



SPORT

AEROBATICS

OFFICIAL MAGAZINE OF THE INTERNATIONAL AEROBATIC CLUB

MAY/JUNE 2023



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ON A BUDGET – Page 14

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ON THE COVER:

Rolf Hankers flies an RV4, tail number D-EFFI, and Theo flies a Laser, tail number D-EKKY, over the German countryside.
Photo courtesy of Theo Hankers.

ABOVE:

Snowbird Classic Aerobatic contest returns to Keystone, Florida, with 26 competitors.
Photo by Leigh Hubner.

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Celebrate International Aerobatics Day!

BY JIM BOURKE, IAC 434151



International Aerobatics Day

I hope you have all set aside June 24 this year for our third annual International Aerobatics Day! This day just keeps growing and growing with people all over the world taking part. You can celebrate by participating in a chapter event, by flying around with a goofy smile on your face, by practicing for your next contest, by capturing a video for social media, or just by reading the latest copy of *Sport Aerobatics*.

Once in a while I think of one of my personal heroes from history, like Ben Franklin or Isaac Newton, and I imagine what they would do with all the opportunities we have today to take flight. Never forget how lucky you are! Even if you've only flown once or twice in your life, you've realized the unfulfilled dreams of countless people throughout history. They gazed at the skies in helpless wonder. Take flight and make their spirits jealous.

Chief Judges

The IAC Judges Program has been through quite an overhaul this year, with the introduction of new judge titles. Previously, we had regional and national judges, with the distinction being that a regional judge was qualified to break the hearts of pilots at the regional level, while a national judge was qualified to do the same thing at the U.S. National Aerobic Championships.

Over time, the boundaries between these titles eroded, but only with the

best of intentions. The IAC wanted to make sure that chief judges had experience, so it seemed logical to prefer national judges when we appointed chiefs. Meanwhile, we struggled at times to find enough national judges to fill the judges' line at our championship, so we created a "regional-N" distinction, which was basically a regional judge who could serve at the national level with a certain level of experience.

If you've followed along this far, you can pretty easily see how these terms were no longer descriptive of the differences between the two classes of judge. So, with great wisdom, Judge Program Chair DJ Molny approached the board with the idea of breaking things down differently. As of this year, we have the titles of grading judge and chief judge. Grading judges have two tiers, with the more experienced judges in that class taking on the title of senior grading judge.

Still to come is specialized training for chief judges. I'm really excited about that, because I think we can all see that being a chief judge is different than being the sort of judge that grades performances. Chief judges have to worry about radio work, penalties, sequencing planes in and out of the box, coordinating with the starter, and other details that just aren't on a grading judge's radar. I look forward to watching DJ continue his work on this important IAC program.

Chief Judge Responsibilities

If you are a chief judge, don't forget to review the Chief Judge Responsibilities section of the rulebook. In particular, pay attention to the Judge Briefing and the Post-Program Duties of the Chief Judge sections.

Chief judges are expected to perform briefings before each program for the benefit of personnel on the judges' line. This is an opportunity for the chief judge to walk everyone through the sequences that will be flown to review any complicated figures and talk about the criteria. It's also an opportunity for the chief judge to remind judges of their responsibilities for making "low" calls. Once the program begins, chief judges should not provide training, because it creates a grading bias based on each pilot's position in the flight order. Instead, anything the chief judge notices during the course of events can be held off until the post-program briefing.

It's also a good idea to review the section on Judge Conferences. The step-by-step rules in this section guarantee that no competitor will be able to make the claim that the chief judge overruled or influenced the judge panel. At the same time, these rules allow the chief judge to do their job of making sure that the grading judges have fairly and independently graded each figure according to the rules.

Jury Procedures

As sanction chair, I review jury decisions. I'd like to take a quick moment to caution juries that they need to have a rulebook on hand and they need to refer to it when hearing an issue. Several times over the last year I've seen situations where people have relied on their memories when adjudicating on an issue. If someone on a jury says that the rulebook says something, make sure to check it.

Every chapter has its own dynamic, and there are some contests where provocative jury decisions are made routinely. There are other contests that have avoided protests completely for years. There shouldn't be any stigma to filing a protest, of course, but it could be a bad sign if the jury is spending more time in session than out in the sun.

I often say the worst thing to have at a contest is a creative jury, but I think I'm going to add, or creative people with great memories. It's really a joke, so don't take this too seriously, but there is a bit of truth to the idea that analytical people who double-check every fact are going to come up with the right result most of the time, whereas people who think outside the box and believe they know exactly what the rulebook says (or should say) unintentionally create messes.

Tell Me About Your International Aerobatics Day Experience

I can't wait to hear about your personal International Aerobatics Day experience! Email me at president@iac.org. **IAC**

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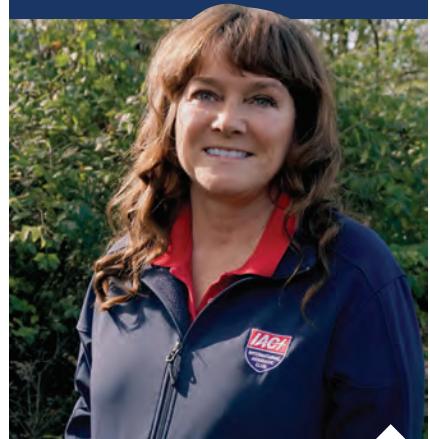
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Finding Inspiration

BY LORRIE PENNER, IAC 431036



AS AN EDITOR I am privileged every month to read multiple stories submitted by our IAC members about their challenges, successes, and ability to keep reaching for their dreams. As a writer, when I do an interview I often ask, “Who inspired you to get into aerobatics?” In this issue there are multiple stories that inspire you. As soon as you finish reading this magazine, you will want to run out to the airport to keep on reaching for your own dreams.

Rolf and Theo Hankers, in their article about their Laser, didn’t know how they would attain their dream of competing at a world-class level in a plane with only four cylinders against planes with six cylinders. Although Rolf did have great success with some first-place finishes at the German Nationals in the Advanced category,

lack of performance was evident in the Unlimited category. When you read the article about D-EKKY, you will see why their perseverance paid off: “We most likely had managed to create one of the most capable four-cylinder aerobatic aircraft flying today.”

What strikes me as much or more than each Advanced team member’s dedication in their journey to the world stage is the gratitude they express to everyone who has helped them along the way. “The key to making it all work are the mentors along the way that encourage you to be your best,” said Marty Flournoy (United States). “I am excited to fly and work intensively with our team coach ahead of and with the other team members, to advance my own and our team’s capability to the maximum,” said Miles Crane (Canada). At times competition aerobatics seems like such an individual sport; however, the team members are working together in a single-minded goal: Team Gold!

In Tom Myers’ column, the *g junkie* expounds on the joy of aerobatics. I’m sure many of you will find it inspiring to realize that there is “happiness, satisfaction, achievement, knowledge, skill, and even joy to be found, even in the absence of winning.” The IAC has many members who enjoy recreational aerobatics. I am one of those, and I know we have many more who are in that category.

There are times when pilots looking into starting aerobatics feel like a small fish in a big ocean. What if you were the only one from your country to get into civilian aerobatics? Atamvir Multani gives us a snapshot into his journey to be the first pilot from India to fly in the Sportsman category at the U.S. National Aerobic Championships. He shares his inspirations along the way to his Nationals’ goal. In so doing, he becomes an inspiration to others. “Aerobatics is pure joy,” said Atamvir.

Go out this weekend and experience some joy — fly aerobatics! I join Jim Bourke in asking that you share your International Aerobatics Day (June 24) experience with us. We have numerous social media platforms to share on; you may end up being someone else’s inspiration! **IAC**

► SUBMISSIONS:

Photos, articles, news, and letters to the editor intended for publication should be emailed to editor@iac.org. Please include your IAC number, city, and state/country. Letters should be concise, polite, and to the point. All letters are subject to editing for clarity and length.

"Who's excited about International Aerobatics Day? Me!"



INTERNATIONAL AEROBATICS DAY

Douglas is the child of IAC Director Doug Jenkins (IAC 436955) and Chrissy Jenkins (IAC 436956).

Saturday, June 24, 2023

Celebrate with Douglas the excitement, skill and beauty of aerobatics. IAC Chapters are hosting a multitude of events to share the passion of sport aerobatics.

We look forward to seeing you there!

Find a schedule of events at www.iac.org

IAC 1 - Practice Day and Cookout, Decalb, IL (KDKB)

IAC 3 - Meet and Greet, Williamson, GA (GA2)

IAC 26 - Practice Day and Lunch, Lancaster, CA, (KWJF)

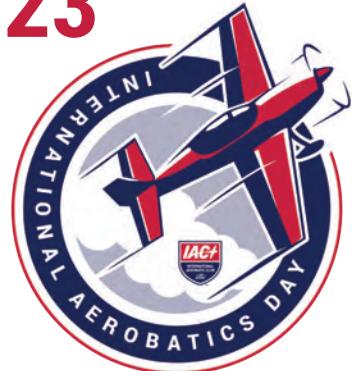
IAC 34 - BBQ and Practice Day, Bellefontaine, OH (KEDJ)

IAC 58 - Practice, Critique and a hangar party, Tunkhannock, PA (76N)

IAC 67 - Apple Cup Aerobatic Contest, Ephrata, WA (KEPH) 2023

IAC 80 - Midwest Aerobatic Championships (KSWT), NE 2023

IAC 88 - Practice Day, presentations and Static Display, Romeo State Airport, MI (D98)



2023 SCHOLARSHIPS

APPLICATION DEADLINE JUNE 30

Each year the IAC helps facilitate several scholarships to help promote aviation safety through aerobatic training and education. Two of these scholarships have deadlines coming up on June 30. Visit IAC.org/scholarships to see all the details and submit your application.

CP AVIATION EMERGENCY MANEUVER TRAINING SCHOLARSHIP IN MEMORY OF **VICKI CRUSE**



This scholarship aims to promote aviation safety through unusual attitude and aerobatic training. The applicant must be a member of the IAC and hold a private pilot certificate. The scholarship amount is \$3,100 (no cash value).

The scholarship includes three modules of the emergency maneuver training course, which includes stall/spin awareness, in-flight emergencies, and basic aerobatics. The course will be taught in a Citabria and Decathlon. The recipient must travel to CP Aviation in Santa Paula, California, for the training.

GREG KOONTZ AIRSHOWS AEROBATIC INSTRUCTOR SCHOLARSHIP IN MEMORY OF BOBBY YOUNKIN



The scholarship aims to promote and improve the aerobatic instruction field. It will be offered to any CFI as an aerobatic instructor course if they already have aerobatic experience, or it can be offered as a basic aerobatic course to a CFI with no aerobatic experience. A tailwheel endorsement and current flight instructor certificate are strictly required. The scholarship value is \$3,600 (no cash value).

The recipient receives a full two-day course at Greg Koontz Airshows aerobatic school, which includes two nights' lodging at Sky Country Lodge, all meals, four lessons in the Super Decathlon, and extensive ground instruction. **IAC**

ANNUAL AWARD DEADLINE

APPLICATION DEADLINE JUNE 1

It's time to nominate the IAC's outstanding volunteers to be recognized for their contributions to the sport of aerobatics. This is an excellent opportunity to give recognition to those IAC members who spend their valuable time volunteering for the benefit of many. Let's recognize our deserving volunteers for the 2022 contest year!

Whether it is on the local or national level, we all have seen the efforts of our chapter friends working to make the IAC experience be one of ultimate fun for their fellow IAC members, friends, family, and newcomers.

You can nominate your fellow IACers for one of the five nonflying awards listed.



Frank Price Cup

The purpose of the award is to recognize the person who has contributed the most to the sport of aerobatics in the previous year.



Robert L. Heuer Award for Judging Excellence

Member Sam Burgess of San Antonio, Texas, conceived the idea for presenting a trophy to the outstanding aerobatic judge each year.



Kathy Jaffe Volunteer Award

This award recognizes an outstanding volunteer during the previous year.



Harold E. Neumann Award for Outstanding Contribution as a Chief Judge

The family of Harold E. Neumann provided the permanent trophy in 1998 to recognize the outstanding chief judge.



Curtis Pitts Memorial Trophy

The purpose of this award is to recognize an outstanding contribution to aerobatics through product design.

A detailed description of all the nonflying awards can be found on the IAC website at IAC.org/legacy/non-flying-awards.

