
	<h1 style="text-align: center; text-decoration: underline;">PROPWASH</h1> <p style="text-align: center;">Propwash is published for dissemination of information about and for this chapter and its members. President – William Good 509-9459, Vice President Jeff Spencer-772-3140, Secretary – Geoffery Jeram 216-407-0627, Treasurer Brian Tauchen 852-7505, Editor Jon Moore 882-6672 http://EAA190.org</p>	
Tennessee Valley	EAA Chapter 190	09 June 2007

This Meeting – 08 May 1030 Moontown

Again, the business meeting will focus on chapter plans for the upcoming fly-in and some community activities. Come by and enjoy an always enlightening discussion and exhibition. We have some projects to go see and we will work the schedules then. Big thing is the fly-in. We need your support.

President’s Notes:

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Murphy! yep our May fly-in was one of the best we have had in a long time after voting it to no longer be our Annual Fly-in month because of weather, the wet rainy kind. Well as Murphy would have it, the weather was gorgeous and has been one of the driest months ever. We had a terrific crowd of aircraft numbering almost 70 and our friends from Guntersville in their Lakes Seabees and others. There are few grass strips in the world that get this kind of attention from our amphibious friends. The band picked up one of its largest checks for their breakfast



service efforts and our hats are off to the servers.



Composite Workshop

I held a small composite workshop at my house on Old Camp Rd in Meridianville this last Saturday. Jon Moore, Wayne Johnson, and Geoffrey Jeram were in attendance. We would have loved to have more folks out to see the demo and get sticky, but we still had a good little tutorial on cutting foam





cores for wings which are commonly used on Long EZs and Cozy type aircraft.



I asked Aircraft Spruce if they could Donate some materials to support our efforts with the workshop and they came through BIG! Friday afternoon, my favorite brown truck from UPS pulled up in my driveway while I was working on my aircraft. My UPS had three large boxes for me, compliments of Aircraft Spruce. We have enough materials to have several workshops on composite materials. I received fiberglass cloth in a few



different forms, form for lay-up, Carbon cloth, Epoxy and many other pieces. Big Thanks to Aircraft Spruce. We plan on holding another composite event and inviting a broader audience. We will post another date and time in the next few months to give more folks the opportunity to work with this type of construction.

Project Status

Well I passed the test. Jon Moore came over to my house this last week to take a look at the parts and pieces that I have been assembling. His mission was to take a close look at my work and give advice as necessary. He seemed to like the way everything looked and gave me the thumbs up.



I have finished the less complex bulkheads and am getting ready to work on the production of the instrument panel. After that will be the firewall and landing gear bulkheads and that will complete the basic bulkhead kit and complete a chapter in the Aero Canard plans. Maybe by Christmas I will have a fuselage I can sit in and make airplane noises.

Wil

Activities

What we've been doing. Last Saturday, Geoffrey Jeram hosted a chapter meeting at his home in Huntsville, around his aircraft project. Had 4 or 5 in attendance. Many of you have seen or heard of the Super Pulsar 100 and his project. He has pictures and links on our website

[file://localhost/\(http://www.aerovents.com/~eaa.190:gjjj:traveller:index.htm\)](file://localhost/(http://www.aerovents.com/~eaa.190:gjjj:traveller:index.htm))

As always, it is a real eye opener to actually see and touch the projects. The Pulsar is a very nice two place with weight margin for a variety of engines and passenger/baggage options. It is very

wide (43in) and has no internal interruption to the pilot and passenger. This plane will be a joy for cross country or just bouncing. Ample fuel (44 gallons) gives the plane a set of legs that will out run most pilots endurance. Geoffrey is making gradual, but steady



progress with his latest work on the canopy mount, the NACA scoops, the aft center console (where the control system bellcranks are housed), and the baggage compartment. The baggage area is rather large and prompts dreams of long cross country travels.



