

HANGAR ECHOES

JUNE 2009



EAA Chapter 168 ★ Dallas, Texas

Spring Flying

By Michael Stephan

With summer just around the corner, the spring flying season is coming to an end. Those cool early mornings and pleasant afternoons will soon be replaced with warm mornings and scorching days. Flying begins at dawn and the airplane is tucked back in the hangar before lunch. Our monthly fly-ins turn to breakfast instead of lunch. So it is with summer. But, we had a pretty good spring, except for the month of April, where it rained or the winds howled everyday.

I spend quite a bit of time this spring at the airport in Grand Prairie where recreational flyers are the majority. On a nice spring day there is a flurry of activity with airplanes coming and going. I happened to be visiting with Bill Bracken at the north end when his hangar neighbor Henry Foster pulled out the gyro and whirled around the sky for a bit. Just the other day Bill pulled out his gyro and took a short cross-country ride.

Most of my flying this spring was meeting David Cheek and any other member who was interested at the Hard Eight in Stephenville for a some BBQ. My logbook has several pages of those flights. The mild temperatures make a 3000 ft MSL flight smooth, cool and comfortable, and from my hangar it is about a 40 minute flight. Last

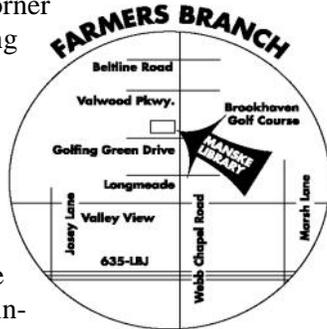
week, after a long spell of rainy and windy days, the sky was solid blue, the winds calm, and temperature below 70 degrees. I couldn't pass up a flight that day, so without any predetermined plans I jumped in the RV-8 and headed for more BBQ in Stephenville. About 10 miles out I heard on the CTAF that two other RVs were entering the pattern. I thought the voice on the radio sounded familiar, and it was. When I taxied to the ramp, Don Christiansen and Richard Wingfield were securing their planes. They kindly waited for me to join them. You could tell that this was the first good flying day in a while, because the ramp was full. I got the last spot on the end. I didn't count, but I believe there were more RVs than Cessnas that day. I haven't seen Don in a while, so having lunch with him was a pleasant surprise. Two days later, I was back at the Hard Eight having lunch with David Cheek. Does the Hard Eight have a frequent-flyer program?

Now that the summer is here, I'll have to get started earlier and find a breakfast spot. Let me know if you have any ideas. I'll be sweating it out for the next few months.

I can't wait until fall!

June 2 Chapter Meeting

The June Chapter meeting will be on **TUESDAY** June 2nd. It will be held at the Farmers Branch Library, located on the northwest corner of Webb Chapel and Golfing Green Drive. The meeting will be held in the auditorium and will begin at 6:30 p.m. and finish by 9:00 p.m.



This month's speaker will be Jim McGee. Jim oversees the office of Kay Bailey Hutchison in Dallas as her Northeast Texas Regional Director. He will be discussing the current and future state of aviation in America, so you can expect good discussions on user fees, airspace issues, fuel tax, 100LL availability, and any other questions that may come up.

If you already have a few questions lined up for Jim, you can email them ahead of time to John Peyton at jbpeyton@swbell.net. Also, you can read more about Jim on page 5.

June 30 Newsletter Folding & Social Hour

The next issue of Hangar Echoes will be folded at the home of Dick and Carolyn Sunderland in Farmer's Branch. Dick is in the early stages of an RV-7 and is almost through with the empennage kit.

The tail feathers are the first parts to build when starting an RV of any model. If you think an RV project may be in your future, this will be a great opportunity to check out the early stages of the project.

It's been a while since we've visited an RV so early in the build, so join the chapter in a 2 hour social event that we like to call "the newsletter folding".

If you've never been to a folding, this one is perfect for you. The location is just a few blocks from the library where we hold our normal membership meetings.

The Sunderland's address is 3310 Gatwick Place, Farmer's Branch, TX 75234. If you have any trouble finding their place, call Dick or Carolyn at 972-247-5158.

June 9 Board Meeting

The BOD meeting will be held on Tuesday June 9th at the Farmers Branch Library at 7:00 PM. The minutes from the May BOD meeting recorded by David Buono are as follows:

Directors In Attendance: David Buono, John Peyton, Bruce Fuller, Norm Biron, Brad Roberts, David Cheek, John Phillips, Sam Cooper, Glenn Snyder, and Michael Stephan

Notes:

- Renewal letters have been sent to all advertisers for the upcoming year
- The chapter has entered the newsletter in the national competition for 2009
- Christmas party discussion was tabled until next month
- Brad gave the financial report
- Newsletter folding that would occur during Oshkosh was discussed but decision was not made on if we should have one

June 6 Chapter Summer Picnic/Fly In

It's that time of year again! If my calculations are correct, this is the 7th year in a row that the Asberry's will be hosting the chapter's summer picnic. We are doing it at the beginning of June again this year, and it promises to be a great time.