**The deadline for nominations
is June 1, 2023, for the
2022 contest year.**



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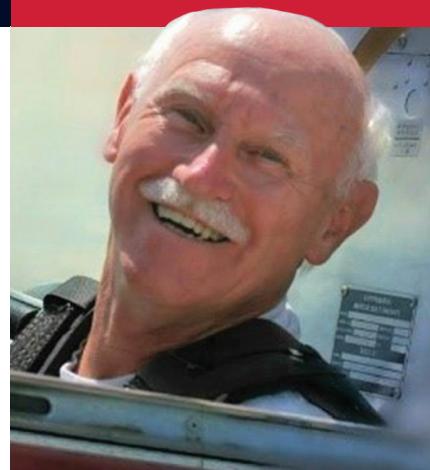
Purchase your tickets today at EAA.org/TICKETS



**CELEBRATING 70 YEARS
OF DREAMERS AND DOERS**

IAC Chapter 88 Celebrates 50 years!

BY HUGO RITZENTHALER, IAC 7414



How It All Began

LONG BEFORE THERE WAS an organized IAC chapter in Michigan, a number of pilots from the state were already involved in aerobatics and competitive aerobatics. During the 1960s, air show performers started a nationwide organization, the Aerobatic Club of America (ACA). Bob Lyjak and Bill Barber, just to name a couple, were participating in sanctioned aerobatics.

By 1970, the International Aerobic Club (IAC) was formed as a division of the Experimental Aircraft Association (EAA). Michigan native Henry Haigh II was already involved in aerobatics in a Ryan PT-22, Zlin, and Bücker since the early '60s, and in 1970 Henry competed at the first IAC Championship in Fond du Lac in the Advanced category in his Zlin.

However, getting organized in Michigan came down to a few pilots who took the initiative to go beyond the informal aerobatics flying in Michigan. In the early '70s, records tell how Dave McKenzie, IAC 2032, was training pilots in aerobatics, amongst them a young pilot named Kim Kovach, who soloed a Citabria that belonged to his father, Dr. Alexander Kovach, right after he turned 16 and later became one of the many competitors of Chapter 88. By early 1972, records indicate that the first get-together meetings were held at Lamont airport.



(Left to right standing): George Lytle, unknown, unknown, James Hazlet, Bob Barnes JR, Bob Barnes SR, Jay Cavender, Clarence Landowski, Kim Kovach, Bill Unger. (Left to right sitting): unknown, unknown, unknown. Picture courtesy of Kim Kovach.



At one of the get-together meetings Lamont airport.

Back row standing: Bob Barnes, George Lytle, Unknown, and Bob Barnes's son.
Front row kneeling: Don MacDonald, unknown, and Clarence Landowski.

Chapter 88 Incorporation

As Dave McKenzie mentioned in his book *The Spirit's Journey*, Kim Kovach, Jay Cavender, and Mark Johnson, led by Bill Unger, suggested organizing an IAC chapter in the Detroit area; hence, we consider Bill Unger the founder of Chapter 88. That idea flourished, and a total of 13 people signed the incorporation application on November 17, 1973. Those 13 members were George Lytle, Bill Unger, Dave McKenzie, Jay Cavender, Mark Johnson, Jim Hazlett, Kim Kovach, John Maxfield, Bernard Devitt, Don Wm. Jones, Clarence Landowski, James Brinkmeier, and Melvin McGee.

However, before a charter could be issued, an identification number had to be assigned to the Michigan chapter. IAC at one time had assigned chapter ID numbers based on the same method EAA used — pick the next number in the progression, and that's your chapter's ID number. Dave McKenzie was told the pilots in the Detroit area were determined to express themselves, so they selected a higher number that would be acceptable to IAC headquarters in Oshkosh. The number 88 is the same, whether being upright or inverted, so it was a logical choice for the chapter ID, and IAC 88 was born in 1973 with George Lytle as the first president. The first meeting was held in the Quonset hut at Canton-Plymouth-Mettetal Airport (1D2), which was the home for EAA Chapter 113. The purpose of that first meeting was the signing of the Chapter 88 charter. Some of those in attendance were also EAA Chapter 113 members. Sanctioned aerobatics had come to Michigan.

The Beginning of IAC Sanctioned Events

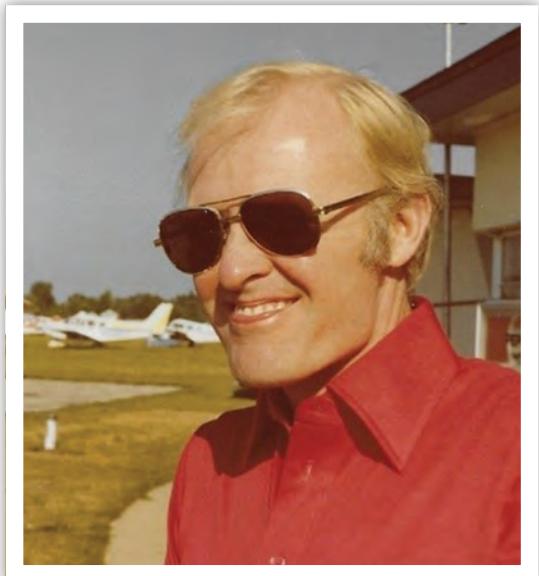
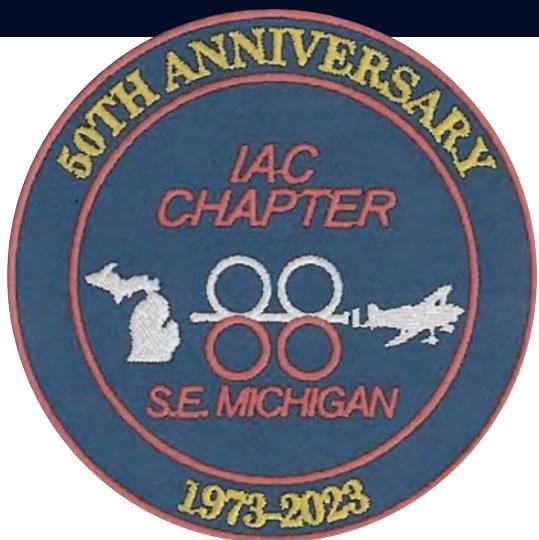
In the early years, the chapter held a series of flying meetings at various local airports in order to gain publicity and new members. These affairs for a couple years took the form of corn roasts with some aerobatic demonstrations. At those events, aerobatic instruction of 15 or 30 minutes was offered to reach interested parties. This endeavor was soon abandoned, as it was highly unproductive and wearing on Dave McKenzie, who spent many hours giving instruction.

In 1975, the chapter obtained a waiver for a permanent practice area. The first sanctioned event sponsored by Chapter 88 was a patch day. Dave McKenzie remembered that on a Sunday in June, seven pilots participated in two Pitts biplanes, three Citabria airplanes, one clipped wing Cub, and one Stampe biplane. With three judges present, Dave was awarded the Sportsman and Intermediate Smooth badges. Many such patch days organized by Dave followed. These events made a favorable impression on the FAA inspector who was the FAA monitor for the event.

Contest History

By 1977, the chapter was able to hold a three-category contest at Milan, Michigan. The first contest was promoted and organized by Dave McKenzie. The significant thing about that contest was that in Michigan aviation history, it was the first aerobatic contest ever held in the state. This grew to a successful four-category contest by 1979 that drew 39 competitors from as far as California and Canada. In those days, box control panels were used to control aerobatic flights into and within the contest box. When the signal lamp was introduced by Chuck Mann in the early 1980s, Chapter 88 adopted the Mann lamp for use in conjunction with the flip panels.

As the chapter grew in size, membership, and competitors, the Michigan chapter also became an active participant on the IAC national and world level. Participation in regional contests was flourishing in the



Dave McKenzie, 1978 at the Owosso contest.



Bill Unger



1981 Don MacDonald with his 1946 Clipped Wing Cub.

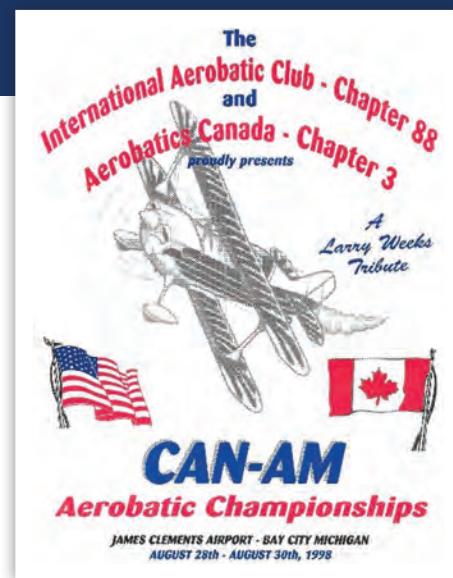
'80s and '90s, and Michigan benefited from its own 20-plus chapter members who regularly competed at contests in the mid-'80s.

In 1991, Chapter 88 decided to host a second annual contest in Michigan, the Bay City Regional Championship. The location most appropriate was the James Clements Municipal Airport (3CM) in Bay City. The airport property was ideal for setting up an aerobatic box; it had a huge community hangar and two runways. The city offered plenty of hotels and restaurants, and the local Valley Aero Club was eager for Chapter 88 to bring an aviation event like ours to the region. For our international competitors, the Bay City airport, as a designated port of entry, offered a nonstop flight for the competitors flying in from Canada.

With two World Aerobatic Championships (WAC) team members, Henry Haigh and Harold Chappell, amongst our ranks during the '80s, many of the WAC Unlimited team members frequently showed up at the chapter's contests. In 1987, Chapter 88 hosted a number of the 1988 World Aerobatic Championships U.S. team members for a warmup at the Marlette, Michigan, open competition. To date, Chapter 88 hosted at least one, and for some years two, aerobatic contests every year, with the exception of 2020 when the COVID pandemic forced a cancellation of the scheduled event.

Contest Locations

Contest locations changed multiple times since the first contest was held at Milan airport, a private field south of Ann Arbor, in 1977. The chapter moved from Milan to Owosso Community Airport (RPN), to Sandusky Cowly Field Airport (96G), then for 12 years to Marlette Township Airport (77G), as an interim location to Dupont/Lapeer Airport (D95), and then moving to a more central



Joint Championship – Upper Canada Chapter 3 and Michigan Chapter 88.



Michigan Open, 1979 Owosso airport, 39 competitors.

location at the Jackson County Airport/Reynolds Field (JXN) for a whole 17 years.

When Jackson started with the realignment of its principal runway in 2015, the chapter needed to move elsewhere, as the construction work was directly within the box perimeters. The chapter chose to relocate to Bay City for several reasons. Primarily, we knew the place, having held the second annual contest during the '90s at the James Clements airport. During those seven years, the chapter enjoyed great support from the local Valley Aero Club. Furthermore, Doug Dodge, IAC 1096, had his Acro Specialties shop right on the airport and was always there when needed. The box location is aligned with Runway 18-36 and is remote from any residential settlements. This is where we held the Bay City Regional from 1991 to 1998 and have held the Michigan Aerobic Open since 2015.

International Cooperation

Chapter 88 of Southeastern Michigan and Chapter 3 of Upper Canada from neighboring Ontario supported each other's competition early on, after both IAC chapters were founded.

To further promote contest participation across the border, a co-sponsored competition was launched in 1996 between the two chapters. The idea was to alternate the contest location between Michigan and Ontario. Nancy and the late Dave McKenzie came up with the most appropriate name for this international contest, namely the Can-Am Championship.

Member Achievements

Grogan Belt Award

Anyone who remembers the old days knows the Grogan Belt was awarded to the last-place finisher in Sportsman. Chapter 88 is proud of having amongst its members two distinct Grogan Belt recipients: Dave McKenzie in 1975 and Don MacDonald, IAC 2621, in 1981.

