



MAXFORD USA
Fieseler Fi-156 Storch *by Jon Barnes*



There are a select few planes in aviation history that are so ugly that they are almost beautiful. Their unique lines are instantly recognizable to both aviation enthusiasts and history buffs. The Fieseler Fi-156 Storch is definitely in this small group of aircraft. Especially notable features of this airplane include its amazing STOL (short takeoff and landing) capabilities and a folding wing. With the wing folded back, the Storch could be transported on a trailer or towed down the road behind a vehicle. Maxford kits are unique in that they are often based on less modeled planes, and they always

include some cool scale details or features. In the case of the Storch, these features include the pre-installed slats that work in conjunction with the flaps, and the ability to fold the wing back in the same manner as the real aircraft. The flaps and slats function together as a single entity, being mechanically coupled and mixed via pre-installed servo bellcranks. Add in the optional scale detail package, which comes bundled in a nifty little rectangular plywood box, and you end up with a very nice looking scale model. The one question that I could not get out of my mind was would this small Storch—with its cool slats and flaps and spring-loaded landing gear—fly anything at all like the full-size Storch?

TIPS FOR SUCCESS

The big Storch carries an air-cooled V-8 that was mounted inverted. The cutout in the cowl for the motor shaft is positioned toward the top of the fiberglass cowl, which I believe is done in an effort to replicate the real plane and thus keep the model as close to scale as possible. The included light-ply motor box is mounted to the firewall by means of several hook-style tabs that are indexed into slots on the firewall. Verify that the motor

box properly positions the motor shaft in the cowl opening, or you may find that the motor ends up mounted too low on the firewall. To avoid this, simply attach the motor to the motor box and test-fit the assembly and cowl with the nose pointing straight up. The Uranus outrunner motor, unlike an inverted V-8, is perfectly round, so it is important to double-check that the motor does not hit the cowl before you glue the mount into place.

When attaching the landing gear to the fuselage, I had to make minor adjustments to get the ends of the wire gear to align with the predrilled holes in the fuselage. The gear is attached to the bottom of the fuselage with tiny metal straps. These little straps are soft enough to be made to conform to the diameter of the gear as you tighten the screws. Be careful that you do not push too hard as you tighten them into the belly of the fuselage. Once the gear is mounted, it is worth removing it again and hardening around all of the mounting holes with CA.

The box of scale details includes an instrument panel, pilot seat, machine gun, landing light, airspeed Pitot tube and oil cooler. These parts are constructed of wood and wire and paint-

SPECS

- PLANE:** Fieseler Fi-156 Storch
- MANUFACTURER:** Maxford USA
- DISTRIBUTOR:** Maxford USA
- TYPE:** Scale
- FOR:** Intermediate
- WINGSPAN:** 63 in.
- WING AREA:** 397 sq. in.
- WEIGHT:** 45 oz.
- WING LOADING:** 16 oz./sq. ft.
- LENGTH:** 40 in.

RADIO: Minimum 5 channels required; flown w/Futaba 10C 2.4GHz transmitter, Spektrum AR6200 receiver, 6 installed servos

POWER SYSTEM: Uranus 35425 motor, APC E 11x5.5 prop, Uranus 60A speed control, 3-cell 2250mAh Thunder Power Pro Power 45C LiPo battery

FULL-THROTTLE POWER: 36.5 amps, 375 watts; 8.3 W/oz., 133 W/lb.

TOP RPM: 11,800

DURATION: 6-7 min. at 50% throttle

MINIMAL FLYING AREA: Soccer field

PRICE: \$219.99

COMPONENTS NEEDED TO COMPLETE: Radio system, 3S 2100mAh LiPo battery, propeller, 2 6-in. servo Y-cables

SUMMARY

With its bulbous windows, lengthy wingspan and lanky landing gear, the Fieseler Fi-156 was appropriately nicknamed "Storch"—German for "stork." Maxford USA captures the essence of the full-scale warbird with its 63-inch rendition, which comes complete with flaps and leading-edge slats and a foldable wing. With all six of the required servos and most linkages installed at the factory, the short build time of this ARF nearly qualifies it as a ready-to-fly kit.



Fly the famous WWII STOL aircraft!



Just like the full scale, this model features folding wings for easy storage and transport, not to mention the "wow" factor at the field.



PHOTOS BY JON R. BARNES AND DON SHIELDS

AIRBORNE

For a model of this size to have working slats is definitely a notable feature. I was very eager to try them out but resisted dropping the slats and flaps for the first takeoff. As the Storch is a tail-dragger, a proactive and anticipatory touch on the rudder stick will help to keep the nose pointing down the runway during the takeoff roll. Fall behind on the rudder inputs, and it can quickly ground-loop on you. To help avoid this, I like to set up my low rate rudder with minimal throws and a relatively soft, 5-percent exponential. The Uranus out-runner provides an abundance of power, and if you prefer, you can



just punch the throttle stick hard forward and yank the Storch aloft. I prefer a more scale, slow-speed roll-out and a gradual liftoff.

