Mid-Florida Chapter 534

JUNE 2022

Home of Squadron 534 Youth Program

CHAPTER ACTIVITIES

6/18 – YE Flight Day…. Pilots arrive 8-8:30
6/23 – VMC Safety meeting ZOOM at 7:30
6/25 – Membership Mtg – Admin Bldg. 9:00AM

Speaker for June may be Troy Sholte from Aerosport Deland presenting their Bushcat training program

BREAKING NEWS!

Our Cessna 150 is back in the hangar!

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+ Youth activities + VMC ZOOM		*(Visual Meteorological Conditions)*
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President's Message

I'm happy to announce that the150 is back in the EAA hangar! The 6/11 hangar monkeys helped with final cleanup along the hangar wall, movement and positioning it in the hangar. Thanks to all who helped, and to Sunair for the tow. It will be good to see it worked on again. I'm also rooting for good weather so we can fly YE's on the 18th! It almost seems like the weather is conspiring against us but it's just early summer in Florida and our messy climate. It should settle down soon but we are still subject to its whims. If you're planning a trip be sure to watch the weather ahead of time to get a feel for how it may impact your flight or flights. With today's digital weather products online for pilots, there's a lot of info available. The office computer has been fixed. The power supply died and it's been replaced. A tip of the hat to Mike Smolen for the repair work and donation of a newer monitor. Applications are now available in the office for our Ray Scholarship. If you have a candidate in mind, please pick one up and get it back to the Chapter. I found an announcement in one of the newsletters that Crystal River airport will be starting a $7.1M project to lengthen runway 9-27 by 645' over the next two plus years. This year is mostly planning and permitting through 2024 with construction tentatively scheduled for summer and fall of 2025. Total length will be about 5200' and accommodate larger aircraft more easily. This reminds me that many airports are under construction in summer so please pay attention to NOTAM's wherever you're headed. Our projects are progressing and your Board is talking about how to energize our YE's and Squadron 534 participants again. Ideas are requested! Please send yours to me or any board member to be considered. "It takes a Chapter....."

Blue skies and tailwinds,
Steve

Hangar rats having lunch a few Saturdays ago

Inspirational Quotes:

"There is no sport equal to that which aviators enjoy, while being carried through the air on great white wings.

- Wilbur Wright

Operation Clean Sweep
Upstairs training room now cleaned up for classes and youth training

DRILL BITS **From the Tool Box**

John Weber-Technical Counselor

March 11, 2022

You will use drills and drill bits in any aircraft project that you do.
The most common types of drill bits:

1. **Fractional, such as 3/16" or 1/4".**
2. **Numbered, such as #30 or #40**
3. **Letter, such as A, B, C**

The 3 most common drill bit sizes that you will use will be:

- #40 for a 1/16" rivet
- #30 for a 1/8" rivet
- #10 for a 3/16" rivet or bolt.

Different metals require different techniques, such as slower speeds for *steel* with cutting oil. (A high speed can heat the metal and make it harder to drill).
Acrylics (plastics) require a different shaped drill bit to scrape the hole rather than truly cutting. *Composites* also use a different type of bit. Reference AC43.13 and Aircraft Spruce catalog.
The usual drill bit makes a roughly triangular hole when it cuts the metal or wood. When a truly circular hole is needed, for example for a close-tolerance bolt in a wing spar, a "reamer" is used to make the final sized hole.
There are primarily 2 types of drills

1. the handheld drill
2. the drill press.

The handheld drills can be battery powered which is becoming more and more the norm. Corded drills are still available but can be more trouble to set up and use.

The drill press is used for drilling perpendicular holes and can be used to apply more pressure to the bit that is drilling. Most drill presses are set up with a reservoir for cutting oil that is used for drilling different types of material.

MAKE SURE THAT YOU WEAR SAFETY GLASSES AND YOUR WORK IS SECURED WITH CLAMPS OR A VISE IN A DRILL PRESS, BECAUSE IT HAS THE POTENTIAL TO HURT YOU!

References:
https://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentid/99861

https://en.wikipedia.org/wiki/Cutting_fluid#:~:text=WD%2D40%20and%203%2DIn,works%20as%20a%20cutting%20oil.

https://www.plexiglas.de/en/service/processing/drilling-plexiglas#:~:text=400%20characters)%3A%20Spade%20drill,out%20of%20the%20drill%20hole.

