

Brazos Area Recreational Flyers
Bragging and Gossip
 EAA Chapter 983 Newsletter
 February 2007

PO Box 5191 Granbury, TX. 76049
 Visit us at: www.eaa983.org

Chapter 983 meets every second Saturday at 10:00 am in The Houseman Hangar. N.E. corner of the runway

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February Program: Damon Berry will display his Clip Wing T'Craft project, partially assembled and uncovered, and will talk a little about T'Crafts and this 30 year old project.

The Mating Call
 Steve and Barb Wilson

What does it take to mate a Swift fuselage and center-section? 14 guys, 5 gals, 1 infant, 1 dog, 2 cameras, 1 hour, and 4 bolts that fit in the holes... Not to mention the boozerator full of suds... Great neighbors, great times, what could be better?



It's time to renew your Chapter membership. Bob Satterwhite will be at the Chapter meetings collecting dues and info for EAA National. We will not send out envelopes this year, please go to the website for more info or call Bob. Don't make him come lookin' for you!

Chapter Meeting Minutes

Roe Walker opened the meeting and welcomed new member John Nacomis and visitors Don Doubleday and Pat Wallace.

40 members were present.

Treasurer Bob Satterwhite reported the Chapters' current cash level at \$5400. He also began collecting for Chapter membership renewals. This year Bob decided to renew at meetings and those he misses there or through the website, he'll contact himself.

Vice President Chip Mull talked about programs. In particular, the much anticipated Eclipse Jet presentation. Our Greatest Spring Fly-In in the World will be held on May 19th. The June program (an RC Fly-In) and Meeting will be held, once again, at Member Jimmy Matlocks' ranch, just minutes from the front gate of Pecan.

Dick Keyt gave the program, displayed the Polen Special and talked about the history as well as some of the current projects going on with this well known and historic aircraft.

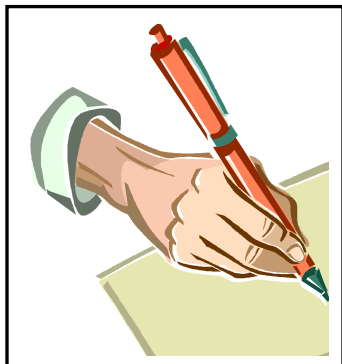


You Ain't Gotta Be No Hemingway

I'd like to thank everyone who sent in items for use in the newsletter this past year. Some of them were articles they had seen or pictures they took. I've gotten a lot of compliments on the newsletter and it's because I've received a lot of help from those of you who've given me such things to publish. *(It sure ain't because I be some kinda Hemingway)*

First of all, Roe and Chip usually write something each month, coming from their perspective as President and Vice President. It's always nice to hear what's new in the running, planning and administering of the Chapter.

I'd like to especially thank those who took the time to write articles. Chip is always commenting about the amount of knowledge and skill in the Chapter. It's born out by the articles that guys have written over the past year. This issue contains one by Andy Shane covering the second part of his trip home from the East coast after purchasing a most interesting and challenging amphibian. It's adventuresome, heartwarming and funny. It also reminds us of why we really got into this gig in the first place.



In the past year Gary Green has graced these pages with updates of his T-18 project as well as the account of his First Flight. A follow up article is also included in this issue. Gary wrote a nice piece about attending the Reno National Championship Air Races this past September. It sounded like lots of fun and made me want to go back and see them again. His writings also make me want to catalogue some of the many "Garyisms" we all enjoy so much.

Lee Clements has sent things in for several years and they are always filled with humor and the personal feelings of one who has enjoyed the writing experience. His "What's Your Chapter Made Of" was interesting and fun to read. The "Breakfast Destinations and

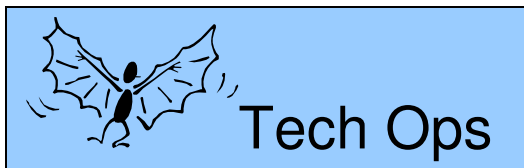
METARS" articles were informative as well.

