



CANBERRAS are coming. Eight RAF Canberras such as these are visiting Canada early in September.

## News from Britain

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We are in the midst of the annual boiling up which precedes the Society of British Aircraft Constructors Display at Farnborough. There are the usual efforts to get new things ready in time and there are the usual disappointments. No official list of exhibits has been issued as I send off this dispatch; but such information as I have suggests that this will be a year in which the main technical interest will concentrate upon the new engines.

► **New Engines.** Present arrangements are for flight demonstrations of the Rolls-Royce Conway; the de Havilland Gyron and the Bristol Orpheus.

Besides these three, there will be the Blackburn Palouste in the new Fairey ultra-light helicopter and the new direct injection de Havilland Gipsy Major 200 in the Saunders-Roe Skeeter. There is also the intention, at the time of writing, of giving flight demonstrations of the de Havilland Spectre rocket motor in a Canberra.

Pride of place must go to the Conway, the first high powered by-pass engine in the world to do its flight trials. Air line operators everywhere are looking to the by-pass type of power unit to bridge the speed gap between the turbo-prop—which will take speeds up to about 425 miles an hour but not much farther—and the turbojet which does not become really useful until 500 miles an hour is reached or passed.

The by-pass will work well in the 400 to 600 miles an hour speed bracket and it should offer certain important advantages to the operator such as lower noise levels and reduced fire risks. The Conway may be the big technical news of this 16th SBAC Display.

► **Avro CF-100.** Among the aircraft to be shown, much interest will centre upon the Avro CF-100 all-weather fighter, making its first public appearance in England, and upon its Orenda engines.

It may be recalled that the CF-100 achieved a remarkable success in Paris and attracted the attention of the many NATO observers who were there.

Undoubtedly in Paris this aircraft gained some of its applause through the excellence of the flying of the pilots; both in formation and as individuals. And at Farnborough, although the heads of companies are loth to admit it, the quality of the flying has much to do with the amount of attention an aircraft will attract.

► **Duke and Tennant.** Among the single-seat interceptors the Folland Gnat and the Hawker Hunter Mark 6 are likely to be demonstrated in flight and both of these machines will be flown by pilots of great skill, S/L Neville Duke in the Hunter and S/L Tennant in the Gnat. Both these men have had trying experiences recently.

The Gnat canopy came adrift when Tennant was at 30,000 ft. the other day and he was slightly cut and bruised and had to make a belly

landing—a thing he achieved successfully and with little damage to the aircraft.

Duke also had to make a forced landing in a Hunter and he also succeeded. But this sort of experience is inclined adversely to affect a pilot's performance in a display. The Gnat, by the way, has the inboard ailerons which are specified for the production model. It should be capable when the engine is providing the necessary power of exceeding Mach 1 in level flight.

► **Jet Lift.** Conflicting reports have been in circulation about whether any form of jet lift is to be demonstrated at Farnborough. At the R.A.E.'s jubilee celebrations the Rolls-Royce flying bedstead was on show, but it did not make a flight. There have been suggestions that it ought to do so at the SBAC Display. So far, however, no provision has been made for this.

It will be recalled that the bedstead must have a prepared surface from which to take off. It cannot take off from ordinary concrete or other hard surfacing in which moisture is present because the jet streams boil the water.

The other aircraft with a partial form of jet lift is the Meteor prepared by Westland, with two Nene engines equipped with jet deflectors designed by the National Gas Turbine Establishment.

These deflectors steepen the approach and noticeably decrease the speed at touch down. Bristol have a similar device under development as a sequel to their purchase of the license to manufacture the French SNECMA jet deflector.

► **Ultra-light Helicopter.** Only three completely new aircraft are expected to appear at Farnborough, the Handley Page Herald (and there is still doubt on whether it will be ready in time), the Scottish Aviation Twin-Pioneer and the Fairey ultra-light helicopter.

The helicopter is unusual in its seating arrangement for although the seats are arranged side-by-side, the pilot and the observer face in opposite directions. This is said to give the best coverage for the kind of Army duties for which this machine is intended.

The Fairey's engine will be a gas producer and the rotor drive will be contrived by carrying the gases out along the hollow blades to tip nozzles. This same company may be able to give a flight demonstration of its Delta 2 research aircraft, a machine with an Avon engine capable of extremely high speeds.