



# GREEN MODELS GEE BEE Y 40" ARF

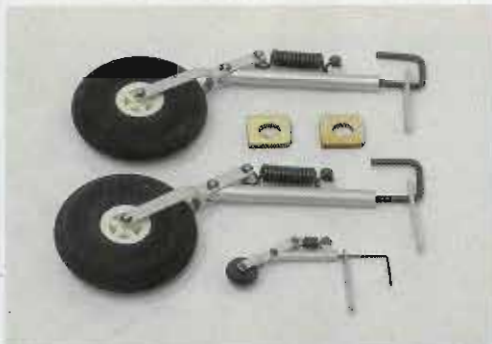
BY: Don Bailey

There is such a wide selection of exciting new scale almost-ready-to-fly (ARF) kits available now for electric power on the market that it's hard to keep up with them. Featuring such niceties as laser-cut wood parts, superb workmanship, and high-fidelity scale accuracy, the latest new crop of ARFs is hard to resist. In order to be a real standout, any new kit has to feature some special and unique appeal along with all that quality.

Enter the new Green Models Gee Bee Y ARF kit from Maxford USA. Here is a model airplane with classic lines, bright colors, distinctive looks, and a bit of aviation history thrown into

the mix. With its large landing gear skirts, form-fitted bumpy cowl, and raked windshield, it really looks the part of a 1930s Goodyear racing machine.

The Gee Bee Y is offered in three



Spring-loaded shock-absorbing landing gear is a distinctive feature of the kit.





The fiberglass wheel pants cover the shock-absorbing main gear legs for a neat, attractive finish.



The tail feathers interlock, so the alignment is made sure. Features like this make the Gee Bee Y a fast build.

different color schemes: authentic red-on-white, yellow-and-black, and (my favorite) red with black trim. The scheme features the familiar Gee Bee scalloping, and there is a scale Gee Bee decal for the tail. The landing gear is a real treat, with spring-loaded shock-absorbing articulation, just like

the full-scale version. The amount of pre-assembly is substantial, and the entire model can be made flight-ready in as little as six hours of bench time.

### History

Back in the 1930s, the Granville Brothers of Springfield,

Massachusetts built a series of radial-engine-powered racing airplanes to compete against the best Goodyear racers of the time. Over the course of a decade, they won many trophies, topped many speed records, and went down in history for pushing the limits of airframe design in their pursuit of speed. While the Gee Bee Y Senior Sportster was originally intended as a two-place sportplane and personal transport, it was soon seen as a viable racing machine in its own right and became a trophy-winner alongside the rest of the amazing Gee Bee designs. Only two were built, but one replica was built in recent years to relive the glory of this sleek and sexy racing airplane.

### Flying the Model

Full throttle produced 210 watts on the wattmeter I tested the motor with, at a sustained current of 20.2 amps when it spun an E-flite 10x8E propeller. With an all-up weight of 33.5 oz, this worked out to a power loading of 100 watts/lb—more than adequate for a strong climb rate and vigorous aerobatic flight.

I appreciated the fact that the Gee Bee Y has a steerable tailwheel, as I like to taxi my airplanes out to the runway for maximum scale effect. Lining up with the runway



The Gee Bee Y has a distinctive look in the air that provides exceptional orientation for the ground-based pilot.

There is plenty of room for the servos and receiver inside the fuselage.





## REVIEW



centerline, I gave the controls one last check and advanced the throttle. The Gee Bee accelerated forward and the tail came up on its own. A bit of right rudder to counter the motor torque kept everything straight, and the Gee Bee jumped into the air within 30 feet of runway. The climb rate was quite satisfactory, and I leveled it off at pattern altitude for some minor trim adjustments. Once trimmed and under way, I began to maneuver the Gee Bee through banked turns and gentle maneuvers. I could tell right away that the Gee Bee was a tame and

stable model, and I immediately became comfortable with this delightful little flyer.

