



**SPORT**

April 2015

# **Aerobatics**

OFFICIAL MAGAZINE

INTERNATIONAL AEROBATIC CLUB



Model 12  
**Pitts**

- Practice Box
- Skybolt Dream
- Unlimited Limited



# 2015 EDGE

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\*Standard on SE, SEL and Titanium models.



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*"Flying it has been delightful," he continues.  
"We've had to reduce the standard size of  
the spades to reduce the sensitivity of the  
ailerons, because it was like an Extra. We've  
now got it where it's really  
quite balanced, and I'm  
quite comfortable  
with that . . .*

—Chris Getz

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## THE COVER

*Miss Maggie owned  
by Chris Getz was  
flown by Kendal  
Simpson for the  
photo by Phil High.*

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**REGGIE PAULK**  
COMMENTARY / EDITOR'S LOG

## Celebrating the Pitts

### WELL, IT'S OFFICIALLY SPRING!

I for one am glad to see the winter snow losing the battle against the ever increasing length of our days. It's wonderful to see the sun setting later and later, and it will soon be that time of year when pilots everywhere begin preparing their airplanes to head to that mecca of aviation in Wisconsin.

## I enjoyed learning about the history of Miss Maggie, and I hope you enjoy reading Chris's story.

This year, as I'm sure you're aware, we're celebrating the 70th anniversary of the first flight of the iconic Pitts biplane. It's hard to believe that an airplane conceived and built 70 years ago is still a top competitor in competitions all across the country. Not only that, but the Pitts figures heavily in air shows as well.

As of this writing, over half of the available 70 positions open for the Pitts gathering in Oshkosh have been spoken for, and I'm sure the remaining positions will be filled before I write this column for next month's issue.

This month, I had the pleasure of speaking with Chris Getz about another Pitts design, the Model 12. *Miss Maggie*, the airplane featured on the cover, is a culmination of the hard work of numerous passionate individuals, but at its core is still a Pitts. The two-seat Model 12 is a large younger brother to the first single-seat Pitts designs, but exudes the attention to detail Curtis was renowned for. I enjoyed learning about the history of *Miss Maggie*, and I hope you enjoy reading Chris's story.

Don't forget, this year we're sending the World Aerobatic team to Chateauroux, France, to compete in the 28th World Aerobatic Championship. If you'd like to help them out, please visit: <http://www.unlimitedaerobaticusa.com> and click the "Donate" link.

In addition to our Pitts celebration and the WAC, we are also well on the way toward preparations for the 2015 U.S. National Aerobatic Championship as well. Keep up to date on the latest happenings by visiting them on the IAC's website at <https://www.iac.org/us-national-aerobatic-championships>.

See you next month! **IAC**

Please submit news, comments, articles, or suggestions to: [reggie.paulk@gmail.com](mailto:reggie.paulk@gmail.com)



## MIKE HEUER

COMMENTARY / IAC PRESIDENT, IAC 4

Please send your comments, questions, or suggestions to: [mike@mheuer.com](mailto:mike@mheuer.com)

# The Nationals

### IN THESE PAGES AND IN MY

communications directly with members, I have often talked about IAC being a “menu of choices.” When you join IAC, you have a whole array of possibilities in front of you that are almost unlimited and can take every bit of your time and resources. But isn’t it wonderful our organization makes this all possible?

For example, you can avail yourself of one of the instructors or aerobatic schools we list on our website. The listing is a terrific reference if you are looking for a place to take some instruction in aerobatics, upset training, or even a tailwheel checkout.

There are the IAC chapters, where many of us enjoy our contacts with local members. Chapters organize a wide variety of activities including judges schools, critique sessions, flying for Achievement Awards, seminars, monthly meetings, fly-outs, and regional competitions. They put you in direct, personal contact with people who know a lot about aerobatic flying and have years of experience. The time and dues you put into your local chapter can pay big dividends.

Then there is the direct involvement in competition not only as a pilot but also as a contest official or judge. I just attended a judges school myself last weekend, organized in Nashville by Steve Johnson, and it was a fantastic clinic full of specialized, technical, and detailed discussion of the fine points of judging aerobatic contests. Judges are incredibly important to our sport, and our new judges chairman, Wes Liu, has hit the ground running and hopes to add improvements to our judges education program in the months

and years ahead.

All this leads me to the main subject in this article, the U.S. National Aerobatic Championships in Sherman/Denison, Texas, to be held September 20-25, 2015. IAC has been running this event since 1982. The Nationals were revived in 1964 in Reno, Nevada, and have been held at Sherman/Denison since 1972.

The airport is the former Perrin Air Force Base, which closed in 1971 and became Grayson County Airport. It is now known as North Texas Regional Airport/Perrin Field (KGYI). As with most old Air Force bases, there are long runways, huge expanses of ramp, and enormous hangars, which has made the venue very well-suited for the Nationals during these past four decades.

Aside from naming U.S. champions in both power and glider categories, it is also the site for the selection of U.S. aerobatic teams. This year, we will select a U.S. Advanced Team that will compete in Radom, Poland, in the summer of 2016. In addition to the normal contest flights that are traditional in the IAC rules, we also add “Free Unknowns”—two of these will be required of team aspirants this year. The top eight pilots will compose the team. Under CIVA rules, Advanced has no gender distinction for the teams, unlike Unlimited. Therefore, there are no separate men’s and women’s teams named for the WAAC in Poland—only one team.

I am particularly delighted that Gary DeBaun will serve as the Nationals contest director this year. Gary is a veteran IAC member of 36 years, holding member No. 4145, and has served as the starter and tech monitor at the Nationals since

2010. In addition to his Nationals experience, he served at the 27th FAI World Aerobatic Championships as flight director and as a contest director at many IAC Chapter 78 regional contests in the 1990s. The owner of a Pitts S-1, Gary works seasonally at Arizona Soaring.

Not letting any grass grow under his feet, Gary immediately began organizing the Nationals and getting the key staff lined up beginning in December. I have never seen so much work done on the Nationals so early in the game. You can find more details at the IAC website regarding the officials for the event, and Gary also has his own page of “organizer’s notes” where he’s posting monthly updates. All of the official positions have been filled, and the FAA waiver is already in hand.

I invite you to come to the Nationals. If you are a pilot, you will be flying with the best and judged by an outstanding panel. Our chief judges (Charlie Harrison, Lynne Stoltenberg, Kevin Campbell, and Peggy Riedinger) are skilled, experienced, and dedicated. Jury Chairman Bob Harris will oversee the jury and overall contest operation to be sure it is run in accordance with the rules and IAC’s highest standards.

All in all, it will be worth your time. If you do not plan on flying, come anyway and enjoy the camaraderie of IAC’s finest and volunteer to work on the judging line or at a boundary. You will find it hugely rewarding and educational. **IAC**

### ASK MIKE

Call or write at any time. My home number is (901) 850-1301. E-mail [mike@mheuer.com](mailto:mike@mheuer.com)



## IAC Annual Meeting

The International Aerobatic Club will hold its annual meeting of the membership on Friday, July 24, 2015, at the IAC Pavilion during EAA AirVenture in Oshkosh, Wisconsin. The meeting will begin at 8:30 a.m.

Agenda for the meeting will include:

President's Report

Treasurer's Report

IAC Awards Announcements

IAC Election Results

Old and New Business

Induction of New Officers and Directors

All IAC members are urged to attend and are encouraged to bring up any matters of business or concern you may wish. The meeting will be chaired by IAC President Mike Heuer, and many of the members of the board of directors will be in attendance.

## U.S. Team Practices at Sebring

The U.S. Unlimited Team held its first training camp of the season at Sebring, Florida, on March 4-11. The camp was attended by eight of the team's nine pilots and organized by team manager Michael Steveson and team captain Goody Thomas. Assisting with local arrangements were Don and Monique Hartmann.

For the first time, the team is being coached and trained this year by Claude "Coco" Bessiere of France. Coco won the Aresti Cup and the World Champion title at the 1990 FAI World Aerobatic Championships in Yverdon, Switzerland. After retiring from active competition life, he went on to coach the French Unlimited and Advanced teams, and under his tutelage, France has won a long string of championships in both individual and team competitions. Their most recent and stunning victories were at the 2013 WAC held in Texas with Francois Le Vot walking away with the Aresti Cup, the French men's team taking home the Nesterov Trophy, the women walking away with the FAI Challenge Trophy, and the Women's World Champion title going to Aude Lemordant.

Now retired as French team coach, Coco is working with pilots around the world. He has agreed to not only work with the U.S. Unlimited Team at its camps in the United States, but also will continue his service with the American pilots through the 28th FAI World Aerobatic Championships to be held in France in August.



Coco Bessiere (right) with Goody Thomas, captain of the U.S. Unlimited Aerobatic Team.

We welcome Coco Bessiere to the U.S. team and look forward to his wearing the U.S. team uniform this summer. With the strong group of pilots from America competing this year, Coco and this author believe we are in a better position to come home with trophies and gold medals than in many years.

## Pitts Anniversary Seminars

In celebration of the 70th anniversary of the first test flight of the Pitts Special, speakers at the IAC Pavilion during EAA AirVenture in Oshkosh will cover subjects in their forums that are "Pitts-centric." Forums will be ongoing from Tuesday through Saturday (July 21-25).

Gary DeBaun, U.S. Nationals contest director, has signed up to give a forum entitled "Buying a Used Pitts" on Wednesday, July 22, at 10:00 a.m. Gary has done many pre-buy inspections over the years for clients and friends and will fly his own Pitts S-1 to AirVenture.

You don't want to miss Don Weaver's forum on "The Aerodynamics of Basic Aerobatics," Friday, July 24, at 11:30 a.m. His presentation includes diagrams, photos, and video shot exclusively in his Pitts S-2B, *Sleazy*. Don is a competition pilot from Michigan IAC Chapter 88 and a CFI who has been instructing aerobatics and providing tailwheel endorsements since 1999.

Although the forums are still being finalized and presenters sought, they will include but are not be limited to:





PITTS ANNIVERSARY EXHIBITION  
**SEVENTY YEARS**

IAC PAVILION AT AIRVENTURE JULY 20-26, 2015

EXHIBITION CREATED + PRESENTED BY **IAC+** THE INTERNATIONAL AÉROBATIC CLUB

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- The right Pitts for you: Explaining the various models
- Maintenance: Problem areas and how to address them
- Pitts and spins
- The Pitts landing myth: Anyone can do it...no...really!
- Pitts modifications: The good, the bad, the ugly
- Pitts partnerships: The do's and don'ts
- Single-hole versus two-place
- Scratchbuilding a Pitts: Where to start and what to expect
- Curtis Pitts: An original—remembering the man

The complete schedule of forums at the IAC Pavilion will be published when the speaking schedule has been filled. If you have a Pitts subject you'd like to present, let us know. To schedule, contact Lorrie Penner ([penn.lorrie@gmail.com](mailto:penn.lorrie@gmail.com)), IAC's Air-Venture forums chair.

