

HPB

HEAD OF "P" BRANCH

Sub
30 NOV 1944

A.F.Os. 5125—5244/44

(See A.F.O. Diagram Issue No. 40/44)

RESTRICTED

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Not to be communicated to anyone outside H.M. Service

ADMIRALTY FLEET ORDERS

ADMIRALTY, S.W.1,
28th September, 1944.

The following Orders having been approved by My Lords Commissioners of the Admiralty are hereby promulgated for information and guidance and necessary action.

A list of these Orders is enclosed.

By Command of Their Lordships,

H.V. Markham

To all Commanders-in-Chief, Flag Officers, Senior Naval Officers, Captains and Commanding Officers of H.M. Ships, Vessels and C.O. Craft (see A.F.O. 3758/44) Superintendents or Officers in Charge of H.M. Naval Establishments, and Admiralty Overseers concerned.

NOTE:—The scale of distribution is shown in the Admiralty Fleet Order Volume, 1941, Instructions, paragraph 10.

HEAD OF "P" BRANCH

ADMIRALTY FLEET ORDERS

- | No. | Subject. |
|-------|--|
| 5124. | Reallocation of Man Power—Summary of Government Plan— <i>Issued separately.</i>
28th September, 1944. |

SECTION 1.—ADMINISTRATION OF THE FLEET, CEREMONIES, FOREIGN PORT REGULATIONS, ETC.

(Station Limits : Fighting Efficiency of Ships : Naval Aircraft Administration : Internal Organization of Ships : Navigation and Seamanship : Fleet Exercises and Practices, etc.)

5125. Defence Regulations—Order Issued Under.
5126. Senior Officer, Naval Air Stations, Orkney—Appointment.
5127. Telegraphic Addresses for Naval and Civil Authorities (Home)—Amendment No. 2.
5128. M.L. Equipping Base—Brixham—Closing.
5129. United Nations Relief and Rehabilitation Administration.
5130. German Hospital Ships.

SECTION 2.—PERSONNEL, PAY, SERVICES, DISCIPLINE, ETC.

5131. Honours and Awards—"London Gazette" Supplement of 19th September, 1944.
5132. Honours and Awards—1939-43 and Africa Stars.
5133. Honours and Awards—Africa Star—Issue of Ribbon to W.R.N.S.
5134. Honours and Awards—United States Coast Guard Service.
5135. Honours and Awards—United States Naval Reserve.
5136. Honours and Awards—French Navy.
5137. Honours and Awards—Royal Netherlands Navy and Naval Reserve.
5138. Honours and Awards—Royal Norwegian Navy.
5139. Promotion of Temporary Reserve Officers to the Rank of Commander.
5140. Grant of Acting Lieutenant Commander's Rank to Lieutenants R.N., Permanent Lieutenants R.N.R. and R.N.V.R., and abolition of Additional Seniority Scheme
5141. Examinations for the Ranks of Paymaster Lieutenant Commander, Paymaster Sub-Lieutenant, Warrant Writer, Warrant Supply Officer, Warrant Cook and Warrant Steward, R.N.
5142. Commissioned Shipwrights—Zone for Promotion to Shipwright Lieutenant.
5143. Qualifying Examination for Warrant Ordnance Officer. Candidates who have failed final Board for Sub-Lieutenant (E)—REPORT.
5144. Mechanic Branches.
5145. Members of Q.A.R.N.N.S. and Reserve Serving Ashore—Pay Arrangements.
5146. Examinations of Civilian Examining and Professional Bodies.
5147. W.R.N.S.—Retention of Rank on Termination of their Appointments.
5148. E.F.M. Telegrams to Sea-going Ships.
5149. Loss of Effects—War Risks Insurance—Revised Premiums.
5150. Deafness due to Gunfire—Recording in Medical Officer's Journals.
5151. H.M.S. "Cobra"—Visits by C.O. and R.M.L.C. Personnel.
5152. Entry of Service Personnel into the Isle of Wight Defence Area—Cancellation of Restrictions.
5153. Admiralty Surgeon and Agent.
5154. Admiralty Surgeon and Agent.
5155. The United Services Trustee.
5156. Instructional Film—"Technique of Instruction in the Army" (Serial Number B.775/7).
5157. Instructional Film "The Brown Hydraulic System of Telemotor and Steering Control" (Serial Number A.119).
5158. Instructional Film "Weather at War" (Serial Number G.602).
5159. Instructions for Classification in Age and Service Groups.

SECTION 3.—G., T., N., E., ETC., & STORES; HULL, EQUIPMENT & FITTINGS.

Gunnery.—(Guns, Mountings, Ammunition, Turrets, Directors, Fire Control, Diving Apparatus, Magazines, etc., and Stores.)

5160. Ammunition—General—De-ammunitioning of H.M. Ships—Notification to R.N. Armament Depots.
5161. Ammunition—Flares Identification, Type 9, Lot 37A filled 2/43 W. F. Ltd.—Withdrawal.
5162. Ammunition—Magazine and Other Spaces Containing Explosives or Inflammable Stores—Electrical Equipment—As. and As.
5163. Ammunition—Pyrotechnics and Rockets Signal—Flares Illuminating White, Types 26 and 26E—Obsolete.
5164. Ammunition Supply—Ready Use and Magazine Lockers—R.U. Stowages—20mm. Oerlikon—Modification—As. and As.

SECTION 3.—G., T., N., E., ETC., & STORES; HULL, EQUIPMENT & FITTINGS—*contd.*

Gunnery.—(Guns, Mountings, Ammunition, Turrets, Directors, Fire Control Diving Apparatus, Magazines, etc., and Stores)—contd.

5165. Anti-Ship Fire Control—Director Control Towers—Alternative Open or Barrage Sights for Type P Sight Binoculars, Patterns G.363/4/5/6.
5166. Diving—Gas Meter, Pattern 130—Extension of Allowance.
5167. Guns—Q.F., 4-in., Mark XIX—Case, Striker—Modification to Ensure Correct Assembly of Sear.
5168. Guns—Q.F., 3-in., 20-cwt.—Ammunition Chamber Gauging of Rounds.
5169. Guns—Q.F., 3-in. 20-cwt., Marks I, ID and IE—Lever breech mechanism—Modification.
5170. Guns—Q.F., 40-mm., Marks IV and VIII—XI—Key, Mark II, Extractor Spindle, Mark II—Introduction.
5171. Guns—20-mm., Hispano Belt Feed Mechanism, Mark I*—Securing of Tie Rods.
5172. Guns—Browning, 0.5-in.—Watercooled Water Chests—Lagging.
5173. Gun Mountings—5.25-in., Marks I and II, 4.7-in., Marks XIX, XX and XXII, 4.5-in., Marks II, III, IV and V—Adjustment of Trunnion Anti-Friction Bearings.
5174. Gun Mountings—4-in., Twin Plain and R.P.50 Series, Mark XIX Mountings—Barrel Dismounting Gear—REPORTS.
5175. Training—Instructional Appliances—Dome Teacher—Modified Mark XIV Gyro Gunsight for Use in the Dome A.A. Teacher.

Torpedo.—(Torpedoes, Tubes, Mines and Minesweeping, Depth Charges, Paravanes, Electrical Equipment, Anti-Gas, Aircraft Torpedoes, etc., and Stores.)

5176. Demolition Charges—Charge, Line, 60/Blocks, C.E./T.N.T., 14-oz.—Introduction.
5177. Depth and Roll Recorder—Testing Apparatus.
5178. Depth Charge Equipment—Attachments to O.M.L. 9.5-in. Depth Charge Throwers, Marks II and IV "Y" Guns, Mark III, and Projectors, Mark 6, for Removal of Primer Safety Forks and Safety Links of Pistols Depth Charges, Marks XXII and XXIII.
5179. Depth Charge Projectors, Mark 6, Mod. 2—Modification to Extractor.
5180. Depth Charge Throwers, Mark IV—Damage to Carrier Stalks.
5181. Paravanes, C IV*—IV**—Supersession by Mark VII Type.
5182. Switches, D.P., 6 ampere—Introduction of New Types.
5183. Lighting in Switchboard Compartments.
5184. 1940 Type Combined Overload and Reverse Current Relays in Supply Breakers—Settings.
5185. Torpedoes—21-in., Mark VIII**—Introduction of New Design Check Valve in Air Supply to Bottles.

Navigation.—(Navigation Stores, Sextants, Compasses, Charts, Anchors, Sails, etc.)

5186. Magnetic Compasses—Deviations caused by Steel Cap Grommets.

Engineer.—(Main and Auxiliary Engines, Boilers, other Machinery in Charge of the Engineer Officer, including Catapults, Coal and Oil Fuel, and Engineering Stores.)

5187. Boiler Tubes, etc.
5188. Circulating Pumps—Shaft Packing.
5189. Turbo-Generators—Metropolitan-Vickers—Gland Clearance.
5190. Diesel and Furnace Fuels for H.M. Ships.
5191. Entry of Water into Fuel Systems.
5192. Brammer V Belting.

Signals.—(W/T and V/S Apparatus, Radar, D.F., S.R.E., Wa/T and Stores.)

5193. H/F D/F Outfit F.H.4—Fitting of Dial Bearing Indicator, Pattern 53036.
5194. Types 87 and 87M. R/T Sets—Method of Modification of Type "M" Switch, A.M. Ref. No. 10F/166.
5195. W/T Receivers—Fitting of Pattern W.2702 Converter Units.
5196. W/T Sets, Types 89, 89M and 89P—Fitting-out Information.
5197. Wavemeter Outfit GN—Modification.

Aircraft.—(Technical.)

5198. Aircraft Radio—Introduction of Low Impedance Telephones in Swordfish aircraft.
5199. Power Plants and Power Plant Structures.

General.—(Hull, Armour, General Equipment and Fittings, etc., and Orders affecting two or more Departments.)

5200. Watertight Doors—Provision of Lockers in—As. and As.
5201. Ventilation to Engine Room—Improvement of—As. and As.
5202. Identification of Ammunition Lockers—Special Types.
5203. D.G. Equipment (L.C.T.(3), L.C.F.(3), L.C.G.(L) (3), L.C.T.(R) (3), L.C.T.(4), L.C.F.(4), L.C.G.(L) (4)).
5204. D.G. Equipment (L.C.T.(3), L.C.F.(3), L.C.G.(L) (3), L.C.S.(L) (3), L.C.T.(R) (3)).

SECTION 3.—G., T., N., E., ETC., & STORES: HULL, EQUIPMENT & FITTINGS—*contd.*
General. (Hull, Armour, General Equipment and Fittings, etc., and Orders affecting two or more Departments)—contd.

5205. Galley Spaces. Improved Lagging to Hot Water Boiling Tanks and Pattern 23A Oil-Fired Ranges.
 5206. Electric cable, Patterns 13471 and 13472—Introduction.
 5207. Haze Screen—Supply.
 5208. Wood Naphtha—Use of in Cable Jointing Lamps.
 5209. Zinc Chromate Primer, U.S.N., Specification 52-P-18—Use of.
 5210. De-icing of H.M. Ships on Arctic Service.
 5211. Spanners, Patterns 1344, 1346 and 1347.
 5212. Modifications to Diesel Fuel Systems of Craft being Fitted Out for Tropical Service.
 5213. Aircraft—Gun Harmonization Stands.
 5214. Arrestor Wires Fitted Across Aircraft Lifts—As. and As.
 5215. Stereoscopes for Aircraft Recognition.

SECTION 4.—OTHER STORES—NAVAL STORES*, VICTUALLING STORES,
 MEDICAL STORES, CONTRACTS

(*All N.S. Orders not included under Section 3.)

5216. Libraries, Officers' Reference—Annual Publications.
 5217. Officers' Working Dress—Outsized.
 5218. W.R.N.S. Uniform.
 5219. Weatherproof Protective Suits.
 5220. Shipment of Stores in H.M. Ships for Conveyance to U.K. or Between Overseas Ports.
 5221. Expiry Date of Penicillin.
 5222. Onions—Supply Arrangements, 1944—Issuing Prices.
 5223. Vegetable Contracts—Port List, 1944/45.

SECTION 5.—BOOKS, FORMS, RETURNS, CORRESPONDENCE

5224. A.M.S. Is.
 5225. Amendments to Books.
 5226. Air Publications Distributed during the Week ending 19th August, 1944.
 5227. B.R. 363 (6) and Form D.126 (3)—Lists of Errata to the Establishment of Naval Stores and List of Particulars for Submarines ("Oberon" and later Classes).
 5228. B.R. 642G (Restricted)—Summary of German Warships—Issue of Revised Edition.
 5229. B.R. 980 (G)—Range Table No. 592 (Star Shell) for Q.F. 5.25-in. Guns, Mark I—June 1944—Issue.
 5230. B.R. 993, B.R. 317 (4), (5), (13), (15) and (21)—Obsolescence.
 5231. B.R. 1015—Warship Recognition.
 5232. O.U. and B.R. Publications—Distribution during August.
 5233. Map of the Far Eastern War Area—Publication of Chart Q.6251.
 5234. H.M.S. "Barfleur"—Confusion with F.S. Barfleur.
 5235. H.M.S. "Boscawen"—Address.

SECTION 6.—SHORE ESTABLISHMENTS

5236. *Cancelled.*
 5237. Civilian Personnel appointed Abroad—Outfit Gratuities—REPORTS.
 5238. Typing Grades—Proficiency Tests.
 5239. Temporary, Technical Assistants in the Civil Engineer-in-Chief's Department—Overtime Conditions.
 5240. Drawing Office Assistants—Recruitment and Revised Rates of Pay.
 5241. Shackles—Nomination of Distributors.
 5242. United Nations Relief and Rehabilitation Administration.
 5243. Luminising and Use of other Radio-active Compounds: Additional Measures to Safeguard the Health of Personnel.
 5244. Relaxation of Duties under the Fire Guard Orders.

(Orders marked * have been reprinted for posting on Notice Boards; marked † may be communicated to the Press.)

Section 1

ADMINISTRATION OF THE FLEET, CEREMONIES, FOREIGN PORT REGULATIONS, etc.

5125.—Defence Regulations—Order Issued Under

(N.L. 9933/44.—28 Sep. 1944.)

The following Order has been issued by Their Lordships under Regulation 19C of the Defence (General) Regulations, 1939.

THE VESSELS (IMMOBILIZATION) ORDER, 1944. DATED SEPTEMBER 11, 1944.

In pursuance of the powers conferred on them by Regulation 19C of the Defence (General) Regulations, 1939, the Lords Commissioners of the Admiralty hereby order as follows:—

PART I.

1. This Part of this Order applies to the following waters, namely—

- (a) the sea within three miles of the East and South Coasts of England between the Coastguard Station at Winterton, Norfolk, southabout to the boundary between the counties of Dorset and Devon ;
 (b) the waters of any port, harbour or dock on the said coasts between the points mentioned in sub-paragraph (a) hereof ;
 (c) the waters of any creek, bay, estuary, river or other inlet on the said coasts between the said points up to the point at which the tide ceases to ebb and flow (such point in case of doubt to be determined by a Naval Authority)

provided that it shall not apply in the tidal waters of the Norfolk, Suffolk and Lincolnshire Broads including any streams or watercourses connected therewith nor above the following points in the rivers named hereunder, namely—

In the River Bure above an imaginary line running north and south and crossing the river north of the L.N.E.R. Bridge near the Stracey Arms.

In the River Yare above a point where the "cut" joins the river at Reedham.

In the River Waveney above Oulton Broad Lock.

In the River Deben above an imaginary line drawn at right angles to the river from the north point of the entrance to Martlesham Creek.

In the River Orwell above an imaginary line drawn at right angles to the river from the south point of the entrance to Bourne Bridge Creek.

In the River Colne above the L.N.E.R. Bridge in Colchester.

In the River Stour above the L.N.E.R. Bridge half a mile above Manningtree.

In the River Blackwater above a line drawn north and south through Hilly Pool Point, Northey Island.

In the River Crouch above Black Point (eastern end of Bridge Marsh Island).

In the River Medway above Cuxton.

In the River Thames above Wandsworth Bridge.

2. This Part of this Order applies to the vessels (including small craft and rowing boats) described hereunder which are or at any time may be brought within the waters defined in sub-paragraphs (a), (b) and (c) of the preceding paragraph or on land adjacent to those waters, namely—

- (1) vessels holding a passenger certificate entitled "Passenger Certificate for a Home Trade passenger vessel plying on short excursions to sea,

i.e., beyond partially smooth water limits, between 1st April and 31st October inclusive, during daylight, and in fine weather".

- (2) vessels holding a passenger certificate entitled "Passenger Certificate for a vessel plying in partially smooth water".
- (3) vessels holding a passenger certificate entitled "Passenger Certificate for a vessel plying for short distances to sea".
- (4) vessels not holding passenger certificates and normally employed in carrying up to twelve passengers on voyages or excursions similar to those described in the preceding sub-paragraphs of this paragraph.
- (5) vessels normally used for private or pleasure purposes—

unless such vessel is in possession of a Permit under this Order or under one of the Orders specified in the First Schedule hereto issued by a Naval Authority.

3. The following provisions shall be complied with in the case of all vessels to which this part of this Order applies—

- (1) All vessels which can be beached are to be beached.
- (2) All vessels which can be removed from the water are to be removed and kept removed as far as reasonably possible from the water.
- (3) (a) One or more of the following precautions are to be taken, as they may be appropriate :
 - (i) *Steam Vessels*.—The main throttle valve cover plate and spindle or other essential part of the propelling machinery is to be removed from the vessel and stored in a place of safety so as to render the machinery incapable of use. Any replacement part of such essential part is to be similarly removed.
 - (ii) *Motor Craft*.—The distributor arm of the ignition or a fuel injection valve of a Diesel engine or other essential part of the propelling machinery is to be removed from the vessel and stored in a place of safety so as to render the machinery incapable of use. Any replacement part of such essential part is to be similarly removed.
 - (iii) *Sailing Vessels, where the mast or masts are fixtures and the sails not portable by a single man*.—The wheel or tiller or part of the rudder chains or screw gear or other essential part of the steering gear is to be removed and stored in a place of safety so as to render it incapable of use. One or more essential parts of the windlass or sail-hoisting winches, if fitted, are to be removed.
 - (iv) *Other sailing vessels*.—All oars, rowlocks, rudders, tillers, and sails other than sails laced to spars, are to be removed and stored in a place of safety.
 - (v) *Rowing boats*.—All oars, rowlocks, rudders, painters, masts and sails are to be removed and stored in a place of safety.
- (b) An adequate and substantial locking device is to be applied to the mechanism so as to render the vessel incapable of being driven without removing the locking device, and the locking device is to be locked and the key taken away and kept in safe custody.

PART II.

4. This Part of this Order shall apply to all vessels other than those to which Part I applies which are or at any time may be brought within waters to which Part I of this Order applies or on land adjacent to those waters.

5. No vessel to which this Part of this Order applies may be left unattended by day or night unless sub-paragraph (3) of paragraph 3 of this Order has been complied with.

6. For the purpose of this Order, a vessel is to be regarded as unattended if she is moored or anchored offshore or lying alongside a pier or jetty or hauled up on the beach unless a person of 14 years of age or over is in attendance on the vessel either on board if she is offshore or in the immediate vicinity and within sight of her if she is lying alongside or beached.

PART III.

7. This Part of this Order shall apply to the following waters :—

- (a) the sea within 3 miles of the coasts of England and Scotland (other than the Isles of Mull and Iona) between Dunollie, Lat. 56° 25' 23" (Oban) southabout to the boundary between the counties of Devon and Dorset.
- (b) the sea within 3 miles of the coast of England between the Coastguard Station at Winterton, Norfolk, and the boundary between the counties of Norfolk and Lincoln.
- (c) the waters of any port, harbour or dock on the said coasts.
- (d) the waters of any creek, bay, estuary, river or other inlet on the said coasts up to the point at which the tide ceases to ebb and flow (such point in case of doubt to be determined by a Naval Authority).

provided that it shall not apply above the following points in the rivers named hereunder, namely—

In the River Nene above the Gunthorpe Sluice.

In the River Ouse above the L.N.E.R. Bridge at South Lynn.

8. All vessels in waters to which this Part of this Order applies shall comply with the provisions of paragraph 5 of this Order.

PART IV (GENERAL).

9. Nothing in this Order shall apply to any vessel employed for the purposes of His Majesty's Forces or for police or fire service, or as a lifeboat of the Royal National Lifeboat Institution or as an ambulance.

10. Notwithstanding the provisions in this Order and without prejudice thereto, the owners of all vessels, including small craft and rowing boats, to which this Order applies shall comply with any directions issued by a Naval Authority requiring any specified steps to be taken for the immediate and complete immobilisation of all such vessels. Without prejudice to the generality of the foregoing provision such directions may include provisions :—

- (a) requiring any such vessels to be beached in any specified place or places ; and
- (b) requiring operations to be carried out on any of such vessels themselves (for example the removal of planking) to render them entirely useless in the water.

11. The expression "Naval Authority" in this Order shall mean a Naval Commander-in-Chief or Flag or Naval Officer-in-Charge of any port in the United Kingdom or an officer holding an appointment as Resident Naval Officer at any such port.

12. This Order shall come into force forthwith and may be cited as The Vessels (Immobilisation) Order, 1944. The Orders listed in the Second Schedule hereto are hereby revoked.

By Command of their Lordships,
H. V. Markham.

Admiralty, S.W.I.

11th September, 1944.

FIRST SCHEDULE.

- The Vessels (Immobilisation) Order, 1940.
- The Vessels (Immobilisation) (Amendment) Order, 1943.
- The Vessels (Immobilisation) (Amendment) (No. 2) Order, 1943.
- The Vessels (Immobilisation) (Amendment) (No. 3) Order, 1943.
- Navigation Order, No. 5, 1940.
- Navigation Order, No. 9, 1941.

SECOND SCHEDULE.

- The Vessels (Immobilisation) Order, 1940.
- The Vessels (Immobilisation) (Amendment) Order, 1943.
- The Vessels (Immobilisation) (Amendment) (No. 2) Order, 1943.
- The Vessels (Immobilisation) (Amendment) (No. 3) Order, 1943.

(A.F.O. 258, 43.)

(A.F.O. 3776/43 is cancelled.)

5126.—Senior Officer, Naval Air Stations, Orkney—Appointment

(A/C.W. 43323/44.—28 Sep. 1944.)

The Commanding Officer, R.N. Air Station, Hatston, has for two years acted as Senior Officer, Naval Air Stations, Orkney, with responsibilities in respect of the other stations, similar to those of the Senior Officer of ships in company.

2. His duties in this capacity are :—

- (a) To co-ordinate the use of common training and exercise facilities ;
- (b) to co-ordinate the use of the available airfield accommodation in Orkney by squadrons disembarking from carriers ;
- (c) to co-ordinate the use of air lighter, target, safety and torpedo recovery vessels ;
- (d) to assume responsibility for squadrons disembarked to Royal Air Force Station, Skeabrae ;
- (e) to advise the Admiral Commanding Orkney and Shetland on all Naval air matters.

3. His responsibilities in regard to administration and other matters not covered above will be confined to R.N. Air Station, Hatston.

5127.—Telegraphic Addresses for Naval and Civil Authorities (Home)—Amendment No. 2

(M. 1987/44.—28 Sep. 1944.)

The following amendments are to be made to A.F.O. 513/44 :—

Additions

Authorn, Cumberland—

Commanding Officer, R.N. Air Station CONAS, Kirkbride.

Carfin, Lanarkshire—

Naval Store Officer, R.N. Store Depot NAVSTORE, Carfin.

Douglas—

Commanding Officer, H.M.S. "Valkyrie II" VALTWO, Douglas.
(Central Camp).

Llangennech—

R.N. Store Depot NAVSTORE, Llangennech

London—

Director of Navy Contracts NAVYCONTRACTS,
Crickle, London.

Lowestoft—

R.N. Auxiliary Hospital, East Anglia, St. Margarets Road. NAVOSPITAL, Lowestoft

Ludham, Norfolk—

Commanding Officer, R.N. Air Station CONAS, Ludham.

Towyn, N. Wales—

R.M. Training Group (Wales), Matapan Camp, Ynys-Y-Maengwyn, Towyn, Merioneth. MARINE, Towyn.

Alterations

Under Edinburgh—

Delete Directorate of Warship Production FRICOR, Edinburgh.

Under London—

Delete Director of Navy Contracts NAVYCONTRACTS,
Knights, London.

Under Towyn, N. Wales—

Delete R.M. Training Group, R.M. Camp MARINE, Llanegryn.

(A.F.Os. 513/44 and 2820/44.)

5128.—M.L. Equipping Base, Brixham—Closing

(M. 09056/44.—28 Sep. 44.)

It has been decided that the M.L. equipping base at Brixham is to be closed down as soon as possible. The work at present carried out at this base will in future be undertaken by Captain, M.L., Portsmouth.

5129.—United Nations Relief and Rehabilitation Administration

(C.E. 57260/44.—28 Sep. 1944.)

The British Government are parties to the U.N.R.R.A. Agreement, and it is the policy of His Majesty's Government to give the fullest possible assistance to the administration to enable it to carry out its tasks successfully.

2. It is desired to draw attention to this policy in order that all necessary assistance may be rendered by Naval Authorities to U.N.R.R.A. in the discharge of its functions.

5130.—German Hospital Ships

(M. 2151/44.—28 Sep. 1944.)

The following are the particulars of vessels which the German government state have been taken up as hospital ships and which have been accepted as such by H.M. Government up to the date of this Order. No other German ships should be recognised as hospital ships unless promulgated in a further Fleet Order.

Name	Tons (Gross)	Built	Port of Registry	Length	Beam	Draught	Remarks
"Berlin" ...	15,286	1925	Bremen	549 ft.	69 ft.	34 ft.	Accommodation for 1,100 passengers
"Erlangen" (ex s.s. "Gouverneur-General Cambon")	3,508	—	—	345 ft.	45 ft.	19 ft.	Two masts, one funnel. Speed 11-12 knots
"Giesson" (ex s.s. "Gouverneur-General Chancy")	4,397	—	—	110 metres	16.2 metres	—	Two masts, two funnels. Speed 10½ knots (approx.)
"Gluckauf"	981	1913	Bremen	213 ft.	40 ft.	12 ft.	—
"Gottingen" (ex s.s. "Gouverneur-General Grevy")	4,565	—	—	110 metres	15 metres	—	Two masts, two funnels. Speed 10½ knots (approx.)
"Greifswald" (ex s.s. "Gouverneur-General Jonnart")	4,500	—	—	111 metres	16 metres	8.7 metres	Two funnels. Speed 12½ knots.
"Meteor"	3,717	1904	Bergen	346 ft.	44 ft.	26 ft.	Twin screw
"Oberhausen"	1,261	1939	Duisborg Ruhrort	253 ft.	37 ft.	14 ft.	Twin screw oil engines
"Posen" (ex s.s. "Danzig")	1,052	1925	Hamburg	220.7 metres	34.6 metres	12.5 metres	Two masts, one funnel
"Stuttgart"	13,387	1923	Bremen	527 ft.	65 ft.	34 ft.	Twin screw
"Tuebingen" (ex s.s. "Gouverneur-General Tirman")	3,508	—	Marseilles	105.47 metres	13.6 metres	—	Two masts, one funnel. Speed 12 knots
"Gradisca" (ex Italian hospital ship)	13,870	—	—	170.74 metres	—	—	Two masts, two funnels

(A.F.Os. 1764/44, 2969/44, 3371/44 and 3922/44 are cancelled.)

Section 2.—PERSONNEL, PAY, SERVICES, DISCIPLINE, etc.

*5131.—Honours and Awards—“London Gazette” Supplement of
19th September, 1944

(H. & A.—28 Sep. 1944.)

CENTRAL CHANCERY OF THE ORDERS OF KNIGHTHOOD,
St. James's Palace, S.W.1.
19th September, 1944.The KING has been graciously pleased to approve the award of the GEORGE
CROSS to:Temporary Lieutenant Leon Verdi Goldsworthy, G.M., R.A.N.V.R.,
For great gallantry and undaunted devotion to duty.The KING has been graciously pleased to give orders for the following appoint-
ments to the Most Excellent Order of the British Empire :—*To be Additional Members of the Military Division of the said Most Excellent Order*
Temporary Lieutenant George William Holman, R.N.R.
Temporary Lieutenant Victor Frank Nichols, R.N.V.R.For bravery, determination and good seamanship in command of H.M.
Rescue Tugs “Lady Duncannon” and “Lady Brassey” in fire-fighting
on board merchant vessels and towing them to safety.CENTRAL CHANCERY OF THE ORDERS OF KNIGHTHOOD,
St. James's Palace, S.W.1.
19th September, 1944.The KING has been graciously pleased to approve the award of the George
Medal to :—Able Seaman Arthur McCourt, C/SSX.29101 (Southall).
For gallantry and undaunted devotion to duty.ADMIRALTY,
Whitehall,
19th September, 1944.The KING has been graciously pleased to give orders for the following appoint-
ments to the Distinguished Service Order and to approve the following awards :—For outstanding courage, skill and determination in light coastal
craft in successful actions with enemy forces :*To be a Companion of the Distinguished Service Order*Temporary Acting Lieutenant-Commander Kenneth Gemmell, D.S.C., R.N.V.R.
(Bridlington).*Second Bar to the Distinguished Service Cross*Temporary Lieutenant Derek George Harbroe Wright, D.S.C., R.N.V.R.
(Hampstead).*Bar to the Distinguished Service Cross*Temporary Lieutenant Richard Roy Crosley, D.S.C., R.N.V.R. (Sheffield).
Temporary Lieutenant John Provost Perkins, D.S.C., R.N.V.R. (Northwood).*The Distinguished Service Cross*Acting Temporary Lieutenant-Commander Donald Napier Buller, R.N.V.R.
(London).

Temporary Lieutenant John Roff Finlay Best, R.N.V.R. (Cranleigh).

Temporary Lieutenant John Vavasseur Fisher, R.N.V.R. (Thetford).

Temporary Lieutenant Edward Stuart Forman, R.N.V.R. (Wombledon).

