EAA
SAFETY WIRE
FLIGHT ADVISOR AND TECHNICAL COUNSELOR NEWS

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Your EAA Staff Resources:

Jennifer Bork
Safety Programs Administrator
safetyprograms@eaa.org
888-322-4636 ext. 6864
920-426-6864

Joe Norris
Sr. Aviation Specialist
jnorris@eaa.org
888-322-4636 ext. 6806
920-426-6806

Charlie Becker
Director –Aviation Services
cbecker@eaa.org
888-322-4636 ext. 6530
920-426-6530

Member Line
888-322-4636
info@eaa.org

Inside this issue:

Message From Headquarters

Joe Norris, EAA Staff

You have all received your TC/FA renewal information, and Jennifer has been busy processing the renewals we've received. If you have not yet submitted your renewal information we need you to get it in pronto. We want to make sure we have accurate activity info from all of you, and we also need to verify that we have your correct contact info. Thanks for your prompt response!

With all the activity in the sport pilot and LSA arenas, the word "deadline" has become quite common in our conversations with EAA members. I'd like to remind you of yet another deadline that is rapidly approaching. If there is a Technical Counselor who you wish to nominate for the Tony Bingelis award you need to get the nomination materials into EAA HQ by February 1st. Don't wait, or you'll be too late!

On an administrative note, we have recently received several incomplete flight advisor session reports. Remember that the flight advisor pilot self-evaluation form is two pages. Please make sure you include both pages when you forward your completed Flight Advisor reports to HQ.

Many thanks to those who have submitted articles for The Safety Wire. We look forward to future submissions from the field so that we can keep this newsletter enjoyable and informative for all of you. Keep those cards and letters coming in!

Amateur-Built ARC

Federal Aviation Administration

As you are no doubt aware, the FAA convened an Aviation Rulemaking Committee (ARC) to discuss the policies and processes for certification of amateur-built aircraft. The ARC discussions have recently been concluded and the FAA will soon issue their report on the proceedings. This report will be followed by publication of the FAA's proposed actions. There will be an opportunity for comment.

See the article on page 66 of the January issue of Sport Aviation magazine for EAA's perspective.

Inspecting Ideas for the Aging Composite Aircraft

Bill Berson TC#4919

When I was thinking about buying a fiberglass motorglider, made by GROB (pronounced like globe), several pilot friends advised me to never bring a composite aircraft to the cold environment of Alaska where I lived. They said it would not last and I should get an aluminum plane.

Turns out they were wrong, fiberglass structures are actually stronger at minus 40F than at room temperature.

But the idea of buying a composite aircraft of a type I had not even seen before was scary, so I called the GROB dealer in Ohio and spoke with a service technician for about an hour. Calling the factory was a great way to get the information and confidence I needed for making a pre-purchase inspection. I recommend this first step for anyone thinking of buying an unusual aircraft.

The GROB representative said, "Cracks in the gelcoat are normal as long as the cracks are across the wing, chordwise. Spanwise, cracks are not normal and would indicate major damage". He said, "Cold weather is not a structural problem, the aircraft are made in Germany and it gets cold in Germany".

When inspecting the wing, I am mostly concerned with looking for a separation of the wing spar where it is glued to the wing skin. The wings are made with top and bottom shells that are glued together at the leading edge, main spar, and trailing edge. The problem lies in the fact that a spar debond cannot be seen from the outside. The GROB G-109 doesn't even have any inspection holes other than the wing root openings.

The standard FAA inspection handbook AC 43.13-1B describes several subsurface inspection methods. The first is called tap testing. It consists of lightly tapping the surface of the part with a coin or other suitable object. The tap test is limited by the inspector's subjective interpretation. I don't use the tap test unless an area is suspected of damage. It would be impractical to tap test the whole plane. The other methods require expensive machines which use methods such as acoustic-emission and thermography.

I have found a nifty and simple way to visualize a possible subsurface defect such as a spar debond. (Debond is just another word for unglued.) Sometimes around an hour or so after sunset on a clear evening moisture will condense on the wing skin but not over the warmer massive spar bond. The spar bond is clearly visible and can be seen in the accompanying photos of the detached left wing, secured on a trailer. Look above the spar clamp holder, where the spar bond image is visible as a dull triangular shape on the wing surface. These pictures were actually shot in the morning at around 10:00, when the moisture is condensed on the colder spar. The reverse happens in the evening.

