

Concho Valley Aviator



September, 2004



Meeting

This Month

Date: 21 September 2004
Time: 7:00 PM
Location: Mathis Field, Terminal Conf Rm
Program: TBA
Refreshments: Kenneth & Susie Walker

Next Month

Date: 19 October 2004
Time: 7:00 PM
Location: Mathis Field, Terminal Conf Rm
Program: TBA
Refreshments: Ted & Jeanne Conrad

Chapter Contacts

President: Mike Plecenik
Vice-President: Norm Beauchamp
Secretary: Joe Christian
Treasurer: Steve McDuff
Ass't Treasurer: Nan C. Wright
Newsletter: Al Elliott
Refreshment Chairman: Barbara Yeates
Director: Bill Yeates
Director: Leon York

SWRFI Rep: Johnny Williams
Technical Counselor: Paul Shacklette
Technical Counselor: Bob Reece
Flight Advisor: Johnny Williams
Flight Advisor: Richard Dillard

Flight Advisor: Leon York
Flight Advisor: Andy Spinks
Young Eagles: Don Treadwell
Webmaster: Bob Heiser

Minutes

July 2004 Minutes

Norm Beauchamp, Vice President, welcomed everyone to the meeting, June 20, 2004. Mike Plecenik, President, was out of town. NanC Wright presented the Treasurer's Report and it was approved as presented. There was no old business.

Leon York asked if a new roster of members could be published. Norm had them prepared and gave him one. Fast response! Al Elliott stated that there is a parking area just south of the terminal building for aircraft who desire access to the terminal building. It is designated by a blue line. Ask ground control for "blue line" parking. Joe Christian reminded everyone of the fly-in BBQ to be held at Christian Ranch Airstrip on Oct 16, 2004.

Christmas Party will be at Zenter's Steakhouse on December 14. Mitzi will call Zenter's and check on date.

Norm announced that he finally has all paperwork signed off on his Kitfox. Bob Reese stated that his DAR paperwork is ready to send in. It was proposed and seconded that Chapter 493 reimburse Norm in the amount of \$25 to cover cost of the AOPA program, entitled "Watch This." The AOPA program "Watch This" was presented. There being no further business, the meeting was adjourned.

Joe C. Christian, Sec.

"Weather forecasts are horoscopes with numbers."

Brake Fluid

Had a brake fire on an RV-8A last weekend. Tidy combination of operator error and design issues, much of which is specific to the 8A and/or castering nosewheel, steer-with-the-brakes airplanes in general. However, research did turn up a few items perhaps everyone should know.

The fire started after an overheated caliper leaked fluid on a hot disk. The fluid flashed and lit the resin in the fiberglass wheel pant, as well as the tire sidewall. The brake worked fine, with only slightly higher pedal pressure required even when on fire. I've posted a photo to the vault (yep, a bystander had a digital camera). In the photo, I'm holding pedal pressure while shutting down for the fire crew. Note the fire on the ground under the pant, believed to be fluid and dripping resin. I don't recall any additional pedal travel.

When something like this happens I get curious. Why did the seal leak at some temperature well below a failure temperature for the rest of the brake? And why did the fluid catch fire?

Fast forward: It turns out the Cleveland piston seal for the little 30-9 caliper is an ordinary MS28775-218 nitrile o-ring. Nitrile's temperature rating is - 65F to +275 F. We found the seal to be brittle and flaking when we dismantled the caliper. A caliper seal with a 275 F temp limit is below automotive standards, but that's another story.

As for fluid, Cleveland's tech manual specifies either Mil-H-5606 or Mil-H-83282 as acceptable. Both are listed in AC-43 and the A&P texts. Turns out that Mil-H-83282 was created because the military was tired of setting its airplanes on fire.

Thanks to Biplane Hangar Mailing List and Norm Beauchamps <http://www.gf24.de/biplane/> -ed.

