

A yellow and black biplane is shown from a low angle, performing a roll maneuver. The aircraft is tilted significantly to its left, with its wings cutting through the air. The background consists of rolling green hills and fields under a clear sky.

MAY 2020

# SPORT *Aerobatics*

OFFICIAL MAGAZINE OF THE INTERNATIONAL AEROBATIC CLUB



IN IT TO WIN IT, HAVE FUN! ▶

REMEMBERING 'FONDY' ▶

THREE-DIMENSIONAL  
**THINKING**

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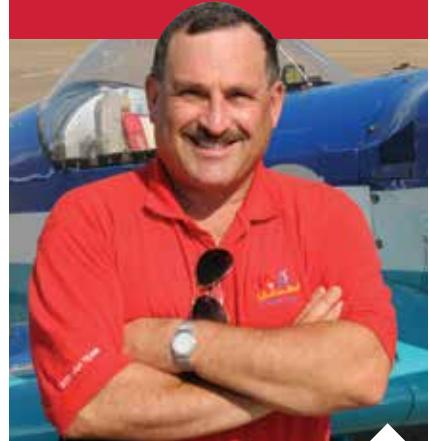
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## COVER

**ON THE COVER:** Chris Murley flies his homebuilt Acro Sport II. Chris, who started the project in 2009, flew his first contest in the ASIIS in 2017.  
Photo by Yves Eynard.

**ABOVE:** During the ASIIS building process, Chris Murley used carbon fiber everywhere that made sense, including the turtle deck, floor pan, instrument panel, and landing gear covers.  
Photo by Yves Eynard.

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# Staying Ahead and Looking Forward

BY ROBERT ARMSTRONG, IAC 6712

## GREETINGS,

all aerobatic enthusiasts. By now, everyone has had some part of life touched by the coronavirus. The International Aerobatic Club has seen judges schools as well as some contests canceled or rescheduled. We have posted as much reliable information as we can on [www.IAC.org](http://www.IAC.org). As of this writing, the offices in Oshkosh are empty except for essential personnel, and our Executive Director Steve Kurtzahn has been working from his home with only necessary visits to EAA headquarters allowed. The museum itself, which is where our office is located, remains closed. With this situation, please understand that all business is being conducted normally, but we may see some additional time required for some tasks.

We are following the situation in Wisconsin with tremendous interest, and as of this writing at the end of March, EAA AirVenture Oshkosh is on track for normal operation. The latest word from Oshkosh is for a decision on AirVenture in May.

In recent weeks, I have been contacted by several members with questions or issues regarding airspace waivers for contest and aerobatic practice areas. While I can help some, all of these issues involve our government relations committee chaired by Bruce Ballew. Bruce has two excellent IAC members with him on the committee who are up to speed on the most frequently appearing issues. These representatives are here to help you, and it is important to get them involved early — earlier than one week prior to your event. Most issues can be worked out as long as communication is started in a timely manner.

I have invited members to contact me with their thoughts on how we are doing as a club and how to improve. I am happy that several openly have shared how they see the IAC is doing and what they see as the shortcomings, and the information is not different from what I have felt personally. With this impression stated, a detailed discussion on the feelings that many pilots who look at Sportsman as their home, for time and money reasons, has been conducted. Make no mistake; we need to have this information in order to work out a solution. One view shared is that many of our members feel they are outgunned by high-dollar aircraft that can be flown in any category and with

less effort in Sportsman than the more traditional starter aircraft. This topic is a big issue for me as well. If a member does not participate because they always feel they are fighting for fourth place, then they certainly are not having fun. I am not defending or condemning this notion, but it is a common underlying thought that I am hearing.

How to adjust for some of it? These same members suggest a handicap system to give a more even playing field. This approach is a valid notion; however, handicapping in itself can be a controversy as well, and do we need to create more work to level the playing field? And should we?

So, how to make this summer more fun for all? Since many contests may be adversely affected this spring, might we reconsider the Sportsman-only (now to include Primary) contests when we get a bit of normalcy back? They're simple to run with registration starting on a Friday afternoon, flying on Saturday, and all home by noon Sunday. In the 1980s, a good number of Sportsman-only competitions were held that were simple, fun, and well attended. As for a way for all to participate, these Sportsman-only contests would have a "pro" classification for any pilot who has competed Sportsman and above, and the contests would be open to all members, not intimidating new pilots. It was interesting back in the '80s to see an Unlimited pilot fly only the first three figures of his Unlimited Free to meet the Sportsman K and not come near winning! Can we find some fun in getting back to some of the basics of our sport?

Please communicate with me and any board members with comments and suggestions, and as always, be safe. **IAC**

► Please send your comments, questions, or suggestions to [president@iac.org](mailto:president@iac.org).



# Inspired by Others' Successes

BY LORRIE PENNER, IAC 431036

**WAS THIS THE YEAR** you decided to take an emergency maneuver course, take glider lessons, or get your commercial certificate? Don't you just hate waiting when you've made the decision to do something and figured out a way to afford it and then you are hindered by an unexpected block in your path?

Whether in life or aviation, there comes a time when we have to make the proverbial lemonade. During this time of being "alone together," we have an opportunity to get some of the book work done on our goals. For myself, I had been wanting to get my commercial glider certificate. I had received my commercial test prep book about two weeks before we received the announcement from the governor of Ohio that we needed to do some social distancing, followed shortly afterward with the order to work from home. Initially, this development disheartened me. I was ramping up to take the written test and felt deflated. On reflection, I realize that it has opened up

an opportunity for me to crack the books so I can be ready as soon as the local testing location opens up.

In this month's issue, there are a number of mentions in various articles from people who have pushed through a waiting period to achieve their goals. Some waited because of long training times, saving money to take lessons, or just forming a group that has goals to spread their aerobatic passion.

In Budd Davisson's column, "High on Pitts," he writes about prospective students asking how long it will take to learn to land a Pitts Special. In examples of his past students, we see that it could take some six to eight hours of flight time. For others, it takes much longer.

Coincidentally, Scott Selzer from the new IAC chapter in Alaska describes his time with Budd in 2016. He had scheduled a 10-hour aerobatic course but ended up becoming one of Budd's highest-time students ever. He specifically mentions trying Budd's patience numerous times during the process.

From the "Meet a Member" column, we learn that Michelle O'Hare, after taking a youth flying day with her Girl Scout troop at 8 years old, knew she wanted to learn to fly. At 16 years old she went for a trial introductory flight in a Cessna 152. However, she was not in a position to start lessons at that point. She needed to get through school, secure a job, and initiate some good savings habits. It took her five years before she was able to take those flight lessons at the age of 21.

**IN EVERY CASE, THESE PILOTS KNEW WHAT THEY WANTED TO DO BUT WERE PUT IN A POSITION TO HAVE PATIENCE, TO WAIT ON THEIR END GOAL.**

For the last four years, Pablo Quintero of the new IAC chapter in Argentina has been developing his presence within the local air show circuit and attending competitions. Just this year, he and other aerobatic pilots came together to successfully form their own IAC chapter. They have just scheduled their first contest "Argentina Spring" to take place at the end of this year.

