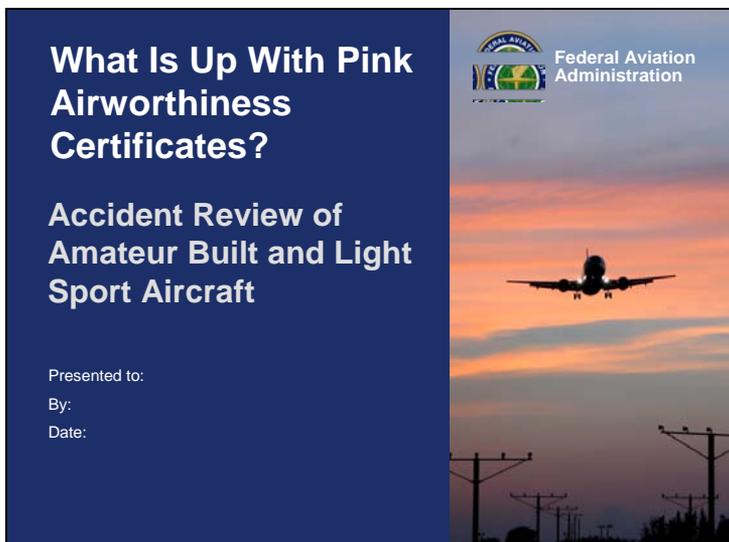


Slide 1



**What Is Up With Pink  
Airworthiness  
Certificates?**

**Accident Review of  
Amateur Built and Light  
Sport Aircraft**

Presented to:  
By:  
Date:

FEDERAL AVIATION  
Administration

Eastern Region FAAS Team

Amateur Built and Light Sport Presentation Booklet

## Slide 2

### **Disclaimer**

- 1 If you are familiar with a particular accident, keep in mind we may or may not be discussing that event.**
- 2 Some examples may still be open investigations. Probable causes may change as data is gained. We are using the best information available at the time this information was compiled.**



This is a brief overview of findings resulting from reviewing recent accident data. Data included preliminary information compiled within the Eastern Region from the period from January 1, 2010 - September 30, 2010, along with NTSB data concerning accidents in the Eastern Region from 1/1/2008-12/31/2010, and information compiled by the FAA Team on a national basis. Much of the data is still preliminary and may change as more information is learned concerning a particular event. Only the NTSB can determine the official probable cause. The FAA may point out observations and quote statements.

## Slide 3

### Agenda

- **Quick review of accident data**
- **Very brief overview of multiple accident trends**
- **Possible avoidance**
  - How not to be subject of future revisions of this publication

