MAXFORD Ultimate ARF

by Terry Dunn & Billy Schwander

The Ultimate is smoothly aerobatic. With mild control throws, it is suitable for pilots with a little aileron time behind them. Increased throws will keep more experienced pilots entertained.

This compact aerobat flies with the confidence of a much larger ship

Maxford USA has thrown its hat into the ring with an ARF electric park-flyer version of the Ultimate. My buddy Billy Schwander recently purchased one, so we teamed up for this review. He had a tough time choosing which color to get, since both the red and yellow versions are attractive and provide good visual orientation. During our inspection of the kit, we were hard-pressed to find fault with either the build quality or covering on any of the factory-built components.

TIPS FOR SUCCESS

A few hours are required to get all of the pieces assembled into an airworthy package. Everything fits together well, and the manual is a good guide. Any modeler who's experienced enough to try the aerobatics expected from an Ultimate will certainly have no trouble assembling this one. Other than the two pushrod connectors that bounced into the black hole under my workbench, we used all of the provided hardware.

The Maxford Ultimate includes a painted plastic cowl. We had trouble positioning it so that it would align with the stripes on both sides of the fuselage. Rather than have both sides a little off, we aligned the starboard side and left the port stripe a bit skewed.

The kit also includes a pair of painted fiberglass wheel pants, but we decided not to install them. Experience, in the form of my box full of broken props and shredded wheel pants, has shown that the pebbles on our club's main runway make excellent chocks for small, shrouded wheels.

Four microservos are required. We used E-flite S-75s for the ailerons and Hitec HS-55s on the tail feathers. The aileron servos are hidden in the fuselage and motivate the bottom ailerons via torque rods. The top ailerons are

PHOTOS BY TERRY DUNN AND RANDY STONE

SPECS

PLANE: Ultimate

MANUFACTURER & DISTRIBUTOR: Maxford USA

TYPE: Aerobatic ARF park flyer

FOR: Intermediate pilots

WINGSPAN: 30 in.

WING AREA: 307 sq. in.

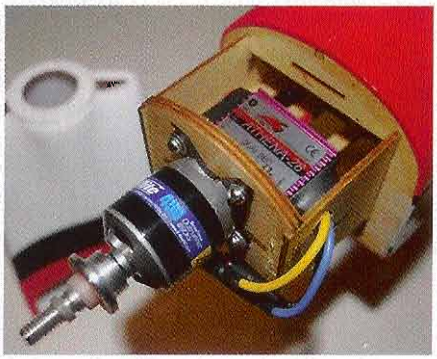
FLYING WEIGHT: 26.4 oz.

WING LOADING: 12.6 oz./sq. ft.

LENGTH: 31 in.

RADIO: 4-channel required; flown w/Spektrum DX7 transmitter, Spektrum AR6100 receiver, 2 E-flite S-75 servos (ailerons), 2 Hitec HS-55 servos (rudder and elevator)

POWER SYSTEM: E-flite Park 450 brushless outrunner, UltraFly Athena-28 brushless ESC, PolyQuest 3S 1500mAh LiPo battery, APC 10x7 SF propeller



The top of the battery mount is a good spot for the ESC. I stuck my UltraFly Athena-28 ESC against the firewall to get the CG correct without using nose weight.

A generous hatch just behind the cowl allows easy battery changes.

slaved to the bottom surfaces with standard control horns and pushrods. Sleeves for the elevator and rudder pushrods are installed at the factory, so completing the job is a snap.

The wings are removable, but this requires a few minutes of fiddling with fasteners and servo leads. The completed model is so compact that I doubt you'll ever bother to disassemble it for travel. We haven't yet.

Maxford offers the Ultimate as an airframe only or packaged with a brushless motor and ESC. Since Billy had a spare motor, he chose the basic airframe. With the ESC and battery against the firewall, the Ultimate balanced right on the recommended CG—an excellent starting point for initial flights.