Old Buzzard Award

Larry Ernewein: 2017

The L. Paul Soucy Trophy

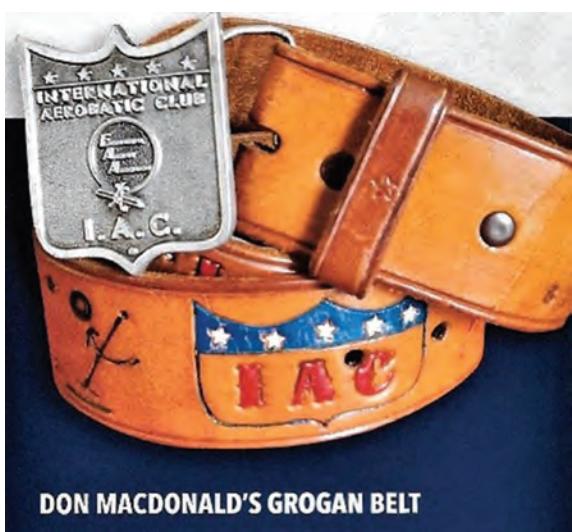
Henry Haigh II: 1973, 1976, 1985

Harold Chappell: 1987

Dave McKenzie: 1990

Chris Panzl: 1995

Larry Ernewein: 2018



Don MacDonald's Grogan Belt.

Unlimited Aerobic Competition

Participation over the timespan of 50 years has produced a number of Chapter 88 members who ventured into the Unlimited competition category and participated in regional, national, and, for a few, world competition. Those members who on record have competed over an extended time are:

- Henry Haigh II
- Harold Chappell
- John Gardner
- Chris Panzl
- Guy Juntunen
- Hugo Ritzenthaler (Hugo remains to date the chapter member competing the most years in this category, namely a total of 23 years.)

World Aerobic Championships Team Members

U.S. Unlimited Aerobic Team

Henry Haigh II: Henry made the U.S. Unlimited Aerobic Team multiple times. By 1990, Henry had accumulated five gold, seven silver, and five bronze medals.

Harold Chappell: 1984 and 1986

Chris Panzl: 2000

U.S. Advanced Aerobic Team

Chris Panzl: 1997

World Aerobic Championships Title

One of the renowned members of Chapter 88 is Henry Haigh II. Henry moved up into Unlimited in 1972 and entered international competition as part of the U.S. Unlimited Aerobic Team in 1973. He was a team member of every World Aerobic Championships through 1990. In 1988, Henry earned the World Aerobic Championships title flying his SuperStar.

Aerobatic Hall of Fame

Henry Haigh II was inducted into the Aerobatic Hall of Fame in 1999. There is a complete write-up of Henry's IAC history in Mike Heuer's article "Remembering Henry Haigh," published in *Sport Aerobatics*, June 2014.

Appearance
Maintenance



FACTS, FIXES & TIPS

FROM THE PROS

SPRING: TIME TO REJUVINATE!

As we head toward spring, bet there's a growing list of tasks to ready your aircraft. We've got you covered, but first things first, starting with a FULL plane inspection. While mechanical inspection and any needed repair should be left to an aviation technical specialist, there are many tasks to do right from your hangar to prep your aircraft for the warm spring and summer months! Check wheel wells for nests, e.g. birds, rodents, or other debris. Identify heavy oxidation on moveable control surfaces like elevators, rudder, and ailerons. Note stains from oil and hydraulic leaks on the engine cowling and landing gear.



When cleaning a painted aircraft exterior, oxidation removal, UV protection, and enhanced color are the main goals. NUVITE's NuPower[®], a drywash that removes all types of soils, and NuPol[®], for heavier oxidation, deliver on all counts. For a fast wipe-down and extra-high gloss, keep CitriCut[®] Xtra in your arsenal. NuShine[®] II metal polishing system is your go-to for that showroom shine on bare metal. If a mirror-finish is not desired, a quick wipe down with Nulmoge, Cleaner & Debugger, will do. It's also great for in-between polishing!

On the interior, ALL clutter (flashlights, pens, papers, etc.) must be removed. Next is a thorough vacuuming: bins, seats, and carpet. Clean seats, vinyl, faux or genuine leather, with C-49[®] All Purpose Cleaner; follow with Leather Guard for deep conditioning. Carpet can be treated with NUVITE's PCS Stain Remover & Shampoo. Wood finishes benefit from Regard's cleaning and conditioning properties.

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The Dark Side: Your Aircraft's Underbelly

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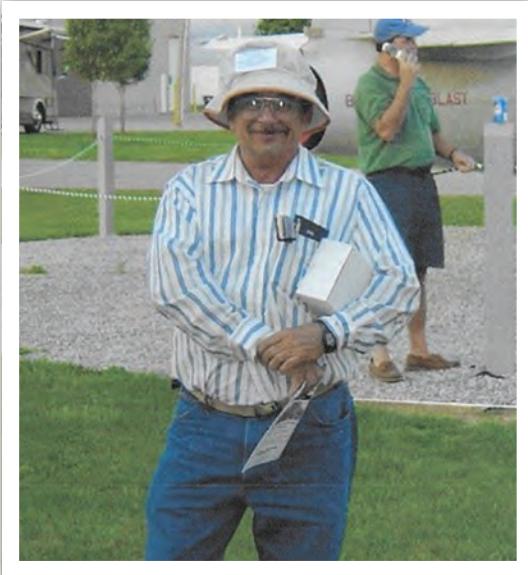




Laura Buescher



Bay City – James Clements Airport (3CM). Photo by Lorrie Penner.



Sandy Langworthy

Harold E. Neumann Award for Outstanding Contribution as a Chief Judge - Sandy Langworthy, 2014

Sandy Langworthy's operational knowledge of IAC judging criteria allows for accurate identification and resolution of judging and safety issues. His contribution is significant; several of the contests he has attended are sponsored by newly formed IAC chapters and chapters that do not have a great number of certified judges among their membership.

Sandy has traveled significant miles in many directions to support IAC chapter contests in Michigan, Ohio, Illinois, Indiana, New York, and Canada. In addition to his service as chief judge, he has led efforts in placing a high priority on regional judging schools and dedicated meetings to evaluate Aresti sequences for submission as future Knowns. He unfailingly supports the ethics promoted by the IAC.

It is notable to mention that Sandy is a nonpilot volunteer. In 2018, he topped the list of active judges, with more than 1,000 flights judged since he first was certified in 2005. During this time, Sandy judged a minimum of three contests every year within the Mid-America Region. He has also held the position of chapter president for the past 13 years.

Senior Chapter 88 Membership

Presently, Don MacDonald is one of our most senior members, with a membership going back to 1974.

Don served as chapter president in 1979 and 1983 and as contest director in 1985 and 1991. He was an active competitor during the 1980s in his clipped wing Cub. After retiring from competition flying, Don continues to support our Michigan contest in the capacity of a regional judge. We thank Don for his 40 years of dedication as a member of Chapter 88.

Special Member Recognition

Chapter 88 would like to recognize Laura Buescher, Chapter 88 secretary, for her exemplary dedication as the Michigan Aerobatic Open competition registrar for the past 14 years. Laura's administrative skills and upfront preparation have contributed to the smooth operation of Chapter 88's contests. Laura's involvement and support goes beyond our local chapter. She has been registrar at many of the other Mid-America contests over the past years.

Special Organization Recognition

Without the support of airport management, EAA chapters, and flying clubs, our contests would not have happened.

EAA Chapter 304 at Jackson supported and made available its facility at Jackson airport during the 14 years when Chapter 88 hosted the contest there.

Bay City Valley Aero Club deserves a special mention, as the officers and members supported the chapter contests for the past 15 years.

The late Doug Dodge, former Bay City airport manager and Acro Specialties owner, was a great supporter of Chapter 88's contests and opened his shop whenever competitors' aircraft needed service.

Two former chapter members have contributed to aerobatics through the design and manufacturing of aerobatic competition aircraft: Jon Staudacher, building biplanes S-1E and S-2S and the monowing Staudacher S300 and S600F; and Greg Panzl, who built the Panzl S-330.



2022 Michigan Aerobatic Open at Bay City, Michigan. Photo by Lorrie Penner.

Promoting Aerobatics and Competition

Chapter 88 is well organized, holding monthly on-site meetings and keeping membership informed by issuing a monthly newsletter. Furthermore, chapter members assist in promoting aerobatics by attending local aviation events and giving presentations at EAA chapters. The chapter has obtained a long-term aerobatic practice area and hosts monthly practice days during the flying season.

Chapter 88 has early on supported the judges program by hosting a judges school an average of once every two years. The first judges school was held in 1977, and Bob Barnes was the first certified judge in the chapter. Chapter member Wayne Buescher has become a certified IAC judges school instructor and is the current instructor for Chapter 88 judges schools.

Anniversary Festivities

A number of events are in the planning to duly recognize and celebrate this golden anniversary of Chapter 88. We would like to share these festivities with anyone who wishes to attend.

To start out, the International Aerobatics Day celebration on Saturday, June 24, 2023, will take place at Romeo State Airport (D98), where the chapter has a permanent aerobatic practice area.

Continuing in July, the chapter is proud to host, as part of the anniversary celebration, the 2023 IAC Open Championship East in Bay City. A special contest shirt commemorating the 50th anniversary has been produced for competitors and volunteers.

Finally, we also are considering an anniversary banquet later in the year. Chapter 88 President Sandy Langworthy and chapter officers are welcoming competitors and volunteers to join these chapter events this year.

Acknowledgements

Many thanks to Mike McKenzie, Kim Kovach, Don MacDonald, and John Maxfield, who are contributors to this article.

About the Author

Hugo Ritzenthaler joined EAA and IAC in 1980. Living in Virginia, he was a member of Chapter 11 until a job transfer to Michigan, where he joined Chapter 88 in early 1985. Hugo has held a number of volunteer positions within Chapter 88, including president, contest director, and presently vice president, newsletter editor, and judges school organizer. Hugo competes in a Staudacher Pitts S-1E, serial No. 1, in the Unlimited category. **IAC+**

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COMPETING ON A



IN UNLIMITED BUDGET

A photograph of two small, yellow experimental aircraft flying against a backdrop of white clouds. The top aircraft is a single-seat plane with purple stripes and the registration 'D-EFFI'. The bottom aircraft is a larger, two-seat plane with blue and purple stripes. Both planes have their landing gear extended.

OR HOW TO MAKE
AN OLD FRIEND BETTER

BY THEO HANKERS, IAC 437614, AND ROLF HANKERS, IAC 10378

NO, THIS WILL NOT BE A HOW-TO — we wish we knew how — but rather a story, maybe for inspiration, maybe for amusement.

Many articles have been written about the heritage of aerobatic aircraft, from biplanes through monoplanes, all the way to high-performance, all-composite machines. Sooner or later when reading those articles, at some point the Laser will be mentioned as the first of its kind to really attack the bastion of Pitts, Zlin, and others that were the pinnacle of Unlimited aerobatic performance in the 1970s to 1980s. Being from Germany, we will not write about the most famous Laser; we leave that to those fortunate enough to have witnessed it in action. Rather, this will be about how an original design has been taken to a whole new level while maintaining the original idea.

But one step at a time. In the early 1990s, the aerobatic competition scene in Germany was rather small. Unlimited was limited to two Extra 300s; the Extra 300S had just

appeared on the scene. The other categories were still occupied by Pitts Specials and Zlin Z-50s.

Right about at that time, on a cold day in December 1993, one of the first Van's RVs in Germany had its first flight. After five years of after-work and weekend building — no quick-built was available just yet — Rolf Hankers finally took to the air with *Lady EFFI* (RV-4, tail No. D-EFFI), all the while closely watched by the oldest of his three sons, Theo. This is where it all started for us.

Fast-forward five years and *Lady EFFI* had just won the German National Aerobatic Championships at the Intermediate level a second time in a row with Rolf at the controls. Plane and pilot just barely failed to score equivalently well in Advanced the following year (seventh out of nine competitors). The desire to progress, as we all do in this sport, together with the wish to allow EFFI to fly for years to come, drove the need for a more capable ride.

But what to choose? After numerous searches of magazines and Barnstormers.com, a started Laser project was finally found for sale and considered affordable. But two aircraft? Rolf agreed with his wife, who said, "Just one or two years to have a go at Advanced. Then sell it again." The project arrived, and Rolf was again heads-down for months in getting EFFI's new brother, tail No. D-EKKY, in the air.

