

Before and after. Long time popular favorite in rear, a stock Top Flite Tauri. Taurisimo conversion in foreground.

A New Look For An Old Favorite.....

TAURISIMO

MODIFYING THE TOP FLITE TAURI KIT

BY GEORGE G. HAHN

Ever go down to the field and see a real sharp looking bomb that makes you wish you had one like it?

Trouble is, it's usually a scratch- built, 72" span, gas guzzler, that does 90 mph on half throttle. You're a kit builder, though, and are usually afraid to deviate from the plans because it might not fly the way the plans say it will, and you're not a "hot" contest type flyer anyhow.

Now is your chance to catch up; build a Taurisimo. Here is a good stable airplane from a kit available just about anywhere. Top Flites Tauri is only one of many ships anyone can modify and still end up with a ship that performs like it's suppose to; as a matter of fact, this particular modification makes the ship perform far better than the

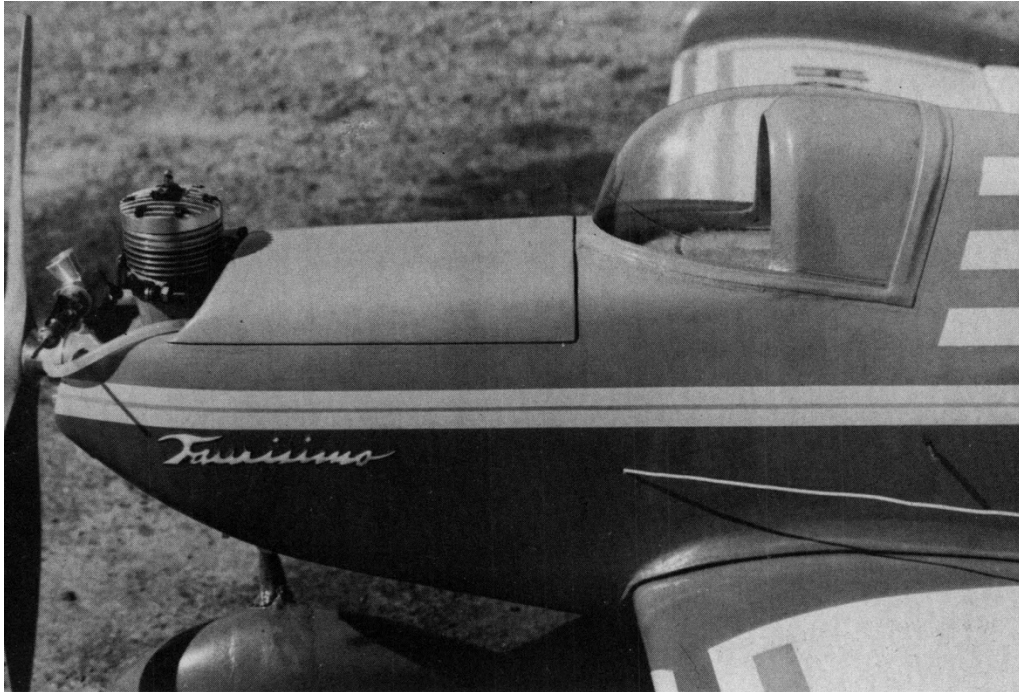
Tauri kit was designed for because the basic design is for the old 6 channel reed, .19-.35 powered class of intermediate flying.

The modifications involved are relatively simple. All we do is drop the shoulder wing to make it a low winger, removing most of the dihedral; put the stabilizer permanently on the top, (instead of rubber banding it to the bottom) and hang a .40 size engine up front; (**Do not** put 0° thrust for the engine, keep the 3° or so as per the plans. No thrust will be almost impossible to handle as the ship loses much of its stability, becoming very sloppy with little response in the turns).

Further stylizing is accomplished by addition of a turtle deck, wing tip tanks, and wheel pants.

The last two you can leave off, but then your finished product looks like your buddies plane, doesn't it? With all the goodies added and an older and heavier Kraft (KP7) system, the plane comes out to 6 lbs. on the nose. Speaking of noses, you may find the plane does not exactly balance where you expected it to; don't worry, mine is so nose heavy I've decided not to try to figure it out. It does not detract from the performance in the least and the glide angle is perfect. With dead stick and proper up-trim you can float around on a calm day for one awful long time before touchdown!