Pitts pilots coming to Oshkosh are encouraged to pre-register at [www.EAA.org/apps/airventure/aircraftRegistration.aspx](http://www.EAA.org/apps/airventure/aircraftRegistration.aspx). A special parking area for pre-registered Pitts will be provided near the IAC Pavilion. IAC also plans a reception and gathering for members and Pitts pilots at the Nature Center on Friday, July 24, as well.

## Kirby Chambliss Announces Tempest as Team Partner for 2015 Red Bull Air Race World Championship

Tempest Plus Marketing Group (TPMG) is pleased

to commit once again to its partnership with world-renowned aerobatic pilot Kirby Chambliss.

"Kirby is not only a championship aerobatic and Red Bull Air Race pilot, but he has been a good friend of Tempest for many years," says John Herman, President of Tempest, "and we are proud to have him represent Tempest. His dedication to excellence and determination to always be the absolute best, runs parallel to our philosophy regarding our customers and our products. We wish Kirby and Team Chambliss great success this year in the Red Bull Air Race Championship series."

"I am so fortunate to be associated with Tempest," says Chambliss. "It's an exceptional company, with exceptional people, who have been behind us for many years!"

Tempest's legacy product line of OEM pneumatic systems has been complemented by the 2004 introduction of its line of oil filters and its 2009 acquisition of the Autolite spark plug line from Unison Industries. Tempest oil filters and spark plugs have design features that make them the products of choice of many aircraft owners, OEMs, maintenance shops, and aerobatic performers worldwide. Among the OEMs that have chosen Tempest as their supplier of choice for spark plugs and oil filters are Continental Motors and Robinson Helicopter.

For more information, visit [www.tempestplus.com](http://www.tempestplus.com)

## Sun 'n Fun 2015 Forum Schedule

Date	Time	Speaker	Title
Wed. April 22	11:00am	Bill Finagin	"Out of control? Now is not the time to learn how to recover."
Wed. April 22	12:00pm	Patty Wagstaff	"There are no unusual attitudes for aerobatic pilots."
Thur. April 23	11:00am	Greg Koontz	"When you have a good slow roll, you understand aerobatics."
Thur. April 23	12:00pm	Greg Koontz	"The five tools for controlling a taildragger."
Fri. April 24	11:00am	Jim Alsip	"Airmanship and emergency maneuvers."
Fri. April 24	12:00pm	Jim Taylor	"Stick and rudder exercises that will improve your flying."
Sat. April 25	11:00am	Jim Alsip	"A fresh conversation about upset and spin recovery."
Sat. April 25	12:00pm	Allan Silver	"Emergency Bailout Procedures and Survival Equipment for Pilots."



## Countdown to the Nationals

by Gary DeBaun

2015 Nationals Contest Director

Mark it on your calendar—September 19-26, 2015. Those are the dates of the IAC's premier event, the U.S. National Aerobatic Championships, held at the North Texas Regional Airport (KGYI).

This year the Advanced category takes center stage with as many as 20 pilots fighting for a coveted spot on the U.S. Aerobatic Team, which will compete at the WAAC in Radom, Poland, next year.

A lot of information has already been posted on the new Nationals website at [www.IAC.org/nationals](http://www.IAC.org/nationals) (a HUGE thanks to D.J. Molny, our webmaster, for re-organizing the site). Each month I will attempt

to highlight our progress in this "Countdown to the Nationals" column.

In this first report I will highlight some new additions you will be happy to see. First is our IAC Welcome Trailer. It is an air-conditioned modular unit in which pilots, volunteers, and sponsors can come in out of the hot Texas sun, sit on a comfy couch, grab a cold drink out of the fridge, and just relax or hook up to our Wi-Fi to check e-mail. There will also be a dedicated office in which our contest jury can do its work.

Next, we are purchasing a complete west-side judges setup and will have mobile trailers in which to store both east and west side setups. The UND team, along with the Air Force cadets, has volunteered to set up

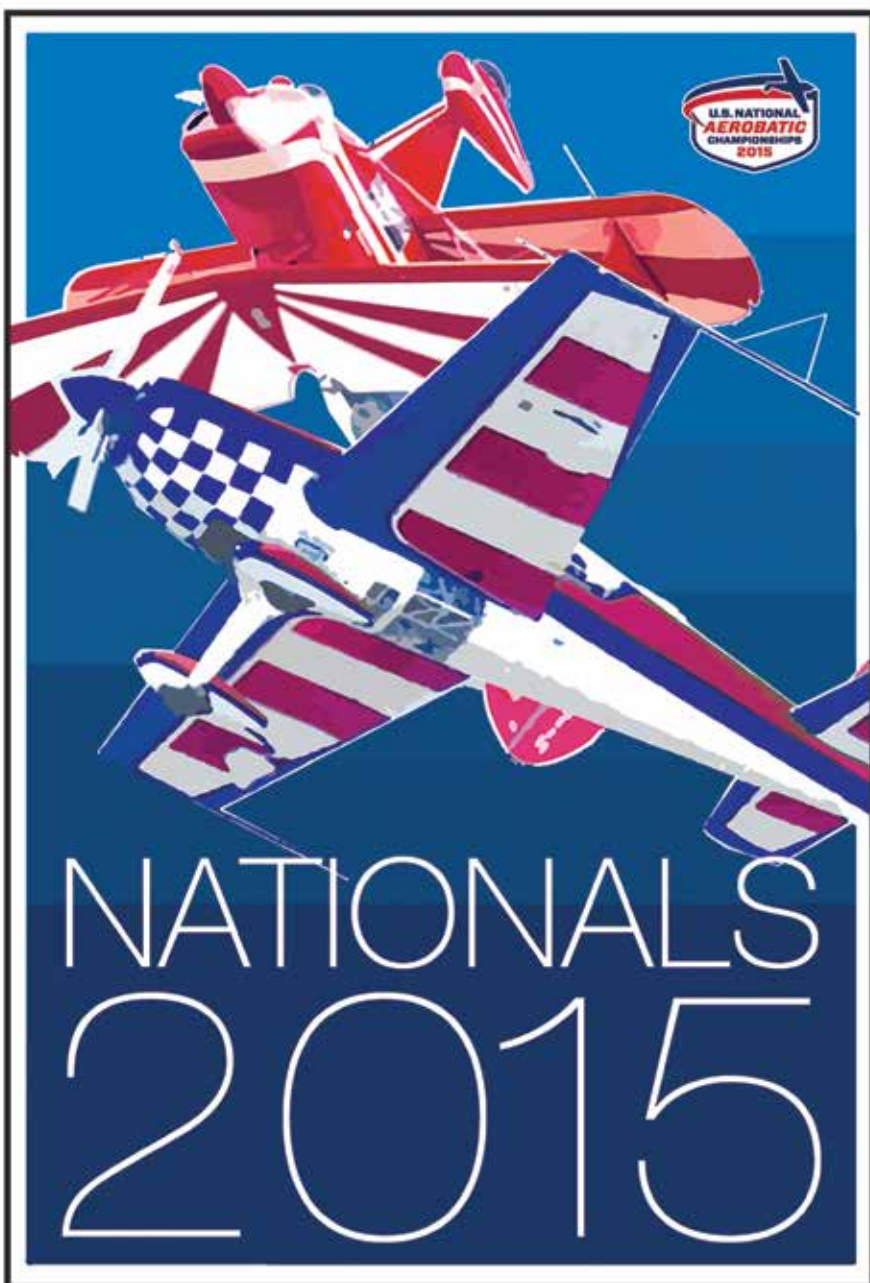
these areas at the appropriate times so there will be no more long waits between categories when we change sides in the afternoons.

Also new for us will be an opening ceremony, which is being created for us by the lovely Miss Ellyn Robinson, who is also our volunteer coordinator (as she is every year). Our national anthem will be sung, and we'll have a few words from the mayors of both Denison and Sherman, along with our president, Mr. Mike Heuer, before we begin our official briefing by longtime Chief Judge Charlie Harrison.

It takes a bunch of cash to run the show, and a lot of it comes from sponsorships. Each morning I'll be doing a little gig called "And Now a Word From Our Sponsors" in which I will give a nice little shout-out for our sponsors—depending on the day and what they are sponsoring.

Speaking of sponsors—many of you have sent money to help fund items like the IAC trailer, morning coffee and doughnuts, daily volunteer lunches, etc. Thank you so much for your generosity! We still need more, so keep those checks coming! We won't turn any amount down! Please open up your computer and log in to our Nationals website for more current information. Sometime this month we will be adding an online registration section.

IAC





# Miss Maggie

## Refurbishing a beloved Model 12

BY REGGIE PAULK WITH CHRIS GETZ

*The* story of *Miss Maggie* began in 1999—when a 20-something Jeremy Mason began a marathon build of a Pitts Model 12, serial No. 7, from Jim Kimball Enterprises Inc. Over the course of 18 months, Jeremy put an astounding 2,500 hours of build time into the airplane, completing it in time to have it test-flown and ready to present at AirVenture in 2001.

“I have Jeremy’s build logs,” begins Chris Getz, the airplane’s current owner. “They’re a fascinating read into the mind of someone who’s absolutely focused on getting this airplane in the air. Jeremy would drive to Florida from Ontario to pick up parts from Kevin Kimball. He literally slept at the airport after his day job to work on it. From July of 2001 to Oshkosh, he flew it 65 hours or so.”

Sadly, in September of 2001, 27-year-old Jeremy was killed while flying another airplane. The following year, his father put the airplane up for sale, and Chris thought seriously about buying the airplane.

Chris’ love affair with the Model 12 began at Oshkosh in 1999, when he saw the prototype of the airplane for the first time. “I loved the airplane,” Chris says. “It seemed so



brutish. I thought, if there was ever a chance I could fly something like that, it would really be a wonderful thing.”

A background in automotive collision repair gave Chris an eye for aesthetics, and the Model 12 made him think of the golden era of racing in the 1930s.

“I had been watching Delmar Benjamin and the Gee Bee replica,” says Chris. “I was fascinated by that; bought his book and saw his air

shows. The golden era of racing was something I was very interested in, and it seemed like the Pitts Model 12 was an offshoot of that, at least in my mind. It’s also outside of the mainstream aerobatic channels, which were going in a different direction with monoplanes.”

Chris met serial No. 7 at Oshkosh in 2001 when Jeremy flew the airplane out after just having finished the build.