Their home is otherwise known as ShortStop Airfield. It's named that for a reason, so if you've never flown in there, be sure to talk to Mel and be very comfortable with your short field landing and take-off technique.

More info on the summer picnic is on page 3.

AN - MS - NAS Hardware

**Action
Aerospace
Hardware, Inc.**

**Tammy Roberts
Warehouse Manager**

**7204 Parwelk
Dallas, Texas 75235**
**Office: 214-637-3598
Fax: 214-688-0549**

From The Desk of the President

We hope you can all join your fellow chapter members as the Asberry's host us for our June fly-out/drive-out event. Mel and Ann are very gracious to open their hanger and home to us. This is always an event we look forward to for great fellowship and food and aviation. Look for additional information inside the newsletter.



The June 2nd membership meeting should be of interest to all that are concerned about what the FAA, and Homeland Security, have in store for the GA community. Our guest speaker is from Senator Kay Bailey Hutchinson's office and it should be very informative to hear what is in store for us.

We have had several inquiries from within the chapter about members attending Airventure this year. If you are going or are planning on going we want to hear from you. Please call or e-mail me or any Board member so we can get an idea of who is going and when. If there is enough interest we may try to schedule a meeting place or dinner out one night during the convention.

Fly Safe and Love Life,

Bruce

June Fly-in/Picnic Details

By: Ann Asberry

Mel and Ann Asberry are hosting the sixth annual Chapter 168 Summer Picnic on Saturday June 6.

Driving directions to ShortStop Airfield

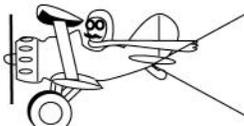
East on highway 380 from McKinney approx. 18 miles to Farmersville, or travel north on highway 78 out of Garland to highway 380. Turn east. After you pass the Dairy Queen on highway 380 it is approx 1.8 miles to County Road 653, turn left. This road will "T" into County Road 655. Turn right. The house is 0.4 miles on the right. Address is 2464 CR 655, phone (972) 784-7544.

PLEASE do not park off the side of the driveway, but go all the way to the hangar and you will be directed to parking there.

This year we will bratwurst for lunch. We will have buns, condiments, and drinks but will need others to bring a side dish, chips, or desert to share. Plan to arrive any time after 10am.

If you plan to fly in, PLEASE be up on your short field techniques and call if you have not previously landed at ShortStop Field, have any questions, or if we've had rain within the previous three days. Unicom is 122.75, Runway 17/35, left hand pattern. The field is 1500 ft, packed white rock surface with considerable grass encroachment on the sides and ends. Please go ALL THE WAY TO THE END, TURN AROUND, AND BACK-TAXI ON THE RUNWAY. The approaches are clear, no power lines or trees with a railroad on the south end. Observe the railroad east and west to see if a train is approaching. Do not land until the train is past the runway. Landing runway 17, watch for cars on the road.

This event is rain or shine as we have plenty of room inside for all. This is a family affair, so be sure to bring your significant other and kids. No pets please.



**Live with your plane,
boat & horse at beautiful
Hidden Valley Airpark**

- 329-acre residential airpark near Lewisville Lake
- 140 homesites, 85 with homes/hangars on paved roads
- 2,650 foot paved runway with 500' sod overrun (5TX0)
- 25-acre horse pasture, private entrance road and lake
- 30 minutes from Dallas or Fort Worth, 5 minutes to mall
- For info on lots and homes, call 940-321-5758

www.hiddenvalleyairpark.org



640 James Drive
Richardson, TX 75080
(800) 776-5267
info@evsupply.com

BATTERIES FOR YOUR PORTABLE WORLD

Nicads • Nickel Metal Hydride • Test Equipment • Camcorders
Laptops • Cell Phones • Lithium • Custom Battery Packs
Sealed Lead • Chargers • and More

WHATEVER IT TAKES TO KEEP YOU POWERED UP



Extended Range Tanks
Trio Autopilots
Dynon Avionics
Pitot-Static Kits
Installation Services

Monte McDavid
Tony Munday
817-939-2695
www.SafeAir1.com

Grayson County Gets Name Change

By: David Cheek

The Grayson county airport is no longer. The name change finally reached publications, and it is now known as "North Texas Regional airport". The identifier is still "KGYI" and the tower is still calling itself "Grayson County". When I called them on Memorial Day, using the "North Texas Regional tower" name, they answered with "Grayson County tower". The instrument approach charts all use the new name; "North Texas Regional airport". The database in my GPS also shows "North Texas Regional", but it is kept up to date, and I don't know when it changed. (This is one of the pitfalls of electronic updates, you have no clue how many old familiar things have been changed.)

The new DFW sectional came out a few weeks ago, and the name change missed the cutoff date, so the sectional still shows "Grayson County". AirNAV is still using the Grayson County name, but if you use their link to the "NOS" instrument charts, you see the new name. I am sure they will update their records as soon as the FAA's "Airport and Facility Directory" catches up. The current AFD still shows the name "Grayson county" for that airport.

So, Grayson county airport, as many of us knew it, is gone. Within the last year, they got a control tower, were upgraded to Class D airspace, and changed their name. Wonder what will be next?

