



Northern California
Aerobatic Club

CHAPTER 38

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THE ACRONAUT

Volume 8 - Number 6



Jessy Panzer over San Francisco in her new Pitts.
Sent in by Cory Lovell.

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Angels can fly because they take themselves lightly.

— G. K. Chesterton, 'Orthodoxy,' 1908



2007 Membership Dues

Renew today!

Use the form on the last page or go to the website (www.iac38.org) and you can link to Paypal (use the 'About IAC 38' tab), to renew or start your membership for 2007. \$25/year, or \$30/year for a family. Please provide all requested info/updates on the form.

President's Post

Darren Pleasance



Next stop, Paso Robles.

It's that time of year again, and our annual aerobatic contest is upon us. Given the number of participants in last weekend's Tracy critique session, the contest stands to have a terrific turnout with great representation from Chapter 38. Perhaps this year we'll bring home the coveted Chapter Trophy.



Anachronism: Cold War vs. WWII? Dave Watson's Yak spent the day under a B-25 at Livermore. Dave did a couple of fly-by sessions for the crowd.

Unfortunately, due to certain airplane constraints (outlined in last month's newsletter), as well as some unfortunate travel needs for work this week, I won't actually arrive at the contest until Saturday morning. Although I won't be competing, I will be there to volunteer and to partake in the festivities and to hang out with a fantastic group of people. I'm confident Tom Myers and team have done a great job in preparing and I'm really looking forward to a terrific contest. Hope to see you there.

In other news, I'm continuing to work closely with Vicky Cruse and Tom Poberezny on an effort to improve the way EAA and its Divisions operate in order to help increase the quality of membership experience for everyone, while also driving improved efficiencies and consistency in the way EAA operates. Needless to say, there are widely varying per-

spectives on how to do this so the group is moving forward at a measured pace with a core group of leaders from EAA headquarters and each of the Divisions (IAC, Warbirds, Vintage, Homebuilts, ...). Our next meeting is in Oshkosh at Airventure which is a great excuse for me to make the annual trek again out to that amazing event.

I also had a nice chance to rekindle an old friendship last week by virtue of Chapter 38. About a week ago or so I was pleased to see in my inbox a notice of "new member" from John Piggott. I met John when I was 15 years old while riding my bike around the airport watching airplanes land. John



Sal Webber at Tracy

had an S2A that was desperately in need of waxing and John was kind enough to offer to trade me a ride in exchange for making his Pitts look like new again. I can still remember vividly how excited I was to actually get to polish on a Pitts, let alone go for a ride in one. It took me the whole week after school each day to "transform" the airplane, but when I fin-



Andrew Connolly straps in at Tracy

ished, the plane had gone from a relatively dull, faded red, to a high-gloss, brand-new looking plane. John took me for my first Pitts ride that weekend and I still remember it as though it was yesterday. Over the following several years, I took many flights with John, plus lots of formation flights with John in the second plane, and managed to get tons of great video of all of us playing over the hills of Livermore. Truly a



Hans Bok, Dave Watson, and Martin Price

wonderful time for a 15-17 year old kid.

John also had a Pitts S2S that he did airshows with and had a ~5 year old son, Rusty, who would always come out to the airport with his dad and bang on the fabric and wander around with tools in his hand that I was sure would end up lodged somewhere in the plane. Now, 25 years later, Rusty is in the



Dave and Hans

Air Force and has been selected as the national F-16 demonstration pilot for airshows around the country. As such, John is getting back into the airshow game with his Sukhoi and will be doing a handful of "father-son" airshows this year with Rusty. I can only imagine how much fun this will be and how proud John must be to have the opportunity to do this with his son. John has a very rich flying and business background that would lend itself to a much longer story so perhaps we'll see if we can get him to contribute to one of our "member profile" sections in the next month or so. Welcome to Chapter 38, John.

Writing this little vignette about John has reminded me about the truly amazing times I had around Livermore growing up. I can tell stories about my first Super Decathlon checkout with Dick Rhin up in Concord, or my first ride with Bob Love in a P-51, the weekend outings to "chase toilet paper", the impromptu airshows at Tracy, the hanger strafing on any given weekend by flights of P-51s and P-40s, the outrageous



Cory Lovell and Gary Evans at Applevalley. Gary won Best First Time Sportsman.

hanger parties with Julie Clark (of T-34 fame when she used to live here), the annual aerobatic safety seminars down at Frank Christensen's ranch in Hollister, having people trust me enough to solo their many airplanes from Decathlons, to a Jodel, to a PT-26, to weekly trips sitting as a passenger in the Lear Jets that gave flight training out of Livermore. I have so many pictures and video/Super-8 clips from those days. Perhaps I'll write a few stories about a several of the more memorable of my adventures back then.

And perhaps this will serve as a reminder that there are likely still 15 year old kids out there today who would love the opportunity to experience the same things I did back then and the opportunity all of us have to make this possible, particularly given the increased challenges the chain-link fences and "no trespassing" signs have created for these aspiring aviation enthusiasts. Along these lines, the Boy Scouts from the local Paso Robles council will be helping us set up the box this week. If you see any of them at the airport, please take a few minutes to thank them and spent a bit of time introducing them to our sport.

