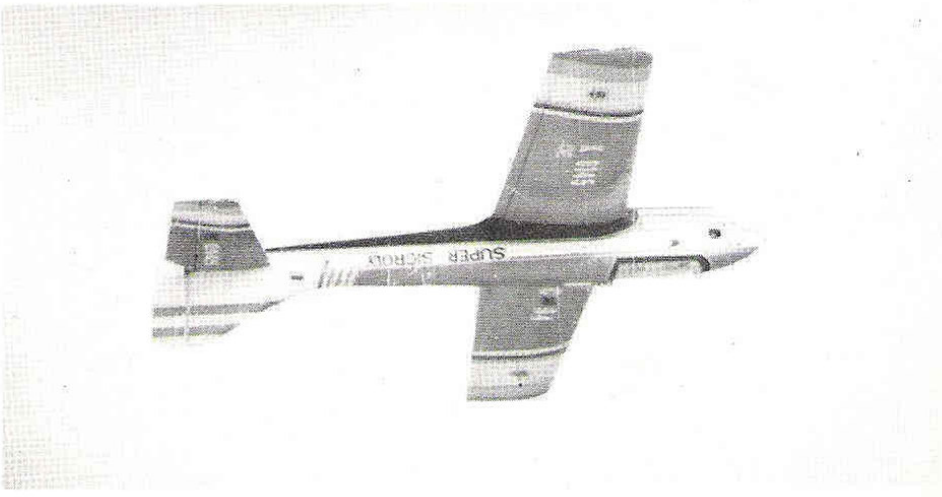
Hanno patiently answers all the questions as to why his machine is capable of its flight; he should add that it's a team effort, pilot-plane-helper.

SUPER SICROLY II

BY HANNO PRETTNER. . .continuing our parade of Champions herewith the famous Austrian Champ's fabulous machine with which he led in each of the four rounds at Gorizia and wound up second in the finals—Super Sicroly II has additional feature of flaps!



Quite a cameraman to get this excellently detailed shot of the Sicroly in inverted flight.

•The Super Sicroly, which took 2nd place in the 1973 World Championships is especially designed for FAI maneuvers. After the good showing of the model at the World Championships in 1971 (4th place), I changed the model in some important details to further improve its flying ability.

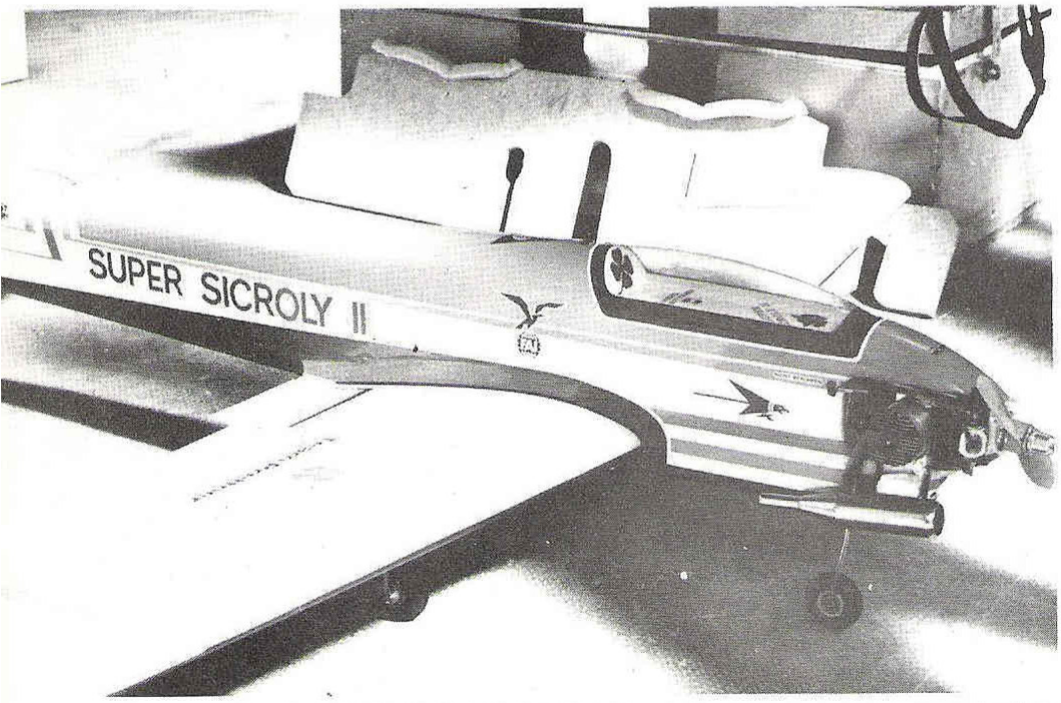
The Super Sicroly II, as presented in this article, is the latest step in my design and after looking back at many international competitions, I can say that the Super Sicroly is the ideal model for the FAI program. Specialties of the model are rolling maneuvers—the slow roll, four point roll, fast continuous rolls—and also, the knife edge flight.

