

Monthly newsletter from Chapter 42 of the Experimental Aircraft Association

#### FROM THE LEFT SEAT

Happy New Year! As we start off a new and exciting year here in the great state of Alaska, we all have so much to be thankful for. If you are working on a project and would like to see it on the new website let us know. Chapter 42's website address is www.eaa42.org. We would dearly love to have your pictures, your project pictures, your dog's pictures, anything you find interesting that has to do with your project and/or flying.

Writing the "Left Seat" article each month is sometimes a difficult task. This month isn't any different so I will rant on about plans and planning. I had an interesting event recently and it involved the fragility of planning.

Webster's defines "plan" as: 1. A method of doing something; 2. An orderly arrangement of parts of an overall design or objective; 3. A detailed program of action.

If you type the word plan into the web browser on MSN home page it comes up with 163,172,710 hits. That is a lot of plans or planning. We all make plans: we flight plan, wedding plan, and diet plan. We have all sorts of plans: retirement plans, vacation plans.

We flight plan so that we know all aspects of the flight we are about to take. We flight plan to reduce cockpit workload. It is good Cockpit Resource Management to flight plan. Flight plans enable us to make it to our destination with no surprises because surprises are not part of the plan. But what happens when the surprise becomes reality? What happens when the unexpected happens? Can you plan for that?

Pilots have been accused of being overly analytical (note the anal word there). But it is because we don't like to be surprised with items that were not in the plan. For instance: no one wants to arrive at their destination airport running on fumes only to find that the weather is below minimums and it's dark (winds not as planned). At that moment there isn't really time to find the charts, turn on the light (oops, bulb burned out), where is that flashlight (yikes, it sure is bright, there goes the night vision). OK, where is the nearest alternate airport (darn, I used to be able to read at night without glasses). You know what I mean.

I make plans to reduce the stress of everyday life. I plan to do things a certain way and then I know where I need to be and what I am going to do at a certain time. Stick to the plan. I figure that if I write everything down on a note card in a certain order that I will get everything accomplished. Well, it works for the first few items and I feel good as I cross them off the list, but then the unexpected happens and the plan falls apart.

As with piloting and everyday life, it isn't so much *how* you manage the plan as it is *what you do* when the plan fails. What do you do? Do you make a plan in case the other plan fails? Boy, I can see an endless loop with this one.

But, as pilots and aircraft builders, we follow plans and I find that fascinating. I would really like to know how you plan

and what you do if your plan doesn't work out. Perhaps we could plan a meeting to talk about plans.

Inside the newsletter is an article of how the Fuselage Plan didn't work out exactly as planned. Ah, planning...

#### Mike

### NEXT MEETING

Our next meeting will be Tuesday, January 24 at 7pm. You will be treated to a close-up look at one of the world's most beautiful airplanes, a Lancair Legacy. Dick Reeves has graciously invited us to see his gorgeous creation at his hangar at Merrill Field. I believe this is our chapter's first opportunity to see a Lancair up close. Plan to

be impressed Since Dick has a

shared, rented hangar, he has some special liability considerations in inviting a bunch of strangers to this space. To keep his landlord and insurance company happy, our visit is contingent upon a



Lancair Legacy

simple, basic agreement spelled out below. Basically, if you go there and get hurt, don't plan to sue Dick, the landlord or anyone else. See Dick's own wording below. We hope to see you there. Directions below.

"The January meeting is in a rented T-hangar. One of the ways to get a reasonable rental rate is to waive any rights I or my insurance might have under a legal theory known as Hangar Keeper's Liability. My landlord and I have both been in the airline business. The waiver makes sense to both of us who have shared hangar space to help out a friend.

On this basis, we have agreed that each of you is my 'guest' and that I am solely responsible for anything that may cause you harm. There is no recourse through the hangar's owner...Period. Each of you is cordially invited if you agree that your presence as my guest is without recourse to the landlord. If you don't agree, you're not invited...Period. This is a crummy way to frame an invitation, but that's the way it is ...ON THE OTHER HAND, it should be an interesting meeting." Dick Reeve, L2K-233 N233RV; EAA 758788

Dick's Lancair is in T hanger "I" at 2021 Merrill Field Dr. It is located on the south side of the runway and on the north side of Merrill Field Drive, right across from Aero Map. Dick says a sure way to spot the right place is to look for green dumpster #346. Please park in front of the T hangar and along the east end of the building.