Accident Review Non-TC'd Aircraft

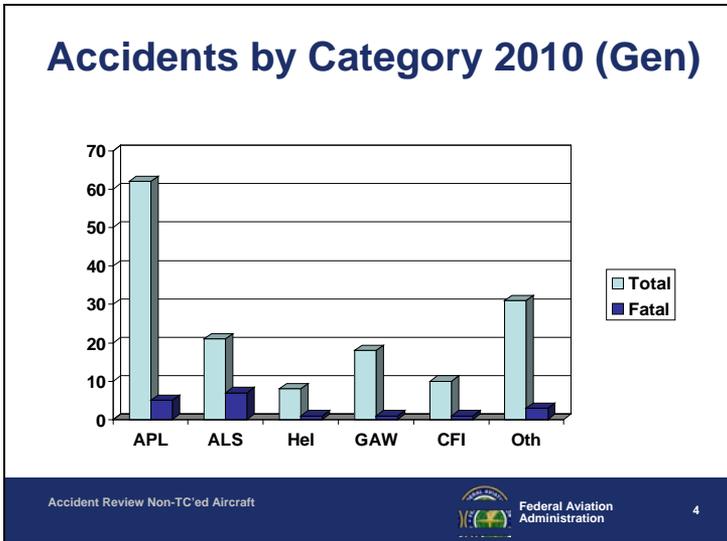


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Administration

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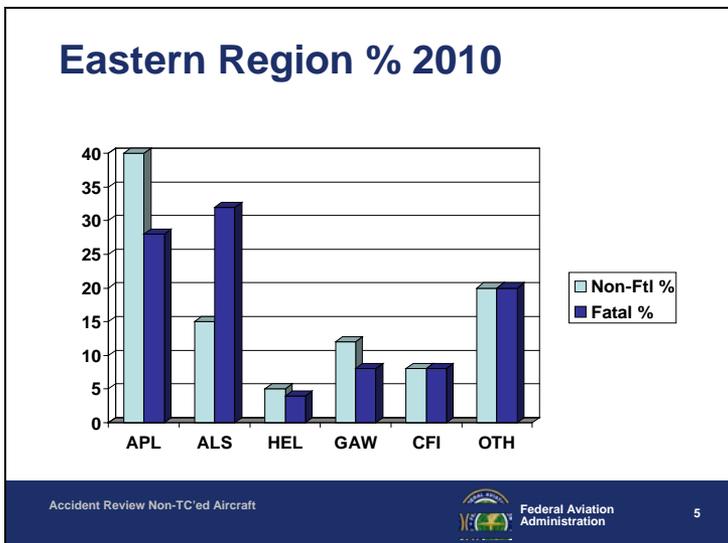
We will first review some raw accident numbers for Amateur Built and Light Sport Aircraft. We are going to compare what has happened in the Eastern Region from 1/1/2010-9/30/2010 with what has happened in the Eastern Region from 2008-2010, then compare that briefly with National data. We will briefly review some accidents, and discuss some avoidance steps.

## Slide 4



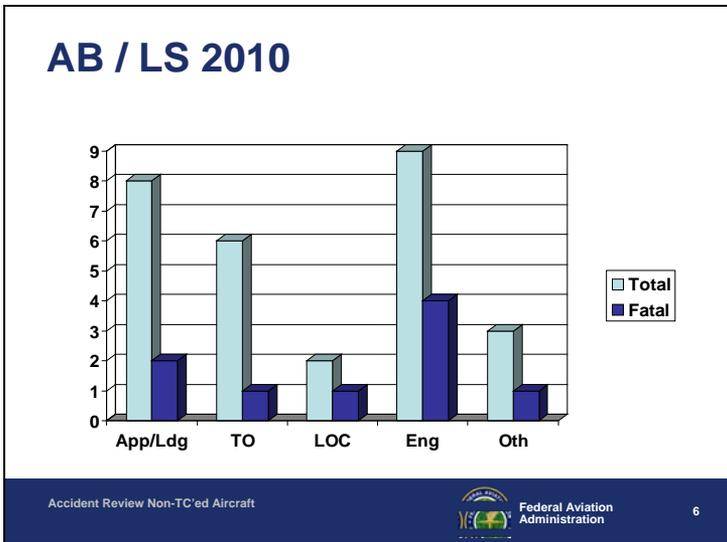
Granted this is an “apples and oranges” type mix of accident data, but it gives a feeling for the trends and problem areas that we have in the Eastern region. The data in this chart was compiled from Jan 1-Sep 30, 2010 data. APL is Approach & landing, ALS is Amateur built and Light Sport Aircraft, Hel is Helicopter operations, GAW is airworthiness issues, CFI is flight training, and oth is all the other remaining categories. Note the relatively high rate of fatal accidents in ALS compared to the others.

## Slide 5



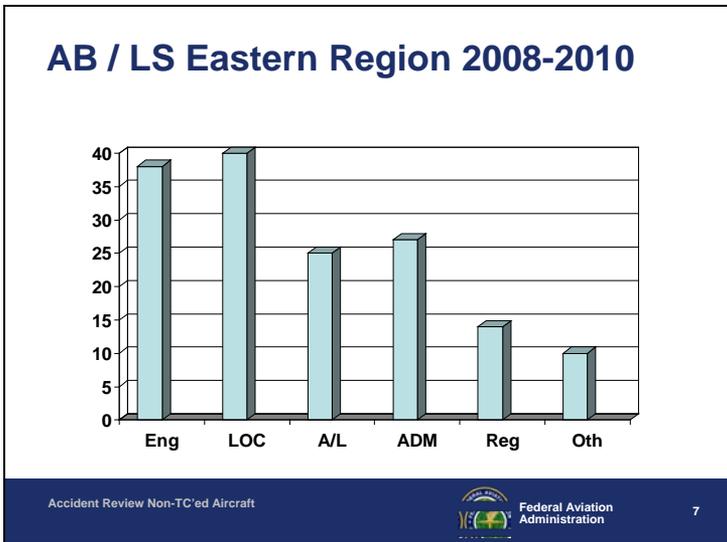
This is the same information (Eastern Region, 1/1/2010-9/30/2010) given in % form rather than raw numbers. ALS fatality rate really stands out. Nationally, 18% of Light Sport and Amateur Built aircraft involved in accidents were fatalities. This compares to 8% for the rest of General Aviation.

