

Operational Falstaff



Falstaff was a British sounding rocket used during the 1970s. It used the largest solid booster ever built in the United Kingdom, the Royal Ordnance Stonechat. This motor (Stonechat Mk2) was 5.3 m (17 ft) long and 92 cm (36 in) in diameter and weighed 5090 kg with 4340 kg of propellant. It delivered an average thrust of 240 kN during 37 seconds.

The Falstaff was launched eight times between 1969 and 1979 at Woomera, Australia, seven of which were the Mk 2 variant. There was one failure, on 23 April 1978. All the launches were from the Woomera Test Range in Australia, 500 kilometres (310 mi) north-west of Adelaide.

There are two versions of the Falstaff sounding rocket; the Original Falstaff and the Operational Falstaff.

The model you're building - Operational Falstaff

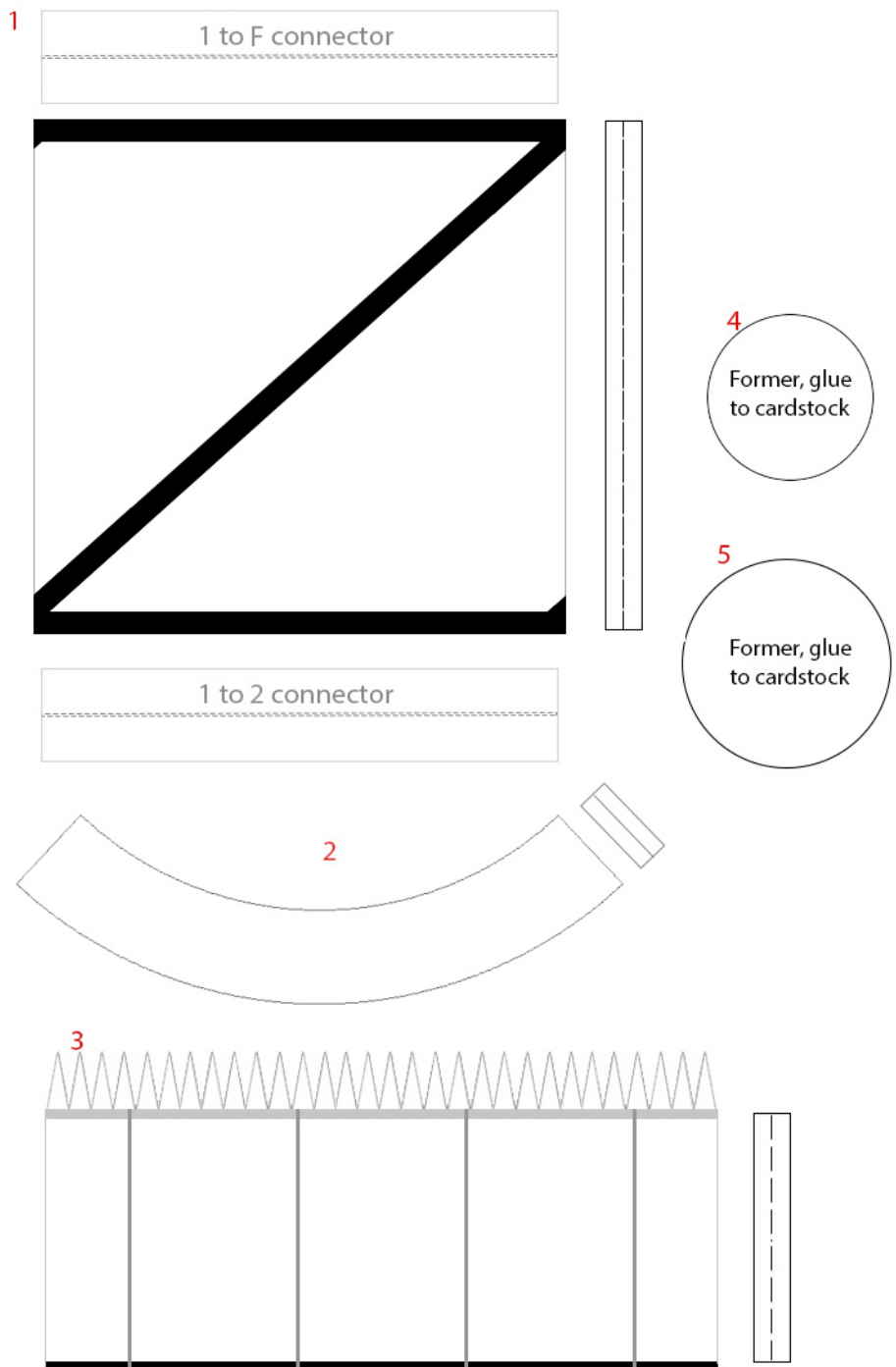
The operational Falstaff vehicle was to be an unguided fin-stabilised rocket. The experiments would be attached to the top of the Stonechat II motor via an adaptor bay, which could support a larger 54-inch (1.37 m) diameter nose section. The payload was envisaged as a controlled manoeuvrable platform from which a variety of simulated experimental sub-munitions and decoys could be dispensed, along with a Prime-body for close observations.

