Left, SM-1 (Polish-built version of the Soviet Mi-1) during a recent demonstration of its hovering ability.

OUEST-AVIATION

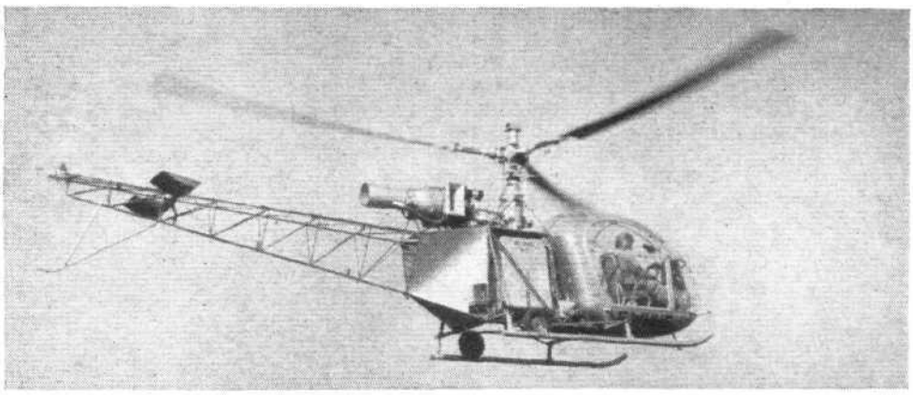
105, Avenue Raymond-Poincaré, Paris, 16E.
(Kléber 32-20)

S.O. 1221S Djinn Already in full-scale production, this lightweight two-seat helicopter has now appeared in its developed version. The two-blade metal rotor is driven by tip jets supplied with compressed air by a Turboméca Palouste air generator. No tip-burning is used. Residual thrust from the turbine is blown over the aerodynamic rudder to provide directional control. Skid landing gear, crank-handle manual starting and two-seat cabin are standard; additional items are stretcher carriers, spray bars, radio, electrical systems, extra fuel tanks and suspended load-carrying hook.

Rotor inertia is such that rotor r.p.m. can be brought up to 400, turbine reduced to idling, and a jump start, forward flight and controlled landing be made without difficulty. With two occupants the Djinn landed on the Monch in Switzerland at a height of over 13,000ft. Simplicity of construction and handling, safety provided by high rotor inertia and absence of tail rotor, quick starting, good performance and low operating and first cost are claimed as advantages of the Djinn. At a height of 8,200ft, in an ambient temperature of −15 deg C, the machine can take off at a weight of 1,360 lb—44 lb below maximum weight. It can fly a 69 mile stage, allowing 10 per cent fuel reserve, with a load of 610 lb, including pilot.

In military service the Djinn has been tested as a launching platform for wire-guided anti-tank missiles. Principal military applications are training, liaison and artillery spotting. Performance of the production Djinn has been improved by increased rotor efficiency and structural simplification. Aerofoil-shaped cuffs have been added to cover the blade root structure, which was previously exposed.

● Rotor diameter, 36ft 2in; fuselage length, 17ft 4in; empty weight, 793 lb; military gross weight, 1,755 lb; civil gross weight, 1,670 lb; top speed, 81 m.p.h.; maximum range, with 10 per cent reserve, and 18 gallon extra tank, 156 miles.



Above, S.E. 3130 Alouette II. Upper right, S.E. 3120 Alouette I.

Left and right, S.O. 1221 Djinn.

POLAND

TRANSPORT EQPT. FACTORY

Swidnik, Lublin.

SM-1 The SM-1 single-rotor general-purpose helicopter is the Polish version