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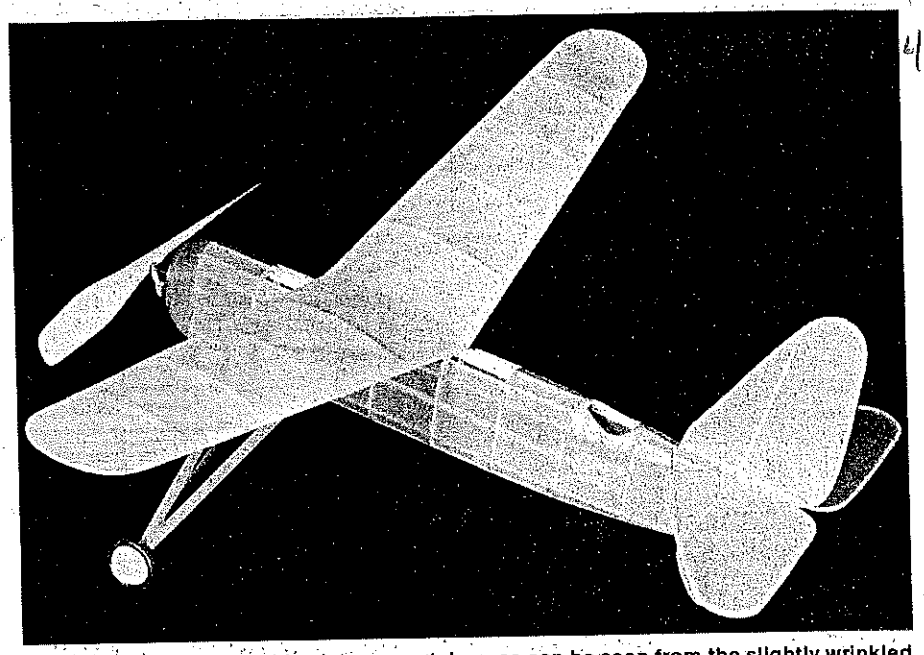
Yesteryear's rubber-powered FF planes fly just as well today as they did back then—perhaps better with today's quality rubber. Here's one from a famous designer that's a good bit different from the norm.

■John R. Walker



It was a bit humid when this picture was taken, as can be seen from the slightly wrinkled tissue on the wing. Heat from the photo lights eventually tightened the tissue, and a thinned coat of Sig Lite Coat was applied. If some other kind of dope is used, be sure to add a plasticizer to prevent excessive shrinkage of the tissue covering as the dope dries.

The models in the book start with the most simple one called the Junior Flyer and progress to a 6-ft. compressed-air-powered model that weighed 7 oz. ready to fly.

After building a few of these models to keep my grandson busy and happy, I felt some of the models were too good to be kept in limbo. Consequently, we offer one here called the Sky Pursuit.

