Advice For Aspiring Gyro Pilots:

Lessons I Have Learned

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Lee and Debbie Blazejewski in their newly constructed Magni Gyro. Three years in the making.

Finally, I am flying my own gyro! This took me 3 years, lots of training, building two different model kits and repairing one after an accident. You can do better. Before embarking on this quest to fly gyros, I was a current low-time fixed wing pilot for 12 years always yearning for a more natural and personal flying experience than a rented Cessna. Gyros more than meet the need for me, but the sacrifice in time and money was quite an ordeal. What I learned may help you discover a smoother, shorter path as you consider whether gyros are right for you and if so what kind of ship suits you.

Let's first consider the present capabilities of the sport gyroplanes. They are very maneuverable, fun, short take off and landing, single or two seat, personal flying machines that don't stall, and so amazing that it is easy to get carried away with their abilities and possibilities. They fit nicely into the sport aviation world for recreation and education, but they are not suitable for taking the family to the beach. Yet!

They are not fast. Open frame gyros fly in cruise, take off and landing most comfortably at 45 mph. The enclosed or partially enclosed models cruise best at 60-80 mph (not knots) with faster speeds possible in still air. Sure, some experts routinely exceed the fastest manufacturers' suggested velocities. But be in awe of those professional pilots; don't emulate them. You want fast? Get a jet!

They are not for flying high. Service ceilings may be up to altitudes requiring pilot oxygen, but there is no need to rise above a few thousand feet even on a trip. Staying in the airport environs at 1,000 ft above ground (or less if complying with the FARs), practicing climbs and rapid descents to landing, are where you have the most fun anyway!

It is not likely you will be flying your gyro out of your backyard, even if all your neighbors are noise tolerant; errant groundhog holes, mud-generating rains, and obstructions are absent. Airports offer too many advantages with the long, margin-for-safety, smooth asphalt surfaces and generally open spaces; while most US gyros aren't designed for rough service (although some US and European models are). I have experienced commercial grass strips that shook my gyro to its core! Rotors, bearings, landing gear, and engine mounts may be adversely affected if not designed to take it.

Understanding all of that, you are now ready to experience gyros for yourself. Attend a show such as the PRA Convention, with lots of varieties of ships for you to inspect and fly. Wow! Overwhelmed with the selection? Start out by collecting flight experiences. Do you like flying slower with on open cockpit or faster with more enclo-

Run up to take off. Notice the motion shown by the trees in the background.

sure? Realize that a partial enclosure and windscreen alone will block most of the wind and allow cool weather flying, but slower flying gyros may require the proper dress and helmet for those hardy enough. How are the visibility, comfort, and ride? There are side-by-side and tandem seating arrangements. Will your weight be a problem and create restrictions?

Now get your head out of the clouds, out of dreamland, and safely on the ground for the next step. Let's consider safety. You figured one gyro was pretty much like the rest, didn't you, except for looks, speed, engine, and of course money. Reality is that unlike cars, they don't all fly about the same, requiring only a few minutes adjustment between models. Those mandatory landings decrease the tolerances for error in weight and balance, and handling, over anything on the road. And unlike certified planes, sport gyros don't meet FAA safety standards for stability. Sorry, you have to be looking out for yourself. Purchase the new FAA book on rotorcraft for the informative sections on gyroplane stability and read this magazine to become more educated.

This is a simple how-to outline of things to consider as you investigate gyros. So look at it this way. You might want to evaluate that gyro choice based on ease of flight, and stability on the ground, taxing and landing. Could your spouse perform an emergency landing and walk away? What's the average time to solo? Get references. Save yourself a bundle of money and time by seeking out the stable configurations of gyros in the style you prefer. If not satisfied with the safety record, look elsewhere. Structural after market safety enhancements like horizontal stabilizers should be considered. Fly them yourself to get your own impressions.

Now, before putting any money down, learn to fly the gyro you want, all the way to solo logbook endorsement. Frankly, most of us are too proud or stupid to think about the wisdom of this. I was. Demonstrators may be assisting you on that first flight more than you realize. I have met way too many aspiring pilots who built or repaired gyros only to discover they ultimately lacked the talent or perseverance to fly them safely. Consider that even after your many hours of preparations and practice, the majority of CFIs will deny you solo privileges in their gyro.

There are too few gyro CFIs. Getting training will be expensive and difficult to schedule; yet more expensive not to get enough. $100 an hour, more or less, not including travel and motel bills, can really add up. Don't complain though. Instructing is a labor of love for these dedicated CFIs. Most can only afford to teach part time. Be thankful they have made such a commitment. Gyro flying is not a latent instinct aroused from a deep sleep with a few lessons. Get lots of training. Be patient.

Fixed wing pilots can be especially frustrated with training. After all, they already know how to fly! Unfortunately at landing, the sight picture, angle of approach, height above ground, and timing in the flare are so different it can take some time to extinguish fixed wing habits. And you didn't learn about rotor energy management did you. A very heavy 100 lb, 28-30 foot rotor is sitting overhead in two-place gyros. Misdirect this spinning bundle of energy or don't react properly to a gust in time and you will see how unsteady that little base is.

Greg Gremminger finishes taxing in from the runway.

Let's talk about taxiing. Mechanical prerotation is only used to start rotor spinning. A combination of head wind and incoming air from taxiing then takes over the "auto" part of autogyro. Until the speed of rotation and centrifugal force stabilize and flatten the blades (between 70-100 rpm), the necessary rocking or teetering action due to the differential in lift between the advancing and retreating blades can be excessive and troublesome. Should the rotor teeter too violently (or flap), it can strike the prop, or ground, even flipping the gyro on its side. Just because you can fly doesn't mean you can taxi! Get training!

Now you are ready to build. Consider a recent EAA statistic that only 50% of kit planes are ever completed. Estimated construction times are often only accurate if you have numerous trade and engineering skills or have built that model several times before. Do you wish to learn on something that you fly? Join the Experimental Aircraft Association for technical assistance. Talk to other first time builders of your model. What kind of support did the kit supplier offer? Instructors want to instruct flying, not rebuild your creation so it is safe to fly.

Consider a used gyro. Many excellent builders are less than interested pilots. Most planes are used. Gyros have the advantage of being easily inspected inside and out. You are not allowed to do the annual inspection, but cost will be negligible. Most general aviation pilots don't build their planes, but they still familiarize themselves with the different systems for preflight purposes and troubleshooting. You will too.

If the flying bug bites you, know that the training process is usually much cheaper and easier in fixed wing planes. Get to know the airspace regulations and communication skills, and develop an aerial perspective. As a gyro pilot you will be considered a renegade, often not welcome at the airport. The reality is that having a fixed wing rating lends credibility to your gyro flying, adds to the camaraderie, eases your introduction, and makes you a safer pilot…. and you can take the family to the beach. When you want more out of flying, come back to gyros.

For more info about the advantages of gyros, see "Why Rotors Instead of Wings?" by Greg Gremminger, PRA June-July 1999.

Read about Lee's building experience beginning on page 41.

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