

LSA Repairman: Maintenance or Inspection Rating?

by Carol Carpenter

There is no doubt that by now you've hear all about it –

As of January 31, 2008 all two seat and “fat” ultralight aircraft must be transitioned to experimental light sport aircraft. (If you haven't started this process you should – right now!) After these aircraft are converted, they will be required to have an annual condition inspection; Your first inspection will be due one year from the date your airworthiness certificate is issued. Presently ultralight owners may perform their own maintenance and annual inspections on their flying machines. However, after the ultralights are converted to E-LSA, pilots may no longer perform their annual inspections unless they attend one of the Sport Pilot Repairman Courses. The Light-Sport Rule establishes a new repairman certificate with two ratings (Ref: 14 CFR §65.107): Inspection and Maintenance.

As a provider of both the 16- hour repairman inspection courses and the 80-120 hour repairman maintenance courses, I field phone calls daily from aircraft owners who are confused about the differences between the privileges of the two ratings.

Will the 16 hour inspection course allow me to perform the maintenance or just the inspections on my experimental light sport aircraft? If I attend the maintenance course will I be able to perform the inspections on my amateur-built aircraft? Does the maintenance course allow me to perform the inspections on my Piper Cub? If I take the airplane inspection course, may I inspect my powered parachute?

The confusion is evident. The purpose of this article is to explain the repairman certificate, the two ratings, and associated privileges (and little known advantages).



Remember the various maintenance requirements of any aircraft will follow the aircraft certification. The light sport rule created two new categories of aircraft with distinctly different maintenance requirements: Special Light Sport (SLSA) the factory built, ready to fly, light sport aircraft, and Experimental Light Sport (ELSA). *It is important to note that ELSA can be certificated in one of three ways. (1) the transitioning ultralights (available only until January 31, 2008,) (2) the ASTM complaint kits, and (3) a SLSA moved (by a paperwork process) to ELSA category.*

So, as I mentioned, there is only one repairman certificate, but two ratings: The "repairman (light sport) with an Inspection rating" (LSRI) and the "Repairman (light-sport aircraft)—Maintenance rating." (LSRM) The inspection rating is available by attending a 16 hour, two day repairman course. The maintenance rating is only available by attending a much longer 80-120 hour Repairman course.

As a sport pilot flying an ELSA for pleasure, you only need the 16 hour inspection course. Classes are normally schedule on the weekend. Successful completion of the course will allow you to perform annual condition inspections on any ELSA in the assigned "class" of the selected course (airplane, weight shift, powered parachute, glider, gyroplane, or lighter-than-air) which you own or purchases in the future. (There

isn't any authorization required to perform the maintenance on experimental aircraft.)

However, if you fly two different class of aircraft, say, airplane and weight shift, then you will have to take one 16 hour inspection course for weight shift and another 16 hour inspection course for airplane.

The good news: There are no renewal requirements for your certificate, once you earn it, and there are no limits on how many aircraft in the select class you may own. Additionally, all maintenance is already allowed. There is no requirement for a repairman certificate to perform maintenance on your E-LSA. This is important because after you convert your aircraft, you will have one year until you need to have completed the required repairman inspection course. (It is easy to schedule a 16 hour inspection course at your location. Rainbow Aviation travels with the course for a small additional fee.)

Additionally, ultralights which are converted into E-LSA may be used commercially for flight training until January 2010 if the owner requests the optional operating limit. When used commercially, the aircraft must undergo a "100-hour" inspection, in addition to the annual conditional inspection.

Many aircraft owners (and flight instructors) don't realize that only a repairman with a "Maintenance" rating can perform the 100-hour



Weather to Fly 2



A must have instructional video on meteorology for light sport aviation and light sport aircraft including Trikes, Powered Parachutes and Fixed Wings.

