



# Spirit of Flight

Experimental Aircraft Association

Chapter 14: San Diego, CA

October 2021



*It's a Tecnam P2006T from Italy. Four seats and two 100 hp Rotax 912S engines. It's being marketed as a low-cost twin-engine trainer. Photo by Jim MacKinnon. 10/10*

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**October 16<sup>th</sup>**—EAA Pancake Breakfast and Chapter Meeting. Gary Schank on Ground Operations

**November 21<sup>st</sup>**—Pancake Breakfast and Chapter Meeting. SDM Tower Chief Mark Demetris will discuss current issues related to operating from Brown Field.

# Chapter Briefing

## EAA Chapter 14 Members



**Chapter Activities:** Information provided by Chapter members. *Week ending Sept 4:* Some congratulations are in order. Due to some helpful folks at the local FSDO, Craig Cornford got his repairman's certificate for his Bushby Mustang II – just in time for its annual. Dan McCarthy reported more good news – he finally found the source of his oil leak. His strobe light is being fixed now. Over the years, a fellow pilot has wanted to buy Ryan's EOS aircraft, but money was too tight. Then a new job meant there was the cash available to finally seal the deal. The timing was great as Ryan had recently got it running again; the man happily towed it off to its new home. It was a really unique looking aircraft which had graced the cover of the EAA 14 newsletter several times. During the week Jonathan Robbins received flight instruction for the Myers 200 D. Stephen Hill and Ryan went for a flight in Ryan's Katana. They hadn't been back long when Ted Krohn rushed up. The door on his hangar broke; the wheel had come off the roller. He had to leave immediately, so he asked Ryan if he could at least get the door shut. Nigel Worrall, Stephen Hill,

and Ryan got it fixed. Ryan welded it and then the three of them wrestled it back on – it was awkward.

*Week ending Sept 11:* Great weather at the Chapter on Labor Day. Gary List and Jonathan Robbins continued getting instruction on the Myers. Craig Cornford flew to Utah and enjoyed a week's camping. Mark Albert, Jimmy Kennedy, Gert Lundgren, Jim MacKinnon, and Trevor Pearson were all busy on their projects. The Serendipity Club plane got a constant workout during the week, as usual. Ryan gave Nigel Worrall a lesson in fiberglass; Ryan is making a new instrument panel for his KR-2 and he had Nigel put down the second layer.

*Week ending Sept 18:* Chris Constantinides gave new member Frank Liu a ride in his plane, along with 2 other visitors – nice flying weather. Ryan put an additional fiberglass layer on his new instrument panel for the KR-2 for improved stiffness. Later in the week, he showed Stephen Hill how to use hole saws to make openings in the panel for the instruments. Alan Sparkes, Trinidad Lopez, and Sharon Lopez stepped up to the plate to cover pancake/waffle breakfast since Kevin Roche, our Pancake King was out of town at the Reno Air Race. Excellent meal as always. Larry Rothrock picked up a donation from member Dan Gerdes – a really nice, heavy duty air compressor – Larry transported it down in his vintage Ranger. It took 4 people to unload it. It is a great addition to the Chapter's tool area. Stephen Hill is interested in building a plane someday and he had originally contacted



Chapter President Trinidad Lopez, along with Sharon Lopez and Alan Sparkes, keep the pancakes flowing while Kevin Roche attended the Reno Air Races.



Alan Sparkes assists Trinidad and Sharon Lopez with breakfast while Kevin Roche, our regular Pancake King, was attending the Reno Air Races.

Ryan about helping out with the KR-2 quick build. However, someone made Ryan an offer he couldn't refuse and the project has a new home in L.A. Stephen had questions about different building techniques and he got a tour of Gert Lundgren's metal RV-12iS and Jimmy Kennedy's tube and fabric Nieuport project. He got some real life experience too. Ryan was starting to cut up the metal T-hangar skeleton that has been behind Hangar 8 and he showed Stephen how to use the Sawzall. The T-hangar had been damaged before being donated to us; as the damage was too extensive to repair, we decided to keep the usable metal. Other volunteers soon joined the party: Craig Kennedy, Jimmy Kennedy, Gert Lundgren, and Alan Sparks all pitched in. Between the six of them they went through 3 carbide blades – made good progress in cleaning out the middle. Metal that is still good will be used on the Chapter's new project trailer.

