THE FRENCH INDUSTRY
Current Products and Prospects

The French aircraft industry is in many ways very similar to that in Britain and it has, during the past two years, suffered a reduction of defence orders in very much the same way. But apparently regrettable cut-backs are offset by the fact that France has a Mach 2 interceptor and, unlike Britain, a supersonic bomber. Sud alone have built over 1,000 helicopters, many of them turbine-powered, and a jet airliner has gone into service.

A few vital statistics serve to size up the industry in general. Altogether, it employs 85,000 people, and last year the turnover was nearly Fr. 200 \times 10^9—approximately equivalent to that of the French ship-building industry. Covered floor-area totals 21,520,000 sq ft, half of it used by the airframe constructors. Of 23,700 machine tools, 39 per cent are used for airframes, 26.5 per cent for engines, and 34.5 per cent for equipment manufacture.

The accompanying map illustrates the distribution of the aircraft factories and the concentration of 60 per cent of the manpower in the Paris region. While 1957 was a peak year for employment, 1958 saw a 20 per cent reduction of labour for equipment manufacture and a 12 per cent reduction for engines. Of the manpower force, 7 per cent are engineers and executives, 33 per cent technicians, designers and administrative, and 60 per cent specialist, skilled and unskilled workers. About one-third are occupied on prototype and research work.

Among the 250 aeronautical companies, 18 airframe and engine manufacturers employ 73 per cent of the total manpower. Of the 250, 157 companies belong to the Union Syndicale des Industries Aéronautiques (equivalent to the S.B.A.C.). It is noticeable that sub-contract work is well spread around to keep each company busy as far as possible. A tremendous effort has gone into the rapid production of the Caravelle, in which probably 50 per cent of the French industry is involved. A number of aircraft companies, such as Latécoère, Sipa and Hurel-Dubois, subsist virtually on sub-contracts. Hispano-Suiza is now concentrating on hydraulics. French manufacturers have established an excellent reputation for landing gear, powered controls, radio and instruments, and for large radar aerials.

Carefully stimulated by the Government, the club and touring aircraft movement has given birth to a number of thriving small companies with quite large production capacity. Amongst these are Wassmer, S.A. Normande, Fauvel, Coopavia, Rousseau Dinard, Alpavia and several others.

The following are brief notes on the major companies.

CURRENT PRODUCTION

Bréguet Over the years Bréguet have been responsible for some remarkable designs, but have also suffered ill-fortune. The very promising 1001 Taon and 1100 were cancelled. The 761 Deux Ponts gave excellent service but did not catch on, and the order for fifteen 765 Saharas was cut to four, leaving the company with the sub-assemblies for the remainder "on the shelf." But full production has begun at Biarritz for a batch of 75 Alizés, which are claimed to be the best single-engined anti-submarine aircraft in the world. Against fierce opposition, Bréguet have won the competition for the NATO maritime patrol aircraft with the Rolls-Royce Tyne-powered 1150, and construction of the first of these has begun.

After considerable successes with the 901 glider, a batch of 100 Fauvette standard-class single-seaters has been begun, and the Ouester two-seater will fly soon. The 810 stratospheric research glider is also nearly complete. It is reported that Bréguet are to demonstrate a Taon at Paris; and details have been released of the 1003, an advanced Taon powered by a Bristol-Siddeley Orpheus 12.

One of the most remarkable Bréguet projects yet is the Intégral, of which the 940 prototype has now been flying for some time. At 14,300 lb, in zero wind, it can reach 50ft in 210 yd, and should land over 50ft in the same distance. A prototype of the 941 should fly at the end of next year. (Capital, Fr. 1,375m.)

Marcel Dassault In most ways this is the most potent of the French aircraft companies, run with ruthless efficiency and unstinted investment in resources and advanced equipment. Mass production of Ouragans, Mystère 2s, 4s and Super Mystères, not