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Two new British jet airplanes have made their bow, the Vickers-Armstrongs Supermarine 510 and the Hawker P.1052. Outstanding features of the Supermarine 510 are the swept-back wings and swept main and tail surfaces.

Designed to investigate the problems of flight at and beyond the speed of sound, the Supermarine 510 is powered by a Rolls-Royce Nene jet engine, new variants of which are giving 5,500 lb. S.T. The 510 is a development of the Supermarine Attacker Naval intercepter and has a span of 31 ft. 8 ins. and

Griffon engines which drive four de Havilland six-blade contra-rotating propellers. Span is 120 ft., length 77 ft. 6 in. and height 17 ft. 6 in.

Designed specifically for reconnaissance duties, including shadowing and striking at underwater and surface vessels, it is intended mainly for use at medium and low altitudes and is being built for coastal command of the RAF. It carries a crew of ten.

The Shackleton has two forward-firing 20mm, cannon mounted in remotely-controlled barbettes on each side of the nose, two 20 mm, cannon

MAMBA MATING: The new Armstrong Siddeley Double Mamba is basically two Mamba II engines placed side by side. Although both engines are joined at the front and use the same air intake and propeller shaft reduction gear casing, they are individual power units, either of which can drive its co-axial airscrew independently. Total weight is 3,010 lbs. Maximum output (sea level, static), 2,540 shp and 768 lb. th.

a length of 38 ft. It has already flown. The Hawker P. 1052 jet fighter is also powered by a Rolls-Royce Nene and has moderately swept-back wings. In some respects it resembles the Hawker P. 1040.

# Avro Shackleton

Details have at last been released of the Avro 696 Shackleton, most powerful piston-engined aircraft to be built for the RAF. It has four Rolls-Royce in a B. 17 Dorsal turret and two 0.5 in. machine guns in the Boulton Paul tail turret. A single bomb compartment occupies the full width of the fuselage and, enclosed by two doors, extends from the radar dome under the nose to a point several feet aft of the trailing edge of the mainplane. Comprehensive radar and radio equipment is carried for all-weather operation and fluid de-icing equipment is provided on the mainplane, tailplane,

fins, propellers, air bomber's window and pilot's windscreen. Details of performance and new equipment are still secret.

The Shackleton made its first flight early in March.

#### The Apollo

The Prototype of the Armstrong Whitworth Apollo has also made its first flight, powered by four Armstrong Siddeley Mamba, turbo-Propengines. The prototype is intended solely for test flying but a second Apollo, now under construction for the Ministry of Supply, will be pressurised and fully equipped for airline service, carrying twenty-four passengers.

The next S.B.A.C. Display should see many new and interesting types on exhibit.

#### New Equipment

Various items of new equipment connected with aviation are also being shown at the British Industries Fair. Included are the new Chloride Electrical Exide 24-volt aircraft batteries. These have new, strong and lightweight Polythene containers which, the company claims, makes them the lightest aircraft batteries in the world for their voltage and capacity.

Hymatic Engineering Co. Ltd is another company well represented at the B.I.F. with several examples of lightweight, static, mobile and portable precision-made air compressor sets. These include the mobile HMS25 petrol engine set which has a working pressure of 150 p.s.i. and is already used by airlines. Among the new compressor sets is the mobile HMS11 which is driven by a 2 hp electric motor and has a working pressure of 100 p.s.i.

### Looking Back

The emphasis these days is all on speed and newness, but as a welcome change the Royal Aeronautical Society's Garden Party, the first Garden Party to be held since the granting by the King of a Charter of Incorporation to the Society, has gone back to the old flying days. Many almost forgotten types, mainly light airplanes, were shown — and flown — at the Society's Garden Party on May 8 at. White Waltham, wartime headquarterters of Air Transport Auxiliary and now occupied by the Fairey Aviation Co. Ltd.