*Week ending Sept 25:* Ed Watson was sorry he missed the meeting on engine monitors. He commented: "I am a big fan of engine monitors. That was the first piece of equipment I put in my Bonanza and I tracked each cylinder during climbs. I feel it is a must for a single engine machine. I don't remember the name of my EGT monitor, but it was a round gauge with 6 displays (bars) with a line for EGT and CHT. No fancy displays like the ones I see today or the integrated displays. I just had the traditional 6-pac of gauges." Gert Lundgren took the time to say thank you to several members who had helped him with his RV-12iS. He stated, "Ryan repaired the heater muff and removed the fuel pump assembly, Jim MacKinnon bled the brakes, and Mark Nash reinstalled the brake line fittings in the gun drilled main landing gears. These tasks are complicated and I am so lucky and happy for having gotten so much help." Nigel Worrall flew down to take a look at the radio in Ryan's Katana – turned out the issue was just a loose connection. Allan Osborn, Bob Osborn's son, was out visiting from back east. He joined Ryan for a flight in the Katana. Friday, Saturday, and Sunday saw more work on the T-hangar skeleton. Ryan tied a rope around it and using his van, he pulled it on its side because it would be unsafe to work under it in its previous state. On Saturday, Craig Cornford, Gert Lundgren, and Joe Russo lent a hand in cutting it up even further– we really appreciate their volunteer spirit. On Sunday Ryan did more cutting and loading on the Chapter's flatbed trailer. Several sets of strong backs will need to do the final heavy lifting to get the remaining twisted metal on to the trailer for the trip to the scrap yard.

**General Meeting:** President Trinidad Lopez opened the meeting and welcomed Chapter members and guests. Program Chairman Kerry Powell introduced our speaker for the month: Joe Godfrey. See a short overview of Joe's presentation, What Engine Data Can Reveal, later in the newsletter. To watch the entire presentation, copy the following link to our website and then in the left-hand side menu, click on Past Meetings and Educational Videos: <https://chapters.eaa.org/eaal4>. Thanks to our Program Director and Webmaster Kerry Powell for making this possible.

## President's Message



Hello Everyone,

The big news for this month is that a commercial operation has leased the land on both sides of the EAA, and much of the land on the north side of the airport.

These plans for the commercial development of Brown field include a new entrance to the airport at Britannia Boulevard. The development is scheduled to begin next spring.

Our chapter will still maintain our current lease, as well as options for land on the east and south sides of our lease. Chapter expansion plans to include these lease options is now in negotiation with our lease holder, the city of San Diego. We welcome any comments chapter members may have on this subject.

Chapter activities for this month include breakfast and a presentation on the 3rd Saturday. Lunch will not be served. This reduced schedule will continue and we hope to be able to return to normal activities by the beginning of the year.

We are also planning to have a Young Eagles day in November. This will be a special event for Charlotte's birthday.

Our Ray Aviation Scholars are continuing their progress. Ryan Flores has his check ride scheduled for October 18th. We all wish him the best of luck. Kaitlyn Werner is now back east attending University at Kent State. She has resumed her flight training and is making quick progress.

I have heard from several members about their recent trips and activities. We encourage you to share your adventures. Whether it's a once in lifetime trip or a local flight for a hamburger, please consider sharing your story in our newsletter.



Clear skies,

*Trinidad Lopez*



*From the Archive: De Havilland Chipmunk on the EAA Ramp, 1/10/2015*





## New Members

**Donna Ryan**

Welcome to our new members. The information below comes from their membership application.

Some people just include the essentials; others expand a bit on their experience and we always appreciate that.

Look for them at the next meeting, introduce yourself and get to know them better. We very much appreciate their support.

**Randy Cotton** owns a 182A Cessna and recently received his PPL after training at First Flight. He can help with engineering and construction. He wants to learn more about building, ideally to build his own experimental in the future. He is interested in STOL, backcountry flying, fly-in camping, and Baja flying.

**Caitlin Evans** is currently a student pilot, but is working towards getting her A&P and flight ratings. With experience working for an airline, two different flight schools, and as a social media manager, she is skilled at event organization, and networking – skills we can no doubt use as we get the Chapter up and running again after the health restrictions.

