



HORIZONS

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HORIZONS

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IAC34 April Meeting—Standing Room Only!

By Chris Keegan

On April 11, IAC 34 met up with EAA 9 in Marysville for a **very** successful meeting. There were 10 or so IACers, about 15 EAAers and another dozen or so folks who just heard about the joint meeting and showed up. We ran out of chairs and the meeting room was overflowing with pilots.

The meeting started with our chief ambassador, resident guru, and aerobatic evangelist Gordon Penner giving a basic aerobatics seminar with power point graphics. Stall/spin awareness, spin recovery, and basic aerobatic maneuvers were covered. Gordon also discussed Aresti and included a good dose of aircraft history and certification standards information. (There was even a short video of the effects of 0 G's in an aircraft with a non-tethered poodle dog in the baggage compartment. The pathetic pooch pawed at the thin air as he floated through the cabin. The dogs rear end ultimately lodged between the pilot and passenger's shoulder. What this group of pilots thought was funny was amazing indeed!)

The crowd was attentive and mesmerized (or Pennerized, as the case may be) by Gordon's presentation. All day long the crowd's interest and excitement in what the IAC was doing and aerobatics was really palpable. This was a grass roots, home-builders, stick and rudder, seat-of-the pants type group right at home with the kindred spirit IAC group.

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The meeting temporarily adjourned after Gordon's talk to the more spacious maintenance hanger for pizza and socializing. I met several very enthusiastic-about-aerobatics EAAers. Gordon's talk sparked (as his talks always do) a lot of further discussion about flying and safety among those in attendance.

After pizza, Jeff Granger gave a talk (also complete with fantastic power point graphics) about the medical/physiological effects of G forces on the human body. Professor Granger did a superb job distilling the literature on this topic into a informative, understandable, and entertaining presentation. (Jeff's talk included a video of "Steve" - apparently a journalist, macho- tough guy- fighter jock wanna be-type who was having his face unnaturally contorted by G-loading as he was put to sleep again, again and again in a fighter plane - poor Steve!) Once more, what this group found as funny...



Let me tell you, without anything further the crowd had received more than its moneys worth by now. But we were just getting started. After Jeff's presentation, Lorrie Penner conducted the raffle of a free aerobatic ride donated by John Sollinger in his Nanchang CJ6A and a free aerobatic ride donated by Gordon Penner in his decathlon.

Almost everyone hung around for the outside portion of the meeting. The EAAers had varying degrees of experience with aerobatics. I helped explain to some the Aresti sequence language while Greg Kuehner flew his Pitts S2B in the 'box'. Greg flew this year's Intermediate

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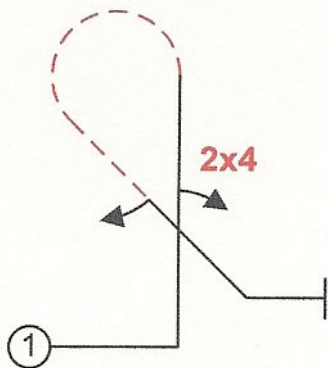


John Sollinger's Nanchang CJ6

Is Talent Overrated?

By Jeff Granger

After a couple of weeks of practice involving coordination maneuvers, g-training and a limited amount of freestyle sequences the big day came yesterday to have a look at the known for the year. I had deliberately avoided looking at it as I knew that once I did I would be compelled to start flying it and, as outlined in my previous columns, I don't think sequence flying is necessarily the best way to become competitive. Once the day came though, I was excited to go through my little yearly ritual of printing it out, reducing it to 66% and laminating it back to back with my freestyle to make a durable card that will be clipped to the holder for the remainder of the season. I worked through the figures one by one in the comfort of my study trying to see how the sequence flowed and what the problem figures were and how the wind corrector worked and thought I had a pretty good handle on it by the time I left for the airport.



Once in the air I went up to ~5000 ft AGL and started through the figures flying each three or four times without any attempt to link them together, just looking for the differences between my mental picture on the ground and what I was seeing and feeling in the air. Even the first figure was a bear. A pull to vertical with 2 out of 4 on the up line then a push around 5/8 "keyhole" loop. On that first flight I got little done other than trying to "figure out" that first figure. I tried it fast, slow and in-between and couldn't get the right speed or power setting for the push around. Either I was too fast and the negative-g was killing me or I was too slow and couldn't get her to come around past vertical to set the line on the inverted 45 degree down line. After two flights I had only gone through about half the sequence and felt

like I had been beat up. As I drove home I was hoping that there were some Vicodin left from my knee surgery three years ago and wondering if I really had the natural talent for this sport.

