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THE ACRONAUT

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President's Post Graham Bird



I'm lucky enough to be at Oshkosh (in the IAC booth) as I write this month's missive. It's very impressive, a huge gathering – about one million attendees and over ten thousand aircraft - with many familiar faces and old friends.

But what struck me was how tight knit this community is. As I was talking with Rob Dorsey, we admired a Zlin 526 being pushed to the display area and I mentioned seeing two of my heroes as a kid fly that model – they are the folks who really sold me on aviation. One name will probably be familiar – Neil Williams, the other probably not, Neville Browning. Rob knew them both and had great tales of flying with Neil. I've had chance to fly ex-military jets in the UK this year and my instructor, Tony Haig-Thomas, flew in competition in the 60's, sure enough he and Rob know each other too. Almost forty years and over 5,000 miles to this collection of friendships.

We are a small community, but we have friends that have known us for a long time and around the world. Perhaps it is aviation that makes the friendships so strong; I don't know but I certainly do value it. But, and it's a big but, we need to spread the word, involve more people in the sport – not just as pilots - and use our networks to spread the word about the positive aspects of aerobatic flying.

This year at OSH there is a focus on the grassroots aspects of aerobatic flying, with 'affordable' aircraft on display outside IAC HQ. It looks as though the recreational aerobatics days WILL take off (sorry!!) late this year and

will be tried out across the country next year. I'd like to see Chapter 38 involved in that. The aim is to get non-acro pilots to try simple routines in their capable aircraft – such as the RV series – after safety briefings and tutorials. I think it's an excellent way to involve more pilots in our little niche of aviation.

Back to HQ. For the first time ever, I had a call from HQ staff asking what the feeling amongst chapter members was about a number of topics; the newsletter, communication, etc. I gave my views and tried to synthesize what I'd heard from Chapter 38 folks. But it made me stop and think. One, its nice to be asked by HQ; two how accurate is my synthesis? I'd certainly like to hear more from YOU about your views on chapter activities, the grassroots initiative, Young Eagles...

Oh, Young Eagles. I went to the YE Leaders session (Sorry Terry!) to hear what is happening. The 700,000 mark has been passed and the daily run rate of 295 kids flow is only a fraction
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Aviation Quote

If you can't afford to do something right, then be darn sure you can afford to do it wrong.



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short of the number need to hit the 1 million by the 100th anniversary of flight. I'm proud of the small contribution that Chapter 38 has made to this and hope we can step up our efforts. I still have to pinch myself when I'm in a group photo with Chuck Yeager (me and about 100 others!!!!) and say 'do I REALLY get to do stuff like this, can it be legal to have so much fun?

Spread the word, share the joy!

Gerrit Vanderzeil tells me that they planning to have hangers available at Delano – sign up now!!!!!!

My Pitts has a fuel leak, and the 'non-standard' tank (don't you love experimentals?) means the top wings have to come of to get it out to be repaired. No flying for me again, no Delano. But Chapter 38 will be there in force, let's see if we can't bring home the wood as we did last year...

Finally, November will bring the election of directors and officers. We have a nominating committee this year. Be prepared for the call and start thinking now about how YOU could help make Chapter 38 even better.

Good flying. ✈

Plane of the Month

Freebird 300

Length:	20' 7"
Height:	9' 2"
Wingspan:	24' 4"
Wing:	Zivko Edge Wing
Wing Area:	98 sq ft
Engine:	Lycoming AEIO-540, 315 hp
Seats:	1
Empty Weight:	1,250 lbs
Useful Load:	Whatever I can stuff in there
Gross Weight:	1,720 lbs
Fuel Capacity:	17 gal Main (8 gal each wing ferry)
Power Loading:	3.97 lbs/hp
Stall Speed:	50 kts
Max Speed:	230 kts
Roll Rate:	420 deg/sec
Prop:	MTV-9 (200 cm)

Other interesting things:

5-gallon smoke tank
 4 nozzle halon fire extinguishing system
 carbon fiber cowling
 electric turn & bank indicator
 digital fuel flow and pressure gauge



History:

The Freebird 300 began life as an airshow star based in St. Louis, and shared the skies with Patty Wagstaff, Sean Tucker, and the Toyota Airsports Team. The retired TWA Captain, former fighter pilot owner decided to hang up airshows and focus on restoring a Monocoupe. The Freebird 300 arrived in California in November of 1999, and after some extensive modifications, was re-certified in December. To date we have logged about 125 hours of aerobatic practice.

