



The ThunderWord

Thunderbird Field EAA Chapter 1217

September 2021

Scottsdale, Arizona

PRESIDENT'S CORNER

Greetings from my corner of the hangar. Last month we had Wes Pipkin and Tyler Sepp from of Fly Eagle Sport at Glendale Airport speak about the services their company provides and bring everyone up to speed on Sport Pilot rules.

One of my bucket list items has always been to fly to Hawaii as a pilot. This month I did my Hawaii qualification with a check airman so I am OK to go by myself. Chapter member Mike McGarry volunteered to fly with me later in the month on what should be a more relaxing trip. Even though a lot of our Chapter 1217 members have flown to the islands I was holding out for the ability to not do the all-nighter and fly during the daytime. It turns out it was solid clouds from the California coast to flying over Maui descending into Honolulu.

This month's newsletter has a great chart that Jack Pollack found that has pictures of AN hardware and what their called. Sort of a smaller version of when you went to Mexican restaurants and they had pictures of the food and the name.

One of the programs we had to cancel when the COVID shutdown occurred was from Ottosen Propeller and Accessories. Thanks to Chapter 1217-member Glen Ottosen he was able to pull some strings and get them to talk at this month's meeting. They are one of the largest propeller overhaul companies in the US. Ottosen Propeller has served the Aviation Industry with Parts & Service since 1945. so they should have a very interesting presentation.

See you around the aerodrome!

Curtis

SEPTEMBER CHAPTER MEETING

The September meeting of Thunderbird Field EAA Chapter 1217 will be held on Thursday, September 16th, beginning at 7 pm in the Thunderbird Room, Scottsdale Airport Terminal building. The address is 15000 North Airport Drive. For our September meeting we have the good folks from Ottosen Propeller coming to talk about their company, which is an Arizona aviation dynasty, and answer all your prop questions.

Ottosen Propeller has been serving the aviation industry since 1945. It is a family-owned organization that opened its doors right after WWII to serve a growing industry with parts and service. Now three generations later they have partnered with some of the largest operations globally with the same goals: to provide the best customer service and support they have earned in over 75 years in operation..A huge thanks to thanks to Chapter 1217 member Glen Ottosen for setting up this month's program.

Guests are always welcome!

AIRVENTURE OSHKOSH

Grassroots aviation is alive and growing if numbers from this year's EAA AirVenture Fly-In at Oshkosh are any indications. After the 2020 cancellation everyone wondered what would attendance look like in 2021. Before the event actually happened there were theories that people would be hiding and staying home to overflow crowds. With more than 10,000 aircraft flying in, and 608,000 pilots and enthusiasts joining the fun, the world's largest general aviation gathering came back to life in a big way!

At Wittman Regional Airport in Oshkosh, Wisconsin, [EAA AirVenture 2021](#) saw a total of 16,378 aircraft operations in the ten days

Continued on page 2



TWIN JAG

spanning from July 22 to 31. That is an average of 116 takeoffs and landings each hour that the tower was operational.

For a community that missed out on a huge part of their local economy this was good news. The total economic impact of the show on Winnebago County is estimated at over \$170 million. Many people blamed the lack of rental cars on the rental companies but more cars were rented in 2021 than in 2020 so it was just a super high demand.

The largest increase in attendance was reflected in the record number of vintage aircraft, 1,420, that flew in during the show.

It sounds like if you are ever thinking about attending it might not be too early to start making plans for AirVenture 2022!

TWIN JAG

Jim and Ginger Tomaszewski of Clayton, Georgia, flew their stunning and diminutive TwinJAG to Oshkosh where it generated a lot of buzz. This airframe began life as a single-engine RV-6A quick-build kit in the 1990s. After flying it as a single for nine years, Jim, (EAA Lifetime 590427), who has flown

everything from Aztecs to DC-8s, “decided to turn it into a twin-engine.”

Jim said he kept the systems simple - each engine feeds from its own gas tank with no tank transfer between the two. “I didn’t want fuel going through the cabin,” he explained.

He figured out performance on one engine, including the potential loss of one engine on takeoff. Jim limits the airplane to runways at least 3,500 feet long, he said, to give enough room for aborting a takeoff if sufficient single-engine airspeed has not been achieved. But at speed, “I get about 200 feet a minute on one engine,” he added.

An experimental amateur-built category aircraft, the TwinJAG RV uses a pair of Corvair engines. But Jim is quick to point out these horizontal six-cylinder powerplants are far from their automotive origins, with aviation-grade parts including new crankshafts making them viable for flight. He coaxes a 175 mph cruising speed from these engines.

Jim figures the TwinJAG has an endurance of about three and a half to four hours. “Problem

Continued on page 3

is, I have a two-and-a-half-hour butt," he added.

Jim Tomaszewski is not an engineer by trade, but he studied up on what such a radical conversion should entail. His self-taught plans and calculations proved to be about 95 percent correct when reviewed by a couple of trusted engineers, he said. "My wife says I put the 'mental' in experimental," he quipped.