## ENGINE ODYSSEY by Tim Rittal

Like many of you before me and for those who follow in the building process, the power plant choice and purchase for your dream kit can be the most difficult and expensive decision in the whole process. I thought I would share some of my quest for power.

First was the decision of how much horsepower I will need. Since I am building a GlaStar for bush flying and eventually on floats, the general consensus is I "need" at least 180 hp. I actually got almost 100% agreement on this which, by the way, is rare when getting advice on major components for an experimental airplane.

Next is which engine? I have been thinking about this for years and have gone full circle on certified vs Subaru vs experimental back to Subaru and around and around. In the end, my favorite Subaru package builder went bankrupt, taking lots of folks' money with him. Dodged that bullet and crossed that off the list. Now I am back to certified vs the new batch of Lycoming-like experimentals.

Just for grins, I asked my kit manufacturer to make me up a complete list of FWF equipment for a new, Lycoming O-360, carbureted with standard ignition. The e-mail response I got

practically put me in a tailspin. The special OEM (original equipment manufacturer) price was \$28,500 *plus* I'd still need an alternator, oil cooler, exhaust system, etc. Final tally for an engine you can actually use was just under \$34,000!! Yikes!!

I started looking around for used engines, wind-damaged planes from Florida,

Wentworth Aircraft parts and others. No easy choices and each come with its own set of risks. Through a friend I was introduced to an engine rebuilder Outside with 40+ years experience and a very good reputation. After a long talk with him, I liked his attitude and I could tell he knew Lycoming engines intimately. He had an O-360 he could rebuild at a cost of \$17,000-\$20,000 depending on parts and final choices. I would have a zero time, certified, rebuilt Lycoming in the end. I take it. I asked for the model number engine so I can start researching and ordering other parts, and there are a few models that don't work well with the GlaStar cowling.

I don't know why it was so hard to look up and call me with a model number. I even gave my toll free number and direct fax. After 5 or 6 weeks and several requests, I never did get that model number and took that as a bad sign despite the guy's sterling reputation. I cancelled the order and moved on.

Okay. Think back. A year or so ago I asked several knowledgeable builders what they would do if they were me. Three of them, independently, recommended AreoSport Power in Kamloops, B.C. (www.aerosportpower.com). I looked up their website and was pleased to see a decent selection of options and





AeroSport Power

a company who appeared to have their act together. Looked like a good choice.

About this time, *Sport Aviation* magazine came out with an informative article on electronic ignition. I really hadn't considered this until then. Better cold starting, boost in horsepower and fuel economy were the claims. This set off another round of phone calls and research on the pros and cons of electronic ignition: which type? with backup magnetos or not? dual system or not? In the end, the guys I rely on most all agreed, "Of course you would want electronic ignition!!" Funny, they never mentioned that to me before or maybe I just didn't hear them then. So, okay, I want electronic ignition. Which one?

From here it gets down to personal choice. I decided I like the Light Speed Plasma III with Hall Effect (don't ask). This system can run on 5 amps and got a very good recommendation from an airplane designer I trust. That is the short story.

Back to the engine. I called AeroSport Power and talked to Sue Gregor. Same lady you see in the website photo. Liked what I heard, liked her way of dealing with my questions and ordered an AeroSport Power O-360 with Dual Plasma III electronic ignition, carbureted and set up for a constant speed prop. At a cost of

\$22,815, without accessories, I could live with it. Painful but what could I do?

That should be the end of the engine story, right? Well, not quite. Let's not forget that prop. I was advised by seasoned floatplane pilots that if I plan to fly floats then I should go constant speed prop and as long a blade as I could. The factory recommended the 80" Hartzell CS

which they have used successfully. Right away I was concerned about such a long prop because I have 800 X 6" wheels on my taildragger. That puts the metal closer to the ground then I really wanted. I was looking for an interim prop solution. Talked to a local prop shop about used, talked to other builders, put a thread out on the GlaStar net (GlaStar builders worldwide) and even talked to a very helpful rep at Hartzell. Another long story short, I decide on the 80" prop and I will put on 26" tires, which I planned to do later anyway. ("Honey, I am actually *saving* money 'cause I was going to need big tires anyway.")

