Brazos Area Recreational Flyers Bragging And Gossip

EAA Chapter 983 Newsletter
November 2003

EAA Chapter 983, P.O. Box 5191, Granbury, Tx. 76049
Website http://www.eaa983.org

Chapter 983 meets on the second Saturday of each month at 10:00 AM. in Ken houseman's hangar. N.E. corner of Pecan Plantation Airpark.

Air Salvage of Dallas <--Click!

Chapter 983's Christmas Party

December 13th

Gloria and Bruce Wilson are hosting this years party at the Pecan Plantation Clubhouse.. We are going to Dress, Drink, Dine and Dance just like last year.

Reserved seats, so think about who you want to sit with. Perhaps there will also be an encore presentation of "Proud Mary" by Donna and Chuck. Tickets will be on sale at the November 8th meeting or from Gloria 817 579-9353. Get yours early, every year the party sells out and we don't want to miss **you!**

"I haven't had this much fun since the hogs ate my little brother!"

Gary Green has a way of putting things that even the simplest of us can understand. His description of the good time he had at the Chapter 983 Fall Fly-In is colorful and to the point..

It began at 0730 when Dave Christman, who headed this fly-in, and crew arrived to finish the set up. By 0900 the festivities were underway with a formation flight of 2 T-18's and 5 RV's (requisite passes done at neighboring Nassau Bay to remind them of the fly-in).

Aircraft soon began arriving and with weather that could not be improved upon, things filled up quickly.

Estimates of 100+ aircraft and over 500 visitors made this one of our most well attended fly-ins.

The homebuilts were parked up on the hill by the Kidsville jumper and the production planes in the main tie down area. It appeared that the crowds enjoyed both areas. The biggest hit among the kids was the Pecan Plantation Fire Engine and the terrific firemen who manned it. Also making an appearance was the Helicopter and crew from Care Flight, landing on Bobby Carrolls new Helicopter pad.

The new entrance to the tie down area proved its worth this time, giving us the ability to bring arrivals in safely without disrupting activities in the turnaround. Chapter money spent building this access seems like a good move. Jim Kuholtz was the lead dog in the ground ops department and like last year, he did a great job with no damage or "scares".

The spot landing contest was won by Dave Boldenow in his Cherokee and we have a new second place winner(thank God) in Dave Christman with his beautiful Aeronca Champ. Once again Brenda and Rick Chapman provided the trophies. The past Spring Fly-in contest was won by a Cessna 140 and the Fall before that by a Chipmunk. Interesting PRODUCTION airplanes all, BUT, this is an **EXPERIMENTAL** Aircraft Association Fly-In!! I'm calling for a concerted effort during the next six months by **all** experimental owners in the Chapter to spend hours practicing spot landings and take back the trophy. If it requires an "Americas Cup" effort then so be it! **THIS SHALL NOT STAND!!!**

Kudos to the quick thinking folks who spotted a Lancair making a **VERY** delayed gear extension approach and waved him off. He didn't return and that was too bad because he would have found a bunch here who would have shared a laugh with him and some of our own "close ones".

Once again the group who spent the most time and money to promote the chapter was the pilots and workers giving rides. Headed by Roe Walker, this part of the Fly-In was a "safe" success. As always, Barb Wilson was there all day with a "cloud " of hopeful riders following her everywhere.

Thanks to ground crew Cari Wilson and Paul Morisette and the 14 pilots who flew a total of 49 flights to fly 120 people. Of those 120 people, 38 qualified for Young Eagles..

Pilots: Damon Berry 3, Dave Boldenow 1, Gary Brandon 2, Gary Bricker 4, Gene Chiappe 3, Dave Christman 3, Marv Jensen 3, Gene Keyt 4, Bonnie Lewis 4, Billy Rose 2, Andy Shane 6, Paul Siedschlag 4, Bruce Wilson 5, & Steve Wilson 5

This aspect of the fly-in probably does the most to keep neighbors on our side when it comes to Chapter flying activities and we appreciate it.

We can never thank every individual who volunteered to make this another great Chapter event but we at least try to note the leaders of each group: *traffic control and parking*, Jim "Wands" Kuholtz;

flying visitors, Roe "Ride 1" Walker and Barb "Ride 2" Wilson; *food and refreshment*, John "Buns" Bunn; *pilot scheduling*, Bruce "Stick" Wilson; *spot landing*, Dave "3 Wire" Boldenow; and finally Dave

" CINCFLI" Christman *who ran the whole damn thing* and didn't stop moving from Thursday till Sunday night. You're a great crowd all and here's a great big THANK YOU from the rest of us.