Temporary Lieutenant David Caldwell Storrie, R.N.V.R. (Galston).

Temporary Sub-Lieutenant Kenneth Edward Le Voi, R.N.V.R. (London).

Bar to the Distinguished Service Medal

Petty Officer Ronald William Evans, C/J.109360 (Tottenham).

*The Distinguished Service Medal*Chief Motor Mechanic Henry Walter Edward Norman, C/MX.70091 (Radlett).
Acting Chief Motor Mechanic Leslie Pearce Stanton, P/MX.125009 (Chichester).
Acting Chief Motor Mechanic George William Stopps, P/MX.117695 (Isleworth).
Acting Chief Motor Mechanic Leonard John Terry, P/MX.99262 (Whitstable).
Petty Officer Richard Alistair Jolliff, D/JX.158049 (Polperro, Cornwall).
Petty Officer Alfred Edward Laurence Moulder, D/JX.142348 (Cardiff).
Petty Officer Charles William Alexander Parham, C/JX.143029 (Battersea).
Petty Officer Ernest Reason, D/JX.148229 (Plymouth).
Petty Officer Jonathan Rogers, D/SSX.28071 (Wrexham).
Petty Officer Motor Mechanic John Arthur Anthony Shenton, P/MX.79271
(Andover).
Petty Officer Motor Mechanic Reginald Worrall Southcombe, P/MX.117890
(Orpington).
Petty Officer Motor Mechanic Henry George Tuff, P/MX.98455 (Stockport).
Leading Seaman Randall Leslie Tomlinson, C/L/DX.5507 (E. Hampstead).
Able Seaman Stanley Allman, D/JX.304658 (Sholten, North Wales).
Able Seaman James Hubert Brewer, P/JX.395572 (Birmingham).
Able Seaman James Dixon, C/JX.315108 (Oakengates).
Able Seaman Archibald Hastie, C/JX.407420 (Craigmillar).
Able Seaman Wyndham Hopkins, D/JX.168631 (Llandebie, Carmarthenshire).
Able Seaman Terrance Gerald Say, P/JX.420774 (Street).
Able Seaman Stanley Smith, P/JX.168255 (Leicester).
Able Seaman Harold Whittle, P/JX.247807 (Oldham).
Wireman Cyril Bardsley, D/MX.74717 (Stockport).
Wireman Wilfred Edgar Sowden, D/MX.75243 (London).
Telegraphist Richard Harrison, D/JX.344825 (Liverpool).
Ordinary Signalman Frederick Walter Hollingdale, LT/SD/X.1121 (Brighton).
Ordinary Signalman David Malcolm Stein, C/JX.572622 (Perth).
Ordinary Seaman Thomas William Walkinshaw, C/JX.579799 (Litchfield).*Mention in Despatches*Temporary Lieutenant John Edmund Atkinson, R.N.V.R. (Lowestoft).
Temporary Lieutenant Bonham Ley Bazeley, R.N.V.R. (Whitminster).
Temporary Lieutenant Peter Knowles, D.S.C., R.N.V.R. (Sherwood).
Temporary Lieutenant David Mortimer, R.N.V.R. (London).
Temporary Lieutenant Joseph Anthony Reeves, R.N.V.R. (Brighton).
Temporary Lieutenant George Thomas Taylor, R.N.V.R. (Bromley).
Temporary Sub-Lieutenant Michael John Gower Sadd, R.N.V.R. (Haywards Heath).
Temporary Sub-Lieutenant Carrick Gifford Goldsmith, R.N.Z.N.V.R.
Temporary Sub-Lieutenant John Withers Gordon, R.N.Z.N.V.R.
Petty Officer Coxswain John William Hadley, D/JX.139647 (Cardiff).
Petty Officer Coxswain Frederick Jones, D/SSX.15843 (Newcastle-on-Tyne).
Petty Officer Malachi Jones, D/JX.138668 (Tuebrook, Liverpool).
Petty Officer Motor Mechanic Albert Edward Barker, P/MX.117424 (Walthamstow).
Leading Seaman Douglas Dixon, D/JX.345849 (Morecambe).
Leading Seaman Patrick Dowdall, P/JX.276913.
Leading Seaman George McKenzie Dolan Forbes, P/ESD/X.1764.
Leading Seaman Frederick George Huntingford, C/JX.315176 (Luton).
Leading Seaman George Alfred Kerby, D/SSX.17953 (Glamorgan).
Acting Leading Seaman Samuel John Robinson, C/JX.204400 (Antrim).
Leading Telegraphist Leslie John Taylor, C/JX.160642 (Sheerness).
Acting Leading Stoker Frederick James Algernon Lester, P/KX.144235 (Bognor
Regis).
Leading Motor Mechanic Stephen Hal Robert Jennings, P/MX.124989 (Birmingham).
Leading Motor Mechanic Norman Leslie Wardman, P/MX.125010 (Copmanthorpe).
Able Seaman Norman Atkinson, D/JX.237841 (Leeds).
Able Seaman George Rupert Cannon, C/JX.309303 (Edgware).
Able Seaman Harry Davies, P/JX.189430 (Derby).
Able Seaman Richard Samuel Dellow, C/JX.318304 (Sawbridgeworth).
Able Seaman Sydney Henderson, C/JX.317981 (Newcastle-on-Tyne).
Able Seaman Frederick Charles Arthur Holden, C/JX.353421 (King's Lynn).
Able Seaman Frederick James Lawrence, P/JX.297455 (Lewisham).
Able Seaman John Guthrie Smith, D/JX.420583 (Ayr).
Able Seaman Albert Sweetlove, P/JX.298647 (London).
Able Seaman Harry Temple, C/JX.224255.

Able Seaman Thomas Pollock Trainer, D/JX.420710 (Edinburgh).
 Able Seaman Alfred Alan Ward, P/JX.362483 (Nettleton, Wilts).
 Able Seaman Arthur Whalley, C/JX.347426 (Wigan).
 Stoker First Class Bernard John Cairns, D/KX.526389 (Preston).
 Stoker First Class Thomas Campbell, C/KX.141369 (Dublin).
 Ordinary Seaman Ernest George Argent, C/JX.548136 (Lewes).
 Ordinary Seaman Joseph Lawton Batty, D/JX.569296 (Mosley).
 Ordinary Telegraphist John Douglas Graham, C/JX.234481 (Wallsend).

For courage, enterprise and devotion to duty in light coastal craft in a successful attack on an enemy convoy in the face of heavy fire :

To be a Companion of the Distinguished Service Order

Temporary Lieutenant George James MacDonald, D.S.C., R.N.Z.N.V.R. (New Zealand).

The Distinguished Service Cross

Temporary Sub-Lieutenant Douglas George Gill, R.N.V.R. (Long Eaton).

The Distinguished Service Medal

Acting Petty Officer Wilfrid Alan Cooke, D/SSX.25130 (Burton-on-Trent).
 Acting Leading Seaman Herbert George Haylock, P/SSX.28652 (Lowestoft).

Mention in Despatches

Temporary Sub-Lieutenant David Walter Moore, R.N.V.R. (Wimbledon).
 Temporary Sub-Lieutenant Ronald Arthur Mitford-Burgess, R.N.Z.N.V.R. (New Zealand).

Able Seaman Ernest George Frost, C/JX.406457 (Battersea).
 Able Seaman Mervyn Charles Girling, P/JX.262689 (Guist, Norfolk).

For undaunted courage, skill and devotion to duty in successful patrols in one of H.M. Submarines in Far Eastern Waters :

The Distinguished Service Cross

Lieutenant-Commander Robert Love Alexander, D.S.O., R.N.
 Lieutenant (E) Robert George Lane, R.N. (Weymouth).

Bar to the Distinguished Service Medal

Acting Chief Petty Officer William John Booty, D.S.M., P/J.113514 (Ipswich).

The Distinguished Service Medal

Acting Stoker Petty Officer James William Love, C/KX.94337 (Deal).

Mention in Despatches

Lieutenant Paul Murray-Jones, R.N. (Wye, Kent).
 Engine Room Artificer Third Class Ronald Arthur Frank King, C/MX.71946 (London).
 Electrical Artificer Third Class Frederick Ralph Pillifent, C/MX.77563 (Liverpool).
 Petty Officer Stanley Thomas Jefferson, C/LD/X.2209 (Hounslow).
 Stoker Petty Officer Trevor George Williams, C/KX.89833 (Gillingham, Kent).
 Leading Seaman John Joseph Cummins, C/JX.151164 (South Shields).
 Acting Leading Stoker David Gerard Charnock, D/KX.136310 (Warrington).
 Leading Cook Trevor Griffiths, D/MX.55962 (Pontypridd).
 Able Seaman Matthew Robinson, C/JX.199507 (Durham).

For courage, resolution and skill while serving in H.M. Ships "Bickerton", "Bligh", and "Vindex", in anti U-boat Operations :

Second Bar to the Distinguished Service Cross

Lieutenant-Commander Edward Willoughby Ridley, D.S.C., R.N. (Liverpool).

The Distinguished Service Cross

Commander Donald George Frederick Wyville MacIntyre, D.S.O., R.N.
 Acting Lieutenant-Commander Jack Winston Cooper, R.N.R. (Retired) (Hocknell, Hampshire).

The Distinguished Service Medal

Chief Engine Room Artificer Richard Robert Gauntlett, P/M.34487 (Southsea).
 Chief Engine Room Artificer William Smith, D/MX.50355 (Banff).
 Able Seaman Frank Gutherless, D/JX.286428 (York).

Mention in Despatches

Captain Horace Temple Taylor Bayliss, R.N.
 Temporary Acting Lieutenant-Commander (A) Frederick George Barrington Sheffield, R.N.V.R.
 Temporary Lieutenant William Bertram De Quincey, R.N.V.R. (West Runton).

Temporary Lieutenant (A) Patrick Francis Calcutt, R.N.V.R.
 Temporary Lieutenant (A) Ronald Ernest Huggins, R.N.V.R.
 Temporary Sub-Lieutenant (A) John Vallely, R.N.V.R.
 Chief Petty Officer Joseph John Chamberlain, D/J.81584 (Devonport).
 Acting Chief Petty Officer Leonard Bradshaw, D.S.M., P/JX.130740.
 Chief Petty Officer Airman Michael Wyndham Dale, FAA/FX.77285.
 Leading Seaman Douglas Alfred Beable, D/SSX.22949 (Banknock).
 Leading Airman Frank Smeeton, FAA/FX.87027.
 Leading Steward Reginald Herbert Knight, D/LX.21692 (Pontypool).
 Able Seaman William George Baker, D/JX.146021 (Holt, Wiltshire).
 Able Seaman Henry Mons McIlroy, D.S.M., P/X.18373A (Ardrossan).

***5132.—Honours and Awards—1939-43 and Africa Stars**

(H. & A. 19/44.—28 Sep. 1944.)

With reference to A.F.O. 3658/43, paragraph 4 (b), the Army Council have now issued the following lists :—

(a) Of operational commands service in one or more of which between the dates set against each command amounting in the aggregate to six months will qualify in the Army for the 1939-43 Star :—

	From	To
France	3rd September, 1939	9th May, 1940.
Iraq	10th April, 1941	31st May, 1941.
Persia	25th August, 1941	28th August, 1941.
China	11th December, 1941	31st December, 1943.
Burma	11th December, 1941	21st February, 1942.
	1st May, 1942	31st December, 1943.
New Guinea	7th March, 1942	31st December, 1943.
Italy	3rd September, 1943	31st December, 1943.

(b) Of operations in which service of any length between the dates set against each operation will qualify in the Army for the 1939-43 Star :—

	From	To
North-West Frontier, India	3rd February, 1940	24th May, 1940.
	18th June, 1941	26th August, 1941.
	28th July, 1942	18th August, 1942.
Norway	14th April, 1940	8th June, 1940.
France	10th May, 1940	19th June, 1940.
Belgium	10th May, 1940	19th June, 1940.
Holland	12th May, 1940	13th May, 1940.
Lofoten Islands	4th March, 1941	—
Lucania	10th February, 1941	—
Greece and Crete	7th November, 1940	31st May, 1941 (service with R.A.F. only).
	10th March, 1941	31st May, 1941.
Syria	8th June, 1941	11th July, 1941.
Spitzbergen	25th August, 1941	3rd September, 1941.
Hong Kong	8th December, 1941	25th December, 1941.
Malaya	8th December, 1941	15th February, 1942.
Lofoten Islands	26th December, 1941	—
Vaagso	27th December, 1941	—
Bruneval... ..	27th February, 1942	28th February, 1942.
St. Nazaire	27th March, 1942	28th March, 1942.
Hardelot	21st April, 1942	22nd April, 1942.
Madagascar	5th May, 1942	5th November, 1942.
Spitzbergen	16th May, 1942	8th September, 1943.
Boulogne-le-Touquet.	3rd June, 1942	—
Aleutian Islands (air-crew service only).	3rd June, 1942	16th August, 1943.
Dieppe	19th August, 1942	—
Sark	3rd October, 1942	4th October, 1942.
Burma	22nd February, 1942	15th May, 1942.
Burma (Brigadier Wingate's Force).	7th February, 1943	15th July, 1943.
Sicily	10th July, 1943	17th August, 1943.

2. Officers and men of the classes listed in A.F.O. 660/44, paragraph 2, will qualify for the 1939-43 Star under Army rules if they served ashore, having been appointed or drafted for such service, between the appropriate dates in the areas and operations listed above.

Officers or men passing through one of these areas on a visit or tour of inspection or for the purchase of materials, etc., in it are not thereby qualified, but if the visit or tour exceeded 30 days the case may be submitted for special consideration.

Officers and men who took part afloat in the operations listed in paragraph 1 (b) will not qualify under Army rules but will count this service, with other service afloat, towards the six months' qualifying period in accordance with A.F.O. 660/44.

3. Service afloat or in the air as defined in A.F.O. 660/44, paragraph 3, or service ashore as defined in paragraph 1 (a) above, which was brought to an end before the completion of the qualifying period by death, wounds or other disability due to service will qualify for the 1939-43 Star.

4. The award of an Honour, Decoration or Mention in Despatches for service on shore in the operations listed in paragraph 1 (a) qualifies the recipient for the 1939-43 Star.

5. Time spent as a prisoner of war captured during service defined in A.F.O. 660 44, paragraph 3, or paragraph 1 (a) above, will count towards the qualifying period unless there is doubt as to freedom from blame.

6. Passage through dangerous waters to a sea appointment or to an Army operational command as defined in paragraph 1 (a) above will count towards the qualifying period for the 1939-43 Star, provided that the journey was completed. The journey will count only if the date of arrival falls within the dates set out in paragraph 1 against each operation. It will then count from the date of embarkation.

Those who did not complete the journey owing to death, or wounds, or injury resulting from enemy action will qualify, under paragraph 3.

Passage through dangerous waters to non-operational commands will not count towards the qualifying period. (A.F.O. 660/44, paragraph 4 (c) (iii) is cancelled.)

7. The ribbon of the Africa Star may not yet be issued. A further announcement will be made in due course.

(A.F.O.s. 3658/43 and 660/44.)

(A.F.O.s. 4209/44 and 4341/44 are cancelled.)

***5133.—Honours and Awards—Africa Star—Issue of Ribbon to W.R.N.S.**

(H. & A.—28 Sep. 1944.)

The Women's Royal Naval Service does not normally serve afloat, and so does not qualify by sea service for the 1939-43 Star. Any changes that may be made in the conditions governing the award of that Star for sea service will not therefore normally affect the Women's Royal Naval Service by rendering members of that Service ineligible for the Africa Star through qualification for the 1939-43 Star.

2. The ribbon of the Africa Star, therefore, should be issued now to Officers and ratings of the Women's Royal Naval Service who have qualified for the Star by service ashore or in harbour, having been appointed or drafted for such service, in

	From	To
(i) North Africa, west of the Suez Canal and the Red Sea.	10th June, 1940.	12th May, 1943.
(ii) Abyssinia (including attacks on Moyale, Elwak and Kassala), Eritrea, the Somalilands and Kenya (excluding Tanganyika territory and Uganda, except to troops whom the G.O.C.-in-C., East Africa is satisfied were called forward from Uganda for operations in Lake Rudolf area).	10th June, 1940.	27th November, 1941.
(iii) Anglo-Egyptian Sudan	10th June, 1940.	27th November, 1941.
(iv) Malta	10th June, 1940.	12th May, 1943.

provided that they are not qualified for the 1939-43 Star by shore service in areas and between the dates that qualify the Army.

(A.F.O. 4638/44 is cancelled.)

5134.—Honours and Awards—United States Coast Guard Service

(H. & A. 759/44.—28 Sep. 1944.)

The King has been graciously pleased to approve the award of the *Distinguished Service Cross* to Lieutenant (Junior Grade) George C. Clark, Junior, United States Coast Guard Service, for gallantry and devotion to duty in the landings on the coast of Normandy.

2. This Award will not be gazetted.

5135.—Honours and Awards—United States Naval Reserve

(H. & A. 505/44.—28 Sep. 1944.)

The King has been graciously pleased to approve the following awards for good services in salvage and rescue work when H.M.S. "Spartan" was lost off Anzio

British Empire Medal (Military)

Chief Shipfitter Richard Wood Joyce, U.S. 168, U.S.N.R.

Mention in Despatches

Lieutenant Edward Frederick Lewis, CC V-S., U.S.N.R.

Lieutenant (j.g.) Warren Brunington Clark, DV-S., U.S.N.R.

2. These Awards will not be gazetted.

5136.—Honours and Awards—French Navy

(H. & A. 298/44.—28 Sep. 1944.)

The King was graciously pleased, on the occasion of the Celebration of His Majesty's Birthday, to approve the following awards for outstanding services to the Allied cause:

Mention in Despatches

Quartier Maitre Ire classe Asdic Georges Harry MacCorkell,
441-T-39-1184, F.N.F.L. 40

2. This Award will not be gazetted.

5137.—Honours and Awards—Royal Netherlands Navy and Naval Reserve

(H. & A. 298/44.—28 Sep. 1944.)

The King was graciously pleased, on the occasion of the Celebration of His Majesty's Birthday, to approve the following awards for outstanding services to the Allied cause:

The Distinguished Service Cross

Lieutenant-Commander Peter van Willigen, R.Neth.N.R.

Mention in Despatches

Able Seaman Likel Freerk Slopsma, 12392, R.Neth.N.

2. These Awards will not be gazetted.

5138.—Honours and Awards—Royal Norwegian Navy

(H. & A. 298/44.—28 Sep. 1944.)

The King was graciously pleased, on the occasion of the Celebration of His Majesty's Birthday, to approve the following awards for outstanding services to the Allied cause:

The Distinguished Service Medal

Petty Officer J. Fritsvold, 2707, R.Nor.N.

Petty Officer Sverre Gielsten, 2921, R.Nor.N.

Leading Telegraphist Einar Johnsen, 1095, R.Nor.N.

Mention in Despatches

Lieutenant Per Edvard Danielsen, D.S.C., R.Nor.N.

2. These Awards will not be gazetted.

5139.—Promotion of Temporary Reserve Officers to the Rank of Commander

(C.W. 45945/44.—28 Sep. 1944.)

Their Lordships have approved the promotion to the rank of Temporary Commander, to date 31st July, 1944, of Temporary Acting Lieutenant Commander F. W. F. Oldham, R.N.V.R., "Glengyle".

Cancelled
 5140.—Grant of Acting Lieutenant Commander's Rank to Lieutenants, R.N., Permanent Lieutenants, R.N.R. and R.N.V.R., and Abolition of Additional Seniority Scheme

(C.W. 26284/44.—28 Sep. 1944.)

See AFO 1027/41
See AFO 379/45
See AFO 2409/45
See AFO 2409/45
 Their Lordships have had under review the additional seniority scheme promulgated in A.F.O. 1027/41, and as it has proved unsatisfactory on account of its uneven incidence they have decided that the scheme shall be cancelled. Although the formal scheme will be brought to an end after the issue of the next awards shortly to be promulgated, the power of the Admiralty to grant additional seniority when considered desirable is in no way affected. It is contemplated, however, that such awards will be few in number and will be limited to very exceptional cases where an officer has shown merit of the highest order, and where it is clearly in the interest of the service for an exceptional officer to enter the zone of promotion at an early age.

2. With a view to providing Senior Lieutenants of the following categories—

- Permanent Lieutenants of Executive, Air, Engineering, Instructor, Medical, Dental and Accountant Branches of the R.N.;
- Permanent Lieutenants of Executive, Engineering and Accountant Branches of the R.N.R.;
- Permanent Lieutenants of Executive, Air, Medical, Dental, Accountant and Special Branches of the R.N.V.R. and permanent Lieutenants, R.N.V.(W.) R.;
- Temporary Instructor Lieutenants, R.N. (not hostilities only), Surgeon Lieutenants, R.N. (short service) and Surgeon Lieutenants (D.), R.N. (short service);

with sufficient status to carry out their more responsible duties in war-time, and of resolving existing difficulties *vis-a-vis* temporary reserve officers promoted under A.F.O. 3927/44, it has been decided to introduce a scheme of quasi-permanent acting promotion to Lieutenant Commander for officers whose records show that they are fully capable of carrying out those duties which are normally associated with the rank of Lieutenant Commander. Lieutenants ex-Warrant rank are eligible. Promotion will be by selection at half-yearly intervals. It is not the intention that officers granted acting Lieutenant Commander's rank under this Order should continue to hold that rank in peace-time, as with the return of normal conditions, many of those factors which at the present stage of hostilities made this scheme essential, will no longer exist. The scheme is therefore, a war-time measure only, as is the case for promotion of Reserve Officers under A.F.O. 3927/44. The grant of Acting Lieutenant Commander's rank under this Order will not necessarily be limited to those officers who hold at present the more responsible appointments, nor will it affect the grant of acting Lieutenant Commander's rank "whilst holding present appointment," except in so far as officers holding quasi-permanent promotions will be used as far as possible to fill those appointments which are suitable for Lieutenant Commanders. Officers granted acting higher rank under this Order will on change of appointment normally retain the acting rank. If an officer has proved unsuitable through lack of experience or other reason to retain the acting higher rank he will, if considered appropriate, be reverted to his substantive rank after consideration of a recommendation from a Commander-in-Chief or other competent authority.

3. Promotions under this Order will be made at half-yearly intervals to date 1st November and 1st May respectively. All permanent R.N. Lieutenants of the Executive, Air, Engineering and Accountant Branches, permanent R.N.R. Lieutenants of Executive, Engineering and Accountant Branches, permanent Lieutenants, R.N.V.R., of Executive, Air, Accountant and Special Branches and permanent Lieutenants, R.N.V. (W.) R., who attain on the 31st October or 30th April five or more years' seniority will be eligible for consideration. Permanent Instructor Lieutenants, R.N., Temporary Instructor Lieutenants, R.N. (not

hostilities only), Surgeon Lieutenants, R.N., Surgeon Lieutenants, R.N. (short service), Surgeon Lieutenants (D.) R.N., Surgeon Lieutenants (D.) R.N. (short service), Permanent Surgeon Lieutenants, R.N.V.R., and permanent Surgeon Lieutenants (D.) R.N.V.R. are eligible for consideration provided they attain four years' seniority on the above-mentioned dates. Lieutenants who hold the acting rank of Lieutenant Commander, "whilst holding present appointment," are eligible for consideration for quasi-permanent promotion provided they are within the zone.

4. For the first selection recommendations are to reach Admiralty by 1st October, details being communicated by signal if necessary. Reports on Form S.206 are required to reach the Admiralty not later than 15th October for all officers of the above-mentioned classes who are within the zone as defined in paragraph 3. No grants will be made for permanent R.N.R., R.N.V.R., and R.N.V. (W.) R. Lieutenants at the first selection as these will be considered for acting promotion in the next batch under A.F.O. 3927/44, after which they will cease to be so considered and will come under the new scheme. Temporary Reserve Officers, however, will continue to be considered under A.F.O. 3927/44

5. For subsequent selections, recommendations accompanied by any necessary reports on Form S.206 should reach the Admiralty not later than 15th March and 15th September respectively. In general it will not be necessary for administrative authorities to send special reports on Form S.206 on all officers within the zone unless there has been a marked change in an officer's abilities, but reports on all Lieutenants who enter the zone for the first time should be forwarded to the Admiralty.

6. Every endeavour should be made to obviate an officer's opportunities of promotion being jeopardized through not being reported upon.

(A.F.O. 3927/44.)

(A.F.Os. 1027/41 and 3900/43 are cancelled.)

5141.—Examinations for the Ranks of Paymaster Lieutenant-Commander, Paymaster Sub-Lieutenant, Warrant Writer, Warrant Supply Officer, Warrant Cook and Warrant Steward, R.N.

(C.W. 47353/44.—28 Sep. 1944.)

A.F.O. 2704/44 is to be amended as follows:—

Paragraph 55. The sentence "Such of these ratings as are within *seven* years of pension may be promoted to Temporary Warrant rank under A.F.O. 2039/44" should appear as the second sentence of Clause (a) and not in Clause (c) as printed.

(A.F.O./2704/44.)

(A.F.O. 4690/44 is cancelled.)

5142.—Commissioned Shipwrights—Zone for Promotion to Shipwright Lieutenant

(C.W. 49125/44.—28 Sep. 1944.)

With reference to A.F.O. 1875/42, Commissioned Shipwrights should be added to the list given in paragraph 10 of officers whose zone for promotion to Lieutenant is less than 5 years' seniority. The zone for promotion to Shipwright Lieutenant will be 1 year's seniority, or above, on the 1st April or 1st October.

(A.F.O. 1875/42.)

A.F.O. 5622/44 Par. (3) cancelled & Par. (8) amended.

*5143. Qualifying Examination for Warrant Ordnance Officer—Candidates who have Failed Final Board for Sub-lieutenant (E)—REPORT

See AFO 4283/45
" " 29/45
" " 132/45
See AFO 1047/45
" " 1417/45
 C.W. 15669/44.—28 Sep. 1944. *See AFO 641/46*
" " 1440/46

Confusion is being caused by the apparent variance of K.R. & A.I., Article 315, stating the qualifications for promotion to Warrant Ordnance Officer, R.N., and A.F.O. 2472/42, paragraph 13, regarding Ordnance Artificer ratings who fail to be selected by the Final Selection Board for Sub-Lieutenant (E) but, by virtue of having passed the examination for commissioned rank and the Fleet Selection Boards, are exempt from certain qualifying regulations for purposes of promotion

to Warrant Ordnance Officer. A.F.O. 2472/42 is therefore consolidated and reissued as follows:—

2. The following revised arrangements have been approved for the selection and training of Ordnance Artificers for promotion to commissioned rank as Engineer Officers. Opportunity to specialize in gun-mounting work will be given at a subsequent stage in their careers.

3. Ratings who are married are ineligible for selection for commissioned rank under this Order.

4. Steps are to be taken to bring these arrangements to the notice of suitable candidates and to explain the details to them.

5. For all ratings noted as possible candidates Form C.W.1 is to be started, a copy being sent to the depot, and the Admiralty (C.W. Branch) notified that Form C.W.1 has been commenced. In accordance with paragraphs 1 and 6 of the General Instructions contained in Form C.W.1 reports on Form C.W.1A, amended as necessary, are required to be rendered as specified. A report on Form S.1305 is required to be sent to the Fleet Selection Board, together with Forms C.W.1 in respect of each candidate sent for interview.

6. Such ratings are, as far as possible, to be drafted to seagoing ships and all possible facilities are to be afforded for them to study. They should be given any extra instruction possible without interfering with their duties or their normal technical training.

7. Ratings will be eligible to appear before a Fleet Selection Board (*vide* paragraph 10) provided they:—

- Are recommended by their Commanding Officer.
- Have held the rating of Ordnance Artificer 4th Class (acting or confirmed) for 18 months.
- Have passed the examination referred to in paragraph 7 below.
- Are not older than 24 years 6 months on the 1st July in the year the Fleet Selection Board is held.

8. The qualifying examination referred to at ^(loc) above may be taken at any time after being rated Acting Ordnance Artificer 4th Class. The examination will be held in October of each year and, once passed, need not be taken again.

	Subjects						Maximum Marks
Gunnery Material I	300
Gunnery Material II	300
Gunnery Material III	300
Mathematics	200
Applied Mechanics	200
General Science including electricity	200
English	200
							1,700

Syllabuses for Gunnery Material I, II, and III, will be issued later. For the remaining subjects syllabuses are as shown in A.F.O. 1368/39 (acting Sub-Lieutenant(E)—Syllabus of Qualifying Examination Afloat).

Ordnance Artificers who qualify in this test will be exempted from the educational test for Warrant rank.

9. All candidates are to be medically examined before appearing before a Fleet Selection Board. Those who are not in all respects medically fit are to be regarded as ineligible for selection. Candidates must possess the following standard of vision as tested by Snellen's types:—

- Distant 6·9 and 6·12 without glasses.
- Near D=0·6 without glasses.
- Colour vision grade two.

10. Commanding Officers should recommend candidates to the Fleet Selection Boards primarily for their Officer-like qualities. A candidate may not appear more

than twice before a Fleet Selection Board. Recommendations are to be made on Form S.1305 in triplicate *vide* paragraph 9 of Appendix XII K.R. & A.I., Part 7, Section III.

11. The Fleet Selection Board should sit early in April each year. The Flag Officer in command of each squadron or command is to appoint a committee of officers of that squadron who will make a selection of those candidates who are recommended in all respects for advancement to commissioned rank. The Selection Board should not be held at any other time. The order in which candidates are recommended by the Fleet Selection Board is to be clearly shown and their suitability is to be indicated on the percentage basis. It will generally be convenient for these candidates to be seen by the Selection Board for engine-room ratings prescribed by paragraph 12, section 3, part 7, of Appendix XII K.R. & A.I. In assessing candidates, the Selection Board should take into consideration the officer-like qualities which are required of any efficient commissioned officer. A standard of 100 per cent. is to be taken as representing a candidate who possesses all the qualities in an exceptionally high degree.

12. Candidates selected by Fleet Selection Boards are to be discharged to their depots so as to arrive by the end of May, but not earlier. Arrangements will then be made for them to appear before a final Selection Board appointed by the Admiralty.

