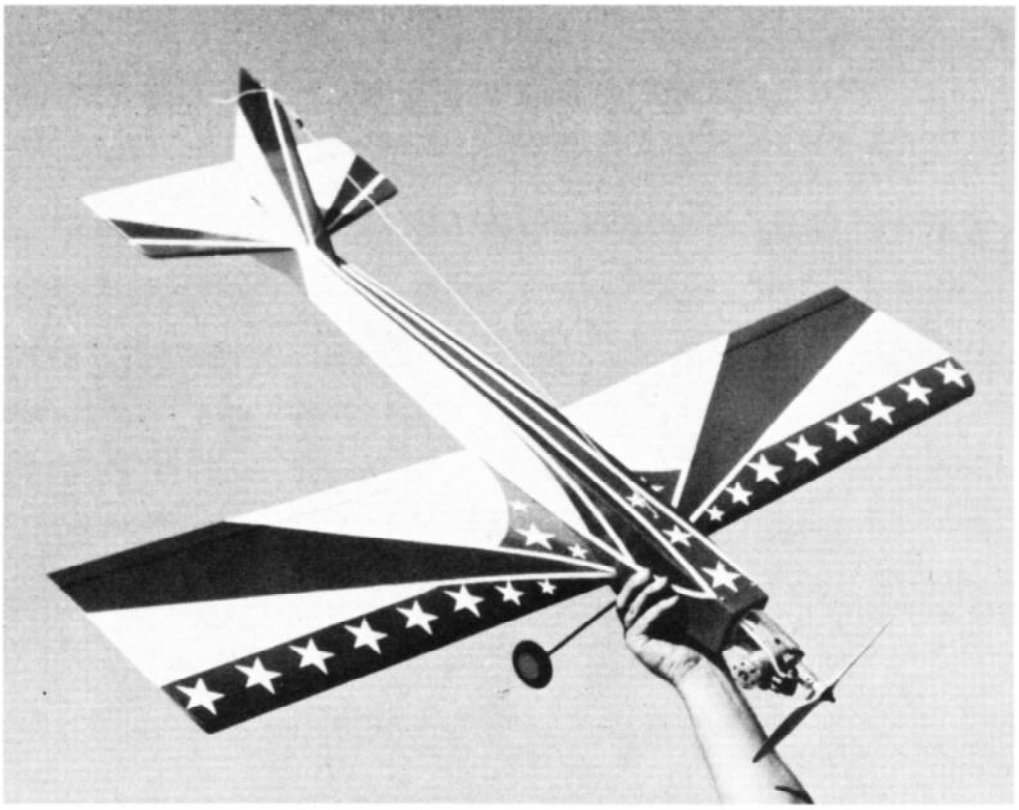
QUICKY 500



CLUB PYLON RACER:

ONE-DESIGN PYLON RACER
FOR BEGINNERS AT RACING OR TO TEST
ONLY THE FLYING SKILLS OF THE EXPERTS.
A FINE SPORT FLYER TOO, BUILDS QUICK,
FLIES LIKE A DREAM.

GLEN SPICKLER

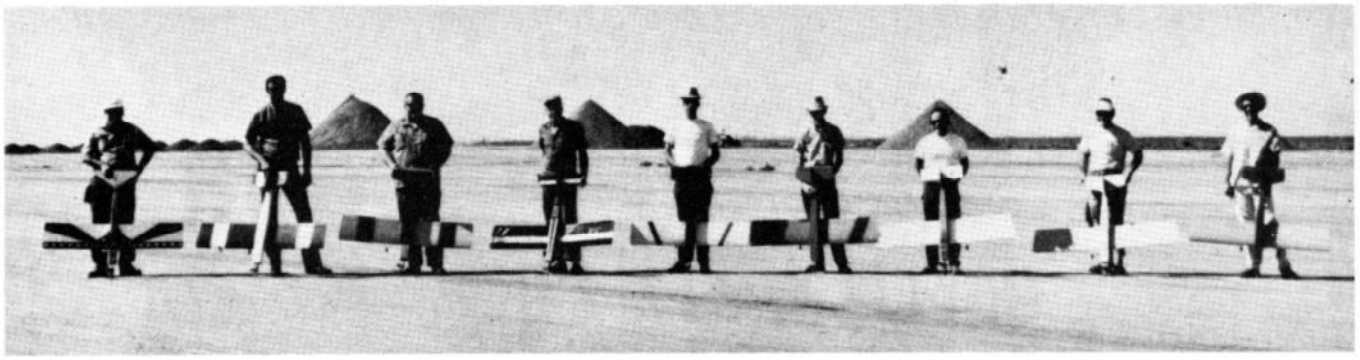
Above: Stars and stripes, would you believe—red, white and blue? Each club can standardize the engine to be used.