"Here's this young man, 27 years old, having just completed it while working with his dad and other people in western Ontario," says Chris. "I was amazed that he'd built this airplane and impressed with how beautiful it was. When his father put the airplane up for sale the year following his death, I thought you know, I could never do this—it's just beyond me in terms of capabilities. But I gave it some more thought, and we finally ended up in western Ontario looking at it on a cold day in November 2002. We negotiated back and forth and finally bought the airplane. I brought it home in December of 2002, and have had it ever since."

Although encouraged to leave the airplane in Ontario until the

summer, Chris was itching to get flying. Larry King, a friend of the Kimballs, flew the airplane down from Ontario, cleared customs in Buffalo, and then flew it to its final destination in Allentown. The flight was uneventful, and the plane arrived safely.

"We were out on the icy cold ramp putting air into the engine to start," says Chris. "It starts with an air start—the subject of many woes, but we were absolutely going to get into the air, and that's what we did."

When he bought the airplane, Chris had very little tailwheel experience, but he had the good fortune to run into Ray Frank and Kendal Simpson at nearly the same time.

"They helped me learn how to

fly it to the point where, after five or six hours, I was able to fly this beast," he says. "It was so far different from anything I'd ever flown. As Ray has always said, it didn't matter whether the wings fell off, I'd keep flying because I wanted to fly so badly."

At first, the goal was to fly the pants off the airplane. Between the three of them, Chris, Kendal, and Ray put over 600 hours on the airframe. Kendal and Ray competed up to Advanced, and Chris made it up to Intermediate over the next few years.

The Ti-12 was a single-seat, light as possible airframe with a modified Barrett engine. They took the M-14P and changed the pistons and cleaned it up, added fuel in-

jection in place of the carburetor, and made it a much smoother-running engine. Chris happened to have another engine that he'd acquired somewhere along the way and wondered if he could take the airframe, which he really loved, modify it, and breathe some new life into it.

"At the time," he begins. "I would dare say 650 hours was a lot of time for that airplane. Most of them get a couple hundred hours and kind of sit there. I met Paul Muhle at Oshkosh in 2007, and he had just won a Lindy for his plans-built Pitts S-1S he'd just finished. He'd modified it and just made it trick. He was a really nice guy, and we got along well. I said, someday, I'd like you to take this airplane and take it to where I really think it could go for me. We talked back and forth about it over the next couple years."

In the meantime, Kevin Kimball was developing a couple of single-seat airplanes. The first one was called the Python. He'd clipped the wingtips and made bigger ailerons, and made it into a single-seat. He had developed the Ti-12 and the Beast, and Chris wondered which ideas he could take from these and incorporate them into his own airplane. In 2010, the timing was right. He flew it out to Nebraska in November, just before Thanksgiving, and dropped it off with Paul.

"We went from let's just do a few touch-ups to let's just overhaul the whole airplane," he says. "We put the new engine on. We did everything we could to make it as good as we could. We did accomplish a lot, I think. We changed the ailerons to make them nearly full-span. Paul changed the airfoil of the ailerons to make them really responsive. We changed the landing gear to the taller landing gear required to accommodate the bigger propeller as a result of the more powerful engine."

Kevin and Chris talked about changing the profile of the landing

gear, so it had the skinny look that the single-seats did. He couldn't put the single-seat gear on because it wasn't strong enough, so they duplicated the look by changing the standard gear. Kevin suggested having the landing gear people mill the gear so it had an airfoil to give it a skinnier look. Chris really admired it on the single-seats and wanted to duplicate it, but Kevin convinced him to make just a minor change.

Along the way, Chris heard Kevin was developing a single-seat canopy to retrofit to a two-place. He really wanted that old racer look, and thought the single-seat retrofit would be a really slick look. Paul masterfully adapted the single-seat canopy to the two-place. He made a bulkhead held on with some screws that closes the front cockpit so everything looks, for all intents and purposes, like you have a single seat.

"That gave me the 1930s racer look I was looking for," says Chris. "It was the look I wanted because I was so enamored with what Delmar Benjamin and Steve Wolf did with the Gee Bee. That's not for me, but the Model 12 takes me to where I'm happy. Paul made new wingtips to match the ailerons and changed the hinging system on the ailerons to better reflect the requirements of the larger ailerons. We re-shaped the tail surfaces, the horizontal and vertical stabilizers, rudder and elevators to have a little more modern look. It was basically to match the wingtips. It gives the airframe a consistent look, and I wanted to be a bit different, with a bit of a flare.

"I bought carbon-fiber seats from Kevin in 2006, but we never put them in because we were always flying. I shipped them out to Paul, and he put them in. We finished up a lot of projects that were in the works. Paul made cuffs around the exhaust. He made fittings to cover everything that needed to be finished off nicely. Be-

cause I had some knee surgery, and because I'm not a real tall person, getting in was always okay. But getting out was always a big jump down. Some Model 12s have a step, but it hangs down and I don't like that. So Paul created a retractable step so I can push the step down, get out with some degree of elegance, and then I can retract the step so it's not visible when you take that picture. It's got a myriad of little details I feel make it truly unique, in my opinion."

After the rebuild was complete, it was time to think about paint.

"I contacted Mirco Pecorari," says Chris. "We had a great time designing that golden age racer look. We were all over the place with color schemes. I did not want it to look like the Pitts of the modern era. I wanted the racer look with the scallops and the flowing long lines. He did a great job with that. I sent him some pictures of racers of that era, along with some biplanes, and he came up with some graphic elements. I also mentioned those airplanes always had somebody's name on them, and, since we were going to all this trouble, I'd like to put my daughter's name on it. Her name is Maggie, and she's flown this airplane, and we'll call it *Miss Maggie*. We had that lettered on the front, and to this day, she just glows when I talk about the other *Miss Maggie*. So that's worked out pretty well for me."

The number 5 painted on the fuselage and upper wings adds a bit more to the racing elements of the paint scheme.

"I was one of five brothers and sisters," he begins. "My wife and I have three children; we got married in May; the N number was N530CG, which is our wedding anniversary; our daughter was born in May. So there were enough reasons for the number five to work really well. There's a lot of significance in that number."

"Flying it has been delightful," he continues. "We've had to reduce



the standard size of the spades to reduce the sensitivity of the ailerons, because it was like an Extra. We've now got it where it's really quite balanced, and I'm quite comfortable with that. If you get going fast, it goes around real quick. I've not measured it, but it's a magnitude greater than the old design. It goes around as fast as we like. The controls are very light. Just think it and it rolls. I flew for the first time in a few months a week ago, and I couldn't believe how nice it was. It's not like it's jerky or snatches; it just goes. After not flying for six weeks or so, I can't believe how smooth the engine runs, and I can't say enough about the Barrett changes to the engine. They took a good journeyman kind of engine and made it really nice to work with in terms of smoothness and power. After the flight, I came home to my wife and said it was magical."

The modified engine dynoed at 418 hp. A JPI engine monitoring system keeps track of all nine cylinders. With one person and fuel, just point the nose and it goes. There are safety concerns, though.

If the engine quits at the wrong time, you need to get the nose over immediately because there's no glide—it's just coming down. The airplane will climb much more steeply than is necessary—or safe.

Because it has a convertible canopy, Chris can have his single-seat Pitts carrying passengers after only a couple hours of work.

"The two-seat canopy is on right now, because we've been flying together and enjoying it with other people," he says. "But when spring comes, I'm going to take a couple of hours and put the single-seat canopy on. It changes the look of the airplane to where when you pull up on the ramp, you get that, *Wow, this is great!* feeling. The single-seat canopy makes it look so much better."

The rebuild began in late 2010 and continued for two and a half years.

"The rebuild was a little bit longer, but Paul had some other commitments and projects he had to work on. He is full of good ideas, and it was amazing what he taught me along the way. It was fortunate we were able to work together on this project—actually with every-

body. Mirco, Jeremy, and Kevin—everybody had a little piece in it, whether they knew it or not."

The time it took to rebuild the airplane rekindled Chris' passion for the airplane. After flying it for eight years, he was ready for a break. By the time 2013 rolled around, though, he was ready. He flew it to Oshkosh that year, and the photos on these pages are a testament to the effort of so many people.

So what is it about the Model 12 that keeps Chris interested?

"The airplane is maintenance-intensive," he says. "It's a big airplane, and it's challenging to fly. All those reasons make it a labor of love. It has to be something you really want to do. It is in my life, and it's part of our family. My daughter won't let me get rid of it. I was just over in the hangar the other day, and rediscovering things I'd forgotten. It was wonderful."

Chris has had his Model 12 in the family for 13 years, and it looks like it will be there for many more years to come.

**IAC**





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# Designing a Practice Aerobatic Box



## Legal and Safe

BY PATRIC “BALLS” COGGIN

In a previous article, I described a bit of my journey in becoming involved with competition aerobatics. One of my first steps transitioning into competition was finding an area to practice that was both legal and effective. Some of my military training came in handy as I am quite familiar with computer and web-based mapping systems. This article will attempt to guide you in charting your own practice box with hopes that your chapter's fly day or competition isn't the first time you've endured the challenge of staying in that 1-by-1 km square. (This article will only cover practice areas for pri-

mary and sporty—no waivers for low airspace.)

First, how do we stay legal? A quick review of the FAR 91.303:

Aerobatic flight.

No person may operate an aircraft in aerobatic flight—

(a) Over any congested area of a city, town, or settlement;

(b) Over an open air assembly of persons;

(c) Within the lateral boundaries of the surface areas of Class B, Class C, Class D, or Class E airspace designated for an airport;

(d) Within 4 nautical miles of the center line of any federal airway;

(e) Below an altitude of 1,500 feet above the surface; or

(f) When flight visibility is less than 3 statute miles.

For the purposes of this section, aerobatic flight means an intentional maneuver involving an abrupt change in an aircraft's attitude, an abnormal attitude, or abnormal acceleration, not necessary for normal flight.

My next step was looking at the map and finding areas as close to home as possible but both legal and safe to practice. By using *Sky-Vector.com*, I found two areas that I felt would work well (Figure 1). I've shaded them yellow for display purposes:

Now that I had two overall areas, which one would be best? Closer



Now that our overall area is picked, we must be able to translate the area on this map to imagery.



Figure 1: Choosing the best area for practice.

to home (KFSM) is always better, but both areas are about the same distance. There is virtually no difference in congested areas, either. I chose the area to the southwest for two reasons: 1) The terrain starts to climb and get hilly as I go north, and 2) There are more roads in the southwestern area, which will help in the following steps.

Now that our overall area is picked, we must be able to translate the area on this map to imagery. Let's take a closer look at the southwestern area (Figure 2).

