



The ThunderWord

Thunderbird Field EAA Chapter 1217 October 2013

Scottsdale, Arizona

PRESIDENT'S CORNER

Greetings from my corner of the hangar! At the August meeting last month, we got a look into the development of very small turbine engines that are used in RC models and are finding their way into the UAV market. It was interesting to learn how a guy could go from building a turbine engine out of a cat food can to having parts in space.

This month's speaker is one of those guys who can build anything out of metal. Even though his shop makes expensive parts for big companies as well as those government agencies with lots of letters, he always enjoys the challenge of helping out a fellow airplane owner.

Sanding has resumed in my shop on the Wickham B cowlings. I had greatly underestimated the amount of filling, fairing, and sanding that would be required to get all those curves to come together. Another lesson learned is that certain kinds of paint stripper will attack polyester resin causing it to delaminate! Always be sure to thoroughly rinse whatever you are stripping with water to neutralize the stripper. I had some active stripper under a piece of aluminum tape that I left on for a week and it made a lot of extra work! Working is also a lot easier after I removed the 22' x 10' paint booth that took up a large chunk of the workspace.

See you at the October meeting!

Curtis

OCTOBER CHAPTER MEETING

The October meeting of Thunderbird Field EAA Chapter 1217 will be held on Thursday, October 17, starting at 7 pm, in the Scottsdale

Aviation Business Center. This month's guest speaker will be Mike Henshaw. Mike and his company, Superfinishers, have developed a series of performance modifications for the Yak 52 and CJ-6A which utilize the M-14P engine. Mike is going to talk about how radial engines work and how he can get over 500 horsepower out of an M-14. He is a great guy to have in your list of contacts as his company can build, weld, and fabricate any part you can dream of for your project. Mike has done a bunch of work for our Chapter members including welding on Jack Pollack's Swick-T, a glider hitch on Jerry Lane's 1-26, and welding on Bernie Gross's Highlander. Curtis Clark has had them build Delron rudder bushings for a sailboat, a new flap actuator for the Wickham B and help with the alternate air system on the same plane. If you can dream it up they can make it happen.

Guests are always welcome!

CHAPTER 1217 HOLIDAY PARTY.

Ron and Sherrie Landon have set the date of Saturday, December 14, 2013, for our annual EAA Chapter 1217 Holiday Party. This is the fourth time they have hosted the event at their home near 48th Street and Indian School Road. Mark your calendar and plan to bring your significant other. In December we will start e-mailing and mailing out more information on how you can get involved, what to bring, as well as a map to the party!

COPPERSTATE FLY IN

Planning and preparation for the 41st annual Copperstate Fly-In & Aviation Expo is well underway at the Casa Grande Municipal Airport in Casa Grande, Arizona. Organizers

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are hoping to build on last year's successful event that drew more than 500 aircraft and 5,100 attendees from 10 countries and 39 states. Copperstate 2013, whose theme is "Keeping the Dream Alive," runs from October 24th to the 26th.

Traditionally the final major event of the fly-in season, Copperstate offers an all-day stream of flight demonstrations, flights on World War II aircraft, informative workshops, exhibits by aviation vendors, and much more.

"The most significant upgrade for 2013 will be an expanded youth aviation area", said Copperstate President Stephen Bass. "We plan to offer more interactive youth-friendly options, including a remote-controlled (RC) aircraft area", he said. More than 60 Phoenix-area Boy Scouts will be on hand for guided tours of the flightline to help them obtain their aviation merit badges. Youths, age 15 and under, will also be admitted free - previous

years that exemption only applied to kids 12 and under. "All this ties into our 2013 fly-in theme," Bass noted. "We're finding ways to get young people excited about aviation and flying."

Among the exhibitors scheduled to appear are a wide variety of avionics vendors including Advanced Flight Systems, Aertronics, Alcor, Dynon Avionics, JPI Instruments, Tosten Manufacturing, Trio Avionics, TruTrak Flight Systems, Val Avionics, and Vertical Power.

Showplanes on the flightline will include warbirds, vintage antique planes, helicopters, homebuilts, LSA, and ultralights. Most aircraft will take to the air throughout the three-day event, giving attendees the opportunity to see them in flight.

For more information, go to www.Copperstate.org



Jim Moss Replica of the GeeBee Q.E.D. Recently made its First Flight

JIM MOSS'S GEEBEE Q.E.D. FLIES

During many of his 82 years on this earth, Jim Moss crafted some striking reproductions of airplanes that were first made famous during aviation's golden age. But none are as special as the reproduction 1934 Gee Bee

Q.E.D. - the final design of the Granville brothers of Springfield, Massachusetts - that took flight for the first time last Thursday, September 26, at Olympia Regional Airport in Washington.