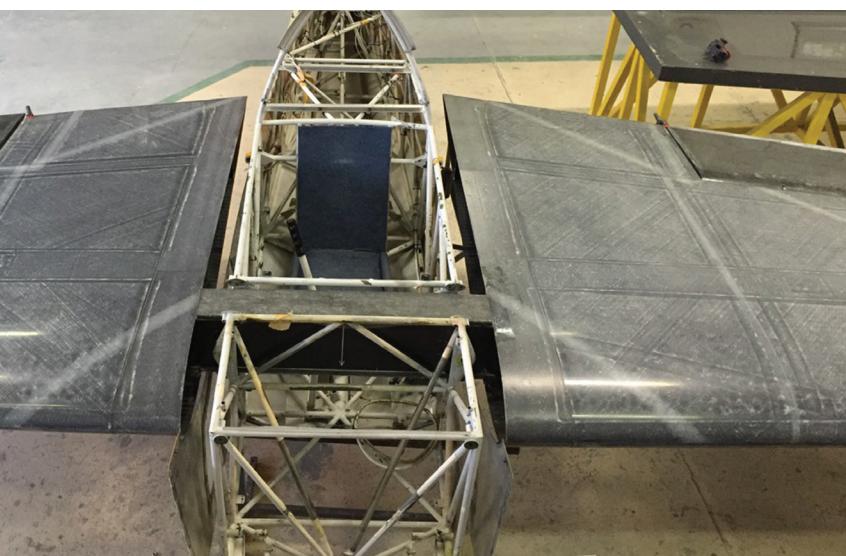
The first competitions with EKKY started successfully in 2000 with Rolf participating in three Advanced competitions, including the Advanced World Aerobatic Championships (AWAC), followed by a first place in Advanced at the German Nationals the next year.



D-EKKY in 2000 before rebuild and redesign.



D-EKKY ready for wing installation.



2016 D-EKKY's composite wings are ready for fitting.



Performing maintenance on D-EKKY in 2022.



In 2015 we identified a wing crack.



Building the new carbon fiber wing at Corvus Aircraft in 2016.

Fast-forward yet another two years and same problem: additional first places in Advanced, and having just started to fly Unlimited with a second-place finish at German Nationals in 2002, but clearly a lack of performance to progress any further.

But what now? An Extra was too expensive; the same for Sukhoi and a Mudry Cap or any six-banger for that matter. Avgas is pricy in Deutschland.

In the end, for an experienced amateur builder there was only one outcome: EKKY was registered in the experimental category and had to be improved.

The main issue was a slow roll rate, which made it almost impossible to compete on the long vertical uplines that started to appear in Unlimited at that time. The issue was due to the torque tube drive of the ailerons, which caused flex and play, basically leading to both reduced rate and acceleration of roll. After looking around at how other aerobatic aircraft were designed, Rolf changed the torque tube drive to a push-pull assembly with bellcranks, in effect copying the Extra 230 in the process. After also

redesigning the spades and adjusting the aileron shape, roll performance was increased significantly. However, it was still not close to any other Unlimited performer, but it was better than before.

Fast-forward even more. After having gone through Sportsman flying EFFI in 2007 and working his way up with EKKY through the next categories, Rolf's son Theo entered the Unlimited aerobatic scene in 2011, which cumulated in a direct competition with his dad at that year's German National Aerobatic Championships, held at Dinslaken. The airfield was home to Extra Aircraft. As was to be expected, the senior placed a remarkable third place (competing against Extras) while junior took last. Competing with and against each other on that high level of aerobatics within one family, sharing the same aircraft, is likely a case very rare to be found.

On a side note: Most of the training was somewhat learning by doing, coupled with the occasional short training vacation in Czech Republic due to cheaper avgas there. During these training vacations, we coached each other. Professional training camps can be expensive, and the path we have chosen for us results in money being spent on flying hours instead of coaching. Of course, this is less efficient from a competition training standpoint. But it allows you to enjoy the pure fun of aerobatic flight more often while still maintaining that competitive edge, and in the end, isn't that what it's all about?

The highlight for EKKY (and Theo) was the 2015 World Aerobatic Championships in Châteauroux, France, as the only four-cylinder aircraft in that competition. With high temperatures and international top-level competitors, that competition revealed the limitations of four cylinders.

Lack of performance in Unlimited, although having stayed well clear of the last seven places, was the end result. Having returned back home, EKKY was inspected thoroughly, as we always do before and



D-EFFI and D-EKKY at our home airport, Braunschweig.



Theo visiting Leo Loudenslager's Laser in the National Air and Space Museum, Washington, D.C.



Rolf in D-EFFI, getting ready to fly in 2022.



Rolf and Theo debriefing after a practice flight.



Theo and Rolf keeping warm during a cold snap at the 2011 German Nationals.



Rolf with D-EKKY in 2009 with the old wings.

after competitions. Closer inspection revealed signs of possible long-term fatigue in the old wood wing, which, after consultation with experts, proved to be repairable. However, would you trust an old amateur-built wood wing that has undergone main spar repair when pushing out of a vertical some 100 feet off the deck at -7g? We wouldn't either. We had to swallow the bitter pill. Our trust in EKKY was lost.

The question at that point for us was, "Is that the end of EKKY?" There was no real value to an old fuselage with an even older engine. No wings were available on the market, and there wasn't enough skill to build a new wood wing. We were desperate. And Rolf was closer to putting everything down the bin (aka trash) than he ever was before in more than 25 years of dealing with experimental aircraft.

Finally, we got in touch with a company from Hungary that had been involved in developing parts and an aircraft for the Red Bull Air Races — the Corvus Racer, built for none other

than Péter Besenyei. After some consultation, we pulled the trigger and decided to build a carbon-fiber wing for EKKY together with the Hungarian company. This wing was essentially identical to what was developed for the Corvus Racer, only ours was adapted to the Laser fuselage. While the wing was not too successful at the races, the specifications seemed good for aerobatics. Also, the specifications were somewhat close to that of the original Laser wing, with the same wingspan, comparable wing area, and stall speed, but much sturdier with a calculated ultimate load of 19g and a load test to 14g.

Half a year later, the first flight of EKKY 2.0 was in May 2016. From there it took us almost a year to fine-tune the feel of the control and to get used to the new handling, slow speed characteristics, and of course a better roll rate. Then, in 2017, EKKY placed fourth in Unlimited at the German Nationals and took second place in the final Freestyle. This was when we started to feel that it had been worth the effort.

The ultimate test came with Theo's participation at the 2019 World Aerobatic Championships (WAC), coincidentally held again at the Châteauroux airport in France. The flying field hadn't changed much, except for maybe the occasional additional new Extra 330SC. After another two years of training, Theo felt comfortable with the new setup, and the results proved this. After one Free Known and two Free Unknown programs, Theo and EKKY placed 23rd out of more than 60 competitors.

Apparently, it was too much for Theo's nerves, which saw him dropping to a 37th-place finish after messing up two figures in the final Unknown program. That wasn't EKKY's fault! It was at this point we finally realized that we most likely had managed to create one of



D-EFFI and EKKY parked at an airshow in 2022. Photo by @UweBetlike.

the most capable four-cylinder aerobatic aircraft flying today. But still, how was it possible to not only participate but really compete reasonably well on a WAC level?

Throughout all these endeavors, the German civil aviation authority, LBA, has been really supportive, for which we are extremely thankful.

What remains, last but not least, is gratitude to Leo Loudenslager. We wish we could have met you.

Rolf (Rudolf) Hankers has been an IAC member since 1984. He starting flying in 1978, earning his private pilot license at age 23 and his commercial at 30. Besides working as a research and test pilot at the Technical University of Braunschweig, he was a lecturer in flight mechanics and flight meteorology. Rolf has nearly 10,000 total hours of flight time, with 1,000 of those hours being aerobatic flight. He has flown more than 150 types of airplanes.

Theo Hankers has been an IAC member since 2015.
Inspired by his champion pilot dad and watching other air show greats, Theo began flying gliders in 1999 and has been flying aerobatics since 2006. He is a corporate pilot on a Falcon 8X business jet and has a doctorate in aerospace engineering. Theo has 2,700 hours of flight time, of which 450 hours are in aerobatics, and he has flown 25 types of aircraft.

An advertisement for the GB1 GameBird aircraft. The top half features a bright green and black composite aircraft in flight, with the text 'GB1 GameBird Fly Without Compromise'. The bottom half contains technical specifications: 'FAA Certified', '200 knot cruise', '1000nm range', '+/- 10g', and 'Made in the USA'. The GameComposites.com logo and contact information are at the bottom.



THEO REFLECTS ON HIS FLYING STYLE

BY THEO HANKERS, IAC 437614

OVER THE PAST THREE years, my style of flying Unlimited in the Laser has completely changed, largely driven by input from my coach, former Freestyle world champion and Unlimited level competitor Klaus Schrotte. Before becoming one of the first competition pilots in an Extra 300S, Klaus competed in an Extra 230, a direct Laser derivative. In my first years of Unlimited and Advanced level flying, I never started a sequence below 2,000 feet AGL. I was afraid of ending up

too low throughout the sequence. However, I finished my sequences close to the lower limit of the box anyway. The changed approach taught by Klaus allows me to start sequences almost at the same altitude as higher-performance aircraft while maintaining an appealing presentation.

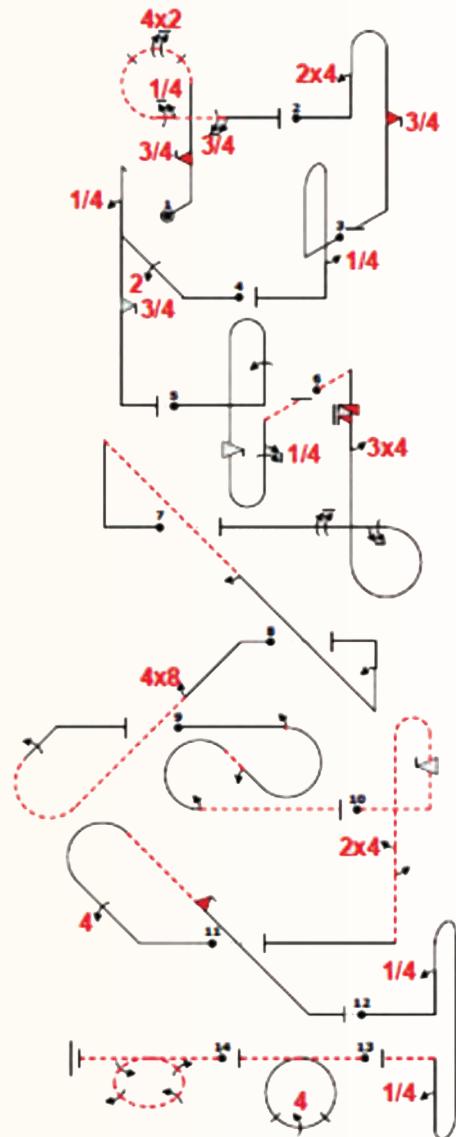
Spoiler: It's simply a matter of energy management. Nothing new. Glider aerobatic pilots have known this forever.

The key here is to be aware of the maximum airspeed the aircraft can achieve in straight and level flight at full power. In our Laser, that speed is 150 knots. Any level segment being flown at higher speed means energy is lost to drag, which the engine cannot sufficiently counteract while speed bleeds off. Therefore, it is helpful to adjust a sequence to start and end figures around that speed. Of course, some vertical segments require higher entry speeds. However, I rarely reach speeds above 180 knots during my sequences. One hundred fifty knots is also a great horizontal entry speed for any vertical snap, providing just barely sufficient long lines before and after the snap-roll while staying within the snap speed limits. Due to the low entry speed limit for snap-rolls in the Laser, when entering figures with a too-high speed, the first line will inevitably be too long in comparison while waiting for the speed to drop to safe snap speed.

Speaking of snaps, a lot of work is required to adjust to the correct amount of pitch. Inputs need to be as fast as possible, while being big enough to be clearly visible. Yet pitch needs to be as small as possible, as any excess pitch means a shorter vertical due to drag and likely a down-grade. This is also an area where practicing with a coach is irreplaceable.

The next thing is balancing the lines. Naturally, vertical lines are much shorter compared to high-performance six-cylinder aircraft. This makes stopping any roll elements without wobbling an absolute necessity, both for aileron and snap-roll elements. Any wobbling at roll stops extends the vertical line and disturbs the line balance. It sounds like a basic and obvious thing, but it makes a huge difference. Observe other pilots fly and you will frequently see small wobbles or corrections at rolls stops. In addition to clearly showing judges that you just noticed your own error, it delays the clear vertical line. Due to a lack of power, this cannot be recovered in a Laser, and usually, the second vertical line segment will be visibly shorter. Likewise, a clear, sharp push-pull (that is, a jolt, within reasonable g-load) and quick establishment of the first vertical segment is inevitable. Any roll element on a vertical upline has to be started almost immediately after establishing the vertical. It will always be long enough for the judges, although it might not seem that way. Practicing this timing with a coach has proven to be absolutely vital for me, to ensure the line is as short as possible but as long as necessary for good judgment. I was completely off in correctly estimating the length of my vertical lines when I started working on it, and it took me a long time to correct my inputs and to get my timing right.

