

CATFISH SQUADRON

EAA CHAPTER 797



Live Oak, Florida



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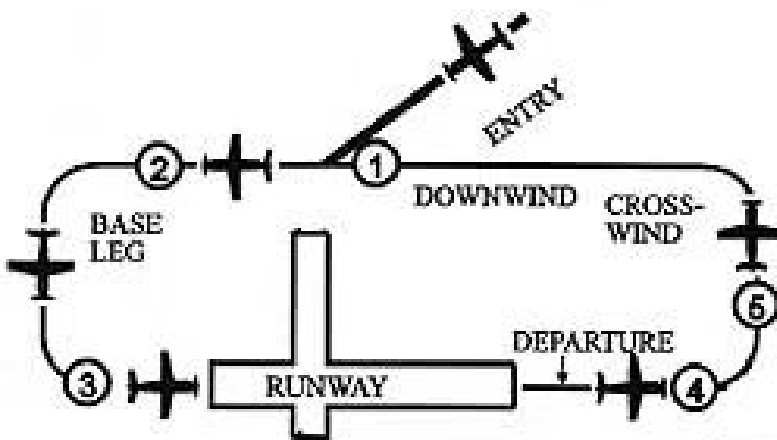
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Chapter 797 Meeting: The Monthly Meeting is July 15, 2023



VFR Club has your safety in mind

**EAA 797 Morning Fly-In
Pancake Breakfast
Is on July 15, 2023**

From The Top

I hope everyone was able to get out and have a great 4th of July with their family.

We plan on having another social get together this month along with our normal breakfast and meeting. If you have a particular guest speaker you would like to hear or a workshop you would like to do please let me know. I hope to see everyone soon.

Tommy Diedeman, President
Email: eaachapter7974u@gmail.com
Phone# 386-623-3224

News Wanted!



This is your newsletter. I am very happy to see that several people have stepped forward with their experiences to fill these pages. Let us know how your project is going or where you've been. It's your newsletter, let's make it about you.

Editor



VMC Club

Curtis McClung preceded the June monthly meeting with a safety filled VMC discussion.

IMSAFE is an acronym and an easy way to remember the factors that might impair a pilot's ability to fly safely. These are Illness, Medication, Stress, Alcohol, Fatigue, and Emotion.

This topic led to discussion of a recent Cessna Citation crash in which hypoxia is highly suspected. The pilot of record was highly acclaimed for his safety record. A history of safe pilotage may make you more at risk due to complacency because most failures leading to a crash are progressive in nature. The little things accumulate into a handful of problems.

Curtis suggested a fingertip O₂ saturation meter that could be included in your flight bag and even in your preflight routine. It's all part of your Go-No go decision.

Last month heard a lot of discussion on pattern activities, and this month the discussion spilled out onto *AvWeb*.

See: <https://www.avweb.com/insider/pattern-wars-part-deux/> for more details on the new FAA guidelines.

Editor

Guest Speaker

Cameron Bunting gave an educational walk through the prolific Burt Rutan's series of aircraft designs. He then gave us a bit of info on the subtle differences involved in canard aviation.



Editor

Young Eagles

Thank you again to all those who helped with Young Eagles on 10 June. In July, we hosting a "private" Young Eagles for the JrROTC in Valdosta, Georgia. So far we have 7 sign-ups and anticipate it will be between 13 and 18 cadets total. The JrROTC has supported us with volunteers during Wings Over Suwannee. Also, I received this email from the JrROTC instructor at Lowndes High School:

Dear Mr. Holmes,

Hello once again from Lowndes High School Air Force JROTC. I am writing to see if there is any way to ask for a Young Eagles Flight on Saturday, July 29, for my cadets taking part in our Summer Aviation Camp here at Lowndes. This year we should have 13 kids taking part, which is about the number we had last year.

I also wanted to let your chapter know that every single one of the kids I brought to your Young Eagles Flights last summer was selected for the Air Force Flight Academy Program, which means they're spending this summer getting their PPL courtesy of the Air Force. In total, we had 14 kids selected for this amazing program, the second highest number out of any AFJROTC program in the entire country! I can't thank Chapter 797 enough for your continued support and making this possible.

Please let me know at your convenience if you think a Young Eagles Flight will be possible on July 29, if it is not then we completely understand. We hope to still see you all at the Wings Over Suwannee 2023.