## Slide 6



This is the same 1/31/2010 – 9/30/2010 data, breakdown of Amateur Built / Light Sport accident categories. Note that engine failure accidents have outdistanced approach & landing accidents in total numbers, and account for nearly half of the fatal accidents. Keep in mind an engine failure accident could also suggest a lack of training or currency in emergency procedures. This is not to say all engine failures can result in a safe landing, however we may need to consider the possibility of a failure at all times and keep a field in gliding distance, or at least a plan in mind, at all times.

## Slide 7



This is a look at Eastern region accidents from 2008-Sep 2010. Notice Loss of Control has been a major problem area that has been reduced to the point of not being tracked. Many have likely been re-categorized as Approach & Landing, which is still very high. Engine problems were still high, as were Aeronautical Decision Making. Note the regulatory compliance problems. These included unlicensed pilots, buzzing, low level aerobatics, etc. Many in the FAA and “Mainstream GA” see the Amateur Built accident rate as to be expected because the “homebuilder” and Sport Pilot are seen as the types who are trying to circumvent the regulations and common practices. These non-compliant types are the people who are feeding that fire. It should also be noted that there is also a tendency for these accidents to be of a more serious outcome.

## Slide 8

<b>Numbers</b>	
<b>GA Aircraft</b> <u>2176</u> Fatal accidents since 2005	<b>230,000</b> <b>.9%</b>
<b>SLSA Aircraft Certified 1715</b> <b>ELSA Aircraft Certified 7086</b> <u>66</u> Fatal accidents since 2005	<b>8,801</b> <b>.74%</b>
<b>Amateur Built Aircraft</b> <u>393</u> Fatal accidents since 2005	<b>33,000</b> <b>1.2%</b>

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 Federal Aviation Administration

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This is what has been happening nationally. The Eastern region statistics are not very different. The large numbers are the total number aircraft certified in the particular category/purpose. The underscored numbers are fatal accidents since 2005. The percentages are the percent of the total number of aircraft certified in the particular category/purpose that have had a fatal accident.

## Slide 9

### **Aircraft problem areas too high!**

- **When lumped together, mechanical / structural problems account for 46% of Amateur Built / Light Sport Aircraft Eastern Region accidents**

Mechanical problems, including improper maintenance, have an unusually high rate, and close to 1/3 of the fatal and serious injury accidents. Note there is a crossover in data with engine power loss. These maintenance issues are possibly the most preventable.

## **Most common aircraft problem - ENGINE**

- **2 Seized 2 stroke Rotax (not Cold Seizure)**
  - Both overdue recommended mx
- **2 Broken Crankshafts**
  - One was a Hirth on Take off, attempted “impossible turn”, one fatal, one serious injury
  - One Rotax 2 stroke, crankshaft broke downwind abeam numbers, landed in landfill.

While manufacturer's recommendations are not normally required, why re-invent the wheel? Do we really feel smarter than the manufacturer? Normally, a manufacturer will not list maintenance that is not really needed. From their perspective, marketing would be easier with less required maintenance. Also, pulling the head off an engine opens opportunities for errors. The manufacturer would likely avoid having people do that if they could.

Keep in mind many of these engines DO NOT meet certification requirements. They really may not have the same safety factors and reliability as some of the traditional engines. This is not to mean Lycomings and Continentals can't fail, but some of the experimental engines appear to have issues.

## Most common problem - ENGINE

- **3 Battery Ignition failures**
  - 2 installed contrary to instructions
  - 1 Magneto failed, decided to do touch & goes on battery ignition.
- **2 Hose failures**
  - One coolant
  - One fuel – fire while running up
    - There is an AD on Cherokees concerning routing of hoses near exhausts. Can we trust that if it doesn't work on a Cherokee, it probably won't work on a Lancair?

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1. This is not to knock battery ignitions. The improvements they can offer are certainly worth consideration. Please read what the manufacturer has to say about protecting them, installing them, and maintaining them. Also, even if we could accept going flying with the back up ignition inoperative, is pattern work, close to the ground and with few available options for places to go in an emergency, the best choice?

2. We understand that the Cherokee AD does not apply to your Amateur Built, as far as the FAA regulations are concerned. How about the Laws of Physics and Properties of Materials? When the Laws of Physics are enforced, it can be much more severe than an FAA sanction! Learn from others. Don't re-invent the wheel.

## Common Problem-Engine

**3 Unable to select tank with fuel or determine where fuel was located (no fuel gauge)**

- Note there was still fuel on board after the accidents.

