



# The ThunderWord

Thunderbird Field EAA Chapter 1217

June 2021

Scottsdale, Arizona

*HAPPY BIRTHDAY*

*THUNDERBIRD FIELD EAA CHAPTER 1217*

## **PRESIDENT'S CORNER**

Greetings from my corner of the hangar. Last month Chapter VP Terry Emig was able to get Carter Teeters to spend an evening with us talking about his aviation adventures. Besides all the warbird flying he has done he had a real informative presentation on flying the Gee Bee QED replica built by Jim Moss.

His first flight videos from the GoPro cameras mounted in and around the plane on its first flight had everyone paying attention. He did an in-depth analysis of the risks that were involved and what they attempted to do to mitigate the risk. It was interesting to hear straight from the test pilot's mouth that that nothing was routine and there were some scary moments.

This month we celebrate twenty-three years of being an EAA Chapter and all the interesting people that have been part of it. Hopefully everyone can make some time in their busy schedules to come to the meeting, enjoy the presentation, eat some birthday cake and share a few stories with everyone.

This past month has been a whirlwind for me but have completed all my requal-training and am back to flying my weakly lap of America in the mighty Airbus. It feels good to be back flying!

See you around the aerodrome!

*Curtis*

## **JUNE CHAPTER MEETING**

The June meeting of Thunderbird Field EAA Chapter 1217 will be held on Thursday, June

17th, beginning at 7 pm in the Thunderbird Room Scottsdale Airport Terminal building. The address is 15000 North Airport Drive. This month's guest speaker will be John Koplin who is going to talk about space flight. A big thanks to Chapter member John Davis for getting this month's speaker lined up.

Since it is our Chapters 23rd anniversary we will have cake and drinks to enjoy.

Guests are always welcome!

## **SPEAKER BIO**

John Kopplin has worked for 35 years in the aerospace industry on defense, NASA, and commercial space programs. He has worked in positions of increasing levels of responsibility, performing system engineering, integration and operations planning on large space programs including the International Space Station, Iridium, Global Positioning System III, Geoeye2, Mobile User Objective System (MUOS) and the Space network Ground Segment Sustainment (SGSS) program for the NASA Tracking and Data Relay System (TDRS). He has also worked in a marketing and business development capacity. John is an engineering graduate of the University of Oklahoma (BSAE '84). He has worked in the Phoenix area for the past 25 years and is currently employed at General Dynamics Mission Systems in Scottsdale, Arizona

## **AIRVENTURE HAPPY HOUR**

It has now been a 23-year tradition of Chapter 1217 members attending the Oshkosh

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**Bill Unternaehrer brought his Kitfox to the Mayday event**

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 26th around 7 pm.

If you want to plug it into your GPS, the address is N9699 Lake Shore Road, Van Dyne, WI 54979-9703 (920) 688-5231; [www.wendtsonthelake.com](http://www.wendtsonthelake.com). They are located 3.8 miles south of the seaplane base.

### **100 YEARS OF FOURNIER**

Celebrated French aircraft designer Rene Fournier celebrated his 100th birthday in April 2021. Fournier started working life as a ceramicist and supplier of school educational art equipment after a spell in the French Air Force towards the end of WWII, and a year at the Rochefort aeronautical engineering school. But he always harbored dreams of a super-efficient, economical but truly versatile personal airplane powered by the smallest possible engine. Quoting from his lovely, lyrical autobiography *My Dreams and My Aeroplanes*: "My plane I dreamed about would not be like the others; it would be a soaring bird, a bird with long, fine and pure wings; a

poet's plane, designed to float on the air – a glider-plane."

### **RF1**

René began researching and sketching his design in 1947, but was only able to start building it ten years later, aged 36, having quit his ceramic business. Decisively leaving his Touraine roots, for health reasons he decamped to warmer climes in Cannes with the partly-completed tailplane and a roll of drawings; to begin full-time building under the guidance of acclaimed glider-maker Charles Fauvel. In a disused laundry and with the help of craftsman Jean Rideau it still took three more years to complete his dream. The result was a semi-aerobatic, wood-and-fabric airframe with slender, tapering, eleven-metre wings, a single retractable main wheel and a little Volkswagen Beetle engine of just 1,130cc and 27hp. Fauvel floated it into the air for him on 30th May 1960.

That RF1 cruised at an impressive 95 mph using just 2.5 gallons per hour. It immediately drew crowds. In August 1960 it gained first prize at the RSA homebuilders fly-in. Journalists and knowledgeable pilots praised it and French state flying organization officials expressed interest in making a production version for their clubs.