Don Saint has several pieces under his belt and this year's articles about his engine conversion on his Glasair were terrific. He's involved in many aspects of the Chapter but his ability to put things down on paper may be one of his best talents.

None of these guys were experienced writers when they sent these things in. Sometimes they were just e-mails about things they'd done or seen and we fleshed them out and created an article.

It's fun and we have really enjoyed hearing about what our Members saw and did on their flying adventures and how those projects were coming along. Thanks.

Nothing shook or rattled, neither gyroscope nor altimeter flickered in the least, the engine was running smoothly; so now he relaxed his limbs a little, let his neck sink back into the leather padding and fell into the deeply meditative mood of flight, mellow with inexplicable hopes. *Antoine de Saint - Exupery*



Ed. note: This from Gary during the more mature stages of the test flights on his new Thorp T-18.

Its colder than a witch's tit in a snow bank today so I am catching up on some office work instead of piddling in the hangar.

Here are some of the things I learned or was confronted with during the test flights on the new T-18.

I used the engine baffle kit from Van for an O-360. It takes minimal modification to work on a Thorp. A lot of our members are assembling erector sets from Van's and they may confront similar issues. I really like Van's baffle kit except for the piece that fits at the right rear cylinder.

I encountered significantly higher CHTs on the right rear cylinder than on the other three. It would routinely run as much as 60 degrees hotter at all throttle settings. Dick Key and Don Saint pointed out how closely it fit to the cooling fins at the rear of the cylinder and those fins are milled off nearly flush with the cylinder wall. Van's baffle design creates a dam that stops the flow of cooling air from entering the deeper fins wrapping around the bottom of the cylinder.

Dick and I made an initial modification while I was at Pecan in December. It helped, but not as much as I had hoped.

After coming home, I closely studied the baffle on my old Thorp. It is a copy of the baffling from a 1970 Mooney M-20C and that old Thorp runs very even, cool CHTs all the time. The baffle is spaced out to provide about a half inch opening for air to flow past the shallow finned area and into the deeper lower fins.

The cabin heat intake hose is 2" yet the hole in the baffle is much smaller. That was suggested by John Forsling who made the exhaust system and cabin heat muff. He said to start out with a smaller hole. That will reduce the volume and velocity of air thru the muff and allow the air to absorb more heat. I started with a 7/8" hole since that was the max size of my largest Unibit. It seems to be just about right. The cabin heat is very effective.

My engine was a fresh overhaul with new ECI Titan cylinders and had 0 run-in time since I did not have access to a ground test cell. I have an air/oil separator from Aircraft Spruce and the outlet air from the separator goes into a "snot box" (peanut butter jar) instead of dumping it down a gear leg or out the bottom of the cowl. So, I can see exactly how much oil is escaping due to blow-by. I have a slightly larger oil cooler than the old plane plus a remote oil filter so I put in 8 qts of oil for the initial flights. That was a mistake. I should have known better from prior experience. My old engine will throw out oil if filled over 6 quarts. This new one does also. With the 8 quarts in it, I was getting at least 2 tablespoons of oil per hour in the snot box. Once I drained the oil down to about 6 qts, the blow-by became minimal. I don't know why the Lyc manual specifies an 8 qt capacity. Anything over 6 qts is wasted. I don't know what happens in the sump when it is filled to 8 qts. I don't think the crank counterweights actually contact the oil, but I suspect it creates a froth that is forced into the accessory case and out the breather. Some of the high revving Chevy race engines had to have a "windage" tray installed in the oil pan to keep the oil from being whipped by the crank. Maybe a Lyc needs something similar.

I also used the carb air box and lower cowling airscoop from Van for an O-360. The airbox took minimal modification to make it fit. The fiberglass airscoop was another story. I had to chop, channel and stretch it and it took a lot of fiberglass work. But, the end result was good.