Once aloft, the Storch can and should be slowed down considerably. I flew mine around the pattern at 1/2 throttle with no sign of any unpleasant behavior. In anticipation of the nose ballooning when I first deployed the slats and flaps, I made sure my thumb was

prepared to apply a little down-elevator. I had set the flaps and slats up with the recommended throws and, to my surprise, throwing the switch to the first position resulted in no perceptible pitch-up at all. The only noticeable change was a little airspeed loss. Boosting the throttle a bit, I fully deployed the flaps and slats. Though the nose may have risen ever so slightly, I was again surprised to find that the only real response to the altered airflow over the wings was the need to carry a little more power. I am always impressed when I see the laws of aerodynamics predictably manifest themselves in scale models!

Landing is easy, no matter which configuration of the slats and flaps you select. The Storch will happily slide down the glide slope with or without them deployed. Using them, however, will definitely slow the approach down substantially and require better throttle management, to boot. The slower you fly, the more realistic it looks. The spring-loaded landing gear work somewhat realistically and will soak up some of the energy created by mismanaged landings. Though the model has nowhere near the same proportional mass as the real plane, touching down on the runway with a little too much downward force will cause the gear to compress quite a bit. Not only does this look convincingly real but it serves to protect the fuselage from having to absorb any excess force. I did notice that my Storch required a fair amount of right rudder with the flaps and slats in the full down position. A close look at the mechanical setup of the flaps and slats revealed that the servo horns had slightly different zero positions, resulting in throws that were not exactly equal. This difference in throws increased as the flaps and slats were dropped to the full position. Aligning the zero positions of the two servos immediately rectified this peculiar flight behavior.

ed black. I used CA and hot glue when mounting them in the Storch. It is necessary to cut a small hole in the rear of the canopy for the barrel of the machine gun to protrude through. I used a sharp hobby knife to make the initial cut and then cleaned the hole up using my rotary tool and a small sanding drum. The pilot seat is designed to be strapped to your battery with a piece of included hook-and-loop fastener. To hit the recommended CG, I needed to position my Thunder Power LiPo quite far forward. In this case, I simply attached the seat to the cockpit floor.

To fold the wing, remove the upper canopy hatch, slide the wing-joiner tube into one wing half, and then fold the other wing half back. Remove the wing joiner completely to fold the second wing half back. The process takes but a minute or two. My wing-joiner tube initially fit very snugly. A few swipes up and down its length with a piece of fine-grit sandpaper loosened it. Mark the tube center with an indelible marker so that you can position it with an equal length inserted into each wing half. The assembly manual offers the option of

making the wing non-foldable if you prefer.

There are enough servo leads in this model for the radio installation to turn quickly into a veritable rats' nest. I mounted the Spektrum AR6200 6-channel receiver on the cockpit floor at the rear. Eager for the first flight, I forced myself to take a little extra time to neaten the wiring. Tuck a few extra inches of the flap and aileron servo leads into the wing roots to help the folding wing to work properly. One really nice detail is that the wing servos are custom



Above: the optional detail kit really brings the cabin area to life. Left: Maxford USA's 35425 motor gives the Fieseler plenty of power for impressive short field performance and plenty of loiter time.



made with long leads. There are no extension connections within the wing to worry about accidentally unplugging. I used small dabs of hot glue to secure the

servo leads to the inside cabin pillars, as they get routed down to the floor of the interior. Concealing the servo leads adds to the Storch's overall scale appearance.

CONCLUSION

Though the laws of physics and aerodynamics prevent the Maxford Storch from flying as insanely slowly as the big one did, this model is a junior-size clone that's worthy of praise owing to its scale niceties and well-behaved performance. The foldable wing is a nice scale feature that also simplifies hauling this 63-inch plane to the flying field. If you are a little tired of the same planes being modeled over and over, the Maxford Storch offers a refreshing break. The sight of it slowly dropping towards you on final, its long stork-like legs dangling and its leading-edge slats dropped, will keep you going repeatedly around the pattern for just one more landing approach. ☺

Links

APC Propellers, distributed by Landing Products, www.apcprop.com, (530) 661-0399

Maxford USA, www.maxfordusa.com, (866) 706-8288

Thunder Power Batteries, www.thunderpowererc.com, (702) 228-8883

For more information, please see our source guide on page 121.