Joe Ott's

SKY PURSUIT

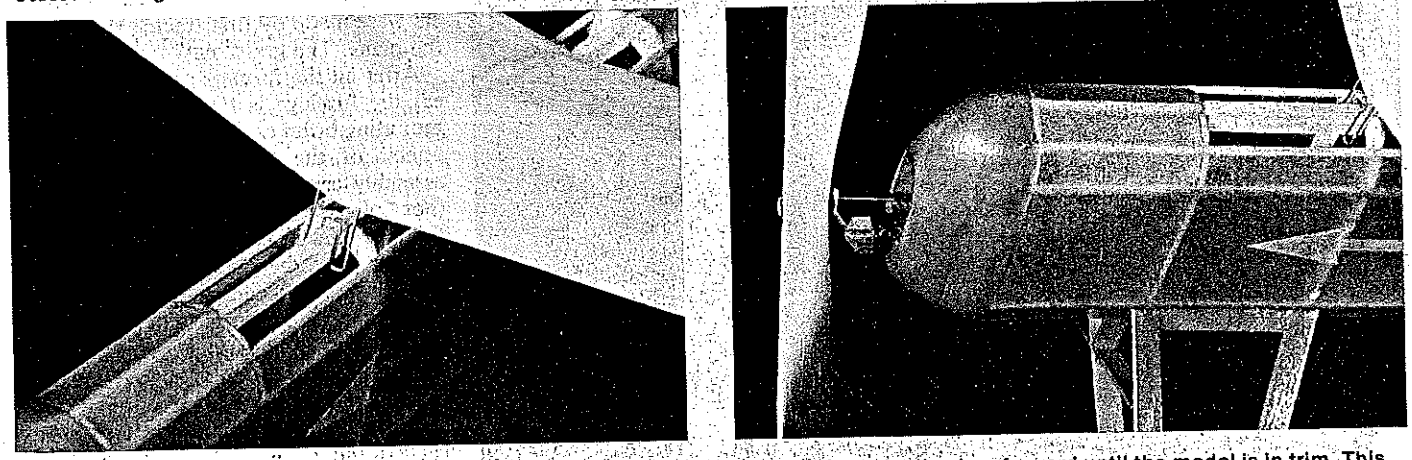
Building the model. Construction varies slightly from contemporary practices. With this in mind it would be to your advantage to carefuly study the plans before starting.

You will note that the wing is held on by wire clips fastened to a beam that runs fore and aft on the top of the fuselage. The wing can be moved for flight adjustments.

Also, while the nose is removable, the propeller (hand carved, of course) is mounted on a thrust bearing that is also mounted to a short length of motor stick cemented in the nose block.

Wing tips and tail surfaces were originally formed from bamboo, and plywood was used for the landing gear. You might want to substitute laminated wood for the wing tips and tail outline. We used ⅛ basswood (Midwest) soaked in ammonia water. It works well and is easier to glue than bamboo. For some reason, the cyanoacrylates don't work too well on bamboo.

Fuselage. The first seven formers are identical. To make cutting them easier and assure uniformity, we made one former of



Left: No need to add unsightly chunks of clay to balance this model. Just move the wing back or forward until the model is in trim. This technique was typical of models in the early Thirties. Right: A motor stick with dural thrust bearing was used on most fuselage models of the era (to protect against an "exploding" motor); however, the Sky Pursuit uses only a small section of balsa cemented in the nose block in order to save precious weight. The thrust bearing was made by flattening a nail and drilling a hole for the prop shaft, then bending it to shape. Brass tubing could also be used to make a very satisfactory thrust bearing. All photographs by the author.

Top: This is a classic Joe Ott design—simple to construct and a great flier. The author notes that a plastic prop might give better performance, but to him it just wouldn't look right. Above: The author's grandson, Matthew Walker, with the Sky Pursuit. Matthew has developed quite an arm for HL Gliders, and he can launch an ROG model with the best of them.