There could be a hint of what comes next from the old highway department. Preston road, state highway 289, is being extended up the west boundary of the airport to reach closer to Lake Texoma. Apparently the people of Grayson County would like to have airline service at the airport, since the recent settlement of the "Wright amendment" almost included both Grayson county and Collin (McKinney) county airports.

Update On CH-601XL

Press Release From Zenair

Zenair met with FAA officials on April 22, 2009. The meeting was productive, with FAA officials confirming that they have no plans to ground the fleet of Zodiac CH-601XL aircraft.

In response to the NTSB Safety Recommendation letter (dated April 14, 2009), the FAA officials stated that they will commence their own thorough review of the Zodiac design, and has given this review high priority. Zenair will cooperate fully in assisting the FAA.

Zenair also continues with the ongoing design analysis of the Zodiac CH-601XL, including wing flutter analysis. The independent consulting team from Germany has released preliminary findings. These preliminary findings confirm that the aircraft, with properly tensioned control cables, is not prone to flutter. The team is continuing its analysis, including the recommendations set forth in the NTSB's letter, such as mass balanced ailerons.

Zenair wants to remind builders, owners and pilots to verify that all control surfaces are properly fastened and secured, and free of play, and that control stops are present and properly installed, and that the control systems are not loose. Pilots are reminded to operate the aircraft within its design limitations.

Mel Asberry

Designated Airworthiness Representative
 A & P Mechanic
 Annual Condition & Prepurchase Inspections
 Specializing in Amateur-built & Light Sport Aircraft
 Technical Counselor
 Flight Advisor
 2464 County Rd 655
 Farmersville, TX 75442
 972-784-7544
 n168tx@flytx.net



HViewAviation.com

Bobby Westbrook
 972-989-4900

BUY A NEW CT

JOHN B. PEYTON

ATTORNEY AT LAW
 MEDIATOR - ARBITRATOR

5489 BLAIR RD., SUITE 275
 DALLAS, TX 75231
 JBPEYTON@SWBELL.NET

OFFICE: 214-696-2007
 FAX: 214-368-6480
 CELL: 214-704-1435

Jim McGee - Speaker For June 2 Meeting

**North Texas Regional Director
U.S. Senator Kay Bailey Hutchison**

Jim was appointed as Northeast Texas Regional Director for Senator Hutchison in November of 2005. In this position, Mr. McGee is responsible for the daily operation of the Dallas office and coordinates the outreach efforts for Senator Hutchison. Efforts are directed in planning and directing events, appearances and legislative efforts in North Texas that assist the citizens and promote the Senators concerns.

Prior to this position Mr. McGee served Senator Cornyn as his North Texas regional director. Jim McGee was appointed to represent Senator Cornyn in January of 2003, concurrent with John Cornyn's official swearing in on January 7, 2003 and filled that role until joining Senator Hutchison's staff.

Jim has a long history of business management and political activity. He was born and raised in Illinois. In his business experiences, he has been a business owner and corporate vice president for an agricultural equipment manufacturing company. In that position, he directed all of the domestic sales programs and supervised a sales team that consisted of both company and independent sales representatives located throughout the United States. After moving to Dallas in 1980, Jim started his first direct mail marketing company. He sold the enterprise in 1986 and then formed and Advertising Specialty company in 1991.

Jim has also been actively involved in civic and political duties for most of his adult life. His dedication to community service was recognized in 2003 when he was selected for the National Distinguished Alumni Award by the Plano Leadership Program. He has served in a wide variety of city and county volunteer positions which included: 5 years on Plano's Planning and Zoning Commission, 2 years on the Plano City Council, plus the Collin County Planning Board and North Texas Workforce Commission. His involvement in political campaigns is long and extensive, but in 1994 he began working as a volunteer for John Cornyn. It is through his efforts on behalf of Senator Cornyn during his campaigns for State Supreme Court, State Attorney General and the US Senate that he was asked to begin his service in governmental service.

Cayman Islands In An RV?

By: David Buono

There is a tiny dot on a map south of Cuba and northwest of Jamaica called the Cayman Islands. It is a vacation spot known for it's relaxed atmosphere and outstanding SCUBA diving. Looking at it on a map, you'd think it's only accessible from water or jumbo jets, but you'd be wrong.

A group of RVs from all over the country met up in Homestead, Florida back in April and departed for the overwater trip to the Cayman Islands. A brief break in the water called Cuba provides the only land along the way. 376 miles from takeoff to touchdown. Less than 3 hours of flight time and they were touching down in paradise. UNBELIEVABLE!

I had a chance to sit with Paul Rosales, one of the pilots going to the Caymans, when he passed through Dallas enroute to Florida. He wanted some Hard 8 BBQ while in the area (can you blame him?), so a bunch of people met him there, and I joined the crowd in my rented spam can. He shared the details of their trip (second time going to the Caymans via RV) with my wife and I, and we ate it all up. Talk about motivation!