Next: slow speed handling. You will need to be absolutely comfortable operating your aircraft at the stall point, upright and inverted. In many figures, you will end up almost falling from the sky. Being able to still fly that P-loop radius after vertical snaps, or fly away level after a vertical upline with opposing roll elements, is a requirement. Due to the lack of horsepower, the aircraft will pull away much slower, requiring fine elevator inputs (or rather, shaking of



Theo's Free Unknown 1 Sequence at WAC2019.

the stick). The sequence of control inputs required on vertical uplines is about twice as quick when compared with, say, an Extra 330SC, due to much shorter lines.

Let's also talk about roll speed. From my observation, differences in aileron roll speed when at lower airspeeds and accelerating (for example, 4x2 at the top of a P-loop) are much more pronounced in this type of aircraft, especially as the beginning of rolling elements often happens at lower airspeed than the competition. This requires continuous adjustment of aileron deflection; otherwise, the end of a 4x2 combination will be too quick.

If done correctly, a whole Unlimited sequence can be fit into only a fragment of the aerobatic box. The vertical limit won't ever be reached, and

the lateral limits won't either if the lines are kept short as described above. The whole presentation will look like a scaled-down version of higher-performance machines (as the airframe is a little smaller, this is a good fit though).

The most performance difficulties exist in windy conditions, in addition to all the difficulties wind brings with it in general for aerobatics. Counteracting wind for positioning always wastes energy due to sideslip or longer horizontal lines where speed bleeds off.

The concept of Free Known/Free Unknown is an advantage for the Laser. It allows for the design of sequences tailored to the limited vertical performance of the aircraft. While the Free

Known can be practiced to exact altitude levels, flying an Unlimited Unknown sequence in a compact presentation requires carefully chosen linking figures to gain altitude. If feasible, try to include as many 45-degree uplines as possible. Also, the sequence can be designed such that any expected wind correction has the least possible impact on performance.

In the end, the errors I make are never the fault of the aircraft, but rather a lack of concentration on one or more of the required important details mentioned in this article. There is no excess performance that allows to recover even minor errors or to really think about the action sequence in the cockpit. While it is not easy to score well in Unlimited competition with these limitations, it certainly can be done, even more so on a national level. The process of trying and





practicing to get every last bit out of this little bird has its own unique appeal.

Is it a good idea to compete at the Unlimited level with this kind of aircraft? You be the judge. But maybe it shows that even with limited financial abilities, Unlimited is not out of reach, and dedication and ambition can make it possible. The fun is by no means less than in any higher-performance machine.

One final remark: When flying the Laser in Unlimited, you will constantly find yourself close to or at the operating limitations. Good knowledge of these limitations, careful maintenance, and frequent, thorough checks are an absolute necessity to stay safe. This airframe was designed in the 1980s, and Unlimited today is not what it was back then. **IAC**



Theo is ready for a flight at WAC2019.



Coach Klaus Schrot with Theo after a successful first Unknown.



Theo and Klaus on parade with the German Team in Châteauroux, France, at WAC2019.

Theo and D-EKKY takeoff with Smoke on in 2022.

Meet the U.S. Advanced Team

Rising stars and seasoned aerobatic veterans

COMPILED BY ALICE JOHNSON, IAC 23463, TEAM MANAGER



THIS YEAR'S U.S. ADVANCED Aerobic Team is made up of experienced national and world-class competitors. Half the team members have been to a World Advanced Aerobatic Championships (WAAC), a World Aerobatic Championships (WAC), or both. The other half have been successful competition pilots on a regional and national level. The team is actively preparing to bring their A-game to the 15th FAI WAAC in Jean, Nevada, from October 24 to November 4.

Traveling to Nevada to support the team will be team manager Alice Johnson and team coach Jim Bourke. The team will be greeted

on-site by familiar IAC faces, with IAC historian and President Emeritus Mike Heuer serving as president of the international jury and Nick Buckenham serving as chief judge. The contest director will be IAC member Duncan Koerbel, who is in the process of filling all the volunteer positions. Visit WAAC2023.com to volunteer.

Go Team USA! Being part of the team is not an inexpensive endeavor, so if you would like to support the team financially, the IAC website (IAC.org) is set up for your donations.

Next page: Team coach, Jim Bourke and team manager Alice Johnson, forefront.

US Team members from left to right: Mike Lents, Marty Flounoy, Kyle Collins, Brittanee Lincoln, Marco Bouw, Matt Dunfee, and Don Hartmann.



2020 Advanced
Aerobatic
Championship
Nevada

Boise
IAC



MATTHEW DUNFEE, TEAM CAPTAIN

I AM BOTH HONORED and privileged to be leading the 2023 U.S. team at the WAAC. The team is composed of former CIVA competitors, rising stars, and seasoned aerobatic veterans. It's my hope that members of the IAC will enjoy following along, sharing, and participating in our journey as we improve and progress throughout the year. Whether you're a casual weekend warrior or a seasoned competition veteran, I hope our journey will inspire you to get the most out of your aerobatic flying.

I began my aerobatic journey nearly 11 years ago when I signed up for an Aerobatic Discovery Flight at Sunrise Aviation in Orange County, California, to celebrate my 1,000th hour of flying. My instructor, Daniel Wisehart, reignited my passion for aviation and pushed me to try my hand at competition. As with many of you, my journey started off slowly and gained pace in subsequent years as time and money allowed. I still look

back fondly at those formative years and the hours I spent in the hot, windy desert of Borrego Springs, California, getting coached by my close friend and mentor Michael Church as I moved from the Decathlon to the Extra and slowly began to climb my way through the IAC categories.

In 2018 I participated in my first CIVA contest at the World Advanced Aerobatic Championships in Romania. The experience was profoundly rewarding, and I won bronze medals in the Unknown Programs 1 and 3. I decided to purchase a 330SC in 2019 to represent the U.S. team in subsequent world championships. Our 2018 coach, Nick Timofeev, provided me with a solid base of CIVA-level coaching that I was able to build on with additional coaching from Rob Holland as I prepared for future world championships. Rob's coaching culminated in my selection as the 2023 Advanced team captain following a championship at the 2022 U.S. National Aerobatic Championships.

As I look to the future, I'm excited to continue my journey with the 2023 U.S. Advanced Aerobatic Team. The 2023 WAAC will be the closing chapter for me in the Advanced category as I prepare to make the jump to Unlimited competition. It is a pleasure to be joined in this endeavor by a close-knit team of friends both new and old. I know I speak for the entire team when I say we are both excited and ready for the challenges ahead as we represent the United States at WAAC.

MICHAEL "MIKE" LENTS

MARTY FLOURNOY

I GOT INTO AEROBATICS

rather late in my aviation adventure as a 40-year veteran of general aviation and experimental aircraft of all sorts. We rebuilt a hurricane-damaged Citabria, and I was so glad to be flying and not rib-stitching anymore that I didn't realize how slow it rolled or climbed as I struggled to get through Sportsman sequences in 1996 at the Bear Creek Bash in Georgia. Spurred on by Paul Logue and Robert Armstrong, I found a wrecked Pitts Special S-1S and started building again while setting my aspirations higher. Along the way, while working my way through Intermediate and Advanced, I became a monoplane convert.

As a member of the 2012 Advanced team that competed in Hungary, our coach Nikolay Timofeev opened all our eyes to what hard, no-compromise training and coaching could do to help build our skills and raise our flying to a much higher level.

Now approaching my 27th season of competition flying, after being on four prior U.S. teams, joining the '23 Advanced team, and being selected as a CIVA judge at several Unlimited world championships, I appreciate that I have truly been blessed with the opportunity to participate in this sport and compete with some of the greatest pilots in the world.

The teams require an army of volunteers and supporters. The key to making it all work is the support you get along the way from mentors who encourage you to be your best. They act as role models and help you get better through constructive criticism.

This year the Advanced team, captained by Matt Dunfee, has loads of talent and motivation and just enough experience to know hard work is the key to making this world championship one of the biggest rivalries in a long while. Team France is always a perennial favorite, as they are well trained and usually enjoy home-field advantage in Europe — but not this year.



Follow Team USA and get WAAC 2023 updates on IAC social media.

FACEBOOK: @EAAIAC,
@usaadvancedaerobaticteam @sportaerobatics
INSTAGRAM: @iac_hq @sportaerobatics



MY AVIATION JOURNEY

STARTED

at an early age. I would play flight simulator on a neighbor's computer, watch aviation documentaries, and was inspired by air shows near my hometown just north of Detroit.

I enrolled at the University of North Dakota (UND) and began flight training in 2001. An elective aerobatic flight course gave me the opportunity to explore all-attitude flight. Once I began instructing, I started providing spin and aerobatic instruction in UND's Super Decathlons. Beginning in 2008, the UND Aerobic Team needed another safety pilot. I fell in love with competition and became the team's head coach in 2011, a role I continue to take pride in today. Over the years, we've won 10 national collegiate titles, with team members making the podium at Nationals numerous times.

At UND, I specialize in teaching aerodynamics, aircraft systems, human factors, and aerobatics. Since 2013, I've been sharing my passion for aerobatics as a regular presenter at AirVenture and maintain a NAFI Master Instructor-Aerobatic designation.

Managing an Extra 300L with Cameron Jaxheimer and the now-late Charlie Atterbury enabled me to qualify for the 2018 U.S. Advanced Aerobatic Team. In Romania, I partnered with my brother-in-arms Aaron McCartan in his Panzl S-330. As part of the U.S. Advanced team, we performed under pressure overseas to bring home a team silver.

In many ways, 2022 was a banner year, Andrew Coughlin, one of my aerobatic students, nominated me to fly with the Thunderbirds. It was a true honor, and I got some stick time in an F-16. My wife, Amy, our two teenaged sons, and I made an amazing 4,000-mile road trip from North Dakota to the Pacific Ocean. Completing another bucket-list item, UND trusted me to demonstrate our hard-working UND Super Decathlon at an air show in Williston, North Dakota, with my family watching.

While aerobatics is my passion, my family owns my heart. After all the excitement, I was uncertain about flying to qualify for the team. With encouragement from Amy and my boys, the support of my students, and kind words from Linda Meyers-Morrissey, I became determined to fly my best in the hopes of representing Team USA. Through the generosity of Spread Aviation and Rob Dumovic, we worked out a plan so I could fly the most patriotic midwing Extra ever devised at U.S. Nationals. It was an amazing field of highly skilled pilots competing for slots, and I'm honored to be part of such a talented team!



DON HARTMANN

MIKE CILIBERTI

I'VE BEEN A CHIEF pilot for the same corporation for the last 23 years. I've flown 11,000 hours and am an airline transport pilot with five type ratings. I have more than 1,500 hours flying aerobatics and got my start in a Pitts Special S-1S. I have flown a Lazer, Sukhoi 26M, Sukhoi 31, and an Extra 330SC, and I now fly aerobatics in my MXS. I've been an IAC member since 1985 and most recently joined the IAC sequence committee.

I was a member of the U.S. Unlimited Aerobic Team in 2017 and 2019. Due to a mechanical issue before the 2021 Nationals, I was unable to compete for a slot on the Unlimited Team. Though I was disappointed about not making the 2022 team, I served as a warmup pilot at the 2022 WAC in Leszno, Poland, and was able to compete in Advanced at the 2022 Nationals and qualify for the Advanced team.

My goal as a member of this team is to help the United States bring home the gold! Marty Flournoy sold me on trying out for the team. I had mixed feelings about it, but he convinced me to give it a shot. His love of the sport is obvious, and like all the team members, he wants to bring home the gold.

I'm looking forward to working with the other team members and growing together as a unit. This is my favorite part of the journey: training together, learning, and (hopefully) getting better. My wife, Carmela, is 100 percent behind me, and her unwavering support certainly makes the journey easier.

I love to train because there is always something to strive for or get better at, so peaking for WAAC without overtraining is my primary goal this year. Building up slowly to be at your best at the WAAC is an art. I'm counting on Jim Bourke and Alice Johnson to reel me in.

See you at WAAC!



DON STARTED FLYING AS a child with his father, who was also a pilot. After flying straight and level for many years, he decided to give aerobatics a try. His first contest was at Sebring, Florida, in 1992 in a Citabria. After that contest, he was hooked. He would later fly a Pitts S-2B for 15 years in Intermediate. In 2005 he made the jump to an Extra 300S. He has been flying Advanced since 2006.