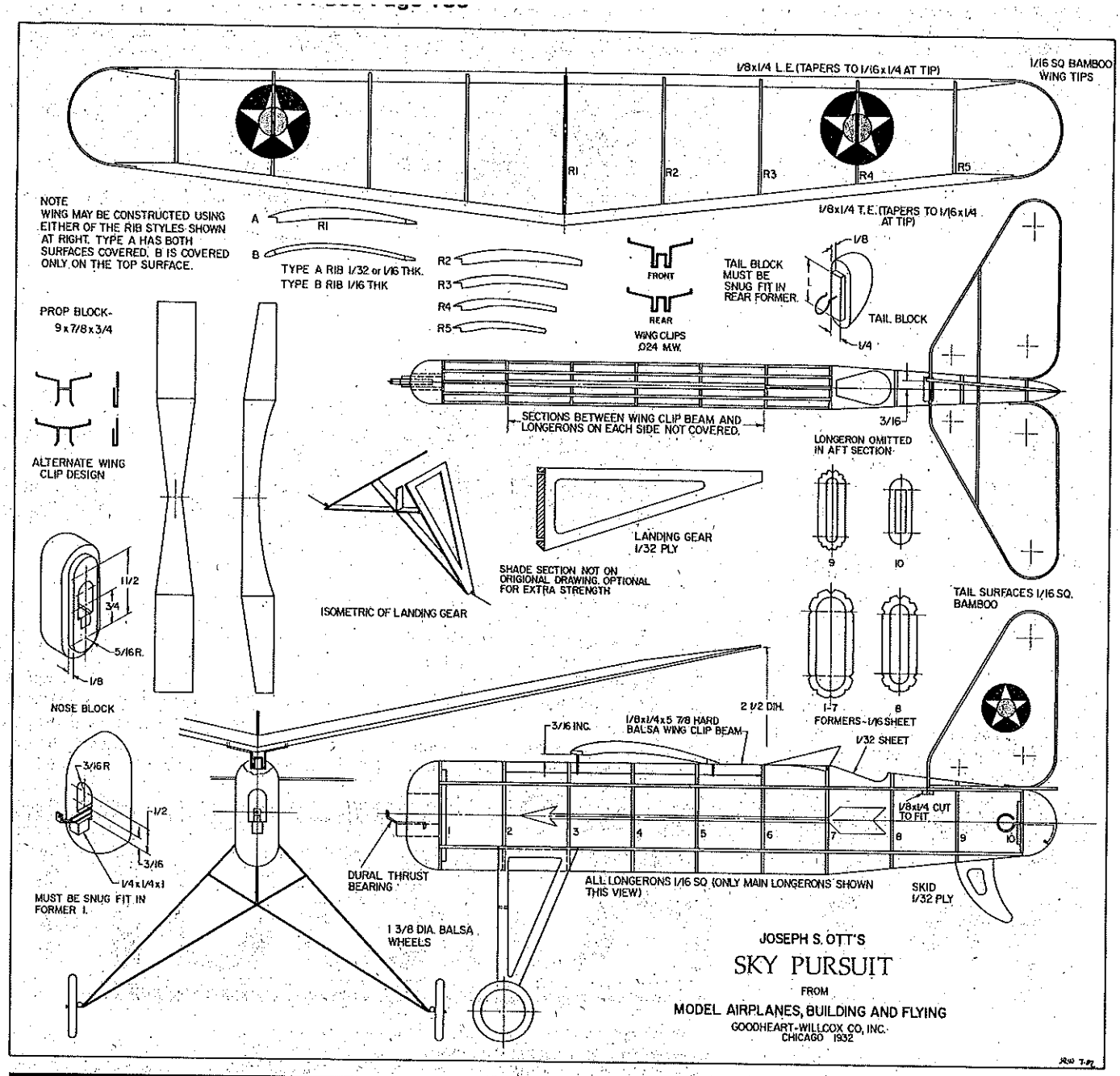
JOSEPH S. OTT, better known to the model aircraft building fraternity as Joe Ott, was a prolific designer and builder of model aircraft in the 20s, 30s, and 40s. Many of his designs were published. Now in his 80s, Mr. Ott still has his hand in the hobby.

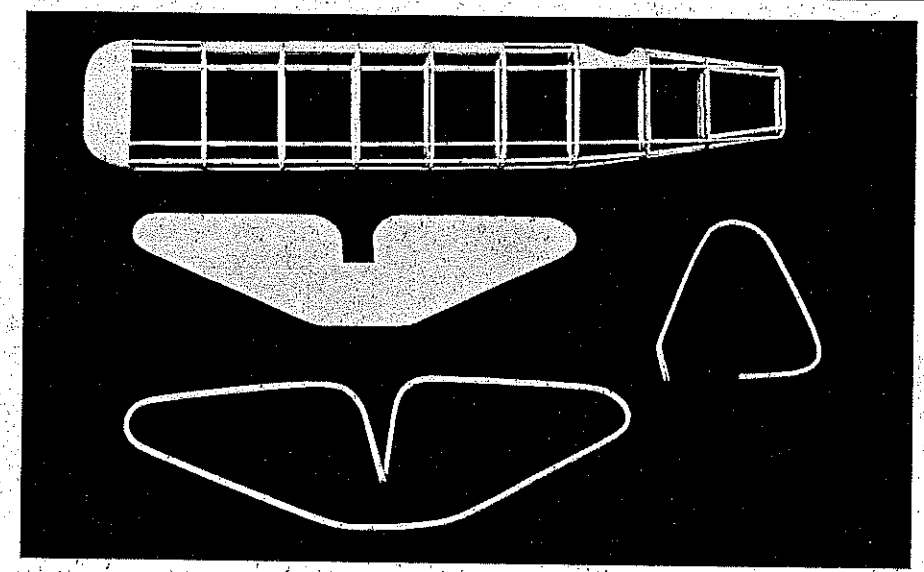
The models he designed and built ranged from very small to those that would be considered large even by today's standards.