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But Jim was not there to see it; he passed away on September 1st after a lengthy illness and never saw his vision take flight. Some people might think that's a shame, but his widow Judy said it really didn't matter to him.

"Sure, it was bittersweet, but Jim did get to see the end result. He saw it taxi," she said, referring to the completed cruiser's initial taxi runs on the grass strip at their home airfield, Cawley's South Prairie Airport in Buckley.

Jim had a dedicated team of volunteers helping him build the airplane, and those people saw to it that it was finished after Jim stopped working on it due to his failing health this past year. Rich Alldredge, of Moses Lake, headed the project team to complete the Q.E.D.

"I may have been the one who took a leadership role, but there's been a fantastic team of people working on it since day one," Alldredge explained. "We were fortunate to get it in the final configuration as Jim envisioned it before he passed."

Other people working on the airplane were Ron Robertson, who was there as much or more than anyone; Bill Moss, Jim's brother; neighbors Fritz Bright and Ken Brynstad; and, of course, Judy.

"The first flight was wonderful," she said. "I would have felt anxious had Jim been in that little beast, but it felt great to see it fly." Test pilot was Carter Teeters, of Tacoma.

About a week before the flight, the airplane's wings were removed at Cawley's South Prairie, which at 2200 feet long was a little short for the test flight, before it was transported about 50 miles to Olympia, the airport selected for Phase I flight testing. After reattaching the wings, they had to wait out a nasty stretch of weather.

"We had the aircraft ready for about a week, but you know how the weather can be here in the Northwest," Alldredge explained. "About an hour and a half after we did a final taxi test last Thursday, the weather looked like it had

cleared enough. Then Carter says, 'Well, we've run out of excuses.' " It was go time.

"The aircraft handled absolutely flawlessly," Alldredge continued. The weather window was closing, so he stayed in the pattern.

"He didn't do much other than the power and control stick," Alldredge described. "He got it up to 120 kts, but it was pretty clear it wants to fly a lot faster." The Q.E.D. took off at about 85-90 kts. There were no surprises, and just one minor squawk that's already been addressed, he said.

It's considered a reproduction but there are some significant differences to the original 1934 airplane. For one, it's powered by a Wright R-1820 Cyclone engine, not the Pratt and Whitney R-1690 Hornet. In a June 2011 story in *Sport Aviation*, Jim explained the reason:

The Q.E.D. was powered by a Pratt & Whitney R-1690 Hornet. Due to its mission as a long-distance racer, this 675-hp powerplant was fed by a prodigious 480 gallons of fuel. Jim didn't feel his replica needed that much fuel for even the most ambitious cross-country flying. He also wasn't excited about trying to find and maintain a Hornet - an engine both rare and cantankerous relative to other radials.

"I had bought a Pratt 1340 when I realized that the Wright 1820 had the same diameter as the 1690 with twice the horsepower," Jim said. So, in a move that the Granvilles and their golden age racing compatriots would surely have approved, Jim put aside the "little" R-1340 and purchased a 1,425-hp R-1820 Cyclone that had been used on a North American T-28. The dry weight of the Cyclone is only about 200 pounds more than that of the Hornet, a deficit Jim easily made up by cutting the fuel capacity of his Q.E.D. to "only" 240 gallons.

With several hundred extra horsepower on tap, Jim decided on one major deviation from the Q.E.D.'s original aerodynamics. "I knew

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I'd be wanting a bit more vertical area, so I scaled up the rudder and fin until they had the same area as on the T-28," Jim said. "I figured that ought to be enough." [Read the complete story.](#)

Once the hours are flown off, what's the plan for Jim's Gee Bee Q.E.D.?

"We're dealing with a piece of history here, so we are being very deliberate," Alldredge said. "We want to do it right." Plans are to fine-tune the airplane over the winter months and then maybe bring it to some air shows.

"We definitely have Oshkosh in our sights, and maybe get some of Jim's other planes out there," Alldredge said. Two other well known Jim Moss projects are the 1938 MG-2 biplane restoration and his 1931 Laird Super Solution reproduction. "Jim really loved going to Oshkosh."

Side note. For the last few years Jim had a condo at Carefree Airport that he would come down to escape the Seattle weather. He liked the weather but always said it was cutting into his airplane building time!