In 1971, the Falstaff testing program, designated CQ941, was envisaged as comprising up to 10 flights from 1974. Actually, 7 launches were carried out between 1975 and 1979. The first two proving flights (F0 and F01) were intended to demonstrate the in-flight separation sequences and the correct functioning of the payload attitude control. Falstaff F1, launched in May 1978, was planned to be the first flight carrying active experiments, payload manoeuvres and dispensing sub-payloads. Unfortunately the flight ended in the destruction of the motor and the total failure of the test. The second operational experiment, F2, that reproduced the F1 flight program with an additional payload manoeuvre, was fully successful. Flight F3 extended the experimental program by including the release of the Prime-body for observation. The vehicle performed satisfactorily, but the payload failed. The F4 experiment program was similar to F3, with more manoeuvres but no sub-payloads. It achieved most of its objectives, although the payload stabilised at an incorrect roll angle.

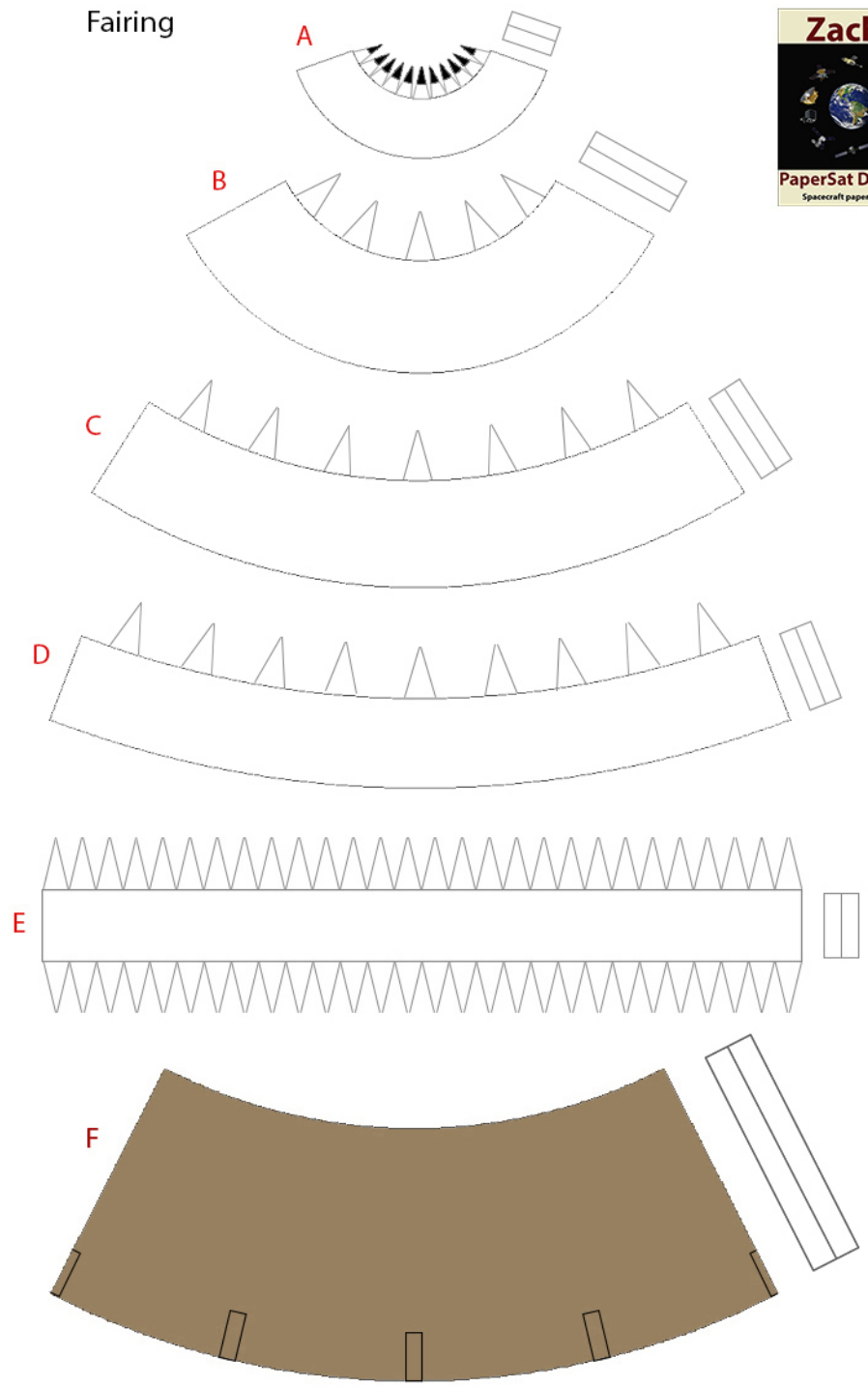
The last vehicle, F5, had the same experiment sequence as the two previous flights, but with a maximum payload dropped. This mission was totally successful.



