SPORT
Aerobatics
NOVEMBER 2010
OFFICIAL MAGAZINE of the INTERNATIONAL AEROBATIC CLUB

FORTY YEARS OF 40 IAC EXCELLENCE

The First Contest

Pitts: Wood Leading Edges

Confessions of a Contest Director

IAC Sweatshirts

call 800.843.3612

JanSport Newport Hood II – 80% cotton/ 20% polyester sueded fleece – "This Angel Has Wings" IAC logo.
All sizes $39.99

726583790	2040	SM
	3040	MD
	4040	LG
	5040	XL

JanSport E-Zee 1/4 zip II – 55% Cotton/ 45% polyester with "Aerobatics Oshkosh."
All sizes $42

726583560	2020	SM
	3020	MD
	4020	LG
	5020	XL
	6020	2X

JanSport Academy Full Zip – 55% Cotton/ 45% polyester with "Aerobatics Oshkosh."
All sizes $42

726583620	2093	SM
	3093	MD
	4093	LG
	5093	XL
	6093	XL

SPORT Aerobatics

CONTENTS

Vol. 39 No.11 **November 2010** A PUBLICATION OF THE INTERNATIONAL AEROBATICS CLUB

"I started with a snap to the left and was happy, but when I pushed the right rudder, I was ecstatic."

Patrick Carter

FEATURES

COLUMNS

DEPARTMENTS

THE COVER

The contestants at the first IAC contest, held on May 17, 1970.

Photo by Ted Koston

SPORT Aerobatics
OFFICIAL MAGAZINE of the INTERNATIONAL AEROBATIC CLUB

PUBLISHER: Doug Bartlett
IAC MANAGER: Trish Deimer
EDITOR: Reggie Paulk
SENIOR ART DIRECTOR: Phil Norton
DIRECTOR OF PUBLICATIONS: Mary Jones
COPY EDITOR: Colleen Walsh

CONTRIBUTING AUTHORS:

Doug Bartlett
Patrick Carter
Mike Heuer
Tom Myers
Reggie Paulk
Blake Poe
Allen Silver

IAC CORRESPONDENCE
International Aerobatic Club, P.O. Box 3086
Oshkosh, WI 54903-3086
Tel: 920.426.6574 • Fax: 920.426.6579
E-mail: *reggie.paulk@gmail.com*

PUBLICATION ADVERTISING

MANAGER, DOMESTIC:
Sue Anderson
Tel: 920-426-6127
Fax: 920-426-4828

MANAGER, EUROPEAN/ASIAN:
Willi Tacke
Tel: +498841/487515
Fax: +498841/496012
E-mail: *willi@flying-pages.com*

COORDINATOR, CLASSIFIED:
Alicia Canziani
E-mail: *classads@eaa.org*

MAILING: Change of address, lost or damaged magazines, back issues.
EAA-IAC Membership Services
Tel: 800.843.3612 Fax: 920.426.6761
E-mail: *membership@eaa.org*

The International Aerobatic Club is a division of the EAA.

WWW.IAC.ORG WWW.EAA.ORG

REGGIE PAULK

COMMENTARY / **EDITOR'S LOG**

IS IT REALLY NOVEMBER already? The months are just flying by, and a lot is happening that will hopefully keep you entertained and focused on the warm days of summer. A lot of people have told me they look forward to each issue of *Sport Aerobatics* because the airplanes are always flying over the green fields of Wisconsin or the waters of the Gulf of Mexico, and it helps them forget the cold weather outside.

As I write this, the U.S. Nationals just concluded a few short weeks ago, and we're already working to bring you the details of the latest winner of the Unlimited title. In order to try something new, we'll also introduce you to the winners of the lower categories as well. There were a lot of unique stories coming out of Nationals, and they deserve a little attention.

Winter has less traffic, smoother air and highly qualified instructors eager for new students.

In this issue, Tom Myers brings us a contest through the eyes of the contest director (CD). It's a perspective of competitive aerobatics very few people understand, and it is an interesting expose of the challenging, stressful and ultimately rewarding job of a CD. There are a lot of cogs on the gear that have to work together in order for a contest to be safe and successful.

Mike Heuer continues on the theme of 40 years of history by taking us back to the first contest on May 17, 1970. Our organization has definitely matured over time, but it's still young enough that the people who were there at the beginning are still actively involved, and contribute their expertise to the club.

The International Aerobatic Club by its very nature is comprised of competitive individuals, many of whom also have some rather blunt opinions. Some of you have come right out and let me know what you think, and I appreciate the criticism—no matter how harsh. With 4,000 members, it is impossible to please everyone all the time, but know that your opinions do count. On balance, I've received mostly positive feedback, but to those of you who have a voice you'd like to contribute to the conversation, I'd be more than happy to hear from you.

On a different note, if you are considering getting involved in aerobatics, this is a great time of year to do so. It's always been amazing to me how few people actively fly during the winter months. Winter has less air traffic, much smoother air and highly qualified instructors eager to take on a new student. Sure, you need to dress appropriately, but the extra effort required to preflight in the cold is more than worth it. Find your nearest aerobatic flight school by visiting: *www.iacusn.org/schools*. IAC

Please submit news, comments, articles, or suggestions to: *reggie.paulk@gmail.com*

DOUG BARTLETT

Nationals and the Rules

THE INTERNATIONAL AEROBATIC CLUB has crowned a new National Aerobatic Champion, Jeff Beorboon, at the 2010 U.S. National Aerobatic Championships in Denison, Texas. Although the weather did not cooperate as well as it has over the past several years, we were able to achieve the goals of the contest by selecting our national champions and the U.S. Unlimited Aerobatic Team for the upcoming 2011 World Aerobatic Championships (WAC). Even though the development of the airport will someday force us to move to a new location, it appears we will return next year for another championship. Also, there is a group of people working hard to submit a proposal to host the 2011 WAC at the North Texas Regional Airport. We should know if the United States will host the contest for 2011 by the time of this publishing. No matter where the contest is, we want to congratulate our pilots for their fine flying and wish them the best in the coming year.

This year at Nationals there was a large controversy surrounding the awarding of trophies, medals, and awards only to U.S. citizens. The two main issues were 1) all contestants were not properly notified ahead of time about the citizenship requirement and 2) some members believe non-U.S. citizens should be eligible to be awarded trophies, medals, and awards.

Prior to discussing these two points, an overview of our guiding documents is in order. The IAC has bylaws that guide the structure of the organization. These bylaws are on the IAC website in the "Members" section. Although they are dry reading, these bylaws provide the foundation for our leadership.

From the bylaws we move on to the *IAC Policy & Procedures Manual* (*P&P*), which is also on the IAC website. Again, dry reading, but the *P&P* gives direction to the leadership of the IAC on many topics. One of the sections in the *P&P* (500 series) gives guidance on the U.S. National Aerobatic Championships and U.S. Aerobatic Team selections. From there we move on to the *IAC Official Contest Rules* (Red Book) for the 2010 season and the FY2011 Operational Plan. I would encourage all IAC members to be familiar with these documents and their attachments, as they form the foundation of IAC operations.

Although they are dry reading, these bylaws provide the foundation for our leadership.

Policy & Procedures Manual Section 503.2.C states, "U.S. National titles, trophies, awards and medals will only be awarded to pilots of U.S. citizenship. This does not preclude the creation and awarding of special trophies specifically for non-U.S. citizen competitors at the U.S. Nationals." Because this is a policy, neither the contest director, jury chief, nor the president has the authority to change the policy without proper approval of the board of directors.

Even though the *P&P* is clear on the issue of U.S. citizenship as shown above, the IAC will look for methods to make this and other requirements more obvious to all participants in the future.

Before I sign off for another month, I have a request of our membership. Each year we ask members to submit Unknown sequences for the coming competition season. The rules for designing Unknowns can be found in the *IAC Official Contest Rules*. Over the years we have seen fewer and fewer Unknown sequences being submitted for Intermediate, Advanced, and Unlimited categories. The bottom line is this, if you submit a safe Unknown, you may fly it sometime next year. You will be able to practice it all you want. As always, fly safely! ***IAC***

FAA Aircraft Re-registration Begins Next Month

OCTOBER 7, 2010 — According to the FAA, about one-third of the approximately 357,000 aircraft registered in the United States have inaccurate records. To clean up what it says has become a database riddled with incorrect addresses, aircraft that have been destroyed, etc., the agency has made a decision to require all currently registered aircraft to be re-registered. Essentially they're starting with an empty ledger and will fill it out in the next three years.

As spelled out in a Federal Register Notice published July 20, 2010, the rule establishes registration expiration dates over a three-year period for all aircraft registered before October 1, 2010, and requires subsequent re-registration every three years, according to a specific schedule. Re-registration of aircraft currently in the FAA database will occur between November 1, 2010, and December 31, 2013. The process is intended to update the U.S. Civil Aircraft Register, making it more reliable. It is important that each aircraft you own, regardless of its airworthiness status, be re-registered when the notice comes from the FAA, or its registration could be revoked. Even if the aircraft exists in basketcase form (or less!), it's important to keep it properly registered.

There are a number of changes to the aircraft registration system that each owner should pay particular attention to:

Each aircraft initially registered under the re-registration program will be registered for three years, expiring three years after the last day of the month in which it is issued. The re-registrations will be issued in quarterly blocks.

Thereafter, the aircraft registration expires three years from the expiration date of the previous certificate.

Re-registration and subsequent renewals will cost $5.