Straight and level flight required no adjustments, so the stability margins were good, and the airplane handled smoothly at all attitudes and airspeeds. Stalls were straight-ahead, and the recovery was a simple matter of releasing back pressure on the

Lots of lightening holes provide plenty of cooling for the outrunner motor up front and the LiPo battery pack just behind the firewall.





Classic lines and bright colors set the Gee Bee Y apart from the rest.

➤ Removing the hatch reveals the battery compartment. Note the ESC in front of the battery.



with pleasingly crisp transitions. Inverted flight is quite stable, with little down elevator required, and the roll rate during aileron rolls is moderate but satisfying. I did find that there was a noticeable adverse yaw in the turns, and for my second flight I added in some rudder compensation (about 50%), and some more aileron differential.

While it is a scale model of a racing airplane, the Gee Bee is only moderately fast, owing, no doubt, to the large dummy radial engine up front, the wing struts, and the large balloon-like wheel fairings. Nonetheless, it flies at a near-perfect scale speed, and it is not hard to envision what the full-

scale Gee Bee must have looked like as the model zooms through pylon turns or streaks through the sky. The airframe drag shows up most noticeably during landing approaches with the power shut off, as the airplane floats down toward the runway threshold at a fairly good sink rate. I found that carrying a little power on approach kept the glide path flatter and allowed a smoother transition into the flare just prior to touchdown. The shock-absorbing gear really works to dampen the touchdown, especially if the model is dropped onto the pavement too abruptly. I ended up with a few scrape marks on the wheelpants from one or two

elevator and allowing the wings to resume flying. Steep-banked turns flown at high angles of attack showed no signs of tip stall or pitch instability. Before long, I was consuming huge chunks of sky, doing barrel rolls, inverted turns, hammerheads, spins, and snap maneuvers. This airplane does a gorgeous avalanche, with a sharp snap at the apex of the loop and an instantaneous arrest of the snap roll coming over the top. It also does lovely Cuban 8s, almost as smoothly as a pattern ship, and I found myself doing them over and over again—nice and round,

➤ The tail feathers are large, for good stability. Rudder is operated with pull-pull cables.





The large ailerons provide a nice, satisfying roll rate.



## THE BUILD

The kit arrived in a stout cardboard box, with all components neatly compartmentalized to prevent jostling and safely bagged in plastic for protection from abrasion damage. The wing is one piece with the ailerons pre-hinged, and the tail feathers also feature pre-hinged elevators and rudder. The entire airframe is pre-covered in plastic film, and decals are applied to the wings and fuselage. I found that there was no need to re-shrink the covering material, as it was nice and taut with no wrinkles. In addition to the airframe, the kit includes the fiberglass cowl with a pre-installed vacuum-formed dummy radial engine, fiberglass landing gear skirts, shock absorbing main landing gear and tailwheel, formed windscreen, tail decals, and assorted hardware such as screws, clevises and horns, aileron and elevator pushrods, and rudder pull-pull wire. There is also a full-color photo-illustrated two-page assembly document. This is not an instruction manual by any means, as there is no text, only photos. Nonetheless, any reasonably-experienced builder should have little difficulty interpreting the pictures to see what needs to be done. The builder only needs to furnish the radio components, motor power system, and appropriate adhesives to assemble the model.

Wing assembly is started by mounting the aileron servos in the servo wells. Pull-strings have been installed for drawing the servo wires down the wing to the exit holes near the center rib. The sprung landing gear is installed by simply gluing the bent-wire head end into a slot in the wing, and installing the aluminum strut portion to the wire stud with

a grub screw. It is important to look carefully at these wire head ends, as they are handed parts. Each has a slight bend to correct for wing dihedral. Be sure to get the right-hand one in the right wing, and the left in the left. Reversing them will cause the landing gear to be splayed outward rather than vertical. The fiberglass landing gear skirts are simply lowered over the struts and screwed down to the wing. I had to shim the mating flanges with strips of balsa, to get the wheelcut centered around the wheel. It is a good idea to check the articulation of the sprung gear to make sure there is enough clearance between the wheel and the wheelcut when the strut is fully compressed.

