



# ELECTROMASTER

Ken's Electromaster is not designed as a powered glider or a highly aerobatic model. However, he has thermal soared for over a half hour and has done loops, rolls, Split S's, and more. It's just a good sport plane.

**B**ack in the mid-sixties I published a sport model design in RCM called the Schoolmaster. Top Flite Models bought the design and kitted it. Over ten thousand models were bought. Maybe you had one.

It was an easy model to build, and easy to fly. By today's standards it was underpowered; a Cox .049 Medallion with a throttle pulled it gently through the air.

In 1967, at the Toledo show, it was

displayed with a three channel proportional control system marketed by Howard Bonner, called the RS, for Real Small.

As the demand for larger models and engines increased, the sales of 1/2A models declined. Some modelers put a Max .10 in the Schoolmaster, and made it very zippy. I liked the .049 powered job, because I like to fly on the wing, not the engine.

Along came electric power, with the relatively heavy motors and batteries

as compared to glow engines. Also, lighter receivers and servos appeared. The combination of the two made it possible to have very acceptable performance by electric powered models.

What occurred to me was predictable. Why not make a Schoolmaster with electric power? So I did, and it flew very well, but it was readily apparent that with a few modifications it could fly a lot better. Extend the wing, make it a taildragger, enlarge the tail feathers slightly (vertical surface, not

## ELECTROMASTER

Designed By:

Ken Willard

**TYPE AIRCRAFT**

Electric Sport/Trainer

**WINGSPAN**

47 Inches

**WING CHORD**

7½ Inches

**TOTAL WING AREA**

348 Sq. In.

**WING LOCATION**

High Wing

**AIRFOIL**

Flat Bottom

**WING PLANFORM**

Constant Chord

**DIHEDRAL EACH TIP**

1½ Inches

**O.A. FUSELAGE LENGTH**

30 Inches

**RADIO COMPARTMENT SIZE**

(L) 7" x (W) 2½" x (H) 3"

**STABILIZER SPAN**

16 Inches

**STABILIZER CHORD (incl. elev.)**

4½ Inches

**STABILIZER AREA**

72 Sq. In.

**STAB AIRFOIL SECTION**

Flat

**STABILIZER LOCATION**

Bottom of Fuselage

**VERTICAL FIN HEIGHT**

4 Inches

**VERTICAL FIN WIDTH (incl. rud.)**

5¾ Inches (Avg.)

**REC. MOTOR SIZE**

.035 cobalt electric motor

**BATTERY SIZE**

5 or 6 cell, 800 mA

**LANDING GEAR**

Conventional

**REC. NO. OF CHANNELS**

3

**CONTROL FUNCTIONS**

Rud., Elev., Motor Speed

**BASIC MATERIALS USED IN CONSTRUCTION**

Fuselage ..... Balsa & Ply

Wing ..... Balsa

Empennage ..... Balsa

Wt. Ready To Fly ..... 30-34 Oz.

(1 Lb. 14 Oz. - 2 Lb. 2 Oz.)

Wing Loading ..... 12½-14 Oz./Sq. Ft.

## By Ken Willard