EXTRA 300S

Reviewed by: Dick Sutton – Manassas, VA, USA

Specifications
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* Wing Span: 58 in (1420 mm)
* Wing Area: 594 sq in (39 dm²)
* Length: 48 in (1220 mm)
* Weight: 5.75 lbs (2610 g)
* Engine: 2-stroke .40-.51 (6.5-8.5cc) or 4-stroke .48-.70 (8-12cc) engine
  OS .46 FX used
* 4 Servos required

The Great Planes Extra 300S comes very well packaged with the wood bundles neatly banded together, the hardware packages grouped according to function, and the canopy well protected from scratches or rubbing against other parts. ABS cowling and wheel-pants are included, as is the pre-bent and drilled heavy-duty aluminum landing gear. Plans consist of one large rolled sheet (very well done) and an excellent instruction book with many pictures per page detailing the building process. The ply and balsa provided was of excellent quality and the parts cleanly separated from the sheets.

The building proceeds very conventionally: tail feathers, wing, and fuselage. The processes used yield a straight fuselage and wing halves. When covering the turtle deck, be sure to wet the balsa sheeting to get a good fit. A little extra time at this step pays big dividends later during the covering of the model.

The wing construction is the basic D-tube arrangement. Take special care when building the wing to ensure that the rib alignment tabs don't get broken off during the assembly. They are already lightly scored to facilitate easy removal when the wing is finished and I had to lightly re-tack several during construction. I elected to use thinned epoxy to apply the fiberglass center reinforcement instead of CA.

The ABS cowl and wheel pants were cut out and test fitted until the desired fit was reached, then glued with CA. Once the halves were glued, measurements were taken to make the cutouts for the engine and needle valve openings, and muffler arrangement.

I chose to power the Extra 300S with the OS 46FX using a Slimline Pitts style muffler and a 11 x 6 Zinger wood prop. Don't forget to make provision for filling the fuel tank. I used a GP EZ Fueler and fashioned a bracket next to the engine so that the filler would mount flush with the cowl. A Dremel makes short work of shaping the openings. The inside surfaces were roughed up with 200 grit sandpaper and a layer of light fiber glass cloth was applied using a mixture of 15 minute epoxy thinned 50% with alcohol. This thinned mixture made the application of the glass cloth extremely easy. After the epoxy had set, the seams were filled with Squadron Putty and sanded smooth. An addition square of glass cloth was centered over the attachment holes in the fuselage.

The plane was filled with a lite filler compound and sanded then covered in Missle Red Monocote with white Monocote trim. The stars were cut out using templates generated on my computer and sized until they matched my requirements. The base color was applied and the trim (white stripes and red stars) were applied using water with a drop or two of dishwashing detergent and then allowed to dry overnight. The trim was then sealed with the iron set to a low temperature. The cowl and wheel pants were spray painted using Top Flight matching Lustrekote paint.

The final assembly consisted of attaching the cowl, wheel pants, wheels, pilot, canopy (with RC56 glue), installing the radio equipment, and setting the recommended control surface throws. FOLLOW THE INSTRUCTIONS EXACTLY! Even though the throws seem too small, believe me, they aren't. The plane balanced without the addition of any extra weight by positioning the battery and radio appropriately. This was a pleasant surprise because this is the first plane that I have built that didn't require extra weight, somewhere.

The new OS 46FX was broken in with a couple of tanks of fuel on my test stand and then I headed to the field. The OS 46FX with the Slimline Pitts muffler sounds great in the enclosed cowl. I adjusted the idle, double checked the control surface directions, and taxied out. There was a good breeze coming about 45 degrees from my left as I started my take off roll from right to left. As I applied power, the Extra accelerated rapidly and lifted off at a little over half throttle. It flies as if on rails. At this point I was glad that I had set up the control throws per the directions. Rolls are very axial, stalls are straight ahead and recoveries are easy. Snaps are violent as I expected. Inverted flight requires only a touch of down elevator. Landings are straightforward as long as you don't try to float it in like a trainer.

The Great Planes Extra 300S is a quality airplane and the kit is typical of what we have come to expect from this fine company. I chose this 40 size plane because I wanted something fast that would get my adrenaline going, look great, and yet be small enough to stash in the trunk of my car without having to buy a truck to transport. The GP Extra 300S met and exceeded all of my expectations. This airplane will do anything that I am capable of asking it to do, and then some. It's not for the novice, but as a step up after a low wing trainer, it can't be beat. This is one great plane (pun intended).