



Brazos Area Recreational Flyers **Bragging and Gossip** EAA Chapter 983 Newsletter December 2006

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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Grumman Fly-In

By Charlie Adams

On Saturday November 4th 8 Grumman/American aircraft flew into Pecan Plantation to share in the love for their aircraft type, swap stories and tips with the 4 Grumman families living at Pecan. Included in the fly-in was a maintenance rigging check performed by Chapter members Bob Benenati, Tom Lewis, Charlie Adams and Les Staples. Carol Adams and Bonnie Lewis arranged the food preparation and Les manned the grill and cooked up a mean hamburger.



Charlie Adams inspecting an aileron for conformity



Bob Benenati and Tom Lewis preparing to install the elevator template.

The meeting was arranged by Les as Area Coordinator for the South Central Region of the American Yankee Association (International Grumman Owner/Pilots Association).

Ed. note: Some of the Grumman models have an AD associated with their aileron surfaces. Considered by many to be an overzealous response by the FAA to isolated occurrences of construction anomalies, an inspection is required at 100 hour intervals. One of the checks provided by Charlie and his crew allows for the removal of the AD provided the control passes a shape conformity test. It involves comparing conformity every inch along each aileron with a precisely cut template.



Remember to buy your Christmas Party tickets soon. It's so much fun that it's sold out every year. Call Donna Christman 817 279-9899 or Donna Berry 817 573-3444.



BOD Meeting: Nov. 7th Roe Walker, Chip Mull, Donna Christman, Damon Berry in attendance.

Treasurer and Secretary Bob Satterwhite was out of town so the Chapter finances were not presented. Chip discussed the problem of having no program for the upcoming meeting as a result of Eclipse Jet changing their plans. (*ed. note: Chip made a fabulous recovery as it turned out*)

It was decided to provide the opportunity to order more Chapter logo shirts and hats. The shirts in particular looked very sharp and were well received.

Donna Christman delivered a Christmas Party status report. There were several hang-ups with the catering that were resolved. The switch this year from live music to a DJ was made primarily as a cost saving measure. The bands prices had gone up dramatically each year to where it became too expensive. Donna pointed out however that the DJ hired is a personality as well and there have been several discussions about music selection. She's still looking for donations for door prizes. Once again the top door prizes will be stays at the Hangar Hotel in Fredericksburg. We bought two nights and the owners donated two. Also discussed was giving Steve Mottin a break from taking pictures this year. Donna located a young professional who will work with no guarantee. If you'd like a picture at the Party, please give her a try.

PA from the Captain: ROE WALKER

How about our chapter 983 builders? So far this year we have had five first flights, and a high probability of three more before the end of the year. First flyers are: George Shemo (1/21/06), Jim Erskine & Debbie Dewey (3/6/06), Martin & Claudia Sutter (3/25/06), Jason & Gwen Hutchison (5/29/06), and Gary Green (11/3/06). The high probables are Dave Christman, Gary Bricker and Jim Matlock. Way to go everyone. Let's set an EAA record for first flights in a year.



The Safety Note

RV Fire, excerpt from Vans Airforce website, Forums.

"This older RV had just had an IO-360 and blended prop installed professionally at another airport. The owner had flown to our airport (KFFC) and was about to depart for his homedrome. He was in the runup area beside an avionics shop. While performing his runup, his RV engine area burst into flames. Several mechanics rushed out with extinguishers, put the **fire** out, and got the pilot out with some burns on his legs. Another mechanic and I surmised that a small 1/8" copper tube from the rear-mounted mechanical fuel pump to a fuel pressure sending unit broke during the runup, allowing fuel from the 1/8" copper line to spray out above the exhaust. This **fire** only lasted a few minutes due to the quick response by the mechanics. In that short time, every wire and hose firewall forward was either melted or damaged. The entire panel wiring was a melted mess. The interior floorboard of 1" black insulation was mostly melted.

Apparently, the **fire** was like a blow-torch as the windblast from the runup caused the lower firewall and lower cowl exit area to direct the **fire** down and underneath the RV.

My points: if this plane had taken off, the heat from the **fire** would have really burned the pilot, possibly incapacitating him quickly. His instruments and accessories would have failed shortly. An aluminum airbox would have soon allowed flames inside the cockpit. All this from the fuel spray from a 1/8" line!"

This is reprinted with the intention of us giving some thought to the immediacy of action required with an in-flight fire. With a fuel fed fire (or the damage caused by even a short lived one) there may not be time to get to a nearby airport. The time to think about emergencies is now, not just after you've moved the fuel valve to OFF in that smoky cockpit. —ed.

