

Radio Equipment in the Solents

*Comfort and Convenience in
Operator's Compartment : Full
Range of Aids to Navigation*

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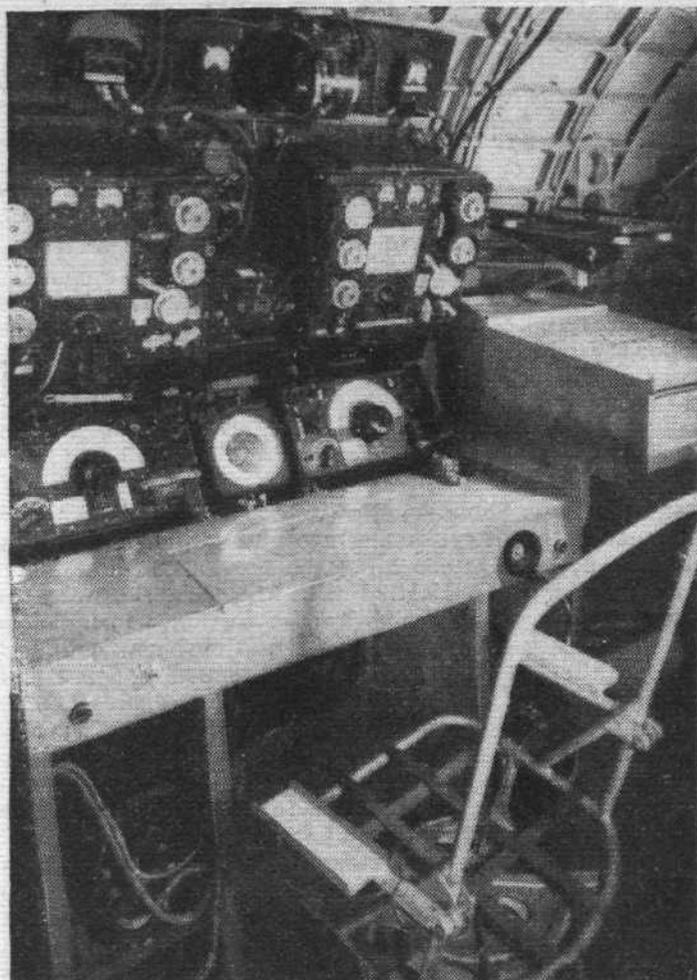
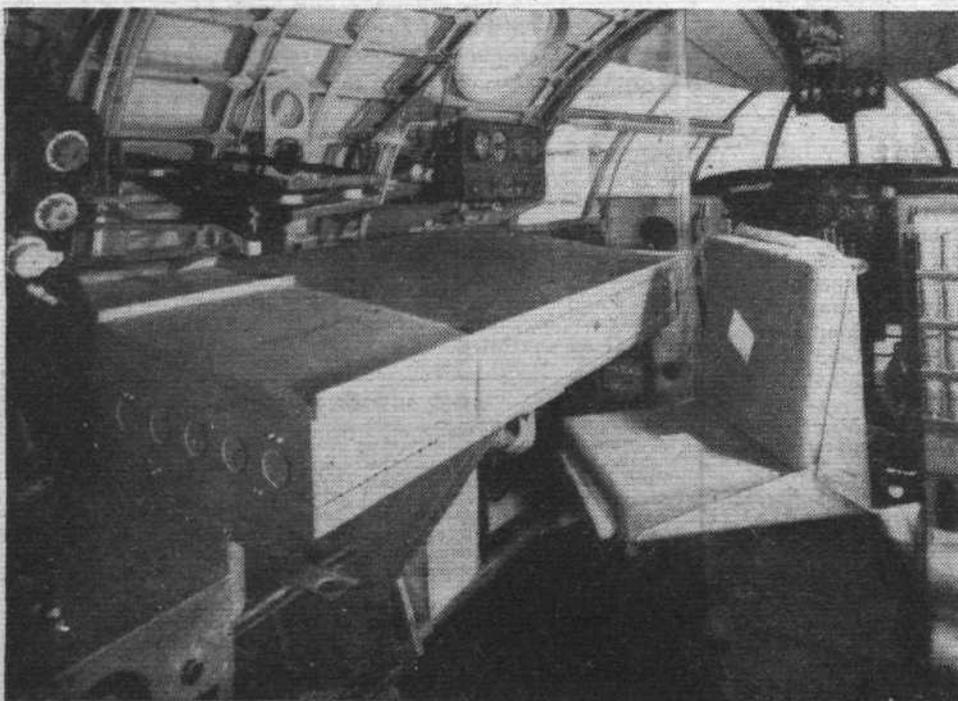
SHORT BROTHERS recently allowed me the privilege of seeing some of the twelve Solent flying-boats at present under construction at Rochester and the radio equipment in *Scarborough*, the second to be launched and now undergoing its flying trials. These aircraft are not absolutely complete when delivered to B.O.A.C. at Hythe so far as seating and internal decoration are concerned, but instruments and radio equipment are all fitted on the Medway.

Although the object of this article is to give a brief description of the radio apparatus being installed in the Solents, I should be less than human if I did not refer to the astonishment I experienced when I went on board and found myself ascending a genuine staircase to the upper deck. There is no doubt that this homely feature has a strong psychological effect on the passenger who is accustomed to the "tunnel" effect of our faster landplanes.

Accessible Equipment

The radio compartment is situated on the port side of the flight deck, immediately aft of the navigator's position. The operator has a full-size desk of the conventional knee-hole pattern, the top of which measures 3ft 7in by 1ft 3in, and is fixed at a comfortable height of 2ft 8in above deck level. The individual pieces of equipment are mounted on the sloping wall of the cabin above the desk, in positions within easy reach of the operator; a very important matter. The knee-hole, which is 1ft 9in wide, provides accommodation for the winch of the standard Marconi trailing aerial, and allows comfortable room for the operator to move his legs. Power units for some of the gear are housed in the spaces on each side of the knee-hole.

The equipment consists of M.F., H.F., V.H.F., D.F.,



RADIO OPERATOR'S POSITION : The AD 87B/8882B in duplicate and the Marconator are conveniently placed, and ample writing room is available.

a Radio Altimeter, an Intercommunication system and A.S.V. Radar.

The well-known general-purpose transmitter and receiver T1154 and R1155 are fitted in duplicate above the desk, but have been slightly modified to bring them into line with B.O.A.C. requirements, and are now known as the AD 87B/8882B. The transmitter covers the whole band of frequencies from 16.7 Mc/s to 200 Kc/s in four steps, and the receiver from 18.5 Mc/s to 75 Kc/s in five steps. The range of the transmitter for air-to-ground telephony, using the trailing aerial, is 200-250 miles, and for C.W. telegraphy it is 300-400 miles; the ranges are reduced to about one-third when using the fixed aerial. D.F. facilities are available in the 3 M.F. ranges of the receiver, and additional D.F. and homing are provided by the Marconator Radio Compass. The H.F. section is further covered by the T.R.1196, a combined transmitter-receiver with four "spot frequencies," crystal controlled, in the 3 to 7 Mc band. This equipment is remotely controlled and, consequently, directly available to the pilot.

V.H.F. requirements are met by the provision of the 1143A combined transmitter and receiver, also known

THE CHART ROOM : The navigator, who is immediately forward of the radio operator, has plenty of room. Finishing touches are to be applied by B.O.A.C.