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March 2022



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WHO DOES THAT? ... TECNAM AIRCRAFT

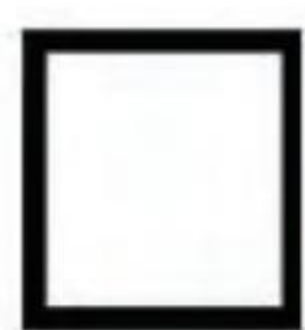


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Calendar of Events

To list your group's event on a space available basis, please send your event notice with date, time, place w/city and state, contact name, and phone number to: Calendar, In Flight USA, P.O. Box 5402, San Mateo, Calif. 94402, or email 3rdavenue@embarqmail.com.

Note: Calendar includes only information available by our press date, Friday, March 4. Confirm the status before attending.

MARCH

- 5 ■ **Hollister, CA:** Antique Aircraft Display & Fly-In, 10 a.m. to 3 p.m., Frazier Lake Airpark, (408) 835-1694, frazierlake.com.
- 6 ■ **Oakland, CA:** Open Cockpit Day, noon to 4 p.m., Oakland Aviation Museum, (510) 638-7100, oaklandaviationmuseum.org.
- 7 — 10 ■ **Dallas, TX:** HAI Heli-Expo, 703-683-4646, heliexpo.com.
- 12 ■ **El Centro, CA:** NAF El Centro Air Show. Details to come.
- 12 — 13 ■ **Yuma, AZ:** MCAS Yuma Air Show. **CANCELED**
- 12 — 13 ■ **Hollister, CA:** Antique Aircraft Display & Open House, 10 a.m. to 2 p.m., Hollister Municipal Airport, (408) 804-3591, markstar@garlic.com.
- 19 ■ **Burnet, TX:** Bluebonnet Air Show, gates 9 a.m., Burnet Municipal Airport, (512) 756-2226, bluebonnetairshow.com.
- **Gainesville, FL:** Gator Fly-In & Armed Services Appreciation Day, 10 a.m. to 3 p.m., Gainesville Regional Airport, (352) 335-4681.
- **Riverside, CA:** Aircraft Display Day Fly-In, 9 a.m. to 1 p.m., Flabob Airport, (951) 683-2309, flabob.org.
- **Petaluma, CA:** Petaluma Display Days, 9 a.m. to 4 p.m., Petaluma Municipal Airport, (707) 778-4404.
- 19 — 20 ■ **Belle Chasse, LA:** NAS JRB New Orleans Air Show, neworleansairshow.com.
- **Phoenix, AZ:** Luke AFB Days Air & Space Expo. **CANCELED**
- 20 ■ **San Diego, CA:** Historic Aircraft Display, noon to 2 p.m., Montgomery-Gibbs Field, (619) 301-2530.
- 26 — 27 ■ **Tampa, FL:** Tampa Bay AirFest, MacDill AFB, (813) 828-2217, tampabayairfest.com.
- **Columbus, MS:** Wings Over Columbus, 10 a.m. to 5 p.m., Columbus AFB, wocairshow.com.

APRIL

- 2 ■ **Hollister, CA:** Antique Aircraft Display & Fly-In, 10 a.m. to 3 p.m., Frazier Lake Airpark, (408) 835-1694, frazierlake.com.
- 2 — 3 ■ **Kingsville, TX:** Wings over South Texas, NAS Kingsville, wingsoversouthtexas.com.
- **Sumter, SC:** Thunder over the Midlands, Shaw AFB, (803) 895-4897, shawairexpo.com.
- 5 — 10 ■ **Lakeland, FL:** Sun 'n Fun Int'l. Fly-In & Expo, Lakeland Linder Regional Airport, (863) 644-2431, flysnf.org.
- 9 — 10 ■ **Charleston, SC:** Air & Space Expo, JB Charleston, jbcharleston.com.
- **Hollister, CA:** Antique Aircraft Display & Open House, 10 a.m. to 2 p.m., Hollister Municipal Airport, (408) 804-3591, markstar@garlic.com.
- 16 ■ **Vacaville, CA:** 80th Anniversary Doolittle Raid Gala, 5 p.m., Rowland Freedom Center, (707) 449-3402, rowlandfreedomcenter.org.
- **Riverside, CA:** Aircraft Display Day Fly-In, 9 a.m. to 1 p.m., Flabob Airport, (951) 683-2309, flabob.org.
- **Petaluma, CA:** Petaluma Display Days, 9 a.m. to 4 p.m., Petaluma Municipal Airport, (707) 778-4404.
- 17 ■ **San Diego, CA:** Historic Aircraft Display, noon to 2 p.m., Montgomery-Gibbs Field, (619) 301-2530.
- 23 ■ **Louisville, KY:** Thunder over Louisville, the banks of the Ohio, thunderoverlouisville.org.
- 23 — 24 ■ **San Antonio, TX:** Great Texas Airshow, 9 a.m. to 5 p.m., JBSA-Randolf, greattexasairshow.com..
- **Vidalia, GA:** Vidalia Onion Festival Air Show, Vidalia Regional Airport, (912) 538-8687, vidaliaonionfestival.com.
- 24 ■ **Half Moon Bay, CA:** Pacific Coast Dream Machines. **CANCELED**
- 30 — May 1 ■ **Goldsboro, NC:** Wings over Wayne. **CANCELED**
- **Vero Beach, FL:** Vero Beach Air Show, Vero Beach Regional Airport, veroairshow.com. **Note: 2020 tickets and parking permits honored.**
- **Fort Lauderdale, FL:** Fort Lauderdale Air Show, gates 9 a.m., Fort Lauderdale Beach, fortlauderdaleairshow.com.

MAY

- 7 ■ **Paso Robles, CA:** Estrella Warbirds Wings & Wheels, 7 a.m. to 4 p.m., Paso Robles Municipal Airport, (805) 238-9317, ewarbirds.org.
- **Hollister, CA:** Antique Aircraft Display & Fly-In, 10 a.m. to 3 p.m., Frazier Lake Airpark, (408) 835-1694, frazierlake.com.
- 7 — 8 ■ **Wrightstown, NJ:** McGuire AFB Air Show. **CANCELED**
- **Alamogordo, NM:** "Legacy of Liberty" Open House & Air Show, gates 10 a.m. to 4 p.m., Holloman AFB, holloman.af.mil/open-house.
- 13 — 15 ■ **Valdez, AK:** Fly-In & Air Show, all day, Valdez Pioneer Field, (907) 835-8244, valdezflyin.com. **Show Schedule Tentative.**
- 14 ■ **Atlanta, GA:** Good Neighbor Day PDK Airshow, DeKalb-Peachtree Airport.
- 14 — 15 ■ **Fairfield, CA:** Wings over Solano, 9 a.m., Travis AFB, travis.af.mil.
- **Rapid City, SD:** Ellsworth AFB Air Show, ellsworthairshow.com.
- **Riverside, CA:** March ARB Air & Space Expo. **CANCELED.**

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COVER STORY

Who Does That? ANSWER... TECNAM DOES!

By Ed Downs

Who does that? A rhetorical question often spoken to emphasize a unique service, product, or action. It is like an insurance company that actually keeps a promise or a customer service agent who drives a great distance to return a customer's lost wallet. Who does that? You are impressed and grateful, but left wondering why everyone and all services do not warrant that rhetorical question.

Does that question immediately pop to mind when talking about General Aviation? Let's make up a mythical company, one full of innovation, but probably nonexistent in the real world, like a Unicorn (known for grace and beauty, an Italian tradition). Our Unicorn company will offer a large line of airplanes, ranging from "full of fun" Light Sport Aircraft to high-performance, four-place, personal offerings. We will utilize advanced metal and composite technology. Of course, all of our planes will be loaded with the best of aviation's integrated auto flight systems. Now, let's go big. Add to our fantasy a product line of light twin designs that cost less to run



An LSA, the Tecnam P2008 offers performance and comfort combined with great looks and advanced avionics.
(Courtesy Tecnam)

than popular single engine airplanes. We will take advantage of the latest engine and avionics technology. Going a step further, let's grow that multi-engine line to include corporate machines fit for the CEO of any company and then add planes to serve the growing regional airline market. All of our aircraft will be 21st Century designs. Sounds pretty ambitious, eh? But we are not done.

Added to our product line is a worldwide service organization that supports not only current products, but legacy aircraft. And let's not forget our fantasy engineering group. They will not be restricted to establishing relationships with only one engine supplier but will be free to pick the best engine for the mission. Let's do business with Continental, Lycoming, Rotax and, to shape the

future, Rolls-Royce. Let's embrace Full Authority Digital Engine Control (FADEC) and digital engine monitoring technology.

Our Unicorn company will have the engineering skill to incorporate use of multiple fuels, to include mogas, avgas and diesel (Jet A1). But let's widen our worldview and give a hoot about our planet and the air we breathe. We will show the world that with proper engineering, our products can truly be called "green." Going a step further, our engineering and management team will delve into the fascinating and rapidly growing world of electric power, not as a promotional novelty, but in the form of hybrid single-engine designs and large-multi engine twins. Oh yes, we have also solved the issue of commercial electric airplanes with charging and power-pack change-out capabilities to insure quick turnarounds. And finally, just to make sure we can stay ahead of the Joneses (we do not simply "keep-up"), our Unicorn company will team up with a world-recognized leader in aircraft and spacecraft development, NASA.

How fun... thinking up this Unicorn
Continued on Page 6



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Sensenich Wood Propeller Co.
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Email: propsales@sensenich.com



SENSENICH Awarded STC for Carbon Fiber Adjustable Prop for Super Cub

Sensenich has been awarded a Supplemental Type Certificate (STC) for its carbon ground adjustable pitch STOL propeller on Piper Super Cub Aircraft. This STC allows installation on PA-18 "150" aircraft with Lycoming O-360 series engines, with future STCs planned for Lycoming O-320 powered Super Cubs and certain popular training aircraft.

"Our experimental customers have been raving about this propeller for several years, and now we can offer the same step up in performance to our certified customers," says Sensenich President Donald Rowell. "This propeller's quick and sure pitch adjustment gives the customer the option of maximum performance no matter what the flight profile may be."

Extensive testing required during the certification project in Alaska showed improved take-off, climb and cruise performance compared to what's considered the industry standard fixed-pitch STOL propeller. When pitched for the same climb rpm as the standard propeller, climb rate was increased by 140ft/min, cruise speed was identical, and full-throttle level flight (FTLF) speed increased by 7 mph. When re-pitched to match the industry standard propeller's climb rate, cruise speed was increased by 8 mph and FTLF speed increased by 18 mph.

The new Sensenich composite propeller is less than half the weight of the legacy STOL propeller – 21 pounds vs. 44 for the metal unit.

The propeller is available in diameters from 78" to 82". The STC also covers a 12" diameter, balanced composite spinner.

Pricing for the propeller with STC documentation is \$6350 FOB Plant City. Adding the spinner brings the price to \$7085 (including STC docs).



Aviation Fixed Pitch Metal Propellers
Sensenich Propeller Manufacturing Co., Inc.
14 Citation Lane, Lititz, PA 17543
Phone: (717) 569-0435 • Fax: (717) 560-3725
Email: sales@sensenich.com

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By Ed Downs
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Cover Image Courtesy of Tecnam

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SPIRIT OF FLIGHT EXPLORING SAN MARTIN AND GILROY

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1984 Cessna T303 Crusader



AirplanesUSA proudly presents this stunning T303 Crusader to market. Unique and beautiful paint scheme is complimented by a low time, issue free airframe and excellent care. The T303 is a very comfortable aircraft with a roomy cabin and great cross country reliability. N5529V has a cargo door and is air conditioned. These aircraft hit the market only occasionally. Dual instruction, export and worldwide delivery are available. All trades considered.....\$179,000

1972 Cessna 340A



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1965 Beech A23 Musketeer



AirplanesUSA proudly presents this immaculate and very well equipped A23 Musketeer to market. A low time airframe is complimented by stunning recent paint and interior, a low time engine and a capable Garmin equipped instrument panel. Dual instruction, export and worldwide delivery are available. All trades considered.....\$79,900

1997 Piper Warrior III



AirplanesUSA Aircraft Sales proudly presents this clean and well cared for Piper Warrior III to market. This former University of North Dakota training aircraft is currently located and flying in Northern California. Nicely equipped and turn-key, this airplane is ready to go as a trainer, IFR capable time builder or personal cross country traveling machine. Export and worldwide delivery are available. All trades considered.....\$95,900

Steve Feldman • Sales Manager
(650) 394-7610 • steve@airplanesusa.com
 San Carlos Airport • 620 Airport Way • San Carlos, California 94070

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Cover Story: Tecnam



The Tecnam P2006T, a stylish light twin that offers a stable and cost effective platform for flight training as well as personal travel, having operating cost less than many contemporary single engine aircraft.
(Courtesy Tecnam)

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company. But like the unicorn, such a company is mythical, right? But, how about Textron (Cessna, Beechcraft, Hawker) or Piper. Nope, little new development, having designs that date back to the 1950's through 80's. How about calling Mr. Cessna, or Mrs. Beech and asking them to step up. Regrettably, they are gone. Instead, you will be dealing with a multinational corporation. So, give Bill Piper a call... long gone, replaced by the Government of Brunei. Surely Cirrus is up to speed on all this stuff, right? But talking to their Chinese Government holding company will probably not get you very far. So, how do we keep our Unicorn company from suffering the same fate as the former Big Three? We will keep our aircraft company family owned, with a proud and dedicated group of employees, proud of the past achievements and looking to the future. So, there you are, we have our Unicorn company, right?

But who does that? Is our mythical aircraft company really a Unicorn? No, our Unicorn is real, and the name is Tecnam Aircraft.

Tecnam is an Italian aircraft manufacturer with a global network of dealers and service centers, with a history that spans 74 years. The company produces light, general aviation, next-generation, piston aircraft with two to 11 seats for commercial operators, special missions, flight schools and private owners. Tecnam's roots go all the way back to the Italian brothers, Luigi and Giovanni Pascale, who began to develop and produce innovative aircraft soon after the end of WWII. Since those early beginnings, the family has continued to create original models, first gaining worldwide recognition under the name Partenavia, which translates as, "Naples Aviation."

Costruzioni Aeronautiche Tecnam was established in March 1986 and now operates in two production facilities. The Casoria facility is located adjacent to Naples' Capodichino International Airport, while the main factory is next to the

"Oreste Salomone" Airport in Capua. Phone calls with David Copeland, North America Sales Director for Tecnam U.S., resulted in the publication of a news announcement in the January issue of *In Flight USA*, regarding an expansion of the Tecnam distributor organization in the U.S. This release may be viewed at <https://www.tecnam.com/category/tecnam-in-the-news/>. David can be reached at d.copeland@tecnam.com. This is serious expansion of Tecnam's presence in the U.S.

With nine aircraft in the Tecnam product line, those looking for advanced technology combined with performance and pure "pizazz," need look no further. A visit to www.tecnam.com is certainly a trip worth taking. But what about the "real thing?" Where can you go to "kick the tires and enjoy the cabin comfort first hand?" The good news is that Mr. Copeland and his team will be at the Sun 'n Fun Airshow (April 5-10, Lakeland, FL). And it is no small level of participation. Tecnam will have six aircraft on display.

Let's explore what show attendees can look forward to, but first let's figure out how each aircraft earns its numerical name. Why is each design identified with the letter "P?" Doesn't "Tecnam" start with "T?" Remember, Tecnam was founded by the Pascale Brothers, and continues to be led by the Pascale family. The proud Pascale name adorns each design with the letter "P" preceding a numerical sequence that represent the year development of a new design began. If you need to talk to the management that runs Tecnam, the only language issue is Italian, with a company located in Italy and owned by an Italian family. It is probable, you will be talking to a "Pascale." Here is the show line-up.

Tecnam P2006T - A light twin in a class of its own, the P2006T is powered by two Turbo Rotax 912 S3 engines with constant speed, full feathering propellers. Burning as little as 9 GPH (total, both engines!) of environmentally friendly mogas or avgas, cruise speeds of up to

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Cover Story: Tecnam

Continued from Page 6

145 knots make this twin less costly to own and operate than many single-engine aircraft. The perfect personal twin. Combined with retractable gear, flight training schools can utilize the P2006T for basic multi-engine, complex and high performance training.

Tecnam P2008 MK2 - This is the way a single engine, high wing Light Sport Airplane should look, sleek and fast. The Rotax 912 S2 propels the P2008 to cruise speeds of up to 116 knots at only 4.5 GPH of green Mogas or avgas. The composite fuselage is mated to traditional aluminum wings to insure maximum strength at minimum weight. The P2008 is a true "personal transportation" plane with surprising room and comfort, both of which are needed if you take advantage of its over six-hour max endurance.

Tecnam P2010 - No one can deny that the Cessna 172 and 182 are great planes, representing the growth of general aviation that really took off in the late



The Tecnam P2010 TDI offers great high-altitude performance with the Continental turbocharged diesel engine and it is also available with a choice of 180hp or 215hp avgas Lycoming power plants

1950's. But isn't it time to step into the 21st Century with performance and style? Big and comfortable, this high wing, strut braced four seater demonstrates its comfort from the get-go, with front seat doors that do not require you to climb over struts to enter the high-tech cabin. Passengers do not have to scramble by the front seats, as they have their

own door. Two of the three engine options are the ubiquitous 180 hp Lycoming IO-360 or the 215 Hp Lycoming 215 hp IO-390. Composite and aluminum are combined to provide strength and light weight. With cruise speeds of up to 140 knots and an endurance exceeding five hours, the P2010 is a traveling machine.

Tecnam P2010 TDI - Isn't it time to step up to a plane that burns Jet A1 or standard diesel fuel. Take everything the P2010 has to offer and pair it with a Continental Aero CD-170 diesel engine, turbo charged for optimum high altitude performance with an astonishing fuel flow as low as 5.5 gph. With a max cruise speed of up to 140 knots, and an endurance of up to 11 hours, best plan to serve food in-route, or at least forget the need to fuel up if you stop for lunch.

Tecnam P2012 - Stop thinking "light aircraft." With a length of over 38 ft. and span of 46 ft., this P2006 inspired work horse is a 9+2 place transporter that tips the GW scales at 8113 lbs. Powered by two 350 hp Lycoming engines, cruise speeds hit up to 194 knots. A true multi-function twin, the P2012 can serve as a regional airliner, cargo hauler, corporate traveler or be equipped for special operations, all convertible configurations, medivac, cargo, parachute. Advanced

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CULTURE OF SERVICE

By Mark Baker
AOPA President and CEO

I often talk about the programs, initiatives, and services we develop to maintain and protect your freedom to fly here at AOPA. But, like other successful organizations, our work on your behalf is only as strong as our team. We can only get the job done if we have the right people doing the right things in the right places.

However, it seems that everywhere you look, there are those who want to rob us of this freedom. Airports are under threat from uninformed politicians; laws are being enacted across the nation that are designed to be roadblocks in the sky; and airport neighbors are not being, well, very neighborly.

From the day I joined AOPA, I have been blessed to have an amazing team — with the talent, can-do attitude, and strategic approach we bring to the office every day.

It's no wonder that among the more than 220 staff we have here at AOPA, the average tenure is nearly 10 years on the job. Give people a clear mission and vision, the tools to be successful, and the support they need — that's a recipe for

success, for employees and our members.

I must take time this month to recognize three special colleagues who will be moving on to their next chapters after long and successful careers here at AOPA protecting your freedom to fly.

After 34 years at AOPA, Tom Haines has decided to retire from his role as senior vice president for media, communications, and outreach (see "Waypoints: And That's the Way It Is," p. 20, and "Milestones: Tom Haines to Retire," p. 34). Tom has been a prominent face of AOPA and general aviation. He has been one of the industry's most widely recognized resources, helping guide AOPA and GA through a period of tremendous change and expansion. Under his leadership, Tom has guided and reshaped the group that brings you the story of general aviation through print, digital media, video, and events.

No doubt you have come to rely on Tom's reporting on AOPA Live This Week, a program he helped develop. He certainly has been one of my go-to people during my tenure, and I thank Tom for his incredible and even-keeled leadership and expertise.

Also retiring from AOPA after 30 years of dedicated service is another

familiar face: Melissa Rudinger. Melissa has served AOPA and the GA community in many important roles. She was a key liaison to the FAA in her government affairs position, protecting general aviation from overly restrictive policies in the aftermath of Sept. 11, 2001. Melissa helped to enable the safe integration of drones into the national airspace system and advocated for the NextGen modernization initiative. Melissa also assembled a great team at the AOPA Foundation and put it in excellent shape for the future. A reminder that the AOPA Foundation funds important programs here: You Can Fly and the AOPA Air Safety Institute.

Many of you also know Melissa through her time as an AOPA Live This Week co-host with Tom. AOPA and the general aviation industry are better off today because of Melissa, and we wish her the best in her next chapter (see "Milestones: Melissa Rudinger Starts Own Company," p. 35).

One more person I'd like to recognize has served our members in a critical, but behind-the-scenes way. Ron Golden is retiring after 42 dedicated years at AOPA, most recently as our deputy general counsel. Over his decades of protecting your freedom to fly, Ron's many accomplish-

ments include helping to form and launch the AOPA Legal Services Plan, now with 73,000 members. Ron has represented AOPA and our members in state supreme courts, federal district courts, and the U.S. Court of Appeals for the District of Columbia Circuit, and has defended general aviation rights in landmark cases.

A heartfelt thank you to Ron for his years of tireless devotion to AOPA, and for helping to protect our members' cherished freedom to fly.

Tom, Melissa, and Ron are emblematic of the incredible team here at AOPA, and I will miss their daily guidance. The good news is that all three are active GA pilots, so I plan to still see them on the ramp!

Now don't get me wrong. You don't have to be "seasoned" to make an impact here at AOPA on members' behalf. In fact, many great new people have joined the AOPA team over the past few months, and I'm excited to see how their contributions benefit the community.

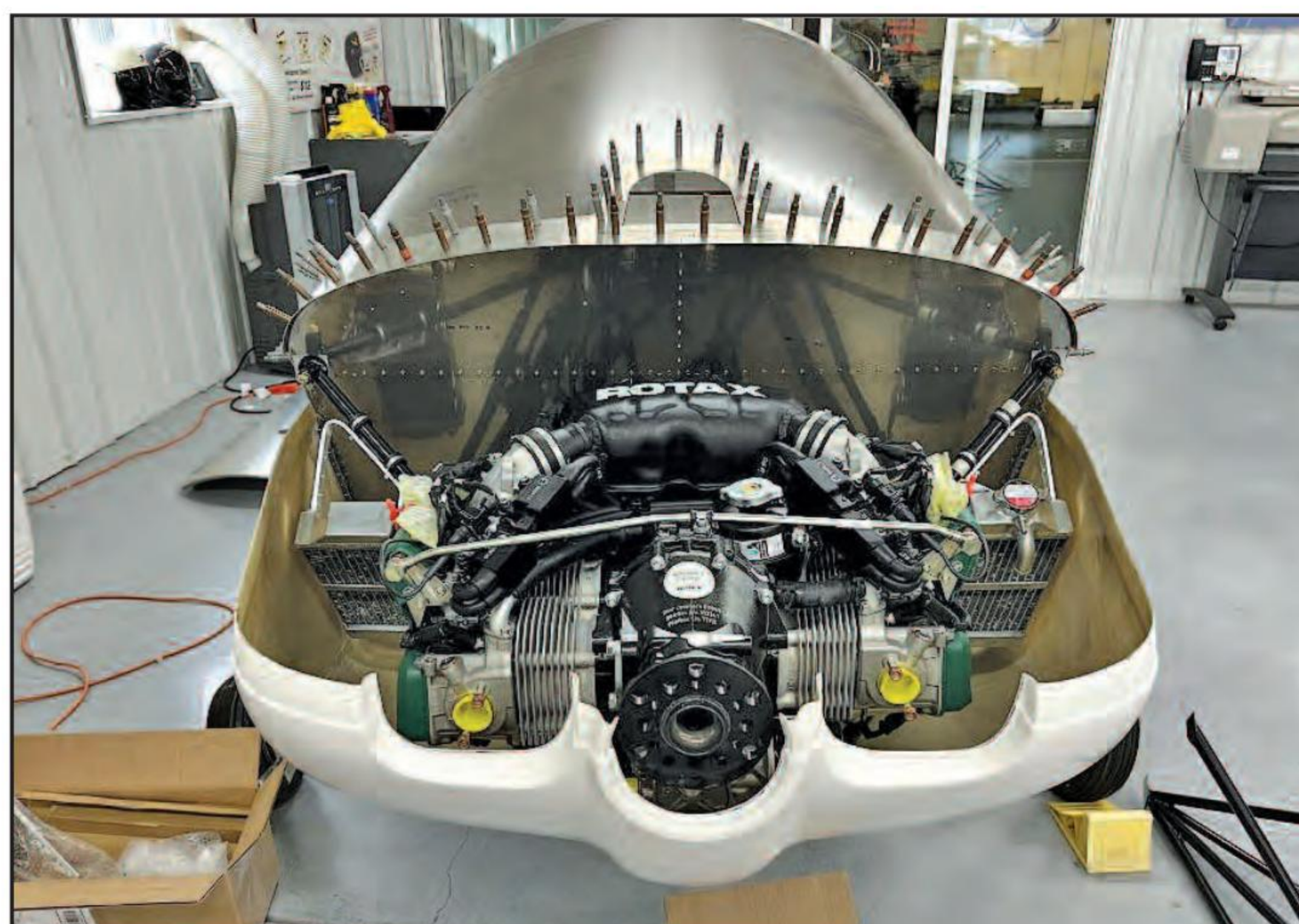
Maybe that's why we've only had five presidents in AOPA's 83-year history. There's nothing magical about the leaders, but there is something very special to the people who support them — and you.