The next aspect of the program is especially important to note: If you were thinking about not bothering with this re-registration program, you should know that the cancellation of the N-number assigned to an aircraft will take place approximately 90 days after the expiration of an aircraft's registration. (Once canceled, the N-number will not be available for assignment or reservation for the next five years.) As it stands right now, without a current registration and N-number, an aircraft is deemed unairworthy, regardless of its annual inspection status.

So how will you know if your aircraft's registration is due for renewal? About six months before an aircraft's registration expires, using the mailing address of record, the FAA's aircraft registry office will mail a notice with instructions to the owner. The notice will identify the expiration date and the three-month window during which application must be made to ensure receipt of the new certificate before the old certificate expires.

The third, fourth, and fifth months before expiration make up the timely filing window. A code provided in the notice allows online re-registration and payment of the $5 fee when there are no changes in ownership, address, or citizenship to report. If there are changes to report, the form can be completed online, printed, signed, and mailed with the $5 fee. No matter if there are no changes or there are revisions that must be made to the registration data, the form must be filled out online.

How should you prepare for the upcoming re-registration? The FAA offers these tips:

- Look up your aircraft on the Search Aircraft Registration Information web page and verify that the mailing addresses and the names of owners shown are correct. You can also confirm the Registration Certificate issue date. Please note that the Registration issue date is not the same as the Airworthiness Certificate issue date. For newer aircraft they may be identical if the aircraft was sold to the current owner immediately upon its manufacture, but for most aircraft the Registration Certificate will have a different date. That's the date the FAA will be using when you re-register.

- If the mailing address is wrong, the owner should update the address.

- If an ownership change has occurred, the seller should report the sale to the Registry, and the purchaser should submit his application for registration, evidence of ownership, and $5 registration fee to the Registry as soon as possible.

One more note: A number of members have asked if they can just re-register now and not wait until the note from the FAA arrives. The short answer is, "No, you can't." The FAA's explanation was that the Aircraft Registration Branch has only so many people working to input the data, and the procedure they've put in place will make certain that the workload will be consistent throughout the time period of the re-registration. The same holds true for the subsequent registration renewals. That's unfortunate, since it means that aircraft owners of multiple aircraft will have to keep track and execute the re-registration process one at a time for each aircraft as their registration and renewal dates occur.

For more information, visit *http://www.faa.gov/licenses_certificates/aircraft_certification/aircraft_registry/* or call EAA's aviation services at 888-322-4636.

Reflections of Aerobatic Beginnings

BY BLAKE POE

FOR AS LONG AS I can remember, I have been daydreaming about aerobatics, visualizing myself looping, rolling, and tumbling through the air. The ultimate roller coaster ride is where I am in control of infinite combinations of three-dimensional dancing in the sky. Somehow this would become a reality for me. The only question was when and how it would begin. When I learned of my winning of the CP Aviation Emergency Maneuver Training Scholarship in Memory of Vicki Cruse (EMT scholarship), I was elated. I had been planning to take this course regardless of the scholarship, so I was eager to begin.

Flying exclusively with certificated flight instructor Darin Moody, we marched through the syllabus, flying once or twice a week. As I had some spin training prior to Module I, the experience was not entirely new. However, I don't think I will ever tire of spinning the Citabria. Module II's most memorable flight was simulating control failures. Landing the airplane using only power, trim, and rudder (a simulated elevator failure) was challenging and rewarding. The exposure to this and other techniques to deal with control failures would certainly help alleviate panic if such a scenario did arise. The real meat of the course for me, and what will have the most profound impact on my flying future, was the aerobatics of Module III. My strong interest in aerobatics was cemented with the spinning, looping, rolling, and combinations thereof flown during these four flights. I will definitely continue to fly aerobatics as long as I fly.

The exposure provided by the EMT course will undoubtedly allow me to safely explore all attitudes and be able to reliably recover while I learn how to precisely execute maneuvers. Only purposeful practice can morph the mechanical thinking of control manipulation into smooth finessed autonomy. Following the course, my thoughts on the importance of such training may be summed up in the following excerpt from Sammy Mason's book *Stalls, Spins, and Safety*:

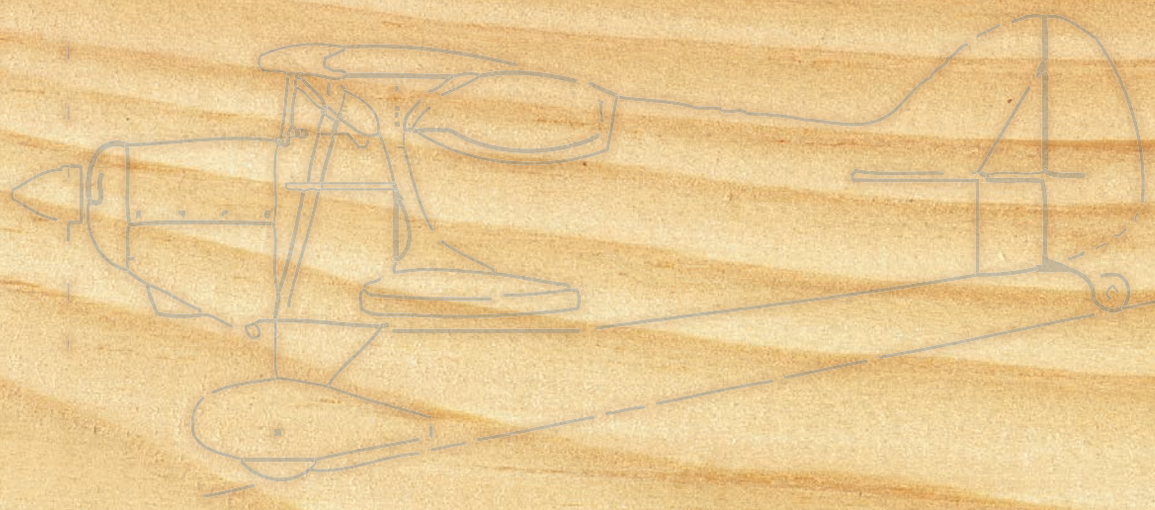
"I recommend not only spin training, but a course in basic aerobatics. An airplane is an all-attitude vehicle, and pilots should be able to recover from any attitude. The elimination of unnecessary fears and the confidence gained will add to the pleasure of flying."

I have learned more than I realize and am definitely a safer pilot, but only continued progression and practicing of the techniques shown in the course will allow the full benefit. Merely being introduced and never or rarely entering those scenarios will be of little value.

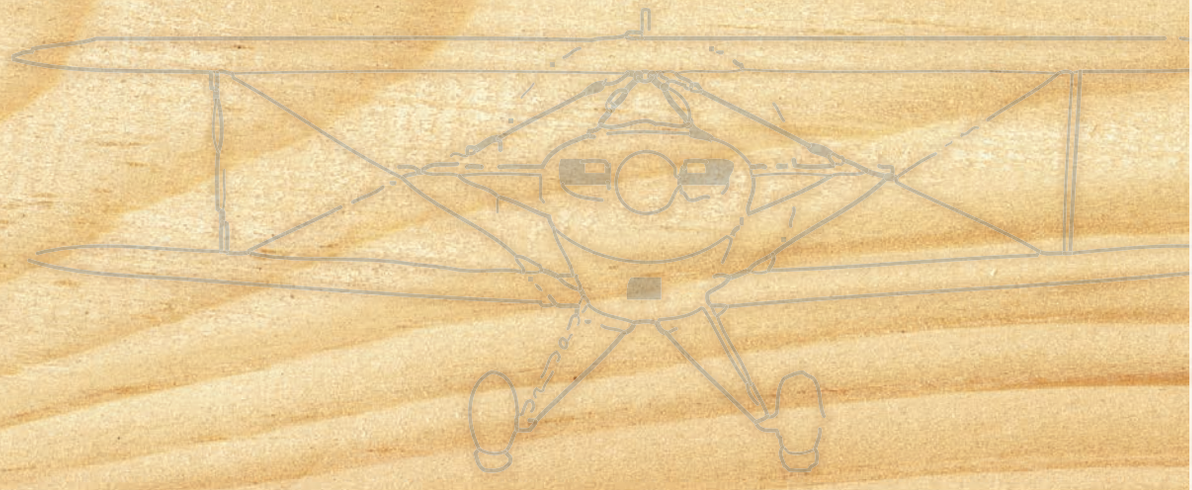
I would like to thank CP Aviation and the IAC for providing the scholarship that allowed me to fly the EMT course; Judy Phelps for the super-fun flight in the Pitts S-2B; and Darin Moody for the loose atmosphere that was so conducive to my learning. *IAC*

Blake Poe is a 130-hour private pilot with about 80 percent of his time in taildraggers (Kitfox, Citabria, Decathlon). He spends his days working as an aero-mechanical engineer designing small unmanned aerial vehicles at AeroVironment Inc.

PHOTOGRAPHY BY **DARIN MOODY**



"There are so many advantages, I do not know why anyone would use metal."



PITTS S-2B LEADING EDGE MODIFICATION:

Putting in the WOOD

BY PATRICK CARTER

Last fall I had an issue with the fabric on my top wing, and a re-cover was the only solution. I had been planning to look into wood leading edges for my Pitts but had been hesitant to tackle the project; now I had no excuse. The fabric was off, so if I was going to do it, it was time. I have often asked Steve Wolf of Wolf Aircraft for advice when it comes to modifications on the Pitts. His experience and expertise is highly respected in the industry, and his willingness to share his knowledge makes him a great asset for our sport. When I asked Steve about wood leading edges, he said, "There are so many advantages, I do not know why anyone would use metal." If you know Steve, you know he is a straight shooter and will not embellish his products to make a sale. He provided several real advantages of wood right away to back up his statement.