I found the easiest way to translate this aviation map onto a Google imagery map is by using the towns. In this case, an area defined by Hackett, Bonanza, and Panama to just north of Poteau was my best bet. (Obviously, do not pick an area directly over Panama or Poteau.)

Moving to your imagery source

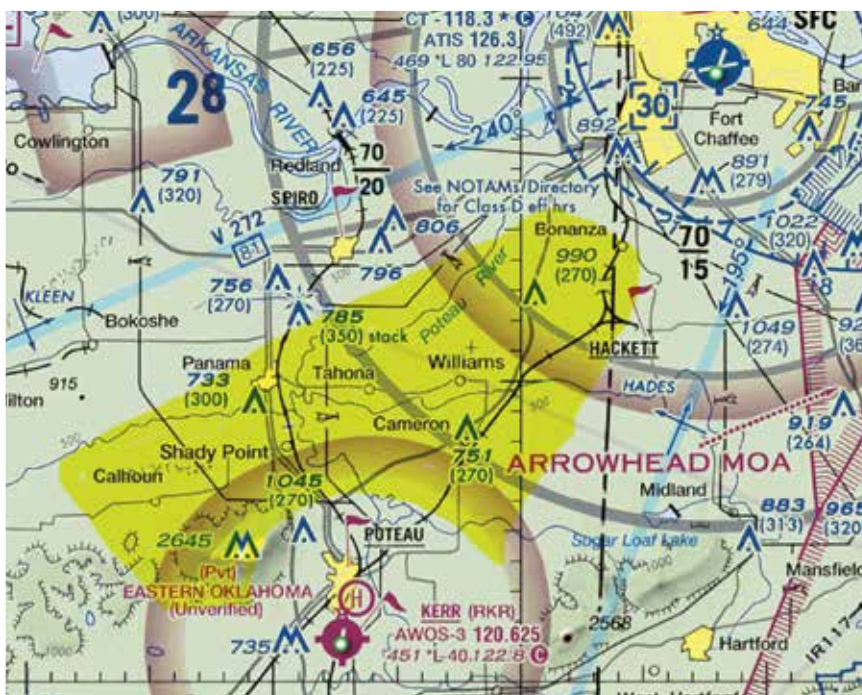


Figure 2: Take a close look at the town names.



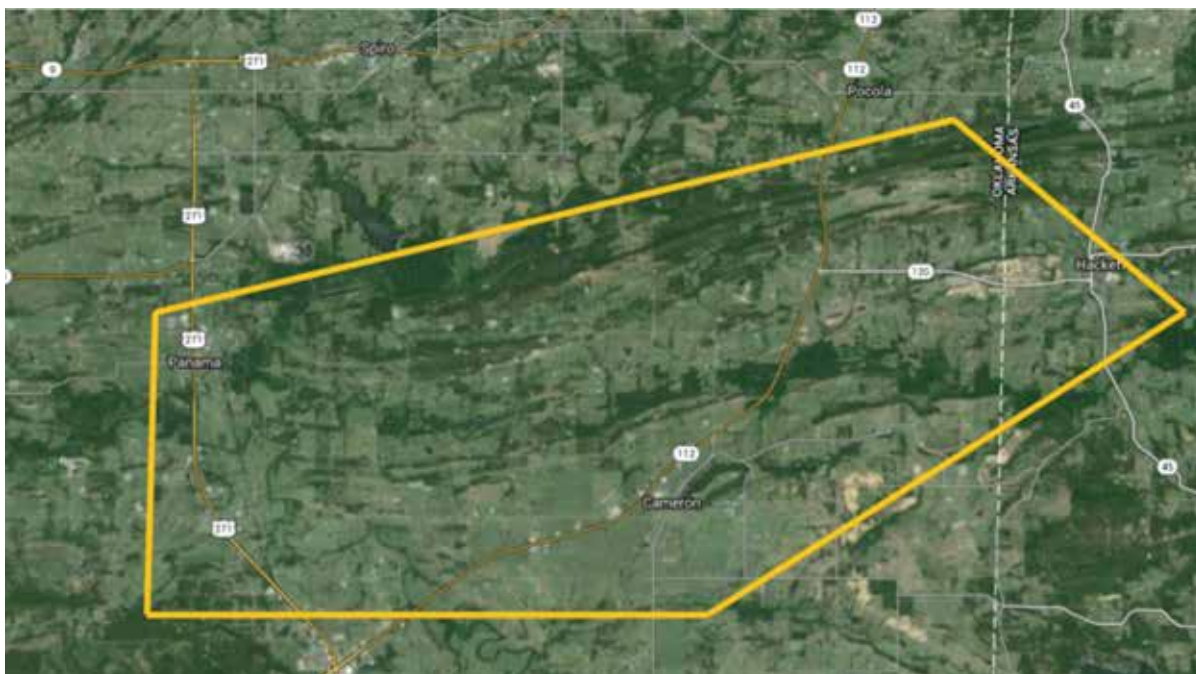


Figure 3: Anchoring your imagery search.

... find an area that you'll be able to carve out a fairly accurate aerobic box using easily identifiable ground references.



Figure 4: Find a road intersection that has landmarks 3,000 feet away.

of choice, attempt to anchor your imagery with the towns we just identified. Make sure you look at imagery with roads and towns turned on. Some websites call this “hybrid” mode. With some luck, you’ll be able to find those anchor towns on your imagery map. See Figure 3.

The next part is the most difficult. Using your anchor towns as the limits of your search, find an area that you’ll be able to carve out a fairly accurate aerobic box using easily identifiable ground references. What I initially looked for were easily identifiable gridded roads. A perfect road intersection takes care of two of the four sides of the box. As an example Figure 4 shows my practice box.

As you scan from a road intersection to the next, keep the map scale at the bottom right of the map in your cross-check. (This may be in other locations on other websites, but most have one somewhere.) One kilometer equals about 3,300 feet, so try to find an intersection with some type of landmark at that distance. In my case I found a set of greenhouses and a small dirt road there.

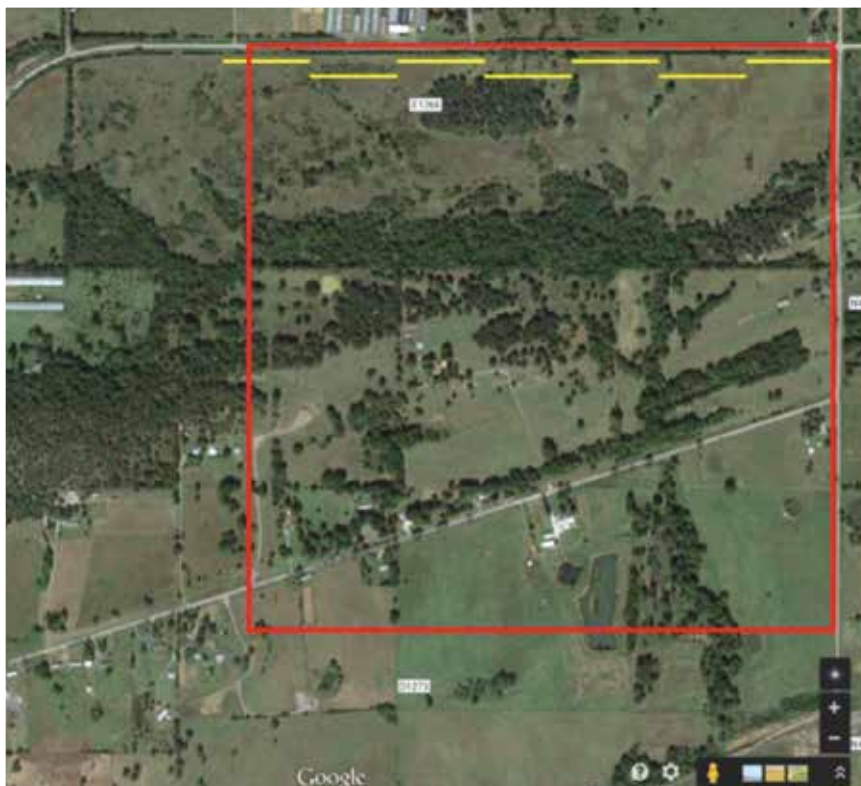


Figure 5: Now zoom in for a more detailed look.

I have zoomed in so the scale is now 500 feet. As I measure for the first side (northern edge) of the box, I use that scale as a guide to find about 3,300 feet. When I look there, just west of the major greenhouses, there is a small road shooting north that perfectly marks my NW corner. Using my northern edge as a guide, I drew the rest of my box. Two sides of my box are perfectly marked by roads. My SE corner isn't perfectly defined, but I do have a predominant pond that defines my southern edge. Again my SW corner isn't perfect, but I have an intersection of a major road and a couple large driveways that gets me close enough for practice. For those who are technologically challenged, this part of the process can be easily accomplished by simply printing the map and using markers and a straight edge.

Once complete, and with printed imagery in hand, I'm sure everyone who reads this is ready to find their newly created box from the air with no other work required. But just in case your clock-to-map-

to-ground skills aren't as good they once were, here is how to derive the coordinates you need. Depending on the version/website you are on, either a double left-click or a right click will give you a pop-up for that location, which should include coordinates that look like this:

35.176725, -94.509641

Mapping software normally gives you coordinates in minutes and decimal minutes. To derive coordinates that will work in your GPS, first take each half of the coordinate and eliminate the whole numbers. Then take everything to the right of the decimal and multiply it by 60. (Using three decimal places will be plenty.) The number you just created are the minutes that most GPS systems require. So:

$35.176725 \rightarrow .176 \times 60 = 10.56$

$35.176725 = N35^{\circ}10.56'$

$94.509641 \rightarrow .509 \times 60 = 30.54$

$-94.509641 = W094^{\circ}30.54'$

I hope this helps those of you who are starting out and need a good way to practice near the home patch. Now get out there and practice—the season is almost here!

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Skybolt SP-YDS.

COURTESY MARCIN SZPAK, POLAND

# The (Re)Making of a Skybolt Dream

## Part 1

BY DAVID MANUEL

**BREAKING NEWS:** SkyBatics is starting an aerobatic-based youth education nonprofit in San Francisco Bay Area's Silicon Valley. This exciting program will be centered on the Steen Skybolt aerobatic biplane and STEM (science, technology, engineering, and math) subjects. This is the first in a series of stories, *The (Re)Making of a Skybolt Dream: Part 1*.

In March 2014, I contributed an article, *Realizing the DREAM of FLIGHT*, for our IAC 38 newsletter. I talked about my apprenticeship with LaMar Steen while attending Colorado Aero Tech, in Broomfield, Colorado, as an A&P student, and the generous opportunity LaMar handed me with an

introductory aerobatic flight in an open-cockpit Steen Skybolt. That was perhaps my most memorable flight to date because of its historic place in my life: my first aerobatic flight. Never mind that my hands weren't at the controls; I simply had the pleasure of the experience and enjoyment without having to execute anything.