End of story? Not quite. Turns out if you want to swing an 80" Hartzell prop on an O-360 you either have to have a counter weighted crankshaft (about \$5,000 from Lycoming) OR you can add an 8 lb damper plus a larger Hartzell spinner with its extra weight and cost. With the added damper and spinner you are really pushing the forward weight plus this arrangement has operating limits of no continuous operations between.... whatever! The gurus say the engine seems to run smoother with the counterweighted crank. Okay, okay okay. I'll see what I can do.

ENGINE ODYSSEY (con't on page 4)



# THE FUSELAGE PLAN by Mike Ice

Last September I planned to have a fuselage for the aircraft I am building delivered to me in February 2006. I was working at a pace that planned to have the wings completed. I was working along, secure in my plan.

Then I received a call from the fuselage manufacturer in December saying that the fuselage is complete and can I take delivery right

away? Wait a minute! That isn't part of the plan.

I delayed delivery until January and adjusted the workload plan and got the wings completed over the Christmas holidays and the garage organized. OK, we have a new



Delivery (crash) of Mike's RV fuselage

plan; everything is working according to plan.

January arrives and the trucking company calls and tells me the 12-foot box is here. I plan to have it picked up by a friend on his snow machine trailer and Gale Partch and some friends are planning to come by and help unload the crate into my garage.

The friend arrives at the trucking company and the crate is 16 feet long and won't fit on his trailer.

Change of plan, call Gale and re-plan. I plan to have a wrecker with a tilt and sliding bed pick up the crate and deliver it to my house. A friend suggests that I use A&B towing so I call them and plan the pick up and delivery for the next

morning. According to plan the wrecker shows up the next morning and loads the crate and drives to my house.

I am beginning to think that this just might work, we just might pull this off and I will get the fuselage into the garage and get to work, just as planned.

Then the truck backs up the driveway and slams the crate into the house. The house and garage did not fall down so we get the crate unloaded and into the shop. Of course the driver

Mike's fuselage safe and undamaged

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MONTHLY MEETINGS	4th Tuesday of most months

is devastated and completely apologetic and agrees to make everything right. He and his boss followed through with that promise and this part of the ordeal is over. I would not hesitate

to use A&B again and probably will.

Needless to say, the plan is now totally shot and I spend the rest of the day with insurance companies, building inspectors, overhead door repairs and prying the crate apart. The fuselage manufacturer suggests that I immediately open the crate to check on the condition of the fuselage. I do and it is fine.

So what a day. But now it is over and the fuselage is unpacked and sitting on its stand (thanks, Chuck).

I always try to learn something from each experience. I don't know if I learned anything from this but an old expression does come to mind. All is well that ends well.

Stay tuned, more escapades will surely happen, not according to plan.





EAA CHAPTER 42 NEWSLETTER EDITOR

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## TREASURER'S REPORT by Gene Bjornstad

The chapter ended the year with a balance of \$3,042.19 in the checking account. Expenses for the year totaled \$1,722.69 and income \$3,646.26. For the coming year as of December 30, 2005 our dues paying members totaled 36. This represents 39% of 99 members from the 2005 roster. Please pay your dues (\$24/year or \$25/family) at this meeting or mail it to our treasurer, Gene Bjornstad at P.O. Box 729, Girdwood, AK 99587.



ENGINE ODYSSEY (con't from page 2)

So I call Sue at AeroSport Power. Turns out they were building an O-360 with the counter weighted crank for another builder and the order got changed or cancelled for some reason. It is available and they may be able to save me some money. We talked and I bought. Next I ordered the 80" CS Hartzell.

In summary, here is what I got and why: 180hp with 80" constant speed prop for STOL performance, carbureted for simplicity and option to burn auto gas, electronic ignition for better cold starting and a boost in hp and fuel economy, counter weighted crank for a smoother running package with no range of operation limitations. Final cost? Well, we all know we don't like to talk about that. Besides, your spouse might be reading this.

Moral of the story? It is never too early to start thinking about your engine and prop. The more you know and learn, the better your decision. And by the way, don't take my conclusions too seriously. They may all be wrong!