The new nose contains a baggage shelf. He figures on a 650-pound load capability for the TwinJAG. "That's real close to what it was as a single." During the conversion to a twin, Jim used a modified RV-10-style nose gear. And the cockpit went from a simple steam-gauge layout to a glass cockpit IFR airplane. He said it makes a stable IFR platform with a two-axis autopilot.

He likes what the TwinJAG offers as an IFR cross-country transport. His mantra for the project is: Simplicity plus redundancy equals reliability. And the name TwinJAG? That's for Jim And Ginger, of course.

LAST SATURDAY IN THE MONTH

The Casa Grande Airport is still making every effort to ensure the safety and wellbeing of all Airport users and they are now ready to start having the monthly fly-in breakfast again. This month's fly-in breakfast is scheduled to take place Saturday, September 25th.

If you are out and about on this Saturday morning, you are invited to stop by the Casa Grande Airport Terminal Building for the monthly Fly-In Breakfast! The breakfast will be supplied and sold by the local Masonic Lodge (Pinal Lodge #30) and they will begin serving at 7:00 a.m.

FIRST SATURDAY IN THE MONTH

The first Saturday in month fly-in breakfast gets started in October for the cooler months. There is always a great turn out of interesting planes and characters.

FOOD TRUCK FLY-IN

In case you haven't noticed, food trucks have been increasing in popularity over the past few years. They serve everything from
September 2021

sandwiches, hamburgers and fries, ice cream, pizza, ethnic specialties, gourmet cuisine and everything in between.

Several EAA Chapters around the country are joining this trend by incorporating food trucks into their Young Eagle Rallies and even having dedicated Food Truck Fly-Ins. A Chapter on the east coast has done a series of small pop up informal fly-ins at rural airports. Planes fly in, food truck shows up and the local community gets to see some cool planes and enjoy the food truck fare.

Think this might be something we should do? How about volunteering to make it happen.

INSPECT YOUR TAIL END

If you're an aircraft owner, then you certainly know that there is a fair amount of maintenance that needs to be done on your plane. I learned the importance of this in the late 1990s when I owned my first Pitts and it has stayed with me to my current plane - and RV -7. There aren't a lot of parts on a Pitts, but in the rigors of hard aerobatics, lots of parts move, bend and twist causing wear or the loosening of the structure and plumbing. But the plane was designed to bend and twist. Rigid parts under too much stress tend to crack and break. At the time, I was fortunate to have a couple of very experienced Pitts builders and owners at my airport willing to offer their help and look over my shoulder so that my plane was safe to fly. I learned from them that simple things like a preflight inspection is done a bit differently than what I was used to doing on the Cessnas and Beechcraft that I had been flying. The most notable preflight inspection that comes to mind pertains not just to a Pitts, but to any plane that has a tail wheel, and that is the control linkages at the rudder and the tail wheel. My RV-7 had the same sort of linkages that most tail wheel planes have consisting of a drawbar compression spring, linkage chains and a teardrop shaped connector clip. (I've recently converted to the J.D. Airparts Tailwheel Steering Link). These parts allow the rudder and the tail wheel to move together but somewhat independent of each other. These parts also get dirty quickly, especially here in the desert southwest. Grime can be caused by dirt

attaching to engine exhaust gasses, engine breather oil and in some cases, a coating of smoke oil. In my case, I experienced all three! The oil and dirt mixture is doing nothing good for the parts back there. If left alone, they will grind and file away at the contact points weakening them and ultimately causing their failure. You know the saying that a chain is only as strong as its weakest link. In my setup of these components, I had two compression springs (3 parts each), 2 linkage chains (15 links each) and the connector clips (4 each). That's a total of 40 parts of which the failure of any one of them could make for a very bad day. This is easy maintenance, just Keep it all clean! If you fly a nose wheel plane, you still need to pay attention to the connection of the rudder cable to the rudder. That bolt that connects the cable to the rudder should be a standard AN bolt with the shank drilled, a couple of washers and a castellated nut secured with a cotter pin. The bolt should be loose enough to turn by hand with or without a wrench. The rudder cable should not bind on the rudder horn. Never ever, ever, ever use a hardware store bolt! I was taught by my Pitts mentors to rotate the rudder cable bolt 1/4 turn at each preflight so as to provide even wear on the bolt. At the yearly inspection, all the parts should be removed, cleaned, inspected and replaced if necessary. These are airplane parts that really aren't that expensive.