Not too long ago, Bill Hannan authored a series of articles on model aircraft publications in *Model Aviation*. One listed was a book by Mr. Ott published in 1932 by Goodheart-Willcox Co., Inc., of Chicago called *Model Aircraft, Building and Flying*.

Goodheart-Willcox is still in business publishing textbooks for home economics and industrial education. As I have been writing for them for quite a few years, I thought the next time I called on business I'd ask if they still had a file copy of the Ott book (it cost $2.50 when published). They did, and I borrowed it. No, don't write G-W. They only had the single file copy, and it's not for sale. If you want one, you'll have to look at flea markets and old book stores for it.

The book covers model building from A to Z. It even includes a section on making containers to transport models. You should see the one for twin pushers. During prohibition time, a modeler going to fly and carrying the box must have raised many eyebrows among the police.





The original specifications called for the tail sections and wing tips to be made of bamboo strips. If you have ever tried to bend uniform curves in bamboo, you will know that it is much easier to laminate 1/32 basswood around a cardboard form. Apply either white glue or cyanoacrylate adhesive to make the shape permanent (don't forget to wax the form first).

plywood and used that as a master pattern to cut the remaining six. The ply former was used at the nose. The remaining formers were made by first tracing them from the plans. The grain must run vertically.

After all the formers are cut and sanded, the fuselage is fabricated. The wing mounting beam can be used as the "backbone" of the fuselage, and the entire assembly can then be built "in the air" (not on the plans). Alternately, the fuselage can be constructed in the usual manner over the plans; in this case the wing mounting beam is fitted into place after assembly is completed.

The top and bottom stringers come together at a single point in the rear. Note that the stringers and longerons mount on edge rather than into square slots cut into each former.

Cover the cockpit section with 1/32 balsa, and then cut the cockpit outline.

The nose and tail plugs are carved from

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Sky Pursuit/Walker

Continued from page 100

balsa and carefully fitted to the fuselage. They should fit snug enough so they will not fall out when the rubber unwinds.

The landing gear is assembled and cemented in place. After a thorough sanding to remove cement bumps and fuzzies, cover the body with a good grade of Japanese tissue. The best tissue costs only a bit more. Water-shrink the tissue, and apply two coats of thin plasticized clear dope. Sand lightly between coats.

The nose and tail plugs, landing gear and tail skid can be finished with colored dope.

The wing is built in the usual manner. Two types of construction are shown. Do not water-shrink the tissue nor apply dope to the wing covering.

You can make the tips of bamboo, laminated balsa, or basswood.

