

SPORT

FEBRUARY 2016

# Aerobatics

OFFICIAL MAGAZINE of the INTERNATIONAL AEROBATIC CLUB



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**CHIPPY**



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This all seemed a natural order to the birth of ZZ Fox.  
Develop a dream, refinish a Fox, and the pilots will come.  
—Mallory Lynch

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Mark Meredith pilots his Super Chipmunk "Chippy" from the rear cockpit.



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EDITOR'S LOG

BY REGGIE PAULK

# Writing for Sport Aerobatics

## Many thanks go to those who contribute

Although you've most likely received and read the January issue of *Sport Aerobatics*, due to publishing deadlines, the February issue is the first one I'm editing after we've entered the new year. That being said, I'd like to wish you a very happy new year, and hope that 2016 turns out to be a good one for you. The beginning of the year inevitably leads to discussions of turning new leaves and new beginnings, and I will take the bait and do so myself.

Throughout the years I've been privileged to be the editor of *Sport Aerobatics* and our online publication In the Loop, I've been lucky enough to receive the fruits of the hard work of volunteer writers and photographers who've given freely of their time and energy to help nurture and grow our unique sport. If it weren't for people who decide to put their experience in writing, or grab a camera and take a picture, our publications would suffer greatly. I am thankful every month for the contributions of all of those individuals who've done so. Recently, I've received quite a few inquiries into how to contribute to our publications, and I'll take a moment to give you my advice.

Many of the people you've read in these pages have been first-time contributors. And many of those people, when I first approached them for their stories, told me they weren't writers or photographers. You'd be surprised at the number of people who, after

telling me this, send me a well-written article that speaks to our membership in a very beneficial way. If you can think it, you can write it—don't let your preconceptions about writing prevent you from taking the time to do so. You might surprise yourself.

As for format, I really appreciate receiving finished pieces in Word documents as an e-mail attachment. I also appreciate when photos are sent separately from the main text and include thoughtful captions. When it comes to photos, the higher-quality JPEGs are wonderful—did I mention captions? If you have a bunch of photos, send me a bunch of e-mails—I won't complain! When you do sit down to write, if you'd include a title for your piece, I'd appreciate it—you'd be surprised at the number of articles that come to me without a title. I can usually come up with one, but the author is a better candidate for that. In addition to a title, I convert everything to 12-point Times New Roman font, so if you use that, it saves a bit of formatting on my end.

As for length—write what you want, and don't be concerned about length. You've read enough articles to have a pretty good idea about what is right.

My thanks to all of those who do, and all of those who will, contribute.

IAC

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



## ON THE FLY

BY MIKE HEUER, IAC PRESIDENT, IAC 4

# Grass Roots

### The Year Begins. . .

I hope that everyone had a very pleasant and enjoyable holiday season. It was certainly a welcome respite from the intensity and workload that being a part of the IAC leadership team entails. The fact that everyone was taking a little time off was evident in the huge drop-off in e-mail communications during December and early January. It was a nice vacation, but now work begins again in planning and organizing our 2016 activities.

We announced the theme of this year's IAC activities at EAA AirVenture in Oshkosh: "Aerobatics—Grass Roots to the Top of the World." Our poster for the event appears on the inside back cover of this issue. I am very excited about this year's program, as it will highlight all of the various and wonderful facets of the IAC and sport aerobatics and the things that have drawn us all to it. Our challenge is to now build a program and an exhibit we can be proud of, and will tell our story, just as the Pitts 70th anniversary exhibit did at AirVenture 2015.

As I have often said, the IAC is a menu of choices. But it all starts at the grass roots. What does this mean? Well, I am reminded of the speeches that Paul Poberezny, EAA's first president and founder, used to give and how he often made the statement that EAA was for the "little guy" in aviation. He defined "little guy" as anyone who paid his or her own way and not a function of wealth or income. While aviation is much more expensive than it used to be when the IAC was first founded, and it does take a fair amount of success in life, with the attendant income, to make it possible to participate at the higher levels of the sport, the fact remains we have a spot for everyone in our organization, regardless of his or her financial situation. While you may not be able to afford one of the high-end German-built monoplanes, there are a lot of reasonably priced aerobatic airplanes out there, including the iconic Pitts S-1 among others. Without those grass-roots airplanes, we would not survive.

The IAC also has opportunities for people who like to volunteer and work with others who share their love of sport aviation and aerobatics and find great fulfillment in doing good work. There is nothing more grass roots than our chapter network, and I urge everyone to join a chapter or form one if none exists in your area. It just takes a handful of IAC members to get started, and the EAA chapter office in Oshkosh can be of enormous assistance, along with the chapter resources we

include on the IAC webpage. All of the 40 local contests held throughout the country each year are organized by chapters, and some have been ongoing for decades. All of the thousands of pilots who have participated in those local competitions have come away with more skill and valuable experience than we can possibly imagine. Contests are important to the IAC, and they are important to aviation in general. But they need a host of volunteers to make them run, and this is where every member can take part.

My own first experience at volunteering for a contest was at one of the few events held in the United States before the IAC's formation. It was at what was called the Mid-American Regional Aerobatic Contest in Aurora, Illinois, in 1968. The local bank put up prize money, and the contest attracted all of the leading lights in competition aerobatics of the period. In addition to helping put up what seemed like miles of snow fence, as we had an air show there as well, I assisted Dr. Dale Drummond on the judging line. I had little knowledge at that time of judging criteria, the Aresti system, or much of anything else—though I flew my first contest that year. It was an experience I will never forget, and I could not wait to become a judge myself as a result. This was when there was little or nothing in the way of judges schools or educational programs at all. Those did not come to fruition until the IAC organized them a few years later.

Now we stand ready to train, educate, and improve those who take on the responsibility of judging, and my thanks to Wes Liu, chairman of our judging program, for the energy he has brought to this important IAC activity.

Despite the fact this was 48 years ago, the memory is still strong and the enjoyment still vivid. It's why I urge everyone in the IAC, especially new members, to become involved in some way in our activities, even if you do not fly aerobatics or competition yourself. It changed my course, and all these years later, the IAC and aerobatics remain a central part of my life.

Join with us in 2016 as a part of our many activities. I hope to see many of you around the circuit this year, at AirVenture in July, and at the U.S. Nationals in September.

**IAC**

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



## LINES & ANGLES

### NOMINATIONS AND ELECTION 2016

The Nominating Committee for the 2016 IAC election has been named and consists of chair Lynne Stoltenberg, Doug McConnell, Bob Hart, Tim Just, Bruce Ballew, Michael Steveson, and Mike Rinker.

Nominations for officer and board positions can be submitted at any time. Forms and requirements can be found on the IAC website at <https://www.iac.org/legacy/iac-leadership>. Membership sign-in is required. Important dates for the 2016 election are as follows:

- IAC Annual Membership Meeting, Oshkosh, Wisconsin – 0830 CDT, Friday, July 29, 2016
- Nominations Close – April 5, 2016
- Balloting Begins – No later than June 29, 2016
- Balloting Closes – 1800 CDT, Monday, July 25, 2016

**The method of voting in 2016 will be electronic only.**

### Don't Miss Out on An IAC Content

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If the IAC doesn't yet have your e-mail address, you're missing out on a valuable part of your membership. *In The Loop*, our e-newsletter packed full of essential information and interesting stories, will be e-mailed to you every month. You also can update your address, phone number, and more, all in one convenient place. Do it all right here: <https://secure.eaa.org/apps/joinrenew/address.aspx>

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Join us today and begin enjoying exclusive member benefits, including a subscription to *Sport Aerobatics* magazine. **Call 800.564.6322 or visit [www.IAC.org](http://www.IAC.org)**



### Call for Photos

We're looking for cool photos to adorn the pages of the new and improved IAC website and the magazine. Colorful, action-oriented pictures are preferred. Don't worry about cropping or resizing, we'll handle that. E-mail your best pics to Reggie Paulk at [reggie.paulk@gmail.com](mailto:reggie.paulk@gmail.com) for the magazine and Laurie Zaleski at [artzgraphics@comcast.net](mailto:artzgraphics@comcast.net) for the web, along with the date, location, and names of people if possible.