13. Successful candidates will be given the rank of Acting Sub-Lieutenant (E) and will undergo a six weeks' divisional course, followed by one week's anti-gas course. They will then proceed to the R.N. College, Greenwich, for a course of one session (lasting three terms). This course will be that laid down for Acting Sub-Lieutenants (E) promoted direct from E.R.As.

14. Ordnance Artificer ratings who, having qualified at the examination for commissioned rank and also before the Fleet Selection Boards, fail to be selected by the Final Selection Board, will be exempted not only from the educational test for warrant rank, but also from the Preliminary Professional Examination for Warrant Ordnance Officer. They will be promoted to the rank of Acting Warrant Ordnance Officer after satisfactorily completing the qualifying Course and Final Professional Examination as laid down in K.R. & A.I., Article 315, paragraph 1 (b). They will rank before the successful candidates at the last Preliminary Professional Examination for Warrant Ordnance Officer, their order being governed by their seniority at the time of that examination from which they have been exempted by virtue of having already passed the Qualifying Examinations for Acting Sub-Lieutenant (E). The Final Selection Board will include in its report the names of any ratings in this category so that a notation regarding such exemption may be recorded on their Service Certificates.

15. An examination will be held at the end of the course and promotion marks will be awarded as laid down in Article 277, K.R. & A.I., for Acting Sub-Lieutenants (E). On completion of the course a report is to be forwarded by the President of the R.N. College, Greenwich, as to the efficiency of the officers and their general qualifications. Those who pass successfully will be confirmed in their rank and appointed to seagoing ships as Sub-Lieutenants (E), joining ward room messes.

16. Ratings promoted to commissioned rank under these regulations will receive the same pay, allowances, retired pay, gratuities, etc., as Engineer Officers entered as Cadets, except for uniform allowance, which will be payable on the scale laid down in Appendix VI, K.R. & A.I.

17. With a view to the inclusion of suitable ex-Acting Sub-Lieutenants (ex-Ordnance Artificer) in the Advanced Course at Greenwich following their promotion to the rank of Lieutenant (E), the President, Royal Naval College, Greenwich, will report at the end of each course the names of officers who are sufficiently equipped educationally to benefit by the advanced course. Selection will be made from these names, the most important factor in the selection being the reports on officers from sea since they left the R.N. College, Greenwich.

(K.R. & A.I., Art. 277 and 315, and App. VI and XII.)

(A.F.O. 1368/39.)

(A.F.O. 2472/42 is cancelled.)

*5144.—Mechanic Branches

(N. 30033/43.—28 Sep. 1944.)

For convenience of reference, several A.F.Os. relating to the Mechanic Branches are consolidated as follows :—

2. It has not been possible to meet Naval requirements of Engine Room, Electrical and Ordnance Artificers of the trade of Fitter by the entry of fully trained men from civil life. A proportion of this requirement must be met by entering men who have undergone an intensive course of training under the Ministry of Labour at a Government Training Centre. New Branches, namely, Engine Room, Electrical and Ordnance Mechanic, were established in 1941 for the duration of hostilities, with an appropriate scale of pay, for these men. Sufficient Engine Room Mechanics have now been trained and all training for this Branch has ceased.

3. *Titles and Status.*—The titles and status of ratings of the Mechanic Branches are given below and take account of the fact that these ratings do duties that are normally allocated to Artificers, while at the same time they are not capable of the full duties of an Artificer of corresponding seniority.

Rating	Status
Junior Probationary Mechanic ...	Ordinary Seaman
Probationary Mechanic	Able Seaman
Mechanic 5th Class	Leading Seaman
Acting Mechanic 4th Class	Petty Officer
Mechanic 4th Class	Petty Officer
Mechanic 3rd Class	Chief Petty Officer
Mechanic 2nd Class	Chief Petty Officer
Mechanic 1st Class	Chief Petty Officer

4. *Abbreviated Titles.*—In the interests of uniformity and to avoid confusion, the following abbreviations for ratings of the Mechanic Branches have been adopted :—

Junior Probationary Engine Room Mechanic	J.P.E.R.M.
Junior Probationary Electrical Mechanic ...	J.P.E.M.
Junior Probationary Ordnance Mechanic ...	J.P.O.M.

The suffix (S.V.) should be retained for Ordnance Mechanics when qualified for small vessels as stated in paragraph 18 (ii) (b), i.e. O.M. 5th Class (S.V.), O.M. 4th Class (S.V.), etc.

5. *Uniform.*—The uniform regulations laid down in A.F.O. 3922/42 for Artificers will also apply to ratings of the Mechanic Branches.

6. *Entry.*—Junior Probationary Electrical Mechanics are entered direct from civil life for disciplinary training and subsequently follow the normal training scheme. Candidates may also be recommended from ships or other Naval establishments, or from men who have not been accepted for Artificer category through not having completed sufficient time as an apprentice or through failing trade test. In addition, ratings recommended must have attained a standard of education of at least the fourth form in a secondary school. Men with a total score of less than "A" on S.P. Tests 1 to 4 are very unlikely to succeed, and this total score should include "A" on S.P. Test 3 (see Note). Only H.O. or reserve Able Seamen or equivalent rates under 30 years of age (other than Wiremen) without non-substantive rates, who entered the Service prior to 1st January, 1942, are eligible for training. The physical standard will be that for Artificer, the visual standard will be Standard IV M.R.B.I., and the colour vision standard will be Grade III. Recommendations should be forwarded to Director of Manning, copy to the appropriate depot.

Only Q.Os., Q.Os. (L.C.) and Q.Os. (C.X.) considered "exceptional" or "likely" candidates, who are serving in ships in home waters are eligible for training as Ordnance Mechanic or Ordnance Mechanic (S.V.). Ratings over the age of 35 will not be accepted. Recommendations should be forwarded to Director of Manning, copy to the appropriate depot, giving the following particulars: (1) age, (2) whether (a) an exceptional candidate or (b) a likely candidate. If more beneficial, Able Seamen (Q.O.) who qualify for Probationary Ordnance Mechanic may retain their present ratings and rates of pay until they become eligible for advancement to Ordnance Mechanic, 5th Class.

Note.—S.P. Tests 1 to 4 are the Psychological Tests in general use in the Service. In the case of many men entered before November, 1943, the results of these tests will be found on Form S.264D. In the case of men entered later they will be found on Form S.264. Men for whom no test results are available will be tested on return to their depots.

7. *Technical Training.*—The following Ministry of Labour Government Training Centres are being utilised :—

- Redbridge, Southampton.*—For 300 Electrical Mechanics, entry being arranged at the rate of about 60 a month. Electrical Mechanic candidates undergo a four weeks' course in H.M.S. "Vernon" (P) before being drafted to Southampton.
- Hounslow Heath, Hounslow, Middlesex.*—For 100 Ordnance Mechanics, entry being arranged at the rate of 25 every 6 weeks.

While under training at the Centres, these Mechanics are under Naval discipline. For this duty, an officer, who will also be responsible for their welfare, has been appointed at each of the Training Centres.

8. All men on qualifying as Probationary Mechanics are to transfer to H.O. engagements, except in the case of C.S. and S.S. men trained from Q.Os. These ex Q.Os. are to be allowed to remain on their existing engagements and may be required, at the end of the war, to qualify for permanent Ordnance Artificer or revert to their original status.

9. Serving ratings selected for training will retain their present rate until the completion of the Government Training Centre Course when, if successful, they will change to Class III uniform, but will wear no distinguishing badge. Any rating who fails to reach the requisite standard during any period of his training will be removed from course. Junior Probationary Electrical Mechanics will be returned to H.M.S. "Royal Arthur" for re-categorization. Trained ratings, including Q.Os., will be returned to depot, where they will revert to the duties of their original rating.

10. *Supplementary Training.*—On completion of the initial technical training course and passing a trade test at the Government Training Centre, Probationary Mechanics will carry out further training as follows :—

- Engine Room Mechanics.*—Will be borne supernumerary in depot and repair ships or in repair bases for four months to continue training and gain Naval experience.
- Electrical Mechanics.*—Will carry out a five months' course in a Torpedo School.
- Ordnance Mechanics.*—Will carry out a course of about one month in a gunnery school on completion of which they are drafted to sea or repair bases for three months. Service on the staff of a Fitting Out Gun Mounting Overseer will count as service in a repair base.

11. Until actual advancement to Mechanic 5th Class, both Engine Room and Ordnance Mechanics will be borne supernumerary in ships and bases in which they are serving, after which they will be drafted for duty in billets which are normally allowed Artificer ratings by complement. While a shortage of Seamen (Q.Os.) prevails, Probationary Ordnance Mechanics may be drafted and borne in lieu until advancement to Ordnance Mechanic 5th Class.

12. *Advancement.*—See Advancement Regulations (B.R. 1066).

13. *Engine Room Mechanics—Trade Classification.*—Engine Room Mechanics are required to follow a specialized trade as either Fitter, Turner, Machinist, Metal Worker and Welder or Internal Combustion Engines, the trade being indicated under the Substantive Rating column on page 2 of the Service Certificate as Engine Room Mechanic (F), (T), (Mac), (M.W.W.) or (I.C.E.) as applicable. It is necessary, when Commanding Officers make notations in Service Certificates of the trade of Engine Room Mechanics, that they should inform the Commodores of the appropriate depots at the same time, otherwise the depots will not have knowledge of the trades held by ratings who have already been drafted, and in the event of casualties occurring, will not know the type of relief to send.

14. The proportion of each class allocated to the various trades is as follows :—

E.R. Mechanics (F)	20 per cent.
E.R. Mechanics (T)	10 per cent.
E.R. Mechanics (Mac)	10 per cent.
E.R. Mechanics (M.W.W.)	10 per cent.
E.R. Mechanics (I.C.E.)	50 per cent.

15. Engine Room Mechanics drafted as supernumeraries to repair staffs for their second period of four months' training are to continue training in the trade shown on their Service Certificates, E.R. Mechanics (I.C.E.) being drafted to Coastal Force and Combined Operation Bases, or to other bases where large numbers of motor craft are maintained.

16. While all E.R. Mechanics, irrespective of trade, have initially been given a course of basic training in fitting and turning, they should, so far as practicable, be employed only at their special trade.

17. Communications regarding complements of Engine Room Mechanics should show the numbers of each trade involved.

18. *Employment of Mechanics.*—(i) *Engine Room Mechanics* are entered for service in repair and maintenance staffs in place of a proportion of the number of E.R.As. and Motor Mechanics allowed by schemes of complement (see paragraph 10).

After supplementary training and on being rated E.R. Mechanic 5th Class, they are to be employed in complement billets in lieu of E.R.As. or Motor Mechanics in accordance with the scales shown below. When an E.R. Mechanic 5th Class or above has been absorbed as part of an authorized complement, he should not normally be drafted elsewhere unless an amendment to the Scheme of Complement makes this necessary.

Proportions of E.R.As. (excluding C.E.R.As.) and of E.R. Mechanics that should be borne in the following staffs

If the number of C.E.R.As. allowed is not shown, 10 per cent. of the total number of E.R.As. (F., F. and T., and T.) allowed should be C.E.R.As. and at least one Boilermaker, one Coppersmith, and one Engin smith should be a C.E.R.A. or senior E.R.A.

(a) *Maintenance and Repair Staffs of repair and depot ships*

	E.R.As.	E.R. Mechanics 5th Class and above
Fitters	40 per cent.	(F) 25 per cent.
F. and T.		(T) 20 per cent.
Turners		(Mac) 15 per cent.
Boilermakers	100 per cent.	Nil
Coppersmiths	50 per cent.	(M.W.W.) 50 per cent.
Engin smiths	100 per cent.	Nil
Patternmakers	100 per cent.	Nil
Moulders	100 per cent.	Nil
Qualified as Welders (included in above trades).	50 per cent.*	(M.W.W.) 50 per cent.†

In Submarine Depot Ships of the Far Eastern Fleet *only*, one Engine Room Mechanic is allowed for each submarine attached, the total number allowed being divided as follows :—

50 per cent. Fitters
50 per cent. Turners

(b) *Base Staffs for Destroyers and for vessels employed on escort duties*

	E.R.As.	E.R. Mechanics 5th Class and above
Fitters	25 per cent.	(F) 35 per cent.
F. and T.		(T) 25 per cent.
Turners		(Mac) 15 per cent.
Boilermakers	100 per cent.	Nil
Coppersmiths	50 per cent.	(M.W.W.) 50 per cent.
Engin smiths	100 per cent.	Nil
Patternmakers	100 per cent.	Nil
Moulders	100 per cent.	Nil
Qualified as Welders (included in above trades).	Nil	(M.W.W.) 100 per cent.†

(c) *Combined Operations Base Staffs (excluding engine overhaul staffs and flotilla staffs)*

	E.R.As.	E.R. Mechanics 5th Class and above
Fitters	50 per cent.	(F) 30 per cent.
F. and T.		(T) 20 per cent.
Turners		(Mac) Nil
Boilermakers	100 per cent.	Nil
Coppersmiths	33 per cent.	(M.W.W.) 67 per cent.
Engin smiths	33 per cent.	(M.W.W.) 67 per cent.
Qualified as Welders (included in above trades).	Nil	(M.W.W.) 100 per cent.†

Proportions of Chief Motor Mechanics and/or Motor Mechanics and E.R. Mechanics (I.C.E.) that should be borne in the following staffs

	Chief Motor Mechanics and/or Motor Mechanics	E.R. Mechanics (I.C.E.) 5th Class and above
(d) <i>Boat pools and motor boat maintenance staffs forming part of base staff.</i>	40 per cent.	60 per cent.
(e) <i>Coastal Force maintenance staffs (excluding engine overhaul staffs).</i>	75 per cent.	25 per cent.
(f) <i>Combined Operations base staffs (excluding engine overhaul staffs and flotilla staffs).</i>	50 per cent.	50 per cent.

Notes.—* A minimum of 1 E.R.A. qualified as Welder, is to be included.

† If the combined numbers of E.R.As. qualified as Welder and E.R.Ms. (M.W.W.) above, do not cover the number of Welders allowed in complement, the required number of Welders is to be made up by drafting E.R.Ms. (M.W.W.) substantively additional to complement.

Engine Room Mechanics will also be employed in the repair staffs allowed for auxiliary craft and in other miscellaneous staffs. In view of the difficulty, however, of fixing any uniform scale of substitution in the case of these staffs, Engine Room Mechanics will be specifically allowed as necessary in the appropriate scheme of complement.

(ii) (a) *Ordnance Mechanics.*—Though less skilled than Ordnance Artificers, Ordnance Mechanics are being substituted for Ordnance Artificers in complement. The following scale for dilution of Ordnance Artificer complements in H.M. ships by Ordnance Mechanics has been approved and should be attained gradually over the largest field :—

No. of Chief O.As. and O.As. allowed by complement	No. of O.Ms. who may be included in lieu of O.As.
1	Nil
2	1
3	1
4	1
5	2
6	2
7	2
8	2
9	3
10	3
11	3
12	3
13	3
14	3
15	3
16	4
17	4
18	4
19	5
20	5

In special case of repair and depot ships, Ordnance Mechanics can be accepted up to 50 per cent. of the total of Chief O.As. and O.As. allowed.

Where possible, Ordnance Mechanics should not be drafted to new ships commissioning before the state of dilution makes this necessary.

(b) *Ordnance Mechanics (S.V.)* are a specialized type of Ordnance Mechanic for certain classes of the smaller ships which do not carry Ordnance Artificers. Ordnance Mechanics (S.V.) will be borne, one in each ship of the following classes :—

Destroyers, sloops, frigates and corvettes which do not now carry an O.A. }
 Minesweepers (Fleet, Twin Screw and "Bangor" Class). } more H.A./L.A. guns
 "Eagle" Class.
 "Little Eagle" Class.

The training for Ordnance Mechanics (S.V.) is carried out in any one of the three Gunnery Schools. The duration of the course is one month.

(iii) *Electrical Mechanics*, on completion of their training at the Government Training Centre, are to be drafted to H.M.S. "Vernon" or H.M.S. "Defiance" for the normal training in torpedo and electricity as laid down for Acting E.As. 4th Class and E.As. 5th Class.

On completion of this training, they are to be drafted to the Fleet or to repair bases ashore, being regarded as interchangeable for drafting purposes with Electrical Artificers of the corresponding grades, but care should be taken that the substitution is gradual and over the largest field possible.

19. The following is a guide as to the intentions regarding messing and accommodation, but as the branches are new ones, Commanding Officers must use their discretion :—

<i>Rating</i>	<i>Messing Accommodation</i>
Probationary Mechanic ...	In a separate mess; otherwise with the Stoker or Seaman ratings of their branch.
Mechanics 5th Class and above	(i) <i>In Depot Ships, Repair Ships and ashore.</i> —To be formed into separate messes altogether or by their branch as convenient.
	(ii) <i>In Battleships, Battle Cruisers, Cruisers Destroyers, Escort Vessels, and Sloops.</i> —To be accommodated with the Artificer ratings of their own branch <i>Note.</i> —The Engine Room Mechanic Branch will not serve in these classes of ships.

20. *Transfer to Artificer.*—Any mechanic rating who eventually gains sufficient total experience in his trade and becomes in all respects qualified under the regulations for Direct Entry Artificers may, on passing the appropriate trade test be transferred to the appropriate Artificer Branch, but such cases are to be referred to the Admiralty before trade test and will only be considered in the case of outstanding men. The total experience required will be not less than three years for transfer to Artificer 5th Class, and not less than four years for transfer to Artificer Acting 4th Class.

(B.R. 1066—*Advancement Regulations.*)

(A.F.O. 95/44.)

(A.F.Os. 4838/41, 5375/41, 988/42, 1645/42, 2213/42, 2973/42, 3618/42, 5379/42, 1043/43, 1044/43, 1543/43, 4799/43, 5193/43, and 5695/43 are cancelled.)

5145.—Members of Q.A.R.N.N.S. and Reserve Serving Ashore—Pay Arrangements

(C.E. 2015/44.—28 Sep. 1944.)

It has been decided that, wherever possible, members of Q.A.R.N.N.S. and Reserve serving ashore are to be borne for pay by the larger medical establishments, i.e., including R.N. auxiliary hospitals.

2. Where necessary, payment should be effected by direct cheque drawn in favour of the individual and encashable by the local Accountant Officer. The onus of reporting to the Paying Officer such details as dates of entry and discharge, sickness, leave, railway warrants issued, etc., will rest upon the local authorities.

3. Arrangements for all necessary transfers of pay accounts should be made with the Accountant Officer of the nearest medical establishment and the transfers should be made effective from the beginning of the quarter following the receipt of this Order.

4. Any cases presenting difficulty should be reported to the Director of Navy Accounts (Branch 5), Northwick Park Hutments, Harrow, for prior consideration. In this connection some exceptions to the general rule may be necessary at establishments abroad. Where no medical establishment is available from which payment can satisfactorily be made, it may be possible for the Nursing Sisters to be borne for pay by suitably placed civilian Cashiers, but failing this the existing arrangements should be continued and reported to the Director of Navy Accounts for information.

5. Individual returns of entry and discharge (Forms D.142 and D.143) need not be rendered in connection with these transfers but nominal lists should be forwarded to Civil Establishments, Branch II (Salary Section), Admiralty, Bath, by the receiving and transferring establishments stating the name and rank of the transferees and whence or whither transferred. The Income Tax File and Assessment numbers should also be quoted, where known.

6. Members of Q.A.R.N.N.S. and Reserve are not subject to the provisions of the "Pay-as-you-Earn" system of collection of Income Tax and pending the issue of further instructions, provisional deductions on account of tax for 1944/45 should be made, where necessary, and reported, together with other necessary information, on transfer documents (Form D.135) in the usual manner.

*5146.—Examinations of Civilian Examining and Professional Bodies

See AFO 7625/45

(N. 22605/44.—28 Sep. 1944.)

The respective Councils of the organizations named below having now given permission for their examinations to be held in H.M. Ships and Establishments, A.F.O. 2959/44 is to be amended by the insertion of an "*" before the names of the bodies concerned :—

Institute of Chartered Accountants.
 Institute of Bankers in Scotland.
 Chartered Surveyors Institution.
 Chartered Insurance Institute.

(A.F.O. 2959/44.)

5147.—W.R.N.S.—Retention of Rank on Termination of their Appointments

See AFO 2995/40

(C.W. 47745/44.—28 Sep. 1944.)

The provisions of A.F.O. 3149a/41 (except paragraph 3) will apply to W.R.N.S. Officers.

(A.F.O. 3149a/41.)

*5148.—E.F.M. Telegrams to Sea-going Ships

(M. 010682/43.—28 Sep. 1944.)

Hitherto the E.F.M. service has been available for messages to Naval personnel abroad who are serving ashore only; this scheme has now been extended in the outward service to cover personnel in sea-going ships. The new service will come into force on Friday, 6th October, 1944. For the present it will not be applicable to Naval or Mercantile Marine personnel serving in merchant ships.

2. A copy of the E.F.M. code has been promulgated in A.F.O. 4324/44—notice board issue. E.F.Ms. will be transmitted and delivered to the addressee in this coded form, the addressee himself being able to interpret the groups in the message by reference to the notice-board copy of the code, which should be prominently displayed in all ships.

3. So far as possible, E.F.Ms. for ships will be transmitted over Naval channels to one of the following bases. Where this is not possible, E.F.Ms. will be transmitted by the same method as C.S.N. messages :—

Aden	Freetown	Melbourne
Alexandria	Gibraltar	Naples
Algiers	Halifax	Simonstown
Bombay	Kilindini	Wellington
Colombo	Malta	B.A.D., Washington

4. If a message for a sea-going ship is received and the ship has left, or does not normally operate from that base, the message should be re-addressed by the receiving base to the next port of call or to the appropriate base from which the ship is operating. The exact method of doing this will depend on circumstances, but will normally be the same as that by which C.S.N. telegrams are handled, i.e. P/L and coded trailer. The most appropriate channel should be used, i.e. Naval W/T, L/T, or, if necessary, mail. If the addressee has changed ship, the message should similarly be re-directed when possible.

5. Messages are not to be returned to Admiralty unless the correct address is unknown.

6. The new service is available to personnel serving in British and Dominions ships, with the exception of ships of the Royal Australian Navy, to which it is not possible to send these messages for the present. E.F.M. telegrams may also be sent to Naval personnel of certain Allies.

7. E.F.Ms. for personnel in harbour ships and shore establishments with open addresses will not be handled over Naval channels, but over commercial channels as at present.

(A.F.O. 4324/44 and A.F.O. S.367/44.)

***5149.—Loss of Effects—War Risks Insurance—Revised Premiums**

(N.L. 15506/43.—28 Sep. 1944.)

As from 11 a.m. on Wednesday, 13th September, 1944, the following schedule of rates for the insurance of cargoes between overseas ports on voyages indicated will become operative:—

				Per cent.
India, not east of Cape Comorin, Ceylon or Persian Gulf	to or from	Australasia ...	...	£4
India, east of Cape Comorin	to or from	Australasia ...	...	£4
India, east of Cape Comorin	to or from	Persian Gulf	...	£2½
India, east of Cape Comorin	to or from	(1) East Africa between and including Cape Guardafui and Beira, including Madagascar.		£3½
India, east of Cape Comorin	to or from	(2) East Africa south of Beira and South Africa, not north of but including Cape Town.		£4

(A.F.O. 2024/43.)

5150.—Deafness Due to Gunfire—Recording in Medical Officer's Journals

(M.D.G. 44732/43.—28 Sep. 1944.)

A number of cases of ear injury, claimed as being attributable to gunfire, are being received. In a good few instances the claimant states he reported to the sick bay on the occasion, but no record of the fact can be found in the relevant journal.

2. The necessity for recording the visit may not have been apparent on the particular occasion, but in view of the number of retrospective claims now being received, sometimes years after the alleged injury took place, persons attending the sick bay complaining of ear injury or temporary deafness due to gunfire should be noted in the Medical Officer's Journal.

3. Circumstances may not allow of the separate notation of a great many persons reporting at the sick bay on one particular occasion complaining of temporary deafness from gunfire; on these particular occasions a general notation should be made in lieu. Cases in which a hurt certificate should be granted will of course be treated separately.

(K.R. & A.I. 1386, Cl. 5.)

(A.F.O. 4087/44 is cancelled.)

5151.—H.M.S. "Copra"—Visits by C.O. and R.M.L.C. Personnel

(C.O.P. 4077/44.—28 Sep. 1944.)

With the Pay and Service Certificate organization for C.O. and R.M.L.C. personnel centralized in H.M.S. "Copra," officers and men have little opportunity of personal access to their pay accounts and original Service Certificates.

2. The organization is now at Largs, Ayrshire, and full use should be made of telephone, teleprinter and other normal means of communication when doubts and difficulties can be cleared up by these means.

3. In other cases, particularly where whole flotillas, units or other considerable numbers of men are shortly proceeding abroad, or on return from abroad, an officer from the flotilla or unit concerned should visit "Copra" personally so that individual and collective difficulties and queries can be cleared up. It is important that every opportunity be taken to get pay books, pay book alteration forms and copies of Service Certificates up to date.

4. This duty should normally be carried out by an officer, but if an officer cannot be spared a rating may be sent, provided he carries the written authority of his flotilla or Commanding Officer to visit "Copra" and a list of points requiring to be dealt with.

5. As only a limited amount of accommodation is available at Largs for officers and ratings visiting "Copra" on duty prior confirmation is to be obtained in all cases by signal addressed to H.M.S. "Warren" (Information "Copra" (Pay)) that accommodation is available.

5152.—Entry of Service Personnel into the Isle of Wight Defence Area—Cancellation of Restrictions

(N.L. 14665/44.—28 Sep. 1944.)

Consequent upon the relaxation of the restrictions on entry into the Isle of Wight, A.F.O. 1550/43 is cancelled.

(A.F.O. 1550/43 is cancelled.)

5153.—Admiralty Surgeon and Agent

Stafford

(C.E. 16390/44.—28 Sep. 1944.)

Mr. L. D. Brice, M.R.C.S., L.R.C.P., of 8 Silkmore Lane, Stafford (Telephone, Stafford 1006) has been appointed Admiralty Surgeon and Agent for Stafford, vice Mr. R. J. McClosky.

5154.—Admiralty Surgeon and Agent

Wednesbury, Staffs

(C.E. 16217/44.—28 Sep. 1944.)

Mr. G. E. V. Morris, M.R.C.S., L.R.C.P., of Oakswell Hall, Wednesbury, Staffs (Telephone Wednesbury 0145), has been appointed Admiralty Surgeon and Agent for Wednesbury.

***5155.—The United Services Trustee**

(P.M.—28 Sep. 1944.)

Attention is drawn to the United Services Trustee, which is a Corporation formed in December, 1918, for the use and benefit of the Royal Navy, Army and Royal Air Force and not for gain or profit. It is considered that advantage might well be taken of its services by any persons or committees having charge of canteen or similar funds.

2. This Trust Corporation is managed by a Board of Directors which consists of five persons nominated by H.M. The King, the Admiralty, the Army Council, the Air Council, and the Master of the Rolls respectively, with power to add five others to their number. Under the terms of its constitution no Director of the Corporation may receive any direct or indirect remuneration for his services.

3. The Corporation is a permanent body incorporated under the Companies Acts, 1908/17, with power (*inter alia*) to act as Custodian or Trustee of cash, securities and property of any kind belonging to H.M. Forces, such as Mess, Sports and Benevolent Funds.

4. It provides the Services with—

- (a) A permanent organization from which they can obtain expert and impartial advice on matters connected with the purchase and sale of investments, insurance of trust property, and recovery of Income Tax.
- (b) A permanent name in which funds may stand invested, thus obviating the trouble and expense caused (whether due to death or otherwise) when securities are registered in the name of individuals.

5. Certain moderate charges are made by the Trustee to assist in covering the Corporation's administration expenses. For example:—

- (a) Acceptance and Withdrawal Fees—On transfer of securities to the Trustee an acceptance fee of $\frac{1}{2}$ per cent. is charged on the market value up to £1,000 and $\frac{1}{2}$ per cent. on value in excess of £1,000. Minimum fee £1 1s.

E.g., the charge on investments—

value £1,000 would be £2 10s.

value £2,000 would be £3 15s.

A withdrawal fee at the same rate is charged if and when any of the securities are withdrawn.

- (b) Income Fee—Provided the Trustee is not required to keep the current account of the fund, but only to arrange for the payment of the investment income into the fund's banking account, no annual income fee is charged.

- (c) Income Tax—Where a fund is entitled to exemption from Income Tax the Trustee will arrange, free of charge, for the interest on the fund's British Government Investments to be paid in full without deduction of Income Tax.

A charge of 5 per cent. on the amount recovered is made for reclaiming Income Tax suffered by a fund either by deduction from dividends or otherwise.

In the event of the Corporation's income exceeding expenditure, the surplus after provision of reserves must, under the terms of its constitution, be used for the benefit of H.M. Forces and not for any other purpose.

6. Anyone desiring further information should apply direct to the Secretary, the United Services Trustee, 123, Pall Mall, London, S.W.1. (Telephone: Whitehall 0027.)

5156.—Instructional Film—“Technique of Instruction in the Army”
(Serial Number B.775/7)

(N.T.—28 Sep. 1944.)

With reference to A.F.O. 4251/43, a military training film series entitled “Technique of Instruction in the Army” is now available for Naval use, and copies will be issued without demand in accordance with paragraph 3 below.

2. The film is in three parts with the following contents:—

Part I.....*Foundations*.—This is the introductory film of the series. It demonstrates the proper approach through the senses to the mind of the trainee; it shows how these senses should be more fully employed by the proper use of question and answer, and the consequent creation of “two-way traffic” between instructor and pupil.

Part II.....*Framework*.—The message of this part is, “The more you plan the deeper your instruction goes.” It gives examples of good and faulty planning of MATTER, MANNER and METHOD, and shows how improvisation can help to keep a class alert and interested.

Part III...*Methods*.—This part shows the various methods by which instruction may be given. It deals with the Lecture, the Lesson, the Discussion, and a combination of all three; it shows how a choice of method must be conditioned by the subject, the class and the circumstances.