Now that I was sold on wood leading edges, the next hurdle was certification. A friend and fellow IAC member, Brian Correll, had modified his wings last year and used the approval of a designated engineering representative (DER) to avoid the often onerous field approval process.

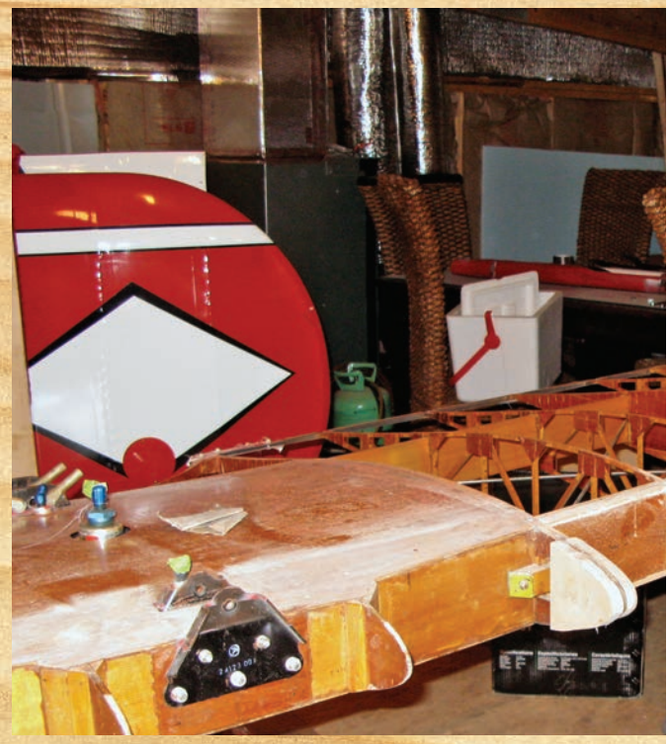
WHY WOOD?

To really see the advantages of wood, we have to look at the metal leading edges first. The metal leading edges on the certificated Pitts are press formed in a vertical break at the factory. This leaves a very small ridge or break line where the radius starts and stops. Even though it is very small, this ridge acts like a stall strip along the full length of the wing. The wood leading edges provide a smooth transition and allow the airflow to remain attached and smooth. Creating a more efficient wing equals better cornering, the ability to pull more *g*'s before stalling, and slower stall speeds.

Anyone who has been around a Pitts has experienced or heard about others cracking the nose ribs. It is difficult to fly a Pitts in the Intermediate category or higher without experiencing cracked nose ribs and/or nail heads popping loose along the leading edge. Snap rolls often receive the blame for both of these rather expensive wear problems. The wood leading edges are glued, not nailed, to the wing and nose ribs, creating a strong and stiff structure. Each nose rib is profiled with sandpaper, and the entire inside surface of the leading edge is coated with adhesive. This means the entire 1/4-inch width of the nose rib is in contact with the leading edge and bonded to it. This does two things: It attaches the leading edge much more securely than the metal leading edge, and it increases the gluing area that secures the nose ribs by almost 10 times.

If you have ever moved a Pitts from a shady hangar out into intense sunlight, you have most likely heard small creaks and pops. This is due to the difference in the expansion rate of the metal leading edges and the wood wing. This is another reason why the nail heads like to start pushing their way up into the fabric. The wood leading edges are made out of six plies of birch totaling 1/16-inch thick and formed to the contour of the leading edge. Since they are made out of the same material as the wing, they expand and contract at the same rate, eliminating this problem. Not to mention, the wood will not dent if you accidentally bump it with a ladder or another aircraft.

The first step in the process is removing the old metal leading edges. Anytime I am working close to the spar with sharp tools I always exercise extreme caution. One slip here could cost a lot of time and money. Removing the old leading edge is not difficult, and I was able to do most of it with my hands. The small nails do like to go everywhere and are difficult to sweep up. After the old leading edges are off, it is a good time to inspect the wing and repair any damaged nose ribs.



TOP-CENTER: Matt Lynn profiles nose-ribs with 80-grit sandpaper. BOTTOM-LEFT: Center section glued and jigged in place. MIDDLE-RIGHT: – Caragh Abbott prepping the wing for bonding. BOTTOM-RIGHT: Matt Lynn prepping a nose-rib.

PHOTOGRAPHY COURTESY **PATRICK CARTER**

Preparing the wing for the wood leading edges is also a simple process. The metal leading edges were nailed to a 1/4-inch capstrip nailed to the top of the spar that is 5/8-inch wide. Since the wood leading edge will be glued, we want as much bonding area as possible, so this 1/4 inch of surface needs to be widened to 5/8 inch. Some people like to remove the old 1/4-inch strip and replace it with a 5/8- by 1/4-inch strip. However, the old capstrip is glued and nailed to the spar, and removing it is a risky proposition. I chose to add another 3/8- by 5/16-inch strip in front of the old 1/4-inch strip. This was less work and eliminated the risk of gouging my spar. The 5/16 height made the new strip slightly taller, and I used a sanding block to remove this and profile it to the exact height of the old strip, creating a uniform bonding surface.

The original nose ribs are cut out of 1/4-inch thick plywood material, and the edges were sawed at 90 degrees. Since the top wing of an S-2B has a 7-degree sweep, the edge of the nose rib needs to be profiled to accept the leading edge. This can be accomplished using a 36-inch or longer sanding block with 60-grit sandpaper. The 36-inch block is long enough to span several ribs. Keeping it parallel to the spar will ensure they are profiled with the proper sweep.

"I jigged my wing using pipe clamps and sawhorses and checked it obsessively. There is no forgiveness here."

Since the wood pieces are not as long as the wing and must be joined using scarf joints, doublers must be added where the scarf joints are to be made. This is accomplished by using 1/4-inch or thicker spruce stock cut to the same shape as a nose rib. Once the location of the scarf joints has been determined, the doublers are glued to the nose ribs that will be affected and profiled with sandpaper.

After the capstrip has been expanded, nose ribs profiled on the top wing, and the doublers glued on for the scarf joints, the leading edge must be fit and glued. The scarf joints are made by sanding material away from the outside of one piece and the inside of the other, creating a wedge. This allows for maximum bonding and strength. After the entire leading edge has been fitted, it is time to glue. I used the structural adhesive T-88. This was the only adhesive approved per my 8110-3; however, several other adhesives are available if you are not worried about certification. A

squeegee is used to spread the glue over the entire inner surface of the leading edge. The wing must be jigged and absolutely level at this point. Once the leading edges are glued on, the wing becomes stiff and will not move again. I jigged my wing using pipe clamps and sawhorses and checked it obsessively. There is no forgiveness here. The only solution is to live with a twisted wing or buy a new one. I used an inner tube cut into strips to create giant rubber bands to hold the leading edge tight against the wing while it was setting up.

After the wing is glued, it is time to make it look pretty. The leading edge sets 1/16 inch above the fuel tank at the center of the top wing and the steps on the bottom wings. This transition must be filled with aerodynamic filler (aka Bondo). I have little experience with bodywork so I was learning, but I lost track after a dozen cycles of fill, sand, fill. After the filling and sanding has been completed so the transitions cannot be detected when you run your hand across them, the leading edges must be sealed. This must be done with a two-part spar varnish, basically an epoxy. If it is not two-part, it will react with the chemicals used in the covering process.

A private individual with DER status can approve data in accordance with the FAA's guidelines for Part 23 aircraft.

After the spar varnish has cured, all that is left is covering. At this point, I started to think I was really making progress—only to find out that the spar varnish required a seven-day curing period. There are no differences in the way the airplane should be covered. I used Superflite and was pleased with the process. The only thing I do differently with aerobatic airplanes is ensure that no seams are exposed to the slipstream. I wrapped the top fabric around the leading edge and stopped on the aft edge of the bottom of the leading edge, and wrapped the top skin around the leading-edge and stopped at the aft edge of the top of the leading-edge. This effectively double covers your leading edge, eliminating the need for a leading edge tape while making it impossible for the slipstream to get underneath any seams and lift your fabric. The leading edge tape also has a tendency to act as a stall strip and disrupt the airflow.

TOP: top-wing ready for fabric.
BOTTOM: Preparing a scarf joint.

PHOTOGRAPHY COURTESY **PATRICK CARTER**

CERTIFICATION

This is often the biggest hurdle when making any modification to a certificated airplane, because the cost and effort often outweigh the benefit. The flight standards district office is often difficult to work with because aerobatic and/or fabric airplanes are rare, so they are often unfamiliar. "No" is the safe answer, so that's usually what you get when asking for a field approval like this. Fortunately, there is another way. A private individual with DER status can approve data in accordance with the FAA's guidelines for Part 23 aircraft. In this case a structural substantiation was performed, and the DER was able to prove that the aircraft would still be in compliance after the modification and then issued an 8110-3. The 8110-3 states, "This form constitutes FAA approval of all engineering data necessary for substantiation of compliance to necessary requirements for the entire alteration/repair." This statement ends all debate. Complete an FAA Form 337, attach the 8110-3, mail it to Oklahoma City, and you are legal and certified. Since DERs

are private individuals, they do charge a fee for their services. Luckily, the wood leading edge modification is common enough that Rocky Hill, of Aerodesign Aircraft Engineering Inc., has spread the cost out and was able to provide an 8110-3 for my aircraft for several hundred dollars. Money well spent!