The motor is a very important factor. The design is made for a very powerful engine, however you can use lower power engines for Sport flying. The landings of the model

(Continued on page 28)

Famous Prettner team and Yoshioka current World Champ. Hanno waving, his dad in the center and the Champ—good looking group, planes too!

SUPER SICROLY II . . . CONTINUED



Close-up of front end with side mounted Webra Speed .61 using stack fuel pressure hook-up.

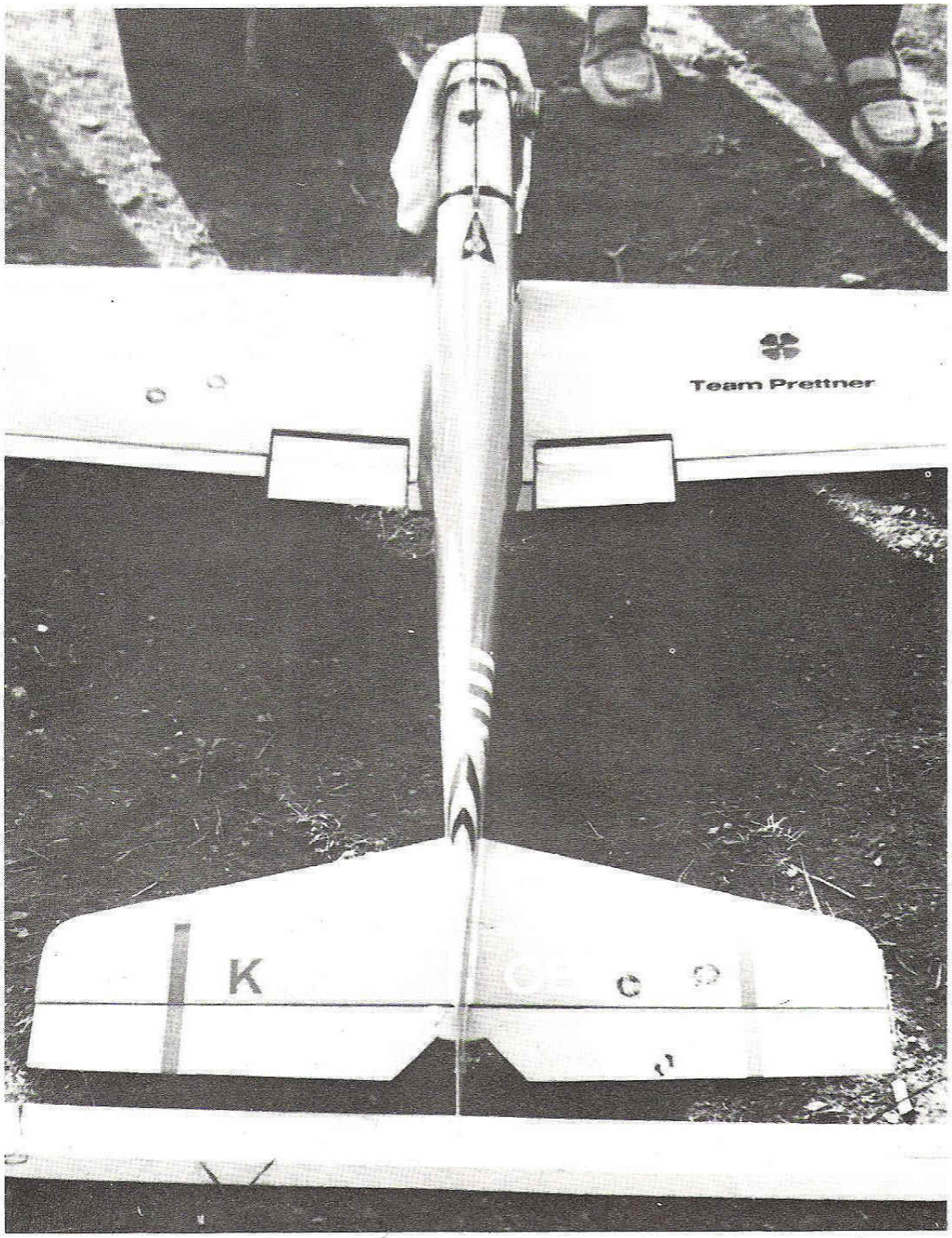
are fantastic. You can make the final approach just before landing with full-up elevator. The model can be landed with the speed of a glider. No need to worry about low speed snap rolls during a stall. The Super Sicroly just puts its nose down and recovers automatically. Yet, I wouldn't say that this airplane is easy to fly for the rank beginner; there are better airplanes that can be utilized by beginners.

Because of the model's ability to be flown very exactly and its ability to fly in cross winds without serious corrections, it is the fear of other contestants.

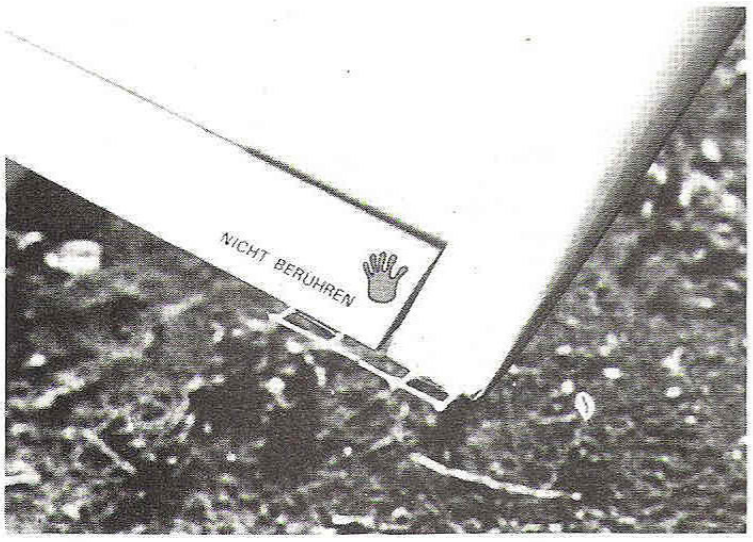
Please build the model with the retractable landing gear. Only with the retracts can one be sure that the full aerodynamic properties can be utilized.

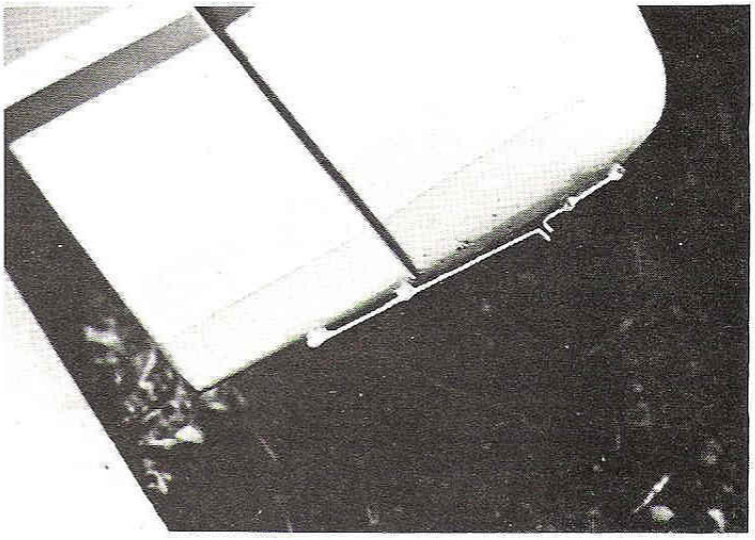
The following instructions are short in that my instructions are given only as tips. Most likely the builder will have his own methods of construction. The plans are laid out so that every modeler who has some building ability and experience can look it over and immediately know how to build it. Do not change any lengths and angles or any measurements. Follow the plans exactly. Don't make anything bigger or stronger. Do

(Continued on page 30)



Rear view of fuselage and wing showing combination dive brakes & flaps which add considerably to performance.





Photos above have interesting close-ups of the Prettner elevator and aileron trim gauges—gauge points must line for correct trim on each.

Take-off on the way—pilot permitted to stand behind aircraft at Gorizia; however most took off from standard side position.

SUPER SICROLY II . . . CONTINUED

it as the plans say.

Be sure that you watch that the sides and fin are aligned properly to the horizontal stabilizer. Each flyer has his own favorite motor, so the construction of the motor mount is variable; also, the same with the retractable landing gear. I am currently using an aluminum motor mount which is directly mounted on the firewall. The aluminum mount allows you to change the thrust line later on. The removable cockpit is very handy. If you want to change or inspect the tank, it can be done very simply.

Keep the clearance between the rudder and elevator to a minimum; otherwise you will have created too much turbulence. Use the exact elevator airfoil. I have used all the different types known. The elevator shown has given me the best results.

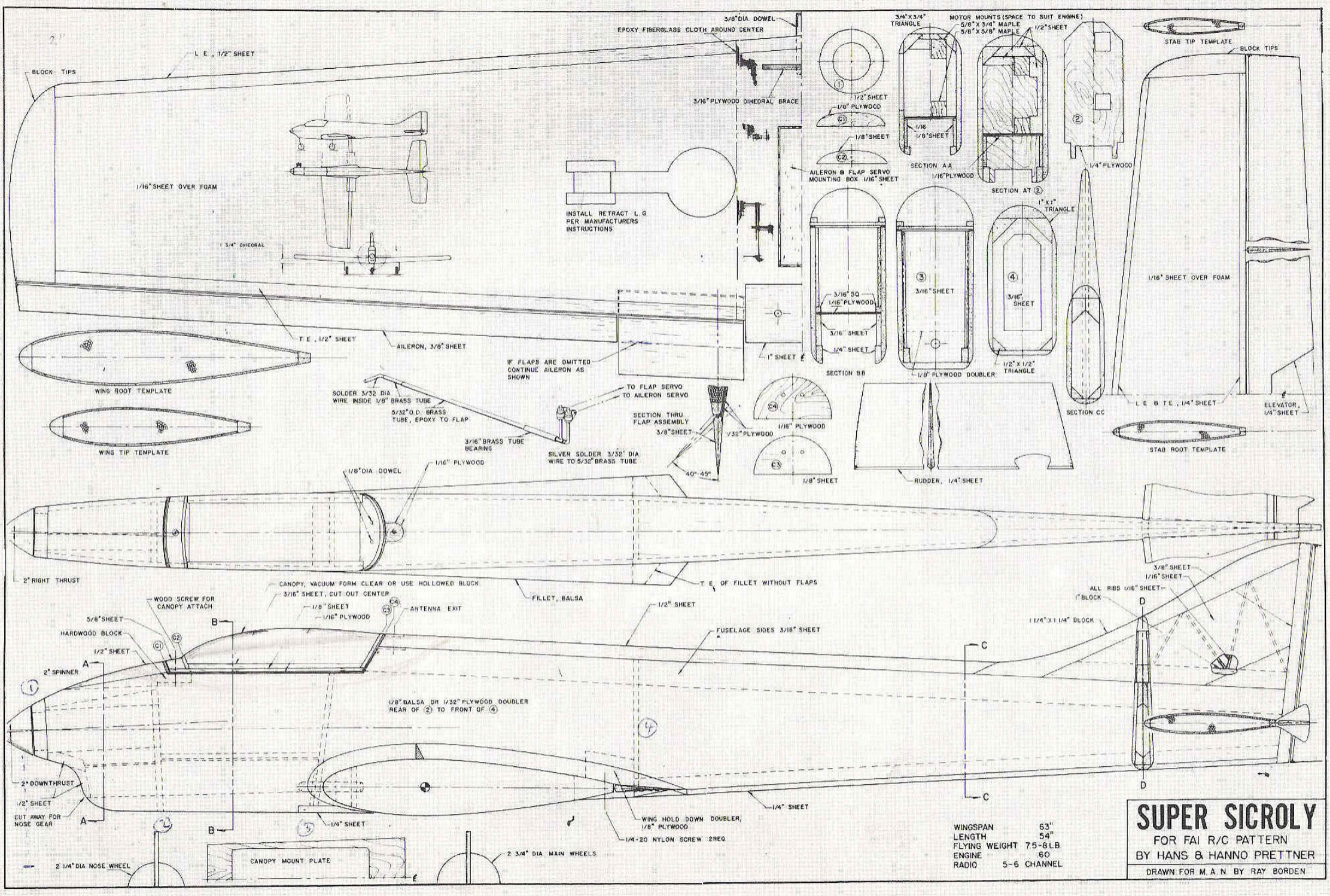
The fuselage should be covered with silkspan, thereby greatly increasing its strength. I prefer to cover the wing and stabilizer with plastic film material such as MonoKote or Solarfilm. It is helpful to cover the top and bottom surfaces with different colors such as dark and light blue. This will allow one to see the position of the model better during maneuvers.

The center of gravity should be checked with the landing gear retracted and with the fuel tank empty. The nose gear length shall be such that the wing has a slight positive angle of attack while on the ground. With the nose gear length adjusted in this way, very smooth take-offs can be obtained with little elevator control required.

The rudder must be in neutral. If after test flying, it is found that this is not so, then there has been an error in the construction of the model. Adjust the side thrust so that the model exhibits equal spiral stability during left and right turns. If the model flies with a wing low, then add weight to higher wing panel.

The dive brake system is a product of extensive experience. The advantages of the system are that it slows down the landing approach and also uses the flap during flying maneuvers. Elevator trim need not be changed with the flaps employed. When you use the flaps during low speed flight the Super Sicroly has the same attitude as during normal level flight. I also use the flap in the spin. The flap linkage has to be without any excessive clearance or play. Especially, you have to watch that both flaps move exactly the same; a linear servo works best for the flap linkage.

These are all of my instructions for the model. With a little bit of luck and lots of training, you should have a top model and be sure of successful competitions. ■



SUPER SICROLY

FOR FAI R/C PATTERN

BY HANS & HANNO PRETTNER

DRAWN FOR M.A.N. BY RAY BORDEN

WINGSPAN	63"
LENGTH	54"
FLYING WEIGHT	7.5-8 LB
ENGINE	60
RADIO	5-6 CHANNEL