3. The use of this film is recommended for Naval Instructional Staff audiences as an alternative to the Naval film, “Hints to Instructors” (A.F.O. 4508/43).

4. Distribution will be as follows:—

No. of copies
35 mm. 16 mm.

(a) Copies on permanent loan:—

Chatham Division, R.M.	...	...	...	...	1	...	1
Portsmouth Division, R.M.	...	...	...	...	1	...	—
Plymouth Division, R.M.	...	...	...	...	—	...	1
R.M. Depot, Deal	...	...	...	...	1	...	—
R.M. Military School, Thurlstone	...	...	...	...	1	...	—
R.M. Training Group (Devon)	...	...	...	...	1	...	—
R.M. Training Group (Wales)	...	...	...	...	1	...	—
Royal Marine Engineers	...	...	...	...	—	...	1
H.M.S. “St. Mathew”	...	...	...	...	—	...	1
H.M.S. “Helder”	...	...	...	...	1	...	—
H.M.S. “Robertson”	...	...	...	...	—	...	1

Instructional Technique Courses:—

R.N. Barracks, Chatham	...	...	...	...	1	...	1
R.N. Barracks, Devonport	...	...	...	...	—	...	1
R.N. Barracks, Portsmouth	...	...	...	...	—	...	1
H.M.S. “Excellent”	...	...	...	...	1	...	—

(b) Copies for re-issue on temporary loan:—

Film Libraries:—

Scapa	...	...	...	...	2	...	2
Greenock	...	...	...	...	2	...	2
Rosyth	...	...	...	...	2	...	2
Liverpool	...	...	...	...	2	...	2
Chatham	...	...	...	...	2	...	2
Portsmouth (H.M.S. “Collingwood”)	...	...	...	...	2	...	2
Devonport	...	...	...	...	2	...	2
London	...	...	...	...	1	...	1
Londonderry	...	...	...	...	1	...	1
Colombo	...	...	...	...	2	...	2
Trincomalee	...	...	...	...	2	...	2

5. Application for copies of these films on temporary loan should be made in accordance with A.F.O. 4251/43 (paragraph 10).

(A.F.Os. 4508/43 and 4251/43.)

5157.—Instructional Film, “The Brown Hydraulic System of Telemotor and Steering Control” (Serial Number A.119)

(N.T. 5146/44.—28 Sep. 1944.)

With reference to A.F.O. 4251/43, an instructional film, entitled “The Brown Hydraulic System of Telemotor and Steering Control,” has now been completed and copies will be distributed without demand in accordance with paragraph 3 below.

2. The film has a running time of approximately 40 minutes and consists of four parts, as follows:—

Part I.—Principles of Hydraulic Transmission of Power (1 reel).

Part 2.—The Hydraulic System (1 reel).

Part 3.—The Telemotor System (1 reel).

Part 4.—Maintenance (1 reel).

3. Copies will be distributed as follows:—

	No. of Copies	
	35 mm.	16 mm.
Copies for re-issue on temporary loan:—		
Scapa Library	2	2
Rosyth Library	2	2
Greenock Library	2	2
Liverpool Library	2	2
Chatham Library	2	2
Portsmouth Library (H.M.S. "Collingwood") ...	2	2
Devonport Library	2	2
London Library	1	1
Londonderry Library	1	1
Colombo Library	2	2
Trincomalee Library	2	2
F.O., East Africa	1	1
C.-in-C., South Atlantic	1	1
F.O.L.E.M.	1	1
F.O.W.M.	1	1
V.A., Malta	1	1
F.O.G.M.A.	1	1
F.O.C., West Africa	1	1
F.O.C.R.I.N.	} Duplicate negative Lavender print	
N.S.H.Q., Ottawa		
B.A.D., Washington		

4. Application for copies of this film on temporary loan should be made to the Film Libraries and Cs.-in-C., referred to in paragraph 3 above, in accordance with A.F.O. 4251/43 (paragraph 10).

(A.F.O. 4251/43.)

5158.—Instructional Film "Weather at War" (Serial Number G.602)

(N.T. 5086/44.—28 Sep. 1944.)

With reference to A.F.O. 4251/43, a U.S. Naval Training Film entitled "Weather at War," is now available for Naval training purposes and copies of Part 1, "Pacific Campaign," will be distributed as follows, without demand:—

Film Libraries—	No. of Copies	
	35 mm.	16 mm.
Scapa	2	2
Rosyth	2	2
Greenock	2	2
Liverpool	2	2
Chatham	2	2
Portsmouth (H.M.S. "Collingwood") ...	2	2
Devonport	2	2
London	1	1
Londonderry	1	1
Trincomalee	2	2
Colombo	2	2
R.N.A.S. Piarco	1	—
F.O.C.R.I.N.	Negative	

2. The film is not a meteorological instructional film, but it shows how use was made of weather information in the Pacific campaign.

3. The film has a running time of approximately 30 minutes and application for copies should be made in accordance with A.F.O. 4251/43 (paragraph 10).

(A.F.O. 4251/43.)

*5159.—Instructions for Classification in Age and Service Groups

(C.W. 53310/44.—28 Sep. 1944.)

(Included in Notice Boards Issue only.)

Section 3.—G., T., N., E., etc., & STORES; HULL, EQUIPMENT & FITTINGS

5160.—Ammunition—General—De-ammunitioning of H.M. Ships—Notification to R.N. Armament Depots

(A.S. 10605/44.—28 Sep. 1944.)

H.M. ships often require to land ammunition at short notice, and it is most important that the local armament supply representative at the port concerned should be notified of the following details at the earliest possible moment, preferably at the same time as the necessity for de-ammunitioning is promulgated:—

- Date, approximate time and place at which lighterage is required.
- Whether complete or partial de-ammunitioning is contemplated. If the latter, a broad indication of the nature of ammunition involved should be given, e.g. "Depth Charges and Cordite only"
- Details of empty packages required to accommodate loose ammunition on board (A.F.O. 349/44 refers).
- Whether stores landed are to be held on deposit or brought on depot accounting charge. If the latter, the authority (e.g. relevant article in N.M.E.R.) should be quoted.

2. In the absence of these particulars it is often necessary for a signal to be sent to the ship, asking for further essential data omitted from the ship's signal (especially regarding details of empty packages required) and strict compliance with the procedure enumerated in paragraph 1 is necessary to prevent unnecessary delay and labour, both in H.M. ships and Armament Depots.

(A.F.O. 349/44.)

5161.—Ammunition—Flares, Identification, Type 9, Lot 37A, filled 2/43 W.F., Ltd.—Withdrawal

(A.S./G. 4672/44.—28 Sep. 1944.)

Flares, identification, type 9, Lot 37A, filled W.F., Ltd., 2/43, are to be returned to store at the first opportunity and others of different lots drawn in lieu.

2. Stocks at N.A. Depots are to be set aside and quantities available reported to D.A.S. (Branch B).

5162.—Ammunition—Magazine and other Spaces containing Explosives or Inflammable Stores—Electrical Equipment—As. and As.

(Ships and H.M. Dockyards concerned.)

(G. 013621/44.—28 Sep. 1944.)

It has been decided that all B.L. charge cordite handing rooms are to be fitted with magazine type electrical equipment whether the charges are handled bare or cased. The heading of Article 170 of the Naval Magazine and Explosive Regulations (B.R. 862) is being amended accordingly.

2. Ships concerned are to include an item classification A* in their lists of alterations and additions to cover the work involved, quoting this order as the authority.

3. A.F.Os. 2088/39 and 2259/40 are cancelled, the provisions of these orders having since been included in the Naval Magazine and Explosive Regulations.

4. Special instructions will be issued by the Admiralty for vessels under construction.

(B.R. 862.)

(A.F.Os. 2088/39 and 2259/40 are cancelled.)

5163.—Ammunition—Pyrotechnics and Rockets Signal—Flares, Illuminating, White, Types 26 and 26E—Obsolete

(A.S./C.I.N.O. 10363/44.—28 Sep. 1944.)

Flares, Illuminating, White, Types 26 and 26E, are obsolete.

2. Any remaining on board H.M. ships should be dumped in deep water, after being suitably weighted, or returned to the nearest Naval armament depot, whichever is the most convenient.

3. Naval armament depots should arrange for the flares in stock, and any returned from ships and establishments, to be dumped in deep water, after being suitably weighted.

5164.—Ammunition Supply—Ready Use and Magazine Lockers—R.U. Stowages—20-mm. Oerlikon—Modification—As. and As.

Ships concerned—P.S.Os. and E.R.Os.

(G. 013275/44.—28 Sep. 1944.)

Experience in hot climates with varying temperatures has shown that when Oerlikon rounds are greased and stowed horizontally or projectile up, grease is liable to get into the propellant and cause dangerous hangfires.

2. The following modifications to ready use stowages should, therefore, be carried out:—

(a) *Ready Use Lockers.*—Magazines should be stowed so that the projectile is nose down, i.e., the magazine should be inverted. If practicable, additional wood chocks should be fitted in accordance with A.F.O. Diagram 318/44 (D.N.C. 2A/1087). These chocks provide a guide when stowing the magazines, but as the chocks do not assist in retaining the magazines, they may be dispensed with if the work of fitting cannot conveniently be undertaken by ship's staff.

(b) *Bracket Stowage.*—Stowage brackets in R.U. cupboards and in R.U. magazines should be angled so that the magazines are tilted at 20° to the vertical. Consideration should be given to the rearrangement of stowages in ready use magazines in order to avoid reduction of stowage as far as possible.

(c) Where the full allowance of ready use ammunition cannot be stowed in existing cupboards or ready use magazines, brackets for the drums should be fitted on bulkheads as conveniently near to the guns as possible.

3. An item should be included in the current list of As. and As., Classification "A," to cover the work involved.

4. Base staffs should arrange for lockers in D.E.M.S. to be modified at the first opportunity.

5. Special instructions will be issued by the Admiralty for vessels under construction.

5165.—Anti-Ship Fire Control—Director Control Towers—Alternative Open or Barrage Sights for Type "P" Sight Binoculars, Patterns G.363,4,5/6

"Liverpool", "Dido" and "Fiji" Classes, K.G.V. Class and Establishments concerned

(G. 018006/44.—28 Sep. 1944.)

Instances have occurred of binoculars, Patterns G. 363, G. 364, G. 365, G. 366 being rendered useless due to misting or icing in extreme conditions, and also of the barrage sights having been removed to avoid breakage or fouling the D.C.T. roof.

2. A new design of barrage sight has therefore been produced which can be folded into a safe position when not required. In this position the sight then exposes a foresight similar to that of a S.M.L.E. rifle. A vee backsight, alternative to the bead used for barrage fire is also provided on the existing hinged arm. To bring into use pull the knurled portion of the backsight assembly and invert.

3. Used together the vee backsight and the blade foresight provide emergency open sighting arrangements while the bead and cartwheel retain the existing barrage sight. The folding action dispenses with any necessity for removal.

4. Complete replacement sets are being forwarded direct to ships concerned without demand. The existing cartwheel and bead assemblies should be removed and the new items fitted using existing holes and screws.

5. The backsight which is adjustable should be aligned with the binocular graticule, by laying on the horizon and setting the top of the vee backsight in line with the tip of the foresight blade.

5166.—Diving—Gas Meter, Pattern 130—Extension of Allowance
Capital Ships, Cruisers, Aircraft Carriers (except Escort Carriers), Repair and Depot Ships and Monitors

(N.S. 24350/44.—28 Sep. 1944.)

The allowance of a gas meter, Pattern 130, for testing diving pumps, which is at present restricted to flagships, has been extended to apply to all Capital Ships, Cruisers, Aircraft Carriers (except Escort Carriers), Repair and Depot Ships and Monitors, except vessels of these classes in reserve.

2. Ships concerned which have not already been supplied should forward a demand to their storing yard. Supply to ships concerned of new construction should be arranged by warrant and storing yards and depots in the normal manner.

3. B.R.323—Establishment of Naval Stores for Gunnery Purposes—will be amended.

4. *Home Yards only.*—Provision has been made on 10th War Demands.

(A.S.C.B.S. No. 46/4.—1 Apr. 1944.)

5167.—Guns—Q.F., 4-in. Mark XIX—Case, striker—Modification to Ensure Correct Assembly of Sear

(A.S. 16747/43.—28 Sep. 1944.)

The following modification is approved:—

Gun.—Q.F., 4-in. Mark XIX.

Parts affected.—Case, striker, Mark I, Sear, Mark I, and Pin, axis, sear, Mark I.

Purpose.—To ensure correct assembly of sear.

Nature of Modification.—Mark I sear axis pin to be replaced by Mark II pattern and Mark I striker case and sear modified to suit. On modification the marks of the striker case and sear are to be advanced to II.

Drawing.—Instructional Print N.O.D. 3121/20.

New parts.—Mark II, Pin, axis, sear, with nut, for which intermediate demands should be forwarded to D.A.S.

By whom to be done.—R.N.A. depots.

Degree of urgency.—As opportunities offer.

5168.—Guns—Q.F., 3-in., 20 cwt.—Ammunition—Chamber Gauging of Rounds
Submarine Depot Ships

(G. 012372/44.—28 Sep. 1944.)

A certain number of 3-in. 20 cwt. rounds of ammunition have reached Naval Service in which the mouth of the cartridge case has belled out over the band, resulting in failures to load.

2. Arrangements are being made for the supply of chamber gauges to all submarine depot ships in order that the rounds may be gauged before use.

3. The gauges must be returned to the nearest Armament Depot for checking after 10,000 rounds have been loaded into them.

4. To obtain a life of 10,000 rounds it is essential that the gauge is turned daily before use, to ensure that wear takes place equally all round. The rounds must always be loaded slowly and without any force into the gauge and, when correct, a straight edge should pass over the rear face of the gauge without touching the base of the cartridge case. When not in use, the gauges must be preserved with lubricant to prevent rusting and on no account is emery cloth, etc., to be used on them. *Under no circumstances* are rounds to be rectified by forcing them into the gauge.

5. Pending issue of the gauges, the defect can be detected by visual examination of the round, as the defect when present takes the form of an out-turning of the lip of the case adjacent to the shell driving band.

6. All rounds should be carefully examined and gauged before loading into magazine stowages or R.U. lockers in submarines, defective rounds being returned to the nearest Armament Depot at the first opportunity.

7. Particular care should be taken not to rough handle this ammunition in view of its liability to distortion at the point of the shell and cartridge case.

5169.—Guns—Q.F., 3-in., 20-cwt., Marks I, ID and IE—Lever Breech Mechanism—Modification

(A.S./G. 05232/43.—28 Sep. 1944.)

The following modification is approved :—

<i>Gun</i>	Q.F., 3-in., 20-cwt., Marks I, ID and IE in submarines.
<i>Part affected</i>	Lever breech mechanism.
<i>Purpose</i>	To give increased leverage to overcome jamming of breech mechanism.
<i>Nature of modification</i> ...	Fitting an auxiliary lever.
<i>Drawing</i>	I.P.N.O.D. 2145/35.
<i>New parts required</i> ...	Handle, extension, B.M. lever with two fixing screws and three dowels, for which R.N.A. depots should forward intermediate demands to D.A.S.
<i>By whom to be done</i> ...	R.N. armament depots.
<i>Degree of urgency</i> ...	Guns in submarines without delay.

5170.—Guns—Q.F., 40-mm., Marks IV and VIII—XI—Key, Mark II, Extractor Spindle, Mark II—Introduction

(A.S./C.I.N.O. 8799/44.—28 Sep. 1944.)

A Mark II Key extractor spindle has been introduced into Naval service for use in inserting and removing Mark II extractor spindles on Q.F., 40-mm., Marks IV, VIII, IX, X and XI guns.

2. The Mark II key consists of steel spindle with dowel pin, sleeve and tommy, and is suitable only for Mark II extractor spindles modified in accordance with A.F.O. 4109/44; this modification is also being incorporated in new manufacture

3. Mark II keys will be allowed in the proportion of 1 per two guns fitted with Mark II spindles extractor.

4. H.M. ships should demand from the nearest Naval Armament Depot as necessary.

5. R.N. Armament Depots should demand from Director of Armament Supply.

6. Naval Proportion Book will be amplified.

(A.F.O. 4109/44.)

5171.—Guns—20-mm. Hispano Belt Feed Mechanism, Mark I*—Securing of Tie Rods

(C.I.N.O. 423/44.—28 Sep. 1944.)

It has been reported that the nuts of the tie rods of 20-mm. Hispano, Mark I* Belt Feed Mechanisms, are liable to come loose in service. This tendency leads to overtightening of the nuts and consequent binding of the shaft and distortion of the end plates.

2. The action set out below is to be taken with all belt feed mechanisms, Mark I*, by ships and air stations at the earliest possible moment and by R.N. armament depots before issue.

3. Secure the nut at the front end of the tie rod in such a position that the end of the rod is flush with the outboard end of the nut. It may be secured by welding, brazing or sweating, whichever is more convenient.

4. Arrangements are being made to supply tab washers to secure the nut on the other end, the longer tab to be secured round the rear cover and the shorter end round the nut. Until these are available, this end is to be secured by lock nuts.

5. After carrying out the procedure as indicated in paragraph 3, sufficient thread should normally be available to fit nuts of the standard type as lock nuts, but where this is not so, the nuts may be reduced in thickness to not less than 3 mm.

6. On assembling the rods modified as above, "shake proof" and spring washers are to be omitted.

7. Tab washers will be supplied.

8. Modification as above should enable belt feed mechanisms to pass the test laid down in A.P. 1641F, Vol. II, Part 3, Section 1, Chapter 3, paragraph 40(i), without danger of the tie rods becoming loose in service. If the rack and tensioning ratchet pawl are removed from a correctly assembled belt feed mechanism it should be possible to turn the shaft freely by hand.

5172.—Guns—Browning 0.5-in.—Water-cooled Water Chests—Lagging

(A.S. 15133/43.—28 Sep. 1944.)

To assist in preventing the water in 0.5-in. Browning watercooled guns freezing, due to low air temperature, water chests should be lagged as shown in A.F.O. Diagram 314/44.

2. The work is to be done by ships, base and N.A. depot staff, only when ships are due to sail under Arctic conditions.

3. Canvas R.N. No. 4, brass gromets, Pattern 181, mackerel line, and felt, $\frac{1}{4}$ -in. thickness, Pattern T. 821, should be demanded from local Naval store depot.

4. When fitted with these covers, the system is still to be protected against freezing by the use of glycerine and the pump is to be worked at intervals.

5. Owing to the loss of cooling area the pump is always to be worked when the gun is firing.

5173.—Gun Mountings—5.25-in. Marks I and II, 4.7-in. Marks XIX, XX and XXII, 4.5-in. Marks II, III, IV and V—Adjustment of Trunnion Anti-friction Bearings

Ships, Dockyards and Overseers concerned

(G. 018424/44.—28 Sep. 1944.)

From a report recently received from one of H.M. ships, it appears that the method of adjustment of the rendering springs for the trunnion anti-friction bearings, laid down in the appropriate handbooks for the above mountings, may not in all cases give entirely satisfactory results.

2. When the weight of the elevating mass is being taken on the suspension rings carrying the anti-friction bearings it appears that slight distortion of these rings may occur. As a result of this the upper part of the suspension ring may lift as much as 0.002-in. before any lift of the trunnion pin takes place. Should this in fact happen, the setting of the suspension ring will be a similar amount too low, since feeler measurements are taken at the top of the suspension ring where the distortion has taken place.

3. A check may be made by securing a clock gauge to one of the cap-square bolts so that its point is in contact with the top of the cover plate secured to the trunnion pin. By this means actual lift of the trunnion pin instead of the suspension ring can be measured. The adjustment may in other respects be carried out as already laid down.

4. In ships where elevating efforts remain high after trunnion bearings have been adjusted in the approved manner, this method should be tried as an alternative.

5174.—Gun Mountings—4-in. Twin Plain and R.P. 50 Series Mark XIX Mountings—Barrel Dismounting Gear—REPORTS

Ships, Dockyards, Repair Establishments and Armament Depots

(G. 018745/44.—28 Sep. 1944.)

Numerous transfers and new issues of the barrel dismounting gear for exchanging the loose barrels of the 4-in. Mark XVI* guns in the 4-in. Twin Mark XIX mountings have taken place since the issue of previous Fleet Orders on the subject and it is desired to ascertain the whereabouts of all sets at the date of this Order.

2. All ships, dockyards, repair establishments and armament depots holding sets of this gear at the date of this Order should report through their Administrative Authorities at an early date the number of sets held and, if possible, the registered No. of the sets.

3. If a set has been received or despatched from one establishment to another within one month of the date of this Order, it should be included in the report, stating from whom received or to whom despatched.

4. The gear is a Vote 8 III G. article and is shown in plate 37 of B.R. 257 (handbook for 4-in. Twin Mark XIX mountings).

5. *Portsmouth dockyard only.*—The sets being received from the manufacturers under Contract C.P. 80671/43 of 30 June 1943 should be shown separately from any other sets held in the yard.

(B.R. 257.)

5175.—Training—Instructional Appliances—Dome Teacher—Modified Mark XIV Gyro Gunsight for Use in the Dome A.A. Teacher

(G.D. 0652/44.—28 Sep. 1944.)

A number of modified Mark XIV gyro gunsights are being supplied for use in Dome A.A. Teachers.

2. *Purpose.*—The purpose of these modified sights is to enable the instructor to verify the gunner by seeing the image of the graticule on the dome surface, and at the same time to enable the whole class to benefit by watching each run, and listening to the instructor's comments.

3. *Modifications.*—The modifications involved are :—

- (a) The elevation mirror has been removed, silvered and repinned in a position at 90° to that at present occupied.
- (b) The training gyro unit has been reversed.
- (c) The present window has been blanked off, and a dummy window built above the sight.

4. Modification (a) above results in the image of the graticule being projected forward on to the dome surface instead of backwards towards the gunner's eye. This modification alone would, however, cause the image of the graticule to move in the wrong direction for training, i.e. to "lead" the gun in a passing run, instead of lagging behind. This is rectified by modification (b).

5. Since the elevation mirror is now silvered, the screen cannot be seen by looking through the normal sight window; hence modification (c).

6. *Limitation.*—The sight suffers from the limitation that the gunner can never lose sight of the graticule, whatever the position of his head, but this is considered acceptable, and far outweighed by the advantages given in paragraph 2.

7. *Fitting the Sight.*—The sight is intended for fitting to the new dome vibrating gun, details of which will be promulgated shortly. It can, however, be fitted as soon as received, in those Domes where the one man sight unit has been modified by the addition of Oerlikon type shoulder pieces and a bracket for carrying a Mark XIV gyro gunsight in accordance with drawings sent to certain bases by H.M.S. "Excellent". When fitted to this gyro sight bracket, it will be found that the sight can be used by most people, although some will experience difficulty due to the height of the dummy window above the shoulder pieces.

8. *Use with the Power Operated Turret.*—It is intended to manufacture and distribute as soon as possible brackets for fitting the Mark XIV gyro gunsight to the power operated training turret in the Dome. When the modified sight is mounted on this turret, it is probable that space will not permit the use of the dummy window. This window has, therefore, been made detachable, and should be removed when the sight is mounted in the turret, the gunner looking over the top of the sight without a window.

9. *Position of the Dummy Window.*—The dummy window can be secured in a number of positions along the top of the sight. The correct position is such that the centre line of the window is about 1½ in. to the right of the centre line of the shoulder pieces. To achieve this, when the new vibrating gun is in use, the window will have to be mounted at the right-hand end of the top of the sight.

10. *Allocation.*—Thirty-two Mark XIV gyro gunsights are being modified as outlined above. They will be distributed without demand for use in the following Domes :—

- | | |
|-----------------------------|-----------------------------|
| 1. H.M.S. "Excellent" | 17. Gibraltar |
| 2. Chatham Gunnery School | 18. Durban |
| 3. Devonport Gunnery School | 19. Troon |
| 4. Ainsdale | 20. R.A.N. School, Flinders |
| 5. Eastney | 21. R.M. Barracks, Eastney |
| 6. Barton's Point | 22. R.M. Barracks, Plymouth |
| 7. Flotta | 23. R.M. Barracks, Chatham |
| 8. Lyness | 24. R.M., Towyn |
| 9. Trincomalee | 25. Londonderry |
| 10. Malta | 26. Karachi |
| 11. Alexandria | 27. Rosyth |
| 12. Colombo | 28. Belfast |
| 13. Kilindini | 29. Sheerness |
| 14. Bombay | 30. Bermuda |
| 15. R.N.B., Portsmouth | 31. Canada |
| 16. Harwich | 32. Canada. |

5176.—Demolition Charges—Charge, Line 60/Blocks, C.E./T.N.T., 14-oz.—Introduction

(T. 01054/44.—28 Sep. 1944.)

A new line charge has been introduced to supersede the Naval T.N.T. hose charge for underwater and other demolition work.

2. The line charge consists of sixty blocks, C.E./T.N.T., 14-oz., demolition-coupled together in a line and spaced about 1-in. apart. Cordtex rove through the central tube of each block results in detonation of the entire line. The line charge is considerably more flexible than the T.N.T. hose charge and can be stowed in a box, 58 by 15 by 8½-in. Authorized stowage afloat is Group 7. Tentative classification for stowage ashore is Group 7, Category Z.

3. Each block consists of a filling of 25/75 C.E./T.N.T. in a watertight rectangular tinplate container which measures approximately 4½-in. in length by 2¼-in. by 1½-in. Two pellets of C.E. inset in the main filling form a priming core through which a ½-in. diameter tube passes from end to end. These blocks are, therefore, permanently primed and need only a detonator (No. 6 Briska) or cordtex rove through the central tube to fire them.

4. Any number of these blocks can be made up into a line charge, using two lengths of 1½-in. circular manila or hemp rope lanyard, which engage in thin sheet steel side plates holding each block in place. These ropes take all the strains of pulling and general handling of the line charge; 3-in. clips, C-shaped, of stout iron wire, are hooked over both rope lanyards between the blocks and, by gripping the lanyards together, hold the blocks firmly in place.

5. When issued as a Naval armament store the line charge (charge, line, sixty blocks, C.E./T.N.T., 14-oz., demolition) is ready made up in 25-ft. lengths, stowed in boxes. An inert substitute for cordtex (codline) is rove through the blocks for storage and transit. When the line charge is required for use, a self-fixing adaptor on the end of the cord is attached to the end of a length of cordtex and the cordtex is drawn through the entire line of blocks by withdrawing the cord. The line charge is then ready for use with any of the standard initiating systems authorized for cordtex in C.B. (R) 3125.

6. (A) *To Use Charge, Line, Sixty Blocks, C.E./T.N.T., 14-oz., Demolition.*—
(i) Remove line charge from box and lay the charge in a straight line on the deck or other flat surface. Make fast one end of the hemp lanyards to some fixture such as a post or bollard, and stretch out the line charge by hauling on the opposite end. The codline which is supplied rove through the line charge should have a cardboard disc on the end to which is attached the cordtex coupling (adaptor) to prevent the codline being pulled through the blocks prematurely.

(ii) Take the required length of cordtex and cut off the sealed end. Insert the cordtex between the two wires of the cordtex coupling (Fig. 1 of A.F.O. Diagram No. 321/44). Press the cordtex home into the hollow tube of the coupling and wind the wires tightly around the cordtex in opposite directions, thus binding some three inches of the cordtex with the length of wires provided. Twist the ends of the two wires together and flatten back against the cordtex (Fig. 2 of A.F.O. Diagram No. 321/44).

(iii) Tear off the cardboard disc from the codline.

(iv) Station one hand at each end of the line charge, one to withdraw the codline and thus reeve the cordtex, the other to feed the cordtex from the reel. If the cordtex coupling is found to jam at the entrance to any of the central tubes, excessive force must not be used. The cordtex coupling should be freed by one of the hands and fed into the central tube.

(v) When the cordtex has been rove through the entire line charge, untwist the wires and withdraw the cordtex from the cordtex coupling.

(vi) Return the codline with cordtex coupling attached to store.

(vii) Cut 12 in. off the end of the cordtex, seal cordtex end, and make an over-hand knot in the end of cordtex to prevent it from being pulled back inadvertently through the blocks.

(viii) Leaving sufficient slack in the cordtex, so that when hauling on the rope lanyards no strain will come on the cordtex, stop the other end of the cordtex to one of the ropes at intervals of 5 ft., allowing 6 ft. of cordtex for every 5 ft. of rope.

(ix) Fit detonator Briska No. 6, Mark II, electric or safety fuze, in the usual manner, and the line charge is ready for use.

(B) *To Unfit Charge, Line, Sixty Blocks, C.E./T.N.T., 14-oz., Demolition.*—(i) If the detonator is fitted to the cordtex the cordtex must be cut below the detonator and the detonator with its cut length of cordtex dumped in deep water or destroyed in the usual way.

(ii) Take the codline from its box and straighten out the wires of the cordtex coupling. The extreme ends of the wires may be cut off if previous twisting in use makes this necessary.

(iii) Insert the end of the cordtex between the wires of the cordtex coupling and attach as in 6 (ii) above. In this case lay back the twisted ends of the wires in the direction of the codline and flatten against the cordtex (Fig. 3 of A.F.O. Diagram No. 321/44) so that the wires will not foul on their passage through the blocks.

(iv) Station a hand at each end of the line charge and by withdrawing the cordtex feed the codline through all the blocks. The precautions laid down in 6 (iv) must be observed.

(v) When the codline is rove through the entire line charge, remove the cordtex from the coupling as in 6 (v). Seal the end of cordtex and tie an overhand knot in each end of the codline to prevent it from being inadvertently drawn through the blocks.

(vi) Place the line charge in its box and return to store.

7. *To Use Blocks, C.E./T.N.T., 14-oz., as a Separate Charge.*—Where small charges are required for demolition work under water or in air it is intended that, normally, 1½ lb. T.N.T. charges shall continue to be used.