PILOT REPORT

As with any modification, you never know what you have until you go out and test it. Wow, the first flight on the new wings put to rest any doubts I had. I climbed several thousand feet, and to make sure everything was working properly, performed a wing set—both positive and negative. The difference was evident here. I was able to pull right to 6*g*'s at 160 mph with no buffet, and the wing was ready to give more. This is a result of the extra stiffness; the metal leading edges allow the wing to warp more under high *g*, producing a less even airfoil. I checked for wing heavy and landed after the wing set to check all the rigging and tensions before continuing with a full aerobatic evaluation. On the second flight, I performed snap rolls, spins, and tumbles. It got even better at this point. I started with a snap to the left and was happy, but when I pushed the right rudder, I was ecstatic. I have always struggled snapping the Pitts to the right. The aircraft broke clean and rocketed around, stopping crisply right where I wanted it to. The stalls were much more predictable, and with the stick full aft, the input required to keep the aircraft upright was much less. This also made spin entries and recoveries much crisper and more predictable.

After going through the entire process and flying the airplane for more than 30 hours with the new wood leading edges, I have to agree with Steve. There are so many advantages, I do not know why anyone would use metal. The final test will be to see if I can show the judges the difference. *IAC*

SPECIAL THANKS to my wife, Emily, and friends Eddie Bevan, Caragh Abbot, and Matt Lynn.

ABOUT THE AUTHOR: Patrick Carter is the founder of Acroflights LLC (*www.Acroflights.com*), where he provides aerobatic and unusual attitude instruction in the Pitts S-2B in southeast Kansas. He is a master certificated flight instructor–aerobatic, an airline transport pilot, and an airframe and powerplant mechanic. Patrick works full time as a production test pilot for a major aircraft manufacturer.

CONTACT: *acroflights@gmail.com*

TOP-LEFT: Caragh Abbott ironing fabric. CENTER: Base white on fabric. TOP-CENTER: Wing prepped for paint. BOTTOM: Eddie Bevan, Matt Lynn, and Patrick Carter look the bottom wing over.

PHOTOGRAPHY COURTESY **PATRICK CARTER**

SOURCES:

Steve Wolf,

Wolf Aircraft LLC,

www.WolfPitts.com

Rocky Hill,

Aerodesign Aircraft

Engineering Inc.,

www.AerodesignInc.com

Confessions of a

Contest Director

BY TOM MYERS, IAC 16830
PHOTOS BY KATE DEBAUN

The purpose of writing this article is to share many ideas that have worked well at contests I've been a part of running. If any of these ideas become useful to other contest organizers, then its main goal will have been attained. Hopefully, it will also encourage anyone who hasn't been involved with running a contest—but would like to be—by taking away some of the unknowns.

This article is divided into three parts. The first part discusses safety. It's no coincidence that a safe contest is also a successful contest. The second part discusses some philosophical thoughts. These are the strategic ideas. The third part consists of specific implementation methods. They're the tactical ideas.

Over the years, I've received numerous requests to document the specifics of putting on a contest that runs smoothly. The danger of being too specific is that every contest has its own set of assets and complications, and exactly what works at one may not work at another. Trust me, if I included a section with all the instances that didn't go smoothly, this article would be a *lot* longer. Thus, I've strived to write at the idea level instead of the blueprint level.

The starter's area. A sea of adrenaline and nerves, yet organized and efficient.

SAFETY
It's Job One

Above all others, the primary goal of a contest is to send everyone home safely. All decisions and activities are based first and foremost upon that goal. Completing the contest is a worthy goal also, but it's a secondary goal. All decisions and activities should address the primary safety goal first, and all secondary goals after that.

Don't tolerate breaches of safety and screwing around. My experience is that questionable actions only continue to degrade once they start. Ensure that your chief judges aren't shy about issuing recalls; a refly can be arranged when warranted. Zeroing flights and disqualifying competitors are never enjoyable tasks, but when necessary, they're as important as any tasks at a contest. Get the facts. Involve other experienced people at the contest to ensure that the decisions are sound. The contest jury is a valuable resource. Pull the offenders aside and handle the situation discreetly; public castigations are counterproductive.

There's always a flow of transient traffic at a contest site. Making sure there's always someone at the contest site with a UNICOM radio that is listening for and answering inbound calls is essential to keeping the transient traffic out of the box. This is especially important on practice day. I keep a handheld UNICOM radio with me to help ensure that all transients get a traffic and contest box advisory.

Make certain that your practice box chief judge is well-qualified for the responsibilities of the position. Over the years, I've witnessed several pilots demonstrate a lack of command of aircraft and sequences in the practice box that resulted in withdrawals and disqualifications. The practice box chief judge must be alert for this sort of behavior.

STRATEGY
The Big Picture

Running and flying a contest successfully have a lot in common. They both benefit greatly from planning ahead, paying attention to details, sharing the workload, correcting course drifts early, using one's head and staying calm in the face of surprises, knowing when to speak up and ask for help, keeping plenty of margin for potential trouble, and being focused but not tunnel-visioned.

Running a contest has a lot to do with keeping a lot of information well-organized. The better the information is organized, the easier everything becomes. Take copious notes. Detailed notes aren't only helpful to you for the upcoming contest; they can be very helpful when passed on to the lucky person that gets to run next year's contest.

Get started early. The tasks that can't be taken care of too early are few and far between. The best way to avoid last-minute surprises is to have everything done before the last minute.

Being a contest director is kind of like being a duck. Look calm above the water and paddle like heck below it.
(Tom Myers)

The Paso Robles airport ramp and starting area. Congestion in this area is kept to a minimum to improve traffic flow and visibility. Outbound aircraft taxi out to the right. Inbound aircraft taxi in from the left.

Know what your contest budget is. Keep in touch with your sponsorship chair and chapter treasurer to make sure that the budget is realistic and the entry fees are appropriate. Keep an accurate running financial picture so there are no big red-ink surprises at the end. The earlier your program sponsors are lined up, the earlier your overall budget solidifies. Don't forget to thank and follow up with all of your program sponsors after the contest to ensure that they know they're appreciated, that they got good value for their investment, and that they've all paid up.

As the contest director, the buck stops with you. If something needs doing, make certain that it gets done either personally or by delegating responsibility. Know the difference between the leadership tasks that you need to do, the tasks you're available to do, and the time-consuming tasks that can be delegated to others. Make sure that tasks don't fall through the cracks; keep a running list of reminders. Keep it up to date and consult it regularly. Ensure closure by following up on tasks until they're completed.

Get around the contest site often. It's the single best way to catch and correct problems early. Know what's going on by getting around, by keeping your eyes and ears open, and by talking with people. Ask them how things are going, and ask them if there's anything that the contest organizers could be doing better. Inquire if they have any ideas for improving the contest. Let them know you're glad they came, and show you mean it by constantly striving to improve the event, especially while it's going on.

Attitudes are infectious. Have the most positive attitude of anyone at the contest. This is a can-do operation.

Be Prepared

The International Aerobatic Club is blessed with a plethora of members willing to work very hard sans paycheck. My experience is that the number one reason that most people give when asked why they're not involved is that no one asked them. Don't be shy. Ask people what they like to do, what they would like to do, or if they could take care of a specific task.

Support your volunteers every chance you get. Talk with them regularly. Find out what they are happy or unhappy about. Do everything you can to fix the things making them unhappy as quickly as possible. Involve your volunteers in the decision-making process. Solicit their ideas, especially involving decisions that affect their tasks. When a decision adversely affects anyone at the contest, especially volunteers, do everything you can to communicate how and why the decision was made, and do everything you can to mitigate the effects upon them.

Keep a list during the contest of who your volunteers are and what they're doing. Bring this list to the banquet. Make sure that you acknowledge all of your volunteers appropriately at the banquet. A banquet that runs a little too long because all the hard work was acknowledged is better than a group of volunteers that is left feeling unappreciated.

Don't abandon your volunteers. If anyone needs to stay late, then you stay late, too, until the jobs are done. Ensure

that the judges' line and corner judges are transported in promptly, especially at the end of the day. Always arrange for a specific person to pick up the corner judges.

Try to rotate the volunteers at the corner judge positions as much as possible. For example, if you have one category with 20 or more pilots, assign the corner judges for that category so that any individual volunteer is responsible for only one flight at most. The amount of time that any pilot spends sitting out in the heat and sun is a contest safety issue.

If someone's engine won't start and the next pilot is ready, then get the next pilot moving and the chief judge notified that there has been a change.

In years when it has been very hot and we have been short of volunteers, especially judges, we've reduced the number of judge crews on the line as opposed to overworking the judging crews that we do have. I would rather have fewer well-rested judging crews than more heat-exhausted judging crews working and flying. Once again, the amount of time that any pilot spends sitting out in the heat and sun is a contest safety issue. Please remember my comments above regarding the primary goal.

We assign three volunteers to the starting line for each category. The chief starter handles the briefing and releasing of each pilot. The two assistant starters help push planes, monitor the radios, and hunt down pilots that have gone walkabout.

Getting a big contest completed on time is all about avoiding the myriad of little delays that add up to a great deal of wasted time. Swapping out the corner judges *near* the end of a category instead of *at* the end of a category will mean that they'll be in place and ready when the next judging line is in place and ready. Take all the available volunteers for the next category's judging line out near the end of the current category. They can be checking the judging paperwork and correcting any problems before the problems result in any delays. Having the paperwork for a category completed one category ahead of when it's actually needed is a great way to stay ahead of the game. Purchase extra clipboards if necessary. Lost time is much more expensive than a few clipboards.