This note from Lee Clements: "...you mentioned in the November newsletter article about the Fall Air Rally that the name of my co-pilot was unknown. My flying partner's name is Gary Matthes. Gary and I have worked together at Lockheed Martin. Gary is retired USAF with a career mainly as a test pilot. His notable programs are test pilot for the LANTIRN (Low Altitude Navigation & Targeting Infrared for Night) program. He also developed the flame-out landing technique for the F-16. He was the first pilot to land an F-16 dead stick (on purpose). For a time, Gary flew F-4 recce missions. His experience with the E-6B came in handy during the Rally. I had to chuckle as we were flying along at a leisurely 115 knots and Gary was diligently following the map. He commented on how fun this was as he was used to finding landmarks while flying on the deck at 400 knots! Gary hangs his Cherokee Six at Meacham."

Rocket 100 Air Race



By Mike Thompson

One of the hallmarks of Experimental Aviation is a quest for efficiency; to go further and faster and higher for the same fuel consumption. Fortunately our sport allows us to modify our aircraft in pursuit of this goal to whatever extent we believe necessary. Engines, airfoils, airframe shape, drag reduction techniques, everything is fair game. Historically, the proving ground for advancements in performance of any transport machine has been the race track, and aircraft are no different.

And so it was in the best tradition of the history of the pursuit of performance that on 11 November, 2006, Team Rocket hosted the First Annual Rocket 100 Air Race (110 sm, actually) in conjunction with the annual Rocket Fly In at Macho Grande airport, near Taylor, Texas. Timers, Turn Observers and Start Marshalling race support was provided in part by volunteers from EAA Chapter 187. Team Rocket markets high performance kit aircraft whose design pedigree can be traced back to the tremendous RV-4 model, and has builders around the world.

For the race, 6 Rockets attended from as far away as British Columbia, Ontario and California. Also fielded were examples of the Lancair 360, Glasair II, RV-8, RV-6, RV-7 and RV-7A, RV-3 and a Glasair. Many of these experimental aircraft showcased their builder's work to increase performance whether by rebuilt cowlings to reduce cooling drag, enclosed plenums, intake system modifications to increase ram air pressure and manifold pressure, or by the simple expedient of aerodynamic cleanup with tail wheel pants, faired pitot tubes, transponder and comm antennas, and taped-off NACA intakes. Of course there was also wax - plenty of wax.

Since there are numerous performance modifications STC'd for production aircraft, there were several Factory classes to encourage owners of production aircraft to show to what extent their latest approved mods had increased their performance. In the Factory classes were examples of V-and straight-tailed Bonanzas, a Bellanca Super Viking and a Piper PA24 Comanche.

After the race many of the participants enjoyed both a great Texas barbeque lunch at the Rocket Fly In, as well as the company of fellow competitors where new friendships were made and old friendships rekindled. Aircraft lined the grass strip and cowls came off to display the improvements and "secrets" lurking within. Since the race had no entry fees or purse, the competition was pure fun and entertainment - and education. It was a mark of the camaraderie and respect for one another that information, technique and results were shared and discussed, and there were really no secrets at all.

It was no surprise when the first place honor went to a California F1 Rocket and pilot who are no strangers to the race course. Greg Nelson and Race 22 have competed before at the Reno National Air Races and in the Rocket 100 he placed 1st in the Experimental class for 540 and 550 CI engines.

More of a surprise was the aircraft which posted the 2nd fastest time, a Lancair 360 piloted by Larry Henney. With 2 fewer cylinders Larry posted a mere 7.6 MPH slower time than the first place ship. Way to go, Larry!

In the Experimental class for 360 CI engines, John Huft flew his nicely prepared RV-8 to a 3rd behind Larry Henney and Don Saint in a Glasair II, with the rest of the RVs strung out behind him. John was thinking performance from the time he drove the first rivet in his RV-8, and his many modifications which are detailed and published on his web site, proved themselves in a handsome manner.

That the Rocket 100 was a success, no one can argue. That other builders were encouraged to further modifications of their projects is not in doubt. That airplanes built in garages, shops and hangars around the country and the world can be put up against, and in many cases outperform, aircraft sold in the general aviation market is not in question. The only question is, by how much will they continue to improve, and who will win the 2007 Rocket 100 Air race?

(Race photo's of Chapter members; Larry Henny, Don Saint and Damon Berry, courtesy of Fritz Metzen, see more at www.OuchRockGallery.com)



Phoenix Rising or just another turkey?

