

THE SPORT FLYER Newsletter of the shelbyville EAA CHAPTER 1326

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August 2022 Volume 18, Number 8

Ch-1326 Website: https://chapters.eaa.org/eaa1326

Chapter 1326 meets monthly on the Fourth Thursday of the month in the Shelbyville airport at 1800 (or 6:00 PM, whichever you prefer.) Any changes of meeting date and venue will be announced in the newsletter or by text message.

Kommandant's Korner

Greetings fellow Middle Tennessee EAA members. Wow, what a busy month it has been. Between work, prepping and packing for my trip to Oshkosh, and Oshkosh itself, I don't know WHERE the time has gone.

Anyway, it's over. EAA AirVenture 2022 that is, and according to EAA HQ it was another record setting year. Evil Editor Zurg emailed me "asking" me to report on my trip after I got back. That's WAY MORE than I can do in my normal column so my full "Project Police" report has been pushed off at least until the September issue of "The Sport Flyer". As a teaser though, here are some stats from this year's event:

- Attendance: 650,000
- 18,684 aircraft operations over 11 days. Approximately 121 takeoffs/landings per hour when the airport was open.
- 3,226 show planes including 1,375 vintage, 1,156 homebuilts, 369 warbirds, 137 ultralights, 87 seaplanes, 77 aerobatic, and 25 rotorcraft.
- Camping More than 12,000 sites in aircraft and drive-in camping

As most of you know, Oshkosh is mostly put on by a huge volunteer force. They are the ones who make EAA AirVenture the success that it is. Shelbyville airport is putting on its own small version of AirVenture with its Aviation Days celebration on September 24th. This is a great opportunity for the airport to open its gates to the local community and show the value of the airport. Most people love airplanes and it's the airport's time to shine. I hope you will come out and volunteer a few hours of your time to help the airport make this event a success.

Until next time.



Mark

Last Month's Meeting?

There was no July meeting because of Oshkosh and other commitments of the other local chapter members. The regularly scheduled "4th Thursday" Chapter 1326 meeting is scheduled for Thursday 25 August. LATE BREAKING NEWS: The Aug 25 meeting has been cancelled because of officer availability.

July 23rd, 2022 EAA Fly-in Breakfast

July is Oshkosh month. Lots of EAAers are "out of the state" about this time. In fact, the regular "4th Thursday" EAA Ch-1326 meeting was during Oshkosh, so we had pre-emptively cancelled the regular meeting.

It was another skeleton crew setup on Friday 22 July, and again Super Tommy had managed to show up early and had moved the airplanes out of the hangar and set up the tables. Randy showed up in time to help setting up chairs and load biscuits on to the pans, and Helene showed up to set up all the aluminum pans.

Friday night it was clear and cool, so on the way to KSYI airport we were greeted by a nice red hazy sun and radiation fog typical of these summer mornings in Tennessee.



Clear cool night skies and high humidity means radiation fog the next morning

For the first time ever, Randy ended up being the first one onsite Saturday morning to open the hangar and start up the fans and the coffee urns.





Two turnin' an burnin' for the early arrivals!



The "calm before the storm".

About 0700, our first customer (half an hour before "show time"), Mark Stauffer, showed up to fill up his RV-9 and depart KSYI to Oshkosh. We couldn't even offer him coffee, but at least we could wave goodbye as he headed off into the skies to the North.



Fuel check, off to Oshkosh!

As usual, the first REAL customer still showed up before 0730, but by then, we had fresh

hot coffee ready to appease him before the food was ready.



Java before food!

After 0730, the ramp started filling up fast, and there was no shortage of interesting "aerial vehicles" for "flyers" to walk around and inspect. After "pre-loading" the pancake pan, Randy ran outside to look at the aircraft, and was greeted by a number of home builts. The first thing that caught his eye was a Steen Skybolt, the "Crooked Lady", which according to the owner, referred to the "lack of straightness" of some of the components when the owner went in for some "more than skin deep" repairs. (Editor's note: we had another friend that made a similar discovery on a Smith mini-plane. He ended up rebuilding the wings in the front room of his BOQ (bachelor's officer's quarters) at Edwards AFB, and when he was done, we had to remove the front windows to get them back outside. And YOU thought you had space problems. (



The Steen Skybolt, "Crooked Lady" on the ramp.



An RV-12 with a Rotax. (Interesting cowling inlet.)

As usual, "Van's Air Force" was well represented, including some very interesting paint and wrap schemes.