The cowl is very easy to get on and off and has great airflow characteristics. I have never before flown a carbureted engine that I could run lean of peak, but I can this one. I think it is because the air enters the airbox and completely surrounds the oval K&N automotive type filter. The carb intake draws air from the center of the oval filter and is getting a smooth, even stream of air into the venturi. All cylinders will lean out and reach peak EGT nearly simultaneously. The left front cylinder is the hottest EGT, but all are very close together---usually about a 25 degree spread. All will peak out and start decreasing at the same time while the engine is still running smoothly. That is remarkable for a carbureted engine.

One last item I want to mention is the electronic ignition. I used one E-Mag and one P-Mag. That gives as much redundancy as two magnetos. If the alternator and battery both fail, the E-Mag fails. But the P-Mag has a permanent magnet generator and it automatically takes over if the ship's power fails. I question how vulnerable the electronic units are to EMP following a nuclear blast or lightning strike, but other than those scenarios I think they have adequate redundancy for my purposes. I really like the way they install. Setting the timing is nearly idiot proof. The engine starts like a modern car. It fires every time on the second cylinder to pull through and never kicks back. Anyone building up a new engine should look at the emagair.com website prior to purchasing a pair of magnetos.

By the way, Gary Cotner came over from Tulsa Jan 6th and we flew my old plane and the new one in formation. Maybe I told you about it. The new one is only about 3 to 5 mph faster. I had hoped for 10 mph. Both will pull the same maximum manifold pressure and RPM with wide open throttles so I think the ram effect for both intakes is about equal. But, the flow into the venturi with the old plane's airbox is more turbulent and you can't get the EGT's closer than about a 120 degree spread. They are within a 25 degree spread with the new one. Wish you had been here to be a photo ship.

I gotta go put another log on the fire.

There and Back Again

by Andy Shane

ed. note: This is part two of Andy's account of the retrieval of his newly purchased Searey Amphib from the East coast.

Following the seller's instructions, I dutifully retracted the gear once leveled, every flight. It sounds odd, but remember that it takes a weightlifting physique to retract the Searey gear. Only an idiot would attempt this stunt right after takeoff. No kidding: both hands, about 60-80 pounds of pull. To make matters worse, your elbow is directly in front of the throttle during all of this. Bumping it sends the power to idle. It takes practice. Unbeknownst to me this morning, rudder steering has tangled in the gear during retraction. I'm guessing that I was steering with the rudder while retracting, and the rest is history. At the next stop, my rollout is a religious event. Whoever told me about programming the dry cleaner's number in my speed-dial, bless you.

But, no lights were harmed in the making of this movie, and I was off on the next leg, racing against time. There had been more talk of bad weather coming, and the airplane doesn't even have an attitude indicator. Worse, the LCD on the little Terra VHF only has half its original complement of lines; frequency-setting is a careful exercise in logging, counting clicks. Fine for nice days into CTAF fields. Very un-good for marginal weather or dealings with ATC. Slated to be repaired ASAP, of course.

Next stop: the Ohio State field at Albany-Athens. I'm extra-careful to make precise radio calls and patterns at this oasis of aero-learning, never mind the fact that there is a line of aircraft watching me slide down final as if on a tightwire. Oh, this is *gonna be sooo pretty...* The windsock has been limp all the way, and it rouses briefly as I flare, but nothing serious. Another flicker. I'm on the mains, and carefully lower the tailwheel to the ground. Suddenly Mr. Sock looks like Bill Clinton at the Playboy mansion on *Hot tub Wednesday* and life takes a sudden serious turn. A hard swerve to the right suggests a problem with the tailwheel, and as I correct I see the windsock jump again. Oops. My correction is hideously excessive, spurred on by the wind; so, I let the downwind wheel come up a few inches off the ground. There is another pulse, and I bring in the power. That *really* hauls the nose windward, and I simultaneously hit the stops on both aileron AND rudder, yet the plane is still swerving into a tighter left turn. The tires are shrieking, and the side of the runway rushes up, with a lone taxiway-designator lightbox sign blocking my graceful exit onto the grass. There is no time to ponder the irony of a 13,000 hour ATP who has over 1,000 tailwheel hours; a person who more importantly has flown a single-seat ultralight taildragger for a year, crashing in front of a line of student pilots. A glance at the airspeed indicator says I've got 18 mph between me and stall, and I force it into the air, sideways. I fully expect the sign to impact the skeg section of the keel, but there is not a sound from underneath. There is time to level and accelerate over the grass infield, and moments later I'm trying to sound unshaken, calling on downwind. Everyone is gone when I return to make a decent landing. With the arrow-straight rollout goes my hope of chalking up the episode to another snagged tailwheel steering cable.

