



Frank Granelli

Flight Report

F-14 TAMEcat Trainer 40 ARF

TWM and AirBorne LLC have produced Jeff Troy's classic Jet-like primary trainer.

It is only fair to begin with full disclosure. This airplane was not originally intended for a *Hobby Merchandiser* review article. Instead, it was to have been a review project only for *Sport Aviator*, the AMA's online magazine for fledgling RC pilots at www.masportaviator.com. Jeff Troy's F-14 TAMEcat Trainer 40 is an ideal candidate for extensive *Sport Aviator* coverage with more than 50 how-to photos, several videos and complete flight data recording, all on the Web site by the time you read this. When you consider how good this airplane actually is, many hobby dealers and *Sport Aviator's* 300,000 annual readers will be very interested in seeing more about The World Models' F-14 TAMEcat Trainer 40 ARF than these few pages permit.

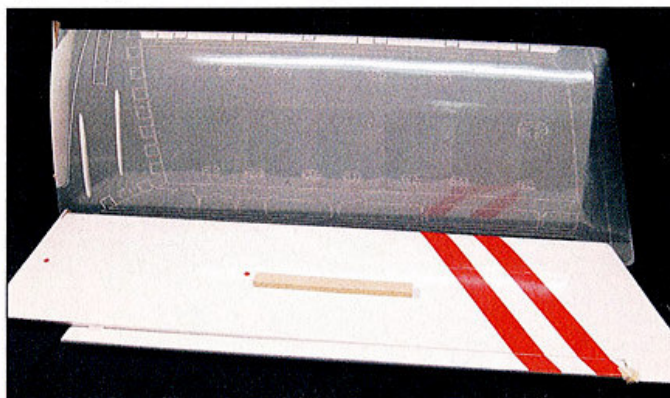
After building and flying the F-14 TAMEcat Trainer 40 ARF, as well as its smaller electric-powered counterpart the F-14 TAMEcat EP, I prevailed upon *Hobby Merchandiser's* editor to publish a short review of the model for several reasons. This was a relatively easy task



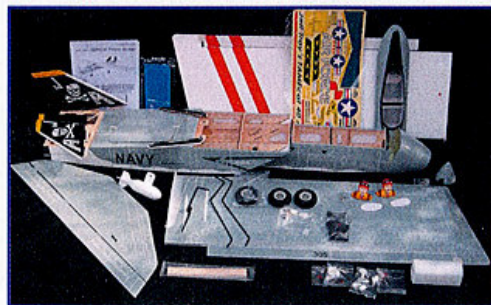
since he is the TAMEcat's designer. First, the TAMEcat is a trainer that was so much ahead of its time when introduced in 1990 that it remains at the leading edge of the current trend of pseudo-scale fighter airframes that are actually trainers. These sheep-in-wolves-clothing airframes are extremely popular today, but the TAMEcat had beaten them by more than 10 years.

Second, after visiting several of my favorite hobby shops, I realized none were carrying or even knew much about the TAMEcat Trainer 40 ARF. They were stocking other trainer ARF's but were missing the opportunity to offer their customers an extremely low cost — less than \$120 retail — high quality, full-margin, jet-like model.

Third, I was impressed with the job that TWM did on this ARF. There is extensive prefabrication, and this is one of the easiest to assemble ARF trainers that *Sport Aviator* has ever reviewed. The airplane is extremely light, and it



Factory-built airframe components and extensive prefabrication ensure perfect alignment and the easiest possible assembly.



Specifications

- Wingspan: 69 inches
- Area: 831 square inches
- Length: 50 inches
- Weight: 5.6 pounds
- Power: .40-.50 two-stroke glow, or .46-.70 four-stroke
- RC: 4-channels with 5 servos

ARF Features

- Factory-built airframe components
- Factory-applied ToughLon covering
- Factory-painted fiberglass cowl
- Factory-painted deck and canopy
- Complete hardware package
- Pushrods, horns and linkage
- Instruction manual

features interlocking construction for alignment and extra strength, and it flies as easily as pushing a baby carriage.

