

FIG. 1—GMD SIMULATOR—INSTRUCTORS CONSOLE

MACHINERY SIMULATION IN H.M.S. SULTAN

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Last year a machinery control room simulator of a guided missile destroyer was installed in the Marine Engineering School in H.M.S. *Sultan*. Designed and built by Redifon Air Trainers of Aylesbury, it consists of a machinery control room panel, the design of which is based on that fitted in H.M.S. *Fife*, together with an instructors console and an analogue computer with its attendant power packs.

The room in which the simulator is fitted has been built to the exact dimensions of the control room, and extra fittings (all of which work), such as main and auxiliary steam trips, handwheels operating oil heater controls, See-tru valves, and telephones are sited in the same positions as they are in the ship. When all the equipment is in use the noise level is very similar to that experienced in a GMD control room at sea.

The simulator can create practically all the relevant conditions to be found when flashing up and preparing the steam machinery of one of these ships for sea, as well as providing a high degree of realism when manoeuvring or exercising breakdown drills. The instructor at the console is provided with duplicates of all the controls found on the panel, plus a facility to inject machinery breakdowns and sluggishness of controls.

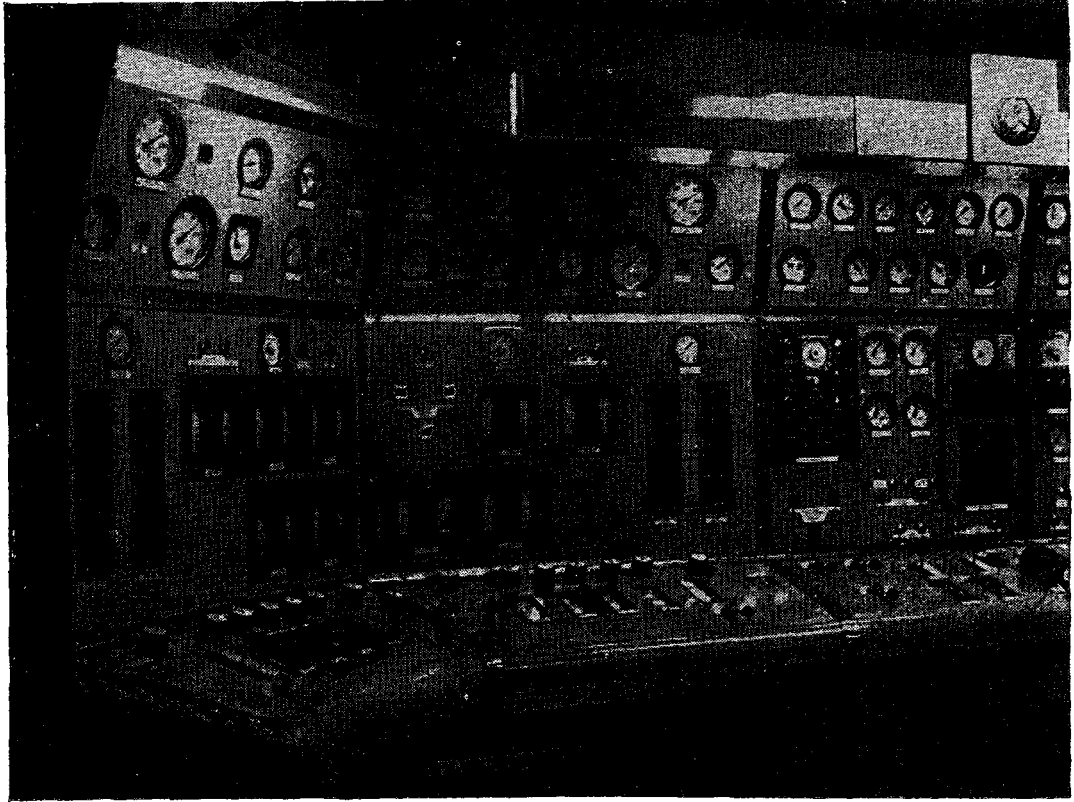


FIG. 2—GMD SIMULATOR—BOILER CONTROL SECTION

The Pre-Commissioning Courses for Guided Missile Destroyers have been lengthened by one week to ensure that sufficient time is spent with the equipment, and a five-day course of training for 'watches' formed from individual GMDs can generally be provided on request by Marine Engineer Officers.

By training on the simulator, officers and men on joining a GMD should already have become familiar with the control panel layout. It is hoped that this familiarity, combined with simulated machinery operation, will help to develop their confidence in operating the machinery.
