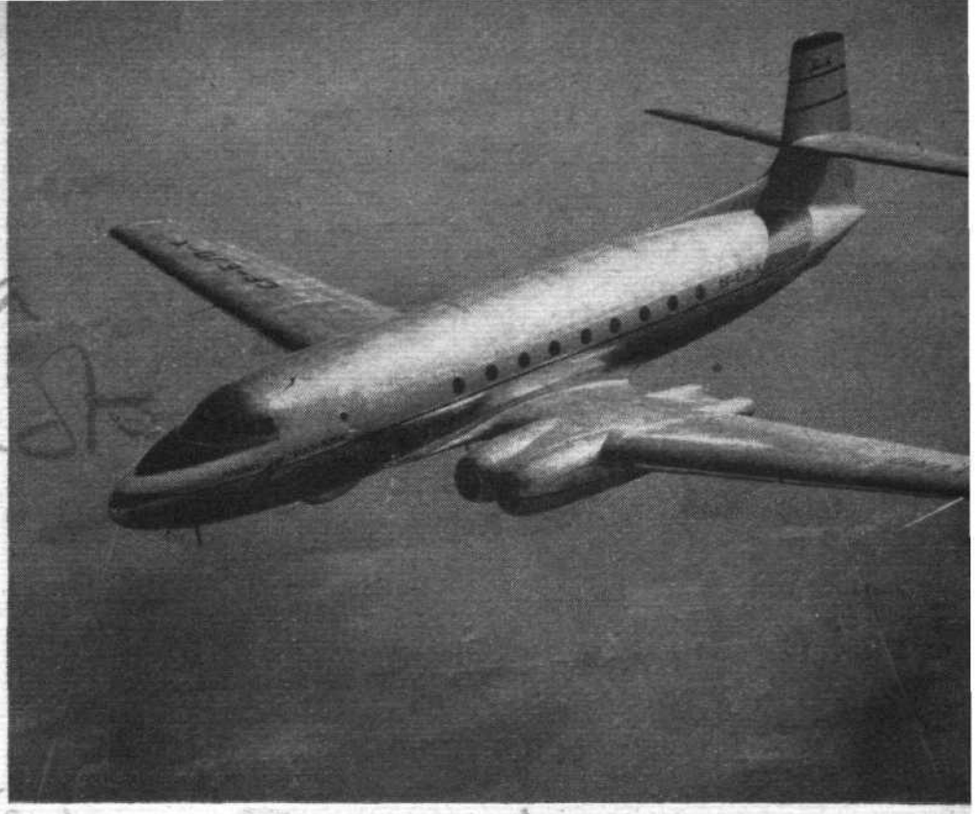
CIVIL AVIATION



JETLINER PROGRESS: A pleasing new view of the Avro Canada Jetliner, which has now almost completed its programme of performance testing. The manufacturers hope that the Jetliner—which, when developed, will operate economically over stage lengths of up to 1,100 miles—will go into commercial service next year. Capacity is provided for 40/60 passengers and cruising speed will be approximately 450 m.p.h.

THE second reading of the Consolidated Fund (No. 2) Bill, which took place in the House of Commons on March 19th, was made the occasion for a comprehensive debate on the present state of civil aviation in the United Kingdom. The debate is referred to in a leading article on page 357 of this issue, and we hope to include in *Flight* next week a full report of the many interesting points which were raised during the discussion.

The considerable operating deficits incurred to date naturally brought the State-owned Corporations under fire from the Opposition, whose general opinion was that, although good progress is undoubtedly being made, when considered in relation to the results of foreign operations, British achievements give little cause for satisfaction. It is considered that the Corporations' costs are still too high and over-staffing is pointed out as being one of the main reasons for this.

Other points touched on during the debate included the question of whether the fact that the Corporations undertook charter flying constituted unfair treatment of the independent operators, the problems of the Princesses and the Brabazon, traffic capacity at London Airport and provision of Fido at certain airfields. Points were also raised in connection with mail subsidies for the Corporations, which are said to compare very unfavourably with those paid to certain foreign operators, particularly those in the United States. Also mentioned was the future of Prestwick airport; on this question the opinions of Scottish authorities were said to be unanimous in their demand that Prestwick should be developed as a major international airport.