DARIN LACRONE

# Restoring Chippy

Winning a Bronze Lindy at Oshkosh

BY MARK MEREDITH

**IN NAVAL AVIATION WE CALLED IT THINGS FALLING OFF AIRCRAFT.** We had a program for it, of course, with formatted official reporting under the header *TFOA*. Too often it was reporting little blue practice bombs that went astray (oops), or canopies that blew off at 40,000 feet and became someone's backyard greenhouse. But that was then and this is now: Who should I report this to? My

Super Chipmunk right cheek cowl-ing is now in a Maryland farmer's field, somewhere over yonder. The cowl-ing departed while rolling upright from a half-Cuban, tumbling down over our heads. It missed the tail and my brother, exposed in the front cockpit, but pretty much ruined a golden fall afternoon of gentleman aerobatics. So began my education as the new owner of a very tired air show bird.

But we skipped *TFOA* reporting. Embarrassed by my negligence in losing a big piece of an airplane that everyone told me not to buy, my brother, Chris, and I flew home at low power, landed, and high-tailed it for the hangar. I had maybe 20 hours in the logbook including the ferry home from Florida, all of it flown with trepidation because this was clearly a project plane. The intent had been to fly it some,



Above, Chipmunk BF370 began life in the RAF (1951–55), attached to the No. 4 Basic Flying Training School (BFTS), Sywell, Northampton. There are no pics of BF370, so this is a different squadron aircraft.



In 1965 Chippy was converted as third SA-29 Spraymaster at Bankstown, Australia, and recertificated as VH-GEB. Mods include forward part of fuselage interior and front seat removed to install a hopper, rear seat raised, and single seat bubble canopy installed. It also received a dorsal fin, Scott-style tailwheel, and attachments for spray equipment and controls (skin holes and doublers still very much in evidence today!) It still had the stock 145-hp Gipsy Major engine. It flew out of Tintinara, Southern Australia, landed in a field and was badly damaged. Once repaired, it continued to operate as a Spraymaster until 1969.



Chippy in 1969 after it was sold to the Adelaide Soaring Club, Gawler, South Australia. Note the tow rope attached. It began its conversion to a Super Chipmunk soon afterward, completed in Texas in 1974.



Chipmunk BF370 left the RAF for Australia in 1957. It was certificated as VH-BSQ and served as a civil/military trainer for the Tasmanian Aero Club, Launceston, until 1965. Below are members of the club gathered around Chippy in the late 1950s.

restore it some, then fly it some more. Okay, time for a new plan.

Plan B evolved into a five-year, 5,000-hour rebuild that changed my life and the life of Super Chipmunk N7DW in some pivotal ways. During the first three years, Chippy increasingly dominated resources and time after work and on Saturdays. But now it was time to finish. I left secure, reasonable work—a Navy career, then nine years as a Navy contractor—to devote full-time to finish this unreasonable, seemingly endless project. I figured I could swing the loss of income for a year or so, and surprisingly my dear wife, Martha, went along.

The reality was 18 more months and all the money I had set aside for it! Rebuilding brought self-inflicted pain and expense, but also the pleasure of challenges surmounted; the restoration of a classic whose beauty shined through all the dents and chipping paint. A modern-ish airplane with the look of a golden age racer. Flying once again in the spring of 2014, we now have two AirVentures and two Sportsman aerobatic contests behind us (Wildwood and Warrenton). At Oshkosh 2015, Chippy



won a Bronze Lindy as Champion Custom Classic.

What is the allure of an old Super Chipmunk when there are so many cheaper, far more capable, ready-to-fly aerobatic birds?

Any story about a de Havilland DHC-1 should begin with Art Scholl and his spectacular part in making a sweet little trainer famous. His part-Canadian Chipmunk was so much more than de Havilland ever imagined when it developed it in 1945 to replace the woefully obsolete Tiger Moth biplane. Sporting modifications designed by renowned aerobatic pilot and manufacturer “Pappy” Spinks, Art Scholl flew one of his three Super Chippies before an estimated audience of 80 million people over a 20-plus year career. He also competed as a member of the U.S. team in international competition from 1963 through 1972. His N13Y now hangs (inverted, of course) from the overhead of the

Smithsonian Udvar-Hazy Center, and his similarly modified N1114V hangs in the EAA Air-Venture Museum in Oshkosh.

Art Scholl added grace to his flying and style to his showmanship that made him a crowd favorite—like when he stepped out on the wing during a low pass, or flew with his little black dog, Aileron. He was the first modern pilot to fly night shows with pyrotechnics. And he was a pro: a Ph.D. aeronautics professor, CFI, and A&P who ran an FBO and aerobatic school and produced his own flying films.

Art had more than 200 movies to his credit, flying in pilot favorites such as *The Right Stuff*, *The Great Waldo Pepper*, and *Top Gun*. In the words of ICAS in describing the Art Scholl Showmanship Award, “His exacting, exciting and entertaining performances were a reflection of the best in our industry. He was a dedicated professional who practiced tirelessly to get the most

from himself and his airplane without sacrificing safety.” Recipients of the award are a who’s who of aerobatic performers and announcers since 1986, the year after he died while filming *Top Gun*.

Art Scholl is arguably the most famous air show pilot of all time... or at least to those of us of a certain age. In 1971 when he was flying his red, white, and blue Chipmunks, I was a 13-year-old kid on a red bike. On Saturdays I would pedal miles across Riverside, California, around Mount Rubidoux to dusty Flabob Airport where Art was based at the time. Flabob was a dream airport for a young wannabe pilot (and still is), especially one enamored of the romance and design of airplanes.

Flabob was and is a grassroots airport, full of characters who have contributed hugely to the history of aerobatic, experimental, and sport aviation. In my favorite photos of my dad, Roy, he was a steely-eyed 19-year-old in a leather flying

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Chippy in its initial livery as a Super Chipmunk (1974–1988), certificated in the United States as N7DW. This photo was taken in 1984 in Texas. It flew the airshow circuit with Doug Warren and Howard Davenport (the latter flew Chippy partnered with Duane Cole). The hopper is still up front serving as a ferry tank; many of the other Spraymaster mods are still in place, but the wings are clipped and it has an IO-540 engine.

helmet in his war-surplus PT-22. In family lore he was usually upside down, terrorizing the jack rabbits around Flabob. He never really grew up, but the Air Force still let him fly tankers and Phantoms. He instilled in me a love for the old planes and for that special airport. I recall many a solitary summer day walking the lines of Wacos, Texans, Ryans, and big-wing Stinsons. The airplanes I could see were not pristine showplanes but ragged and weedy. Eventually I dared to venture back to the hangars, where I discovered another side of Flabob—the birthplace of the Stits and the Starduster (we bought the plans), EAA Chapter 1, and many a racer, replica, or restored beauty. The community of pilots, builders, and educators at Flabob have preserved that spirit through the decades—witness the recently completed art deco beauty, the Waco Sky Siren.

The Flabob hangars are where I first discovered Art Scholl. Not at

an air show—I never saw him perform! But by shyly hanging around while he tinkered or dragged out a Chipmunk to practice his routine. I never forgot those Chipmunks.

Though I've always been “bent” as a builder, it never occurred to me I would ever rebuild and fly a Chipmunk myself. I had a 25-year Navy career as first an A-6 Intruder bombardier-navigator and then an aircraft maintenance officer aboard aircraft carriers, keeping the jets flying. It was a career devoted to achieving mission-capable airplanes ready to launch off the pointy end; an exciting, fulfilling life, though far removed from the old classics. Then as a 47-year-old, I regretfully took off the uniform and compensated for the loss by finally becoming a pilot! After just a few years of flying very nice spamcans, my Flabob roots took hold, and I went on the hunt for an interesting project. So many airplanes, so little time!

A casual browse of the online

listings stopped me cold. There was Chippy, red, black, and stunning, looking as much like a Ryan as a Chipmunk. He was for sale by Bruce Moore, EAA's photoshop pilot. So I sold the family Bonanza. Feigning due diligence, I made an exploratory trip to Florida. A knowledgeable friend and A&P also inspected him for me, but I ignored his caution and wrote the check. To the most casual observer, it was obvious I was nuts.