In every case, these pilots knew what they wanted to do but were put in a position to have patience, to wait on their end goal. What gives me reassurance and some mental relief is that no matter how long it took, they succeeded. We can all be inspired by others' successes to succeed in realizing our own dreams even in these times of uncertainty. **IAC**

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## ► TOP STORY

# Welcome, IAC Chapter 135 — Alaska

BY SCOTT SELZER, IAC 438954

**HOW I BECAME INVOLVED** with aerobatics: basically, fear. Even though I have flown and been fascinated with flying most of my life, I found myself developing a fear when doing basic stalls and steep turns.

In 2016, I was scheduled to be in Phoenix for work training, and I decided to face my fear and signed up for a 10-hour aerobatic course at Chandler Air Service. Despite being truly terrified after the first hour, I realized that I couldn't quit smiling. Shortly after that experience, I bought a Pitts S-1D, and I became one of Budd Davisson's highest-time students ever. I tried his patience on numerous occasions.



Scott Selzer flies a Christen Super Eagle I, which was originally owned by the late Bill Gordon of the Iron Eagles.

A friend of mine, Mark Barker, came up with the idea to form an International Aerobatic Club chapter. After listening to him talk about it for several weeks but not doing anything, I couldn't stand it any longer and began to communicate with IAC. I rounded up five additional friends who were into aerobatics and hired an attorney to complete our paperwork, so here we are. The main focus of our chapter members is to have fun. We plan to have a local competition, but for the most part, our focus is recreational.

Our new IAC chapter members have four airplanes between the five of us: Pitts Special S-1D, Christen Eagle II, Christen Super Eagle I, and a Super Decathlon. We fly out of Anchorage's Merrill Field as well as Soldotna and Kenai.



The Pitts Special S-1D is affectionately known as the *Boop*.

# Welcome, IAC Chapter 136 — Argentina

BY PABLO QUINTERO, IAC 35692

**THE INTEREST IN AEROBATICS** in Argentina has been steadily growing these past few years. There are about 40 pilots in a position to compete in various categories. For this reason, together with Jorge Manrique, Ruben Wesibek, and Nacho Colado, we drew together and completed EAA's chapter paperwork to form our own chapter.

The history of aerobatics in Argentina has been mainly on the air-display field, but the Argentinean Aerobic Association (AAA) started the first local official competition in 2019. The AAA has participated in two World Advanced Glider Aerobatic Championships and one World Advanced Aerobatic Championships.

The new International Aerobatic Club chapter is made up of a group of enthusiasts who are purposefully starting to encourage aerobatic activity regionally. We have had



Pablo Quintero has been flying his green and white Pitts Special S-1D in air shows since 2015.

some training meetings with approximately 12 planes. Our goal for this year is to have an official IAC regional contest.

I have been associated with acrobatics for about 15 years. I started with recreational acrobatics, flying a Van's RV-4. As I added experience, my interest in specific airplanes rose, particularly with the Pitts Special. I had the opportunity to fly with Fred Cabanas and Steve Wolf, and love was born with this biplane! In 2015, I was able to buy my Pitts S-1D with 180 hp. I had to modify and update many components. With this plane, I was able to develop within the local circuit of air shows and some competitions.

We are very enthusiastic and working hard to make Chapter 136 grow! **IAC**



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# THREE-DIMENSIONAL THINKING

**Some thoughts for those teaching or learning aerobatics**

BY GREG KOONTZ, IAC 20242

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ecently, a well-known author in our aviation community stirred things up by publishing an article explaining “why upset training just doesn’t work.”

Needless to say, that view rubbed a lot of aerobatic and upset training people wrong. Some great responses quickly arrived to dispute that thought. Randall Brooks, a longtime aerobatic expert and professional in the field of upset prevention and recovery training (UPRT), responded for Aviation Performance Solutions (APS), a company on the cutting edge of this type of training. APS trains all types of pilots from business flyers to corporate operators and many airlines. I have a different perspective being that I instruct mostly the average pilot who has not received the level of training most of APS students have received. The large percentage of my students have not operated under the kind of procedures and operation specifications most full-time professionals use.

I’ve been teaching aerobatics since 1974, having been mentored by Jim Moser and Jim Holland back in the day. Literally thousands of people have finished my basic aerobatic course. I prefer teaching beginners. I am retired from my day job of 36 years of corporate flying. It was from there I understood what APS does, and I can assure you that although I have a different perspective (and experiences), I don’t want anyone to see my point of view as being in disagreement with APS in any way. I have no new physics to offer the universe; I just have my own style.

I have a one-on-one school I run right out of my house on my grass strip like a bed-and-breakfast. Pilots come to me and stay in my house for a few days. I have the unique opportunity to get to know them well and see what they have retained from their training and flying experiences. In other words, I get to see the real product of our system of producing pilots. I regret to say it is a rather bleak picture. But the pilots I meet are not to blame. They are mostly people who want to fly well and enjoy aviation. They know what they have been taught, or have read, or have seen. How can a house be any better than the builder?







I have had aerobatic pilots (some you would surely know) ask me how I could ever enjoy teaching so many aerobatic students. Many who have tried teaching the basics have found it frustrating. If you let the difficulty people are having with flying get you aggravated with the students, you are really being aggravated by the instructor who failed them. I look at pilots who come to me with flying issues as opportunity! Yes, it is harder to fix a person who has been taught wrong than to add something new to someone who is a good pilot. But turning someone around and making them safer is very rewarding to me. In reality, it is what we as instructors do.

The problem: People are not being taught how to fly; they are being taught procedures that make an airplane fly. By definition, teaching is providing information that creates a change in understanding and behavior. When you give your student a mental checklist of what to do to enter slow flight, you are providing information but not necessarily understanding. One of the greatest tools to understand how a plane flies are the four forces that act on an airplane in flight. But most pilots that come to me can only tell me what the forces are; they can't explain what they are supposed to do with them. They know how to say lift overcomes gravity and thrust overcomes drag. But think about it. They are describing two separate things. The point is the four forces work in unison. The way they say it suggests they expect the drag to reduce speed if they just reduce the thrust. But if only thrust is changed, the plane doesn't slow down; it goes down instead. The first three-dimensional thought a student could have learned is usually overlooked as just a silly diagram that seemed to say the obvious when in fact it holds the secret to it all.

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## THE PROBLEM: PEOPLE ARE NOT BEING TAUGHT HOW TO FLY; THEY ARE BEING TAUGHT PROCEDURES THAT MAKE AN AIRPLANE FLY.

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Greg's students benefit from learning and reviewing the fundamentals.

The solution: We should be teaching people the fundamentals. What is really going on is they are being told to read chapter one of the student pilot textbook, and then when they get to the airport, the instructor sits down and starts giving them the procedures. Think about it: It is infinitely easier to get your student to memorize what to do than to instill the understanding. Of course, all those procedures eventually meld together in a soup of confusion. The students, hours down the road in their flying, begin to misconstrue what they think they heard into what they conceive is going on. With no solid understanding of how it works, they come to some outrageous conclusions. How do I know? I see it on a daily basis.