RV WW-II paint variant

One of the RVs looked like it had been designed by "Calder", and from the slight tape ridges on the wing adjacent the "stipes", it looked as if it been masked and painted "the oldfashioned way".



Calder RV-6????

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More Vans with custom paint



A nicely painted Zenith on the ramp. (Seen this one before. I think the owner has a car and motorcycle with matching paint jobs.)

There was no shortage of "conventional" GA aircraft in the lineup, with representatives from Bellanca and Piper.



A Champion Citabria in acro garb.



Nice looking Piper PA-16 Clipper

Clyde Cessna was well represented, but even the trusty Cessnas were not immune to "modifications".



There were two very unique Cessnas there. An apparently 70s vintage Cessna "Skyduck" was sitting on the ramp. (What? I don't ever remember a "Skyduck" in the Cessna airplane catalog.)



Some "Daffy" tail art?

Even more unusual was a 60s vintage Skyhawk, with "valve cover bubbles" on the front engine cowling, and a constant speed prop. I talked to the owner, a retired airline mechanic who told me it was a Cessna Skyhawk from the firewall back, and a Mooney from the firewall forward. (Evil Editor Zurg's note: Sooooo, I wonder if this was done using an STC or certification as an experimental aircrafat? Also, would you call this, a Moossena, or a Ceooney?)

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Hum, An old Cessna Skyhawk.



With an engine from a Mooney grafted on?!

The typical 0800 surge had us cooking in a frenzy, but the Ch-1326 team excelled as usual and kept the pans full of food. I did manage to stay far enough ahead to the crowd with pancakes to get out and take some pictures.



The 0800 crowd after transiting the "feed me" line.



Piper Cherokee on the "feed me" flight line.

Around 0915, things had slowed down enough that the KSYI linefolks had a chance to come in and eat, and by 0930 we started to clean up. By 1030, the leftover food had been packaged up to go to a local 501C3 charity, and we had cleaned up the equipment, and towed the normal airplane residents of the hangar back into place. Another successful fly-in breakfast.

Randy Kelly Staff Writer



Evil Editor Zurg note: Originally, I'd originally "asked" Staff Writer Randy to do his Experimental ASK-23 flight report this month. A couple of newsletters ago, I'd also asked our Ch-1326 Technical Assistants for some technical articles. Tech expert Ken

Rutschow submitted a draft article, but we didn't the pictures to support the article before our publishing deadline. One of the benefits of being an Evil Editor, is the ability to change my mind about which stories to run any month. Sooo – by Zurg's decree, we're going to use Ken's article on Bird S..., er, "something" this month, and Randy's ASK-23 flight article next month.

Ch-1326 Technician' Korner: Torque Seal

Alternative title: There's "bird s%@!" on my airplane! Is that a problem?*

Yeah, it's a trick question. If it's excrement from one of our avian brothers, it may be yucky

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looking, but as long as there's not too much of it (or it's not all over the windshield), then the additional parasitic drag shouldn't be an issue.



Ewwwww! Some birdie poopied on my airplane!!

Either way, soap, water and some "elbow grease" will have your B-1-R-D back "in the pink". However, if it's what military aviators and mechanics called "bird s*%@" and it's on some mechanical, fuel, "pyro" tubing associated with an egress system, or hydraulic connection, then it's a GOOD thing.



Torque Seal GOOD. Bird s*%@ BAD.

What it means is that some conscientious maintainer torqued down the fittings and used "torque sealant" to make sure the critical connections stayed put. This isn't an "exotic technique" used only by maintenance professionals on multi-million-dollar aerospace and egress systems, it is just as useful for general aviation, experimental aircraft, and even general maintenance projects.



Torque seal on an oil system connection.



Whether it is your homebuilt project, a restoration project, or maintenance to a conventional production aircraft, we are always tightening something or torquing something, right? Maybe more importantly, when you've got LOTS of different fittings with similar connectors, it's sometimes easy to get distracted and forget one of those fittings that looks just like a bunch of other ones. Particularly, those items that are critical to airworthiness, ie. starters, brake calipers, alternators, engine mounts, props and prop governors, maybe entire engine builds or reassembling the same! The list can be endless if you allow your mind to wander and start to think about it.

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Torque seal on a cylinder base nut. (TCM IO-520-C 300 HP)



Torque seal on a cylinder head nut AND it's captive nut. (A-65 Continental on a J-3 Cub)



Torque seal on a fuel injection line.

Even "routine" connections you wouldn't normally think would be as critical, like sparkplug wires, EGT, and CHT connections sometimes have a tendency to work themselves loose when you least expect it.