So began a journey that was so much more than I bargained for: a journey of discovery, meeting great airplane people at every turn. As I suppose all rebuilds do, it began with years of deconstruction. It more resembled archeology: unearthing mods on top of mods; extracting and labeling nasty-looking bundles and wires to nowhere; painstakingly removing paint layer by layer: white, red, blue, black, green, gold, gray.

Way too much of my life passed alone in a dark hangar, breathing





In 1988 N7DW joined N66RP as a member of the TAG Hauer aerobatic team. The aircraft were modified to open cockpit by Chuck Stockdale and Iranian pilot Nadir Fahn who flew them together until 2000. N7DW wears the black and green scheme.

through a fresh air respirator hose, lying in the belly across a spar carry-through with a can of stripper and a toothbrush, working the crevices to remove paint that was like sedimentary rock. Reskinning the fuselage from the bones outward would have been better. But shiny metal finally revealed itself inside and out... along with cracks and corrosion to add to the fix list. No way out of this

hole but to keep digging (...wait, that's not how it goes!). Eventually a friend tipped me off to the wonder of water-based stripper, a garden nozzle, and a Shop-Vac to suck out the bilge water. Life was good again.

With bare metal came rebuilding and new skills. To rebuild Chippy, I needed a whole new skill set. I didn't know what I didn't know. There was no kit or plan, but lots

of example airplanes and best of all, homebuilder web logs. If you dial the phone number of most small airplane part vendors, the company president or other expert picks up the phone, ready to educate or even point you to the competition for a better solution. Chippy taught me about aluminum fabrication and riveting, fabric recovering, plumbing, and electrical systems. The wind screen fairings, tailcone, strakes, and many complex wing/empennage fairings needed replacement. So I watched videos, built a scrap pile, and finally made friends with the English wheel and other forming tools. Bill Finagin's Pitts S-2C in the hangar next door became the firewall forward model.

The missing right cheek cowl-ing launched a five-year saga. Super Chipmunk cowl-ing molds were lost over the years so it started with making a male mold over top of the engine, then having a professional and new friend, John Hogsensen, fabricate female molds for the whole front end (they've now been used on two other Chippy rebuilds). A new nosebowl presented a chance to update a clunky snout to improve cooling and drag. The racer crowd—MXs, RVs, and F-1 Rockets—offered many lessons about how to build high-performance induction and cooling systems, as did Ken Paser's terrific book *Speed With Economy*. Through their knowledge and John's skill, the beat-up glass cowl-ing transformed into carbon fiber artwork almost too lovely to paint. Plus it delivers a little ram kick, perfect oil temps, and 300 degree CHTs!

When I consider the extent of the "major repairs and alterations" I performed as a non-certified mechanic, I cannot take for granted the amazing freedom we have with experimental aviation in the United States. With support from the Baltimore FSDO, Chippy now sports a new experimental exhibition airworthiness certificate with minimal limitations. We success-



Another photo of one of the many paint schemes the aircraft wore during this period. N66RP (inverted) currently lives in New Jersey looking much like it did in this photo but no longer wearing cologne.





Chippy N7DW in 2008, owned and flown by Bruce Moore, EAA photoshop pilot. This is the configuration when I bought it in 2009.

fully completed first flight and a five-hour (!) test period. Next came paint, just in the nick of time to depart for AirVenture 2014.

Chippy flew again thanks to the help of EAA Chapter 571, friends and mechanics at Lee Airport in Annapolis, especially Larry Donaldson, expert Chipmunk restorer Jesse Schneider in Tulsa, and Tom Schwietz of Aero Engines, who gave me confidence the prop would keep spinning. Kevin Burns at Scheme Designers worked patiently with me for four years as I evolved the vintage paint job, and Ken Reese of KD Aviation in Trenton worked magic with final prep and paint—no small feat with tape lines over hundreds of round-headed rivets. The vicious chipmunk on the rudder is a reimagining of the leaping beast on the tails on my old A-6 squadron, the VA-35 Black Panthers. If anyone is interested, the rebuild is documented in photos on Chippy's Facebook page, Super Chipmunk Restoration.

## A Working Life

Throughout the years of building, in conversations with an extensive Chipmunk appreciation society around the globe, I slowly uncovered stories of N7DW's flying adventures. Like all good Brit-

ish-built Chippies, it began life in the Royal Air Force in 1951. It then immigrated to Australia in 1956 to join the Tasmanian Aero Club, registered as VH-BSQ. With surplus Chipmunks in easy supply, by 1965 both Britain and Australia began converting a handful of them to crop sprayers. Chippy earned a new moniker as an SA-29 Spraymaster, registered VH-GEB. The experiment quickly fizzled; purpose-built Cessna Agtrucks and Piper Pawnees easily outperformed 145-hp Chipmunks. But ever the working plane, Chippy now became a glider tug, in the process suffering multiple landing accidents, including replacement of one wing.

After its last accident in Australia, it was disassembled and stored starting in May 1970. This was the heyday of Art Scholl's Super Chipmunks, so in April 1971 (I was on my red bike at the time) work began at Bankstown near Sydney to similarly convert it. Work stalled. Dean Whitaker of Marrero, Louisiana, rescued it along with two other Aussie Chippies that he imported to the United States in May 1972, eventually certificated N7DW, N8DW, and N13DW (all still flying today). Dean immediately sold N7DW and N8DW to Doug Warren in Big Spring, Texas.

Over the next two years Doug completed N7DW's Super Chipmunk mods that were finally signed off by Emile Bryson in June 1974. Modeled on Pappy Spinks' design, they clipped the wings 19 inches on each side, enlarged and beefed up the rudder, extended the ailerons by stealing from the flaps, sheeted the wings with 0.020 aluminum, and installed a single-place bubble canopy and O-435 engine with inverted oil.

The N7DW stories kept coming, especially after we got back in the air and could begin getting out and about. After flying it in shows for a few years, in June 1978 Doug Warren made a trade with Howard Davenport: Chippy for a Decathlon and some cash. Howard had been flying air shows with Duane Cole starting when he was 17 years old in 1973. With Chippy as his new mount, he added an inverted ribbon cut to his routine, similar to Art Scholl's. But not for long! In 1979 he and Duane were in loose formation, returning to Houston after a show in Silver City, New Mexico, when the oil pressure plummeted and temperature spiked. Howard could smell oil fumes.

With the closest airport 30 miles away, he signaled to Duane and they landed together at a rest stop on Interstate 10 near El Paso. They parked Chippy, then after a little chat with the highway patrol, took off again in Duane's Decathlon. Howard later returned with a truck and a mechanic. Back in the hangar, they could see that the crankshaft bearings were demolished, but Howard had no prospects for paying for a new engine. Doug Warren came to the rescue by taking Chippy back, swapping a Super Taylorcraft for the disassembled pieces. After installing an IO-540, he continued air show flying until he sold it again in 1987 to Iranian-American pilot Nadir Fahn.

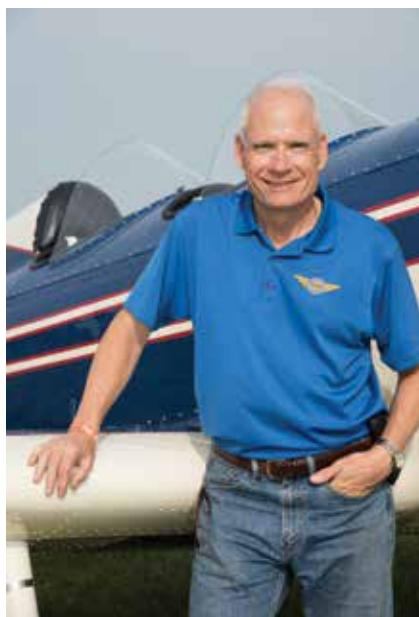
Nadir and his air show partner Chuck Stockdale modified N7DW to an open cockpit in 1988. They



TYSON RININGER



Tail art



Mark Meredith



Cockpit

removed the chemical hopper after a dozen years of service as an air show ferry tank and built new front controls. Together with Chuck's father and brother, they also modified Chipmunk N66RP to the same open-cockpit configuration and then flew them as a two-ship team. Over the next 12 years, they flew the circuit with support of several sponsors including TAG Heuer, developing a formation routine that included a tailslide to an

inverted ribbon cut by sister ship N66RP. Search YouTube and you'll find lots of fun videos, including TV news stories of their performances. Chipmunk 66RP carries on today, still wearing Stockdale's red and black Mystery Ship scheme, now owned and flown by Bob Rosen of East Hampton, Long Island.