Which raises a question: is there any such thing a natural talent? 2009 will be my 15th year of IAC competition. I know of people who have moved up through the ranks to Unlimited and have competed internationally within 6 years in the sport. Do they have a natural talent that I lack? Geoff Colvin a senior editor at *Fortune* magazine examines this question in his book *Talent is Overrated*. Why is it that so few people are excellent at what they do even when they have worked at it for many years? Are there specific innate talents that the rest of us can never hope for or it is just a matter of putting thousand of hours in? Colvin's thesis is that it is neither talent nor the amount of practice but the type of "deliberate practice" one does. He profiles chess masters, comedians and CEOs but I think his best example is Jerry Rice: "the greatest receiver in NFL history".

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The great Jerry Rice in action

Talent Continued from page 4

Colvin makes several points relevant to our sport. Rice “spent very little time playing football”. Instead his workouts consisted of intense physical conditioning alternating with class room study and review of game films. His team almost never did full contact scrimmages because of the risk of injury. He worked out and studied 6 days a week. He also played a lot of games over a 20 year career but a quick calculation shows that he probably didn’t spend more than 1 percent of his time actually in a game. Also, “he designed his practice to work on his specific needs”. He worked intensively on running precision patterns, did weight training and endurance training. He understood that the game is often won in the fourth quarter when the opponent is tired and weak. He did much of the work in the off season and he did it long after it was no longer fun.

In Colvin’s book he also looks at violinists from the mediocre to the world class. He finds that they all started at about the same age and spend about the same amount of time in music related activities. The big difference was in the amount of solo practice which was almost directly proportional to their ranking. They all admitted that solitary practice was not very fun and required them to structure their lives in a particular way to be able to train regularly.

When I went up today I worked as usual on g-tolerance and coordination exercises again. Then I did the not so fun task of flying that first figure over and over again for about ten minutes. Eventually it started to “click”. There were a few moments where I could do the push past the vertical down line to the 45 with only minimal discomfort and no negative-g stall burble. I caught a glimmer of how the figure could be flown successfully. That little victory was enough for today. Next time I’ll work on another problem figure. I don’t know if I have “natural talent” nor do I care. But I do know that if I can put the hours in I can get to where I need to successfully fly a contest.

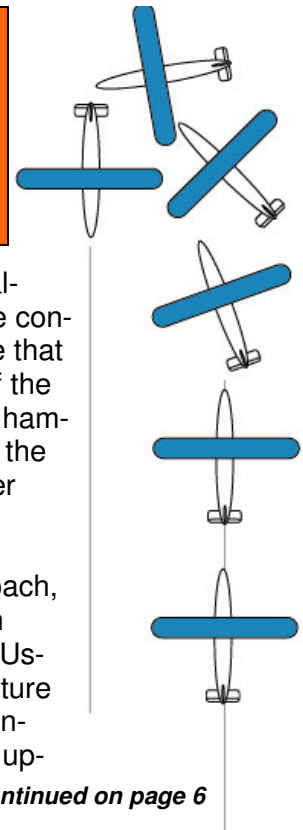
THE Hammerhead

By Gordon Penner—MCFI-A, FAA Gold Seal CFI

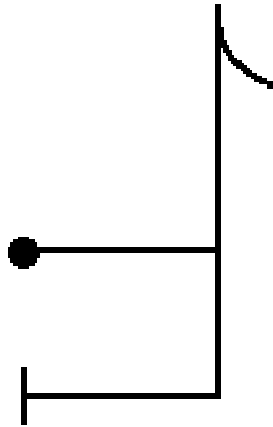
The hammerhead maneuver is one of my favorites, and it is a maneuver that always invites a lot of discussion. It is also one of the harder ones to teach. The conversations about the hammerhead always center on the rotation, so let’s tackle that aspect. I will be talking about the lead-in to the rotation, then the two halves of the actual rotation. Throughout the following article it will be assumed that we are hammering to the left. Aircraft with the clockwise turning engines (as viewed from the pilots seat) hammer easier to the left. Those with the Russian engines hammer better to the right.

