the development of existing designs. What is more, there is still a free interchange of new information between the countries which, in the case of gas turbines, is something of a one-way flow. It is to be hoped that there is a compensatory return flow on the subject of flight at and above sonic speed. So far as advancement is concerned, this country, thanks to its greater experience and brilliant leadership in engine design, is probably keeping a few steps ahead.

Without professing to know what the Americans may have up their sleeves—and their enterprise and ability are unquestionable—it can be regarded as significant that the importance in America of the Rolls-Royce Nenes (at present rated at 5,000lb thrust but probably capable of more), to be built under licence by Pratt and Whitney, is increasing as the full excellence of these units is proved and appreciated. Moreover, no American turbojet now flying delivers normal power in excess of 4,000lb thrust, a figure well below modern requirements. The overhaul periods of British units also compares favourably.

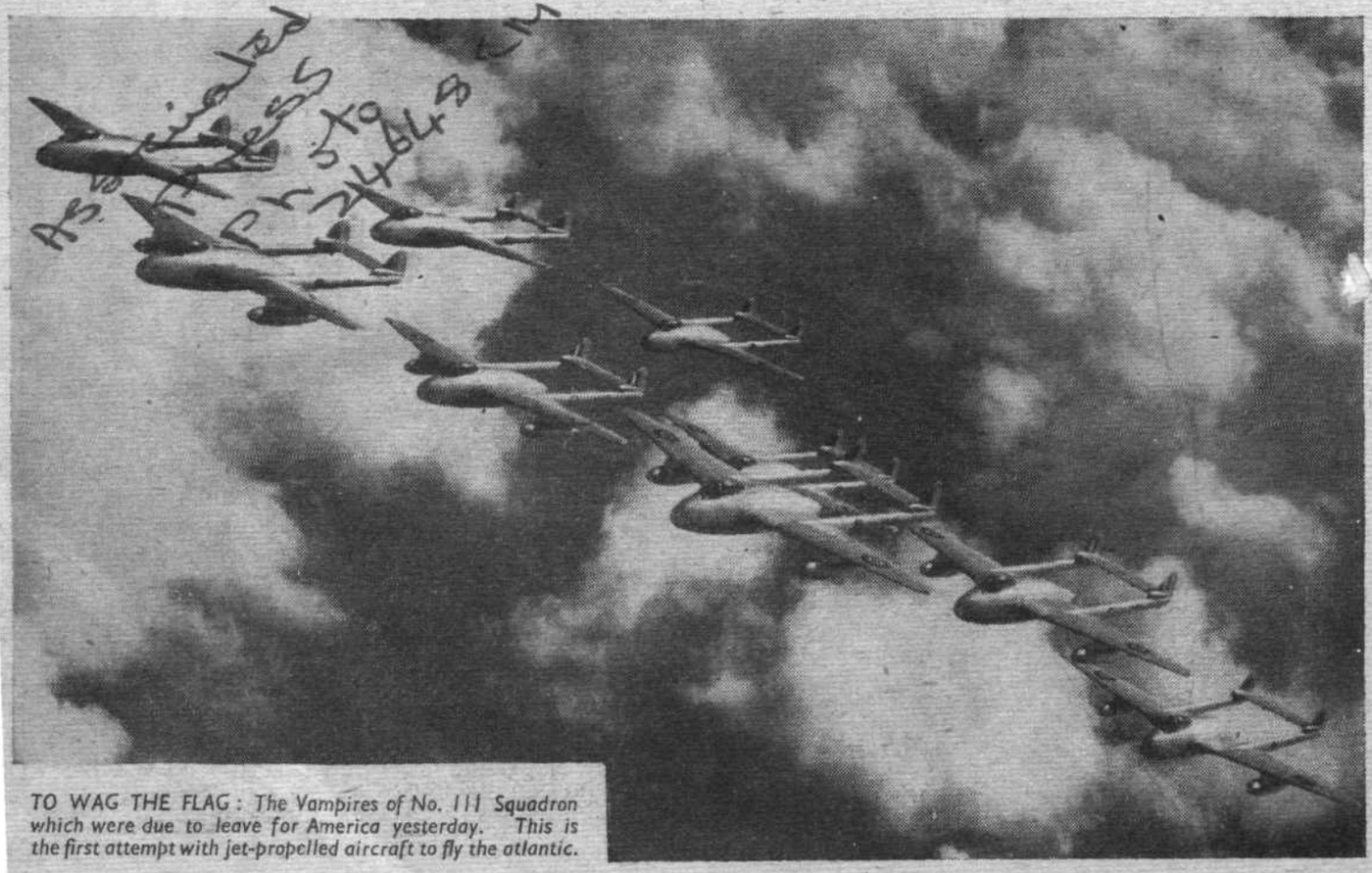
Regarding airscrew-driving turbines, this country has made a good start but there is still a long way to go and no other country has done more than cross the starting line. Even though some well-known gas turbine engineers doubt whether turboprops have either a military or civil future, it is comforting to know that we have at least four different types flying and four others running.

Difficulties were foreseen with airscrew-driving turbines, and fears were expressed very early that the simplicity—one of the most attractive features of the pure jets—would inevitably be lost. Icing problems, which moved up to number one priority following the solution of early reduction gear troubles, have temporarily taken second place to those concerned with inter-control of power output and airscrew pitch. New devices such as an automatic jet pipe temperature control and new terms such as discing have come into being.

The success of turboprops, which must always be at a disadvantage on the score of weight, cost and complication when compared with pure jets, will depend chiefly upon their economy of operation. However, the operational future of the turboprop may finally be settled by the limitations of its rival. The tremendous difficulties surrounding the building of either a large military or civil aircraft with a practical range, and capable of flying at the speed and height necessary to exploit turbojet performance, may weigh the scales in favour of the otherwise less desirable airscrew-driving turbines as power units for this class of aircraft.

A decision is of immediate and vital importance, and must have the most significant influence on the selection of air transports for use during the next ten or fifteen years. The bold step already taken by one company, in preparing to build a most advanced pure-jet transport must be an encouragement towards similar enterprise from others. Let us hurry slowly like the tortoise, but remember, too, that he makes no progress at all unless he sticks his neck out.

CONTENTS



TO WAG THE FLAG: The Vampires of No. 111 Squadron which were due to leave for America yesterday. This is the first attempt with jet-propelled aircraft to fly the atlantic.