



The ThunderWord

Thunderbird Field EAA Chapter 1217

April 2015

Scottsdale, Arizona

PRESIDENT'S CORNER

Greetings from my corner of the hangar! Last month General Carl Schneider gave a very interesting talk on his career with the U S Air Force. Thanks to Billy Walker for introducing General Carl as well as getting him to speak to our Chapter.

Next month is our Chapter birthday. Looking back on what makes our Chapter successful are newsletters and interesting meetings, in addition to dynamic members. Keep your articles and meeting ideas rolling in so we can keep things happening. Sometimes it takes several months or even years to get our meeting schedules and the speakers' availability to line up. In the case of last month's speaker, it was almost 3 years from the suggestion to making it happen.

One of our Chapter 1217 events that has been particularly successful is our annual springtime BBQ. During the first couple of years we had it at the park on the south side of DVT airport but moved it to the north side to make it easier to set up and to be nearer to the restrooms. If you haven't been to one of these Mayday events, either taxi or drive over and enjoy a couple of hours of talking airplanes and maybe meet a few new people. Everyone is welcome so bring your family and friends.

See you at the April meeting!

Curtis

APRIL CHAPTER MEETING

The April meeting of Thunderbird Field EAA Chapter 1217 will be held on Thursday, April 16, starting at 7 pm. The location is the Scottsdale Aviation Business Center, 15041 North Airport Drive. This month's guest

speaker is Pike Kelly, who will talk about aircraft maintenance. Pike has worked at Screaming Eagle Aviation in Santa Paula, California before moving to Arizona to open his own shop. Pike is currently restoring a rare Pitts S2S for a client. Thanks to Jack Pollack for setting up this month's program.

Guests are always welcome at our meetings!

MAYDAY-MAYDAY-MAYDAY

BBQ AT DVT

Sunday, May 2, 1100-1400 will be the date and time for the annual Thunderbird Field EAA Chapter 1217 MAY DAY FLY-IN / DRIVE-IN. Jack Pollack will again host this year's event at his Deer Valley north side hangar 31-08. Things get underway around 11 am with planes arriving and setup. There are plenty of transient aircraft parking spots right in front of Jack's hangar. Be sure to bring wheel chocks and lawn chairs. At noon time we will be having an old fashioned hangar cookout.

This year the Chapter will spring for the burgers, fixin's and drinks; you need to bring something to share that doesn't need to be cooked, heated or butchered. Examples are salads, desserts, and chips, salsa & dip. We don't need a lot, as we don't want a lot wasted.

Everyone is welcome so bring your family and friends.

If you are driving in, go to the north perimeter road and drive to the west entrance for the hangars. Signs will be posted, but call 602 710-4494 and we will come down and let you through the gate. It might be a good idea to bring lawn chairs to sit on. Vehicles are encouraged to park in the marked car lot

Continued on page 2

spaces near the hangar ends after unloading at Jack's hangar. Please DO NOT park in the airplane wash rack or your prized possession

risks an unwanted washing. All arriving pilots are requested to NOT to use the words **Mayday** when talking on the radio.



Larry Keeling's RV-4



Larry's Panel Before Upgrade



Panel After Avionics Upgrade

“Being all legal with a transponder and everything almost takes the fun out of it. Almost”

AIRCRAFT GRADE BAMBOO?

By Graham Clark
ed note. This story was written several years ago by British aviation enthusiast Graham Clark for his local chapter newsletter. At the end appears the final chapter and the questions posed in the article are answered.

Douglas: Isle of Man? No, a small airport snuggled up against Arizona's southern border with Mexico. If you walk the length of the runway you come face to face with America's 'Berlin Wall' to Mexico, where 80 years ago passengers could alight from their aeroplane at the first US International Airport - - opened in 1929 and officially dedicated in 1933 by First Lady Eleanor Roosevelt -- and

then walk across the border into Mexico; no longer possible, of course. This border is heavily patrolled to minimize illegal immigration and drug smuggling. But still, they get through. The US Border Patrol, the American Customs and Immigration Service and the National Security Agency -- plus the local city and State cops -- are all based in Douglas and make this one of the safest places to live in the USA; the whole town is crawling with armed Feds and cops, who to the distress of the City Airport manager roar back and forth while digging their heavy vehicle wheels into the runway surface with 'donut' turns. But the city has lost its original

Continued on page 3

economic base in the form of the now spent local copper mining industry, and needs those Federal dollars. Keep patching the holes, and keep quiet.

Before the International Airport was opened 1929, Douglas was a boom town. It was mining that first brought business to Douglas, and with it the thought, in the early part of the 20th Century, that there might be a future in airplanes.

