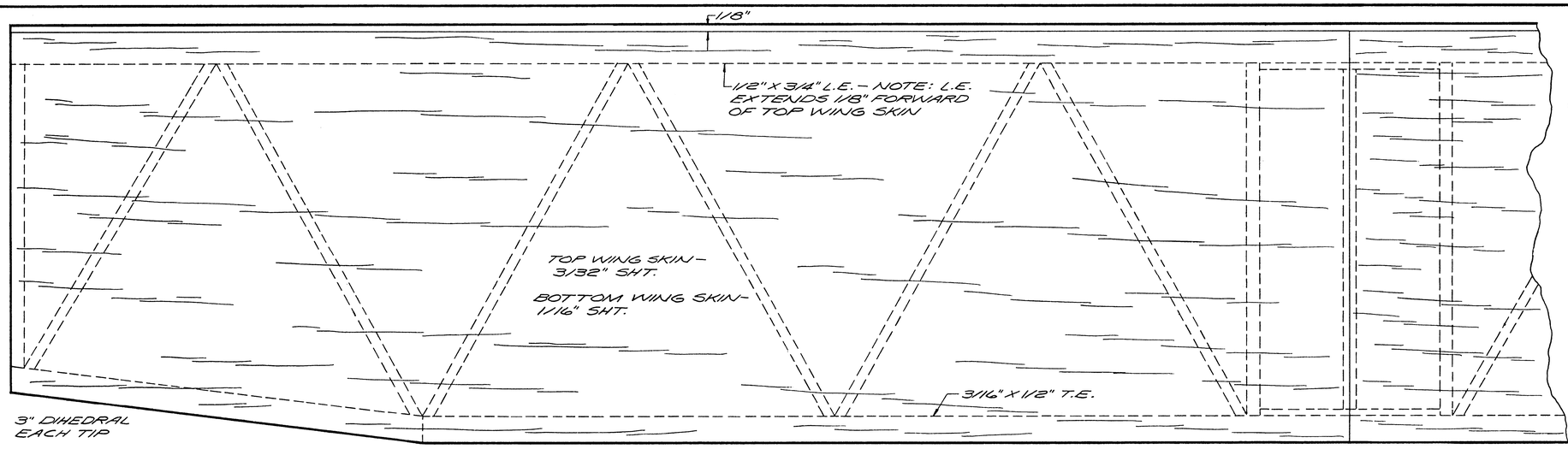
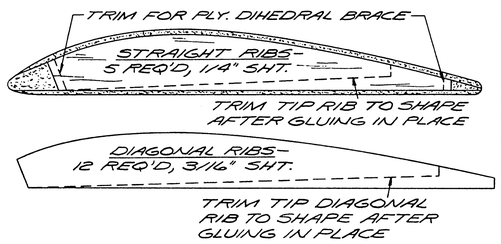
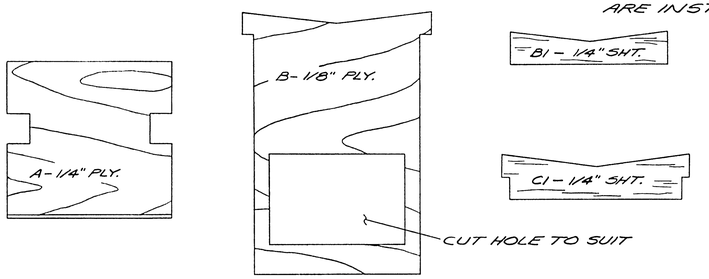
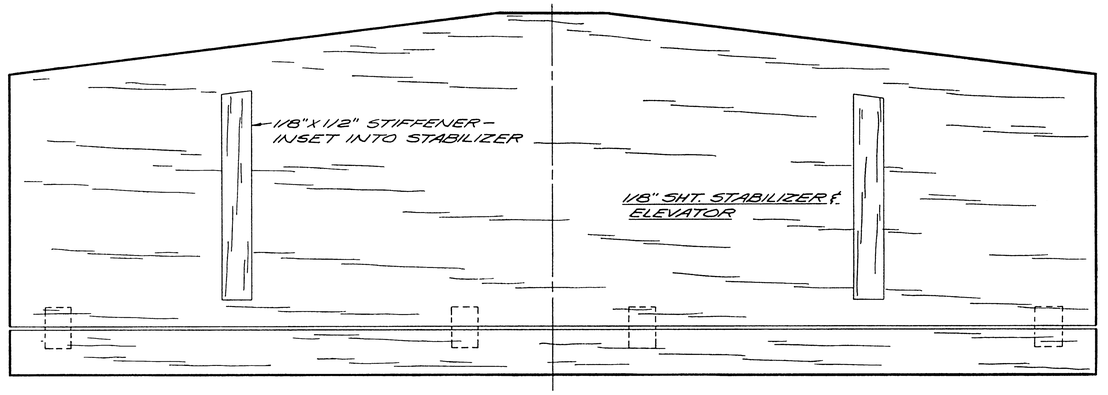


