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SPORT *Aerobatics*

OFFICIAL MAGAZINE OF THE INTERNATIONAL AEROBATIC CLUB



Can RVs Contend in the IAC?

- Primary Smooth Award:
Judgement Day
- A Roll is a Roll
- Flying My First Contest



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A group of RVs in formation. Photo by EAA photographer Jim Koepnick.

SPORT Aerobatics

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Suzanne Chance

LETTER from the EDITOR

by Suzanne Chance

Remembering my introduction to aerobatics

Flying has always been on my Life List of Things To Do. Before I signed on to my first position as an aviation writer, I insisted that I learn to fly. It seemed sensible to me to learn about the subject on which I would write.

In my first lesson, my instructor had me do basic turns, etc., and then asked if I wanted to watch him float a pencil. I enthusiastically said yes. It was so much fun that I asked for more. Too quickly, the lesson was over. But the aerobic bug had bitten.

The next lesson introduced me to power-on stalls. When it was my turn, and I had the nose high and the stall horn blaring, he said, "Now be careful. Don't push in the left rudder, or you could put us into a spin." My face lit up with a huge grin. "Spin? You can *spin* this thing?" He sighed. "Oh, dear. A sick puppy. Fine. I'll show you a spin." I was impressed, and wanted to try it, but lesson time was over once again.

The third time was the charm. He let me try a spin, and I was totally hooked. He told me that if I wanted to fly aerobatics, I needed to find an aerobatic instructor with an aerobatic plane. (I think he was tired of me making the Cessna 172R's gyros tipsy.) So while I worked on my private, every chance I could, I ran up to Jeffco Airport (now Rocky Mountain Metropolitan) to "play" in a Pitts S-2B.

Eventually, when I felt stressed at work, I'd call my aerobatics CFI and book some time for the weekend. Frequently, he heard me say, "I just need to blow out some cobwebs." My intent wasn't to learn for competition, but for pleasure. It was the only time I would belly laugh.

Long before, I was a volunteer

emergency medical technician and firefighter, so "safety first" had been beaten into my brain for 12 years. Every time my aerobatics CFI would suggest a beginning altitude for a maneuver, I would bump it up 500 feet. That meant I started accelerated cross-controlled spins at 9,500 mean sea level (ground was at 6,000 MSL). I just wanted that extra margin of comfort, despite knowing I had a superb instructor behind me in the Pitts.

Now I am interested in competing locally, but I have one problem. I have come down with AIPS: Aviation Induced Poverty Syndrome. Sadly, I've met many pilots with the same disease. But we all seem to find ways to continue to fly.

I have much to learn, and I'd like you to consider sharing your skills, experiences (the proud and the scary), and your passion for aerobatics by writing stories. There are many of us who came from recreational aerobatics who need to learn. I've never met a truly good pilot who did not think he/she could learn more.

As far as the dreaded "editor" title: I am not your high school English teacher. I promise not to rap your knuckles with a ruler. You're the experts. I'm just here to help with the wordsmithing, and maybe point out areas that I'd like you to expand on.

There are many skills and stories that the rest of us would enjoy and benefit from. If you've got something to share, drop me a line at iaceditor@gmail.com. Too often I have heard pilots say, "I can't write," only to discover that they are marvelous storytellers. And I promise to have your back the whole way.

I'm new, and this issue seems to be about beginnings. Enjoy!

PRESIDENT'S PAGE

by Vicki Cruse • IAC 22968
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A Secret to Success

Learning from those who already are in the know

A recent article in popular magazine introduced an interesting concept that could be applied to aerobatics, and virtually any area of your life. The premise of the article was how people make successful changes in their lives. There were actually three methods for reforming your life, but with limited space for this column, you are getting only one.

The article interviewed Alan Deutschman, the author of *Change or Die: The Three Keys to Change at Work and in Life*. Deutschman was quoted in the article saying, "Look for people who intrigue you and make you say, 'I'd like to be like him or her, how does that work?' Then form that relationship and learn from it. So often we think that change is impossible, that people don't change, that we can't change. But you can't argue with a living, breathing person in front of you who has done it, and modeling yourself on them is the best way to do the same."

The message to me was that if you wish to change something in your life, or get better at something, surround yourself with people who do what you want to do and learn from them. We do that to a certain extent in many facets of our lives, by the friends we have and the hobbies we pursue. For instance, Sportsman pilots learn by watching other Sportsman pilots and higher category pilots. I remember talking to Kirby Chambliss and Diane Hakala at one of the first contests I attended and discovering

the "acro gods" (as I perceived them) were more approachable and helpful than I expected. Want to learn to ski better? Then ski with people who are better than you. Want to get better at skeet shooting? Shoot skeet with people who are better than you. It gives you an opportunity to not only practice, but also learn from those around you.

*If you wish to get
better at something,
surround yourself
with people and
learn from them.*

As a Sportsman pilot, I was invited to a training camp with John and Linda Morrissey as an observer, not a flying participant. This opportunity was worth its weight in gold at the time. I was surrounded by pilots, all much better than I was, and I had the opportunity to see each of them fly and be coached by John and Linda. I learned a tremendous amount by watching and listening.

On a larger scale, think about EAA AirVenture Oshkosh—the largest general aviation gathering on the planet.

This is the one place you can go and be surrounded by thousands of people who share your interest. More importantly, here you are given the opportunity to learn about *anything* aviation. Think you want to get into warbirds? Just walk over to the warbird area, seek out an owner, and start talking about your dream. Looking for a new GPS? You've got four huge exhibit buildings to scope out where you can see demos of the unit you're considering.

If you want to explore a new area in your life, be it aerobatics or any activity, you have to surround yourself with people who already do what you want to do. Use this opportunity to learn and expand your knowledge base to determine if this is something that is really for you. We do this all the time with the people we socialize with and the activities we are involved with, but you can always take it a step further by seeking out the folks you admire who have taken their interest to the next level. Ask them how they did it.

So for those looking to expand their flight envelope to include stall/spin and unusual attitude training, here is your motivation. Seek out a flight school that teaches this curriculum and go ask questions. For those looking to improve their competitive flying, attend a contest and volunteer to work a category higher than yours. Ask questions, listen, and learn. Whatever your desire, go do it. Life is too short not to enjoy it to the fullest. ☺

NEWSBRIEFS

Former U.S. National Champion Conquers Red Bull Detroit



Christian Pondella

A qualifier performs at the Red Bull Air Race in Detroit on the course that twice crosses the international border between the United States and Canada. The 12 best pilots race ahead of 750,000 spectators through the 3.8-mile long course over the Detroit River at speeds of up to 230 mph while enduring forces of up to 10g.

After a disappointing "wind-out" that grounded pilots on Saturday May 31, 2008 five-time U.S. National Aerobatic Champion Kirby Chambliss, EAA 261512, of Flying Crown Ranch, Arizona, scored a thrilling first-place finish during the Red Bull Air Race's first visit to Detroit, Michigan/Windsor, Ontario, Canada. A crowd estimated at 750,000 turned out to watch the high-performance flying and aerobatic competition from both sides of the Detroit River. Saturday's scheduled qualifying races for the 12 competitors had to be canceled due to sustained high winds. The race's ground crews, dubbed the "air gators," struggled to inflate the 15 inflatable, high-tech fabric race pylons mounted on barges moored in the river. At one point, a gust that peaked at 59 mph was clocked just prior to the toppling of one of the 65-foot-tall pylons.

Sunday's weather proved to be superb, allowing the race organizers to start the day with a single run of qualifying, then jumping directly into the semifinals. A total of 16 race runs were made, and when it was over,

Chambliss posted the winning time of 1:12.08 in his Edge 540, with Paul Bonhomme of Great Britain only 0.15 second behind in his Edge 540 (1:12.23). Sophomore pilot Arch Hannes of Austria (Edge 540) placed third with a time of 1:12.73. American Mike Mangold, EAA 308276, (Edge 540) posted the best overall time, but was assessed a three-second penalty for flying at an excessive knife-edge angle through the "Quadro" gate. This was the second of two U.S. stops for the 10-event series. For more information on the Red Bull Air Races, visit www.RedBullAirRace.com and www.YouTube.com/redbullairrace.



H.G. Frautschy

Lightspeed Aviation to Sponsor 2008 IAC Regional Series

Lightspeed Aviation of Lake Oswego, Oregon, has agreed to sponsor the trophies for the 2008 IAC Regional Series. Based on results of a survey sent to last year's pilots who competed in the regional series between 2003 and 1997, the International Aerobatic Club (IAC) has decided to open the regional series to all IAC competitors without a fee to participate. Series results will be tabulated based on contest participation, as specified in the existing rules. A competitor's placement in the series will be updated after each chapter submits the contest results to IAC headquarters. Registration will not be required to participate. IAC would like to thank Lightspeed Aviation for its sponsorship of the 72 regional series trophies. For more information on the series, including regions and rules, please see www.IAC.org/calendar/regional_series_information.html. For series results, log into the IAC members-only site at <http://Members.IAC.org> and choose Contest Results - Regional Series.