The story behind the "Quicky 500" goes back to about a year ago when several members of the B.A.R.K.S. (Bakersfield Aircraft Radio Kontrol Society) approached me to see if I was interested in drawing up a one design club racer. Some of the members were holding impromptu races with their stunt type models. Due to the large variation in speed because of differences in design, they were not proving too much in the way of individual flier's ability. What the fellows wanted was a simple "40 Size" airplane that would be economical to build and easy to fly.

The idea sounded interesting, so out came the drawing board, paper, pencils and a large size eraser. Thus, the "Quicky 500" began to evolve. A model for just one purpose has a limited appeal, so it seemed only sensible that the "Quicky 500" should also be capable of the everyday fun flying that the majority of Radio Control modelers enjoy. The success of this approach has

Four color photo by Fords Photography, Bakersfield, Ca.


KRAFT



Quicky 500 is already a popular craft in Southern California clubs. It replaces some Open Pylon racing activity.

Ready to take off on sport flight holding is Denton Stockton with Ron Neff at the sticks.

been proven by the number of "Quickys" built by non-racing modelers who fly the ship in all types of club contests.

As a club racer, the little airplane has demonstrated it is just what the fellows wanted. It points well on the straightaway and has no tendency to snap roll in the corners.

Originally, any type "40" engine was allowed and racers being racers, rear intake engines, some modified by experts, were used. This lack of limitation on engines offset the advantage of a "one design class" so rules were changed, then changed again. Now our club rules require stock series "71" K&B front intake RC engines and 10% fuel is furnished at the races. With this setup, the models will fly around 100 mph on the straightaway and a good flier can turn the standard AMA Formula One course in close to two minutes. Clarence Neufeld installed one of his old Formula One engines with hot fuel in a "Quicky 500" and turned a 1:43. Not bad for a little square airplane. This was about as fast as he was turning with his Minnows at that time.

The "Quicky 500" has also proven its worth as a trainer for future Formula One pilots. Several of our local fliers have gone onto Formula One racing and what they learned by flying around pylons in club races has been a real asset. You can make a lot of mistakes and recover with a "Quicky," avoiding what would be instant trash with a heavier and faster Formula One racer.

Don't let the fact that the "Quicky 500" was designed for racing dissuade you from building one. It's a rugged, easy to fly model that can do most of the stunt patterns and with an ability to slow down for landings which will surprise you. No matter how slow you fly, the ailerons will show no tendency to reverse or quit working.

I can't say for sure how many "Quicky 500's" have been built. I quit counting after forty. You can be sure that the "Quicky" is a well-proven design, capable of giving many hours of pleasure whether it be club racing or just barnstorming around. I don't consider the "Quicky 500" a trainer, but anyone who has advanced to the aileron stage shouldn't have any problems with it. Give it a try, it's a fun airplane!

Construction

The construction is simple, but still requires some explanation. I prefer to start with the wing. Cut 18 ribs from