### Steen Aero Lab and Skybolt History...

Larger in scale than a Pitts, the Skybolt primarily came into existence because LaMar, known for his large stature, could not fit into the cramped confines of a Pitts cockpit. One day, LaMar, a personal friend of Curtis

Pitts, was observed by Curtis taking measurements of the Pitts with the intent to "stretch those numbers" into an airplane that he and other "bigger butt pilots" (as they were referred to) could comfortably get into and fly. Curtis' response when walking in on Lamar? "Aw, shucks LaMar, I'll give you a set of plans!" And thus, another stamp was placed on the map of aviation history.

In 1968 LaMar designed, with pencil, paper, and tape measure in hand, what would soon become a competitive aerobatic biplane flown by pilots around the world. Working as an industrial arts teacher for Manual High School in Denver, Colorado, LaMar's in-





DAVID GUSTAFSON



LESLIE HILBERT



LaMar Steen at Oshkosh, 1987. Hale Wallace in 1997. Entrepreneur Paul Goetsch.

dustrial arts class students built the first Skybolt as an engineering project. Construction began on August 19, 1969, and the airplane took to the crisp, Colorado skies of the mile-high city the following year, in October of 1970. By the late '70s, the Skybolt had gained a notable and respectable following, becoming the most constructed two-place experimental aircraft of all time. In fact, a Skybolt won the Reserve Grand Champion Custom Built award at EAA Oshkosh 1979.

Sadly, in February of 1993, LaMar passed away, but not before selling the rights to Steen Aero Lab to Hale Wallace, an accomplished Skybolt builder who fostered a close friendship with LaMar through the building experience. Hale died of cancer in the late 1990s but, once again, not before negotiating a transfer of

ownership of Steen Aero Lab. Paul Goetsch, a brilliant engineer and an accomplished and respected aviation entrepreneur in his own right, went to buy a Skybolt and instead bought the whole company. Undoubtedly, he liked what he saw. Paul then relocated Steen Aero Lab to Palm Bay, Florida, where it continues to operate.

### Transition Time . . .

At the end of last year, I spent some time reflecting on the first 50 years of my life and imagining what the next 50 could bring, starting now. Many of our IAC chapter members are actively involved in all kinds of behind-the-scenes aviation-related activities in their personal lives. If shared through various channels, these stories could increase interest, awareness, and opportunities for our local chapter membership and beyond.

A couple of weeks ago I pitched the idea to Beth Stanton, our IAC Chapter 38 president, of including member-written articles about some of these behind-the-scenes happenings and featuring them in a dedicated column in our monthly newsletter. In some cases, stories might even be chronicled over time with updates. Beth's response was, "That sounds great. You go first."

In the decades that have passed since the construction and maiden flight of that first Skybolt, and to the best of my knowledge and research (I'm open to correction here), the building of an aerobatic biplane under a mentorship program with high school (and/or A&P) students has not been duplicated; at least not repeatedly and sustainably. Well folks, that's about to change so you'd better secure that Hooker harness.



This Skybolt, named Yellow Bird, was the third Skybolt built by Hale Wallace, second owner of Steen Aero Lab. Note the four-blade prop; no need to dive for speed with this beast.

## Honoring Greatness...

In honor and remembrance of the late LaMar Steen, enter the world of SkyBatics, a soon-to-be ("soon" being relative) California 501(c)(3) nonprofit organization based in San Carlos, California (SQL). The business concept behind SkyBatics (think Skybolt and Aerobatics) is to provide an exciting, academic, hands-on learning environment that provides students the rare opportunity to build a two-man aerobatic biplane that incorporates STEM subjects in the process, much like LaMar did in 1969-70. Partnering with local high schools and accredited aviation maintenance technology schools in the Greater San Francisco Bay Area, students will obtain marketable skills and priceless memories while earning credits toward high school graduation or an FAA-issued A&P certificate.

After the completion of the first Skybolt, the airplane will be used as an instructional model and for community outreach and program awareness through various events. Some of those will include participation in regional and national air shows and aerobatic competitions, introductory flights for young folks through Chapter 20 of the EAA Young Eagles program, and, for those students who advance to obtain their private pilot certificates, the opportunity to transition to aerobatic training. Subsequent Skybolts will be sold; the proceeds then used to build and sell more Skybolts, and so on, and so on. This business model will provide self-funding for the program. We will even be able to offer prospective buyers a "custom-build," tailored to their needs and

desires for specific avionics equipment, paint schemes, and the like.

## Moving Forward. . .

In the months ahead, additional articles will be published with updates on our progress. We're only just breaking ground on this concept, but we have a vision for something spectacular to blossom along the journey. Our hope is that the outcome will humble our early vision because it will have become more than we could have asked for or imagined.

To date, we have secured the domain [www.SkyBatics.org](http://www.SkyBatics.org), developed a comprehensive Indiegogo crowdfunding campaign to be launched later this year, reached out to and/or begun strategic partnerships with Steen Aero Lab, the Sequoia Union High School district in San Mateo County, and City College of San Francisco's aeronautics division. We have an ally with the Patriots Jet Team Foundation in Byron (C83) and its executive director, David Ringler. Interest and enthusiasm is gaining momentum. However, we have a lot of work ahead of us! This is where you come in with unlimited opportunities. We are in need of anyone with specific skills, experience, connections, or interest in helping with the following:

- Connecting us with a legal firm (10 or more attorneys) to carry us through the California 501(c)(3) application process; must be agreeable to a pro bono arrangement.
- Connecting us with a legal firm(s) already working with EAA/IAC and established in California.
- Website development/management on the [www.SkyBatics.org](http://www.SkyBatics.org)

domain

- Grant writing; we're looking for an immediate \$25,000 for initial startup costs.

- Introductions to venture capitalists interested in supporting nonprofit community programs.

- Becoming a prospective board member, program instructor/volunteer, aircraft builder.

- Developing a three-minute program promotional video (for the Indiegogo campaign, initially). Feel free to call or e-mail us to discuss this project in more depth, or to make inquiries or suggestions. We welcome your thoughts, support, and feedback on SkyBatics. **IAC**



COURTESY MAX-G AVIATION, PALO ALTO

David Manuel next to a Pitts S-2C

**David Manuel**  
**SkyBatics founder and**  
**executive director**

**EAA 1136549**

**IAC 437085**

**Cell: 650-483-2378**

**E-mail: [SkyBatics@gmail.com](mailto:SkyBatics@gmail.com)**

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*Kitplanes* magazine, January 2012 issue

"Flight Reports: Steen Skybolt—Just like a Pitts, except maybe better. Really!"

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Skybolt Historical Information

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# Unlimited... Limited

Competition is about skill

BY TONY ZORN

With apologies to the membership, I would like to reexamine an old issue that has been beat to death through the years. Some have even called it the “eternal debate.” But, I believe it still deserves some attention to keep the competitions as fair as possible for all who decide to involve themselves in this fantastic sport that has brought so much joy and challenge to many of us.

Hello, I’m Tony Zorn, and I have been an IAC member since 1996. I started competition in 1997 and worked my way up through the categories as well as aircraft [all four-cylinder . . . Pitts . . . Eagle . . . Ultimate . . . Lazer 230]. As I started winning at each level, I moved up to the next category, finally topping out in Advanced flying a Giles 202. I competed at the 2002 Nationals and was pleased with my results for my first year in the category: sixth out of 29.

I realized that I was and am “Advanced limited” with an understanding that flying any of the four-cylinder airplanes regardless of it being a bi-wing or a mono-wing dictates that no matter what

my skills are, Advanced is where I’m going to top out unless I hit the lottery and can afford to throw money at an Unlimited machine. But I was and am comfortable with that reality, understanding that the performance gap of the “legacy machines” is so comparatively close that the disparity is of no significant consequence.

After returning from the Nationals in ’02, other priorities in life took center stage on my time as well as my finances. I sold my airplane and dropped out of competition until spring of 2012. When I left the sport in ’02, there was a recognition of a disparity in the ranks by not allowing Unlimited-class airplanes in Advanced at the CIVA contests based on rules as to what was Advanced World Aerobatic Championship (AWAC) legal and what was not. None of the Unlimited airplanes that are flying today would have been legal in the AWAC contests at that time. I won’t try to recall them all here, but at least there were attempts at making it more fair with an understanding that competition should be about “skills, not frills” at the

Advanced level. At one time, CIVA had an approved list of what planes were legal and what were not!

Most understood at that time that if you had the wherewithal and were of a mind to buy more performance to make yourself more competitive, Unlimited was where you should be. It’s called Unlimited for a reason! When I returned to the sport at the beginning of 2012, I found all those rules were gone.

When I jumped back into my first three contests, I was now flying more difficult figures than were allowed when I left due to the category creep that has been so prevalent trying to accommodate the Unlimiteds. I was also competing against a former World Aerobatic Champion flying the same plane he won the WAC in!

No sour grapes here. I know the reason the past champ was back in Advanced. I bring it up only because it illustrates the point well. I appreciate his attempts to help the team. I enjoyed the challenge, and it made me a better pilot as well as it was all about helping our AWAC team get ready to go to the championships across the seas and get schooled on



CIVA rules and judging.

The disparity in performance was and is so obvious that back in the early to mid 2000s, our English brethren, namely the British Aerobatic Association (led by Alan Cassidy), came up with a system of designating what each plane's performance capability was. Called an API or aerobatic performance index, the system was specifically designed to decide what should be AWAC legal or not. Listed here is the proposal and where it would have fit into the rules as well as how the BAA came up with its "method of evaluation" to arrive at the API numbers.

### **CIVA Regulations (Part Three)**

#### **General Principles**

The eligibility of aircraft types for Advanced world and continental contests sanctioned by CIVA is determined by evaluation of their aerobatic performance.

#### **Parameters to Be Evaluated**

The following aircraft performance parameters are to be taken into account in this evaluation process:

Maximum rated engine power: H (horsepower)

Aircraft mass in the aerobatic configuration, excluding pilot mass and with sufficient fuel for a flight of 20 minutes at maximum power: M (kg)

Maximum level speed at maximum power:  $V_x$  (knots)

Roll rate at manoeuvre speed ( $V_A$ ):  $r$  (degrees sec<sup>-1</sup>)

#### **Method of Evaluation**

The parameters listed above are first reduced to non-dimensional, standardized indices in accordance with the following methods:

Power/Mass Index (P). The overall performance index (API) is then derived:

Aerobatic Performance Index...  
 $API = P \times V_x \times R \times 50$

#### **Performance Limitation**

An aircraft type shall be excluded from Advanced world and continental championships if its Aerobatic Performance Index (API) exceeds 65 units. A list of types already approved is given below.

