

## **MARITIME ARCHIVES & LIBRARY**

**INFORMATION SHEET 71** 

# **DEFENSIVELY EQUIPPED MERCHANT SHIPS (DEMS)**

#### **Background**

Following the valuable lessons of Defensively Armed Merchant Ships (DAMS) in the First World War, in 1919 the Cabinet approved an Admiralty and Board of Trade policy for the strengthening of merchant vessels during construction, in order to allow the rapid fitting of armaments when necessary. However, later that year the obligation to do this was withdrawn due to opposition from ship-owners on cost grounds. Between 1922 and 1937 only two vessels had been 'stiffened' to prepare for the fitting of guns.

In 1937 the Admiralty and the Board of Trade formed the Shipping Defence Advisory Committee and by the end of 1938 the Admiralty and Treasury had come to an agreement regarding costs. Finally, preparations were underway. The strengthening of ships in readiness for the fitting of guns began and some training of Merchant Navy officers started, the first gunnery training course taking place on 18<sup>th</sup> July 1938. In June 1939 the Admiralty Trade Division established the Defensively Equipped Merchant Ship (DEMS) organisation.

In the first 6 months of the Second World War some 1,900 ships had been defensively equipped and by the end of 1940, 3,400 of the intended 5,500.

#### **Armaments**

A variety of armaments were fitted to merchant vessels, typically a 4" deck gun at the stern, sometimes a 12 pounder (3 inch shell) usually at the bow. Mounted as either LA (low angle) or HA (high angle). LA weapons for use against surfaced U-boats or surface raiders and HA weapons for anti-aircraft use.

Various less conventional weapons, many developed at HMS Birnbeck, Weston Super Mare, involving rockets and other projectiles, could also be found on merchant ships.

#### Personnel

These weapons required specialist personnel to maintain, load and fire them and they came from a number of sources. Initially the light machine guns were manned by the Army's Royal Artillery, 500 men of the Light Machine Gun section in two man teams, who were taken on and off vessels as they arrived and departed from British ports. The effectiveness of these army gunners was quickly realised and the Maritime Anti-Aircraft Regiment Royal Artillery was formed in 1941, renamed the Maritime Royal Artillery (MRA) in January 1943. The MRA eventually comprised some six regiments, 24 port detachments, with over 14,000 men including 170 officers.

In addition men, often retired or reservists, were recruited from the Royal Navy and Royal Marines. On troopships transporting RAF personnel, troops from the RAF Regiment crewed the guns. Finally over 150,000 Merchant Navy seamen were also

trained and qualified as Merchant Seaman Gunners, including at least one Stewardess. Demarcations did exist as to which weapons could be operated by Naval or Royal Marines or the Army Gunners, however, for practical and manpower reasons they did not last. Despite the administrative differences between the services these gunners came from, which was reflected in the wages they received and the medals they were entitled to, the term 'DEMS Gunner' is commonly used to cover all such personnel.

All members of the armed forces that served on board a DEMS ship were required to sign on as members of the crew, i.e. as merchant seamen and were therefore under the authority of the ship's master. As merchant seamen, military personnel could visit neutral countries without being interned. Therefore, DEMS Gunners will be listed on crew lists.

In 1943 Wrens were appointed as Boarding Officers, to inspect merchant ships when in harbour. Their duties included delivering sailing orders, explaining route alterations, mustering confidential books, as well as checking guns, ammunition and armaments stores and 'keeping an eye on the gunners'.

### **Training**

Usually the senior rank in the military personnel that made up the gun crews would be an Non Commissioned Officer. Amongst merchant crew a ship's Second Mate was often designated as the Gunnery Officer and would have undergone a gunnery training course.

Initially anti-aircraft training took place at HMS Excellent, Gosport Naval Gunnery School, but other locations were soon used, see list below. By the end of March 1944, the Liverpool Area had provided more than 28,000 of the 115,978 courses in the UK. A further 40,905 courses were undertaken abroad, in other ports of the British Empire and in the USA. In Liverpool the Royal Navy shore base, HMS Eaglet, undertook training at the Salthouse Dock, with an anti-aircraft "Dome Trainer" having been constructed within the Dock Traffic Office (where it remained until 1951). More advanced anti-aircraft training at RAF Woodvale air base included live firing target practice with tracer bullets took place. Parachute rocket targets would also be issued to ships for target practices whilst at sea.

## **DEMS Training Ships & Shore Based Establishments.**

HMS Caroline: Gunnery Training, Belfast.

**HMS Carrick**: Gunnery Training, Greenock

**HMS Chrysanthemum II**: Gunnery Training ship, moored on the Thames, in London.

**HMS Claverhouse**: Gunnery Training, Leith.

**HMS Excellent**: Gunnery Training, Gosport (site of prototype Dome Anti-Aircraft Trainer; invented by Lieutenant Stephen RNVR)

**HMS Eaglet**: Gunnery training, Liverpool, including a Dome Anti-Aircraft Trainer, within the Dock Traffic Office.

**HMS Flying Fox**: Training ship berthed at Bristol (Re-named Severn Division after WW2)

**HMS Glendower**: Basic Naval training including DEMS, later Butins, Pwellhi

**HMS President**: Gunnery Training, Thames Area, London.

**HMS President III**: Dedworth Manor, Windsor, Berks: Administration, accounting & pay.

**HMS Safeguard**: Loperwood, Manor, Calmore, Totton, Southampton, (Convalescent/recuperation centre based in New Forest, Hampshire) **HMS Wellesley**: (Formerly Royal Southern Hospital), Hill Street, Toxteth, Liverpool. **HMS Wallace**: Old Destroyer attached to Liverpool base as a gunnery training ship.

### Bibliography/Sources

Author	Title (Maritime Archives & Library reference)
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Brown, Maurice	We Sailed In Convoy (411.BRO)
Doughty, Martin	Merchant Shipping and War (820.DOU)
Elphick, Peter	Liberty The Ships That Won the War (822.ELP)
Evans, Bob	HMS Eaglet: The story of the Royal Naval Reserves on Merseyside (810.EVA)
Howarth, Stephen & Law, Derek(Eds)	50th Anniversary of the Battle of the Atlantic, 1939-1945 (813.HOW)
Hurd, Archibald	Britain's Merchant Navy (822.HUR)
Kerr, J. Lennox (Ed)	Touching the Adventures Of Merchantmen in the Second World War. (822.KER)
Jarvis, Adrian & Smith, Kenneth	Albert Dock, Trade and Technology (710.JAR)
'Lanyard'	Stand by to Ram!(a stirring and graphic account of dramatic episodes in the great Battle of the Atlantic) (813.LAN)
Poolman, Kenneth	Experience of War : British Sailor. (813.POO)
Roskill, S.W.	Merchant fleet at War, Alfred Holt & Co. 1939-1945 (813.ROS)
Sadler, John	Fourth Service, Merchant men at War 1939-1945 (822.SLA)
Van der Vat, Dan	Atlantic Campaign, The Great Struggle at Sea, 1939-1945 (810.VAN)

## **Archive Sources**

The Maritime Archives & Library holds very few records relating directly to DEMS Gunners.

- B/BIBBY/7/4/10 A.M.S.I. (Guard Book) Admiralty Merchant Shipping Instructions
- DX/1516 D.E.M.S.(Defensively equipped merchant ships) pocket book belonging to Patrick Jeffers, an R.N.DEMS gunner during the Second World War, published 1942.

## **Further research**

Convoys - Maritime Archives & Library information sheet number 70.

Merchant Navy service records – Maritime Archives & Library information sheet 43.

Royal Navy service records – Maritime Archives & Library information sheet 66.