Hope to see you all at Paso Robles this weekend!

Blue skies...

Darren

Building an Aerobatic Sighting Device

Sean Worthington

It was nagging at me. I had finally found the time to compete for the first time in quite a few years. In addition to the normal performance anxiety that can only be cured through practice and critiquing, I was worried about not having a sighting device. I had finished building my Pitts a few years before and building a sighting device was on my list of things to do since I started flying it. But since they are not the most aesthetically pleasing appendages and I had not been competing, it was an easy thing to put off for the last few seasons.

When faced with the desire to build one, I was pressed again for time in preparation for Paso '06. I needed to practice the known as well as create and practice a freestyle sequence. I decided to put my time into practicing rather than building a sighting device. I'm sure it was a wise choice but that did not keep me from getting many more "STEEP" and "SHALLOW" comments than I would have liked. I tried to learn from the feedback between the flights, but when Peter Jensen (judge for my category at Paso) said I would have taken home some "wood" if I had a sighting device, my mind was made up to add one to the plane.

There have been some good sources of off-the-shelf solutions for Pitts aircraft for many years. In fact, I had bought one from Dent-Air many years back for my Christen Eagle and was very happy with it. However, my new plane was somewhat unusual and there were no commercial options. So I needed to build one. After all, I did build the plane so I should be able to whittle up a sighting device for it, right?

Building provides a degree of freedom that is not possible when purchasing. In general, this freedom is a good thing but places choices in front of the builder. I thought about the things I liked and disliked about the sighting device I had owned and all that I had seen over the years. In general, they share many characteristics when attached to a Pitts biplane. They all attach to the I-strut and travel backwards to where the pilot can see them. The sighting part of the device is where the diversity comes in. Most seem to use a "*" pattern (easiest to fabricate), more rare is a box laid on the 45, and I have even seen what I would call a "pizza" shaped one consisting of a circle with intersecting lines passing through the center. My old device was of the "*" variety. It worked well, but the arms were forever being bumped (mostly by me) and I would have to bend them back to position.

While I was thinking of the shape, I was giving thought to the construction method. Most devices for Pitts are constructed out of steel. Cheap, easy to get and to fabricate with would be the way I would describe this material. However, I had a little bit of a problem with my plane. The fuselage is pretty long (for a Pitts) and the sighting device would have to stretch

quite a ways back to be useful from the cockpit. I was worried about the weight and stiffness of a steel device over such a long distance. In the world of material science, what is lighter and stiffer than steel?

Halleluiaah, say it with me brothers and sisters.....carbon fiber. Yes, the miracle substance. Fortunately, it does not fall into the "unobtainium" class of materials. My choice of materials also narrowed my choice of sight shapes. The "*" was out. With steel, my inadvertent bumps would be a "bend", with carbon they would be a "snap".

My final design is shown in the following diagram:



Final Design

The steel straps capture the I-strut and the steel tubes are welded to the straps as sockets. The golf shafts are captured by AN-3 bolts passing through the sockets and the golf shafts. The golf shafts also have hardwood dowels epoxied into the bases to provide durability and crush resistance where they enter the sockets. The top golf shaft (and receiving socket) was aligned with the top longeron in the fuselage using a digital level. The bottom shaft is 90 degrees to the I-strut. The shafts then come together with the top shaft inserting into the barrel. The joint here is made with structural epoxy. The remainder of the sighting device was constructed also using structural epoxy in a fixture to maintain the necessary angles. All epoxy joints were reinforced using carbon "tow" (bundles of fibers used to make cloth). Epoxied into the central carbon tube in the sight itself is a stainless steel rod that provides fore and aft adjustment with a lock nut when screwed into the receiving barrel. With this design I can adjust or remove the sight, the golf shaft arms or the attachment straps with only a couple of 3/16" wrenches and a few minutes.

The flight testing consisted of Aresti figures, gyroscopics and dive tests to VNE checking for flexing or vibration. None were observed, it doesn't budge.



Sean's final product

I need to get out to some critiquing sessions this spring to dial-in the adjustments for fore/aft (wing dragging on the vertical lines). I know that I am in the ball park based on doing multiple vertical rolls. I can also see now that my 45s were very steep as I had been flying them.

Like most building projects, it was fun but took a bit of time. I'm happy with the end result from a functional and appearance perspective. If there is a negative, I realized that I have removed one of my excuses for my performance at Paso '07. Oh well, I'm sure I will be able to think of some new ones before the summer. **Material Sources:**

Aerospace Composite Products (right here in Livermore) – Carbon rods and tubes.

OSH – Stainless threaded rod and bar stock for barrel

Internet – Golf Shafts.

Aircraft Spruce and Specialty – Steel (4130) straps, sockets, AN hardware, T-88 epoxy.