Learn more about AOPA at www.aopa.org.

ONE WEEK WONDER TO FEATURE ROTAX 912iS ENGINE

When volunteers gather at EAA AirVenture Oshkosh in 2022 to build an airplane in a week, that Sonex Waix will feature a Rotax 912iS engine, bringing top engine technology to the One Week Wonder project. The One Week Wonder will start construction on Monday, July 25 — the opening day of AirVenture — with a goal to taxi the airplane during the final day's air show on Sunday, July 31.

The Rotax 912iS was also the choice for EAA's One Week Wonder projects in 2014 and 2018. The fuel-injected engine provides durability and outstanding fuel economy for kit aircraft. "Rotax's involvement in the One Week Wonder project will help our volunteers and those participating in the project at Oshkosh next summer create a superb aircraft and show how aircraft construction is within the abilities of most people," said Charlie Becker, EAA's homebuilt community manager. "Quality, reliability, and economy are attributes that we seek in this project, and the Rotax



The Sonex Waix, which will be built at AirVenture this summer, will feature a Rotax 912iS engine, bringing top engine technology to the One Week Wonder project.

(Courtesy EAA AirVenture)

engine helps us get there."

The installation of the Rotax 912iS will also be a first for Sonex factory-designed installations, as Sonex expands its level of support for Rotax 912-series engines installations in its airframes. "The inclusion of a Rotax engine in the One Week Wonder shows the flexibility available with the Sonex airframe designs and the additional possibilities for builders," said Mark Schaible, owner of Sonex Aircraft. "We're working with our suppliers and technicians to ensure that the first factory-designed Rotax installation is an excellent fit for the Waix and other airframes, and is fully supported by us."

Additional details of the 2022 One Week Wonder project will be announced as they are finalized. Thousands of AirVenture attendees participated in the previous builds at Oshkosh, with each of those airplanes continuing to fly today as excellent examples of amateur-built aircraft quality and workmanship.

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APPLICATION PROCESS OPENS FOR BIPARTISAN INFRASTRUCTURE LAW FUNDS

*Funds Will Be Used to Build Safe, Sustainable
and Accessible Airport Terminals*

The Federal Aviation Administration has opened the application process for airports to submit projects for the first \$1 billion of the Airport Terminal Program funded by President Biden's Bipartisan Infrastructure Law. The grant will fund safe, sustainable and accessible airport terminals, on-airport rail access projects and airport-owned airport traffic control towers. Projects may also include multi-modal development.

"We have a once-in-a-generation opportunity to not just build new airport terminals, but build them in a way that brings opportunity to forgotten communities, increases competition and reduces environmental impact," said U.S. Transportation Secretary Pete Buttigieg.

FAA welcomes projects that will improve airfield safety through terminal relocation, replace aging facilities, increase capacity, encourage competition, improve energy efficiency (including LEED accreditation standards) and increase or improve access to passengers with disabilities and historically disadvantaged populations. Projects that relocate, reconstruct, repair or improve an airport-owned air traffic control tower are also eligible.

Eligible airports include those operated by authorities, cities, territories and tribes within the national air transportation system. Large hub airports will receive up to 55 percent of the total funding; medium hub airports will receive up to 15 percent of the total funding; and small hub airports will receive up to 20 percent of the total funding. At least 10 percent of the total funding will go to non-hub and non-primary airports.

"This historic new terminal program



**Federal Aviation
Administration**

will allow our airports to build state of the art facilities that are resilient to climate change impacts and achieve environmental sustainability," said Associate Administrator of Airports Shannetta Griffin.

The Notice of Funding Opportunity (www.faa.gov/bil/airport-terminal-program-nofo) outlines the criteria for airports to apply. Airports are encouraged to submit eligible projects as soon as possible, but must do so by March 28, 2022.

The Airport Terminal grant program provides a total of \$5 billion in funding over five years. It is one of three new aviation programs created by the Bipartisan Infrastructure Law.

The President's Bipartisan Infrastructure Law, also known as the Infrastructure Investment and Jobs Act, is the Biden-Harris Administration's plan for building a better America with a \$1.2 trillion investment in our nation's infrastructure and competitiveness. This Bipartisan Infrastructure Deal will rebuild America's roads, bridges and rails, upgrade and expand public transit, modernize the nation's ports and airports, improve safety, tackle the climate crisis, advance environmental justice and invest in communities that have too often been left behind. It will drive the creation of good-paying union jobs and grow the economy sustainably and equitably so that everyone gets ahead for decades to come.

To learn more, visit the FAA website, www.faa.gov.

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Calendar

Continued from Page 3

- 14 — 15 ■ **Spokane, WA:** Inland Northwest Skyfest, Fairchild AFB, fairchild.af.mil.
■ **Hollister, CA:** Antique Aircraft Display & Open House, 10 a.m. to 2 p.m. Hollister Municipal Airport, (408) 804-3591, markstar@garlic.com.
■ **San Diego, CA:** Historic Aircraft Display, noon to 2 p.m., Montgomery-Gibbs Field, (619) 301-2530.
- 20 — 21 ■ **Peru, IL:** TBM Avenger Reunion, times TBA, Illinois Valley Regional Airport, tbmreunion.org.
- 20 — 22 ■ **Hillsboro, OR:** Oregon Int'l. Air Show, Portland-Hillsboro Airport, (503) 629-0706, oregonairshow.com.
- 21 ■ **Abilene, TX:** Big Country Air Fest, gates 8 a.m. to 4 p.m., Abilene Regional Airport, bigcountryairfest.org.
■ **Madera, CA:** Gathering of Warbirds Reunion, gates 7 a.m., Madera Municipal Airport, warbirdsreunion.org.
■ **San Martin, CA:** Armed Forces Day "The Food Truck Fly-In," 10 a.m. to 3 p.m., San Martin Airport, (408) 683-2290, wingsofhistory.org.
■ **Riverside, CA:** Aircraft Display Day Fly-In, 9 a.m. to 1 p.m., Flabob Airport, (951) 683-2309, flabob.org.
■ **Petaluma, CA:** Petaluma Display Days, 9 a.m. to 4 p.m., Petaluma Municipal Airport, (707) 778-4404.
- 21 — 22 ■ **Dover, DE:** Thunder over Dover, Dover AFB, dover.af.mil.
■ **Titusville, FL:** Space Coast Warbird AirShow, Space Coast Regional Airport, spacecoastairshow.com.
- 25 ■ **Colorado Springs, CO:** USAFA Graduation-Thunderbirds Fly-Over, U.S. Air Force Academy.
- 27 — 30 ■ **Los Angeles, CA:** LA Fleet Week, 10 a.m. to 6 p.m., LA Waterfront, (310) 971-4461, lafleetweek.com.
- 28 ■ **San Marcos, TX:** Go Wheels Up! San Marcos Regional Airport, gowheelsup.live. **Details TBA**
- 28 — 29 ■ **Wantagh, NY:** Bethpage Air Show, 10 a.m. to 3 p.m., Jones Beach Stat Park, (516) 490-2400, bethpageairshow.com.
■ **Miami Beach, FL:** Hyundai Air & Sea Show, opens 10 a.m., South Beach, usasalute.com.
- 29 ■ **Indianapolis, IN:** Indy 500 Thunderbirds Fly-Over, Indy Motor Speedway.
- 30 ■ **Palm Springs, CA:** Memorial Day Flower Drop & Air Fair, 1 p.m., Palm Springs Air Museum, (760) 778-6262.

JUNE

- 3 — 4 ■ **Salt Lake City, UT:** Skypark Aviation Festival, Skypark Airport, (801) 295-3877, skyparkutah.com.
- 3 — 5 ■ **Reading, PA:** Mid-Atlantic WWII Weekend, gates 8:30 a.m., Reading Regional Airport, (610) 372-7333, maam.org.
- 4 ■ **Greenwood, MS:** Greenwood-Leflore Airshow, 10 a.m. to 4 p.m., Greenwood-Leflore Airport, (662) 581-7233, gwcommonwealth.com.
- 4 — 5 ■ **Eau Claire, WI:** Chippewa Valley Air show, gates 8:30 a.m., Chippewa Valley Regional Airport, (715) 598-3203, chippewavalleyairshow.com.
■ **Ft. Wayne, IN:** Ft. Wayne Open House & Air Show, Ft. Wayne ANGB tickets (260) 300-7418, fwairshow.com.
■ **Geneseo, NY:** National Warplane Museum-Geneseo Airshow (drive-in) Geneseo Airport, (585) 243-2100, nationalwarplanemuseum.com.
■ **Bolingbrook, IL:** Cavalcade of Planes, 10 a.m. to 4 p.m., Clow Int'l. Airport, (630) 378-0479, cavalcadeofplanes.com.
- 8 ■ **Hollister, CA:** Antique Aircraft Display & Fly-In, 10 a.m. to 3 p.m., Frazier Lake Airpark, (408) 835-1694, frazierlake.com.
- 8 ■ **Ypsilanti, MI:** Wild Wednesday Aircraft Show, gates 4:30 p.m., Willow Run Airport, (734) 483-4030, yankeeairmuseum.org.
- 10 — 12 ■ **West Milford, NJ:** Greenwood Lake Air Show, gates TBA, Greenwood Lake Airport, (973) 728-7721, greenwoodlakeairshow.com.
- 11 — 12 ■ **St. Louis, MO:** Spirit of St. Louis Air Show & STEM Expo, 9 a.m. to 5 p.m., Spirit of St. Louis Airport, (314) 529-1963, spirit-airshow.com.
■ **Ocean City, MD:** OC Air Show, ocairshow.com.
■ **Latrobe, PA:** Westmoreland County Air Show, gates 10 a.m., Arnold Palmer Regional Airport, palmerairport.com.
■ **Hollister, CA:** Antique Aircraft Display & Open House, 10 a.m. to 2 p.m. Hollister Municipal Airport, (408) 804-3591, markstar@garlic.com.
- 12 ■ **Ypsilanti, MI:** Yankee Air Museum Wings & Wheels, 10 a.m. to 4 p.m. Willow Run Airport, (734) 483-4030, yankeeairmuseum.org.
- 17 — 18 ■ **Monroe, LA:** Red White and Blue Airshow, Fri. twilight show/Sat. airshow, Monroe Regional Airport, (318) 362-5540, redwhiteandblueairshow.com.
- 18 ■ **Zionsville, IN:** CAF Wings over Indy, Pancake Breakfast 8:30 a.m., Indianapolis Executive Airport, wingsoverindy.com.
■ **Granite Falls, MN:** Ray Fagen Memorial Airshow, open 10 a.m., Granite Falls Municipal Airport, (320) 564-6644, fagenfighterswwiimusum.org.
■ **Grant, NE:** Nebraska State Fly-In & Airshow, open 7 a.m., Grant County Airport, nebraskaaviationcouncil.org.
■ **Riverside, CA:** Aircraft Display Day Fly-In, 9 a.m. to 1 p.m., Flabob Airport, (951) 683-2309, flabob.org.
■ **Petaluma, CA:** Petaluma Display Days, 9 a.m. to 4 p.m., Petaluma Municipal Airport, (707) 778-4404.
- 18 — 19 ■ **Grand Forks, ND:** Northern Thunder Air & Space Expo, Grand Forks AFB, grandforks.af.mil.
■ **Ontario, Canada:** Borden Canadian Armed Forces Days & Air Show,

FAA, INDUSTRY CHART PATH TO ELIMINATE LEAD EMISSIONS FROM GENERAL AVIATION BY THE END OF 2030

The U.S. Department of Transportation's Federal Aviation Administration (FAA) announced a new initiative that outlines how our country can safely eliminate the use of leaded aviation fuel by the end of 2030 without adversely affecting the existing piston-engine fleet.

"This is a safe and practical path to a lead-free aviation system," FAA Administrator Steve Dickson said. "We look forward to starting a new partnership with aviation stakeholders and the communities that hosts airports to achieve this important goal."

The effort to remove leaded aviation fuels will be based on four pillars of action that involve the FAA, the Environmental Protection Agency, fuel suppliers and distributors, airports, engine and aircraft manufacturers, research institutions, associations, environmental experts, communities and other key stakeholders. The four pillars are:

- Develop Unleaded Fuels Infrastructure and Assess Commercial Viability: Industry stakeholders will coordinate production of commercially viable unleaded fuels and establish necessary

infrastructure, efficient distribution channels and widespread usage of these fuels.

- Support Research & Development and Technology Innovations: The FAA and industry stakeholders will support research and testing of piston engine modifications and/or engine retrofits necessary for unleaded fuel operations. They will also focus on new technology development and

the application/adaptation of those technologies, including electric/hybrid engine technologies to enable transition to a lead free General Aviation fleet.

- Continue to Evaluate and Authorize Safe Unleaded Fuels: The FAA will address fleet-wide authorization of unleaded aviation fuels of different octane levels.

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GAMA RELEASES 2021 AIRCRAFT SHIPMENT AND BILLINGS REPORT

On Feb. 23, the General Aviation Manufacturers Association (GAMA) released the 2021 General Aviation Aircraft Shipments and Billings Report during its annual State of the Industry Press Conference. Overall, when compared to 2020, all aircraft segments saw increases in shipments and preliminary aircraft deliveries were valued at \$25.2 billion, an increase of 10.2 percent.

"The strength and tenacity of the general aviation industry has provided a strong foundation for the industry to rebound from pandemic-related setbacks with a powerful showing in 2021. Total aircraft shipments are converging on figures that were seen before the outset of the pandemic. The industry has been able to weather the storm by strategically managing workforce and supply chain challenges, which unfortunately are still ongoing. Despite this adversity, there is robust interest and excitement in our industry as we continue to further our advancements in innovation, technology and environmental sustainability," said Pete Bunce, GAMA President and CEO.

Airplane shipments in 2021, when compared to 2020, saw piston airplane deliveries increase 5.5 percent, with 1,393

units; turboprop airplane deliveries increase 19.0 percent, with 527 units; and business jet deliveries increase 10.2 percent, with 710 units. The preliminary value of airplane deliveries for 2021 was \$21.6 billion, an increase of approximately 7.6 percent.

Piston helicopter deliveries for 2021, when compared to 2020, saw an increase of 27.5 percent, with 181 units; and preliminary civil-commercial turbine helicopter increase 24.8 percent, with 645 units. The preliminary value of helicopter deliveries for 2021 was \$3.7 billion, an increase of approximately 28.0 percent.

The piston engine airplane market in North America accounted for 68.7 percent of overall shipments. The second largest market for piston airplanes for the seventh year in a row was the Asia-Pacific market at 14.4 percent. Turboprop airplane shipments to North American customers accounted for 52.6 percent of the global deliveries. The second largest market for turboprop airplane deliveries was the Latin American market at 15.7 percent. The North American market accounted for 65.9 percent of business jet deliveries. The second largest market for business jet deliveries during the year was Europe at 18.0 percent.

Year-End Aircraft Shipments and Billings

Aircraft Type	2020	2021	% Change
Piston Airplanes	1,321	1,393	5.5%
Turboprops	443	527	19.0%
Business Jets	644	710	10.2%
Total Airplanes	2,408	2,630	9.2%
Total Airplane Billing	\$20.0 B	\$21.6 B	7.6%
Piston Helicopters	142	181	27.5%
Turbine Helicopters	517	645	24.8%
Total Helicopters	659	826	25.3%
Total Helicopter Billing	\$2.9 B	\$3.7 B	28.0%

*Leonardo Helicopters fourth quarter data is not available at the time of publication. Leonardo Helicopters will release year-end results in March. GAMA excluded 2020 fourth quarter data for Leonardo in the comparison table.

GAMA's complete 2021 year-end report can be found at gama.aero.

Eliminate Lead Emissions

Continued from Page 11

Piston Aviation Fuel Initiative will continue to evaluate, test and qualify high-octane aviation unleaded fuels with the objective to ultimately transition the fleet to unleaded aviation fuel.

• Establish Any Necessary Policies: The EPA is evaluating whether emissions

from piston-engine aircraft operating on leaded fuel contribute to air pollution that endangers public health or welfare. EPA plans to issue a proposal for public review and comment in 2022 and take final action in 2023. If the EPA issues regulations on lead emissions from pis-

Continued on Page 13

IADA EMBRACES GAMA's INCREASING DELIVERIES

The International Aircraft Dealers Association is heartened that the delivery numbers for new business aircraft released Feb. 23 by the General Aviation Manufacturers Association show an increase in new turbine airplanes entering the marketplace. In addition, IADA is pleased with the prospects for even greater new aircraft manufacturing activity in the coming years from GAMA companies and IADA OEM members.

"Many of IADA's accredited pre-owned aircraft dealers embrace this influx of new business aircraft into the marketplace, which can begin to address the historically low inventory of newer and well-equipped business jets and turboprops," said IADA Chairman David Monacell, Partner in CFS Jets, in Cornelius, N.C.

He added, "This dearth of good business jets for sale can eventually be addressed by additional new airplanes entering the marketplace, which can have

the effect of bringing supply more in line with demand, while normalizing aircraft values for our industry's customers. Obviously, we anticipate the OEMs will only increase production rates when business conditions align appropriately for the future."

About the International Aircraft Dealer Association

IADA is a professional trade association formed more than 30 years ago, promoting the growth and public understanding of the aircraft resale industry. IADA now offers the world's only accreditation program for dealer organizations and the only certification program for individual brokers. The process delivers lofty standards of ethical business practices and transparency regarding aircraft transactions, leading to a more efficient and reliable marketplace. For more information visit www.iada.aero.

Eliminate Lead Emissions

Continued from Page 12

ton-engine aircraft, the FAA would subsequently publish regulations that certify piston engine modifications, new piston engines that do not require leaded aviation fuel, and regulate fuel components for aviation fuels. The FAA will consider policies/programs to support unleaded fuel infrastructure.

These pillars today leverage and build upon a continuing collaboration with industry through the Piston Aviation Fuel Initiative. Aviation industry leaders are welcoming the partnership:

Pete Bunce, GAMA President and CEO - "The future of light general aviation depends on moving away from leaded fuels. To accomplish this imperative, it is important to note that our industry, as well as the industry providing our avgas, are united in partnering with the FAA to advance a sustainable future. The EAGLE public-private partnership will ensure coordination of a safe and reliable transition to an unleaded future state for piston-engine aircraft. GAMA's manufacturing and maintenance companies look forward to working with the FAA, industry colleagues and other stakeholders to carry out this challenging and ambitious initiative. EAGLE will be the enabler for meeting our environment goals while keeping aviation safety, as well as the broader economic and public benefits provided by general aviation, at the forefront."

Mark Baker, President and CEO of

AOPA - "While the industry has a shared vision of a lead-free aviation future, the transition must be done in a smart and safe way, and in a manner that works for the entire general aviation fleet. Joining together in a broad coalition to reinforce our commitment, and outlining the plan to get there, is a very positive step forward. We look forward to making good progress under the EAGLE banner."

AAAE President & CEO Todd Hauptli - "Environmental stewardship is a high priority for airport executives, and AAAE is pleased to join with FAA and our partners in the general aviation industry to chart a path forward to a lead-free future for aviation fuel. The EAGLE initiative sets a meaningful goal that will benefit the environment, public health, and the future of general aviation, which plays such an important role in communities across the country and to the national economy. We look forward to working with the government and our industry partners to make the promises of EAGLE a reality."

Jack J. Pelton, CEO and Chairman of the Board of the Experimental Aircraft Association - "Securing a lead-free future for aviation fuel is a formidable challenge, but the aviation community has faced and met previous challenges with ingenuity and imagination. Our goal is to solve the complex issues surrounding lead-free aviation fuels with innovations that ensure safety, as well as reliability,

Continued on Page 14

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EAA PROTECTING ULTRALIGHT ACTIVITY IN CALIFORNIA

EAA last month contacted officials in Yuba County, California, after EAA members there reported that the Yuba County Airport had prohibited ultralight operations at that facility. County officials had cited Federal Aviation Regulations and the FAA Airport Compliance Manual as the basis for its decision; however, EAA communicated that the county's ordinance is inconsistent with actual FAA policies.

In a letter to Yuba County Airport management on Feb. 17, EAA notes that FAA airport policy does allow airports to restrict certain types of aeronautical activity in the interests of safety, however, the policy requires any restriction based on safety to be adequately justified and supported. The FAA has the final say on whether or not a restriction is necessary. Airport sponsors, owners, or management may not act unilaterally.

EAA contends that "ultralight operations are consistent with safe operations at most general aviation airports of Yuba City's size." There are numerous examples of such safe operations at airports throughout the country.

In addition, Yuba County references FAA Part 103.19 as justification for the restriction. However, EAA counters that



EAA AirVenture features the Fun Fly Zone, which is home to ultralights, light planes, powered parachutes and trikes, hot-air balloons, homebuilt rotorcraft, and light-sport aircraft (LSA). The area is best known for its grass runway, where you can get up close to the many daily aircraft operations, including morning and evening ultralight flying, homebuilt rotorcraft flights, as well as Twilight Flight Fest several evenings per week. AirVenture is slated for July 25-31.

(Courtesy EAA AirVenture)

section centers on military agencies establishing restricted and prohibited areas, not for airport operations.

EAA will continue to monitor this issue to ensure that airport access and the freedom of flight is maintained for aviators and aircraft allowed to operate at those facilities. Learn more at eaa.org.

Eliminate Lead Emissions

Continued from Page 13

marketplace availability, and continue to provide the countless benefits of general and recreational aviation to our nation and the world."

James Viola, HAI President and CEO - "The EAGLE initiative brings together stakeholders dedicated to advancing a sustainable future for general aviation. It is imperative that we safely transition piston-engine aircraft to lead-free aviation fuel by the end of 2030. This initiative is the right thing to do for the environment and the economic health of our industry. Helicopter Association International (HAI) is committed to this partnership and applauds the broad public-private partnership that has come together enabling industry and government to accelerate a solution. The vertical flight industry is eager to work with all stakeholders to move the EAGLE initiative forward."

National Air Transportation Association President and CEO Timothy Obitts - "NATA and its members are dedicated to finding a single drop-in unleaded fuel to replace 100LL that is compatible with existing infrastructure. We thank the FAA for its guidance and support,

and look forward to working with our industry partners toward a safe and viable solution. The EAGLE initiative is another great example of how we are uniting for the safety, success, and future of the industry."

NBAA President and CEO Ed Bolen - "We are proud to be a part of this pioneering initiative to chart a course for a future free of leaded fuels. The EAGLE initiative is a very important step in ensuring the sustainability, safety and security of aviation in the years to come."

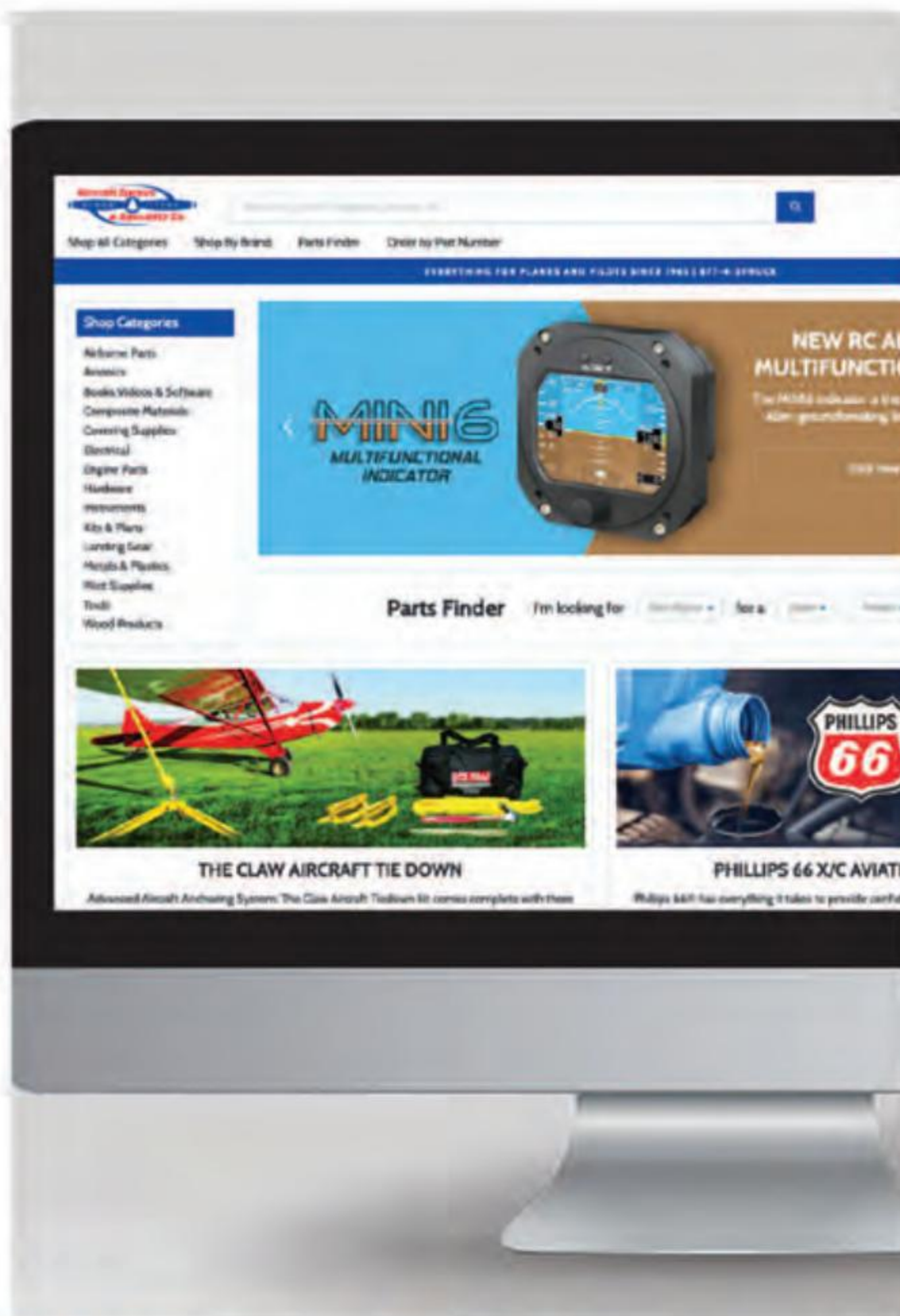
This announcement is part of the FAA's ongoing effort to build a sustainable aviation system. In November, the U.S. released its first-ever comprehensive Aviation Climate Action Plan to achieve net-zero emissions by 2050. Earlier in 2021, the FAA announced more than \$100 million in matching grants to increase aircraft efficiency, reduce noise and aircraft emissions, and develop and implement new software to reduce taxi delays.