IAC Well Represented at the National Air and Space Museum's Fly-in

Dane Penland, National Air & Space Museum, Smithsonian Institution



IAC member Bob Curran represented the IAC at the prestigious fly-in at the National Air and Space Museum's Udvar-Hazy Center, which he described as a complete success

in spite of some threatening weather that rolled in during the late afternoon. "Many kids stopped by to see my airplane and get their photos taken with it, and several pilot parents listened to me explain the

safety benefits of even basic aerobatics training," Curran said. "Several took IAC brochures and a list of aerobatic schools with them. The most fun, though, was talking to the kids and encouraging them to follow their dreams of becoming a pilot." This event, held every June at the museum's Steven F. Udvar-Hazy Center in Chantilly, Virginia, near Washington Dulles International Airport, featured educational activities and an outdoor aviation display with dozens of visiting vintage, recreational, military, and homebuilt aircraft. Visitors talked to pilots and found out what skills are needed to fly. Inside the center, visitors tested their piloting skills in flight simulators, met model airplane experts, and heard a variety of guest speakers. The event always is free and open to the public.

Rich Stowell Debuts New Aviation Blog

Master Instructor-Aerobatics Rich Stowell recently launched a new aviation blog entitled *I, Pilot*. The blog chronicles Stowell's career as a pilot and flight instructor—a career that has thus far taken him all over the United States as well as to Canada, Japan, and Indonesia. Perhaps best known as an expert in spin and emergency maneuver training techniques, Stowell earned his private pilot certificate in 1984 and began instructing in 1987. He has given 7,400 hours of flight instruction since, logging nearly 30,000 spin entries with trainees along the way.

According to Stowell, "I've interacted with pilots from

all over the world—different cultures, different languages, different backgrounds. But the common bond has always been a passion for airplanes and a desire to learn more about flying. That's why I've sub-titled the blog Aviators Sharing Aviation." Stowell hopes to convey that passion in his posts.

For more information, visit www.RichStowell.com/blog.





"Two Design" Competition

CAN RVS CONTEND IN THE IAC?

Jeff Stoltenberg, Vice President of IAC Chapter 25

Right now, the International Aerobatic Club is facing the same problem as most pilot organizations: a continued reduction in membership. With gas prices continuing to climb and the economy stalling, the situation might not improve in the near future. This problem has been discussed at our local IAC Chapter 25 meetings as well as within the entire organization. How can we grow and maintain our sport in these difficult times?

One of the fastest-growing segments of aviation is experimental aircraft, which continues to expand at a steady rate. Much of this growth can be attributed to Van's Aircraft's RVs. There are now 5,700 RVs in use around the world. They are valued for their safety, engineering, and performance. They do many things well. RVs have great short takeoff and landing performance. They are able to get in and out of relatively short grass strips and are fast and economical. They make great formation platforms, having set a new world record for the greatest number of civilian aircraft in formation last year. They are also noted for their basic aerobatic performance. Indeed, many kits are completed with inverted oil and fuel systems to take advantage of these capabilities.

For these reasons, the IAC needs to reach out to this new and relatively untapped group of potential RV aerobatic pilots. It is time to invite them to participate in our beloved sport.

One of the potential barriers to the use of RVs in IAC competition is the standard inclusion of a spin in the Known sequence of the Primary category. Having heard that "you are not supposed to spin an RV," I e-mailed Van's Aircraft directly. Company President Tom Green gave me the official word on RV-6s and RV-7s: "Van's Aircraft recommends against intentional spins." As for the other RV designs, "The company's stand on the tandem planes is more in tune with the public's perception: i.e., they are spinnable, but within certain CG and weight limitations as set forth in the various construction manuals. The FAA requires the builder to define the allowable activities that each aircraft is 'approved' for, and those limitations must be included in the logs for the aircraft. So if you are looking for a plane that you want for aerobatics, then be sure and look at the builder-included limitations for Phase II flight."

The thinking behind this statement may have to do with the liability risks for Van's. These planes can certainly spin safely, but with their slick, recessed, riveted skin, they will build up speed quickly when pointed earthward. An inexperienced pilot could certainly reach

How can we grow and maintain our sport in these difficult times?

never exceed speed (V_{NE}) before he was ready to pull out of the maneuver.

Several years ago, IAC Chapter 25 wanted to develop a way to introduce new aerobatic pilots to competition while leveling the performance field among its active members. The "One Design" competition was introduced about 14 years ago. Primary was flown in the Aerobat, and Sportsman was flown in the Decathlon. This continued for about seven years. It was really a two-category competition with one design per category. More recently it evolved into a true "One Design" in which the entire contest, both Primary and Sportsman, was flown in a Super Decathlon. Harvey & Rihn Aviation makes its Decathlon available for rental use, including parachutes and safety pilots. Any other chapter members with Citabrias or Decathlons could also bring their aircraft. The competition was typically a one-day event flying both Primary and Sportsman. It was great for entry-level aerobatic pilots and also removed the performance advantages of other aircraft. Experienced upper-level competitors had often gone many years since flying the basic Decathlon. This has been a popular event over the years, with new members joining the chapter after this gentle and fun introduction to competition.

Last winter, at the yearly planning meeting for IAC



Jim Doyle

Linda Street-Ely (Third Place), Jim Doyle (First Place), and Jerod Flohr (Second) in Primary with Harvey & Rihn's Super Decathlon.

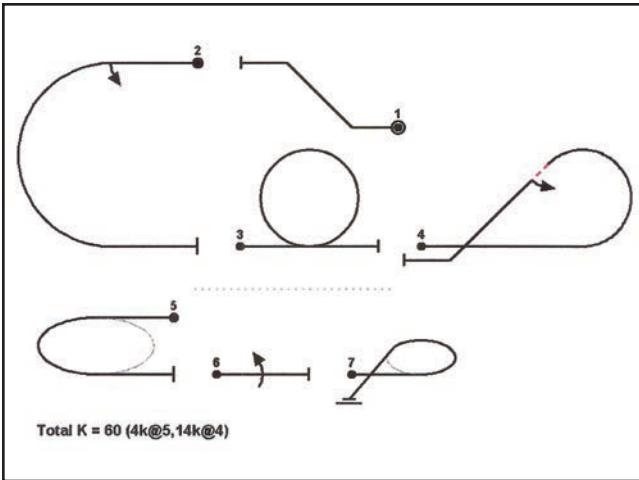
Chapter 25, a discussion developed about attracting new members. The "One Design" contest was once again recommended. After further discussion, members proposed expanding the contest to include RV pilots in a "Two Design" competition. This would include a separate RV Primary sequence without the spin. Safety pilots and parachutes would be available for the competition.

Over the next few months, an RV Primary sequence was developed that was as similar to the Primary sequence as possible, with the same "K" value. The goal was to have an equally challenging but safe sequence for RV pilots new to competition.



Jim Doyle

Jim and his RV-4.



The new RV sequence, with an emphasis on safety.

Chapter 25 approved the “Two Design” contest and advertised it on its usual sites as well as on RV websites. The first-ever “Two Design” was held at Giddings, Texas, on May 17. A total of 20 competitors flew, with most pilots flying the Super Decathlon.

Nine of the 20 pilots in the competition flew in their first IAC contest, and several said it was their first flight in a Decathlon. Three RVs competed—an RV-4 and RV-6 in Sportsman and an RV-8 in Primary. Other RV pilots were there to cheer them on and evaluate the process.

The competition was successful. Luis Luciani flew his RV-8 in the first RV Primary sequence. Luis had been practicing prior to the event and had received some ground instruction but no critiquing prior to his flight. His performance was excellent, impressing all of the pilots in attendance. Luis scored an overall 73.3 percent.

The two RV pilots who flew in Sportsman also did



Jeff Stoltzenberg

Bryan Butler in Lynne's RV-6.

well. This was the normal Sportsman Known sequence with a spin.

Jim Pohoski narrowly missed the top three places, scoring a 77.7 percent, just 0.24 percent shy of third. He came in fourth and received the top First Time Sportsman Trophy. Bryan Butler, flying in my wife's RV-6 (with no

An RV Primary category is not only possible but functional.

Jim Doyle



Son and father: Wesley and Jeff Perkins at their first competition.

inverted system), also flew well. Since this was Bryan's first time flying the RV-6 in aerobatics, he zeroed one maneuver, which took him out of serious contention.