Don has long been interested in the U.S. Aerobatic Teams. He knew it wasn't easy to earn a team slot, but he wanted to go for it, so he trained with some of the best coaches for many years, and in 2019 thought he was prepared to finally try out. At the 2019 Nationals, Don finally made the team, but then COVID hit in 2020. He continued to train through 2020 and 2021 until he made the difficult decision not to attend WAAC in Europe later that summer. The training continued, and he gained the No. 3 slot on the 2023 Advanced team at the 2022 U.S. Nationals.

While he did the flying, he did not achieve this goal by himself. Every step of the way, a few key people have been there to help him with training, encourage him, and push him toward his goal. Alan Bush has been right there coaching, and Mike Mays has helped keep his Extra 300S going. Without the help of Alan and Mike, Don would have never achieved his dream.

The sport of competition aerobatics has survived so long because pilots are always giving back and supporting each other. Don got here with the help of fellow competitors and pays it forward when he can. He loves helping a new Sportsman or Primary pilot learn the basics of flying Aresti figures — and showing them how fun the sport is. Each pilot and volunteer is vital to the IAC. Don thanks every member for the opportunity to have a venue, staff, and the freedom to fly aerobatics at the world level here at home.

While the excitement is full throttle, many other emotions are going on as well, but it's safe to say all those emotions will be used to push this momentum all the way to Las Vegas. This entire 2023 team is committed to competing together under the American flag. The opportunity to fly at this level in the United States doesn't come often. If you can watch the contest in person or online, make sure you do. History will be made by this 2023 team!

Follow Team USA and get WAAC 2023 updates on IAC social media.

FACEBOOK: @EAAIAC,
@usaadvancedaerobaticteam @sportaerobatics
INSTAGRAM: @iac_hq @sportaerobatics



KYLE COLLINS, PH.D.

BRITTANEE LINCOLN

I WAS BORN AND raised on a ranch in Montana where my grandfather, who was a crop duster, taught me to fly in the family Super Cub on our grass strip (12MT). I earned my private pilot certificate in November 2017 and went on to earn my instrument, commercial, multiengine, and commercial seaplane ratings over the course of the next year. I realized my true love and passion were aviation, and I walked away from the business

world to pursue my dream of being a pilot. I now fly professionally and am currently working as a contract pilot so I can make time in my schedule to prepare for the WAAC.

I experienced my first aerobatic flight and learned about the IAC and competition aerobatics in 2019. To say aerobatics has become a part of my life is an understatement. When I thought flying couldn't get any more fun, I discovered what I refer to as "vitamin G," and I now need my regular dose.

I vividly remember my first IAC contest in Borrego Springs, California, flying Primary in a Super Decathlon with a safety pilot. It was exhilarating and terrifying all at once. I recall feeling like I was flying with my hair on fire; everything seemed to happen so fast. I was in complete awe of the upper-category pilots. I could not fathom how they managed to stay in the box, maintain awareness of their positioning and direction, and fly seemingly impossible sequences. (With "flicks"! What was a "flick"? I didn't even know.) And cleanly flying an Unknown seemed like something only superhumans could do. I was even more inspired when I attended the U.S. Nationals and first watched the Unknowns being flown. It was incredible to watch such beautiful flying and see some of the world's best pilots fly through an Unknown flight like it was their Freestyle.

I am grateful for my family and friends, who have supported me and believed in me in this journey – specifically, my parents, Roger and Mable, who taught me I can do anything; Dave Watson, who introduced me to aerobatics and the IAC, and was my coach and mentor; and Craig Gifford, who shares his knowledge and experience, helps refine my flying, and believed in me when I doubted myself.

I am honored to represent the United States at the WAAC and to be a part of a team with so much experience and talent. I am eager to learn from my teammates and grow as a pilot. This is going to be a great year!



KYLE'S AVIATION JOURNEY

BEGAN during his undergraduate studies at Georgia Tech in 1990 when he became involved in competitive four-way formation skydiving. Over a 15-year period, he competed at the world level and completed over 5,000 jumps. After working as an engineer in the sport parachuting industry and running his own computer-aided design consulting firm, Kyle pursued graduate degrees from Georgia Tech's School of Aerospace Engineering in 2002. He obtained his private pilot certificate, instrument rating, and commercial certificate in 2006 after discovering his passion for flying. Now, with more than 1,000 total hours of flight time, Kyle has obtained his certificated flight instructor certificate.



Following the completion of his doctorate degree in 2008, he continued working as a research engineer at Georgia Tech's Aerospace Systems Design Laboratory (ASDL), where he focused on multidisciplinary design optimization of rotorcraft in aeromechanics and aeroacoustics. During his tenure at ASDL, he led the rotary and fixed-wing design branches of the Advanced Concepts Division and subsequently the aviation safety and certification branch of the Transformative Aviation Concepts Division. In 2013, while working on his tailwheel endorsement in a Super Decathlon, Kyle developed a love for aerobatics and went on to purchase a Pitts Special S-1T.

Progressing through the Sportsman, Intermediate, and Advanced categories, he became involved with IAC Chapter 3. In the fall of 2019, he joined the Eagle Flight Research Center (EFRC) at Embry-Riddle Aeronautical University as an assistant research professor, later becoming the interim director of the EFRC. His research now focuses on the certification, propulsion, and flight-control aspects of electric vertical takeoff and landing aircraft.

In January 2022, Kyle purchased Aaron McCartan's Panzl with the goal of becoming a U.S. Advanced team member. He practiced consistently and participated in contests, ultimately placing sixth overall at the U.S. Nationals in Salina, Kansas. He is excited to represent the United States at the World Advanced Aerobatic Championships in Las Vegas later this year.

MARCO BOUW

I FIRST STARTED FLYING at 17 and have progressed in my training all the way up to an airline transport pilot certificate with multiple type ratings. I started out as a truck driver with my family company until I was able to achieve my ratings and become a full-time pilot. I am now a full-time pilot for a Part 91/135 company flying the Bombardier Global 5000/5500/6000.

I got my start flying aerobatics in a Citabria back in 2010 before buying my own Pitts Special S-1S. A few years after acquiring my Pitts, I had an unfortunate accident and totaled the aircraft. A few years later I bought a Laser Z200, which I flew for three years and used to qualify for the 2023 U.S. Advanced Aerobatic Team. I have since sold the Laser and moved on to my dream airplane, the Sukhoi Su-31. This particular tail number is familiar to spectators at the world championships, as it has been



associated with greats such as Mikhail Mamistov, who won a bronze medal at the 2013 WAC, and had completed many top 10 finishes with its previous owner, Michael Racy.

I believe that as you progress through your career, there are always people to inspire you at different times, but the person who inspired me to compete and fly a level above what I thought I could achieve was Hubie Tolson, a former U.S. team member in 2004, 2005, 2008, and 2009. Because of him, I decided to fly a Sukhoi, and I developed such a love for the aircraft.

This year's WAAC is fascinating not only because it is on our home soil, but also because we've assembled a diverse group that consists of both seasoned world competition pilots and those — like me — who will be attending their first world championship event. Looking to October, we have a lot of work to do to get ready. As for me, I'm learning a new airplane, but the excitement that comes with doing so makes me confident that I'll be ready for the WAAC.

Lastly, I would like to thank my wife, Megan Bouw, and my mum and dad, Martie and Marie Bouw, for their help in getting me to this point and the sacrifices they made to allow me to chase these dreams. I'd also like to thank the team donors and sponsors, as well as the IAC, for creating a great club for pilots where straight and level isn't enough!

WINTER IS OVER! NEW MERCHANDISE IS ARRIVING!



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Meet the Canadian Advanced Team

COMPILED BY LUKE PENNER, IAC 437639



ADVANCED
AEROBATIC
TEAM

WHEN THE WORLD ADVANCED AEROBATIC CHAMPIONSHIPS (WAAC) were awarded to the town of Jean, Nevada, competition pilots across Canada expressed interest in participating in much higher numbers than ever before. According to Canadian Advanced team captain Luke Penner, Canada has never sent a full team of pilots to a world event.

This is the second WAAC held in the United States. In 2008, the event took place in Pendleton, Oregon. On that occasion, four pilots represented Canada. Guido LePore, flying a Pitts S-1, and Jerzy Strzyz, flying a Sukhoi Su-29, both finished in the top 15. Also representing Canada were Dave Barbet flying a Pitts S-1 and Royden Heays flying a Yak-55M.

The 2023 Canadian team was assembled through two separate qualification events in 2022: a Western National Championship in Rocky Mountain House, Alberta, and an Eastern National Championship in Huronia, Ontario. The top five pilots were guaranteed a spot on the team, and the remaining three competitors were chosen by an impartial jury to round out the full team of eight.

"I have long looked up to many of the pilots on our team," Luke said. The team developed a training camp schedule leading up to WAAC and has been training hard. "We look forward to pushing ourselves to be the best that we can possibly be for our country and to make Canadians and Canadian aviators across the country proud of their aerobatic team."



MEET LUKE PENNER

Province: Manitoba

Aircraft type: Extra 330SC

Started aerobatics in a Citabria

SAY HELLO TO OUR team captain! Luke is a full-time flight instructor who is passionate about aerobatics. He became a pilot 19 years ago and has been flying aerobatics for most of that time. In 2016, he began competing in the United States and was usually the only pilot representing Canada. He finished in first place at the U.S. National Championships in the Sportsman category that year. Go Canada! (The championship title is awarded only to U.S. citizens.)

Since then, he has been on the podium at almost every contest he has competed in, both in the United States and Canada, and has won the Canadian National Championship twice in the Intermediate and Advanced categories.

"I look forward to pushing myself and flying further than I ever have at WAAC, and meeting pilots from all over the world," Luke said. "Are you an aerobatic pilot? Wherever you are in the world, follow me on Instagram at @harvsairinverted. I'd love to meet you!"



MEET DAVE BARBET

Province: Alberta

Aircraft type: Giles G-200

Started aerobatics in a Super Decathlon

DAVE HAS BEEN a pilot for 36 years! He started flying aerobatics in 2002 after taking an aerobatics awareness ride. The next day, he bought a share in a local flying club's Super Decathlon.

Since then, he has attended dozens of contests in the United States and Canada, including AWAC 2008 in Pendleton (in his first Pitts Special) and WAC 2013 (in his second Pitts Special). Dave was the last pilot to fly a Pitts S-1S at a World Aerobatic Championship.

"Never underestimate the importance of energy management in aerobatics," said Dave of his experiences flying aerobatics in competition.



MEET NEIL HARRIS

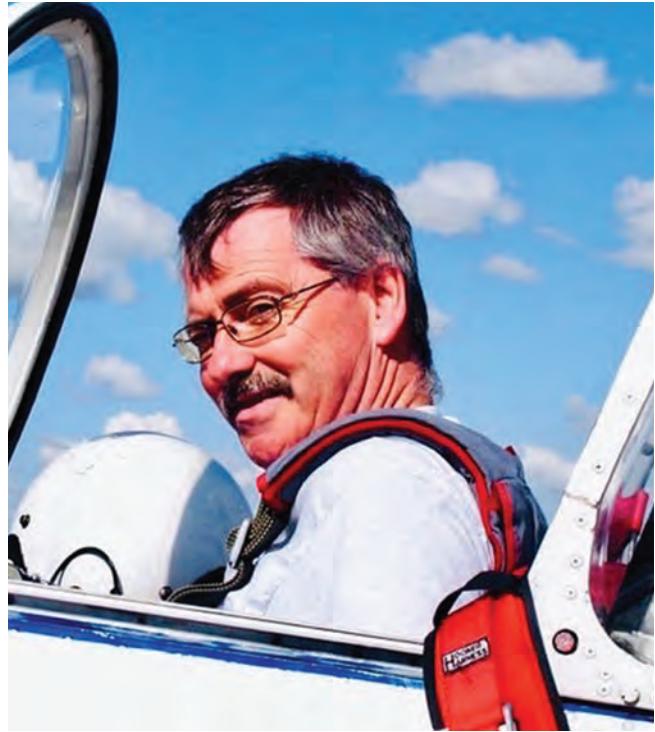
Province: Alberta

Aircraft type: Giles G-200

Started aerobatics in a Zenith Super Acro

AFTER OBTAINING HIS PILOT license in 2009, Neil went on vacation to England. During that visit, he attended the World Aerobatic Championship as a spectator. That was his first competition experience. Watching the precision and skill amazed him. From that point on, he made it his goal to one day compete. He has since gone on to excel in aerobatics and has been the Canadian national aerobatic champion in Intermediate and Advanced multiple times!