#### **Examples**

Examples of aircraft types that have been shown to be within the performance limit include:

CAP-10B (24.9), Pitts S-2A (36.3), Eagle II (36.3), CAP-20L (39.7), CAP-21 (41.5), Extra 200 (47.0), Pitts S-1S (48.8), Pitts S-2B (50.5), Pitts S-1T (51.3), Zlin 50LA (53.5), Yak-55 (58.5), CAP-231 (59.8), Laser 230 (60.0), One Design (62.2), Giles 202 (62.9), CAP-222 (62.9), Yak-54 (63.7), Zlin 50LS/LX (63.8)

Examples of aircraft types that have been shown to exceed the performance limit include:

Interavia I3, SP95 (67.4), Pitts Model 12 (70.4), Su-29 (72.4), Extra 300S (74.1), Su-26 (77.4), CAP-232 (81.0), Pitts S-1-11B (81.9), Su-31 (85.6), Edge 540 (91.7)

(British Aerobatic Association  
Proposals for CIVA Rules and Catalogue Changes 2000/2001

BAeA Page 2 of 2)

#### **Method of Determining Performance**

The Aerobatic Performance Index shall be calculated using data supplied by the aircraft manufacturer for aircraft with national or international certification. For uncertified types, performance data must be measured and recorded for each individual aircraft by an independent aviation consulting organization acceptable to CIVA.

Aircraft may be subject to technical checks at contests to ensure that their configuration complies with the type certificate or approved data sheet.

#### **Additional Types**

Initial approval for inclusion of

a type not in the approved list detailed herein may be sought by the manufacturer, in the case of certified aircraft, or by the CIVA delegate of the country concerned for uncertified aircraft. The new type's acceptability will be determined by CIVA at its plenary meeting.

I understand that it was not adopted by CIVA for different reasons. One being because the United States did not support it due to the fact of a disagreement over the S-1-11's API number being too high and bringing the whole API model into question.

But the English did a masterful job at qualifying each plane's performance capability so that any reasonable person could use their model to determine how to even out the obvious disparities at the CIVA/AWAC competitions, understanding that the higher API'd airplanes had a distinct advantage in horsepower and airframe in the category over the lower API'd airplanes.

I also understand that these were CIVA rules proposals; not what the IAC was doing then or now here in the States, which is truly all that most of us competitors care about. Now that we have established what used to be the rules by IAC as well as CIVA, let's talk about where we are now as a club. Is there an issue to be dealt with, or is this a misnomer that no one cares about in the competition ranks? I am going to speak from personal experience based on conversations that I have had at several contests over the last two years. No one, and I mean no one, after some discussion will argue that there is not a big disparity—not even the guys flying the Unlimited-class airplanes.

There are all manner of reasons given why nothing should be done. Some are valid, such as if rules are made taking away the advantages of the superships, those guys will collect their toys from the sandbox and go find somewhere else to play rather than either moving up

in category or saving some money and changing airplanes.

There are arguments that border on comical such as, “Too much performance is a disadvantage in itself,” in the category. Others wonder why we have to “dumb down” the category to take away their advantage.

Many think the best place to address this is through sequence design. That was the gist of Giles Henderson’s article a few magazines back. Just extrapolate his point from the entry level to Advanced.

Let me explain the disparity as I see it. I fly the Advanced category in a small-winged stock 180-hp One Design. This little bird probably has a slight airframe advantage over a Pitts, but is considerably heavier, at 950 pounds.

While many mono-planes gain altitude during maneuvers, lower API mounts have to start at the top of the box and are constantly losing altitude through the same sequence—hoping the judges have the ability to overcome the “human condition” that we are all hardwired with by not biasing the scores to the guy who put the flight right in front of them even though the figures may have been flown technically equal by each pilot.

We do well in the Known and Free only to get thrown an Unknown no reasonable person would argue is a fair fight due to the advantages of airframe and horsepower. We’re often forced to fly a sequence that is an energy eater—especially in the last few figures of that sequence! Some will say, “Oh you can get through it in a stock Pitts or 1D,” and that’s true—but what is also true is that you can get through

it much easier in a higher horsepower mono-wing than in the little four-bangers flying on a fraction of the same wing area and horsepower.

Some would argue that you should be willing to spend the money to be competitive (i.e.,

can way.” My response to him is, “That’s what Unlimited is for!”

By the way, I truly don’t see a problem with the six-cylinder bi-planes in Advanced (2Bs, 2Cs, even Yak-55s). Their API is so close to the other legacy mounts that the difference in performance is of no consequence.

Competition in the lower categories should be about skills in the cockpit—not about the size of pocketbook or an advantage in performance bought over fellow competitors. I call the practice of parking the advantage designed for Unlimited in a lower category year after year “Advanced lifers.” I’m not trying to imply any personal insult at all, but if that’s what you’re doing, it’s a true designation to describe the practice.

Think about the last time at any regional contest you saw any real participation in the Unlimited category—if they had one at all. It’s not that there aren’t the machines there

to fly the category. And just because the guys flying the legacy mounts aren’t speaking up doesn’t mean the sentiment that “Something ain’t right with this picture” isn’t there.

I will also say that because of sequence design, you can’t use the advantage of the superships nearly as much in Intermediate and down as you can in Advanced. As a matter of fact, the only figures that Advanced doesn’t have that are in Unlimited are negative snaps and tailslides. And both of these are performance neutral.

Think about how we come up with our Unknowns. If you were flying an Unlimited mount, wouldn’t you try to sequence your figures to favor your plane’s performance advantage in the proposals that you submit? I un-

## **Competition in the lower categories should be about skills in the cockpit—not about the size of pocketbook or an advantage in performance bought over fellow competitors.**

buy your own Unlimited mount) if you don’t like the disadvantage that the lack of rules has brought about. Or move back in categories because technology has rendered your mount uncompetitive against the superships.

Even though your mount is still capable of flying the figures and sequences in Advanced, it’s just not going to have the ability to score the same technical points that the supership can, primarily because of the way the sequences are designed.

So really what those who make that argument are saying is our sport is more about the money you’re willing to spend than skills you may have if you want to be competitive in the category. I have even been told by one director that, and I quote, “It’s the Ameri-



derstand that Brain Howard kicks many submissions because of the way they're sequenced. But any guy flying a legacy mount knows the Unknowns always favor the Unlimited airplanes.

For example, at one of the contests last year, I had a good friend flying a supership apologize to me for the disadvantage he knew I would be flying at after the Unknowns were handed out. I also lost the overall at two other contests I had won after two flights because of penalty points for low calls in the Unknowns.

Let's also not overlook the impact a lack of rules to keep the legacy airplanes competitive through Advanced has had and does have on the companies that used to have production lines that catered primarily to the competition pilots—specifically companies like Aviat and American Champion, whose production lines of designated aerobatic mounts have been limited for a number of years.

Superships designed for the Unlimited category that are now so prevalent in all the lower categories have caused companies like Aviat to lose market share because the Pitts is not as competitive at the Advanced level as it once was.

We are our own worst enemy as a club on many levels by not addressing this in the rules to keep the little guy competitive through Advanced. The legacy mounts are only going to be competitive through that category, and only with changes to the rules.

One more point I would make is every other motor sport you could compete in has rules to even the disparities in equipment. Let's say we get into car racing; are we going to allow the super modifieds to run in the sportsman class? Boat racing the same...motorcycles the same? Name one motor sport that allows the firebreathers to compete in any class without some sort of handicap. I've made my point...I would ask that anyone who has an opinion, for or against, to log on to the official IAC website listed at the link below and join this debate in the unusual attitudes section. The thread is titled "UNFAIR." Or if you prefer, contact me directly at 912-526-4079.

<http://eaaforums.org/showthread.php?5408-unfair>

Others and I have posted what I think would be fair and simple solutions on that thread that would be easily applied regarding limits and/or handicaps for anyone who wanted to continue to fly their Unlimited airplanes in the category year after year.

Please join in and let your voice be heard. I will be sending some recommendations to Brian Howard for consideration, and I would appreciate any suggestions that my fellow aerobatic brethren may have in formulating rules to address this obvious disparity.

**IAC**



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**DOUG MCCONNELL**  
COMMENTARY / IAC VICE PRESIDENT

## Good News!

**YES, IT'S REALLY NICE TO HAVE** some good news to share! Our good news is that the International Aerobatic Club's total membership is once again enjoying steady growth! Here's hoping that we all go out of our way to offer a big welcome to these new members and to help guide them into the many IAC chapter activities and special events planned for 2015! It's going to be a great year!



The membership equation: Chapter involvement (meeting new friends) creates exciting new experiences, which bring real personal enjoyment, resulting in positive member retention and overall IAC growth! Hey, it's working!

For those who have not been monitoring this situation, several recent factors (such as a rise in the costs of aviation equipment and supplies, along with the recent recession) have caused the IAC to slowly lose some members. But now, with the recession over and the price of gas at a recent historical low, sport aviation activity and interest are booming once again! As an example, the attendance during last summer's EAA AirVenture Oshkosh was huge...maybe an all-time record setter! And this year is shaping up to be as strong as any in the past!

You may recognize the IAC Wings shown above. These wings (with our prior logo\*) were introduced two years ago as a way to say thank you to current IAC members who bring in a new member. This program is still ongoing, and the revitalized sport aviation activity of 2015 will be a good year to earn your very own set of these IAC Wings. All you have to do is get a friend to give us a try!

But (as they say on TV), there's more! You also receive 50 percent off your own IAC membership! These wings were introduced as "IAC Takes Flight" to signify how every member can make a

significant contribution to IAC's growth (Flight) by getting a new member. And this can happen every year if you wish—not another set of wings but even better, another 50 percent discount! Just think, if every member would get a friend to join the IAC, our organization would double in size in a very short time!

Here's a chance to earn your wings, even if you're not a pilot. We all know how hard Clarence had to work to earn his wings in the film "It's A Wonderful Life," but for us it's easy; just get a friend to give the IAC a try! Remember, a new member also gets a 50 percent discount during the first year, so the amount of selling you need to do is really minimized!

With sport aviation back on the rise, now is the time to "make the ask"! Your beautiful IAC Wings (and your 50 percent discount) will be a wonderful reminder of how you made a significant contribution toward rebuilding the IAC and assuring its future. Good luck and good flying!

\*Please note: Once our limited stock of (collector item) wings featuring our past logo is exhausted, the new logo (shown above) will automatically ship. **IAC**





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## Sixty-nine is mighty fine: Jump-starting a chapter

### Setting goals



Last January, I threw down the gauntlet. I boldly decreed that, under my rule, Chapter 38 would increase membership by 100 PERCENT. Bam.