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Compliance with part 23 or with 91.205, such as installation of a fuel gauge, is not required. Consider the Amateur Built that took off on the main, switched to the aux in order to use the fuel located there, then switched back to the main. 10 minutes later, the engine got quiet. Turns out the selector had failed and he was operating on the main the entire time. At this point, he had a full Aux tank which could have caused him an even more serious problem had there been a post accident fire. There was no way of noting the main was still going down, but not the aux. An unscheduled landing at an alternate airport is a whole lot better than in a field, or the woods. There may be a reason quantity indicators are required in production aircraft.

## Common Problem-Engine

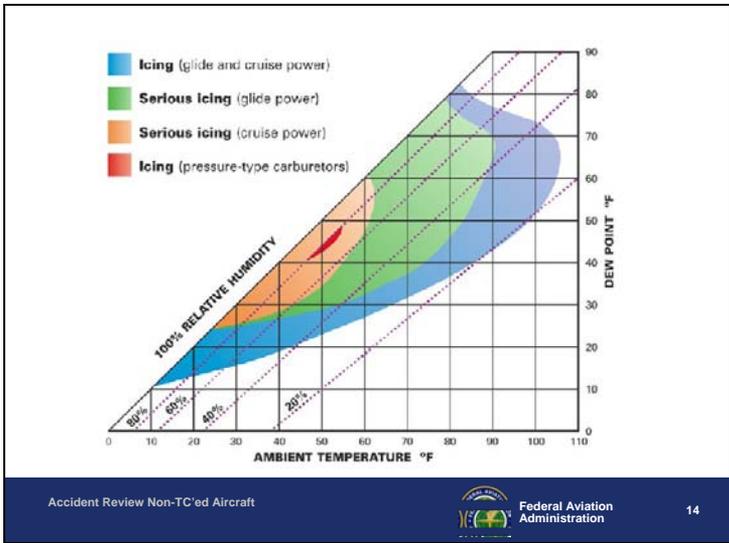
- 2 Fuel unable to flow – contamination**
  
- 22 Undetermined**
  - Engines either had good continuity checks during investigations or were run and made power.
  - Review of SAIB CE-09-35 and NTSB weather data in accident records turned up interesting statistic

Accident Review Non-TC'ed AircraftFederal Aviation Administration13

After some checking with some parts distributors, we learned an aircraft style fuel bowl costs about \$85 more than an automotive in line filter. The problem is that the in-line has no by-pass if it gets plugged, and contaminants cannot be drained off. As it does such a great job of filtering, it is likely to collect more than the normal amount of particles. Once plugged, there is no more fuel flow to the engine.

2. It is highly recommended that anyone with a carbureted engine review SAIB CE-09-35. This may be a huge issue for us. Special Airworthiness Information Bulletins are available at [FAA.gov](http://FAA.gov), and include numerous subject matters.

# Slide 14



Please note the relative humidity (dashed lines) which may be easier information to get from commercial weather broadcasts. Note that carb ice is possible from below freezing up to over 80F, which means more than a 50 degree temp drop is possible inside the carburetor. Older charts such as the one in FAA-P-8740-24, pg 13, list the area shown as Serious Icing with cruise or climb power also includes climb power. Please download and read SAIB CE-09-35 for more information.

## Slide 15



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Many of the smaller engines, such as the Rotax 2 strokes, do not have carb heat available. Many feel ice in a 2 stroke isn't a problem. Latent Heat of Vaporization, and therefore Carb ice, can happen any time fuel is vaporized, especially in a low pressure environment.

## Other Problem Areas

- **Fuel evacuation through fuel filler ports due to missing or improperly installed caps.**
- **After repairs following a previous accident, noted wing heavy condition. Not all wing panels located at second accident site.**

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1. Missing fuel caps seem to happen to all types of GA aircraft. Some designs deplete fuel in a matter of minutes; others go for an hour or two.
2. The first accident this aircraft suffered was a fuel management or exhaustion issue. The second was much more serious. The pilot mentioned he had a big issue with a heavy wing after repairs, which seemed to be getting worse. After not too many flights, a more serious, fatal, accident occurred. Not all wing sections were present at the site, suggesting at least a section of a wing failed. Could there have been undetected damage from the first accident? The airplane was trying to communicate.

## Other Problem Areas

- **In flight break up of new LSA design in turbulence.**
- **Wing failed at root due to overload stress**
  - Cause of overload not determined
- **14 Blatant non-compliance with the regulation.**
  - These included non-rated pilots operating unregistered aircraft, buzzing, low level aerobatics, and in one case, water balloons at a family reunion may have been involved.

