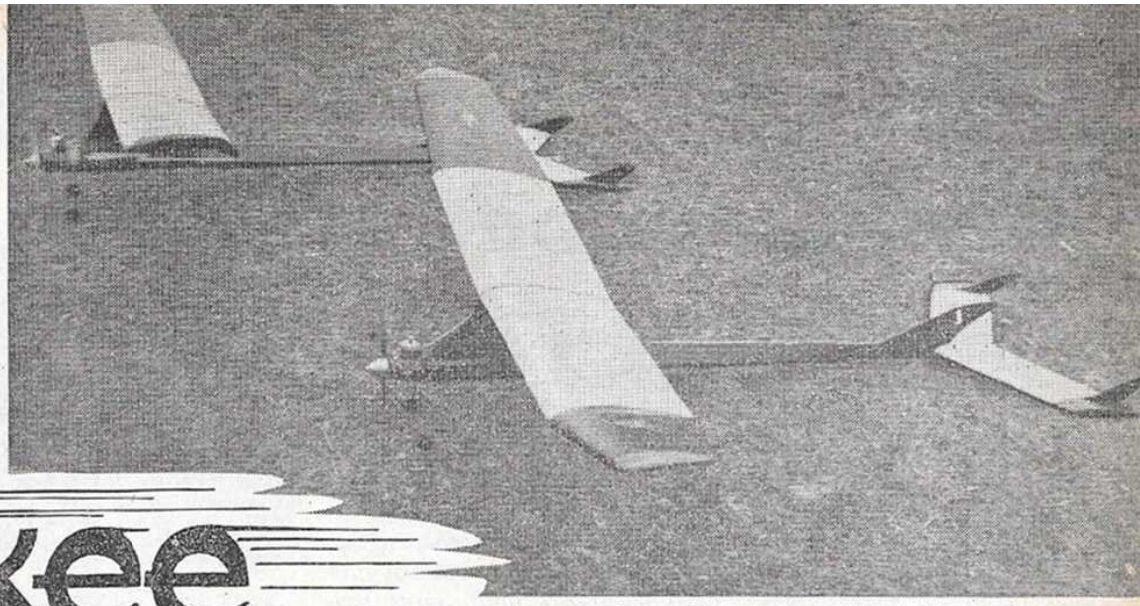
1954 DUTCH POWER CHAMP RUDOLPH DAS presents . . .



Atakee

Pronounced "Ah-tah-kay", Atakee is a slang term from the French Attaquer . . . to attack. It is used as a war cry when one is very enthusiastic and was chosen for this model because the side elevation gives the impression of being aggressive.

THE DAS TWINS, from Haarlem in Holland, are internationally renowned for their artistry in producing wonderful cutaway drawings of full-size aircraft. Technical drawing is their business, and aeromodelling their hobby. The two facts combine to give us a model of striking lines and an enviable contest record.

Rudolf Das designed the first of the Atakee series for his Elfin 1.8 diesel in 1953. He had been impressed by the Mexican "Battiri" design with its long nose, long fuselage and slim pylon, and so he decided to use a cowled engine blending into a swept pylon for similar effect. Tests were good. A vertical climb without use of any offset on the engine, and regular ratios of 11 : 1 led to a number of high contest placings and a demand for plans from fellow club members. Re-designed for easier construction in later '53, five new models were made by the Haarlemse Club during the winter, two with Elfins, one with a Frog 150, and two with Webra 1.5 Records. Test flights showed an average of 3 : 15 from 15 secs. engine run in good conditions. Both VTO and normal take-off can be used, and at the close of the '54 season the contest record included four 1st, one 2nd, and three 3rd places plus five team wins for the Haarlemse club.

Design points of this F.A.I. formula model are: (1) Long nose with low thrustline and swept pylon, giving an enlarged loop radius and no requirement for downthrust. (2) Thick tailplane with swept planform for directional stability, VTO points, and keeping more of the tail in the slipstream area. (3) Span less than length for good rolling characteristics, large wing chord for good glide without affecting the climb.

Suitable engines are: Webra 1.5, Elfin 1.5 P.B., Allbon Javelin, Frog 150, Torpedo 15, Allen Mercury 25, Elfin 2.49, or other similar front rotary intake engines. Suitable props range from 7 x 4 to 8 x 6, according to engine power.

British engines shown on the plan are the Allbon Javelin Mk. II and the new Allen Mercury 25, each of which is admirably suitable for Atakee as a contest model. With the AM 25, performance is outstanding but it should be remembered that for F.A.I. regulations, all up weight of this version must be more than 17½ ounces.

Fleet of Atakees at right belongs to the successful Haarlemse club and serves to demonstrate the popularity of this proven design among Dutch modellers. "Swept" lines are apparent in top view showing Webra 15 versions.

Wing.—Start with centre-section spars and build wing on plan. Finish wing tips before joining the centre-section. As a result of the wash-out of the tips the trailing edge must be fitted after the tip is removed from the plan, the diagonal spar is fitted later. Cover with light Modelspan.

Fuselage.—Cut out all formers. Construct SA (Sub Assembly)-1 to SA-4 on plan. When set, mount F2 and F3 in SA-1; fit SA-3 in F3 and glue it on SA-1. Mark the correct position of F4 on SA-3, and glue F4 in SA-2. Fit F4 with SA-2 in SA-1 and SA-3, and cement SA-2 to SA-3. Fit F5—F8 and sheet fuselage bottom to F.5. Fit spruce in F3 and F4, cut out wing platform and glue in place, fit SA-4, engine bearers, F.1 and bottom planking of 3/32-in. Mount engine, tank, neoprene tubing and clockwork timer.

Start the **Fin** with l.e. and t.e. When dry, fit 1/4 x 1/8 cross member by glueing it to l.e. and through t.e. Check the correct position on the plan. Now cut out fin-tip and cement in place, as with the 1/8 sq. contour-members. Mount fin on SA-1, fit fuselage struts and sheet fuselage. Cut cowling-top from thin celluloid to suit engine. Cover fuselage with light Modelspan tissue.

Tailplane.—Prepare t.e. by cutting out for lap joint. Pin down t.e. and l.e. on plan. Fit even-numbered ribs, then fit the other ribs between. Mount auxiliary-fins after covering the stabiliser with light Modelspan.

Finish the model in a dark colour for better visibility. Original colour scheme is black and white.

Trimming.—The right flight path at half power is a 20-30 degree climb, straight or in a right turn. A left turn must counteracted.

At full power, climb must be fast in a tightening right spiral path of 80-90 degrees. Should the climb ratio fall back after a good start fit a prop with *more* pitch.

The right glide-angle can be obtained by observing the amount of stall and the recovery after engine-cut without the auto-rudder operating. The stall recovery must show one turn of fairly large radius (about 20 yards) without any further stalls.

With the auto-rudder practically no stall should be observed. Always use more than 10 sec. engine run when the auto-rudder is not functioning. When properly trimmed the Atakee should have a ratio of 12 : 1 to 14 : 1—and don't forget—always use the d.t.!