**Kevin Warren** has spent 33 years running an adventure tour fly-in company and is interested in back country flying, and adventure outfitting. He holds the following ratings: commercial pilot, single & multi-engine Land, along with instrument ratings. You'll see his PA 32 Piper around the Chapter. Stop by and say hello. Sounds like he has lots of adventures to share!



*From the archives: Stearman flyin at SDM on May 10, 2014*

## Individualized Aircraft Models

**By: Ron Shipley**

During this year's EAA AirVenture I came across the Factory Direct Models (FDM) booth. For years I have considered having a model of my Alon made. I figure that my flying years are numbered, and I wanted a model of it for memory's sake. I wanted a quality model that I would be proud of. I closely examined their models and found them the best I've seen. I "gambled" and I filled out their order form. They charged my credit card half of the cost. A couple of weeks later they emailed me photos of the model. I was amazed at the quality. They even include my three mosquito "kills", the Marine Corps emblem, and the Alon emblem! They nailed it! I approved it and asked them to insure that my nav lights colors be correct. They quickly sent me additional photos, adding not only the colors but they also modified the lights to include miniature UniAvionic ADSB lights! I couldn't be happier! The cost was a bit more than I expected to pay (\$350) but I feel I am getting my money's worth. They can be contacted at [factorydirectmodels.com](http://factorydirectmodels.com) or 866-580-8727 or 1-602-748-4565.



*Ron's Aircoupe from Factory Direct Models.*



*Ryan's EOS leaves SDM, sold to a buyer with a long-term interest in the project.*





*Here's the task. This T-Hangar carcass turned out to be too damaged to repair and we needed to get rid of it. The parts will be used to build a new chapter trailer.*



*Making progress. The demo crew is stacking usable parts of the carcass on one of the Chapter trailers to the left.*



*Almost done. The crew dismantles the top of the center bay*

## Hangar Demolition

This one didn't work out as well as we had hoped. The hangar, damaged before donation, turned out to be beyond repair. Material salvaged from the carcass will be used to construct a new trailer to replace the one that was stolen.

Ryan, Stephen Hill, Jimmy Kennedy, Craig Kennedy, Gert Lundgren, Alan Sparks, Craig Cornford, and Joe Russo all pitched in to help.



*Stephen Hill practices with the Sawzall. The bent upright below the saw gives an indication of the damage to the hangar.*



*Chopping up a hangar is hard on sawblades. The crew went through three carbide blades while reducing the carcass to scrap and trailer material.*





**Starting Point.** Here's the original panel on Ryan's KR-2. His goal was to create a new, simplified panel and choose the instrument locations.



**Cut to Shape.** With the panel cured and cut to shape, Ryan showed Stephen Hill how to use a hole saw to make openings for the instruments.

## Ryan's New KR-2 Panel



**Laying Up the New Panel.** Ryan uses a piece of shower glass as a form to lay up a perfectly flat fiberglass panel. The panel required at least three layers of fiberglass to achieve the necessary stiffness. Nigel Worrall practiced his lay-up skills by applying the second layer of glass



**Panel Complete and Mounted.** The new panel is in the KR-2 with just the necessary instruments, including a transponder because SDM is underneath the SAN Mode C veil.



From the archive: EAA-14 Flight Line 11/1/2014

## Donation Corner

**Donna Ryan**

Thanks so much to EAA Chapter 14 member Dan Gerdes for donating his really nice air compressor. It is a Quincy 2-HP, 26 gallon ASME tank, delivering 8.31 ACFM @ 40 psi. Larry Rothrock used, as he put it, his "ancient, but venerable old Ranger" to make the long journey and pick it up. It weighed 170 – 180 pounds, so Larry's ramps were necessary to get it into the truck. Once it got to the Chapter, it took 4 people to get it safely off. It will no doubt get lots of use. We really appreciate Dan's donation and his thinking of us.



*More air in Hangar 3. Thanks Dan!*



### **Kerry Powell, EAA-14 Program Director**

**October 16:** Gary Schank, discusses Ground Operations. This is a fun and informative look at an airlines pilot's tips for safely operating your aircraft before and after you take to the air. Every flight begins and ends with a ground operation, and therefore, it is a skill that should not be taken for granted. Topics include airport signage, markings and lighting, clearances, standardization, taxi etiquette, emergencies, low visibility taxi and runway incursion avoidance.