The number of RV competitors was not as high as we had hoped. Unknown to us, two other major RV events in Texas were scheduled for that same day. Despite this, the competition definitely proved that RVs can fly in IAC competition. Both Jim Doyle and Bryan Butler are experienced aerobatic pilots, and they showed that an RV can compete in Sportsman if flown within the appropriate airspeed and G-load envelope. Our new RV Primary category was also a success, with Luciani easily demonstrating the capabilities of his RV-8. His score of 73.3 percent would have placed him first in the overall Primary category.

In the last few years, there has been a debate in the IAC about removing the Primary category. I have been against this idea. I have safety-piloted several pilots at their first competition in this category and have seen the benefits of this entry-level choice. Having shown that an RV Primary category is not only possible but functional, I recommend that we add this sequence to the Primary category with a “no-spin” sequence option with the same “K” value. I hope this will encourage more pilots to join us in our favorite pastime and help increase interest in the IAC. Fly safely. 

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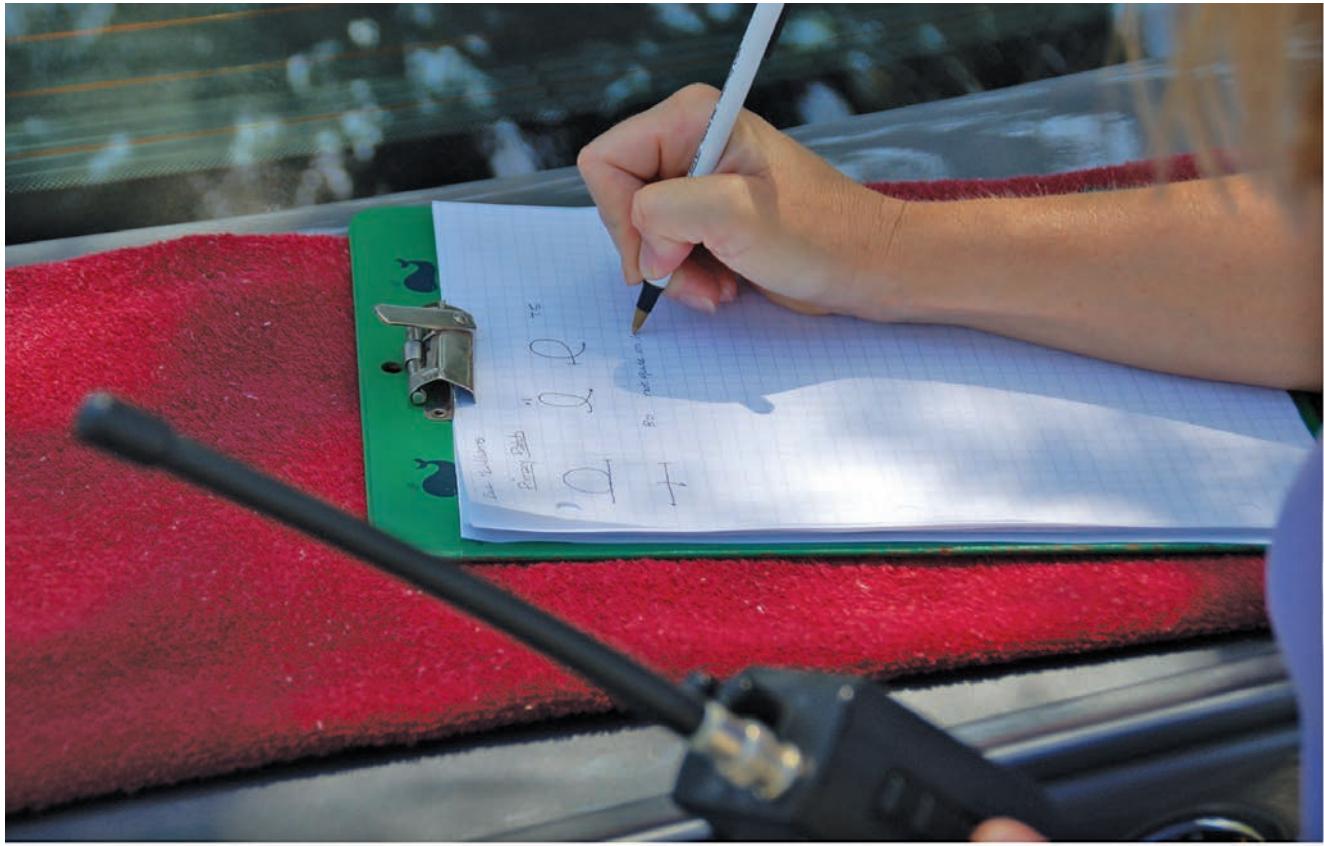
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Pitts



Rich Stowell, MCFI-A

You read the success stories of six typical pilots in the first part of this miniseries. Duly inspired, you've been perfecting the turn, spin, loop, and slow roll detailed in the previous two installments. Now it's time to test yourself, to see where you are in your growth as an aerobatic pilot. It's time to fly before an International Aerobatic Club (IAC) judge!



Scoring a maneuver.

A little nervousness at this stage is not at all uncommon. Realize, however, that the tone of the Achievement Awards program is one of encouragement. Realize, too, that others are rooting for you—your aerobatic instructor wants you to succeed; the judge wants you to succeed; IAC wants you to succeed. Although the maneuvers are graded to competition standards, you are not in a competitive environment here. The minimum score to qualify for the Smooth Award is a five out of a possible 10 on each maneuver. The scores will tell you where you stand and where you can improve, yet the items of recognition you receive—certificate, pin, decal, patch—look and feel no different from anyone else's. You also have a fair amount of control over the process. For example, you can complete the requirements on one flight, or spread the maneuvers out over multiple flights if necessary.

Strategy

It's never too early to strategize in aerobatics. And strategy begins during preflight planning. You can choose the order in which you'll fly the maneuvers, for instance, so go ahead and rearrange the list from least difficult to most difficult. In this case, start with the 270-degree turn: It's relatively simple to execute, it's a great way to dissipate any jitters or excess adrenaline before tackling the other three maneuvers, and it's a quick way to get that first qualifying score on paper. These attributes will give you a nice boost of confidence heading into the remaining maneuvers.

The order you come up with might look something like this: turn, spin, roll, loop. Perform the maneuvers indi-

Award Flight Checklist

Before meeting with the judge:

*Prepare application paperwork
Check weather and wind
Preflight airplane and parachutel(s)*

Coordinate with the judge:

*Airspace
Altitudes (and altimeter setting)
Radio frequencies
Order and direction of maneuvers
Traffic/emergency breaks*

Post-flight:

*Review judge's critique
Complete application paperwork
Photocopy application for your records
Mail original application & check to IAC
Celebrate responsibly*

"Judge-Speak"

In addition to scoring your maneuvers, many judges will also provide a critique of what they saw. The language used, however, may take some getting used to.

Spinning:

Forced entry—The spin was initiated prior to the nose-down stall break; consequently, the nose of the airplane pitched up when rudder and elevator inputs were applied.

Positive down—The downline after the spin was short of the vertical.

Negative down—The downline after the spin was beyond the vertical.

Looping:

Pinched—Insufficient float across the apex of the loop.

Out high or e-shaped—The exit altitude was higher than the entry altitude, typically caused by rushing through the second half of the loop (i.e., too much pull too soon).

Segmented—Pitch changes made during the loop were too sudden; consequently, the smooth arc of the loop was interrupted with straight segments or hesitations.

Slow Rolling:

Barreled—The corrective elevator and rudder inputs applied during the roll were out of whack: either too strong, too weak, or mistimed. As a result, the airplane deviated noticeably from the horizontal line it was tracking. Barreling is easy to spot from the ground by watching the motion of the tail of the airplane during the roll.

Dished out—In the second half of the roll, the airplane (sometimes suddenly) lost altitude and came off heading. Pulling the elevator control aft is the culprit.

ividually, not as a sequence. Reposition yourself heading- and altitude-wise between each maneuver. This gives you a chance to receive feedback from the judge and/or your instructor, and to clear your head before continuing.

You can also choose the direction of the spin and the slow roll. You may also have control over the direction of flight, so position yourself to take full advantage of the wind and prominent ground references whenever you can. If you consistently perform better spins in one direction versus the other, or if the airplane itself enters cleaner spins one way compared to the other, position yourself to execute the spin accordingly. Similarly, pinching the top of the loop is a frequent error. When it's time, position yourself to enter the loop heading into the wind. The resulting tail wind across the top will help you round out the apex.

