



Maxford's vintage-themed models look extremely authentic when they are in the air, although pilots will probably want to spring for the available optional pilot figures to more capably create a convincing scalelike profile.



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EXPERIENCE EARLY AVIATION WITH FULLY FUNCTIONING WING WARPING

Maxford USA 1/9 Rumpler Taube EP 64-Inch ARF

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 Photos by the author

THERE IS NO DENYING the logic behind man's eager efforts to take to the sky in a flying machine. Engineers of the early 20th century understandably attempted to mimic the methods used by birds to change direction and altitude. At least one early effort to imitate the eminently flexible tail and wing feathers of a bird can be seen in a monoplane known as the Taube.

This airplane uniquely utilized warping on its wing and horizontal stabilizer to achieve roll and pitch changes. The only axis to utilize hinged control

surfaces, which would in the future become the standard for almost all aircraft, was the yaw axis.

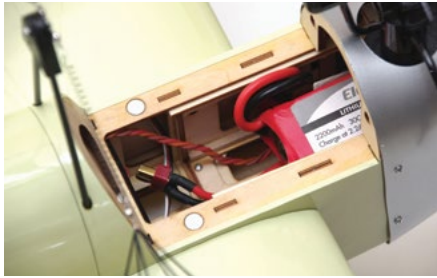
Designed by Igo Etrich in 1909, the Taube first flew in 1910. It would become the first mass-produced aircraft in Germany, and go on to be used for military purposes by several of the nations embroiled that were in World War I.

Although Maxford USA has christened its 1/9-scale model the Rumpler Taube, the annals of history bear out that the original version was referred to as

the Etrich Taube. Why the seeming disparity? It is primarily because, with no licensing fees, at least 14 companies built variations of the initial design. The two-seat Rumpler Taube ultimately proved to be the most common type and thus most appropriately the subject of Maxford's attention.

Maxford USA's propensity to bring to market obscure, seldom-modeled airplanes that are often from the early decades of aviation, continues to carve out a unique niche market in an industry dominated by

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The removable front cockpit hatch opens to a battery compartment that is large enough to accommodate four-cell 2,200 to 2,600 mAh LiPo batteries, although the form factor of larger packs could be a limiting factor.



The suspension-equipped main gear is preassembled at the factory. At 3 inches in diameter, the included wooden, faux-spoked wheels should lend themselves to operations from grass airstrips.

manufacturers that often revisit the same popular modeling subjects.

The popularity of foam-based models, which can usually be assembled in a few hours, has caused traditional balsa-composition ARF models, such as the Taube, models that typically require a greater time investment to assemble, to lose some of their appeal. Pilots who are not racing through life at the speed of light and who still enjoy investing quality time in a modeling project should very much enjoy this aircraft.

Assembly

Maxford sends the Taube kits with all of the airframe rigging installed at the factory. This greatly simplifies what could be complicated construction. Pilots will need to assemble and install the full contingent of pull-pull control cables, which are used on all basic control surfaces. A full complement of hardware is included with the kit, with a slight overage of several fasteners.

The balsa and light plywood airframe components are pre-covered with an ivory/beige colored iron-on covering. A pair of large black Iron Cross graphics are included

with the kit and intended to be applied to the wing halves. Smaller Iron Cross graphics are preapplied on the twin rudder assemblies. The Taube is specified as being designed to be powered by either an electric power system or a .40-size glow power system.

Maxford offers an appropriately sized brushless electric motor as an added cost option for this model. Other items that pilots will need to purchase from Maxford in order to fully bedeck their Taube and contribute to a more accurate and scalelike appearance include pilot figures and a scale replica of the four-cylinder Mercedes engine that was used in some full-scale Taubes.

The included, preassembled main landing gear assembly features wooden wheels that attempt to simulate the appearance of the spoked wheels used on the full-scale aircraft. Maxford also offers a set of optional-cost main gear with genuine spoked wheels for pilots who are determined to dress their Taubes to the nines.