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1. The pilot / designer was passing through our region after a sales call. He called home and complained he had never been in such turbulence. He departed in an attempt to get home before nightfall. He didn't make it. Gottagetthereitis.
2. The pilot was performing some flight testing, and a wing root failed while maneuvering. He was prudently wearing a parachute; however he was too low for the parachute to fully inflate. This was a fatal.
3. These are the people giving us all a bad name. Be on alert for them. They seem to make the news and form public perceptions of recreational aviation.

**Other problem areas (cont')**

- **Inoperative flaps contributed to landing long.**
- **27 Pre-flight Planning / ADM ( includes fuel exhaustion, takeoff performance, wt & balance / loading, weather, etc)**
  - This included departing with known deficiencies such as noting the oil pressure was low on the previous flight.

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We need more training in abnormal procedures. The system failure proved to be more than the pilot's preparations and skills could handle at the time. Perhaps looking for a longer runway may have been prudent. Perhaps practicing simulated system failures would have made this a non-event. This type of accident is not unusual.

We seem to have a lot of powered parachutes, weight shift controls, and ultralight like airplanes that hit the trees / powerlines at the end of the runway when the weather first gets hot and humid. Density Altitude happens at sea level, too. This is not just a Rocky Mountain problem. Also, if you have had enough fuel for a specific trip the last 100 times, consider the winds aloft may be on the nose for the first time, which can greatly reduce your range.

## Training

- **There have been an unusually high number of accidents by those who have purchased a second or third hand Amateur Built Aircraft.**
  - Get a thorough check out.
  - Learn the systems and switch locations.
  - Consider the builder was “one with his aircraft!”
    - You need to be also.
  - Seeing more problems with pilots “moving down” than “moving up.”

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We have far more than expected accidents involving highly experienced pilots. Many pilots seem to feel that if they can handle a large, very fast aircraft, they should be able to handle something low and slow. Not the case. Anytime we move to different level of aircraft, we need training. Not that one is more difficult than the other, just different. A power off high drag airplane needs the nose to be pointed down a lot more than most of us realize until we experience it. There are many individuals who offer type specific training. Please utilize these services to become better prepared. While training, don't forget emergency procedures. Please consider the most common problem that causes accidents is the pilot. Would it make sense to invest in as good of a skill set as possible? Would it be prudent to install a salvage engine that is full of rust, cracks, and such? Why is it OK for the pilot to be less than adequate?

## Training continued

- **44 Obvious lack of training – both operations and maintenance**
  - Take advantage of all that is available on line, in print, and go visit your buddies. We all have something to add.

Any type of maintenance training would be helpful. Many engine manufacturers have training available. If you have a Lycoming or Continental, perhaps you can find an experienced A&P who will work with you on your first condition inspection so you can learn from his years of developed skills and knowledge. You may be able to find a builder who has had your type of aircraft for a long time. Get information off the internet from type clubs. Don't go it alone.

## Slide 21

### Maintenance

- **Several accidents probably had inadequate maintenance as primary or secondary problems.**
- **Consider what is involved in becoming an Amateur Built Aircraft Repairman.**
- **Consider what is involved in becoming a Light Sport Aircraft Repairman.**
- **Consider what is involved in becoming Airframe & Powerplant Mechanic!**

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Keep in mind, just because it is legal for you to perform the maintenance and annual condition inspection without oversight by someone with more experience doesn't necessarily mean it is the smart way to go. An Amateur Built Repairman must prove he / she completed 51% or more of the construction of the aircraft, a Light Sport Repairman, Inspection Rating has 16 hours of training, a Light Sport repairman Maintenance Rating has up to 120 hours training, depending on category of aircraft maintained, and an A&P must either show a minimum of 30 months of full time experience or attend an approved school for a minimum of 1900 hours. There is a tendency for Repairmen to exercise their privileges on their own as soon as the certificate is issued, while A&Ps tend to seek employment at facilities where they can further hone their skills under the watchful eye of someone with significant experience.

## Slide 22

## Data

- **Consider 14 CFR Part 43, § 43.13 requires Normal Category aircraft maintenance using Instructions for Continued Airworthiness, Maintenance Manuals, or procedures, etc acceptable to the FAA.**
- **Consider Special Light Sport Aircraft are required to be maintained IAW Manufacturer's instructions.**
- **AB & ELSA...**
  - Why re-invent the wheel?

