FUN SCALE VINTAGE BIPLANE

MAXFORD USA

Curtiss Jenny ARF

by Steve Kessinger

When I started to review models, I told my editor Thayer Syme that I'm a builder, not an assembler. I've been building models off and on since 1978, and I don't do ARFs. But then, one day Thayer called and said, "Steve, I have a Jenny for you to review."

"Cool!" I said.

"It's an ARF," he added, sneaking it in almost as an afterthought.

"Well...," I said, "if it's a Jenny... "

The Curtiss JN series of aircraft was developed by B. Douglas Thomas, an assistant chief engineer with Sopwith Aviation. During a visit to the great aircraft designer Sir

PHOTOS BY JOHN VANDERHART AND STEVE KESSINGER

SPECS

PLANE: Curtiss Jenny ARF

MANUFACTURER: Maxford USA

DISTRIBUTOR: Maxford USA

TYPE: Vintage fun scale ARF

FOR: Intermediate fliers

WINGSPAN: 38 in.

WING AREA: 297 sq. in.

FLYING WEIGHT: 17 oz.

WING LOADING: 8.2 oz./sq. ft.

LENGTH: 23.5 in.

RADIO: 4 channels required; flown with a JR XP-652 transmitter, Berg Microstamp 4L receiver, 4 TowerPro SG-50 mini servos

POWER SYSTEM: A20-28M brushless outrunner motor, APC 9x4.7 SF propeller, 15-amp speed control. ThunderPower 2S 1320mAh and 3S 1320mAh Li-Poly batteries

FULL THROTTLE POWER: 2S: 5.6 amps, 43.7 watts; 2.57 W/oz., 41.1 W/lb.

TOP RPM: 4,800

FULL THROTTLE POWER: 3S: 9.8 amps, 111.7 watts; 6.57 W/oz., 105.1 W/lb.

TOP RPM: 6,000

DURATION: 10 to 12 minutes

Thomas Sopwith, Glenn Curtis recruited Mr. Thomas to come to America and work for the fledgling Curtis Aircraft.

The Curtiss JN airplanes (or "Jenny" as they came to be known) were born when Thomas combined Curtiss's Model N design and Thomas's J series of airplanes. The JN series evolved from models 1-3 and culminated in the classic JN-4. They were used by the British, Canadian and American Air Forces primarily as trainers during WWI, although the JN-3 claimed fame when first used as an observation aircraft during General John Pershing's pursuit of Pancho Villa in 1916. Over 6,000 Jennys were ultimately produced between 1915 and 1920.

It was after WWI, though, that the Jenny became legend. Thousands of surplus Jennys were unloaded on the civilian market in the U.S., some for as little as $50. Out-of-work pilots quickly snapped these up, and, in the 1920s the "Barnstormer" entered into American mythology and captured the hearts of many romantics over the following decades, including myself.

ASSEMBLY

The Maxford USA ARF comes in a box that appears far too small to enclose a nearly fully assembled RC airplane. But like a jack-in-the-box, the Maxford USA Jenny expands to a full-size airframe when pulled from the carefully wrapped and padded box. The manual consists of three pages of pictorial instructions that are self-explanatory, and assembly is straightforward. Written instructions can now be printed off the Maxford USA web site to assist in the assembly.

AIRBORNE

Despite what we romantics like to think, the Jenny was a lousy airplane to fly. Poor control harmonization and unreliable engines such as the notorious 90hp OX-5 engine meant flying her was not for the faint of heart. Eventually the Jenny got her powerplant when the 150hp Hisso engine was mated to the airframe, creating the JN-4H, widely acknowledged as the best flying of the Jennys.

Since I was using the recommended A20-28M brushless motor, I wasn't worried about power, but with a near-scale outline I was ready for anything when I first flew the Maxford USA Jenny.

It turned out my worries were unfounded. The oversized wheels let me make a takeoff from our grass field with no trouble. The tailskid is non-steerable, so you have to watch yourself when taking off with a crosswind; otherwise takeoffs and landings are straightforward.

With a 2S Li-Poly battery, the Jenny flew slightly faster than scale. A slow but acceptable climb rate was displayed, and aerobatics required coaxing with a bit of a dive before any rolls or loops were completed. In other words, she flew like a Jenny.

Add a 3S battery and the Jenny hikes up her skirt and becomes a wild woman ready to dance. Takeoffs and climbs are sprightly, multiple loops are easy from level flight, and aileron rolls go bang-bang-bang. It's fun to make a flight with the 2S pack, cruising along sedately for some gentle flying. Once you land, swap packs and start whipping through some non-scale flying. It always makes me smile, and surprises anyone else at the field.

MINIMAL FLYING AREA: Ball field

PRICE: $145.99

COMPONENTS NEEDED TO COMPLETE: Receiver, battery, (4) mini servos, ESC, motor, prop

SUMMARY

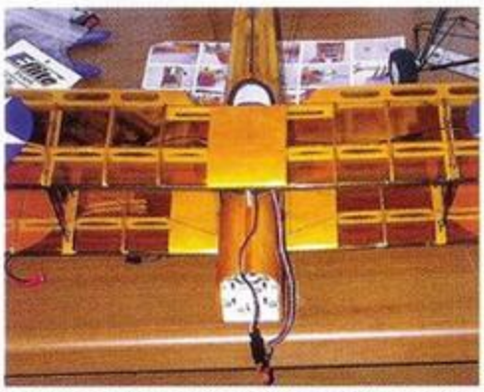
The Maxford USA Curtiss Jenny ARF is a good model that offers 4-channel fun scale flying in a small package with minimal assembly time. She has a wide flying envelope that ranges from stately grace to non-scale aerobatics. The small size of the Jenny makes her perfect to keep in the backseat for some lunchtime or after-work flying, and a great value for the price.