Finally, this airplane looks really good on the ground or in the air. The ToughLon covering is complete with printed panel lines, hatch outlines and subdued markings. The color scheme is in Ferris Grey, and TWM color decals if the pilot wants to brighten the airframe a bit. TWM even includes two pilot busts and a detachable bomb, which make the airplane look like anything other than the trainer it actually is.



Tail saddle has ample gluing area for solid bond. Installing the stabilizer, then slipping the twin vertical fins into the slots assure perfect alignment with no measuring.

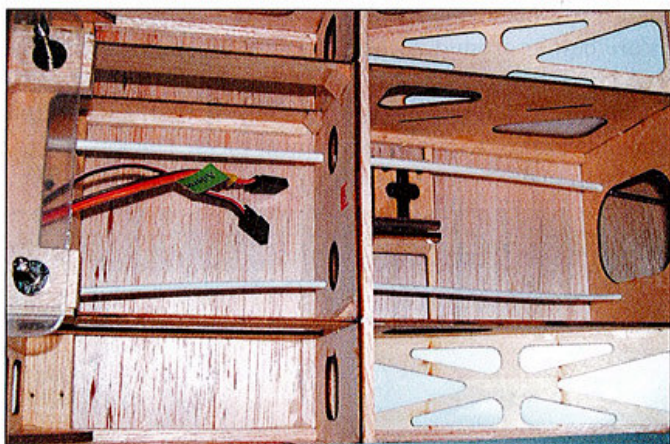
The TAMEcat comes with an extra, transparent cow that makes it easy to fit the factory-painted fiberglass cowl without error. Get the

cylinder head, muffler and needle holes in the correct positions using the clear cowl. Then the clear cowling slides over the factory painted cowling and you can transfer the clearance holes. No mistakes, no ruined cowls and no unhappy customers. This is truly an easy-to-build ARF.

The wing spar fits the wing halves correctly, and a small dowel near the trailing edge of one panel ensures proper alignment; it just isn't possible to induce wing warping during assembly. Both aileron servo mounts are installed, and TWM even marks the openings with a red dot so the builder knows where to cut the covering. Both areas have string to pull the servo leads through the wing.

If the ailerons are to be Y-harnessed, servo extensions are not necessary. However, two 6-inch extensions are required if pilots elect to use flaperons. The TAMEcat 40 does not need flaperons to be a good trainer, but they can expand the TAMEcat's upper-end performance envelope while making the already slow landings even slower.

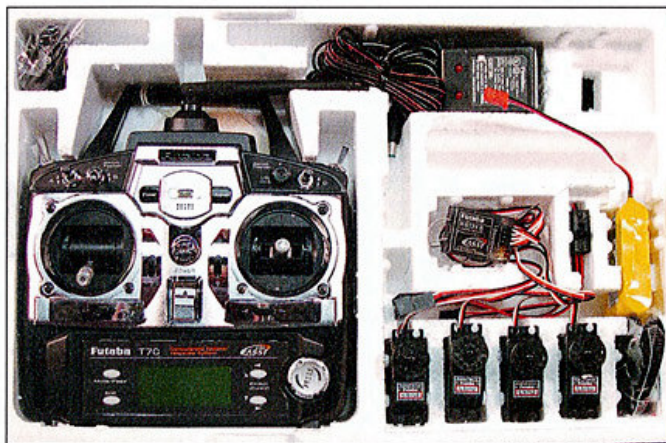
My TAMEcat 40 took 6 hours to complete. The extra prefabrication saved time and ensured that everything was straight and properly aligned. A complete novice will have no assembly difficulties. The instruction manual resolves any questions, although a little more text in the instructions would be a good thing for first-time builders.



Cavernous wing saddle area demonstrates the quality construction, and that even though the F-14 airframe is large, it's mostly filled with air instead of wood parts, so is very lightly loaded.

Jeff Troy's F-14 TAMEcat Trainer 40 ARF just may be the easiest-to-build-straight trainer available. TWM's enormous prefabrication transforms this ARF almost into an RTF airplane. The covering has already been removed over the stabilizer and vertical fin mounting areas. The fins slip into slots in the stabilizer and fuselage to ensure alignment and add strength, while the large gluing area assures that the stabilizer is parallel to the wing.