Paul and his wife live in California, so they had to travel over 2000 miles just to get to the tip of the US of A that they would be meeting the other RV'ers on the trip. If that sounds like a lot to you, well it is! But Paul and his wife are veteran cross-country fliers. Since July 4, 2000, they've had their RV-6A to 49 states plus the Bahamas, Canada, Mexico, Turks and Caicos, and to the Cayman's twice! They put just over 2500 hours on their engine in 6.5 years, which means they averaged over 300 hours per year. This most recent Cayman trip was roughly 6720 nautical miles and 51 hours of flying.

Paul is currently planning a trip to Puerto Rico in spring 2011, so you better sign up now if you're interested. Last time I checked, there were already 26 people on the "interested" list, and somewhere on there is my wife and I.

We all know how far an RV can take you, and how fast it can get you there. Of all the places it can get you, we just added another one to our list! Can't wait!

Paul writes such great trip stories, you can't help but get excited about finishing your project. Read more of his stories at <http://www.paulrosales.com>. But don't spend too much time reading, you have a project to finish!

Green Airplanes

By: David Cheek

The best suggestion I have heard for having a “green” airplane is to take to a paint shop and ask them to make it look green. That will be almost as effective as anything else on the horizon, especially if you can arrange the painting operation to reduce the empty weight of the airplane by a few pounds.

If you want a more efficient airplane or one that costs less to fly, there are some ways that can appear to improve things. From a pure operational standpoint, you can reduce drag by removing optional items such as ground securing rings; although this is small I challenge you to measure the effect. You can remove weight from the inside of the airplane, and you can fly at the most efficient airspeed (check your phase I flight test results). There is a lot of discussion about how efficient different airspeeds are for efficient travel. The only thing I will say, is that full throttle at low altitude is expensive and throttled back just a little, and cruising at altitude, usually helps your costs a little bit.

You should also consider the winds aloft and pick an altitude that will be in your best favor. There are some interesting on line applications that will pick a best altitude for you. Use them and feel good. I don’t use them, because I have seen too many differences between forecast and actual winds.

Drag reduction on a complete airplane is a popular subject. One that is much too complicated for me to provide any useful guidance. If you want to try this, the best place to start is by talking to other type owners whom you trust and by talking to technical advisors. You should next proceed to gather some good baseline true airspeed data and engine power data as if you were back in phase I testing. Then make changes and test the results. Good luck.

I wonder if we will ever see a more “green” airplane with a different engine? I think not. For the last two years at Oshkosh, an electric airplane with versions of Lithium Ion batteries was displayed. It did not fly, but maybe this year. Some other electric airplane did fly, but I never saw it.

It should be said that two different all electric airplanes have flown. The first is a self launching glider that was covered a few years ago in another article. The second was defense department funded research projects that make autonomous flight solar powered aerial vehicles. I

am not sure these should be counted since you cannot get a ride and can’t fly these from onboard.

There was an article about some alternate fueled project airplane, but I have lost the details. It seemed like it might have been a variation on a hydrogen fuel cell engine, but I also think it was an unmanned aircraft (therefore does not count in my mind).

The one thing I am sure we will NOT SEE, is an airplane with a hybrid engine, similar to hybrid cars. There are two reasons for this; first, the car hybrids exist because of a need for brief high peak power. There is no such need in an airplane, where the engine cruises much closer to maximum power than in a car. The second reason is that there seems to be a fifty year history of poor results with auto engine conversions. The hybrid car engine brings nothing new to the table for an aircraft designer and in fact makes the whole package look worse for an airplane.

A more efficient small airplane will probably be a clean sheet of paper. A low drag wing and fuselage would be needed, along with the best power plant. This might produce a difficult-to-build kit, since there are many little details that can add up to a lot of drag if constructed poorly. So, keep your eyes open, there are many ways to define a “Green” airplane and performance at cruise is only one of them. For most of us private flyers, total operating cost is more “Green” or important than just efficient cruise.



Alpha Aviation Supply Co.
Homebuilding and Sport Aviation Supplies

| | |
|---|--|
| <p>Russ & Terry Chambers 903-455-3113</p> | <p>P.O. Box 8641 70 Majors Rd. Greenville, Texas 75404</p> |
|---|--|



Air Salvage of Dallas, Inc.

- Used Parts Sales
- Buy & Sell Problem Aircraft
- Damaged Aircraft Storage
- Accident Investigation
- Containerize complete Aircraft for Overseas shipment

Tony Dobbs

www.asod.com
tony@asod.com

1361 Ferris Rd.
Lancaster, TX 75146
972-227-1111 800-336-6399
972-227-6176 Fax

Chapter Tools

By David Buono

WE HAVE TOOLS! Your chapter owns a lot of tools that could come in handy and/or save you a bunch of money while you work on your project. Checking them out is simple, and it doesn't cost you anything to use them. Check out the list below, and contact Brad Roberts, who is our tool custodian, if you are interested in anything. His contact info can be found on page 11 of the newsletter in the right hand column.