Mil-H-5606 is the standard red hydraulic fluid sold by Spruce, Wicks, Chief, etc. It is a petroleum base, and turns out to have a very low flash point. The Mil-H-83282 is also red, and compatible with 5606 fluid as well as seals created for 5606. However, it is a synthetic, with much higher flash and burn points, and is self-extinguishing when removed from the ignition source.

You can download complete specs for Aeroshell Fluid 41 (Mil-H-5606) and Aeroshell Fluid 31 (Mil-H-83282) at:

<http://193.113.209.166/aeroshell/aeroshellhydraulicfluids.pdf>

Note the flash points of the two fluids. Aeroshell 41 is 104 C, which is only 219 F. Aeroshell 31 is 237 C, or 458 F.

A flash point of 219 F means that when a Cleveland caliper seal fails at something above 275, the fluid is already hot enough to light when it hits a hot disk and vaporizes inside the pant. Makes for an interesting combination.

Live and learn. I always assumed standard "mil-spec red brake fluid" was something special, and I doubt I was alone in this assumption. It's not. It's just another one of those "always done it that way" things prevalent with light airplanes. Note that the Shell literature declines to even refer to it as brake fluid.

Spruce, etc, doesn't sell Mil-H-83282 fluid, but they should. I've already ordered a gallon of Fluid 31 from the local Shell distributor. Since the old and new fluids are compatible, switching is as easy as draining the old, flush with new, refill, and bleed.

Project Status

Norm is flying! Legally! I think...he just emailed saying although the engine is working, the alternator is being contrary.

Mark Stull is adding/subtracting/multiplying stuff on his self-designed airplane.

Who else is doing something EXPERIMENTAL out there? Please send me some info on what you've been up to and I'll put it in the newsletter. Or, alternatively, tell me what you know about what somebody else is doing. This newsletter is all about filling space. We don't have the luxury of accuracy here ☺.

Classified

Email your "ad" to me at al.elliott@mindspring.com and I'll include it in the next newsletter. Please limit to aviation-related items.

Errata

INNER STRENGTH

If you can start the day without caffeine or pep pills,

If you can be cheerful, ignoring aches and pains,

If you can resist complaining and boring people with your troubles,

If you can eat the same food everyday and be grateful for it,
If you can understand when loved ones are too busy to give you time,
If you can overlook when people take things out on you when, through no fault of yours, something goes wrong,
If you can take criticism and blame without resentment,
If you can face the world without lies and deceit,
If you can conquer tension without medical help,
If you can relax without liquor,
If you can sleep without the aid of drugs,
If you can do all these things,
Then you are probably the family dog.

Trip Report

We need reports on all your fly-aways and trips. I bet somebody flew to Monahans a couple of weeks ago. That would be a good trip to document in the newsletter (because your editor is running out of filler and the rest of us who didn't make the trip truly are interested!). I'll start off with our trip, but I'm looking for help here....

Anne and I made it to Pecos on the 8th of Aug and had a good time. Weather was a little iffy getting out of SJT, but there was a nice big break just about takeoff time and we were able to climb all the way to 6500 staying clear of the clouds. Eventually we had to go on up to 8500 (after a bunch of weaving around puffies), but just south of Midland, it cleared up for the rest of the trip. Corky was glad to see the ground again.

There was a reasonable crowd at PEQ and the best breakfast so far this summer ☺ We met several people, most of whose names we forgot too quickly. But one we definitely remembered is Deb Magness of the West Texas Flyers. The West Texas Flyers is a group that keeps track of good flying destinations and makes quite a few trips as well as having social evening get-togethers in the Midland area. A recent WTF trip was to Ruidoso for a weekend. So it may interest some of you. Deb is their newsletter editor and I will risk her wrath by giving out her email address so please be careful with it, but contact her if you are interested at magness@apex2000.net Here's me, Anne and Corky at PEQ taken by Deb.