Conditions may arise, however, when blocks, C.E./T.N.T., 14-oz., by virtue of their shape and ability to countermine one another, may be ideal for a particular operation. To use blocks, C.E./T.N.T., 14-oz., as separate charges, proceed as follows:—

(i) Remove charge, line, sixty blocks, C.E./T.N.T., 14-oz., from box and strip down required number of blocks, removing the side plates and inert cord from each block to be used.

(ii) To fire singly, the block, C.E./T.N.T., 14-oz., can be detonated by cordtex alone rove through the central tube, or by No. 6 Briska detonator, electric or for safety fuze, inserted at either end of central tube. As the detonator is a loose fit in the tube the detonator must be secured by adhesive tape, luting or a thin wedge (e.g., cut matchstick) lightly pushed in at the head of the detonator.

(iii) To make up a "bundle" charge using several blocks, C.E./T.N.T., 14-oz., lay the required number of blocks in direct contact with one another (their rectangular shape permits a neat charge to be built up) and secure with spun yarn or adhesive tape round the bundle.

(iv) Because blocks, C.E./T.N.T., 14-oz., have an integral primer it is only necessary to initiate one block of the charge to obtain detonation of all the blocks.

(v) Several made-up, or bundle, charges can be detonated by joining them with cordtex.

8. Storage of line charges with cordtex rove is not permitted in R.N. armament depots or armament store issuing ships or carriers, and any charges so fitted should have the cordtex removed and, if possible, inert (codline) core substituted before returning to an armament depot or officer-in-charge of armament supply.

(A.F.Os. 2619/44 and 3542/44 are cancelled.)

5177.—Depth and Roll Recorder—Testing Apparatus

(T. 01867/44.—28 Sep. 1944.)

A.F.O. Diagram 319/44 shows details of a testing outfit, which has been made by a Naval air station, and found of value for calibrating depth and roll recorders.

2. Where large numbers of recorders have to be dealt with, other ships, stations and bases may find it convenient to make themselves similar sets.

3. This layout should merely be regarded as typical. It is known that other establishments have already got similar arrangements in operation, and there is no objection to varying points of detail to suit local conditions.

4. Method of operation is as follows:—

(a) *Calibration.*—A paper-loaded depth and roll recorder with 100-ft. depth spring, but without cover, is attached to the air chamber. Reduced H.P. air is admitted to air chamber until 5 ft. is registered on T.S.D. gauge, and depth pencil marks vertical line on recorder paper. The governor is then operated to start the recorder until a short horizontal line is marked on the paper. The recorder is then stopped. This operation is repeated to show increasing 5-ft. steps up to 100 ft. The relief valve and governor are then operated alternately to register decreasing 5-ft. steps back to zero depth. Similar operations are carried out to calibrate with 35-ft. and 50-ft. springs.

(b) *Timing.*—Timing can be readily carried out on the rig in a similar manner. The recorder is run and the operator works depth pencil every 5 seconds as illustrated on A.F.O. Diagram 319/44.

(c) *Maintenance Routines.*—The depth and roll recorder is held inverted in the recorder jig illustrated for stripping and assembly. With clamp eased up the recorder is free to rotate as required. When required to remove or replace the cover, the clamp is hove up, the recorder is then held firmly and sufficient pressure can be applied to remove the cover or alternatively to ensure that the cover makes a good watertight joint on its washer.

5178.—Depth Charge Equipment—Attachments to O.M.L. 9.5-in. Depth Charge Throwers, Marks II and IV "Y" Guns, Mark III, and Projectors, Mark 6, for Removal of Primer Safety Forks and Safety Links of Pistols, Depth Charges, Marks XXII and XXIII.

(T.01823/44.—28 Sep. 1944.)

With reference to A.F.O. 2216/44 and the development of Pistols, D.C., Mark XXII and XXIII which will shortly be introduced to service, equipments as shown in A.F.O. diagram No. 313/44 (1-4) have been designed to enable the safety forks of D.C. primer placers and safety links of Pistol, D.C., Mark XXII and XXIII to be automatically removed when D.Cs. are fired from throwers.

2. *Supply.*—Sets of these equipments are being manufactured and will be supplied to ships on demand from the nearest Armament Depot when received from manufacture for fitting by ships' staffs assisted if necessary by base maintenance staffs.

Type of D/C thrower	Attachments pull-off	Pendants for—	
		Pistols	Primer placer
O.M.L. 9.5 in. D.C.T., Mark II	St. No. 10052 = 1	St. No. 10069 = 1	St. No. 10068 = 1
O.M.L. 9.5 in. D.C.T., Mark IV	Nil	St. No. 10053 = 2	St. No. 10075 = 2
O.M.L. "Y" gun, Mark III ...	St. No. 10054 = 2	St. No. 10071 = 2	St. No. 10070 = 2
American "Projector Mark 6"	St. No. 10055 = 1	St. No. 10073 = 1	St. No. 10072 = 1

It should be noted that Pendant St. No. 10068 is the pendant already in use with attachment pull-off St. No. 6813.

3. Additions to Mark II throwers are as follows:—

(a) securing band, 12 in. internal diameter, with extended arms 17½ in. and 22 in. long from the centre of the band, with two ¼ in. B.S.W.S. bolts, 1½ in. long, each with nut and shakeproof washer (stock No. 1124), and two ⅜ in. B.S.W.S. bolts, 1½ in. long, each with nut, distance piece and split pin.

(b) Two ⅝ in. circumference galvanised flexible steel wire rope pendants with thimbles, Pattern 5080, spliced in and served with wire at both ends, one with an Inglefield clip, Pattern No. 101, spliced into one end, and the other with an Inglefield clip, Pattern No. 101, plate and chain spliced into one end. Distance between bearing surfaces of thimbles will be 16 in.

4. *To Fit.*—Securing band is to be fitted to the muzzle end of the barrel with the long arm on the pistol side of the depth charge and adjusted to allow clip to be readily connected to safety forks on D.C. with the minimum of slack. The wire pendants are to be fitted to the extended arms, the one with plate and chain on the pistol side. The nuts are to be pinned in position.

5. Modification and additions to Mark IV throwers are as follows:—

(a) A $\frac{3}{8}$ in. diameter tapped hole to be drilled in the end plates of the carrier as shown in A.F.O. diagram 313/44 (2).

(b) Four $\frac{5}{8}$ in. circumference galvanised flexible steel wire rope pendants with thimbles Pattern No. 5080 spliced in and served with wire at both ends, two with an Inglefield clip, Pattern No. 101, spliced into one end and $\frac{3}{8}$ in. eyebolt spliced into the other end; and two with an Inglefield clip, Pattern No. 101, plate and chain spliced into one end and $\frac{3}{8}$ in. eyebolt spliced into the other end. Distance between bearing surfaces of thimbles is $7\frac{1}{2}$ in.

(c) Screw eyebolts into end plates from the outside of carrier and burr over.

(d) Pendants pull off, St. No. 6814, already fitted to D.C. throwers, Mark IV, are to be replaced by fitting pendants, pull off, St. No. 10075, and the holes in the end plates are to be enlarged to $\frac{3}{8}$ in. diameter.

6. *To Fit.*—Pendants with pull off plate and chain are fitted to the end plates to connect to the pistol end of the D.C.

7. Additions to O.M.L. "Y" gun, D.C.T., Mark III, are as follows:—

(a) Two securing bands, $6\frac{1}{2}$ in. internal diameter, with extended arms, $15\frac{1}{4}$ in. long from the centre line of band, with two $\frac{1}{2}$ in. B.S.W.S. bolts, $1\frac{1}{2}$ in. long, each with nut and shakeproof washer (stock No. 1124), and two $\frac{3}{8}$ in. B.S.W.S. bolts, $1\frac{1}{2}$ in. long each with nut, distance piece and split pin.

(b) Four $\frac{5}{8}$ in. circumference galvanised flexible steel wire rope pendants with thimbles, Pattern No. 5080, spliced in and served with wire at both ends, two with an Inglefield clip, Pattern No. 101, spliced into one end, and two with an Inglefield clip, Pattern No. 101, plate and chain spliced into one end. Distance between bearing surfaces of the thimbles is $14\frac{1}{2}$ in.

8. *To Fit.*—The bands are to be fitted to the muzzle ends of the barrels and adjusted to allow clips to be readily connected to safety forks on D.C. with the minimum of slack. Wire pendants are to be fitted as described in paragraph 4.

9. Additions to American projectors, Mark 6, are as follows:—

(a) Securing band, $6\frac{3}{4}$ in. internal diameter, with extended arms with two $\frac{1}{2}$ in. B.S.W.S. bolts, $1\frac{1}{2}$ in. long, each with nut and shakeproof washer (stock No. 1124) and two $\frac{3}{8}$ in. B.S.W.S. bolts, $1\frac{1}{2}$ in. long, each with nut, distance piece and split pin.

(b) Two $\frac{5}{8}$ in. circumference galvanised flexible steel wire rope pendants with thimbles, Pattern No. 5080, spliced in and served with wire at both ends, one $17\frac{1}{4}$ in. long between the bearing surfaces of the thimbles with an Inglefield clip, Pattern No. 101, spliced into one end, and one $14\frac{1}{2}$ in. long between the bearing surfaces of the thimbles with an Inglefield clip, Pattern No. 101, plate and chain spliced into one end.

10. *To Fit.*—The bands are to be fitted as described in paragraph 8 with the long arm on the primer side of the D.C.T. Wire pendants are to be fitted as described in paragraph 4.

11. The pull off plates and chain are for use with American D.Cs. and are to be lashed with 20 or 22 S.W.G. galvanised wire to the pendants when not in use.

12. All ships are to report in writing through the usual channels with a copy to the Captain, H.M.S. "Vernon" (M.), West Leigh Cottage, near Havant, Hants, when the appropriate modification described in paragraphs 4, 6, 8 and 10 above has been satisfactorily completed.

(A.F.O. 3944/43 cancelled.)

(A.F.O. 2216/44.)

5179.—Depth Charge Projectors, Mark 6, Mod. 2—Modification to Extractor

(T. 956/44.—28 Sep. 1944.)

Instances have been reported of jamming occurring in D/C Projectors, Mark 6, Mod. 2 (American), due to excessive travel of the extractor on ejection of the impulse cartridge case, thus allowing the round to pass the extractor in the fully open position on reloading.

2. In order to obviate this fault a screw stop is to be fitted to the extractor lever of all D/C Projectors, Mark 6, Mod. 2, in accordance with A.F.O. Diagram No. 322/44.

3. Ships fitted with D/C Projectors, Mark 6, Mod. 2, are to arrange for them to be modified in accordance with paragraph 2 above by the nearest base staff or Naval armament depot.

5180.—Depth Charge Throwers, Mark IV—Damage to Carrier Stalks

(A.S. 7522/44.—28 Sep. 1944.)

Damage to the stalks of carriers of Mark IV depth charge throwers has been reported, buckling occurring at the point where the stalk rests on the lip of the barrel when in the fully extended position.

2. This is probably due to the carrier being left in the fully extended position too long when it fails to return under its own weight.

3. Carriers should be returned to the firing position as quickly as possible, and should not be left in the extended position.

4. Should carrier stalks show any sign of distortion, inspection of the thrower should be requisitioned.

(A.F.O. 6001/43.)

5181.—Paravanes C IV*-IV**—Supersession by Mark VII Type

(A.S. 10699/44—28 Sep. 1944.)

Stocks of C IV*-IV** paravanes are now dwindling, and requirements for replacement of these paravanes, when this type is not available, will in future be met with Mark VII type paravanes with 16, 22 and 31-knot plane units, as appropriate.

2. Replacement will be made by the exchange of a complete outfit of all paravanes, tools and spare gear carried, so that no ship carries a mixed outfit on board.

3. Mark VII type paravanes must not normally be issued to Services for which C IV*-IV** are at present allowed unless the latter are not available, but it is not intended that any ship whose outfit has been exchanged as in paragraph 2 above shall be re-equipped with C IV type paravanes.

4. In anticipation of this exchange, all ships concerned are to ensure that shackles, Patterns 8882 and 8883, are carried on board in the proportion allowed, *vide* B.R. 366. When the exchange of paravanes has been effected, shackles, Patterns 8887 and 8888, on board are to be returned to the nearest (Suptg.) Naval Store Officer.

(A.F.O. 158/43 is cancelled.)

5182.—Switches D.P., 6 ampere—Introduction of New Types

(N.S./C.P. 55699/44.—28 Sep. 1944.)

The Pattern 4089A series of D.P. switches have been redesigned to incorporate the type of contacts and operating mechanism of the Pattern 4081A series of S.P. switches. The S.P. contacts and mechanism have proved more satisfactory in service and are more easily produced, as a less skilful standard of workmanship is required.

2. In addition to facilitating production, the introduction of the new switches will facilitate repair and replacements, as the components are, in the main, identical in both types of switches. Pattern numbers have been allocated as follows:—

D.P. Switches, Watertight, 220v. 6 amps.

Pattern No.	Case	Key operation	Glands
4089B	Al. alloy or bakelite	Fixed	2 and 4 hole
4090B	Brass or steel ...	Fixed	2 and 4 hole
4091B	Al. alloy or bakelite	Loose, Pattern 4213	2 and 4 hole
4092B	Brass or steel ...	Loose, Pattern 4213	2 and 4 hole
4093B	Al. alloy or bakelite	Loose, Pattern 4214	2 and 4 hole
4094B	Brass or steel ...	Loose, Pattern 4214	2 and 4 hole
4095B	Al. alloy or bakelite	Fixed, magazine locking.	2 and 4 hole
4097B	Al. alloy or bakelite	Fixed	2 No. 3 glands
4098B	Brass or steel ...	Fixed	2 No. 3 glands
4100B	Steel	Fixed	(4 bosses to take 1-in. conduit for armament supply depots.)

Note.—Bakelite cases may be supplied in lieu of al. alloy, and steel in lieu of brass, according to the availability of the respective materials at the time of production.

3. The list of component parts for all the switches enumerated above is as follows:—

Insulating base	1 per switch	...	Pattern 4202B
Fixed contact	4 per switch	...	Pattern 4116B
Operating spring	1 per switch	...	Pattern 17954
Rotating drum complete ...	1 per switch	...	Pattern 4206B
Crank for operating spring	1 per switch	...	Pattern 17906

4. Care should be taken to ensure that switches fitted near the compass have non-ferrous cases. The safe distances of these switches are as follows:—

Brass cased switches ... ..	...	...	...	$\frac{1}{2}$ ft.
Bakelite cased switches ...	...	...	...	2 ft.

5. The introduction of the new "B" type D.P. switches will necessitate a changeover in production, and it is expected that firms now manufacturing the "A" patterns will require at least six months before they are in full production of the new type. During this changeover period both the "A" and the "B" types will be in course of supply. Similar complete switches of the "A" and "B" types are completely interchangeable in respect of the services for which they are intended and their fixing centres. The "A" and "B" components are *not* interchangeable. Any demands or shipbuilders' orders, therefore, for complete switches may be supplied in either the "A" or the "B" type as may be expedient having regard to the supply position.

5183.—Lighting in Switchboard Compartments

"Rotherham" Class—"Caesar" Class Destroyers

(T. 1633/44.—28 Sep. 1944.)

Attention has been drawn to the possibility of a blackout in the after switchboard compartment of destroyers of "Rotherham" to "Caesar" classes in the event of loss of supply to the relevant switchboard.

2. In order that lighting may be available in this compartment when the switchboard in that compartment is "dead", arrangements should be made to supply half the lights in the after switchboard room from the gearing room lighting circuit which is supplied from the forward switchboard.

3. The work should be carried out as an A. and A. by ship's staff with depot ship assistance if required.

5184.—1940 Type Combined Overload and Reverse Current Relays in Supply Breakers—Settings

(T. 1723/44.—28 Sep. 1944.)

The remarks in paragraph 93 of B.R. 268(6)/41 should also apply to the combined overload and reverse current relays fitted on the negative pole of the supply breaker.

2. The reverse current feature of these relays is set to operate at a value corresponding to the rating of the generator, viz. :—

300 amp. \pm 10 per cent.	for 300 kW machines.
350 amp. \pm 10 per cent.	for 350 kW machines.
400 amp. \pm 10 per cent.	for 400 kW machines.
500 amp. \pm 10 per cent.	for 500 kW machines.

3. No attempt should be made to reduce the setting of the reverse current feature. Any such attempt may impair the stability of the reverse current feature and will disturb the overload calibration.

(A.F.O. 4620/44 is cancelled.)

5185.—Torpedoes—21 in., Mark VIII**—Introduction of New Design Check Valve in Air Supply to Bottles

(A.S. 12135/43.—28 Sep. 1944.)

Two new designs of check valve in air supply to bottles, accessible from outside the torpedo, have been introduced into new manufacture 21-in., Mark VIII** torpedoes.

2. The existing design check valve, Design "A", with the ball non-return relief valve, is superseded by either check valve, Design "B", an intermediate design with removable non-return relief valve, or check valve, Design "C", a later design which is arranged so that the large check valve can be withdrawn from the check valve body through an access hole in the afterbody casing.

3. Details of check valve, Designs "B" and "C", are shown in Figures 1-3, 4 and 5, respectively, in A.F.O. Diagram 317/44 (1-2).

4. *Check Valve, Design "B" (Intermediate Design with Removable Non-return Valve).*—The intermediate design, now superseded by the later Design "C", was introduced to permit access to the check valve without parting the torpedo and has, in place of the existing ball relief valve, a small spring loaded conical seated non-return valve, fitted with a pinned collar which enables the non-return valve and its spring to be withdrawn (as a unit with the screwed non-return valve cap) through the access hole in the afterbody casing as shown in Figures 1 and 3. Removal of the non-return valve gives access to the large check valve, St. No. 8979, which differs from the existing type in that the internal boss has been lengthened and a screwed hole provided for the screwed wire, St. No. 8980. The large check valve, if stuck open, can be freed by using the screwed wire as shown in Figure 2.

The new conical seated non-return relief valve, St. No. 11767, has lighter spring loading than the existing ball relief valve, and commences to discharge outboard when the air pressure in the check valve body rises to approximately 5.7 lb./sq. in.

Note.—A small number of earlier Design "B" check valves are fitted with non-return relief valves which have a fluted guide stem.

5. *Check Valve, Design "C" (later design with removable check valve).*—In the later design, the position of the check valve body in the afterbody is reversed as shown in Figures 4 and 5, so that the screwed cap covering the check valve, St. No. 6368, is outboard and close to the access hole in the afterbody casing. Removal of the screwed cap and its joint washer provides access to the lapped check valve, which can be withdrawn through the access hole should it be found necessary to remedy a defective lap fit.

The conical seated, spring-loaded non-return valve is fitted in the inboard end of the check valve body and, as it is not now necessary to remove this valve, it has been simplified by the omission of the pinned collar. The non-return relief valve is lightly "ground in" on its seat in the check valve body and commences to discharge when the air pressure rises to approximately 5-7 lb./in.².

To withstand the spanner torque when making the air-tight joint under the removable screwed cap, a strengthened foot, larger diameter high tensile rust-resisting register pin, and 3 No. larger diameter securing screws, are incorporated in the Design "C" check valve.

6. The operation of the check valve in either Design "B" or Design "C" should be tested during the preparation of the torpedo. See that all pressure in the fuel bottle is vented, then using spanner, St. No. 175 or 1058, unscrew the cap of the small non-return valve (Design "B") or the cap at the outboard end of the check valve (Design "C"). Remove the small N.R. valve (Design "B") and engage the screwed wire, St. No. 8980, in the socket in the check valve. The check valve may now be pulled (Design "B") or pushed (Design "C") through its travel of 0.65 in. against the action of its spring by exerting a force of about 50 lb. on the screwed wire. The check valve should travel smoothly to the full extent of the cylinder. Remove the screwed wire and replace the N.R. valve and cap or the screwed cap of the check valve, making sure in the latter case that the fibre joint washer is in place.

7. If the check valve sticks or does not travel smoothly in the above test it must be re-lapped in its cylinder. Where Design "B" is fitted, this entails parting the torpedo to remove the valve complete. With Design "C" lapping can be carried out through the shell of the torpedo. With either type of valve the operation of lapping in, which applies also to fitting a new check valve, St. No. 8979, is as follows:—

- (i) Remove the check valve, taking care not to damage the lapped surface when withdrawing the valve through the access hole in the casing.
- (ii) Remove check valve return spring.
- (iii) Clean out cylinder and valve face at inboard end of cylinder, using a clean calico rag and taking care that the lapped surfaces are not impaired.
- (iv) Clean the check valve as in (iii) above and assemble screwed wire with locknut as shown in Figure 5.
- (v) Lightly smear the lapped surfaces of the check valve with a film of finest crocus powder (or equivalent lapping compound) and lap check valve into cylinder until a close sliding fit for the full extent of the cylinder is obtained.

Note.—Spare check valves, St. No. 8979, will be provided in chests and these can be used for either design valve.

Lightly lap in, also, the end faces of the valve and cylinder to form a valve face.

- (vi) Remove the check valve as in (i) above.
- (vii) Clean cylinder and valve as in (iii) and (iv) above. Care should be taken to ensure that all trace of the lapping compound is cleaned out of the relief recess at the inboard end of the lapped bore of the check valve.
- (viii) Lightly oil over the lapped surfaces of the cylinder and check valve with oil (T.L.U.) and oil-lap check valve into cylinder until a smooth sliding fit is obtained.
- (ix) Remove check valve and clean valve and cylinder as in (vii) above.
- (x) Finally, oil over valve and cylinder and clean and replace check valve return spring.
- (xi) Slacken locknut, replace check valve and remove the screwed wire.
- (xii) Clean and replace the screwed cap, making sure that the fibre joint washer is in place, and screw hard in.

8. The following items will be added to the contents of chests, 21 in., Marks VIII-VIII**, in the proportion shown:—

*Chests, Tools and Spare Gear, 21 in., Marks VIII-VIII***

Item.	St. No.	Quantity per chest.
Wires for use with check valve in air supply to bottles.	8980	1

*Chests, Spare Gear, 21 in., Marks VIII-VIII**, for Depot Ships for Submarines*

Valves, check in air supply to bottles	8979	2
Spring for valve, non-return	8978	3
Valves, for valve, non-return	11767	2

9. Ships and vessels concerned are to demand the quantities of items required to complete chests, etc., on board, from the nearest torpedo depot.

10. Torpedo store accounts and labels of chests are to be amended as necessary.

5186.—Magnetic Compasses—Deviations Caused by Steel Cap Grommets

(V.8/6375/44.—28 Sep. 1944.)

Peaked caps supplied by naval outfitters to officers and ratings not dressed as seamen have, in some cases, been found to be fitted with steel wire or steel spring grommets; and owing to shortage of cane it may become necessary in the future to supply peak caps for men not dressed as seamen from store similarly fitted with steel grommets.

2. A case has been reported where a steel grommet in an officer's cap caused a deviation of several degrees at the standard compass when he bent over it to take a bearing. Executive officers are therefore to make sure that the grommets fitted in their caps are not made of steel.

3. It is thought that the wearing of a cap with a thin steel grommet by the helmsman will not cause compass interference, but as a measure of precaution ratings are to be directed not to hang their caps on any part of the compass or binnacle.

(A.F.O. 2355/44 is cancelled.)

5187.—Boiler Tubes, etc.

H.M. Ships "Ailsa Craig", "Arabis", H.M.N.Z. Ship "Arbutus", H.M. Ships "Benbecula", "Bream", "Cambrian", "Cassandra", H.M.C. Ship "Forest Hill", H.M. Ships "Gillstone", "Grain", "Grilse", "Herring", "Kittern", H.M.C. Ship "Long Branch", H.M. Ships "Mewstone", "Oronsay", "Pollock", "Providence", "Skokholm", "Truelove", "Vatersay", "Wizard" and "Wrangler"

(N.S./P. 12296/44.—28 Sep. 1944.)

H.M.S. "Ailsa Craig"	} P. 12296/44	
H.M.S. "Mewstone"		
H.M.S. "Benbecula"		
H.M.S. "Kittern"		
H.M.S. "Skokholm"		
H.M.S. "Bream"		
H.M.S. "Herring"		
H.M.S. "Pollock"		
H.M.S. "Grilse"		
H.M.S. Arabis		(P. 13082/44)
H.M.N.Z.S. "Arbutus"	(P. 13081/44)	
H.M.C.S. "Forest Hill"	(P. 8584/44)	
H.M.C.S. "Long Branch"	(P. 13080/44)	
H.M.S. "Providence"	(P. 08148/44)	
H.M.S. "Truelove"	(P. 06696/44)	

The particulars of the boilers and tubes fitted in the ships shown in column "A" are identical with those published in the A.F.O. quoted against those shown in column "B".

"A"	"B"	A.F.O.
"Ailsa Craig" ...	"Egilsay", etc. ...	1156/43
"Mewstone" ...		
"Benbecula" ...		
"Kittern" ...		
"Skokholm" ...		
"Bream" ...	"Grayling" ...	1415/43
"Herring" ...		
"Pollock" ...		
"Grilse" ...		
"Arabis" ...	"Carisbrooke Castle" ...	4388/44
"Long Branch" ...			"Charlock" ...
"Arbutus" ...	"Dumbarton Castle", etc. ...	4388/44
"Forest Hill" ...	"Betony" ...	5745/43
"Providence" ...	"Avies" ...	587/44
"Truelove" ...		

H.M. Ships "Gillstone", "Grain", "Oronsay", "Vatersay" (P. 12296/44.)

Type and No. of boilers ... Scotch Boiler 1 No.
Total No. of tubes fitted ... Generator 384 No.

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
Plain ...	2½ in. Swelled ½ in. at front end for 3 in.	8 W.G.	8 ft. 0¼ in.	270	
Stay ...	2½ in. Staved to 3 in. O/D at front end for 3 in.	7/16 in.	8 ft. 0¼ in.	2	
Stay ...	2½ in. Staved to 3 in. O/D at front end for 3 in.	3/8 in.	8 ft. 0¼ in.	8	
Stay ...	2½ in. Staved to 3 in. O/D at front end for 3 in.	5/16 in.	8 ft. 0¼ in.	50	
Stay ...	2½ in. Staved to 3 in. O/D at front end for 3 in.	¼ in.	8 ft. 0¼ in.	54	

H.M.S. "Cambrian" (P. 13031/44.)

Type and No. of boiler { Admiralty 3 Drum Small Tube 2 No.
Type fitted with Melesco Super Heaters.
Total No. of tubes fitted ... Generator 8,996 No.

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
	in.	W.D.G.	ft. in.		
A	1¾	128	10 6½	288	} All tubes are bent.
B	1¾	128	10 3¾	284	
C	1⅝	116	10 0 9/16	444	
D	1⅝	116	9 10 7/8	440	
E	1⅝	116	9 9 3/8	444	
E.1	1⅝	116	9 8 7/16	16	
F	1	104	9 6 1/2	500	
G	1	104	9 6	496	
H	1	104	9 5 7/8	492	
J	1	104	9 5 3/4	488	
K	1	104	9 6	484	
L	1	104	9 6 7/16	480	
M. 1/2	1	104	9 7 1/8	476	
N	1	104	9 8	472	
O	1	104	9 9	468	
P	1	104	9 10 1/4	464	
Q	1	104	9 11 3/4	460	
R	1	104	10 1 3/8	456	
S	1	104	10 3 1/8	452	
T	1	104	10 5 1/4	448	
U	1	104	10 7 7/8	444	

H.M.S. "Cassandra" (P. 13030/44.)

Type and No. of boilers { Admiralty 3 Drum Small Tube 2 No.
Type fitted with Melesco Superheater.
Total No. of tubes fitted ... Generator 8,996 No.

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
	in.	W.D.G.	ft. in.		
A	1¾	128	10 7 1/4	288	} All tubes are bent.
B	1¾	128	10 3	284	
C	1⅝	116	10 0 5/16	444	
D	1⅝	116	9 10 11/16	440	
E	1⅝	116	9 9 3/16	444	
E.1	1⅝	116	9 7 11/16	16	
F	1	104	9 6 1/4	500	
G	1	104	9 5 3/4	496	
H	1	104	9 5 1/2	492	
J	1	104	9 5 1/2	488	
K	1	104	9 5 5/8	484	
L	1	104	9 6	480	
M	1	104	9 6 5/8	476	
N	1	104	9 7 7/16	472	
O	1	104	9 8 1/2	468	
P	1	104	9 9 5/8	464	
Q	1	104	9 11 1/16	460	
R	1	104	10 0 13/16	456	
S	1	104	10 2 11/16	452	
T	1	104	10 5	448	
U	1	104	10 7 1/16	444	

H.M.S. "Wizard" (P. 5062/44.)

Type and No. of boilers { Three Drum Small Tube type 2 No.
with 2 Melesco Superheaters fitted per boiler.
Total No. of tubes fitted ... Generator 8,996 No.

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
	in.	W.D.G.	ft. in.		
A	1¾	128	10 7 1/4	288	} All tubes are bent.
B	1¾	128	10 3 13/16	284	
C	1⅝	116	10 0 3/4	444	
D	1⅝	116	9 11	440	
E	1⅝	116	9 9 9/16	444	
E.1	1⅝	116	9 8 1/2	16	
F	1	104	9 6 13/16	500	
G	1	104	9 6 1/4	496	
H	1	104	9 6	492	
J	1	104	9 5 15/16	488	
K	1	104	9 6 7/16	484	
L	1	104	9 6 1/2	480	
M	1	104	9 7 1/16	476	
N	1	104	9 7 7/8	472	
O	1	104	9 8 5/8	468	
P	1	104	9 10 1/16	464	
Q	1	104	9 11 1/16	460	
R	1	104	10 1	456	
S	1	104	10 2 7/8	452	
T	1	104	10 4 11/16	448	
U	1	104	10 7 7/16	444	

H.M.S. "Wrangler" (P. 9713/44.)

Type and No. of boilers ... Admiralty 3 Drum Small Tube 2 No.
 type with Two Melesco Super-
 heaters fitted per Boiler.

Total No. of tubes fitted ... Generator ... 8,996 No.

