

of ammunition; that is, sufficient for about six seconds' firing. Cabin pressurization starts at 15,000ft and maximum differential is  $3\frac{1}{2}$  lb/sq in at 40,000ft and above. Standard equipment is one multi-channel V.H.F. transmitter/receiver, with single-channel stand-by and tele-briefing, radar ranging, I.F.F. and a radio compass or other navigation aid.

At full load the interceptor Gnat requires 760 yd to clear a 50ft screen under tropical sea-level conditions, and under the same conditions the tactical version requires 1,375 yd. The same take-off performance is attained in temperate conditions from an airfield at 5,000ft altitude.

It is officially stated that a thinner—6 per cent—wing has already been designed and that this, coupled with up-rated versions of the Orpheus, will give "full supersonic capabilities". To these may be added A.I. equipment and guided weapons (as an alternative to the two Aden guns). Mention is made in a brochure of Gnat "supersonic Mk 2 and Mk 4 developments".

**Hispano HA-200-R1 Saeta.** This resourcefully designed Spanish tandem-seat trainer bears the flags of the numerous countries in which it is being demonstrated. It is powered by two Turboméca Marborés and was designed under the direction of Professor Willi Messerschmitt. It uses many of the components of the HA-100 piston-engined trainer.

**Hurel-Dubois H.D.341.** The H.D.341 is an armed-patrol and police version of the H.D.34, and is also considered to be particularly suitable for the putting down and picking up of agents, and for other "special" missions. The crew is two pilots (one a forward machine gunner), observer, radio operator and two aft gunners; and armament is four 12.7 mm guns forward, two 7.5 mm guns aft, and eight rocket projectiles attached to the characteristic Hurel-Dubois wing-bracing struts. An endurance of 28 hr is possible. When equipped to carry 60 armed soldiers the aircraft can cover a distance of 430 miles, land on a 300-yd unprepared strip, take off and return to base without refuelling.

**Morane-Saulnier M.S.1500 Epervier.** Details are given of this new light army co-operation and ground-attack aircraft, a prototype of which is under construction. The picture of a model on the right shows that it is of elementary design, with fixed undercarriage and forward-placed cockpits, giving an exceedingly fine field of view over the nose-mounted Turboméca Bastan turboprop. There are fittings for machine-guns, bombs, R.P.s or guided missiles, and liberal armour protection is provided. Internal kerosene can be supplemented by external tanks, which increase the endurance at 10,000ft from 4 hr to  $7\frac{1}{2}$  hr. Other data are: span, 42ft 1in; length, 33ft 3in; gross weight (without external tanks), 5,500 lb; gross weight (with external tanks), 6,000 lb; max. level speed, 206 m.p.h.; rate of climb at s.l. (max. continuous r.p.m.), 1,700ft/min; take-off run to clear 50ft, 820ft; landing run from 50ft, 790ft.

**North American NAA-249.** One of the most attractive models in the whole show is that showing this "jet training system". The makers give as its functions orientation, check-out, aerobatics, navigation, instrument flying, night flying, formation flying, pilot proficiency, gunnery, rocketry, bombing and target-towing. Particular attention has been paid to maintenance and waist-level access may be had to all major systems and equipment. Removal of the complete turbojet—a Westinghouse J34 or Bristol Orpheus—is possible in under 20 min. Gross weight is 9,480 lb.

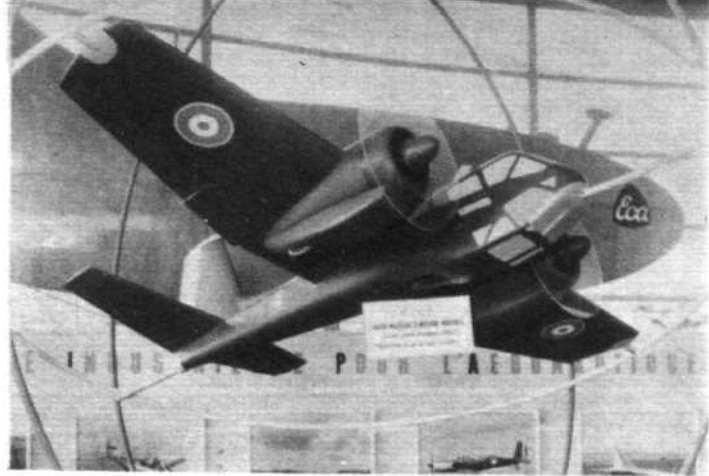
**Piaggio P.155.** Models show two military versions of the P.155 amphibian, a civil edition of which is illustrated on page 735. The SAM.1 is an air/sea rescue version with two Pratt and Whitney R-2800 piston engines, and the P.155AS is a turboprop-powered anti-submarine version. The SAM.1 would accommodate 20 "rescuees".