THE SOUTH PACIFIC SURVEY

AT the time of going to press the latest news of the important Pacific survey flight now being undertaken by Capt. P. G. Taylor, G.C., M.C., was that his Catalina had landed at Papeete Harbour, Tahiti, thus completing the fifth stage of the 8,000-mile journey. Though the flight is sponsored by the Australian Government and has no connection with any commercial concern, Capt. Taylor's intention is to pave the way for a regular Australia-South America service and thus fill-up one of the few remaining gaps in the network of international air routes.

Nine months of patient organizing were necessary before the flight could be made. Fuel had to be made available at several points where no regular supplies existed. The flight is being made in seven stages: Sydney to Noumea (New Caledonia), 1,070 miles; Noumea to Suva (Fiji), 781 miles; Suva to Satapuala Bay (Society Islands), 780 miles; Satapuala Bay to Papeete (Tahiti), 1,400 miles; Papeete to Mangareva (Gambier Group), 900 miles; Mangareva to Easter Island, 1,400 miles; and Easter Island to Quintero Air Base (Valparaiso), 2,000 miles.

The experience of a Chilean Air Force crew, who recently flew a Catalina from Valparaiso to Easter Island, induced Capt. Taylor to have his own aircraft fitted with Jato rockets. With most of its fuel gone, the Chilean aircraft landed on a small grass strip. For the return flight it was loaded with fuel and put in the sea, but failed to take off; and the crew had to return to Chile by surface transport. The four rockets fitted to Capt. Taylor's Catalina weigh, in all, about 200 lb and give added thrust equivalent to 400 h.p.; they are fired electrically, after the throttles have been fully opened. The procedure is to fire one rocket on each side simultaneously and then fire the other two so as to overlap the thrust of the first pair. By this method take-off run is reduced to about half the normal distance. The Jato equipment should be particularly useful at Easter Island, where take-off has to be made from open sea.

CAUSE AND EFFECT

A CLASSIC example of how, in the operation of an aircraft, a serious accident can result from circumstances which are normally harmless is to be found in a recent Accident Prevention bulletin, issued by the Flight Safety Foundation, New York.

During an airliner's final approach, the report states, an important electrical circuit suddenly became energized; the reason was that the contacts of the relevant relay switch closed because the natural vibration frequency of the relay happened to accord with that set up by the aircraft when landing.

In cases where relays are used for airscrew-reversing systems, fuel shut-off valves or fire extinguishers, such an occurrence could clearly lead to a serious mishap. A suggested method of preventing such an occurrence is the fitting of relays whose natural vibration-frequency is not likely to be a harmonic of that set up throughout the airframe; or the relays might be dynamically balanced so that contact points could not be closed inadvertently. Alternatively, it is suggested that the use of relays should be discarded entirely—a practice which was, in fact, adopted by the airline on whose aircraft this unusual fault occurred.

MARTIN 2-0-2s WITHDRAWN

NORTHWEST AIRLINES, a large American internal operator, has taken its fleet of 20 Martin 2-0-2s out of service in order that modifications recommended by the C.A.A. may be carried out. The airline has stated that the modifications are the result of investigations made by the board appointed by the C.A.A. some time ago. This board was given the task of deciding whether any basic shortcomings of design contributed to the numerous accidents in which 2-0-2s have been involved during the past two years. The board found no basic shortcomings and did not recommend any structural changes.

Northwest's 24 Martin 2-0-2s will be replaced, temporarily, with Boeing Stratocruisers and Skymasters. In order to maintain services a number of Skymasters are being transferred from operations on the Korean airlift.

AUSTRALIAN CROSS-WIND TESTS

FOLLOWING a six-month experiment in the use of the Goodyear cross-wind landing gear on DC-3s, the Australian Department of Civil Aviation has been able to draw its own conclusions as to the particular merits and method of using this type of undercarriage.

In an interim report submitted recently by the Department's examiners it is stated that the aircraft has been successfully landed in 90 deg cross-winds of up to 50 m.p.h. During the recent floods in Australia, which affected the Tamworth area and necessitated extensive supply dropping operations, a Dakota fitted with this gear was subjected to landings in particularly severe conditions. Because the surface of the airfield was soft it was found necessary