A minimum four-channel radio is required for completion, as is a pair of high-torque, metal gear servos for the wing warping, a standard-size servo for



As a "builder's" kit, this ARF will require much more of a time commitment than the current crop of foam composition plug-and-play kits. Pilots can expect to spend 15 to 25 hours assembling the Taube.

the tail warping, and a micro servo for the rudder controls. Additional items required for an electric-powered model include a 60-amp ESC and a three- or four-cell 2,200 mAh LiPo battery.

Construction

Assembling an old-school ARF is best done using dependable two-part epoxy. Pilots might also find it advantageous to have some medium CA adhesive and accelerator handy. Although the included assembly manual is a departure from the polished assembly manuals that are included with the current generation of models, all information required to complete the assembly is there and supplemented with a variety of clarifying artwork and photos.

Pilots should carefully peruse the entire assembly manual from front to back multiple times in order to give themselves an appropriate overview of the assembly process and the expected order when it comes to assembling this intricate ARF.

I encountered several standout features while assembling the Taube. One item that greatly simplifies the installation of whatever electric motor or nitro engine a pilot procures for the project is the adjustable, sliding motor mount box. Pilots need only mount their powerplant to the firewall then slide the box to the position that creates the appropriate cowling-to-spinner backplate/propeller spacing.

The motor box can be secured in place using fasteners and/or adhesives. Maxford has included two different cowlings in the kit that cover whichever power system option a pilot elects to use. A smaller, compact electric motor allows pilots to easily install the optional, dummy four-cylinder engine on top of the motor box.

One of the two included cowlings is factory-cut to fit around the dummy engine. The other uncut cowling can be used by those interested in using a glow power system.

Pilots will also be pleased with the manner in which Maxford uses a scalelike pilot control yoke as an actual part of the tail-warping control system. The net effect of doing so is that the control yoke can be seen moving as the pilot inputs pitch changes.

Maxford recommends a full complement of Hitec servos for the Taube. The specific Hitec servo types recommended fit perfectly in the model and offer modelers the best bang for their buck.

A few issues were encountered as the Taube was assembled. The long, slender tail section came somewhat warped. Modelers can typically and easily rectify any warped balsa/light plywood airframe components by carefully reheating the iron-on covering and applying pressure to take the warpage out, but the assembly manual explicitly cautions against applying heat to any of the warping surfaces.

Another minor issue involved the large Iron Cross graphics. The assembly manual directs that these adhesive-backed graphics be applied to the top side of the wing. Once in place, a thin, clear plastic overlay needs to be removed. Removing all of the plastic overlay from the graphics proved to be nearly impossible.



At A Glance



Specifications

Model type: Semiscale balsa ARF
Skill level: Intermediate to advanced
Wingspan: 64 inches
Wing area: 653 square inches
Length: 47 inches
Weight: 80 ounces
Power system: 400-watt electric motor or .40-size glow engine
Radio: Minimum four channels required
Construction: Balsa and light plywood
Covering: Mylar iron-on covering
Price: \$299.99

Test-Model Details

Motor used: Uranus 35425-1100 Kv brushless outrunner
ESC: HobbyKing Turnigy Plush 60-amp with 5-amp BEC; Deans Ultra connector
Battery: 14.8-volt, four-cell 2,600 mAh LiPo
Servos: Hitec HS-645MG Ultra Torque (2); Hitec HS-311 Standard (1); Hitec HS-55 Feather (1)
Propeller: APC-E 12 x 6
Radio system: Spektrum DX-9; LemonRX six-channel 2.4 GHz receiver
Ready-to-fly weight: 74.5 ounces
Flight duration: Five to six minutes



Pluses

- Rarely modeled aircraft from the earliest era of aviation.
- Uses scale pull-pull control cables to articulate all control surfaces.
- Wide-track, suspension-equipped main gear enhances tracking.
- All airframe rigging is pre-tied and factory installed.
- Sliding light plywood motor mount assembly allows a variety of electric or glow power systems.
- Two different cowlings included with the kit.



Minuses

- Horizontal stabilizer/elevator assembly was warped when it came out of the box.
- Difficult to remove the clear top layer of the included Iron Cross wing graphics without damaging/lifting the black part of the graphic.
- Dummy engine, pilot figures, and spoked wheels all must be procured at an additional cost.



