

# ASPECIAL LIGHT-SPORT TRAINING AIRPLANE SURVEY

**PART I:** Should you consider an S-LSA for commercial flight training?

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**In the span of just**

a couple of years, the flight-training industry went from having a choice of only a handful of two-place trainer planes to dozens of them. Special light-sport aircraft (S-LSA) may now be used for commercial flight training, which has created dynamic opportunities for flight schools and individuals. →





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Because of the variety of aircraft available, I performed a survey of various S-LSA manufacturers that are targeting the flight-training market, limiting my survey to fixed-wing airplanes. With more than 50 manufacturers building S-LSA, there was no way I could interview them all and fly all the planes. I opted instead to base my survey project at EAA AirVenture Oshkosh 2008. This would give me a good cross section of planes, manufacturers, costs, and manufacturer support.

I ended up with information that can benefit anyone considering S-LSA ownership. Furthermore, it might be possible for someone to own an S-LSA for fun and profit. Read on to see if the commercial operation of an S-LSA could be your answer to aircraft ownership.

#### WHAT IS S-LSA?

S-LSA is a new class of aircraft the sport pilot rule created in 2004. The aircraft are designed to industry standards under the guidance of ASTM protocols. All S-LSA are sport pilot-eligible and carry a special airworthiness certificate. The rules allow them to be used for commercial flight training, but not for other commercial operations, with the exception of glider towing.

Why use an S-LSA as a trainer plane? Let's look at the various

scenarios for choosing an S-LSA trainer from the viewpoint of sport pilot owners, sport pilot instructors, and flight school owners.

#### THE SPORT PILOT OWNER

Buying a plane and learning to fly in it can be a good choice from the standpoint of training and economics, but a low price or a neat paint job doesn't necessarily equate to a good trainer. The fact is, not all planes are suitable for primary training. Suitability for training is the "make or break" part of the decision to own and train in your own airplane. An S-LSA is just as important to the owner/student as it is to the flight school.



Many of the new S-LSA make use of the "glass" instrumentation, adding to their more modern appeal.

Another consideration for the owner is the possibility of leasing your S-LSA to a flight school or flight instructor for commercial operation. Often called a lease-back, this can be a way to offset ownership costs, though you'll have to consider any increased insurance costs in your comparison. And, don't forget the possible added value. When it comes time to sell it, a plane with a good reputation as a trainer could expand your buyer market and bring a better sale price; of course, good maintenance would be essential.

#### THE SPORT PILOT INSTRUCTOR

Becoming a sport pilot instructor is a new option for covering some, if not all, of the costs of S-LSA ownership.

A pilot holding any level of pilot certificate (other than student pilot) may become a sport pilot instructor at a fraction of the cost of becoming a flight instructor who is not limited to sport pilot training. As an instructor, your S-LSA becomes a business tool, and the choice of this tool should not be taken lightly.

#### THE FLIGHT SCHOOL

A large flight-training center in my region has specialized in all levels of flight training for years and has now added sport pilot training to its program. The center is also a dealer for a few models of S-LSA. This company found that by adding S-LSA to its fleet of training planes, the aircraft perform double duty. They can be used for sport pilot and private pilot training, and even instrument training in these aircraft can apply. A student can become a sport pilot for about half the cost of becoming a private pilot, yet the same plane can be used to continue training for other ratings. Added to the double-dose usability of the S-LSA in training operations is the low fuel consumption of less than 5 gallons per hour on many models.

#### THE SURVEY PREMISE

I created a survey outline and started contacting manufacturers and dealers/distributors. This was when I got my first lesson in the S-LSA sales business. I used the Internet to obtain information and make contacts. Some manufacturer/sellers were easy to contact and some were not. Some had good websites and some did not. My plan was to line up interviews at AirVenture ahead of time so the representatives could be prepared with the information I needed. My survey covered these primary issues:

- *Aircraft availability and delivery*—I used the premise that I wanted to buy from one to five planes.
- *Aircraft cost and financing*—How is financing set up? What added purchase expenses are there, such



You can follow the progress of EAA Multimedia Journalist Brady Lane as he trains for a sport pilot certificate in a Remos G-3. Brady, who's shown here with his instructor, Jason Blair, executive director of the National Association of Flight Instructors, is blogging about his experiences and sharing video of his lessons online at [www.EAA.org/Wings](http://www.EAA.org/Wings)

as shipping from a foreign location or assembly and certification expenses? How are foreign currency exchange rates handled?