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
	in.	W.D.G.	ft. in.		
A	1 $\frac{3}{8}$	128	10 7 $\frac{1}{4}$	288	All tubes are bent.
B	1 $\frac{3}{8}$	128	10 3 $\frac{13}{16}$	284	
C	1 $\frac{1}{8}$	116	10 0 $\frac{13}{16}$	444	
D	1 $\frac{1}{8}$	116	9 11 $\frac{1}{8}$	440	
E	1 $\frac{1}{8}$	116	9 9 $\frac{11}{16}$	444	
E.1	1 $\frac{1}{8}$	116	9 8 $\frac{9}{16}$	16	
F	1	104	9 6 $\frac{3}{8}$	500	
G	1	104	9 6 $\frac{9}{16}$	496	
H	1	104	9 5 $\frac{15}{16}$	492	
J	1	104	9 6	488	
K	1	104	9 6 $\frac{1}{4}$	484	
L	1	104	9 6 $\frac{3}{8}$	480	
M	1	104	9 7 $\frac{1}{8}$	476	
N	1	104	9 7 $\frac{13}{16}$	472	
O	1	104	9 8 $\frac{15}{16}$	468	
P	1	104	9 10	464	
Q	1	104	9 11 $\frac{1}{2}$	460	
R	1	104	10 0 $\frac{7}{8}$	456	
S	1	104	10 2 $\frac{13}{16}$	452	
T	1	104	10 4 $\frac{7}{8}$	448	
U	1	104	10 7 $\frac{3}{8}$	444	

The particulars given in A.F.O. 2356/44 for the boiler tubes fitted in H.M.S. "Wizard" are cancelled.

Records affected, D.354 and D.682 (Standard copy).

(A.F.Os. 1156/43, 1415/43, 5745/43, 587/44, 2356/44 and 4388/44.)

(This Order will not be included in the A.F.O. Volume.)

5188.—Circulating Pumps—Shaft Packing

(D. 15337/44.—28 Sep. 1944.)

Satisfactory results have been obtained by fitting rotary type packing to the shaft glands of circulating pumps.

2. This packing, which can be obtained from either Messrs. United States Metallic Packing Co., Ltd., Soho Works, Bradford (quoting Type B) or Messrs. The Universal Metallic Packing Co., Ltd., Beehive Works, Edderthorpe Street, Leeds Road, Bradford (quoting Rotary Packing) does not cause wear to the shaft.

3. In cases where renewal of shafts is necessary, repair authorities should give consideration to fitting packing of rotary type so as to prolong the life of the new shaft.

4. Universal packing is made to suit shafts up to 4 in. in diameter and up to speeds of 400 revs. per minute, but higher speeds are allowable for smaller sizes. United States packing can also be obtained in larger sizes and suitable for rubbing speeds up to 1,600 ft./min.

5. Care is to be taken to adjust the compression of the packing springs so that undue load is not exerted along the axis of the shaft.

(A.F.O. 3786/42 is cancelled.)

5189.—Turbo-Generators—Metropolitan-Vickers—Gland Clearance

Cruisers—"Fiji" and later Classes

(D. 14830/44.—28 Sep. 1944.)

Investigation of the breakdown of turbo-generators of Messrs. Metropolitan-Vickers' manufacture has disclosed that insufficient clearance exists between the gland fins and the turbine rotor at the H.P. end. Contact and consequent vibration of the rotor has resulted in some cases.

2. Hitherto the clearance of the gland has been 0.015 in. on the diameter arranged so that the bottom clearance has been 0.0115 in. when cold.

3. The vertical expansion of the H.P. end of the cylinder relative to the gear case has now been found to be sufficient nearly to absorb this clearance and the effects of shock or small movements of the seatings due to working of the hull have in some cases been sufficient to absorb the remaining clearance.

4. The gland clearances are to be altered to the following dimensions: The total radial clearance of the gland is to be 0.024-in. on the diameter and is to be adjusted so that the bottom clearance is 0.016-in. when cold.

5. These alterations are to be carried out in all turbo-generators of Messrs. Metropolitan-Vickers' manufacture in the classes named on the next occasion of examination in accordance with Article 264 of the Engineering Manual. It should also be ensured that adequate clearance exists between the adjacent paddle wheel and its casing to allow for vertical expansion. A total clearance of 0.020 in. on the diameter is now allowed by the makers.

6. This modification is not required in turbo-generators which have athwartship condensers.

7. Separate action is being taken for ships under construction.

(This Order is to be retained until complied with.)

5190.—Diesel and Furnace Fuels for H.M. Ships

(T.D. 037E/44.—28 Sep. 1944.)

Paragraph 2, line 4, of A.F.O. 4507/44 is to be amended to read as follows:—

"Fuel D is suitable only for large diesel engines . . ." etc.

(A.F.O. 4507/44.)

5191.—Entry of Water into Fuel Systems

L.C.T. (3), (4) and (5), L.C.G. (L) 3 and 4, L.C.T. (R) (3), and L.C.G. (M) (1)

(D.C.O.M. 4269/44.—28 Sep. 1944.)

The following instructions are issued for the guidance of personnel operating the above craft, in order that the effects of entry of water into the fuel system due to action damage or other cause may be limited as much as possible.

2. Method of operating fuel systems

(a) L.C.T. (3) and (4) and conversions.—(i) The levelling valve fitted between the two fuel tanks in L.C.T. (4) is invariably to be kept closed when the craft is at sea. This valve is controlled from the troops mess deck. (Note.—This valve is left-handed, i.e., turn anti-clockwise to close.)

(ii) Craft at present on service have no cross connection valve in the Diesel fuel suction line and it is therefore necessary to operate both engines on a common suction. While craft are at sea both engines should take suction from one fuel tank only. Tanks are to be used alternately for periods not exceeding one hour or as required in order to keep the levels in the two fuel tanks approximately equal.

(iii) In event of one engine stopping for any cause whatever, immediate action is to be taken as follows:—

Open fuel suction valve on tank not in use, and close suction valve of tank in use. Vent fuel injection pump of engine which is still running.

If cause of engine failure is not obvious, prime fuel system of affected engine and establish whether or not engine failure was caused by presence

of salt water in fuel. If so, ensure that all water is removed from system (see paragraph 4 below) and re-start engine taking suction from unaffected fuel tank. Even if it is established that engine failure was not due to water in fuel the suspected tank should be tested for presence of salt water before it is again used.

(iv) In craft with fuel feed pumps modified in accordance with C.A.F.O. 2334/43, but not fitted with 3-way or interlocked cocks in fuel return lines, the return line must be disconnected from any tank in which damage is confirmed and led to the undamaged tank. In craft fitted with 3-way or interlocked cocks in the fuel returns, these should be adjusted so that fuel is returned to the undamaged tank only.

(v) Instructions are promulgated in A.F.O. 5212/44 for isolating valves to be fitted in the fuel suction line of all craft of the above types fitted for tropical service. When so fitted these isolating valves are invariably to be kept closed when the craft are at sea and each engine is to take suction from its associated fuel tank. In event of one engine stopping, the isolating valve is on no account to be opened until the cause of engine failure has been fully established, and, in the event of this being due to presence of water, until the suction valve on the damaged tank has been closed and steps taken to clear water from the system as outlined in paragraph 4 below.

(b) *L.C.G. (M) (1)*.—(i) In craft not fitted with isolating valves in the fuel suction the instructions given in (a) (i) to (iv) above are applicable except that, as these craft have three fuel tanks, each of these tanks should be used in turn, the suction valves on the remaining two tanks being kept closed.

(ii) In craft fitted with fuel suction isolating valves the instructions given in (a) (v) above are applicable.

(c) *L.C.T. (5)*.—These craft have three ready use tanks, one tank associated with each main engine, filled by means of a hand transfer pump from any one of three main fuel tanks. The engines can take fuel from any of the ready use tanks through a common suction line, but as the fuel return from each engine goes only to its associated ready use tank it is necessary for all tanks to be in use all the time.

In order to avoid contamination of the fuel systems with water the following instructions are to be observed:—

(i) Whenever conditions permit, the main fuel tank concerned is to be tested with water finding paste on each occasion before pumping over fuel to the ready use tanks. If water is found to be present one of the other main fuel tanks should be tested, and, if satisfactory, used.

(ii) If sea or other conditions render the above procedure impossible, fuel should be pumped over into the centre ready use tank only in the first place, the engine suction from this tank being temporarily closed. After pumping over a few gallons, the tank drain should be opened to test if any water is present. If water is found to be present, the hand pump suction should be changed over to another main fuel tank, and pumping over into the centre ready use tank continued, the ready use tank drain being kept open until no further trace of water appears. All three ready use tanks can then be topped up.

3. Method of clearing water from main fuel tanks

In all cases presence of water in main fuel tanks can be established by use of water finding paste. In cases of serious damage the only action that can be taken is to isolate the tank concerned, but in many cases presence of water may be due to slight leakage, and in this event tanks can still be used if water is pumped out periodically. This can be done as follows:—

(a) *L.C.T. (3) and (4) and conversions. L.C.G. (M) (1)*.—A residue suction is provided for each main fuel tank. This should be connected to the portable "Airpel" or semi-rotary pump and the water pumped out as necessary to keep the level below the main fuel suction pipe.

(b) *L.C.T. (5)*.—As originally designed, no adequate means have been provided for ready removal of water. Measures are promulgated in A.F.O. 5212/44 which will enable water to be removed from the main tanks via the sounding tubes, using the portable petrol driven pumping set provided.

4. Method of clearing water from contaminated fuel systems

The measures necessary can be summarized briefly under two headings:—

- (i) Drain water from lowest point and from all pockets in the fuel system.
- (ii) Prime system through with clean fuel.

The following notes give some details in connection with the particular craft concerned:—

(a) *L.C.T. (3) and (4) and conversions. L.C.G. (M) (1) and (1*)*.—Main engine system should be drained at the following points:—

- (i) Drain plug at bottom of Autoklean filters on E.R. bulkhead.
- (ii) Banjo connection on fuel feed pump discharge.
- (iii) Vokes fuel filter. Drain by removing and emptying bowl.

System should then be primed through as follows:—

- (i) Disconnect flexible pipe on fuel feed pump suction, prime through with hand pump until there is no further trace of water, then re-connect.
- (ii) Remove vent plugs on fuel injection pumps and continue priming until there are no further signs of water.

Endeavour should then be made to re-start engine. If unsuccessful, disconnect fuel pipes at injectors and prime through to this point by turning engine with starter.

Providing engine is being re-started without delay, it is not necessary to remove injectors for cleaning.

(b) *L.C.T. (5)*.—System should be drained as follows:—

- (i) Drains on ready use tanks.
- (ii) Drains in bottom of primary and secondary fuel filters.

Prime system by turning engine with fuel control lever in "Stop" position.

(c) *Generator engines—various types*.—Fuel supply to all types of generators is from ready use tanks and if proper precautions are exercised, contamination of fuel should not occur. If contamination has occurred, water should be cleared from system by the procedure outlined for *L.C.T. (5)* above.

In all cases of contamination of fuel systems by water, it is essential that very prompt measures be taken to clear the system of water, and to flush through the whole system copiously with clean fuel. The best means of ensuring this is to get the engine running again as quickly as possible after carrying out the measures outlined.

(C.A.F.O. 2334/43 and A.F.O. 5212/44.)

5192.—Brammer V Belting

(N.S. 30528/42.—28 Sep. 1944.)

The undermentioned sizes of Brammer V belting hitherto dealt with as special stores have been introduced as consumable Naval store items under subhead E.11 and allocated the pattern numbers shown. Reference to these items should therefore be deleted from the special stores list (Form D.122).

Pattern No. 915 Brammer V belting	... 3/8-in.
Pattern No. 916 Brammer V belting	... 1/2-in.
Pattern No. 917 Brammer V belting	... 5/8-in.
Pattern No. 918 Brammer V belting	... 7/8-in.

2. Arrangements have been made for the undermentioned quantities to be purchased; supplies have already been made to Portsmouth, Devonport and Chatham:—

Pattern No.	Denom.	Severn Area	Preston	Sheerness	Rosyth
915	Ft. run	400	400	50	100
916	Ft. run	400	400	50	100
917	Ft. run	400	400	50	100
918	Ft. run	400	400	50	100

3. Supplies to yards abroad will be made as follows:—

From Severn Area

	<i>Denom.</i>	<i>Pattern 915</i>	<i>Pattern 916</i>	<i>Pattern 917</i>	<i>Pattern 918</i>
Colombo ...	Ft. run	100	100	100	100
Bermuda ...	Ft. run	50	50	50	50
Durban ...	Ft. run	100	100	100	100
Simonstown ...	Ft. run	50	50	50	50

From Preston

Malta ...	Ft. run	100	100	100	100
Alexandria ...	Ft. run	100	100	100	100
Gibraltar ...	Ft. run	50	50	50	50

4. Ships concerned in commission should demand replacements of the Brammer V belting referred to in paragraph 1 above from their storing yards or depots. Initial supply of spare belting to ships concerned of new construction will, however, be made by the machinery contractors.

5193.—H/F D/F Outfit FH.4—Fitting of Dial Bearing Indicator, Pattern 53036

Ships concerned

(N.S. 016228/42.—28 Sep. 1944.)

At the present time a separate gyro-repeater, Pattern 1910, is used in H/F D/F offices of ships fitted with D/F outfit FH.4, in order to enable relative bearings of D/F observations to be converted into gyro bearings.

2. Receiver units, Patterns W.6142 and 54535, will in future be fitted at installation with a dial bearing indicator Pattern 53036, which in turn will be fitted with the appropriate type of coupling unit for the gyro system in use in the ship, viz. :—

- (a) "M" type transmission, 3-wire ... Pattern W.3369
- (b) Sperry, 4-wire, 20-volt transmission ... Pattern W.3370
- (c) Sperry, 4-wire, 50-volt transmission ... Pattern W.3638
- (d) Sperry, 4-wire, 70-volt transmission ... Pattern W.3638

3. Provision has been made for sufficient dial bearing indicators, Pattern 53036, for retrospective fitting in all vessels fitted with D/F outfit FH.4. These dial bearing indicators, which are mounted on a plate drilled with appropriate holes, are to be fitted by ship's staff to receiver units FHB in accordance with the following instructions.

4. *Method of fitting Dial Bearing Indicator, Pattern 53036.*—The operation consists of removing the existing cursor unit on its mounting plate, together with the comparator indicator from the front panel, and mounting in its place the D.B.I. with gyro switch box and motor.

(a) *In receivers with serial numbers below 262*, the existing unit is removed by undoing the four Oddie fasteners and removing the four C'die clips. These clips are removed by unscrewing the 2 in No. 8 B.A. nuts and bolts holding each clip.

In place of these clips, four fixing blocks must be fitted by means of the 8 in No. 8 B.A. screws (supplied in bag attached to D.B.I. together with the four blocks). It should be noted that these fixing blocks must be fixed with the countersunk side next to the front panel.

(b) *In receivers with serial numbers above 262*, the existing unit is to be removed by unscrewing the four captive screws. It will be found that the fixing blocks are already in position for mounting D.B.I.

(c) *All receivers.*—To mount the D.B.I. the captive screws (also provided in the bag attached to the D.B.I.) must be screwed through the plate and then into the fixing blocks. The cursor scale, to which is attached the gyro scale, is to be centred as detailed in the handbook C.B.4333/R, chapter 3, paragraph 2.

(d) *Gyro motor and coupling unit.*—The unit is fitted to the mounting plate by 2 B.A. nuts and bolts through the holes provided. The motor wires are to be taken through the hole provided into the right-hand terminal strip (marked MOTOR) in the switch box; access to this is obtained by removing the inspection cover.

The cable from the gyro transmitter is to be brought from the bulkhead, over the receiver from the back, and into the switch box, where it should be clamped. The wires of this cable should then be connected on to the left hand terminal strip (marked GYRO).

5. When dial bearing indicators, Pattern 53036 are fitted, gyro repeater Pattern 1910 and associated stores are not required, and should be returned to Naval Store Officer, Slough.

6. When the dial bearing indicator, Pattern 53036 is fitted by ship's staff, the front plate incorporating the existing cursor attachment, which is displaced, is to be returned to Naval Store Officer, Dex Garage, Newcastle.

7. Dial bearing indicators, Pattern 53036, will be supplied without demand to services concerned by Superintending Naval Store Officer, Haslemere.

(A.F.O. 4274/44 is cancelled.)

5194.—Types 87 and 87M R/T Sets—Method of Modification of Type "M" Switch, A.M. Ref. No. 10F/166

(R.E. 12275/44.—28 Sep. 1944.)

Reports have been received which show that the Type "M" aerial change-over switch used in conjunction with Type 87 and 87M has been incorrectly modified in certain instances.

2. A.F.O. Diagram No. 320/44 (A.S.E. Drawing No. 40370) shows the correct method of altering the wiring of the switch to render it suitable for operation with these transmitters.

3. Ships' staffs are to ensure that all Type "M" switches, where fitted in this connection, are wired as shown under "Modified Wiring" on this diagram.

(C.A.F.O. 1322/44.)

5195.—W/T Receivers—Fitting of Pattern W.2702 Converter Units

L.S.H. (L) and (S)

(R.E. 02808/44.—28 Sep. 1944.)

In order to provide for W/T reception in the event of A.C. power supply failure due to enemy action, it is approved for L.S.H.(L) and (S) to fit Pattern W.2702 converter units to a proportion of receivers fitted, as follows:—

L.S.H.(L) ...	6
L.S.H.(S) ...	3

2. The stores involved for each converter unit fitted are:—

<i>Pattern No.</i>	<i>Description.</i>	<i>Quantity.</i>
W.2702 ...	Converter unit	1 each
W.2700 ...	Lead with mains plug, 5-point	
W.1469 ...	Accumulator, 6-volt, block terminal, 2 way	

3. Ships concerned are to demand stores as necessary to comply with paragraph 1 above from S.N.S.O. (Haslemere), quoting this order as authority.

4. Work involved should be effected by ship's staff.

5196.—W/T Sets, Types 89, 89M and 89P—Fitting-out Information

(R.E. 12462/44.—28 Sep. 1944.)

A.S.E. Installation Specification No. B.381, Issue 2, has been prepared to show the method of fitting and wiring W/T sets, Types 89, 89M and 89P.

2. Copies of the specification have been forwarded to the Commanders-in-Chief, Eastern Fleet and Western Approaches; Admirals Superintendent, Chatham, Devonport, Portsmouth, Orkneys, Rosyth, Ceylon and Kilindini; Flag Officers-in-Charge, East Africa, West Africa; Commodore, Algiers; Commodores Superintendent, Gibraltar, Malta and Simonstown; Commodores-in-Charge, Sheerness and Halifax; Commodore, Commanding R.I.N., Bombay; Captain-in-Charge, Bermuda; Captain Superintendent, Alexandria and Durban; Commodore (D), Londonderry; Naval Headquarters, India; Deputy Superintendent, Pembroke; Naval Secretary, Wellington; Naval Secretary, Melbourne, for the officers concerned at Melbourne, Sydney and Fremantle; to the Secretary, Naval Board (N.D.A.), Ottawa; to the Chief Constructors-in-Charge, H.M. Naval Repair Bases, Corpach and Dunstaffnage; to the B.A.D., Washington.

3. Copies of the specification have also been forwarded to the Warship Production Superintendents, East Coast of Scotland, North-Western Humber, Southern, London, South Wales, Belfast, Scottish and North-Eastern Areas; Warship Electrical Superintendents, Scottish, North-Western, North-Eastern, South Wales, London, South-Western and Northern Ireland Areas. The Principal (Ship) Overseers and Emergency Repair Overseers of all ships approved to be fitted with Types 89, 89M and 89P are, therefore, to apply to the Warship Production Superintendents of their areas for a copy of A.S.E. Specification No. B.381, Issue 2.

4. It is to be noted that Specification B.381/44 and any advance fitting-out drawings, etc., which may already have been distributed are superseded by this specification and should be disposed of as confidential waste. Specification B.191/42 (Issue 2) is also superseded as far as Type 89 is concerned.

(A.F.O. 790/40.)

5197.—Wavemeter Outfit GN—Modification

(R.E. 12553/44.—28 Sep. 1944.)

After using wavemeter outfit GN from batteries, it is at present necessary to switch off separately, both the wavemeter G.73 and the oscillator G.42. Cases have occurred of the batteries of the G.42 becoming exhausted as a result of both switches not being broken after use.

2. To simplify this and to enable battery supplies to both units to be controlled from the "ON-OFF" switch on the front panel of the wavemeter G.73, the following modification is to be made by ship's staff to wavemeter outfits GN:—

- (i) Remove back plate of G.73, revealing the interior of the instrument (as in Figures 9 and 10 of Admiralty Pattern SS.135 Book of Instruction for wavemeter G.73 and oscillator G.42).
- (ii) An L.T. lead will now be seen running from the G.42 unit (direct through its case in some models instead of from the terminal shown in the figure) to a spade connector on the terminal of the L.T. accumulator (or the mains unit, if fitted).
- (iii) Remove this spade connector and solder to the lead an additional 9 in. of covered wire (one wire of A.P. 2285A flex or similar pattern), binding the joint with insulating tape.
- (iv) Remove the H.T. battery (or mains unit).
- (v) The back of the panel pilot lamp fitting can now be seen. One side is connected direct to the chassis, the other (the "live" side) to the front switch.

(vi) Cut off the extended wire from the G.42 at a sufficient length to reach the "live" tag on the pilot lamp fitting, to which it is then to be soldered.

(vii) The modification is now complete. The H.T. battery (or mains unit) and back plate can be replaced and the instrument returned to service.

3. Note that it is still necessary to switch on the oscillator G.42 when required, the purpose of the modification being to ensure that the batteries feeding both G.73 and G.42 are switched off by the front panel "ON-OFF" switch.

5198.—Aircraft Radio—Introduction of Low Impedance Telephones in Swordfish Aircraft

(N.A.R./A.C.R.D. 138/43.—28 Sep. 1944.)

Provision is shortly to be made for the use of American low impedance telephones, Type AN/BH-1 (Stores Ref. 110A/699) in all Swordfish aircraft.

2. Information on the amount of modification necessary in Swordfish aircraft fitted with differing types of radio installation is shown below, and when action is taken on this, reference should be made to A.F.O. 4511/44, which gives details of how to carry out each necessary modification.

3. Five types of radio installation exist for Swordfish aircraft:—

- (i) Aircraft fitted with—
 - (a) TR. 1460A or B.
 - (b) Beacon receiver (ZBX or ZB/ARA).

The output of the communications receiver is to be adjusted for low impedance. (A.F.O. 4511/44, paragraph 4 (vii) refers.)

If the beacon receiver is ZBX, this is to be converted to low impedance output and a MC. 385 adaptor used. (A.F.O. 4511/44, paragraph 6, refers.)

Where the beacon receiver is ZB/ARA this also is to be modified for low impedance; no adaptor MC. 385 is needed. (A.F.O. 4511/44, paragraph 4 (iv) refers.)

- (ii) Aircraft fitted with—
 - (a) A.R.I. 5206.
 - (b) Beacon receiver (ZB/ARA or ZBX).

The output of the communications receiver is to be adjusted for low impedance. (A.F.O. 4511/44, paragraph 4 (viii) refers.)

For beacon receiver *see* paragraph 3 (i) above.

- (iii) Aircraft fitted with—
 - (a) TR. 1196A or C.
 - (b) Beacon receiver (ZB/ARA or ZBX).

The output of the communications receiver is to be adjusted to low impedance. (A.F.O. 4511/44, paragraph 4 (ii) refers.)

For beacon receiver *see* paragraph 3 (i) above.

- (iv) Aircraft fitted with—
 - (a) SCR. 542.
 - (b) Beacon receiver (ZB/ARA or ZBX).

The output of the communications receiver is to be adjusted to low impedance. (A.F.O. 4511/44, paragraph 4 (iii) refers.)

For beacon receiver *see* paragraph 3 (i) above.

- (v) Aircraft fitted with—
 - (a) R. 1116.
 - (b) Beacon receiver (ZB/ARA or ZBX).

The R. 1116 is to be brought down to low impedance output by means of impedance matching unit, Type 111 (Stores Ref. 10A/13157). (A.F.O. 4511/44, paragraph 5, refers.)

For beacon receiver *see* paragraph 3 (i) above.

4. Supplies of the necessary parts will be made without demand when available and work is to be carried out on instructions from administrative authorities.

(A.F.O. 4511/44.)

5199.—Power Plants and Power Plant Structures

(A.E. 6340/44.—28 Sep. 1944.)

Several instances have recently been reported where American type power plant structures without engines have been issued to Naval Air Stations and H.M. Ships.

2. A number of cases holding bare power plant structures are incorrectly marked as power plants. H.M. Ships and Naval Air Stations concerned should examine all cases holding American aero-engines and power plants and check the contents.

3. Arrangements should be made to complete power plants, where necessary, by installing the appropriate engine.

5200.—Watertight Doors—Provision of Lockers in—As. and As.

Submarines

(D. 14964/44.—28 Sep. 1944.)

Item number "S" Class 543, "T" Class 547, "U" Class 534. Classification "A"

2. Lockers, made of $\frac{1}{8}$ -in. thick galvanized sheet steel, are to be fitted in watertight doors, as shown on A.F.O. Diagram No. 315/44. This work is to be carried out when vessels are next in hand for refit.

3. Separate instructions have been issued by the Admiralty for vessels under construction.

(This Order is to be retained until complied with.)

5201.—Ventilation to Engine Room—Improvement of—As. and As.

"Quilliam," "Rotherham," "Saumarez," "Troubridge," "Ulster," "Valentine," "Wager," "Zambezi," "Caesar" Classes of Destroyers and Leaders

(D/P. 09113/44.—28 Sep. 1944.)

In order to improve the engine room ventilation in the above-mentioned ships the following modifications are to be carried out:—

- (i) An additional 12 $\frac{1}{2}$ -in. exhaust fan to be fitted.
- (ii) The inlets to the existing 17 $\frac{1}{2}$ -in. supply fans to be modified.
- (iii) The leads of the supply trunks in the engine room to be improved.

2. The modifications required are as shown on Admiralty Curators Drawing No. 731745, copies of which may be obtained from Admiralty, Bath. The details shown thereon are to be carefully followed in order to effect the maximum improvement in the ventilation.

3. Where the alterations detailed in paragraph 1 above have not been carried out, an item, classification A*, is to be included in the class list of alterations and additions to the ships to cover the work involved.

4. The modifications can be carried out in stages if time does not allow the whole of the work to be effected in a refitting period.

(This Order is to be retained until complied with.)

5202.—Identification of Ammunition Lockers—Special Types

(N.S. 16034/43.—28 Sep. 1944.)

Details of additional ammunition lockers now available are shown hereunder.

2. The general instructions contained in A.F.Os. 2296/43, 4101/43, 334/44, and 2107/44 will apply.

Pattern No. Allocated	Type of Locker, etc.	To hold	Drawing No.	Approximate Internal Dimensions (Inches)		Estimated Weight (Lb.)	May be obtained upon requisition addressed to:—
				Height	Length			Breadth
7791	R.U. for 4.5-in. 16 Rounds	16 rounds ...	SH.496/4/72 ...	61 $\frac{1}{2}$	30	17 $\frac{1}{2}$	D.C.W.(S)
7792	R.U. for 2-pdr., Mark VIII Ammunition	80 belts ...	Po. MCD 017509	32	61 $\frac{1}{2}$	42	D.C.W.(S)
7793	Light type R.U. Lockers for 2-pdr. Ammunition, Coastal Forces Craft.	10 belts ...	D.N.C. 28/A.1346	24	32	15	D.C.W.(S)
7794	R.U. Lockers for 8 in No. 0.5-in. Ammunition Belt Boxes.	1,600 rounds	Po. MCD 017637	36	15	24	D.C.W.(S)
7795	W.T. Tank for Fireworks, etc. (Transport Ferries).	5 boxes ...	Harland & Wolff, Code No. 1075.	29	37	29	D.C.W.(S)
7796	Locker for Small Arms Ammunition for L.C.T. (8).	4 boxes ...	D.N.C. 2820 Modified.	16 $\frac{1}{2}$	18 $\frac{1}{2}$	13	D.C.W.(S)
7797	Locker for 2-in. Mortar Smoke Ammunition	6 boxes, type B.167.	D.N.C. 2A/1032	32 $\frac{3}{4}$	22 $\frac{3}{4}$	20	D.C.W.(S)
7798	Locker for 4-in. Target Smoke Shell Ammunition.	4 rounds ...	P.M.C.D. 016392	53	19	17 $\frac{1}{2}$	D.C.W.(S)
7799	Locker for Generator Smoke No. 18, No. 19 or 3-in. Mortar Smoke Ammunition.	8 boxes ...	D.N.C. 2A/1095	59	19	21 $\frac{3}{4}$	D.C.W.(S)
7800	Locker for 2-in. Mortar Smoke Ammunition	4 boxes ...	D.N.C. 2A/1032	20 $\frac{1}{2}$	35 $\frac{1}{2}$	20 $\frac{1}{2}$	D.C.W.(S)
7801	Special Stowage for 4.5-in. Shells	1 shell ...	D.N.C. (3 Sheets) 2/A.1089.	7	12	6	D.C.W.(S)

(A.F.Os. 2296/43, 4101/43, 334/44 and 2107/44.)

5203.—D.G. Equipment

L.C.T.(3), L.C.F.(3), L.C.G.(L)(3), L.C.T.(R)(3), L.C.T.(4), L.C.F.(4), L.C.G.(L)(4)
(S.D.G. 126/44.—28 Sep. 1944.)

In the above vessels the majority of the damage to the D.G. cable occurs in the bows, and in order to simplify repairs it has been approved to purchase a stock of 50 in No. straight through junction boxes for each type of installation. In due course these junction boxes will be available for this purpose on demand from L.C.M.S.O., Staines.

5204.—D.G. Equipment

L.C.T.(3), L.C.F.(3), L.C.G.(L)(3), L.C.S.(L)(3), L.C.T.(R)(3)
(S.D.G. 126/44.—28 Sep. 1944.)

In the above landing craft, where the D.G. cables are contained in steel tubes on deck, an accidental contact with obstruction or other craft tends to force the tube through the retaining clips and damage the cable where it enters the glands.

