RAM JET DELTA

TED FLEMING

The sketch opposite gives the dimensions of a new variation of the Delta theme and one with some very unique characteristics. It flies well in a variety of wind speeds, it is unaffected by ground turbulance and remarkably it does not need a bridle or a keel.

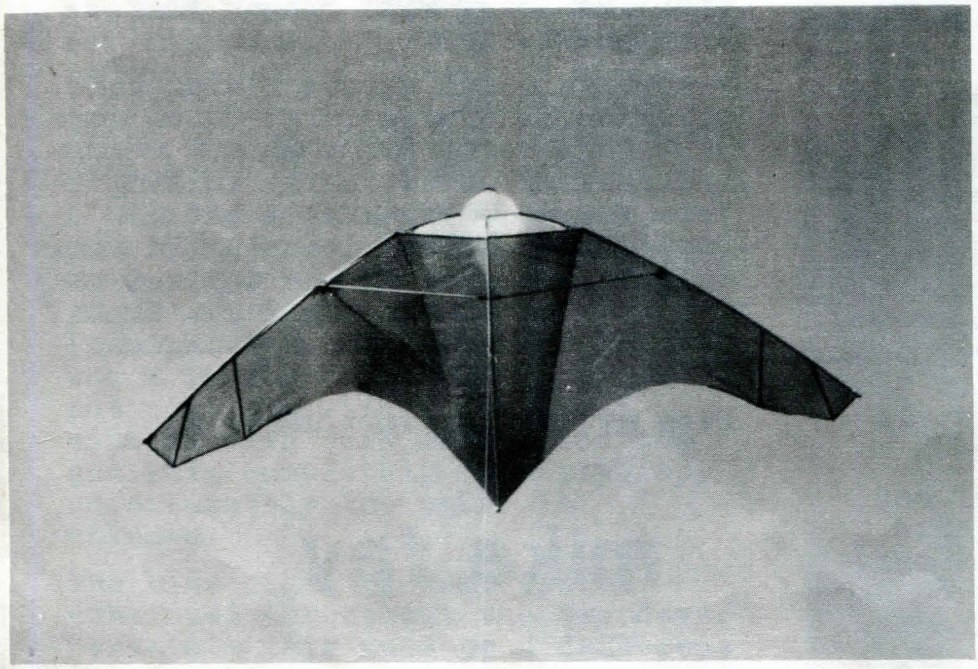
Construction is fairly straightforward, the material for the ram was cut out with adequate hemming allowances and folded into the centre of the length of ripstop required for the wing shape, then sewn down the middle to form a sleeve for the longeron. From this accurately sewn line all measurements are carefully made for the wing shape and the piece forming the double ram; the wings are cut out whilst folded in half so as to ensure a balanced outline, no hemming allowance is made on the leading and trailing edges of the wing, instead these were bound with casings sewn on and were of adequate size on the leading edge to take the ¼" leading edge spar. These spars were inserted through slits formed in the wingtip ends of the casing and the slits were closed by small flaps of velcro sewn to the outer edges of the casing.

Sleeves for ⅛" dowel battens are formed on the back of the wingtips in order to maintain the hangglider shape of the wings as shown, but make sure the sleeves and battens are assembled complete before the casings are sewn on, so that the latter act as closures for the batten sleeves.

A velcro closure flap is provided for the tail end of the longeron sleeve and at the other end I sew my favourite device for a spar pocket, a plastic cap from a dried up felt tip pen. A V of stitches is made in the end of a sleeve or pocket, and the cap inserted so as to be a firm fit and the spar is shaped on the end to suit; in this way the strain is taken on the stitching rather than a point contact on the end through the material of the pocket.

A dihedral 3-way joint is worked onto the longeron in the way of an appeture cut in its sleeve and the wing spreaders, port and starboard, are cut to be a gentle 'sprung-in' fit under the wings which are thereb allowed to billow naturally into an aerofoil shape.

The three ram jets provide strong directional stability and, I believe, contribute to aerofoil lift. Fly from a single line attached to the nose at T1. Further advice may be obtained from the designer. Tel- Hunts 215053.



A TRIPLE RAM JET DELTA
IN FLIGHT.
FLOWN BY THE DESIGNER.

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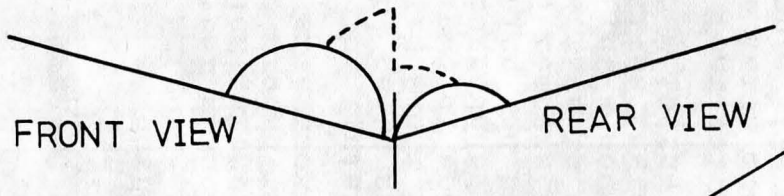
DOTTED LINES INDICATE A TRIPLE RAM DELTA



T1 IS BRIDLE FOR CLASSIC DELTA
USE T2 OR T3

1/8" DOWEL BATTENS IN SLEEVES ON BACK

USE 1/4" DOWEL

DIMENSIONS TO SEWING LINES

A - C 70cm

D - F 42cm

W - W 28cm

Y - Y 18cm

2 LEG BRIDLE t_1 (FOR ZEPHYS)

FLAT SHAPES SIZE AS ABOVE ARE HEMMED AND SEWN DOWN A'D, C'F TO FORM RAMS SEWN TO THE BACK OF THE SNUB NOSE DELTA.
A DIHEDRAL JOINT IS FITTED AT X AND RAMS INFLATE UNDER EFFECT OF SPARS