Editor's note: Changing spark plugs is owner allowed maintenance under 14 CFR 43 for noncommercial aircraft. It's a simple procedure, but once I got distracted during a plug "rotation" and accidently forgot to torque one of them down. Imagine my surprise sometime later when my Continental O-470R decided to go "Bad dog, bad dog", and not only spun the plug loose, but spit it out of the hole. The sudden loss of one cylinder EGT, CHT, and power and declared emergency was embarrassing enough, but finding the plug dangling by a plug wire was truly humbling.



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Double-whammy! Torque seal on a top plug connector as well as a plug and CHT probe.

There are of course small items that you may not need to be concerned with, such as inspection panels, interior trim, instruments, or avionics installs, and more less flight/structurally critical items.

So, what can we do? We may tighten/torque several things in a single operation, but how do we know or recall what we just completed?

Known by many names or brands: Torque stripe, torque seal, tamper seal, Dykem, Dykem Cross Check, Merton, Vibra-Tite Viz-Torque, just to name a few. (Evil Editor Zurg tells me the military folks call it "bird s*%@".)

Whether you are alone or working as a team, torque striping can really aid your build and maintenance practices by giving you a simple, easy to see color (several colors to choose from), once you have completed a specific "tightening task". Example: When we install new cylinders, they are torqued per the appropriate engine manufacture's manual(s); when finished, we apply torque stripe to each nut. Some apply it just to the threads and nut, and others will put it across the threads and down to the base of the nuts. We also use torque stripe on fuel and oil line B-nuts, to show they have been tightened. If there is a desire to have someone double check your work, you may elect to have that person, with their own torque stripe color, come behind you and verify the torques/tightness of each item. This makes a great inspection validation!

Torque seal can also indicate if a part or setting/adjustment has moved, which comes in handy when troubleshooting an issue or when specific minute adjustments make big changes in desired outcomes.

I hope that you find this information useful and find a way to employ this in your aircraft projects!



Ken Rutschow A&P/IA EAA Ch-1326 Tech Advisor

Project Police Aircraft Spotters Quiz

Evil Editor Zurg



After June's "cousin of a Cessna Skymaster" spotter's mystery, I posted the following interesting specimen, which should have looked familiar.



Being an "Evil Editor", I'll admit I was "trolling" for some "that's a P-51 Mustang" responses. However, right after the newsletter was

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published, Ch-1326 Project Police member Michael Knight replied with the following:

"Looks like a Piper-modified P-51 for COIN use. Appears to still have its Packard Merlin engine, and the radiator(s) moved to the wing leading edges. Later versions had a turboprop in an elongated nose. I don't think Piper sold any..."

An excellent observation Michael. Mostly, but not entirely correct. This is in actuality, the Piper PA-48 Enforcer. Back in the 1950s, a Trans Florida company called Aviation envisioned a business opportunity modifying and remanufacturing P-51s for use in 3rd world counter-insurgency (COIN) missions. Additionally, the Air National Guard who had been the last holdout on actual P-51s had decided to retire the fleet, making airframes pretty easy to obtain for modification.

Trans Florida modified over a dozen of these aircraft for military and civilian customers under the moniker "Cavalier Mustang". Then the Trans Florida owner got the idea to put a turbo-prop in the beastie, and traded out the old Merlin recip engines for a 1,630 SHP Rolls-Royce Dart 510 engine. It was a "sweet" package, that unfortunately nobody wanted to buy.

Oddly enough, Piper Aircraft was intrigued by the "re-design" and purchased the design rights. First off, Piper upped the ante by upgrading two of the "Cavalier Mustang" prototypes to 2,445 SHP Lycoming YT-55-L-9 turboprop engines, the same engine as the CH-47 Chinook helicopter. Piper thought the almost additional 1,000 HP, plus the commonality with the CH-47 engine maintenance supply line would be a plus to the US military COIN market.



The meanest Piper ever built? [Photo: Jason McDowell]

Piper completed the upgrade by redesigning and building two more "clean-sheet" versions of the aircraft. These four aircraft (two modified Cavaliers and the two "clean-sheet" builds) were dubbed the PA-48 Enforcer. The extent of the modifications was probably enough to make the description "a modified P-51" gross а understatement. The PA-48 hosted new avionics, new weapons racks, an additional 1,600ish HP, a "clipped" Douglas Skyraider propellor, aileron power boosted by the hydraulic system from a Lockheed T-33, and a yaw-damped rudder control system. Supposedly the Enforcer had less than 10% parts commonality to the P-51, which gave the Enforcer more in common with John Carpenter's "The Thing", than it did with a Mustang.