Airplanes are just awkward contraptions of human design constructed to get our heavy butts up into the air. I can imagine birds sitting on a wire watching my Cub depart the ground. They are trying not to fall off that wire laughing while they see this thing with stiff wings and all kinds of flapping controls trying to stay aloft as a spinning fan tries to pull the whole thing through the air. Full of conflict and confusing forces, we try to manipulate these devices into reasonably safe flight. But worse, we fail our students when we try to convince them it is like driving a car. It's not, and in reality, our worst enemy is our car-driving habits. When I ask students what turns an airplane, I get a variety of answers that try their best to give credit to one of the controls. "It's the rudder," they say. "No, it's the ailerons," says another. "Or both," they say. I even hear them say you have to use the elevator to make it turn. "Okay," I say, "bank it over with the ailerons and don't add any elevator, and let's see what happens!" Sorry, folks, it still turns. Of course, it loses some altitude without some back-pressure, but it turns. Now we are beginning to think three-dimensionally. We are realizing the up and down and not just the back and forth, left and right. Let me tell you, grasshopper, lift turns an airplane. As I tell them, lift goes perpendicular off the top of the wing, and it takes you wherever you point it.

## THREE-DIMENSIONAL THINKING

Yes, these flying contraptions can be confusing. Top of the list is adverse aileron yaw. Those flappers on the wing are all about the four forces if you like it or not. They change angle of attack (AOA) positive and negative, so in the process, they do what AOA must always do; they change lift and drag all at the same time. But to make it confusing, the down-turned aileron hits higher-pressure air and therefore creates more drag. As for the up-turned one, it creates lift and drag, but because it hits lower-pressure air, it creates less drag. Now you know why the Wright brothers needed a rudder! The wings warped, but the effect was the same. To really make it confusing, when you switch from positive AOA to negative AOA, the down-turned aileron becomes the up-turned aileron and vice versa, and the need for correcting rudder reverses.

Now here is the UPRT kicker. In between the negative and positive lift angles of attack lies the middle ground, an AOA I like to call the zero-lift AOA. It is there, and only there, you can deflect ailerons without needed rudder. But here is the big secret. It is how to turn off the wing! You know how to get rid of the thrust if you end up pointing straight down. It could keep you from pulling the wings off. But far more important in an upset situation, knowing how to turn off the lift is imperative to avoid being straight down in the first place.



In addition to his one-on-one school he runs out of this grass strip, Greg travels to his students. Pictured is the gang at Loves Landing near Ocala, Florida.

## THREE-DIMENSIONAL THINKING

So, ask the student what the rudder is for, and you will get most any answer except to correct for adverse aileron yaw or P-factor. I usually get something like my instructor said we need it to help a turn. So, a year or so down the road, the pilot misjudges his turn to final and overshoots. Armed with this vague idea of rudder use, the pilot determines (probably subconsciously) this turn needs some help. I assume here that we all know the biggest loss of control problem pilots are having is the skidding turn to final that can lead to a stall/spin. To me, telling people you have to coordinate a turn is planting a deadly seed. Contemplate this notion for me: You really only coordinate the roll. Rudder only screws up the actual turning! What you tell them today can get all screwed up down the road if left as a vague idea and not a good understanding.

They don't need procedures; they need understanding. Left to what they know from their two-dimensional life, they will not fare well. I spun, crashed, and burned in my first calculus course because I didn't really understand algebra. And by then, there had become too much to memorize. It is the same with hand-and-eye skills. I figured out many years ago the first lesson in my aerobatic course begins with a thorough but simplified discussion of the basics of aerodynamics. I'm no engineer, and most of my students aren't either, so my discussion is a plain-talk kind of discussion. I call airplanes "darts with wings" to describe stability. I use pen and paper and models. It takes me just 45 minutes or so to draw the picture and get their minds back to basics. Like teaching my kids to drive my Jeep, you don't need to be able to design a transmission to understand a straight shift!



Greg uses paper, pen, and models to get his students back to basics.



Steep turns, Dutch rolls in slow flight and cruise, and stalls are the maneuvers Greg always starts with when teaching aerobatic or upset training.

It's like building a house; you have to start with a sound foundation. I never assume there is one already there! I am never sorry I spend the time explaining the effects of aileron drag with changes in angle of attack, the results of changing where you point the lift, why you need opposite rudder when inverted, the results of changing P-factor, or how to get to zero-lift at any attitude.

So why is upset training sometimes ineffective? Because most people will never memorize the recovery procedure and be able to recall it in the heat of the situation. Sure, if you are a professional who is immersed in a continuous training program where procedures are drilled into your brain until they're an unforgettable reflex, then you will be ready. But average Joe pilot doesn't operate that way. Understanding what to do when things get unusual has to be from a new "common sense." I have taught power-aileron-rudder-elevator (PARE) for spin recoveries throughout many years. When that plane starts swirling round and round, there is no predicting what the student is going to do. Trying to remember a procedure goes out the window fast. Instead, I use PARE in the ground school, but I take time in the air for students to work out the common sense behind the procedure. I don't want them to be able to bark out the steps as they recover. I want the recovery to be, in their minds, the obvious way it should be done. That's when it is an understanding and not a procedure.

It all would be a moot point if we were really teaching people how to fly in the first place. Pilots trained for World War II in programs such as the Civilian Pilot Training Program where flight was taught in planes like Piper Cubs. It was stick and rudder. No gyros, no radios. You learned how to make the crazy contraption get your butt in the air and back again instead of all the gobbledegook we are fed today. So, we wonder why pilots are so much in need of UPRT programs. Programs such as what APS is offering are becoming more and more critical to safety of flight as primary training is turning into pilot factories.

For those of us who might teach upset training on the more grassroots level, I hope you will consider providing that training after you check and repair the student's foundation first. I never start the aerobatics or the upset recoveries until we do steep turns (check use of attitude control), slow flight (check understanding of the four forces working together), Dutch rolls in slow flight and cruise (check understanding of adverse aileron drag), and stalls (see if the student is looking for speed or a reduction in AOA). All these steps also will give the student a chance to get familiar with your training aircraft.

Like a lot of aerobatic and upset recovery instructors will tell you, we have many testimonials of how UPRT has made people better pilots. Better pilots are more likely to be safer pilots who are prepared. **IAC**



HAVE FUN!

IN IT TO WATCH,

Flying the Freestyle

BY CHRIS MURLEY, IAC 435695



Chris Murley stands by his modified Acro Sport II. The original Acro Sport II was designed by EAA founder Paul Poberezny.

**C**ompetition aerobatics. The very sound of it means someone has to be the winner, right? Who are you competing against? Your peers? Are you in search of that giant trophy? Or are you out to fly against yourself? This article is going to solely focus on the Freestyle flight and what you can do about it.

The Freestyle is supposed to be a flight you can design to highlight the best qualities of your aircraft and yourself. Correct me if I'm wrong, but I didn't know an Extra excelled at doing multiple competition turns flying around the box; more on that later. The Freestyle gives you, the competitor, a great opportunity to fly something challenging — and fun for the judges! Isn't the whole reason we are out there is to have fun? What better way than to have a great time with a creative and challenging Freestyle that will teach you more about your airplane than just flying circles around the pattern!