New homebuilder productivity multiplier just unveiled

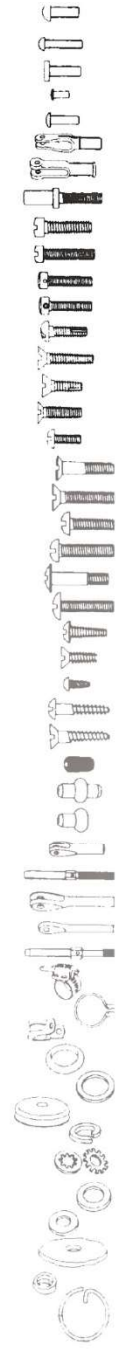
AN HARDWARE GUIDE



- AN3 to AN20 Bolt – hex head, aircraft
- AN21 to AN36 Bolt – clevis
- AN42 to AN49 Bolt – eye
- AN73 to AN81 Bolt – drive head (engine)
- AN100 Thimble – cable
- AN115 Shackle – cable
- AN116 Shackle – screw pin
- AN155 Barrel – turnbuckle
- AN161 Fork – turnbuckle
- AN162 Fork – turnbuckle (for bearing)
- AN165 Eye – turnbuckle (for pin)
- AN170 Eye – turnbuckle (for cable)
- AN173 to AN186 Bolt, close tolerance
- AN210 to AN221 Pulley – control
- AN253 Pin – hinge
- AN254 Screw – thumb, necked
- AN255 Screw – necked
- AN256 Nut – self lock (right angle plate)
- AN257 Hinge – continuous
- AN276 Joint – ball and socket
- AN280 Key – woodruff
- AN295 Cup – oil
- AN310 Nut – castle (airframe)
- AN315 Nut – plain (airframe)
- AN316 Nut – check
- AN320 Nut – castle, shear
- AN335 Nut – plain hex (NC) (semi-fin)
- AN340 Nut – hex, machine screw (NC)
- AN341 Nut – hex, brass (elec.)
- AN345 Nut – hex, machine screw (NF)
- AN350 Nut – wing
- AN355 Nut – slotted (engine)
- USAF 356 Nut – PAL
- AN360 Nut – plain (engine)
- AN362 Nut – plate, self-locking (high-temp.)
- AN363 Nut – hex, self-locking (high-temp.)
- AN364 Nut – hex, self-locking (thin)
- AN365 Nut – hex, self-locking
- AN366 Nut – plate, self-locking
- AN373 Nut – plate, self-locking (100° CTSK)
- AN380 Pin – cotter
- AN381 Pin – cotter, stainless
- AN385 Pin – tapered, plain
- AN386 Pin – threaded taper
- AN392 to AN406 Pin – clevis
- AN415 Pin – lock
- AN416 Pin – retaining, safety
- AN426 Rivet – 100° flat head, aluminum
- AN427 Rivet – 100° flat head, steel, monel and copper



- AN430 Rivet – round head, aluminum
- AN435 Rivet – round head, steel, monel and copper
- AN442 Rivet – flat head, aluminum
- AN450 Rivet – tubular
- AN470 Rivet – universal head, aluminum
- AN481 Clevis – rod end
- AN486 Clevis – rod end adj.
- AN490 Rod End – threaded
- AN500 Screw – fillister head (NC)
- AN501 Screw – fillister head (NF)
- AN502 Screw – drilled fillister head (alloy steel) (NF)
- AN503 Screw – drilled fillister head (alloy steel) (NC)
- AN504 Screw – round head, self-tapping
- AN505 Screw – flat head, 82° (NC)
- AN506 Screw – flat head, 82° self-tapping
- AN507 Screw – flat head, 100° (NF and NC)
- AN508 Screw – round head brass (elec.)
- AN509 Screw – flat head 100° alloy steel (structural)
- AN510 Screw – flat head 82° (NF)
- AN515 Screw – round head (NC)
- AN520 Screw – round head (NF)
- AN525 Screw – washer head (alloy steel)
- AN526 Screw – truss head (NF and NC)
- AN530 Screw – round head, sheet metal (type B)
- AN531 Screw – flat head, 82° sheet metal (type B)
- AN535 Screw – round head drive (type U)
- AN545 Screw – wood, round head
- AN550 Screw – wood, flat head
- AN585 Screw – headless, set
- AN663 Terminal – cable, double shank ball (for swaging)
- AN664 Terminal – cable, single shank ball (for swaging)
- AN665 Terminal – cable, threaded, clevis
- AN666 Terminal – cable, threaded (for swaging)
- AN667 Terminal – cable, fork end (for swaging)
- AN668 Terminal – cable, eye end (for swaging)
- AN669 Terminal – cable, turnbuckle (for swaging)
- AN737 Clamp – hose
- AN741 Clamp – tube
- AN742 Clamp – plain, support
- AN900 Gasket – copper – asbestos, angular
- AN901 Gasket – metal tube
- AN931 Grommet – elastic
- AN935 Washer – lock, spring
- AN936 Washer – lock tooth (exterior and interior)
- AN960 Washer – flat, aircraft
- AN961 Washer – flat, brass (elec.)
- AN970 Washer – flat, large area
- AN975 Washer – taper pin
- AN996 Ring – lock



Courtesy of Univair Aircraft Corporation • 2500 Himalaya Road • Aurora, Colorado 80011 • 303-375-8882 • www.univair.com

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, \$3,000⁰⁰, Goodyear Flight Special II 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, Spinellc@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. \$10,500.⁰⁰ 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

THATCHER CX-4 PLANS & BUILDERS MANUAL

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

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 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

GARMIN GDL82 ADS-B "Out" DATALINK

Designed to work with your existing transponder. Slightly used. \$1,200⁰⁰. Ken Roth 602-228-5000, 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, 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

HOMEBUILT AIRCRAFT CERTIFICATION

ABDAR Gary Towner 928-535-3600

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.com