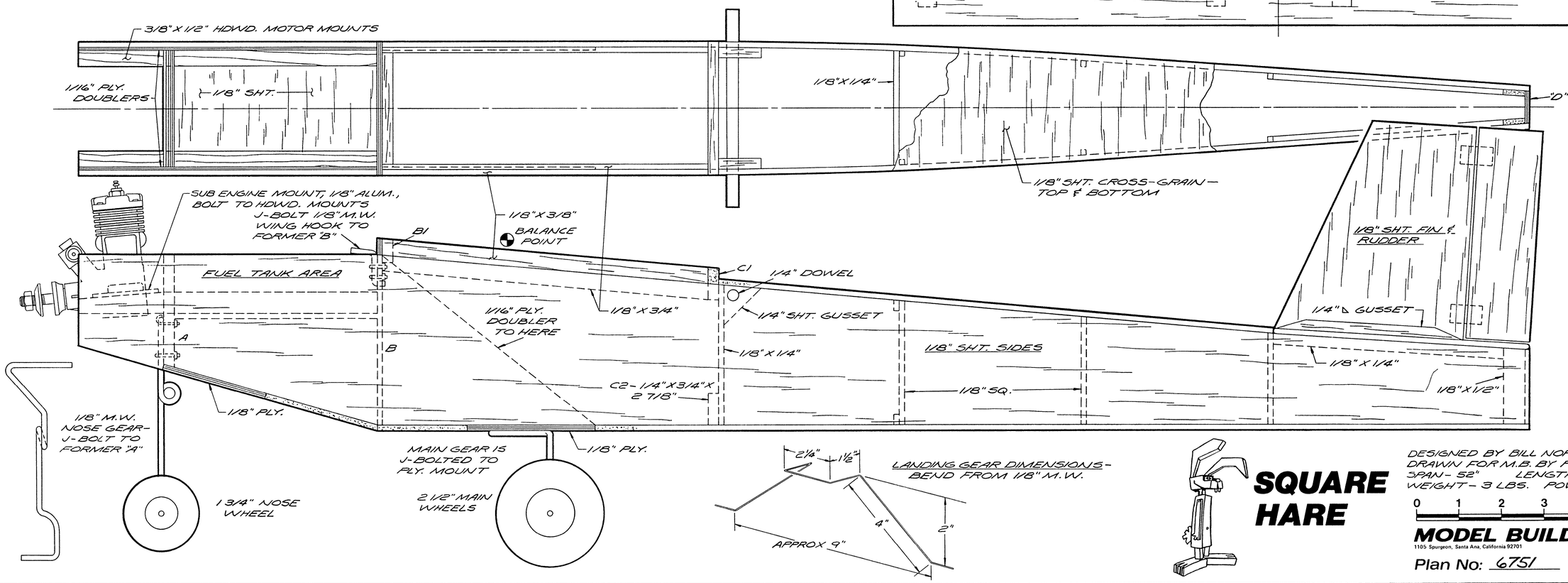
NOTE: WING DRAWING SHOWS TOP WING SKIN FLAT, BEFORE RIBS ARE INSTALLED





NOTE: REINFORCE CENTER CENTER WING JOINT WITH 3" WIDE STRIP OF CELASTIC OR FIBERGLASS.