Since flying this modification, I decided that the straight wing was too touchy for very windy weather and it had a tendency to "do a dance."

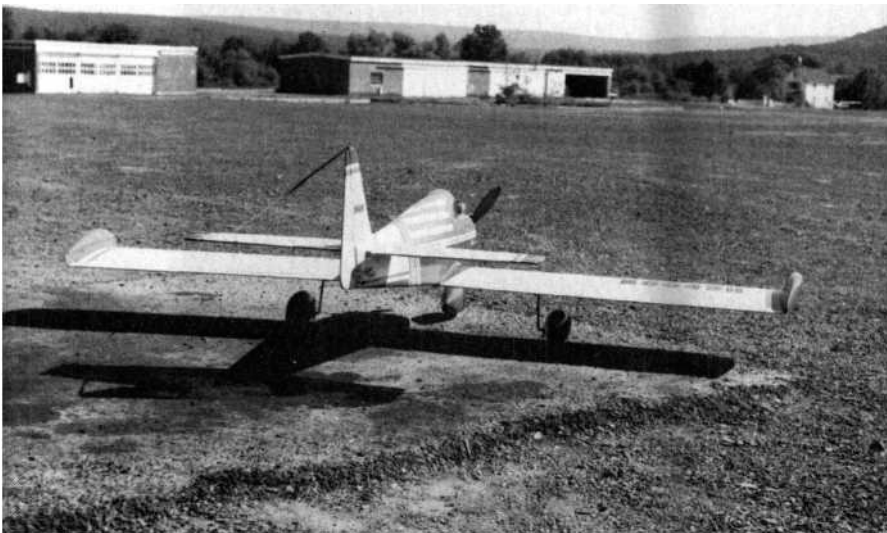


A second wing was built, this one having a 5° sweep with ½ anhedral and tip tanks flowing upward, a la a Cessna 310. This has worked very well, especially in the windy and gusty weather. Might be better, though, to leave off the tips, although inverted flying is excellent.

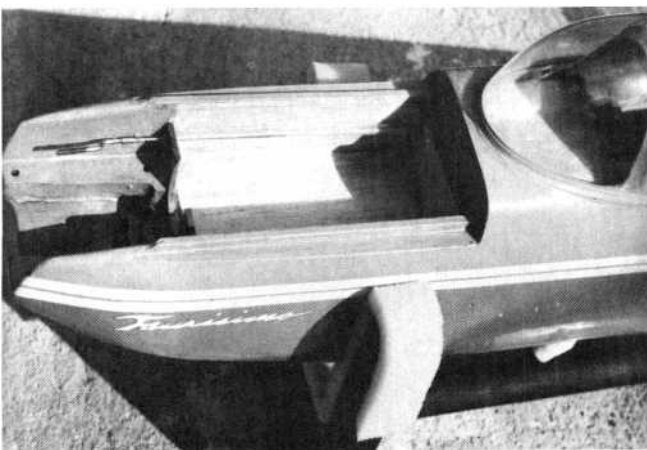
Flying:

A frequent comment on planes that appear as construction articles is that "it doesn't fly like the book says it will." I can assure you that I've seen this a number of times, and I can assure you also this won't be one of those times. This ship handles somewhat like the Chipmunk, very smooth but real peppy with a K & B .40 and a ST .56 muffler. A note on that last point. I have read a dozen articles and hundreds of advertisements that swear that so and so muffler was the quietest and most efficient muffler on the market. Bushwa! I've heard those \$12.95 weights all over and it was rare if it was quiet; power loss, yes; quiet, no! Try the combination listed and you'll see good power and hardly know that your engine is running while in the air.