- *Insurance*—What experience does the company have with helping a flight school find commercial insurance?
- *Aircraft documentation*—How well versed was the company on issues surrounding ASTM compliance, maintenance procedures, continued airworthiness, and aircraft operating publications?
- *Parts and service availability*—Are parts readily available? Can the company provide rapid service for a grounded commercial training plane?
- *Serviceability of the airframe*—Is the plane maintenance-friendly?
- *Student/flight instructor ergonomics*—The cockpit is a business office for the flight instructor and a classroom for the student.
- *Aircraft suitability for non-sport pilot training*—Versatility of the airplane

adds to its commercial value. My question explored the issue of higher-level pilot training.

- *Flight qualities*—Stall speeds, cruise speeds, and more.

#### FIRST CONTACT

The term "first contact" almost sounds like something from a science-fiction movie, and at times I did feel as if I was searching for a leader. Many of the S-LSA are imported, and there seems to be no standard to the way these international companies set up their distributor and dealer programs. Some have a central distributor that handles all sales; others have a regional distributor program that subdivides into dealers. Some distributors and dealers are restricted to assigned territories, and others can sell nationwide. Some manufacturers sell only factory direct. To keep things simple, I'll call all these entities the S-LSA sellers.

As I explained my survey plan to my first contacts, I received varied responses. If I happened to find a dealer, I was usually directed up the organizational ladder. Some distributors and dealers were knowledgeable about the subjects of my survey,



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and some were not. They all wanted to sell airplanes, but not all of my contacts wanted to participate in the survey. The point is, when it comes time for you to make first contact about buying an S-LSA trainer plane, be sure you know who you are talking to and what that person's position is in the organization. You want to deal with someone who is knowledgeable about flight training and will stick with you throughout the purchase process.

Ten S-LSA airplane sellers participated in the survey, listed here in alphabetical order:

- Cessna Aircraft Company
- Evektor Aircraft Incorporated
- Flight Design USA
- Gobosh Aviation
- Higher Class Aviation
- IndUS Aviation
- Jabiru USA
- Remos Aircraft
- SportairUSA
- Tecnam Aircraft

**S-LSA DIFFERENCES**

There are two ways to look at S-LSA differences. First is how they differ from each other. The stall speed and maximum cruise speeds dictated by ASTM industry standards means they all share certain characteristics. However, there is still room for major

differences. You can get them with the engine in front or the engine behind or a choice of high-wing or low-wing. Construction ranges from all composite, to tube-and-fabric, to all metal, to a combination of all construction techniques used on one plane. The Rotax 912 series of engine is far and away the most common on the S-LSA I saw, but the Jabiru 2200 and 3300 and Continental O-200D engines are also in play.

The second area of differences to consider is how they compare to the commonly used, older Cessna and Piper trainers. Many S-LSA have wider cockpits, have better visibility, and are more comfortable than standard category aircraft. Some use toe brakes, but handbrake-equipped planes seem to take the lead. Many of the toe-brake planes use the brakes to steer a free-swiveling nose wheel. Some S-LSA manufacturers are producing taildraggers. Only tricycle gear planes were included in the survey because I consider taildraggers more of a specialty market.

**COMMON ANSWERS TO SURVEY QUESTIONS**

As the survey progressed, some answers were similar among the participants:

**AIRCRAFT FINANCING**—When I asked the question about the availability of financing, it was late in July, well before the economic problems that

hit the United States this fall. Even if I asked about financing today, things could change by the time you read this. What I was told in July was good news, and I am optimistic enough to think the national monetary issue will get back on track.

Nine of the 10 survey participants said that financing for an S-LSA commercial operation is available. One participant said he had trouble obtaining the financing because it was for a commercial operation. Two survey participants made financing available through the company or by participating with a lending company.

**AIRCRAFT INSURANCE**—Good news here. All participants said commercial insurance is available at a cost similar to any training operation. As always, the final cost of insurance is based on a review of the plane, the school or flight instructor, and the amount of insurance you'll carry. An insurance broker I spoke with agreed with what the S-LSA sellers told me. A few years ago, this was not the case.

**AIRCRAFT DOCUMENTATION**—The validity of an S-LSA airworthiness certificate depends, in part, on the accuracy and completeness of the manufacturer's furnished documents. The key documents I looked at or asked about during the survey were the manufacturer's statement of compliance, the pilot operating handbook



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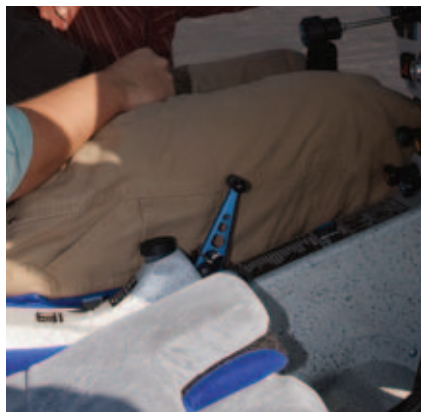
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One of the differences you might find in a light-sport aircraft is a hand brake, as opposed to toe brakes often found in standard category aircraft.

