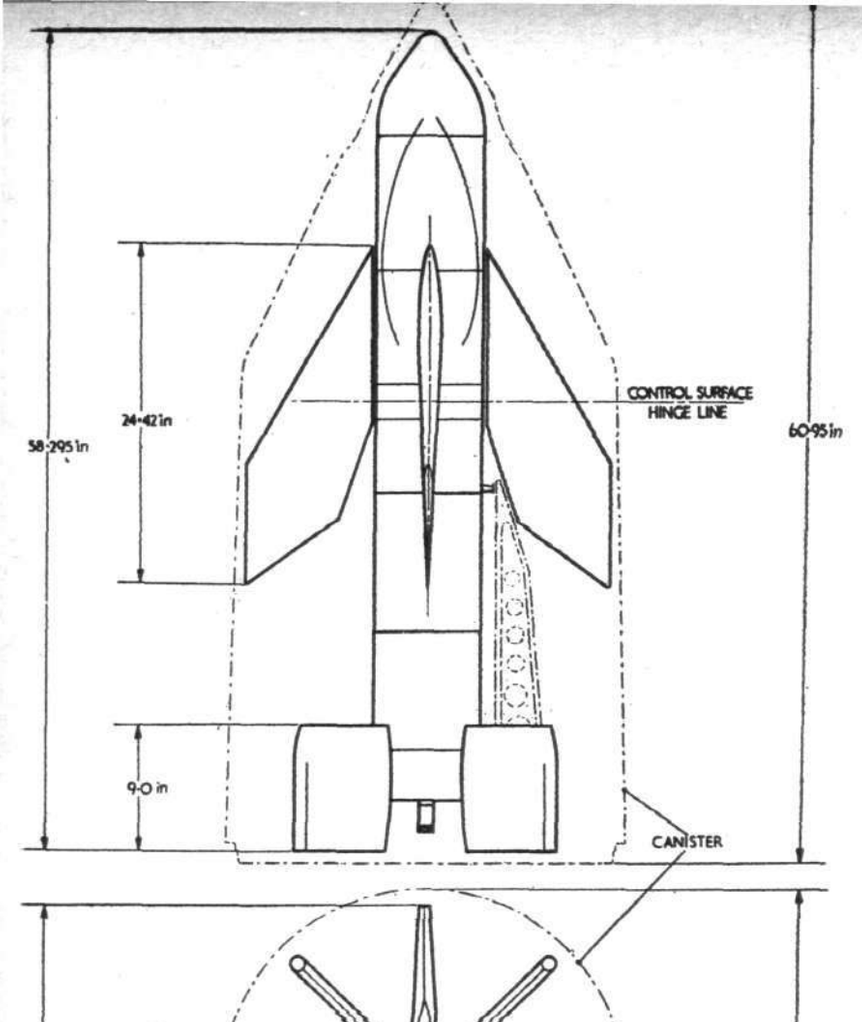

General-arrangement drawing of the Seacat missile

SEACAT . . .

the Ministry of Supply known as GPV. GPV was a multi-purpose surface-to-air test vehicle, designed to undertake proving work for a number of different propulsion and control and guidance projects. Some of the work done by GPV was outlined in this journal on March 14, 1958.

The company's Precision Engineering Division, at Castlereagh, Co Down, gained a great deal of valuable experience from the GP project, but Seacat's true ancestor was yet to come. This w SX-A5, a smaller missile designed to investigate the application manual-command-link control to close-range surface-to-a weapons. This concept having come fully up to expectations, t stage was all set for the Division to develop a surface-to-air ope ational missile embodying the manual-command-link principle.

In April 1958 it was revealed that Short Bros had been awarde a contract for a small ship-to-air guided weapon which was t become the standard close-range weapon of the Royal Nav This was the first public reference to the Seacat, though it was the known only by its code-name of Green Light, and it was no officially named by the Admiralty and the Ministry of Supply unti the following February.

In 1959 the new missile was shown for the first time at the Far borough Air Show. The project continued to progress rapidly, an an extensive programme of land and sea firing culminated with th beginning of the acceptance trials on board HMS *Decoy* in 1961.

In general the trend of development of present-day guided weapon is towards ever more highly sophisticated, complex and automate systems. This inevitably leads to high cost. Although the theoretica kill possibility of such a system may be high it is always dependen on the efficient operation of all units which form the system— the proverbial chain still being only as strong as its weakest link Maintenance by highly skilled technicians therefore become increasingly important.

Seacat reverses this trend. From the outset the aim was t produce the simplest possible weapon system capable of fulfillin the assigned task. It was believed such a weapon would achiev not only low cost but also the positive attributes of instant readines and maximum reliability. That this aim has been accomplishe is shown by the speed with which Seacat goes into action: no pre launch test of any kind is necessary, and the missile leaves th launcher as soon as the trigger is pressed. The operation of reload ing a four-missile launcher takes less than 3min, and this fulfil another requirement: the ability to sustain a relatively high rat of fire.

A missile guidance system can be defined as a group of component which measures the position of a guided missile relative to it target (or, in the case of a fixed target, to a precomputed trajectory and causes such changes in the flight path as may be necessary t bring about an interception. A number of different techniques ma be used to achieve this result; some require the bulk of the com ponents to fly within the missile while others permit most of th equipment to remain on or near the launch site. The choice o system is determined by such factors as the standard of accurac demanded, the medium from which the missile is launched, an the maximum and minimum distances at which the missile must b effective.

Seacat employs a command-link system of guidance. This wa chosen for the following reasons: it is inherently the least-comple system, and therefore most in line with Seacat's emphasis o simplicity; and most of the guidance components are located at th launch site, which means that Seacat carries only the bare minimum of electronics (a command receiver and stabilization and contro

Predecessors of Seacat: left, a GPV; right, an SX-A5