Selling a Homebuilt Aircraft– 3 Ways to Reduce Your Risk

Charlie Becker, Director Aviation Services

We get a lot of calls from members when they start to think about selling their aircraft. I would imagine that you TC/FAs are probably asked similar questions by fellow EAA members. Typically, the member wants to know what they can do to eliminate their liability after the sale. As I tell them, in the good ol' USA, there is no way to completely ***eliminate*** liability and still sell the aircraft. The best they can do is minimize their risk exposure. The good news is EAA HQ is not aware of any successful lawsuits against an amateur builder. Even so, you still want to make yourself an unappealing target because any lawsuit, even if you win, will cost you money. So here are three real world ways to significantly reduce your exposure:

1. **Sell the aircraft to a qualified buyer.** Many homebuilts are high-performance aircraft that are a joy to fly in the hands of a competent pilot….but in the hands of a Cessna "driver," they are just an accident waiting for a location. So when I say "qualified buyer," I'm not referring to a person whose check will clear. I'm talking about someone who can safely fly the aircraft. Just think, no accident = no one to blame.
2. **Use the EAA Insurance Plan:** We designed the EAA Insurance plan to provide liability coverage ***after*** the sale of your homebuilt aircraft at no additional cost. You get this coverage for up to one full year (or the total number days the policy was in force prior to the sale, whichever is less). Call the EAA Insurance plan at 1-866-647-4322 for details.
3. **Have a contract with a waiver and release of liability drawn up by an attorney:** EAA provides a sample **Experimental Amateur-Built Aircraft Purchase and Sale Agreement with Waiver and Release of Liability** document in the Members Only area of www.eaa.org . You will find it in the Homebuilders HQ section under Selling/Buying. Use this with your attorney to draft an agreement that covers your unique situation.

So let your builders know ahead of time that a few basic steps can help them significantly reduce their exposure to any real or threatened litigation.

Thanks to Frank Beeler, Technical Counselor #4788

Will Ouellette, EAA #725200

Frank Beeler was my EAA Technical Counselor during the building of Sonex N171FS. Frank was a font of knowledge and advice! His periodic inspections were ALWAYS worthwhile as he pointed out the good, the bad and the ugly of my project. His experience with building a Sonex was invaluable and Frank really knew his stuff and what to look for. I really appreciated working with Frank - he is a true gentleman and professional and reflects great credit upon his work and the EAA Technical Counselor program. Can't say enough good things about the Tech Counselor program and hope any and all experimental builders take advantage of this program.

Will & Pam Ouellette with their Sonex N171FS

Safety Programs
PO Box 3086
Oshkosh, WI 54903-9977

Phone: 888-322-4636 ext. 6864
Fax: 920-426-6560
Email: Safetyprograms@eaa.org

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Transition Training for Amateur-Built Aircraft

Joe Norris, Senior Aviation Specialist

We've had several calls and emails here at EAA HQ concerning the FAA's non-renewal of the EAA Transition Training exemption. Most were from people who were concerned that transition training would no longer be available. This is of course not the case.

The reason the FAA did not renew EAA's exemption is because of the changes in the regulations that came into effect on 1 September 2004. We all remember this as the date when the sport pilot and light-sport aircraft rule came into effect. But there were several other regulatory changes the FAA made at the same time, some of which had a broader effect than just sport pilots and light-sport aircraft.

One such change is found in FAR 91.319. This is the regulation that sets forth operating limitations for experimental aircraft. The new 91.319(h) allows the FAA to issue letters of deviation authority to allow the use of the aircraft for hire for transition training. In short, the FAA took EAA's exemption and wrote it into the regulation. The FAA will issue letters of deviation for flight training directly to the owner, rather than the owner having to apply for an exemption through EAA.

It's important that EAA Flight Advisors and Technical Counselors are aware of this issue so that you can answer questions that your fellow EAA members may ask. Also remember that there is no limitation on giving or receiving flight instruction in an experimental aircraft when no charge is being made for the use of the aircraft. Flight training is not the issue, but rather the rental of the aircraft that must be dealt with by way of the letter of deviation.

The owner of an amateur-built aircraft who wishes to offer his or her aircraft for hire for transition training should contact their area FAA Flight Standards District Office to request a letter of deviation. The FAA worked with EAA in developing the guidance for issuance of these letters of deviation. Of course EAA members are always welcome to call EAA Aviation Services at 888-322-4636 for info.