The contest rules allow the order of flight to be adjusted to keep the flow of airplanes moving. Avoid putting a pilot first in a flight if he's on the judge's line for the previous category, and avoid putting a pilot last in a flight if he's on the judge's line for the next category. This means having the volunteer coordinator and registrar working together so both people can share their knowledge of who is supposed to be where and when.

When determining an order of flight, pay close attention to the pilots of shared airplanes. Distribute these pilots as evenly as possible throughout the order of flight to maximize the available time for pilot changeovers and refueling. The pilots of shared airplanes can still be selected in the normal random order to determine who goes first, second, etc., for that particular airplane.

Get airplanes started and taxiing early, especially lower-performance planes that take a while to climb. You can always delay an aircraft in the run-up area if the holding area(s) get backed up. Brief your starters and chief judges to work together and adjust the order of flight on the fly if necessary to avoid delays. If someone's engine won't start and the next pilot is ready, then get the next pilot moving and the chief judge notified that there has been a change. If there is a delay, have the chief judge clear the next pilot to climb in the box while the on-deck pilot climbs in the holding area.

Multiple holding areas work well to keep a contest moving as long as the flow of aircraft through them is managed in step with the management of the box. This means, for example, that the chief judge or an assistant chief judge is calling pilots by name to move from the secondary holding area to the primary holding area after the chief judge has cleared the next pilot to move from the primary holding area to the box.

We normally combine the Primary and Unlimited categories and alternate the pilots of the two categories. The amount of time it takes for a typical Primary category plane to climb is about the same as the time it takes for an Unlimited category plane to climb and fly a sequence. This method helps eliminate most of the delays often associated with the Primary category.

Some years, we have put the scorer right out at the judges' line in an RV or camping vehicle. A 12-volt DC to 120-volt AC converter makes it possible to run the computer and printer in the vehicle. Any paperwork discrepancies are resolved immediately, and the scores get posted very rapidly.

Drinks and Food

Ensure that there's never a shortage of cold drinks anywhere at the contest site—ever. Hydration is as important a

The judge's line. We are fortunate to have as picturesque a contest site as you could ever hope for.

safety requirement as any. Make sure personally and by delegating that the corners, judges' line, and starting line are all well-stocked with drinks and ice. Cases of drinks with many small bottles go much further than cases with fewer large bottles due to the number of partially emptied bottles that are abandoned.

We rent an ice trailer from a local company for our chapter's regional contest. The trailer is delivered to the contest site and contains a few hundred pounds of ice. It's worth every penny we spend on it to not have to worry about running out of ice. It isn't that expensive compared to buying many smaller bags of ice throughout the contest.

We generally have around 80 to 100 people at the Paso Robles, California, contest site. It's usually around 95°F to 100°F out. We start with about 30 cases of 24 drink bottles and buy them at the local bulk purchase warehouse store before practice day. Hydration is important on practice day, too. The number of cases consumed the first contest day is a good indicator of the number of cases that will be consumed the second contest day. If we have around five cases of extra water and drinks at the end of the contest, then I feel the correct amount was purchased. I buy about 50 percent water and 50 percent sports drinks in assorted flavors. Carbonated beverages don't seem to satisfy thirst as effectively as water or sports drinks and usually cost more.

We have a pizza party for dinner at the airport at the end of the first contest day. Ordering 20 or more pizzas from one pizzeria ensures that the pies will show up at the airport at least an hour late. Ordering four or five pizzas from five different pizzerias, though, has been a very good method for ensuring that the food shows up on time. In fact, the pizzas usually arrive over about a 20-minute spread, which actually helps us serve hot pizza to the whole crowd.

We've also done a barbecue at the airport for dinner on practice day. This seems to work well only when we have a dedicated volunteer or two willing to take charge of the entire task. When the dedicated volunteers aren't available, we pass on it, as it really is a time-consuming project that can pull volunteers away from more critical needs.

If possible, rent a portable toilet for the starting line in addition to one for the judges' line. The one at the starting line helps keep pilots there, as needed. It also helps to cut down on some of the traffic and mess that a contest generates in the airport terminal building restrooms.

OTHER THINGS TO IMPLEMENT

Communications

Keep plenty of spare fresh radio batteries on hand. Make sure that there are spare fresh batteries anywhere radios are in use. Modern batteries have a very long shelf life, so don't worry about buying too many. The extras will keep just fine until next year if stored someplace reasonably cool (room temperature or below). A refrigerator is an excellent place to store batteries long-term and maximize their retained energy.

A large satellite photo of the airport and box is a handy item to have in the registration area.

The best friend an IAC chapter could ever have, Paso Robles airport manager Roger Oxborrow.

Our chief judge, Dave Watson, (far right) holds an extended briefing with the first-time pilots to assure that they know what they've gotten themselves into.

Many pilots bring handheld aviation radios to contests. Most don't mind lending their radios to the contest staff; the first briefing is a good time to ask. Having spare radios available at safety-critical areas like the chief judge's table and the starting line is a good idea. Label the borrowed radios with the owner's name. Make sure that the radios are returned to their owners. Instructing that all the radios being used by the contest are to be returned to the registration area at the end of the day is helpful in this regard. It's much easier to check and replace batteries during the evening than during the middle of the contest.

I purchased a bunch of Family Radio Service (FRS)/ General Mobile Radio Service (GMRS) radios for our chapter a few years ago. They weren't that expensive and have been well worth the investment. The use of channels 1 through 14 on these radios doesn't require a license because the transmit power is limited. Higher transmit power is available on channels 15 through 22. The use of these channels does require a license as a result, though. The license is $85 and may be obtained at the Federal Communications Commission website. I purchased a license for our chapter, as the fine for not having one is $10,000. Communications with the corner judge radios at our chapter's contest site benefit from the extra transmit power due to line-of-sight limitations caused by the local terrain.

For more information, go to *http://en.wikipedia.org/wiki/Family_Radio_Service*.

Cleanup and Inspections

Provide extra-large trash bins and garbage bags for the contest area. Ensure that they're emptied regularly. This goes a long way toward minimizing the effects that a large group of people have on a busy area like a small airport terminal building. It also helps cut down on the amount of propeller bait blowing around the ramp.

We rent a pickup truck for the entire duration of the contest. IAC's group discount code with Enterprise is 32AIAC, the PIN being IAC. Enterprise gives us a great deal. The pickup truck is invaluable for hauling people and equipment over airport terrain while minimizing the abuse on chapter members' personal vehicles.

I like to do the tech inspections whenever possible. It gives me an opportunity to meet most of the people at the contest. By far, the number one problem that I've found over the years while inspecting planes is foreign objects in the tail. I pat down the tail sections all the way from the seats to the rudder. Carrying shop rags is a good idea for hand cleaning after the pat-down. Carrying a flashlight is a good idea, too.

The location on the contest site that I make it a point to visit regularly is the airport manager's office. It allows me to find out about and immediately correct any contest activities that would be taken into account in a negative way when considering us being welcome back in future years.

Think Early and Avoid the Rush

Get the major contest roles filled early—volunteer coordinator, registrar, scorer, chief judge, tech inspector, sponsorship chair, etc. Have more key people lined up than there are key jobs so workloads can be shared and all jobs will still have coverage even when someone you're counting on can't make it to the contest at the last minute.

Set your contest dates and get the word out early so people can plan ahead. Our chapter's website has a page dedicated to the contest: *http://www.IAC38.org/paso2010.htm* is the URL for the 2010 contest. The page has a link for contest preregistration. (The 2010 contest took place already in June, so watch out for information on the upcoming 2011

event.) Preregistration has worked out very well, allowing us to anticipate the pilot and judge head counts early. As a result, we can have most of the contest paperwork printed out before we even get to the contest site.

Get the application for the FAA waiver to the flight standards district office very early. Follow it up with a phone call to the examiner to ensure that there are no changes necessary. I send in our waiver application three to four months before the contest. Occasionally there are changes in procedures or paperwork that requires edits. It's a great relief to find out about and fix items in the paperwork months before the contest.

Don't succumb to the temptation of rushing through a lot of important tasks at the end of a contest. For special awards at the banquet, such as the grassroots medal and the best first-time Sportsman, we ask for a show of hands from the qualifiers and double-check that we're really giving the award to the correct pilot. A few years ago, we goofed and gave the best first-time Sportsman award to the second-best first-time Sportsman pilot. We bought another identical trophy and awarded it to the correct pilot after the contest. The second-best first-time Sportsman pilot had his whole family at the banquet, and no one could imagine taking that trophy away from them.

Last But Not Least

The neater you pack the contest storage area at the end of this year's contest, the easier it is to set up next year's contest. The end of the contest is a good time to look over equipment and start a list of what needs to be purchased or replaced for next year. Doing this now gives the chapter a whole year to take care of the purchases and repairs. Get to the contest site early enough to be able to take care of any required equipment repairs or purchases from the previous year before things get busy.

Make certain that the airport looks as good as or better than it did before the contest started. It usually takes several walkthroughs of the contest site to take care of all of the stuff that is invariably left lying around when the contest is over. The less that is left for the airport management to deal with, the more you'll be welcome back next year. People have remarkably good memories when it comes to having to clean up other people's messes.

Until the complete results of a contest are delivered to IAC headquarters, the contest hasn't happened. The complete results include scores, special awards, judging and assisting credits, signatures, and everyone's correct IAC member number. Signatures, judging credits, and IAC member numbers are much easier to obtain and confirm while everyone is still at the contest site. All of the IAC contest-related databases are keyed to IAC member numbers. Whenever pilots and judges aren't given proper credit in the contest results, it's virtually always due to a missing or incorrect IAC member number in the contest database.