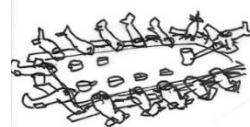
Gary Schank is a recently retired Boeing 737 Captain with Delta Airlines. For over 29 years, he has flown Boeing, McDonnell-Douglas and Airbus airliners all over the world. Type Ratings: Boeing 737, Airbus A-330, DC-9, CE-500, SA-227. Captain Schank instructed on the DC-9 for the airlines and is also a Certified Flight Instructor (CFII-MEI), an FAA Safety Representative, and an owner of a Bonanza A-36. Captain Schank is also a member of Flying Musicians Association, and is a practicing attorney.

**November 21:** Our scheduled October speaker, SDM Tower Chief Mark Demetris, had to cancel due to losing a tower controller at Brown Field and not being able to get away that day. Mark has rescheduled for November to talk about current issues related to operating from Brown Field. Again, I will plan to host the meeting on Zoom for the benefit of those who cannot attend in person.

## Board of Directors Election Next Month

**By: Donna Ryan**

EAA Chapter 14 holds its annual Board of Directors election next month. Watch for the ballot in the November newsletter. The following members have agreed to serve: Trinidad Lopez (President), Larry Rothrock (Vice President), Donna Ryan (Secretary), Ron Shipley (Treasurer), Gene Hubbard, Jimmy Kennedy, Ted Krohne, Ashley Lopez, Kerry Powell, Jonathan Robbins, Kevin Roche, Alan Sparkes, Stu Strebis.



*From the archives: Buckers arriving at SDM for lunch. 5/24/2014*



# What Engine Data Can Reveal

## Short Summary by Donna Ryan

The following information is based on the program talk given by Joe Godfrey.

Joe Godfrey provided an informative and valuable talk about the advantages of engine monitoring systems and how to interpret the data these monitors produce. His goal was to convince each listener of the value and importance of regular engine data analysis. Joe has been based at CRQ since 1986, got his instrument rating in 1988, and has owned a Bellanca Viking since 1990. Joe works at SavvyAnalysis Pro. Among other services, the company has a team of analysts who look at data downloaded from a piston engine, interpret it, and send out a report with results to the customer. The report is loosely modeled on oil analysis reports.

While the talk was primarily about using engine data, Joe gave a very brief overview of the Savvy Analysis company. It supports all popular engine monitors in terms of interpreting data. Savvy provides a free platform if you want to interpret the data yourself. However, if you want experienced help to help read and understand the data, it can provide that as well. Savvy Analysis Pro is \$129 a year for single piston engines and \$199 a year for twin piston engines. Annual subscriptions are designed for owner/operators of one aircraft, with ProPacks available for maintenance shops, flights schools, or clubs where the package can be applied to different aircraft. Joe mentioned that he also writes a monthly column for the company's newsletter called Puzzler whose goal is to help pilots recognize and analyze data in real time so they can make informed decisions about safety of flight and maintenance.

See their website [www.savvyaviation.com](http://www.savvyaviation.com) for more information and a lot of testimonials on how the program helped out.