Operational Falstaff 1/30 Scale Paper Model

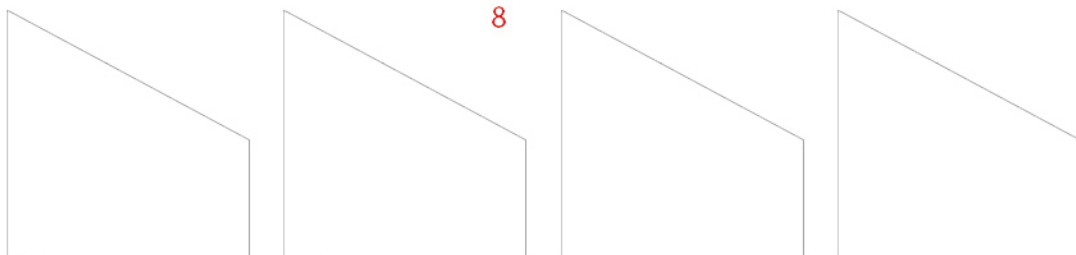
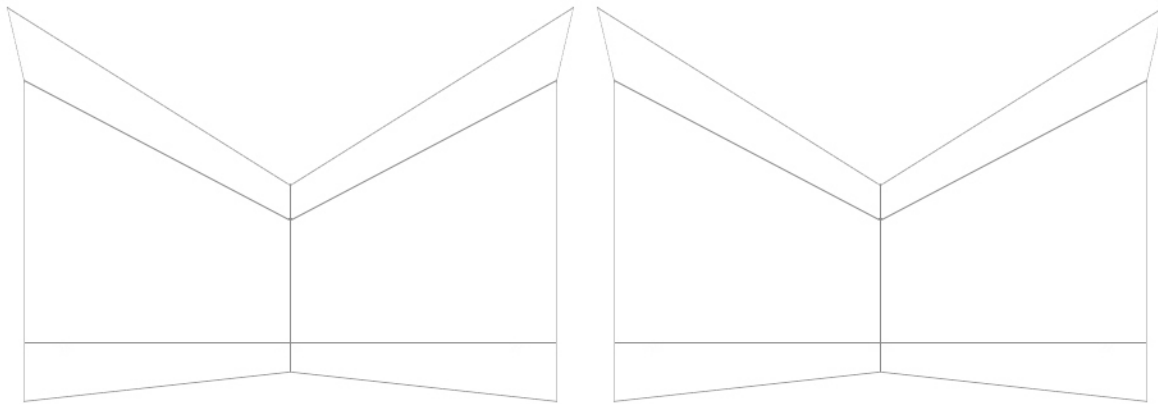
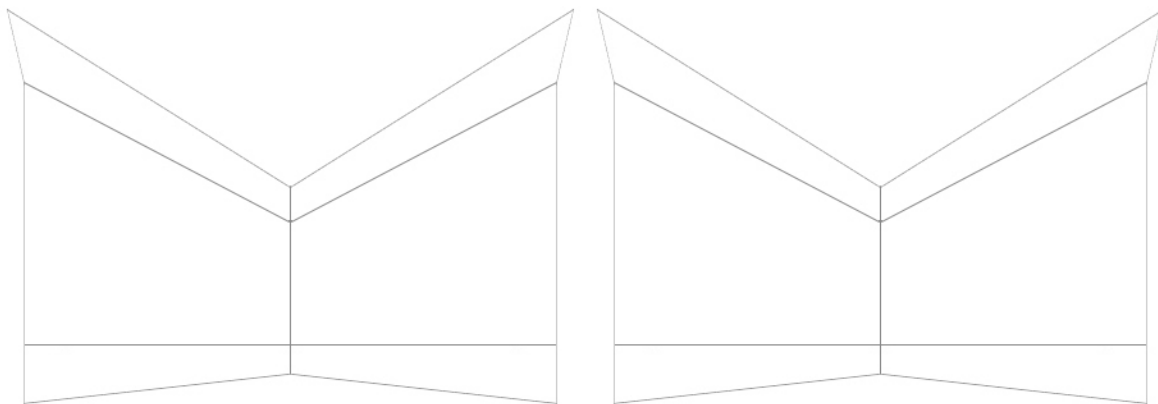