Retired from performances in 2000, Chippy N7DW eventually made it into the capable hands of Bruce Moore in 2003, who began

breathing new life into him by replacing the engine, fuel bladders, and engine mount before I took the baton in 2009.

### Colorful Scars

We all keep our scars, and every piece of this Chippy has a story to tell. The 1965 ag mods were of everlasting consequence to N7DW's future life: Chippy will be forever "unique" for good or ill. To make room for the hopper, the ag com-





pany mechanics ripped out the fuselage guts, including many parts of the flight control system such as the rudder bars and much of the support structure. The pilot was moved to the rear, in a seat jacked up under a high ag-style bubble canopy. Hopper controls and spray bars sprouted from the fuselage side and wings. Fifty years after its ag mods, I found myself

patching the scars, removing corroded doublers, and fabricating structural and flight control parts more closely resembling de Havilland originals.

Why does Chippy have open cockpits today, when Doug Warren's little Mustang bubble would feel so cozy on a cold winter day? Well, it does look like the Skiles Skystreak in the *Great Waldo Pep-*

*per* movie, but that's not the real reason. Chuck Stockdale wanted to fly the press up front, but the de Havilland two-seat canopy and rails were long gone, transplanted to some needy Aussie Chipmunk. Open cockpit just made sense. (Though a few in the Chipmunk Inquisition loathe the look—"That's just wrong!")

Why the big turtledeck aft of



the rear seat? My neighbor Mike Barron and I formed it to hide a new steel rollover bar/harness mount, a stand-in for the beefy head protection once provided by the stock de Havilland windscreen. Yeah, and it gives Chippy the look of a 1930s racer when the front cockpit is covered!

Early in the rebuild, I discovered steel fin spar doublers from tip to base of the aft fuselage bulkhead. I wondered, is this a typical Super Chipmunk mod? Chuck filled me in; the fin spar mounting broke...he tiptoed home with the whole vertical stabilizer flopping! I've learned to be curious—and cautious—as Chippy reveals his secrets.

I've now added a few chapters of my own to Chippy's adventures with many more to come...though no more disasters, please! With a fourth rebuild completed, retirement is nowhere in sight for this hard working Chippy. Or for me either. I now instruct full-time at Navy Annapolis Flight Center and take my students up for a fun flight every now and then in Chippy. He's readily convertible between the single-seat racer look I prefer and a tandem we can share with friends. I've been careful and incremental about opening up the envelope, both the plane's and my own. With a bit of expert coaching from Bill Finagin, Chippy and I are improving our Sportsman performances. One day he may even get to relive some of his old glory in local shows. Gently, though; Chippy is an old bird.

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De Havilland Canada's DHC-1 Chipmunk first took to the skies in May 1946. Its Ontario plant needed to fill the void after wartime production of Mosquito, a project to retain some of its 7,000 highly skilled employees. Even with the shrinking demand for military aircraft, it was obvious the British Commonwealth nations needed a new primary, aerobatic trainer to replace the obsolete de Havilland Tiger Moth biplane. Despite no contracts or outside funding, it gambled on a clean sheet design. It was a gamble that richly paid off! From the same fertile minds would soon spring the DHC-2 Beaver, DHC-3 Otter, and many other iconic north country critters still in great demand today.

The lead design engineer was Wsiewolod J. Jakimiuk (sounds a bit like "Chipmunk"), a Polish émigré who fled his homeland at the start of the war after designing two successful World War II Polish fighters. With war's end, he and de Havilland management adopted the idea of

"build it and they will come." With no military specs or negotiations to slow them down, they worked fast through design and prototyping. In seven months they created a rugged, all-metal aerobatic monoplane trainer suitable to the demands of northern flying. The design team built it around the same 145-hp Gipsy Major engine used in the Tiger Moth because they were durable and available, with all the needed squadron maintenance skills already in place. They also economized by using Tiger Moth cockpit fittings and flight controls.

Chippy became a graceful blending of the past and the present: tandem taildragger meets modern metal construction; fabric control surfaces and Mosquito-like DH tail meets cantilevered wing and semi-monocoque oval fuselage. Because it was a trainer, the new Chipmunk also took a "wide stance," with rugged landing gear and a long tail to protect against ground loops.

IAC

# ZZ Fox

Is in the Box



## Flying in the 2015 U.S. National Aero- batic Championships

BY MALLORY LYNCH

**A**erobatics. To most glider pilots, this is limited to a wingover, tight turns, and a loop. Recreational aerobatics may add rolls, spins, clovers, inverted flying, and even a hammerhead. These maneuvers are easily built into an “unusual attitude recovery” training program and could benefit every glider pilot; however, few glider pilots stay current, and many still hold the view that aerobatics are more fraught with peril than cross-country flying, or that they’re only for the “young-uns.”

Kenny Price at Williams Soaring Center (WSC) in Williams, California, taught me recreational aerobatics. I loved the challenge and beauty involved. Of course, as with any new and overwhelming experience (such as my first mountain launch with a hang glider, or my glider solo), it took practice to eventually trust and relax. The narrow vision caused by fear was eventually replaced by the wonderment of seeing the earth in unusual ways. Vision expanded, the body aligned itself with the glider, and it was like a child on the merry-go-around. . . *more.*

More came with the MDM-1 Fox (N35ZZ), nicknamed “ZZ Fox.” There are only a handful of these two-place aerobatic planes in the United States, and Rex Mayes located one. Rex and Noelle Mayes own WSC. They have long supported the glider community in many ways. Along with their sons





Ben and Nick, a highly professional and caring staff, a three-legged cat, and many dogs, they offer repairs, rentals, instruction, and tows within a family atmosphere. They grow this community with endless work and pursuit of dreams—their own and those of others. They welcomed Guy Acheson's idea of Acro-Fest (a workshop for beginning aerobatics) and helped design a safe area and safe procedure to practice aerobatics in the Williams ASK-21s. Charlie Hayes (chief instructor), Drew Pearce (instructor), Guy, Eric Lentz-Gauthier, and I joined together to give rides and coaching.

This all seemed a natural order to the birth of ZZ Fox. Develop a dream, refinish a Fox, and the pilots will come. A year and half ago, Luca Bertossio came to Williams to fly the Fox. His arrival cast me into the world of competition aerobatic flying. I had never experienced such aerobatic mastery of a glider, and he was kind enough to coach me for a short time. Luca's biggest job was to undo my "recreational" aerobatic habits.

Competition aerobatics require exactness, understanding of the Aresti figures, and an ability to endure the intensity of high g-forces.

PAUL HOLLAND



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GUY ACHESON

The body and brain must get accustomed to absolutely vertical climbs and dives, strong pulls and pushes, high speeds, sequences of figures separated by brief horizontal pauses, and—even more terrifying—doing all this in the “box.” The aerobatic box is 3,300 feet in width and length and 4,000 feet high. At 120 knots, the glider takes 15 seconds to fly completely through the box. Williams did not have an official box, so we used Google Earth to identify an area closely resembling the competition box. Now, after flying in the Nationals, I doubt I ever stayed in our makeshift box while practicing.

Both Guy and Eric worked tirelessly with me, helping to improve my skills to the Intermediate and then Advanced levels. Guy and I would fly together, or one of us would observe from the ground, critiquing each other. Eric, who is the best competition aerobatic coach I have had the honor to work with, taught me the finesse of feeling, seeing, and nurturing each figure to be more exact and within sequences. His style of thorough explanation, precise flying, and positive review gave me much to work on. The tow pilots often appeared early in the morning to accommodate my practice sessions. Adding to this, the International Aerobatic Club Chapter 38 came to Williams, teaching us about judging, testing us for our Smooth awards, and flying in the Fox. Their encouragement, along with Eric's nudging, brought Guy and me to the idea that we could and should fly the Advanced level in the United States National Aerobatic Championships.