NOTAMS

NASSAU BAY RUNWAY!!!!!

Check on the condition of the runway before landing at Nassau Bay. Non-rain flooding has recently rendered it, at times, unusable.

Incoming VP Dave Christman, has received and inventoried the tail kit on his *just arrived* RV8 kit.

Sorry to report, husband and wife RV8 team, Earnest and Marketta Woodard, from Georgetown, didn't survive their flight into poor weather while returning from the Gilmer fly-in.

Almost an airplane, Prez **Gary Bricker** invites all who are interested, for a ride in his new 350hp Corvette. Especially your ice cream carrying grandkids.

Bill Steppling looks to be just a few weeks away from finishing his Rans S-7. Stop by for a look at a project with the highest level of attention to detail and quality of finish ever seen. Paint could have been by Michelangelo. In fact it just might be the finest airplane ever built! .

If you'd like me to **describe your project** in the newsletter, send $20 to: Newsletter editor, PO Box 000.

Bill Eslick seems to have cured his **RV6 Rotary** cooling problems with the addition of an variable lower cowling door.

Jim Brazil and Bill Rozell have brought their newest family member home, an **Acrosport II.**

Our Fly-In planning is always a work in progress! Let Dave Christman hear about any areas you think could be improved. Especially in the safety department.

Air Salvage of Dallas Annual Sale December 13th. Fun and a fascinating place to spend half a day.

Pair of binoculars found at the Fly-In. Contact Roe Walker.

Questions for Monty Barrett, Barrett Performance Aircraft

"When you "balance " an engine what are you actually balancing and is it primarily for longevity or smoothness in the cockpit?"

Monty: "The term 'balancing" is a broad subject. For example: Large industrial engines, gas compressors are balanced as to combustion pressure. They actually have a pressure port in the compression end of the cylinder where suitable transducers are installed to measure cylinder pressure referenced to piston position. The adjustment is usually made with the fuel/air charge admitted for ignition. It is done on a routine basis to provide longer engine life and optimum engine power. A spinoff of this process has been used in aircraft engines where best performance is required and is marketed under an industry cribbed expression called "Flow Balancing". An Oklahoma company, GAMI, has made a lot of money doing a similar procedure with their proprietary fuel nozzles called "GAMIjectors". GAMI is an acronym for General Aviation Modifications, Inc.

Another form of balancing which I believe the question relates to is the static-dynamic forces within the reciprocating and rotating parts of the piston aircraft engine.

"The reason for dynamically balancing the engine is at least four fold: 1. It reduces internal stresses within the engine. 2. It reduces pilot fatigue. 3. It reduces wear to the instruments. 4. It reduces airframe distress, such as, 'smoking rivets' and small cracks in the supporting structure.

Most present day aircraft engines are of the horizontal opposed type and this design provides a benefit in that the opposing piston-rod combination masses tend to cancel one another. Radial and Vee engines are another matter and more complex.

So let's start out with some definitions. 'Reciprocating' means any movement that is pure straight motion. 'Rotating" means any movement that is purely circular. Therefore the piston, piston pin, rings and the small end of the connecting rod are pure reciprocating weight. The crankshaft, big end of the rod, rod bearings and attaching hardware are pure rotating.

Dynamic balancing, interpreted literally , means 'in motion'. Example:

Let's assume a dumbell shaped device with a shaft running axially through the center and running in bearings. On one end of the dumbell there is a 1 Oz weight attached to the rim of the dumbell at radius = 4" On the other end of the dumbell is an identical 1 Oz weight at radius = 4" but located 180 degrees away from the first. It is easy to see that this dumbell, if places on a knife edge would not rotate, no matter what the radial position was. The dumbell is 'statically' balanced. But if the dumbell was rotated it would wobble because the center of rotation does NOT coincide with the center of gravity. The bearings of this dumbell will restrain the dumbell from wobbling and therefore the bearings and their supporting structure are absorbing the loads applied by the out of balance dumbell. This type of imbalance is called a 'couple". If the oil film thickness at the main support bearings was penetrated, rapid bearing wear would occur.

In all the foregoing, substitute the word CRANKSHAFT for the word DUMBELL (and read it again, ed.).

Now let's put some rods and pistons on that crankshaft. It is not uncommon for aircraft engine connecting rods to weigh as much as 1 Oz difference. That's 14.17 grams! And it is also not uncommon for the difference in weight to be all on one end of the rod. Let's take one that is at maximum allowable difference in weight, 14.17 gr, and put it all on the big end, and attach it to a crankpin of a crankshaft that has a stroke of 3.875 inches. Stroke / 2= radius: therefore we just placed this crankshaft out of balance by (14.17gm)(1.937 in) =28gram-inches.. It can be mathematically shown that the crankshaft would move about it's journals about .0025 inches, assuming the crankshaft weighs about 40 #. *By the way, this is a perfect model of a Lycoming 0-320*. If the bearing clearance was less than .00025 inches, the oil film would be penetrated and rapid bearing failure would occur! I have no doubt that this has happened on several occasions!