B-25 "Tail Gunner" Captures Picture of a Formation Flight over the Sedona Airfair

TURF SOARING SCHOOL CLOSED

The up down saga of the oldest soaring school in Arizona may have had its final curtain call this month. The present owner Randy Shortridge of Scottsdale moved the gliders and towplanes to a dirt runway eight miles west of Turf. Apparently his lease on the space was up for renewal and he wasn't able to come to an agreement with the airport so he moved. Turf airport manager Roy Coulette said he is looking for someone that might be interested in starting a new glider operation at the abandoned facility.

PROUD BIRD CLOSING

One of the most iconic aviation themed restaurants in the country is closing its doors at the end of November. The Proud Bird Restaurant sits on the final approach to runway 25L at LAX and is easily recognizable by its large outdoor display of unique aircraft. A quick glance around the displays you will see WWI biplanes, a DC-3, P-38, Bell X-1, and a Me 109; and that's about the time you start thinking why would these priceless planes be sitting out in the LA smog and rain. It turns out that the restaurant's founder had

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painstakingly accurate full size replicas of the planes made out of fiberglass. It isn't until you are right next to them that you realize that

most of them aren't the real McCoy. It will be a sad day when the doors close for good. Check out the website www.theproudbird.com



Bernie Gross thanks Lynn Miller for a ride in His T-34 at the Sedona Airfair



Jordan Ross and Bob Mitchell at the Sedona Airfair in Bob's T-34

HUNT BACK ON FOR

AMELIA EARHARDT

What will it take to find whatever remains of the Earhart Electra? After more than a year of data analysis and operations review they believe they have the answer. The TIGHAR group is going back for another try at finding the wayward aviatrix. This is what the expedition called Niku VIII will look like:

Dates: Thirty day expedition, mid-August to mid-September 2014.

Vessel: University of Hawai'i oceanographic research ship *Ka'Imikai-O-Kanaloa* (aka KOK), the same ship that was used for the 2012 Niku VII expedition.

Search Technology: Hawaiian Undersea Research Laboratory (HURL) Pisces IV and Pisces V manned submersibles, each carrying a pilot and two TIGHAR observers. Each sub is also equipped with High Definition video and still cameras, Standard Definition video with time, depth, heading, and altitude off the bottom data displayed, mechanical arms and recovery baskets.

Search Operations: A detailed "eyeball" and photographic examination of the entire mile-long underwater search area down to a depth of 1,000 meters, possibly deeper. "Live" searching by three people aboard each sub looking at wide vistas illuminated by powerful lights is far superior to searching by looking remotely via the toilet-paper tube view provided by a video camera on an ROV. With both subs in the water every day, the entire search area can be systematically covered in 7 to 10 days.

The plan for Niku VIII is built on the hard data gathered and the hard lessons learned during Niku VI and Niku VII. In the days and weeks to come they'll be putting out detailed information and answering questions about all aspects of the search in TIGHARNews, and on the TIGHAR website, www.tighar.org and Facebook page. As always, their ability to do this work depends entirely upon your contributions in the form of donations and purchasing shirts and hats.



Bob Mitchell's T-34 over the Scenic Beauty of Sedona



Formation Flight over the Sedona Airfair

ThunderAds

FOR SALE, ETC.

LYCOMING O-360 A1A

Engine built up for RV project that never got off the ground. Invested \$50,000. Price is very firm at \$25,000. Martin Del Giorgio delgiorgiopels@gmail.com

ESTATE SALE

Chapter member Marty Williams has flown west and his family is selling his Zenith 701 kit. Contact his son Keith at 480 998-4873.

CURTISS REED PROPELLER \$4,000 Model 55511. 82" SAE 1 taper shaft. (Warner, Ranger, Maytag 604) Patrick McGarry: 602-430-0140

PROJECTS FOR SALE

Protech, PT-2, folding wings & trailer, 82 hp Mosler engine. & Gere bi-plane, about 75% complete, built from magazine plans, circa 1932, completely rebuilt Model A engine. Pat Wall 928-851-2244.

2009 LANCAIR 360

Superior IO-360 engine, TTAFE 20 hours, mineral oil, every thing new including paint, GPS, loaded must see. Mary Shragal 630-897-7706

COMBINATION VHF/GPS ANTENNA

Comant Model CI 2480-201, Separate connectors for Comm and GPS. Never installed. See AS&S pg 616. Their price \$568.75, sell for \$250.00 Ron Kassik 480-948-0168 or ronkassik@cox.net

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