You might have to modify your plans once airborne; nevertheless, map out as many of the above elements as you can before climbing into the cockpit. Make notes on your sequence card if that helps. Once airborne, it's important to pace yourself. If you earn a qualifying score on a particular maneuver, but you or the judge think it can be performed better with a few minor adjustments, then go ahead and repeat it another time or two. But if you get

***You are an artist whose purpose
is to create the illusion of
perfection. The airplane is your
brush; the sky, your canvas.***

hung up on a maneuver with no improvement after a couple of tries, shelve that maneuver for the time being and move on to something else. Your first objective is to earn a qualifying score on as many of the maneuvers on the list as possible. After that you can go back and fix any problem maneuvers or try for higher scores. Regardless, try to limit the judged sorties to 30 to 45 minutes each.

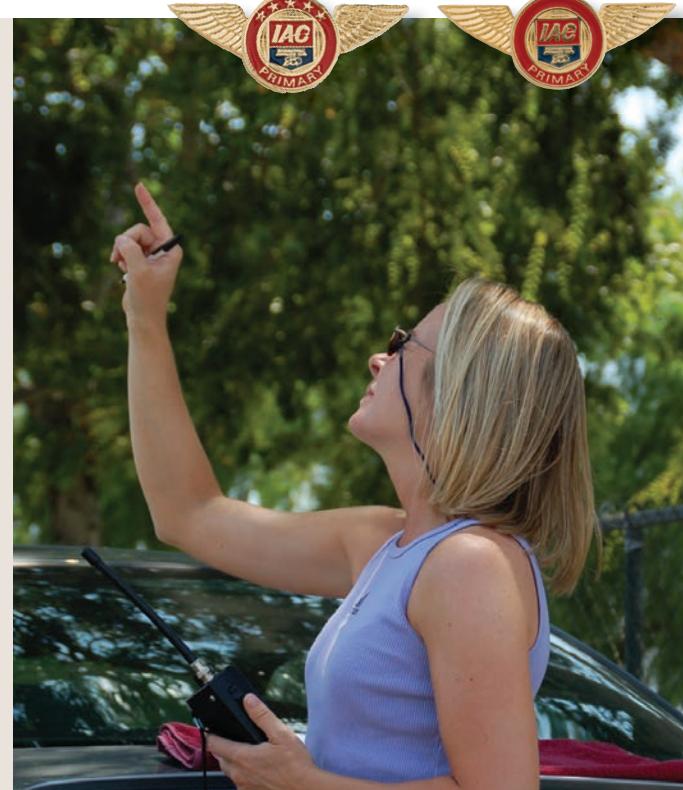
Maneuvers often overlap between the various levels of Achievement Awards, too. Another clever bit of strategy, therefore, is to look one category ahead. In the case of the Primary and Sportsman Smooth Awards, the spin, loop, and slow roll are required for both. So why not give the judge application forms for both the Primary and Sportsman Smooth Awards? Once you've qualified on the Primary side and if time permits, go ahead and repeat the spin, loop, and roll. You just might come away with a Primary Award as well as three of the eight Sportsman maneuvers checked off the list in as little as one judged flight. This is an efficient way to maximize your flight time, not to mention a way to give you some momentum for the next rung of the awards ladder.

Meeting the Judge

Sitting down with the judge before your flight is not so much a checkride as it is a chance to meet and to

The Difference Between Smooth and Stars Awards

Smooth Awards are about hitting a qualifying mark once for each required maneuver. From that point of view, Smooth Awards represent still shots of aerobatic competency—that flight, that maneuver, that judge. Stars Awards, on the other hand, recognize consistency over the course of a sanctioned aerobatic contest—sequences of maneuvers, multiple flights, multiple judges. Stars Awards introduce additional layers of complexity and challenge, such as energy management and aerobatic box awareness/management. For the pilot who has earned a Primary Smooth Award, the next step might include working on the maneuvers for a Sportsman Smooth Award and/or training for a Primary Stars Award for an upcoming contest near you.



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Picking an Instructor

Cary B., one of the six pilots introduced back in the first installment in our Primary Smooth Award series, offers some important insight into the training process: "Pick an instructor that you're compatible with. A good personality match is key. There's enough pressure on you when performing aerobatics as it is, and you don't need or want the added stress of someone you cannot communicate well with in the cockpit. Even if the guy's the hottest aero pilot in the state, you can't learn anything if there isn't a connection there. My recommendations: Learn at your own pace. Don't be in a big hurry or compare your progress to the progress of anyone else. Fly only when you're in a good state of mind and well-rested. But most important of all, *enjoy the moment!* After all, that's why you are doing aerobatics!"



coordinate various aspects of the flight. Take this opportunity to discuss any questions you might have with the judge. Have your application paperwork ready to hand over. It's also a good idea to provide a few sheets of blank paper in case the judge cares to write down any comments. If you have a handheld radio, offer it as a backup. Make sure everyone involved is clear on the radio frequencies to be used, where the judge will be located, the area in which you'll be flying, and the proposed order, direction, and starting altitudes of the maneuvers. Be sure to coordinate the altimeter setting prior to takeoff, too.

Even though you'll be focused on flying the maneuvers to the best of your ability, it is still your responsibility to see and avoid other air traffic. The judge will keep an eye out for traffic as well, as will the instructor/safety pilot who may be with you in the airplane. The ultimate responsibility, however, remains yours.

It's also up to you to earn the Achievement Award. The instructor/safety pilot is not there to coach or assist you while you execute the various maneuvers. That individual is on board primarily to intervene should a safety-of-flight issue arise. But like the judge, the instructor/safety pilot can and probably will provide feedback and suggestions in between the maneuvers. And if at any point you're not comfortable with how the flight is proceeding, or you want to stop before all of the requirements are met, just advise the judge. Don't be shy at all about communicating with those who are there to help you.

Be disciplined and systematic in your approach to the award flight. And remember: Don't reveal your mistakes to the judge (i.e., don't fix heading or bank angle errors once they've occurred). You are an artist whose purpose is to create the illusion of perfection. The airplane is your brush; the sky, your canvas. Open up your maneuvers and present them in all their glory. Show the judge what you have learned, what you can do. Have fun, be safe, and be proud of your accomplishment. ☺

Rich Stowell is a NAFI Master Instructor of Aerobatics and author of the book *The Light Airplane Pilot's Guide to Stall/Spin Awareness*. You can hear his biweekly "Flying Tips" on Gold Seal Live Aviation Radio, www.GoldSealLive.com.



BOOKS & DVDS



Stall/Spin Awareness
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I-109045 \$34.95



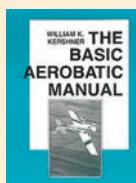
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Basic Aerobic Manual
Authored by William K. Kershner. Kershner, who passed away in early 2007, was known as one of the world's best flight instructors. I-100534 \$19.95



Fly For Fun
By Bill Thomas, one of the world's most experienced aerobatic instructors. It provides a precise analysis of each maneuver and shares the author's enjoyment of aerobatic flying. I-13186 \$18.95



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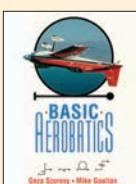
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by Master Certified Flight Instructor Rich Stowell. For pilots who want to really understand stalls and spins. This is a live videotaped safety seminar with actual flight footage inserted to reinforce the points discussed. 84 minutes. I-12264 \$29.95



A Roll is a Roll is a Roll . . .

A photograph of a light-colored, single-seat aerobatic aircraft performing a steep roll maneuver. The aircraft is shown from a side-on perspective, with its nose pointing upwards and its body angled downwards. The background consists of a bright, overexposed sky with a long, thin, white smoke trail extending from the bottom left towards the top right, curving slightly as it follows the aircraft's roll. The aircraft's vertical stabilizer and part of its wing are visible.

"If done right the aileron roll is smooth and gentle, but it can get out of hand fast, and non-aerobatic aircraft can't handle the stress of the recovery."



Or is it?

Gordon K. Penner,
MCFI-Aerobatic, FAA Gold Seal Instructor

Words are supposed to mean something, but some words have less specific meanings than others. They pick up regional differences, or they are part of a shorthand or slang. Words with multiple meanings cause the receiver to think one thing was meant when the sender meant something very different. Two terms in aerobatics that have multiple meanings depending on who hears them are “roll” and “aileron roll.” Many of you would be surprised to learn there are different definitions of an aileron roll out there. So what kind of roll was *really* meant?

Actually, in the aerobatic world there are four different kinds of rolls. Each one is flown quite differently from the others. One of the four is the aileron roll. There are also at least two different kinds of aileron rolls. On top of that, what the Aresti (aerobatic notation) system calls an aileron roll is actually the slow roll (see below). Then we add to the above confusion by adding the term point rolls to the mix, which are just 2, 4, 8, or 16 equal hesitations while doing number 1, 3, or 4 below. Confusing? Let's unpack this problem, shall we?