Lastly, if you're flying in the contest, remember the importance of taking off your contest director hat when putting on your flight helmet. I'm guilty of messing up Unknown flights at contests that I've been directing by not following this advice well enough myself. From personal experience, I can tell you that flights score much better when you focus on the sequence instead of the things that need to be done after you land. *IAC*

40 Years of IAC History

Part V: The First Contest

BY MIKE HEUER
IAC #4 & IAC HISTORIAN

IN PREVIOUS ARTICLES, I'VE written about the early competitions in the 1960s that predated the International Aerobatic Club and how the U.S. National Aerobatic Championships became a stand-alone event in 1968, thanks to the efforts of Pappy Spinks and the Aerobatic Club of America (ACA). Today, we take a full schedule of regional and national events for granted—just have a look at the calendar in this magazine toward the beginning of the season to see a full array of fun, well-organized events to choose from, most of them organized by IAC chapters.

Giles Henderson in his Clipped Cub over Lake Winnebago near Fond du Lac, Wisconsin. This photo was extensively used in the 1980s for IAC promotion. (photo by David Gustafson, Communication Resources)

But it wasn't always that way. In 1968, you could count on one hand the number of aerobatic contests that were held. It was that year that ACA's official rulebook took hold and standardization of contests began. There were contests in Aurora, Illinois; Harvard, Illinois; Ottumwa, Iowa; Oak Grove, Texas; Monroe, Louisiana; and one or two others. Many of us who wanted to compete at the time had to fly long distances to be with friends and fellow enthusiasts and to fly in competitions. This was a problem the founders of IAC were determined to change—by writing a new rulebook that would emphasize grassroots aerobatics and by organizing chapters that would, in turn, organize and promote local competitions. IAC's "big one" was to be at Fond du Lac, Wisconsin. And so it went…

When was the first IAC contest? It was on May 17, 1970, and was held at the Chicago-Hammond Airport in Illinois. Chicago-Hammond was actually constructed by Henry Ford in 1927. It was to serve as a car parts depot for a plant in nearby Chicago. But on that day in May 1970, it was home to another historic event in the annals of aerobatics, the first IAC-sanctioned contest—a Sportsman-only event that featured six pilots.

The competitors in that one-day event were Don DeWitt (Clipped Cub), Dan McGarry (Clipped Cub), Giles Henderson (Clipped Cub), Dion Stams (Cassutt), Jim Dees (D-260 Senior Aero Sport), and Jim Lacey (Pitts S-1C). All were from Illinois and most from the Chicago area. Dees and Lacey were among the original IAC founders, and Jim Dees remains a member to this day. DeWitt, McGarry, and Henderson went on to long competition careers in IAC, and all were very skilled pilots. Giles holds a particularly significant distinction in our sport—42 years of uninterrupted competition flying. He flew his first competition in 1968 and his most recent this past summer in 2010 and all the while flying the same Clipped-Wing Cub. McGarry was particularly active in the Advanced category for many years after that and mostly flying a Pitts S-2A he modified for competition.

The contest was the first test of IAC rules. As today, the lower-altitude limit for Sportsman was 1,500 feet. But the box was smaller—3,300 feet along the X-axis but only 2,600 feet along the Y-axis. Back then, "cross-box" figures weren't common or utilized except in Advanced and Unlimited. The Advanced Known that year, for example, featured simple quarter-up, level, quarter-down cross-box figures (figures 11 and 12). Therefore, there seemed no need for a wider box. That changed just a few years later.

From IAC's inception, safety standards were set quite high. Again we take some of these things for granted today, but some of IAC's early rules weren't without controversy. Dual seat belts were required with at least one of the belts attached separately to the primary structure. As hard as it seems to believe today, some pilots would attach two sets of safety belts to the same attach point with the same bolt. This was outlawed in IAC rules. Parachutes were also not used in early competitions. Early Pitts S-1Cs had a small cockpit; it wasn't until the late 1960s that Curtis Pitts stretched the cockpit, leaving much more room for parachutes. Combined with the fact that parachutes used during this time were usually military backpacks that were heavy and thick, you could see why some pilots weren't using them. This came to an end in IAC contests in 1970.

Altitude limit penalties were also quite severe and strictly enforced. Sportsman had a no-tolerance policy that remains enforced today. Any flying below 1,500 feet above ground level results in a zero for the flight. By contrast, penalties for interruptions to regain altitude were very low and meant to encourage pilots to break and climb for altitude rather than press on. Thus, it's easy to see that the "culture of safety" has been a part of IAC life since our very first competition.

Chief judge of the contest was IAC President Bob Heuer, who also flew in an air show that same day at

Scoring computing, 1970s style. At least the score computing staff had electrical calculators. This photo was taken at the 1974 regional competition sponsored by IAC Chapter 27 in Memphis.

The competitors in the first IAC sanctioned contest in May 1970. Back row (left to right): Jim Dees, Jim Lacey, Don DeWitt, John Lumley, and Pete Myers. Seated (left to right): Dion Stams, Dan McGarry, Bob Heuer, and Giles Henderson.

PHOTOGRAPHY BY **JOHN KEPLINGER, TED J. KOSTON**

The highly modified Pitts S-2AMT flown by Dan McGarry in later years in the Advanced category.

Chicago-Hammond organized by EAA Chapter 260 and Chi-Way Aviation Inc. The contest was actually part of the show. Judges were Pete Myers, Bob Heuer, John Lumley, and memyself—each with an assistant judge, the names of whom I no longer recall. The Sportsman sequence from 1970 accompanies this article and isn't much different from those today, except snap rolls were almost always present in Knowns during those early years, and the barrel roll was still in the Aresti catalogue. The barrel roll didn't disappear from competition routines until 1987.

The judges are familiar names to IACers, having been discussed in previous articles, and all were from the Chicago area. Pete Myers, however, deserves special mention. He flew a highly modified Cub in air shows at that time and was always a featured performer at the EAA fly-in convention in Rockford, Illinois, and later EAA Oshkosh. His Cub was shortened and fitted with Taylorcraft wings and a 150-hp Lycoming. His air show routine was precise, graceful, gentle, and a pleasure to watch. A senior TWA captain at the time, Myers was quiet but helpful and deeply dedicated to EAA and IAC. Later he flew a Cassutt in air shows. None other than Henderson, who has restored the Cassutt to beautiful condition, owns it now. Henderson was also an admirer of Myers and is proud to own his former airplane.

Score computing was performed manually—and I mean manually—usually with adding machines that had keys and cranks. All of the judges' scores were added together to come up with a final result. There was no averaging, no statistical systems. In the end, Dan McGarry won the contest in his Cub, followed by Jim Dees and Don DeWitt. Thus, our old friend Dan McGarry went down as the first winner of an IAC competition. Last-place winner was one of IAC's founders, Jim Lacey, who managed to zero the hammerhead, the highest K-factor figure in the sequence. Contests are always humbling.

Sport Aviation Editor Jack Cox later wrote:

"As of June 1 IAC has 450 members and is averaging a half a dozen new applications per day! No one can foretell the ultimate size of IAC but it is readily apparent this new EAA Division is fulfilling the demand, the need for an organization to harness the fantastic new interest in America, Canada, and elsewhere in aerobatics. What makes IAC unique is that it provides the machinery for pilots of all levels of experience and skill to participate. The club itself and many local contests around the country are adding new vibrancy to EAA's role as *the* organization for men and women who love the sport of flying."

With minor changes, you could write that today... ***IAC***

PHOTOGRAPHY COURTESY **MIKE HEUER**

IAC YELLOW PAGES

EXECUTIVE OFFICE
MANAGER

Trish Deimer	P.O. Box 3086, Oshkosh, WI 54903-3086	920/426-6574	tdeimer@eaa.org

SPORT AEROBATICS EDITORIAL OFFICE
EDITOR

Reggie Paulk	PO Box 520, Tabernash, CO 80478 970/726-5067	920/426-6579	reggie.paulk@gmail.com

BOARD OF DIRECTORS
PRESIDENT

Doug Bartlett	1972 Concord Dr, McHenry, IL 60050	847/875-3339	doug.bartlett79@gmail.com

VICE PRESIDENT

Doug Sowder	118 East High Dr, Spokane, WA 99203	509/747-5748	dsowder@aol.com

SECRETARY

Ellyn Robinson	812 Juniper St Jenks, OK 74037-2554	918/805-4031	ellyn.robinson@yahoo.com

TREASURER

Bob Hart	3019 N Ringwood Rd, McHenry, IL 60050-1324	815/363-8967	hrtlndfrm@aol.com

SOUTH CENTRAL REGION DIRECTOR

Bob Freeman	1835 Caleta Trl, Longmont, CO 80504-7816	303/709-3465	bfree.man@comcast.net

MID-AMERICA REGION DIRECTOR

Wayne Roberts	547 Northwoods Dr, Grenada, MS 38901	662/226-4914	wroberts@waco-eng.com

NORTHWEST REGION DIRECTOR

Klein Gilhousen	599 High Tower Road, Bozeman, MT 59718	406/586-2517	kleing@qualcomm.com

DIRECTOR

Robert Armstrong	PO Box 239, Bishop, GA 30621	706/549-7583	rba@coraid.com

INTERNATIONAL DIRECTOR

Debby Rihn-Harvey	10446 Carlow Lane, La Porte, TX 77571	281/470-8456	hurricane@sbcglobal.net