Find more information about the FAA and its sustainability efforts at its sustainability page, www.faa.gov/sustainability.



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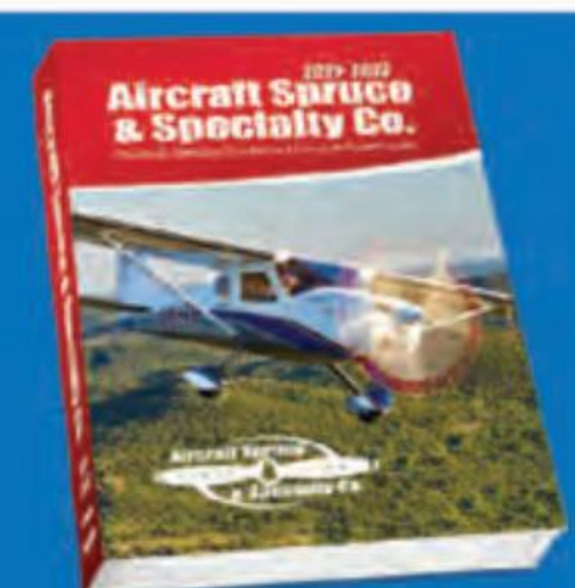
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FALLEN TIGERS IS THE UNIQUE AND NAIL-BITING WORLD WAR II CHRONICLE OF THE LEGENDARY FLYING TIGERS

By Mark Rhodes

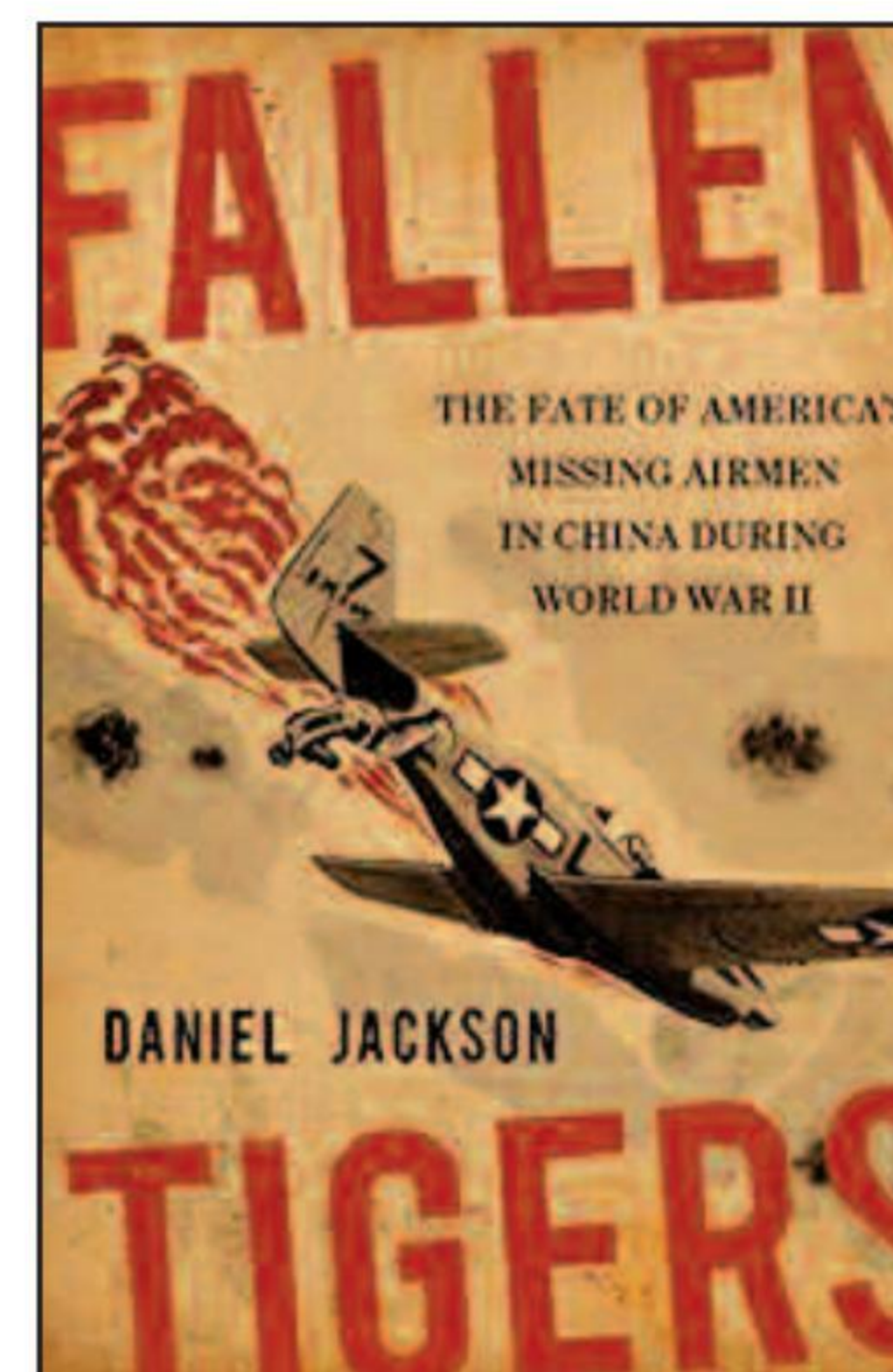
The work *Fallen Tigers: The Fate of America's Missing Airmen in China During World War II* (University Press of Kentucky, May 2021) is the cracking and moving story of one of the most interesting episodes of the war, which was the deployment of an all-volunteer group of American Airmen to the Far East only a few months before Pearl Harbor. President Franklin D. Roosevelt and the U.S. Military believed this proactive maneuver might help the Allied cause by supporting the Chinese resistance to Japanese aggression. This group became known as the near mythic Flying Tigers who were led by a daring bunch, including master tactician and brilliant airmen like Claire Lee Chennault, David Lee "Tex" Hill and George B. "Mac" McMillan.

Fallen Tigers author Daniel Jackson (himself an Air Force Combat Pilot) chronicles the intense and poignant narrative of downed U.S. aviators who attempted the near impossible: to evade almost certain capture by the Japanese as they struggled to overcome near impossible odds to rejoin their Allied comrades.

Mr. Jackson was gracious enough to participate in an email interview about his work and the unique tale that he recounts in his book.

In Flight USA: What was the trigger or triggers for you to write *Fallen Tigers*?

Daniel Jackson: "I wrote two previous books about World War II in China: *The Forgotten Squadron* about the only P-38 fighter squadron there during the war and *Famine, Sword, and Fire* about a joint Chinese-American campaign to liberate southwest China from the Japanese. I started the first book as an undergrad at the Air Force Academy. I had the opportunity to meet Maj. Gen (ret) John Alison, a fighter ace from the 23rd Fighter Group and co-founder of Air Commandos as well as Col. (ret) Dick Cole, Jimmy Doolittle's co-pilot on the Tokyo Raid. Through them and others I met many veterans in the 14th Air Force Association. I did not grow up in a military family and some of these vets, particularly Col. (ret) Sterling Barrow, a reconnaissance pilot in China, and Dave Hayward, a B-25 pilot who flew in China and Burma, came alongside me and provided mentorship as I progressed through my career. I felt



responsible to tell their stories. Everyone I met lost friends during the war. Some of them, like Glen Beneda and Paul Crawford, had been reported missing themselves before miraculously turning up at an American base after months behind enemy lines. These stories did not involve the usual fare of fighter aces in swirling dogfights. Their stories were grounded, real, and thrilling in their own right. I feel lucky to be able to share them. It's the least I could do for all the mentorship and encouragement they've provided me."

IF USA: Is there anything(s) that surprised you in the research and writing of *Fallen Tigers*?

DJ: "There were a few surprising things; I was surprised that America's combat air forces in China lost more P-51s than any other type of aircraft. That fighter has a mystique – America's 'wonder fighter' that won the war. However, it turned out to be incredibly vulnerable to ground fire. Units that kept their P-40s instead of converting lost 2.5 times fewer aircraft per 100 ground attack sorties. I was also surprised at the ubiquity and effectiveness of Chinese resistance networks. Fewer than 5 percent of Americans reported missing on combat missions in the China Theater ended up in the hands of the Japanese. In fact, if you survived the crash or bailout (about 50-50 odds) you had a 90 percent chance of being returned to American control by Chinese soldiers and/or civilians. One of the most interesting little surprises though, was Ho Chi Minh's rescue of a

Continued on Page 17

AVIATION OXYGEN EQUIPMENT



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Cover Story: Tecnam

Continued from Page 7

single-pilot technology is used with the most current avionics suite available.

Quite an assortment, plan to spend some time at the Tecnam Pavilion. But remember, this is only a portion of the Tecnam product line, and the future holds better news. A recent statement by Tecnam Managing Director, Giovanni Pascale Langer gives us a clue:

"Tecnam is proud to be part of the future of General and Commercial Aviation with partners like Rolls-Royce. Our plan is to provide solutions for a sustainable future that is possible, and that is just a step ahead. Ensuring a green future for aviation is not an ambition anymore; it has become our main goal. Tecnam is committed to the P-Volt project. Starting from the baseline of our P2012 Traveller will also constitute an easier and smoother transition for all current and future P2012 Traveller operators. All-electric aircraft



Big and versatile, the Tecnam P2012 Traveller is a high performance heavyweight that can serve multiple rolls, convertible for corporate, medivac, cargo, skydive, special missions and commuter airline applications.

(Courtesy Tecnam)

development is one thing; running it efficiently into commercial operation is something really different and this is what Tecnam wants to ensure."

What's this? Rolls-Royce... P-Volt? Yes, now being developed is an all-electric conversion for the Tecnam P2012,

with manufacturing slots already being scheduled. Then there is the experimental P2010 H3PS, a hybrid system incorporating a Rotax 915 IS engine with a 30Kw Rolls-Royce electric engine, bringing a very green 180 hp to market for great performance. How about some fun, check

out this link X-57 Maxwell (nasa.gov). No, you are not crazy, this is a joint Tecnam/NASA project to demonstrate clean aircraft propulsion. This highly modified P2006 not only flies with 12 (yes twelve, not a misprint) electric motors, but controls laminar airflow over the wing for both exceptional high and low speed control.

There is no doubt, Tecnam is a company that is leading an entire aviation industry into a future of high performance combined with minimum impact to our fragile environment. So, just one more time... Who does that? Tecnam does! Go to www.tecnam.com for full information on all products. Oh yes, try Tecnam's new Pilot Shop at Tecnam Apparel, Shop Tecnam Gear, Enthusiast Merchandise, Store, Bookstore, Gifts, Tees, Caps, Jerseys (merchorders.com). We can all use a little "Italian Style!"

Flying Tigers

Continued from Page 16

downed American pilot in northern Vietnam and the implications of that rescue on subsequent history."

IF USA: Were there things that you had to leave out of the narrative here due to concerns about length or verification?

DJ: "There were 1,832 airmen reported missing on combat missions in the China Theater. The aggregated data of all of their experiences gives *Fallen Tigers* an analytical backbone that carries it beyond anecdotal histories of the war. Personal experiences are still important, however, and so from those many stories, I tried hard to find representative examples to present in greater depth. Hopefully the final product is a good balance between the particular and the general."

IF USA: Was there a common thread among the *Fallen Tiger* characters in your book that separated them from their military aviation brethren of the time?

DJ: "There were a few common threads for airmen serving in China: First, they were not in the premier theater. They were serving in a secondary theater with secondhand equipment. They never had the quality or the quantity of aircraft, as did their compatriots in Europe and the Pacific. Unlike those fighting in Europe, those serving in China found themselves in a completely alien land – linguistically, politically, culturally... And yet they completely depended on Chinese soldiers and civilians who selflessly brought them out

from behind enemy lines. They could rarely communicate with these people, but they had to trust them completely.

IF USA: In general, the exploits you chronicle in your book are well known and recognized in China but obviously not so much in the United States. Is there any accounting for this in your mind?

DJ: "There are two reasons for this history still being relatively unknown in the United States: first, China was a secondary theater and tactical losses during the last years of the war made it less front-page newsworthy than the campaigns in Europe and the Pacific. Second, the United States had a falling out with its ally in China, Chiang Kai-shek. The subsequent takeover of the mainland by Mao's Communists meant a break in relations between the two countries until the 1970s. Things are still fraught. Contemporary politics, in other words, has often obscured the history of wartime cooperation."

IF USA: What are the challenges of writing an aviation and military themed book that can generate interest for the general public?

DJ: "Less than one percent of the American public has served in the armed forces. Only 0.2 percent of the adult population are licensed pilots. Both communities have an insular culture and lots of jargon that can make stories like these inaccessible to the general public. I took some cues from science fiction writers to find effective ways to simplify verbiage and introduce concepts while also bring-

ing the reader inside both the military and aviation communities. Harder still, though, for an American audience, are Chinese people and place names. Most Americans are not familiar with Chinese geography and pronouncing and/or remembering names can be a struggle. I included several maps and tried to find shorthand ways of reminding the reader which character they were reading about to help as much as possible."

IF USA: With your background as an Air Force Pilot was it easy to relate to the characters and scenarios within your work?

DJ: "Being an Air Force pilot helped a lot; some of the veterans only spoke to me because of my background. Other historians confided to me that they had tried to tell some of these stories before and the veterans wouldn't talk to them. Many family members contact me after reading my books and tell me that their dad or grandpa never talked about those things. After having deployed several times myself, I get it. It's hard to know even where to start when you don't share some basic background and starting assumptions. Some things are just too laborious to explain and events that seem significant to an aviator, especially when something mechanical or tactical or aerodynamic happens, often go right over the head of a casual observer. These guys were also humble. They didn't believe they did anything particularly special. In their view, they were just doing their job as part of the team. My background also

helped me in figuring out what questions to ask. I know how things worked for me: mechanical systems, command and control, tactical integration with air and ground – I wanted to know how those things worked for them. This project actually began life as my master's thesis and I defended it via Skype from Afghanistan. That being said, my combat time pales in comparison to the dangers they faced. I never had to face anything as terrifying as they did and I lost nowhere near as many friends."

IF USA: As with many of these epic style World War II stories *Fallen Tigers* seems to have the characters, drama and pathos that might lend itself to a feature film or mini series. How do you think this story might translate cinematically?

DJ: "There are a few ways you could crack the nut of bringing *Fallen Tigers* to film: you could pick one or two representative examples or create a fictional representative example and follow those few airmen closely. This would work best for a feature-length movie, I'd imagine. You could also pick a handful or representative examples and do a mini-series format. This would be the best way to get the mainline representative example of what happened to downed airmen in China (i.e. rescue by Chinese soldiers and civilians and return to American control) while also still covering other facets, like those in POW camps and maybe the pilot rescued by Ho Chi Minh."

IF USA: Thank you.

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ACSF ANNOUNCES SPEAKERS FOR ITS ANNUAL SAFETY SYMPOSIUM

The Air Charter Safety Foundation, a non-profit membership organization devoted to advancing aviation safety, has announced the aviation safety industry thought-leaders who will be speaking at its 2022 ACSF Safety Symposium to be held April 5-6, in Daytona Beach, Florida.

The Symposium is being held at Embry-Riddle Aeronautical University's College of Aviation. It's Dean and Professor, Alan Stolzer, Ph.D., FRAeS;

and Robert L. Sumwalt, Distinguished Fellow in Aviation Safety & Executive Director, Center for Aviation at ERAU, will open the event. Their comments will be followed by those of the ACSF Chairman, Robert Ruffli, and its President, Bryan Burns.

Presenters at the ACSF Safety Symposium will include a distinguished array of notable, aviation industry spokespeople. Among them:

Tony Kern, Ed.D. – *Founding Partner & CEO, Convergent Performance.* His presentation is: "Stress Fractures: Dealing With Psychological Wellness and Safety Challenges."

Kimberly Perkins – *G650 Captain, Researcher & Ph.D. candidate.* "Human Factors 2.0: Enhancing Aviation Safety Systems with Cognitive Science"

Charlie Precourt – *Former NASA Chief Astronaut; Chairman, Citation Jet*

Pilots Association and Former VP, Propulsion Systems, Northrop Grumman. "Bringing Space Shuttle Lessons to Business Aircraft Operations Safety."

Michael Graham – *Member, National Transportation Safety Board.* "Respect the Unexpected, Manage Your Risks."

Quay Snyder, MD, MSPH – *President & CEO, Aviation Medicine Advisory Service.* "Don't Cry Over Spilled Beer: Maximizing Safety & Optimizing Performance."

Lyle Prouse – *U.S. Marine Corps Vietnam veteran, former 747 captain, addiction rehabilitation counselor and author.* "Northwest Flight 650 – Tragedy and Triumph."

Peter Basile – *Senior Air Safety Investigator, Textron Aviation.* "Cessna Citation Latitude Runway Excursion Case Study."

James Albright – *Director of Aviation & Author of Code7700.com.* "Aviator Compartmentalization: A 'How-To' Guide."

Ken Byrnes, Ph.D. – *Assistant Dean for the College of Aviation, Chairman of the Flight Training Department, ERAU.* "Use of Virtual Reality in Primary Flight Training."

Juan Merkt, Ph.D. – *Associate Professor of Aeronautical Science, ERAU.* "Aircraft Energy Management: Preventing Accidents & Conserving Fuel."

Robert Joyce – *Director of Aviation Safety, ERAU.* "Non-Punitive Reporting & Safety Culture."

More information is available at acsf.aero/symposium. Seats are limited so attendees are encouraged to register early.

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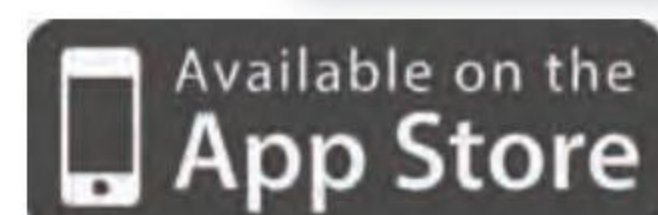
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Cessna 172S G1000	2005+	Diamond DA20 C1	1998+
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Cessna 182T/G1000	2004+	Piper Arrow III Turbo PA-28R-201T	1977-1978



Piper Arrow IV PA-28RT-201	1979-1982
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Piper Cherokee 150 PA-28-150	1961-1967
Piper Cherokee 160 PA-28-160	1961-1967
Piper Cherokee 180 PA-28-180	1963-1973
Piper Dakota PA-28-236	1979-1994
Piper Cherokee Lance PA-32R-300	1976-1978
Piper Navajo PA-31-310 B/C	1972-1980
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Garmin G600/G500	Garmin MX 20	Garmin GPSMAP 296
Cirrus Perspective by Garmin	Garmin 300XL/250XL	Garmin GPSMAP 396
Bendix/King KLN 89	AnywhereMap ATC	Garmin GPSMAP 495
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Bendix/King KLN 94	AvMap EKP V (coming soon)	Garmin GPSMAP 696/695
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SPRIT OF FLIGHT: SAN MARTIN/GILROY

By Denise DeGregoire

In keeping with the Spirit of Flight and with an exciting destination in focus, it's time we spread wings and migrate out of the greater San Francisco Bay Area and take you south past San Jose, past Morgan Hill. Whether you fly in, drive in, or drop out of the sky by parachute – San Martin and its neighboring city of Gilroy are must-see destinations with breathtaking views, rich agricultural history, and a comfortable country charm that's hard to believe is just an hour's drive outside of Silicon Valley.



Winemakers Geoff and Chantelle Mace of Calerrain Wines.

(Courtesy Denise DeGregoire)

Back in January, I was reintroduced to the area while enjoying an outing with my "Wonderful Women of Wine" friends at Calerrain Wines in Gilroy. We spent the afternoon making pizzas and learning about their library of wines and a little history about the Winemakers Geoff and Chantelle Mace. We totally felt at home with their comfortable backyard vibe, and the outdoor pizza kitchen would make any culinarian gush. A perfect paring! One visit just scratched the surface, so I recently returned to the area and Calerrain Wines with my husband to find out more about the Winemakers. As it turns out the Spirit of Flight and Military Service run deep in the Mace family with Geoff a Retired Marine Officer, and his grandfather a WWII Veteran who flew B25's & B26 aircraft during the war. If you are looking for a great one-stop wine experience, with a cool red barn and a great story, then sit back and enjoy your day at Calerrain Wines in Gilroy.



As for the wine itself, I will leave you with a quote from my esteemed "Wonderful Wine" friend Laura:

Calerrain Wines
(Courtesy Denise DeGregoire)

"The name Calerrain really tells the tale here: it's not a vanity brand. It's about the vineyards and the terrain. Geoff and Chantelle are serious about making really good wine and have the vineyard sources to make it happen. Their commitment to bringing an advanced level of winemaking to the South County wine scene is refreshing, and really sets a new standard. Coupled with an exceptional property and warm hospitality, this is a top-notch destination for serious wine lovers."

Laura Ness – "HerVineNess"
Silicon Valley Wine Columnist,
San Jose Mercury News

For more information on Calerrain Wines go to: www.calerrainwine.com

After leaving Gilroy we headed to the neighboring town of San Martin and discovered a wealth of history, knowledge, and stories as we toured the Wings of History Museum next to the San Martin Airport. When we arrived, I was trying to take a photo of the sign out front and I got a picture of a Skydiver parachuting in for a landing from Silicon Valley Skydiving instead. Exciting! The vintage planes and tanks parked outside the museum made us eager to begin our tour.



Wings of History Museum docent Lia Peterson. (Courtesy Denise DeGregoire)

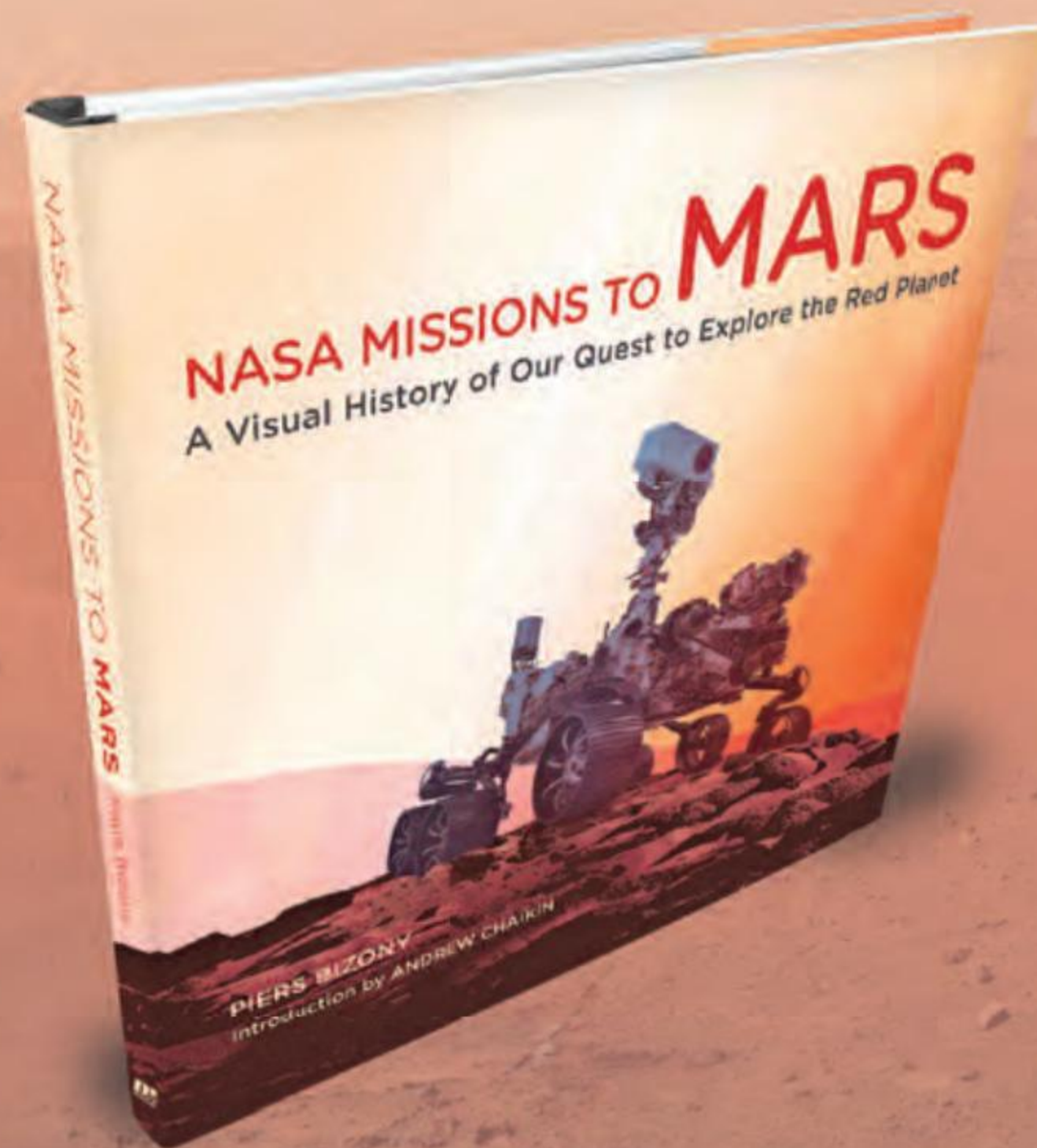
I was warmly welcomed by Docent Lia Peterson who offered her time and extensive knowledge. My fantastic museum tour began in the Ole Fahlin Memorial Propeller Shop as Lia walked me through the process of wooden propeller manufacturing, which is actively in use at the Prop Shop today. Be sure to look at the collection of photos, an accompanying letter from Ole's daughter, his story and history of Fahlin Propellers.