| | |
|--|--|
| Aircraft Scales | 3 digital scales - can not be checked out - must be used by Tech Counselor who will come to your project. |
| Borescope | Please do not touch the bulb. It's difficult to replace. |
| Cable Cutter | Cable Cutter |
| Camloc Installation Pliers | Camloc Installation Pliers |
| Compression Tester | Piston compression tester with instructions |
| Digital Level | 24" "SMART" level with digital readout and instructions |
| Drill Guide for Tubing | Accu-Drill with instructions |
| Edge Roller | Creates rolled edge on sheet metal |
| Flaring Tool | 37 degree flaring tool - sizes 1/8", 5/16" - 5/8" |
| Fresh Air Respirator | HobbyAir Fresh Air Respirator with half-mask, 40' hose, belt, and painting hood. Please return cleaned and ready for use. User may purchase facemask or other accessories from www.axispro.com . |
| Hole Cutter - Adjustable | MALCO HC1 with instructions. Cuts holes in wood and sheet metal from 2" to 12" in diameter |
| Hole Punches | Greenlee Punches, sizes 1 1/8", 1 3/8", 2", 2 1/2", 2 3/4", 3" |
| Instrument Hole Template | Metal Template from Aircraft Spruce. Not to be used as a drill guide |
| Instrument Panel Punches | 2 1/4" and 3 1/8" - Not for composite or fiberglass |
| Kearney Swager | Hand-operated roll type swaging machine to swage MS-type terminals onto galvanized and stainless steel cables from 1/16" to 3/16" diameter. This swager belongs to Mel Asberry who has offered to let Chapter members use it at his workshop. Contact him at 972-784-7544. |
| Magneto Synchronizer | Eastern Electronics Model E-50 with instructions |
| Nicopress Swager / Cable Cutter | Swages Nicopress sleeves onto control cables. Swages sleeve sizes 1/16, 3/32, 1/8, 5/32, 3/16, and 7/32. Includes a cutter for 7x7 and 7x19 cables up to 7/32 diameter. |
| Nicopress Swaging Tool | Economy style, sizes 1/16", 3/32", 1/8" |
| Pneumatic Nibbler | Air nibbler for sheet metal |
| Rivet Cutter | Rivet Cutter |
| Sheet Metal Dimpler | 3/32" vise grip dimpler from Avery's |
| Sheet Metal Nibbler | Hand type nibbler |
| Tach Checker | Tach checker with instructions |
| Tube Bender | Sizes 3/16" - 3/8" |
| Tube Cutter | Tube Cutter 1" max OD |

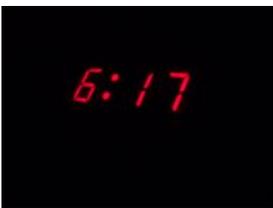
Engine Building 101

By David Buono

Midway through 2008, I made the decision to purchase my engine from Superior Air Parts, located right here in our backyard. I had total confidence in their product, but the main driver as their “Build School” program. Building my engine along side their people along with some classroom sessions was very intriguing to me. I would put my engine knowledge at an extreme novice level, so I was really looking forward to learning hands-on building my engine. My build school date was the first week of January, and as the time neared, I was really getting excited. I think everybody knows how that turned out by now. They called me about 2 weeks before I was to begin my engine build with their news of bankruptcy. Obviously, I wasn’t going to get my engine as planned.

This unfortunate turn of events forced me to revisit a decision that had long passed. Where to get an engine? With the build school idea out (Superior was the only place doing an “official” build school), I decided to start by calling Barrett Precision Engines in Tulsa, Oklahoma. They are a family owned business and have an exceptional reputation in both the general aviation and racing worlds. After a long conversation with Allen Barrett, working out some numbers with his sister Rhonda, and doing some independent research on my options, I had my mind made up to go with Barrett. Allen and Rhonda were both so accommodating and helpful, the decision was actually pretty simple. As if I needed more incentive, Allen agreed to let me “assist” him during the build. Things were looking up!

Friday May 15 was “build day”. In advance of that day, Allen did a lot of prep work making sure everything was ready to start putting together the day I was there. I drove up to Tulsa the day before, set my alarm, and off to sleep I went.



My alarm went off at 6am Friday morning, and unlike a normal work day where I sleep walk through half my morning, I was awake and excited

to get to the shop. I rolled into the shop around 7am, and Allen was waiting for me. After a quick tour of their shop, we settled into the area where my engine sat on a workbench and a couple of shelves in a



thousand pieces. “So this is everything?”, I asked. “Sure is” was Allen’s response. “Let’s get started!”

We started by washing the crank and cam shafts. I think that conversation went something like this:

Allen: Grab that crank. We’re going to wash it in this tub over here

Me: umm... which one is the crank?

I think at that point, Allen realized he was in for a long day.



After washing and air drying the cam and crank shafts, we grabbed the 2 hunks of metal that would form

the case for my engine. We carefully ran our hands all over it to look for burrs or other imperfections. After filing off a few tiny burrs, they were declared “worthy”.



