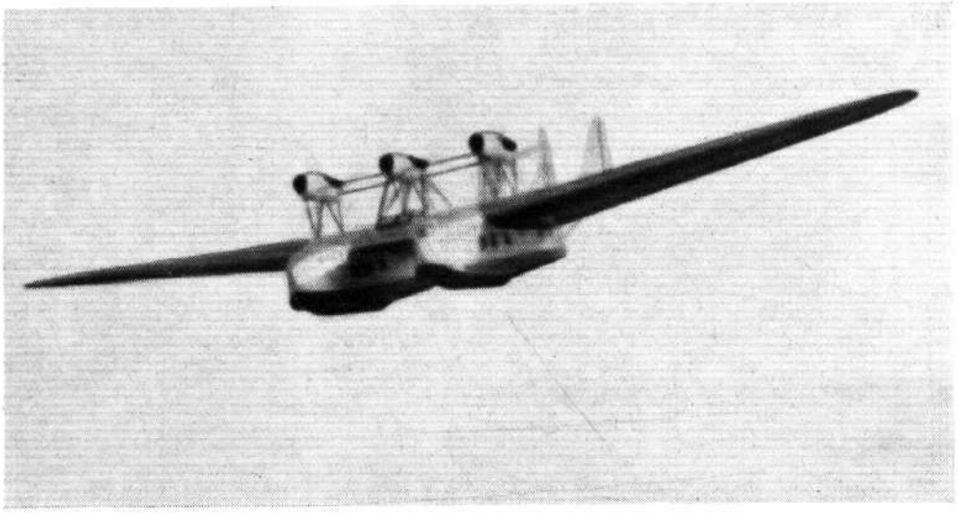
Air Transport

THE SAVOIA-MARCHETTI S.66



The Savoia-Marchetti S.66 twin-hull, three-engined monoplane in flight.

NO doubt most of our readers are familiar with the large Italian Savoia S.55 twin-hull monoseaplanes (already described in FLIGHT on various occasions) which, amongst other accomplishments, were used on the famous "Formation" flight across the South Atlantic led by Gen. Balbo. The S.55 is a Service bombing or torpedo machine with two engines in tandem, and recently the Savoia-Marchetti firm have developed this type into a commercial version, with certain modifications and improvements, known as the S.66.

The S.66 is a tri-motor monoplane, with the double hull and tail outrigger arrangement of the S.55, of wood construction. The cantilever wings are of thick section, tapering towards the tips both in plan form and thickness; they are in three sections, a centre section which connects the two hulls and carries the three engine nacelles and the pilots' cockpit, and two outer sections set at a dihedral angle.

The wings are built up of three spars—a main central one and two secondary ones—and spruce ribs, the whole wing being covered with three-ply and divided into 54 watertight compartments. It is thus capable of providing considerable buoyancy in the event of a forced descent on the water with damaged hulls. The wings are treated with special damp-resisting composition and varnishes.

In the forward portion of the centre section is the pilots' cockpit, with two side-by-side seats, back-cushion Salvator parachutes, and dual control. The instrument board, with the engine controls below, is arranged in front of the seats. The pilots' cockpit communicates with the hulls, right and left, while a corridor, between the second and third centre-section wing spars, also connects the two hulls, enabling the mechanics to attend to the engines during flight—an opening being provided in the top surface of the centre section for this purpose.

The two hulls are also of wood construction—poplar, spruce and ash—with a covering of birch and double cedar planking with inner layers of proofed fabric below the water line. The hulls are able to remain moored in the water for long periods. The V-bottom is provided with a single step. Each hull is divided into five divisions; forward is a small compartment with a companion ladder leading from the top deck and an entrance to the main cabin; next is the main passenger cabin seating seven passengers in sprung armchairs; then comes the passengers' luggage compartment (and entrance to the centre-section wing); behind this is a compartment with two sleeping berths (folding) and another companion way to the top deck; finally, a compartment for freight and mails. The wireless station is located in the main passenger cabin.

Three 500-h.p. Fiat A.22R engines, with reduction gear and variable-pitch four-bladed metal propellers, are mounted in nacelles supported above the centre section