Control rods are factory formed and fit perfectly. Every control surface has the holes already drilled for the control horns, and all are in the correct position. It took me roughly an hour to install and hook up the tail feathers using 12-minute epoxy. The engine mounting holes are already drilled in the firewall and the mount is adjustable, so engine installation is also quick and easy. The builder still must drill the holes in the mount for the engine.



Frank Granelli guides his F-14 TAMEcat with the new Futaba 2.4GHz 7C RC system, also reviewed in this issue of HM.

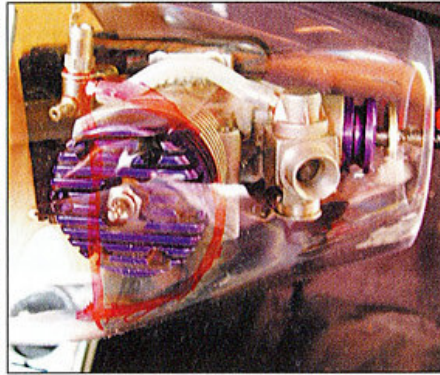
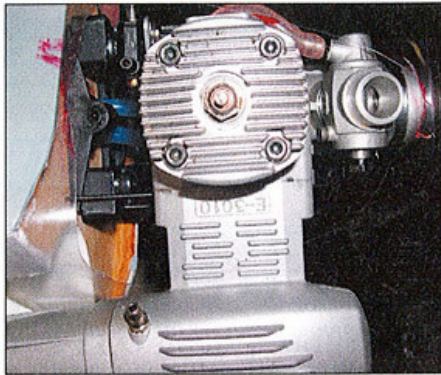
This is the easiest-to-correctly build ARF trainer I have worked on so far as editor of AMA's online magazine for beginners, and there have been a lot of trainers through this office. Also, being an ARF and not an RTF, means that the new pilot gets to pick a more advanced radio system and select from a wider engine choice.

My TAMEcat weighs 5.4 pounds, so the 831-square-inch wing is loaded to only 15 ounces per square foot.

After 27 flights, I'm happy to report that the F-14 is a very good trainer.

The ground roll requires no correction, and climbout is straight. The twin vertical fins and generous fuselage side area reduce torque effect to practically zero, so only the slightest amount of right rudder makes a dead-straight climbout. The best cruise speed for training is at approximately 38 M.P.H.

The TAMEcat is stable, predictable and very honest. It loses less altitude in a turn than most conventional trainers because of its exceptionally light wing loading, and another improvement over conventional trainers is the TAMEcat's ability to resist ballooning while rolling out of a descending turn. Students will find constant altitude turns easier to learn on a TAMEcat.



Two different engines are shown here. The left image is the engine mounted on the included composite mount. The right-hand image shows the transparent dummy cowling being fitted as a template for the cylinder, muffler and needle valve cutouts.

Pushing the TAMEcat past the trainer stage is just plain fun. Inside and outside loops are tight, climb is quick and rolls are steady. Inverted performance, including reverse outside loops, is very good. Landing approaches are best at around 25 M.P.H., with touchdowns at 20.

Jeff Troy's F-14 TAMEcat Trainer 40 ARF is a primary trainer that's up there with the very best, and its jet-like appearance wows potential new fliers. The low price and high quality make it hard for a newbie to resist. **HM**

TAMEcat slow flight and stalls border on the ridiculous. Stalling means that airspeed must drop below 10 M.P.H, and even then, all that happens is the airplane remains nose up while sinking at around 500 feet per minute. The only way to get a stall break is to get the nose up about 70 degrees and suddenly apply full up. If held in a deep stall after forcing the stall break, the airplane just resumes its usual nose-high attitude and a slow, wing-level, descent. The TAMEcat's twin rudders are small, but there are two of them, and they are very effective. This airplane is a good tool to teach rudder. Its long nose makes adverse yaw very easy to spot while quickly revealing how well the student's rudder corrections are working.



Settling in for another smooth landing, Jeff Troy's F-14 TAMEcat Trainer 40 clearly demonstrates its slow and gentle flight characteristics.