

ANY TIME DAY OR NIGHT H.M.S. 'ABDIEL'

BY

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(*S.E.O., H.M.S. Abdiel*)

Introduction

H.M.S. Abdiel (FIG. 1) is an independent command within the MCM Flotilla administered by CMCM. Her role is threefold—as a support vessel to MCMVs; as a command platform to MCM1, 2, or 10, or COMSTANAVFORCHAN during major exercises, deployments, and weapon training periods; and as an exercise minelayer.

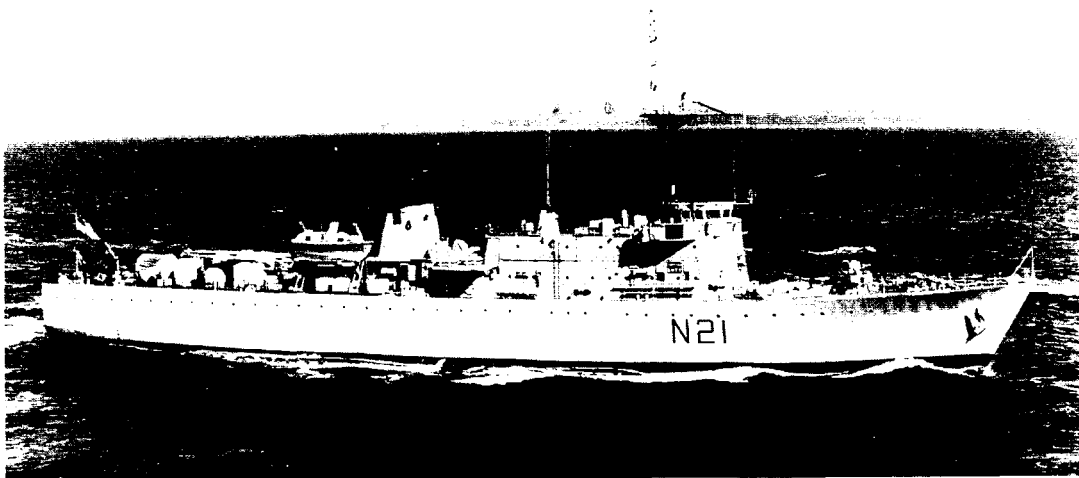


FIG. 1—H.M.S. 'ABDIEL'

She was built by Vosper Thornycroft in 1967 and is the Royal Navy's only dedicated MCM support vessel. Her normal complement is 7 officers, 22 senior rates, and 75 junior rates. This is augmented during exercises and deployments by another 5 senior and 15 junior rates. There is also accommodation for 2 junior officers under training, a doctor, and the MCM Commander, with his 2 staff officers and 2 staff senior ratings.

The advantage of afloat support is that the ship can be placed relatively close to the operational or exercise area, thereby reducing the 'off-task' time for the MCMVs. The MCM Commander can at the same time control his force from on board. A disadvantage of such forward support, however, is that the quantities of stores, spare gear, and fuel available are restricted by the size of hull and the amount of space available.

The ship's principal dimensions are:

Length overall	265 ft
Beam	38 ft 6 in
Displacement	1550 tons
Draught fwd.	7 ft 8 in
Draught aft	11 ft 6 in

Machinery

H.M.S. *Abdiel*'s propulsion plant is 2 Paxman Ventura 16 YJXM diesels, each developing a maximum of 1345 b.h.p. and driving through a Fluidrive scoop control coupling and a Wiseman 4 to 1 gearbox to the shaft. The main machinery can be controlled from any one of 3 positions (2 remote and 1 local). Normal control is from a Machinery Control Room (MCR) which offers the Chief of the Watch a full set of gauges for monitoring of the main engines as well as an all round view of other machinery in his charge in the engine room. Emergency control, in the event of a pneumatic air failure, is in the engine room itself with hand control of the coupling scoops, thus limiting the maximum shaft revolutions to 150 r.p.m. The third means of control is by manoeuvring levers on the bridge, which is used only for the training of Officers of the Watch in the appreciation of engine control and response. As there is no direct means of engine monitoring there, except by telephone to the MCR, this means of control is not used under normal circumstances.