The PA-48 definitely should have been a "beast" of a COIN aircraft, but unfortunately, after flight testing the prototypes, the military did not agree. The remaining PA-48s have since taken up permanent residence in military museums.



Staff editor note: One of these PA-48s is at the flight line museum at Edwards AFB. I passed this beast every workday for over 20 years and had always wondered about its heritage. One of my co-workers who

was around during the PA-48 Air Force evaluation said the clipped prop on the "dash-9" engine was incredibly noisy.

Next month's challenge should be a little easier. We will return to the WW-II vintage air transport category for our next mystery airframe. Sooo – what do you think it is?





As usual, send your answers, WAGs, or even "edumacated guesses" to Project Policeman and

Staff	Editor,	Randy	Kelly	at
electricrow@pobox.coms				



Project Police Tales Wanted

EAA members OR aviation enthusiasts. Do you have an

interesting project you'd like to talk about or show us? Have you seen an interesting or unusual aircraft? Do you have an interesting maintenance or build story? Snap some pics and write up a short report, or make some notes to give to our staff writer Randy Kelly for inclusion into The Sport Flyer. We're not picky. We don't care if you're from OUR EAA Chapter, some other EAA Chapter, or just an aviation aficionado – we'll publish your story anyway. ALSO, later in this issue you'll notice an EAA Chapter 1326 Technical Assistants. These are EAA and/or other aviation technology enthusiasts who may or may NOT be a real expert in that area, but are willing to share their knowledge and building expertise with other members who need some help (or just a sympathetic ear) while accomplishing their build. If you are able/willing to serve/help in this capacity, please contact Randy Kelly at electricrow@pobox.com.

Chapter 1326 Mission Statement

The Mission of the Shelbyville Sport Flyers Club, EAA Chapter 1326 is to enhance the quality of aviation life for its members by providing information about aviation, flying, and mechanical/maintenance knowledge shared by fellow members, guest speakers and special events which respond to the expressed needs and desires of all members.

Chapter 1326 Calendar

EAA Chapter 1326 Board of Directors Meetings are now held on an unscheduled, as needed basis. If you need to know when, you're already on the e-mail notification list.

August 25th; EAA Ch-1326 Regular 4th Thursday Meeting: Location TBD. Program; TBD. *CANCELLED*

August 27th; EAA Ch-1326 Fly-In Breakfast, Sport Flyer Hangar, Shelbyville Airport.

September 22nd; EAA Ch-1326 Regular 4th Thursday Meeting: Location TBD. Program; TBD.

September 24th; EAA Ch-1326 Fly-In Breakfast, Sport Flyer Hangar, Shelbyville Airport.

September 24th; Shelbyville Aviation Day, 10AM to 2PM, Shelbyville Airport.

For a good summary of aviation related social and training events in Middle Tennessee, check out the website <u>https://www.socialflight.com/</u>

CHAPTER 1326 ADMINISTRIVIA

To join Chapter 1326, send your name, address, EAA number, and \$20/year club dues to: EAA Chapter 1326, 2828 Hwy 231 N. Shelbyville, TN 37160-7326, attn Tommy Lynch. NOTE: You must also be a member of EAA National (<u>https://www.eaa.org</u>, or call 1-800-843-3612, \$40/year National dues).

Contact our officers by e-mail: President/Flight Advisor Mark Stauffer: mark.stauffer1@gmail.com Vice President Sharon Tinkler: tinkler@me.com Secretary Randy Kelly: electricrow@pobox.com Treasurer Tommy Lynch: maddoglynch@comcast.net

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Inputs for the newsletter or any comments can be e-mailed to Randy Kelly at <u>electricrow@pobox.com</u>



From the **Project Police** legal section: As you probably suspected, contents of The Sport Flyer are the viewpoints of the authors. No claim is made and no liability is assumed, expressed or implied as to the technical accuracy or safety of the material presented. The viewpoints expressed are not necessarily those of Chapter 1326 or the Experimental Aircraft Association. **Project Police** reports are generally printed as they are received in the next "convenient" issue, with no attempt made to determine if they contain the standard aviator caveat of at least 10% truth. So there!



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ADDRESS SERVICE REQUESTED

THIS MONTH'S HIGHLIGHTS:

- Kommandant's Komments
- July 2022 Fly-In Breakfast
- Tech Advisor's article on Torque seal
- Evil Editor Zurg's Aircraft Spotters Quiz
- Monthly plea for "Project Police" participation for new stories

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