Manufacturer/Distributor

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REVIEW



Whether perched on the flightline or putt-putting through the air, the Taube's fluted trailing edges and long, tapered tail pay homage to the outstretched wings and flared tail feathers of a soaring bird.



The four recommended Hitec servos fit nicely in their respective locations in the Taube and include appropriate-length servo horns. The powerful 645MG's 100 ounces of torque at 4.8 volts warps the wing with authority.

It was as though the graphics had been exposed to excessive heat at some point in their travels. Not only was it difficult to get the thin, clear overlay to release, but when it did lift off, it pulled the black ink off of the Iron Crosses in several places. The net effect of the imperfect graphic installation resulted in a model that replicated the look of a well-used and battle-weary Taube.

Flying

Pilots often anxiously suppose the outcome of the maiden flight based on perceived airframe anomalies. The Taube's fixed tail skid and relatively small, twin rudders would appear to suggest that this model might offer challenges when it comes to ground handling and holding the centerline of the runway on the takeoff roll. Surprisingly, the Taube is quite the sweetheart when taxiing and taking off.

As a tail-dragger, the Taube uses wide-spaced, suspension-equipped main gear and a fixed plywood tail skid. The model's stance on its landing gear is notably flat, making it unnecessary to hold in the



Pilots can either source their own electric power system or opt for the motor and ESC offered as options by Maxford USA. When equipped with a 12 x 6 propeller, Maxford's Uranus brushless outrunner motor gives the Taube plenty of punch and pull.

up-elevator input that is usually required to keep the tail planted while taxiing. Initiating a takeoff roll with a slow and easy throttle, results in requiring only slight corrective rudder inputs during the takeoff roll.

Maxford suggests a center of gravity of between 3 and 4 inches aft of the leading edge of the wing and a three- or four-cell 2,200 mAh battery. Although I flew the Taube on a 2,200 mAh pack, using a four-cell 2,600 mAh battery on top the ESC and all the way forward in the battery compartment resulted in optimum results and also extended the potential flight duration.

A hook-and-loop battery strap was not included in the kit. I secured the battery in place on top of the ESC by placing a block of lightweight foam between the aft edge of the battery and the former located at its rear.

When passing directly overhead, the Taube bears an uncanny resemblance to a bird soaring across the sky! Taube, in German, means dove, and one might conclude that Igo Etrich modeled the wing after that of a bird. However, it is

interesting to note that the wing's design was actually based on the 13-cm seed of a Javan cucumber plant.

This seed possesses outstanding aerodynamic capabilities and relative in-flight stability, giving it the ability to glide great distances from its parent tree.


Design inspiration notwithstanding, pilots will find that this model flies quite uniquely. The control surface flexing type of control used on the pitch-and-roll axis of this model results in one that sluggishly responds to requested changes in direction.

Pilots will want to use a combination of rudder and aileron when flying the Taube. Although the wing warping occurs at the outer edges of the wing, I still found that adding in some rudder resulted in more respectable behavior in the corners, and it was often necessary to apply a bit of the opposite rudder input to cleanly exit the turns.

The Taube flies like a lightly loaded model, with the optional Uranus brushless outrunner motor offering plenty of power for this old-timey slow flyer.

Pilots should allow themselves plenty of approach space when lining up for a landing. When the Taube is established on final approach, pay particular attention to keeping the nose down. Only minimal power is required to pull the Taube across the threshold. Soft and easy landings are the order of the day thanks to the suspension-equipped main gear.

Conclusion

With autumn on the wane for many modelers, Maxford USA's Rumppler Taube could be the perfect project to help maintain morale through the dark, cold days of winter. As a bona fide ARF, the Taube demands substantially more time and effort to assemble than the one or two hours that are required by the current crop of plug-and-play foam composition kits. The payoff for pilots willing to invest the time and effort to take on the Taube will be a nice-looking, nice-flying, stand-off scale model of a historically significant airplane that hearkens back to the earliest years of aviation! 

SOURCES:

Hitec RCD
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