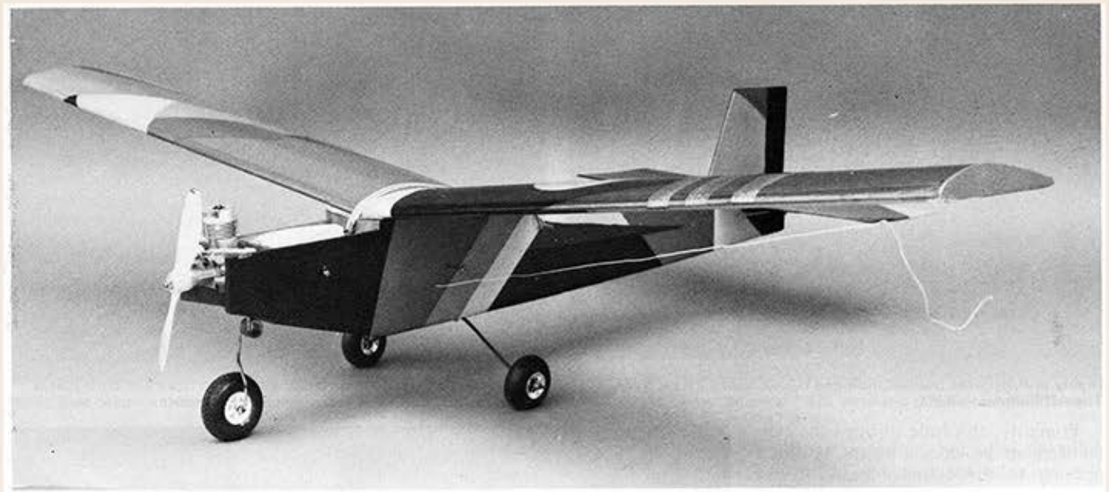


SQUARE HARE

DESIGNED BY BILL NORTHROP
DRAWN FOR M.B. BY PHIL BERNHARDT
SPAN – 52" LENGTH – 35"
WEIGHT – 3 LBS. POWER – .15-.29

0 1 2 3 4 5 6 inches

MODEL BUILDER magazine
1105 Spurgeon, Santa Ana, California 92701
Plan No: 6751



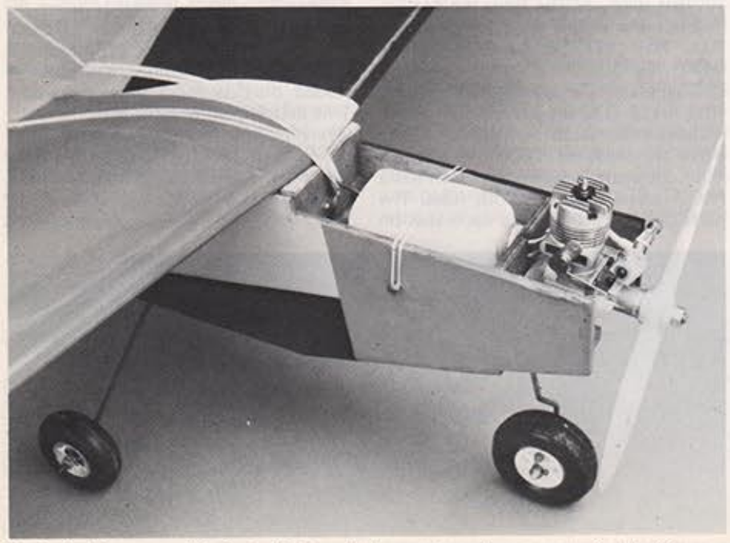
Joseph's Coat had nothing on the author's "Square Hare!" The moral of the story is: Save all your Monokote scraps and sooner or later you'll have a free covering job . . . if you can stand it! All major parts of model can be marked directly on wood with ruler and ball-point pen.

the SQUARE HARE

Back in the days when "Trainers" were *really* trainers, many an R/C flying field was overrun with "Rectangular Rabbits." If it could handle "Galloping Ghost", it's a cinch with modern propo. By BILL NORTHROP

In days of old
When R/Cers were bold,
'Cause proportional had not been
invented,
There were many bashes . . .
And terminal crashes . . .
But the pilots were most always
contented.

The "Square Hare" dates back to those days of old. It was designed and built in 1961, and published in the September 1962 issue of what was then called American Modeler. In the same issue, there were ads for Space Control and Command Control; two analog proportional radio systems . . . The first and somewhat unreliable proportional rigs available to the hobbiest. Prior to those systems, there was Walt Good's TTPW (Two Tone Pulse Width . . . also referred to as "Too Tough to Piddle With"), pulse rudder, and "Galloping Ghost." Everything else was escapements and reed multi systems.