Here are some things I learned about propeller manufacturing:

- Start with six pieces of wood of the same width.
- Secure them together with plenty of glue and nails.
- Place inside the vice, drop the giant

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A Stunning Look at the Past, Present,
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CESSNA TURBO SKYLANE RETURNS TO TEXTRON AVIATION'S RENOWNED PISTON PRODUCT LINEUP

Textron Aviation announced on Feb. 10, the return of the Cessna Turbo Skylane T182T to its legendary piston product lineup, updated with the latest avionics suite and interiors. The Turbo Skylane's turbocharged engine delivers exceptional power, generating optimal climb rates and faster cruise speeds, as well as enhanced utility for operations from high-altitude airfields. Textron Aviation is taking orders for the Turbo Skylane with first deliveries to begin in early 2023.

The Cessna Turbo Skylane is designed and manufactured by Textron Aviation Inc., a Textron Inc. company.

"The turbocharger adds another level of performance to an already exceptional aircraft," said Ron Draper, president & CEO, Textron Aviation. "The Cessna Skylane is a remarkably instinctive aircraft to operate, and the tur-



Cessna Turbo Skylane on ramp.

(Courtesy Textron)

bocharged engine provides even greater performance that enhances the overall flying experience. The Turbo Skylane represents our commitment to offering new and innovative solutions to our piston owners and operators, and we're

pleased to bring expanded capabilities to this segment of the market. And with all of the latest attributes, the Turbo Skylane truly is better than ever."

The single-engine Turbo Skylane features the latest Garmin G1000 NXi



Cessna Turbo Skylane cockpit.

(Courtesy Textron)

avionics suite, a heated propeller, and an in-cabin oxygen system. It is powered by the Lycoming TIO-540 engine and is equipped with a Hartzell Engine Technologies (HET) turbocharger, providing the aircraft with 235 horsepower at up to 20,000 feet. The additional power is especially beneficial for pilots flying

Continued on Page 22

SPIRIT of Flight: San Martin/Gilroy

Continued from Page 19

board, and put the jacks in to hold tight while drying.

- Once dried, choose your template based on type of plane and engine.

- Fun Fact: Each one of the templates in the Prop Shop at Wings of History Museum have been made into a propeller during the lifetime of the museum.

- After choosing a template, trace around the wood to make the first crucial cut to drill the center hole in the right place to establish balance. This is where the magic happens!

- Lay the centering pin to hold pattern in place, trace, and cut out line with band-saw to reveal Propeller Profile.

- Next trace pattern side to establish pitch. Pitch is the amount of twist in a propeller blade that dictates propeller thrust.

- Paint, then mark with who made it, when it was made, and what plane it was made for.

As we continued our tour, through other hangars and exhibits, I was amazed to see three aircraft together that spanned a period of 30 years. These aircrafts showcased an incredible visual story of the advancements in aviation technology which began with a working wind tunnel as part of the exact replica of The Wright Flyer, which was flown in Kitty Hawk, N.C. on Dec. 17, 1903, and piloted by Orval Wright.

Keep an eye out for the 1957 Simicopter; a combination automobile with helicopter hitch. It was intended to allow the pilot to fly to their destination, unhitch the helicopter, and drive the rest of the way. It flew for five seconds. I found the innovative attempt inspiring.

Another highlight on my tour was the 1934 Pietenpol Air Camper, which is pronounced "peet-n-pole" after the name of its designer and builder, and is powered by a Model "B" Ford engine developing 62 hp at 2,125 rpm. This aircraft was displayed at the Flying Lady Restaurant/Museum in Morgan Hill for 21 years prior to being donated to the museum.

Just as my tour was wrapping up, my



Doug Boales, President Eagle Field Foundation shows visitor restored M113 Armored Troop Carrier

(Courtesy Denise DeGregoire)

husband and I had the pleasure of meeting Doug Boales, President of Eagle Field Foundation (EFF) which currently is in partnership displays, using some of their military vehicles and tanks on site for the museum to assist with attendance, education, and fly-ins. Doug and the EFF are working directly with the Wings of History Museum in San Martin to create online Wings of History California Editions where they are going to be talking about all aspects of aviation. They are also planning Military & Educators Editions. The Foundation has a film crew as part of their volunteer group and are going to start producing video clips and interviews on aviation history. On top of all the work being done on the aviation side; per their website, Eagle Field Foundation's mission is "building a new approach to interactive learning and preservation. Through our core principles of restoration, preservation, and educa-

tion, we are sharing the stories behind the artifacts, vehicles, and hardware of veterans from WWI to the present day."

Check out their website for more information at www.eaglefieldfoundation.org

Perhaps you didn't know that in addition to the Stinking Rose of Gilroy Garlic and its festivities, Gilroy is also known for its wine. Couple that with aviation and military history, and on-goings at San Martin Airport, it makes for a perfect pairing and fabulous day trip or weekend experience.

We had no idea what treasures were hidden behind the gates and hangar doors. We spent the entire afternoon at the museum. We closed the place! There was so much to see at the Wings of Aviation Museum, I look forward to returning very soon...

Fly Well,
Denise



Merle & Joan Ensign provide added color to the history of the Wings of History Museum as long time docents.

(Courtesy Denise DeGregoire)

Save The Date: May 21st, Armed Forces Day.

A partnership displays.

The Food Truck Fly-In!

Free Admission

10 Food Trucks • Live Music • Static Display • Eagle Field Foundation (EFF) • Museum • Raffle • Local Business on Display and much more!

5/21/22 10 a.m. – 3 p.m.

San Martin Airport

13030 Murphy Avenue

San Martin, CA 95046 United States

www.wingsofhistory.org

ATP FLIGHT SCHOOL OPENS NEW TRAINING CENTER IN PITTSBURGH DURING PILOT SHORTAGE

ATP Flight School is opening its 70th location at Allegheny County Airport (AGC) in West Mifflin, Pa., just 10 miles from Downtown Pittsburgh, bringing professional airline pilot training to the Pittsburgh region during an unprecedented pilot shortage. ATP's Feb. 2 announcement states that through the Airline Career Pilot Program, aspiring pilots in the area can now fast-track their career to the airlines.

ATP's fixed-cost, accelerated program provides students with all the resources and airline connections needed to quickly establish their airline careers and capitalize on the growing shortage of qualified pilots. Students at AGC will train using airline-oriented procedures in ATP's reliable fleet of modern aircraft, including glass cockpit Piper Archers. Twenty-five of these new aircraft will join ATP's existing fleet of 450 aircraft this year.

Partnerships with more than 30 airlines and corporate operators provide



ATP Flight School is taking delivery of 25 new Piper Archers throughout 2022.

(Courtesy ATP Flight School)

ATP graduates with pathways to all major airlines, with some offering up to \$17,500 in tuition reimbursement and bonus incentives totaling \$172,500. Recently, ATP announced new partnerships with Frontier Airlines, Sun Country, and Avelo Airlines, allowing ATP graduates and instructors to advance directly to an Airbus or Boeing First Officer position

at 1,500 hours of flight time.

"The airline industry is facing a shortage of pilots, presenting a tremendous opportunity for new pilots to establish a rewarding and lucrative career," said Michael Arnold, director of marketing, ATP Flight School. "We're excited to bring this opportunity to aspiring pilots in Pittsburgh and provide them with the

fastest track to becoming an airline pilot."

"We are thrilled to welcome ATP to Allegheny County Airport, which has a 90-year history in the aviation industry," said Traci Clark, Vice President, Corporate and General Aviation for the Allegheny County Airport Authority. "More pilots need to be trained to address the national pilot shortage and having another first-class option like ATP in Western Pennsylvania is key. Its another example of the important role general aviation airports like AGC have in the community and industry."

ATP's airline career solution has been proven by more than 20,000 pilots since 1984, with 930 graduates placed at airlines in just the last 12 months. Airline Career Pilot Program class dates start each Monday at the new Pittsburgh training center. To schedule a tour or introductory training flight, call ATP Admissions at (904) 595-7950. To find other ATP locations or for more information, visit atpflightschool.com.

GRAD STUDENTS GAIN HANDS-ON EXPERIENCE IN AVIATION INDUSTRY

By Michaela Jarvis, ERAU

Graduate students at Embry-Riddle Aeronautical University gained valuable real-world experience last semester, working closely with upper-level employees at Textron Aviation, the manufacturer of Cessna and Beechcraft aircraft which also provides aircraft support for government, military and commercial customers.

"Textron was the best," said Oko Nelson, who before graduating from his Master of Business Administration (MBA) program in December served as project manager for the special topics class that worked with Textron Aviation to develop ideas for new products and services. "When questions would come up about the project, they would immediately set up a meeting."

Dr. John Longshore, associate professor in the David B. O'Maley College of Business, said the project was specifically designed to position faculty in supporting roles and have the students align themselves in self-directed project teams.

"Faculty acted as coaches, allowing the students to interface with the client without direct faculty involvement," said Longshore, who oversaw the class with colleague Dr. Farshid Azadian. "This greatly empowered the students."

Textron Aviation personnel with whom the Embry-Riddle students had interaction included the vice president of

aftermarket innovation, the director of aftermarket services and a customer service engineer. Textron Aviation is the manufacturer of the fleet of Cessna Skyhawk training aircraft used by Embry-Riddle.

The project came about through recent Eagle alumnus Noah Eudy, who is now an aftermarket business development program manager at Textron Aviation. A friend of Nelson and himself a veteran of Embry-Riddle student consulting collaborations with industry, Eudy contacted Nelson about the possibility of Textron Aviation working with a student group.

Eudy said that personnel and time constraints sometimes prevent his work group from exploring all of their ideas. "Graduating from Riddle, I knew that class projects would be a good way for us to get some of those ideas developed and give students some good experience," he said.

The project began with operations and systems data provided by Textron, according to team captain Chuan "Cici" Chen, who is in the second year of her MBA program at Embry-Riddle. Working with that data, the team proposed two products for Textron customers using various aircraft data systems. The details of the products are being kept confidential.

In addition to business students, students from the College of Engineering also participated.

"The cross-college mixing of skills required to execute the project enhanced

the learning experience and added substantially to product outcome," said Longshore.

"We really learned how to work as a team," said Nelson, who now works full-time at commercial aircraft lessor Azorra. "You learn how to narrow things down. At first, you have no vision, but you develop a defined plan, a scope of work, the course of execution."

All involved deemed the project a huge success, especially the "client," Textron Aviation.

Brian Adams, vice president of aftermarket operations, said the project "exceeded our expectations by presenting new ideas and business opportunities that we previously were not considering."

Adams said he was especially impressed by the diversity of the team.

"Embry-Riddle was able to bring a team of students from various different backgrounds, experiences, skills and degree programs. I think this diversity of thought improved the quality of the project results," he said. "We were concerned that the broad scope and open format of this project would be a problem for the students, but instead, this removed any constraints and bias that may have influenced the result."

"We were so impressed that we have sponsored two more projects and are exploring other opportunities to increase engagement between our organization and Embry-Riddle."

Eudy emphasized the benefits to both the students and the company.

"From the students' perspective, getting to network on a weekly basis with industry is extremely valuable," Eudy said. "From the company's perspective, obviously we are getting some help from multiple brilliant minds that will be entering the industry soon. This is extremely valuable to us because it allows us to see things from different angles that we may not have thought of before. We are also getting the Textron Aviation name out there to try and attract some of the students to our company after they graduate."

Dr. Shanan Gibson, dean of the David B. O'Maley College of Business, agreed that the project offered a wide range of benefits.

"One reason business students choose our programs is the opportunity to engage with industry leaders and add value on issues of real substance," said Gibson. "Dr. Longshore's class challenged students to couple their growing knowledge of data analytics with an understanding of Textron Aviation's business strategies to provide relevant and insightful business recommendations. The return on investment is in the student learning, industry relationship expansion, and eventual revenue we hope Textron Aviation manifests from our students' work."

TEXTRON AVIATION ROLLS OUT FIRST PRODUCTION CESSNA SKYCOURIER LARGE-UTILITY TURBOPROP, HIGHLIGHTS INNOVATIONS IN MANUFACTURING AND SERVICEABILITY

Textron Aviation on Feb. 4 announced the rollout of the first production unit of the twin-engine, large-utility turboprop, the Cessna SkyCourier, at the company's manufacturing facility in Wichita. The new, clean-sheet design has allowed for the incorporation of the latest state-of-the-art assembly and fabrication processes and techniques into the manufacturing of the aircraft.

The Cessna SkyCourier is designed and produced by Textron Aviation Inc., a Textron Inc. company.

"Today is a rewarding day for our employees who have worked to design and build what I believe will become a legendary airplane for our company," said Ron Draper, president and CEO, Textron Aviation. "The SkyCourier brings an impressive combination of cabin flexibility, payload capability, performance and low operating costs to the twin engine utility segment. We look forward to this highly versatile aircraft entering the market very soon."

From the SkyCourier's inception, launch customer FedEx Express and other members of Textron Aviation's Customer Advisory Board were instrumental in shaping the aircraft's design,

from manufacturing methods and materials, to product features and serviceability. Textron Aviation's highly-skilled employees incorporated this feedback and found opportunities to maximize quality and precision, while meeting and exceeding customer expectations.

Production of the SkyCourier incorporates many of the latest advancements in aircraft manufacturing, including the use of monolithic machining throughout the airframe. With this technique, major assemblies are milled from a single piece of metal rather than assembled from smaller pieces, reducing the overall number of parts and resulting in more precise tolerances for easier assembly.

Designed with serviceability at the forefront, the SkyCourier features quick access points throughout the aircraft for inspection and repairs. The team also developed innovative patent-pending quick release seats and overhead bins that can be installed quickly by a single operator.

The SkyCourier celebrated its inaugural flight in May 2020, and the flight test program's three aircraft have accumulated more than 2,100 hours. Following certification, which is anticipated in the first half of 2022, this first

production unit will be delivered to the launch customer, FedEx Express, which has agreed to purchase up to 100 aircraft, with an initial fleet order of 50 cargo aircraft and options for 50 more.

The Cessna SkyCourier twin-engine, high-wing turboprop offers a combination of performance and lower operating costs for air freight, passenger and special mission operators. In addition to the freight version, there is a 19-passenger variant of the SkyCourier that includes crew and passenger doors for smooth boarding, as well as large cabin windows for natural light and views. Both configurations offer single-point pressure refueling to enable faster turnarounds.

The aircraft is powered by two wing-mounted Pratt & Whitney PT6A-65SC turboprop engines and features the McCauley Propeller C779, a heavy-duty and reliable 110-inch aluminum four-blade propeller, which is full feathering with reversible pitch, designed to enhance the performance of the aircraft while hauling tremendous loads. The SkyCourier is operated with Garmin G1000 NXi avionics and has a maximum cruise speed of more than 200 kts. The SkyCourier has a 900 nautical-mile max-



The Textron Aviation team celebrates the rollout of the first production unit of the new Cessna SkyCourier.

(Courtesy Textron)

imum range. The aircraft features a large door and a flat floor cabin that is sized to handle up to three LD3 shipping containers with an impressive 6,000 pounds of payload capability.

Textron Inc. is a multi-industry company that leverages its global network of aircraft, defense, industrial and finance businesses to provide customers with innovative solutions and services. Textron is known around the world for its brands, including Bell, Cessna, Beechcraft, Jacobsen, Kautex, Lycoming, E-Z-GO, Arctic Cat, and Textron Systems.

For more information about the SkyCourier or Textron, visit: www.textron.com.

Cessna Turbo Skylane Returns

Continued from Page 20

over mountainous regions or for cruising at higher altitudes.

Originally introduced in 2001, production of the Turbo Skylane T182T was paused in 2013 while the company focused on the addition of a wide range of product developments. The Cessna Skylane, with its normally aspirated Lycoming engine, has been in production since 1956 with more than 23,000 delivered.

"The Skylane has been a great airplane for more than six decades, and especially popular with first-time owners," said Lannie O'Bannon, senior vice president, Sales & Flight Operations. "Through our conversations with customers, many shared a desire for additional power for their unique missions. The Turbo Skylane is a perfect solution. The turbocharger is easy to operate, and the combination of a proven Lycoming engine, a heated McCauley propeller and an in-cabin oxygen system, will make this aircraft a leader in the high-performance, single-engine segment."



Cessna Turbo Skylane in flight.

(Courtesy Textron)

About the Cessna Turbo Skylane T182T

The Turbo Skylane T182T has a seating capacity for four and an estimat-

ed range of 971 miles. The certified ceiling is 20,000 feet (6,096 meters), and maximum speed is 165 knots. The Lycoming engine is outfitted with a constant-speed, three-blade, electric de-ice

McCauley propeller that offers optimal performance in all phases of flight. The cockpit features the Garmin G1000 NXi avionics suite with a new GI 275 electric standby, providing a brand-new cockpit interface. The built-in oxygen system offers a seamlessly integrated solution for providing pilots and passengers with the onboard oxygen necessary to maximize the performance of the aircraft at higher altitudes.

The Turbo Skylane interior features contoured, ergonomically designed Luxor 2 seats with Alcantara inserts to deliver optimal comfort. Cabin air controls with enhanced ventilation provide consistent cockpit temperatures. Advanced soundproofing, meanwhile, creates a quiet and comfortable environment for passengers.

For more information, visit www.txtav.com, www.defense.txtav.com, or www.scorpionjet.com.

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Thousands of WWII era pilots trained in this ubiquitous bi-plane. Fly low and slow and make a huge amount of noise. Nobody will miss you as you fly by. An older restoration, still mechanically very strong airplane owned and maintained by an A&P IA for many years. Owner says, "Sell her now!" – Make offer!

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THE NATIONAL AVIATION HALL OF FAME RECEIVES SUPPORT FROM CIRRUS AIRCRAFT

Cirrus Aircraft Provides \$75,000 in Support for Discovering Flight with the National Aviation Hall of Fame

The National Aviation Hall of Fame (NAHF) announced on March 2 that Cirrus Aircraft, the world's largest producer of piston-powered aircraft, is sponsoring the circulation of Discovering Flight: Learning with the NAHF to Title 1 schools in Duluth, MN, and Knoxville, TN.

Cirrus Aircraft, awardee of the 2017 Robert J. Collier Award, has a proven track record for innovation and revolutionary approaches. Pat Waddick, President of Innovation & Operations at Cirrus said, "Our goal is for students and educators to explore essential STEAM concepts and gain a better understanding of the practical wonders of flight. We hope to inspire the next generation to participate in the incredible future achievements to be found in America's remaining air and space frontiers."

Discovering Flight: Learning with

the National Aviation Hall of Fame is a multi-faceted educational program. It includes Problem Solving with Wilbur and Orville, a series of three individual, 5-unit, classroom curricula for elementary grades. Developed in partnership with PBS/ThinkTV, the local PBS station in Dayton, the curricula includes classroom activities, digital videos, interactives, and additional resources that bring science, history, and the invention of powered flight, to life. Each lesson is aligned with national curriculum standards and grade proficiency outcomes. In addition, the curricula incorporate components that foster an appreciation of the nation's extraordinary aviation legacy by honoring the exceptional individuals who led the way.

Discovering Flight will also include Why I Fly, a series of short videos that

feature an individual engaged in an aviation or aerospace career. Created by Hemlock Films, the focus of each film is to share the whole realm of aviation and aerospace careers with a young and diverse audience. Why I Fly videos will be shared via PBS digital media, the NAHF website and will be available to visitors of the NAHF through an interactive kiosk.

"We are thrilled to partner with Cirrus Aircraft and help foster an introduction and awareness of aviation and provide teachers with a turn-key STEAM-based curriculum in the communities in which Cirrus resides," said NAHF President and CEO, Amy Spowart. "The support from Cirrus Aircraft will have a substantial impact on our work to help youth discover a passion for aviation. It's all the more meaningful

because Cirrus Aircraft was co-founded by two NAHF Enshrinees - Alan and Dale Klapmeier."

The donation provided by Cirrus will be used to combat pandemic-related learning loss and provide a solution to aviation and aerospace workforce deficits. Delivered through printed classroom curriculum guides, the NAHF website, social media, PBS Kids programming, and PBS Learning Media, and in the NAHF's Heritage Hall and Education Center (HHEC), the Problem Solving with Will and Orv is designed to support teachers and inspire students both in and outside the classroom.



DREAM MACHINES SHOW UNEXPECTEDLY CANCELLED AGAIN IMPORTANT FUND-RAISER LOST FOR THIRD YEAR IN A ROW

Half Moon Bay Airport Officials Convert Much of the Former Event Space to Farming

This cannot possibly be happening again, but it is.

The Coastside Adult Day Health Center, the primary organizing body and beneficiary of the popular Pacific Coast Dream Machines Show, on Feb. 7 announced the unexpected cancellation of this year's show, initially planned for April 24 at Half Moon Bay Airport, approximately 25 miles south of San Francisco.

Inexplicably after three months of planning by show organizers, in early February San Mateo County Airport officials notified organizers that a substantial portion of the airport field, in the heart of the events major attractions area, was under cultivation and actively being farmed and therefore not available to the show. Event organizers determined changing everything to scale down the event to fit into what remains of the



The Dream Machines show in Half Moon Bay has been cancelled for the third year in a row, but this time unrelated to Covid, and potentially marking the end of an era.

(Courtesy Coastside Adult Day Health Center)

event's allocated airport space would result in much higher cost, added com-

plexity and a Dream Machines Show that would not approach the high standard or

fund-raising success that has been established over the last 30 years.

The decision to convert much of the former event space to expand a farming operation very much puts the Dream Machines Show future in question, a disappointing and frustrating state of affairs for a beloved community fundraiser and ironically a showcase event for the airport., according to show officials.

Heartbreak, frustration and disappointment that words simply cannot convey for a third consecutive year and this year it's not COVID created, added officials.

The refunding process will be underway throughout March. For information, contact the Coastside Adult Day Health Center at 650-726-5067 or by email cadhc@coastside.net. Airport management can be reached at 650-573-3700.

FAA BEGINS ADDING WEATHER REPORTING STATIONS ACROSS ALASKA

Eight New Sites Under development, Scheduled for Activation by End of 2022

The U.S. Department of Transportation's Federal Aviation Administration (FAA) has started installing technology across Alaska to provide weather conditions to pilots before they take to the

skies.

Eight new Automated Weather Observing Systems (AWOS) will provide continuous, real-time and accurate weather information on remote areas of

Alaska. The sites, recommended by the Alaska aviation community, should be operational by October 2022.

"We heard from the Alaska aviation community that they need more real-time

weather information to operate safely, and we are delivering on the commitment we made to provide that," said FAA Administrator Steve Dickson.

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NATIONAL AIR AND SPACE MUSEUM'S 2022 MICHAEL COLLINS TROPHY AWARDED TO WALLY FUNK AND THE MARS INGENUITY HELICOPTER TEAM

The Smithsonian's National Air and Space Museum awards its Michael Collins Trophy annually for Lifetime and Current Achievements. The 2022 recipients are Wally Funk for Lifetime Achievement and the Mars Ingenuity Helicopter Team for Current Achievement; they will receive their awards at a ceremony March 24 at the museum's Steven F. Udvar-Hazy Center in Chantilly, Virginia.

Established in 1985, the award recognizes outstanding achievements in the fields of aerospace science and technology and their history. Trophy winners receive a miniature version of "The Web of Space," a sculpture by artist John Safer. The renaming of the trophy in 2020 (previously the National Air and Space Museum Trophy) recognizes Collins' contributions to aerospace and his service to the museum as director during a critical time in its evolution.

"You could say the theme of the 2022 awards is 'firsts,'" said Chris Browne, acting director of the museum. "Wally Funk often held the title of 'first' and 'only' throughout her career as a pilot, instructor and air safety investigator. The Ingenuity team accomplished their 'first' with a flight on another planet and expanded the boundaries of planetary exploration. We're thrilled to be able to recognize both for their amazing achievements."

2022 Michael Collins Trophy Recipients

Funk embodies the adage of "never give up on your dreams." Since her first



Wally Funk has been named the 2022 Smithsonian's National Air and Space Museum Michael Collins Trophy Lifetime Achievement award recipient.

(Courtesy Wally Funk website: wallyfly.com)

flying lesson in 1948 at age nine and enrollment in flight school at 16, Funk knew that she wanted to fly, despite societal biases against women in aviation. After earning multiple certificates and ratings, she set her sights even higher in the sky – space. She was one of the top-performing participants in the Lovelace Woman in Space Program and was the first woman to serve as an air safety investigator with the National Transportation Safety Board. She dedicated decades of her life to flight instruction and safety, having logged more than 19,600 hours of flight time and soloed more than

700 students, while never abandoning her dream of going to space. In 2021, that dream came true when she launched on the first crewed suborbital mission of Blue Origin's New Shepard capsule.