Electrical power is supplied by 3 Paxman Ventura 6 YJCZ diesels driving level compounded d.c. generators with a capacity of 375 kW, 220 V d.c., 1704 A each. Each generator feeds into a single-sided switchboard. As it is not possible to break down the board to allow 2 generators to run on different sections, it is necessary to operate 2 generators in parallel when Special Sea Dutymen are closed up. If, under normal conditions, the sole running generator trips, a total power failure ensues and the shafts have to be stopped until another generator is on load. The emergency generator is a Foden FD4 of 120 kW capacity, feeding an emergency switchboard. This switchboard can also be fed from the main switchboard.

H.M.S. *Abdiel* is fitted with two 4-stage Aqua Flash distilling plants, each capable of producing 2 ton/hour. The steam is provided by Spanner fire tube domestic boilers producing 100 lb/sq in. of saturated steam.

Support Role

When in support, the First Lieutenant is the Support Manager responsible to the Captain for achieving the support given to MCMVs, with the Supply Officer and the Senior Engineer Officer responsible to the Captain for their departmental support. The support family tree is shown in FIG. 2.

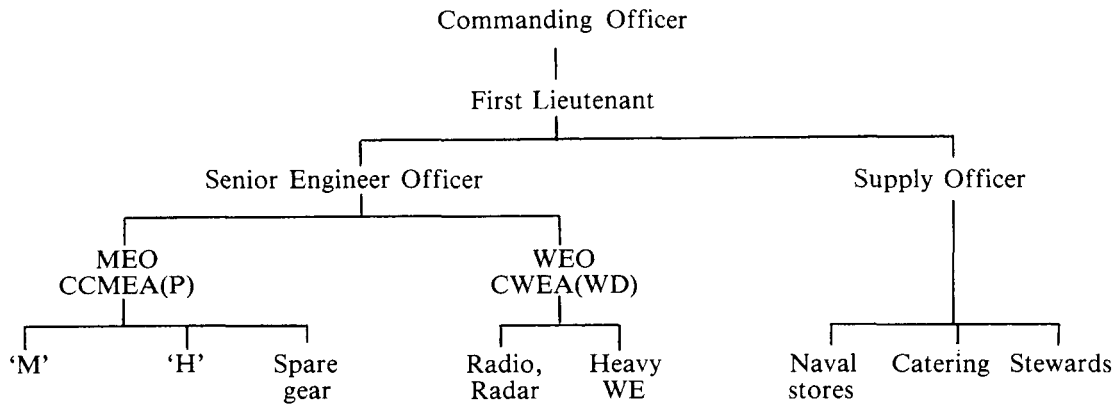


FIG. 2—SUPPORT ORGANIZATION, H.M.S. 'ABDIEL'

Since Naval Stores and Spare Gear have to take into account support stores for issue to MCMVs, in addition to *Abdiel's* own requirements, the stores system on board is larger than that of a frigate. BRs, TPs, PILs/ IPCs, and makers' handbooks covering TON Class MCMVs are also carried to assist in forward planning of defect assistance.

The services and facilities offered to the MCMVs supported are listed in TABLE I.

TABLE I—*Services and facilities available to MCMVs from H.M.S. 'Abdiel'*

A centre-line crane of 7½ ton capacity capable of plumbing the near side of a MCMV alongside.
 A 2-compartment compression chamber for the treatment of divers, with a capability of carrying out transfer under pressure.
 6 in. Colchester centre lathe
 Upright drilling machines, vices, and work benches.
 Large bolt stove rack.
 Lubricating oil test kit.
 Welding bay for oxyacetylene gas welding and brazing.
 Diesel injector test shop.
 Hull repair facilities with large workbench in the Mining Deck and limited space in the shipwrights' shop; standard equipment plus a Universal woodworking machine.
 Limited heavy electrical test and repair facility.
 Naval stores, minesweeping and minehunting stores, engineering spare gear, and armament stores (T-cutters, MDWs, 40/60 and small arms ammunition).
 Extensive range of Service and non-Service provisions.
 NAAFI stores.
 Full sickbay facilities maintained by a POMA, with a Doctor when deployed.
 Chinese laundry.

Conclusion

Whatever the future holds in store for the MCM forces and their various support vessels, H.M.S. *Abdiel* will continue to offer her support services to the MCM Commander and his charges (and to anyone else who needs it) 'any time day or night'.