



The ThunderWord

Thunderbird Field EAA Chapter 1217 September 2016

Scottsdale, Arizona

PRESIDENT'S CORNER

Greetings from my corner of the hangar! At the June Chapter meeting, Charlie Spinelli told us about using his VariViggen to sniff out chemical weapons. It was an interesting talk that made us aware of some of the unique missions our planes can fly.

With every week the high temperature seems to drop a degree or two which can only mean our great fall and winter fling is just around the corner. Be sure and mark your calendar for the Copperstate Fly-In on October 28 and 29. This year they have moved to Mesa's Falcon Field so it is a lot closer.

This month I devoted quite a few hours trying to come up with an interesting speaker for the meeting and feel like we have a winner. Thanks to Terry Emig, Brian Mitchell and Jack Pollack for helping me turn over rocks in the hunt. It should be a great meeting!

After over two years of slow progress the Wickham twin is about to take to the skies. The squawk list is down to three items and also redoing the transponder check because it was down for so long. It has helped me appreciate the truly talented and disciplined folks we have in the Chapter. I made the mistake of letting things always take priority over working on the plane and it has caused some serious delays. Plus having to learn how to accomplish some of the projects that I didn't have a clue how to do other than reading an article in Sport Aviation.

See you at the September meeting!

Curtis

SEPTEMBER CHAPTER MEETING

The next meeting of Thunderbird Field EAA Chapter 1217 will be held on Thursday September 15th, starting at 7 pm. The

location is the Scottsdale Aviation Business Center, 15041 North Airport Drive. This month's guest speaker is Gary Hertzler. Gary's name is synonymous with the world's fastest VariEze that incorporates hundreds of his performance enhancements to increase speed and efficiency. Gary and his plane hold numerous FAI speed records and has been proven to be the world's most efficient airplane by the CAFE Foundation. Besides talking about the plane, Gary is going to talk about his high efficiency propellers that he makes for homebuilt planes. If there ever was a person who embodies the spirit of the homebuilder this is the guy!

Guests are always welcome.

COPPERSTATE AEROMART

Chapter 1217 member Dan Muxlow has volunteered to be the Chairman of the Aeromart at the 2016 Copperstate Fly-In. This year's Fly-In is scheduled for October 28th and 29th at Falcon Field in Mesa. Dan would like to recruit some Chapter members who would be interested in helping out. It's a great job where you get free admission and food. You work your shift and are free to browse the flight line. Contact Dan at N27dm@cox.net

ROY NEEDS OUR HELP

Pleasant Valley Airport Manager Roy Coulliette is in the process of trying to renew his lease with the State of Arizona for another ten years. Roy feels that a ten-year lease would allow them to make significant upgrades to the facilities and runways. In order for the state to approve a ten-year lease there has to be input from the aviation community. It would be a shame to see this airport go away. You can help by writing a

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Gary Hertzler with His Record Setting VariEze

short letter to Lisa Atkins telling her what a vital role the airport plays. Address your letter to:

Lisa Atkins
 Arizona State Land Department
 1616 West Adams
 Phoenix, Arizona 85007

CLEANING OUT THE SHOP

Bob Hurni wanted us to put a note in the newsletter. He has a need for room for his current projects--not all of which are aircraft.

The following materials are available and he would appreciate them going to someone with an aircraft project that is ready to be started.

1. Aircraft quality spruce A pretty significant stack. It should not be used for firewood. It is at my home
2. Fiber Glass Rolls These are at DVT. Some rolls are pretty large. Even have a roll of Tri-axial.

All materials were originally purchased from Aircraft Spruce. Drop me a note if you can use them. A response by e-mail to bhurni@aol.com would be great.

FLARIS LAR 1 UPDATE

On my list of cool planes of the future that I want to own is the Polish Flaris. The Polish company building what it says is the world's smallest single-engine jet has successfully run the aircraft's engine for the first time.

In an update posted to the Flaris website, the company says it has just finished adapting the fuselage of the Flaris LAR 1 airplane with the new Williams FJ33-5A engine. All of the work took place in their newly built factory in Podgórzyn (Lower Silesia). The new power unit has been started with assistance from specialists from Williams Int., and reportedly "works incredibly well."

Flaris said the milestone is significant for the whole private aviation sector. "Flaris is the world's smallest single-engine jet which is able to take-off even from short, grass runways. Its conception, technical parameters and state-of-the-art technology surpass all the jets that have been produced so far. Such an ambitious project required an exceptional and unmatched new generation engine, which FJ33-5A engine undoubtedly is. It was

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Flaris LAR 1 Airplane with the New Williams FJ33-5A Engine

developed at Walled Lake based Williams International Company (USA). It's the most effective turbofan engine in the world. With a thrust of 8.5 kN, it is incredibly efficient considering its dry weight of 130 kg," according to the post.

