

SPEY TESTING. Rearing its head like some prehistoric monster is the swan-neck-shaped intake that will supply air to centre Rolls-Royce Spey engine in DH Trident. This rig was designed to ensure satisfactory operation of the engine and intake.

Spey Flies in Vulcan Test-bed

The Rolls-Royce Spey, now under development at the company's aero engine division in Derby, England, will be the first British by-pass engine to be operated by an American airline, following Braniff's order of the BAC One-Eleven airliner. The Spey also powers the de Havilland Trident and is slated to power the Blackburn Buccaneer S.2 strike aircraft. In all, 40 airliners powered by the

new by-pass engine have been sold in Europe and America.

The Spey has been designed for low fuel consumption, low maintenance costs and a long overhaul life. It has a take-off thrust of 10,000 lbs. Flight trials of the engine began in October with two Speys installed in an Avro Vulcan test-bed, about ten months after the first ground run. During this period more

than 1,300 hours of endurance and performance testing have been logged, including a preliminary 150-hour run to the combined ARB and FAA type-test schedule.

Other tests have included endurance running in the engine pod of the Trident and ground running trials with engines mounted in the airframe of the first Trident built. Before flight testing in the Vulcan, the engine was tested under flight conditions in the Rolls-Royce altitude test facility. Checks have been made on the functioning of the thrust reverser and silencer.

Particular attention was paid in the design of the Spey to its intended use in short-haul aircraft with frequent use of take-off power. The many millions of hours of experience with the Rolls-Royce Dart and Avon on short sector operations have enabled new forms of cyclic overload test procedures to be evolved. A valuable background on the Spey "hot end" life and reliability was thus accumulated.

Flight Permits

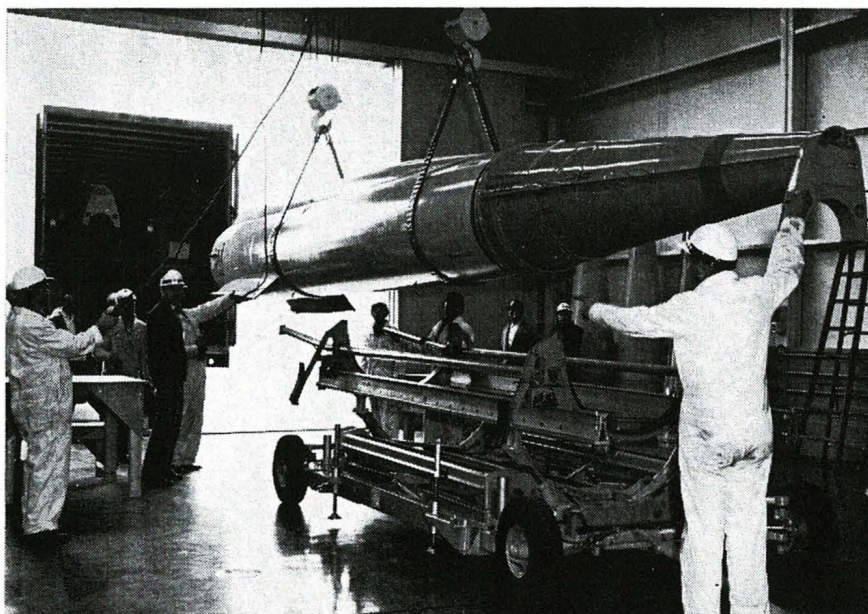
An item in the October issue of Canadian Aviation indicated that a recent amendment to the Aeronautics Act made it possible to obtain a Flight Permit for operation of private aircraft up to 31,000 lb. It has been pointed out by the Civil Aviation Branch that the above information is incorrect as a result of misinterpretation of what was in fact an Air Navigation Order. The effect of the order is to restrict the use of Flight Permits to aeroplanes, thus excluding rotary wing types, and to relate certification requirements to aeroplanes in different weight groups. There is no change with respect to the weight of aeroplane for which a Flight Permit may be issued. As in the previous order, 8,000 lbs. is the top limit for issuing a Flight Permit to an aeroplane eligible for a Certificate of Airworthiness. For aeroplanes not eligible for a Certificate of Airworthiness, if certain requirements are met, regardless of gross weight a Flight Permit may be issued.

Engine Merger

In line with the U.K. government's policy of concentration of aero engine work into two companies, the full share capital of Blackburn Engines Ltd., and the de Havilland Engine Co. Ltd. has been acquired by Bristol Siddeley Engines Ltd.

Fairey Building 104G's

Avions Fairey, the Belgian subsidiary of the Fairey Company Ltd., announced completion of its negotiations for the production of part of the European F-104G program. Contract is expected to be worth about \$33 million. Program is the result of an agreement between the defence ministries of Belgium, the Netherlands, West Germany and Italy, to produce jointly almost 1,000 aircraft, for their respective air forces.



BOMARC DEFENCE NEAR. First Boeing Bomarc B missile being unloaded at the RCAF defence site at North Bay, Ontario. The front fuselage section is lifted from its dolly in preparation for assembly in the site assembly and maintenance building.