First, here's a little about myself. I began flying in 1996. I started doing aerobatics when I bought a Citabria in 2004 and flew it through 2007. It provided a way to have fun flying with friends and get myself upside down. I was hooked from then. In 2008, I flew with my friend Jimmy Proton in two of his airplanes: a Decathlon and an Extra 300L. In 2009, I was building an RC airplane, and Jimmy said, "Why don't you build a full-size airplane?"

So, in 2010, I started building the Acro Sport IIS (ASIIS) because I wanted something bigger and different from a Pitts. I continued flying with Jim, and we talked about "someday becoming competition aerobatic pilots." Well, we never went to one contest together.

I flew the ASIIS for the first time when I finished it in June of 2017, and it wasn't long into the Phase I testing when I began its first round of beatings! I believe I flew the 2017 Sportsman sequence before finishing the 40-hour fly-off time, and it was the first time I flew from a sequence card. I was hooked. I finished the Phase I testing three days before Oshkosh 2017, and it was my first cross-country out of my test area. As soon as I arrived, they stuck it front and center at the International Aerobatic Club Pavilion. It was a lot of fun, and some stress having it on display, but that is another story entirely.

Once I got back from Oshkosh, I began practicing Sportsman. I wanted to fly a fall contest that year, but as many Northeasterners remember, we were lucky to have a week's worth of sunny days that year. I never made it to a contest in 2017, and the beginning of 2018 was no different.

The first contest I was able to make it to was the Green Mountain Aerobatic Contest in Vermont. What a great setting! Springfield is full of beautiful scenery, and the people were some of the nicest I have met in aviation. I have since become good friends with several people I met at that contest! I flew Sportsman for my first contest, deciding to skip out on Primary. In the end, out of 14 competitors, I placed third. Not too bad for my first time out. With weather again defeating us in the Northeast, this occasion would be my only contest in the ASIIS for 2018.

Thankfully in 2019, Mother Nature had other plans for us! Since I was hooked, I worked with the FAA to get an acro practice area set up over my local airport, 76N Skyhaven, in Tunkhannock, Pennsylvania. The arrangement has allowed lunchtime and after-work practice flights. Yep, living the dream! Throughout all of these activities, I have had several mentors, such as Mark McKibben, who I always chat with on my drive home discussing anything about aerobatics. Mark also would come up on practice days I would have together with a few friends, and he would critique. I can't thank him enough for helping me out! Another is Eric Sandifer, to whom I basically dedicate this article!

Bring on the "Hero Free"! After my first contest, I was left wanting more. I flew only two flights, as there were a lot of sporty competitors and there wasn't time for a third flight. It wasn't long until I started reading into the rules and found I could design a Freestyle for Sportsman. Most take a conservative approach, zooming back and forth across the box with confidence and knowing no single mistake would cost you the flight.

I've never been one to take the easy way out. Since I was new to Aresti and not proficient with OpenAero, Eric designed a seven-figure Sportsman Free that would train me for Intermediate figures. It was pretty bold, yes. Would this approach win? Some said heck no! (More colorful language usually was used.) If I flew this contest well even if I didn't bring home a trophy, I would have the satisfaction of knowing I rose to the challenge. But I wasn't in it to win; I was in it to have fun!

And my idea of fun was not flying the same flight three times! It also was not designing what I call a "Cheater Free" using 90-, 180-, and 270-degree turns to fly around the box! Just because you can doesn't mean you should! Are we flying aerobatics, or are we doing pattern work? Anyway, I flew my Hero Free and had cameras on the airplane. Eric and Mark would look at the videos and tell me what I was doing well and what I was mainly doing not so well. Feedback is what it's about, right? I took their comments and applied them to my flying. Soon that seven-figure Hero Free felt pretty good! But what would the judges think? Well, I was soon to find out.

In springtime 2019, Danny Bond put on an early Mason-Dixon contest in Virginia. This occasion would be my second contest. I flew my Hero Free for the judges there, and guess what — I won! I came in first out of six competitors in Sportsman. Only one other competitor flew a Free as well. So, you do not need to make a Cheater Free to win at this game; you need to be good at flying your airplane. You need to go out there to have fun.

I told myself I would move up to Intermediate once I win Sportsman or fly three Sportsman contests. Well, it was time to move up. I flew two Intermediate contests in 2019, placing on the podium in both. I didn't have such an aggressive Freestyle for those two contests in Intermediate because I was nervous with getting into Unknowns. However, as it turns out, I'm pretty good at those!

What does 2020 have in store? Well, I haven't seen 360-degree rollers in Intermediate yet! Will I win? Who knows and who cares? But I sure am darn proud to dive in with a flying machine I created, and I sure will have fun. See you in the box!

Smizo **IAC**



Chris and some of his best friends enjoy an afternoon at EAA AirVenture Oshkosh 2017. Back row: Yves Eynard, Chris Murley, Jim Krisovitch, Dan Williams. Front row: Sam Kimball, Rebekah Griggs, Kim Welch.



## MODIFYING THE DESIGN

Building his Acro Sport II and his Freestyle had a lot in common. Chris Murley was driven to make changes. Both have served him well.



# Czech out



**FLYING THE GRAND DAME OF  
MODERN AEROBATIC COMPETITION**

## The Zlin 526F Trener — Part III

BY PHILLIP GRAGG, IAC 431292

**FOR CRUISING AND GENERAL SPORT FLYING,** the view out the front is just about the best I've experienced this side of gliders and helicopters. However, flip the switch to acro mode, and it becomes a bit of a liability. The view over the nose is somewhat disorienting. The distance between the top of the cowl and the horizon is the distance covered between the top and bottom of my hand, with my hand pointing sideways and placed 6 to 8 inches in front of my face. For those of us who like to sit deep in the bowels of a Pitts, beset by the gunwales of the upper fuselage while gun sighting the ground through the cabanes and the screw on the end of the nose bowl, you will have to significantly readjust your sight picture. There really is nothing for reference out of the front.

The Walter Minor engine turns the propeller counterclockwise from the pilot's perspective, so left rudder is needed to counteract forces. The reality is this difference is simply a nonissue. Give it what it takes (GIWIT) and you will adapt immediately. There is no need to overthink it. The aircraft is airborne quickly as much by virtue of its long wing as by its propeller or engine. The gear needs to come up quickly because its operating limitations are fairly low in the airspeed range. Power is reduced to 2500 rpm, while air pressure pushes on the propeller conus (nose piece), which automatically adjusts hydraulic pressure and thus propeller pitch. It is a set-it-and-forget-it affair. Initially, I was disappointed by the lack of a controllable prop, but when you think about what the system does automatically, you'd think it was a new system. Sixty-plus years on, to a Westerner, it is novel, and I wish these props were available on every airplane. Speeds for this mission were straightforward: approach and climb out at 140 kilometers per hour, rolls and maneuvering at 200 or so, which also happens to be a comfortable cruise for the aircraft, and vertical maneuvers at 240 to 280 (305 redline) depending on figure and weight of aircraft.

Despite the brilliant Avia propeller, this airplane doesn't claw its way through anything and is very much a momentum airplane. This trait is noticeable at low airspeeds. And at that point in the flight envelope, the



The view from the front cockpit of the Zlin 526F Trener.

elevator, which has a beautifully harmonized feel through much of its deflection range across various airspeeds, leaves the pilot wanting a little more control surface. Specifically, in a pull-pull-pull humpty, the elevator feels wanting in authority at the top of the hump. I suspect a lot of flyovers and underflown downgrades would be observed in competition. Hard to say without a coach on the ground, but I never found the "slot" where the plane tucks in, as is so easy to do in Pittses, Extras, and One Designs. That's not a critique as much as an observation. I'd love more time to figure it out.

