



September 2022

## ***EAA Chapter 1387 Newsletter***



President's Corner | Brett Siefert

### **Gyroplanes**

(also referred to as gyrocopters, auto-gyros, other names, but the FAA calls them gyroplanes)

#### **What is a gyroplane, actually?**

To perhaps oversimplify, it's an aircraft capable of 90% of what a helicopter can do but at 10% the operating cost. Or, another perspective is that they are a huge compromise between fixed wing airplanes and helicopters. A gyroplane is a heavier-than-air aircraft achieving lift using a rotor that is in constant autorotation. Thrust comes from a (typically) pusher configuration though tractor/puller style exist. No anti-torque device is needed (i.e., tail rotor), as the rotor is free-spinning, not powered from an engine. The tail assembly uses a vertical fin and rudder, and a horizontal stabilizer and elevator, which are controlled pretty much the same as on fixed wing aircraft.

They can be production or experimental but in the US they are virtually all experimental. Most are one- or two-place. Once air is moving over the airfoils/rotor blades they rotate and once at a given RPM, provide lift sufficient to fly. This can be achieved by using the thrust from the propeller to move the aircraft along fast enough to spin the rotor fast enough to then become airborne. To reduce the takeoff distance needed, one can spin the rotor by hand but many models use a prerotator that uses mechanical, hydraulic or electrical input to spin the rotor to a speed just below that required for flight. The forward movement as provided by the propeller then helps provide the rest of the energy required to spin the rotor fast enough for flight. Tip jets may also be used but this is a relatively rare way to do it in this class. The rotor speed is more or less self-governing; little to no input is needed from the pilot.

#### **Performance**

Very stable; turbulence and wind have much less effect on gyroplanes than on fixed wing aircraft. Glide ratio is around 4:1, but the plane is capable of gliding at that ratio and landing safely.

Takeoff and landing distances are typically quite short, though loading and weather conditions can dramatically affect this as with other aircraft. 0-30 feet landing distance is not unusual, while takeoffs typically require a few hundred feet.

How high? Most gyro flying is low as compared to fixed wing but they have been flown to over 20,000 feet. Gyroplanes can fly very slowly and top out around 100 mph; some are slower, some are a little faster but this top speed is governed in large part by an imbalance between the advancing and retreating rotor blades. Gyros can perform vertical descents and



tight turns that most fixed wing aircraft cannot. Unlike a helicopter, gyroplanes cannot hover or take off and land vertically.

### **Who flies them? How many are flying?**

Most gyro pilots have already flown something else prior to getting training and certification. Gyros are much more prevalent in Europe than in the US but they are becoming more popular domestically. The FAA has been slow with respect to this category....indeed, there was no such well-defined category until fairly recently and even so, is still somewhat fractured. This has been changing, though. As late as 2018, registrations were in the hundreds for all manufacturers and models in the US.

### **Safety**

Gyroplanes do not stall or spin. There is an Achilles heel, however—an unloaded rotor is very often fatal. Control thrust and rotor drag fall off rapidly in this scenario and the aircraft is now very prone to “bunting over”; the plane tips tail over nose and recovery is now extremely unlikely and essentially impossible. Also, the unloaded rotor is more likely to strike the propeller and/or tail, which almost always results in a fatal crash. Two factors have dramatically improved the safety record: better training and larger horizontal stabilizers. Pilot-induced oscillation was a major and consistent factor in early crashes, confounded by the fact that recovery from instability is the opposite of what it is in a fixed wing plane.

### **Conclusion**

The preceding is a very small sampling of what there is to know about gyroplanes. I think this will be an expanding market in the coming years, more so than it's been. The breadth of options will also increase, from creature comforts to performance options. They may actually become faster in cruise than the present 120MPH or so barrier. And maybe ... pilots who “wouldn't be caught dead in one of those contraptions” may warm up a little once properly informed.

See you **Wednesday mtg @ Health Dept at 7PM**

**Brett**



As the Newsletter editor at large, I'm always seeking your input for sharing with the Chapter. To this end, all input for the Newsletter is due at the end of the month for the next issue.

Please feel free to submit any item of interest to share. Thanks for your support and blue skies!

Joe V.

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## NEWS FROM HQ

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In September's Chapter Video Magazine, Charlie Becker discusses:

- Highlights from a record [AirVenture year](#)
- EAA is hiring for a [Chapter Field Rep in Oshkosh, WI](#)
- Special Young Eagles [challenge for pilots and chapters](#)
- One Week Wonder is in the process of flight testing
- EAA Flight Test Manual is being updated
- [Tax Exempt Basics Webinar](#) at 7 p.m. Central Time on 10/13/2022
- Chapter Leadership training is [starting in October](#)





Chapter 1387 Events for 2022. Always looking for membership inputs on what everyone is working on or what you'd like to share with the Chapter. Building projects, Items of Interest, etc. would be ideal. Please review and send me your input to share! Thanks, Joe V.

### Chapter 1387 Calendar of Events for 2022

#### September

- Member Inputs
- VMC Scenario
- Night Fly at Herman – Cancelled for 2022 due to Airport construction

#### October

- YE Rally at Mexico - 8<sup>th</sup> Oct – (Remember 30 for 30....)
- Member Input - Bob Talir - Advancements in Aircraft Landing Lights

#### November

- Officer Elections – Treasure and Secretary
- Member Input - J. Roser – RV 6 Update

#### December

- Chapter Christmas Social
- Election Results
- Chapter Renewal by 31 Dec.

### Chapter Leadership Academy

Now is your chance to attend a very special EAA Chapter Leadership Academy, an interactive, two-day workshop held in Oshkosh, WI that focuses on topics important to you as chapter leaders.