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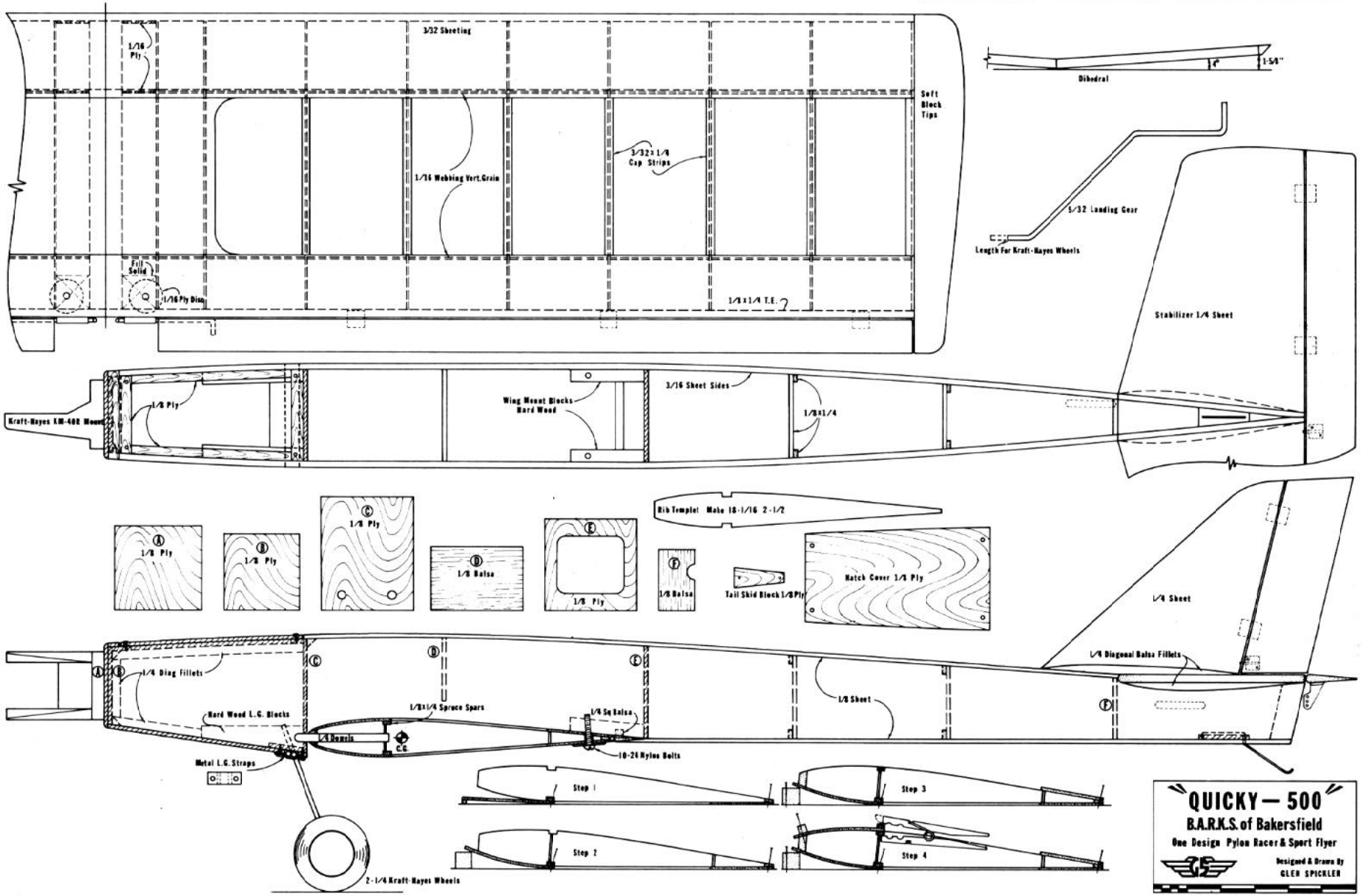
FULL SIZE PLANS AVAILABLE – SEE PAGE 84



QUICKY 500

(Continued from page 38)

1/16 and two from 1/2. This is best done by stacking the wood between two metal templates. Cut bottom trailing edge sheeting to 1-7/8 wide and glue on 1/8 x 1/4 balsa trailing edge. Cut bottom leading edge sheet slightly oversize and glue on 1/8 x 1/4 spruce spar. While these are drying, strip a sheet of soft 1/16 to 2-15/16 wide and cut all webbing (grain vertical). When dry, pin the trailing edge sheet down to a flat board. The board must be flat as any built-in warps are there to stay. Pin rear of leading edge sheet down and block up front 1/8. Now starting with center rib, glue it to rear sheet and front spar only (See Step 1). Cut webs to fit plan and place alternately, i.e. web, rib, web, rib, etc. After the second 1/16 rib is in place, the remaining webbing will all be 2-15/16 long. Be sure that webs are of correct height to fit top spar and top rear sheet. This is a very important joint and contributes a great deal to torsional rigidity. Also note that front webbing is located near front of spar.