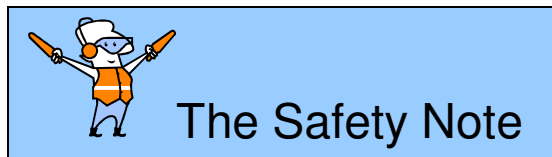
There is scarcely time to accept my "Best Super-Dave Landing Stunt" award, because I've got to find a hotel for the night, and sunset is only an hour away. I feed my Rotax its unsavory spoonful of TCP to augment the 100LL and blast off. Enroute, it dawns that, with bad weather coming, I really should be close to an AA station, and I carefully count the clicks to gain ATIS at the former Rickenbacker Air Force Base, directly north of me. The weather is good, despite the gathering murk, and I re-program the GPS.

At the base -- it's still used by the Guard or Reserve -- I'm cleared to land on 23L while a KC-135R powers up for takeoff on 23R. *Oh, great, now I'm going to have to go around into a wake from my old Air Force plane,* I think. Winds are calm, and I square the corner off to spend as long as possible in the air, waiting for the big guy's exhaust blast to dissipate. Surprisingly, the landing is my first perfect one, and rollout is right down the painted stripe. Tower doesn't even make me change to Ground, which I've carefully pre-loaded in the fragmented standby window. There are marshals waiting, and they happily clear space for me in the hangar.

The next morning, visiting with the crew on the Super 80 in which I've been given a First Class perch, I'm watching the rain come down in sheets, the flashes of lightning. It was a good call to abort, we agree, between sips of hot coffee.

But, this is just halftime. Stay tuned for the rest.

I have always been delighted at the prospect of a new day, a fresh try, one more start, with perhaps a bit of magic waiting somewhere behind the morning. —J.B. Priestly



I came across an interesting study done in 2001 regarding fuel exhaustion in general aviation aircraft in Europe. Just about all of the accidents were operational in nature. Just a handful were attributed to mechanical failure. One of the poignant items that came out in the study was; frequently the pilot was completely aware that he was running dangerously low on fuel. "Wishin' and Hopin'" was the plan while droning along towards the ultimately unreachable destination.

As you might expect, the majority of the accidents were during the months from April to September. When pushing on to complete the flight was a factor, April and May were the favorite months. The assumption was that after being locked away for the Winter months, pilots were anxious to fly and that clouded their judgment.

Not so surprising, European folks have the same silly reasons we do for running out of gas. The usual reasons for being in that "Low on gas and options" predicament; believing fuel gauges, not visually seeing full tanks (particularly in high wing a/c), taking someone else's word for your full tank/s, forgetting to lean, headwinds, weather deviations, lack of fuel at a planned stop, tank running dry at (of course) the most inopportune moment and confusion over the fuel system operation.

Most of us have experienced several of these first hand and that's how we become "experienced". It's worth bringing them up again just to remind ourselves to keep a wary eye on all things fuelish.