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### **Jerry Lane's Taylorcraft at our Mayday BBQ**

#### **RF2**

So, early in 1961, state funds were granted for two pre-production examples to be built by Pierre Robin at Dijon, with the hint that he might undertake series production. Unfortunately, while the RF1 was classified as amateur-built with no specific strength or handling requirements, production RF2s had to meet the stringent standards specified for all aeroplanes up to 5,700 kg, including performing a vertical dive without exceeding Vne. Construction of two pre-production RF2 airframes began, but Robin was distracted by his need to produce three-seat Jodels, so final assembly took place at Gap-Tallard in south-eastern France where Fournier joined forces with the Belgian Count Antoine d'Assche's company Alpvavia.

But the RF2 weighed a significant twenty kilos more than the RF1 because of its bigger engine, the main spar's reinforcement to achieve the required terminal-velocity dive, and its unnecessarily powerful airbrakes. The undercarriage turned out fragile while the

airbrakes were too powerful for use in a club environment, so Fournier further refined his design as the RF3.

To escape those excessively penalizing glider requirements, this version was re-certified to ordinary standards, after the authorities were persuaded to incorporate a new aircraft class to circumvent the engine's single ignition system: "Aircraft with a good glide angle and capable of short landings." So its airbrakes were replaced by smaller spoilers to lighten the structure.

Having passed its flutter and ultimate strength airframe destruction tests, between June 1963 and June 1966 no fewer than 89 RF3s were produced by Alpvavia. Flown by his test and demonstration pilot Bernard Chauvreau, their RF3 starred at the 1963 Paris Air Show, particularly catching the eye of German wooden aircraft builder Alfons Pützer.

Glider pilots realized this type might be their answer to independent operations and one

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climbed his RF3 engine-off to a massive 36,750 feet in mountain wave.

#### **RF4**

After a fatal accident to an RF3 performing aerobatics over their factory, René redesigned a strengthened 'unbreakable' aerobatic version – the RF4. Improvements included a spar designed to ultimate limits of +12/-6g, pushrod controls with sealed bearings instead of the former cables, a rounded belly, wing-root fairings, a broader fin, balanced Frise ailerons and a bigger fuel tank.

Sportavia-Pützer mass-produced René's new airplanes at Dahlemer-Binz in Germany as the RF4D (D for Deutschland), turning them out at an impressive rate of six per month, exporting them to thirty countries worldwide, and eventually selling 155 examples.

The RF4D was so successful that customers soon requested a two-seat version, so René added three broader ribs at the wing root to increase span while retaining his preferred high aspect ratio. These wings folded at one-third their semi-spans to minimize hangar space. He chose tandem seating as being the most aerodynamically efficient, but later admitted regretting it. Certified as a motor-glider in its native Germany and classified in the specialized French 'Good-glide, short-landing' category, RF5 aerobatics were permitted, and this certification was accepted in Britain. Bernard Chauvreau gave countless aerobatic displays, including at Paris Air Shows.

#### **RF5B Sperber (Sparrowhawk)**

The gliding fraternity preferred Schleicher's SF-25 Motor Falke over Sportavia's RF5 because it soared better, so Pützer organized a long-winged RF5 variant by calling in experienced glider pilot and designer Manfred Schliwa. He lowered the aft turtledeck to improve rearward visibility, increased the root span by three meters and slightly extended the wingtips, while the empennage got sailplane-like quick-release attachments.

Its seventeen-meter span enhanced soaring characteristics, the Lift/Drag ratio increasing

by six points while the sink rate reduced from 1.40 to 0.89m/s (275 to 175 fpm). Certified in May 1972, and clearly a better soaring machine, control harmony had been sacrificed and it was non-aerobatic.

#### **RF9**

Eventually French officialdom suggested they might help René with another project to meet their new motor glider category, so he developed the seventeen-metre span, side-by-side, retractable tailwheel RF9 while continuing RF6B production. This flew on 20th January 1977, demonstrating brilliant economy and flying qualities, but the complexity and cost of French state certification hadn't changed, so the company ran out of money on May 30 when the bank refused credit and the government shrugged its Gallic shoulders. After paying out creditors, a receiver closed down the business. The RF-6B design was sold to Slingsby in the UK.

***In an odd turn of fate Slingsby made the French RF6B into a British success, eventually building 271 examples of its derivative, the T67 Firefly with ever-increasing engine power. The Firefly was also produced as a military primary trainer for the United States Air Force with around 200 airframes delivered.***

#### **Spanish RF5s**

In 1985 a ray of hope shone from Spain where labor costs were lower and light planes had not been built for forty years, so several Spaniards were trying to create aircraft factories. They only needed to relaunch RF5 production, but didn't anticipate the many obstacles imposed by Spanish bureaucracy, which proved to be even more complex than the French. After producing twelve more Spanish RF5s, the backer understandably quit.