Next, as shown in Step 2, block up front of leading edge sheeting to fit ribs and trial fit leading edge. The leading edge is cut from 1/4 medium sheet balsa. If a table saw is available set it at 20° to obtain the correct angle for leading edge. If you do not have access to a saw, then cut and sand leading edge to shape shown on plans. Now remove blocks under leading edge sheeting temporarily and put glue on 1/2 inch rib only, then re-block. It's then a simple matter to glue in leading edge and fillet glue 1/16 ribs to sheeting. Fill in between 1/2 inch ribs and first 1/16 ribs at rear solid with balsa. Install 1/16 ply behind leading edge to support dowels. Then glue in top spruce spar and top trailing edge sheeting (See Step 3). After top spar is dry, use white glue on spar and ribs only, then lay top sheeting on, use 1/8 x 1/4 spruce temporarily at rear of sheet and clamp with clothespins. The tapered end on clothespins must be cut off square. Use regular model cement on leading edge, as it sands easy, and pin down sheeting through a piece of 1/4 square balsa (this helps hold sheeting flat). When this is dry, the wing can be removed from board for adding cap strips and block tips. Now saw or sand correct dihedral angle in center ribs. Glue the two halves together with white glue, sheet center section, sand all over and epoxy a piece of 3" wide fiberglass cloth to the center section. Except for ailerons, the wing is complete. This whole procedure sounds a little complicated but it's fast and easy.

The fuselage is super simple with only a couple of points worth mentioning. Cut sides from medium weight 3/16 balsa and glue on two 1/8 x 1/4 vertical stiffeners towards rear. Glue in formers "C," "D" and "E" with epoxy, making sure everything is square. When dry, install former "B" and glue side together in rear after tapering slightly and install former "F." The top may now be sheeted with 1/8 balsa. Do not install former "A" until all fuselage sheeting, including hatch ring, is complete. It works out best to leave all bottom sheeting off until after stabilizers are attached, servos temporarily installed, control horns located and pushrods completed. Hard 1/4 square balsa pushrods are recommended. Check incidence, if correct, make a long drill out of 1/4 inch brass tubing saw-toothed at one end with a triangular file. Hold wing in place on fuselage and drill holes for dowels in wing using holes in former "C" as a guide. Next drill holes in rear of wing for nylon bolts (use tap drill), add 1/16 plywood discs to wing and re-drill wing with body drill. Install 1/4 dowels in wing, tap hardwood fuselage block and re-install wing on fuselage. If everything fits, you can sheet bottom of fuselage. If possible, use beechwood for all hardwood blocks. It is strong, holds threads well and is resistant to splitting. A little fiberglass cloth around nose, running back on sides and bottom an inch or so, does wonders for keeping the front end together. Be sure to put 1/4 diagonal fillets all around inside of nose section, they help make it rigid.

No radio or servo installation is shown due to the great variety now being used, so this is left up to the builder. The "Quicky 500" was drawn up to use the smaller radios now in use. If you have one of the older sets, you may want to build the fuselage slightly wider, check before starting construction.

I show a long Kraft-Hayes motor mount on plans. Use the long mount even if you plan to fly with a front intake engine—balance you know. I prefer this mount because engine mounting screws never come loose. I also show Kraft-Hayes slim-line wheels as these are streamlined and easy to install.

Try to pick lighter weight wood for building this model. If possible, use extra light quarter sawed wood for the stabilizers. One of the reasons the "Quicky 500" can turn times close to Formula One models is its average weight of 3½ to 4¼ lb. This light weight allows the model to accelerate fast off the line, out of the turns and helps make up for lack of top speed down the straight. Strength is not a problem when using light wood, this little ship is tough. The only exception to the light wood philosophy is the 1 x 1/4 ailerons, which should be hard and stringy.

For covering, take your choice. "Quickys" have been covered with all types of material. The wing is designed with enough strength to allow the use of MonoKote and still not give trouble at racing speeds.

Flying

Before flying, make sure that everything is "zero-zero" with no engine offset. Balance can vary between 1/4 to 1/2 inch behind main spar. It is best to start with the 1/4 inch position. If the model tends to drop its nose in the turns, move the CG back a little or forward a little if it tends to balloon in the turns. Properly trimmed, the "Quicky 500" will fly through the turns flat without the need of any rudder control. As an added feature, in the event of aileron servo failure, the "Quicky" will perform almost as well with the rudder.

The "Quicky 500" is at its best when built as a club project. Try to get some of your friends to build them too. Then have a ball play racing or just have fun tearing up the sky!