Notices to Airmen

- **We Need Someone** to head up the Spring Fly-In. Please call Roe NOW.
- **Emmerson White has started an aviation program** at the Granbury High School. He is looking for a donation of an aircraft for them to work on – certified or a kit. Anyone have something for them? He'll probably be at the next EAA Chapter meeting if you'd like to talk to him about a candidate aircraft. His telephone # is: 817 573-0913.
- **This from Gary Green in Cotter, Ark:** The February meeting of EAA Chapter 775 will be on Saturday the 10th at 10 am in Beechel's hangar, followed by a chili feed at noon. Beechels have invited the Razorback Short Wing Piper Club to fly in for lunch and some of our local car club friends. Hopefully we'll have plenty of tires to kick. Keep a positive attitude for a special sunny day. However, rain, snow or shine, hope to see you all.
- **Dick Carmichael has asked for Chapter** support for an Airport Appreciation Day sometime in April. More to follow.
- **SWRFI is the first weekend in June, 1-3.** Gary Bricker will once again be in charge of Forums.
- **Our Chapter is supporting the Pancake Breakfast** at the Granbury Airport on March 24th. Plan to be there.
- **It's time to recommend candidates** for the EAA Air Academy in Osh Kosh. Contact Roe if you have someone you think would be a good representative for our Chapter.
- **2006 Young Eagle numbers:** 66 Y.E.'s, 7 Eaglets and 21 adults were flown this year. D.R. Bales, Joe Sasser, Paul and Margaret Seidschlag and Sid Tucker all flew at least 10 Y.E's this year. Thank you all very much!
- **The Brazos River 99's** are holding a Flying Companion Seminar on March 3rd. From 8:00 until 4:00 and the cost is \$45. If you would like to attend or have questions contact Karen Tucker or Bonnie Lewis.
- **Congratulations to Jimmy Matlock**, his long awaited 0-360 powered RV 4 passed its inspection.
- **Tom and Bonnie Lewis** have made great progress on their RV 7A. The windshield is in, instrument panel installed, the fuselage is on the gear and the engine is on the fuselage.
- **Tech Counselor Martin Sutter** has been recommended for the Tony Bingelis Award. The award recognizes EAA Tech Counselors for dedicated service and significant contributions in assisting members to build and restore aircraft. Two inductees will be selected and notifications will be made by May 31st.
- **Green With Winter Envy Dept.:** As I enter their hangar, I hear Barb Wilson holler out to Steve, "Turn the heat down, it's too hot in here."
- **Antoine de Saint – Exupery** was as good as Hemingway.

CLASSIFIEDS

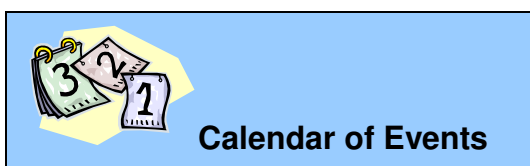
Kolb Firestar 1 Ultralight, 75 mph on 3.5 gph. 135 hrs. NDH, \$10,500 OBO, Jimmy Cash, 817 578-0311
WxWORX Bluetooth XM weather receiver \$375. Garmin GPS 10 Bluetooth GPS antenna \$125. Charlie Adams 817-573-9600

Hartzell C/S with spinner and governor. IO or O-360. Certified and current, 800 hrs.TT. \$3500 Sam Tillman 817 326-6293. saber@itexas.net.

48" Work bench sheet metal brake \$85. Contact Damon at famber@charter.net or 817 573-3444

Exxon Elite Aircraft Oil. I am now a distributor. It sells for \$48.00 per 12 quart case. It has the best ratings for both wear protection and corrosion prevention. I am donating the profits from sales to the Dennis N. Polen educational foundation. Contact Dick Keyt 817-279-7590 flykeyts@charter.net

1944 PT-19. 1070TT, 325 SMOH, Electrical system, starter, Garmin GNC 300, GPS/COM. Mode C, Canopy for all weather flying, Ceconite 101 in 1991, All logbooks and support equipment. Flies like a Cub! \$69K Tom 817 579-1850



February	10	Chapter Meeting	Houseman's Hangar, Pecan Plantation (0TX1)
March	10	Chapter Meeting	Houseman's Hangar, Pecan Plantation (0TX1)
	28-31	Aircraft Electronics Assn. Trade Sh.	Reno, Nev.
April	1-4	Aircraft Electronics Assn. Conv.	Gaylord Texas, Dallas
	14	Chapter Meeting	Houseman's Hangar, Pecan Plantation (0TX1)
	17-23	Sun 'n Fun	Lakeland, Fla.
May	19	Spring Fly-In	Pecan Plantation

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