The airplane is quite at home in the vertical. Vertical rolls up can be tracked quite easily either at the wingtip or looking at the ground over the tail if that is your preference. Quarter up and down rolls are quite competent, but one must make haste on the downline. The initial roll rate is poor, and by the time a second quarter roll down is contemplated, a 3g to 4g pullout has you hitting 260 to 280 – not a lot of time there. Solo, I expect a full roll up would be possible, and a half to a quarter up with two aboard is about the limit. These were done on humpty bumps, so a hammerhead out might buy you a few more degrees of roll. As I was so new to the plane and didn't have a feel for the hammerhead, I felt working on vertical rolls and exiting via a hump rather than an aggravated or poorly executed stall turn was the more sensible route.

Because of the engine, hammerheads (HHs) are done to the right, of course. Like a neophyte attempting a slow roll to the right for the first time, the right-handed HH is not a figure that brings great satisfaction to the pilot born to left-handed HHs, although the airplane rotates fine and is responsive to rudder at both the top and bottom end of the maneuver.

Spins are predictable and seem slow to recover, but leading by a quarter turn got the job done and on point every time. There is a pause here between input and effect. It is not pronounced, but there is just the slightest moment where faith is required. We are talking mere fractions of a second, but it is noticeable. We only did one-turn spins, so I can't comment further. But I am told that spin recovery can be a challenge for the aircraft. Inverted spins are said to be more problematic. The Beggs-Mueller emergency recovery technique is said not to work, but my co-pilot was not familiar with the technique by name, only specifically that developed spins required affirmative elevator input to recover.

**AFTER SEVERAL CIRCUITS IN THE PATTERN, I GOT A GOOD SENSE OF WHAT A GREAT MILITARY TRAINER THIS PLANE MUST HAVE BEEN. IN FACT, I THINK IT WOULD MAKE AN EXCELLENT INITIAL AIRCRAFT IN WHICH TO LEARN HOW TO FLY, DESPITE THE RETRACTABLE GEAR.**



Petr Bezdek in OK-IZZ flies formation with fellow Zlin 526 Trener pilots over Prague, Czech Republic.

Initially, we had planned to do inverted spins but didn't because of the inverted oil valve issue, and I continued to wonder if crossover spins would be a greater operational risk for this airplane. If you are at all rusty on this area of flight operations or want to read more about the history, I would highly recommend the series of articles by Beggs and Mueller in IAC *Technical Tips* manuals, basically letters back and forth, which culminated in Gene Beggs' excellent work, *Spins in the Pitts Special*. It documents a series of extended spin experiments he conducted in a variety of aerobatic and utility aircraft (not just the Pitts!).

Unfortunately, my g-tolerance was nonexistent for this flight, so we had to head back to the airport earlier than I would have liked. After several circuits in the pattern, I got a good sense of what a great military trainer this plane must have been. In fact, I think it would make an excellent initial aircraft in which to learn how to fly, despite the retractable gear. There are some quirks and annoyances, however.

While approach and landing are easy and directional control is better than that of many conventional-gear aircraft, the flaps are a major annoyance. Any extra indicated enthusiasm on the airspeed indicator makes the split flaps extremely difficult to extend or retract, as in any position they are held against a detent by flight loads. You have to



So, what is the aircraft like to fly? It might rightly be called the best sport plane in existence. It is an exceptional, intelligent, fun sport airplane whose aerobatic credentials are legitimate. As for looking at it as a purely aerobatic mount, one must consider its age. At the furthest reaches of aerobatics, where the dark arts of aerodynamics are explored, it might best be left for more modern designs. But even compared to aircraft with aerobatic affectations still in production today, the Zlin compares favorably, and is in many respects, superior. The Zlin then represents a unique blend of complex, military-like sport flying and aerobatic qualities with a thoroughbred feel. In this light, the plane is not compromised in any way, but for the right person, it might just be the perfect airplane.

What was the plane like to fly in its time? It produced some of the best aerobatic pilots the world has ever seen. It set the tone for modern aerobatic competition during the 1960s and 1970s and kept Czech engineering and ingenuity alive while under the darkness of the Iron Curtain. It was an impressive performer in its day and a competent one today. It said clearly to the world, “Mluvíme zde o akrobacii” — “We speak acrobatics here.”

If you get a chance to fly one, don't hesitate. It is well worth the effort. **IAC**

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**PHILLIP GRAGG** has been flying for 23 years, has owned a Luscombe 8A (*Evelyn*), Aerotek Pitts S-1S (*Woodshed*), and a Cessna 172N (soon to be rechristened *Robohawk II*), and has flown over 30 types of aircraft.

move the flap lever slightly off the stop, press the button on top of the flap lever, and then move past the detent to the next setting. (There are three.) If you've wrestled Super Cub flaps, then you've got the right idea. Interestingly, the wing might have benefited from spoilers; after all, Zlin does have a rich history of building gliders, but mechanical split flaps were a much simpler solution.

The landing gear is robust and clearly tolerant of abuse, but the gear operation is more annoyance than fun. The gear operation speed is quite low, so one must essentially slow the plane down by pulling power and pitching, deploy the gear, and then add power back to achieve a stabilized approach. Ultimately, the trailing link gear is very smooth indeed and well suited to its role as trener.


  
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# IAC 50th Anniversary Spotlight

## The IAC Championships – ‘Fondy’

BY GORDON AND LORRIE PENNER, IAC 429704/431036

**F**or more than 30 years, the International Aerobatic Club has hosted two championship events — the IAC Championships, held in Fond du Lac, Wisconsin, from 1970 to 2000, and the U.S. National Aerobic Championships from 1982 to present day.

Circa 2000, the IAC board of directors made the decision to discontinue the IAC Championships at Fond du Lac and culminate the contest season with the U.S. National Aerobic Championships. The U.S. National Aerobic Championships not only crowns the national champion for each category but also selects the team members for the World Aerobic Championships in the Unlimited and Advanced categories for the following years.

Discontinuing the Fond du Lac championships was a decision that made sense. But many of the original members of the IAC had strong memories of the Fond du Lac event, called “Fondy” with affection, and what it meant to the formation of the IAC.

Fondy represented the nursery and the central meeting place where aerobatics in America was nurtured from its toddler years to adulthood. It was started at about the same time as the formation of the IAC. With strong backing from the Experimental Aircraft Association, the IAC had come into its own, and the Fond du Lac contests represented that development for all the world to see. Secondly, the IAC and Fondy celebrated and created a place for grassroots aerobatics.

The pilots, officials, and volunteers at the 1973 IAC Championships in Fond du Lac, Wisconsin.





IAC founders Bob Heuer in the cockpit, Jim Lacey (standing in front of the plane), and Mike Heuer standing behind the aircraft with IAC member Wink Moore at the IAC Championships in 1980.

In the course of that accomplishment, though, aerobatic competition in the United States had a burden to overcome.