- Sean

Newlyweds

Congratulations to Darrin Silver and Allison Fitzpatrick on their recent wedding. Darrin's father, Allan, reports that the two decided to get married in Hawaii. They get back this week.

Allison is from Albuquerque, New Mexico. She is a teacher. The two met 4 years ago or so when Darrin had a pilot job flying Metroliners. Darrin is currently working for Jeppson Publications doing technical writing. Darrin has been a steady contributor to the newsletter with his *Wingnuts* cartoons, although his new job with Jeppson has been keeping him pretty busy.

Darrin and Allison currently have a Pug dog named Montey, who harasses the UPS drivers when he stays at Allan's parachute shop. Best of luck to the newlyweds!

180 Day Parachute Repack

Silver Parachute Sales & Service is spear-heading a multiorganizational effort to extend the repack cycle of emergency parachutes from 120 days to 180 days. A Notice of Proposed Rulemaking regarding the 180-day repack has just gone out for public comment. All pilots who use emergency parachutes are encouraged to comment on this NPRM.

Two years ago Allen Silver and Darrin Silver; working on behalf of the Parachute Industry Association & United States Parachute Association; petitioned for an exemption to the 120-day repack cycle. "We're discovering that the newer parachute materials perform better when handled less frequently," says Allen Silver, a master rigger with over 40 years experience in the field of parachutes. "Right now, twenty-five other countries safely use repack cycles of 180 days or longer."

In a letter dated August 10th 2005, the FAA stated that since such a large group was requesting the exemption, it would be appropriate to initiate a rule change project. This is good news for everyone who wears a parachute. Darrin Silver notes, "In addition to the safety benefits, pilots will now see reduced maintenance costs on their parachute equipment and can make it through an entire airshow or contest season without the downtime of having a parachute repacked!"

Comments regarding the Notice of Proposed Rulemaking [identified by Docket Number FAA-2005-21829] may be sent using any of the following methods:

DOT Docket Web site:

Go to <<http://dms.dot.gov>> and follow the instructions for sending comments electronically.

Fax: 1-202-493-2251

Mail:

Docket Management Facility
U.S. Department of Transportation
1200 New Jersey Avenue, SE.
West Building, Ground Floor, Room W12-140
Washington, DC 20590-0001

From the Editor

Che Barnes



Many thanks to those who sent in pictures and to Sean Worthington for a great article.

Its been a busy spring and all the pictures and news of critique sessions and contests make for a good newsletter. I was in Tampa, Florida, for two months

Marilyn Dash and myself at Sun n' Fun

of C-130 training. Amidst the hours of classroom work I had a chance to drive over to Lakeland for the Sun 'n Fun fly-in. It was my first experience with such an event and I was impressed. It was like walking through an Aircraft Spruce and Sporty's catalog, as well as an outstanding air show. I also realized what a small community the EAA and IAC is; Allan Silver was giving lectures about bailout procedures and Marylyn Dash was at the IAC tent. I am not used to running into someone I know when I am on the other side of the country—much less two of them. Did I ever mention that Marylyn knows *everybody*?

I returned to California to finish up getting my airplane's annual done—a work still in progress, I just need to put the panels back on and perform some minor paint touch-ups. Such are the joys of aircraft ownership! I'll be in the air soon.

Because of that, I got my parachute repacked at Allan Silver's place in Hayward. Most people send their chutes to Allan via UPS, but this time I drove it over and was pleased to get some hands on training from Allan. This was a great experience for me, as I had never seen a parachute being packed.

Allan started off by having me wear the chute and ensured that it was properly adjusted. We then went over bailout procedures culminating with me pulling the rip cord. He then talked me through some skydiving basics as he packed the chute. I'll have to say, I have a lot more confidence in the chute and my ability to use it as a result. If anyone gets a chance, drop Allan a line and see if he can fit you in his busy schedule for a similar lesson.

Good luck to all the Paso contestants and I hope to see some great pictures and maybe even a newsletter article!

- Che

Chapter 38 Event Calendar

7-10th Paso Robles Aerobatic Contest

JULY 2007

19-21st Canadian Open Contest. Brought to you by Chapter 8 of Aerobatics Canada. Abbotsford International Airport (CYXX). Abbotsford has some of the most beautiful scenery around and the contest is a great time. Take a look at the link: www.aerobatic-club.ca/

For Sale: Sabre 320 Unlimited Aerobatic Monoplane



Hangar Available

Gary Augustine has a 50' x 50' hangar at Byron with space for aerobatic airplanes. Call him if interested. 925-759-5600 (c) or 925-779-9496 (h).

It only takes five years to go from rumor to standard operating procedure.

— Dick Markgraf

IAC Chapter 38 Membership Application/Renewal Form

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City: _____

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Work Phone: _____

E-mail 1: _____

E-mail 2: _____

IAC #: _____

EAA #: _____

Certificate #: _____

EAA Expiration Date: _____

Judge: Regional National

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:
Howard Kirker, IAC38 Treasurer - 2279 Ocaso Camino - Fremont, CA 94539



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