Sincerely yours,
Peter Dominicis, Lt Col, USAF (ret)
Senior Aerospace Science Instructor
AFJROTC, GA-081
Lowndes High School, Valdosta, GA

I hope our efforts will be fruitful again this year. The rally will be on 29 July. Hopefully, we can discuss this event on 16 July at our monthly meeting.

Dave Holmes, Young Eagles Coordinator

Air Venture 2023

Are you headed to OshKosh? By the emails from EAA and the Sport Aviation magazine, the only thing happening in the whole world is Air Venture.

OshKosh is important to the general aviation community and has become more important as a forum for interaction with the FAA, EAA, manufacturers, and general aviation support groups. It has evolved from a workshop for homebuilders to a convention center for the groups I mentioned. It is good for the flying community that this annual convention takes place.

There have been many improvements in the past few years regarding aircraft maintenance and the use of non-OEM parts. One of the biggest breakthroughs has been the authorization of many avionics that previously could not be installed on certified aircraft.

So, if you are headed to Air Venture, we hope you will share what you learn and the “hottest” rumors from the convention. Two years ago, many “rumored” that the light sport airplane weight limit was going to increase (it didn’t, but . . .). The authorization to use Dynon Avionics in certified aircraft was first revealed at Oshkosh. I am not sure what the “hot topic” is this year. I am anxious to hear what you bring back (besides the pens, drink cozys, buttons, and whatever swag is being given away!)

Have a good trip, enjoy the Wisconsin summer, and stay safe.

Dave Holmes

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This Old Plane...

I purchased my Cessna 150 several years ago and have made some priceless memories. Attending the Cessna 150 gathering in Clinton, Iowa, the Pietenpol Event in Brodhead, Wisconsin, and of course “Oshkosh”, not to mention, Busting the class

D airspace at Waukegen International (UGN) when going around the Class B at Chicago O’Hare, while en route passing through the area, but that’s a story for another day...

I was visiting a neighbor at Little River (FL10) on our 18/36 runway, and upon the start up to hop over to 09/27 my home runway, I noticed the red light flowing brightly on my panel. My old generator was NOT charging. I knew I could make the two minute flight home where I had the equipment to better diagnose the problem. Upon arrival safe at home I checked the voltage regulator and flashed the field and restarted the engine, but still no charge voltage. I flashed the field once again and found no voltage spark at the regulator this time. Upon further inspection, I found the glass fuse in the panel was hazed inside, but read good in spite of the fact, I had to pull it from its holder with needle nose pliers. I then found the holder had been partially melted from heat. Inspecting more I discovered the number 4 screw that held the wire connector to the holder was loose. So loose that the heat had also melted the nylon from the nut holding the wire end to the fuse holder. I had now found the problem. Bypassing this fuse with a temporary in line fuse confirmed my diagnosis to be correct as the charging system now operated properly.

It was time to correct the issue. My little Cessna, now 64 years old, was overdue for an update. I ordered all new circuit breakers from Aircraft Spruce and began the repair. Making a new brass bus bar connecting all the breakers together on the new bar and attaching the proper wire to its prior assigned position. And “viola” everything works and the bad light on my panel is no longer glowing. I’m back in the air and it is a long overdue feeling of freedom once again.

Some maintenance is needed to keep the our old planes flying, we all know about the dreaded Annual Inspection. It is all part of the pride and joy of owning an airplane. What a life changing experience it continues to be, making repairs, meeting new friends, and working with some of the nicest people along the way.

“Crazy” Ed Conrad

Serious Experimental



Virgin Galactic's "Space Ship 2" has made its first commercial passenger carrying flight. Follow this link for more story:

<https://www.avweb.com/aviation-news/space-flight/virgin-galactic-completes-firsts-commercial-spaceflight/>

Then read the next article...

Editor

Of Subs, Rockets & Best Practices

The whole world watched with bated breath as the search for *Titan's* crew dragged on past the possible endurance of the environmental systems. We began to hear details of all sorts of alleged carelessness in the construction and operation of this experimental Submersible.