The four different kinds of rolls are:

1. Barrel Roll (not a competition figure)
2. Snap Roll (competition figure)
3. Slow Roll (competition figure)
4. Aileron Roll (Bob Hoover roll—not a competition figure)

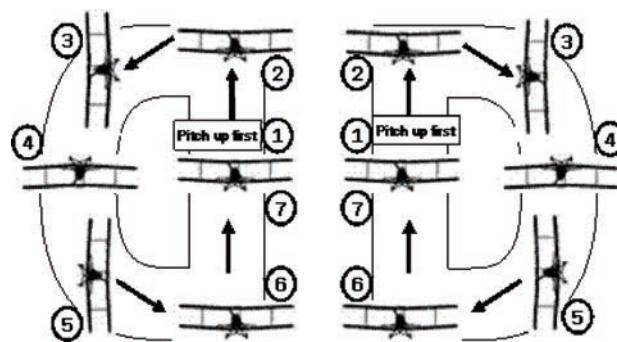
The two rolls we will be talking about in this article are numbers 3 and 4, the slow roll and the aileron roll. The barrel roll is actually like a loop where the pilot also completes 360 degrees of roll while the loop is being accomplished. Think of it as a loop that is pulled off to the side after it is started. Before the barrel roll

flight path. When the aircraft is in the inverted portion of the slow roll the pilot must push enough into negative G flight to hold the straight flight path. The slow roll is not comfortable for the pilot, but as you can see, the aircraft flight controls are manipulated in such a way as to make the CG "dot" of the airplane fly that straight line.

During the aileron roll, however, the pilot pitches up first and then rolls. This gives the maneuver a corkscrew flight path while remaining on heading. The aileron roll and the barrel roll, which both have corkscrew flight paths, are not official competition figures. This is mostly due to the difficulty in judging them. Remember, in the Aresti catalog and in the world of competition aerobatics (as opposed to recreational aerobatics) the true (corkscrew) aileron roll and the barrel roll do not exist. In the Aresti (competition) world there are only two types of rolls: aileron rolls and snap rolls. Since, for competitors, the corkscrew aileron roll does not exist, they call the slow roll an aileron roll.

So let us now define the true, non-competition, coordinated, smooth, corkscrew aileron roll. I call it the Bob Hoover roll. In my mind Bob Hoover is the master of smooth, and if done correctly, the aileron roll is a smooth maneuver. As three-time U.S. National Champion Clint McHenry said, it can be a good ride for a passenger if done right. So let us define an aileron roll by what it is *not*. It is *not* the slow roll. As seen above the slow roll is not comfortable to the occupants, who are falling to one side of the cockpit when top rudder is used (meaning uncoordinated) and feeling at least 1 negative G when inverted.

The two main kinds of smooth aileron rolls are the 1G and the 0G aileron rolls. First, after a good entry speed is reached, the pilot pitches up with the wings level to between 20 to 45 degrees nose-up. Bob Hoover pitched to about 60 to 70 degrees nose-up with the Shrike Commander. The power should be full at this point and remain full throughout the maneuver. Once the pitch-up target is reached the pilot must pause. This is the point where the pilot pushes the elevator control forward to establish either 1G or 0G *before* rolling. The pilot must not change this G-load as the roll input is initiated, and the G-load should stay the same throughout the roll. Maintaining this G-load is a function of the elevator control. If more than 1G is felt while the roll is happening, the pilot is pulling enough to be moving over into barrel roll territory.



begins the pilot picks a point on the horizon 45, 60, or 90 degrees off to the side of the nose of the aircraft. When halfway through the loop of the barrel roll, level fuselage and inverted, the aircraft nose should be pointing at that point. The pilot pulls more than 1G in the first third and last third of the "loop" (usually between 3 to 5Gs, depending on the airplane) and floats over the top at something less than 1G. The snap roll is more like a spin, where an autorotation is performed while maintaining a flight path. These two rolls will be covered in another article.

The main difference between the slow roll and the aileron roll is the flight path during the roll. During the slow roll, if the aircraft was reduced to a dot at the center of gravity (CG), the *flight path* of that "dot" should make a straight line throughout the roll. Not a corkscrew flight path but a completely straight flight path. Consequently, the pilot does not pitch up first before the slow roll begins. While in the knife-edge flight portion of the slow roll, the pilot applies enough top rudder—or "sky" rudder—to hold the straight



Jim Koepnick



Jim Koepnick

The legendary Bob Hoover and his Shrike Commander.

In the case of the OG roll, no rudder is needed with the aileron for coordination. This was covered well in Greg Koontz's article last year. In the case of the 1G aileron roll, coordinated rudder must be added with the

aileron input. In my Decathlon, I usually end up using about one-third left rudder in a left roll and one-half right rudder in a right roll with a 120-130 mph entry speed and 30-40 degrees nose-up initial pitch. The 1G

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aileron roll can really be a nice ride for a passenger since a 1G push straight into the seat cushion is felt no matter where the horizon is. A passenger also doesn't feel a side-to-side motion because coordination is maintained throughout the roll. The 1g aileron roll is what Boeing test pilot Tex Johnston used with the Boeing 707 prototype over the Seattle hydroplane races in 1955. Many of you have seen the films that show that he pitched first, then rolled. In his interview he said *if the maneuver is done right*, the maneuver is completely non-hazardous and the airplane did not know it was upside down. Bob Hoover poured ice tea into a glass when upside down!

The nose of the aircraft falls toward the center of the earth throughout the roll while 1G or 0G is maintained, but that's okay because we started with it up high. How high the nose should be brought up above the horizon before the rolling motion is started depends on how slowly that particular aircraft rolls. The slower the roll rate the higher the nose must be above the horizon

As a teaching tool, Rich will also have the student put *slow roll elements* on the above aileron roll. When the pilot gets to points 3 and 5 in the maneuver he will put in a little top (sky) rudder. It won't be enough to hold altitude, but it teaches him *when* to do it. The full roll is much harder to teach than the pure aileron roll. Rich does the same at point 4 with a little push. Again, not enough push to hold altitude, but enough to teach when to do it.

Even though Tex Johnston and Bob Hoover did it, aerobatic maneuvers should not be done in airplanes not built and stressed for them. They know what they're doing. If done right the aileron roll is smooth and gentle, but it can get out of hand *fast*, and non-aerobatic aircraft can't handle the stress of the recovery.

With the previous paragraphs in mind, the tragedy of the low-time, non-aerobatic pilots is they don't know what they're doing. At too low an altitude, and in the wrong kind of aircraft, they begin a roll while showing off for friends. They

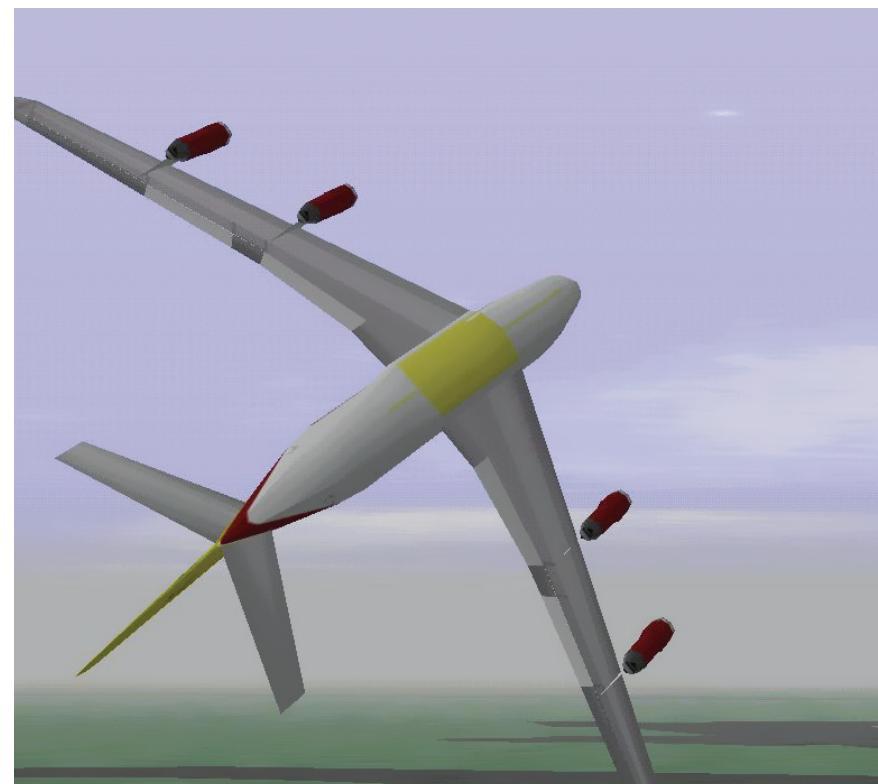
don't know enough to pitch up first. They just throw the aileron control over from level flight, and most light planes have a glacial roll rate. As they roll the nose falls. They also don't know anything about top rudder or pushing as they roll. When the aircraft is about halfway through the roll the nose is pointed almost straight down. They now begin to freak out, they stop rolling, and they begin pulling—hard. The airspeed needle is screaming around the gauge faster than a stopwatch second hand, and they are probably close to, or past, V_{NE} now. As they pull the aircraft structure begins to fail or they strike the ground. The aileron roll is an easy maneuver to teach to new people and easy on the aircraft, but do it *right, up high, and in the right kind of aircraft*, okay?