#### **RF4UL**

Ever the optimist, when René was approached in 2010, at the age of ninety, to sanction production of a super-lightweight, folding-wing, kit-built version of his most successful design, the RF4, he gave it his blessing and assistance. A handful of French enthusiasts

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### Goodyear Blimp

#### GOODYEAR BLIMP AT AIRVENTURE

The Goodyear Tire & Rubber Company's newest airship, Wingfoot Three, will continue a long tradition of Oshkosh Goodyear appearances with a visit to EAA AirVenture Oshkosh 2021, scheduled for July 26-August 1 at Wittman Regional Airport in Oshkosh.

Goodyear's Wingfoot Three is scheduled to arrive in Oshkosh on Monday, July 26, and will be on display and be flying at various times during the event until Saturday, July 31. Wingfoot's three pilots will also participate at a variety of events, as AirVenture is one of the few air shows on the Goodyear Blimp schedule this year.

"Through the years, there's a special excitement when attendees arrive at EAA AirVenture Oshkosh and one of the first sights they see is the iconic Goodyear Blimp parked on the grounds or in the air overhead," said Rick Larsen, EAA's vice president of communities and member programs, coordinates AirVenture features and

attractions. "Goodyear has been an important AirVenture exhibitor for many years and it's always great to see that Oshkosh has made the 'Blimp-Worthy' list of America's major events."

**Wingfoot Three** is the newest addition to the Goodyear Blimp fleet, as it was first flown in June 2018. It marked the completion of the full fleet New of Technology (NT) platforms. The blimp was manufactured by Germany's ZLT Zeppelin Luftschifftechnik and assembled by a team of Zeppelin and Goodyear engineers. It represented the first major structural change of a Goodyear Blimp in nearly 70 years.

The **Wingfoot Three** appearance continues a 50-year tradition of Goodyear airship appearances at EAA's fly-in convention. The first Goodyear Blimp appearance at the EAA fly-in was in 1971, when the airship America came to Oshkosh. Several generations of Goodyear Blimps have flown to and over EAA fly-ins since then. For more information go to [GoodyearBlimp.com](http://GoodyearBlimp.com).

## **100 YEARS OF FOURNIER Continued**

learned that revised French regulations allowed airplanes of under 300 kg to be mass-produced and sold without any regulatory oversight.

René promptly re-designed his RF4 with RF47-like carbon-fiber spar caps, cowlings, fairings, and wing-, tail- and fin-tips, lighter plywood skins, simpler ribs, and modern lightweight fabric covering. A tuned version of the Briggs & Stratton Vanguard four-stroke V-twin engine with electrics would drive its carbon-fibre propeller via a 2:1 belt-and-pulley reduction system, and the undercarriage, while still retractable, would be halved in weight. Instrumentation would be digital and the fuel tank was easily removable while both seat and pedals were adjustable.

This ultimate development of René's timeless aerobatic classic sadly foundered on an excess of enthusiasm over development funds, so the prototype currently languishes in a French hangar awaiting completion.

At last, in the twenty-first century, René Fournier has been recognized as the original promoter of 'green aviation', despite bureaucrats of the time not comprehending the value of his formula and imposing inappropriate standards.

In his book he pondered: "Why were there so many constraints and such crippling rules, and why were they imposed only on certified aircraft? Simply because by granting certification, the state vouched for the quality of future examples produced. To protect itself, it imposed rules that were impossible to satisfy."

With his aeronautical career over, René Fournier did not abandon his former clients and friends, but has continued volunteering help and advice until this very day. Now, at his hundredth birthday, he has but one regret: that he didn't emigrate from France to the United States, the homeland of free enterprise, when his first airplane flew in 1960.

## **NEW AIRVENTURE NOTAM**

There are several important FAA-approved changes in the EAA AirVenture Oshkosh 2021 Notice to Airmen (NOTAM), featuring arrival and departure procedures for EAA's 68th fly-in convention July 26-August 1 at Wittman Regional Airport in Oshkosh. These changes are based on pilot feedback and FAA review of arrival procedure recommendations.

The NOTAM, will be in effect from noon CDT on Thursday, July 22, until 8 p.m. CDT on Sunday, August 1, outlines procedures for the many types of aircraft that fly to Oshkosh for the event, as well as aircraft that land at nearby airports. The NOTAM was designed by the FAA to assist pilots in their EAA AirVenture flight planning.