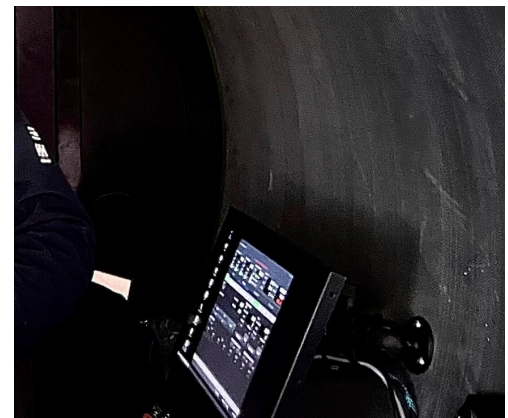
Coincidentally, the May/June issue of "FAA Safety Briefing" is all about the space program and its effects on General Aviation. A quick perusal of the Table of Contents is a walk through safety concerns for all GA pilots and commercial concerns as well. While thumbing through the issue, I couldn't help but think of the sub, private space flight operations and our Experimental Aviation past-time. They have at least one thing in common, best practices.



Advisory Circular 43.13-1b from the FAA lists a host of recommended practices from patching a plywood skin to spacing out the rivets in your construction. It can be found at:

https://www.faa.gov/documentlibrary/media/advisory_circular/ac_43.13-1b_w-chgl.pdf

Tony Bingelis wrote a series of books for the EAA homebuilder covering a range of topics, focusing upon Firewall Forward, Sportplane building and engines. "Control Systems" by Jim Newman is book full of control system methods for RC models that can be scaled up by applying the best practices in Tony's books and AC-43. There is no shortage of instructional material available to the homebuilder. Still, we manage to take shortcuts. Being a composites tech, this photo leapt off the screen. This is a carbon fiber filament wound tube with titanium end caps and the screen mount is screwed directly to the carbon fiber pressure vessel.



I've seen

keyboard warriors on social media sharing their expertise, proclaiming the preceding dives as proof of safety. They believe that a track record of what was "gotten away with" ascertains a record of safety. We experimental aviation types have been taught that a period of regular use is cause for suspicion and inspections. I'm looking at the results and I'm sticking with the latter.

I'm not going to get into the myriad of different best practices that can be found in the application of our past-time of experimental aviation, but a few examples might help to illustrate what I'm trying to bring to your attention.

- 1) Nylon Lock nuts are not advisable in the firewall forward installation. They can lose their locking feature due to heat



elongation of the nylon insert. I have had people become very insistent about the

senselessness of such a rule. They have cited their own experience as conviction of the applicability of nylon insert locknuts to the engine compartment.

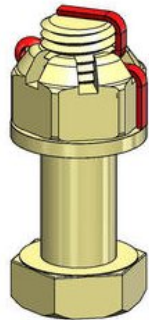


They were using a water cooled auto conversion and had gone so far as to monitor in-cowl temperatures. They were of the mindset that they hadn't seen a problem, so the small price increase for metal locknuts wasn't justified. This article goes into greater detail:

<https://www.kitplanes.com/thats-shear-nuts/>

- 2) A castellated nut and cotter pin is best for a bolt fastening a rotating item.

This is another place that people use nylon insert nuts as a quick solution. However; not even a metal lock nut is a good idea. In a control assembly such as an aileron hinge or rudder cable link, the nut may be worked off



over time in small increments. A washer under the head of a cotter-pinned castellated nut provides a wear surface for the rotational action and is also recommended for a cotter-pinned Clevis pin. This article goes into greater detail:



<https://www.kitplanes.com/best-practices-safety-hardware/>

- 3) Larger diameter cable bends can ease strain on the actual moving parts to an extent that lowers wear and increases reliability. When you are running control cables to throttle, mixture and Carb heat (where applicable),

the larger the radius of the cable bend, the better. Engine heat can dry out the lube in carburetor control cables, lubricating them at annual is a good maintenance item. Consider relocating the cables if necessary to encourage free movement and support the cable properly along its length. Always consider the failure mode. If it fails, what happens?

The Titan sub failure really got me thinking about safety and the role that best practices play in that safety. Like the sub, if we have a substantial failure, we may never reach help. As John Croke from *KitPlanes* magazine says: "It's Plane & Simple".

A link to FAA > *Safety Briefing May/June 2023* :
<https://www.faa.gov/newsroom/safety-briefing/mayjune-2023-faa-safety-briefing>

Editor

Tailwind

I'm sure that I missed something or someone and I welcome healthy criticism.

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