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Message From Headquarters

Joe Norris, EAA Staff

Judging by the amount of feedback we've received from folks on the debut issue of "The Safety Wire", it seems as if we've started out on the right foot! I want to thank those of you who took time to offer feedback, comments, and suggestions. Remember, this is YOUR newsletter. Input from the field is a vital part of keeping this newsletter useful and informative for all.

An administrative note: we are rapidly approaching renewal time for Technical Counselors and Flight Advisors. Renewals are based on activity points, and the only way to earn points is to report your activities to HQ. So, in order for us to have an accurate accounting of TC and FA activity in the field, and to assure that your renewal is processed promptly, please make sure you have sent in ALL your activity reports. Anything that you have done to help a member with their project, along with any other activity you feel

might add to your point total for this renewal period should be reported. (Don't forget to let us know if you've participated in continuing education programs, such as flight instructor renewal seminars or IA renewal programs.) In addition to assuring your renewal in the EAA FA and TC programs, your reports help us to remain in good standing with the FAA regarding experimental aircraft safety efforts. Our TC and FA programs help to protect our privilege to build and fly our aircraft.

AirVenture is rapidly approaching. I hope you'll be able to attend the convention. You have all received your AirVenture Volunteer information, and we'd love to have you join us. We invite you to check in at the Builder Education Center and spend a few hours helping out in the workshop area. We look forward to seeing you!

TC/FA Breakfast at AirVenture

The World's Greatest Aviation Celebration is right around the corner. Please don't miss our Technical Counselor and Flight Advisor Breakfast. It will be held on Thursday July 26th at 7 a.m in the Nature Center. It

is free to all TC/FA's and one guest. Please sign up at the Builder's Education Center if you have not already returned your volunteer response form to headquarters. We hope you can join us!

Forced Landings— Guidance from a Flight Advisor

Jack Briggs, FA #1172

One day at lunch with a group of pilots, the talk got onto the subject of forced landings. Almost everyone in the group had experienced one or more and survived. The pilots ranged from students to airline veterans, military and civilian, young and old. The oldest had flown Jennies in the late twenties or early thirties! By adding the accumulated hours and counting the number of forced landings, the results were quite surprising. It is possible to fly a lot of hours without having to get it down quickly.

In case of an emergency, what is the preparation and technique to handle it successfully? Successfully may mean any landing that you can walk away from. There is an inherent desire to save the plane first; your neck second. Don't buy it! Planes are repairable and replaceable.

Air speed and angle of attack are the ingredients for a good and safe forced landing. Every plane has a best glide speed and attitude, knowing yours is imperative.

Altitude is the other factor in an emergency. Under 500 AGL leaves little room to maneuver. Many forced landings occur below that altitude. During takeoff or landing, fuel starvation and carburetor ice are frequent culprits. Do not turn back if under 500 feet, and even 500 feet might not be enough, 1000 feet is better yet. If an emergency

occurs during a climb out, immediate reaction is required. Without a prop blast over the tail, the elevators lose effectiveness. Quick, precise forward stick must be the reflex. A shallow climb angle with speed is preferable over steep and slow. Not as impressive but more survivable. The sooner the pitch attitude for maximum glide is established, the better. Maintain air speed and proceed according to altitude.

Wind and terrain are the next consideration. Into the wind reduces ground speed. Downwind and faster ground speeds fool the eye and deceive the pilot and stalls can result. Low altitude reduces the time for analysis. Avoid the temptation, fly the airplane.

A snug seat belt and shoulder harness can reduce injury. If altitude is sufficient, plan approach as normal. Be at the key position, abeam the end of the intended landing spot at 800 to 1000 feet AGL. Shoot for the middle of the landing area, then "S" turn or slip to land in the first third. Maintain a normal glide speed and angle. Practice dead stick landings. Clear the engine occasionally and use carb heat.

Good technique and awareness can make an emergency a non-event.

You are the Best Source for New Technical Counselors and Flight Advisors

Technical Counselor Chuck Burtch writes:

"When I did a Technical Counselor visit of a Rand KR-2 built by Martin VanDelinder of Fulton, New York, I was so impressed with this aircraft that I convinced him to become a Technical Counselor. He has since become an A&P and is a great asset to our aviation community. We usually visit projects together, which makes it fun and another set of eyes."

Chuck has made an excellent point. You, as an existing Technical Counselor or Flight Advisor, are the **best** source of new Technical Counselors and Flight Advisors. When we receive a TC or FA application, we are limited to simply checking over the qualifications. You on the other hand probably know a good deal more about that person's ability, knowledge and demeanor. Plus, you're a respected local aviation expert already. An invitation from you will carry a lot more weight than seeing a blurb in the magazine or on the website. So by all means, please keep recruiting in mind when you are visiting projects or pilots. In Chuck's case, by

convincing Marty to become a Technical Counselor, it not only benefited Marty personally by inspiring him to become an A&P, but Marty has provided the local aviation community with another great resource.

Charlie Becker
Director of EAA Aviation Services

Past Recipients of the Tony Bingelis Award

2003 Joe Gauthier
2004 Alex Sloan
2005 Mel Asberry
2006 Jim Miller
2007 Richard Koehler

2007

Richard “Dick” Koehler, of Burke, Va. has been selected as the 2007 recipient of the Tony Bingelis Award, recognizing his dedicated service as a volunteer Technical Counselor.