Coming Attractions

If you know of fly-ins, airshows, or other aviation-related activities that might interest chapter members, here is where I can put them. If you just want to draw a crowd for a hamburger run, send it to me and I'll list it.

Mitzi was asked to explore options for a Chapter Christmas Party and sent the following:

"For the menu EAA had at the Christmas Party, 2003, cost of each dinner at Zentner's Steak House will be \$11.50. There would be separate checks for members. Separate checks will be issued for bar drinks. Dinner would include choice of entree, baked potato, salad, roll, and coffee or tea. Entree choices are: fried catfish, broiled chicken breast, chicken fried steak and steak fingers. As you may remember, members made reservations accompanied with check and choice of entree stated. Steve McDuff received the reservations and issued one check to Zentner's. I reserved a room as I mentioned. I did not make any commitment re: menu."

Please be prepared to discuss and vote on these options and to thank Mitzi for doing all the footwork.

<u>Date</u>	<u>Location</u>	<u>Event</u>
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SEPTEMBER

4	Plains, TX	Breakfast/Watermelon Fly-In
6	Labor Day Holiday	
8-9	Dallas	Civil Aviation Safety Symposium
9-12	Reno-Stead	Reno Air Races
11	Decatur, TX	Open House
11	Midland	CAF Seminar
18	Kingsland TX	Hamburger Fly In
18-19	Ft Worth	Int'l Airshow
21	Mathis Field Monthly Chapter Meeting	
25	Andrews, TX	Breakfast Fly-In
25	Abilene	Big Country AirFest

OCTOBER

2-3	Midland	Fina-CAF Airsho 2004
7-10	Casa Grande, AZ	Copperstate Reg'l Fly-in
9	Gilmer TX	Barnstormer Fly In
11	Columbus Day Holiday	
12-23	Long Beach CA	AOPA Expo
15-17	Las Cruces, NM	RV Fly-In
16	Pvt Afld, Eldorado	Christian's BBQ
16	Kingsland TX	Pancake Fly In
16-17	Houston	Wings Over Houston Airshow
19	Mathis Field Monthly Chapter Meeting	
23-24	El Paso	Amigo Airsho
31	Daylight Savings Time Ends	

NOVEMBER

11	Veteran's Day Holiday	
16	Mathis Field Monthly Chapter Meeting	
20	Kingsbury, Tx	Fall Picnic & Fly-In
25	Thanksgiving Day Holiday	

DECEMBER

6-9	Las Vegas	ICAS Convention
21	Mathis Field Monthly Chapter Meeting	
25	Christmas Day Holiday	

JANUARY 2005

18	Mathis Field Monthly Chapter Meeting
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FEBRUARY 2005

15	Mathis Field Monthly Chapter Meeting
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MARCH 2005

12-13	Brownsville	Air Fiesta 2005
15	Mathis Field Monthly Chapter Meeting	

APRIL 2005

16-17	Sheppard AFB	Airshow/Open House
19	Mathis Field Monthly Chapter Meeting	
23	Galveston	Sprit of Flight Airshow

MAY 2005

14	Del Rio	Air Amistad Airshow
17	Mathis Field Monthly Chapter Meeting	

JUNE 2005

21	Mathis Field Monthly Chapter Meeting	
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JULY 2005

19	Mathis Field Monthly Chapter Meeting	
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AUGUST 2005

16	Mathis Field Monthly Chapter Meeting	
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SEPTEMBER 2005

20	Mathis Field Monthly Chapter Meeting	
24	Ft Worth Alliance	Int'l Air Show

OCTOBER 2005

1-2	Midland	Fina-CAF Airshow
8	El Paso	Amigo Airsho
8	Mathis Field	Rio Concho Airshow
18	Mathis Field Monthly Chapter Meeting	

NOVEMBER 2005

5	Randolph AFB	75 th Anniversary Airshow
15	Mathis Field Monthly Chapter Meeting	

DECEMBER 2005

20	Mathis Field Monthly Chapter Meeting	
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D.A.Elliott
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