The fuselage and tail group is from the Rebel 300 kit, and was modified to update the elevator linkage and the more modern wing attach fittings. The seat was also modified to recline about 20 degrees, which greatly improves G tolerance. The ergonomics of the cockpit are perfect - the seat is comfortable, and everything is right where it should be and within easy reach. There's even a little locker in the left wing root to store maps or other small items.

What's under the hood? A DeMars AEIO-540 with 10-to-1 pistons, a hopped-up Barrett cam, and Barrett tuned 6-into-2 exhaust system. We figure the engine is producing between 310 and 320 hp. It was never put on a dyno, but DeMars did dyno other engines he built the exact same way and saw numbers in the 320s. We don't have any complaints about the power! During an aerobatic sequence, down low at full power, the fuel flow is up around 33 gallons per hour.

The Freebird 300 was featured on the cover of the April 1999 "Sport Aerobatics" magazine, with a short write up on pages 22 & 23. A photo gallery can be found on our website at www.freebird-aerobatics.com, see the link to "exciting photos". Don't miss the last photo, where we are "shooting for the moon"!

Where can you see the Freebird fly? During the competition season, we are out at the Tracy Airport almost every Saturday and Sunday, and some Fridays. We try to make all the California contests, and you can also see us operating in and out of Livermore Airport (LVK), where we are based. Stop on by Hangar 318 and say hello!

From the editor: If you would like your aircraft highlighted in the newsletter, please contact me.

Entering the Box with Style

Doug Sowder — IAC Chapter 67

Unless you had the foresight to pick up the breakfast tab on Contest Day, your first opportunity to favorably impress your category's judges may come when you enter the box for your first flight. It goes without saying that, if you climbed in the box, you maintained a constant climb rate, climbed on the X and Y axes and did wind circles, rather than just wandering aimlessly. If you did your safety roll within sight of the judges, it was clean, on point, and on heading, right? What would a judge's expectations for the upcoming flight be if the safety roll was sloppy?

So what comes next? Your box entry serves several purposes. It lets the judges know that you're about to entertain them. It places you in the box at the Y-axis location that you need, considering crosswinds and any upcoming cross box figures. And, it places you on the X-axis at the pull point, N@ #

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(left bank) position, a good way to know when you've crossed the boundary into the box.

The accompanying sketch shows an idealized, zero wind version of the box entry that I attempt to execute for my Advanced Free program. The plan is this: If I set up on base 942 feet (or about 1/3 of a box length) outside the box at 3500 AGL, roll into a 45 degree dive aimed at a point roughly halfway from the middle of the box to the far side, and start a pull 164 feet above my desired altitude, I should be able to hit level at 2000 feet, wait a "one count", then pull 6 G's to reach vertical exactly on the Y-axis. No gawking around trying to figure out where I am; it's all "automatic" after the initial set-up. Well, that's the plan, anyway. I'm accelerating on the 45 degree downline, but even at 204 mph all the way, there would be 6 seconds for the wing wags, although time compression does set in here. Regarding the radii and G-loads shown on the sketch, the initial radius of a looping figure is established by initial speed and initial G. When pulling (or pushing) from level, the +/- 1 G of level flight doesn't contribute to the radius. The G load must change continuously during the pull to maintain a constant radius, for two reasons: First, that 1 G of level flight vanishes to zero as you approach vertical. And secondly, you're slowing down. If R is to be constant and V is changing, G must also change. Result: if you're going faster, pull earlier. That's one of the joys of aerobatics. It's both a science and an art.