The kit is well developed. The wings are smooth and straight the interfaces between the glass and carbon are sharp and exact. The kit pieces are well matched. Of course there are a “blue-gillion” parts to build and assemble, and it appears Geoffrey is really enjoying the project.

If you are considering building, this is a kit worth looking at. Good looking good performance numbers and while no snap together plane, it is easier to put together than say a Long EZ (Hmmm). Check it out on his section of the chapter website. Thanks Geoffrey – great show.

Safety Note:

I received a question on the canard forum regarding the specified torque on fluid hose couplings (called B Nuts). The writer was attaching fluid lines to his Lycosaurs and was taken back by the low torque values called out in the engine manual. He said he said that simply could not be correct. Of course the manual is correct, but I offered an explanation that helped him understand why they are low. Normally bolts are torqued so that the bolt pattern causes enough pressure between the mating surfaces to keep them from slipping. This means that the bolts are put under a stretching force that pulls the two surfaces tightly together. In the B Nut business the purpose is to hold the male and female ends of the coupling sufficiently tight that the seal between the mating faces (37 degree faces) do not let the fluid leak.

The separation force in a ¼ inch hose for a 1000psi system is 49 pounds (or 4.9 pounds for a 100psi system). For a -3 hose that would be 12 pounds (or for 100 psi 1.2 lbs). The torque required to provide 60 pounds pressure on that orifice is about 60/16 or 4 foot lbs. That is 48 inch lbs. That is simply the closure force. Additional force is required to keep the surfaces mated due to thermal changes, vibration, stress on the hose etc.; but its is relatively small. When using relatively soft materials such as

aluminum, those torque values leave little margin for error. Overstressing (over torquing) can and will split that aluminum at the face and cause a leak. With harder materials like CRES (Corrosion Resistant Steel) the margins grow and the recommended torque values go up, but only a few multiples.

In any case, the torques values for B Nuts are surprisingly low compared to bolts with the same head size. Don't torque per any specification other than what the manuals call for.

Meeting Minutes

We had a great meeting in May. Rand Baldwin from the Huntsville Soaring Club discussed how he and Bill Elliot won the 1,000 km (one million meter) certification flight set up by the FAI. He gave us a short course on sailplane basics and the planning that went into the qualifying flight. He used the data stored by his flight data computer to take us on a graphic replay of that qualifying flight. In addition he showed us some software that allows pilots to combine real flight data from other sailplanes and lets them re-fly their missions - a software package developed in Europe. We were then treated with an exhibition of his sailplane, its systems and details of the design.

We then had the meeting. We started at 1200. Will Good opened the meeting. We had 12 attendees and a new member Mr. Kevin MacQuinn. He is building a SONEX (2 place side by side metal plane).

The breakfast saw over 65 planes and a breakfast revenue of over \$780. George Myers indicated that planning and task

assignment for the 2007 fly-in will start soon. He also noted that the aircraft parking area on the South east end of the field is nearly ready. That will open about 25 parking places for planes and campers.

Will called for a BOD meeting which will be scheduled in the next few weeks. We discussed the new insurance required by the EAA for fly-ins and the new certifications required of Young Eagle pilots. **If you are a YE pilot, there is some work before you before you can fly YEs.** Not hard just some data and self certification.

Geoffrey Jeram will have a project meeting at his place on the 26th of May around his Pulsar. It will happen at 1100. On the 2nd of June (later moved to the 9th), we will meet at Will Goods home and do some foam and fiberglass work. Be sure to sign up if you want to do some of the hands on work. We will meet at 1600 and work for a few hours. Meeting was adjourned at 1220.

Annual Moontown Grass field Fly-in – September 15th 2007

This year we have again adjusted the fly-in date to make the most of the weather and reduce conflicts with other community events. George Myers is leading the planning for the event. Each of us have the opportunity to support the event in many ways. If you are a member of the chapter and National EAA you can support the operation of the fly-in. Please let any of us know what you would like to do in this event. It is a great day