So, a roll is a roll is a roll is a roll, right? Not really. As you can see, each type of roll is a completely different animal. Know and respect each one. A well done aileron roll is pure joy for the recreational pilot. Enjoy, don't forget your parachutes, and fly safely! 

*As you can see,
each type of roll is a
completely different
animal. Know and
respect each one.*

before rolling begins. This is because when an aircraft rolls slower the nose has a longer time to fall. Starting with the nose higher than needed is better than starting with the nose lower than needed. Don't let the nose come down so far toward the end of the maneuver that never exceed speed (V_{NE}) is exceeded.

I like the idea from Master Instructor-Aerobatics Rich Stowell that from the pilot's perspective the nose of the aircraft seems to draw a capital D during the aileron roll. The D is backward in a left roll and normal in a right roll.



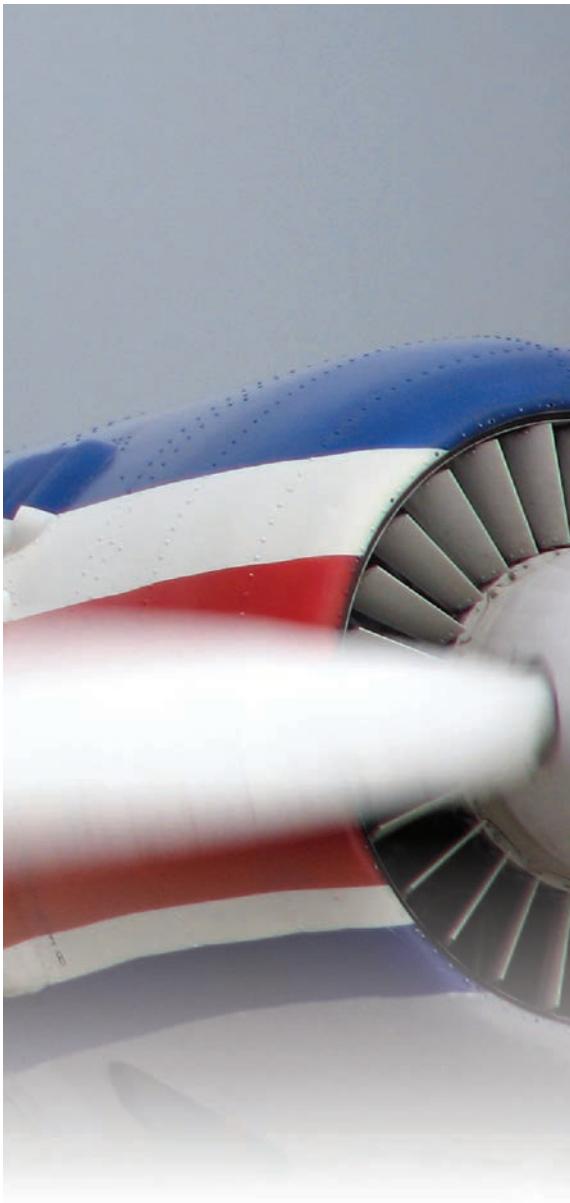
A digital flight-simulator image of an actual event; Tex Johnston's famous aileron roll in the Boeing 707 "Dash80" prototype which substantially concerned Boeing's President, but delighted other onlookers.

Flying My First Contest



Steve Lambrick, Vice President, IAC Chapter 122

During March 27-29, I flew in my first aerobatic contest, the Copperstate Regional hosted by IAC Chapter 69, and thought I'd share my experience with you to shed some light on what takes place, for those who haven't yet done so. I am relatively new to aerobatics and don't have much aero time logged. As an airline pilot I have logged about 15,000 hours, and all but a few hours were flown right side up. I received a couple of hours of aerobatics instruction about 25 years ago and then a couple more hours recently in a Sukhoi 29 before buying and flying my new Yak-55 home from Arlington, Washington. Since getting it home I have been flying aerobatics almost weekly trying to become more proficient and flying the Sportsman sequence in preparation for my first contest. A few weeks prior to the contest, I attended an aerobatic training camp taught by (Nikolay Timofeev) the same person who I recently received the aero dual from. I highly recommend getting some coaching from someone before competing, as a coach can spot the same things the judges will be looking for and will be able to tell you how to correct the mistakes you might be making. If a coach isn't available, then an experienced pilot in your chapter can critique you and offer some advice as well.



Scott Poehlmann

I learned a lot and can't wait to do it again, to prove to myself that I can do it better.

ARRIVAL

I flew to the contest in Marana, Arizona (which was hosted by IAC Chapter 69), with another member from El Paso, Texas, who also flies a Yak-55. We flew over in formation and arrived minutes before four other Russian aero planes arrived from Coolidge, Arizona. After our arrival we were met by the tech inspector who wanted to see all the items listed on the IAC Competitor Checklist. After the inspector reviewed the required documents and inspected our planes, we were given a form to take to register for the event. At registration everyone was friendly and helpful. After learning that this was my first contest, several people offered to help me any way they could. I completed the required forms and paid the entry fee. I was told to go to the starter's area to sign up for Thursday's practice in the aerobatic box. With almost 40 competitors the 10-minute practice slots were filling up fast. I signed up for a slot and then readied my plane.

After removing everything from my Yak and fueling for the practice flight, I passed the time by meeting some of the other competitors and studying an aerial

photo of the aerobatic box. I had flown only once before in a box at the training camp that I attended a few weeks prior. About 20 minutes before my practice time, I strapped into the plane and taxied to the runway. The box had a dedicated frequency, and once out of the traffic pattern I tuned it in and climbed to altitude. Once abeam the box I couldn't see anybody flying, and nobody responded to my radio calls on the box frequency. My start time was still about five minutes away, but I decided to take advantage of the extra time. The box was well marked and easy to see when in view. The problem I'm having in the Yak is that the pilot sits over the middle of a fairly large wing, and unless I'm pointing steeply down, I can't see where the box is. I spent the first few minutes flying back and forth across the box while rocking the wings to see where the box started and stopped and looking for landmarks beyond the wingtips so I would have some idea where it was. Even with the extra time my session was over before I knew it, and I returned to the airport. With the airplanes secured for the night we hitched a

ride to the motel with one of the local pilots.

The following morning we were required to be back at the airport for a 0700 brief. The contest director, John Van Houten, and the chief judge, Brian Howard, briefed the competitors about the contest rules and how they were going to stage the competitors in the starter's area and holding areas adjacent to the box. We also were told what the weather forecast for the day was and what the official wind would be, which isn't always the same as the prevailing wind. U.S. Air Force Academy members were also there competing with their gliders, so a separate holding area and box frequency was in use for them. During the briefing I learned that I would be a recorder for one of the judges. I hadn't filled out the volunteer form, thinking that I didn't know enough about what was going on to be of any help. The judges, assistants, and recorders are for the most part the competitors, and they take turns working the judges' lines and flying. I was teamed up with Malcolm Pond (judge) and Martin Kennedy (assistant judge), who fly in the Advanced category. I was their recorder and was flying in Sportsman. We judged the Unlimited and Intermediate pilots, who in turn judged our groups when we flew. I learned a lot by working as a recorder while listening to Malcolm and Martin's comments and then writing them down. A lot of time is spent sitting in the sun, so don't forget your sunscreen and a wide brim hat.

I highly recommend getting some coaching from someone before competing as a coach can spot the same things the judges will be looking for and will be able to tell you how to correct the mistakes you might be making.



Scott Poehlmann

GAME TIME

My first contest flight was midday Friday in the Sportsman category. Before flying, the planes are lined up in order of flight in the dead-prop zone in the starter's area. The starter is told by the chief judge when to launch competitors and then makes sure there is always a plane in each holding area ready to go. When you are next to launch and the starter determines it is time to for you to go, he will tell you to strap in and then will double-check your harness and make sure you don't have anything loose in the cockpit. Once airborne I flew to the low-altitude holding area and circled at or below 3,000 feet above ground level. After the plane in the high-altitude holding area was cleared into the box, the chief judge cleared me into the high-altitude holding area. Finally I was cleared into the box for my first officially flown sequence. I dove into the box and did my three wing wags and crisply pulled to level and held that for what I thought was an adequate length of time. I briskly pulled into the P-loop and flew the figure as best as I could. Unfortunately, in the vertical downline I realized that I was descending outside the box. Again I crisply pulled to level, and this time held that long enough so that I could not only fly into the box but across to the far side. I won't bore you with the rest of the figures, but I did find myself completing a couple more figures while just outside the box. I felt I flew everything cleanly with the exception of the last figure. I zeroed the 270-degree turn by flying a 360. I just lost track of where I was, as I didn't bother to look for a landmark to roll out on. I again did my wing wags and exited the box switching to UNICOM for my arrival back in the pattern.