(POH), the flight training supplement (FTS), and the maintenance manual. These documents must be in their completed form or the aircraft is not in compliance with its certification requirements.

Here is a brief outline of what these documents mean to the S-LSA owner:

**STATEMENT OF COMPLIANCE**—Under the ASTM protocols for industry self-certification of an S-LSA, the aircraft manufacturer must furnish a document stating the aircraft complies with the industry standards. This statement must be furnished with the aircraft, and by furnishing this statement, the manufacturer is testifying that the aircraft is in compliance with all parts of the industry standards. This is important for three reasons. One, the company that issues the statement of compliance is the legal manufacturer of the aircraft and is “the buck stops here” place for everything relating to the aircraft. Two, continued airworthiness procedures related to continued operation of the aircraft is the responsibility of the owner and the manufacturer that issued the statement of compliance. Three, the issuance of the statement of compliance allows the Federal Aviation Administration (FAA) to issue the special airworthiness certificate for the aircraft.

I had to be very specific with my questions to determine who issued

the statement of compliance to determine if the aircraft manufacturer was foreign or domestic. For example, a foreign manufacturer may issue the statement of compliance, yet the aircraft may receive its FAA airworthiness certificate in the United States, and you are buying it from an American-based dealer or distributor. In this case, the S-LSA seller may be your primary contact for help, service, and information, but the foreign manufacturer is responsible for continued airworthiness.

Some of the S-LSA sellers I interviewed are so well organized that you may not realize you are dealing with a foreign factory when you seek a modification or the addition of special equipment. However, if the



Many flight schools offer flexible, accelerated training programs to accommodate busy adult schedules.

American seller goes away, you must know how to work with the factory. It is important to understand the factory/seller relationship.

Three of the companies I interviewed offer foreign-designed or -manufactured planes, some of which are mostly built outside the United States, that receive the statement of compliance from the American-based company. Upon following proper procedures, this is permitted. This means the American-based company is responsible for the continued airworthiness of the plane just as if it

was manufactured 100 percent in the United States.

A commercial flight-training business needs to know who it is doing business with and how well it will be supported. It can get a bit complicated, but good planning and caution will pay off when it comes to having a productive training operation.

**POH AND FTS**—Everyone who has been around planes knows that the POH is an important guide. All of the S-LSA sellers I interviewed had satisfied these requirements. A couple of them looked better than some I have seen for FAA type certificated aircraft. The FTS is mandated by industry standards, but how it is presented is not well defined. Some manufacturers see it as a detailed

explanation of the aircraft operation. Others include lesson plans similar to a flight school curriculum.

**MAINTENANCE MANUAL**—This is a critical document, but probably not for the reasons you would expect. It is of value as it relates to the nuts and bolts of maintaining the plane, but it also stipulates who may perform maintenance and inspection.

The Federal Aviation Regulations state that an S-LSA may be maintained by an FAA-rated mechanic or repair station or by the newly created light-sport repairman with a mainte-

nance rating (LSRM). However, the maintenance manual assigns who may perform a specific task. The new LSRM rating can be obtained by almost anyone by attending an approved training program. For about \$4,000 in training costs, the owner of a commercially operated S-LSA may be able to perform a major amount of the maintenance and inspection on the aircraft, if the maintenance manual allows it. The maintenance manual could be the make-or-break decision on the commercial viability of the aircraft.

Most of the S-LSA on the market use the Rotax 912 series engine. Every airplane manufacturer's maintenance manual I reviewed for the planes using this engine deferred to the Rotax maintenance manual for engine maintenance. Rotax requires various levels of maintenance training at a Rotax approved training facility for any mechanic or repairman to work on the engine.




Many light-sport aircraft feature wide interiors and modern design features, such as in the Flight Design CTLS.

**UNTIL NEXT TIME...**

Bringing an S-LSA into a commercial training operation can be a good deal, and I expect to see more of it happening. The information I provided should be helpful; however, you must

do your research to see which airplane is the right choice for you.

I flew six of the 10 airplanes in the survey. Next month we'll get into more details about the companies and airplanes. 

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