2. This can be obviated by welding an angle iron stop on the deck so that it bears against the steel tube.

3. Arrangements have been made for this to be done in new construction vessels, and in the case of vessels in commission, this item should be treated as a defect and stops fitted at the earliest opportunity.

5205.—Galley Spaces—Improved Lagging to Hot Water Boiling Tanks and Pattern 23A Oil-Fired Ranges

(D/P. 13276/44.—28 Sep. 1944.)

As a result of recent investigation of crews' galleys with a view to reduction of "idle" heat, additional lagging is to be fitted to the hot water boiling tanks. This lagging is to be fitted to the top and bottom of the tanks as shown on A.F.O. diagram 312/44(1), if not already fitted.

2. Additional lagging is to be fitted to the sides, back and bottom of Pattern 23A (800 men) oil-fired ranges as shown on A.F.O. diagram 312/44(2).

3. Items to cover this work are to be inserted in the next list of As. & As. for ships affected.

(This Order is to be retained until complied with.)

5206.—Electric Cable, Patterns 13471 and 13472—Introduction

(N.S. 26561/44.—28 Sep. 1944.)

Electric cables, Patterns 13471 and 13472, multicore, varnished cambric insulated, lead alloy sheathed, for use in connection with A.C. supply for type 275 equipment, have been added to the Rate Book of Naval Stores under subhead F.I.C., part 1, page 1338, as follows:—

Pattern	No. of Cores	No. of wires	Dia. of each wire
13471	2	7	0.064
13472	2	19	0.064

2. Arrangements have been made for the purchase of 10,000 yards of each of the above cables for distribution as below:—

	Pattern 13471	Pattern 13472
Glossop	2,000 yds.	2,000 yds.
Chatham	1,000 yds.	1,000 yds.
Portsmouth	1,000 yds.	1,000 yds.
Devonport	1,000 yds.	1,000 yds.
Severn Area	1,000 yds.	1,000 yds.
Mersey Area	1,000 yds.	1,000 yds.
Rosyth	1,000 yds.	1,000 yds.
W. Riding	1,000 yds.	1,000 yds.
Lathamond	500 yds.	500 yds.
Carfin	500 yds.	500 yds.

5207.—Haze Screen—Supply

Major Landing Craft

(N.S. 29226/44.—28 Sep. 1944.)

The anti-glare goggles supplied to major landing craft provide insufficient protection to the eyes when a constant lookout is being maintained round the sun.

2. Pattern 952 haze screens are therefore to be supplied to major landing craft, as follows:—

	No. per craft
L.C.F. ...	8
L.C.G. (L) ...	4
<u>L.C.G. (M) (1) and (2)</u> ...	<u>4</u>
<u>L.C.S. (R)</u> ...	<u>4</u>
L.C.I. (L) ...	4
L.C.S. (L) (2) ...	2
L.C.I. (S) ...	2
L.C.T. (2)-(5) ...	2
<u>L.C.T. (R)</u> ...	<u>2</u>

3. Storing yards should arrange supply to new construction craft without demands. Bases should demand on nearest storing yard or depot for craft attached.

4. The establishment of stores will be amended.

(Captain M.L.Cs. M.760/73, 23 Jul. 1944.)

(A.F.O. 1578/44 is cancelled.)

5208.—Wood Naphtha—Use of in Cable Jointing Lamps

(N.S. 27721/44.—28 Sep. 1944.)

A report has been received which indicates that a cable ship has used mineral naphtha in the jointing lamp for making core joints in underwater A/S cables.

2. Mineral naphtha is most injurious to submarine cable insulants and should never be used for making core joints. If used, a sooty deposit will be left on the joints (or tools), causing a bad adhesion resulting in faulty joints. Moreover, mineral naphtha may cause premature deterioration of the insulant.

3. Wood naphtha only is to be used in jointing lamps, irrespective of whether the cable is insulated with rubber, gutta percha or polythene (Telcothene), and should be demanded by vessels concerned as necessary from their storing yards.

4. Dockyards and R.N. store depots should obtain supplies as required by local purchase from Messrs. Submarine Cables Ltd., 22, Old Broad Street, London, E.C.2.

5. In an emergency, when wood naphtha is not available, best methylated spirit should be used in lieu.

(A.F.O. 3311/44 is cancelled.)

5209.—Zinc Chromate Primer, U.S.N. Specification 52-P-18—Use of

(N.S. 018857/44.—28 Sep. 1944.)

Zinc chromate primer, U.S.N. specification 52-P-18, can be used in place of red oxide of iron or red lead, for any service not requiring a high degree of water resistance, e.g., interiors, but it is not recommended for underwater work.

2. Zinc chromate is quite compatible with red lead and iron oxide, and no trouble is anticipated if it is used on old paintwork.

3. It is highly recommended as a corrosion resisting coating for aluminium and other light alloys for which red lead is unsuitable and should not be used.

(S.N.S.O., Durban 101026 August.)

(N.S.O., Simonstown 181158 August.)

5210.—De-icing of H.M. Ships on Arctic Service

(D. 05650/44.—28 Sep. 1944.)

Methods of removing ice from, or preventing its formation on exposed equipment, may be divided into three main categories:—

- (a) Mechanical, such as the provision of housings, shields or other protection from the weather.
- (b) Thermal, such as heating by steam or electricity or thawing out by steam jets.
- (c) Use of dressings, such as grease, salt or calcium chloride.

2. The first two methods, shielding and heating, are already employed at sea in many instances where the need justifies such complications and circumstances permit. C.A.F.O. 1778/43 specified such arrangements. Experience has indicated the necessity for some extensions of the provisions of this Order, and the following modifications should be made:—

- (i) All future issues of canvas covers for ice protection should be of waterproof canvas, and should be treated by ship's staff in the manner specified in paragraph 5 below. Where non-waterproof canvas covers, whether painted or not, are already fitted, they should be similarly treated as in paragraph 5, but they will not be so satisfactory as waterproofed canvas.
- (ii) The blocks of boat falls and of all davits should be covered by a sleeve of waterproofed canvas, treated on the outside as in paragraph 5. This sleeve should cover both blocks when in the stowed position, and be open at the lower end. The lead away for operating the blocks should be taken through the side of the sleeve which should be slightly narrower at the top to ensure a snug fit over the upper block and obviate all risk of slack canvas being carried into the block by the lead. Sleeves are to be made by ship's staff.
- (iii) The blocks for signal halyards should be protected against icing up similarly to (ii) above.

3. The third method, namely the use of dressings, is employed either where shielding or heating must be rejected on grounds of complexity but where, nevertheless, the mechanism is required to function under severe icing conditions, or alternatively, where it is desired merely to ensure that ice, if formed, can be broken away quickly and thoroughly enough to bring the equipment into a usable condition when required.

4. Dressings should be employed as follows:—

- (a) Grease No. 0 (K. 1135), superseding grease D.T.D.143C, should be used for lubrication of fine mechanisms such as guns, torpedo tubes, hedgehogs, etc., not directly exposed to the weather. It should be liberally applied to prevent water getting inside the mechanism and freezing up. This grease remains soft down to -70°F ., but is readily swept away by spray and should not therefore be used where directly exposed to the weather.
- (b) Compound, de-icing, should be used for treatment of coarse mechanisms such as turnbuckles, freeing ports, anchor and cable gear, depth charge rails, deck stanchions, roller fairleads, door hinges, valves, mushroom ventilators, deck winches, davit pivot and screw gear, etc., directly exposed to weather. This is an asbestos grease with good weather resisting properties, so that it can be applied in port before sailing without the risk of being washed away before icing conditions are met. It can be applied by rubbing on to a surface or mechanism by hand or with a trowel; it cannot be brushed and cannot be melted. On plain surfaces it is best used in the thinnest film that can conveniently be applied. Care must be taken to avoid trapping water in joints and clearance spaces of working parts; it is advisable to pack such joints and crevices with grease 0 (K. 1135) and then to cover the joint completely with compound, de-icing. This compound is not a lubricant for fine mechanisms.

(c) Paste, de-icing, should be used where necessary for the treatment of large exposed surfaces such as bridge superstructures, gun shields, etc. This is a soft mineral jelly mixture which stiffens after application owing to exposure to air. It should not be used on decks or working platforms—where owing to its greasy nature it is definitely dangerous—nor on the sides of superstructures bounding heated compartments (e.g., mess spaces, workshops, etc.). See paragraph 7 below.

5. Canvas covers for ice protection should be coated on the exposed side with paste, de-icing; Grease No. 0 (K.1135) or Kilfrost Mark 9A (obtainable from Messrs. Kilfrost, Haltwhistle, Northumberland). For covers exposed to very severe weathering, such as that over the Hedgehog (*vide* C.A.F.O. 1112/44) and boat fall sleeves, compound de-icing should be used. If possible, the canvas should be thoroughly dry when the coating is applied.

6. Cordage.—The above compounds should not be used on cordage, as, owing to their greasy nature, they tend to make the rope too slick. A method of treating ropes for arctic conditions is now under consideration, and, if successful, ropes for ships detailed for arctic work will be dealt with accordingly.

7. Removal of block ice.—Icing is primarily due to spray which is picked up and carried along at wind speed. This spray instantly freezes when it meets any obstruction notwithstanding any treatment the surface may receive, and builds up all the time the ship is under arctic conditions. The application of dressings will not therefore prevent the formation of ice, but will facilitate its removal when conditions permit. It is rare for ice to form symmetrically on the ship, and there may be occasions when the safety of the ship can only be ensured by change of course. If the ice forms on decks or superstructure sides bounding heated compartments, it is found that the ice layer next to the plating melts, and detaching the overlying block ice is then as easy as if the surface were coated with de-icing paste (*cf.* paragraph 4 (c)).

Block ice should be removed as soon as conditions permit. It has been found that the grubbing mattocks supplied are too unwieldy for use under service conditions, and the cutting edge is inefficient.

The best method of removing block ice is by splitting it with sharp-pointed ice spikes or picks, and arrangements are being made for the undermentioned implements to be supplied in lieu of mattocks, for the purposes indicated:—

Hand pick	...	...	For clearing large accumulations of block ice round gun mountings, capstan fittings, etc.
Ice spike (4 ft. handle)	...	...	For superstructures.
Ice spike (2-ft. handle)	...	...	For deck ice.
Hand ice spike	...	...	For use in confined spaces where the hand pick is not suitable.

Very little effort is required to detach large blocks of ice by this method, and the procedure is to mark out a line of cleavage with the spike or pick by means of a number of jabs close together; then, by a deeper penetration of the implement in the line of cleavage at one or two points, as necessary, split off the block. A narrow channel should first be cleared and then the blocks split off into the clear space, working progressively over the surface. Excessive force is not required, and is likely to break off the spike or pick, but in the event of a spike being broken and sufficient length is left on the butt, it should be tapered off to conform as nearly as possible with the original shape, avoiding shoulders in the shaping.

In minor war vessels, experience has shown that the use of hot sea water for removal of ice has proved efficient, and if desired arrangements may be made accordingly.

8. Removal of de-icing compounds and paste.—To remove de-icing compounds or pastes from a surface, as much as possible should be scraped off, and the remainder removed with a rag soaked in paraffin (kerosene, M.V.O., M.L.O.). Being greasy compounds, they are liable to adhere to clothing, gloves, etc., unless care is taken.

9. Flight Decks of Carriers.—The problem of removing the thin ice film formed on the flight decks of carriers has not yet been solved. Trials carried out last winter with Kilfrost, Mark F.D/6, de-icing fluid were promising but not conclusive. Special apparatus is required for the application of this fluid, and detailed instructions should be requested by carriers required to operate under Arctic conditions.

10. *Perspex and Glass Screens*.—No satisfactory method of preventing ice formation, or removing ice when formed on Perspex or glass screens, has yet been developed.

11. *Supply Arrangements*.—In accordance with the general arrangements outlined in A.F.O. 869/44, the de-icing equipment is to be carried always in vessels fitted out for operating in Arctic or cold weather conditions. The Commanding Officers of other vessels not specially fitted for Arctic or cold weather conditions but likely to proceed to cold climates are to demand the stores only if and when actually required. Supply to ships of new construction, where applicable, is to be arranged by Warrant and Storing Yards in the normal manner.

(a) Hand picks and ice spikes (permanent Naval stores) :—

	Allowance per ship	
	Flotilla leaders, destroyers and smaller vessels	Capital ships, cruisers and aircraft carriers
Hand picks	3	6
Ice spikes, 4-ft. handle	1	2
Ice spikes, 2-ft. „	2	4
Ice spikes, hand	3	6

Purchase arrangements

	Severn Area	Mersey Areas	Rosyth
Hand picks	400	400	400
Ice spikes (4-ft. handle)	130	130	140
Ice spikes (2-ft. handle)	260	260	280
Ice spikes, hand	400	400	400

(b) Compound, de-icing and paste, de-icing :—

	Compound de-icing	Paste de-icing
Cruisers and larger vessels	3 cwt./ship	2 cwt./ship
Flotilla leaders, destroyers, sloops, frigates, corvettes, fleet mine- sweepers and cutters.	1½ cwt./ship	1 cwt./ship
Smaller vessels	½–1 cwt./ship	½–¾ cwt./ship

(c) Grease No. 0 (K.1135) } Already dealt with in A.F.O. 869/44 (grease
Waterproofed canvas } No. 0 (K.1135) should, however, be demanded
in lieu of grease D.T.D. 143C.)

12. The Commanding Officers of ships concerned in commission and operating from the United Kingdom should forward demands as necessary to their storing yards or depots in accordance with paragraph 11. The Commanding Officers of ships concerned in commission but at present operating abroad should not forward demands until their return to the United Kingdom.

13. A.F.O. 869/44 should be amplified accordingly. The Sea Store Establishments concerned will be amended.

(A.F.Os. 6430/42 and 869/44; C.A.F.Os. 1778/43 and 1112/44.)

5211.—Spanners, Patterns 1344, 1346 and 1347

(N.S. 16449/44.—28 Sep. 1944.)

Spanners, Patterns 1344, 1346 and 1347 (Subhead B.9), are not now required, as the articles for which they were originally provided are obsolete.

2. Stocks held at yards and depots should be reported to the Director of Economy for disposal in accordance with A.F.O. 3118/43.

3. The Rate Book for Naval Stores and the Sea Store Establishments concerned will be amended.

(A.F.O. 3118/43.)

5212.—Modifications to Diesel Fuel Systems of Craft being Fitted Out for Tropical Service

L.C.T. (3), L.C.T. (4), L.C.T. (5), L.C.G. (L) 3 and 4, L.C.T. (R) (3), L.C.G. (M) (1)
(D.C.O.M. 4269/44.—28 Sep. 1944.)

Experience during recent operations has shown the necessity for modification of the fuel systems of the above craft in order to limit the effects of entry of sea water into the system due to damage to fuel tanks.

2. The following modifications are to be carried out on all craft fitted out for tropical service :—

L.C.T. (3) and (4) and Conversions therefrom

(a) Isolating valve to be fitted in fuel cross connection pipe on forward bulkhead, so that each engine can take suction independently from its associated fuel tank.

(b) Drain plugs at bottom of Autoklean filters on forward bulkhead to be removed and replaced by drain cocks arranged so that cocks are shut when cock handles are in vertical position.

(c) Tee piece and ½-in. test cock fitted with a short tail pipe to be inserted in hand priming pump discharge to enable presence of water to be readily detected prior to priming main engines or to filling generator ready-use tank.

(d) A ½-in drain cock to be fitted in generator ready-use fuel tank.

L.C.T. (5)

(a) Sounding tubes to be extended as necessary to bring them within 1 in. of bottom of fuel tanks.

(b) Suction pipes to be shortened as necessary to leave them 2 in. clear of bottom of fuel tanks.

(c) Adaptors to be manufactured to enable petrol-driven portable pumping sets to be connected to sounding tubes.

These modifications will enable water to be pumped out of the main fuel tanks without it passing through the fuel system.

L.C.G.(M) (1)

(a) Isolating valve to be fitted in the fuel cross connection pipe on the forward bulkhead so that starboard engine can take suction from starboard tank independently, while port engine takes suction from either port or centre tanks.

(b) }
(c) } As for L.C.T. (3) and (4) above.
(d) }

3. The modifications listed above are to be carried out on the next occasion of craft being taken in hand for refit or for tropicalisation, the material being supplied from local resources.

4. An A. and A. classification A* should be forwarded to cover this work.

(A.F.O. 5191/44.)

5213.—Aircraft—Gun Harmonization Stands

(N.S. Air 7066/44.—28 Sep. 1944.)

Gun Harmonization Stands, Type C. Ref. 4C/2010, complete with the adjustable discs referred to in A.F.O. 1560/44, a set comprising as follows, will shortly be available for issue in accordance with the scales detailed below :—

Ref. 4C/2010 Stands, Gun harmonizing, Type C.	1 No.
Ref. /2138 Discs, Camera gun	1 No.
Ref. /2139 Discs, Gun sight	1 No.
Ref. /2140 Discs, 8 in. blue (0.303)	2 No.
Ref. /2141 Discs, 8 in. brown (0.303)	2 No.
Ref. /2142 Discs, 10 in. brown (0.5)	2 No.
Ref. /2143 Discs, 10 in. green (0.5)	2 No.
Ref. /2144 Discs, 10 in. red (0.5)	2 No.
Ref. /2145 Discs, 12 in. green (20 mm.)	2 No.
Ref. /2146 Discs, 12 in. red (20 mm.)	2 No.

Ships—as shown in B.R. 378.

S.S.U.s. (Fighter aircraft only) 1 Set

Shore Establishments :—

R.N. Air Stations

Yeovilton	...	...	...	...	...	3 Sets
Yeovilton for Charlton Horethorne	...	...	...	...	...	1 Set
Yeovilton for Witterton (R.N. Air Section)	...	...	...	...	...	1 Set
St. Merryn	...	...	...	...	...	3 Sets
Dale	...	...	...	...	...	3 Sets
Stretton (1 set for Repair Yard)	...	...	...	...	...	3 Sets
Hatston	...	...	...	...	...	2 Sets
Fearn	...	...	...	...	...	2 Sets
Twatt	...	...	...	...	...	2 Sets
Gibraltar (R.N. Air Section)	...	...	...	...	...	2 Sets
China Bay (R.N. Air Section)	...	...	...	...	...	2 Sets
Dekheila	...	...	...	...	...	2 Sets
Lee-on-Solent	...	...	...	...	...	2 Sets
Burscough	...	...	...	...	...	2 Sets
Eglinton	...	...	...	...	...	2 Sets
Grimsetter	...	...	...	...	...	2 Sets
Henstridge	...	...	...	...	...	2 Sets
Puttalam	...	...	...	...	...	2 Sets
Abbotsinch	...	...	...	...	...	1 Set
Machrihanish	...	...	...	...	...	1 Set
Wingfield	...	...	...	...	...	1 Set
Hastings, Freetown	...	...	...	...	...	1 Set
Belfast	...	...	...	...	...	1 Set
Inskip	...	...	...	...	...	1 Set
Maydown	...	...	...	...	...	1 Set
Katukurunda	...	...	...	...	...	1 Set
Donibristle	...	...	...	...	...	1 Set
Stamford Hill, Durban (R.N. Air Section)	...	...	...	...	...	1 Set

R.N. Aircraft Repair Yards.

Fleetlands	...	...	...	...	...	1 Set
Coimbatore	...	...	...	...	...	1 Set
Wingfield	...	...	...	...	...	1 Set
Donibristle	...	...	...	...	...	1 Set
Katukurunda	...	...	...	...	...	1 Set
Tambaram	...	...	...	...	...	1 Set
Evanton (R.N. Air Section)	...	...	...	...	...	1 Set
Clappenburg Bay	...	...	...	...	...	1 Set

R.N. Air Training Establishment

Newcastle-under-Lyme	...	...	...	...	...	1 Set
U.S. Naval Air Station, Norfolk, Virginia, U.S.A.	...	...	...	...	...	2 Sets

2. The last named Service will be supplied from R.N. Store Depot, Stafford, without demand.

3. Ships and Services already in possession of Gun Harmonization Stands, Type A, Ref. 4C/1901, should arrange for these to be modified in accordance with paragraph 3 of A.F.O. 1560/44, and should only render demands for the Type C Stands, required to complete to the above allowances, and not in lieu of any Type A Stands already held.

4. Ships and services concerned should forward demands for the adjustable discs required for the Type A Stands already held, to their normal source of supply of air stores, quoting this Order as the authority for supply. Issues to new services of the Type C Stands, and discs, will be made with their initial outfit of stores.

5. In view of the foregoing, paragraph 5 of A.F.O. 1560/44 should be considered cancelled.

6. Arrangements have been made for the necessary quantities of Stands and discs to be despatched to Yards abroad to cover the requirements of ships and services attached to Foreign Stations. Details of the quantities to be supplied are being forwarded direct to the (S) Naval Store Officers concerned.

(A.F.O. 1560/44.)

5214.—Arrester Wires Fitted Across Aircraft Lifts—As. and As.

Aircraft Carriers

(D/A.C.R.D., Pt. I, 1276/44.—28 Sep. 1944.)

During a recent refit of one of the Fleet carriers an additional arrester wire was fitted across the after lift. Two faired slots into which the arrester wire can be anchored clear of the lift were fitted, to obviate unrigging the wire when the lift is in use.

2. The Commanding Officers of aircraft carriers which have an arrester wire fitted across the after lift, should insert an item classification "A" in their lists of alterations and additions, as follows :—

"To fit faired slots on the flight deck to enable arrester wires fitted across the lift to be anchored clear of the lift when the latter is in use."

(This Order is to be retained until complied with.)

5215.—Stereoscopes for Aircraft Recognition

(N.S. Air 2150/43.—28 Sep. 1944.)

A limited number of stereoscopes, Lothian type (R.A.F. Ref. No. 14B/259) have become available and have been delivered to R.N. Store Depot, Stroud.

2. The quantity available will not permit of a general distribution to all services hitherto supplied with Pattern 2670 (R.A.F. Ref. No. 14B/519) and supply of one stereoscope, R.A.F., Ref. No. 14B/259 will therefore be confined to R.N. Air Stations at home only.

3. Stations concerned should forward demands to Stroud, and on receipt of the item, return one Pattern 2670 to that depot.

(A.F.O.s 856/43, 1969/43 and C.A.F.O. 1282/43.)

Section 4

OTHER STORES—NAVAL STORES, VICTUALLING STORES,
MEDICAL STORES, CONTRACTS

5216—Libraries, Officers' Reference—Annual Publications

Cancelled by
A.F.O. 6281/46. (V. 5/2856/44.—28 Sep. 1944.)

Copies of the undermentioned annual publications are being supplied from H.M. Naval Victualling Depots, Midland and Yorkshire Areas, to ships entitled to an Officers' Reference Library, 1st, 2nd or 3rd class:—

"Jane's Fighting Ships"	1943	edition.
"Jane's All the World's Aircraft"	1943	edition.
"Brassey's Naval Annual"	1944	edition.

2. Ships with a reduced reference library (4th class) will also be supplied with the two first-mentioned publications, but not with the current edition of "Brassey's Naval Annual" (*vide* paragraph 5 below).

3. On receipt of the new editions, ships concerned should return to the nearest Victualling Yard or Depot, any superseded editions on board, viz:—

"Jane's Fighting Ships"	1942	edition.
"Jane's All the World's Aircraft"	1942	edition.
"Brassey's Naval Annual"	1943	edition.

4. Destroyers and other vessels with a small officers' reference library, *not including current editions* of annual publications, should demand from the local Victualling Store Officer the editions mentioned in paragraph 3 and on receipt of these books should return to the nearest victualling yard or depot any earlier editions on board.

5. Ships with a reduced reference library (4th class) should similarly demand from the local Victualling Store Officer, a 1943 edition of "Brassey's Naval Annual" and on receipt should return to the nearest victualling yard or depot any earlier editions on board.

6. *Victualling yards and depots.*—Superseded editions of annual publications received from H.M. ships under paragraph 3 of this order should be re-issued, so far as copies are available, to destroyers and other vessels in compliance with demands received under paragraphs 4 and 5. Any surplus copies of the books should be returned to H.M. Naval Victualling Depots, Midland or Yorkshire Areas, and any demands which cannot be complied with should be forwarded to the Admiralty (Director of Victualling) for supply from another source if available. Before forwarding any such demands, the Victualling Store Officers at yards and depots abroad should ensure that superseded editions have been received from all ships on the stations entitled to new editions or that an explanation has been furnished for the non-return of the books.

(A.F.O. 2412/44.)

(A.F.O. 4771/43 is cancelled.)

5217.—Officers' Working Dress—Outsized

(V. 8/1659/44.—28 Sep. 1944.)

Arrangements have been made for the supply of outsize working dress suits for officers of abnormal height or build who cannot be fitted from the range of sizes kept in stock, details of which are set out in A.F.O. 4669/43.

2. Demands for outsize suits should be forwarded in the usual way to one of the victualling depots at home where officers' clothing is stocked, and should be accompanied by particulars of measurements on form S. 88, copies of which can be obtained from the victualling depot. Payment for the suits must be made to the Accountant Officer (or in the case of suits ordered by officers on detached duty direct from a victualling depot, to the Victualling Store Officer concerned) at the time the suits are ordered.

3. The issuing prices of outsize suits are:—

	£	s.	d.
<i>Free of purchase tax</i>			
Complete suit	2	11	0
Blouse (if ordered separately)	1	7	0
Trousers ,, ,,	1	6	0
<i>Including purchase tax</i>			
Complete suit	2	19	6
Blouse (if ordered separately)	1	11	6
Trousers ,, ,,	1	10	3

Attention is drawn to A.F.O. 652/44, paragraphs 3 and 4.

4. If blouses and trousers are ordered separately there is a risk that the shade of blue of the garments will not be identical. It is advisable, therefore, to order a complete suit. As they will have to be specially made some delay in the supply of these outsize suits is inevitable and must be accepted.

(A.F.Os. 231/43, 4669/43, 652/44 and 1721/44.)

5218.—W.R.N.S. Uniform

(V/1/6049/44.—28 Sep. 1944.)

In future either socks or stockings may be worn with trousers by W.R.N.S. ratings dressed in Class "C" kit, and when Class "C" kit is first issued ratings may be given either two pairs of thin socks or two pairs of black woollen stockings at their own option. The existing entitlement of boats' crews and boom defence ratings to receive two pairs of black woollen stockings and two pairs of thin socks on entry will cease.

2. No compulsory adjustment is to be made in the kits of ratings already serving, but all ratings dressed in Class "C" kit may take up either thin socks or black woollen stockings on repayment.

3. A.F.O. 1048/44 is to be amended as follows:—

Class C.

Free Issue

Delete: "2 pairs Stockings, black woollen"

"† 2 pairs Socks, thin (Boats' Crews and Boom Defence Ratings only)"

Insert: "2 pairs Stockings, black woollen, or } at rating's option"
"† 2 pairs Socks, thin."

(Flag Officer, Naval Air Stations, No. 5776/945/17—8 Aug. 1944.)

(Commander-in-Chief, Rosyth, No. 3367/118/6—19 Aug. 1944.)

(A.F.O. 1048/44.)

5219—Weatherproof Protective Suits—

Minesweeping Vessels (other than Fleet Minesweepers) and A/S Trawlers, Whalers and Yachts

(V. 8/5222/44.—28 Sep 1944.)

The establishment of weatherproof protective suits (destroyer pattern) for minesweeping vessels (other than fleet minesweepers) and A/S trawlers, whalers and yachts employed in *Home, Icelandic and Arctic Waters*, is as follows:—

	For officers.	For ratings on watch on deck (including signalmen).
M/S A/S trawlers	} 3	6
A/S trawlers		
A/S whalers		
A/S yachts		
M/S trawlers	2	5
Motor minesweepers	2	4
M/S drifters	2	3

2. As these suits are expensive and difficult to produce they are to be drawn only if actually required and special care is to be taken in their handling and stowage. Any articles of protective clothing (e.g. duffels and oilskins) rendered surplus to requirements by the supply of weatherproof protective suits should be returned to store.

(A.F.Os. 2200/43 and 3097/43.)

(A.F.Os. 4445/42 and 3749/43 are cancelled.)

5220.—Shipment of Stores in H.M. Ships for Conveyance to U.K. or between Overseas Ports

(N.S. 02707/44.—28 Sep. 1944.)

Attention is drawn to the necessity for complying strictly with the spirit of the existing instructions for the shipment of stores in H.M. ships, in order to obviate the danger of leakage of information regarding forthcoming movements of H.M. ships.

2. Packages shipped in H.M. ships must *not* bear the name of the ship or base for which intended, or of the port to which consigned. The Commanding Officer of the ship conveying the package(s) should be informed separately and *secretly* of the manner in which disposal of the packages should be effected.

3. It is essential that:—

- Information regarding the name of the vessel in which shipment is being made is restricted to the minimum number of persons.
- All documents (e.g., bills of lading, disposal instructions) are treated as *secret* documents.
- The names of the carrying ship and also of the ultimate Service or destination do *not* appear on the packages.
- The packages and any shipping documents containing the names of the carrying vessel or its destination are *not* despatched together (e.g., the driver of a lorry conveying the packages must not also carry the bills of lading).
- Commanding Officers detail an officer or officers to receive the cargo and give the necessary receipts before sailing. Such officers will be responsible for seeing that the cargo is correctly checked on board and retained in safe storage during the voyage.

(f) Where shipping documents cannot be obtained, a list of the cargo is nevertheless taken at the time of loading and receipts issued, and that during the voyage fair lists in triplicate are prepared for delivery to the receiving authorities at destination.

(g) Immediately upon arrival in the U.K., a *secret* signal is made to the Flag or Naval Officer-in-Charge of the port repeated to Admiralty, where discharge will take place giving full information as to the nature and quantity of any cargo to be discharged.

Note.—Concerning (d), should any difficulty arise in getting the shipping documents in time to the conveying H.M. ship, the sending officer should represent the matter to the Admiralty immediately. In the majority of these shipments, however, the bills of lading will be provided by the (S) N.S.O. or N.A.S.O. at the port of shipment.