"I hope to come out of WAAC with more skill and knowledge," Neil said. "Having the added pressure of representing Canada will push me to train and practice harder than ever before."



MEET MILES CRANE

Province: Alberta

Aircraft type: Giles G-200 (qualified in a Laser 200)

Started aerobatics in a Decathlon

MILES HAS BEEN A pilot since he was 14 years old! He started out as a glider pilot, and flying aerobatics was his objective from the start. From day one, he wanted to use the entire performance envelope of the aircraft.

"I am excited to fly and work intensively with our team coach and the other team members to advance my own and our team's capability to the maximum," Miles said.

The Canadian team's coach is Aaron McCartan, a member of the 2018 U.S. Advanced team that won one gold and one silver medal in Romania. Most recently he was part of the 2022 U.S. Unlimited team competing in Poland.

**Follow Team Canada
on social media.**

Instagram: @teamcanadawaac





MEET MARK CUNNINGHAM

Province: British Columbia

Aircraft type: Extra 330SC

Started aerobatics in a Super Decathlon

MARK REMEMBERS SITTING ON the show line at Oshkosh in 2018 watching Patty Wagstaff and Mike Goulian (aka “Mikey G”) fly their air show routines and thinking, “I want to do this!”

Mark loves competition flying because it requires both precision and the ability to adapt to three-dimensional flight. Most people don’t realize how much time a competition pilot spends on the ground preparing. He loves visualizing, memorizing, and walking sequences before a flight.

“Having a WAAC in our backyard is a great opportunity to fly in a world-level competition, and it’s pretty cool to have a Canadian team at the event,” Mark said.



MEET CHRISTIAN BAXTER

Province: British Columbia

Aircraft type: Extra 330SC

Started aerobatics in a Citabria

THE CHALLENGE OF FLYING aerobatics at the highest level is what motivates this British Columbian, and the chance to experience an FAI-sanctioned contest, while observing strategies from competitors from all over the world, is an exciting new opportunity for him. (FAI, or CIVA, is the governing body that oversees international sport aviation, including world records and competition aerobatics.)

“I am looking forward to seeing the different approaches to training and preparation that the various teams take,” Christian said.





MEET RYAN CHAPMAN

Province: Ontario

Aircraft type: Sukhoi 26

Started aerobatics in a C150 Aerobat

RYAN, A MEMBER OF New Zealand's indigenous Māori people and a naturalized Ontarian, started flying aerobatics at 14!

However, it wasn't an easy journey. Getting access to aerobatic airplanes in Ontario was challenging. It took a lot of hard work and dedication for him to keep going in aerobatics.

"You need to be committed and focused to the sport to do well and be safe," Ryan said.



MEET JERZY STRZYZ

Province: Alberta

Aircraft type: Sukhoi 26

Started aerobatics in a Zlin 526F

JERZY GOT HIS START in aviation as a 15-year-old glider pilot! One of the first things he did after moving to Canada in the mid-'80s was get in on a 1/14th partnership of a Super Decathlon, which got him started in Sportsman and Intermediate contests.

Jerzy gained experience in Canada as a bush pilot while saving up for a Pitts, and then moved on to an Extra 300. At that time, bonuses were given for short Free programs, and the Extra 300 wouldn't fly a six-figure Free. He traded it for a Sukhoi and never looked back.

His previous world championships include the 2008 WAAC and the 2013 World Aerobic Championships (WAC). He also has a lot of experience with regional contests. Here's why a busy training season ahead of WAAC 2023 doesn't faze him: "One of my best memories was doing 10 contests, three training camps, and eight air shows in one season!" he said.

IAC+

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Three Keys to Aerobatic Safety

BY BILL BANCROFT, IAC 12187

CIRCA JULY 1942

STANDING AT PARADE REST on the shimmering tarmac of a hastily constructed West Texas runway, sweat dripping from every pore, Sgt. Many Stripes droned on. "Gentlemen, you have been selected by the U.S. government for basic training in fighter aircraft. Your mission will be to, among other things, sweep enemy planes from the skies of Europe and the South Pacific. What you likely didn't know until just now is that the day you were hired, another equally

talented guy was hired, and his mission was to kill you and make it look like a training accident."

The sergeant droned on. "I've been around this man's Army Air Corps for a very long time. My job is to ensure you survive long enough to justify my government's investment in your very expensive flying machine and training."

Many years later, I heard this story from a pilot who stood on that hot tarmac in a vacuous Texas wasteland. He was my first flight instructor, a weather-beaten old man whose voice cracked, and his eyes took on that famous thousand-yard stare with every telling to a new student in the hope it would stick with them. It has certainly stuck with me!

Over the years, I've become some crazy mixture of Sgt. Many Stripes, all my flight instructors, and some of the old and bold pilots I've known and flown with. Oh, yeah, and my World War II flight instructor mom frequently pontificated when I was growing up, "This is all a lot of fun until someone gets hurt." If she could only see what I can do with an airplane now.

Hanging in my office is the picture of an old scowling cowpoke in a sweat-stained shirt and hat and a Bull Durham tag hanging from his shirt pocket. The caption reads: "When I signed on to this outfit, there was some stuff not told to me."

I'm here to ensure you get the important stuff you need to know when flying aerobatics, the real safety stuff.

Aerobatic safety is no accident (pun intended). More importantly and more interestingly, may I suggest that there are three primary elements if you choose to engage in safe aerobatics: *situational awareness, focus, and evaluation*.

There is a possible conflict between the first two elements, situational awareness and focus. Being aware of everything in your environment, including your airplane, yourself, and all about you, there's little, if any, time for focus. However, to fly consistently and garner high scores from contest judges, you must focus. This dilemma is solved by the third element, evaluation. Learn how to deftly evaluate where you put your attention. Sometimes your



Three keys to aerobatic safety are situational awareness, focus and evaluation. Photo by Bill Bancroft.





This original painting by Bill Hampton carries the placard, "When I signed on to this outfit, there was some stuff not told to me."

attention is fully on situational awareness. Other times, almost 100 percent of your attention is on focus. Careful, thoughtful evaluation is the key. If you've ever watched a wild animal hunt, you've seen how they manage to always be the predator and never get caught, losing situational awareness but not becoming the prey. Watch their eyes and ears. They are constantly evaluating their environment and determining where to focus.

CIRCA JULY 2003

I had the good fortune of becoming part of an organization that specialized in training civilian pilots in the art of air combat. Many of our students were weekend warriors with little or almost no aerobatic training. Others were seasoned contest veterans.

We trained in Marchetti SF-260 aircraft, a two-place, high-performance, retractable-gear, low-wing Italian hot rod.

During my many training flights, I was frequently surprised to find that regardless of my student's aerobatic experience, after the merge, as we crossed paths with an *enemy airplane* at co-altitude and we pulled, pushed, or rolled into our first evasive or aggressive maneuver, my student became completely disoriented. He would lose sight of his

adversary and sometimes even lose control of our airplane. The problem was that he suffered from sensory overload while, at the same time, trying to maintain situational awareness and focusing on what his next maneuver should be. The consistent outcome was summed up in the saying "Lose sight. Lose fight."

As I present several thought-provoking scenarios for your consideration, see if you can identify the three key components — situational awareness, focus, and evaluation — in each case and how each can play a significant role in the safe conclusion of the flight.

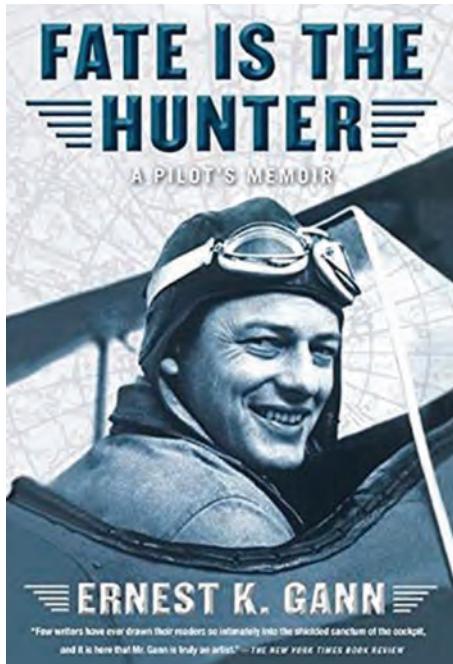
My long-in-the-tooth flight instructor and aerobatic coach once told me his mottos for flying and teaching:

- It's easy to fly.
- It's difficult to fly well.
- It's challenging to fly safely.

His mottos must be working for him, since he's flown, taught, and chief-judged countless contests over the many years of his flying career.

Lately, after a couple of tragic accidents, he's added an admonition to his acro-aficionados, "Select a '*purpose-built*' machine, one that has been designed, engineered, and professionally built for aerobatics. Avoid shade-tree mechanics and engineers and bicycle parts."

Drawing on more personal relationships, I asked an old friend, longtime airline captain, and civilian air combat instructor what single safety habit has *saved his bacon* most frequently. His quick response was, "It's simple and easy. After we've come to a complete stop, I've set the parking brake, and the engines have spooled down, I take 30 seconds or more to debrief myself. I review the flight from start to finish, looking for anything I may have forgotten to do or botched and could have done better. This little habit has saved me money, pain, suffering, and a few less-than-glowing



Fate Is the Hunter alerts us to the importance of situational awareness and focus modulated by evaluation.

entries in my personnel file. It's really, in many ways, the most important moment of every flight."

If you favor biblical aphorisms, here's a situational awareness one for you: "Take heed thy airspeed lest the Earth rise up and smite thee."

Before every flight, be it practice, contest, business, or pleasure, do you preflight not only your airplane, ensuring it's in top condition, but also yourself? Are you physically, mentally, and emotionally prepared for the challenges of safe flight? Any distracting thought or nagging worry can easily detract from your situational awareness or take away from your focus and cause you to fail to evaluate.

Does your on-the-ground awareness include the notion that all airplanes, especially aerobatic airplanes, are magnets to people, including children and dogs? Before you yell, "Clear!" do you ensure your prop area is clear? Granted, most spectators might be alert enough to maintain a safe distance from something that can quickly turn into a whirling machete, but I'm not so sure about kids and dogs.



When taxiing, do you generously use S-turns to compensate for the blind spots in many aerobatic airplanes?

When practicing, do you engage the services of a knowledgeable person on the ground with communications to you to alert you to a "bogie in the box"? With the proliferation of drones, this is especially warranted and prudent.

Always use good judgment. Good judgment comes from experience, and experience comes from bad judgment that you or someone you read or heard about survived, at least long enough to pass it on to you. Treasure it.

Know the aircraft you fly. Be aware of sharing an aircraft whether in practice or at a contest. I've lost two good friends, great pilots each,



Marchetti SF-260 aircraft is a two-place, high-performance, retractable-gear, low-wing Italian hot rod. Photo credit: the Marchetti SF-260 operating handbook.

who were flying airplanes they were not intimately familiar with. If you think you have all-encompassing authority in any airplane, just try telling someone else's dog what to do. The same may be true of someone else's airplane.

Never find yourself in the predicament of running out of airspeed, altitude, and ideas all at the same time.

As you read and pondered each of the above pieces of advice, did you recognize how each offered an opportunity for you to be situationally aware and focused, and you may have had an opportunity to evaluate each and select the right place to apply your attention?

Several years ago, a best-selling book and great movie hit the big screen. It was *Fate Is the Hunter* by Earnest K. Gann. Ernie was a

seasoned and highly experienced pilot. Much like my lead-in story, circa July 1942, *Fate Is the Hunter* alerts us to the importance of situational awareness and focus modulated by evaluation.

When participating in practice or competitively flying aerobatics, remember: SAFE stands for situational awareness focus evaluation.

I hope to see you at an aerobatic contest in the near future. **IAC**

First Indian Pilot Dives Into the U.S. Nationals Aerobatic Box

BY ATAMVIR SINGH MULTANI, IAC 441816

The aviation bug bit me when, as a little kid, I saw the swept-wing Tornado¹ scream down the runway on one of the most elegant takeoffs ever. My decision was made, and the ship set sail toward the ultimate destination — becoming a pilot! The journey has been a long, arduous one, and many would agree that it is never-ending. With ups and downs at every corner, it is challenging to say the least, and that is the beauty of it.