Civilian aerobatics and the creation and development of world-class aerobatic pilots in the United States had a rough couple of decades. Aerobatic competition and air shows are two distinctly different animals, but the public doesn't know the difference. Air show accidents affect how the public sees both endeavors. Competition has a good safety record. The air show safety record is not nearly as good.

There had been air show crashes in the late '40s, but the triggering event was a crash during an air show in Flagler, Colorado, in 1951. The pilot, who came late, who missed the safety briefing, and who performed an unauthorized maneuver, caught a wingtip on the ground and crashed into the crowd.

Fifty people were injured total, with 20 killed, 13 of whom were children. Air shows were curtailed in this country, except for those by the military and a few large established air show acts, and aerobatic competitions were mostly shut down for a decade and a half.

So, the United States, even with its World War II aviation record, had no pilots developed who could compete on the world level when the World Aerobatic Championships resumed in 1960. The early world contests showed how far the United States was behind the world in precision aerobatics. In the 1960s, the Aerobatic Club of America was developed to fill this gap, but it only focused on the world championships.

The Precision Flying Division of the EAA was developed to bring EAA'ers interested in aerobatics into discussions and to help keep our freedoms to fly aerobatics as well as protect homebuilts from being restricted against it. This division morphed into the IAC in 1970. Fonda was begun in this time frame to accomplish all of the above jobs. Scheduled just after EAA Oshkosh, Fonda was a huge success.

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Grading judges gather for a photo in 1977 at the IAC Championships, Fond du Lac, Wisconsin.



According to the October 1971 issue of *Sport Aerobatics* magazine, “In 1971, the EAA-IAC contest held at Fond du Lac, Wisconsin, in conjunction with the EAA annual convention at Oshkosh was such an outstanding event that it turned out to be the largest aerobatic contest ever held in the United States. There were 61 competitors with half of them in the Sportsman category.”

A few years later, the contest grew to 135 competitors, making it the largest aerobatic contest in world history.

In the second Fondy, aircraft ranged from Pitts, Citabrias, Stardusters, Chipmunks, Cubs, Zlins, and a Monocoupe (flown by Harold Neumann at age 65) to Jungmeisters and Cessna Aerobats. Receiving their championship trophies were Giles Henderson in Sportsman, Verne Jobst in Intermediate, Henry Haigh in Advanced, and Gene Soucy in Unlimited.

After the 1971 Fondy, everyone was treated to a great air show by the Red Devils, consisting of Marion Cole, Gene Soucy, and Bob Heuer, as well as Art Scholl in his Chipmunk and Bob Hoover in his North American Rockwell Shrike Commander.

There were multiple-year winners at the IAC Championships: Gene Soucy in 1971-1972 and Henry Haigh with a win in 1979 and another in 1985. Two women gained the title of IAC Unlimited Champion at Fondy, and they were Linda Meyers in 1992 and Patty Wagstaff in 1993.

All category winners received the Pitts Aerobatic Trophies, which were for Sportsman, Intermediate, Advanced, and Unlimited categories at the IAC Championships. These awards were conceived by Carl F. Bury, and donated with guidance by Herb Anderson of the Pitts Aerobatics Company. The master trophies remain on display at the IAC Pavilion in Oshkosh, Wisconsin.

A Team Trophy was presented to top-scoring chapters at the IAC Championships. It was started in 1971 for the IAC Championships, and it began in 1982 at the U.S. National Aerobic Championships. The chapter who's top three members, regardless of category, achieved the highest percentage of points possible based on all flight programs in the category took home the Team Trophy.

At the 1971 IAC Championships, IAC Chapter 24 members from Texas were the winners. The group brought down the house at the awards banquet with their very own song written by Beth Carmichael, done to the tune of "The Eyes of Texas Are Upon You."

Since 1971, Chapter 24 won the Team Trophy 14 times. No other chapter has come close to that record. IAC Chapter 1 from Illinois won it seven times; IAC Chapters 23 and 37, both from Florida, won it five times; and Chapter 88 from Michigan won five times. IAC Chapter 78 from Minnesota has won it four times, three of them at the most recent U.S. Nationals.

Fondy had done its job and was retired with honor.

So, in the end, Fondy was not just a series of contests. Like the way we all remember with intensity the events and music of our teenage years, that is how the IAC remembers Fondy. **IAC†**



The 1977 IAC Championship logo, designed by S.H. "Wes" Schmid, a graphic designer and also the secretary of EAA at the time.



## 2020 IAC CONTEST SEASON CALENDAR

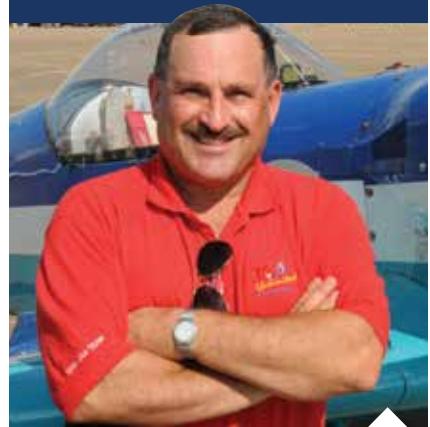


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DATES	HOST CHAPTER	NAME	REGION	LOCATION	AIRPORT
May 30, 2020	12	Ben Lowell Confrontation	South-Central	Colorado	KSTK
June 4, 2020	3	Mark Fullerton Memorial Bear Creek Bash	Southeast	Georgia	KRMG
June 5, 2020	15	Harold Neumann Barnstormer	South-Central	Kansas	KOWI
June 6, 2020	67	Apple Cup	Northwest	Washington	KEPH
June 13, 2020	134	Yooper Looper	Mid-America	Michigan	KSAW
June 20, 2020	11	James K Polk Open Invitational	Northeast	Virginia	KHWY
June 26, 2020	80	Midwest Aerobatic Championships	South-Central	Nebraska	KSWT
June 27, 2020	34	Ohio Aerobic Open	Mid-America	Ohio	KEDJ
July 10, 2020	35	Green Mountain Aerobatic Contest	Northeast	Vermont	KVSF
July 10, 2020	88	Michigan Aerobic Open	Mid-America	Michigan	3CM

# Magnetics

BY ROBERT ARMSTRONG, IAC 6712



**OVER THE MANY YEARS** I have spent involved with aviation, I have always been a mechanic first. Once a mechanic, always a mechanic. In recent years, I have seen a number of events at contests that resulted in a pilot missing a flight because an ignition problem was not found until the engine failed to start. This problem is not just a competition issue; it also can happen on a fuel stop.

Now, from the mechanic's side of airplane operation, it has been noted that few problems occur during the time on the ground; they likely all happened during the last flight. Some of these will be obvious when they occur and may require an early landing for safety. Others just wait to make you angry.

It is time to share some information that may help someone in the future. I will state that I am not the party that conceived these practices. They were all learned from some old-timer, one who was probably younger than I am now.

This information is not something that is difficult; it is the simple idea of doing an *after-landing mag check*.



Switch contacts with various stages of wear. All rejected for service.

Many issues are revealed in your normal practice, but some may not be revealed at the normal mag check rpm. This after-landing type check can also be incorporated in the post-start and pre-taxi phase as well.