But the City has another claim to fame. It was here that the first aircraft was built in Arizona, a glider that obviously drew much inspiration from the Wright Brothers' biplane/canard layout.

In the stifling Arizona heat of June 2012 (Daytime temperature 110 degrees F) three 'senior' aviators living in Phoenix -- aircraft enthusiasts to the core of their DNA -- decided that the pioneering Douglas glider should not disappear from memory. With the help of some old photographs they set about the construction of a replica for display in the City.

The three were the 80 year-old wooden aircraft builder Richard Ivansek, retired airline pilot and aviation history author Arv Schulz, and retired Boeing Captain, Bernie Gross. They put their collective time, talents and money together and set about preparing drawings based on the few available old photographs.

Aircraft grade materials? No such thing in 1910. So in 2012 they went off to the local Home Depot DIY store in search of replica materials. The straight bits of pine for the 'fuselage' frame were not much of a problem. However, getting the right lengths of bamboo of approximately equal diameter was not quite so easy. Anyway, the entire replica glider was built from materials that would have been available in 1910, including the fabric, but unoriginal glue. The fabric was tautened with water prior to application of a coat of lacquer.

The Douglas Glider is a very simple machine, so three months later the replica was finished

and transported to Douglas for assembly and exhibition in a room adjacent to the entrance to City Hall, where it could be admired through the window by the limited number of passing pedestrians; limited, because most people in Arizona are born with wheels. At first, the City greeted the glider and its constructors, but by the autumn of 2013 with Christmas approaching, the room was going to be required for official events, with no room for the glider. So it needed to move; but where?

Disassembling a historic wood and fabric glider obviously brings with it the risk of 'collateral damage'; wood screws removed never go back as securely the second time, and the builders were disinclined to allow any untutored roustabouts to handle the job. So Richard, Arv and Bernie (joined by Graham Clark) set off by car from Phoenix to do the job.

WHAT CAN GO WRONG

On the late afternoon of their arrival the room was opened by the building manager and out came the tools. While the fuselage frame and canard assembly were disassembled, the decision was taken to inspect the nearby temporary store room. So, "Who has the key?" Ever helpful, the building manager piped up: "Here!" So, 200 yards down the road, they approached the store room entrance, with its double outer grill and inner door. But the keys would not fit either set of doors, Bravo Uniform Golf Golf Echo Romeo. "What's the matter?" It was the wrong key. "Where's the caretaker?"

"He had to go to Tucson today (100 miles up the road past Tombstone and Boot Hill; Wyatt Earp Country and the OK Corral). But he'll be back in the morning." Obviously, no further progress possible that evening. So they agreed to be back in the morning at 0800, when the unapologetic caretaker arrived with the keys to outer and inner doors. So now, they could go to work!

Getting the biplane wings with assembled interplane struts out of the double doors was

Continued on page 4

a near-run thing, but Richard knew the length of the chord, and measured the gap between the double exit doors. With the ailerons fully deflected, the wings went through with minor scrape damage to the leading edge fabric; but better that, than disassembly.

The first load of component parts were loaded onto a flatbed trailer and slowly taken with police escort 200 yards to the nearby store room, through the now open double doors. Next: the big one. Here come the wings: same procedure. Off-load from the trailer and gently, oh so gently, up the steps. Lift wings through the double doors, where it required an immediate right turn or a demolished wall. Oh dear. That ain't gonna work! "We need an extra coupla inches." Reverse gear and thinking hats.

Enter the building manager: "Hey guys, there's another empty room with double doors right next door." The doors were boarded up, so the first thing was to power up the electric screwdriver and open. Enter caretaker with keys who opens the door, while once again

Richard measures the width. Oh dear: "That metal frame's gotta come out."

Now, this is Arizona, where it almost never rains except.... when you least need it! Glider outside; door frame still in place, and the race is on. Now, gentle reader, breathe a sigh of relief. The sky was grey, the rain and the dust storm held off. We made it.

Where will the glider end up? The builders think it should be on display in the main entrance of City Hall: this is a replica of the very first airplane built in Arizona; hard on the heels of the Wright Brothers. A fair claim to fame, for this forgotten town, not quite 'South of the Border, down Mexico Way.' (Bing Crosby).

The final chapter of this saga was written in the spring of 2015. The glider was moved again, this time to hang in the Cochise County College hangar just west of the city. The new location will ensure that new A&P mechanics and pilots going through the Cochise College aviation program will learn about the history of the first plane to fly in Arizona.