Williams Soaring Center agreed to lend us ZZ Fox, and Eric drove (and drove and drove) it to Texas. The WSC Aerobatic Team was on its way to the Nationals. I truly had no idea what I had committed to, and even



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## SOCIAL MEDIA AND THE IAC

In the past few months, our IAC volunteers and staff have accelerated their use and posting on various media. While *Sport Aerobatics* used to be our only official publication, we now have *In the Loop*, a monthly newsletter that reaches about 10,000 people; the IAC website ([www.IAC.org](http://www.IAC.org)); Facebook; and Twitter. We urge you to take advantage of all these information outlets. As an example, we had extensive coverage on AirVenture on Facebook, with many photos posted of the event. News on the U.S. Aerobatic Team has also been featured, along with wonderful photos, on Facebook. Postings on the Nationals went out daily while the contest was in progress.

For your reference, here are the accounts:

IAC official website: [www.IAC.org](http://www.IAC.org)

IAC Twitter: @IACHQ

U.S. Nationals Twitter: @USNAcro

IAC Facebook: [www.Facebook.com/EAAIAC](http://www.Facebook.com/EAAIAC)

U.S. Nationals Facebook: [www.Facebook.com/USNationalAerobaticChampionships](http://www.Facebook.com/USNationalAerobaticChampionships)



Eric coaches Mallory.



Guy enjoys some coaching from Eric.







GUY ACHESON

Mallory cinches in.

today I am trying to grasp what I (we) actually accomplished. Flying my first aerobatic contest (it was only Guy's second) in the Advanced category, and in the Nationals, is, as Eric put it, "like drinking from a fire hose."

Held at the former Perrin Field, now North Texas Regional Airport (KGYI) in Denison, Texas, the U.S. Nationals seemed as huge as the state it was in. Volunteers, judges, organizers, pilots, crew, and beautiful planes covered the airport. Some of the world's best aerobatic pilots were among the 99 total pilots competing. Completing all the competitions required hundreds of flights in six days. Safely weaving this in with the civilian air traffic was the task of the airport control tower, contest safety director, and chief judges. Fortunately, the gliders operated from a separate, normally inactive run-

way. Launching and landing there allowed far simpler and safer operations for everyone. We were still mixed in with the power flights of our category, so we would tow to altitude, inform the chief judge, and wait for clearance into the "box."

The aerobatic box, which is marked with large white corners and center markings on the ground, looked even smaller than I had imagined. In gliders, the pilot is supposed to do a series of eight to 10 advanced aerobatic figures at 100 to 140 knots while staying within bounds. Once given permission to enter, it takes about five minutes to complete the flight. You have three flights during the contest, each scored by seven judges, who along with the multitude of support personnel sat in the hot sun all day. The stress levels can be very high.

The judges awarded me "hard

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WSC team, left to right, Guy, Eric and Mallory.

LAURIE ZALEWSKI



GUY ACHESON

The box is the small area shown between these boxes on the map.

zeros” for not completing a hammerhead and tailslide, both of which I am quite capable of doing. I forgot a figure. My normally expanded aerobatic vision shut down; I flew on kinesthetic memory mode. The “performance demand” on my system

was overwhelming. Yet somehow I stayed oriented, corrected after mistakes, and finished the sequences. Into the third flight, I was more relaxed, could see the box boundaries better, and one judge scored me a 10 on the hammerhead. I stayed mostly

within the box, flew safely, and scored fairly well. I loved it. Guy, meanwhile, flew better, making fewer mistakes, and won. He is the U.S. Advanced glider champion. Eric, who recently returned from the World Glider Aerobatic Championships in the Czech Republic, took first place in the Unlimited category. He is the U.S. Unlimited glider champion. The WSC Aerobatic Team did well.

ZZ Fox has returned to Williams. We thank everyone at the Nationals—all who were so helpful. Only by standing on your shoulders could we be free to fly. Congratulations to Jason Stephens (who also towed) and Lukas von Atzigen, second and third in Unlimited glider. Well done! And thanks to the United States Air Force Academy Glider Team. As for the power pilots, I stood in awe as I watched them fly.

Come join the team . . .

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PHOTO BY EVAN PEERS, AIRSPACE MEDIA

# What to Expect

## A new person's guide to aerobatic contests

BY GORDON PENNER, MCFI-A

Aerobatics is about personally being the best you can be, about expanding your mental horizons, and about flying at a higher level, which improves safety. We at the International Aerobatic Club believe in recreational aerobatics, which is what 80 percent to 90

asking anybody anything. If pilots need to mentally prepare for the next flight, they will tell you. If they are out on the ramp walking through the sequence, doing what we call “hand-batics” or “the dance,” they are preparing for an upcoming flight.

the categories as descriptors for both airplanes and pilots. They will say that that aircraft is capable of Advanced-level aerobatics, or pilots may say they are capable of Sportsman-level aerobatics.

The aerobatic contests are usually regional-level events. There are six regions in America. The regions are mostly for administration. You can compete in multiple regions in any year.

There is also a national level contest for each country. The U.S. National Aerobatic Championships are held in Texas in September. Then there are the world contests: one for Advanced and one for Unlimited. The Unlimited level World Aerobatic Championships is on the odd-numbered years, and the Advanced level World Aerobatic Championships is on the even years.

The first flight of the three is the Known or Known Compulsory flight, which is the qualification flight. The judges can disqualify a competitor for unsafe flying or for not possessing the ability to get through the sequence of maneuvers on the card. There are also tech inspections of the aircraft at the beginning of the contest to rule out unsafe aircraft. These elements are some of the reasons why contest flying has such an excellent safety record.

The second flight is the Freestyle flight, or Free, where each competitor creates a freestyle sequence within the allowable guidelines. The third flight is the Unknown flight, where the competitors fly

## *Aerobatics is precision flying, not stunt flying.*

percent of pilots want, but contest flying is a fun animal in its own right. It is like Olympic gymnastics, not like an air show. There is no smoke, and there are five grading judges and a chief judge.

There are trophies but no prize money. Contest aerobatics is an amateur event with a nice social component. Pilots compete in the air, not on the ground, so there is no strutting or head games. You can feel comfortable

Each contestant in each of the five categories—Primary, Sportsman, Intermediate, Advanced, and Unlimited—flies three flights in front of the judges. The Primary, Sportsman, and Intermediate Known Compulsory sequences are designed within each country. The Advanced and Unlimited Known Compulsory sequences are the same worldwide.

Even those pilots who only do recreational aerobatics will use



a card that they were given 12 or more hours prior and that they were not allowed to practice.

Since they are just starting out, Primary pilots just fly the Known flight three times, even though the flights are still called the Known, Freestyle, and Unknown. The Sportsman category doesn't fly an Unknown, but they can fly a Freestyle if they elect. The Sportsman pilots can fly the Known three times, or they can fly the Known, the Freestyle, and then the Freestyle again to replace the Unknown.

Contest flying is also about education, and the Freestyle is a great tool for that. Learning the Known Compulsories for each category is obviously an education in and of itself (!), and pilots are not required to move up a category if they are winning, as they are required to do in some sports. Each category has its own set of challenges, but if pilots want to prepare themselves to move up a category, they could put elements in their Freestyle that teach them what they need to know down the road.

Pilots of modest means can stay in a category forever if they so choose and still be challenged and educated. First of all, the Known Compulsory sequences change every year, except for Primary. Pilots can then use the Freestyle to challenge themselves, to learn something new, as well as to show their airplane and their skills in the best possible light.

Continuing the theme of education, aerobatics is really about more than just learning to fly at a higher level. You are learning more about how you learn, you are changing how you see the world, and you are learning more about yourself. The members of the French Connection air show team were fond of telling their students that if they came for aerobatic training and all they learned was how to do the maneuvers, they got gypped!

Any complex task that is men-

tal as well as physical, whether it be aerobatics, gymnastics, ice skating, infantry maneuvers, welding, etc., forces you to not only learn how to physically do the task, but also to constantly upgrade how you picture the task in your mind, and how you picture its "flow." Notice that all the above tasks are technical in nature and also art forms.