Why not at least parallel certification regulations for building and maintenance regulations for keeping your aircraft in shape. A lot of really smart people put this stuff together. Most high end restoration shops dealing with antiques will bring the critical systems up to Part 23 standards. These systems include fuel delivery, electrical and landing gear including brakes, to name a few. This is not required, but the antique aircraft safety record is excellent and seems to be getting better.

## Data (cont')

- **Note that out of 110 accidents reviewed, there were 3 airframe failures.**
  - One was after an accident repair
  - One was a turbulence overload
  - Only one was not obviously explained
- **The other 108 accidents were pilot issues or non-structural aircraft / system issues.**

We seem to be doing reasonably well building the aircraft. Operating and maintaining them are the areas in which we need to improve. Consider the first two listed above have questions concerning maintenance and Aeronautical Decision Making.

## Information Availability (Free Download)

- **Faa.gov, hover over Regulations & policies**
  - Advisory Circulars
    - 43.13-1B & 2B (Basic inspection, maintenance & alteration - Must Have)
    - Also highly recommend scrolling through Part 23 and 43 ACs
  - Handbooks & Manuals
    - AB & Ultralight Flight Testing Handbook
    - Wt. & Bal Handbook
    - Airplane, Balloon, Glider, Rotorcraft, Seaplane / Skiplane / helicopter, and Weight Shift Control Flying Handbooks
    - AIM

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There is a lot of information available to you. You probably couldn't get through everything the FAA has available for you. One of the basic maintenance manuals is AC43.13-1B. There is no excuse for not downloading this manual and having it available. It explains everything from hardware, to composites to sheet metal repairs to woodworking to inspections. Its companion manual, AC43.13-2B explains alterations, such as shoulder harness installations, radio installations, oxygen systems, etc.

There is a Flying Handbook for almost everything we fly. Don't forget the AIM.

## Maintenance Manuals

### Contains information such as:

- Ground test.
- Level check of liquids.
- Re-torque cylinder head nuts.
- Re-torque of exhaust manifold screws.
- Checking of the rewind starter rope.
- Rewind starter dismantling.
- Rewind starter reassembly.



Manuals are not limited to “mainstream” manufacturers. Just like any aircraft, sport aircraft have manufactures manuals to train and guided the mechanic and owner through maintenance tasks. Obviously, if you operate a TC’ed engine, there will be a manual available for it. Keep in mind, the same lesson learned by the author concerning his treadmill would apply to manuals and technical data. It is not enough just to acquire them. It would appear they actually need to be used!

## **Don't "experiment" too much too soon**

- **Start with recommended settings.**
- **Move into it slowly.**
- **Discuss with others.**
- **Plan your work. Work your plan.**
- **Document**
- **When you get where you want to be with the aircraft, offer your help and experience to the next builder who is coming along.**

1. Granted you may need to test various carburetor / fuel injector settings, prop adjustments, weight locations, rigging, and so forth to get the optimum performance you desire. Start with recommended values.
2. Don't try to change too much at a time. Not all results are linear.
3. You are not inventing the airplane. Someone else has probably been there before and can save you time and effort (not to mention adrenalin).
4. "Plan your work, work your plan" is an old business school saying, but it applies here. Don't "wing it" (no pun intended). Go into this organized and with a well thought out plan. If problems arise, stop and solve them. They may arise to a greater extent later.
5. Track what you have done and the results. No sense in doing the same thing twice. Besides, when you review your notes, you may note an unexpected trend that could save you some steps... or an accident.

## Slide 27

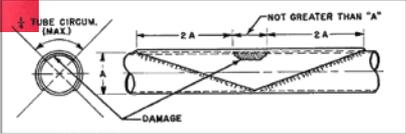


Improper hardware and installation errors are common problem areas we find during the certification of many experimental aircraft. Another problem area is chafe points forward of the firewall. FAR 43 does not apply to Amateur-Built Aircraft, so AC 43.13-1B doesn't directly apply either. However, if there are questions as to how to use aircraft hardware AC43.13-1B is a good place to look for the answers to those questions. For instance, Chapter 7, Section 4, paragraph 7-64 states “After the nut has been tightened, make sure the bolt or stud has at least one thread showing past the nut.”

## Improper Repairs



### Search the Web AC43.13-1B



2-27-11 AC 43.13-1B CHG 1

1/2 TUBE CIRCUM. (MAX.)

NOT GREATER THAN "A"

2A

2A

A

DAMAGE

FIGURE 4-36. Welded patch repair.

