

BRITAIN CALLING

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As 1951 begins the British Aircraft Industry is once more tooling up for expanded production of service aircraft. A three-year plan for increased defence measures announced in August, 1950, and before the end of the year the Government had announced that orders had been given for the whole of the aircraft for delivery in the first two years of that program. Orders have been given for both day and night fighters—the Venom high speed, high-altitude interceptor fighter and the Meteor N.F. 11 night fighter; for tactical bombers—the Canberra B.2—and work is being accelerated on the prototypes of the new heavy multi-jet bombers.

Time Required: Given time and the raw materials, the Industry will once again assure the supremacy of the RAF. But at the beginning of this new year, the possibility of shortage of raw materials is causing some anxiety and the time element is the most problematical factor.

Last month the announcement was made that production of the English Electric Canberra was to be undertaken by three other firms (Handley Page, Short Brothers & Harland, and A. V. Roe), while Rolls-Royce Avon gas turbines were to be built by Bristol and Napier, as well as by Rolls-Royce. Now it has been announced that, at the request of the Ministry of Supply, the Bristol Aeroplane Company is also to build the DH Venom, already in production at de Havilland.

Besides the Venom interceptor which has been ordered for the RAF, two-seater Venom N.F.2 night fighters have been ordered by the Royal Navy.

Boundary Layer: Both the Venom and the Hawker P.1081, two of the fastest British jet fighters flying, have recently been fitted with boundary layer fences. Fitted to the leading edge of the swept-back wings, these "fences" are vertical plates of metal shaped like an aerofoil, which help to prevent the wing-tip stall effect likely to occur on swept-back wings during landings and manoeuvres at high speeds.

European Co-operation: Italy, which has already taken delivery of a number

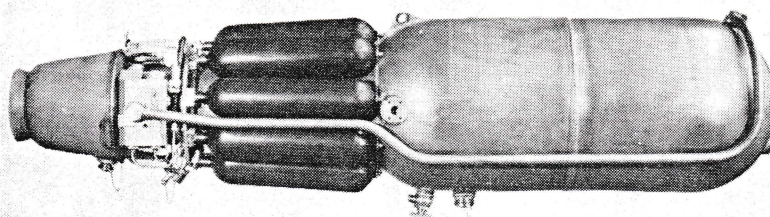
of DH Vampire fighters and has ordered more, acquired a license to build Vampires and DH gas turbines in November, 1949. Now de Havilland has announced that arrangements have been made for the Venom to be built under license.

Preparations for building the Vampire and DH gas turbines in Italy have been completed faster than had been expected, although they were complicated by the need to transpose British measurements into metric measurements. Manufacturing data for the Vampire completed in September last and Italian-made jigs and tools are

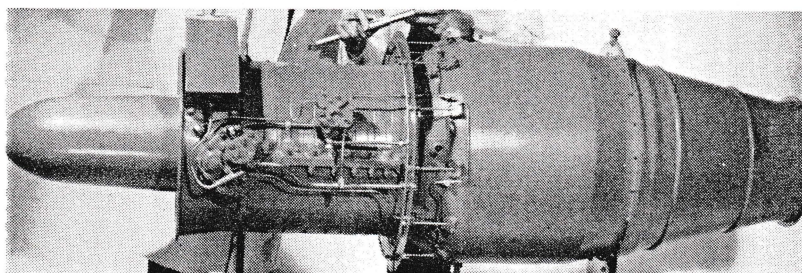
build Venom airframes, assembly work being done at the Fiat and Macchi works.

Co-operation between De Havilland, Italy and France, which is also building Vampires under license, made possible the speed which has been achieved in the Italian production arrangements. Sweden, which is also building DH jet engines also helped Italy in the provision of metric data. Such co-operation between European nations is one of the brighter sides of the somewhat gloomy general international outlook.

An interesting point is that complete interchangeability of major DH components is maintained between the countries building DH aircraft. British, French and Italian jigs are checked to a uniform standard by de Havilland so that in spite of the translation of



SPRITELY: Above is the de Havilland Sprite, a rocket motor for which provision has been made in the Comet. The Sprite burns hydrogen peroxide and gives a maximum thrust of 5,000 lb., with a total period of operation of 12 seconds. At bottom is the Armstrong-Siddeley Viper, which is being used to power a new Australian radio-controlled pilotless aircraft. With an overall diameter of only 20 ins., and a weight of about 400 lbs., the Viper has a thrust of 1,500 lbs. It has an annular combustion chamber.



ready now so that quantity production of the Vampire can start almost immediately. As preparations for building the Ghost gas turbine also progressed more rapidly than had been expected, final arrangements have been completed for the Italian license to build Venoms.

Ghosts and Venoms: The DH Ghost will be built by the Fiat, and Alfa Romeo companies and the Fiat, Macchi and Ambrosini companies will

measurements interchangeability is assured.

Design for Maintenance: Much has been said and written during the past few years about "Design for Maintenance" and there have been many suggestions and pleas, especially from ground engineers and those who were engaged on maintenance and servicing of service aircraft during the 1939-45 War for more attention to maintenance