airport, with scores of aircraft operating off its own grass runway, essentially independent of the activity that is going on elsewhere. The area is an eclectic mix of types, displayed and flown by both private owners and commercial exhibitors. It's home to Quicksilvers, Hummel Birds, Belites, Challengers, Mini-Maxes, and Legal Eagles, among many others. This area also

hosts rotorcraft, including light helicopters like the Mosquito and Safari, as well as gyroplanes from companies like Magni and Calidus.

In the still hours shortly after sunrise and just before sunset, the runway is turned over to powered-parachute and paraglider pilots. Watching these slowest of flying machines is a perfect example of the pure pleasures of flight, a gentle reminder that it doesn't have to be complicated to be fun. In recent years, the grass runway has also hosted guests from the Valdez STOL competition in Alaska — a group of pilots flying modified Super Cubs and the like who measure their takeoff and landing distances in tens of feet, not hundreds.

PHOTOGRAPHY BY **CHRIS MILLER** 4111

MORE TO DO





THE SOUTH 40

Once we've left Ultralights, we continue south through an area of parking that's set aside for amphibians — Seabees, Lakes, Caravans on floats, you name it. This is also where we're going to catch a bus, but not yet. Before we do that, we have to take a look through the South 40. As its name clearly suggests, this is the aircraft camping area that bookends the grounds at the opposite end of the North 40.

The airplanes you'll see run the gamut of general aviation, so if you haven't seen it elsewhere on the grounds, you'll probably see it here. There's a decidedly different feel to this area, however, and not just because the airplanes are older, or at least tend to be. It's quieter, more peaceful, bordered not by a city street or lots of hangars and infrastructure but by farmland and cornfields.

And speaking of peaceful, it's time to double back and catch that bus for a trip to one of the best-kept secrets of the fly-in.

THE SEAPLANE BASE

We get off the bus after a short ride to the south and walk a few hundred yards along a grassy trail through a forest. Just about the time you start to wonder if this was a trick, you'll step into a clearing that looks out across a well-sheltered lagoon that's startlingly pretty. You can feel time slowing down as you walk the shoreline or take a boat tour of the lagoon, part of Lake Winnebago, that's full of dozens of seaplanes, resting easily at anchor. You'll see a wide range of types, from classic Piper Cubs to newer Cessna 206s, 1930-era biplanes, and burly de Havilland Beavers to homebuilt Coots and GlaStars. If it flies and floats, it's welcome at the EAA Seaplane Base, and so is anyone who wants to spend some time at this most serene corner of our annual fly-in and convention.

Our hypothetical tour would end with us getting back on the bus for the trip north to the main convention site, maybe to take in a movie or a forum presentation, visit with a new old friend in the campground, or just wander the rows some more, taking in as many more airplanes as we can while the light fades.







MORE TO DO





THE MAGIC OF OSHKOSH

Many of us often have said that our annual fly-in, whether you know it as our convention, EAA AirVenture, or just plain Oshkosh, isn't an event we create; it's really just a party we host. The magic that is Oshkosh isn't created here, but it is assembled here, by volunteers and attendees from around the world. Because of this, the real story of EAA AirVenture Oshkosh is an entirely personal one — one that's written during one week every year by hundreds of thousands of authors.

ADDITIONAL ACTIVITIES DURING AIRVENTURE 2022

CATCH A RIDE

Even if you didn't fly into EAA AirVenture Oshkosh, there are still ways to get up in the air while attending the World's Greatest Aviation Celebration. Rides are available in EAA's historic B-25 and Tri-Motor, and you can see Oshkosh like you never have before from the seat of one of our Bell 47 helicopters.

B-25: The North American B-25 Mitchell *Berlin Express* is a medium bomber from WWII, made famous for its use by James H. Doolittle and the Doolittle Raiders. Flights leave from the AirVenture grounds Monday through Sunday, and tickets can be purchased in advance or at the walk-up booth in the Warbirds area, just north of Taxiway Papa 1.

B-17: The B-17G Flying Fortress *Yankee Lady* is a bomber that was used by American airmen to help win WWII. Flights on the B-17 leave from Appleton International Airport (ATW), which is roughly 25 miles north of Oshkosh. Shuttles are available from the AirVenture grounds to the check-in point. Tickets are available both in advance and at the walk-up booth in the Warbirds area, just north of Taxiway Papa 1.

Tri-Motor: The Ford Tri-Motor was America's first mass-produced airliner, and this gorgeous golden-age Ford flies proudly to this day. Flights leave from the AirVenture grounds Monday through Sunday, and tickets can be purchased in advance or at the Tri-Motor building, which is also located in the Warbirds area north of Taxiway Papa 1.

Bell 47: The Bell 47 is the first helicopter certified for civilian use and, with its full bubble canopy, offers unmatched visibility of all that happens around the grounds on a typical Oshkosh day. From the Sunday before AirVenture until the last day of the convention, tickets can be purchased at the Pitcairn Hangar at Pioneer Airport to take an unforgettable aerial tour of the Oshkosh grounds.