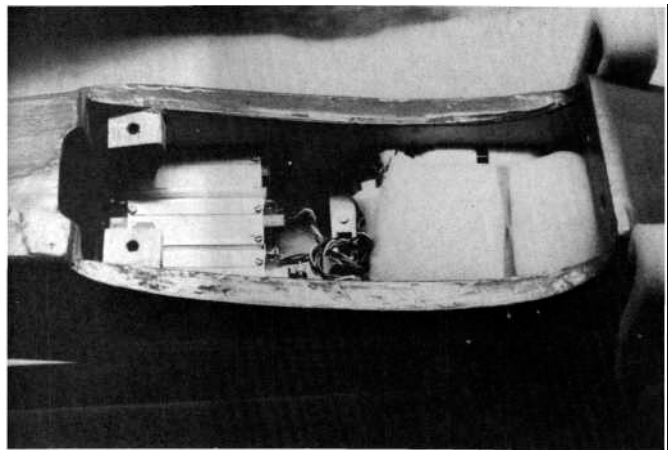
A note on engine size. Since my original flying was with the K & B .40 prior to the Perry carb modification, it was not the best idling engine in the world, so on went an ST .60 which, needless to say, handles everything very nicely. Although this seems like an extreme step, I do not recommend any attempt to fly this ship underpowered, i.e., below a good .40-.50. If you built light, or have lightweight equipment, the smaller size is satisfactory. I prefer the K & B .40 which moves the ship along most speedily with more than adequate power, using a 10-6 Power Prop (a 10-8 gives too much torque with the short moment arm). My current flying is done with a .60 and 11-6 prop and one better be on his toes!



Three-quarter rear view of Taurisimo shows sharp lines. Note wheel pants and tip plates.



Hatch removed showing roomy fuel and engine compartment



The equipment compartment will easily hold any of today's digital proportional equipment

Construction:

Changes to the kits wings are minimal. Most drastic is the removal of all but 5d" dihedral. The outer panel and first two inner panels on each side are fully sheeted (rather than cap stripped and using W10 and W11) after an extra balsa rib is added to W2 and a plywood rib doubler added to W2 and W3 for strength in mounting the maple landing gear blocks. Wing tip tanks were added for scale effect as were the Williams Brothers wheel pants. Strip ailerons are a must and the large linear servos 1 use caused some problem due to space limits, but, as you can see in the photo, the problem was solved. The newer servos with rotary drives will be most convenient.

Side sheeting FI should only be removed after cutting a line along the top through the piece of balsa which was to be a wing saddle. The wing saddle, instead, is cut out of the bottom as shown. Mark the insides of FI for placement of the motor mounts, 1/32" plywood doubler, FI2, and rear braces only. The motor mount is to be 1/4" below the centerline when mounting your engine on 1/4" aluminum. Disregard balsa doublers F3 to F7 and, instead, cut a 1/32" plywood doubler as shown. This should extend from the rear of F12 to behind F1V in one piece. After the 1/32" ply doublers are glued to FI, add the 1/16" ply wing saddle doubler, triangular longerons, F8, and rear block. The 1/32" ply doubler should be marked for F16 and F17, which are added to one side as shown on the original plan, (these formers are notched for clearance of the maple motor mounts and the triangular longerons as needed). Combine the two halves, add bottom sheeting, shaped top block (lighten by cutting out center area), and shaped nose block. Shaped turtle deck "A" and the area for the cockpit is formed as desired. I originally had laid the Tauri canopy on the top block and built the turtle deck to fit around it. Then by using Epoxy lite around the canopy frontal area, an exterior shape was formed. This was not too pleasing to the eye, so the Tauri canopy was squeezed out leaving a cockpit tracing and a large 12" Zeus type canopy was cut and fitted around the already formed turtle deck. The easiest turtle deck is probably made by cutting two formers which are glued to the top of the deck followed by 1/4" sheeting added to each side. The latter is flattened out and top sheeting of the same size added. Trim and shape as desired.

The hatch and nose sections are relatively simple, but extremely sturdy and 'pop-up proof.' After gluing the 1/2" x 5/8" x 7-3/8" block to inside of FI above the motor mounts, add another block 1/2"x1/2"x 7-3/8". A 1/8" sq. strip is now added, as shown along the inside of the block, forming a "U" section for effectively sealing the gas tank compartment. After this dries, **tack** a 3/16" x 3/8" x 7" strip to the outside of this strip and glue the hatch block to the top of it. Be careful here that too much glue isn't used or it will catch to the permanent part of the fuselage and the hatch will not lift off when ready. Don't forget the bottom of the gas tank and bottom block addition which will make up the battery compartment. Sanding can now be done; narrow and shape in the nose area a good deal to get away from the basic kits very blunt appearance.

All kit rudder and elevator wood is used and the elevator is placed as shown by cutting out a section of the top block. A small amount of positive incidence is retained and the area filleted with Epoxy lite (as is the wing saddle) after gluing the rudder and elevator permanently to the fuselage.

Paint in your favorite color scheme or use a MonoKote type covering if you're a "modern" builder.

Good flying.