Back on the ramp I was asked how it went, and I told everyone I had zeroed the last figure but felt really good about the rest. It wasn't until later when the scores were brought in that I found out I had also zeroed the first figure! I flew the entire P-loop before entering the box. To add insult to injury, I then saw that my scores for the figure were from a low of 9 to a high of 10. I knew going into the event that my biggest challenge would be keeping the plane in the box, and sure enough, I was right. I also knew that a boundary penalty wasn't that bad in the Sportsman category—unless you fail to enter the box before flying a figure. Overall I was happy about my first flight and satisfied with the way I flew. I would have to wait until the following day to try to redeem my novice blunders since Sportsman only flew once on Friday.

SECOND DAY

Saturday morning began with another 0700 brief and perfect weather. Sportsman was first to fly. We had plenty of time to get ready as the judges had to be transported out to the judges' line and everything there set up. Once in the air I felt ready to go and couldn't wait to start my sequence. That should have been my first warning. I'm not sure if I was overly anxious or just had too much coffee, but after making sure I was well into the box I rushed my figures and worried too much about staying in the box. I knew as soon as I had finished that I hadn't flown as cleanly as the day



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before. I even managed to pull hard enough into the hammerhead to cause the plane to try to snap, which caused a nice big bobble on the upline. My scores reflected my rushed sequence and confirmed what I already knew. With the boundary penalties being so minimal for Sportsman, I should have made sure I was in the box, then flown my sequence to the best of my ability, and not worried about the box at all. I was given this same

I knew going into the event that my biggest challenge would be keeping the plane in the box, and sure enough, I was right.

advice before flying but failed to heed it. When our local chapter gets a marked box, I will be able to work on flying within the box and developing a sense of timing for positioning. After the Sportsman group had flown, we traded places with the other judges and took our turn working on our tans. Watching the other pilots fly was enjoyable as well as educational, especially watching the Unlimited pilots.

Sportsman was scheduled to fly last on Saturday, but I was first in the group to launch. I had to fly back to El Paso before sunset Saturday night so I could be at work early Sunday morning. The contest director was nice enough to accommodate my request to fly first so I could be ready to head for home as soon as possible. I had learned a lot the first two flights and felt ready to improve upon my previous performances. As I entered the box for the third and final flight I felt relaxed and ready. Everything seemed to go really well, but it seemed to go by too quickly. I finished the sequence and returned to the airport. Like the first flight I thought everything had gone well and felt good about the way I had flown. I started to load everything into the plane while trying to say goodbye to the people I had met. After fueling I launched for home to beat the sunset. I regret not being able to schedule the time to stay for the banquet and a leisurely flight home.

LOOKING BACK

In hindsight, I see that I was preoccupied with my flight home and work the next day, and that may have affected my ability to concentrate on flying. Upon my arrival back in El Paso I called Scott, the person who I flew with to the contest, to check on my final scores and found out I had zeroed the last four figures. The reason the sequence seemed to go by so fast is that I omitted the reverse wedge and subsequently flew the remaining figures in the wrong direction. Between all the sun and lack of sleep as well as being preoccupied by having to rush home, I didn't even bother to refer to the sequence card and check my progress. That's my excuse anyway, and I'm sticking to it!

Overall, I had a great time and met some really nice people. I learned a lot and can't wait to do it again to prove to myself that I can do it better. With a total of 15 hours of aero time going into the event, I wasn't expecting much and figured it would be a great learning experience. I didn't expect to make the mistakes that I did, but hopefully, by having made them, I won't make them again. My goal in writing this is to motivate those of you who have been putting off entering a contest to just do it and have fun. I hope by sharing my mistakes you might avoid making some of them yourself. ☺

WE'VE GOT YOU COVERED.



The IAC Aircraft Insurance Program

And the philosophy behind it.

Ryan Birr, President, Northwest Insurance Group

My name is Ryan Birr, and I welcome the International Aerobatic Club (IAC) and its members to our Northwest Insurance Group Inc. brokerage this year. As of April 1, 2008, we were contracted by the IAC to provide you with an all new aircraft insurance program.

Vicki Cruse did an excellent job of describing in the April 2008 issue the process that she and the IAC board employed to obtain this new insurance program. It was difficult to build this program to the proposed IAC specifications because we were wandering into uncharted territory when having to consider combining so many different member aircraft uses into one group of policyholders. But Vicki's persistence and vision (for those of you who know your IAC president) has proved victorious for the IAC membership.

We have three years under contract to get this program off the ground, but our partnership with IAC is bilateral to be sure, meaning we try hard and you try hard, too. At the Sun 'n Fun Fly-In at Lakeland, Florida, this spring, we were on-site offering real-time quotes to members visiting the tent, and we got to meet many of you. Along with the incredible insurance package we now have available for you, we are finishing a

program designed to help sponsor individual chapter competitions; we are providing advertising dollars for IAC publications; I am conducting talks at EAA AirVenture Oshkosh; and we will be on-site at the U.S. Nationals in September. But our partnership doesn't end there. We also have a great insurance product for you.

In the past 75 days, we have insured nearly 100 of your aircraft. But along the way, we have already heard so many interesting questions about insurance, uses, and events. It is our goal to evolve the IAC Aircraft Insurance Program to handle most of these needs, reasonably, and make it affordable for you as well. There are some things we can't provide within the program as we have already learned, but we'll find an alternate home for your insurance needs if we can't. I will discuss these questions in my quarterly articles in *Sport Aerobatics*. I think nearly all of you can benefit from the experiences of your co-members. So our feedback to the IAC is not only in the form of articles for publication, but also the result of the IAC Aircraft Insurance Program. Our regular responses to the IAC include information about the total number of policyholders, the premium volume, and claims experience. The IAC Aircraft Insurance Program must, of course, be profitable if it is to be

viable long term. We want to help educate you about the kinds of losses that are generating insurance claims and why. We hope this can become a valuable and regular educational benefit for you and the IAC for the long term.

So in our partnership with you, I encourage you to take some time and visit the website to get your quote. Once you have an account, you'll be able to obtain a quote and review the sample policy, which should help you make a decision to possibly choose the new IAC Aircraft Insurance Program over your current insurance package. We are proud to be a partner with the IAC, and proud that the program was co-designed by your representatives and us. We will all share in its performance. Please give the new IAC Aircraft Insurance Program close consideration when your policy comes up for renewal. Don't be afraid to call us; we'll explain its benefits and how it works, and how the coverages benefit you. Then you can also become a part of the growing list of happy IAC members that have already signed up. I am looking forward to working with you, and my team here is happy to assist with all your aviation insurance matters. 



Allen Silver

Ask Allen

A master rigger answers your questions about parachutes.

By Allen Silver, IAC 431160

Q: Can I copy your articles for my personal use and our club newsletter?

A: Yes! I encourage you to do so. All I ask is that you use the articles in their entirety without any editing. This can change the meaning and possibly be dangerous. Many flying clubs or fixed base operators have made my three-part bailout series mandatory reading for their students and have them sign off that they've read it. It's just a little extra "insurance." Another option is to link directly to the articles on my website www.SilverParachutes.com. This allows quick and easy access to all the articles and other beneficial information.

Q: Can I attach my SPOT or other personal locator beacon to my parachute harness?

A: You can, but be careful. I suggest having a master parachute rigger help you here. It may seem like a simple job, but I've had parachutes come into my shop with various "owner modifications" that cover the rip cord pocket or block the view of the rip cord. This could ruin your day in the event you need to find that shiny little handle in a hurry. I actually make a kit that is designed to fit a SPOT and attaches easily around the main lift webbing of your harness (that's the webbing that runs vertically from your waist to your shoulders). Go to my website and click on "S.M.A.K. Pak." Whatever you use, always attach it to

the side opposite the rip cord. Another option on some harnesses is to attach it just below the rip cord pocket. A rigger can help make modifications to your kit so it will fit on your parachute harnesses. Having a survival kit that is not attached to you does no good in the event of a bailout. A survival kit stowed neatly in the back of your aircraft is called camping gear!

