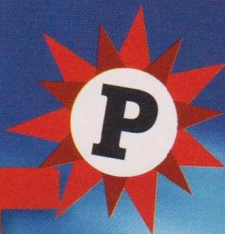


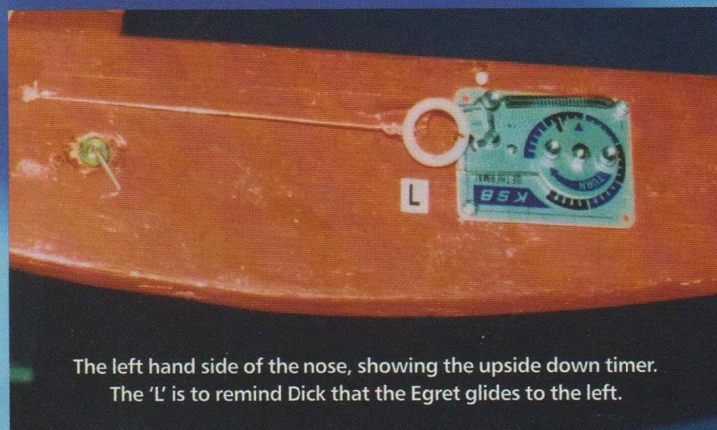
plan feature

40" span FF canard glider Designed by Dick Twomey

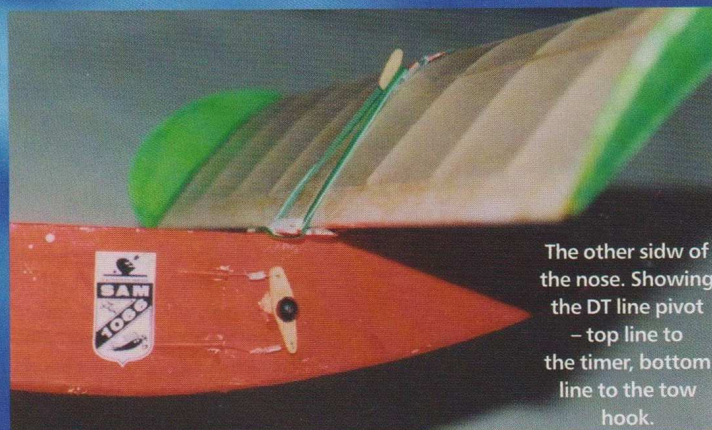


EGRET

An unorthodox vintage glider...



The left hand side of the nose, showing the upside down timer. The 'L' is to remind Dick that the Egret glides to the left.



The other side of the nose. Showing the DT line pivot - top line to the timer, bottom line to the tow hook.

Last year, on 17 December to be precise, the aviation world celebrated the first centenary of controlled, powered, manned flight - and the Wright Brothers, at Kittyhawk, did it with a canard! Appropriately, therefore, we present "Egret", a canard glider first flown in 1949, and recently finding a new life in the 21st century, thanks to the "SAM" vintage model contest programme. In fact, this glider won the SAM 1066 Vintage Unorthodox Glider Competition in 2003.

CONSTRUCTION NOTES

Dick Twomey says it's so simple that build notes aren't necessary, but still...!

The fuselage is a length of hard 3/8" balsa strengthened by 3/8" x 1/8" spruce, with a forward keel added from 3/8" balsa sheet. To this keel fit your choice of controls to operate a tip-up (leading edge) foreplane dethermaliser. Dick installed a KSB six minute timer on the port side, upside down, running the D/T line in a narrow plastic tube through the nose to lie over the foreplane leading edge. The KSB 'on-off'

switch is connected to the line release via a pivot - this time on the starboard side - so as not to have too much clutter on the port.

You can fit all this another way if you like, but something has to be 'back-to-front' on a Canard! The release itself is the drop-out type much favoured for lightweight gliders. The top fin and underfin are both cemented to the fuselage, allowing the wings to plug in on either side.

The wings and foreplanes each use a flat bottomed aerofoil and construction is very simple. Note that both have flat main sections with dihedral only at the tips. As the foreplane, by definition, bears the brunt of arrivals, it should be built strongly, hence the use of full sheeting underneath.

COVERING

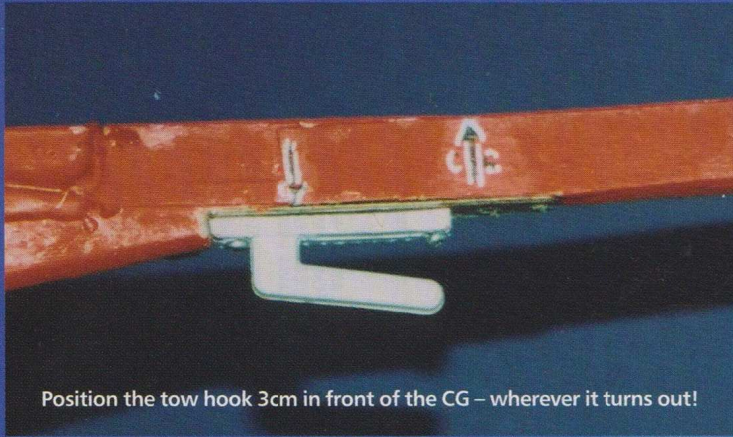
Dick used 0.25 mil clear Mylar on the foreplane, 0.5 mil on the wings, then both covered with lightweight tissue, doped/thinned 50/50.

FLIGHT SET-UP

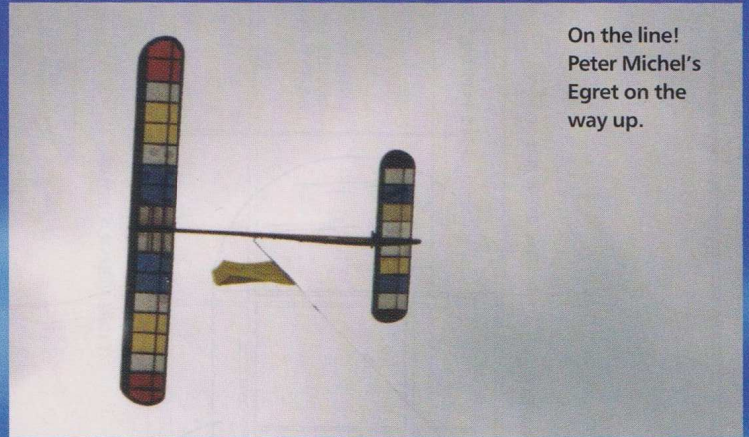
This is the most interesting aspect of flying a canard, requiring the

optimum setting of incidence, and of the centre of gravity and towhook positions. The CG should be as on the plan and never behind this point. If the CG turns out to be slightly ahead of the point marked, keep the towhook position the same relative to the CG, by moving it forward, preserving the 3cm dimension, and add as necessary, a touch of extra positive incidence to the 3 1/2° planned for the foreplane. This set-up is recommended to achieve/maintain a slightly undulating glide so that there is no risk in flight of losing the required lift from the foreplane.

With the correct set-up, towing should be good. Once up there, 'Egret' is a floater, presenting a slim profile to your binoculars, so make sure you colour it for visibility!"



Position the tow hook 3cm in front of the CG – wherever it turns out!



On the line!
Peter Michel's
Egret on the
way up.

“Once up there, ‘Egret’ is a floater, presenting a slim profile to your binoculars, so make sure you colour it for visibility!”



ABOVE: Dick's twins, Owen (left) and Stacey, are eager 'fetchermites' – won't be long before they start building their own!