Fairing



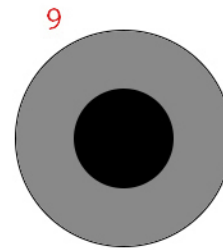
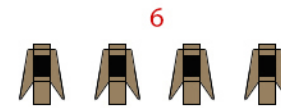
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7 Score-fold at the middle line and glue together.

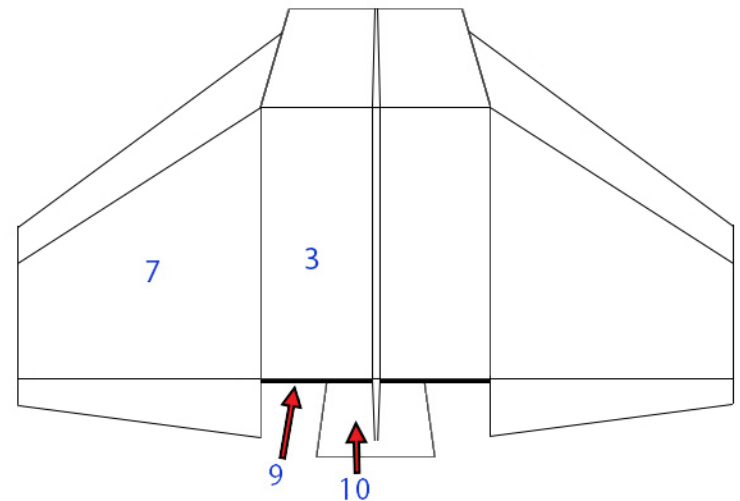


Formers, glue to two layers of cardstock

Glue to center backside of the fins before folding the fins together.
Long edge of the formers should be even with the long edge of the fins



Color back light grey or silver



Glue the fins (parts 7) into the 4 lines on part 4.



Instructions

Keep all seems aligned during assembly.

Fairing (part A)
cut out, make a round dome at the top using
the small triangular tabs, then glue the two
ends together to complete part A.
Glue on top to finish the fairing.