Let's talk briefly about the popular SPOT locator and satellite messenger. Like other similar devices, it comes with a little carry bag that easily attaches to your parachute harness or slips over the chest strap. Unfortunately, this and other cases are usually pretty flimsy and the Velcro would more than likely rip apart during a bailout and parachute deployment. There goes your SPOT! The factory case needs to be beefed up, particularly the closing flap. I always install a snap over the Velcro to make extra sure the pocket stays securely closed. Most of these devices will fit into my larger Deluxe S.M.A.K. Pak survival kit with room to spare for additional survival items. When securing anything to your harness, or on your person, make sure it will not fall off or come open during opening shock, when you'll experience the highest G-loading. Losing your survival gear could ruin your evening's plans and result in a long lonely night somewhere and possibly a long hike back to safety, if you haven't been injured on landing.

Q: I have to remove my cushions to fit into my aircraft with my chute on. Do I need to pad the seat back or bottom?

A: Usually, some type of thin padding needs to be placed under the bottom of your seatpack or behind your backpack to protect it from rubbing on the hard surface that remains after you have removed the pads. Even if the seat back or bottom is smooth, you still need to do something. Just the pressure from a hard surface will soon rub against the rip cord protector flap, leaving a faint outline of the rip cord cable and pins inside. Over time, it will rub completely through the material and need some kind of repair. From the first day you receive your parachute it needs protection from hard surfaces so it will last its full lifetime of 20 years. A common solution if you've removed all of the padding is to take something like a piece of tightly woven carpet remnant and install it on the seat back, bottom, or both. It doesn't have to be very thick to protect your parachute container from unnecessary wear and tear. If you're wearing a seatpack, pad the bottom under the container and behind you as well. You will definitely want to cover any exposed Velcro after removing your aircraft's seat pads. If the scratchy part rubs against your harness/container, within a few flights it will look as if a cat clawed your container and will require repairs.

It should be noted that when this new regulation comes out, existing repacks will not be automatically extended.

My last comment is an update on going from the current 120-day repack cycle to 180 days. I've got good news!

According to my sources in the Federal Aviation Administration, it is now in the final stages of being turned into law and will happen on or before February 20, 2009. Hopefully it will occur sooner. Maybe it will even be a done deal by the time you read this stirring edition of "Ask Allen"!

I would also like to thank my son, Darrin, for his assistance in this three-plus year project. I could not have done it without his expert technical writing ability.

It should be noted that when this new regulation comes out, **existing repacks will not be automatically extended**. The new 180-day repack cycle will only take effect when you take your parachute in to be packed and recertified by your parachute rigger.

Thank you and keep your questions coming!

Allen Siver is the owner of Silver Parachute Sales and is always available to answer your questions about parachutes. Send your questions to Allen@silverparachutes.com.

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CALENDAR

ASPEN LEAF ACRO CHALLENGE (South Central)

Saturday, August 16 - Sunday, August 17, 2008
Practice/Registration: Friday, August 16
Power: Primary through Unlimited
Location: Sterling Municipal Airport (STK):
Sterling, Colorado
Contest Director: DJ Molny
Phone: 303-619-4814; E-mail: djmolny@yahoo.com
Website: www.IAC12.org

KATHY JAFFE CHALLENGE (Northeast)

Friday, August 22 - Sunday, August 24, 2008
Practice/Registration: Thursday, August 21 -
Friday, August 22
Power: Primary through Unlimited
Location: Flying W (N14): Lumberton, New Jersey
Contest Director: Ron Chadwick
Phone: 732-865-1610; E-mail: bubbaron@comcast.net
Website: www.IAC52.org

DOUG YOST CHALLENGE (Mid-America)

Saturday, August 23 - Sunday, August 24, 2008
Practice/Registration: Friday, August 22
Power: Primary through Unlimited
Location: Albert Lea Municipal Airport (AEL):
Albert Lea, Minnesota
Contest Director: Mike Niccum
Phone: 952-239-7114; E-mail: pgnic@aol.com
Website: www.IAC78.org

GULF COAST REGIONAL AEROBATIC CHAMPIONSHIP

(South Central)
Saturday, August 30 - Sunday, August 31, 2008
Practice/Registration: Friday, August 29
Power: Primary through Unlimited
Location: Brenham Municipal Airport (11R):
Brenham, Texas
Contest Director: Bryan Butler
Phone: 979-251-2274 or 979-836-6423;
E-mail: bryanbutler@nctv.com

HAPPINESS IS DELANO (Southwest)

Saturday, August 30 - Sunday, August 31, 2008
Practice/Registration: Friday, August 29
Power: Primary through Unlimited
Location: Delano Municipal Airport (DLO):
Delano, California

Contest Director: Tim Just

Phone: 760-953-8250;
E-mail: upsidwn2000@yahoo.com

APPLE TURNOVER (Northwest)

Friday, September 5 - Saturday, September 6, 2008
Practice/Registration: Wednesday, September 3 -
Thursday, September 4
Rain/Weather: Sunday, September 7
Power: Primary through Unlimited
Location: Ephrata Municipal Airport (EPH):
Ephrata, Washington
Contest Director: John Smutny
Phone: 206-248-2650; E-Mail: johnsmutny@yahoo.com
Website: www.appleturnover.org

HAROLD NEUMANN BARNSTORMER (South Central)

Friday, September 5 - Saturday, September 6, 2008
Practice/Registration: Thursday, September 4
Rain/Weather: Sunday, September 7
Power: Primary through Unlimited
Location: New Century AirCenter (IXD): Olathe, Kansas
Contest Director: Paul Thomson
Phone: 913-638-6221; E-mail: info@iac15.org
Website: www.IAC15.org

EAST COAST AEROBATIC CONTEST (Northeast)

Friday, September 5 - Sunday, September 7, 2008
Practice/Registration: Friday, September 5
Power: Primary through Unlimited
Location: Warrenton-Fauquier Airport (HWY):
Warrenton, Virginia
Contest Director: Scott Francis
Phone: 703-618-4132;
E-mail: s.francis@ieee.org

ILLINOIS STATE AEROBATIC CHAMPIONSHIP

(Mid-America)
Saturday, September 6 - Sunday, September 7, 2008
Practice/Registration: Friday, September 5
Power: Primary through Unlimited
Location: Illinois Valley Regional Airport (VYS):
Peru, Illinois
Contest Director: Doug Bartlett
Phone: 847-875-3339;
E-mail: dbartlett@bartlettmfg.com
Website: www.IACChapter1.com

For the most complete and up-to-date contest listings, visit www.IAC.org. If your chapter is hosting an event, be sure to let the world know by posting it there.

U.S. NATIONAL AEROBATIC CHAMPIONSHIPS

Sunday, September 21 - Friday, September 26, 2008
Practice/Registration: Saturday, September 20 - Sunday, September 21
Rain/Weather: Saturday, September 27
Glider Categories: Sportsman through Unlimited
Power: Primary through Unlimited
Location: Grayson County Airport (GYI): Sherman, Texas
Contest Director: Doug Bartlett
Assistant Contest Director: Erica Simpson
E-mail: iac@eaa.org

ROCKY MOUNTAIN INVITATIONAL (South Central)

Saturday, October 4 - Sunday, October 5, 2008
Practice/Registration: Friday, October 3
Glider Categories: Sportsman Intermediate
Power: Primary through Unlimited
Location: Lamar Municipal Airport (LAA): Lamar, Colorado
Contest Director: Jamie S. Treat
Phone: 303-648-0130; E-mail: JamieTreat@q.com
Website: www.IAC5.org

REBEL REGIONAL AEROBATIC CONTEST (Southeast)

Saturday, October 11 - Sunday, October 12, 2008
Practice/Registration: Friday, October 10
Rain/Weather: Monday, October 13
Power: Primary through Unlimited
Location: Everett-Stewart Regional Airport (UCY):
Union City, Tennessee
Contest Director: Mike Rinker
Phone: 731-885-3701

2008 MASON-DIXON CLASH (Northeast)

Friday, October 17 - Sunday, October 19, 2008
Practice/Registration: Thursday, October 16 - Friday, October 17
Power: Primary through Unlimited
Location: Farmville Regional Airport (FVX):
Farmville, Virginia
Contest Director: Chris Rudd
Phone: 850-766-3756
E-mail: akrudd@gmail.com
Website: www.IAC19.org

BORREGO AKROFEST (Southwest)

Friday, October 17 - Saturday, October 18, 2008
Practice/Registration: Thursday, October 16
Rain/Weather: Sunday, October 19
Power: Primary through Unlimited
Location: Borrego Springs (L08):
Borrego Springs, California
Contest Director: Joshua Muncie
Phone: 562-688-1466;
E-mail: jlmuncie@yahoo.com
Website: www.IAC36.org



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