If you decided to take aerobatic training (which does not have an FAA checkride attached—just an endorsement), the standard 10-hour course given throughout much of the country would prepare you for the Sportsman level of flying. A five-hour aerobatic course plus a little extra training would prepare you for Primary.

Emergency maneuver training (EMT) courses are targeted toward safety training, meaning mostly spin training, upset recovery training, flight with broken flight controls, and emergency landings. As a believer and promoter of EMT, I have to say that you would need a bit of different, extra training to be prepared for Primary.

The jump from Primary to Sportsman is pretty easy, and some pilots compete just fine in a rented Decathlon in the Sportsman category with a safety (or insurance required) pilot in the back seat.

Check out the YouTube video of the great Bob Hoover pouring a glass of iced tea while rolling upside down. There is such a thing as smooth aerobatics, and you can see the precision with which he flies. While he is rolling, watch the white ball hanging from a string under the drink platform. Not only does he not spill a drop, he stays so coordinated that the white ball hardly moves from side to side. *That is the level we aspire to. We want to be as precise as Bob Hoover, the master of smooth.*

You can also check out the website for the International Aerobatic Club at [www.IAC.org](http://www.IAC.org). You will find aerobatic schools and local chapters listed there.

Enjoy!

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## CONTEST CALENDAR



Mark your calendars for these upcoming contests. For a complete list of contests and **for the most up-to-date 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.

### **2nd Annual "Snowbird Classic" (Southeast)**

**Friday, March 18 – Saturday, March 19, 2016**

Practice/Registration: Wed., March 16 – Thurs., March 17  
Rain/Weather: Sunday, March 20  
Gliders Categories: Sportsman  
Power: Primary through Unlimited  
Location: Marion County Airport, Dunnellon, FL (X35)  
Phone: (352)804-6731  
E-Mail: [n18fw@aol.com](mailto:n18fw@aol.com)

### **Hammerhead Roundup (Southwest)**

**Friday, April 8 – Saturday, April 9, 2016**

Practice/Registration: Thursday, April 7  
Power: Primary through Unlimited  
Location: Borrego Valley Airport (Lo8): Borrego Springs, CA  
Contest Director: Kevin Elizondo  
Primary Phone: (562)577-5776  
E-Mail: [kelizondo1@yahoo.com](mailto:kelizondo1@yahoo.com)  
Website: [www.iac36.org](http://www.iac36.org)

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

**Thursday, May 5 – Saturday, May 7, 2016**

Practice/Registration: Sat., April 30 – Wed., May 4  
Glider Categories: Sportsman through Unlimited  
Power: Primary through Unlimited  
Location: Sebring Regional Airport (SEF): Sebring, FL  
Contest Director: Don Hartmann  
Phone: (561)644-1312  
E-Mail: [donchartmann@yahoo.com](mailto:donchartmann@yahoo.com)

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

**Saturday, May 21 – Sunday, May 22, 2016**

Practice/Registration: Friday, May 20  
Power: Primary through Unlimited  
Location: Sterling Municipal Airport (tentative) (STK): Sterling, CO (tentative)  
Contest Director: Bob Freeman  
Phone: (303)709-6465  
E-Mail: [2bafree.man@gmail.com](mailto:2bafree.man@gmail.com)  
Website: [www.iac12.org](http://www.iac12.org)

### **Coalinga Western Open Championship (Southwest)**

**Friday, June 3 – Saturday, June 4, 2016**

Practice/Registration: Thursday, June 2  
Power: Primary through Unlimited  
Location: New Coalinga (C80): Coalinga, CA  
Contest Director: Tom Myers  
Phone: (650)799-6854  
E-Mail: [tom.myers@stanfordalumni.org](mailto:tom.myers@stanfordalumni.org)  
Website: [www.iac38.org](http://www.iac38.org)

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

**Friday, June 10 – Saturday, June 11, 2016**

Practice/Registration: Thursday, June 9  
Power: Primary through Unlimited  
Location: TBD (NA): TBD  
Contest Director: J. J. Humphreys  
Phone: (940) 564-6673  
E-Mail: [jjhump1@brazosnet.com](mailto:jjhump1@brazosnet.com)  
Website: [www.iac24.org](http://www.iac24.org)

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

**Friday, June 17 – Saturday, June 18, 2016**

Practice/Registration: Thursday, June 16  
Power: Primary through Unlimited  
Location: Bellefontaine Regional Airport (KEDJ) OH  
Contest Director: Samuel Weaver  
Phone: (937) 681-2680  
E-Mail: [piperj3cub46@gmail.com](mailto:piperj3cub46@gmail.com)  
Website: <http://www.iac34.eaachapter.org/>

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

**Saturday, July 9 – Sunday, July 10, 2016**

Practice/Registration: Wednesday, July 8  
Power: Primary through Unlimited  
Location: Bay City James Clements Municipal Airport (3CM), Bay City, MI  
Contest Director: Brian Roodvoets  
Phone: (810) 338-7654  
E-Mail: [redfoot@chartermi.net](mailto:redfoot@chartermi.net)  
Website: [iac88.eaachapter.org](http://iac88.eaachapter.org)

### **The Corvallis Corkscrew (Northwest)**

**Friday, July 15 – Saturday, July 16, 2016**

Practice/Registration: Thursday, July 14  
Power: Primary through Unlimited  
Location: Corvallis Municipal Airport (CVO): Corvallis, OR  
Contest Director: Jim Bourke  
Phone: (541)231-6077  
E-Mail: [jtbourke@gmail.com](mailto:jtbourke@gmail.com)  
Website: <http://www.iac77.com/>

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

**Friday, July 15 – Sunday, July 17, 2016**

Practice/Registration: Monday, January 4 – Friday, July 15  
Glider Categories: Sportsman through Unlimited  
Power: Primary through Unlimited  
Location: Hartness State Airport, (VSF): Springfield, VT  
Contest Director: Bill Gordon  
Phone: (802)585-0366  
E-Mail: [wsgordon@earthlink.net](mailto:wsgordon@earthlink.net)  
Website: [IAC35.aerobaticsweb.org](http://IAC35.aerobaticsweb.org)

### **Doug Youst Challenge (Mid-America)**

**Friday, August 12 – Sunday, August 14, 2016**

Power: Primary through Unlimited  
Location: Spencer Municipal (KSPW): Spencer, IA  
Contest Director: Justin Hickson  
Phone: (651)338-3345  
E-Mail: [jhisbatman@yahoo.com](mailto:jhisbatman@yahoo.com)  
Website: [www.iac78.org](http://www.iac78.org)

### **Beaver State Regional Contest (Northwest)**

**Friday, August 12 – Saturday, August 13, 2016**

Practice/Registration: Wed., August 10 – Thurs., August 11  
Glider Categories: Sportsman through Unlimited  
Power: Primary through Unlimited  
Location: Pendleton Regional Airport (PDT): Pendleton, OR  
Contest Director: Sean VanHatten  
Primary Phone: (541)480-7456  
Alternate Phone: (541)480-7456  
E-Mail: [seanvanhatten@gmail.com](mailto:seanvanhatten@gmail.com)  
Website: [www.iac77.com](http://www.iac77.com)



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## BRILLIANCE AND BUFFOONERY

BY BETH STANTON

[bethstanton@gmail.com](mailto:bethstanton@gmail.com)

# Unexpected Inspiration

## Simple acts, profound impacts

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—Ralph Waldo Emerson

### August 2013

Rubi Vazquez from Durango, Mexico, visits her uncle in Delano, California, each summer. The Chapter 26 *Happiness Is Delano* contest takes place on Labor Day weekend. Rubi and a friend came to check out the contest and were standing off to the side of the FBO. Noticing them, I went over and introduced myself. As we chatted about how an aerobatic contest works, she could not take her eyes off the planes on the ramp. I asked her if she ever wanted to learn to fly. She nodded an enthusiastic "yes," but shyly noted that her English was not the best and that training seemed really expensive. As a pilot of just two years myself, I was still marveling at the fact that I had actually accomplished this. I declared, "If I can do it, *you* can do it."