In April 2021, under the direction of project manager MiMi Aung and the Mars Ingenuity Helicopter Team, a small robotic helicopter achieved the first powered flight on another planet. Delivered to the surface of Mars by the rover *Perseverance*, Ingenuity was a technology demonstration aboard the Mars 2020 mission and successfully proved that flight was possible on the Red Planet. It is also now serving as a helpful tool to aid rover exploration of Mars. Ingenuity completed increasingly challenging flights and scouted areas for the *Perseverance* rover's upcoming treks. Total flight time for the Mars helicopter in 2021 topped 30 minutes over the course of 18 flights. Ingenuity's "Wright brothers moment" captured the attention of the public back on planet Earth and inspired everyone to imagine what could be next in planetary exploration.

More information about the Michael Collins Trophy and a complete list of past winners is available at the National Air and Space Museum website: <https://airandspace.si.edu/michael-collins-trophy>.

The Michael Collins Trophy event is made possible through the support of Atlas Air Worldwide, BAE Systems, Booz Allen Hamilton, The Claude Moore Charitable Foundation, Jacobs, Leidos,



The Mars Helicopter, Ingenuity, is a technology demonstration to test powered, controlled flight on another world for the first time. It hitched a ride to Mars on the Perseverance rover. Once the rover reached a suitable "airfield" location, it released Ingenuity to the surface so it could perform a series of test flights over a 30-Martian-day experimental window. The team that created and operates Ingenuity has been named the 2022 Smithsonian's National Air and Space Museum Michael Collins Trophy Current Achievement award winner.

(Courtesy NASA)

National Air Traffic Controllers Association, Pratt & Whitney, Sierra Nevada Corp. and Thales.

The National Air and Space Museum in Washington, D.C., is located at Sixth Street and Independence Avenue S.W. The Steven F. Udvar-Hazy Center is located in Chantilly, Virginia, near Washington Dulles International Airport. Learn more at airandspace.si.edu.

Weather Reporting Stations Across Alaska

Continued from Page 24

The eight new stations will be located in Akiachak, Coldfoot, Crooked Creek, Kotlik, Nulato, Perryville, Tok Junction and Tununak. Weather information from these locations gives all pilots a preview of what to expect when arriving, and allows Instrument Flight Rule pilots to conduct instrument approaches to the lowest possible minimums, increasing the safety and

predictability of operations.

Last fall, the FAA released recommendations to increase safety in Alaska after a yearlong, sweeping examination of safety challenges specific to flying in the state. The Alaska aviation community repeatedly told the FAA that additional weather information for pilots was necessary.

Aviation safety is especially important to rural and Tribal communities in

Alaska, 82 percent of which are only accessible only by air.

The FAA and National Weather Service currently manage nearly 132 similar weather systems in Alaska.

The FAA will install eight new Automated Weather Observing Systems at Alaska airports: Akiachak, Coldfoot, Crooked Creek, Kotlik, Nulato, Perryville, Tok Junction and Tununak. (Courtesy FAA)



Check In Flight USA's online calendar for upcoming aviation events...
www.inflightusa.com

CUTTER AVIATION ACQUIRES LEGEND AVIATION IN PRESCOTT, ARIZONA

Cutter Aviation, the oldest family-owned and operated general aviation company in the U.S., announced on Feb. 1, the purchase of Legend Aviation at Prescott Regional Airport (PRC) in Arizona.

Expanding on 12 acres, Cutter Aviation PRC complex consists of 6,684-square-foot of office area and 20,048-square-foot of aircraft maintenance hangar space. The facility amenities include a conference room, flight-planning area, crew, car and concierge service.

“Cutter is very excited to make this investment in Prescott Regional Airport and to become part of its aviation community,” said Will Cutter, President and CEO of Cutter Aviation. “We look forward to continuing providing the highest level of service to the tenants and transient clients of Prescott Regional Airport.”

The acquisition of Legend Aviation



Cutter Aviation announced on Feb. 1, the purchase of Legend Aviation at Prescott Regional Airport (PRC) in Arizona. (Courtesy Cutter Aviation)

follows the purchase of AeroJet in December 2021 and GTU Jet in January 2022 in Georgetown, Texas. Cutter Aviation Prescott is the ninth location in Cutter’s network of facilities. Cutter

Aviation PRC will also operate an FAA Part 145 Repair Station to support the region’s aircraft maintenance needs.

Founded in 1928 by William P. Cutter, Cutter Aviation is a full-service avi-

ation company, offering aircraft fuel/line services, maintenance and avionics solutions, aircraft charter and management and aircraft sales. The Cutter Aviation network currently operates nine locations in the Southwest. The Phoenix Sky Harbor, AZ (PHX), Phoenix Deer Valley, AZ (DVT), Prescott, AZ (PRC), Albuquerque, NM (ABQ), Colorado Springs, CO (COS) and Georgetown, TX (GTU) facilities are full-service, fixed-base operations. The Phoenix, AZ (PHX), Prescott, AZ (PRC), Denver, CO (APA), Addison, TX (ADS) and San Antonio, TX (SAT) facilities offer sales and maintenance service support.

The company is a member of the Pinnacle Air Network, National Business Aviation Association (NBAA), and the National Air Transportation Association (NATA). For more information about Cutter Aviation, visit www.cutteraviation.com.

ELECTRA WINS PHASE III SBIR CONTRACT WITH U.S. AIR FORCE TO ACCELERATE DEVELOPMENT AND ACQUISITION OF eSTOL AIRCRAFT

The U.S. Air Force has awarded a Phase III Small Business Innovation Research (SBIR) contract to Electra.aero, Inc. (“Electra”) to support the development of Electra’s hybrid-electric ultra-short takeoff and landing (eSTOL) aircraft. The contract, awarded through the Air Force Agility Prime program, will accelerate Electra’s plan to begin flight testing a full-scale hybrid eSTOL technology demonstrator aircraft later this year, and charts a clear transition path for future Air Force acquisition of Electra’s eSTOL aircraft.

Electra was previously awarded an Agility Prime SBIR Direct-to-Phase II contract earlier last year, which accelerated the development of Electra’s hybrid-electric propulsion system technology. The Agility Prime program aims to champion the innovation and tech transition of electric aircraft into the advanced air mobility market for both military and commercial applications.

“Hybrid-electric STOL technology has the potential to deliver game-changing energy efficiency improvements and meaningful payload and range performance needed for Air Force missions of the future,” said John S. Langford, Founder and CEO of Electra. “We are thrilled to continue our close collaboration with the Agility Prime team and are honored to be selected for this important contract.”

Electra’s unique eSTOL aircraft can operate from spaces as small as 300x100



Electra’s hybrid eSTOL technology has the potential to deliver differentiated payload and range capability to the U.S. Air Force with substantially greater access to landing zones. (Courtesy Electra)

feet using its patent-pending distributed electric propulsion and blown lift technology. A small turbine-powered generator recharges the batteries mid-flight, eliminating the need for new ground charging infrastructure. The quieter and more environmentally friendly aircraft is currently being designed to transport up to 1,800 pounds of cargo or move seven to nine passengers up to 500 miles. Electra’s aircraft can operate in a variety of environments ranging from busy urban areas to remote landing strips, and fly missions ranging from on-demand passenger flights to cargo transportation, search and rescue operations, medical missions, and more.

“Agility Prime is leading the outside-the-box thinking necessary to quickly and affordably deliver disruptive capabilities for national security and other U.S. Government missions like humanitarian aid and disaster relief,” said Ben Marchionna, Electra’s Director of Technology and Innovation. “Hybrid eSTOL aircraft are particularly well-suited to support the Air Force’s agile combat employment doctrine by providing middle- and last-mile island-hopping and distributed cargo logistics in the Indo-Pacific theater or operations in areas with limited infrastructure like Africa.”

“We are excited to expand our partner-

ship with Electra through this Phase III contract award,” said Lieutenant Colonel John “Wasp” Tekell, Air Force Agility Prime Lead. “Electra’s hybrid eSTOL technology has the potential to bring a valuable, differentiated capability to the U.S. Air Force and Joint Partners. We look forward to supporting the rapid development, flight testing, and transition of eSTOL aircraft while continuing to support the development of advanced air mobility.”

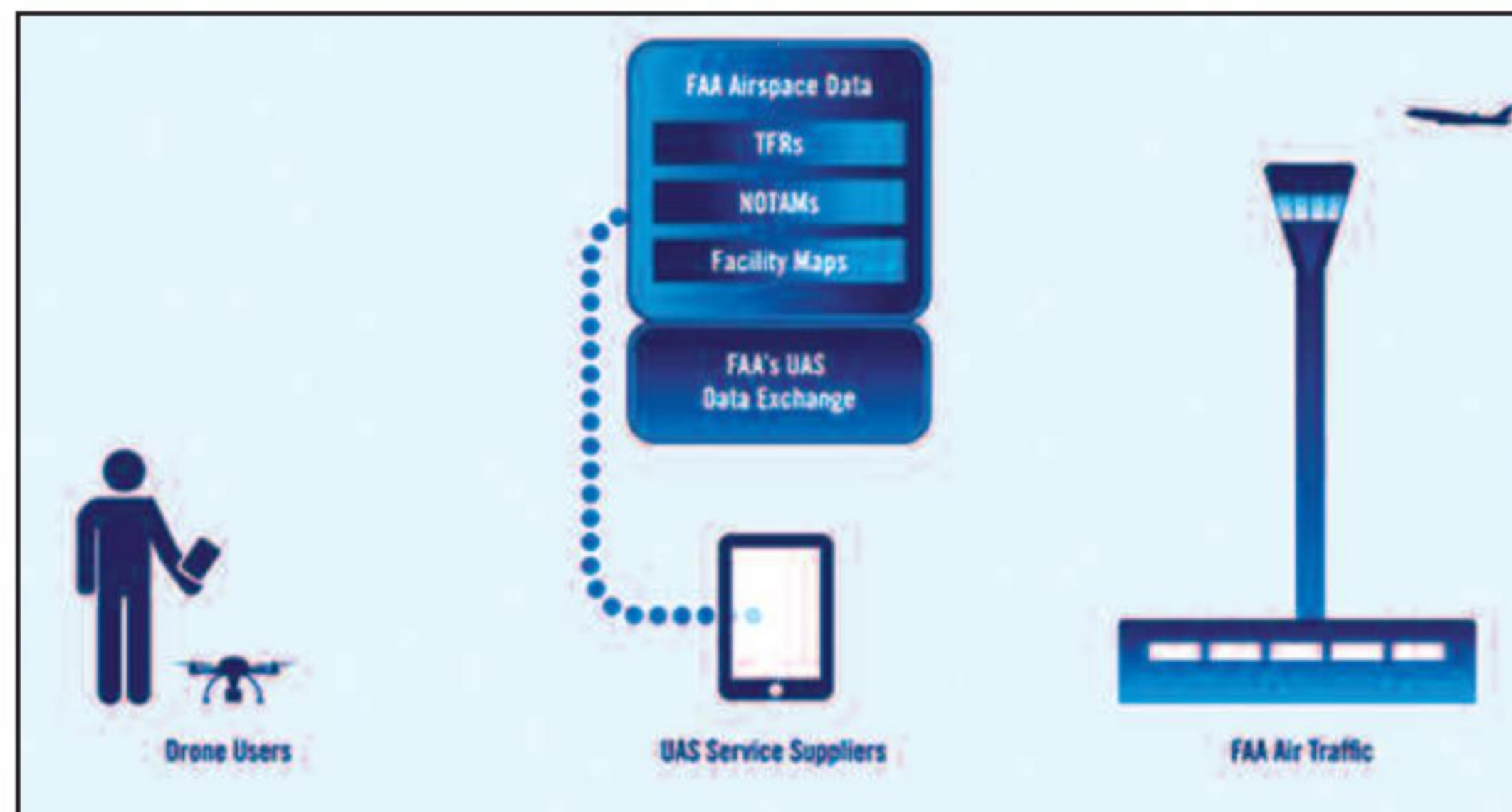
Electra.aero is a next-gen aerospace company leading the way in sustainable urban and regional mobility. The company is building clean, hybrid-electric, ultra-short takeoff and landing (eSTOL) airplanes that fly people and cargo quieter, further, and more affordably. Electra’s technology delivers 2.5x the payload and 10X longer range with 70 percent lower operating costs than vertical takeoff alternatives with much less certification risk, proving that climate friendly technology can also be cost-effective. Electra is collaborating with air transport and ground infrastructure operators to achieve turnkey solutions for any market. Electra’s team includes some of the most respected and successful entrepreneurs and engineers in novel aircraft design, and its technology development is supported by NASA and the U.S. Air Force Agility Prime program. Learn more about Electra at www.electra.aero.

FAA REACHES ONE MILLION AIRSPACE AUTHORIZATION FOR DRONE PILOTS

Last month, the Federal Aviation Administration (FAA) issued its millionth airspace authorization for drone pilots to use busy airspace safely. The Low Altitude Authorization and Notification Capability (LAANC) automates the process for drone pilots to quickly gain authorization and provides Air Traffic professionals with awareness of where drones may be operating.

"This system has allowed drone pilots to gain timely access to busy airspace without sacrificing safety," said Teri L. Bristol, the chief operating officer of the FAA's Air Traffic Organization. "We are grateful to everyone who helped us reach this milestone safely."

Under Part 107 of the Federal Aviation Regulations, drone operators need to secure approval from the FAA to operate in any airspace controlled by an air traffic facility. Prior to LAANC, airspace authorizations were done manually, which could take drone pilots weeks to get approved. In 2017, the FAA recog-



Under Part 107 of the Federal Aviation Regulations, drone operators need to secure approval from the FAA to operate in any airspace controlled by an air traffic facility.

(Courtesy FAA)

nized that the manual system delayed the agency's goal to support routine drone operations and launched LAANC as a prototype for automatic airspace approvals.

Since becoming an official program in 2018, LAANC has provided an automated system for drone pilots—both commercial pilots and recreational pilots—requesting to fly below 400 feet in con-

trolled airspace. Drone pilots are able to request airspace authorizations through any of the FAA-Approved LAANC Service Suppliers up to 90 days before they plan to fly. The system now covers 542 air traffic facilities serving approximately 735 airports. LAANC also allows the agency to provide drone pilots with information and guidance on where they can and cannot fly a drone.

In 2021, the LAANC capability expanded to provide night authorizations to Part 107 Remote Pilots.

Drone pilots can also request airspace authorizations using the FAA DroneZone, including for areas not covered by LAANC or when the operator holds a Part 107 waiver.

For additional information on LAANC, visit the FAA website, [faa.gov](https://www.faa.gov). For general inquiries on these new regulations and other UAS inquiries, please call 844-FLY-MY-UA or email the FAA from their website.

OPERATION PULSE LIFT COLLECTS 10,000TH BLOOD UNIT

During the last week of February, Barb Clevenger of Mesa, Arizona, donated the 10,000th unit of blood collected during Civil Air Patrol's Operation Pulse Lift mission, with the milestone occurring at an emergency blood center at CAP's Falcon Composite Squadron 305.

"My mom gave blood, and that was something that was very important to her. I just started giving, and I'm so excited to be doing this in honor of my mother," Clevenger said.

"Since the evening of March 17, 2020, when the surgeon general noted the critical need for blood donations during the early days of the Coronavirus pandemic, and the closure of nearly 7,000 blood donation centers, Civil Air Patrol has been engaged in the coordination, planning, and execution of the longest series of blood donation center operations in the nation by a single organization," said Lt. Col. Bob Ditch, CAP incident commander for Operation Pulse Lift.

American Red Cross CEO Gail McGovern called CAP, the official civilian auxiliary of the U.S. Air Force, "an incredible partner in responding not only to the urgent need for critical blood products" but also the need for facilities to host blood drives.

Operation Pulse Lift, launched in Arizona before the pandemic to include multiple locations in Alabama, Colorado, Kentucky, New Mexico, New York,



Barb Clevenger of Mesa, Arizona, donated the 10,000th unit of blood collected during Civil Air Patrol's Operation Pulse Lift mission.

(Courtesy CAP)

Oklahoma, Texas and Virginia. CAP has sponsored 146 emergency blood donation centers since April 2020 to support the COVID-19 humanitarian assistance mission.

Transporting blood by land and air also is part of the CAP mission, with more than 500 trips to remote hospital locations by CAP aircrews and drivers.

The mission has also supported blood collection activities at six U.S. Army and U.S. Air Force installations through the Armed Services Blood Program. This included blood going to hospitals in Washington, D.C., and Germany that treated casualties from the August 2021 Kabul Airport suicide bombing in Afghanistan.

The Red Cross leveraged Operation Pulse Lift to support hospitals in California and Oregon during wildfire season, Texas and Louisiana for hurricanes, and the Southwest for a major winter storm. The mission's emergency blood donation effort surged to collect 222 units of blood in response to the December 2021 tornadoes in Kentucky, Tennessee, and surrounding areas.

Across the country, Civil Air Patrol members and their families who don't live near a CAP-sponsored donation center have reported their local blood donations for inclusion in the mission's total. So far, about 5,700 units have been collected at CAP donation centers and about 4,300 at

other locations, which the Red Cross equates to about 30,000 lives saved.

A recent donor was Maj. Gen. Edward D. Phelka, CAP national commander and CEO, who gave blood at a Red Cross site near his home in Michigan, setting an example to encourage other CAP members to roll up their sleeves.

In late January, the American Red Cross presented Ditch with an award fashioned from an Airbus A340 fan blade. The inscription thanked Ditch for his "lifesaving leadership during the global pandemic."

In response, Ditch recalled his Red Cross legacy and told the story of his maternal grandmother, a Red Cross and commissioned Army nurse who served in Europe during World War I.

Operation Pulse Lift continues, with six blood donation centers scheduled through April. "The current need for blood donations is critical as the Red Cross has only a one-day supply of blood on its shelves," Ditch said.

Acting as a Total Force partner and the Air Force auxiliary, Civil Air Patrol helps First Air Force rapidly respond to non-military threats domestically in a Defense Support of Civil Authorities capacity to save lives, relieve suffering, prevent property damage and provide humanitarian assistance.

Visit www.CAPNews.com or www.GoCivilAirPatrol.com for more information.

APOLLO 16 - 50TH ANNIVERSARY CELEBRATION TO BE CELEBRATED AT SAN DIEGO AIR AND SPACE MUSEUM

The San Diego Air & Space Museum is proud to be the one-and-only host of the official *Apollo 16* 50th Anniversary, one of the last times mankind walked on the Moon and one of NASA's finest moments. The *Apollo 16* 50th Anniversary Celebration takes place at the San Diego Air & Space Museum on Saturday, April 23, the Museum recently announced.

"The Apollo program's Moon landings are some of one of the most significant achievements in human history, and the San Diego Air & Space Museum is proud to be home to its official 50th Anniversary Celebrations," said Jim Kidrick, President & CEO of the San Diego Air & Space Museum. "This year is the final year of the 50th Anniversaries of the Apollo program, offering an incredible opportunity to see, hear from, and meet personally the key figures who took part in the most extensive in-person exploration of the lunar surface, a goal of mankind from time immemorial. *Apollo 16* is a true giant leap in the quest for knowledge and scientific discovery, and we are thrilled to host the celebration. The *Apollo 16* 50th Anniversary celebration is an evening to remember forever!"

Confirmed VIP Participants for the *Apollo 16* 50th Anniversary Celebration include:

.....



Charlie Duke, Lunar Module Pilot, *Apollo 16*

On April 16, 1972, Astronaut and *Apollo 16* Lunar Module Pilot Charlie Duke became the tenth and youngest human being to walk on the surface of the Moon. *Apollo 16* was NASA's second scientific expedition of the Moon, during which time Duke logged 20.25 hours in extra-vehicular activities (EVA) and collected some 213 pounds of soil and geological samples. He took the only videos of the lunar rover "in action" as it skidded across the surface. Duke is also known for his crucial role as CAPCOM – the Capsule Communicator – during the hair-raising Moon landing of *Apollo 11*.



Gerald D. "Gerry" Griffin, *Apollo 16* Flight Director

Experience: Flight Controller, Gemini Systems; Flight Director, Apollo

7, 8, 9, 10, 11, 13, 14 and 16; Lead Flight Director, Apollo 12, 15, and 17; Deputy Director, NASA Dryden Flight Research Center; Deputy Director, Kennedy Space Center; Director, Johnson Space Center.



Gene Kranz, Apollo Program Flight Director

Eugene "Gene" Kranz – a former USAF fighter pilot and NASA Flight Director for *Gemini 4* and Apollo missions 7, 9, 11, 13, 15, 16 and 17 – was in control when three astronauts perished in a launch pad fire during a procedural test of *Apollo 1* in 1967. That dramatic failure led NASA to what became known as the Kranz Dictum, "Tough & Competent": A dedication to diligence and perfection that permeates through the agency to this day.



Dee O'Hara, NASA First Aerospace Nurse

In 1959, Dee O'Hara became the first aerospace nurse assigned to NASA's first seven astronauts, the "Mercury Seven." Since then, O'Hara participated in every launch in the Mercury, Gemini and Apollo programs, allowing her to establish the foundations for the field of Space Nursing. After Skylab, she was invited to participate in the Apollo-Soyuz Test Program (ASTP) and the first shuttle flight in 1981. In 1974, O'Hara moved to the Ames Research Center where she managed the Human Research Facility until her retirement in 1997.

Other VIPs from the Apollo program to be announced as they confirm.

For general information and to purchase tickets, visit the San Diego Air and Space Museum website at sandiegoairandspace.org.

For partnerships and additional information, email the following representatives:

Nicole Velazquez x109

nvlazquez@sdasm.org

Michelle Wiseman x 111

mwiseman@sdasm.org

Jim Kidrick x101

jkidrick@sdasm.org

All proceeds go the Education Programs at the San Diego Air & Space Museum.

HONDA AIRCRAFT FOUNDER SET TO RETIRE VISIONARY DESIGNER REACHES MANDATORY RETIREMENT AGE

By Thomas B Haines
AOPA

In a companywide announcement Feb. 18, Honda Aircraft employees learned that their president and CEO and founder of the company Michimasa Fujino will retire on April 1.

Fujino will reach reach Honda's mandatory retirement age of 62 in March. Hideto Yamasaki will assume leadership of Honda Aircraft as Fujino departs on April 1. Yamasaki has held numerous positions in the automotive side of Honda, including general manager in Turkey and more recently as a vice president of American Honda Motor Co. Inc.

In a telephone conversation with AOPA on February 18, Fujino said he



Honda Aircraft president and CEO and founder of the company Michimasa Fujino will retire on April 1.
(Courtesy AOPA)

intends to take some time off and especially to spend time with his wife, but he will continue consulting for Honda Aircraft.

Designing the unique HondaJet and then building the company to manufacture and support it has consumed most of Fujino's adult life.

Fujino began his career at Honda working on automotive systems, especially anti-lock braking systems. When Honda launched an aviation design unit in the mid-1980s he began work there at the bottom, sanding molds and laying up prepreg composites at Mississippi State University, where the company developed the MH02, a strange-looking high-wing jet with two engines mounted above the wings. The airplane flew 170 hours but has since been placed in a museum in Japan.

Fujino spent years fine-tuning the design, especially the idea of mounting the engines above the wings, what has become to be known as OTWEM—over-the-wing engine mount. His proof of con-

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Flying With Faber

THE SATISFACTION OF BAKING

I grew up in an era when just about everyone's mother baked at home. On many occasions when I visited my friends, there was an alluring aroma emitting from the kitchen. Racine, Wisconsin was home to many kids whose parents were from Denmark. Other kids were of German, Polish or Slavik origin. So, we had international bakeries at our disposal. My mother baked traditional American pastries – pies and cakes.

I've incorporated many of these delicacies in my new cookbook, *Cookbook For People Who Hate Lawyers*. Now available on Amazon or LuLu, this book teaches the reader how fun and easy it is to cook and to bake.

Here are a few of my favorites.



(Stuart J. Faber)

Blueberry Cake

How about a blueberry cake instead of a blueberry pie? This cake is moist, tender cake is chock full of blueberries.

Cake Ingredients:

1/2 cup butter
1/2 cup sugar
1/4 teaspoon salt
1 teaspoon vanilla extract
2 eggs, separated
1 1/2 cups flour
1 teaspoon baking powder
1/3 cup milk
1/4 cup white sugar
1 1/2 cups fresh blueberries
1 tablespoon flour
1 tablespoon sugar

Ganache Ingredients:

1/2 cup heavy cream
1 cup white chocolate chips

Cake: Preheat oven to 350°F. Butter and flour an 8-inch square pan.

In a mixing bowl fitted with whisk attachment, add the two egg whites and a pinch of cream of tartar. In a separate bowl, beat whites until soft peaks form. Add 1/4 cup of sugar, 1 tablespoon at a time, and beat until stiff peaks form. With

a spatula, scrape whipped egg whites into a separate bowl. Set aside. (This procedure enables the use of one mixing bowl without washing it).

Swap the whisk attachment for the paddle attachment. Cream butter and 1/2 cup sugar until fluffy. Add vanilla. Add egg yolks, one at a time. Beat until creamy. Scrape down sides of bowl.

Combine 1 1/2 cups flour, salt and baking powder. Add alternately with milk to egg yolk mixture. Mix on slow speed. Do not over mix. Coat berries with one tablespoon flour and add to batter.

Fold reserved egg whites into batter. Pour into prepared pan. Sprinkle top with remaining 1 tablespoon sugar.

Bake for 50 minutes, or until a toothpick inserted in center of cake comes out almost clean. After 5 minutes, remove from pan and cool completely.

Ganache: Pour heavy cream into a saucepan over medium heat; heat until just boiling. Remove from heat; add white chocolate chips. Whisk gently until white chocolate chips are melted and blended into the cream. Let cool until slightly thickened, about 15 minutes. Apply to top and sides of cooled cake.



(Stuart J. Faber)

Lemon Pound Cake

My lemon tree was overflowing with fruit and my friends and neighbors suggested that I make a lemon pound cake. So, I baked this huge Bundt lemon pound cake and covered it with a lemon glaze. Within 30 minutes it was gone. Even the AV service guy, who happened to be in the house as I was applying the frosting devoured a slice. This cake can also be baked in two 9x5-inch loaf pans.