Do I really think that anyone but me draws a diagram for a box entry? Well, I haven't seen anyone else do it, but having been congenitally shortchanged in the art department, I lean toward the science for help. I did it at first just to gain a better understanding of the physics and geometry involved, and I do it if I encounter an Unknown that I can't mentally adapt my "standard" procedure to, or if I think that wind conditions are going to be unusual. It's part of "plan your flight and fly your plan."

A few last words on box entry. First of all, don't let a fancy box entry spoil your first figure. If something goes wrong, if you're not satisfied with position, altitude, airspeed, or anything else, don't pull for that first figure. Fly straight ahead out of the box, regroup, and enter again. And again, if necessary. If the first figure is a low-energy figure like a spin or split-S, don't dive in at 200 mph. In IAC competition, you won't be penalized for skipping one or more of the wing wags, so if you've waggd once or twice and your pull point is coming up fast, skip the rest.

Practice your box entry just as you practice your other figures. It may seem silly to practice diving 90 degree wing wags, but if you don't, you could find yourself 30 degrees off heading before you've even pulled for the first figure. Practice wags to the right and to the left (remember, it's best to wag toward the judges, and they could be on either side). I find entering the box to be every bit as challenging as any other maneuver, and getting it right sets the tone for the remainder of the flight. And remember that this article isn't flight instruction. It's up to you to fly within your own limits and those of your airplane. ✈

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samples in the Chapter 38 sequence library, find them at www.iac38.org, expand "Competition", click "Sequence Library", then click "Freestyles". If nothing else, these can get you started, or at least get you thinking.

Give it a shot - you have nothing to lose.

See you in the box! ✈

Welcome Back!

Please welcome the following member back to Chapter 38...

- Sheldon Klotz
Fremont, CA



Meeting Location

When: Sunday, August 12th, 4pm

Address: 20511 Skywest Drive
Hayward, California

How to Get there:

From the West/North:

From I-880 take A Street West. Follow A Street, past Hesperian Blvd, and when the road splits take the left fork (Skywest Dr.). Follow Skywest Drive past the tower (on your right) until you come to a gate on your right. You should see building #20511 by the gate.

From the Peninsula (West Bay):

Take 92 East (San Mateo Bridge) to Hesperian Blvd. Take Hesperian North to West A Street. Take a Left on West A Street. When the road splits take the left fork (Skywest Dr.). Follow Skywest Drive past the tower (on your right) until you come to a gate on your right. You should see building #20511 by the gate.

Map:



Aviation News

Golden West Fly-in is Canceled — AvWeb

It hasn't been a good year for fly-ins, has it? First, the Popular Flying Association's event in Cranfield, England, was waylaid by foot and mouth disease. Now, the plug has been pulled at the Golden West EAA Regional Fly-In (originally planned for Sept. 7-9). Golden West's plans were scrubbed, because worried Sacramento County authorities feared the planes attracted by the fly-in would cause residents to complain -- and those complaints could jeopardize the airport's current transition from military to civilian use.

Trophies to be Retired — IAC

The International Aerobatic Club will retire its championship trophies at the annual member reception July 28, Saturday, evening at the IAC Aerobatic Center on the EAA convention grounds. The buffet starts at 6:00 p.m. - 8:00 p.m.

Since the IAC championships were discontinued this past year, the IAC Championship (Fond du Lac) trophies will be formally retired and recognition will be given to all past trophy winners.

The trophies that will be retired include:

- The Keith Allan Cup awarded to the first place winner of the Four Minute Free Program at the IAC Championships.
- The Fond du Lac Cup awarded to the winner of the Fond du Lac Cup invitation competition.
- The Elroy French Trophy awarded to the highest placing pilots regardless of category who is not a U.S. citizen at the IAC Championships.
- The Krier Cup awarded to the winner of the power Unlimited category at the IAC Championships.
- The Pitts Cup awarded to the pilot achieving the highest percentage of available points in any category at the IAC Championships.
- The Pitts Aerobatics Trophies awarded to the first place winners of the Sportsman, Intermediate, Advanced and Unlimited categories at the IAC Championships.