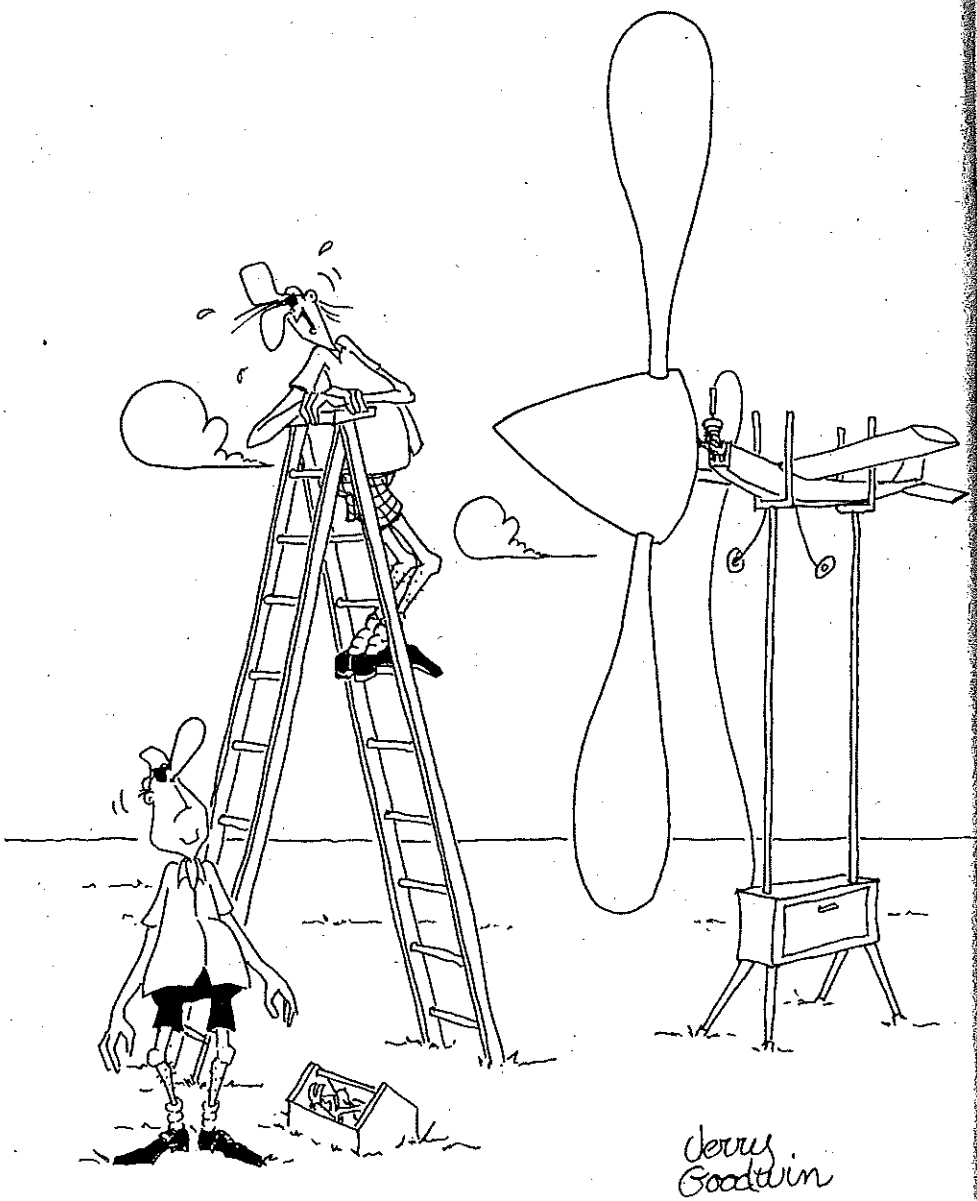
Tail Surfaces. First, make a cardboard outline of the rudder and elevator. Wax the template edges to prevent the wood from sticking. We used a wax crayon.

Strips of 1/16 x 1/32 bass were cut using a straightedge. They were dipped in a bottle of household ammonia (the type without soap) to make them more pliable, and then they were formed around the templates. When *thoroughly dry,* cement the strips together using Hot Stuff, Zap, etc.

Trim the excess wood, and then cement the units to the fuselage. *Note the rudder offset.*

The tail surfaces are covered on one side only. Do not water-shrink or dope the tissue.