Just as a good landing is more likely to occur following a good stabilized approach, a good rotation begins with a good upline. A lot of mistakes during the rotation come from beginning that rotation when the aircraft is not completely vertical. Using the correct visual reference, whether using a reference on the aircraft structure or a sight gauge, will not only ensure that the aircraft is vertical in pitch, it will ensure that the aircraft does not have a low wing (which is a rudder input) on the upline.

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Hammer Continued from page 5



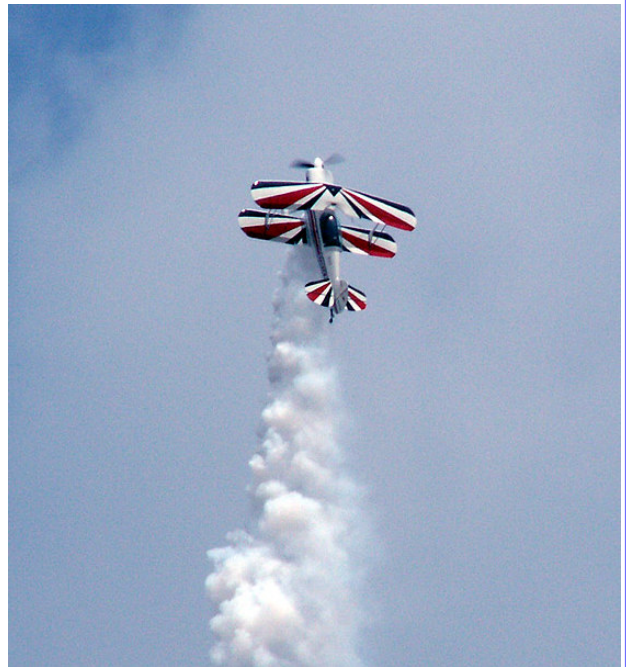
The stick should not be frozen in position in pitch after the pull up to vertical is initially made. This is a common mistake. As the aircraft continues on the upline and slows down it will creep either negative (slightly on its back) or positive (nose not fully 90 degrees up from level). The pilot must look at the reference guide on the airplane and the horizon and move the pitch control as necessary to maintain the correct vertical attitude for the whole length of the upline.



View on the Up Line.
The pilot in the front cockpit puts the sight gage on horizon to guarantee the aircraft is vertical and to keep the wing tips level

When to kick the rudder is the next item. By the way, the rudder input is not actually a 'kick' but a smooth, fast, feed in to the floor. Most people kick too early. This causes what we call a 'fly-over'. In this case the aircraft still has some energy left over when the rudder input is initiated. It also doesn't feel good. This causes the airplane to fly up and over in an arc instead of rotating about a point close to or within the dimensions of the aircraft.

Each airplane is different, but kicking at the proper time can be the difference between having the aircraft pirouette around a point without much fuss, or having the aircraft buck and snort, looking like a partially unfolded lawnchair thrown out of the back of a moving pickup. In the case of the Decathlon there is a gentle shudder that the aircraft gets when the time is right. Also, as I'm looking to the horizon at my sight reference it seems that when the time is right I haven't stopped moving upward, but that I am still creeping uphill slowly. However, while I in the airplane perceive a slight upward movement, a ground observer will see that the aircraft appears to stop. Here is where some ground coaching can help. But don't wait so long to kick that you get into a tail slide. Many airplanes' controls cannot take the stress from the reversed airflow. Most people tie some yarn on the aircraft structure in the pilots' sight line, but out of the prop wash. This yarn normally trails behind the aircraft. *Never* let this bit of yarn point forward!



The moment right before the "kick."
The airplane should appear to stop, but make sure to avoid a tailslide. Tailslides will damage some aircraft

The control inputs at the kick are left rudder, then opposite aileron, then forward stick. There should be a slight delay

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Hammer Continued from page 6

between each of these inputs – they should not be simultaneous. Put in enough aileron to keep from rolling. The key now is how much forward stick to put in. Too much forward stick could set up the conditions for an inverted spin.

I use a trick that was taught to me by Rich Stowell. You are watching the wing tip or sight gage, holding your vertical line when the time comes for the kick. As you put in the rudder and aileron inputs do not let your eye follow the wingtip as it drops. Keep your eye on the horizon and put in just enough forward stick to put the nose through that same spot on horizon that the wingtip just vacated. This technique should keep you from using too much forward stick.