Accident Review Non-TC'd Aircraft



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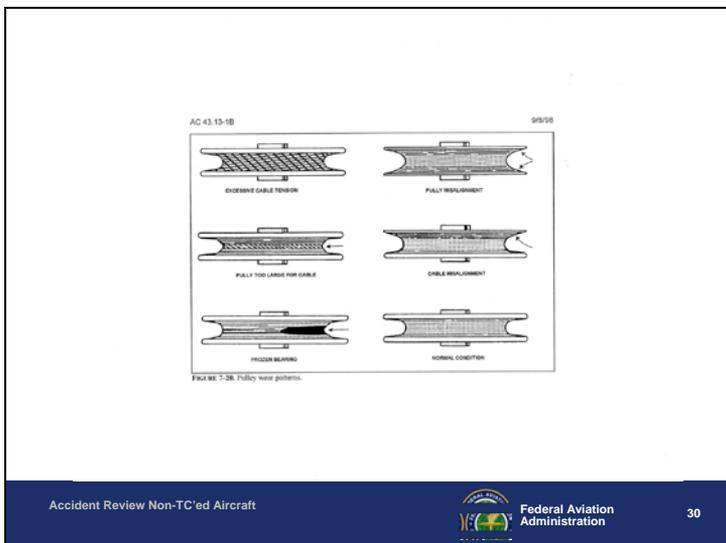
The rusty hardware in the picture is the pin that holds the wing in position, and the tube with a glob on it is a control rod. Both parts were damaged when the aircraft was improperly disassembled. They were both victims of an improper weld repaired. The wing pin is rusty because the heating of the pin during welding removed the cadmium plating. Rusty, pitted parts tend to fail in fatigue, and they tend to damage the hole they are designed to fill. Also, was the heat-treating of the pin affected? The control rod could have been repaired in a more appropriate way. It is simply butt welded, and the reinforcing weld material is ground away. The FAA's AC 43.13-1B has guidance for repairs such as these weld repairs. The AC 43.13 is posted on the web and available for a no cost download.

## Slide 29



Note the wear on the right side of the pulley that allowed the cable to jump the pulley groove and bind the controls. The outcome is obvious considering the spar is broken.

# Slide 30



This is a chart from page 7-38 of AC 43.13-1B. Note the middle pulley on the right. Armed with this information, could this accident have been prevented?

## Remember those pesky Regulations

- **Keep in mind most of Parts 61 and 91, along with your Operating Limitations, APPLY TO YOU!**
  - Do you know where your operating limitations are?
- **Even if a reg does not apply, a review may be in order.**

Ever heard the saying the regulations were written in blood? Many came from lessons learned the hard way. Again, the Laws of Physics, Laws of Probability and Properties of Materials pertain to all aircraft equally, no matter what the color of the airworthiness certificate.

## Use what is available

- **Use all your tools. The FAA has many documents for free download.**
- **FAASafety.gov has a section with links to numerous resources**
- **FAASafety.gov has numerous on – line courses and safety tips**
- **Type specific resources**
- **EAA**

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1 As mentioned earlier, [www.faa.gov](http://www.faa.gov) has a wealth of information available.

2. [FAASafety.gov](http://FAASafety.gov) has a wealth of information available under resources tab as well as maintenance hangar toolbox tab. Don't forget to sign up for on-line courses! Keep an eye on seminars and webinars. There are many subject areas covered.

3. Stay in touch with kit manufacturers and type groups. There is a lot of information shared all the time.

4. EAA has many subjects on line including Hints for Homebuilders, Sportair Workshops, Forums at the major events, etc. Visit [EAA.org](http://EAA.org) for more info.

Don't forget two programs the EAA has that work well when utilized.

**EAA Flight Advisor program**

**EAA** The Spirit of Aviation™

AVIATION INTERESTS | PROGRAMS | NEWS & EVENTS | MULTIMEDIA | SUPPORT EAA | MEMBER SERVICES | **COMMUNITY**

### EAA Flight Advisors

The EAA Flight Advisor program helps with everything from finding the right instructor and planning a first flight to determining the types of additional training needed. More than 500 flight advisors counsel members considering purchasing an aircraft, preparing for flight in a newly built or restored aircraft, or looking to transition to a high performance or unfamiliar aircraft. Only EAA Members can take advantage of the complimentary services of a Flight Advisor.