Also scheduled is the announcement of new member aircraft insurance program offered by evening sponsor Falcon Insurance Agency.

Earlier in the evening are the United States Aerobatic Foundation presentations, including special recognition of: Senator James Inhofe (R-OK) and his efforts to secure the team's transportation to the World Air Games in Spain; Bob Minkus, past Chairman of the U.S.A.F. Board Jay Wickham for his support of the Cub Raffle Program

2nd FAA-IAC-NAFI Video to be released—IAC

IAC and FAA officials will release a new video on July 26, Thursday, 1 p.m., titled, "How To Avoid Aircraft Upsets." IAC Vice President Dave Monroe and a representative of the FAA to be announced will be on hand to introduce the video, the second such collaboration between IAC, EAA, NAFI and FAA.

The first video, "Avoiding the Inadvertent Spin," was introduced at last year's AirVenture.

The video will be shown between 1 p.m. and 2:15 p.m. at the eBay Pavilion (former AOL Pavilion).

They Came, They Saw, They Questioned — Avweb

A standing-room-only crowd packed the "Meet the Administrator" session at EAA AirVenture yesterday, hoping to hear that a new pilot certificate nearly nine years in the making was finally a reality. That's not the news they got, but not many of those in the audience left the session unhappy. Both FAA Administrator Jane Garvey and DOT Secretary Norman Mineta are pushing hard to make the new Sport Pilot/Light Sport Aircraft proposals happen. "This is one of the most significant aviation rulemaking innovations in years," Mineta told the crowd. "It will make it easier for more to become pilots and own airplanes. I wanted to be able to tell you today that it was approved, but I can't. All I can say is it's sitting at the hangar door all set to taxi, but not quite ready for the runway."

8th Edition of AeroCrafter™ Available — EAA

EAA's AeroCrafter is the definitive homebuilder's catalog, providing everything you need to select, build, equip, fly, and maintain your own aircraft. The eighth edition is hot off the press and available now! Informative articles by industry experts help guide you through the selection and building process, plus the accompanying CD-ROM has includes interactive search and comparative graphing capability, cost calculators, videos, photo gallery, FAA Regulations, and much more. Order AeroCrafter at <http://www.aerocrafter.org>.

eBay Offers Aviation Auctions — AOPA

eBay, the world's largest online marketplace, has realized the importance of aviation. The company announced that it is creating an aviation category on its Web site for airplanes, parts, and memorabilia. Also, eBay said a special auction will take place on August 6 that will include a Cessna 182 owned by the late John F. Kennedy Jr., a DeHavilland Vampire owned by John Travolta, and the helicopter that was used in the TV show Airwolf. For a preview, see the Web site. <http://pages.ebay.com/promo/aviation/>

Microsoft introduces Flight Sim 2002 - AOPA

Microsoft announced the latest incarnations of its flight simulator software, Flight Simulator 2002, and Flight Simulator 2002 Professional Edition. Key updates to both versions include new aircraft models such as a Cessna 208 Caravan on floats, interactive air traffic control audio, and AutoGen scenery providing realistic detail to terrain backgrounds. The Professional Edition also includes a Beech 58 Baron, Cessna 208 Grand Caravan, and an instructor's station. Microsoft has responded to requests by various professional flight training operations for lessons and other features conducive to using the software as part of ground instruction. John King of King Schools, consultant to the program, notes "airports are more intimidating than they used to be, and it's not as easy to introduce kids to aviation. Here's a chance to reach people we wouldn't otherwise." ✈