NORTHEAST REGION DIRECTOR

Doug Lovell	8 Louden Way #6, Fishkill, NY 12524	914/456-1594	doug@wbreeze.com

SOUTHEAST REGION DIRECTOR

Tom Adams	P.O. Box 915, 6024 Earhart Rd, Springfield, TN 37172	615/384-1018	pitts58ct@earthlink.net

UNLIMITED AEROBATICS USA REPRESENTATIVE

Norm DeWitt	148 Magnolia Drive, Atherton, CA 94027	650/321-8499	norm.dewitt@gmail.com

EAA REPRESENTATIVE

Louis Andrew, Jr.	39 South Marr Street, Fond du Lac, WI 54935 9	20/921-6000	landrew@eaa.org

SOUTHWEST REGION DIRECTOR

Darren Pleasance	30 Roxbury Lane, San Mateo, CA 94402	650/212-1806	darren.pleasance.1995@anderson.ucla.edu

PRESIDENTS EMERITUS

Carl Bury	4 Sleepy Terrapin Lane, Savannah GA 31411-1544	912/598-8801	csbury@comcast.net
Rob Dorsey	1548 Copper Creek Court, Florence, KY 41042-9194	859/657-6340	robd@dorseyaero.com
Linda Hamer	20483 Meridian Road, Peru IL 61354-9801	815/223-8596	l.hamerrealty@sbcglobal.net
Mike Heuer	4547 West Woodlawn Circle, Collierville, TN 38017	901/850-1301	mike@mheuer.com
Robert Heuer			
Verne Jobst	2921 Sterling Drive, McHenry IL 60050-2662	815/385-7277	nx211@owc.net
Doug McConnell	4203 E. Lake Shore Drive, Wonder Lake, IL 60097	815/653-1044	doug_mcconnell@comcast.net
Gerry Molidor	5912 Whiting Drive, McHenry, IL 60050	815/344-3239	gmolidor@aol.com
Steve Morris	24650 High Timber Lane, Agate, CO 80101	303/621-2835	N94rv@aol.com
Dr. Richard Rihn	1101 Scots Lane, Walnut Creek, CA 94596	925/938-4236	rihnairco@aol.com
Vicki Cruse			

PROGRAM CHAIRS & COMMITTEES
ACHIEVEMENT AWARDS

Lorrie Penner, Chair	7628 Plainfield Road, Cincinnati, OH 45236	513/791-7331	penn.lorr@yahoo.com

AEROBATIC INSTRUCTION

Rich Stowell, Chair	PO Box 190, Santa Paula, CA 93061-0190	805/525-2037	rich@richstowell.com

AWARDS

Ellyn Robinson	812 Juniper St Jenks, OK 74037-2554		

CIVA RELATIONS

Mike Heuer, Delegate	4547 West Woodlawn Circle, Collierville, TN 38017	901/850-1301	mike@mheuer.com
Debby Rihn-Harvey, Alt. Delegate	10446 Carlow Lane, La Porte, TX 77571-4214	281/470-8456	hurricane@sbcglobal.net
Doug Bartlett	1972 Concord Dr, McHenry, IL 60050	847/875-3339	Doug.bartlett79@gmail.com

Norm DeWitt	148 Magnolia Drive, Atherton, CA 94027	650/321-8499	norm.dewitt@gmail.com
Greg Dungan	46152 Levitan Way, Great Mills, MD 20634	301/994-0083	greg.dungan@verizon.net
Brian Howard	721 West Silver Eagle Court, Tucson, AZ 85755	520/531-9151	bk@newattaero.com
Don Peterson	612 Mary Street, Carson City, NV 89703	775/230-1555	autotech@flash.net
Trish Deimer	P.O. Box 3086, Oshkosh, WI 54903-3086	920/426-6574	tdeimer@eaa.org
COLLEGIATE PROGRAM			
Charles Rodriquez, Chair	309 E. Industrial Park Rd., Murphysboro, IL 62966	618/453-9215 (B)	crod@siu.edu
Pat Anderson	105 Carnival Drive, Daytona Beach, FL 32114 386/226-6917	386/453-4900	andersop@erau.edu
E. Allan Englehardt	910 Burris Avenue, Lake Bluff, IL 60044-1516 847/234-2325	847/234-2325	eallanenglehardt@compuserve.com
Ryan Carlson	5 Garden Circle NW, E. Grand Forks, ND 56721-1256	218/779-4096	rcarlson@aero.und.edu
COMPUTER SCORING/TECHNICAL			
Bob Buckley – IAC Scoring Program	6090 Fescue Drive, Colorado Springs, CO 80918	719/721-8729 (B)	bwanaBawb@Comcast.net
Peter Jensen – contest registration	310 Ellmar Oaks Loop, San Jose, CA 95136	408/281-8654	pmj@sbcglobal.net
Tom Myers – IAC Scoring Program Chairman	443 Leland Avenue, Palo Alto, CA 94306-1131	650/328-2141	tom.myers@stanfordalumni.org
Randy Owens – IAC Scoring Database, Soucy, Regional Series & Collegiate Tabulations		6585 E Fordham Cr., Anaheim Hills, CA 92807	
		714/250-1291	rdowens@sbcglobal.net
Doug Lovell – Scoring Outputs	8 Louden Drive #6, Fishkill, NY 12524	914/456-1594	doug@wbreeze.com
DJ Molny - web	9290 Bauer Court, Lone Tree CO 80124	303/799-0149	djmolny@yahoo.com
Reggie Paulk – blog, website, wiki	5612 S. Biloxi Way, Aurora, CO 80016	303/952-4753	reggie.paulk@gmail.com
CONTEST SANCTIONING			
Doug Bartlett	1972 Concord Dr, McHenry IL 60050	847/875-3339	doug.bartlett79@gmail.com
Bob Hart	3019 N Ringwood Rd, McHenry, IL 60050-1324 815/363-8967		hrtlndfrm@aol.com
Brian Howard	721 West Silver Eagle Court, Tucson, AZ 85755 520/531-9151	520/844-8132	bk@newattaero.com
Trish Deimer	P.O. Box 3086, Oshkosh, WI 54903-3086 920/426-6574	920/426-6579	Tdeimer@eaa.org
EXECUTIVE COMMITTEE			
Doug Bartlett	1972 Concord Dr, McHenry IL 60050	847/875-3339	doug.bartlett79@gmail.com
Doug Sowder	118 East High Dr, Spokane, WA 99203	509/747-5748	dsowder@aol.com
Ellyn Robinson	812 Juniper St Jenks, OK 74037-2554	918/805-4031	ellyn.robinson@yahoo.com
Bob Hart	3019 N Ringwood Rd, McHenry, IL 60050-1324	815/363-8967	hrtlndfrm@aol.com
FINANCE COMMITTEE			
Doug Bartlett	1972 Concord Dr, McHenry IL 60050	847/875-3339	doug.bartlett79@gmail.com
Doug Sowder	118 East High Dr, Spokane, WA 99203	509/747-5748	dsowder@aol.com
Bob Hart	3019 N Ringwood Rd, McHenry, IL 60050-1324		
Trish Deimer	P.O. Box 3086, Oshkosh, WI 54903-3086	920/426-6574	tdeimer@eaa.org
GLIDER AEROBATICS			
Klein Gilhousen	599 High Tower Road, Bozeman, MT 59718	406/586-2517	kleing@qualcomm.com
GOVERNMENT RELATIONS REPRESENTATIVES			
Bill Finagin, National	6 Romar Drive, Annapolis, MD 21403	410/263-2740	wbfinagin@cs.com
Doug Bartlett, Mid-America/SouthCentral	1972 Concord Dr, McHenry, IL 60050	847/875-3339	doug.bartlett79@gmail.com
Darren Pleasance, Northwest/Southwest	30 Roxbury Lane, San Mateo, CA 94403	650/212-1806	darren.pleasance.1995@anderson.ucla.edu
Dennis Thompson, Northeast/Southeast	83 Church Street, High Bridge, NJ 08829	973/219-5071	dtedge2002@yahoo.com
HALL OF FAME			
Dave Lammers, Chair	4000 Meadowknolls Road, Marion, IA 52302 319/377-1425	319/551-2832	davelammers@mchsi.com
Clyde Cable	21095 W. County Road 72, Eaton, CO 80615	970/227-5421	jinnyfield@yahoo.com
Bob Davis	N1561 Linn Road, Lake Geneva, WI 53147	262/248-6364	bdavis74@charter.net
Linda Hamer	20483 Meridian Road, Peru IL 61354-9801	815/223-8596	l.hamerrealty@sbcglobal.net
Verne Jobst	2921 Sterling Drive, McHenry, IL 60050-2662	815/385-7277	nx211@owc.net
Clint McHenry	180 Sweet Bay Avenue, New Smyrna Beach, FL 32168		
Dr. Richard Rihn	1101 Scots Lane, Walnut Creek, CA 94596	925/938-4236	rihnairco@aol.com
HISTORIAN			
Mike Heuer	4547 West Woodlawn Circle, Collierville, TN 38017	901/850-1301	mike@mheuer.com
ICAS LIAISON			
Bob Davis	N1561 Linn Road, Lake Geneva, WI 53147	262/248-6364	bdavis74@charter.net
JUDGES – CERTIFICATION & SCHOOLS			
Greg Dungan, Chair	46152 Levitan Way, Great Mills, MD 20634	301/994-0083	greg.dungan@verizon.net
LEGAL COUNSEL			
Louis Andrew, Jr.	39 South Marr Street, Fond du Lac, WI 54935 920/921-6000	920/921-0226	landrew@eaa.org
MEMBERSHIP			
Doug McConnell	4203 E. Lake Shore Drive, Wonder Lake, IL 60097	815/653-1044	doug_mcconnell@comcast.net

Drive one.