Part II of this article next month.

September Program: Larry and Cheryl Dial and the Anywhere GPS System

Larry started off by showing his early 90's GPS, which as you probably remember, could show you where you were, give you a heading for where you wanted to go and do some basic calculating as long as the processes didn't include more than addition, subtraction and two place division. It also was about the same size and weight as a teenage armadillo.

Then Larry brought out his newest cockpit addition, An HP Pocket unit with a 2.5" by 3.5" touch screen, Blue Tooth infrared remote and Anywhere Co.'s GPS and software package.

After working out how to get a GPS signal in the Houseman hangar Larry passed the unit around and showed off some of the features. Tech Counselor Martin Sutter had taken one on his recent trip to the Northwest and said it was much more useful than his other, more traditional unit. Like the best units, it has flight planning as well as moving map and the AOPA airport directory. One of the nicest features was its ability to hook up to hotel room phone lines for a Wx brief like your PC at home.

The price for the package from Anywhere Co. is about $1150 but Larry said spending some time on E-Bay will get you set up for about $850. Also give: gpspassion.com a try.

Thanks to Cheryl and Larry for the program this month. If you have a desire for a particular topic or know of someone who would like to do a program contact Dave Christman, our new incoming VP.

Chapter Volunteerism (is that a word?)

I'm proud of you.

In the past it has been a challenge getting volunteers to take on leadership roles in the Chapter.. You probably remember some of my bleatings in the newsletter. Well, the last year has been a complete 180. The Fly-In and Christmas Party jobs were covered early, as is the coming Spring Event. This year we change Officers and with the exception of Secretary, those jobs have also been filled. There's a new vigor in the Chapter and it's exciting. Keep signing up and be proud of yourselves for a great organization!

Air Salvage Fly-In and Sale, December 13, 8am - 5pm

Every year longtime Chapter advertisers, Air Salvage of Dallas, have their December sale. In addition to

everything being 10% - 50% off, it's a great time to wander among rows of parts, airframes, engines and accessories.

They are located next to the Lancaster airport and you can either walk to their facility or ride in vans provided for you. ASOD usually has coffee and cookies or you can eat at the Lancaster airport restaurant, a popular stop for the $50 burger crowd year round. . Lucky Louque, the general manager has been supportive of experimental aviation in general and in particular of our Chapter through advertising and speaking at Chapter meetings so make a point of stopping by to say 'Hi' and 'Thanks'.

British sailors ate at tables with raised edges to keep items from sliding off. Their plates were square wooden trays that fit neatly against those edges. Hence the term: "Square Meal".

Chapter Projects

Dick Jones	**RV-9A**	Gary Green	Thorp T-18
Lee Clements	**Glastar**	**Ray Stewart/Charles Williams**	**RV-6**
Bill Orcutt/Jim Erskine	**RV-7A**	Gary Bricker /Jim Matlock	RV-7A
Dick Keyt	Thorp T-18	Jim Erskine	RV-9A
Marv Jensen	Lancair 4	William Bird	RV-6
Bill Steppling	Rans S-7	Mike Monninger	Shoestring
Eddie Meier	F-1 Racer	Tom Lewis	RV-6
Jimmie Cash	RV-6 & T-18	Nathan Capps	Seawind
Gary & Susan Brandon	RV-6	Gary Cotner	CUBY
John Darby/Arnie Schect	Waco UBF-2	Jay Pratt	North Star
Wes & Millie Ragle	**RV-6A**	Andy Shane	Republic RC3
Les Staples	BD 4	Sid Tucker	DHC-1
Roe Walker	Tailwind, Mini-Max	Barbara Wilson	Swift
Tom Wood	Helicopter	Bill Scanlon	RV-7
Gene Chiappe	Aeronca Chief	Ray Naspany	RV-8
Gwen & Jason Hutchinson	RV-6	Jim Matlock	RV-4
Steve Mottin	RV-9A	Ron Schuster	Mustang II
Brian Sowell	RV-9A	Dave Christman	RV-8

Damon Berry Clip'd T-Craft

Call me and I'll add your project to this list. Experimental or not. ***Bold*** *letters mean completed projects.*

Classifieds

Schedule of Chapter 983 Events

Chapter 983 Officers and Contacts