Photo by Bernie Gross

Rare Restored Lockheed Loadstar Seen at the Buckeye Air Fair

B-52 COMING TO OSHKOSH

The Boeing B-52H Stratofortress bomber, which for more than 50 years has been the backbone of the U.S. Air Force bomber fleet, will be a prime attraction at this year's EAA

AirVenture Oshkosh fly-in. It marks the first time a B-52 will be on ground display during the event, although similar aircraft have done fly-bys at Oshkosh on several occasions.

Continued on page 5

The aircraft from the U.S. Air Force Reserve's 93rd Bomb Squadron of the 307th Bomb Wing is based at Barksdale Air Force Base in Louisiana. It's scheduled to be on display at the showcase Boeing Plaza area throughout EAA AirVenture week.

The B-52 is marking its 60th anniversary of active military service this year, as it first flew in 1954 and entered military service in 1955. It has received regular upgrades to modernize its flight equipment and capabilities, with the B-52H models still active through its assignments at Air Force bases in Barksdale as well as Minot, North Dakota.

"EAA AirVenture creates unmatched opportunities for people to see aircraft in one place that you cannot see anywhere else in the world," said Rick Larsen, EAA's vice president of communities and member services, who coordinates AirVenture features and attractions. "It's only fitting that on the B-52's 60th anniversary of active military service that it comes to Oshkosh and, for the first time, will be on ground display for the world's aviation enthusiasts to see up-close."

Aerial refueling allows the B-52 to fly a range limited only by crew endurance. In 1996, the airplane flew a 34-hour, 16,000-mile combat mission from Louisiana to Iraq. Without refueling, the aircraft has a range in excess of 8,800 miles with a five-person crew.

The 307th Bomb Wing flies and maintains 20 B-52H Stratofortress aircraft. The 307th Operations Group oversees three squadrons, including the 93rd Bomb Squadron. The unit has a long and distinguished history, since it was founded as the 307th Bombardment Group with the Army Air Corps in 1942 and saw its first service in the Pacific Theater during World War II. The 307th flew B-17s, B-24s, B-29s, and B-47s prior to flying B-52s.

The 93rd Bomb Group has an even longer history, having been founded in 1917 as the 93rd Aero Squadron that saw service in World War I. In 2009, it became a formal B-52 training unit. The 93rd Bomb group has also received the Air Force's Curtis LeMay Award as the nation's top bomber squadron twice in the past four years.



Photo by Bernie Gross

EAA Ford Trimotor gets a nice hangar from Atlantic Aviation at DVT during its recent visit

Photo from Telluride



We had just skied for five days and I was relaxing on the sofa. I was reading an Irish novel as I am wont to do, and had just read the following quote:
"Did you know that there are certain birds that fly just for their own delight? They whirl about the air above us in their slow and flitting dances of mystery."

Herself came into the room and said "let me show you the photo I took."

I am still amazed at the timing.

Curtis

EAA Chapter 1217 Personnel

President	Curtis Clark	602 710-4494	EAACChapter1217@aol.com
Vice President	Terry Emig	520 836-7447	terry@valleypumpandmachine.com
Secretary/Treasurer	Jack Pollack	480-695-4441	Jack.Pollack@Analyticalgroup.com
Newsletter Editor	Ron Kassik	480 948-0168	ronkassik@cox.net
Young Eagles	YOUR NAME - HERE POSITION OPEN		
Technical Counselor	Dan Muxlow	480 563-4228	N27DM@cox.net

ThunderAds

FOR SALE, ETC.

RV-4 PARTIALLY BUILT KIT

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

ZENITH STOL CH 710

Estate sale. Aircraft close to finishing. Located in Yuma, AZ. Contact Bob Carter for more information BobC@buildersguild.com

VANS AIRCRAFT RV WHEEL PANTS

Pressure recovery wheel pants. New never used, painted, or drilled \$400. Jack 480 695-4441

GARMIN GDL39 PORTABLE GPS

ADS-B Receiver with free Weather and Dual-Link Traffic. Battery Pack with extra Battery included. Works with all Apple Products. Brand new in the box, \$400. Ken Roth 602-228-5000, or e-mail: RothDevCor@aol.com

MISC. INSTRUMENTS

New Rapco Vacuum pump RA215CC-9, \$250.; New Electronics International oil pressure and temp, \$400.; New Elec. Int. carb temp and outside air, \$250.; New Elec. Int. volt amp gage, \$250.; New Elec. Int. single cyl head temp, \$250.; Ovh. RC Allen Horizon RCA22-7, \$400.; Ovh. Edo Air DG 4000B-8, \$400.; Repaired Cessna turn coordinator, \$200. Jerry 602- 663-2432, or e-mail: JerryLane90@aol.com

PULSE AUTOCYCLE

FAA got you grounded? Want a fun project that captures the thrill of flying? Jim Bede designed Pulse Autocycle for sale \$22,000., Arizona title and current registration. Curtis 602 710-4494 azskybum@aol.com

TAYLORCRAFT BC12 D

Beautifully restored BC12 D. TT: 2635 hrs. 255 hrs since total restoration. C-65 255 hrs smoh. Have all aircraft records & FAA data since new. Annual inspection with purchase. \$24,500. [Steve Trieber](mailto:SteveTrieber), Located in Casa Grande• Telephone: 207-853-6060

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

CURTISS REED PROPELLER

Model 55511. 82" SAE 1 taper shaft. (Warner, Ranger, Maytag 604) Make me an offer, I want it gone. 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.