Here, you'll have the opportunity to immerse yourself in a wide range of chapter-related subjects, such as business fundamentals, recruitment, fundraising, public relations, EAA resources, programs, and more! The academy provides an

excellent opportunity to network with other chapter leaders as well as interact with EAA staff through interactive workshops and conferences.

Participants stay at the EAA Air Academy Lodge in Oshkosh. Day one of the event includes an afternoon check in, followed by a social hour with EAA staff and a special welcome dinner. Day 2 starts a full day of class, which conclude at noon on day 3. Count on meeting and talking with a host of EAA staffers, and going to a very special EAA Museum tour we have planned for you!



### Upcoming Chapter Leadership Academies: 2022 - 2023 Academy

- October 19 - 21, 2022
- January 27 - 29, 2023
- April 21 - 23, 2023



## **LEARNERS AS WE GO**

### **30 YEARS OF EAA YOUNG EAGLES**

**mr. bill**

Wow where does the time go! I do not want to say, "It was like yesterday."

Back in the DAY of 1992, Tom Poberezny mentioned the start of the Young Eagle Program and EAA 32 jumped on board. The pilots of EAA 32 talked about it and we all decided to get our medical certificates updated, and our landings updated, and our Biennial Flight Reviews updated. That is where we had to work on things because some of the pilots were flying EXPERIMENTAL Aircraft and the local CFI's (Certified Flight Instructors) would not come around our Homebuilt airplanes. So, I started to give the flight reviews in Homebuilts.

Other things that Tom brought to life for EAA were the EAA Aviation Center headquarters and museum building. Paul had determined (along with Steve Wittman) that the Oshkosh Airport would be the new site of the EAA Headquarters. Paul was looking to build a small, low-cost metal building for the facility. Tom argued for a bigger building. Paul left the argument telling his son to "just go do it."

This year at Oshkosh the new Pilot Proficiency Center was opened to take the introduction and continuing education of flight to a new level. Tom also helped usher in the Light Sport Aircraft category into the FAA regulations to make flying more accessible and affordable.



**EAA Pilot Proficiency Center**





Tom's famous resignation speech sums up the true Poberezny ideology of EAA. "The EAA is not an organization, it's not a business, it's a way of life each one of us lives in different ways. This is a field organization, it's where the action is."

Tom also stated about the AirVenture show that, "The week before (AirVenture) is more fun for me than the week of. I get to watch everybody, watch it evolve, watch it build, and watch the friendships. People who haven't seen each other for 51 weeks of the year come back and act like they've never been gone. That's the fun part, the joy. Don't forget what a special place this is."

Later came the programs such as EAA Flight Advisors and the Additional Pilot Program. Here we are 30 years later and what a program it has become!



**EAA 30 Year Young Eagle Pin**



### **Prez Bill Doherty, Sean D. Tucker, and mr. bill**

I am extremely happy with our “SAFE” Young Eagle Program. I can only think of one time where we had a situation where we had to interrupt the Young Eagle flight operation. And now with over 8600 Young Eagle Pilots flown by our EAA 32 group, we can all stand proud for our top notch program, its top notch people, and its great safety record. Speaking of people here is Ms. Jennifer in the upper level of the NEW EAA Pilot Proficiency Center (that was added on to the EAA Museum this year) acting like Vanna White showing off her model that the future pilots, engineers, and aerospace people may be getting their start by assembling their first model.



**Ms. Jennifer and the F-22**





With the sadness of Paul H. Poberezny passing, others took to their own method of saying THANKS.



**CANADIAN OSHKOSH attendee who made and sold shirts at 2022 AirVenture**



Well, what to do next? The EAA Young Eagle Program has morphed into the Eagle Program (I do believe our Art Zemon had something to do with that.) But people of all ages can now get a glimpse of what aviation is from the other side of the airport fence. And we, in EAA Chapters, with so many talented people, are doing exactly what Mr. Paul and Mr. Tom Poberezny would want us to do.

THANK YOU Mr. Jack Pelton for carrying the torch for the upcoming years.

Alright EAA 1387members, if you really thing about it, we are truly a mini Oshkosh, where we have the freedom to continue our “OSHKOSH” Experience the other 51 weeks out of the year after AirVenture at Oshkosh.

So let us keep up the GREAT programs that were started in a young couple’s basement (Paul and Audrey) back in 1953, some 70 years ago at our great facility.

THANK YOU ALL FOR DOING WHAT YOU DO!

Q? Who won the US National Unlimited Aerobatic Championship in 1973?

A: Tom Poberezny at the age of 26



Q? Any idea what year the VW's bugs are?

A: Red One should be a 1968.

Red 3 should be a 1967.

EAA gratefully acknowledges the support of Aircraft Spruce and Specialty Co. for their generous sponsorship of EAA webinars.

**Registration is required, and space is limited.**

9/14/22 7 p.m. CDT

**Crosswind Conundrum - When Winds and Runway Don't Align**  
Qualifies for FAA WINGS credit.

9/21/22 7 p.m. CDT

**FAA Enforcement Process**  
Qualifies for FAA WINGS credit.

9/28/22 7 p.m. CDT

**Flying With Datalink Weather—ADS-B and SiriusXM Tips**  
Qualifies for FAA WINGS credit.

10/05/22 7 p.m. CDT

**On a Short Leash – Maintenance Costs**  
Qualifies for FAA WINGS credit and AMT credit.





## How Can We Help?

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Helpful Links:

<https://www.eaa.org/ea>

<https://chapters.eaa.org/EAA1387>

<https://www.faasafety.gov>

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