



ALFA MODELS

BY RICK BELL

Focke Wulf

I'm a big fan of warbirds, and one of my all-time favorites is the WW II German Focke-Wulf Fw 190. It's widely regarded as Germany's best fighter and ranks with the F4U Corsair, P-51 Mustang and Spitfire as the best of the best. It was so good that you can trace the origins of the Hawker Sea Fury and the Grumman Bearcat back to the Fw 190.

FW-190

A precision modeled warbird with performance

Hobby Lobby has really embraced electric-powered airplanes, so it has a great selection of warbird models from which to choose. Noticeably lacking, though, was a German fighter—until now. Hobby Lobby recently added the spectacular Alfa FW-190 to its lineup. This all-foam fighter requires a minimum of effort to be sortie-ready and gives new meaning to the phrase “almost ready to fly.”

IN THE BOX

The airframe of the Alfa FW-190 is completely assembled and painted in an authentic camouflage paint scheme (how’s that for convenience!). It consists of only

wing loading will be a little more than 12 oz./sq. ft., and performance will be very scale. Mine weighed just under 16 ounces ready to fly. To make the fighter mission-ready, you’ll need 2 microservos and a receiver, a geared Speed 300 motor, 14A ESC and an 8-cell, 1100mAh NiMH battery pack. I’ve pretty much switched to using brushless motors and Li-poly batteries in all my models. I chose the new MP Jet Outrunner motor, 2- and 3-cell Kokam 1500mAh Li-poly batteries and a Jeti Advance 18A ESC.

The electronics included a Hitec Micro 555 receiver and 3 HS-55 Feather servos. You might have noticed that I have an extra

firewall. To use the MP Jet outrunner motor, the radial mount must be installed “backward” on the motor. This places the motor closer to the firewall and allows the cowl and spinner to fit properly. The cowl fits very nicely on the fuselage, and the instructions recommend that it be tack-glued into place. Instead, I recessed and glued a couple of rare-earth magnets that I bought from RadioShack at 12 and 6 o’clock on the nose of the fuselage and glued thin washers in matching positions in the cowl. The magnets are very strong and hold the cowl very securely.

The aileron servo is installed in the center of the wing, and the factory-installed



The Focke-Wulf is completely assembled and ready for the radio equipment and motor installation. Save the box for convenient storage.

two parts: the complete fuselage assembly and the wing. The cowl, canopy, control surfaces, pushrods, control horns, firewall and servo tray are installed to save you a ton of work. Great-looking water-slide decals (for two versions of the FW-190) round off the package.

Because the model is made of foam, hard plastic covers the foam where most of the abuse is likely to occur. The underside of the fuselage and the leading edge of the wing are just two of the areas that are reinforced. The wing is removable, and the model fits nicely in its box for transportation and storage. Access to the radio equipment is through a hatch in front of the canopy; a cleverly designed latch holds it securely.

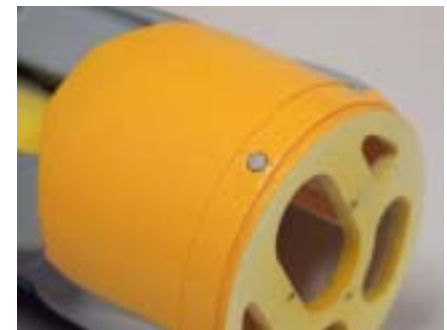
The model spans 33.5 inches, is 28.75 inches long and sports 186 square inches of wing area. If the target weight of 16 ounces (or less) is adhered to, the model’s

servo onboard. A lot of park flyers don’t use a rudder (which I really miss when flying), so to gain more control, I decided to add a functional rudder at the expense of a little weight. To fine-tune the model’s performance, I tried several APC electric props to optimize the current draw with the use of an Astro Flight Whatt Meter.

ASSEMBLY

Making the Alfa FW-190 flight-ready is a simple exercise and takes very little effort. If I hadn’t added a working rudder to the model, I could have been out flying it in about 2 hours. The most time-consuming effort of the assembly is applying the water-slide decals; they’re very delicate. The instructions are loosely translated from Czech, but the model goes together so easily that the instructions are primarily a guide.

I installed the motor first; there are three indents for the motor mount on the



I made pockets and recessed the magnets at 12 & 6 o’clock; a couple of drops of epoxy holds them in place. Mating washers are glued in the cowl.



I used RadioShack rare-earth magnets to attach the cowl to the fuselage; they only cost a couple of bucks.

pushrods are easily connected to the servo. Installing the elevator servo is just as easy, but be sure to glue the pushrod sleeve to the support. The instructions direct you to install the receiver and ESC next, but I waited to install them until after I had added the functional rudder.