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.

SERVICES

OIL COOLER REPAIR AND SALES

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

ANNUALS

Owner Assisted. Jim Moss 520-440-2191 www.northside-aviation.com

FLIGHT INSTRUCTION, ETC.

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

HOMEBUILT AIRCRAFT CERTIFICATION

ABDAR Gary Towner 928-535-3600

ANNUALS, RESTORATIONS, FABRIC WORK

Eloy Airport Julie White 520-466-3442

AIRMEN PHYSICALS

Dr. Henry Givre AME, Chapter member and RV-4 owner. 520-836-8701

MACHINE SHOP

High quality parts fabrication for homebuilts at a reasonable price. David Leverentz 520-898-4321

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

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

Newsletter Addendum



Ron Fagans Grand Champion P-51 at the Carefree Fly In

EMBRY RIDDLE BUILDING AN RV-12

In the spring of 2014, a team of dedicated undergraduates at Embry-Riddle Aeronautical University's Prescott, Arizona, campus founded Eagle Aero Sport, the school's first student-operated aircraft build and research team. A year later, the team is well on its way to building a Van's RV-12 light-sport aircraft.

Eagle Aero Sport Team will build and use the airplane as a flying test bed for research in aircraft structural analysis, strain gauge analysis, advancement in integrated avionics systems and ADS-B transponders, and meteorological research. Future plans also include airframe modification and development for unmanned aircraft system components for a "pilot optional" cockpit.

Douglas Young, an aviation business administration major, serves as Eagle Aero Sport public relations/marketing lead. "This is the first student build we've ever had on campus," he said. "The plan is to build the plane providing students with the hands-on experience, then engineers will install probes and sensors so we can conduct the research.

Plans also include making an optionally operated aircraft that can be piloted remotely."

The project will also provide students with an understanding of what they need to do to complete the airplane. That's good for the resume, whether one is a pilot or not, demonstrating to companies that the students possess real skills and can be responsible enough to document their hours working on an actual airplane in a safe working environment.

Eagle Aero Sport has about 50 members who are part of four separate teams: the build team, engineering team, safety team, and business team.

The build team includes seven A&P mechanics who serve as build session leads. These individuals are certified to sign off on any labor done by the team members. The hours put in by the build team members are logged for future reference. Build team members receive thorough training to ensure they can work safely and efficiently. Team

members often work in conjunction with the engineering team so that both teams can gain insight into the other aspects of the project.

Engineering team members can use ERAU's vast software, manufacturing, and testing facilities to design and build their own sensors and probes to mount to the aircraft, as well as run tests on parts of the aircraft itself. Engineering team members may choose between three sub-teams: structures, aerodynamics, or electrical engineering.

"The thing I like about EAS is I get hands-on experience building an airplane along with being able to apply my engineering education to it," Isaac Hein, the engineering team lead, said. "Almost every day I get to approve a new engineering feature that will be applied to the RV-12, and to me that is simply awesome."

Business team members are responsible for securing funding through donations and grants, marketing the team to suppliers and other outside companies, and exposure through the media.

With the airplane's center section coming together, team members are beginning to see the project starting to look like an actual airplane, Young said. They're also getting assistance from EAA Chapter 658, Prescott. Chapter member Bill DeRouchey, EAA 561449, has already built two RV-12s. The project is also in coordination with Van's Aircraft, Synergy Air, and other sponsors.

In its promotional materials, Eagle Aero Sport writes, "Aviation is what we love, and we strive to innovate our industry while learning, building, and performing research in order to become professionals in our fields. We believe that through education comes intelligence, but intelligence is worthless without experience."

"The student-built RV-12 aircraft is ultimately being built to serve as a flight test engineering platform for university research projects in aerodynamic and structural analysis, as well as aircraft sensors and instrumentation innovation," said Phil Riek, EAS president.

To learn more about the project, "Like" Embry-Riddle Eagle Aero Sport [on FaceBook](#),



Chapter member Bill Lewallen's Yak 11 at the Buckeye Air Fair