From nose on the horizon to straight down, don't just hang on to the controls. At this point you already have full rudder in. Maintain that. Keep working the ailerons to keep the wings in the plane of rotation. However, you may already be close to full aileron input in some airplanes. The forward stick input will be your most powerful friend right now. Brett Hunter teaches to pump the stick forward

and back continuously in this last half of rotation as necessary to keep the nose yawing around, which will also help keep the airplane in the plane of rotation.



Reversal almost complete. When 30 degrees prior to straight down, put in full right rudder momentarily, then quickly go to neutral. This prevents the “pendulum” effect.

and that you have already had spin training. You can also see that you should not teach yourself this or any other aerobatic maneuver. Get the proper training first.

I love flying the hammerhead and I love teaching it. It is one of the most satisfying maneuvers when done well – whether competing or not. It definitely has a “sweet spot” to it. Learn it safely and enjoy!



I had mentioned before that the control inputs for beginning the hammerhead rotation could also inadvertently cause an inverted spin. Kicking at the right time and using the Rich Stowell method with the forward stick as outlined above will usually prevent an inverted spin entry. However, as soon as you find the airplane doing something unpredictable, discontinue the maneuver *immediately*. As they say in Top Gun, “don't push a bad position.” Center the rudder, aileron, and elevator controls, and pull the throttle to idle. The heavy end of the aircraft will seek the center of the earth, and the aircraft will begin flying again. If you stop using the “offending” inputs as soon as things start getting ugly the aircraft should never fully enter the spin. If a spin does result, using the PARE spin recovery procedure works whether upright or inverted.

I am assuming, of course, that when practicing this maneuver you have obtained sufficient altitude, have loaded the aircraft within the *aerobatic C.G.*,

Meeting Continued from page 2...



Intro Acro lesson with Alex and Gordon

Known to an attentive crowd. .. (This is when I learned that Greg's Pitts is much more maneuverable than my wrist as I tried to hand fly the sequence in explanation.) Patti Anderson and Lorrrie Penner served as box masters. Jeff Granger flew his Extra 300 in the box to a intensely interested crowd. There was a wicked-straight-across-the-box howling-cross-wind all day long. (At least that's how I remember it as I began to bump up against the skyscrapers of downtown Columbus and considered that maybe, just perhaps, I was no longer within the official boundaries of the aerobatic box at Marysville anymore.)

Gordon Penner gave many more rides and lessons in his Decathlon that day. It was tremendous to see all of the interest and enthusiasm about aerobatics by the folks there. This event was definitely one of those "we gotta do this again" type of affairs. **Thanks to all who participated.**

More Photos, Page 9



New IAC34 Member, Slade Crowder with his RV7



Greg Kuehner takes off for the box.



New IAC34 Member, Ben Petersen is looking forward to competition season



The meeting moves outside to watch some aerobatics.



RV's Fly-In for the Meeting



EAA9 member, Hal takes an aerobatic ride.



Chris Keegan heads out to fly in the box.

Hoosier Hammerheads IAC Chapter 124

Fellow Aviation Enthusiast:

We are proud to announce the formation of Indiana's first and only Chapter of the International Aerobatic Club (IAC). On March 4, 2009 **Hoosier Hammerheads IAC Chapter 124** was formed and officially recognized by the Experimental Aircraft Association (EAA). Hoosier Hammerheads will be based at Kokomo Municipal Airport (KOKK) and meet on the first Saturday of each month.

We hope to promote, encourage, and facilitate an atmosphere where all are welcome to join in and become a part of recreational aerobatics. Whether you choose to explore your aircraft's entire flight envelope, learn how to cope with unusual attitudes, compete, or just have fun, IAC Chapter 124 can help increase your capabilities in the sky.

First meeting to be held on **Sunday**, June 7th at 1:00 PM at Kokomo Municipal Airport. Looking forward to a successful Indiana IAC Chapter,

Mike Wild, President
Mike Bolinger, Treasurer

Greg Aldridge, Vice President
Pam Wild, Secretary



National News

SIU Aerobatic Team is Back Needs a Little Help from its Friends

The national championship Aerobatic Team at Southern Illinois University-Carbondale has been on a temporary hiatus since early 2008 due to a lack of aircraft sponsorship for the last year. Coach Charley Rodriguez and team Captain Scott Marquardt have been trying to find a way to get the team its wings again.

Southern Illinois Aerobatics, a not-for-profit corporation, is being formed to secure sponsorships from businesses and individuals in order to purchase an aerobatic aircraft.