The kit provides a laser-cut plywood motor mount box that is bolted to the firewall. The motor is directly bolted to the front of the extension box, and my motor of choice, the E-flite™ Park 450 outrunner, was the perfect length for setting the propeller hub the correct distance from the firewall. Below the motor extension box is a plywood battery box. I had to cut it shorter by 1/2 inch in order to clear the dummy radial engine when the cowl was installed. I discovered later that the center of gravity (CG) would be too far forward if this battery box was used, so, in my case, it could have been removed entirely. I ended up installing the 3S 2100-mAh LiPo pack vertically in the battery access bay, attaching it with hook-and-loop material to a Lite-Ply® plate that I had glued to the leading edge bulkhead.

I used E-flite S75 servos for all four servo locations (two ailerons, elevator, and rudder)

though any equivalent 9-g servo would work well. The rudder uses pull-pull wires for actuation, so the forward-mounted rudder servo must be elevated a bit in the tray, to clear the elevator servo just behind it. The elevator pushrod is a slender carbon rod, with wire ends for connecting to the servo horn and elevator control horn.

Finishing touches include attaching the windscreen with three small screws, and applying color-matching vinyl tape stripping to the edges, screwing the wing struts into position, and applying the tail decals. I managed to completely assemble my Gee Bee Y during the course of one afternoon and evening, and I am not a fast builder!

The motor battery and electronic speed controller (ESC) were both located in the same compartment behind the firewall, which is accessed through a removable belly hatch. With this arrangement, I did not need to add lead anywhere, as the balance point ended up right at the specified CG location on the main spar. I found that there was just enough room for the Thunder Power 2100-mAh 3S LiPo pack, with the 2S-amp ESC in front of it. The hatch is retained with a peg up front and a rare-earth magnet at the rear, and the convenience of this arrangement for accessing the battery between flights is a big plus. The wings take some time to remove, as the struts must come off first, and it is nice to be able to leave them mounted in place indefinitely.




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such bouncy arrivals. The wheels spin freely inside the wheelpants, but I don't know how the Gee Bee would behave on a soft grass runway surface. I expect that nose-overs might be pretty common.

### Impressions

I am quite pleased with this new addition to my hangar from Green Models, and I'm confident that the Gee Bee Y will be a

real crowd pleaser with its classic lines and sharp details. It's a good choice for the intermediate or experienced flyer who is looking for an easy-to-assemble scale model from the Golden Age of aviation, with distinctive looks and excellent flying characteristics. You might even find your buddy wanting one in a different color.

Let the races begin! 

Even sitting on the ramp this model has a very pleasing appearance.



Everybody loves a Gee Bee!

### Gee Bee Y

#### Specifications

<b>Model Type</b>	Electric-powered scale ARF racer
<b>Wingspan</b>	40 in. (1016 mm)
<b>Length</b>	30 in. (762 mm)
<b>Functions</b>	Rudder, elevator, ailerons, electronic throttle
<b>Wing Area</b>	306 sq in. (19.75 dm <sup>2</sup> )
<b>Weight</b>	28-32 oz (795-907 g) advertised 33.5 oz (950 g) as tested
<b>Radio used</b>	Futaba 7CAP transmitter, FP127DF receiver, E-flite S75 servos (ailerons/elev/rudder)
<b>Motor/ESC</b>	E-flite Park 450 outrunner brushless (890 KV), E-flite 25-amp Pro Brushless ESC w/ BEC
<b>Propeller</b>	10x8E slow flyer propeller
<b>Battery used</b>	Thunder Power 2100-mAh 3S 11.1-V LiPo

### Gee Bee Y

#### Distributor

**Maxford, Inc.**  
13909 Artesia Blvd  
Cerritos, CA 90703  
Phone: (562) 802-0680  
Web site: greenmodelusa.com  
Kit Price: \$145.99

### CONTROL THROWS

**Aileron:** 1 in. Up/Down  
**Elevator:** 1 in. Up/Down  
**Rudder:** 1½ in. Right/Left