Please, don't dismiss this review because we only mention trivial problems with the kit and we really like the way it flies. We honestly tried hard to uncover any nasty flaws that lurked beneath the surface, but we didn't find any. Simply put, the Maxford USA Ultimate is an easily built, good-looking, solid flying little airplane.

AIRBORNE

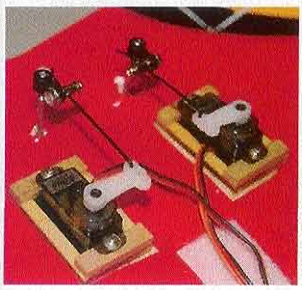
The recommended control throws looked a little tame, so we used the settings for low rates and set 100 percent travel as the high rate for all of the control surfaces. I also added 35 percent exponential across the board. Billy wasn't available on the scheduled date of the first flight, so I snuck off without him. A few figure-8s on the taxiway confirmed that the tailwheel provides good dexterity on the ground. Once I started the takeoff run, the tailwheel popped off the runway and the Ultimate accelerated quickly. It didn't break ground by itself, so I coaxed it skyward with a little elevator.

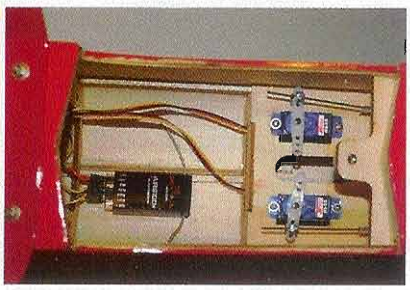
Because it's small, I thought that the Ultimate would be a little twitchy, but numerous flights have proven it to be quite solid and predictable. Several observers commented on how smooth it is, and I agree. With the recommended CG and control throws, the Ultimate would be a good step up from an aileron trainer. Sure, it's aerobatic, but it gives you time to think.

On high rates, the Ultimate gets a bit peppier. Snaps and spins tighten up, and rolls become more axial. Knife-edge flight is surprisingly good with just a little pitch coupling. After a few practice runs, I was able to make slow knife-edge passes down the length of the runway using 1/2 throttle and just a little rudder.

Don't let the small wings fool you into thinking that this bird is a lead sled. The wing loading is not quite in the teens, and that reveals itself during slow flight and landings. Both are easy and stable.

The E-flite Park-450 motor is a good sporty powerplant for the Ultimate. It provides ample vertical performance and speed. You'll need a few more watts if you're looking to explore 3D flight with this airplane. However you plan to gracefully carve up the sky at the park (like Billy), 100 watts/lb. is a good power loading to shoot for.





Far left: Dual aileron servos allow flaperon and elevator/flap mixing for increased maneuverability. Left: Removing the lower wing provides plenty of access to the fuselage interior for radio setup and maintenance.

CONCLUSION

The Maxford Ultimate is a compact aerobatic package that offers a lot of performance in an affordable package. Its light wing loading offers the mild manners that are more common among much larger models and make this model very suitable for small flying sites—and limited budgets.

Links

E-flite, distributed exclusively by Horizon Hobby Distributors, www.horizonhobby.com, www.e-fliterc.com, (877) 504-0233

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

Poly-Quest Batteries, distributed exclusively by Hobby Lobby Intl., www.hobby-lobby.com, (615) 373-1444

Spektrum, distributed by Horizon Hobby, www.spektrumrc.com, (800) 338-4639

For more information, please see our source guide on page 171.

FULL-THROTTLE POWER: 16.9 amps, 161 watts, 6.1 watts/oz, 98 watts/lb.

TOP RPM: 5,700

DURATION: 10 min.

MINIMUM FLYING AREA: Sports field

PRICE: $79.99

COMPONENTS NEEDED TO COMPLETE: Radio and power system.

SUMMARY

One of the yarns commonly spun among RC pilots suggests that the full-scale Ultimate biplane was inspired by an RC design. A cursory investigation quickly exposes this as false, yet the mere existence of such urban legends underscores the immense popularity of the Ultimate as an RC subject. It is unfortunate that the full-scale bird eluded commercial success.