Team members not only enjoy the excitement of aerobatic flight, but the skills learned from this unique style of flying help them understand complicated aerodynamic principles, energy management, and precise control of their aircraft. Teammates are also required to maintain the aircraft, so their airframe and powerplant knowledge is put to practical use. The team hopes to raise enough funds by early summer so it can compete this season, and return the championship collegiate title to Carbondale.

For more information please visit <http://aerobatics.aviation.siu.edu/>

IAC Partners with Aerobatic Flight Schools

Recognizing the importance of aerobatic flight schools, IAC is making a concerted effort to offer its support to the nation's aerobatic flight schools and flight instructors.

Miriam Levin of Suffern, New York was recently named the IAC Aerobatic Flight Schools Manager. She has contacted each flight school currently listed on the IAC web site to update contact and service information.

In addition, a resource page is available for flight schools and students, including teaching aids and instructional articles from previous issues of *Sport Aerobatics*. For more information got to:

<http://www.iacusn.org/schools/index.php>

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Ohio Aerobic Open Volunteers!

June 18-21
Union Co. Airport MRT
Marysville, Ohio

**Thank you for making the Ohio Aerobic Open
a roaring success each year!**

We are looking at our volunteer roster and wondering who is committing to all our volunteer spots this year. Do you want the same volunteer job you have had before or try something new? Let Lorrie know whether you will be at this year's contest in June. **THANKS!!!**
We couldn't do it without YOU! Contact Penn.Lorr@yahoo.com or call 513-284-5076

CD: Chris Keegan and Jeff Granger -committed to be our fearless leaders this year!

Starters: Caleb Vernick 1/2 day, Patty Anderson 1/2 day ; **Need 1 More**

Safety Tech: Gordon Penner and Missy Fohl (1/2 day); **Need 1 More**

Registration: Lorrie Penner; **Need 2 more**

Scoring: Lorrie Penner, Carol Granger (Friday); **Need 2 More**

Food/Snack/Ice Coordinator: _____; **Need 1 or 2**

Box Master for Thursday: _____; **Need 1 or 2**

Volunteer Coordinator: Nancy Wright

Boundary Judge Coordinator: _____; **Need 1**

Greeter: _____; **Need 3—one for Thursday, one for Friday, one for Saturday**

Boundary Judges; Wild Bunch, Jamie Popp & Purdue students; Ashley Fehrenbach;

Need 6-8 more

Odd Jobs: Dale Minton; Carroll Baker, Bill Lavin **Need 2 more**

Setup Crew: Chris Keegan, Jeff Granger, Gordon and Lorrie Penner; **Need 4-5 More**

Clean up crew: _____; **Need 5-6**

Mentors; Brett Hunter; **Contact Lorrie if you are interested in mentoring a new competition pilot**

Chief Judges; _____; **Need 2**

Chief Judge Assistants: _____; **Need 4**

Judges: Patty Anderson, Sandy Langworthy, Giles Henderson, Hugo Ritzenthaler **Need 8 more**

Assist Judges: Wayne Baker; **Need 8-10 more**

Recorders; Dale Minton, Rob Franks, Randy Fusi; **Need 8 more**

If you want to volunteer PLEASE DO!

Are you new to competition aerobatics? Do you wonder what all these volunteer jobs actually do? Drop Lorrie a line or give her a call and all will be revealed! Penn.Lorr@yahoo.com or call 513-284-5076

Tell her where to put you on the roster of very FINE volunteers!

2009 IAC34 Events

Some meeting dates may change.

