Designed and built in the Czech Republic by Rudý Letov, the XLF-207 Laminar was a follow-on to the well-known 1950s Lunak LF-107 aerobatic glider. What made the XLF-207 Laminar unique for its time, was that it was the first European sailplane built using revolutionary laminar airfoil design for its wing sections.

The Laminar’s first flight was made in August 1951, in the city of Letnany, in the Czech Republic. The glider was simply a modification of the Lunak, but was fitted with a laminar flow wing, which made it a standout performer for its day. What attracted me to the Esprit Model’s version of the glider was its unique design, the fact that the fuselage was composite, the wings were made of foam sheeted in wood and that it was quite affordable, which matters to someone on a budget. Also, I had ordered from Esprit Models previously, and I found their customer service to be very good, including safe, secure and fast shipping. So, it was pretty easy for me to make the decision to buy a XLF-207 Laminar from Esprit.

Then too, Reichard Model Sport recaptures the historic design lines and the nostalgia of the Laminar in their 4.4-meter wingspan version. The model is very well built and finished, including the wings being factory built and covered. The horizontal stabilizer and rudder are built and covered. Also, the fuselage comes painted, with a canopy frame and vacuum-formed canopy. Reichard provides a good hardware package as well. Suffice it to say, this is quite a good almost-ready-to-fly glider package.

My XLF-207 Laminar glider was shipped via UPS from Esprit. It came packaged well in a large box. All components—wing, stabilizers, rudder, canopy—were covered in bubble wrap to protect them against damage. Consequently, when I opened the model’s kit box, to photograph the parts for this review, I found all the parts and pieces in perfect condition.

This glider was designed for slope soaring, winch launching and especially aerotowing. You’ll be interested to know the model uses a wing that has molded fiberglass leading edges, which will reduce the chance of damage during takeoffs and landings. Its 4.4-meter wingspan wing uses the HÖ 3.0/13 and HÖ 3.0-10 airfoil sections (3 percent camber, 13 percent thick and 10 percent thick respectively). The wing’s double-tapered planform in combination with the Helmut Quabeck airfoils make for a fantastic flight platform. Note that the Laminar’s wings have split ailerons, a flap and a double-gate spoiler. The fuselage is a molded, epoxy impregnated composite construction. The overall construction techniques make for a very lightweight airframe.

**FEATURES**
- Almost ready to fly
- fiberglass, composite fuselage
- Foam wings sheeted in wood
- Two-piece wing w/ steel joiner
- Foam sheeted elevators
- Main landing wheel
- Elevator & rudder pushrods
- Double-gate spoilers
- Hardware package

**NEEDED**
- Transmitter - Jeti DS16 used
- Receiver - Jeti Duplex R14
- Servos - Hitec (4) HS5085MG, (3) HS-5485HB, (2) HS-125MG, (2)
IN FLIGHT

I opted to maiden the XLF-207 Laminar in slope lift, rather than doing so by aerotowing. In so doing, I was able to get the model trimmed properly during the first flight, and set the control surfaces so they had the proper throws values.

Because it is known as a world class slope soaring site, and because it is near my home, I chose Eagle Butte as the site for the maiden flight. The day I picked for the flight the wind was blowing about 20 mph, and it was blowing from the southwest, which is perfect for good lift conditions at Eagle.

After range checking the Jeti radio system’s performance, I had Wil Byers launch the model and give me some nerve-calming instruction beforehand. His advice was the fly the glider straight out and away from the slope for at least 100 yards, with it diving at about a five-degree angle. Then I was instructed to just ease off the down elevator control until the glider was climbing nicely, which it did exceedingly well.

I was pleased to find the model required absolutely zero roll and yaw trim. Due to the 20 mph wind, I added three clicks of down elevator trim to maintain good penetration speed.

After the trims were set, I let Wil fly the glider for a few minutes. What we found was the XLF-207 Laminar has very well-coordinated controls. As I have the model’s controls set there is no adverse yawing (skidding) in roll. The rudder is exceptionally effective at yawing the glider. Then too, the control response of the elevator is quite good, but not overly excessive, which could otherwise make the model a bit pitch sensitive.

What I really like about this model is when you deploy the spoilers there is no noticeable pitch change up or down. The model just slows in airspeed a bit and starts losing altitude. This is superb for a model of this type in that it makes it easy to set up a good landing approach that is controllable and predictable all the way to the ground.