The normal practice of a magneto check is to set an RPM as directed by the aircraft manufacturers, or by some traditional number, as a base to observe the performance of each magneto separately. References to a maximum RPM drop and difference between the two systems is the information that is considered.

An additional check to make is one at lower engine speed, a low check. This can be performed after starting after a stable ideal or warmup setting is established, or after landing. After landing this can be effectively conducted during taxi in as no specific data is being looked at, only the presence of some change of speed that is similar for both magnetos with smooth operation.

**THE NORMAL PRACTICE OF A MAGNETO CHECK IS TO SET AN RPM AS DIRECTED BY THE AIRCRAFT MANUFACTURERS, OR BY SOME TRADITIONAL NUMBER, AS A BASE TO OBSERVE THE PERFORMANCE OF EACH MAGNETO SEPARATELY. REFERENCES TO A MAXIMUM RPM DROP AND DIFFERENCE BETWEEN THE TWO SYSTEMS IS THE INFORMATION THAT IS CONSIDERED.**

These are the slow-speed or low-rpm checks where a problem may exist:

**1. Failing Coil.** The most common problem that will appear at low speed many hours before it will appear in the normal run-up is a failing coil. Depending on the nature of the failure, it may reveal its problem at hot or cold temperature, but not both.

**2. Improper point gap and/or weak condenser.**

The magneto is a permanent magnet generator of sorts, and as speed increases, so will its ability to make a spark. Again, a low-speed check should result in a smooth matching drop without any misfire.

**3. Fouled spark plug.** The most common causes of plug fouling are oil and foreign matter. The oil foul is also added by excessive rich mixture and a new player — excessive resistance in the center conductor to the electrode.

Plugs that check okay with a traditional high-voltage checker may still suffer from excessive resistance. A new tool to add to the plug checks now is an ohmmeter. I check resistance first and discard plugs out of range. Resistance of 500 ohms minimum to 5,000 ohms maximum seems to be the recommendation from manufacturers. Excessively high resistance will cause hard starting and require much higher voltage to fire. The higher voltage will cause overheating of the coil and premature failure of the mag.

**4. Cracked insulating porcelain.** Other common spark plug failures can be caused by cracked insulating porcelain and water. A good practice with a dropped spark plug is to drop it again but in the trash. A cracked nose insulator can result in a hot spot in the cylinder that may cause preignition or become dislodged and peen around in the cylinder, causing more damage. The water normally will enter the upper section of the insulated unit and simply give an easier path to ground for the power.



ACS contact plate with wear at 450 hours.

An important step to all engine shutdown procedures is the grounding check. I have found that this practice is regional, and I'm not sure why. It is very important and simple to do. At idle, move the switch to the off position momentarily. The engine should die. Then return to it the Both position and continue the normal shutdown. Simply stated, unless you check, how do you know off is really off?

Another rather unusual ignition problem I discovered on a friend's Pitts S-2 years back was a distinct loss of power when pushing to a vertical line. After some looking, it was discovered that the bundle of high-tension spark plug wires was moving during negative-g maneuvers and had rubbed enough to begin grounding the right mag. This problem was possible as a result of not having the proper protective boot on the P-lead stud of the Slick mag. It's an easy fix and even easier to prevent.

*The comments and suggestions contained in this article are based on the general observations of the author. This material is presented for reference only; IAC and the author expressly deny any and all liability, expressed or implied, that may result from the use of the suggestions or statements contained herein by any party.*

Past "Tech Tips" can be found online at [www.IAC.org/technical-tips](http://www.IAC.org/technical-tips). IAC member login is required. **IAC**

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# About the Mystique of Landing the Pitts: Don't Believe What You Hear!

BY BUDD DAVISSON, IAC 435420

**OF ALL THE AIRPLANES** I've ever been around, which ranges from P-38s (I'm type rated) to test-flying prototype ultralights (I'm not terribly smart), I've never seen any airplane that has such a long stream of old wives' tales behind it as the Pitts Special. To hear the gospelmongers talk, the instant you untie it, the plane will violently ground loop. So, obviously, only a blessed few hero pilots should even consider landing a Pitts more than once in the same day. There was a quote in an article in a major aviation magazine in which a pilot who had restored an S-1C said, "Oh, you never practice landings. They're too dangerous." Honest, I'm not kidding!

Right now, every Pitts pilot reading this piece is rolling on the floor laughing. There is so much misinformation floating around about this airplane that it's amazing! But is it all wrong? With this much smoke, there has to be at least a little fire somewhere. Or is there?



**MY GOAL HERE IS TO CORRECT SOME MISLEADING TALES AND LET FOLKS KNOW THAT ANYONE, AND I TRULY MEAN ANYONE WHO IS WILLING TO TAKE SOME TRAINING, CAN FLY A PITTS SPECIAL.**

Here's a flat statement you can take to the bank: 98 percent of what you hear about a Pitts Special is wrong. Flat-out wrong! However, and this is a big however, if you somehow manage to wander into the remaining 2 percent, things will happen so fast that the newbie Pitts pilot will be just a spectator and not a very observant spectator at that. I've never met a pilot who had a ground-handling accident in a Pitts that can accurately describe what happened. They'll tell you what they "think" happened, but that's almost never the case. The physics don't match the outcome.

Note: Those reading this article who are expecting me to right now teach them how to land a Pitts from a computer keyboard can turn the page and go on to the next article. I'm not going to do that. My goal here is to correct some misleading tales and let folks know that anyone, and I truly mean anyone who is willing to take some training, can fly a Pitts Special. The only limitations have to do with physical size: The airplanes have definite CG, gross weight, and size limitations. Still, they'll accept much taller folks than can be imagined; weight, not so much.

Having said the above, here's another absolute: Do not, and I mean absolutely do not, think a Pitts is just another tail-wheel airplane and that your 250 hours of J-3 or Decathlon time will let you just jump in and master it. That approach might work out, but far too often it doesn't. Even if after that first flight the airplane can be used again, the pilot will want to retire to the restroom for a wardrobe change, at the very least. There's a reason we call the first three hours of Pitts dual – and especially the first hour – the "deer-in-the-headlights flights."



Andrea McGilvray, IAC 440477, landing her Pitts S-1C nicknamed *Lit'l Bit*.

For almost everyone, the first flight in a Pitts is the very definition of sensory overload. Practically everything the ex-Citabria, ex-Stearman, ex-almost-everything pilots experience on that flight is something they've never seen before. There are no airplanes normally available to pilots that prepare them for what they're about to experience in terms of rapidity and new surroundings. None! I can't count the number of fighter pilots, airline pilots, crop dusters, and even astronauts who I see fighting with themselves on approach or on the runway. The issue is almost always because the environment is so new and the aerodynamic honesty of the airplane shows that their basic skills have atrophied. Also, often their muscle memory is so airplane-specific to what they've flown before that they are fighting themselves because of the differences.

At the same time, I had a 65-hour, 20-year-old with not a minute of tailwheel time flying it as well as I could in six hours! I had a middle-aged female hippie artist, who wanted to fly it because "it's cute," knock it dead in eight hours. However, my longest students, all three of whom took 18 hours, were crop dusters averaging 20,000 hours of tailwheel time each: Their muscle memories were cast in concrete, so they had to really work to overcome them.