We grew our roster by leaps and bounds in 2014, but I wasn't sure of the exact numbers. I needed them as I prepared for my dramatic announcement at our first meeting of 2015.

Membership coordinator David Manuel crunched the numbers and handed me the final verdict: Chapter 38 had increased our fold by 68.75 percent.

That rounds up to 69.

Not 100 percent, but I didn't mind a bit.

David said, "That is great, Beth, but you know that kind of growth is not sustainable."

"Says who?" I shot back.

I gleefully reported our burgeoning ranks at our January chapter meeting, where seven brand-new members were in attendance. Impulsively, I threw down another gauntlet.

"We will increase that 69 percent by another 69 percent!" I proclaimed.

David, ever the voice of logic, said, "Um, Beth, that will mean an additional 40.2 members. We will have to enroll a woman in her first trimester of pregnancy."

What compels me to make such audacious, some might say foolhardy, announcements? I guess I like an improbable goal. It's so delightful when you achieve it, or at least come close.

By the way, I don't believe it's out of reach.

### You Can Totally Do It, Too

Why reinvent the wheel? This stuff works:  
Chapter Jump-Start Checklist

- **Chapter meetings**—Monthly, bimonthly, quarterly, whatever works for your group. Keep it consistent. An interesting topic or speaker is a great motivator for people to show up.
- **Newsletters and/or e-mails**—Contact is crucial. A master e-mail list is a simple way to keep members up to date with the latest happenings.
- **Website, Facebook, social media**—A web presence helps people find and get to know your chapter and activities. A Facebook page is free, and it's easy to post updates.
- **Critique days**—A fun way to rally the troops and hone both flying and judging skills.
- **Host a judge school**—Logistics are even easier when you have students download all the files. We went almost 100 percent digital this year.
- **Social events**—Holiday gatherings, fly-outs, barbecues, field trips. Because nothing goes together better than airports and parties.
- **Make friends with other aviation associations**—A large percentage of our new members have come directly from our outreach to nonaerobatic aviation organizations. Good places to start are EAA chapters and local airport associations.
- **Post literature**—Contact IAC manager Trish Deimer-Steineke at [tdeimersteineke@eaa.org](mailto:tdeimersteineke@eaa.org) and have her send you the official promotional brochures and posters from International Aerobatic



Club (IAC) headquarters.

Consider making up some business cards with your name and the spiffy new IAC logo. You can hand them out to people after raving how they must try aerobatics. (*Vistaprint.com* is great.) I made up packets with an IAC brochure, our Chapter 38 join/renew form, and my business card all stapled together. You can leave these at aerobatic flight schools, straight and level flight schools, EAA chapters, FBOs, rest rooms at truck stops, etc.

## Share Your Brilliance

Every month, our editor, Dave Williams, puts this note in our newsletter:

"We are a very diverse group of people with a lot of interesting stories to be told, and I solicit your input. Submissions are welcomed. We're not trying to win a Pulitzer Prize here, so don't be intimidated by a perceived lack of writing skills. If you have a story, or an idea for one, please submit it!"

Okay, well maybe *Sport Aerobatics* editor Reggie Paulk IS looking for a Pulitzer, but don't let that deter you. He welcomes stories from the fascinatingly talented IAC membership. He's a stickler for deadlines but, otherwise, an easy-going guy who is eager for fresh ideas.

A certain physician pilot took me aside at a contest last year and said, "I have had this idea for a while to write an article on how aerobatics affects the body, particularly the neck. I just need to sit down and write it. Chapter 38 can't have all the glory in *Sport Aerobatics*!"

We are a multifaceted bunch. Share your input and ideas.

We're waiting, doctor.

## 38 FOR 69

If you are reading this issue of *Sport Aerobatics* and are not a member of a local chapter, go here and join one immediately: [www.IAC.org](http://www.IAC.org) (Programs-Local Chapters-Chapter Locator). Local chapters are the backbone of IAC, and they are where the action is happening. There is a perception held by some pilots that the IAC is only

about competition aerobatics. In actuality, 90 percent of IAC members are NOT competition pilots. The camaraderie and strong ties that develop when a group of people gathers around their shared passion is nothing short of magic. To me, the best parts of IAC chapters are the people, airplanes, and the unusual attitudes of both.

Some of our IAC 38 members belong to more than one chapter. It's fun to mingle with different people, as each chapter has its unique culture and quirks. Try yet another one on for size! I invite you to consider joining Chapter 38. Along with all the perks of IAC 38 membership (which are considerable: informative and entertaining monthly meetings and newsletter, expert critiquing on our practice days, field trips, epic social events), you will be supporting the **38 FOR 69** campaign. You will receive in the mail the official **38 FOR 69** sticker (suitable for proud display) as well as a Chapter 38 logo sticker.

It's easy and cheap...like our pilots. Go to [IAC38.org](http://IAC38.org) and join.

JFK wisely noted, "A rising tide lifts all boats." We are all in this together. Let's continue to hoist those sails and fly high. Ahoy, mates!

**IAC**



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**For a complete list of contests and for the most up-to-date contest calendar, visit [www.IAC.org](http://www.IAC.org).**

*If your chapter is hosting a contest, be sure to let the world know by posting your event on the IAC website.*

## **Ben Lowell Aerial Confrontation (South Central)**

**Saturday, April 25 – Sunday, April 26, 2015**

Practice/Registration: Friday, April 24

Gliders Categories: Sportsman Intermediate

Power: Primary through Unlimited

Location: USAF Academy Field (AFF): Colorado Springs, CO

Region: South Central

Contest Director: Billy Jacks

E-Mail: [william.jacks.2@us.af.mil](mailto:william.jacks.2@us.af.mil)

Website: [www.iac12.org](http://www.iac12.org)

## **Duel in the Desert (Southwest)**

**Friday, May 1 – Saturday, May 2, 2015**

Practice/Registration: Thursday, April 30

Rain/Weather: Saturday, May 2 – Sunday, May 3

Power: Primary through Unlimited

Location: Apple Valley (APV): Apple Valley, CA

Region: Southwest

Contest Director: Barrett Hines

Phone: 805-217-3998

E-Mail: [barretthines@verizon.net](mailto:barretthines@verizon.net)

## **Carolina Boogie (Northeast)**

**Friday, May 1 – Sunday, May 3, 2015**

Practice/Registration: Thursday, April 30 – Sunday, May 3

Rain/Weather: Sunday, May 3

Power: Primary through Unlimited

Location: Wilson Industrial Airport (W03): Wilson, NC

Region: Northeast

Contest Director: Eric Sandifer

Phone: 919-605-9585

E-Mail: [n100mp@yahoo.com](mailto:n100mp@yahoo.com)

Website: [iac19.org](http://iac19.org)

## **Sebring Spring #71 (Southeast)**

**Friday, May 1 – Sunday, May 3, 2015**

Practice/Registration: Saturday, April 25–Thursday, April 30

Glider Categories: Sportsman through Unlimited

Power: Primary through Unlimited

Location: Sebring Regional (SEF): Sebring, FL

Region: Southeast

Contest Director: Travis Gier

Phone: 321-258-5880

E-Mail: [acrotrav@gmail.com](mailto:acrotrav@gmail.com)

## **ACE's High Spring Opener (South Central)**

**Saturday, May 9 – Sunday, May 10, 2015**

Practice/Registration: Friday, May 8

Rain/Weather: Sunday, May 10

Power Categories: Primary Sportsman

Location: Newton City County Airport (EWK): Newton, KS

Region: South Central

Contest Director: Mark Wood

Phone: 602-361-3504

E-Mail: [Mark@dreamcatcheraviation.com](mailto:Mark@dreamcatcheraviation.com)

## **Coalinga Western Showdown (Southwest)**

**Friday, May 29 – Saturday, May 30, 2015**

Practice/Registration: Thursday, May 28

Power: Primary through Unlimited

Location: New Coalinga Municipal Airport (C80): Coalinga, CA

Region: Southwest

Contest Director: Martin Price

Phone: 510-579-3407

E-Mail: [martin@pull.gs](mailto:martin@pull.gs)

Website: <http://www.iac38.org>

## **Hoosier Hoedown (Mid-America)**

**Saturday, May 30 – Sunday, May 31, 2015**

Practice/Registration: Friday, May 29

Power: Primary through Unlimited

Location: Kokomo Municipal Airport (OKK): Kokomo, IN

Region: Mid-America

Contest Director: Mike Wild

Phone: 765-860-3231

E-Mail: [mike.wild@hotmail.com](mailto:mike.wild@hotmail.com)

## **Wildwood Acroblast 2015 (Northeast)**

**Saturday, May 30 – Sunday, May 31, 2015**

Practice/Registration: Thursday, May 28 – Friday, May 29

Power: Primary through Unlimited

Location: Cape May County Airport (WWD): Cape May, NJ

Region: Northeast

Contest Director: Dan E Tourgee

Phone: 410-245-6974

E-Mail: [dtourgee@taiengineering.com](mailto:dtourgee@taiengineering.com)

Website: [www.iac58.org](http://www.iac58.org)

## **IAC East Coast Championship (Southeast)**

**Thursday, June 4 – Saturday, June 6, 2015**

Practice/Registration: Wednesday, June 3

Rain/Weather: Sunday, June 7

Power: Primary through Unlimited

Location: Richard B. Russell Regional (RMG): Rome, GA

Region: Southeast

Contest Director: Ken Lumpkin

Phone: 706-506-0550

E-Mail: [capitoline@bellsouth.net](mailto:capitoline@bellsouth.net)

## **Lone Star Aerobatic Championship (South Central)**

**Friday, June 12 – Saturday, June 13, 2015**

Practice/Registration: Thursday, June 11

Rain/Weather: Sunday, June 14

Power: Primary through Unlimited

Location: North Texas Regional Airport (GYI):

Sherman/Denison, TX

Region: South Central

Contest Director: Patrick Clark

Phone: 817-845-6445

E-Mail: [psc4aero@tx.rr.com](mailto:psc4aero@tx.rr.com)

Website: <http://iac24.org/>

## **Ohio Aerobatic Open (Mid-America)**

**Friday, June 19 – Saturday, June 20, 2015**

Practice/Registration: Thursday, June 18

Rain/Weather: Sunday, June 21

Power: Primary through Unlimited

Location: Bellefontaine Regional (EDJ): Bellefontaine, OH

Region: Mid-America

Contest Director: Gordon Penner

Phone: 513-520-6065

E-Mail: [penner.gk@gmail.com](mailto:penner.gk@gmail.com)

Website: [iac34.eaachapter.org](http://iac34.eaachapter.org)