This is the first of what I hope will be several articles on the rebuilding of a Continental O-200. This will be an experimental engine on an experimental airframe. I'll take no safety shortcuts but decisions will be made based on performance, price, availability, weight and time. It's a learning process for me as well so I'm going to do as much as I can, with the aid of Chapter friends who know overhauls. Not being a mechanic, much of what I write here will be second hand, from a myriad of sources. If something is in error, call me on it and I'll make sure no bad info goes uncorrected. We'll see where that takes us.

Here's the plan. The engine will be going on a highly modified Taylocraft airframe. Using plans sold by Duane Cole (40 years ago) and based on his Airshow TCraft, the airplane will be used for competition aerobatics, be registered "experimental" and bear only a faint resemblance to the certified version. Fuselage and tail group structure, gear, wing ribs and some hardware is about all that is re-used and most of that is modified.

The requirements for the engine are light weight and performance. The entire airplane will weigh less than 700# but with a stock O-200, competition performance would still be marginal. Originally putting out 100hp in a C-150, this engine should be capable of producing appreciably more, primarily from an increase in RPM and compression. The Formula 1 class of racers uses this engine in basically a stock (but balanced) configuration and turn about 4000 rpm during a race. I won't get anywhere near those numbers but they have been doing it safely for years.

Here's the background on the engine. 25 years ago it was an 800 hour engine with 20 minutes on overhauled cylinders, new pistons and rings. The cylinder assemblies were removed and bagged and the rest of the engine was wrapped in a tarp and set aside. 25 years later I arrive. The engine belonged to my A&P IA Dad who gave it to me for the project. He said "I don't know how much is still useable but it was good once".



The question is: "Is any of this still good?"

cost to buy "Yellow Tagged" items (not new but serviceable) are as follows: Case \$500, cam \$400, and the biggie; crank \$3500. You might say I was waiting with bated breath for the call. When it came, Greg (AE and A's resident torturer) started out with, "Well, there's good news and bad news". You know, I'm a fun guy and I usually like a good joke, especially with Doctors and Nurses in it, but now all I wanted to know was, "What about the crank!"

He said two of the rods are in good shape but they'll have to be re-bushed ("What about the crank" I'm thinking) and the tappet bodies are fine but will need to be reground ("the crank Greg, the crank!"), the case shows no obvious damage but still needs to be cleaned and measured ("crank, crank, crank, crank, crank"), but the bad news is ("uhoh"), the cam has been ground twice before and can't be saved ("Ouch, but WHAT ABOUT THE DAMN CRANK GREG!!!!"). Oh yes, and the crankshaft has to be ground to .010 under but will be fine. I don't know whether to stand and cheer or accuse Greg of enjoying his perverse delivery of the results. All things considered, it's a very good report and a fine way to start the engine project.

The next article should have more info to share as well as some concerns and thoughts (scary stuff there) on what to do with the cylinders and all the moving parts associated with them. -Damon



No, that's not Continental gold on the case. It's 25 years of grime, hangar dust and miscellaneous debris providing a lovely red rust color.

The first item of business was to find out what I had. Setting the cylinders aside, I began on the big ticket items, case, cam, and crankshaft. Their condition would determine just how good a deal this gift was.

Dismantling was a challenge. Most of the case rib bolts, nuts and case studs were rusted. Welding nuts on a couple of the studs was the only way to remove them. Liberal application of penetrating oil was the order of the day and adapting tools was required but eventually things came together (or apart in this case).

Here's what things looked like. The case was filthy but showed no wear or fretting at the mating surfaces, several of the cam lobes had obvious rust and slight pitting, the crank had surface rust but the journals looked as pretty as the day it went in (apparently the bearings, both main and rod, held oil over the surfaces for those 25 years), the connecting rods had surface rust and the tappet bodies looked as nice as the crankshaft journals. But, I'm no expert, so off everything goes to Aircraft Engines and Accessories in Dallas for cleaning, inspection and if need be, repair or (let's hope not) "Red Tagging".

Per pound or per square inch, this engine could be the most expensive part of the project, depending on what they find. The approximate

From the Right Seat: CHIP MULL

November was to be one of the most expensive programs ever. The much anticipated visit by Eclipse Jet <http://www.eclipseaviation.com/> was almost too good to be true. From limited sources I have heard they had an equipment availability problem.

Suffice it to say, I am getting a little gun shy. Twice this year we actually had two programs scheduled for the same meeting. Both times both programs fell apart, didn't happen, postponed, nipped in the bud, failed to blossom. Whatever simile you want to use, they didn't happen. That's four programs. That's four months of chapter entertainment, four hours of escape from honeydo's.

