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Photos by Sandy

Some time during early May of this year Horizon Hobby announced the all new 2.6 meter Radian XL which could be pre-ordered! On May 21st I pulled the trigger. The 2.6 m Radian XL is a BNF, RES, polyhedral sailplane with three servos, an AR636A receiver, an AS3X stability control system (safe), a motor and an ESC all installed. All that's needed are a 3S 3200mAh 30C LiPo battery and Spektrum DSMX compatible transmitter. Since this is a RES plane a 4 or 5 channel transmitter should work just fine. Speaking of RES, the spoilers are rather small Hirth-Schempp type blade spoilers that seem to work quite well. They look cool, too.

Just before the end of June my Radian XL finally arrived at the local post office. Since it ships in an over-sized box I offered to pick it up rather than having my mail lady schlep it to my humble abode. This act of chivalry was gratefully accepted by the postmistress.

Opening the box was interesting as it was quite large and cumbersome. The plane was very well packed in accordance with the methods used by its smaller brethren. Foam pieces interlocked to keep all the sailplane parts safe and secure with one exception: the fuselage could slide and damage the tail fin, which happened in my case.



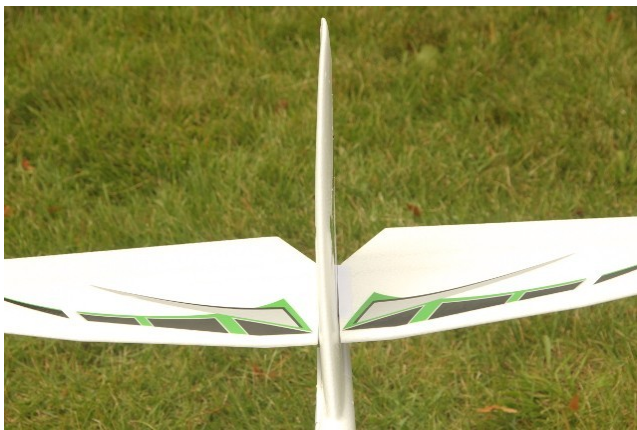
Bent tail fin

The damage required some reforming, but was not a deal breaker. I repaired it with a straight edge and some heat.



The stabilizer was not parallel with the wings

In addition there was also a twist where my stabilizer was not parallel with the wings. This was cured at the same time as when the fin was straightened by adding some weight to twist the tail clockwise. Turning the stab upside down reduced the misalignment even more and, more importantly, put those finicky little screws on the topside! Since it is a flying stab with a symmetrical airfoil this arrangement works much better.



Once together you'll notice that this a BIG airplane! After the rudder was CAed in place the fuselage was now too long to fit back in the foam tray. However, some modifications as suggested on the very active [Radian XL thread on RC groups](#) made for a neat solution.

The [instruction manual](#) provides all the information needed to program the included receiver easily from box to sky setup. In my case I set up the motor on the throttle stick and the spoiler on a three position switch (D): switch up = no spoiler, switch center = half spoiler and switch down = full spoiler (with my DX9's voice it even announces, "Spoiler"). In the interest of safety I use my 'launch' switch (A) as a motor cut and a rubber band holds the throttle down in the off position, kind of a belt and suspender approach.

In my shop I had a 3S 2700mAh 25C LiPo I had picked up at the last WRAM show to use with one of my ham radios. This battery was now re-purposed to Radian XL duty. It's a little smaller than the recommended 3S 3200mAh 30C LiPo, but it saved me 4 oz! With the battery installed the all-up weight was about 75oz instead of the 79oz stated by Horizon Hobby. (The total empty weight came to 67.7oz on my scale.) Now all I needed to do was to set the CG and find a nice quiet day to maiden this gem.

The initial radio setup was accomplished in the shop with the prop removed! Initial binding was a bit of an issue as two of the motor wires were disconnected for shipment and this prevented the ESC from working correctly. With help from RC groups the problem was quickly resolved: At least two motor wires must be connected.

June 30th, late in the day, Sandy and I headed out to Stillwell to give it a go. It was still a bit blustery when we got there, but we went for it! Assembling the plane in the field is a bit of pain! 5 screws, 3 long and 2 short, hold the wing to the fuselage, then you flip it over and install the wing tip dihedral braces and slide them on and fasten each side with 2 more short screws. Or you could, as some do, assemble the whole wing first and then mount it on the fuselage. Don't forget the spoiler servo connection. A total of 13 screws: all easily lost! I already lost one of

the stab screws! A spare of each size is included.

With the plane all assembled and the battery plugged in the receiver had lost bind! As I carry a bind plug in the battery compartment of the transmitter I had things working again in short order. It was still a bit blustery and I was a little concerned of making the first flight, but we were already there, so up she went. The Radian XL climbed nicely but was no rocket, she seems a bit underpowered, but this is a sports or fun glider, not for ALES or a hotliner. It achieved a stately climb, would be a more appropriate statement. What was noticeable was that it was a rock steady flyer. Even the gustiness above the trees did little to disturb it. No, I did not find lift (it was after 7pm).

Following my first flight, Horizon Hobby released two notifications. One notification addressed the loose empennage issue (but not my bent fin). Some Radian XL fuselages had not been glued properly, so the fin and stab flopped in the breeze like the first Radians (there is a long carbon tube that runs the length of the fuselage that needs to

be re-glued). The other notification addresses some wings where the spars were incorrectly glued - one user folded his wings in normal flight. In my case there was no issue with unglued spars or rods. These kind of issues often occur in first releases and, in my opinion, this is a part of the early bird purchaser's risks. If you want perfection wait until release 3 or 4. Horizon Hobby, as usual, was very helpful in resolving most serious problem cases. In addition, RC groups has tons of information on this glider already. Surely other groups like RC-universe and Wattflyer, etc, will also.

Before I forget, I also nipped a little off the bottom of the ruder to reduce snagging it on the grass when landing. Some users added a small skeg to accomplish this.

All indications are that this will be a great fun sailplane to fly. Adding a better motor, prop and ESC may turn this into a really all-around sport and competition plane. I will leave mine as a fun plane! As time allows and I get more flying time I'm sure this will become one of my favorite e-gliders.