FLY-IN THEATER

The AirVenture experience does not stop when the sun goes down. The Fly-In Theater is the evolved form of the old drive-in movie theater. Each night a different film is played for AirVenture attendees. The screenings are preceded by brief, informative, and entertaining introductions featuring a variety of presenters, including pilots, historians, and filmmakers.

Found in Camp Scholler just off Schaick Avenue, the Fly-In Theater shows movies at approximately 8:30 p.m. every night.



TAKE FLIGHT

aboard one of EAA's unique **Flight Experiences**

B-25 *Berlin Express*

\$360 per EAA member • **\$400** per nonmember *B-25 Operations are located at the southeast corner of Warbird Alley*

Ford Tri-Motor

\$80 per person

Ford Tri-Motor Operations are located at the southeast corner of Warbird Alley

Bell 47 Helicopter

\$55 per person

Helicopter Operations are located at Pioneer Airport behind the EAA Aviation Museum®





MORE TO DO





THEATER IN THE WOODS

Theater in the Woods is home to relaxed, informative, and entertaining live programming that provides the perfect conclusion to a busy day spent on the grounds.

Presenters at Theater in the Woods offer something for everybody. Supported by M&M'S, the open-air pavilion has seating for as many as 3,500 people under its spacious roof, though many more visitors bring lawn chairs and blankets to enjoy the evenings' programs from spots adjacent to the seating area.

AVIATION GATEWAY PARK

If you head to Aviation Gateway Park, you'll find an outdoor exhibit area featuring leading universities, flight schools, and aviation industry leaders. This year, there are four important areas to highlight: the Career Center, the Education Center, the AeroEducate Center, and the brand-new WomenVenture Center.

The Career Center is the ideal place for aspiring aviators to network and interview with a variety of leading aviation companies and organizations with aviation-focused career opportunities.

The Education Center will feature colleges, universities, and tech schools that offer programs in aviation and science, technology, engineering, and mathematics, or STEM-based curriculum.

Attendees are able to learn how and where they can take the next step into their aviation adventure.

The AeroEducate Center has a vibrant schedule of events this year, focused around the AeroEducate program, introduced in 2021. Daily Introducing AeroEducate presentations in the AeroEducate Center will outline the program and how it can be accessed by young people to fully engage the program's activities. There will be stations set up to help young people get started in their AeroEducate journey, as well as daily presentations from some of AeroEducate's premier partners — United Aviate, Siemens, and Airbus.

Last is the is the brand-new WomenVenture Center. This booth will include weeklong programming to celebrate a passionate community of women in aviation. A schedule of events include the traditional WomenVenture activities: Ice Cream Social, Annual Group Photo in Boeing Plaza, Power Lunch at Theater in the Woods, and an evening program at Theater in the Woods. The WomenVenture Center will also host Authors Corner and other scheduled events during the week.

116 OSHKOSH 2022 PHOTOGRAPHY BY AMY GESCH

SALUTE TO VETERANS

In honor of our nation's veterans, Friday, July 29, is designated Salute to Veterans Day at AirVenture 2022. The annual Parade of Veterans will take place on Friday, when all veterans in attendance are invited to meet in Warbird Alley at 1 p.m. for a special Warbirds in Review program, followed by assembly and parade departure at 1:30 p.m. The parade route will leave Warbird Alley and travel south along the flightline to Boeing Plaza, where there will be a welcome ceremony and group photo taken at 2 p.m.

In addition, AirVenture's eighth Yellow Ribbon Honor Flight will arrive at 6 p.m. on Friday carrying Vietnam veterans who have spent the day in Washington, D.C., touring war memorials and monuments. Northeast Wisconsin's Old Glory Honor Flight organization coordinates the Washington, D.C., experience, which includes police escorts throughout the city. The public is invited to honor the returning veterans at Boeing Plaza as they arrive on an American Airlines charter.



Experience the thrill of aviation on a local level

When you join an EAA chapter, you can:

- Enjoy the fun and camaraderie of aviation with like-minded people in your area
- Share and learn aviation-related knowledge
- Participate in aviation activities, such as fly-ins, building seminars, Young Eagles® rallies, and more
- Help build a stronger bond between aviation and your community
- Inspire the next generation of pilots

Visit EAA.org/FindaChapter to get involved today.



WARBIRDS TRAM TOUR

The Warbirds Tram Tour is a daily guided tour that runs every half-hour from 8 a.m. to 2 p.m. Monday through Saturday during AirVenture. The tour provides riders with a narrated journey through the 12 zones contained in the Warbirds area. As part of the tour, riders get a scavenger-hunt card that sends them through the area, looking for different warbirds and meeting some of their owners and operators.

AEROMART

Those in search of hard-to-find aircraft parts should check out the Aeromart, staffed by the EAA Vintage Aircraft Association. Located just southwest of Exhibit Hangar D, Aeromart is a great place to find that carburetor, cylinder, fitting, fuselage, instrument, magneto, oil pump, spinner, wiring, wheel, or whatever else you've been looking to pick up for your own airplane. It's also a great place to sell that spare part you've had lying around for a while. OSH22







Gather up your friends and family, pack your blanket or lawn chairs, bring some munchies, and settle in to an outdoor movie experience that is one-of-a-kind! Relax and unwind while watching blockbuster and classic aviation movies on a five-story high screen.