May 9 8a-5p	Union County Airport (MRT) Marysville	Hampton Inn, Marysville OH	Advanced Judge's School. Aerobatic judge's looking for currency, competition pilots and any individual who can read Aresti is welcome. Instructor: Greg Dungan School Fee \$50
May 10 10a-7p	Union County Airport (MRT) Marysville	Meet at the FBO	ACRO CAMP! The aerobatic box is open to competitors and aerobatic students alike. Students from Advanced Judge's School are available to critique. FLY for IAC Achievement Awards! Patch Day!
June 18-21 8a-8p daily	Union County Airport (MRT) Marysville	Registration in the FBO Training room.	OHIO AEROBATIC OPEN! Registration and practice day, June 18. Contest Days June 18 and June 20. Raindate, June 21. Contest Directors: Chris Keegan and Jeff Granger
NEW DATE July 25 11am	Red Stewart Airfield Waynesville (40I)	Out by the Pond	SUMMER PICNIC! Young Eagles Day with Boy Scouts Come fly and enjoy a picnic by the pond! Will be barbecuing hamburgers and hotdogs! Bring chips and desserts.
August 8 11am	Union County Airport (MRT) Marysville	Meet at the FBO	Fly the box! Members and guests are invited to participate in flying in the contest box. FLY for IAC Achievement Awards! Patch Day!
September 12-13 8a-5p daily	Grimes Field Urbana (I74)	IAC34 has Booth space	MERFI (Mid-Eastern Regional Fly In) 43rd annual regional fly-in; seminars, aircraft displays, youth activities, aviation and food vendors
October 10 10a-7p	Union County Airport (MRT) Marysville	Meet at the FBO	ACRO CAMP! The aerobatic box is open to competitors and aerobatic students alike. FLY for IAC Achievement Awards! Patch Day!
November 14 11am	Red Stewart Airfield Waynesville (40I)	Training room	FREE LUNCH Officer Election: Secretary and Treasurer

Mid America Regional Contests

June 6-7 IAC Ch 1	Greater Kankakee Airport (KIKK): Illinois	Robert Heuer Classic www.iacchapter1.com Contest Director: Jim Klick E-Mail: jimklick@sbcglobal.net Primary Ph: 815-609-7165 Alternate Ph: 815-258-0047
July 11-12 IAC Ch 88	Reynolds Field (JXN): Jackson, MI	Michigan Aerobatic Challenge www.iac88.org Contest Director: Robb Butts E-Mail: rtbutts@iac88.org Primary Phone: 734-255-2263
July 18-19 IAC Ch 61	Salem/Leckrone Airport (SLO): Salem, Illinois	Salem Regional Aerobatic Contest Contest Director: Bruce Ballew E-Mail: bruceballew@earthlink.net Primary Phone: 314.369.3723
Aug15-16 IAC Ch 78	Spencer Municipal Airport (KSPW): Spencer, Iowa	Doug Yost Challenge www.iac78.org Contest Director: Mike Niccum E-Mail: pgnic@aol.com Primary Phone: 952-239-7114



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N929CB serial # 76-05

Airframe Manufacture: 1994 TT on airframe:
430 hours

Engine: 1987 MPF-14 serial # KYA722037
Overhauled by WAP3 in SHAKHTY, Russia Nov
2004 @212 hours. In April of 2008 at 412
hours new pistons and gapless rings were in-
stalled for higher (7.13 to 1) compression and
more power. The Cylinders were ported and
polished reworked as well by Blackwell Red-
star Aviation. **Prop:** MTV-9-B-C/CL260-27C
installed in 2005 @ 300 hours.

Flight Rigging: was completed by Nikolai Timofeev in June 2008. This aircraft has been gone through very thoroughly over the last year. Our professional mechanics at Aviation Sales Inc. have made many new improvements to enhance the quality and performance of the airplane. While the cylinders were out for improvements they installed all new fire-sleeved fuel and oil lines forward of the firewall. A fire suppression system was installed for engine and cabin fire suppression. The Battery was relocated from the firewall to the fwd electrical shelf and a new wiring harness and secondary electrical bus were fabricated to facilitate this and other improvements.

We have all the Russian Logs and US logs to complete this aircraft's history. In addition we have the flight manuals and the Maintenance manuals for the SU-29. This airplane has nearly \$400,000 invested but we are selling for **\$325,000.**

Contact Brett Hunter: 513-464-1151
or email: brett.hunter@earthlink.net

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International Aerobatic Club Ohio Chapter 34 New Membership or Renewal Form

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 Email Address: _____

Check All that Apply:

Please Send your Check for \$20.00 to:

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- _____ New Member
- _____ Change of Address
- _____ Other Information Change

IAC34
 c/o Gordon Penner, IAC34 Treasurer
 7628 Plainfield Rd
 Cincinnati, Oh 45236

Please Check one in each Category:

Newsletter:

- _____ I will read it on the website
- _____ Please mail me a hardcopy

My Name:

- _____ Please include it on the Member page of the website.
- _____ Don't include it on the website.

My Photo (included with this form)

- _____ This photo need to be returned.
- _____ No need to return the photo.

How I got started in aviation:

My experience with aerobatics:

Suggestions or comments for club activities:

LET US GET TO KNOW YOU

Airplanes I have flown (owned or rented):

Suggestions or comments for the website or newsletter:

