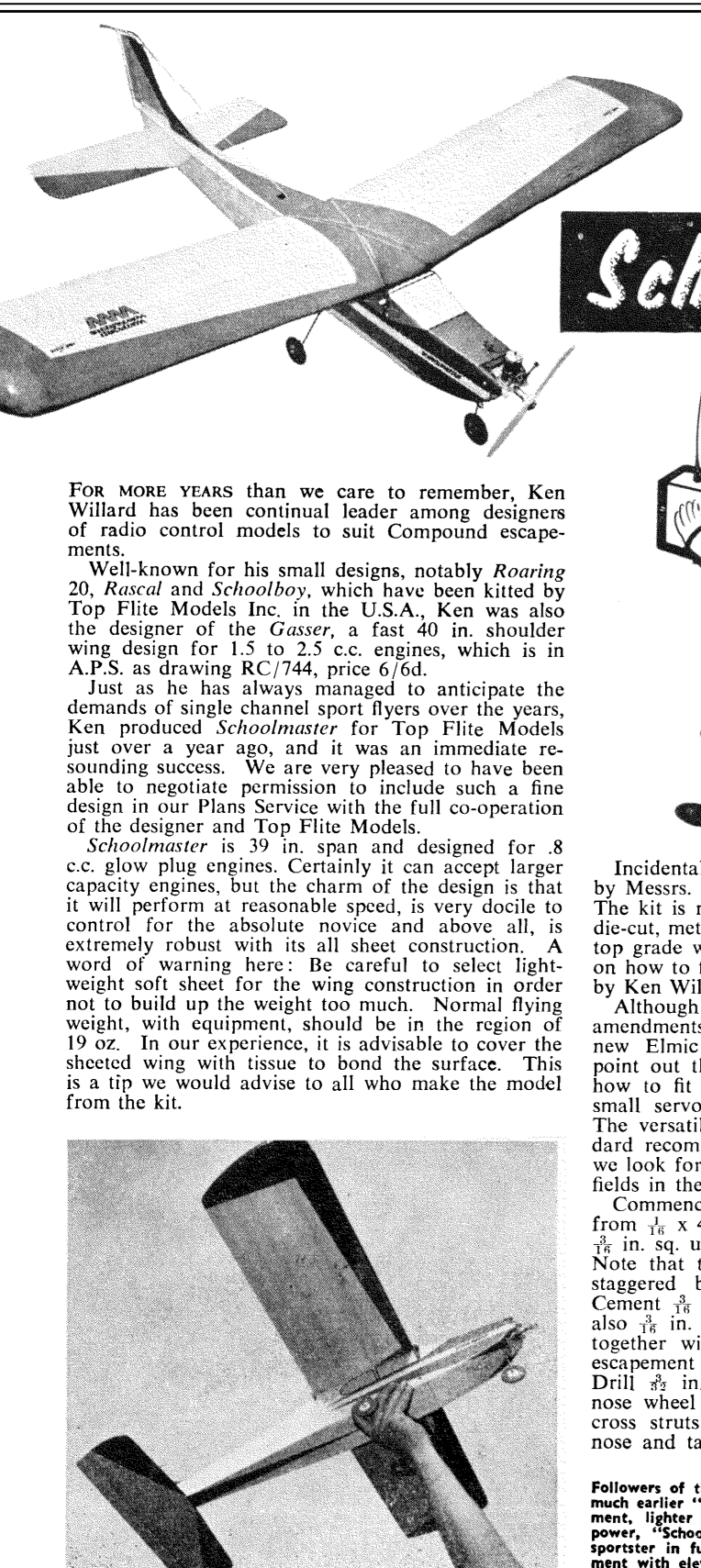


Schoolmaster
 Designed by Ken Willard



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A 39 in. radio control sportster for .8-1.5 c.c. produced with the co-operation of Top Flite Models, Inc.

For more years than we care to remember, Ken Willard has been continual leader among designers of radio control models to mini-Compositional equipment.

Well-known for his small designs, notably drawing 20, *Rascal* and *Schoolmaster*, which have been listed by Top Flite Models Inc. in the U.S.A. Ken was also the designer of the *Guster*, a fast 40 in. shoulder wing design for 1.5 to 2.5 c.c. engines, which is in A.P.S. as drawing RC7744, price \$169.

Just as he has always managed to anticipate the demands of single channel sport flyers over the years, Ken produced *Schoolmaster* for Top Flite Models just over a year ago, and it was an immediate resounding success. We are very pleased to have been able to negotiate permission to include such a fine design in our Plan Service with the full cooperation of the designer and Top Flite Models.

Schoolmaster is 39 in. span and designed for .8 c.c. glow plug engines. Certainly it can accept larger capacity engines, but the charm of the design is that it will perform at reasonable speed, is very docile to control for the absolute novice and, above all, is extremely robust with its all sheet construction, its word of warning here: Be careful to select lightweight soft sheet for the wing construction in order not to build up the weight too much. Normal flying weight with equipment should be in the region of 19 oz. In our experience, it is advisable to cover the sheeted wing with tissue to hard the surface. This is a tip we would advise to all who make the model from the kit.

Incidentally, *Top Flite Models* are now distributed by Messrs. *Magnum* and *Schoolmaster* result as 651.

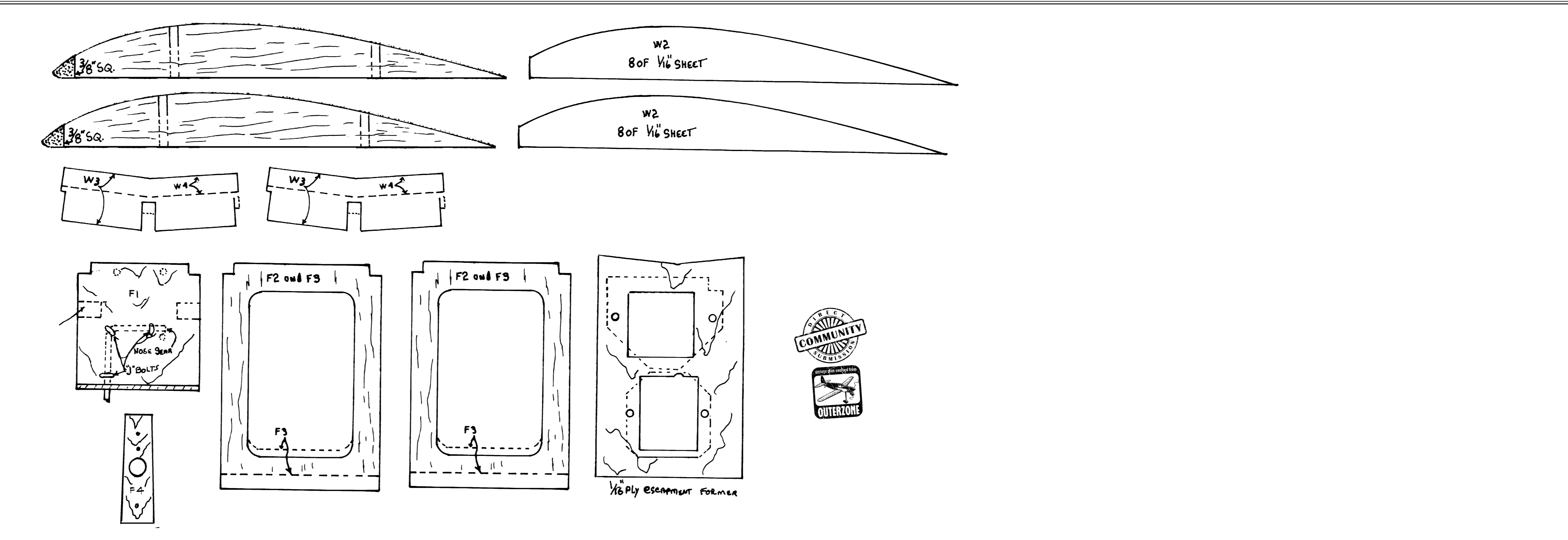
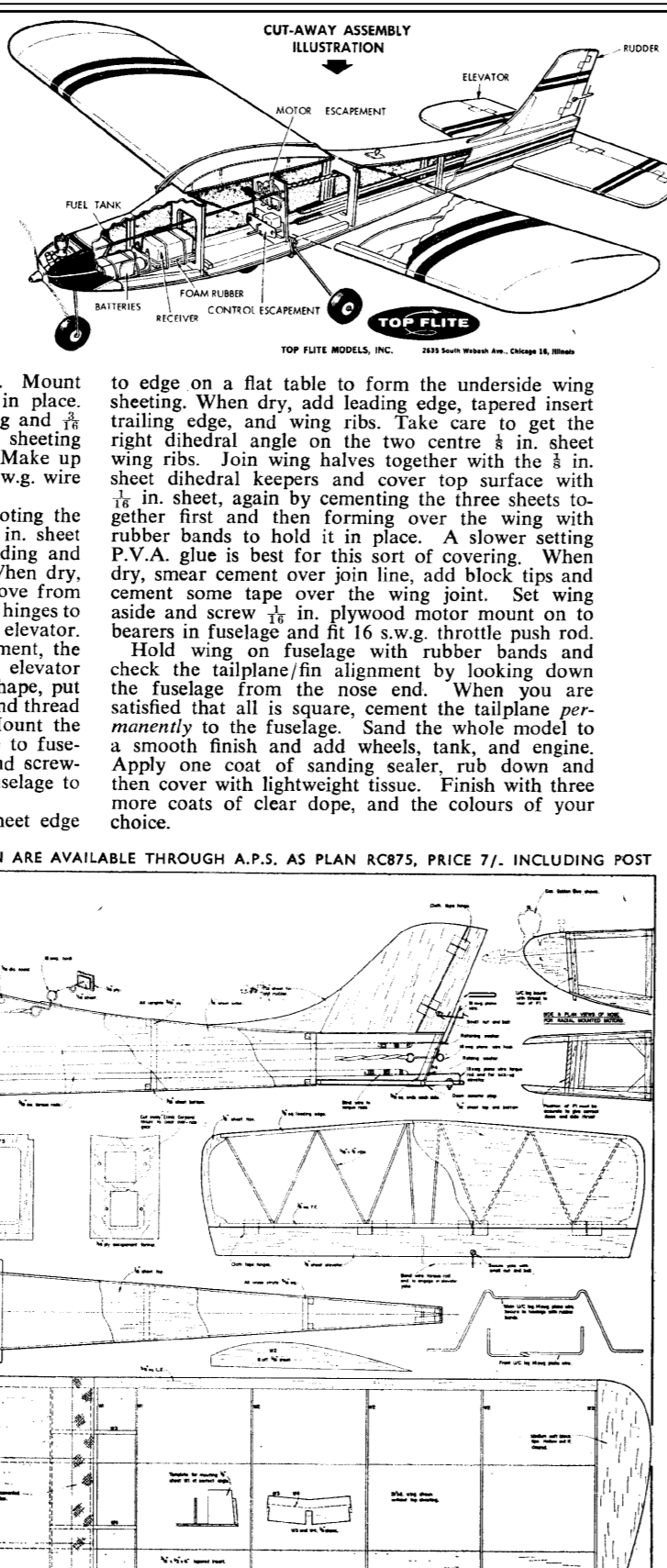
The kit is really first class production, with all parts die-cut, metal and nylon fittings supplied, sheeted top grade wood for the fuselage, and a fine booklet on how to fly radio control models especially written by Ken Willard.

Although we have presented the model with instructions to suit British equipment, notably the new *Elmic Compact* equipment, we should also point out that the kit plan includes information on how to fit four or six channel multi control using novel servos, or alternatively, proportional rudder. The versatility of *Schoolmaster* will make it a standard recommendation for many years to come, and we look forward to seeing a lot of them on the local fields in the coming season.

Commence construction by cutting fuselage sides from 1/4 x 4 in. wide red hard sheet and screwing 1/2 in. sq. upright and 1 x 1/2 in. in. bearers in position. Note that the sub-board from 1/2 in. sq. upright is staggered back to allow for the offset on F1. Cement all sheet between F1, F2 and F3 also 1/2 in. sheet checks. Cement the fuselage sides together with F2 and F3 in place. Put plywood escapement former in position but do not cement in. Drill 1/2 in. dia. holes in F1 for 1/2 bolts to hold nose wheel leg. Cement former F1 and 1/2 in. sq. cross areas into place using rubber bands around nose and tail end of fuselage to hold steady. Bind wires to torque rods and slide into fuselage. Mount and wire escapement, then secure former in place. Add top and bottom 1/2 in. fuselage sheeting and 1/2 in. dia. dowel rods. Leave the 1/2 in. top sheeting behind F1 to fit tank and nose gear later. Make up starting hook for top movement from 1/8 x 1/4 wire and 1/2 in. sheet.

Cement fin together from 1/2 in. sheet, noting the grain direction. Cut tailplane tips from 1/2 in. sheet and pin to a flat surface with 1 in. sq. leading and trailing edges. Cement 1/2 in. dia. pin in hole. When dry, shear center over pin line, add hole, tip and cement some tape over the wing joint. Set wing aside and screw 1/2 in. plywood motor mounts and bearings in fuselage and fit 1/2 x 1/4 throttle push rod. Hold wing on fuselage with rubber bands and check the tailplane/fin alignment by looking down the fuselage from the nose end. When you are satisfied that all is square, cement the tailplane permanently to the fuselage. Sand the whole model to a smooth finish and add wheels, tank, and engine. Apply one coat of sanding sealer, rub down and then cover with lightweight tissue. Finish with three more coats of clear dope, and the colours of your choice.

Cement three sheets of 1/2 in. x 9 in. sheet edge to edge on a flat table to form the underside wing sheeting. When dry, add leading edge tapered sheet trailing edge, and wing ribs. Take care to get the right dihedral angle on the two centre 1/2 in. sheet wing ribs. Join wing halves together with the 1/2 in. sheet dihedral keepers and cover top surface with 1/2 in. sheet, again by cementing the three sheets together first and then forming over the wing with rubber bands to hold it in place. A slower setting P.V.A. glue is best for this sort of covering. When dry, shear center over pin line, add hole, tip and cement some tape over the wing joint. Set wing aside and screw 1/2 in. plywood motor mounts and bearings in fuselage and fit 1/2 x 1/4 throttle push rod. Hold wing on fuselage with rubber bands and check the tailplane/fin alignment by looking down the fuselage from the nose end. When you are satisfied that all is square, cement the tailplane permanently to the fuselage. Sand the whole model to a smooth finish and add wheels, tank, and engine. Apply one coat of sanding sealer, rub down and then cover with lightweight tissue. Finish with three more coats of clear dope, and the colours of your choice.



Plan by Skystone
 Drawn By Jim Johnson 8/2005