**Polish Industry Bies TS-8.** This machine is a tandem-two-seat trainer with retractable undercarriage and powered by a Polish WN-3 seven-cylinder radial engine of 320 h.p. Last December it set up an international height record for Class 1-c aircraft of 7,084 m. In May it added to this the closed-circuit distance record of 2,883 km. The workmanship of the skinning leaves a little to be desired and access over the fabric-covered flaps, though assisted by good handholds, appears a little awkward. Never-exceed speed and cruising speed with 75 per cent power are respectively 310 m.p.h. and 167 m.p.h. First-class manoeuvrability was demonstrated over Le Bourget last Sunday.

**Potez 75.** It will be remembered that this sturdy piston-engined pusher monoplane was originally intended as a specialized anti-tank aircraft, but it is now in production—to the extent of 100 machines—as a light ground-attack aircraft for colonial service. Fifteen pre-production aircraft are being built in addition to the prototype. The normal built-in armament is four machine-guns, and the crew of two have heavy armour-protection. Nord S.S.11 missiles are optional armament.

**Potez P.91.** An artillery observation aircraft powered with a Potez 4D30 engine.

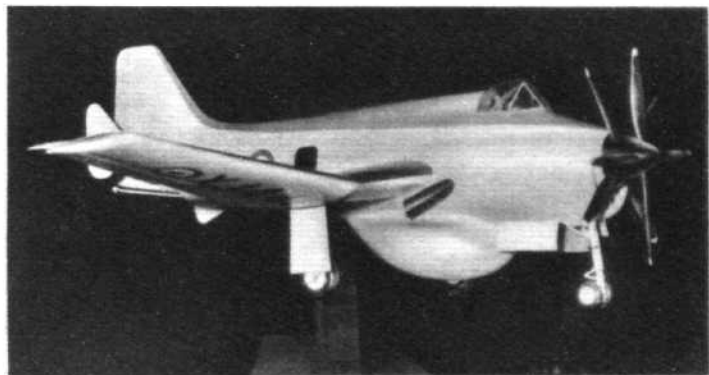
**Sipa S.1100.** In appearance and purpose the S.1100 is strongly reminiscent of the pre-war French type *coloniale* machines.



S.I.P.A. 1100 twin-engined multi-purpose aircraft (model).



Morane-Saulnier M.S.1500 light ground-support aircraft (model).



Fairey Gannet A.E.W.3 early-warner (model).

Powered with two Pratt and Whitney R-1340 engines, it is a shoulder-wing monoplane with generously glazed nose and is suitable for ground attack, photography and reconnaissance. A model is shown at the head of this page.

**S.N.C.A. Nord 1405 Gerfaut II.** This development of the Gerfaut I first flew on April 17, 1956, and has since established world's climbing records (3,000 m in 51 2/10 sec; 6,000 m in 1 min 17 2/10 sec; 9,000 m in 1 min 34 sec; 12,000 m in 2 min 18 sec; 15,000 m in 3 min 56 5/10 sec.) The engine is a S.N.E.C.M.A. Atar G. Empty weight is 9,038 lb and gross weight is 11,680 lb. Ceiling is over 55,000ft. A Gerfaut IV, with Atar 9, is reported.

**S.N.C.A. Nord 1500 Griffon.** Powered with a S.N.E.C.M.A. Atar turbojet and a ramjet, the second prototype of this remarkable canard interceptor made its first flight on January 23 this year. A model shows a developed version to have small anhedral fins (virtually forming a small tailplane) at the rear of the fuselage.

**Sud S.E.212 Durandal.** The power units of this supersonic delta-wing interceptor are a S.N.E.C.M.A. Atar G and an S.E.P.R.

Demonstration model of A.W.660 military transport.

