

Dallaire Sportster

By RON NOKES . . . The original Dallaire Sportster is a popular full-allotment old-timer competitor, but its 9-foot span can create a transportation problem. Try this 81-1/2 incher for size!!

• I have thoroughly enjoyed this smaller version of the famed Dallaire Sportster. It is a fine sport airplane with a flight that can only be described as majestic. My Dallaire is powered by an Enya .29, which has proven entirely satisfactory (.35 is the maximum engine displacement under SAM rules for this version of the Dallaire).

I would be remiss if I didn't credit John Pond for recommending the Dallaire to me. John and my local hobby shop owner, Leo Gates, were very helpful in this, my first attempt at constructing an old-timer. Aircraft modellers truly are an exceptional breed!

CONSTRUCTION NOTES

Construction of the Dallaire is relatively straightforward, but certain features need additional emphasis.

WING: The aft lower spar and leading edge will require shimming as the wing

is laid out over the plans. Shims should also be placed under the outer portion of the trailing edge to provide approximately 2° of washout in the outboard wing panels.

The plans show the layout for the left-hand wing semi-span. The right-hand wing layout can be obtained by oiling the plans and constructing over the reverse side of the plans.

The dihedral braces (W1 and W2) should be installed and the wing halves joined before the upper 1/16 sheeting is added. Note that W1 and W2 are sandwiched between 1/16 sheet spar webbing on the forward and aft sides of each spar.

FUSELAGE: Careful selection of longeron material is critical. I considered substituting 1/4 square spruce for the 3/16 hard balsa, but elected to stay with the balsa construction. The 3/8 square

deck longerons, uprights, and cross-pieces are added after the fuselage sides are joined to form the basic fuselage box. Careful construction techniques and judicious use of jigs should assure straight and square assembly.

The landing gear is attached to the firewall and bulkhead No. 3 using copper wire. The landing gear must be attached to the fuselage before the 1/8 square and 1/8 x 1/4 stringers are added.

The removable hatch between stations No. 1 and 2 can be constructed from balsa with hardwood inlaid at the corners to accept the screws used to attach the hatch to the fuselage.

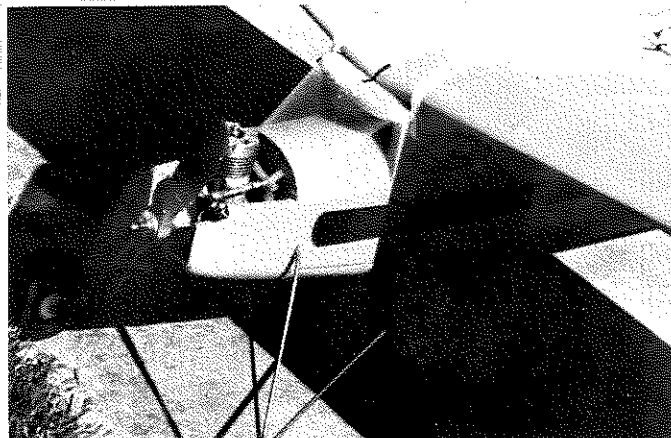
EMPENNAGE: The leading edge of the rudder must be trimmed as shown on the plan to allow clearance for the 1/8 dowel used to join the elevator halves. Also, both sides of the leading edge of the rudder and elevator should be sanded at a 45° angle to prevent binding of these control surfaces.

The leading edge, tips, and trailing edge of the vertical fin and stabilizer must be shimmed as they are constructed on the plans. Shim thicknesses are: 1/16 inch (leading edges) and 1/8 inch (tips and trailing edges).

LANDING GEAR: The landing gear parts are joined by wrapping with copper wire and soldering.

FLIGHT ADJUSTMENTS: The wing and stabilizer are set just as shown on the plans. The stabilizer has an incidence angle of 0°, and the wing, because of the angle of attack inherent in the airfoil, needs no additional shims.

I set my engine at 0-0 (no down thrust, no side thrust), which has proved satisfactory.



Power for Ron's "reduced" Dallaire is an Enya .29. SAM rules will allow up to a .35. No thrust offset.