## **Killam-Sedgewick/Flagstaff Western Canada Open (International)**

**Saturday, June 20 – Saturday, June 20, 2015**

Practice/Registration: Friday, June 19 – Saturday, June 20

Power: Primary through Unlimited

Location: Killam-Sedgewick/Flagstaff (CEK6):

Killam, Alberta, Canada

Region: International

Contest Director: Randy Skiba

Phone: 403-504-7788

E-Mail: [randallj@shaw.ca](mailto:randallj@shaw.ca)

Website: [www.aerobaticscanada.org](http://www.aerobaticscanada.org)



**Apple Cup (Northwest)**

Friday, June 26 – Saturday, June 27, 2015

Practice/Registration: Thursday, June 25

Rain/Weather: Sunday, June 28

Glider Categories: Sportsman through Unlimited

Power: Primary through Unlimited

Location: Ephrata Municipal Airport (EPH): Ephrata, WA

Region: Northwest

Contest Director: Patrick Lavielle

Phone: 206-226-8738

E-Mail: [patricklavielle@gmail.com](mailto:patricklavielle@gmail.com)

Website: [www.applecup.org](http://www.applecup.org)

**IAC West Open Championship (South Central)**

Saturday, June 27 – Sunday, June 28, 2015

Practice/Registration: Thursday, June 25 – Friday, June 26

Glider Categories: Sportsman through Unlimited

Power: Primary through Unlimited

Location: Seward Municipal Airport (SWT): NE

Region: South Central

Contest Director: Ed Bowes

Phone: 402-770-5966

E-Mail: [edbowes@windstream.net](mailto:edbowes@windstream.net)

Website: [IAC80.org](http://IAC80.org)

**Best Box in Texas (South Central)**

Thursday, July 9 – Sunday, July 12, 2015

Practice/Registration: Thursday, July 9

Rain/Weather: Sunday, July 12

Power: Primary through Unlimited

Location: Jackson County Airport (26R): Edna, TX

Region: South Central

Contest Director: Doug Jenkins

Phone: 210-485-8025

E-Mail: [bagsf15@yahoo.com](mailto:bagsf15@yahoo.com)

Website: <http://www.iac127.eaachapter.org/>

**Michigan Aerobatic Open (Mid-America)**

Saturday, July 11 – Sunday, July 12, 2015

Practice/Registration: Friday, July 10

Power: Primary through Unlimited

Location: James Clements (3cm): Bay City, MI

Region: Mid-America

Contest Director: Brian Roodvoets

Phone: 810-667-0642

E-Mail: [redfoot@earthlink.net](mailto:redfoot@earthlink.net)

Website: <http://www.iac88.eaachapter.org/>

**Green Mountain Aerobatics Contest (GMAC) (Northeast)**

Friday, July 17 – Sunday, July 19, 2015

Practice/Registration: Thursday, July 16 – Friday, July 17

Glider Categories: Sportsman through Unlimited

Power: Primary through Unlimited

Location: Hartness State Airport (VSF): Springfield, VT

Region: Northeast

Contest Director: Bill Gordon

Phone: 802-585-0366

E-Mail: [wsgordon@earthlink.net](mailto:wsgordon@earthlink.net)

Website: [www.iac35.aerobaticsweb.org](http://www.iac35.aerobaticsweb.org)

**Cut Bank – Rocky Mountain Can/Am (Northwest)**

Friday, July 17 – Saturday, July 18, 2015

Practice/Registration: Wednesday, July 15 – Thursday, July 16

Power: Primary through Unlimited

Location: Cut Bank International Airport (CTB): Cut Bank, MT

Region: Northwest

Contest Director: Robert Harris

Phone: 503-550-1496

E-Mail: [flyhran@aol.com](mailto:flyhran@aol.com)

**Beaver State Regional (Northwest)**

Friday, August 14 – Saturday, August 15, 2015

Practice/Registration: Wednesday, August 12 – Thursday, August 13

Power: Primary through Unlimited

Location: Pendleton Regional Airport (PDT): Pendleton, OR

Region: Northwest

Contest Director: Christopher Branson

Phone: 503-803-7167

E-Mail: [christopher.branson@comcast.net](mailto:christopher.branson@comcast.net)

Website: <http://www.iac77.eaachapter.org/>

**2015 Canadian National Aerobatic Championship (Mid-America)**

Saturday, August 15 – Sunday, August 16, 2015

Practice/Registration: Friday, August 14

Power: Primary through Unlimited

Location: Saugeen Municipal Airport (CYHS): Hanover, Ontario

Region: Mid-America

Contest Director: Phil Englishman

Phone: 519-377-3777

E-Mail: [mickeyd@wightman.ca](mailto:mickeyd@wightman.ca)

Website: [aerobaticscanadachapter3.blogspot.ca](http://aerobaticscanadachapter3.blogspot.ca)

**Doug Yost Challenge (Mid-America)**

Saturday, August 15 – Tuesday, August 16, 2016

Practice/Registration: Thursday, August 13 – Friday, August 14

Power: Primary through Unlimited

Location: Spencer Municipal Airport (SPW): Spencer, IA

Region: Mid-America

Contest Director: Justin Hickson (Temporary)

Phone: 651-338-3345

E-Mail: [jhisbatman@yahoo.com](mailto:jhisbatman@yahoo.com)

Website: [www.iac78.org](http://www.iac78.org)

**The Bill Thomas U.S.-Canada Aerobatic Challenge (Northeast)**

Saturday, August 22 – Sunday, August 23, 2015

Practice/Registration: Thursday, August 20 – Friday, August 21

Power: Primary through Unlimited

Location: Olean Municipal Airport (KOLE): Olean, NY

Region: Northeast

Contest Director: Pat Barrett

Phone: 716-361-7888

E-Mail: [cbpbmb@aol.com](mailto:cbpbmb@aol.com)

Website: [IAC126.blogspot.com](http://IAC126.blogspot.com)

**Harold Neumann Barnstormer (South Central)**

Saturday, August 29 – Sunday, August 30, 2015

Practice/Registration: Friday, August 28 – Saturday, August 29

Power: Primary through Unlimited

Location: New Century Aircenter (IXD): Olathe, KS

Region: South Central

Contest Director: John Wittenborn

Phone: 913-782-6442

E-Mail: [Chiller\\_52@yahoo.com](mailto:Chiller_52@yahoo.com)

Website: [www.iac15.org](http://www.iac15.org)

**Rebel Regional Aerobatic Contest (Southeast)**

Friday, September 4 – Saturday, September 5, 2015

Practice/Registration: Thursday, September 3

Rain/Weather: Sunday, September 6

Power: Primary through Unlimited

Location: Everett-Stewart Regional Airport (UCY): Union City, TN

Region: Southeast

Contest Director: Michael Tipton

Phone: 573-922-9600

E-Mail: [michael.tipton@hotmail.com](mailto:michael.tipton@hotmail.com)

Website: [www.iac27.org](http://www.iac27.org)

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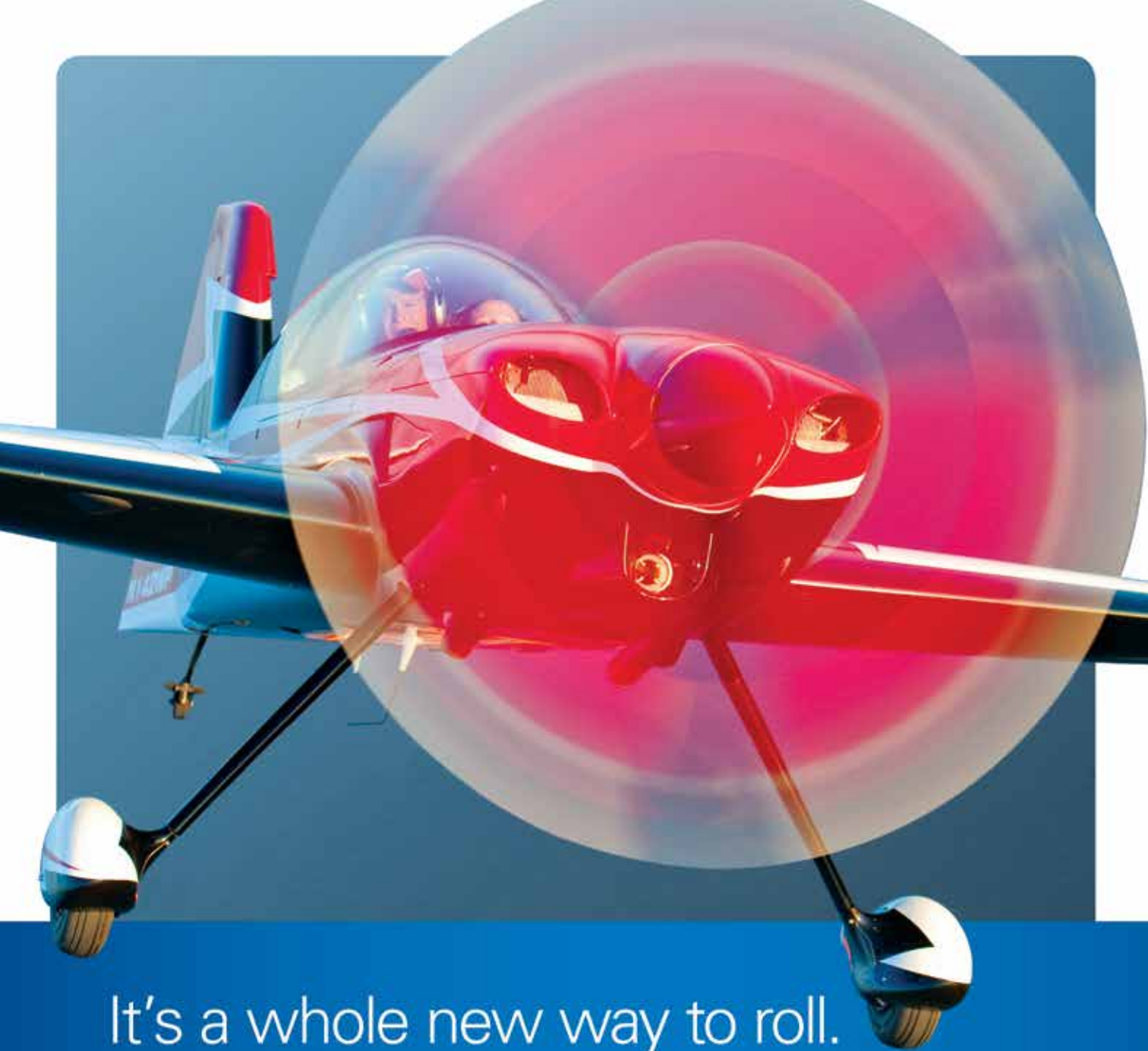
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