Young Eagles – June 18th, pilots at 8:30

Ray scholarship – Taking applications for next award

Treasurer

Greg reports:
The Chapter finances are currently in good shape after the sale of the Zenith CH701. That money has been set aside for the refurbishment of the Cessna 150 which has been ongoing and will now see more attention and increased expenses associated with that work.
We currently have 85 members in the Chapter. That is a decrease from last year. Post cards will be sent out to encourage those to send in their dues if they are still interested in being a member of the Chapter. We welcome the financial support and we hope that more people could come out on Thursdays and Saturdays to help on our projects.
If you need to send in your dues you can do that on our website www.EAAChapter534.org and click in the membership button and pay by PayPal. You can also send a check made out to EAA Chapter 534 for $20 to:
Greg Nilsen
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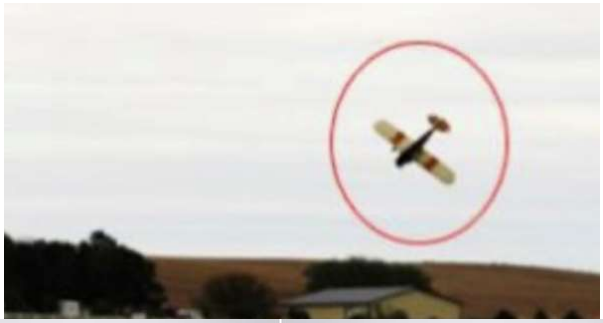
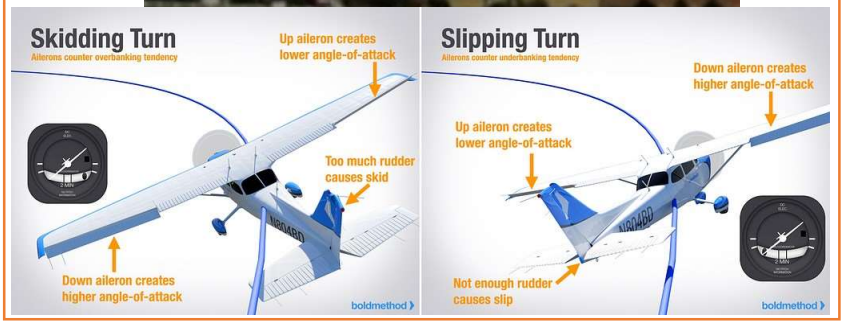
Per the FAA, the #1 cause of fatalities in General Aviation Aircraft accidents?
In-flight loss of control – mainly stalls – accounts for the largest number of GA fatal accidents. Although the fatal accident rate is declining, last year (FY17) 347 people still died in 209 general aviation *fatal* accidents

As recently as May 20th we had another loss in Wayne NE at a STOL contest, surprisingly the dynamic stall, spin occurred during S-turns for spacing while landing, not while landing. He got too slow along with an increasing bank angle. Many recent accidents like this have occurred while circling family homes, with ever tightening turns. In EVERY case aircraft are subjected to attitudes outside the flight envelope required to keep both wings flying!
Skidding turns (bottom rudder) past the runway centerline when turning base to final at slow speeds and higher angle of attack. To a lesser degree, spins from **forward slips** while applying (top rudder) on final at too slow an airspeed. These spin opposite the turn

PLEASE watch out for these deadly situations! YOU WILL ONLY MAKE THIS MISTAKE ONCE!





Project Updates

Pietenpol - Ted

Piet work is inactive now

Murphy Rebel – Mark

Mark says making good headway on fuselage now

SeaRey – Dale

Finishing the Flaps and ailerons. clearing up list of faults from a mini-inspection by Frank M. expect some decals this week

Cessna 150 - Steve

Goal is to complete by Fall 2023. The 150 is back in the hangar yahoo!

EZ-up inspection cover kits
100 of each style covers have been received so soon we will need to page several for sale as out inventory diminishes

"Ain't All About Airplanes"

John Weber
June 3, 2022

Many people think that EAA chapters are only about airplanes, but I am here to tell you there is **SO MUCH MORE THAN THAT!** The biggest advantage of a chapter is that we develop the mindset of "We never know what we can do until we try," or as my bride of many years says, "Can't never could." So many people say, "Oh, I could never build an airplane" and guess what - they never will.

The skill sets we learn in aircraft construction are applicable to our daily lives as well, either in our professional or personal lives. Just this week, I had to "fiberglass-repair" a gopher tortoise that had been hit by a car, resulting in a cracked shell. My associate veterinarian looked at me and asked, "Where did you learn that?" Three guesses. I also have a set of safety-wire pliers in my orthopedic surgery tools that I use to wire up broken bones. Here again, I am using a large gauge stainless steel wire to hold the bones together, and what better materials to use to get a well twisted and secure wire?

In our personal lives, we soon learn to use tools to accomplish the odd jobs around the house. A few years ago, the mother of one of the kids in the youth program called to tell me that her son had taken the drain in the bathtub apart to remove a clog and put it back together again! Without our Squadron 534's training and hard work, this young man would not have been able to do this. Happy mom, happy kid. With enough practice some of us reach the point where, if something is not available, we are able to make a tool we need. More than once, one of my daughters-in-law has exclaimed over the tools I have fashioned in my workshop. Working on airplanes, we will also learn electrical systems and plumbing, both of which can help us with everyday problems.

Another area that I think doesn't get enough credit is the fact that aircraft building, maintenance and flying really teach us to think and analyze a problem. Whether it is preflight planning or trying to figure out the best way to run brake lines, we learn to think in a logical fashion. Case in point: I had to take the car to the shop to get it repaired and suggested to the check-in person that I thought the problem was with the shift cable (or a bushing associated with it). He looked at me strangely and said that it would have to be brought in to see what was wrong. When I picked up the car, the manager told me that it was a bushing - just as I suspected. Deductive reasoning!

Computer literacy is another area aviation helps its members. With the advent of ForeFlight and other electronic flight bags, we are faced with learning the intricacies of iPads and tablets. How many of us do our flight briefings and planning on the computer? Don't get me started on glass cockpits.

The best advantage of being in a chapter? It is the friends that we make and the people that become part of our lives. Tomorrow Grace and I are going to the celebration of life for Jack Hallett. This man certainly enriched my life in the time that I knew him, and what a great service he performed for our country. There are members in our chapter who have become friends, but I know that I will never know *exactly* what they did in service for our country. I have been very fortunate in that many people in our chapter, who are more knowledgeable than I, have been generous about sharing what they know. I still have a lot to learn, but I know that each time I spend time in the hangar I will learn something new that day. I am thankful that I can learn from the: Steve Wolfs, Al Kimballs, Frank McCutcheons, Jim Goodspeeds, and Steve Tilfords. The knowledge that I have gained from friends over the years not only helps me with my own airplane projects but helps me in my everyday life.