RUDDER MODIFICATIONS

Making the rudder functional required a minimum of effort and materials. Hobby Lobby has guidelines on its website for this conversion, and they work well. The first step is to cut the rudder free; I used a new no. 11 hobby-knife blade and a metal ruler to make the cut. The rudder and fin are hollow, and the trailing edge of the fin and leading edge of the rudder must be

BACKYARD FLYER

filled so the hinges have something to grip. I used a couple of pieces of pink insulation foam. It took only a couple of minutes to shape the foam and then glue it in with epoxy. When the epoxy had cured, I rounded the leading edge of the rudder and sanded a matching concave in the trailing edge of the fin. I touched up the bare foam with gray acrylic paint. I cut hinges from an old floppy disc and used epoxy to secure them into the model. The rudder control horn was an extra GWS horn that I had lying around.

The servo tray has a cutout for the rudder servo, and an extra pushrod support is in the kit. Using the “That looks about right” method, I made a pushrod exit in the fuselage and snaked the outer sleeve from a Du-Bro micro pushrod (item no. 847) to the pushrod support. I installed the rudder servo and hooked up the pushrod to it, and the conversion was complete. Total time for this modification was about 1 hour.

With the servos in place, I added the receiver, ESC and battery. I used Velcro

on its edge between the servos. I applied the decals, and the Focke-Wulf was ready for its first mission.

FLIGHT REPORT

This fighter rocks! I had senior tech editor Gerry Yarrish hand-launch the plane for its first flight, and from the moment it left his hand, I knew I had a winner. The little FW-190 feels like a much bigger plane in flight and grooves like a pattern ship. With the 8x6 prop and the 3-cell battery pack, top speed is around 55 to



To make the rudder functional, start by cutting it free from the fin.



I shaped a small piece of pink insulation foam to fill the leading edge of the rudder. Do the same on the trailing edge of the fin.



Above left: an old floppy disc makes great hinges for park flyers. A little epoxy securely holds the hinges. Note the GWS control horn. Left: after rounding the leading edge of the rudder, I sanded a matching concave in the fin. Above: the battery fits on edge between the servos. I made a cradle from 1/32-inch balsa to hold the battery. Above right: mounting the motor is simplicity itself: three indentations in the firewall line up the motor right on the thrust line.



to mount the receiver as far back in the fuselage as possible and the ESC on the side of the fuselage above the elevator servo. The rudder servo took up the space where the battery needed to be to balance the model, so I made a cradle for it out of 1/32-inch sheet balsa and placed it

60mph. In true warbird fashion, the little fighter will perform any maneuver asked of it. Adding the rudder was a definite plus, as I could hold the model in a knife-edge attitude and it would do killer rolls. Strafing runs on the deck are just too cool!

by the numbers

When using Li-poly batteries, you must make sure that you don't draw more current from them than they are capable of providing. If you do, you'll quickly ruin the battery. The prop size determines the load placed on the battery and the watts produced, so you should balance the two for the best performance without overloading the battery. The batteries I used can be discharged at 12 amps with surges up to 15 amps. I flew the model with various APC props, and shown below are the performance numbers of the power system with a 1500mAh 2- and 3-cell Kokam Li-poly battery pack. I used an AstroFlight Whatt meter to obtain the figures.

	Prop size	Draw (amps)	Watts	Volts
Kokam 2-cell	9x6	11.5	75	6.2
	9x4.5	7.6	54	6.8
	8x6	8	55	6.8
	8x4	6.2	44	7.1
Kokam 3-cell	9x6	17	153	8.6
	9x4.5	12.5	122	9.6
	8x6	12.4	119	9.4
	8x4	10.1	106	10

As you can see, the 9x6 prop on 3 cells produces the most watts, but it places the greatest load on the battery, which in this case, is too much. For the 3-cell pack, the 8x4 prop worked well and the best prop on 2-cell was the 9x6.



I used an MP Jet outrunner motor with radial mount, a Jeti Advance brushless ESC and a Kokam Li-poly battery to power the model.

BUILDER'S FINAL THOUGHTS

This is the first Alfa warbird that I've had a chance to fly, and it certainly won't be the last. The model assembles quickly without effort and flies better than it looks. The MP Jet outrunner motor and Li-poly battery create a winning combination that will provide many hours of dogfighting thrills. Try one and don't forget to "check your six"! ✈

APC; distributed by Hobby Lobby (530) 661-0399; apcprop.com.

AstroFlight (310) 821-6242; astroflight.com.

Du-Bro (800) 848-9411; dubro.com.

FMA (800) 343-2934; (301) 668-4280; fmadirect.com.

Hitec (858) 748-6948; hitecrcd.com.

Hobby Lobby (615) 373-1444; hobby-lobby.com.

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