Some of the 2021 changes include:

- There are new ATC-assignable transition points approaching Oshkosh from the west,
- Different start and ending dates for the NOTAM.
- The temporary Runway 18L/36R at Oshkosh has been reconstructed and is now 60 feet wide.
- Two VORs have been decommissioned (FAH and IKK).
- Numerous editorial changes.

"With AirVenture on hiatus last year, it is more crucial than ever to thoroughly read and understand the 2021 AirVenture NOTAM to ensure safe operations on arrival and departure for this year's event," said Sean Elliott, EAA's vice president of advocacy and safety. "We also urge all pilots to log appropriate cross country time prior to their trip to Oshkosh so they have the proficiency and confidence to fly safely in conjunction with a thorough knowledge of this year's NOTAM."

EAA is also hosting a webinar on June 23 at 7 p.m. regarding flying to AirVenture 2021 and changes in this year's NOTAM. Pilots are

encouraged to build their knowledge prior to their flights to Oshkosh.

This year's NOTAM cover features a photo from the EAA Seaplane Base. Pilots can

download a digital version of the NOTAM at [EAA.org/NOTAM](http://EAA.org/NOTAM), or order a free printed copy via that webpage or by calling EAA Membership Services at 800-564-6322.



**Michael Friedrichs is flying his NA-64 to the Airshow in Slaton, TX from Casa Grande**

# Thunder Ads

## ADS-B TRANSPONDER & MISC.

Appareo Stratus ESG 1090MHz ADS-B transponder, Stratus 2i 978 MHz UAT w/WiFi, RAM AV-74(-1) DME/Xsponder blade ant., rack mount, pre wired cable harness, GPS WAAS ant., GPS triax cable, \$3,000<sup>00</sup>, Goodyear Flight Special II 500-5 6 ply tire, \$80, 4 Barry engine mounts 94510-41, \$400<sup>00</sup>, Dynon D-10A EFIS w/ remote compass & temp probe, \$2,000<sup>00</sup>, 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

## SCHWEIZER 1-26C GLIDER

Complete restoration, new fabric and paint. New skid, new tire and canopy. Has cg hook and factor tip wheels. Trailer with new tires, lights and wheel bearings. This glider is 100 % legal and ready to tow to field and fly today. \$10,500.<sup>00</sup> Jerry Lane - 602-663-2432

## MISC GOODIES

**King KT-76 transponder**, antenna and encoder \$500-, **Continental 0-200 case** with data tag and extras. \$500; RV-3 canopy brand new never cut \$200, **Douglas DC-4 pedestal** with throttles and controls. Perfect for your man cave \$100. Curtis Clark 602-710-4494

## LONGEZ AND SONEX

Tom Partin has decided to stop flying and has two airplanes for sale at Thunder Ridge air park (AZ28), a 180hp LongEz and a 120hp Sonex. Contact Bertha Partin at [bmpartin@gmail.com](mailto:bmpartin@gmail.com)

## THATCHER CX-4 PLANS & BUILDERS MANUAL

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

## ALASKA BABY BUSHWHEEL

tailwheel assembly, like new. 6x8.5 tire Used but in good shape, Jack Pollack 480 695-4441

## COOL PLANES FOR SALE

Only flown by little old ladies to church on Sundays. <http://captainbillywalker.com/aircraft-for-sale/aircraft-for-sale>

## RV-4 PARTIALLY BUILT KIT

\$13,500 Lycoming 0-290-D2, kit for \$3,000 or \$16,000 for both. Wanda Refrow 602-843-9862 [w7lov@cox.net](mailto:w7lov@cox.net)

## LYCOMING 0-360 A1A

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

## GARMIN GDL82 ADS-B "Out" DATALINK

Designed to work with your existing transponder. Slightly used. \$1,200<sup>00</sup>. Ken Roth 602-228-5000, [RothDevCor@aol.com](mailto:RothDevCor@aol.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, [www.airbum.com](http://www.airbum.com), [buddairbum@cox.net](mailto:buddairbum@cox.net)

### OIL COOLER REPAIR AND SALES

Chapter member owned. R & E Cooler Service 800-657-0977 [www.oilcoolersvs.com](http://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](mailto:fgorrell2@cox.net)

### HOMEBUILT AIRCRAFT CERTIFICATION

ABDAR Gary Towner 928-535-3600

### ANNUALS, RESTORATIONS, FABRIC WORK

Eloy Airport Julie White 520-466-3442

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Send an E-mail to: [EAChapter1217@aol.com](mailto:EAChapter1217@aol.com)