If you have trouble with wrinkled tissue, glue the tissue to a frame large enough to cover both tail units. Cover the frame with tissue, water-shrink it, and apply two coats of thinned clear dope. Now, cover the tail surfaces with this taut, doped tissue. Be sure the doped side will be up when the elevator is on the fuselage



Hey, mind handing me the chicken stick?

and facing away from the framework on the rudder.

The landing gear is made from 1/32 plywood. It is very strong when fitted together properly.

The axles have a small loop bent into the wire to absorb landing shocks. Balsa wheels with a short section of aluminum tubing as a bearing—or Williams Bros. plastic wheels—may be used.

Propeller. A plastic one may be used. However, the balsa prop shown on the plans was designed for the model. Take your choice. No free-wheeling device was installed on the original. You may want to use one, although the stalled prop acts sort of like a dethermalizer and makes it fine for small-field flying.

Decorating. The original 1932 model used stick-on designs. Our model was covered with red (fuselage and rudder) and yellow (wing and elevator). Use whatever colors appeal to your taste.

The arrow down the side of the fuselage was cut from yellow Chartpak color film, but Trim MonoKote will do just as well. Decals may also be added to the fuselage, but they are not advised for the undoped wing and tail surfaces.

Flying. Four loops of 1/4-in. rubber (well lubricated) were used for motive power. An S-hook was used at the rear plug to make winding easier.

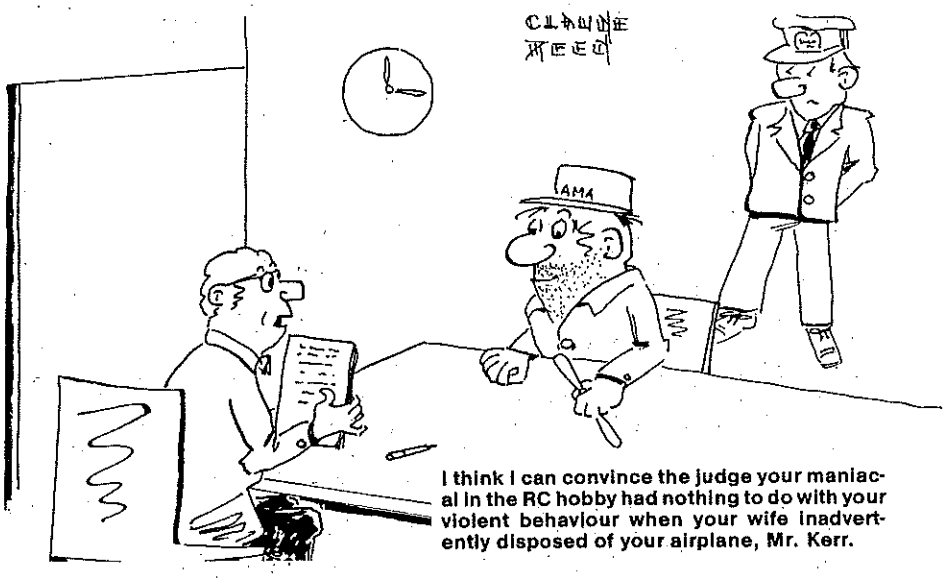
Check your model for warps. Remove any by steaming and twisting opposite the warp.

Mount the wing to the fuselage. Note that the front wing clip is different from the rear clip.

Move the wing along the wing mount beam until the model balances about one-third of the wing chord back from the leading edge at the tip.

Test glide the model over the proverbial "tall grass" everyone talks about (an excuse not to mow the grass for a few weeks?) until a nice glide slope is attained. Move the wing forward if the model dives . . . aft if it stalls. Make thrust adjustments as necessary for powered flights.

When everything it "hunky dory" put 350-400 turns into the rubber with a winder. The Sky Pursuit will ROG (rise off ground) and give flights of a minute or so in the still air of the evening. Put your AMA number, name, address, and phone number on the model. If you plan to fly it when thermals are about, there is a good chance that you will never see it again if you don't.



I think I can convince the judge your maniacal in the RC hobby had nothing to do with your violent behaviour when your wife inadvertently disposed of your airplane, Mr. Kerr.