We found the model loops well. It also has good penetration against the wind. As such, we made a number of passes over the hill’s lip and face for our cameraman to get photos. Then the landing approach was made easy, with the spoilers being modulated as needed to control the model’s approach height. Note we were not able to do a rolling, wheel landing at Eagle Butte because the landing zone needed to be groomed for such.

Hitec servos were used exclusively to drive the control surfaces on the XLF-207. They provide lots of torque and reliability for ultra positive control.
A Jeti Duplex R14 channel receiver provides independent control adjustment to all 11 servos. A Jeti vario is also used in the XLF-207 ARF. The pilots seat was fabricated out of polystyrene plastic. The pilot hides the receiver. The vario is fastened to the wing jointer box with Velcro tape.

The wing profile of the Laminar XLF-207 is very distinctive and quite easy to spot in the air. The wings’ servos cover the servos neatly on the lower wing surface.

The laminar is shown here diving with spoilers opened to keep it below the hilltop, which was not an easy task in the 20-mph wind that was blowing.

HANGAR DEBRIEF

Here is what I can tell you about my XLF-207 Laminar: It is a superb buy, being priced at only $895.00, plus shipping from Florida. The reason I say this is that it sports a 173.5-in. wingspan. It is built well. Importantly, the model really flies and soars well on the HQ airfoil sections. It was also quite easy to assemble, including making a pilot seat and fitting the receiver and variometer. Believe me when I tell you there is plenty of room in this model for all your radio system, pilot and some telemetry gear.

Additionally, if you are looking for a glider that you can slope soaring, winch launch and aerotow, the XLF-207 Laminar is an exceptional pick. At the slope it required less than three steps forward and a good push to get it flying. I like that its roll control is enough for doing some mild aerobatics, yet the model is not hard to control. When the temperatures start to rise again this spring I’ll be dialing this glider in for some thermal searching at my...
The Laminar XLF-207, with its multiple control surfaces, provides rock solid control whether sloping or aerotowing.

Penetration into the wind was very good! The Laminar easily made passes back over the crest of the hill for cameraman.

The Laminar required one pound eight ounces of lead shot plus four drams of 30-minute epoxy in the fuselage’s nose to set its center of gravity. The finished glider weighs 16 pounds even, with its center of gravity set at the manufacturer’s recommend 100 mm (4 inches) mark, which is back of the wing’s leading edge at the root. I was careful to set the model’s center of gravity in its flight-ready configuration, which included a 1/4-scale pilot and a 3-cell 4000-mAh NiMH battery pack.

I used a Jeti Duplex R14 receiver for the model on-board control system. What I like about this receiver, in combination with my Jeti DS-16 transmitter, is that it gives me the flexibility to use individual channels for every control function. Also, the DS-16 lets me program specific channels for the functions; I.e., I used channel one for right aileron and channel two for left, and so forth. This made programming the flaps, spoilers and elevators especially easy. Also, the programmable mixes were then easy to do as well. Additionally, the DS-16 offers easy flight mode set ups, so it only took me about 30 minutes to program into the transmitter’s memory all the functions I wanted to use for this glider.

All in all, this was a very easy glider to assemble and ready for soaring.

I outfitted my Laminar with Hitec servos because they have plenty of torque for this glider and they do not draw too much current, even under heavy line tensions that sometimes occur during an aerotow. The servos were glued into the wings with epoxy resin. All the servos’ arms were preset such that they were positioned at 90 degrees relative to the flaps’ and ailerons’ positions—this allows for equal control throws both up and down, even though the model is set to have differential aileron control. The Laminar required only one pound eight ounces of lead shot plus four drams of 30-minute epoxy in the fuselage’s nose to set its center of gravity. The finished glider weighs 16 pounds even, with its center of gravity set at the manufacturer’s recommend 100 mm (4 inches) mark, which is back of the wing’s leading edge at the root. I was careful to set the model’s center of gravity in its flight-ready configuration, which included a 1/4-scale pilot and a 3-cell 4000-mAh NiMH battery pack.

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With the spoilers out, the Laminar descends to a smooth landing just back of the ridge’s lip—spoilers were modulated to control the rate of descent.

With the wind picking up, and the Laminar only weighing in at 16 pounds, it was nice to make one final pass over the hilltop and then set up for a landing.