Koehler (EAA #161427) has shared his knowledge of aircraft and provided thousands of hours of advice to builders as a Technical Counselor for more than 17 years. Koehler has also received the 2005 Bax Seat Trophy from FLYING magazine for his aviation writing. He has written a monthly technical column in the Chapter 186 newsletter for over twenty years and is a regular contributor to *Sport Aviation* magazine.

Koehler has built a KR-2 and restored two Mooneys and a Swift.



He instructs the sheet metal and composite workshops at AirVenture and he also teaches an electrical systems class as an EAA SportAir workshop instructor.

Koehler will receive his award at the EAA Homebuilder’s Dinner on Thursday, July 26, 2007.

The Tony Bingelis Award, created in 2002, recognizes EAA Technical Counselors for dedicated service, significant contributions in assisting members to build and restore aircraft, and maintaining the values of the Experimental Aircraft Association. Bingelis wrote over 300 how-to articles and four homebuilding books before his death in 2001.

Bingelis was also a founding member of Chapter 187 in Austin, Texas, in 1963, and helped organize the EAA Southwest Regional Fly-In in 1965.

The Condition Inspection

David VanDenburg, TC#4272

Pilots all know that every aircraft registered in the United States requires an Annual Inspection once every 12 calendar months. Does this requirement apply to amateur-built aircraft as well? If so, what does this inspection consist of, and who can do it?

First of all, Amateur built aircraft also have a requirement for an inspection every 12 calendar months, but it is not called an “Annual Inspection.” It is called a “Condition Inspection” and is somewhat like an Annual, but there are differences. For example, an Annual Inspection must be done by an appropriately licensed aircraft mechanic. This means an individual who holds a license with an Airframe and Powerplant rating and an Inspection Authorization (A&P with IA). A “Condition Inspection” on an amateur built aircraft, however, can be done by any A&P (no IA required) or by the builder of the aircraft if he or she has applied for the “Repairman’s Certificate.” This certificate is like having IA privileges for that specific aircraft only. After all, if you built the aircraft, you should know enough about it to be able to determine if it is in a condition for safe operation.

Another difference is the logbook entry. Both inspections require an entry into the aircraft maintenance records. The wording for an Annual Inspection comes from 14 CFR Part 43. The wording for a Condition Inspection, however, is different, and comes from the Aircraft’s Operating Limi-

tations, which are issued to the aircraft as a part of its airworthiness certificate. If a homebuilder has a local A&P do the Condition Inspection, it's important to provide him or her with the operating limitations so that the correct entry can be made in the aircraft's records.

The actual inspections are basically the same. Those of us flying certificated aircraft probably have factory-provided checklists for the Annual. Piper, Moony, Cessna, etc. all supply checklists for Annual Inspections. But what about us homebuilders? I know some kit manufacturers provide checklists for their products, but for the most part, we’re “on our own”. Not to worry, the “Friendly Aviation Administration (FAA)” has taken care of us. Appendix D to 14 CFR Part 43 (available at www.faa.gov) is a list of the minimum items that must be included on a 100 hour, Annual or Condition Inspection. Note that this is the minimum. You will want to use this document as a starting point and expand your checklist to cover the specifics of your aircraft. In fact, you will probably add items from time to time as you discover issues or hear of issues others are having with similar aircraft. 14 CFR part 43 requires a mechanic to use a checklist for an Annual. This regulation does not apply to homebuilders, but the operating limitations still require the aircraft to be inspected at least in accordance with the scope and detail of appendix D to Part 43. Build a checklist and use it every time you do a Condition Inspection. This will prevent missed items and maybe save your life.



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*Join us for the World's
Greatest Aviation Celebration!
AirVenture 2007 July 23-29*

Experimental Aircraft Maintenance Joe Norris, EAA Staff

One item from the last issue of "The Safety Wire" that generated a good amount of feedback was the article comparing amateur-built to experimental light-sport aircraft certification. Several of you wrote in questioning the statement that anyone could perform maintenance and repairs. Many are under the impression that the only person who can perform these functions on an experimental aircraft is the holder of the repairman certificate. This is actually not the case. There is no restriction to who performs maintenance, repair, or modification on an experimental amateur-built aircraft or ELSA.

The path to enlightenment on this issue lies in the verbiage found in FAR 43.1(b), which states:

"(b) This part does not apply to any aircraft for which the FAA has issued an experimental certificate, unless the FAA has previously issued a different kind of airworthiness certificate for that aircraft."

Since both amateur-built and ELSA aircraft have never held a different type of airworthiness certificate, 43.1(b) applies. That means that the entirety of Part 43 does not apply to these aircraft. This being the case, there is no restriction on who performs maintenance or returns the aircraft to service. Maintenance, repair, and even modifications can be performed by anyone regardless of whether or not they hold an FAA certificate of any kind.

The only time a certificate is necessary is when performing the condition inspection each year. This requirement is found in the operating limitations of the aircraft rather than in the regulations themselves. The operating limitations will require that the person performing the condition inspection hold either the repairman certificate for that individual aircraft, or an A&P certificate. The A&P is not required to hold an inspection authorization (IA) in order to perform the condition inspection on an experimental aircraft.