Ingredients:

3 cups all-purpose flour
1 tablespoon baking powder
3/4 teaspoon salt
3 cups sugar

1 cup unsalted butter, room temperature
1/2 cup shortening, room temperature
5 large eggs
1 cup whole milk
6 tablespoon lemon juice
1 lemon, zested

Preheat oven to 350°F. Spray or butter a large Bundt pan.

Sift flour, baking powder and salt into medium bowl. Set aside.

Using an electric mixer, cream together butter, shortening and sugar. Add eggs one at a time, beating until well blended after each one.

Add dry ingredients in three additions to butter mixture alternately with milk, beginning and ending with flour mixture. Beat at low speed just until blended after each addition. Mix in lemon juice and zest.

Pour batter into prepared pan. Bake cake until tester inserted into center comes out clean, about 55 minutes. Cool cake in pans for 15 minutes. Turn cake out onto racks and cool completely.



(Stuart J. Faber)

Blackberry Pie

Every year, I bake a blackberry pie for my neighbor, Roger's birthday. This year, the tradition goes on. I made a little extra crust and threw in a few extra berries so that I could have my own minipie. Now I'm debating: Which pie should I take to Roger's house?

Crust:

2 1/2 cups unbleached all-purpose flour, plus extra for the work surface
2 tablespoons granulated sugar
1 teaspoon table salt
1/2 cup vegetable shortening, chilled
12 tablespoons butter, cut into 1/4-inch pieces and chilled
6-8 tablespoons ice water

Filling:

5-6 cups blackberries, rinsed, picked clean, patted dry (if you use frozen berries, defrost and drain them)



Stuart J. Faber
and Aunt Bea

1/2 cup to 1 cup sugar (depending on how sweet your berries are)

1 teaspoon lemon juice
1 teaspoon lemon zest
1/2 teaspoon ground cinnamon
1 pinch nutmeg
1/4 teaspoon almond extract (optional)
4-6 tablespoons cornstarch or tapioca

Place blackberries, sugar, lemon zest, lemon juice, cinnamon, almond extract, and cornstarch/flour/or ground instant tapioca in a large bowl. Gently fold the berries until they are all well coated with sugar. Let sit for 30 minutes. Check for sweetness.

Roll out bottom crust. Preheat oven to 400°F.

Line the bottom of your pie pan with the dough. Chill in refrigerator while you roll out the top crust.

Spoon the berry mixture into the dough-lined pie dish, dot with butter. For a lattice top, weave strips of pie dough over the top of the fruit-filled pie dish.

Place the pie on the middle rack of the oven. Put a baking sheet on the lower rack to catch any juices that might bubble out of the pie while it's cooking.

Bake it at 400°F for 30 minutes. Reduce heat to 350°F. and bake an additional 30 minutes or until crust is bolden and filling is bubbly.

Remove from oven and place on a wire rack. Cool completely before serving.

Skillet Apple Pie

When I first discovered this recipe, I was convinced that there was some error. Placing a crust on a hot mixture of melted butter and brown sugar surely would dissolve the crust. Well, I thought I'd take a gamble. I took this gorgeous pie to the gym. I've rarely seen such delightful facial expressions as my friends devoured it. Notwithstanding hyperbole, everyone agrees that is the world's greatest apple pie.

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THE HONDAJET IS THE MOST DELIVERED AIRCRAFT IN ITS CLASS FOR THE FIFTH CONSECUTIVE YEAR

HondaJet Surpasses 100,000 Flight Hours

Honda Aircraft Company announced on Feb. 23 that in 2021, the HondaJet was the most delivered aircraft in its class for the fifth consecutive year, based on data provided by the General Aviation

Manufacturers Association (GAMA). During 2021, Honda Aircraft Company delivered 37 aircraft to customers globally.

"I am humbled and honored that the HondaJet continues to be selected by our

owners and operators as we expand our global fleet," said Honda Aircraft Company President and CEO Michimasa Fujino. "Being the best-selling aircraft in our class for five consecutive years is a

reflection of the Honda Aircraft team's commitment to offering our customers a product of the highest performance, quality, and our maturity as a leader in the avi-

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Honda Aircraft Founder Set to Retire

Continued from Page 28

cept airplane included OTWEM using turbofan engines built by GE-Honda, a collaboration between Honda and GE. The airplane featured a laminar flow wing and laminar flow cockpit section, a composite fuselage, aluminum wings, and trailing link landing gear—as well as a Garmin cockpit.

"I was almost fired when I first proposed this configuration," Fujino confessed to me in 2005 when he was ready to reveal the proof of concept to the world while Honda considered whether it would enter the business jet market. "It was very controversial. The data helped me convince them. But finally, I just do what I think is best and right because top management trusted me and let me do whatever I want to do.

"Honda was very willing to allow me to try new things. I'm not sure an aircraft manufacturer would allow this."

Shortly after the proof of concept was unveiled at EAA AirVenture 2005, the company announced it would move into the flight test and certification phase. Over the next decade, Fujino continued development of the airplane and built a new company, Honda Aircraft Co., to manufacture and support it. He was

named president and CEO. The company now occupies an enormous campus on the airport at Greensboro, North Carolina, where manufacturing, deliveries, and customer training occur. Meanwhile, Honda Aircraft now has service and training centers around the world.

More than 200 HondaJets have been delivered since the jet received certification in late 2015. At the National Business Aviation Association annual convention in October 2021, Fujino unveiled a new, larger concept, the 2600, which includes coast-to-coast range, a larger cabin, and many other changes. The company has not yet announced whether it will put the 2600 into production.

Quiet and reserved in public, Fujino has had a significant impact on general aviation, creating the only successful standalone new business jet company in decades.

"Michimasa Fujino-san is an extraordinary and accomplished engineer who brought HondaJet to life with innovative designs and advanced technologies," said Pete Bunce, president and CEO of the General Aviation Manufacturers Association, upon learning of the retirement. "For a company

that has never certified a civil aircraft to bring a clean-sheet jet design successfully to market is a Herculean task, yet Fujino-san has been the person equal to this daunting task. We are grateful for his contributions to the industry and wish him well in his retirement."

Ed Bolen, president and CEO of NBAA, also acknowledged the enormity of the task that Fujino accomplished. "Michimasa Fujino turned his idea for an aircraft design into an aircraft company," Bolen said. "It is a remarkable journey that few people in aviation history have successfully completed. The HondaJet is a tremendous aircraft and it is a tribute to Fujino that the 2600 has been unveiled. He leaves an enduring legacy of excellence."

Fujino also left an enduring impression on Garmin, an early avionics partner on the HondaJet.

"I met Mr. Fujino almost 20 years ago," said Carl Wolf, Garmin vice president of aviation sales and marketing. "Mr. Fujino's keen attention to detail and his creativity made a huge first impression on me. Our working relationship developed quickly, and I greatly admired his award-winning engineering, innovation and meticulous design expertise.

Since that meeting in 2002, Mr. Fujino and I have built a special relationship that I will appreciate forever. His leadership and friendship have left an indelible mark on me and our team, and I very much appreciate all that he has done for Garmin. I wish [Fujino] and his family the very best in his retirement, and I hope our paths cross once again in the future."

HondaJet customers have also admired Fujino's vision for a new business jet. "When asked about his strategy for the HondaJet Mr. Fujino responded that his strategy was only to build a great product; a feat at which he certainly succeeded," said Glenn Gonzales, founder and CEO of Jet It, a fractional ownership company. "Developing a clean sheet design aircraft with a first of its kind engine placement in the face of conventional design is no small task, but starting and building a new company in the process is simply amazing. As the world's largest HondaJet operator, with over 21 HondaJets in operation around the world, we can attest the superiority of Mr. Fujino's product and efforts."

Clearly, Fujino's vision will have a lasting impact on GA. Yamasaki will have big shoes to fill in continuing to advance Honda Aircraft.

Flying With Faber



(Stuart J. Faber)

Continued from Page 29

Crust:

Make crust recipe from Blackberry pie

Filling:

2 pounds Granny Smith apples
2 pounds Golden Delicious apples

1 teaspoon ground cinnamon
1/4 teaspoon nutmeg
3/4 cup granulated sugar
1 lemon, juiced
1/4 teaspoon salt
1 tablespoon flour
1/2 cup butter
1 cup firmly packed light brown sugar
double pie crust (Please, no store-bought)
2 tablespoons granulated sugar

Preheat oven to 350°F. Combine granulated sugar, cinnamon, nutmeg, flour and salt. Set aside.

Peel apples and cut into 1/2-inch-thick wedges. Squeeze lemon juice over apples. Toss apples with cinnamon, nutmeg, flour, salt and granulated sugar mix-

ture.

Melt butter in a 10-inch cast iron skillet over medium heat. Add brown sugar, and cook, stirring constantly, 1 to 2 minutes or until sugar is dissolved. Remove from heat. Reserve 1/4 cup of butter mixture to brush on top crust.

Cool butter mixture slightly, and place 1 piecrust in skillet over brown sugar mixture. Spoon apple mixture over piecrust, and top with remaining piecrust.

Brush top of piecrust with reserved brown sugar mixture, then sprinkle with 2 tablespoons granulated sugar. If necessary, re-heat reserved brown sugar mixture over low heat-add a tablespoon of milk to thin it out. Cut 4 or 5 slits in top for steam to escape.

Place a baking sheet in oven. Place skillet on baking sheet. Bake at 350°F. for 1 hour to 1 hour and 10 minutes or until top crust is golden brown and the mixture bubbly. Cover pie with aluminum foil during last 10 minutes to prevent excessive browning, if necessary. Cool on a wire rack 60 minutes before serving. Serve with ice cream.

• • • • •

Baking is very rewarding. My entire mind and body are overcome with a feeling of contentment during the baking process. Of course, the ultimate reward comes with eating the baked goods and enjoying the cheers from friends. I hope that you enjoy the same experience.



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Homebuilder's Workshop By Ed Wischmeyer

MORE AOA FLIGHT TESTS

One of the criticisms I have, and it's legitimate, is that general aviation angle of attack (AOA) displays are often calibrated to give a warning just before stall and anything else is pot luck.

No more! Garmin AOA in the G3X Touch can now be calibrated at multiple points. Those points are the lowest AOA at which the AOA display a single green bar; the desired AOA for approach, the green circle; the first yellow bar; the AOA where the audible stall warning starts; and stall itself.



G3X Touch for Experimental Aircraft.
(Courtesy Garmin)

The calibration instructions are pretty doggone simple for what to do (nice!), and you can set the values to whatever you want. But whatever do I want? And before I start fooling around with things, what values do I already have? I recruited a buddy with pen and pad to record values of AOA, airspeed, flap setting, and power, and off we went.

One criticism I have of AOA indicators is that they can be skittish in turbulence. On this flight, there was only a tiny little bit of turbulence, and the AOA wasn't particularly skittish, but the indicator did meander. Thus, getting a good AOA reading required looking at the indicator for a few seconds, whereas airspeed can be read instantaneously.

Having a recording secretary on

board, I did the calibrations in the traffic pattern instead of at altitude. This gave actual flight configurations to measure, but the workload was sometimes very high, especially with all the traffic around. However, the tower controllers know me and what I can do, so things worked out okay. Also, my secretary is aeronautically knowledgeable, and that helped, too. When things got real busy, I flew the airplane and neglected the flight test.

So what did I find with the eight data points we collected? A bunch of numbers, for sure, but...

The real lesson was that at my airport, with all the traffic, and with the varying conditions, there is basically no "standard" approach, hence, no "standard" AOA.

Example 1: On one flight, on final, about three miles out, tower asked if I could fly 20 knots faster for the next mile to help with their spacing. No problem! AOA won't help me do this...

Example 2: On one pattern, spacing with the crossing runway wasn't working out, so tower asked me to do a 270-degree turn, base to final. Easy to do, but I added power to gain altitude for my own comfort, and I gained more altitude than I needed. On final, I did a maximum effort slip with full flaps (safe in an RV) so that I could make the first turnoff and clear the runway expeditiously because there were three planes waiting to take off, plus one on the crossing runway. (Experimentals are not allowed to do Land And Hold Short Operations (LAHSO), but that's another story.) AOA would not have helped me there, but a full slip is pretty much an eyes out of the cockpit maneuver to keep the plane aligned with the runway, not looking at instruments.

So now I kind of sort of knew how I

want the angle of attack set. The stall warning is already set just fine, so I'll leave that alone. The approach AOA is for me 'a don't care,' and I don't know what I'm going to do about it if the instructions require me to set it to something. The manual suggests having the AOA become visible at flap speed, which is 87 knots in my plane. Right now, at 100 knots, flaps up, the first green bar appears with low power, and two green bars, flaps up, was at 84 knots, pretty close to flap speed. With full flaps and power off, the AOA is at the ball at 70 knots, which is fine.

All of which is to say that the only setting I (personally) care about setting to taste is the AOA at which the aural stall warning starts beeping.

A few days later, having a better idea of how to do the measurements, I went out to collect a few more data points. My copilot was an all-but-checkride private pilot with interests in control theory and handling qualities, two of mine.

Turns out that no additional calibration was needed. With full flaps and power off, the aural warning comes on at 57 knots, but I try not to go below 60 knots because of high sink rate with power off. (The RV-9A undoubtedly has short field capabilities that I've not mastered). Flaps up, power off, beeps start at 65.

All this flight test only confirmed what I already preach: a progressive aural stall warning is useful. A visual AOA indicator, depending on installation details, has value only in calm air and a stable flight path. AOA is a nice theoretical concept, but the real world issues are in measuring, displaying and using it. And it's hard to use when you fly all kinds of approaches.

I may be a heretic in the eyes of some, but the data I've collected is on my side.



Active till the last, my good friend Pat Panzera, truly a good man and editor of Contact! magazine, succumbed to pancreatic cancer after a long, tough fight. Uniquely, Contact! focused on automotive engine conversions and alternative engines, and was well done. A successor editor has not been announced. RIP, Pat. We'll fly together again, after I get my own wings.

I'm wimping out and skipping Sun 'n' Fun this year. My spine and legs are not looking forward to hiking around that much, and I don't want to face the ever-worsening Florida traffic.

Webinars have come into their own, possibly accelerated by COVID. I just watched the EAA's Ultralight webinar on two stroke Rotax engines with Phil Lockwood (of Lockwood Aviation) presenting. It was outstanding! Phil seems to know everything about those engines, with history and customer stories.

Seminars at air shows can be just as good, but there's airplane noise, occasional schedule conflicts, it's hard to take notes, and no rewinds. Webinars can fix all those! However, rewinds of this seminar are only for EAA members, but no problem there.

As for rewinds, some airshow seminars are on YouTube, such as last year's AOPA / Air Safety Institute seminar which I presented. Search for "loss control aopa" to see it.

The HondaJet is the Most Delivered Aircraft in its Class

Continued from Page 30

ation industry. We will continue to bring new value to the industry and provide superior service and support to customers."

Honda Aircraft Company celebrated several milestones recently, including delivery of the 200th HondaJet in late December. The worldwide HondaJet fleet also surpassed 100,000 flight hours in January.

Additionally, the FAA recently awarded Honda Aircraft Company with the "Diamond level AMT employer award," the highest level in the William (Bill) O'Brien Aviation Maintenance Technician Awards program, in recogni-

tion of the skill and professionalism of Honda Aircraft's maintenance technicians. Since the beginning of HondaJet deliveries to customers in December 2015, Honda Aircraft Company has led the aviation industry with innovation and technology, while bringing the same high standard of service and support to every customer. The HondaJet also continues to demonstrate its industry-leading dispatch reliability.

During 2021, Honda Aircraft Company continued development with two major announcements: the HondaJet Elite S, honored with a "Top Flight Award" as best new business jet from Aviation

International News, and the HondaJet 2600 Concept, Honda Aircraft's proposal for the next generation of business jet. Meanwhile, the global presence of the HondaJet further increased when it received Thailand type certification, marking 14 countries with HondaJet certification. Honda Aircraft Company's sales and service footprint now spans North America, Europe, Latin America, Southeast Asia, China, the Middle East, India, Japan and Russia.

Watch 2021 recap video here: <https://youtu.be/eqtF8y59FVc>. Learn more about HondaJet and Honda Aircraft Company at www.hondajet.com.



The HondaJet was the most delivered aircraft in its class for the fifth consecutive year, according to a GAMA report.

(Courtesy HondaJet)

NASA MISSIONS TO MARS – NEW BOOK A VISUAL HISTORY OF EXPLORING THE RED PLANET AND A GLIMPSE INTO THE FUTURE

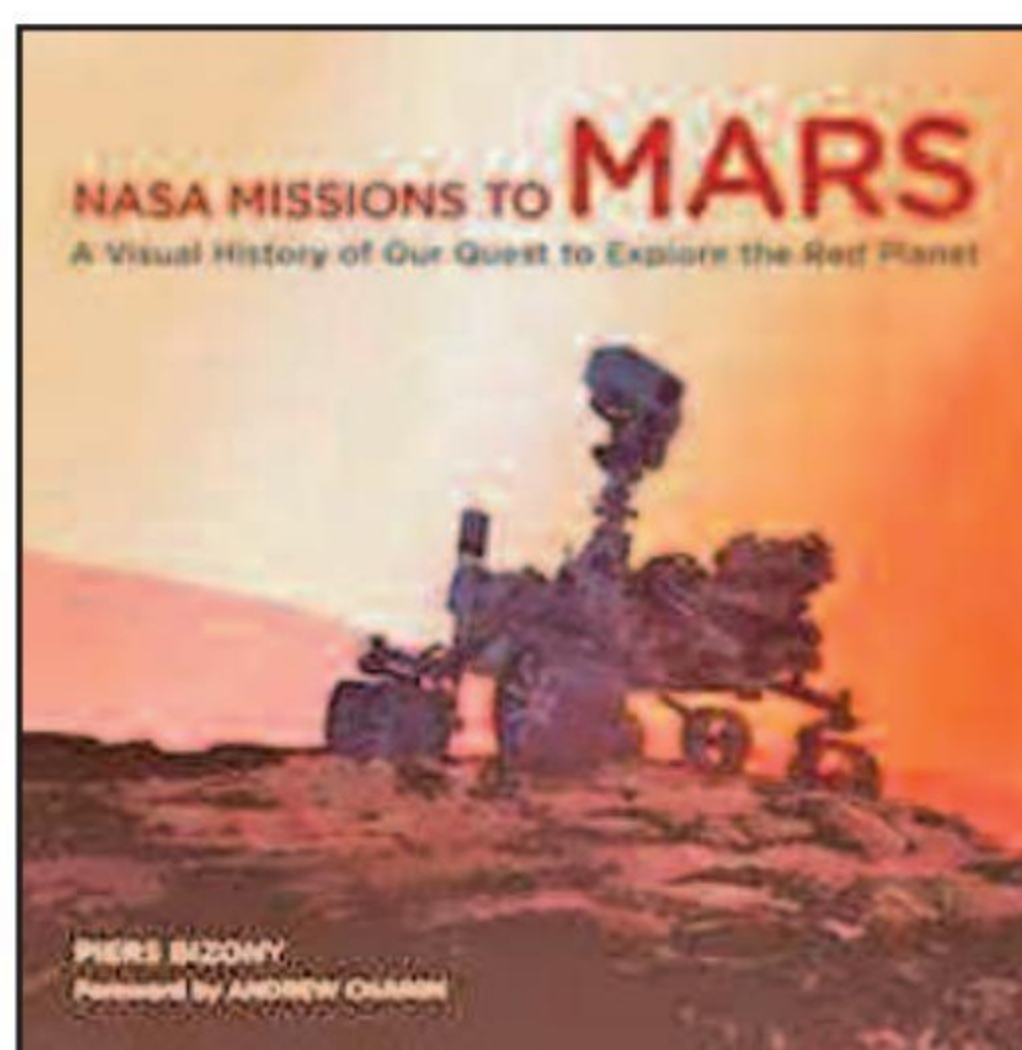
NASA Missions To Mars: A Visual History Of Our Quest To Explore The Red Planet by Piers Bizony becomes available April 12, 2022. Gorgeously illustrated with NASA photography, *NASA Missions To Mars* tells the story of NASA's programs to explore the Red Planet – from the first tentative flybys to the present – and offers a glimpse into the future of Mars exploration.

Space exploration has always pushed boundaries, but perhaps the achievement which has most piqued a sense of possibility has been the exploration of Mars. Beginning with Soviet and American flybys in the early 1960s that were part and parcel of the Space Race, acclaimed space historian Piers Bizony continues through complete coverage of the *Viking 1* and 2 missions of 1975–1976. Bizony also traces NASA's acclaimed rover program, describing the development, technologies, mission histories, and achievements of the rovers *Sojourner*, *Opportunity*, *Spirit*, and *Curiosity* – all on the 25th anniversary of their first landing.

This awe-inspiring book features:

- An engaging and complete history of Mars exploration
- A treasure trove of imagery from the NASA archives, including photos and cartography beamed home, artworks and concept drawings created during development phases, as well as photography created to document testing phases
- A glimpse of future plans for Mars exploration and habitation
- Coverage of orbiters sent to the red planet by not only NASA but by space agencies from Russia, India, Japan, Europe, China, and the UAE
- A two-sided 24-inch gatefold

The Red Planet is red hot – last February's NASA footage of the landing



(Courtesy Quarto)

of rover *Perseverance* accumulated 21M YouTube views in just a few weeks – and interest in exploring Mars has never been higher, or in the news as much. *NASA Missions to Mars* is your complete illustrated history of those efforts and a necessary volume for the bookshelf of any space enthusiast.

Author Piers Bizony has written about science and the history of space and technology for a wide variety of publishers worldwide, along with undertaking major projects for the media departments at NASA and the European Space Agency (ESA). The author of Quarto's *Moonshots*, *The Art of NASA*, *NASA Space Shuttle: 40th Anniversary*, and other titles, Bizony also worked closely with the family of Stanley Kubrick, in conjunction with Warner Bros. and fine art publishers Taschen on a large-format book about the making of *2001: A Space Odyssey*.

Book details: Publishing April 12, 2022 by Motorbooks; Hardcover, 196 pages; 200 color photos; \$50 U.S., \$65 CAN; ISBN: 978-0-7603-7314-9; learn more and available from Quarto at www.quarto.com.

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FOUR AVIATION AND SPACE ACHIEVEMENTS TO COMPETE FOR THE 2021 ROBERT J. COLLIER TROPHY

The National Aeronautic Association announced on Feb. 24 that four aviation and space achievements will compete for the 2021 Collier Trophy.

Commissioned in 1910 by aviator, humanitarian, and sportsman, Robert J. Collier, with the intent to encourage the

American aviation community to strive for excellence in aeronautic development, the Collier Trophy has been justly called the most prized of all aeronautical honors. Awarded annually "... for the greatest achievement in aeronautics or astronautics in America," the list of

Collier recipients represents a timeline of aviation and space exploration, as many of the awardees mark major milestones in the history of flight. The 525-pound bronze trophy is on permanent display at the Smithsonian's National Air and Space Museum in Washington, D.C.



Dynetics, a wholly owned subsidiary of Leidos, is working to advance the technology and capability of the United States' airborne unmanned systems. The Gremlins program, developed with funding from the Defense Advanced Research Projects Agency (DARPA), is designed to integrate with most existing strike, reconnaissance and cargo aircraft. The overarching goal of the Gremlins Program, managed by DARPA's Tactical Technology Office, is to demonstrate aerial launch and recovery of multiple low-cost reusable unmanned aerial systems (UASs), effectively enabling the distribution and management of swarms of sensors in denied environments, while allowing humans to keep a safe distance from adversarial threats.

(Courtesy Dynetics)

Past winners of the Collier Trophy include Orville Wright, Howard Hughes, Glenn Curtiss, William Lear, Clarence "Kelly" Johnson, the crews of Apollo 11 and Apollo 8, and the Mercury 7. Projects and programs that have been awarded the Collier include the B-52, the Voyager Aircraft Team, the Gulfstream G650, the F-22, and the Skylab Program. The five most recent recipients of the Collier Trophy are Garmin Autoland, the United States Department of the Air Force – Boeing X-37B, the Automatic Ground Collision Avoidance System Team, the Cirrus Aircraft Vision Jet, and the Blue Origin New Shepard Team.