Meanwhile in Poland, flight tests are being arranged with the Polish Civil Aviation Authority (PCAA). It also involves selecting an airport and agreeing to a schedule of the test flights. If you want to check it out for yourself go to <http://www.flaris.pl/>

QF-4 PHANTOM FLIES FINAL MISSION

The QF-4 Phantom flew its final unmanned mission in the skies above White Sands Missile Range on August 17, 2016. During the flight, the unmanned aircraft served its primary mission as an aerial target and was shot down by an F-35 Lightning II from Edwards Air Force Base, California.

"Our mission is to provide those airplanes as targets for our Department of Defense and foreign military sales customers to test the next generation of weapons," said Lt. Col. Ronald "Burger" King, the 82nd Aerial Targets Squadron, Detachment 1 commander. "Sometimes, that is a missile, sometimes a surface-to-air missile. For the final unmanned flight, we flew in support of an F-35 mission."

This flight served as the final unmanned mission before the QF-4 program ends later September 2016

this year, and the 82nd ATRS, Det. 1 transitions to flying QF-16s.

"The QF-4 has been flying for about 15 years, and it has been instrumental in testing next-generation weapons and radar systems," said King. "We'll continue to fly them as manned aircraft until the end of the program, which is through December, but this is the last time we are flying it unmanned before we transition to the QF-16."

Holloman Air Force Base, N.M. is the only base with a QF-4 mission. However, the 82nd ATRS, based out of Tyndall AFB, Florida, has been flying QF-16s since September 2014.

"The aging fleet of the QF-4s and their limited capabilities against modern fighters have rendered the aerial target workhorse, Phantom II, at its technological limit," said Lt. Col. Ryan Inman, the former 82nd ATRS commander. "The QF-16 initiates the next chapter in advanced aerial targets, predominantly in support of more technologically superior air-to-air weapons test and evaluation programs. The QF-16 will enable our leaner and more efficient Air Force to continue operations at maximum mission effectiveness while maintaining air superiority and global reach for decades to come."

However, as the Air Force prepares to transition to the QF-16 and bid its final

farewell to the heritage aircraft -- the legacy of the F-4 will continue to fly on.

"It's certainly bittersweet," said King. "The F-4 served faithfully in Vietnam and as late as the Gulf War. So, for it to be pulled out of the boneyard to continue serving its country is a testament to this airplane -- to the designers, the test pilots who first flew it, to the maintainers who've worked on it all these years -- what a testament to what they've been able to do, and what a great airplane it was. Forty-five years later, we are still flying these airplanes to test the latest and greatest equipment we have."



**Billy Walker's Pet Grizzly
Sporting Latest Chapter 1217 Attire**

BLESSING & CURSE OF TAILWHEEL STEERING

The overwhelming majority of tailwheel airplanes are equipped with a steerable tailwheel. The tailwheel assembly is like a caster on a shopping cart, free to turn about a pivot point. A pair of steering arms project from either side and are connected to the pivot. When the arms are connected to the rudder, usually by chains and springs, any movement of the rudder will be transmitted to the tailwheel. Thus, if you push the right rudder pedal the rudder will move to yaw the airplane to the right and the tailwheel will rotate as well, causing the airplane to turn right on the ground. Pretty nifty, huh?

Well, there is just one little wrinkle and that wrinkle can spoil your day. Let's say that you are in the process of landing three point in a cross wind from the right. In order to stay over the center line, you bank the airplane to the right. To avoid turning right, you apply left rudder. You are in a typical crosswind sideslip. As long as you stay in the air everything is hunky dory. But as soon as the airplane's tailwheel touches the ground, its canted off tailwheel causes it to swerve to the left. You feel this swerve and immediately apply lots of right rudder to stop it. That's just what the ground loop monster has been waiting for you to do. Now the tailwheel steering to the right and the wind blowing from the right conspire to rapidly turn your plane into the wind. A ground loop has been initiated and only correct and timely applications of rudder and maybe brake will prevent the coming wreck.

I've always felt that the cure for this phenomenon was the correctly applied application of neutral rudder right before touchdown. I admit that it's tricky and complicates the already complicated process of the crosswind landing. And then I talked to Bill Duncan, who owns "Alaskan Bushwheel", he has certainly studied tailwheels as much as anyone. Bill feels that steerable tailwheels have been the reason for more ground loops than any other cause. He blames that situation that I described above. The man owns a tailwheel manufacturing company and can put anything he wants on his Maule. He can also change his mind and change his tailwheel, which he probably has. Bill's Maule is equipped with a fully swiveling tailwheel with no steering.