After carefully bolting the crank to the elaborate build table (*sarcasm*), which was actually just a stool with a hole in it, the assembly process started. Allen laid the cam into the case, smeared some purple sealant, then pulled out some silk string. Are we going to sew something? I could not for the life of me figure out what he was going to use this string for. He started carefully laying it down one strand at a time into the purple sealant. I watched him for 10 minutes before I just couldn’t take it any more... I had to ask. What in the world

(Continued on page 9)

JOHN H. PHILLIPS
 BOARD CERTIFIED • ESTATE PLANNING AND PROBATE LAW
 TEXAS BOARD OF LEGAL SPECIALIZATION

BOONE, BOONE, & PHILLIPS, L.L.P.
 LAWYERS
 4313 W. LOVERS LANE
 DALLAS, TEXAS 75209

PHONE (214) 902-8036
 FAX (214) 904-8338
 jhphillips@swbell.net

Engine Building 101

(Continued from page 8)



was this going to do? He explained how it helps seal the 2 case halves together. I'm still not sure I understand how that happens, but I'll take his word for it!

Next up was to wrap the 2 halves around the vertically mounted crank shaft. With no help from me, he quickly had the 2 halves together and we were cranking on bolts to hold it all together. There's nothing to this engine building thing!

Things were about to get a little more complicated. We started assembling the accessory case and all the pieces that will be housed inside. As much as you can hate an engine section, I hate the accessory case and associated gears. For it was this part of the engine that failed in flight with my Cherokee. It was nice to see how it all came together, though. Getting all the gears in place correctly was left to Allen while I was on wrench (and camera) duty.



We got the accessory case put together and then came the oil sump. My engine will be a combination of Lycoming and Superior parts, so this step was a little non-standard. The engine is Lycoming, but I opted for the Superior cold air, forward facing sump. It bolted right on, and we were moving to our next step when Allen stopped and asked me if we remembered to bend up the metal tabs around one of the nuts inside the accessory case. Neither of us could be sure, so there was only one thing to do... Take it all back apart. Off came the sump then the accessory case. Sure enough, we hadn't done it. Good thing he caught it.

That set us back almost an hour, so we had to kick things into high gear if we were going to get done by the end of the day. We got everything put back together and Allen wanted to get one more thing done before we broke for lunch. He wanted to get the pistons in the cylinders, which I had no clue how to even start. He showed me 1, and I did the next 3, and I didn't even break a ring! It helps to have an experienced watchful eye helping you,

and of course, the right tools always make a job easier.

With that item crossed off our list, off to lunch we went. During lunch, we had a discussion about compression ratio and it's effects on engine performance. The more compression you have, the more power the engine makes. But higher compression is also harder on the engine, so there's a balance in there. With 8.5:1 compression ratio being standard, I opted to upgrade a little to 9:1 pistons.

Back to the shop we went, and I got started tearing down the already finished "standard" pistons while Allen went to grab some 9:1 pistons off the shelf. He had 4 boxes sitting in front of me just as I finished undoing what I had done earlier. I got the 4 new pistons prepped and ready to go and on we went to the next step.

Just like the piston prep, getting the cylinders attached to the case was a follow-the-leader exercise. Allen did the first one and I did the next 3. When I walked in the door, I didn't know a cam shaft from a crank shaft, and here I am attaching the cylinders to my engine. Pretty cool!

We finished up this part of the engine splitting a few duties. My duty was to hook up the air intake pipes using a few rubber sleeves and a few pipe clamps.

Time ran out on us before we could get the fuel system installed, so Allen had to do that by himself the next day. He must have managed ok without me, because my engine ran 1.5 hours in their test stand with no issues. 1



week later, the engine arrived here in a crate. 2 hours later, it was hanging on my RV. HUGE STEP! For one brief moment of the build, I could see the light at the end of the tunnel!

American Autogyro of Grapevine, TX

Bill Bracken
 Tel 817-442-8685
 Cell 817-925-4699
billblur@hotmail.com

The SparrowHawk Gyroplane

Safe - Stable Sensible Flight

SparrowHawk Gyroplane



Authorized Dealer for
 Groen Brothers Aviation's
AMERICAN AUTOGYRO
www.americanautogyro.com

Upcoming Events

When: Saturday May 30 - 8am-6pm
Where: Arlington Muni Airport (KGKY)
What: 2nd Annual Texas Varga Fly-In. This is an informal gathering of Varga, Shinn, and Morrisey aircraft, owners, and enthusiasts for fun, fellowship, and sharing of information. We will meet at the EAA Chapter 34 Hangar. Lunch will be served for a small donation

When: Friday - Saturday, Jun 5-6, 2009
Where: Bartlesville, OK (KBVO)
What: Biplane Expo 2009. The National Biplane Association will host their Grand Finale Biplane Expo on June 5-6, 2009. This nationally recognized aviation event attracts historical and unique biplanes from across the U.S. including some of the best restorations in the world along with new custom-built and replica biplanes. Don't miss the Grand Finale Biplane Expo with aircraft displays, aviation personalities, educational forums, exhibits and many daily activities. Arrive on June 4 to enjoy "An Evening with Dick Rutan" at Bartlesville's Hillcrest Country Club. More info available at www.biplaneexpo.com or (918) 622-8400

When: Friday-Saturday June 12-13
Where: Gainesville Muni Airport (KGLE)
What: TEXAS CHAPTER of the ANTIQUE AIRPLANE ASSOCIATION presents the 47th Annual Fly-In. Begins at Noon on Friday and runs till the closing banquet on Saturday night. Small registration fee. Aircraft Judging, Flymart, Vendors. Hamburger cookout on Friday night after Social Hour. Breakfast and Lunch available on Saturday. Social Hour on Saturday Evening with Banquet, Awards and Door Prizes following. See further details and a printable flyer for your airport on our website at www.txaaa.org.

