

# the SAM<sup>LS</sup>

# FLY WITH style!



## SAM AIRCRAFT

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## SAM Aircraft: flight testing confirms SAM LS won't spin; special 2013 pricing; and an answer



SAM Aircraft, home again at Lachute Airport (near Montréal) after a 19-hour circumnavigation of several of the Great Lakes (that not incidentally included a week-long stay at Oshkosh), has confirmed what design and testing indicated: that the SAM LS does not spin. Thierry Zibi, President of SAM Aviation, noted that, “Our test pilot tried to

make it spin, and the SAM just spirals... He also crossed the controls; the SAM buffets and goes nose down. The SAM won't spin -- and we tried hard to make it spin.” He reminds us, “There was more than one spin-proof LSA design at Oshkosh this year!”

### SAM won't spin.

Testing, by professional test pilot Raphaël Langumier, demonstrated that the SAM LS could not be made to spin using normal control inputs; only a spiral would result, despite mishandled or crossed controls. (Video cited below graphically demonstrates difference between a spin and a controllable spiral.)

Subsequent flights, with deliberately and severely crossed controls, and entering from an extreme nose-up attitude, prompted the following in Langumier's report: “As a trainer or [for a] general aviation pilot, the SAM-LS will not enter in a spin

from pilot error with crossed control.” He continued, “With crossed controls, the flight path will not conduct to a spin, so a pilot will be able to recover with conventional use of controls.”

**SAM kits are available now, at a 20% discount.**

Order the whole SAM airframe kit, or as many subkits as you like in 2013, and take a 20% discount. Delivery slots are still available for most subkits, for delivery early 2014. (Complete kit orders –regularly \$29,000; special at \$23,200 -- get priority delivery. Detailed pricing brochure attached.)

**The answer: What’s the name?**

At Oshkosh, the most-often asked non-technical question about the SAM Aircraft was, “What does the name mean?” SAM Aircraft’s name has a simple explanation: Samuel Zibi, first child of Mr. Thierry Zibi, was born two years ago. At that time, Thierry changed the name of the company (from HAIM Aviation) to SAM Aircraft. The company and the first airplane design bear his name. (Photo of Thierry and Samuel in the SAM cockpit on his recent second birthday, below. Note that little Samuel already has his hand around the keys.)



**About SAM Aircraft**

The SAM LS is an extremely roomy and comfortable tandem, retro-look, metal aircraft, powered by the 100hp Rotax 912S, and sporting the Sensenich ground-adjustable composite propeller, among other high-quality components.

Conforming to Canadian Advanced Ultralight rules and to the US Light Sport Aircraft standards, the SAM is available as an S-LSA ready-to-fly, as an E-LSA; or as

an amateur-built experimental kit in three configurations (short, long, and standard wing, accommodating engines of 80 to 130hp), and as an (available) 250-hour fast build kit. The SAM LS is comfortable, rugged, easy to repair, economical, fun... and has the distinctive classic look of a warbird trainer.

With a 10" Dynon SkyView panel (and an available 7" Dynon system for the rear seat), +/-5.2g limit load factor, and modern design in the classic style, the SAM LS in all its configurations is a pleasure to fly and a distinctive sight on the ramp.

**More:** [www.sam-aircraft.com](http://www.sam-aircraft.com)

**Flight video, general:**

<http://www.youtube.com/user/SAMAIRCRAFT?feature=watch>

[Note: additional flight videos, some technical, are posted regularly. Notices are found on [www.sam-aircraft.com](http://www.sam-aircraft.com).]

**Editorial resources:**

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**Videos:**

**Sam LS: Flying**

<http://www.youtube.com/watch?v=W8g6ObU1kBk>

**SAM LS: Severely crossed controls test**

<http://youtu.be/TGDANC6l6lk>

**Sam LS: SAM LS spin test**

<http://youtu.be/t9mpjDT2JkE>

**Excerpts from the official flight test report:**

**1 turn entry spin:**

The first ½ turn was as previously described. In the second ½ turn, the SAM-LS developed a vertical roll descent. The nose kept its nearly vertical attitude with a speed increase. ...In both directions of turn, the SAM-LS had the same behavior... During all of these entries, the normal recovery procedure was used. Rudder was very efficient. The spiral stopped quickly within 1/8 turn. Releasing back pressure on the stick gave the aircraft an increase of speed instantly.

## Sideslip:

At a trimmed speed of 80mph, it was possible to keep a constant heading with full deflection of the rudder in one direction and lateral control applied in the opposite direction. The lateral control was at ½ of available displacement. It was possible to change flight path by applying more or less lateral control. The nose did not drop, and the speed decreased to 64mph.

### **Additional comments from qualified guest pilots:**

- “Being 6'5" and 230 pounds, I was pleasantly surprised at how roomy the cockpit was. This airplane will fit any size pilot; the seat is adjustable. Very comfortable! This is a wonderful aircraft to fly. As expected for this type of aircraft, flight control coordination is required using ailerons and rudders. This would make an excellent training platform... The elevator trim is actuated electrically from a toggle switch on the control stick and the flaps are also electrically controlled. This makes the aircraft very easy to manoeuvre around the circuit. Approach is done at around 65 to 70 mph and landing this aircraft is a real joy. The flight controls are very effective, even at very low speed.” --JP Mallard, Test Pilot, Air Canada
- “I found my 6'2", 225 pound frame easily glided into position. Ample room, leg and shoulder room galore. We lowered the canopy, and voilà -- tons of headroom. I could even wear my helmet. I could tell she really wants to fly. She sang to me: no vices, gentle, predictable flying characteristics, a true lady... A beautiful, smooth, docile airplane.” --Mike Bourget, co-owner, 1966 Nanchang CJ6; aerobatic rated, formation rated (F.A.S.T); Canadian ultralight instructor