I have always felt that a tailwheel airplane should have three methods of turning on the ground; rudder, brake and tailwheel steering. After talking with Bill, I may just change my thinking. But as long as I conduct tailwheel training I guess I should have tailwheel steering and teach the technique of neutralizing the rudder at the instant of touchdown in a three point landing.



Heath Parasol in the way to Blakesburg, Iowa for the AAA Fly-In



Hayden Newhouse flying the Heath Parasol, Looks like he's having fun

KERMIT WEEKS BEGINS A NEW VISION

In the back corner of the EAA merchandise warehouse, Kermit Weeks is signing books for aviation enthusiasts of all ages. Three of his illustrated books and an additional one about the Martin Mars are all for sale at his table. As he signs them, he interacts with everyone, especially the younger kids.

With each book he signs, he draws a dashed line between an asterisk and a star, saying there are three steps that each person has to follow. "First," he says, pointing at the asterisk at the beginning, "you have to light the spark inside you". "Next," his finger goes to the star at the end, "you need to find your dreams and follow them. And life," he traces the dotted line, "Is just about filling in the blanks."

His newest book, *Ostynn the Ostrich*, is written in rhymes and has colorful illustrations but is geared towards adults. Its message elaborates on the story told to the kids at the table, featuring an ostrich whose head is

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caught in the sand. Once he ignites the spark inside him, he finds there is more to life and pulls his head out of the sand, desperate to be able to fly.

Kermit's other two books, *All of Life is a School* and *The Spirit of Lindy*, are also available for purchase. One follows a young Gee Bee Z racer and his friends, and the other centers around Charles Lindbergh's plane, the Spirit of Saint Louis. The Martin Mars book, written by the wife of its owner, follows the story of the huge flying boat as he traveled as a firefighter.

Kermit Weeks brought the Martin Mars to Oshkosh from British Columbia. He has wanted to fly the craft for years but could never fit it in with the fire season. This year, the combination of desire from the EAA, the willingness of Mr. Weeks, and a lack of need in Canada allowed the Martin Mars to be flown to AirVenture over the course of two weeks. The flight took eight and a half hours.

Kermit Weeks is closing his museum in Florida, the Fantasy of Flight, at the end of July. It will be undergoing a complete remodel and refocusing of the museum. He

plans to convert it into a theme park, hopefully one of many. "This character [Ostynn the Ostrich] will be my Mickey Mouse."

What used to be the Fantasy of Flight museum will be the only one of the parks that has airplanes incorporated. He had to shut down the museum because he could no longer pay the lighting bill. Attendance was way down because "everybody thought it was just an old airplane museum," says Weeks. "Fantasy of Flight has nothing to do with airplanes, but airplanes have everything to do with Fantasy of Flight."

Weeks is using the story of Ostynn as a metaphor. Not only for unlocking one's potential, but for reaching into other realities and dimensions. Kermit believes he is "standing on Walt Disney's shoulders," and is "using entertainment as a means to engage reality, not escape reality."

Kermit Weeks looks forward building the theme parks, envisioning parks that are "Disney quality, and eventually Disney scale... The airplanes that I have? That's the least they're going to remember me for."



Gary Hertzler's VariEze in Flight

ThunderAds

FOR SALE, ETC.

Completed RV-7A tail kit.

Completed and zinc chromated. Nate D'Anna
602 891-4771 Email Natedanna@q.com

RACE PLANE MECHANIC NEEDED

Someone with airplane building experience to help finish a Reno race plane. We are about 75% done building a twin engine Unlimited Reno racer. You would need to move to, or be willing to travel to, Port Angeles, Washington at least 4 days a week. At least one year's employment guaranteed. Salary negotiable depending upon qualifications. Must be a self-starter who can think on one's own. You will be working under an experienced A&P IA. Some Composite experience preferred. This is an exciting project. Contact: jd_crow@yahoo.com

T-34 MENTOR PARTNERSHIP.

This is a turn-key, established partnership in a very nice Beech T-34. Plane is hangered at Falcon Field. Contact Lynn Miller 602 448-7487 or 602 585-0795 e-mail Lynnmillier777@gmail.com

CESSNA 172'S FOR RENT

Two IFR Cessna 172s for rent at Chandler. Owned by Chapter member Pat McGarry. Contact Chris Hoel for more information and to schedule birdganqft@gmail.com

'65 MOONEY

Very clean, 4000TT, 22 hours SMOH, \$41K with new annual, Goodyear hangar, Joe Hobbs joseph.hobbs@cox.net for more information

RV-4 PARTIALLY BUILT KIT

\$13,500 Lycoming 0-290-D2 \$3,000 or \$16,000 for both. Bill Refrow 602-843-9862 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

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

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

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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

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