And then there were the three amputees, one amputated above the knee. (He's now competing in an S-1S.) None of them had any more difficulties than anyone else. That alone should knock the mystique haunting the Pitts deader than a door nail.

When prospective students ask how long it will take, I have to say that after 49 years of pattern work in the airplane, that's the one question I can't answer. Nothing in a pilot's logbook or personal history will give me a clue.

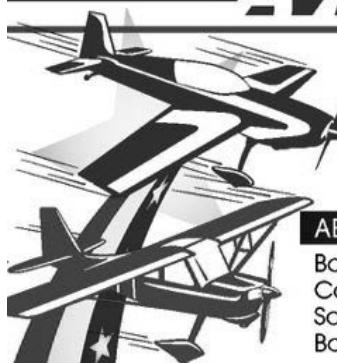
So, is the Pitts a difficult airplane to land? It depends on how you define "difficult." I'd say that it's demanding, and its primary demand is that you fly it like a 10-hour student getting ready to solo. That's when a pilot knows nothing about airplanes but the basics required to fly them right.

That's all the Pitts asks of its pilot: Have good basics so you can routinely plant it on the runway with the CG on the line of travel, parallel to the centerline, with no drift. Basic stuff! Do that and life is good. Don't do that and expect an exciting rollout.

This subject actually requires something the size of a Grainger catalog to dissect correctly, so this article is the condensed version. But that's my story and I'm stickin' to it. **IAC**

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# Michelle O'Hare

BY ZINNIA KILKENNY, IAC 437244

**BEGIN WITH AN ADVENTUROUS SPIRIT;** add enthusiasm and a colossal number of smiles. There before you is Michelle, an ambassador of flight epitomizing the soul of an aviator. A flight with her Girl Scout troop would set the stage in a singular pursuit for the next 16 years.

Not one to merely speak passionately about something for which she has appreciation, she generously shares her rewards by using every opportunity to motivate and instill multidimensional inspiration in our youth as a volunteer.

## ZK: IN THE BEGINNING ... HOW WERE YOU INTRODUCED TO AVIATION AND BY WHOM?

MO: My first time flying was in a Cessna 172 when I was 8 years old and my Girl Scout troop attended a youth flying day. I can still remember that first feeling of flying. I've always known that I wanted to learn to fly, and at 16 years old, I went for a TIF [trial introductory flight] in a Cessna 152. However, there was no way that I could afford lessons, so instead, I studied hard and got a job that earned enough to allow me to start flying lessons when I was 21. Now I volunteer in organizing events that introduce youth to aviation, such as flying lessons, scenic flights, trips to air shows, and various hands-on ground activities.

## ZK: HOW LONG AFTER EARNING YOUR PRIVATE PILOT CERTIFICATE DID YOU RECEIVE THE PILOT'S PINNACLE ENTRY IN YOUR LOGBOOK, AND WHAT DID YOU DO?

MO: Five years. During my first aerobatic flight, my instructor demonstrated a few maneuvers to introduce me to the Robin 2160i, but the main thing I remember was performing aileron rolls. That feeling of rolling upside down and seeing straight through the canopy to the ground was definitely memorable and a lot of fun.

## ZK: WHY DO YOU FLY AEROBATICS?

MO: At the start of my flight training, I would have never imagined learning aerobatics. I am a very safety-conscious pilot, and the thought of purposely flipping a plane upside down was not something that I thought I would ever do. However, after an introductory emergency maneuver training lesson, followed closely by a trip to [EAA] AirVenture Oshkosh where I was able to see the different aerobatic pilots perform, I realized that aerobatics was the perfect next step. My aerobatic instructor is a great teacher, and the skills I have learned have really helped to build my confidence and significantly improve my overall flying.



Michelle O'Hare

## ZK: CHAPTERS AND FLYING CLUBS ARE EXCELLENT SOURCES FOR NETWORKING AND LEARNING.

MO: When I attended EAA AirVenture Oshkosh in 2018, I had only had a couple of aerobatic lessons, but after attending a talk by Gordon Penner, Basic Recreational Aerobatics, I joined IAC on the spot.

I am a member of the Australian Aerobatic Club and completed my aerobatics and spinning endorsements at the Australian Aerobatic Academy in a Robin 2160i. The academy has held a couple of competitions in which I was allowed to participate as a new aerobatic pilot. Quite a few of the academy's pilots compete in the Australian state and national aerobatic competitions. They're great role models for what's possible with plenty of practice!

## MICHELLE O'HARE

**Occupation:** Environmental scientist. Michelle prepares environmental impact assessments for major infrastructure projects.

**IAC number:** 440426

**Clubs and organizations:** Australian Aerobatic Club, Seaplane Pilots Association Australia, Australian Women Pilots' Association, Women in Aviation International, Ladies Love Taildraggers, Australian Ballooning Federation, Recreational Aviation Australia, and Bathurst Aero Club

**ZK: YOU'VE PARTICIPATED IN TWO COMPETITIONS WITH THE AUSTRALIAN AEROBATIC CLUB. HOW DID THEY GO?**

MO: My first competition was held out of Bankstown Airport in Sydney with pilots of all levels from the Australian Aerobatic Academy competing. The academy does a great job introducing beginners to competitions by allowing you to have a go by flying with an instructor as your safety pilot.

My second was at Kempsey Airport with pilots from New South Wales and Queensland. For this event, I was really excited to win third place in my category flying solo against other pilots who had also recently obtained their aerobatic endorsements.

**ZK: WHAT ARE YOUR COMPETITION GOALS?**

MO: I am hoping to have a go at a state competition later this year, but I still need to learn a couple more maneuvers first. Longer term, it would be great to compete in the Western Australia Aerobatic Championships.

**ZK: GRAND TALES OF PERSEVERANCE AND INDESCRIBABLE BEAUTY OFTEN ACCOMPANY ENDORSEMENT OR RATING ADD-ONS. CONGRATULATIONS ON YOUR RECENT SEAPLANE RATING.**

MO: Over the course of a few weekends, I completed my floatplane training in a Maule M-5 in Moruya, which is on New South Wales' southern coast. Part of the seaplane training involved jumping onto the float and docking the aircraft to a buoy. One day there was a swarm of jellyfish, which made things interesting because I was

worried that in my hurried state to catch the buoy that I would fall in with them!

The NSW's southern coast has suffered from bushfires recently, and this was evident during my training. Three Fire Boss air tankers, as well as various helicopters, were collecting water from the lakes and rivers. It was important to keep a good listen on the radio to stay out of their way. I also had to time my flights for when the wind blew away enough of the smoke to provide visibility.

**ZK: THE BEST ADVICE YOU'VE RECEIVED AND WHY YOU VALUE IT?**

MO: As a pilot, I've received plenty of helpful advice, but the best would be that "a good pilot never stops learning." Aviation is so diverse, and since obtaining my PPL, I've enjoyed learning to pilot different aircraft across a variety of environments.

**ZK: WHAT POEM, PROSE, OR BATTLE CRY INSPIRES YOU?**

MO: What really inspires me is meeting other pilots and hearing about their adventures and achievements. **IAC**

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