My journey to becoming a pilot began when I moved to Canada from India for my flight training at Harv's Air in the summer of 2017. After completing my

flight lessons in the morning, I would watch Luke Penner, Advanced competitor, tear up the lovely evening sky in the Pitts S-2B. Hearing those propellers shred every molecule of air ahead and watching Luke's aerobatic routine made me want to try this kind of flying. Aerobatics was still like a sacred kingdom to me. To pass through the hallowed gates seemed to require skills that didn't seem within the reach of a private pilot. As almost like following a timetable, I made it a point to watch those aerobatic flights after my lessons.

Little did I know of what was to come.

I continued with my training and finished my commercial license in January 2018. Thereafter, I started working toward my instructor rating, which would allow me to conduct lessons for ab initio students



Atamvir started his flight training at the family-owned Harv's Air in the summer of 2017 in Steinbach in the Winnipeg, Manitoba, Canada area.



(or in American terms, English-as-a-second-language students). On one cold March morning, as I pulled into the parking lot at Harv's Air, I saw a trailer with an Extra 300 being delivered and instantly knew that I had to fly this beast of an airplane. It was just a matter of when.

In 2019, aerobatics took a back seat as I directed my attention to instructing, focusing on multiengine and instrument ratings. My goal was to dive into aerobatics (pun intended) in 2020, but as luck would have it, the world came to a grinding halt. During this time, I read the book *Basic Aerobatics* by Geza Szurovy and Mike Goulian, and it provided a great insight into the world of precision aerobatics. These were not cavalier stuntmen performing dangerous acts in the sky; these were musicians who had rehearsed every note down to perfection before they ever performed.

Fast-forward to 2021, and I flew my first aerobatic contest in the Primary category in a Citabria 7ECA. The idea behind flying the Citabria was to learn the art and science of a loop, roll, and spin in an

aircraft that wasn't forgiving if all four controls were not managed correctly. I went on to place first in that contest and met some wonderful people in the aerobatic community. I knew I had to keep

going because I loved this kind of flying.

As I spent more time around IAC members and reading through the history of aerobatics, a big realization dawned upon me – India has had almost little to no representation in the sport. In my opinion, this reality was mind-boggling, given India is one of the youngest and most talented populations in

the world. My goal was set: to be the first Indian to fly at the U.S. National Aerobatic Championships.

The year 2021 was when I started flying aerobatics, but I did not practice it initially beyond the one contest I attended. My objective in 2022 was to fly at the Canadian and U.S. Nationals, as these contests promised immense talent to compete against, while meeting some absolutely incredible people in the community.

In the summer of 2022, my first flight in the Extra 300L happened. Nothing beats the excitement and anxiousness of a first flight, especially that of a high-performance tailwheel monoplane! We had briefed the first flight countless times, and I had mentally flown it from start to finish, over and over. I took a few deep breaths to overcome the sheer emotion of being strapped inside this beast we were about to unleash. Something that stood out at the outset was the roll rate. The aircraft rolled like no other I had ever flown. With feather-like inputs required to keep the aircraft going where I needed it to go, the Extra felt like gliding on the surf.



GET YOUR START

After the first aerobatic contest, I went back to being a “1g” human being for all of my flying. Eventually the day came when I took a second round of training in the Extra with Luke. This time, flying basic figures in the Extra tumbled my internal gyros pretty hard and made me sick to my core. The third flight was no different. When the fourth flight ended with the same fate, I almost felt like it was not meant to be. Luke and I decided we were not going to give up and approached the problem differently. Every flight moving forward, we stuck to a fairly basic routine and added a few minutes of extra aerobatic flying with each flight. The fifth flight lasted 15 minutes, and the sixth went on for about 18 minutes. And so forth, ever so slowly, I felt my body had harmonized itself with the aircraft, and it reached a point where about 25 minutes of aerobatics seemed to be tolerable. From there on, it was just a matter of making time for practice and trying to finesse the finer points in the sequence. Because of how busy both Luke’s, and my schedules were, we decided it would be wise not to focus on soloing the Extra and have Luke fly as a safety pilot in the next aerobatic contest I would fly.

This development led me to my home contest, the Central Canada Aerobatic Championships in Steinbach, Manitoba. Having flown here the previous year and knowing the box and airspace made the jump from Primary to Sportsman fairly straightforward. The idea was to learn to fly the Extra 300 in the box in front of some of the best judges in the business and work on presentation. We planned this contest to be a work-up to the Canadian Nationals.

The Canadian Nationals at Rocky Mountain House (Rocky) came next. I drove to Rocky and was met by Luke who flew the Extra to the contest; I almost instantly got into the training mode. We flew three flights with very particular goals. The first was to familiarize with the airspace, the high-density altitudes at Rocky, and box geometry. The second flight was to fly a clean Sportsman sequence and concentrate on a few figures that we decided needed work. The third and final flight was flown like a full-dress rehearsal of the competition flight, and I was afforded some great critique from the Advanced category pilots on the ground. In the Sportsman category, I flew against the Canadian Nationals champion Phillip Dewsnap from the previous year, and what a close contest it was! All said and done, when the dust settled, we were sharing the podium with him leading by 0.18 percent. Nail-biting for sure!

Something else interesting transpired at Rocky. I had the good fortune of meeting Aaron McCartan, U.S. Advanced team member. From the get-go, I realized this pilot was someone who had dedicated his entire life to the sport, and small but important inputs from him made me improve my flying almost instantly. It also highlighted how giving the aerobatic community is. As the sun went down at the Canadian Nationals, I saw how fierce the competition could be at the national level.

One challenge I had not given enough credit to was how tough it was to balance and manage serious aerobatics alongside a full-time day job. To pay my bills, I worked as a King Air captain, flying medevacs in the Canadian Arctic. Having crisscrossed the country coast-to-coast and flown patients from as far north as Resolute Bay (74 degrees north), it definitely took some work to practice aerobatics

Atamvir dives into the box at the 2022 U.S. National Aerobatic Championships.



Atamvir trained with Canadian Advanced Team Captain Luke Penner in the Extra 300L.

before contests, get to the venues, and most importantly, be in the right headspace before a training or competition flight.

Prior to flying to the U.S. Nationals, Luke and I decided to do a training camp with Aaron in Algona, Iowa. We got to Algona and flew some goal-oriented practice flights to try and fix one figure at a time. From sunrise to sunset, we spent time briefing, flying, and debriefing, then repeating it over at least once. The evenings were spent exploring what this quaint little town had to offer. At the end of three days, it felt as though my aerobatic flying had received a huge revamp and definitely made me better prepared for the U.S. Nationals.

Without a doubt, the mecca of aerobatics, the U.S. Nationals did not disappoint. Our arrival in Salina, Kansas, was a culmination of a dream that took five years to materialize. Seeing the amount of talent on display in Salina and being surrounded by some of the greatest names in the sport made my Salina experience a total success.

After our first flight in the box at Salina, I knew I had done it. It took a lot of work to get here, but it had happened: I had become the first Indian pilot to dive into the box at the U.S. Nationals in the Sportsman category. Each flight at the U.S. Nationals was epic, and it felt amazing to be competing with some of the best names in the sport.

It has been a rewarding journey so far, and I am certain it will continue to be amazing. It feels great to be representing my country in Canada and the United States, and I look forward to continuing. Aerobatics is pure joy and increases command on all axes of flight!

IAC+

Atamvir Singh Multani has 3,200 hours of total flight time. He has flown a King Air 200, an Extra 300L, and a Beechcraft Travel Air. Currently, he is transitioning between jobs and undergoing type training for the Boeing 737. His goal in aerobatics is to represent India at the World Aerobatic Championships at some point.

¹Panavia Tornado is a family of twin-engine, variable-sweep wing multirole combat aircraft, jointly developed and manufactured by Italy, the United Kingdom, and West Germany.



Atamvir feels pure joy as he realizes his dream to be the first pilot from India to fly in the Sportsman category at the U.S. Nationals.



Getting some coaching from Aaron McCartan, U.S. Advanced Team member.

For the Joy of the Sport

Confessions of a *g* junkie

BY TOM MYERS, IAC 16830



THE FIRST TIME I was subjected to aerobatics, I knew immediately that I was hooked for life. I was in heaven. Primary flight training commenced immediately. As soon as I got my private ticket, I headed straight for the flying club's Citabria and Aerobat. Ownership of a Super Decathlon in another flying club soon followed. I spent the first three years of my aviation career soaking up everything I could about flying aerobatics from local CFIs.

My aerobatics instructor at the time mentioned that there was a pilot at the field who flew competitive aerobatics. I did not know that the IAC or competitive aerobatics even existed, but I was sure that I wanted to do it the moment I heard about it. The pilot was Mike Jones. Thanks to Mike, I found myself at the local two-day judge's school shortly thereafter.

The school was tremendously valuable. First and foremost, it provided me with a clear picture of the contest environment and what was expected of me in that environment. The local contest at that time was held at Longmont, Colorado. Even though I arrived at Longmont knowing the event

would be a big first-time experience for me, I arrived with knowledge that minimized the number of surprises awaiting me.

Mike was kind enough to critique me during the three months leading up to the contest. That too was immensely valuable. I had some time to get over the shock that a competition box looks like a postage stamp from the air. I had some time to learn how to fly figures that bore a remote resemblance to what the judges were looking for. I had some time to think about my goals in the sport.

Aerobatics for me is all about learning and mastering skills. Every day that I get to fly upside down is the greatest day of my life. The sport of aerobatics itself brings me boundless joy. I see contests as a venue for sharing knowledge and skills and friendship.

The notion of aerobatic competition for the purpose of competing against other pilots and winning was new to me at the time. I made a decision then that I never wanted the pilot versus pilot outcome of any contest to ever dampen my enthusiasm for the sport. I consciously decoupled my love of the sport from the rank ordering of the sport. If I finished in last place, I was going to enjoy doing so more than anybody else there at the contest.

This is my 34th year of competing. That decision is as true for me now as it was when I first made it. Over the years, I have finished in first place a few times. I have finished in last place quite a few times. I have finished somewhere in the middle even more times. I have enjoyed every one of those contests just the same. I have flown more than my share of zeros. I promise you: No one has had more fun flying them than me.

I have countless friends and acquaintances in the sport who have a different viewpoint than mine. To them, the rank ordering at the end of a



Before his current Akro mount, the Zivko Edge 540, Tom graduated from a Cessna 152 to a Citabria, then a Super Decathlon and then the Stephens Akro pictured here.

contest is the point of being there. I respect their right to enjoy the sport in a different manner than I do. It would be hypocritical of me to expect them to respect my viewpoint without me respecting theirs.

If you have not already done so, I recommend that you spend some time thinking about what your goals are in the sport. The point of this article is to emphasize that there is happiness, satisfaction, achievement, knowledge, skill, and even joy to be found, even in the absence of winning.

When I first started flying aerobatics, a Citabria seemed like a rocket ship compared to the Cessna 152 that I did my primary training in. I stuck with it and eventually got to the point where I was flying the airplane instead of it flying me. That experience resulted in the setting of the goal that I wanted to continue to figure out how to fly aerobatics in successive steps up in performance. When I moved up to a Super D, that seemed like a rocket ship compared to the Citabria. Same thing when I moved up to a Stephens Akro. Same thing when I moved up to an Edge 540.

However, an interesting thing happened when I bought the Edge 540. It was and is a far more demanding aircraft to fly well than anything that I had flown previously. I realized that if I was going to get anywhere with it, I would have to practice more. And as I did so, another funny thing started happening. I started ending up with trophies. Yes, it helped that I

was no longer on the less desirable side of the performance curve. But the real reasons were that I was practicing, and I was practicing, and I was practicing. No magic formula. Just lots of diligent effort. Note that I intentionally did not use the words hard work.

I practice as much as I enjoy doing so. I don't practice beyond that point. I decided before that first contest that I would never burn myself out in the sport by crossing the line between an avocation and a vocation. I never wanted aerobatics to become work. So far, so good.

I took third place in Sportsman at that first contest in Longmont. I did not take home another trophy for 20 years. That may be a record. Please don't get me wrong. I enjoy flying home with a trophy just like anybody does. The difference is, for me, it will always be an unexpected bonus.

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Snowbird Classic Aerobatic contest returns to Keystone, Florida. Photo by Leigh Hubner.

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