What did happen is we had chapter member's step up to the plate. The November program was a complete history of the Ercoupe/Aircoupe by Rich Chappe. I had no idea the majority of Ercoupes were 1946 models, now I know why. Nor did I know that there really is a difference in the Ercoupe and the Aircoupe. Rich has an Ercoupe and I think he likes it.

When I was elected to this position I had intended all along to have chapter members more involved in the programs presented. We have an unbelievable amount of talent in this chapter. Just look at all the first flights we will award at this years banquet.

An example of the talent is Bob Moreau, test pilot for FEDEX. While on the festive break during the meeting, Bob approached me about a program on the MANPOD program. No this isn't anything to do with a metrosexual. It is a defense system for surface to air missiles (sam). FEDEX is one of the contractors involved in the program by the Department of Homeland Security. Most of the technical stuff is classified but we received the unclassified briefing. It was absolutely enthralling to me as I have been involved with similar briefings on ALPA committees but none as detailed as Bob's presentation. FEDEX is a very forward looking progressive company as shown by their involvement in this and many other experimental/test programs for Transport Category Aircraft.

Not only did Rich and Bob pull my fat out of the fire this month but they have graciously offered to put on a program any time we have another flameout. Many many thanks to Bob and Rich for stepping up to the plate this month.

Decembers' program will by all standards be, as usual, the best program of the year. Our Christmas (yes, I said it and I know it's politically incorrect) party will be another coordinated effort by the ladies of the chapter and we all know they excel when it comes to throwing a party.

January will be an update on the Worlds Fastest Four Cylinder Aircraft. This beautiful piece of machinery has been mapped by a laser, studied by a university and displayed at a trade show as an example of what EAA members can accomplish (well, that's my take on it). Another chapter member stepping up to show what he has been working on in the cathedral.

February is an update on a tube and fabric aircraft modified highly to EAA standards in order to increase performance and reliability of a sixty year old design. Don't miss it!

That's as far as I will predict this year. If you have a talent you can share with us less talented call me, 817-573-8828. If you have expertise at work that you can share to help chapter members craft their projects email me at: chip@stits.com. It has been the generosity of the chapter members that has provided the past years programs and I am very appreciative. It has been a privilege and a pleasure to serve as your VP for the past year. Keep up the good work and remember... Let's launch, first one up takes the lead and we will brief on guard.

Chip Mull

Notices to Airmen

- Air Salvage of Dallas is again holding its Christmas Sale at its facility at the Lancaster Airport. If you haven't been there before, try it out. Racks of stuff from dismantled aircraft as well as a bone yard out back that's just fascinating. Sale prices on everything from screws to slightly dented aircraft, engines to trim tabs. December 9th from 8 am to 4 pm at the Lancaster airport. (which has a great restaurant). Transportation is provided to their buildings.
- The Chapter 197 web site has the Rocket 100 Race results at: <http://eaa187.org>
- Still have a 4 place, panel mount intercom with no harness, free to a good home. Call Damon

CLASSIFIEDS

Airpark Lot: EAA'rs Come enjoy airpark living amongst the friendly builders & flyers of Pecan Plantation; Direct runway access, located on the northeast end of field 9608 Airpark Dr. spacious descending view of airpark, approx. 1.1 Acre; Great Neighbors enjoy Socializing, Building, Fly-In's, Formation, and Air Racing! \$149,000 817-408-6460 LHenney@charter.net

WxWORX Bluetooth XM weather receiver with a Garmin GPS 10 Bluetooth GPS antenna. \$675.00 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.

Sky-Tec is looking to hire one experienced machinist/machining manager type. (Geezers preferred) Job would require familiarity/experience with CNC machining and machining quality management. Full or part-time. Benefits are limited to: 1. A job you can fly to (if you are so inclined) 2. Panoramic view of airport operations at GDJ (both of them each day) and 3. complimentary daily entertainment (the place is an odd combination of a zoo and a circus, only the animals aren't as cute but tend not to smell quite as bad) Contact Rich Chiappe soon. He's hurting to hire the right person quickly. 817 573-2250.

Pilot Avionics PA400-3BL. 4place, portable intercom. \$75 (New \$175). Damon Berry famber@charter.net 817 573-3444

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



Calendar of Events

December 2	Chapter 1347 Monthly BBQ	Fayette Regnl. (3T5) LaGrange, Tx 11:00-1:00
5	Chapter 59 Pancake Bkfst	McGregor (PWG) 8:00-12:00
9	Air Salvage Christmas Sale	Lancaster Airport (KLNC) 8:00 – 4:00
15	Chapter 983 Christmas Party	Pecan Plantation Clubhouse 6:00-closing
January 13	Chapter Meeting	Housemans Hangar, Pecan Plantation (0TX1)

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