When: Saturday-Sunday June 12-13
Where: McGregor Executive Airport (KPGW)
What: EAA's SportAir Workshops - 2 classes will be held in Waco over this weekend. The first is the very popular Van's RV Aircraft Assembly Class; Learn the hands on skills it takes to complete an RV. With the second class, you can earn your FAA Repairman/Inspection certificate for your E-LSA Airplane

When: Saturday June 13 - 8am-11:30am
Where: Denver City Airport (E57)
What: Free breakfast to all pilots and passengers

When: Friday-Sunday June 19-21
Where: Mid-Way Regional Airport (KJWY)
What: Summer Balloon Classic - An Aviation Extravaganza - Free admission and \$10 parking - Some of the things you'll see are hot air balloon launches, light up balloons at night, skydivers, gliders, helicopters, RC airplanes, powered parachutes, kites, flyovers, and static displays. Many food and drink vendors will be on site - Check their website for more info
<http://www.summerballoonclassic.com/>

When: Saturday June 20 - 8am-11:30am
Where: Aero Country Airport (T31)
What: Chapter 1246 is having a breakfast fly-in and all are welcome. Check their web site (<http://www.eaa1246.org>) for more info

When: Saturday June 20 - 8am-4pm
Where: Air Salvage Dallas - Lancaster Airport (KLNC)
What: Air Salvage always has a huge December sale, but now they are adding a Summer Sale! Fly or drive into Lancaster, and there will be shuttle service all day to get you to Air Salvage. More info on their web site (www.asod.com)

When: July 27 - August 2
Where: Oshkosh, WI (OSH)
What: Is it too early to start thinking about Air Venture, known to many as simply "Oshkosh"? I think not!

**ADDISON
PILOT SHOP**

Brenda Shults

| | | |
|--|-------------------------------|------------------------------|
| 4653 Westgrove Dr. Addison, Texas 75001 (972) 735-8710 (972) 735-8711 fax | Mon-Fri Saturday Sunday | 9am-5pm 9am-3pm Closed |
|--|-------------------------------|------------------------------|

Carol Walker
 FAA Designated Pilot Examiner



Flight Instructor
 Single & Multiengine Airplane
 Instrument & Tailwheel
 214-948-0440

walkercl@aol.com

Classifieds

For Sale, CGS Hawk Arrow single seat taildragger, Rotax 503 DCDI, Oil Injection, Exhaust Flanges (no springs), Cabin Heater for seasonal comfort. Original Sails, New Tires, New 8" Wheels, Heel Brakes, Detailed Logs. Registered Experimental/ Amateur built N523DK. 192 TTAE. Based @ Rockwall Airport (F46). Flown Regularly. MUST GO!!! Priced to Sell \$5000. Fresh Condition Inspection Accomplished. For more info, contact Chuck Cawthon home - (972) 276-0902 or cell (972) 979-6096

PRICE UPDATE Sorrell Hiperlight Stagger Wing Ultralight Bi-Plane with Two Stroke Rotax 377, 35 Hp engine. Flight & Engine Instrument Panel & Hydraulic Brakes. Asking **\$3500.00**. (This airplane belongs to Brownie Seals). Contact Bill Wisley, 972-494-4153 (Home) or 972-998-1096 (cell).

- For Sale:** Contact Ross Richardson 903.893.4221
- FlightCom Nighthawk headset. \$70.00
 - Oil filter housing and screen from Lycoming O-360-A1A \$80.00
 - Walter Gagorrian "headset" The \$39.00 special: \$5.00

- 5 each Metal Check® prepaid oil analysis kits. \$12.00 each

Grand Rapids EFIS - I have a Grand Rapids Horizon WS EFIS for sale. I also have a GPS module that will fit most GRT equipment. Equipment has 6 hours on it, was in a minor accident, and has been "re-certified" and updated to current software versions by GRT. There is no AHSR included in this equipment. Make me an offer. New cost is combined \$2400. Contact Dave at 214-986-4497 or david.buono@yahoo.com

Rotax 503 SC with type B gear box and Rotax electric start kit installed. 25 hrs since major overhaul at 325 total hours (Manufacturer recommends major overhaul at this time). The engine was running great before overhaul and is running great now. \$4000, call Jerry Mrazek at 817-265-0834.

Garmin 190 GPS COM handheld radio. Still works great, data base was updated 4 years ago. Package includes charger, owner's manual, and headset and push-to-talk interface. \$700, call Jerry Mrazek at 817-265-0834.