### August 2014

This year, the Delano contest was host to the U.S. Open West Championships. I found myself in first place in the Sportsman category going into the final flight; it was mine to win or lose. Deep in "the zone," I walked toward the plane to saddle up. A young woman approached me, said "Hello, Beth," and asked if I remembered her. Startled out of my acro trance, I drew a momentary blank. She prompted, "I'm Rubi, from last year." Reaching into her purse, she proudly pulled out a newly minted pilot certificate. Recollection flooded back. "I kept remembering what you told me, 'If I can do it, *you* can do it,'" she said. My throat got tight as I stared at the plastic card in her hand. It was overwhelming. You never know how an inadvertent word can be that tiny bit of encouragement that tips the scales.

After hugs and exclamations of jubilation, I had to quickly shift gears and get in the plane and fly. In those flurried moments, we arranged to get her out to the judges line to watch the remainder of the contest. As I taxied to the run-up area, I had a huge smile on my face. The plane seemed to spring off the runway with extra lift on takeoff. Flying that sequence was pure joy. When I accepted my first place trophy that evening, I whispered a silent *gracias* to courageous Rubi who dared to make her dream come

true. I promised to take her on an aerobatic flight. We couldn't arrange it before she had to go back to Mexico, but we vowed to make it happen next year.

### August 2015

Rubi and I exchanged e-mails as the Delano contest approached. By now, she had also earned her U.S. pilot certificate and was getting time in the right seat of a C-208 and AC95 with some professional pilot friends. She wanted to volunteer however she could for the contest weekend. At the first briefing, I introduced her to the group. Many people remembered her from last year, and she was warmly welcomed. She spent the entire contest on the judges line, working as a runner and recorder. She had invited some local friends to the contest. One was a young woman inspired by Rubi who was considering flight lessons. Her friends came out to the judges line, and Rubi, by now a pro, held a flimsy to the sky and explained the Aresti figures to them as the pilots flew their sequences.



Mike and Kathleen brief Rubi.

Bill Wharton and Mike Hartenstein approached me and offered to take Rubi for an aerobatic flight after the contest concluded. She and I were scheduled to fly the following morning, and I asked her if she'd like to go up both days. Her answer (predictably) was a resounding "Yes!" Bill Wharton laughed, "If she has the chance for her first aerobatic flight in an Extra rather than my Super Decathlon, she should go for it!"

After three long days in the hot sun, with everyone





Kathleen helping Rubi into her parachute.



Rubi and Beth after flying Super D.



It looks like she liked it.

eager to get back to the hotel to rest and clean up before the banquet, Mike Hartenstein and Kathleen Howell stayed on and gave Rubi the gift of a flight in their airplane. Mike briefed her, and Kathleen helped her into her parachute and belted her into the front seat. As I watched them blast off in the Extra, I suddenly remembered that my first acro flight was in an Extra. I wondered if this flight would have the same effect on her. The look on her face when the prop stopped and the canopy opened was pure glee.

The next morning was acro flight No. 2 in two days for Rubi. We were flying Dave Watson's Super Decathlon, and Rubi was in the back seat today. I explained that this plane was going to feel quite a bit different from the Extra. She was giddy with excitement and told me that she really wanted to do a hammerhead. On the way to the practice area, she flew the plane from the back seat and did some turns to get a feel for the controls. We started acro off easy with gentle loops and rolls. We next did a spin and saved the hammerhead for last. She loved aerobatics and is now interested in emergency maneuver and aerobatic training. It was a great honor of my life when Rubi told me, "Thank you for showing me the world of aerobatics and to see what women can do."

Rubi resolved to become a pilot after she began studying math in college but did not feel passionate about it. She decided to do what she really wanted: to fly. She started flight school in January 2014 in Guadalajara, Jalisco, Mexico, and was the only female in her class. She finished five months later. Rubi's future goals are to get her FAA commercial, then Mexican license. She envisions flying in the executive sector within the next few years. "For me, the best part of flying is how we can connect the world." She has decided that with practice and dedication she can do anything. "I've always believed that people should do the things they love."

## The Girls in Juvenile

*"Tell me, what is it you plan to do with your one wild and precious life?"—Mary Oliver*

This was really jail. I was buzzed in and walked though an unattended metal detector. I found myself alone in a cavernous room filled with a hundred plastic chairs bolted to the floor. The misery and drama steeped into the shabby furniture was palpable. My host Marian had not yet arrived. Marian is a client of mine who volunteers each week at Modesto Juvenile Hall. I had given a presentation to her Rotary Club, speaking of my pilot adventures, and she had asked if I'd come talk to the girls. If you are incarcerated in this facility, you have committed a felony. I wondered what kind of felony a young girl age 12-18 could commit.

## Nothing went according to plan. As I started to show photos and video, they barraged me with questions.

"They are so excited to meet you," Marian said. "They've never met a pilot before." I had brought my laptop and speaker to show aerobatic video. At the last minute, I thought it would be fun to bring along a parachute, headset, captain's hat, sectional charts, compasses, and other pilot paraphernalia for show and tell. As I passed through multiple locked doors with my gear, the guard warned that each item brought into the unit, every pen and paperclip, must be accounted for upon departure. If something were missing, the unit would go into lockdown and all inmates searched. "Everyone will be really mad at you if that happens," she stated ominously. I quickly re-evaluated what I would bring in and left the rest outside in a locker.

The girls were gathered in a recreational room. They already had a projector, but had procured a screen just so I could show my video. As I unpacked my gear, noting very carefully what I was taking out, I watched the girls watching me. They would look at me shyly and then smile back when I smiled at them. For lack of a better description, they seemed, well

... sweet. Two girls were fussing like mother hens over the projector and my laptop, taking very studious care setting it up. When I went over to check on the progress, one of them blurted out, "Aren't you scared?" Astonished, I exclaimed, "No, why?" "Because we are locked up!" she retorted. I laughed and said, "Whatever." They grinned at me.

Nothing went according to plan. As I started to show photos and video, they barraged me with questions. I abandoned that plan and tried to herd the conversation. We jumped topics with each question. In particular, the parachute fascinated them. One of the girls had her eyes glued on it and kept asking about sky diving. Apparently, show-and-tell time had arrived. I invited her up to try on the parachute. She leapt from her seat, belted it on, and jumped around the room. Now they all wanted to try it on, even the painfully withdrawn girls who just a few minutes ago had their eyes cast to the floor. They also loved the headset. After donning it and hearing the silence, one girl exclaimed, "It's so quiet, I can't hear anything. We need these for in here!" The toy captain's hat I received as a Christmas gift soon after I got my pilot certificate made the rounds. Seeing it perched proudly upon their heads, with ponytails pulled through the back strap, left me strangely touched.

Marian is a talented graphic artist and had made up some rock-star autograph cards with my photo for me to sign for the girls. They approached the table and gave me their names. A petite girl with dark eyes said: "Rodriguez." Startled, I looked up. "We use our last names in here," she replied. Another asked, "Could you make mine out to my son instead of me?" A vision flashed before me of a young mother's sacrifice, wanting to give first to her child. "I'll make one for each of you," I declared. "*Jonathan, your mom rocks.*" I wrote. Her eyes filled with tears as I handed her the two cards. "Thank you," she said. Such a simple act, such profound impact.

I told them Rubi's tale, about how she had found the confidence to get her pilot certificate after some fleeting words of encouragement. They were excited to hear her success story. Wise, young Jackie gazed at me and stated, "Flying changed everything, didn't it? You have a smile about you. I'd think I'd like to fly." Spending this evening with these young ladies was a singularly remarkable event in my life. Somehow, somewhere, in the course of an hour, it all got turned around. They inspired *me*.

As pilots, we possess a dream skill. In our own way, let's encourage, spur, and enthuse whomever, whenever, and wherever we can. You never know where that tiny spark may land and the great blaze it may ignite.