Calendar of Events

August

- 3-4 Regional Aerobatic Contest, Pendleton, OR — Contact Renny Price rennyprice@aol.com or (503) 638-6174
- 11-12 Moffett Air Expo, Moffett NAS, Mountain View, CA— www.airshownetwork.com
- 12 Monthly Chapter Meeting — 4pm, Hayward, Speaker: Dick Rihn, Sportsman Free Part 2**
- 16-18 Chapter 26 Delano Regional Contest, Delano, CA—Contact CD Bob Meyer (661) 943-5274 (see below)



September

- 1-7 IAC Power & Glider Nationals, Grayson County Airport, Dennison, TX — Contact CD Allison Parker-Lauck, princess70@earthlink.net
- 7-9 Aviat Aircraft Fly In, Afton, WY— 10:30am—5:30pm, see www.aviataircraf.com for more info
- 9 Monthly Chapter Meeting — 4pm, Hayward, Speaker: Korey Wells, Maintenance & Inspection**



October

- 11-14 Borrego Akrofest, Chapter 36, Borrego Springs, CA — Contact CD Lance Teren (760) 804-9744
- 14 Monthly Chapter Meeting — 4pm, Hayward (tentative)**



November

- 1-3 Tequilla Cup Regional Contest, Marana NW Regional Airport, AZ — Contact CD Maryilnn Holland (502) 887-9399 or m.hollandsaac@worldnet.att.net
- 11 Monthly Chapter Meeting — 4pm, Hayward, Speaker: Alan Silver, Emergency Bailout Procedures**

(Chapter 38 Events in Bold)

IAC Chapter 26 Regional Aerobatic Contest August 16-18, 2001 Delano Airport (DLO), California Basic through Unlimited and Gliders

Schedule

Thursday 8/16	8:00am-Sunset	Registration and Practice
Friday 8/17	7:00am	Pilot Brief
	8:00am-Sunset	Contest Flying
Saturday 8/18	7:00am	Pilot Brief
	8:00am-Sunset	Contest Flying
	After Flying	Banquet & Awards
Sunday	Morning	Clean-up and Departure

Accommodations

Best Western	New! Available by contest, we hope
Comfort Inn	661-725-1022
Pioneer	661-725-7488 (walking distance to airport)
Shilo	661-725-7551

Fees

Sportsman through Unlimited	\$75
Basic	\$25

Information

CD's Bob and Marta Meyer	661-943-5274 rmeyer0844@aol.com
Chapter Pres Gerrit Vanderziel	661-481-1354 iaccd97@aol.com

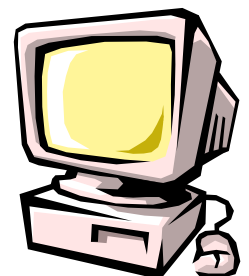
Web Site of the Month

<http://www.hiller.org>

Description:

One of the coolest aviation museums is right here in our backyard. The Hiller Aviation Museum, located on the San Carlos Airport (SQL), has many great exhibits for kids and adults. If you have never visited, you will be absolutely amazed at the size of some of the aircraft on display...the largest of which has a wingspan of over 200 feet. Be sure to visit their web site for discounts on admission and a schedule of special events. Stephen Hiller is a member of Chapter 38 and flies Extra 300 in Intermediate.

- Please send your favorite web sites, telling me why you like it, to brad@bradoliver.com (or call).



IAC Chapter 38 Membership Application/Renewal Form

New Member

Renewal

Address/Phone Change

Name: _____ Spouse: _____

Address: _____

City: _____ State: _____ Zip: _____

Home Phone: _____ Work Phone: _____

E-mail 1: _____ E-mail 2: _____

IAC #: _____ EAA #: _____

Certificate #: _____

Judge: Regional National Newsletter: E-mail (Adobe PDF) Postal Mail

Competition: None Basic Sportsman Intermediate Advanced Unlimited

Aircraft: _____ N #: _____

Referred By: _____

Dues: Single Membership (\$25/year) Family Membership (\$30/year)

Send with check, made payable to "International Aerobatic Club Chapter 38", to:
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Bradley Oliver
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CHAPTER MEETING:
Sunday, August 12th, 4:00 PM
Hayward (See Page 5)