Information Division
Department of External Affairs
Ottawa Canada

Canadian Weekly Bulletin

Vol. 26, No. 25

June 23, 1971

CANADA CONSIDERS STOL FLIGHT

The preface to a special study on aeronautics prepared for the Science Council of Canada states that it seems likely that future aeronautical research and development activities in Canada may be related more to civil aviation than to defence needs. The results of the study indicate that the most promising prospects open to Canadian manufacturers of complete aircraft appear to depend on their existing and potential capability to design and develop short-take-off-and-landing (STOL) aircraft systems.

The study points out that in the densely-populated industrial areas of the world ground-transportation systems have become saturated, or are approaching saturation, with no easy solution in sight. Short-haul air trips of under 250 miles are hampered by the facts that existing aircraft require vast airport areas and that ground congestion can cause portal-to-portal travel times of up to four hours.

Development of vertical take-off and landing (VTOL) aircraft systems promises to relieve this short-haul dilemma but only when problems of VTOL noise control and economics have been solved. It is very likely that the evolution will see short take-off and landing aircraft as an intermediate stage of development with a gradual introduction of the VTOL concept.

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CANADA AMONG THE LEADERS

It has been estimated that Canada currently has a one-to-two-year lead over many other industrial countries in STOL technology. To exploit this lead, the Federal Government has been asked to give the go-ahead to a proposal creating a new transportation system based on STOL aircraft. A consortium of 16 aerospace companies has proposed that the Government become a major partner in Regionair STOL Canada – a demonstration service designed to show that STOL aircraft are the interim answer to transportation congestion problems in densely populated areas. The Regionair proposal calls for the Government and the aerospace and air-transport industries to co-operate in a two-phase operation designed to produce an operating STOL system by mid-1972.

The definition of "short take-off and landing" is arbitrary, but the generally accepted field length is about 2,000 feet. Various means of operating from such fields have been evolved; the most promising current technique makes use of deflected propeller slipstreams to provide additional lift to an aircraft's wings.

The *Twin Otter*, manufactured by the Havilland Aircraft of Canada Limited, is in this category. It was chosen as the operating aircraft for the initial phase of Regionair because it had been a success in commercial air transport operations round the world. This 14-passenger aircraft would remain in service until a new mode of service could be inaugurated (possibly by mid-1974) using the de Havilland DHC-7, a 48-passenger, four-engine turboprop. It is the only aircraft of its size or larger that would be available

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