*"Our brightest blazes are sometimes kindled by unexpected sparks."—Samuel Johnson*

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## MEET A MEMBER

BY GARY DEBAUN IAC #4145



### Chris Masi

IAC#: 437700

OCCUPATION: Air Force Academy cadet

CHAPTER AFFILIATION: U.S. Air Force,  
Chapter 24

AGE: 19

#### GD: Let's start with the standard first question: How did you become involved in aerobatics?

CM: Since my visit to the academy during my junior year of high school, I learned about the United States Air Force Academy's Aerobatic Demonstration Team and was instantly enticed. During my four-year degree, I along with over 90 percent of my class, was provided the opportunity to receive four introductory flights in the TG-16, where one flight consisted of advanced maneuvering (loops, chandelles, clovers, and lazy-eights), in a program dubbed Airmanship 250. This program's goal is to motivate four-degrees to continue and pursue excellence in airmanship. The agility of the aircraft, paired with the leadership, attitude, and respect for my instructor, motivated me even more so to seek out further opportunities at the 94th FTS. Following a program called Airmanship 251 in the summer, where students are given three weeks and 14 flights to solo the glider, I was selected to upgrade as an instructor pilot for the 94th FTS. Throughout soaring upgrade, my goals were to assist my classmates and become the best instructor pilot I could. In March of my upgrade year, I was given the amazing opportunity to be a part of the Aerobatic Demonstration Team. The initial upgrade flights for the aerobatic team were the first aerobatics I have flown.

#### GD: What caused you to choose the Air Force over the other branches of service?

CM: The Air Force appealed to me for multiple reasons. First, the Air Force always presented itself as a family-friendly environment, where airmen take care of airmen, and families take care of families. Furthermore, my desire to fly and defend the United States and what it represents in the greatest Air Force the world has ever known drove me to apply to the United States Air Force Academy and put forth my best efforts while attending.

#### GD: Do you plan to make the Air Force a career?

CM: This question seems to be common amongst my family and friends, and it seems like my answer never satisfies. First, what the future has in store is uncertain, but I would appreciate the opportunity to serve in the Air Force as long as I can. If it is up to me, I plan on staying in the Air Force as long as I enjoy it and as long as I can make a positive impact.

#### GD: Do you have any specific goals you would like to accomplish during your time at the Air Force Academy?

CM: While at the Air Force Academy, my goals revolve around the impact and inspiration I can project on others. Overcoming adversity and always putting forth even more than my best efforts define my intentions. This concerns my academics, military aptitude, physical standards, and my airfield duties.

#### GD: When and where did you fly your first aerobatic contest?

CM: My first aerobatic contest was the Ben Lowell Aerial Confrontation, hosted at the Air Force Academy. During this competition, I flew in the Primary category just one month after being qualified to fly aerobatics in the TG-16A, the Air Force equivalent of the DG-1001.

#### GD: Have you done any powered aerobatics yet, or is all of your experience in gliders?

CM: Since upgrading to aerobatics, I have not had the opportunity to participate in any powered aerobatics. However, my interest in aerobatics does extend beyond gliders, and I look forward to flying powered aerobatics some day in the future.

#### GD: How many different aerobatic gliders have you flown?

CM: The Air Force Academy owns a fleet of TG-



16A aircraft: 14 utility aircraft for student training and five aerobatic variants. These five TG-16As have been the only aerobatic glider experience I have had thus far.

**GD: Do you have any specific goals you would like to accomplish in glider aerobatics?**

CM: Being a part of an institution and an armed service greater than just myself, I look to do better than my best and be the best teammate for my fellow airmen. We are all in this together, and our bond, goals, and service extend far beyond aerobatic competitions in gliders.

**GD: What was your experience at the 2015 U.S. National Aerobatic Championships?**

CM: The pace, intensity, and competition that the 2015 National Aerobatic Championships brought to Sherman, Texas, was intoxicating. Being surrounded by individuals and teams who embodied a passion for flying just as I do added a factor of excitement. Furthermore, it was a great learning experience as our team sought out the advice of experienced aerobatic pilots. My fondest memory of this past year's National Aerobatic Championships was watching the 4-Minute Frees with my teammates, witnessing the odd mixture of beauty and intensity that defines this unique sport.

**GD: Do you have any other interests other than flying?**

CM: Flying is my passion, and nothing makes me more grateful than to have the opportunity to be in the air. The opportunity to also mentor and teach those how to fly has been the most rewarding experience I have had at the United States Air Force Academy. When I am not in the air, I am further interested in travel and helping others through volunteer opportunities or personal opportunities. Being raised in Connecticut, I also love playing and watching hockey as well as many other sports. Lastly, nothing can beat the very valuable and limited time that I get to enjoy with my family and friends.

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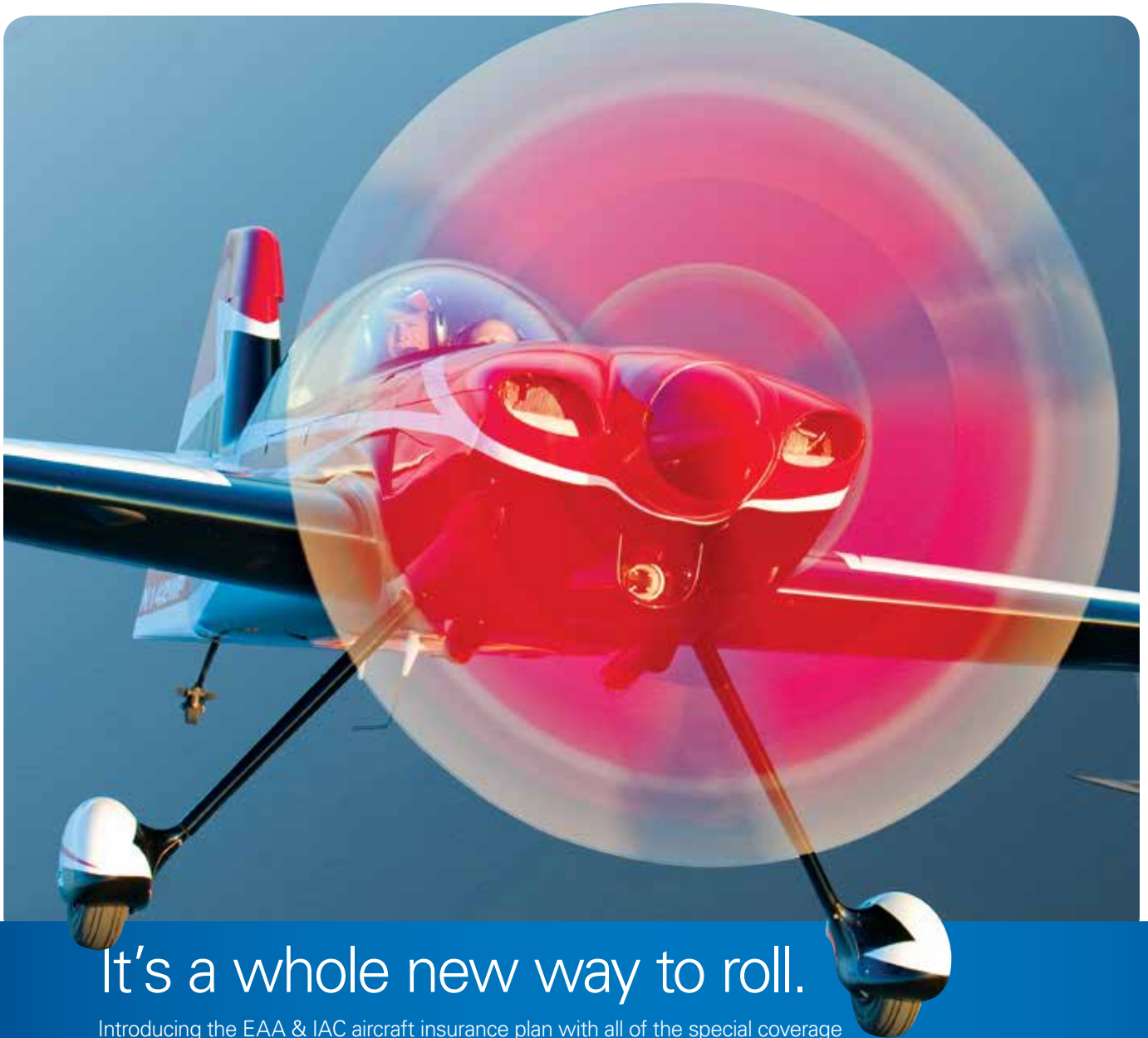


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