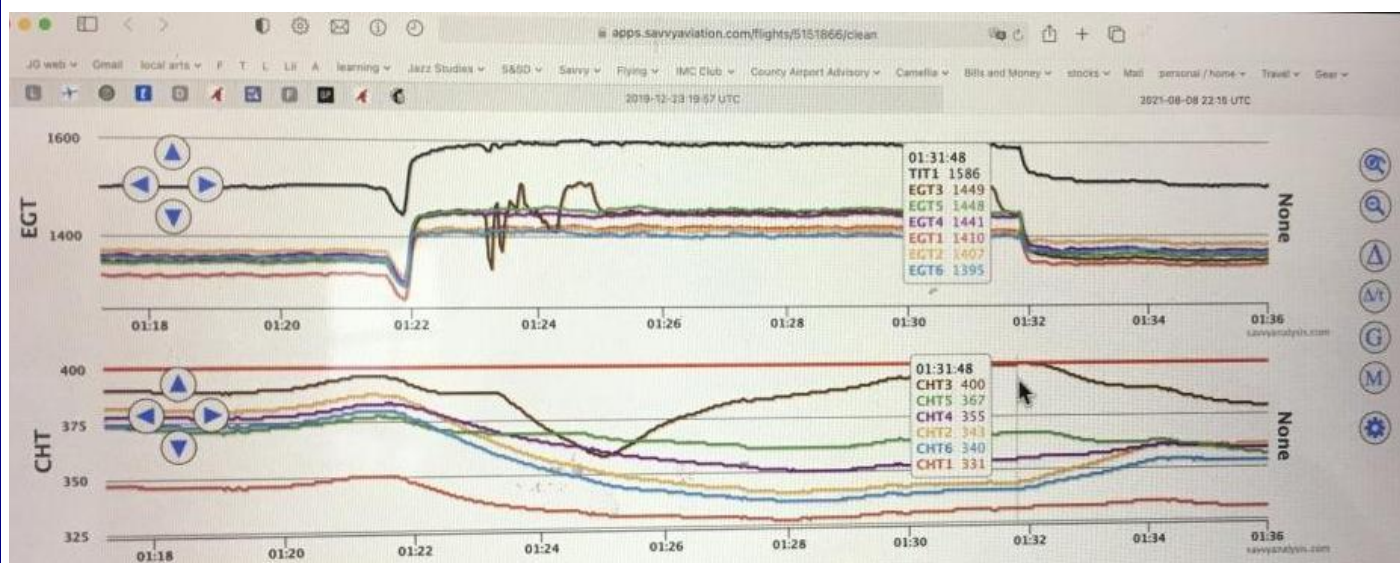
The main portion of Joe's talk was on what engine monitoring systems can do for you and the longevity of your engine. An engine monitor is a device that records many important engine parameters such as EGT, CHT, FF, and Oil Temp. The device stores the data, which can be downloaded into a computer and then uploaded to SavvyAviation for analysis.

Analysis can highlight such problem areas as clogged injectors, weak spark, mis-timed mags, induction leads, cooling problems, etc. If you are watching the data real time as you are flying, you can also get the information needed to decide if a problem needs to be addressed right away (start looking for the nearest airport or field), or if it can safely wait until later. By interpreting data, you can make good maintenance decisions, such as which cylinder you need to replace (and not just shell out money to do all of them if it isn't necessary).

Joe shared a variety of data displays and discussed them. The example below shows an 18 minute segment of data collected by the monitor.

For each example, Joe discussed what the data might mean. Example: when CHT goes up, but combustion is stable, it may be a cooling problem, a broken piston ring, or maybe a spark driven event. Or in another instance, for CHT, cylinder 3 might be tracking perfectly but it is hotter than the other cylinders. What might be causing that? Does the problem look serious enough to have the cylinder borescoped? Or maybe you were making power changes and the data can show which cylinder doesn't like that.

First step is always to evaluate and judge the data to make sure that the issue isn't just a bad probe. Another important



**Expanded EGT / CHT Data Display.** With minute-by-minute tracking of all cylinders, the engine monitoring system shows the result of every change in combustion or power. From this data, it appears that cylinder #4 may have had some combustion problems (too lean maybe) around 01:24, resulting in erratic EGT and declining CHT, while the cylinder #3 CHT probe may be faulty, since it's pegged at 400 degrees.



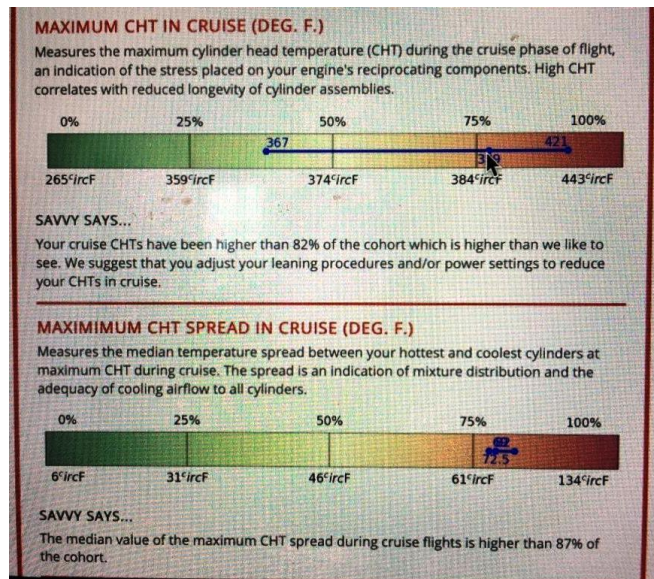
step is to look at all data types together to make the best interpretation and corroborate the recommended action. These are all areas that the reports can help with.