**Additional Information**  
[Find a Flight Advisor](#)  
[Become a Flight Advisor](#)  
[Safety Wire Newsletter](#)

**HOME BUILDERS HOME**  
PROGRAMS  
AIRCRAFT FAQS  
EAA VIDEO PLAYER  
ARTICLES  
KIT & PLANS  
SPORTS & WORKSHOPS

You're at that point in your homebuilding project when a second set of eyes looking over your work sure would be comforting. I can hear the questions in your mind:  
Did I really do this right? Does that look right?  
It doesn't matter whether you've just finished your wing rib jig or made the first glass layups, if you're feeling insecure, there's folks around to help.  
People who've been there and done that, people who know the marvels of the aviation world, such as your new Stumpfire Belchwing, like the back of their hand. People who can pat you on the back and say, "No, seriously, it looks fine," or say, "have you considered doing it over?" This is a vehicle in which you're going to defy gravity; it's obviously better to be safe than sorry.

Accident Review Non-TC'ed Aircraft

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Phase 1 test pilots as well as transitioning pilots should be encouraged to participate in the EAA Flight Advisor Program. Additional information is available by going to the EAA's web site at [www.eaa.org](http://www.eaa.org). A link is available to find a Flight Advisor.

Only a small number of pilot/builders take advantage of the EAA's Flight Advisor program. Around 25% of Experimental Amateur Built owners contact an EAA Flight Advisor for assistance.

**EAA Technical Counselor Program**

The Spirit of Aviation™

AVIATION INTERESTS | PROGRAMS | NEWS & EVENTS | MULTIMEDIA | SUPPORT EAA | MEMBER SERVICES | **Home** | COMMUNITY

### EAA Technical Counselors

EAA Technical Counselors are experienced airplane builders, restorers, and mechanics who volunteer their time to visit other EAA members who are in the process of building or restoring their own aircraft. The goal of the Technical Counselor Program is to help EAA members present a "zero defect" aircraft at its final inspection by the FAA.

You're at that point in your homebuilding project when a second set of eyes looking over your work sure would be comforting. I can hear the questions in your mind:

Did I really do this right? Does that look right?

It doesn't matter whether you've just finished your wing rib jig or made the first glass layups. If you're feeling insecure, there's folks around to help.

People who've been there and done that, people who know the marvels of the aviation world, such as your new Stumpfire Belchwing, like the back of their hand. People who can pat you on the back and say, "No, seriously, it looks fine," or say, "Have you considered doing it over?" This is a vehicle in which you're going to defy gravity; it's obviously better to be safe than sorry.

What you need is an EAA Technical Counselor! These folks are experienced, volunteer advisors who want to share their knowledge and expertise with you.

**Find A Tech Counselor**

Select a Geographic Location

or

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Accident Review Non-TC'ed Aircraft

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The EAA Technical Counselor program is used by over 80% of the Experimental Amateur Built owners building their own aircraft. So why is this program more popular than the Flight Advisor program? It is thought that most homebuilders are already pilots and believe they can operate an aircraft safely. Many Experimental Amateur Built builders are building a first aircraft or may not be that familiar with aircraft construction techniques, so emphasis is placed on research, construction techniques, materials, design, etc. While improvements have been made, we need to continue to spend more time in preparation for first flight and flight testing to decrease the accident rate.

## Final Thought

**Please consider what has been said in this booklet as a starting point. In the FAA, we have noted that some strive to meet the minimum regulatory compliance. Those are the people we tend to meet. Unfortunately, all too frequently it is actually the family left behind that we meet.**

**Regulations are the minimum standard. Aren't you the type who exceeds the minimums?**

We did not intend to pick on any individual. Certainly at the time, no one we discussed in this publication thought they were heading into disaster. We have the 20 / 20 hindsight going for us. Consider what you can do to help the industry as a whole. We have gotten great feedback from many individuals who care about the industry and about their fellow aviators. We need you to join those ranks. If you see something, speak up. Keep in mind if you approach your friend properly, your input may be better received than if it comes from the FAA. All too frequently, by the time the FAA learns of the unsafe situation, it is during the investigation. It is too late.

## Your FAASTeam Program Manager

- Can support your questions. Your local FPM can be located through [www.FAASafety.gov](http://www.FAASafety.gov) in the directory link.

**Thank you and  
remember safety**



The FAASTeam is here for you. Please use us. Remember, it is the rare FAA inspector who wouldn't prefer to talk about it before hand than have to write a violation, or much worse, have to figure out what caused the accident. Have fun, but above all - FLY SAFE!

**[www.FAASafety.gov](http://www.FAASafety.gov)**