Now Showing

SATURDAY JULY 23

Top Gun (8:30 p.m.)

WEDNESDAY **JULY 27**

Jet Pilot (8:30 p.m.)

SUNDAY JULY 24

The Big Lift (8:30 p.m.)

THURSDAY JULY 28

Wolf Hound (8:30 p.m.)

MONDAY **JULY 25**

Air Force One (8:30 p.m.)

FRIDAY JULY 29

Top Gun: Maverick (8:30 p.m.)

TUESDAY JULY 26

The McConnell Story

(8:30 p.m.)

SATURDAY JULY 30

Toward the Unknown

(8:30 p.m.)



STARS OF THE SKY

CIVILIAN PERFORMERS AT AIRVENTURE 2022

YEAR AFTER YEAR, thousands of spectators flood the flightline during EAA AirVenture Oshkosh's afternoon air show. This year is no different, and the lineup is dressed to impress. From aerobatics to low-and-slow, and everything in between, our performers are ready to put on a show. Add the spectacular Wednesday and Saturday night air shows, filled with aviation and fireworks to delight all, and this will be an experience you'll never forget. Welcome to Oshkosh!





CIVILIAN AIR SHOW PERFORMERS



KEVIN COLEMAN Edge 540

DELL COLLER Jet Waco





CIVILIAN AIR SHOW PERFORMERS

AIRVENTURE 2022

























PHOTOGRAPHY BY **ART EICHMANN**WWW.EAA.ORG 129

THANK YOU FOR YOUR SUPPORT

We Salute The Insurers of EAA® AirVenture® Oshkosh™



Global Aerospace | AXA XL | AlG Aerospace | La Réunion Aérienn | Chubb Limited | Swiss Re | Old Republic Aerospace Starr Aviation | AlG UK Limited | Elseco | Chaucer | Marsh Aviation — our insurance broker



ADVERTISERS IN THIS ISSUE

ADVERTISER	PAGE	ADVERTISER	PAGE
Aircraft Specialties Services, Inc.	67	Piper Aircraft	109
Airbus Americas	18,19	Pratt & Whitney/Canada	99
Aircraft Spruce & Specialty Co	13, 65	Redbird Flight Simulators	81
Air Nation Group LLC	92	Sportys Pilot Shop	39, 69
Airline Pilots Association (ALPA)	91	Textron Aviation	34, 35
AOPA	128	Wipaire, Inc.	97
Aspen Avionics	75	EAA AeroEducate	100
Bendix King	51	EAA Aircraft Raffle	90
Boeing	9, 77	EAA AirVenture Insurance Thank You	130
Collins Aerospace	89	EAA AirVenture Car Raffle	90
Daher	58, 59	EAA AirVenture Fly-In Theater Schedule	119
David Clark	IFC	EAA AirVenture Mobile App	
Dynon Avionics	83	EAA AirVenture Sponsor Thank You	1
Embry-Riddle Aeronautical University	43	EAA Chapters	117
Epic Aircraft	93	EAA Express Arrival	129
Garmin	C4	EAA Falcon Insurance	106
Horizon Hobby	102, 103	EAA Flight Experiences	115
lcom	55	EAA International Aerobatic Club	76
John Deere	87	EAA Membership/Lifetime	5
Lightspeed Aviation	41	EAA Merchandise	101
Lycoming Engines	73	EAA One Week Wonder	74
Mars/M&Ms	31	EAA Pilot Proficiency Center (PPC)	113
Miller Clock	85	EAA Tribute Products	98
National Air & Space Museum	25	EAA Vintage Aircraft Association	76
PenFed Credit Union	71	EAA Warbirds	76
Pepsi	107	EAA Workshops & Forums	63
Phillips 66	45	EAA Young Eagles	47

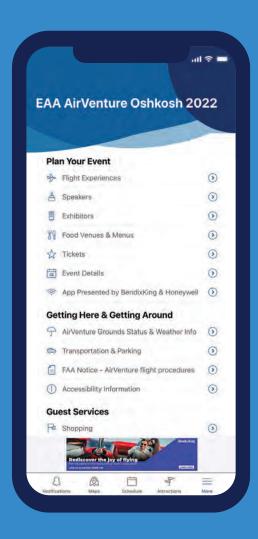


Download the AirVenture® App

Arrange and finalize the ideal EAA® AirVenture® Oshkosh® excursion.

Save your schedule and easily keep track of the speakers, forums, and workshops on your AirVenture 2022 must-see list!

Download now at EAA.org/App.













GARMIN.

WHERE WOULD YOU LAND IF YOUR ENGINE FAILED NOW?

SMART GLIDE™ WILL HELP GUIDE YOU THERE.

Automation that reduces your workload during an engine-related emergency with the press of a single button. Only from Garmin.