Start by attaching the tail feathers with two screws, mounting the elevator and rudder servos and attaching the control wires. I was very impressed that the elevators and rudder use full flying wires for pitch and yaw control; this gives a scale appearance to the model. Control throws should be 1/2-inch for all surfaces, and I found this amount to be more than adequate.

The aileron servos mount into the bottom of the top wings and hide under the large roundel (star) decals on the top of the wings. Pull the leads through the wing with pre-threaded strings to the center section and attach them to a Y-harness. Thread the Y-harness through the cockpit into the radio compartment after the wings are mounted.

Unfold the wings and thread them over the fuselage. The cabane struts are already mounted, so alignment is a simple matter of sliding the wings onto the cabane struts and attaching them with screws. The rigging includes small springs that allow some give to the wires while you mount the wings.

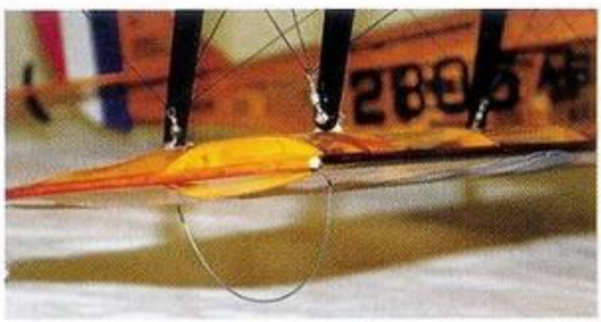
The plane uses carbon fiber for leading edges and a reinforcing strip down the turtledeck of the fuselage; this makes for a very strong structure that can withstand bad landings. I did a few cartwheel landings during testing, strictly for the review, and the wing withstood impacts that would have shattered traditional build-up balsa wings. After these "durability tests" I was able to be flying again within minutes, whereas with a kit-built airplane, I expect I would have been out with a bag and a broom collecting toothpicks.



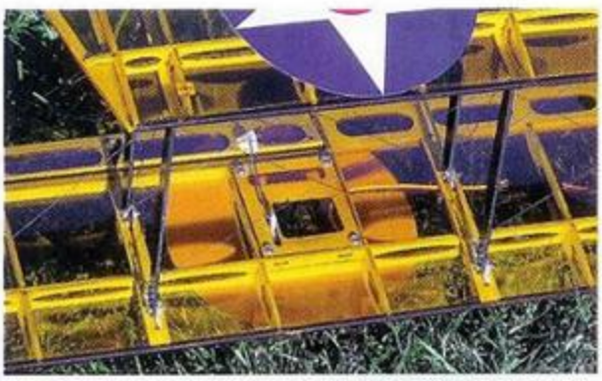
Use the shortest servo extensions you can find to reduce the amount of wire clutter in the fuselage. Note the abundant lightening holes and carbon leading edges to reduce weight and increase strength.

The motor mount has the correct amount of down and right thrust built in, and it simply clips onto the firewall. The clips tend to snap off after a few bad landings, so I ended up epoxying on the mount. I had to use a Dremel tool on the opening of the firewall to fit the ESC, but there was plenty of room once the hole was enlarged. Three small screws secure the cowl, and the vent hole provided more than adequate cooling on all my flights. Replacement cowls and landing gear sets are available from Maxford USA.

A hatch on the fuselage bottom between the landing gear mounts provides radio and battery access. Velcro is pre-attached to mount the receiver and battery—a nice touch. There is plenty of room for access to the battery/radio compartment via this hatch; however, you will have to remove the wing if you need to access the servos after assembly.



Like the full scale Jenny, the lower wingtips get pretty close to the ground. The kit features carbon fiber skids that protect the lower wing and makes the plane more scale.



The aileron servos are mounted in the wings for direct linkage and easy installation. The roundels hide them nicely. The scale-like rigging really adds to the appearance of this classic flyer.

TIPS FOR SUCCESS

The landing gear bolts onto the bottom of the fuselage and is easily attached or removed if you need more access to the radio compartment. The wheels are solid foam, and there is no shock absorption in the gear so you have to be careful with landings, but not overly so. After a couple of ground loops, the supplied press-on wheel collars came off; I substituted some Du-Bro wheel collars with setscrews.

The one thing I wish was different about this Jenny is the covering. It is transparent orange. Jennys were covered with linen fabric and, aside from the markings, were rarely completely painted in service. Maxford USA has replicated all the markings of a U.S. Army training Jenny, but it put them on an unrealistic covering from cowl to tail. I guess I still have a single slim reason to continue professing my dislike for ARFs.

CONCLUSION

Overall, the Maxford USA Jenny ARF is a fine flying airplane and worth the price. I spent about 10 hours on the assembly and ended up with a good-flying model that has that distinctive Jenny look.

Shortly before publication, Maxford USA released another version of their Jenny with a slight price increase. Gone is the transparent orange covering that tormented me, replaced by a simulated fabric iron-on covering for a much more scale look. With this change, I highly recommend the Medford USA Jenny. It is perfect for the pilot who wishes to transition to a more scale-like airplane, yet one that is still durable enough to handle the learning curve of pilots as they advance in skill. It would also be great for someone interested in adding a few more details such as an engine, to make it look more scale without the work of starting from scratch. I will be flying this one a lot. ✪

Links

Berg receivers by Castle Creations, www.castlecreations.com, (785) 883-4519

Maxford USA, www.a1rc.com, or www.greenmodelusa.com, (866) 706-8288

JR, distributed exclusively by Horizon Hobby Distributors, www.jrradios.com, (877) 504-0233

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

For more information, please see our source guide on pg. 185.