You can put overlays on the data, such as altitude over fuel flow, to see what was happening at a particular time, e. g. doing touch and goes.

The company provides a variety of reports. The example reports on, and offers an interpretation of, the maximum CHT and CHT spread during the cruise phase of a flight.

Another advantage of an engine monitoring system is that it can act as “evidence” when selling the plane. You have something to show that you did required maintenance and operated the aircraft sensibly. You can even go and do a flight and then give the data to an agent or the prospective buyer to show actual engine performance.

Final point: Valuable information is in engine data. It is good to know that all is going well, but even more useful to know when something is going wrong.



**Report and Interpretation.** This report indicates that on this particular flight, both the maximum CHT and the CHT spread between hottest and coolest cylinders is larger than over 80% of similar engines, and suggests adjusting your leaning procedures or power settings to reduce the discrepancy.



From the archive: An F-18 taxis by on Alpha, now Gulf. 3/22/2014

## Volunteers – Recurring Tasks

**By: Donna Ryan**

Last month we listed some specific volunteer opportunities. This month we are listing some of the recurring tasks that need to be done around the Chapter on an ongoing basis. We need help with these as well. Next month we'll list tasks that need to happen especially for Saturdays to get Hangar 1 ready for Young Eagles, Pancake Breakfast, General Meeting, or any of our Saturday get-togethers.

### Recurring tasks for the Kitchen/Bathroom area.

- Monitor coffee supplies (coffee, creamer, sugar, stir sticks, cups). Write needed items on purchase list.
- Monitor basic kitchen supplies (paper towels, plates, napkins, utensils, trash sacks, plastic gloves). Write needed items on purchase list.
- Monitor kitchen cleaning supplies (anti-bacterial wipes, spray, dish soap, hand lotions, scrub brushes, sponges). Write needed items on purchase list.
- Clean refrigerator (wipe down inside and outside with cleanser). Throw out any expired items.
- Clean stove (wipe down top with cleanser). Check inside for spills; if needed, start oven's automatic cleaning cycle.
- Clean microwave (wipe down inside and out with cleanser). If inside needs cleaning, put a small bowl of water inside the microwave and run the microwave for 5 minutes; then clean inside with sponge and wipes.
- Sharpen kitchen knives.
- See Restroom Checklist mounted in the bathrooms for instructions on how to clean the restrooms.
- Monitor basic supplies (anti-bacterial wipes, spray, cleanser, toilet bowl cleaner, toilet paper, seat covers, urinal cartridges). Write needed items on purchase list.

### Miscellaneous tasks

- Sweep Hangar and Hangar 3 floors.
- Use broom or paper towels to dislodge spider webs on chair or table legs, magazine bookcase, display cabinets.
- Dust off hangar doors.
- Take recycled cans and plastic bottles to recycling center; put proceeds in payment box.
- Remove weeds and then spray with vegetation control.
- Keep weeds mowed or trimmed during fire season.
- In trailer, brush off cobwebs on windows and shelves, vacuum floor and empty trash cans.

# October 2021

## Facebook

<http://www.facebook.com/pages/EAA-Chapter-14-San-Diego-CA/134162329986593>

## Chapter Website

<http://www.eaa14.org>

### EAA Chapter 14 Memberships

Applications are available at our Brown Field hangars and on our website.

#### General Chapter Information:

Donna Ryan (Chapter Secretary) (858) 273-4051. Leave voice mail or text.

[eaal4contact@gmail.com](mailto:eaal4contact@gmail.com)

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EAA Chapter 14 (with answer machine) (619) 661-6520

#### Chapter Events

**Open House at the Brown Field hangars:**  
every Saturday from  
10:00 am to 2:00 pm.

**Pancake Breakfast:**  
7:30-9:30 am, third  
Saturday of each month

**General Meeting:** 10:00  
am, third Saturday of each  
month

**Directors Meeting:** after  
lunch in the library 3<sup>rd</sup>  
Saturday

Hangar Phone:

Experimental Aircraft Association  
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