The finalists competing for the 2021 Collier Trophy are:

- The DARPA, U.S. Air Force, Raytheon Missiles & Defense, and Northrop Grumman Hypersonic Air Breathing Weapon Concept (HAWC) Program
- The Dynetics and DARPA X-61A Gremlins Air Vehicle (GAV) Program
- The NASA/JPL Ingenuity Mars Helicopter Team
- The SpaceLogistics and Intelsat

Continued on Page 39

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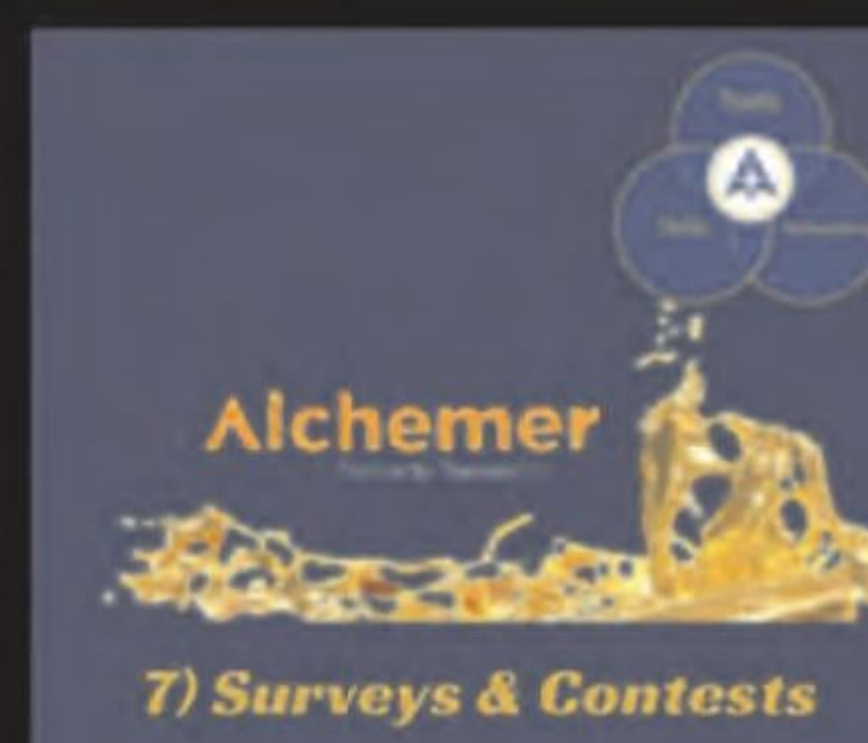
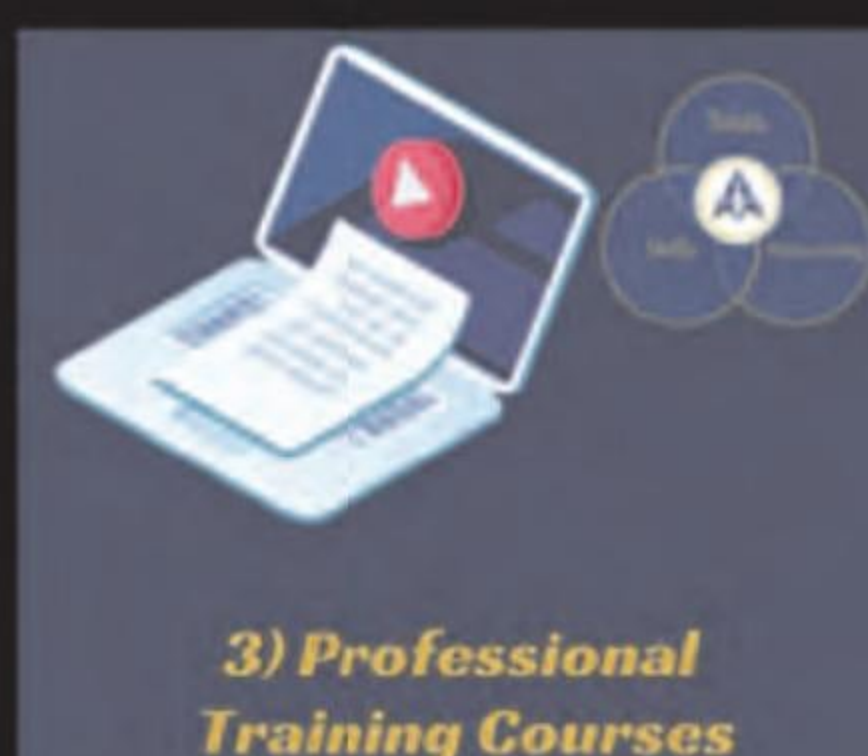
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SAFE LANDINGS

It has been said that the only voluntary act in aviation is the decision to take-off. Every action after take-off involves the skillful management of risk, the enjoyment of flight and a continuous stream of decisions that result in a safe landing.

In 1974, NASA created the Aviation Safety Reporting System (ASRS) to allow aviation professionals to share experiences in a frank, non-punitive manner. The ASRS structure allows pilots and other aviation professionals to file an anonymous report of an incident, error or occurrence that the contributor feels might be of value to others. These reports are gathered, analyzed and data based by NASA experts and made available to all interested parties as a tool for creating pro-active aviation safety programs. Additionally, NASA distributes an electronic publication, *CALLBACK*, which contains selected, de-identified, reports on a free subscription basis. *In Flight USA* is proud to reprint selected reports, excerpted from *CALLBACK*, for our readers to read, study, occasionally laugh at, and always learn from. Visit <http://asrs.arc.nasa.gov/> to learn how you can participate in the ASRS program.

THE HUMAN MACHINE INTERFACE

By definition, aviation involves humans operating aircraft, and every aspect or function of modern aviation employs a human-machine interface in some manner or form. Whether between pilots and their aircraft or otherwise, the human-machine interface is a bi-directional communication conduit between human and machine. Each must communicate effectively with the other to realize safe and efficient flight operations.

The human-machine interface is complex and the subject of much research and study within the aviation community. Interface design is continually being improved to minimize errors that occur, and sometimes originate, at these junctures. Nevertheless, missteps still happen. At an interface, information may be misinterpreted or not seen by the pilot or operator. Faulty or unreliable information may be displayed and 'received' as well. Mistakes in operational control inputs or programming can also occur, where the pilot or operator communicates to the aircraft or machine something other than what is intended. Regardless of the origin or nature of an error, the human-machine interface may allow or provide an opportunity to trap the error and improve flight safety.

This month, *CallBack* continues our informal look at Human Factors in aviation, focusing on the human-machine interface. Examine the interfaces in each narrative, when errors may have originated and how they are advanced, and the significance each interface holds in the chain of events.

Unseen, Unretrieved, or Unrecognized

This Dispatcher was informed of a hazardous situation that occurred during a commercial flight. A warning had been issued but was not 'received' by the responsible personnel.

- Radioactive materials were incorrectly loaded in position X that should have been loaded [at position] Y or aft.

Ramp called after the flight departed to seek after the fact approval. [I] advised the team and the Duty Officers of the situation. It was determined...based on the low exposure rate, a Transportation Index (TI) of 0.8, that the flight could continue and the crew would be advised on the ground at the destination. The flight was concluded without incident. The cause was due to the Ramp Agent missing the warnings he got from his software to not proceed. Ramp should be more aware of the special handling required by dangerous goods.

A Confusing Communication Interface

An Aviation Maintenance Technician (AMT) described this incorrect interface configuration noted by a B777 Captain. It had already generated multiple operational errors.

- The Captain reported that the Controller Pilot Data Link Communications (CPDLC) ACCEPT and REJECT buttons were switched... This caused 2 occasions of erroneous reject responses being sent to ATC. On arrival, the switches were confirmed [to be] in the wrong place (Illustrated Parts Catalog (IPC) 31-10-51-02), and [they were] switched back (Standard Wiring Practices Manual (SWPM) 20-84-13) [to their correct locations]. These switches can be inadvertently transposed.

Cognition, Selection, and Recognition

This CRJ200 flight crew discusses two unplanned, unexpected, automated descents and examines their causes.

From the Captain's report:

- I was the Pilot Monitoring (PM). We were leveling at four thousand feet and about 12 to 15 miles out on the ILS... I was in green needles. ATC assigned a speed reduction [from] 210 to 170 knots and... cleared us for the visual approach. The Pilot Flying (PF) had the autopilot engaged. The aircraft suddenly began a

descent and increased speed. I called for the PF to stop the descent. I felt automation was incorrect and stated, "My aircraft," and disconnected the autopilot and corrected for a 300-to-400-foot altitude loss. At this point, I transferred controls back to the original PF and re-engaged the autopilot. Moments later the aircraft started a descent. Again, I called, "My aircraft," disconnected the autopilot, and corrected back onto the glide-slope and to 170 knots. ATC had advised us for a second or third time that they needed...170 [knots]. We were at 170 knots at his last request, but speed management was not my first priority when detecting and correcting for the unexpected descent. After stabilizing the aircraft, I noted the original PF's... altimeter read 31.22... It was determined that the original Pilot Flying was turning the baro knob instead of the NAV SELECT knob when transferring to green needles. In doing so, the aircraft thought we were higher and needed to descend to 4,000 feet. There were no traffic conflicts, and the PF had the correct altimeter settings prior to the approach.

From the First Officer's report:

- When changing the navigation source from FMS to LOC, I inadvertently spun the baro knob instead of the NAV SELECT knob... We must look at what we are moving and verify [that] the input causes the desired results afterward. It would be wise to change the baro knob to one that has a different tactile feel than the NAV SELECT knob. The knobs are identical and close to each other on the... panel.

Faulty Information 'Received' and Believed

This air carrier pilot describes a Controlled Flight Toward Terrain (CFTT) event and digs down to a root cause.

- We were cleared for the visual approach to [Runway] 28R from the arrival. I set the altitude to 6,000 for the

FAF of ZIXIP. My original plan was to fly toward the FAF at 6,000 [feet], then turn base leg, then [turn] final just inside of [the FAF] to start my descent after being fully configured. I decided to turn earlier and mistakenly followed what I thought to be my glide slope; therefore, I believed myself to be too high and needing to descend for a stabilized approach. Turning base to final, we got an audible alert of "OBSTACLE," for which I was searching outside but did not see. Then at the Captain's prompt suggestion, I tried to level off but was not aggressive enough. The slow descent resulted in a "PULL UP" alert, and I was able to maintain altitude, but the Captain noted the radio altimeter...around 650 [feet] AGL. I was able to continue my turn from base to final stabilized and had no other incidents with the event.

[Factors included a] lack of situational awareness on my part and a last-minute decision to keep a tighter traffic pattern, which would require compressed time to configure the aircraft. Mainly, my mistake [was] in believing and following a false glide slope, which lead to my confusion. [I plan on] following the ILS profiles even in Visual Meteorological Conditions (VMC) for terrain and obstacle clearance [while] keeping my situational awareness outside...the cockpit more and remaining vigilant...in VMC.

An Unconventional Operational Interface

This CRJ700 First Officer manipulated an aircraft system at an inopportune time. Results were serious and surprised both Captain and First Officer during a critical phase of flight.

- I was the PF. The right thrust reverser was inoperative and disabled by Maintenance; the left thrust reverser was available for use. After touching down and de-rotating, I deployed the left thrust reverser. When I attempted to move the thrust lever backward from idle reverse to increase reverse thrust, I found that the

Continued on Page 38

CELEBRATING VAN'S AIRCRAFT RV 50TH ANNIVERSARY AT AIRVENTURE 2022

The 50th anniversary of the Van's Aircraft RV series, which has become the world's most popular kit airplane, will be a major element of homebuilt aircraft activities at EAA AirVenture Oshkosh 2022. EAA AirVenture Oshkosh, the 69th

Right: The 50th anniversary of the Van's Aircraft RV series will be a major element of homebuilt aircraft activities at EAA AirVenture, July 25-31.

(Courtesy EAA AirVenture)



edition of the EAA's fly-in convention, is July 25-31 at Wittman Regional Airport in Oshkosh.

"While aircraft kits have existed for more than a century, it was 50 years ago that Richard VanGrunsven introduced a model that would move the homebuilt movement into an age where kit aircraft would become dominant," said Charlie Becker, EAA's director of chapters and

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Safe Landings

Continued from Page 37

thrust lever would not move, and my hand position somehow felt different from usual. In that same moment, I realized that, instead of lifting the thrust reverser unlock lever, I had lifted the shutoff lock and moved the thrust lever into shutoff, shutting down the left engine. I called out the problem to the Captain and told him I would be using only brakes to stop the aircraft. There was plenty of runway remaining, and heavy braking was not required. We taxied to the gate using normal single engine taxi procedures.

After performing several thousand landings in this aircraft, I have a well-developed muscle memory for engaging reverse thrust. I also have a well-devel-

oped muscle memory for shutting down the left engine during taxi. With the right thrust reverser disabled, thrust reverser use required touching and moving only the left thrust lever instead of both thrust levers. I am fairly certain that this interaction with only the left thrust lever subconsciously triggered the muscle memory motions for a left engine shutdown instead of those for activating the thrust reverser(s), which usually involves moving both thrust levers. I had landed the same aircraft the day before with the same inoperative right thrust reverser and properly deployed only the left thrust reverser. I have no other explanation for how I managed to perform the motions for an engine shutdown instead. I will be

much more aware of this possibility for inadvertent, incorrect hand motions possibly caused by muscle memory triggers when operating an aircraft with a deferred thrust reverser.

Information for Confirmation

Engine status was available via normal procedural interface, but neither Captain nor First Officer took note. Fortunately, a hazardous situation was resolved without damage or injury.

- After deplaning the aircraft... [my] Captain was informed by the Captain of the next crew that the Number 2 Engine had been left running. Maintenance and weather delays caused

our last leg of a 4-leg day to arrive... two hours late and within 30 minutes of timing out. In a rush to hand the aircraft over to the waiting crew, we ran the parking checklist, but we did not verify that the engine was shut down on the EICAS during the parking checklist. The Captain only visually confirmed that the start/stop selector was in the off position, and due to the thrust lever being positioned slightly advanced, the engine never shut down.

The Captain receiving the aircraft notified [my] Captain that the engine had been left running and shut it down. I was informed... the next morning... Confirm what the Captain says during the checklist... instead of just accepting it.

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TEXTRON AVIATION DELIVERS 8,000TH CESSNA CITATION BUSINESS JET; MILESTONE LONGITUDE AIRCRAFT JOINS SCOTTS MIRACLE-GRO'S FLEET OF CITATIONS

Textron Aviation on Feb. 15 announced it has delivered a Cessna Citation Longitude to Scotts Miracle-Gro. This jet represents the 8,000th Cessna Citation jet delivered worldwide, reinforcing the Citation family as the most popular line of business jets in the world. Scotts Miracle-Gro is one of the world's largest marketers of branded consumer products for lawn and garden care and a long-time Citation owner. This is the fifth Cessna Citation in the company's fleet.

Cessna Citation jets are designed and manufactured by Textron Aviation Inc., a Textron Inc. company.

Textron Aviation employees and representatives from Scotts Miracle-Gro celebrated this significant milestone with a special delivery ceremony at Textron



Textron Aviation delivered a Cessna Citation Longitude to Scotts Miracle-Gro, representing the 8,000th Cessna Citation business jet the company has delivered worldwide. (Business Wire)

Aviation headquarters in Wichita.

"A milestone like this wouldn't be possible without all the owners and operators who love to fly our aircraft and trust the reliability and versatility of our Citation products. With more than 41 million flight hours across the globe, our customers continue to make Citation jets their aircraft of choice," said Textron Aviation President and CEO Ron Draper. "I also want to thank our extraordinary workforce. Each and every one of you played a part in reaching the 8,000th Citation delivery."

Cessna Citations are renowned for their ability to combine reliability, efficiency and comfort with advanced technology and class-leading performance, and no other family of business jets offers

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Van's Aircraft RV 50th Anniversary

Continued from Page 38

homebuilt community manager. "Today, more than 11,000 completed RV models are the direct descendants of that first RV-3 in 1972. We invite all of them to be present at Oshkosh as we celebrate a half-century of success."

A number of special events are planned as part of the 50-year celebration. Those include:

- Special Van's RV parking areas in the AirVenture homebuilt aircraft area
- Multiple forums and workshops focused on RV aircraft throughout the week
- RV aircraft flying during the AirVenture air shows
- An evening program at Theater in the Woods with VanGrunsvan, highlighting the history of the company that began

as a backyard shop in Oregon

VanGrunsvan began Van's Aircraft with a clean design, then selling plans and a few parts he manufactured himself for those aircraft. Soon the company began manufacturing complete airplane kits and introducing new models that after 50 years now include the latest design, the RV-14. More than 400 kits each year are shipped to builders around

the world from the Van's factory in Aurora, Oregon.

Specific details on all AirVenture activities during the 50-year anniversary will be announced as they are finalized. Van's RV aircraft owners are encouraged to pre-register for the designated parking area at EAA.org/AircraftAnniversaries.

2021 Robert J. Collier Trophy

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Mission Extension Vehicle 2 (MEV-2) Team

"For well over a century, the Collier Trophy has recognized aviation's greatest achievements," said NAA President, Greg Principato. "Robert Collier hoped this recognition would provide inspiration for even greater progress. The results

show the success of his vision. This year's nominees are all in the great tradition of this most prestigious award for aviation achievement and I congratulate all the finalists."

The Collier Trophy Selection Committee will convene on March 31, 2022, and the winner will be announced publicly following the selection.

The formal presentation of the Collier Trophy will take place on June 9, 2022, in the Washington, D.C. area. More information can be found by visiting www.naa.aero.

The National Aeronautic Association is a non-profit membership organization devoted to fostering opportunities to participate fully in aviation

activities and to promoting public understanding of the importance of aviation and space flight to the United States. NAA is the caretaker of some of the most important aviation awards in the world and certifies all national aviation records set in the United States. For information, visit www.naa.aero.

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B-29 Doc RETURNING TO OSHKOSH FOR AIRVENTURE 2022

Doc, one of two airworthy Boeing B-29s in the world, will be returning to EAA AirVenture Oshkosh in 2022 for air show appearances and static displays during the event week, July 25-31. While the exact appearance schedule is still being finalized, the aircraft will be parked on Boeing Plaza for public view when at AirVenture.

The World War II-era bomber will help commemorate the U.S. Air Force's 75th anniversary at Oshkosh in 2022. AirVenture will feature aircraft from throughout the Air Force's history, from its creation out of the Army Air Forces in 1947 to today's modern military aircraft.

Doc was rescued from the Mojave Desert in 1987 and was meticulously restored over a 30-year period. It made its



One of two airworthy Boeing B-29s in the world, *Doc*, will be returning to EAA AirVenture Oshkosh during the event week, July 25-31. (Courtesy EAA AirVenture)

first air show appearances in 2017, including a legendary flight at Oshkosh

that year with the Commemorative Air Force's B-29 *FIFI*, marking the first time

two B-29s had flown together in formation in approximately 60 years.

Earlier this month, EAA and *Doc*'s Friends announced that the B-29 would be joining EAA's B-25 *Berlin Express* for a series of joint appearances in Florida and Louisiana beginning late March.

Advance tickets for EAA AirVenture Oshkosh (www.eaa.org/airventure) are now on sale, with the lowest rates for EAA members and early-bird discounts currently available.

In addition, *Doc*'s Friends will be offering flight experiences aboard the aircraft during AirVenture week, based at Appleton International Airport (ATW). More information is available through the *Doc*'s Friends website at www.b29doc.com/rides.

RETIRED AIRLINE PILOT SOLD ON SAFETY OF SCHWEISS DOORS' BIFOLD LIFTSTRAP DOORS

Ray Cook is a retired American Airlines pilot of 40 years, who now winters in Lake Placid, Fla., and spends his summer days at his home in Spring Grove, Ill. He has Schweiss Doors bifold liftstrap doors on hangars at both locations.

If you ask him what he thinks about cable lift doors, he'll tell you that he would never have another one. His first bifold door was already on a hangar he purchased in Illinois; it had a 60-foot by 16-foot door that came tumbling down hard. It had only four cables to lift the heavy door. He replaced it with a new bifold liftstrap door with six liftstraps.

"I chose a bifold liftstrap door over a hydraulic door because I simply like the simplicity of operation and the automatic features on it," Cook says. "When I fly by, I hit the remote and by the time I land and taxi, the door is open. If I were to build another hangar, I'd buy another Schweiss door. It's probably one of the best doors out there."

Cook has quite a selection of planes that he totally restored from what he described as junk condition to mint condition. In Florida, he hangs a 1968 Piper PA-18-150 Super Cub on Tundra Tires; a 1959 Piper PA-18 on floats; and a 1946 Piper J-3 Cub. His hangar in Illinois is home for his 1958 Cessna 175 and Taylorcraft BC-12D. His hangar, built by Worldwide Steel Buildings, is 52 feet by 50 feet with a Schweiss 50-foot by 16-foot, 6-inch bifold liftstrap door equipped with a walk-through door, auto latches and remote opener. Worldwide Steel also installed the door.

"I fly my planes for pure enjoyment," Cook says. "Here at southcentral Lake Placid, Fla., there is lake after freshwater lake where you can spend hours just hopping from one lake to another looking for alligators or a bunch of places to park on a beach and eat. I was born and raised in Illinois where my dad taught me to fly and where I soloed on my 16th birthday in the

same Cessna 175 that I still own."

About 15 years ago, his door up north was damaged beyond use after the upper limit switch failed. He says when he called Schweiss Doors and explained the issue, they treated him well and cut him a real good price on a brand new six-strap bifold door and installed it during the dead of winter, in freezing-cold January weather.

"When I was replacing my door up north, I checked with one other manufacturer, but decided on Schweiss because they were really easy to work with," Cook says. "When I bought my door in Florida, I didn't want it for six months. The door and building were on the books to arrive here, but the building delivery came way before I wanted it, so it sat on the ground for about six months. Schweiss was really good about holding off delivery of the door until the building was up."

Schweiss Doors is the premier manufacturer of hydraulic and bifold liftstrap



Ray Cook has two hangars with Schweiss Doors bifold liftstrap doors. This hangar at his winter home in Lake Placid, Fla., has a 50 foot by 16-foot, 6-inch Schweiss door. Outside his hangar is his 1968 Piper PA-18-150 Super Cub on Tundra tires; a 1959 Piper PA-18 on floats; and his 1946 Piper J-3 Cub is inside the hangar. (Courtesy Schweiss Doors)

doors. Doors are custom made to any size for any type of new or existing building for architects and builders determined to do amazing things with their buildings, including the doors. Schweiss also offers a cable to liftstrap conversion package. For more information, visit www.bifold.com.

Textron Aviation Delivers 8,000th Cessna Citation

Continued from Page 39

such a seamless progression of aircraft with extraordinary capabilities.

"The Citation is one of the most functional and reliable brands in the general aviation industry and I, along with the members of our flight department, congratulate Textron Aviation on the delivery of its 8,000 Citation aircraft," said Jim Hagedorn, chief executive officer of Scotts Miracle-Gro, a personal owner of the Citation CJ4, and former U.S. Air Force F-16 pilot. "Reaching this milestone is a credit to the Cessna brand, which represents quality, design and

attention to the entire flying experience – all things we were looking for as we add to our fleet of business jets."

Cessna Citation Innovations

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FAA ADMINISTRATOR STEVE DICKSON RESIGNS EFFECTIVE MARCH 31

FAA Administrator Steve Dickson told his team on Feb. 16 that he will cut his five-year term short, and resign on March 31. He stated that after many challenges and successes, it was time for him to return to his family in Atlanta.

On Feb. 17, the FAA published the following letter by Dickson:

Letter from Steve Dickson to the Workforce and the American Public

To the workforce and the American public;

By now, most of you have heard that I will be stepping down as FAA Administrator as of March 31. As I expressed to FAA employees in an email sharing my decision, it's time for me to go back to Atlanta, where my wife, Janice, and my family have been keeping a light on for me. It started as a porch light, but it's become a searchlight, calling me home.

As I also told the nearly 45,000 FAA employees, I am tremendously proud of the work we've accomplished over a very short time. We put this agency on firm footing to excel and prosper in the 21st century and beyond. We made, and we continue to make, our global aviation

system safer from the hard lessons learned from the 737 MAX; we kept the skies open and safe despite tremendous odds when COVID-19 shut down the global transportation network, and we continue to make sure the safety of the aviation industry and the insatiable desire for connectivity can coexist.

And despite all of the crises, this dedicated workforce shared my vision for modernizing our approach to safety and revitalizing and reinvigorating our workforce, in part through our Flight Plan 21 initiative, which is now well underway. We're safely integrating exciting new forms of transportation – drones, flying taxis, automated aircraft and spacecraft, to name a few. I'm not exaggerating when I call this the most exciting time in aerospace since the advent of the jet engine, and maybe even the Wright Brothers.

I said hello to many intelligent and diverse new people in our workforce, and said goodbye to too many wonderful souls, taken from us much too early by COVID-19.

I'm particularly grateful for the time I've spent with the next generation, who will lead us into the future. You can't help but feel hope for humanity when you see

their unbridled optimism for what's possible in an equitable world, and where we might travel together as a nation in the future. Ad astra – to the stars!

Please know that although I will leave the FAA at the end of next month, I will always be an advocate for the agency's work and our shared commitment to aviation safety.

-Steve Dickson

AOPA's Report:

By Jim Moore

Dickson was appointed in 2019 to lead the agency that administers the largest, most complicated, and safest national airspace system in the world. He faced challenges from his first day on the job, including fallout from the grounding of the Boeing 737 Max after the second of two of the new airliners crashed weeks after the first, killing hundreds of people and putting the future of the world-leading aerospace company that made them in doubt.

Dickson's efforts to restore the agency's credibility as a conscientious safety regulator figured prominently in media coverage of his departure, but his leadership in approving the return of that aircraft to service (including personally flying a 737 Max prior to the agency signing off on modifications to the aircraft) was far from his only achievement, or challenge. The coronavirus pandemic brought air travel to a halt worldwide, and Dickson cited that among the chief reasons for his departure in his message to FAA staff.

"Over the past several years, my family has been a source of tremendous encouragement, strength and support," Dickson told FAA employees. "Nevertheless, after sometimes long and unavoidable periods of separation from my loved ones during the pandemic, it is time to devote my full time and attention to them."

A U.S. Air Force Academy graduate who flew McDonnell-Douglas F-15s during his military career, Dickson later went on to Delta Air Lines to serve as a line pilot and later as a senior executive. He worked at Delta for 27 years before retiring from his post as senior vice president of global flight operations. During his tenure leading the FAA, Dickson had many hot-button issues reach his desk, including one with a direct effect on general aviation – when the agency began requiring a letter of deviation authority (LODA) from owners of experimental, primary, and limited category aircraft in order to give or receive flight instruction



FAA Administrator Stephen Dickson, who has served in his role since July 2019, will resign on March 31.

(Courtesy FAA)

in their own aircraft. The move was sharply criticized by AOPA and the Experimental Aircraft Association, among others – including Dickson himself:

"Let me start out by addressing an issue that is a source of frustration for many of you, and for me as well," Dickson said during his Meet the Administrator session at EAA AirVenture in Oshkosh, Wisconsin, on July 29. "It's a four-letter word spelled LODA... I'm not any happier about this situation than you are."

A more recent problem with causes distinctly external to the FAA offered Dickson another chance to speak up on behalf of fellow pilots: leading the FAA's response to the potential danger to aviation safety posed by the activation of 5G C-band wireless networks.

Dickson briefed Congress February 3 on the agency's progress toward resolving the activation of those new wireless networks that rendered radar altimeters, a critical safety device installed on thousands of aircraft, unreliable for use in precision navigation in bad weather. Again, the military and airline veteran kept GA in mind:

"We recognize that some communities and operations have been affected because we have not been able to fully mitigate interference risk," Dickson told a congressional committee, pledging to continue leveraging the newfound spirit of cooperation from the wireless industry (which had previously resisted years of repeated pleas from aviation stakeholders to delay activation pending hazard mitigation), leaving criticism of the Federal Communications Commission and the wireless industry to those congressional

Continued on Page 43

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AOPA Announces 2022 Flight Training Experience Winners

Honoring the nation's best in flight training and education, the Aircraft Owners and Pilots Association (AOPA) announced the 2022 You Can Fly Flight Training Experience Award winners during a ceremony at the Aerospace Center for Excellence in Lakeland, Florida, on Feb. 9. The event took place at the annual Redbird Migration flight training conference.

In the Pattern flight school from Denton, Texas, took home top honors as the best overall flight school and was also named the winner from the Central Southwest Region. In just three years at Denton Enterprise Airport (KDTO), In the Pattern has built a solid reputation as an outstanding business with 12 airplanes, seven instructors, and rave reviews. The school lives up to its motto of "Experience Aviation."

Great Lakes Regional winner Ambyr Peterson of Minneapolis, Minnesota, took home top honors as the nation's best-certificated flight instructor (CFI). Based in the Twin Cities, Peterson is not only an outstanding CFI, she has a knack for helping other instructors get the best results from their teaching.

"These awards allow us the opportunity to recognize the very best in flight training across the nation," said Elizabeth



Denton, Texas, Flight School, In the Pattern Owner Sherman Gardner (far right) welcomes everyone into his "community" of flight instructors, students, and pilots who enjoy the camaraderie of his friendly flight school. (Courtesy AOPA)

Tennyson, executive director of AOPA's You Can Fly initiative. "Flight schools and CFIs are our front-line ambassadors to protect and grow general aviation, and these professionals are responsible for molding our next generation of pilots. It's rewarding to see aviation leaders dedicated to delivering excellent training, and setting an outstanding example for new and future pilots."

Regional winners in both the flight school and CFI categories were honored for providing a high level of service to

their students, based on responses to the 2021-2022 AOPA You Can Fly Flight Training Experience Survey. The 2021-2022 survey garnered nearly 8,000 submissions, including 1,740 recommendations for top CFIs and 949 for best flight school.

Since 2012, AOPA has collected feedback from recent student pilots, and certificated pilots who have received instruction within the past year, about their experiences and the quality of instruction from their flight school and

CFI. After analyzing the survey results, the You Can Fly team is able to identify the very best aviation educators and flight-training businesses. AOPA also uses the data from the survey to provide "report cards" to flight schools and CFIs, helping schools and instructors understand their strengths, as well as opportunities for improvement.

Based on AOPA's extensive research, the Flight Training Experience Survey considers four key factors of optimum flight-training: educational quality; focus on the customer; community; and information sharing.

You Can Fly is AOPA's umbrella program to get more people into the air and keep them safely there. It comprises four pillars: supporting flying clubs, encouraging best practices in flight training, getting lapsed pilots back in the air, and helping high school students learn more about careers in aviation.

The AOPA You Can Fly program is entirely funded by charitable donations to the AOPA Foundation, a 501(c)(3) organization. Visit the program's website to learn more about supporting You Can Fly.

To get the entire list AOPA's 2022 Flight Training Experience Winners, visit the AOPA website (www.aopa.org) or directly at aopa.org/FTEawards.

FAA Administrator Steve Dickson Resigns

Continued from Page 42

leaders who were present.

The FAA has reported more progress since, evident on a 5G dashboard the agency created online to keep all stakeholders informed.

"We are proud to have worked with Administrator Dickson on several important initiatives, which have kept the skies safe for our 300,000 members," said AOPA President Mark Baker. "I have worked closely with Steve for several years on key aviation issues both in his leadership role at the FAA and serving together on the NextGen Advisory Committee. Steve has been fully committed to the FAA's mission and his service to our nation in both the United States Air Force and as administrator of the FAA are appreciated. We wish him well."

Dickson said in his resignation announcement to FAA staff that the agency had "done the hard work to reinvigorate our safety culture" and "overcome some of the toughest challenges the agency and the aerospace sector have ever faced... although my heart is heavy, I am tremendously proud of everything we have accomplished together over the

past several years."

Transportation Secretary Pete Buttigieg praised Dickson's leadership in a statement released soon after the FAA chief's pending departure became public:

"Steve has been the FAA's steady and skilled captain, and his tenure has been marked by steadfast commitment to the FAA's safety mission and the 45,000 employees who work tirelessly every day to fulfill it. We are grateful for his years of service to our country and his lifelong dedication to making sure our aviation system is the best and safest in the world."

From EAA:

"We thank Administrator Dickson for his service and dedication to the FAA as well as his attention to general aviation issues that affect a large percentage of our nation's aviation community," said Jack J. Pelton, EAA CEO and Chairman of the Board. "We look forward to continuing our fruitful working relationship with the agency, its leadership, and its many hard-working professionals."

From NBAA:

"Our country has been extremely fortunate to have Steve Dickson as FAA administrator during one of the most challenging periods in the history of the agency," said National Business Aviation Association (NBAA) President and CEO Ed Bolen. "We thank Steve for his leadership, integrity, experience and expertise, which made a profound difference when our country needed it the most. His leadership on critical issues including safety, innovation, workforce and sustainability will leave an enduring legacy."

From NATA:

"NATA thanks Steve Dickson for his service as FAA Administrator and wishes him the best. Both the industry and the agency benefitted from his steady leadership during some of the most difficult situations facing aviation – overseeing certification reform following the 737 Max crashes and the process to safely integrate 5G into the NAS – throughout the most challenging pandemic times. Administrator Dickson's commitment to contin-

uous safety improvement, dedication to industry collaboration, and ability to instill confidence among consumers and the community will serve the agency well for years to come," stated National Air Transportation Association (NATA) President and CEO Timothy Obitts.

From GAMA:

General Aviation Manufacturers Association (GAMA) President and CEO, Pete Bunce, said, "On behalf of the entire GAMA membership, I want to thank Administrator Dickson for his distinguished public service at the FAA. He has been a strong and effective leader, navigating the agency through numerous challenges with skill, courage and wisdom. His work and commitment to improve the safety, health and strength of the U.S. and global aviation system has advanced the agency's resiliency and credibility and built a stronger future framework for safety, innovation, sustainability and growth. We are grateful for Administrator Dickson's service and wish him and his family all the best – blue skies and tailwinds."

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Those who fly in New England are probably aware of Bradley International Airport, but how many of those pilots or aviation enthusiasts know about Global Aircraft Group? It seems to be one of Connecticut's best-kept secrets.

This general aviation business, based at Bradley Airport in Windsor Locks, Conn., offers a unique variety of services that are sure to meet the needs of many industry professionals. The owner, Mark Parry, is qualified to assist with aircraft appraisals, aviation expert witness work, and insurance claims. He offers USPAP appraisals for all aircraft and helicopters, aircraft management, and is a claim adjuster in 48 states.

There are quite a few aircraft appraisers, and there are even more expert witnesses, but Parry can offer both services under one roof! He has been in the aviation industry for years and loves what he does.

"It's such a great feeling to help those who need aviation expert knowledge," said Parry. His positive energy and enjoyment of the business make for the utmost quality in service. Parry has worked on everything from Cessna 150s to commercial jets. He is a member of the Professional Aircraft Appraisers

Organization, the Lawyer Pilot Bar Association, The Organization of Flying Aircraft Adjusters, and the Experimental Aircraft Association. He is also a certified expert witness in all 50 states.

For those attending Sun 'n Fun 2022, please keep Global Aircraft Group in mind for your appraisal and expert witness needs. Insurance claims can also find a home under this Connecticut roof! There are no travel fees in New England to look at your asset. This also includes White Plains, N.Y. and Tetaboro, N.J. Their associates can cover all your needs in all 50 states and internationally 24/7.

Please join Global Aircraft on their podcast "Contrails and Cocktails" for a look at aviation history and a chance to post your business. Global Aircraft thanks the business consultants at ABCI for their help on this project. Global Aircraft will be having a free giveaway of aviation art or a pair of men's or women's Tecova cowboy boots at the end of each session. If you would like to feature your aircraft on their YouTube channel, please contact Mark at mp5983@msn.com.

For more information, visit www.globalaircraftgroup.com or call 855/642-5247.

NORMAN HAPP APPOINTED AS ATP'S CHIEF EXECUTIVE OFFICER, AND TO THE BOARD OF DIRECTORS

ATP, the global leader in aviation software and information services, on March 3, announced the appointment of Norman Happ as Chief Executive Officer, and to the ATP Board of Directors. He succeeds Rick Noble who announced his retirement and will transition into a role on the Board of Directors.

"ATP is incredibly fortunate to attract an executive with Norm's experience and reputation as a team builder with a strong track record for growing high-performance companies," said Noble. "His proven ability to work collaboratively with management teams, drive impressive revenue growth and manage the increased complexity of a large-scale, fast-growing software enterprise will be incredibly valuable for ATP as aviation businesses continue to look



Norman Happ has been named as Chief Executive Officer and appointed to the ATP Board of Directors at ATP, a global leader in aviation software and information services.

(Courtesy ATP)

for new and better ways of meeting their business needs. I'm excited to see Norm and the team continue to transform the aviation operations industry."

Happ has more than 25 years as a

Continued on Page 47

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GOODIES AND GADGETS

One of the truly great things about being an aviation buff is the number of “Goodies and Gadgets” available to play with. Here In Flight USA has collected a few new ones worthy of your consideration.

Aircraft Spruce & Specialty Co. has been the supplier that aircraft builders, owners, pilots, and aviation businesses have depended on since 1965. They carry a wide selection of aircraft parts, building materials, avionics, and pilot supplies, all of which are offered on their website (www.aircraftspruce.com) and in the famous Aircraft Spruce catalog, now over 1,000-pages available for download or for free in print. You can depend on Aircraft Spruce for prompt shipping and competitive pricing on all orders.

AIRCRAFT SPRUCE GEARING UP FOR SPRING WITH PILOT TOOLS

Spring is about to happen and Aircraft Spruce is the place to get ready for some flying adventure. To that end, there is no better time to spruce up your aircraft or hangar or to get your pilot needs in order. While you're enjoying all that flying has to offer this spring, Aircraft Spruce has your back in terms of safety and fun. Here are some thoughts on the matter. Find these and thousands of aviation/pilot items at Aircraft Spruce, www.aircraftspruce.com.

Garmin D2 AIR X Aviator Smartwatch

The latest in the pilot watch line, the D2 Air X10 – a GPS smartwatch with powerful aviation functionality and new features that lets pilots take calls and use their compatible smartphone's voice assistant to send texts, ask questions and so much more. These connected capabilities join the robust set of dedicated aviation tools in Garmin's D2 Air series, including: weather, direct-to navigation capabilities, airport information, automatic flight logging, Pulse Ox1 and more – all delivered directly to the watch. With a full suite of health, wellness and fitness features and a battery life of up to seven days, the D2 Air X10 is the perfect smartwatch for life in and out of the cockpit.



- Phone calls from the watch: Make and take phone calls with the press of a button; no more missing calls while digging through your pockets or fumbling through your flight bag.

- Voice assistant control: Hands full? No problem. Compatible with Siri, Google Assistant or Bixby, pilots can use their smartphone's voice assistant to send texts, ask questions, control compatible

smart home devices and more.

A Dedicated Flight System on Your Wrist: The D2 Air X10 includes preflight, in-flight and postflight features and tools to assist pilots in navigation and enhance situational awareness. Direct-to navigation lets pilots navigate straight to an airport or waypoint in the preloaded worldwide database directly from the watch or choose the Nearest function to activate a direct course to a nearby airport. The instrument-like horizontal situation indicator (HSI) course needle makes it easy for pilots to see if the aircraft is left or right of the desired flight path, and the barometric altimeter can alert them when they've reached their desired altitude. Aviation alerts like time, distance, altitude and a fuel timer are also available on the D2 Air X10 during flight.

Airport Information: Know what's ahead with airport information like runway orientation and wind components, runway lengths, airport frequencies, and traffic pattern altitude—all preloaded and easily accessible from the watch. The D2 Air X10 also offers aviation weather reports, including METARs and TAFs that allow pilots to see winds, visibility and barometric pressure and more before takeoff. And stay on schedule with a UTC hand on the watch face, which can also display and help pilots manage multiple time zones, including Zulu time.

Designed for all-day wear, the watch comes in black or ivory and sells for \$549.99. Visit Aircraft Spruce's website for all the details.

Stadia AGL Lidar Landing Altimeter

Aircraft Spruce Introduces Stadia

Stadia is an AGL altimeter landing aid that uses LIDAR to measure the aircraft's height above ground with incredible precision. Stadia connects to the

pilot's smartphone via Bluetooth and alerts the pilot to their altitude with audible cues.

Stadia has a maximum altitude of 130 feet, and a rechargeable battery life of up to 12 hours. Per the manufacturer: “Because Stadia is considered a temporary attachment it is not subject to FAA regulatory purview.”

The unit sells for \$545.00.

Uavionix AV-30-C Primary Flight Display - Certified “Retro-Fit” Your Cockpit with a Digital Upgrade.

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Visit the Aircraft Spruce website for features and compatibility notes.

The unit is on sale from \$399.00 to \$376.95.

Happy Springtime flying from Aircraft Spruce!

Visit In Flight USA for the latest aviation news...

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AMELIA EARHART ARTIFACT WORTH (MUCH) MORE THAN GOLD

By Jill W. Tallman
AOPA

A flight cap worn by Amelia Earhart dating to her 1928 crossing of the Atlantic Ocean was auctioned Feb. 26, and the final price was \$825,000.

Heritage Auctions of Dallas, the company that conducted the sale, had valued the cap at \$80,000 or more. The buyer wished to remain anonymous.

The brown leather cap with beige trim had belonged to a Minnesota family since 1929. The previous owner, Arthur Twigg, said his mother, Elinor B.

Continued on Page 49



A flight cap worn by Amelia Earhart dating to her 1928 crossing of the Atlantic Ocean was auctioned Feb. 26 for \$825,000.

(Courtesy Heritage Auctions and AOPA)

Norman Happ

Continued from Page 44

transformative leader in the software and SaaS industries. He was previously the CEO of EZ Texting, a business-messaging platform where he led a complete business transformation resulting in a significant acceleration in growth, profitability, and overall industry leadership. Happ held executive roles across sales, customer support/success and marketing at Intuit where he was instrumental in transforming the Small Business Ecosystem from individual software solutions to the industry's most powerful SMB SaaS platform. Beyond Intuit, Happ held executive leadership roles at Evernote and H&R Block and is the founder of two technology-backed ventures. He is also credited with being an early designer and evangelist of SaaS technology and business models and the designer of breakthrough data science algorithms related to revenue and customer retention. Happ is also the holder of two U.S. Patents.

He holds a bachelor's degree from George Mason University's Schar School of Public Policy and Government.

"ATP is an established leader in the aviation space with a great heritage, brand, product portfolio built by an incredibly passionate team. With the partnership with Accel-KKR and ParkerGale, we are well-positioned to build an aviation operating platform to serve the evolving and complex needs of the industry," said Happ.

ATP's products and services support more than 75,000 aircraft maintenance professionals worldwide. As a global company, ATP has more than 7,500 customers in 137 countries and partnerships with over 90 OEMs.

"The Board is very excited to have

Norm on the team and we want to thank Rick for his many contributions to the Company as CEO, and we look forward to our continued collaboration with him as a Board Member," Dean Jacobson, Chairman of ATP's Board of Directors and Managing Director at Accel-KKR added. "Rick's experience and a seasoned leader of companies and builder of teams has been a key component to ATP's growth, and we know that the Company will continue to benefit from his industry knowledge, guidance and insight."

Accel-KKR is a technology-focused investment firm with over \$11 billion in capital commitments. The firm focuses on software and tech-enabled businesses, well-positioned for topline and bottom-line growth. Visit accel-krk.com to learn more.

ParkerGale Capital is a private equity firm based in Chicago that invests in founder-owned technology companies and corporate carve-outs where the firm's operating resources can have a meaningful impact on the outcome. ParkerGale also hosts the Private Equity FunCast available on iTunes, Google Play, and wherever you get your podcasts. To learn more, visit www.parkergale.com.

ATP is the leading provider of aviation software and information services. ATP's innovative product line, including Flightdocs, Aviation Hub, ChronicX, and SpotLight, reduces operating costs, improves aircraft reliability, and supports technical knowledge sharing and collaboration in all aviation and aerospace industry sectors. ATP is headquartered in Bonita Springs, Florida, with locations in Toronto and Brisbane, Calif. For more information, visit www.atp.com.

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NORTHWEST AVIATION CONFERENCE AND TRADE SHOW COMES BACK

Job Seekers Find Warm Welcome

By Alicia Herron, AOPA

The Northwest Aviation Conference and Trade Show returned to the Washington State Fairgrounds in Puyallup after a one-year hiatus forced by the coronavirus pandemic and buzzed with vendors, visitors, and airlines looking to hire.

The event was held over the final weekend in February, returning in full force for its 38th edition.

Headline sponsors Alaska Airlines and Horizon Air were well-represented, their booths busy with employees conducting meet-and-greets and, for the right candidates, scheduling interviews.

"We've had a steady stream of qualified, quality applicants. There's a captive audience here in Puyallup... because the

pilots who show up really want to work for us," said Ron Limes, chief pilot for Alaska Airlines' Seattle-Tacoma International Airport base. With Alaska Airlines headquartered in Seattle, Scott Day, system chief pilot, noted that "it's nice to be able to support the local aviation community."

AOPA President Mark Baker addressed the crowd on Saturday afternoon during the AOPA Pilot Town Hall. He shared successes within the association like the *AOPA Pilot* magazine redesign, the AOPA Air Safety Institute's influence on the low accident rate, the successes of the You Can Fly program, as well as the potential of the new AOPA Flight Training Advantage app. Baker highlighted advocacy wins in the region at airports like Boeing Field/King County International Airport, Renton

Municipal Airport, and Glenwood Springs Municipal Airport, where AOPA helped save hangars, protect the only public-use seaplane dock within 1,000 nautical miles, and maintain the length of the runway.

Baker also teased future AOPA fly-ins, noting that while the exact location is still a mystery, one of this year's fly-ins will likely be in the Pacific Northwest.

In the Q&A session, several questions focused on the rising concerns around 100LL, and the real and threatened ban at some local airports. When asked what this transition looks like, and what obstacles the industry faces, Baker said, "We have to recognize that general aviation, unfortunately, is the largest polluter of airborne lead." An amount, he noted, that "is very, very small, but one

we need to get rid of"

"I don't want us to run out of 100LL and stop distributing that until we have a replacement that's economical, and that's why we all signed up for 'no later than eight years,'" continued Baker, referencing the recent initiative for a non-leaded alternative fuel by 2030 led by AOPA and the General Aviation Manufacturers Association. "We believe that it's going to happen faster than that."

He went on to state that pilots "are going to have a safe fuel first, and a safe transition, that keeps low lead available until we have a solution."

The conference is scheduled to return to Puyallup in 2023. Learn more at www.aopa.org or at www.washington-aviation.org.

Amelia Earhart Artifact

Continued from Page 47

Twiggs, was at the Cleveland terminus of the 1929 Women's National Air Derby – the all-female cross-country air race that would be tagged the "Powder Puff Derby" by humorist Will Rogers. Earhart was one of the pilots in the race, and she placed third overall.

Elinor Twiggs and her friends ran onto the field at the terminus to greet the pilots as they landed. A "young man" presented Elinor Twiggs with the helmet, saying he had found it on the ground near Earhart's Lockheed Vega. "The name A Earhart was on the inside the cap... The cap remain[ed] in our family as part of my

mother's possessions," Arthur Twiggs said in a letter intended to authenticate the cap.

Heritage Auctions said the cap matches one that can be clearly seen in multiple photos of Earhart taken days before she concluded a trans-Atlantic flight in a Fokker F.VIII flown by Wilmer Stultz and Lou Gordon.

The handwritten name "remains wonderfully bold, and the leather of the sleek cap still smooth and supple as it approaches its centennial," Heritage Auctions wrote in the auction listing. "An inch-long tear just below the left ear communications pocket is the only condition issue worthy of note."



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Looking for an aviation-centered educational program for a single student or a whole class? The American Aviation Historical Society (AAHS) is proud to offer its PLANESPOTTER website to educators and individuals who want to help in an important aircraft identification project!

AAHS has digitized hundreds of thousands of aviation photos, taken by our members over the last 65 years. These images need to be documented! AAHS has developed AAHSPlanespotter.com to post images online to view and allow users to enter information such as aircraft type and manufacturer (*see screen capture, below*).

College programs are now using this web application for students as a class assignment and extra credit, while individual users across the world are contributing to this important effort. Do you have a passion for a particular aircraft genre? AAHS Planespotter can provide users with types of aircraft images, such as 'jets', 'vintage' or 'commercial aviation'. All that is needed to start is an email address!

The website tracks how many images have been documented by each user, while AAHS volunteers help with QC and fact checking. AAHS Planespotter provides tutorials on how to identify aircraft, as

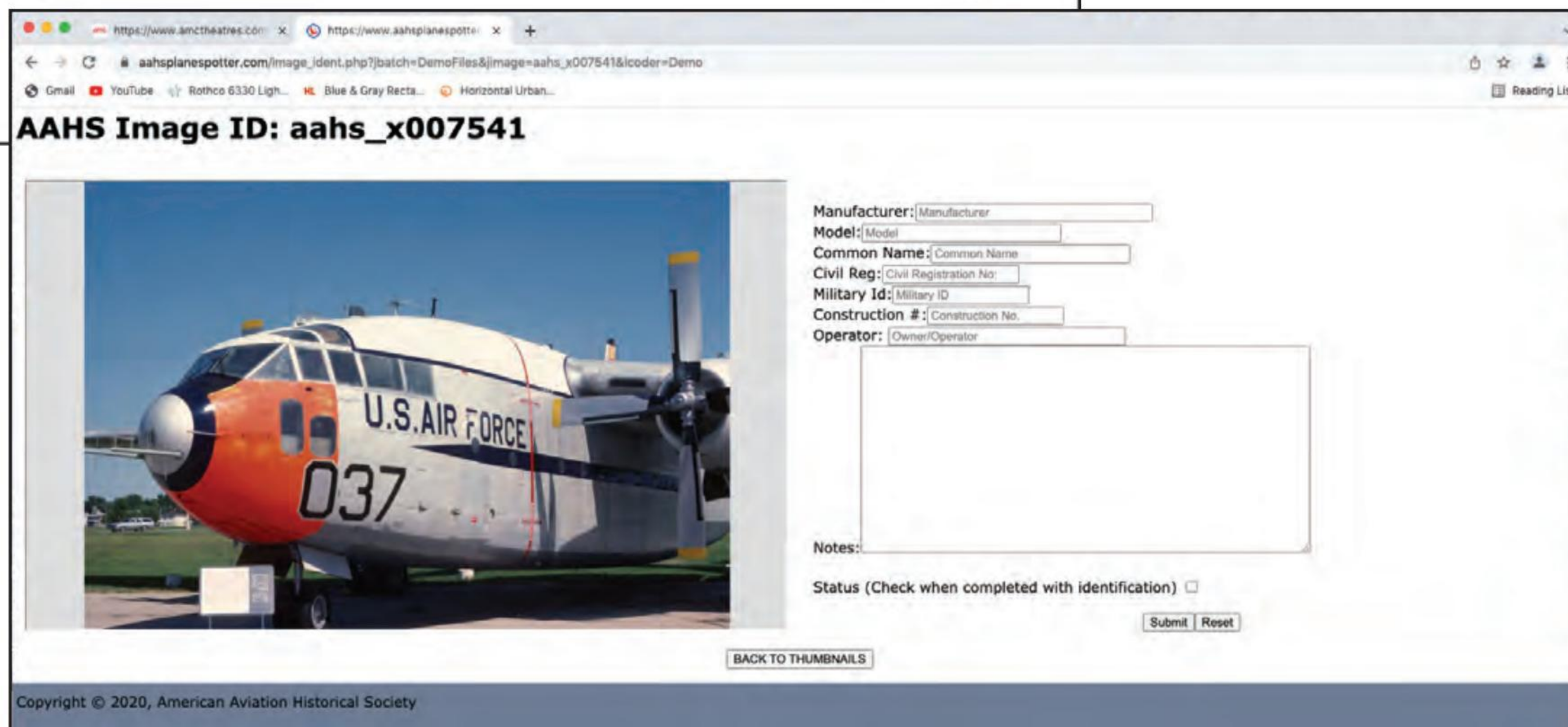
well as helpful online resources to help hunt down aircraft registration numbers, and military IDs.

Once images are documented they are added to the AAHS image database, and posted to the AAHS image website, where they are available to the public for search and viewing.

Have questions? Contact the AAHS Planespotter Administrator, Steve Riter, at: ivo-lunteer@aaahsplanespotter.com, or call the

AAHS office at 714-549-4818.

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