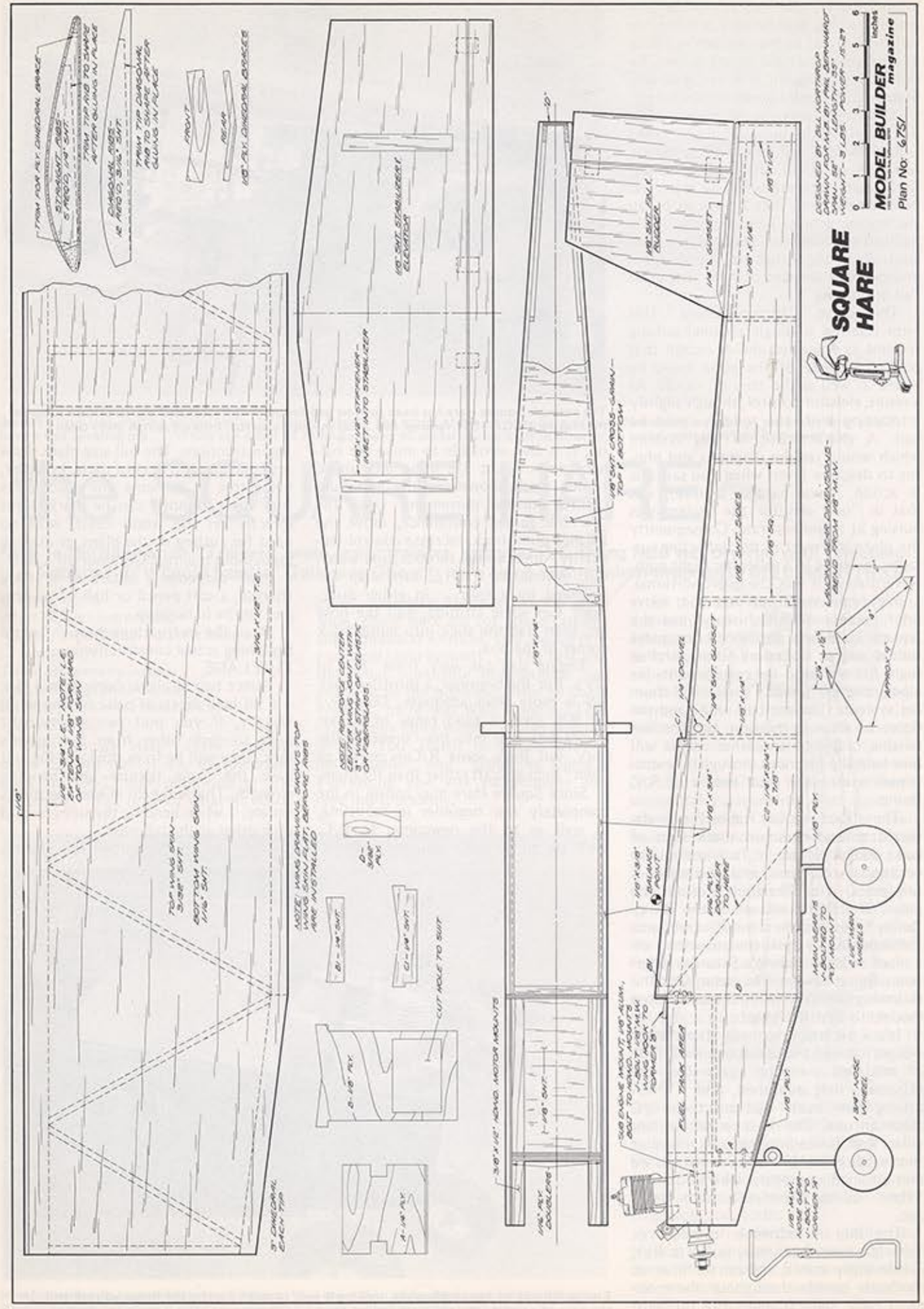


How's that for an accessible fuel tank? Enya .19 is more than adequate power for the "Boxy Bunny." Ground control is sufficient without the need to rig a steerable nose wheel.

In that age, single channel was the dominant radio control system for the average modeler. Various actuating systems were individually developed by experimenters who attempted to get more than one control from a single channel. Actuated by the radio's relay, rubber band powered escapements were the most common and manufactured item in use. Actuated by a push-button on the transmitter, there were simple sequential escapements that gave you alternating right and left rudder, there were compound escapements that gave you selective right or left rudder, and there were escapements that would allow you to select right or left rudder and up or down elevator . . . but only one at a time. Talk to an old timer about the fascinating challenge of radio control flying in the "good old days."

Early pulse rudder systems employed magnetic actuators or electric motors. A pulse box of some type or another was connected to the transmitter, and used to send pulsing on-and-off signals to the receiver, which in turn caused the receiver's relay to pulse. By wiring the actuator through the relay contact points and a separate set of batteries, one could make the actuator pulse back and forth. Connected to the rudder by a torque rod and crank system, the actuator would cause the rudder to constantly wag back and forth.

In the air, provided the rudder was pulsing fast enough (and it usually was), the airplane merely flew straight ahead not reacting to the continual wiggling. When a turn was desired, the flyer



FULL SIZE PLANS AVAILABLE – SEE PAGE 88