2011 Taurus

America's Most Innovative Full-Size Sedan

Enjoy the privilege of partnership

EAA Members who are considering the purchase or lease of a new Ford Motor Company vehicle should be sure to take advantage of the opportunity to save with the Ford Partner Recognition Program.

Get your personal identification number (PIN) and learn about the great value of Partner Recognition/X-Plan at **www.fordpartner.com**

Certain restrictions apply. Available at participating dealers. Please refer to **www.eaa.org.**

- IIHS Top Safety Rating
- NHTSA 5-Star Crash Test Rating
- Class-Exclusive Safety Features:
  - BLIS (Blind Spot Information System) with CrossTraffic Alert
  - Adaptive Cruise Control and Collision Warning with Brake Support
  - MyKey™
- Taurus SHO 3.5L EcoBoost™ Engine is the First North American Production Twin Turbocharged Direct Injection V6

Ford LINCOLN MERCURY EAA

partner recognition
VEHICLE PURCHASE PLAN

FLYMART

CLASSIFIEDS

AIRCRAFT

Pitts S1-T, factory-built, nearly as-new condition, Barrett Performance pkg, 440 SNEW, 22 SPOH,140 since complete internal inspection/recover/repaint, ICOM radio, NDH. $75,000: ***AeromedLLC@gmail.com***, **503-246-1429**

MISCELLANEOUS

Sukhoi 29 - Gear leg adaptors for Cleveland wheel and brake conversions. Call Pete at **520-906-0770**.

www.aerolist.org, Aviation's Leading Marketplace

SERVICES

Biplane Builder Ltd. Restoration, fabric, paint, fabrications, paperwork. with 53 completed projects, Wacos, Moths, Champs, Pitts etc. Test flights and delivery. Indiana **812-343-8879** ***mike@biplanebuilder.com***, ***www.biplanebuilder.com***

PARACHUTES

Great Deals on New & Used Parachutes. Silver Parachute Sales is a name you have trusted since 1972. When service counts, it pays to shop around. Largest dealer for SOFTIE parachutes. FAA Master Rigger and Examiner. **510-785-7070** ***Allen@silverparachutes.com***. For prices, safety articles and other services, visit ***www.SilverParachutes.com***

Parachute Shop, Don Mayer's Factory authorized for Strong, Squadron, Softie, National, Aviator, Used Parachutes, Repairs and Repacking, Master Riggers Services **800-872-2488, 978-433-8550**, ***www.parachuteshop.com.***

PLANS

Swick T Plans Convert T Craft to fully aerobatic clipped wing T Craft, meets requirements for LSA $285.00 plus $15.00 ***S@H swickclipt@aol.com***, ***www.swickt.com***

REAL ESTATE

River Fly-In Condominium, Merritt Island, Florida, now taking reservations. The ultimate heaven on earth for pilots and boaters. ***www.riverflyin.com.*** Phone **321-636-6631**.

CLASSIFIED ADVERTISING RATES: Classified Word Ads: $5.50 per 10 words (rounded to the nearest 10 words), 180 words maximum, with boldface lead-in on first line. Classified Display Ads: One column wide (2.167 inches) by 1, 2, or 3 inches high at $20 per inch. No frequency discounts. Rates cover one insertion per issue. Classified ads not accepted via phone. Payment must accompany order. Word ads may be sent via e-mail ***(classads@eaa.org)*** using credit card payment. Include name on card, complete address, type of card, card number, and expiration date. Make checks payable to IAC. Address advertising correspondence and/or inquiries on rates and mechanical requirements to: Classified Ad Manager, P.O. Box 3086, Oshkosh, WI 54903-3086. **Deadline** for display ads, space reservations or cancellations is seven weeks prior to publication date. i.e., April 10th for June issue, etc. However, ad materials/copy can be received at a later date providing space has been reserved. Classified ads accepted daily for next available issue.

ALLEN SILVER

Q: Who do you let pack your parachute?

A: I hope it's someone you trust with your life. I want to show you what came through my shop recently. The owner of this parachute had a rigger drive up to his hangar and say that the parachute could be packed right there. Much like the old west snake oil salesman riding into town with a miracle elixir that will cure all ailments.

Let me begin by refreshing your memory about the basic equipment that every parachute rigger must have. Your rigger must have the latest maintenance/packing manual. Every manufacturer I know of has its manuals available online. The manufacturers will send a disk, or hard copy to those of us that still like printed paper. As an owner, you should have received a copy of the maintenance/packing manual with your parachute. If you purchased a used parachute and don't have the manual, use one of the above methods and get one. There is absolutely no excuse, especially for a rigger, for not having a current manual when packing your parachute.

Your rigger should also be able to make new pack closing loops, or get them from the manufacturer. Using closing loops that are out of tolerance can cause the pilot chute to expand and shift. This can cause comfort issues at best and deployment issues at worst (see photo #1). Unfortunately, in my shop, I get parachutes that have not had the pack closing loop(s) readjusted or replaced. They also wear out. Closing loops will stretch between pack jobs because they are under a lot of pressure. At every repack they must be readjusted or replaced. They will always be a little out of tolerance when they come in for a repack (1/2 to 3/4 of an inch) but not 2-3 inches like many that I see.

Your rigger should supply the right size rubber bands and elastic keepers for any worn out or missing.

Failure to follow the manufacturer's packing procedures caused this parachute to get a hole in it and $40 dollars worth of repair to return it to airworthy condition.

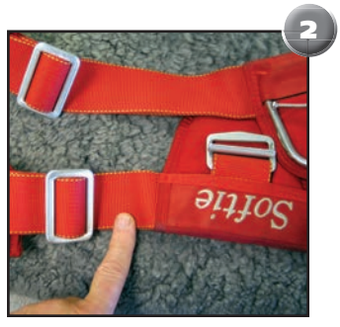
First, I noticed that the harness was way out of adjustment. The owner said it had been this way for a long time (see photo #2). Remember, you can fall out of an improperly adjusted harness. You don't want to bail out and see a parachute that looks just like yours falling right alongside you. The rigger should've noticed that your parachute was out of adjustment and readjusted the harness according to the size of the individual. Most can also be adjusted to accommodate several different users. The rigger should have also shown the user how to adjust his harness himself. In most cases it's pretty easy. I've told many people how on the phone. Your chute won't break, but you do want it properly adjusted.

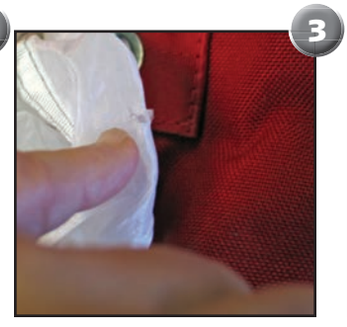
When I opened this parachute, I immediately noticed the canopy protector flaps had not been used. Most manufacturers have some kind of flaps installed to keep the canopy material from getting pinched between the closing grommets that could cause holes in the parachute (see photo #3). This small hole probably wouldn't have caused the parachute to fail, but it must be in an airworthy condition when I sign your packing data card (the official maintenance record for your parachute). Let's go back to photo #1 and you can barely see the dark blue material buried under the parachute. These are the canopy protector flaps. Now lets go to photo #4. This is what should be seen when your parachute is opened for servicing. You can also see the end of the closing loop sticking out of the grommet. When I close the container, the top, bottom, and side closing flaps will go over the closing loop, and the final product has the ripcord pin through the end of the loop. This is what you see when you open the ripcord protector flap during the preflight inspection of your parachute. You do preflight your parachute before every flight, right?

The canopy protector flaps I'm showing are on a Softie pilot emergency parachute. Every manufacturer's canopy protector flaps may look different, but they all work the same way and are critical in keeping the parachutes from getting damaged. There is no excuse for your rigger not to follow the manufacturer's procedures.

You may be thinking, "How can I tell if my parachute is packed correctly?" When you take your parachute to your rigger, practice pulling the ripcord and then look for all of the stuff mentioned above. Ask questions and become familiar with your parachute just like with your aircraft. If you ship your parachute for repacking, you can still put it on and pull the ripcord. Then exam it yourself for signs of improper packing. If you suspect a problem, take photos. Digital cameras or phones don't waste film, and they take wonderful photos that can be sent to someone like me to look at. Remember to properly package up your parachute before shipping so it is not damaged in transit. See my website SilverParachutes.com for previous articles on this subject. Remember, between repacks you are responsible for keeping your parachute in an airworthy condition. IAC

If you have questions about this article please call or email me at allen@silverparachutes.com. *I would also like any questions that I can use in my column. I promise not to use your name to protect the innocent. Fly safe and I hope you or your flying group will attend one of my bailout safety seminars or consider sponsoring one. Check out my website for past articles* (www.SilverParachutes.com).






IAC
INTERNATIONAL AEROBATIC CLUB
EAA
OFFICIAL INSURANCE PROGRAM
• Exclusive insurance products
• Unparalleled customer service
• Web-based insurance quoting
• Aerobatic school insurance
• IAC sponsor and supporter
• The experts in aviation insurance
Photo by Mike Shore • mikeshorephoto.com
ALWAYS RIGHT THERE WITH YOU
NORTHWEST INSURANCE GROUP, INC.
www.nwinsurance.net • 800-693-7053
BERKLEY AVIATION
A Berkley Company
Meeting the aviation insurance needs of the IAC and its members.