\$49⁹⁵ Plus Shipping

To Order Call

ULTRA FLIGHT
magazine

800-867-5430

inspection (or an A&P mechanic.) Someone with the "Inspection" rating may *not* do the 100-hour inspection. It is common for a flight instructor to inadvertently signed up for an inspection course not realizing that every 100 hours of flight training, he/she will have to find an A&P or a Repairman with a Maintenance rating to perform each 100 hour inspection. Additionally, most A&Ps will not look at tube and fabric aircraft or Rotax engines. In fact, there is a possibility that even A&P mechanics will not be able to work on some models of the S-LSA. The FAA is leaving it up to the manufacturer who certifies the Special light-sport aircraft to specify in the Maintenance Manual exactly who may work on the aircraft. A manufacturer may deem that an A&P who wants to maintain a S-LSA must attend a 120-hour class, a certain modules of the training (discussed below) or perhaps some task specific training.

In addition to the 100 hour inspections, the maintenance rating allows you to perform all maintenance and conditional inspections on Special light-sport aircraft. However, unlike the Repairman-Inspection rating, a person with the Repairman-Maintenance rating can perform maintenance and inspections on anyone's S-LSA or E-LSA and charge for his/her services. For this reason, he is sometimes referred to as a "Sport Mechanic." There are no prerequisites for the training course. In fact, a Repairman with a Maintenance rating need not even be a pilot. However, the Repairman with a maintenance rating may not perform the annual inspection on amateur built aircraft or standard certificated aircraft- only Light Sport Aircraft.

The S-LSA repairman maintenance rating training course is designed using modules of instruction that can be customized to the specific class of S-LSA the repairman will maintain. There are three required "core" modules, and five elective "class" modules. The minimum training time for each class is: Airplane: 120 hours, Weight Shift: 104 hours, and Powered Parachute: 104 hours. Participants may take the three core modules and add an "elective."

Below is a list of the modules pertinent to the various class of LSA.

Core Modules:

Module 1 (16 hours) Regulatory

Module 2 (35 hours) Airframe

Module 3 (45 hours) Engine

Electives Modules:

Module 4 (24 hours) Airplane class

Module 5 (19 hours) Weight Shift

Module 6 (19 hours) Powered Chute

Module 7 (64 hours) Lighter-than-air

Module 8 (40 hours) Glider

For example, if a person attends a course to obtain a Repairman-Maintenance rating to work on airplanes, he/she would take a 120-hour course consisting of modules 1, 2, 3, and 4. If he later wanted authorization to work on weight shift aircraft, he would only need to take module number 5. If he was only interested in weight shift, he would take 1,2,3,and 5.

Unfortunately, if someone takes a 16-hour course before taking a 120-hour course he/she does not get any credit for having taken the 16-hour course.

Interested in a new career? The job opportunities for the repairman with a maintenance rating are huge. Light Sport manufacturers and dealers in the light sport industry will all require a LSRM. Additionally, flight schools will need LSRM for the required 100 hour inspections. Not to mention the opportunities for new Light Sport Maintenance facilities. Also, there are two huge but little known- advantages available to a Repairman with a maintenance rating:

1. FAA Order 8130.33 allows for this rating as a stepping-stone to the DAR (Designated Air worthiness Representative.) See quote below

"(2) Holds a light-sport aircraft repairman certificate - maintenance rating and has performed a minimum of five condition inspections on light-sport aircraft or two-place ultralight training vehicle of the same class and complexity of aircraft for which authorization is sought or;"

2. The repairman may also keep a portfolio of his work and apply for authorization to take the A&P written and practical exams for general aviation after working in the field for 30 + months under his/her own supervision.

For more information on the repairman courses or transitioning your ultralight before the deadline visit Rainbow Aviation Services website at www.rainbowaviation.com or email info@rainbowaviation.com, call Carol Carpenter at 530-824-0644.

**Learn to Fly
an Ultralight
Trike**

Do A Pilot
Learn to Fly an
Ultralight Trike
DVD
Only

\$39.95
Plus
Shipping

ULTRA To Order Call
FLIGHT
magazine
800-867-5430