To place an ad: Submit requests for aviation related For Sale or Want ads to the newsletter Editors. Ads are free to Chapter 168 members. Ads from nonmembers will be run on a space available basis. Ads will be run at the newsletter Editors discretion.

EAA CHAPTER 168 OFFICERS

President Bruce Fuller
president@eaa168.org 214-693-3252

Vice President Ann Asberry
vicepresident@eaa168.org 972-784-7544

Secretary David Buono
secretary@eaa168.org 214-986-4497

Treasurer Brad Roberts
treasurer@eaa168.org 214-912-0329

Flight Advisors

Mel Asberry metro
n168tx@flytx.net 972-784-7544

Michael Hoye
sailntss@sbcglobal.net 972-771-8162

Technical Counselors

Mel Asberry metro
n168tx@flytx.net 972-784-7544

Don Christiansen
 214-729-6187

Marvin Brott
pmbrott@sbcglobal.net 214-726-9117

Michael Stephan
 214-232-2405

Board of Directors

| | |
|-----------------|--------------|
| Ann Asberry | Bill Bracken |
| David Cheek | Glenn Snyder |
| John Phillips | John Peyton |
| Jim Quinn | Sam Cooper |
| Michael Stephan | Mel Asberry |

Associate Newsletter Editors

| | |
|---|--|
| Sam Cooper sam.cooper@comcast.net 972-242-1544 | |
| Marvin Brott pmbrott@sbcglobal.net 214-726-9117 | |
| Michael Stephan mstephan@shr.net 214-232-2405 | |
| David Buono david.buono@yahoo.com 214-986-4497 | |

Data Processing

| | |
|--|--|
| Michael Stephan mstephan@shr.net 214-232-2405 | |
|--|--|

Advertising

| | |
|--|--|
| Michael Stephan mstephan@shr.net 214-232-2405 | |
|--|--|

Librarian

| | |
|--|--|
| Michael Stephan mstephan@shr.net 214-232-2405 | |
|--|--|

Tool Custodian

| | |
|---------------------------|--|
| Brad Roberts 214-351-0475 | |
|---------------------------|--|

Meeting Refreshments

| | |
|--------------|--|
| Sue Bonnette | |
|--------------|--|

Safety Officer

| | |
|--|--|
| Mel Asberry metro n168tx@flytx.net 972-784-7544 | |
|--|--|

Web Site Editors

| | |
|------------------------------|--|
| Michael Stephan 214-232-2405 | |
| Clay Romeiser | |

Young Eagles Coordinator

| | |
|--|--|
| Jim Quinn jquinn3@gmail.com 972-788-2593 | |
|--|--|

Membership

| | |
|--|--|
| Michael Stephan mstephan@shr.net 214-232-2405 | |
| Clay Romeiser | |

Web Site Address
www.eaa168.org

We would like to make you aware that as always, in past, present, and future, any communications issued by Experimental Aircraft Association, Chapter 168, Inc., regardless of the form, format, and/or media used, which includes, but is not limited to, Hangar Echoes and audio/ video recordings is presented only in the light of a clearing house of ideas, opinions, and personal experience accounts. Anyone using ideas, opinions, information, etc. does so at their own discretion and risk. Therefore, no responsibility or liability is expressed, or implied, and you are without recourse to anyone. Any event announced and/or listed herein is done so as a matter of information only and does not constitute approval, sponsorship, involvement, control or direction of any event (this includes Oshkosh). Bottom line, we are responsible for nothing. Please read, listen, enjoy, and be careful out there.

Experimental Aircraft Association

Dallas Chapter 168
PO Box 168
Addison, TX 75001-168

DALLAS CHAPTER 168 MEMBERSHIP APPLICATION/RENEWAL FORM

New Member
Renewal
Info Change

Membership dues for EAA Dallas Chapter 168 are \$20/year.
Make checks payable to EAA Chapter 168

Mail application to:
EAA Dallas Chapter 168
PO Box 168
Addison, TX 75001-0168

National EAA offices:
Experimental Aircraft Association
EAA Aviation Center
PO Box 3086
Oshkosh, WI 54903-3086
<http://www.eaa.org>

National EAA Membership:
1-800-JOIN-EAA (564-6322)
Phone (920) 426-4800
Fax: (920) 426-6761
<http://www.eaa.org/membership/>

Name: _____
Copilot (spouse, friend, other): _____
Address: _____

City: _____ State: _____ Zip: _____
Phone (Home): _____ (Work): _____
Email Address: _____
EAA#: _____ Exp Date: _____
(Chapter 168 membership requires national EAA membership)

Pilot/A&P Ratings: _____

I am interested in helping with:

| | | | | | |
|--------------|--------------------------|----------|--------------------------|--------------------|--------------------------|
| Fly-Ins | <input type="checkbox"/> | Programs | <input type="checkbox"/> | Newsletter | <input type="checkbox"/> |
| Young Eagles | <input type="checkbox"/> | Officer | <input type="checkbox"/> | Board Of Directors | <input type="checkbox"/> |

Plane, Projects (% complete), and other interests:

