



The ThunderWord

Thunderbird Field EAA Chapter 1217

July 2023

Scottsdale, Arizona

PRESIDENT'S CORNER

Greetings from my corner of the hangar! Last month there was no meeting due to our meeting room being unavailable. Finding free meeting space now rivals finding speakers as one of the most challenging parts of running the chapter.

I had the good fortune to be able to attend the Wings and Wheels Fly-In in Cottage Grove Oregon last month. It is put on by the Oregon Historical Aircraft Association, a group that showcases early homebuilt aircraft in Oregon. A historical bit of information was that Oregon is where the first homebuilt airplanes were made for personal use. The early builders were instrumental in getting the laws passed that allowed us to be able to build our own planes today.

I went up on Friday so I would have plenty of time to tour the Museum hangar that houses seven planes and has a huge collection of articles, plans, books and memorabilia of early homebuilding and the antics of the pilots who owned them. The big highlight of the trip was seeing my Dad's Story Special that the museum had restored. Over the past five years I had the good fortune of helping to provide the most important part of any project. On Saturday there were around twenty planes that flew in as well as fifty cars on display. There were some really cool planes like a Ranger powered 1930 Great Lakes, Tec Rankins Menasco Great Lakes, a Monocoupe Dart, and a 1929 Bird that used to belong to Melba Beard from right here in Scottsdale. Really nice people combined with good food and perfect 75-degree weather made for a fun weekend. If you are ever driving up I-5 be sure and stop in check it out. Even if your schedule doesn't fall on a day they are open someone

will come out and show you around. That's just how people are from up there.

I am once again starting my pilgrimage to Oshkosh next week to get out of the heat and enjoy the EAA experience. If you are going to be there, be sure and come to our 24th Annual Chapter 1217 Happy Hour. Its a great way to compare sightings and have a glass of Spotted Cow, the local ale. Aussie John is bringing his Alaska buddies down with him so it should be really entertaining!

See you around the aerodrome!

Curtis

JULY CHAPTER MEETING

There is no scheduled meeting of Thunderbird Field EAA Chapter 1217 for July. Besides because of the heat, a lot of people are out of town and it is bad when a speaker travels to our meeting and only a handful of members are present. Rest assured we will be back in full force at the August meeting. We will also have our Birthday Cake a little late!

AIRVENTURE HAPPY HOUR

It has now been a 24-year tradition of Chapter 1217 members attending the Oshkosh AirVenture Fly-In to get together one evening and compare sightings and stories. This year on the first day of the Fly-In, we will have our annual AIRVENTURE HAPPY HOUR AND FISH FRY at WENDT'S ON THE LAKE. Come and join us for some traditional Wisconsin food and libations. That's on Monday, July 24th around 7 pm.

Wisconsin food and libations. That's on Monday, July 24th around 7 pm. We have a reserved section and there will be no waiting for hours like at the other restaurants in the area



CUBCRAFTERS NEW ELECTRIC LIFT AUGMENTING SLATS

CUBCRAFTERS NEW STOL SYSTEM

CubCrafters announced it has begun flight testing of its new Electric Lift Augmenting Slats (ELAS), which were engineered to increase wing lift. The new technology is expected to provide up to a **50 percent reduction** in takeoff and landing distances. The ELAS technology was in the late stages of prototyping in May and is now in the early testing stages.

The ELAS technology was impressive enough for NASA to award CubCrafters with two research grants to partially fund the project. The new slat technology was given U.S. patent 10,926,868 and will be used for broad application on many fixed-wing aircraft. It combines electric ducted fans with leading-edge lifting slats that accelerate airflow over the wing. The testing will verify the reduction in takeoff and landing distances with the slats installed.

CubCrafters new slats could reduce STOL distances by up to 50 percent

By increasing the velocity of airflow over the top surface of the wing, the slats will lower the air pressure above the wing, causing an increase in the lift generated. The new ELAS system will also allow the wings to achieve better aerodynamic performance at slower

speeds and higher angles of attack. This will reduce the stall speed of the aircraft and improve its slow-speed handling characteristics.

ELAS will enable fixed-wing aircraft to achieve shorter takeoff distances, steeper approaches, slower landing speeds and minimal ground roll. The leading-edge slats with multiple integrated electrical duct fans added in allow the ELAS to create a higher energy airflow through and around the slats. This airflow will boost the lift by a factor of 1.5 to 4.0 depending on the airfoil geometry and flight conditions.

CubCrafters CEO Patrick Horgan said: “With comparatively low acquisition and operational costs, ELAS is a disruptive concept that carries unprecedented benefits, including enabling fixed-wing aircraft to operate outside of designated airports and manage much higher payloads versus comparable eVTOL aircraft -- all while enhancing safety”.

The slats can be added to an existing airframe or built into the wings during manufacture. The new slats also have the ability to retract when not in use. The technology is being tested in collaboration with the Oklahoma State University School of Mechanical and Aeronautical Engineering.

Continued on page 3

“Extensive computer simulations and wind tunnel testing, both at Oklahoma State University and our own facilities, are being used to refine the design in preparation for a comprehensive test flight program using a CubCrafters X-Cub test airplane configured with the ELAS prototype system,” Horgan said.

“As our research and development continues, ELAS may prove to have the ability to dramatically enhance the short-field performance capabilities of fixed-wing aircraft in general Aviation as well as Commercial Aviation”.



Crew for the GeeBee

GEEBEE QED FINDS NEW HOME

A few meetings back Carter Teeters talked at a Chapter meeting about his adventures flying the GeeBee QED and what was going on with it. The rumors are true! The QED has a new home with the team at Mid America Flight Museum.

It made a very long road trip from Everett Washington to Urbana, Ohio where the North team will be going completely through it.

PARIS AIRSHOW SDL NEWS

At the Paris Air Show, Elixir Aircraft announced that Scottsdale Arizona USA based Sierra Charlie Aviation has ordered more than 100 Elixir Full Glass Cockpit 100HP, part 23 aircraft, 50 on option.

Both Elixir Aircraft and Sierra Charlie Aviation are driving the charge in changing the flight

training industry. With the high demand for Airline pilots, the Elixir Aircraft will be integrated into Sierra Charlie’s popular Aviator Career Program. The program is designed and focused on training the very best pilots, taking students with no past flying experience

It is well known for having some issues that need to be dealt with, but in the capable hands of Doug Smith it will be airworthy again. Plans are to do the work in Ohio then fly it to the museum’s facility in Mount Pleasant Texas.

He has a hand-selected group of very talented people to put on it. We can’t wait to see her back in her previous glory. Keep an eye on this one

Continued on page 4



Plane that Scottsdale flight school ordered

through all certifications and ratings. However while other programs focus on speed and rushing students through a standard curriculum, Sierra Charlie's Aviator Program follows a structured syllabus that considers different learning styles.

"Like Elixir Aircraft, we pride ourselves on innovation and safety, and being ahead of the curve. This means providing our students with best and safest tools out there to ensure the highest quality education and training. The 4th generation Elixir is definitely one of these tools," says Scott Campbell owner of Sierra Charlie. **

"The simplicity, yet strength of the airplane like the components built with the OneShot technology is a game changer. Less than 1000 references in the whole plane and half a day-100hr maintenance checks means my

Elixirs will be flying a lot. And my students already fly a lot!" adds Scott Campbell.

"Speaking with Sierra Charlie, it's clear both our businesses are focused on commercial and industrial development. We know the demand for the global aviation market, training aircraft and pilot shortage. We aim to work together to do whatever we need to do to meet that demand," states Arthur Leopold Leger, CEO of Elixir Aircraft.

Mike Tonkin, Elixir's Head of Worldwide Sales explains: "Sierra Charlie's order comes off the back of recent Elixir orders by several large flight training organizations around the world including the Airbus Flight Academy and the Mermoz Academy. There are more orders to come and our new 12,000m² factory at La Rochelle airport and an assembly facility in Florida, USA is a key part of this growth."

Continued on page 5

“Knowing Scott [Campbell] and his team for years and their professionalism when it comes to flight training, we are thrilled about their large fleet order. It will have a positive impact on their students, but also help feed the US part 121 and 135 operators. It’s full throttle for Elixir in America.” says Dr Scott Firsing, Elixir Aircraft’s North America Sales and Business Development Director.

The Elixir 912iS was originally certified Part 23 by EASA in early 2020. FAA certification is pending expected in the near future.

About Sierra Charlie Aviation

Sierra Charlie is a part 161 flight school located in Scottsdale Arizona with over 60+ instructors. We have two bases: Scottsdale Airport and Chandler Municipal Airport.

We at Sierra Charlie have a passion for aviation and it shows. We have grown to become a national award-winning flight school, supporting students at every stage in their career. Airlines partner with Sierra Charlie Aviation because they know we aim high in our industry. Our training creates well-equipped pilots ready to take on challenges whether in

the sky or in the industry. Moreover, a superb track record for training the safest, most competent pilots in the country, and a commitment to providing a fun family atmosphere that energizes every student and contributes to his or her success.

About the Elixir Aircraft 100HP

The Elixir 100HP is the latest in safety, economy, and technology. Elixir Aircraft offers an aircraft that covers all the needs of a modern flight school while reducing carbon emissions by nearly 70% compared to other old generation aircraft. The standard flight training organization configuration includes a full Garmin avionics suite and are built to withstand the rigors of flight training. Standard safety equipment include: spin resistance; ballistic parachute, AoA indicator; double slotted electric flaps; explosion resistance fuel tank and reinforced oleo-pneumatic landing gear and combined nose wheel, wide track and low center of gravity minimize bounced landings associated with loss of control accidents and runway excursions. The 912iS is powered by the low noise 100 hp Rotax offers with a fuel consumption of around three gallons per hour.



Chapter 1217 founding member Jim Clarks restored Story Special

Thunder Ads



I help aircraft buyers and sellers!
SteveThompson, Carefree, AZ (480)-980-9846
<https://partner91.com/>

EXPERIMENTAL AIRCRAFT CONSTRUCTION

Construction, repair, modification and upgrades www.p1-aviation.com.

KING KT-76 TRANSPONDER & MISC

Transponder, antenna and encoder \$500-,
Continental 0-200 case with data tag and extras.
\$500; Curtis Clark 602-710-4494

ADS-B TRANSPONDER & MISC.

Appareo Stratus ESG ADS-B transponder, Stratus 2i UAT w/WiFi, RAM AV-74(-1) Xsponder blade ant., pre-wired cable harness, GPS WAAS ant., GPS triax cable, \$3,000⁰⁰, Goodyear 500-5 6 ply tire, \$80, 4 Barry engine mounts 94510-41, \$400⁰⁰, Dynon D-10A EFIS w/ remote compass & temp probe, \$2,000⁰⁰, Charlie Spinelli, 206 678-5678, Spinelllic@msn.com

CURTIS F11C-2 "GOSHAWK"

Built by John Pike. R-1340 (600 HP). Less than 120 hours TT since new. Becker com & txpdr, Garmin ADS-B, 20 gal smoke tank, 102 gal fuel, <https://CaptainBillyWalker.com> 480-773-2823

AIRCRAFT TOOLS

I have some aircraft tools that I acquired through a friend. I would like to sell them. Dan Burdett 480-600-2865

LONGEZ AND SONEX

Two airplanes for sale at Thunder Ridge air park (AZ28), a 180hp LongEz and a 120hp Sonex. Contact Bertha Partin at bmpartin@gmail.com

COOL PLANES FOR SALE

Only flown by little old ladies to church on Sundays.

[HTTP://CAPTAINBILLYWALKER.COM/AIRCRAFT-FOR-SALE](http://CAPTAINBILLYWALKER.COM/AIRCRAFT-FOR-SALE) /[AIRCRAFT-FOR-SALE](http://CAPTAINBILLYWALKER.COM/AIRCRAFT-FOR-SALE)

1960 BELL 47 HELICOPTER FOR SALE

Chuck Millar, owner of Millar Field (2AZ4), is selling his helicopter (like in M*A*S*H). Lycoming engine 132 SMOH. Best offer CRMUSA@gmail.com

THATCHER CX-4 PLANS & MANUAL

New, never used, donated to our Chapter.
Curtis 602-710-4494

RV-4 PARTIALLY BUILT KIT

\$13,500 Lycoming O-290-D2, kit for \$3,000 or \$16,000 for both. Wanda Refrow 602-843-9862 w7lov@cox.net

LYCOMING O-360 A1A

Engine built up for RV project never completed. Invested \$50,000. Price very firm at \$25,000. Martin Del Giorgio delgiorgiopels@gmail.com

SERVICES, ETC.

High-Perf Tailwheel & Akro Instruction

Pitts, Skybolts, all experimental tailwheel aircraft. 46-year's experience. Scottsdale Airport, Budd Davison, Plus-5 Aviation, 602-738-2045, <http://www.airbum.com/www.airbum.com>, e-mail to: buddairbum@cox.net

OIL COOLER REPAIR AND SALES

Chapter member owned. R & E Cooler Service 800-657-0977 www.oilcoolersvs.com

FLIGHT INSTRUCTION, ETC.

Airplane: Private: Commercial, Instrument, ATP, ME; and Lighter than Air: Private and Commercial. Fred Gorrell 602-942-2255, 602-418-2045, fgorrell2@cox.net

ANNUALS, RESTORATIONS, FABRIC WORK

Eloy Airport Julie White 520-466-4157

Want to see your aircraft-related ad in the Thunderword?

Send an E-mail to: EAChapter1217@aol.comHow