4. From the time cargo is received on board until taken over by a shore authority the Commanding Officer of the H.M. ship concerned is responsible for its safe custody, and a procedure similar to that for the handling of the ship's own stores is to be followed. Special arrangements are to be made to safeguard any *secret* stores embarked.

5. It has been the practice to allow officers' names to be left on baggage, etc. shipped in H.M. ships, but in future all Flag Officers whose appointments are known in Service circles and their staffs must have their names obliterated from their baggage if to be shipped by this means, only such code words and markings as may be directed being allowed to remain. As an additional precaution, baggage should be embarked at the latest possible moment, and preferably after other communication with the shore has ceased.

(A.F.Os. 174/41, 2582/43 and 353/44.)

5221.—Expiry Date of Penicillin

(M.D.G. 51753/44.—28 Sep. 1944.)

Laboratory control assays on batches of penicillin manufactured in the U.S.A. and issued within recent months from the R.N. Medical School, Clevedon, have shown that the given expiry date can be exceeded without risk, provided the material has not been subjected to temperatures above 24 deg. C.

2. Unexpended U.S.A. material, therefore, may be used before further demands are made provided the expiry date is exceeded by not more than three months.

5222.—Onions—Supply Arrangements, 1944—Issuing Price

(V. 14/5277/44.—28 Sep. 1944.)

With reference to A.F.O. 4654/44, the issuing price of onions as from 1st September, 1944, will be 3½d. per lb.

(A.F.O. 4654/44.)

5223.—Vegetable Contracts—Port List, 1944-45

(C.P. 24412/44.—28 Sep. 1944.)

For reasons of economy a new list of port vegetable contracts is not being circulated on this occasion. The following additions and alterations should, therefore, be made to the existing list of contracts which was issued in August, 1943:—

Name of port and delivery contracted for	Description of vegetables included in contract	Deposit on bags	Contractors' names and addresses	Telegraphic address and Telephone No.	Notes
<i>England and Wales—</i> CARDIFF AND PENARTH	Potatoes, cabbages and greens, turnips, carrots, parsnips.	<i>s. d.</i> 1 0	<i>Delete—</i> R. England, Ltd. <i>Insert—</i> W. Morgan & Co., Ltd., Custom House Street, Cardiff.	Morgan, Cardiff. Cardiff 2564.	
DEAL	Potatoes, cabbages and greens, turnips, carrots, parsnips.	9	<i>Insert—</i> F. S. Wakeham, Sandown Farm, Deal.	Deal 153.	
FOLKESTONE ...	Potatoes, cabbages and greens, turnips, carrots, parsnips.	9	<i>Insert—</i> J. W. Hammond, 1, Cowgate Hill, Queen Street, Dover.	Hammond, Fruiterer, Dover. Dover 18.	
HYTHE	Potatoes, cabbages and greens, turnips, carrots, parsnips.	1 6	<i>Insert—</i> Duruz & Sons, 30 High Street, Hythe.	Duruz, Hythe. Hythe 67011.	
PORT TALBOT ...	Potatoes, cabbages and greens, turnips, carrots, parsnips.	1 0	<i>Insert—</i> C. Weeks, Church Street, Port Talbot.	Weekes, Fruiterer, Port Talbot. Port Talbot 191.	
RAMSGATE AND RICHBOROUGH	Potatoes, cabbages and greens, turnips, carrots, parsnips.	1 0	<i>Insert—</i> F. Friday & Son Ltd., 1 Stour Street, Canterbury	Friday, Canterbury. Canterbury 2224/5. Blean 270.	
SOUTHEND-ON-SEA	Potatoes, cabbages and greens, turnips, carrots, parsnips.	Nil	<i>Insert—</i> H. West & Son, Ltd., Goods Yard, L.N.E.R., Southend-on-Sea.	Wesfruit, Southend- on-Sea. Marine 68101/2.	
SOUTHWOLD ...	Potatoes, cabbages and greens, turnips, carrots, parsnips.	1 0	<i>Insert—</i> D. Fraser, 10A, Commercial Road, Lowestoft.	Fraser, Lowestoft. Lowestoft 643.	
SWANSEA	Potatoes, cabbages and greens, turnips, carrots.	1 0	<i>Insert—</i> W. J. John.	Roan, Swansea.	
TEIGNMOUTH ...	Potatoes, cabbages and greens, turnips, carrots, parsnips.	1 6	<i>Insert—</i> E. Lane, 7, Somerset Place, Teignmouth.	Edward Lane, Teignmouth. Teignmouth 39.	
TORQUAY	Potatoes, cabbages and greens, turnips, carrots, parsnips.	1 0	<i>Insert—</i> Torbay Mill Co., Ltd., The Mills, Dartmouth Road, Paignton.	Torbay Mill, Paignton. Paignton 5201/2.	<i>Agent :</i> Torbay Mill Co., Ltd., St. Annes, Road, Babbacombe, Torquay.
<i>Scotland—</i> ABERDEEN	Potatoes only	Nil	<i>Delete—</i> Harrison & Reeve, Ltd. <i>Insert—</i> James Wilson & Sons (Aberdeen) Ltd., 15, John Street, Aberdeen.	Potato, Aberdeen. Aberdeen 630 and 644.	
ALLOA	Potatoes, cabbages and greens, turnips, carrots, parsnips.	1 0	<i>Insert—</i> James Scott, 37 Castle Street, Alloa.	Alloa 73.	
FRASERBURGH ...	Potatoes, cabbages and greens, turnips, carrots, parsnips.	7	<i>Insert—</i> James Bruce, 22, Castle Street, Fraserburgh.	Fraserburgh 177.	
LAMLASH, BRODICK AND WHITING BAY	Potatoes only	1 0	<i>Delete—</i> T. R. McArthur. <i>Insert—</i> J. & A. McArthur, Ltd., 204, Hunter Street, Glasgow, C.4.	Mosswell, Glasgow Bell 1912/3.	<i>Agent :</i> John Sinclair & Son, Butchers, Lamlash.
LEITH DOCKS ...	Potatoes, cabbages and greens, turnips, carrots, parsnips.	6	<i>Insert—</i> T. Shade, North Leith Station, Leith.	Shade, Leith. Leith 35950.	
LINLITHGOW ...	Potatoes, cabbages and greens, turnips, carrots, parsnips.	Nil	<i>Insert—</i> R. Pow, Gauze Road, Bo'ness.	Bo'ness 231.	
<i>Ireland—</i>		No additions	or alterations.		

Section 5.—BOOKS, FORMS, RETURNS, CORRESPONDENCE

5224.—A.M.S.Is.

(E.F.O.—28 Sep. 1944.)

Admiralty Merchant Shipping Instructions Nos. 49-53/44 are being distributed concurrently with this issue of A.F.Os.

(A.F.O. 5099/44.)

5225.—Amendments to Books

(E.F.O.—28 Sep. 1944.)

The undermentioned amendments (A.F.Os. P.641-668/44) to B.R. and O.U. books are available for issue from the R.N. Store Depot, Elveden Road, Park Royal, N.W.10, in accordance with A.F.O. Volume 1941, Instructions, paragraph 9. Distribution is limited to holders of the relative publication(s) affected.

Demands from shore establishments in the Portsmouth Command should be sent to the Portsmouth Book Office, 54, Bedford Street, Leamington Spa, Warwickshire, and from those in the Plymouth Command to the Devonport Book Office, R.N. Port Library, Devonport. Demands from other shore establishments at home should be sent to R.N. Store Depot, Park Royal, London, N.W.10.

Amendments required for personal copies of the main books should be obtained from Distributing Authorities abroad, and from Park Royal when the officer or rating is serving at home.

A.F.O. P.641/44.—B.R. 1046—Landing Craft Technical Memoranda—Amendment No. 12.

***P.642/44.**—B.R. 380/C—Firefly (F), Mark I S.C.L.—Amendment No. 7.

***P.643/44.**—B.R. 377 (General)—A.S.E.—Amendment No. 11.

***P.644/44.**—B.R. 377 (General)—A.S.E.—Amendment No. 12.

P.645/44.—B.R. 317 (1)—Mining Drill Book—General Instructions Buoyant Mines—Amendment No. 7.

P.646/44.—B.R. 1016—Drill for 40mm. U.S. Mark I Gun on U.S. Twin Mountings with Mark II Power Drives 1944—Amendment No. 1.

P.647/44.—B.R. 1046—Landing Craft Technical Memoranda—Amendment No. 13.

P.648/44.—B.R. Form U2D. (1944)—Amendment No. 2.

P.649/44.—B.R. 62—R.N.R. Regulations (Officers)—Amendment No. 13.

P.650/44.—B.R. 65/37—R.N.V.R. Regulations—Amendment No. 12.

P.651/44.—B.R. 226—Establishment of Spare Parts, Tools and Accessories for Transferable Gun Mountings—1939—Amendment No. 7.

P.652/44.—B.R. 278 (2)—Drill for Internal Tubes in Submarines Fitted with H.P. Firing Gear—Amendment No. 12.

P.653/44.—B.R. 278 (3)—Torpedo Drill Book for Submarines with Low Pressure Firing Gear—Amendment No. 4.

P.654/44.—B.R. 278 (4)—Torpedo Drill Book for External Tubes in Submarines—Amendment No. 3.

P.655/44.—B.R. 317 (Series)—Mining Drill Book—Amendments.

B.R. 317—Guard Cover for Mining Drill Book—Amendment No. 5.

B.R. 317(2)—Preparation for Soluble Plug Fittings—Amendment No. 7.

B.R. 317(9)—Preparation of the Mark XV and Mark XVII* Sinkers—Amendment No. 7.

P.656/44.—B.R. 796/42—Handbook of Periodical Maintenance Routines for 21-in., Mark VIII** Torpedoes—Amendment No. 13.

P.657/44.—B.R. 859—Regulations for Maintenance of 21-in., Mark VIII—VIII** Torpedoes—Amendment No. 10.

A.F.O. P.658/44.—O.U. 5449—Regulations for Maintenance of 21-in., Mark II—V Torpedoes—Amendment.

P.659/44.—O.U. 5450—Regulations for Maintenance of 21-in., Mark IV* S. and S.O. Torpedoes and 21-in., Mark II S.O. Torpedoes in Submarines—Amendment.

P.660/44.—O.U. 5517 (1)—Torpedo Drill Book—General Pamphlet on Above Water Revolving Tubes—Amendment No. 16.

P.661/44.—O.U. 5517 (3)—Torpedo Drill Book—Drill for Torpedo Tubes in Cruisers, Powder or Cordite Impulse Not Fitted with Gyro Angling or Stopless Training Gear D.R.II, II*, IV and T.R.I—Amendment No. 2.

P.662/44.—O.U. 5517 (4)—Torpedo Drill Book—Tubes in Cruisers, Cordite Impulse Fitted with E.P. firing gear and Gyro Angling 21-in. Q.R.I. II, II*, IV and T.R. III Mountings—Amendment No. 3.

P.663/44.—O.U. 5517 (5)—Torpedo Drill Book—Tubes in Cruisers, Cordite Impulse Fitted with Combined Firing Gear and Stopless Training 21-in. Q.R. V, VII and T.R. IV, IV* and IV**—Amendment No. 3.

P.664/44.—O.U. 5517 (6)—Torpedo Drill Book—Torpedo Tubes in Destroyers, Powder, Air or Cordite Impulse Fitted with E.P. Firing Gear D.R. IV, VI A—E, VII A—E, T.R.I and II, Q.R. III, III* and VI—Amendment No. 2.

P.665/44.—O.U. 5517 (7)—Torpedo Drill Book—Tubes in Destroyers, Cordite Impulse Fitted with Combined Firing Gear 21-in. D.R. VI, etc.—Amendment No. 5.

P.666/44.—O.U. 5517 (8)—Torpedo Drill Book—Torpedo Tubes in Destroyers, Cordite Impulse Fitted with Power Operated Stopless Training Gear Q.R. IX, IX* and X—Amendment No. 2.

***P.667/44.**—O.U. 6339—General Instructions for the Operation and Maintenance of Electrical Boat Cranes, Seaplane Cranes and Aircraft Recovery Gear—Amendment No. 3.

P.668/44.—O.U. 6342—Drill for 18-in. and 21-in. L.C. Tubes Mounted in M.T.Bs. and 21-in. L.C. Tubes Mounted in S.G.Bs.—Amendment No. 14.

**Exceptionally A.F.Os. P.642/644 and 667 will be distributed without demand by the Superintending Naval Stores Officer, R.N. Store Depot, 191a, Askew Road, Shepherds Bush, W., who holds the stock of the parent book.*

(A.F.O. 5100/44.)

5226.—Air Publications Distributed During the Week Ending 19th August, 1944

(N.S. Air 10848/44.—28 Sep. 1944.)

The following Air Publications have been distributed from the R.N. Store Depot, Shepherds Bush, W.12 :—

A.P. No.	Airframes and Engines Description	Distribution
A.P. 1517A	... .. Swordfish I Aircraft (Revised Edition).	Initial General
A.P. 2243A, Volume II (Pt. 3) (Prov.)	Sabre III Power Plant	Initial General
B.R. 377L Consumable (Book I)	Hellcat (A.S.E.)	Restricted (Advance Copies)
B.R. 377L Consumable (Book II)	Hellcat (A.S.E.)	Restricted (Advance Copies)
B.R. 377L Permanent	... .. Hellcat (A.S.E.)	Restricted (Advance Copies)

A.P. No.	Airframes and Engines Description	Distribution
BR. 378L Permanent	... Hellicat (A.S.E.) ...	Restricted (Advance Copies)
B.R. 378L Consumable (Book I)	Hellicat (A.S.E.) ...	Restricted (Advance Copies)
A.C.L. No. 53R ...	Beaufort II ...	Initial General
A.C.L. No. 56R ...	Dominie I ...	Initial General
AN-01-60F-3 ...	Structural Repair Instructions for SNJ-3 and 4, British AT-6 Series, General, Harvard III Aircraft.	Initial General
AN-01-1A-7 ...	Engineering Handbook Series for Repair of Wood Aircraft Structures.	Restricted (Advance Copies)
AN-01-25RA-4...	Parts Catalogue for S.B.2C-1A Helldiver Aircraft.	Restricted (Advance Copies)
NAV-AER 01-25RA-1	Pilot's Handbook of Flight Operating Instructions for Models S.B.2C-1, 1C, S.B.2C -3, S.B.F.-1, 2 and S.B.W.1, 2, Helldiver Aircraft.	Restricted (Advance Copies)
NAV-AER 01-25RA-2	Erection and Maintenance In- structions for Models S.B.2C -1-1C, S.B.W.-1, S.B.F.-1 (British Model) Helldiver Air- craft.	Restricted (Advance Copies)
NAV-AER-01-40AM-508	Maintenance Parts Breakdown, Spare Parts Order for S.B.D.5 and S.B.D.6 Dauntless Air- craft.	Restricted (Advance Copies)
NAV-AER 01-40AM-515	Supplementary Operating In- structions for Model S.B.D.-5, R.1820-60 Engines. Dauntless Aircraft (15.4.44).	Restricted (Advance Copies)
NAV-AER 01-190QB-2	Erection and Maintenance In- structions for F.M.2. Wildcat VI Aircraft (15.3.44).	Restricted (Advance Copies)
Spare Parts Order	Model F.M.1-F.M.2 Wildcat VI Aircraft.	Restricted (Advance Copies)
T.O. 01-40 AM-2	Erection and Maintenance In- structions S.B.D.-5 Dauntless Aircraft. (Rev. 1st Nov., 1943).	Initial General
<i>Miscellaneous</i>		
	<i>Description</i>	<i>Distribution</i>
	Photographic Catalogue of Aeronautical Materials, Spare Parts and Equipment (August, 1943).	Initial General

5227.—B.R. 363 (6) and Form D. 126 (3)—Lists of Errata to the Establishment of Naval Stores and List of Particulars for Submarines

"Oberon" and Later Classes

(N.S. 22922/44.—28 Sep. 1944.)

List of Errata No. 6 to B.R. 363 "Establishment of Naval Stores for H.M. Submarines of 'Oberon' and later classes" has been prepared, and copies will be distributed from R.N. Store Depot, Park Royal. Copies of the corresponding List of Errata (No. 3) to the List of Particulars (Form D. 126) will also be provided for services concerned.

2. Four copies of List of Errata to Form D. 126 will be required to complete each copy of the List of Particulars already supplied to submarines under construction and these should be issued without demand by the appropriate Warrant Yard. Officers concerned with preparing the lists should *not* demand the lists of Errata from R.N. Store Depot, Park Royal.

3. *Park Royal only.*—Copies of the establishment when issued should be accompanied by *one* copy of Lists of Errata Nos. 3, 4, 5 and 6 to B.R. 363. The amendments promulgated by earlier lists of errata have been incorporated in the latest reprint of the establishment. Each copy of Form D. 126 when supplied from Park Royal (normally to Warrant Yards only) should be accompanied by *four* copies of Lists of Errata Nos. 1, 2 and 3 to that form.

5228.—B.R. 642 G (Restricted)—Summary of German Warships—Issue of Revised Edition

(N.I.D. 157/44.—28 Sep. 1944.)

A revised edition of B.R. 642 G, dated July, 1944, is now in the press and will shortly be issued by the Superintending N.S.O., Park Royal, without demand, to all holders of the October, 1942, edition.

2. This revised edition supersedes B.R. 642 G dated October, 1942, which is to be disposed of in accordance with B.R. 1, paragraph 9.

5229.—B.R. 980 (G)—Range Table No. 592 (Star Shell) for Q.F., 5.25-in. Guns, Mark I—June, 1944—Issue

(G. 3202/44.—28 Sep. 1944.)

The above-mentioned Range Table No. 592 is now in the press.

2. Copies will be issued to all concerned without demand, when supplies become available, by the Superintending Naval Store Officer, R.N. Store Depot, Park Royal

5230.—B.R. 993, B.R. 317 (4), (5), (13), (15) and (21)—Obsolescence

(T. 02291/44.—28 Sep. 1944.)

The following books are cancelled and all copies are to be disposed of in accordance with the instructions contained in Form B.R.I., viz:—

- B.R. 993—"Handbook of the Mark XXI Sinker"
- B.R. 317 (4)—"Mining Drill Book—Preparation of the Mark XIX Mine"
- B.R. 317 (5)—"Mining Drill Book—Preparation of the Mark XIXS Mine Asy. No. 1"
- B.R. 317 (13)—"Mining Drill Book—Preparation of the Mark XXI Sinker Asy. No. 1"
- B.R. 317 (15)—"Mining Drill Book—Preparation of the Mark XVI Mine Asy. Nos. 5 and 6 and the Mark XVI Sinker Asy. Nos. 1, 2, 3, 7, 8, 9 in A.W. Layers"
- B.R. 317 (21)—"Mining Drill Book—Preparation of the Mark XIXS Mine Asy. No. 2"

5231.—B.R. 1015—Warship Recognition

(T.S.D. 723/43.—28 Sep. 1944.)

The recognition of warships by appearance has been given careful consideration, with the object of formulating policy and standardizing procedure.

2. A handbook of Warship Recognition (B.R. 1015) has been published to enable observers afloat and in the air to work to a common policy. It contains instructional information and hints, which should make the procedure readily understandable.

3. The policy aims at training to recognize "type" and "nationality" at sight and then to refer to the appropriate recognition book to find the "class" and "name".

4. The following warship recognition books have been issued:—

B.R. 642-B	...	...	Summary of British Warships
	Confidential Supplement to	B.R. 642-B	
B.R. 642-G	...	...	Summary of German Warships
B.R. 642-J	...	...	Summary of Japanese Warships
B.R. 642-R	...	...	Summary of Russian Warships
B.R. 642-F	...	...	Summary of French Warships
B.R. 642-I	...	...	Summary of Italian Warships
O.N.I. 54-R	...	...	Summary of U.S.A. Warships

5. B.R. 1015 "Warship Recognition" will be issued without demand from the R.N. Store Depot, Elveden Road, Park Royal, N.W.10, to H.M. ships and establishments as follows:—

	No. of copies		No. of copies
Battleships	2	Australian minesweepers	1
Battle cruisers	2	Surveying ships	1
Monitors	1	Salvage vessels	1
Cruisers	1	Cable ships	1
Fleet aircraft carriers	35	*Coastal craft depot ships	2
Light fleet carriers	25	Combined Operations H.Q. ships	2
Escort aircraft carriers	20	Landing craft carrying ships	1
Seaplane carrier	10	Infantry assault ships	1
Fighter catapult ship	1	Tank landing ships	1
Anti-aircraft ship	1	Naval air station (large)	2
Auxiliary anti-aircraft ship	1	Observer schools	30
Flotilla leaders	1	Loan libraries	1
Destroyers (fleet and escort)	1	Gunnery schools	30
Anti-aircraft destroyers	1	Signal schools	30
Cutters	1	Torpedo schools	30
Sloops	1	H.M.S. "Bee"	20
Frigates	1	H.M.S. "St. Christopher"	20
Corvettes	1	R.N. College, Eaton	2
A/S trawlers	1	R.N. College, Greenwich	2
Destroyer depot ships	2	R.M. School of Signalling	2
Auxiliary destroyer depot ships	2	D.E.M.S. training centres	2
†Submarine depot ships and bases	1	Admiralty Mercantile Marine	2
Repair ships	1	signal schools.	
Armed merchant cruisers	1	Flag officers	1
Ocean boarding vessels	1	N.O.I.Cs.	1
Base and accommodation ships	2	N.C.S.Os. (home and abroad)	1
Minelayers	1	Naval W/T stations	1
Netlayers	1	War signal stations	1
Auxiliary netlayers	1	Port signal stations	1
Minesweepers	1	*Coastal craft bases	4
Twin screw minesweepers	1		

* Plus one copy for each coastal craft borne.

† Plus one copy for each submarine borne.

5232.—O.U. and B.R. Publications—Distribution during August

(N.S. 139/44.—28 Sep. 1944.)

- B.R. 125.—Lloyd's Register of Shipping—Supplements 24 and 25.
 B.R. 130.—Bradshaw's Railway Guide—July, 1944.
 B.R. 363.—Establishment of Naval Stores for "O" and later Class Submarines. 1938—Errata No. 6.
 B.R. 509.—Handbook on Denmark—1942.
 B.R. 516.—Handbook on Greece, Vol. I.
 B.R. 521.—Handbook on Belgium and Luxembourg.
 B.R. 640 (41C).—Combined Operations Pamphlet No. 41C.
 B.R. 642B.—British Empire (and Allied European Countries) and A.F.O. P.485/44.
 B.R. 695.—International List of Telegraph Offices, Part I and Part II—Annexe No. 46.
 B.R. 811.—Aircraft Torpedo Manual—New List of Contents.
 B.R. 811.—Aircraft Torpedo Manual Pamphlets (1B), (1C), (1D), (1E) and (1F).

- B.R. 867.—Handbook and Drill for the 20-mm. Oerlikon Guns, Mark II, on Twin Mark V (Powered) Mounting.
 B.R. 980 (B).—Revised pages 1, 1A and 9 to Range Table 313.
 B.R. 980 (B).—Revised pages 1 and 4 and additional page 1A to Range Table 161A.
 B.R. 980 (G).—Revised page 1 and additional pages 7 to 10 to Range Table 565.
 B.R. 980 (X).—Range Table 581.
 B.R. 980 (X).—Revised pages 18 to Range Tables 402B and 402C.
 B.R. 980 (X).—Revised page 1A to Range Table 399.
 B.R. 980 (X).—Revised page 3A to Range Tables 402B and 402C.
 B.R. 980 (X).—Revised page 1A to Range Table 423.
 B.R. 980 (Z).—Range Tables.
 B.R. 1030.—Preliminary Pamphlet for the Q.F., 17-pdr., Mark III and Q.F., 25-pdr., Mark II Guns on the Mark I (Naval) Mounting.
 B.R. 1048.—Handbook of Big Curves of Enemy Moored Mines and Obstructors.
 B.R. 1050B.—The Fishing Craft and Fisheries of Hong Kong.
 B.R. 1056.—Specifications for the Conversion of the Red Ensign Ships for Use in Combined Operations.
 B.R. 1075.—Drill for Pom Pom Director, Mark IV.
 B.R. 1084.—Provisional Drill for 17-Pdr. Gun, Mark III, on the Marks I and II (Naval) Mounting.
 O.U. 5365 (C).—Priced Vocabulary of Naval Armament Stores, Part III—Errata No. 15.
 A.F.O. "P." 484.—See A.F.O. 4028/44.
 A.F.O. "P." 486 to 488 inclusive.—See A.F.O. 4028/44.
 A.F.O. "P." 492 to 499 inclusive.—See A.F.O. 4175/44.
 A.F.O. "P." 505 to 507 inclusive.—See A.F.O. 4314/44.
 A.F.O. "P." 509 to 513 inclusive.—See A.F.O. 4314/44.
 A.F.O. S.C. 30/44.—Correction No. 3 to B.R. 1021.—See C.A.F.O. "S." 306/44.
 A.P. 1480A.—Silhouettes of Aircraft—Amendment Lists Nos. 112 and 113.
 A.P. 1480B.—Silhouettes of Aircraft—Amendment Lists Nos. 41 and 42.
 A.P. 1480F.—Silhouettes of Aircraft—Amendment List No. 20.
 Air Ministry Pamphlet No. 160—Health Hints for Warm Climates.
 Pamphlet No. 942A.—Instructions for Removal of Inner Frames from Types of Naval Range Finders.

(A.F.O. 4427/44.)

5233.—Map of the Far Eastern War Area—Publication of Chart Q.6251

(D.P.S. 470/44/P.—28 Sep. 1944.)

Chart No. Q.6251—The Far East: general map showing communications, political boundaries and reliefs, 1944—has been specially prepared for issue to the fleet. It is intended for display on notice boards and mess decks, to assist Naval personnel in following the progress of the war in the Far East. It will also be useful to officers giving talks on current affairs and to discussion groups. Admiralty letter N.29592/43 of 30th March, 1944, and C.A.F.O. 1577/44, refer.

2. Chart No. Q.6251 will be distributed by the hydrographer without demand, and initial distribution will be made on the following scale:—

Capital ships and fleet carriers	8 copies
Cruisers, light carriers, escort carriers, depot ships, repair ships and accommodation ships.	6 copies
Destroyers and sloops	4 copies
Frigates, corvettes and submarines	2 copies
Shore establishments	1 copy each and 1 additional copy for every 500 men borne, up to a maximum of 10 copies for any one establishment.

3. Any further copies of this chart which may be required should be demanded on Form H.38 from the Hydrographer, Hydrographic Supplies Establishment, Creechbarrow House, Taunton.

(C.A.F.O. 1577/44.)

5234.—H.M.S. "Barfleur"—Confusion with F.S. "Barfleur"

(M.1499/44.—28 Sep. 1944.)

A considerable amount of correspondence intended for H.M.S. "Barfleur" is being received in the French ship of the same name, and vice versa. Special care is to be taken when addressing correspondence to either of these ships, in order to avoid unnecessary delay.

5235.—H.M.S. "Boscawen"—Address

(M. 1778/44.—28 Sep. 1944.)

The offices of the Commanding Officer and Accountant Officer, H.M.S. "Boscawen," are situated in Weymouth and correspondence should be addressed H.M.S. "Boscawen," Weymouth.

2. H.M.S. "Boscawen," Portland, is a shore base which only accommodates the ship's company and transit ratings. Private mails for such personnel should be addressed H.M.S. "Boscawen II," Portland.

3. Correspondence for independent units of H.M.S. "Boscawen," such as Extended Defence Officer, Boom Defence Officer, and Minesweeping Base, should continue to be addressed to the unit concerned at Portland.

Section 6.—SHORE ESTABLISHMENTS**5236.—Cancelled****5237.—Civilian Personnel Appointed Abroad—Outfit Gratuities—REPORTS**

(L./C.E. 18271/43.—28 Sep. 1944.)

Payment of the outfit gratuity authorized in A.F.O. 4331/44, to industrial personnel recruited direct from outside industry for service abroad under Admiralty conditions of service, should be made by the Naval Accountant Officer or Cashier who issues the advance of pay, and reported immediately to the Director of Navy Accounts (Branch 5) and to the Cashier of the establishment to which the man is proceeding. Nil reports should be rendered.

(A.F.O. 4331/44.)

5238.—Typing Grades Proficiency Tests

(U.S.B. 1247/44.—28 Sep. 1944.)

With reference to A.F.O. 4041/44, it is requested that in the event of any candidate being unable to take the examination (e.g. by reason of leaving Admiralty service) her name may be reported immediately to the Under Secretary's Office, Admiralty, Bath, in order to avoid the unnecessary allocation of examination papers.

2. It is pointed out that no refund of fees can be made in such cases.

(A.F.O. 4041/44.)

5239.—Temporary Technical Assistants in the Civil Engineer-in-Chief's Department—Overtime Conditions

(C.E. 5389/44.—28 Sep. 1944.)

As from 1st September, 1944, Temporary Technical Assistants in the Civil Engineer-in-Chief's Department will be eligible for overtime payments on the following terms:—

Time and a quarter for the first 12 hours in excess of 44 hours (gross) a week.

Time and a half for the next 6 hours and double time thereafter.

"Time" rate to be calculated by dividing annual salary, including war bonus, by 52 and then by 44.

2. The normal compensation for Sunday attendance is time off in lieu of the actual number of hours worked plus payment for half the attendance at plain time rate. Where, however, it is not possible for Service reasons for time off in lieu to be granted within 18 working days of the Sunday worked, the attendance is to be paid for at time rate and a half.

3. Overtime payments for Temporary Technical Assistants serving on tours of duty abroad, e.g. those who are in receipt of Colonial allowance, will be increased by the zonal percentage additions authorized in A.F.O. 2331/41.

4. The former arrangements under which Temporary Technical Assistants in C.E.-in-Cs. department were paid overtime under conditions similar to those for Temporary Assistants, Supply and Accounting Departments, are superseded by the provision of this Order.

5. This Order does not apply to staff employed abroad on *local* rates of pay.

(A.F.O. 2331/41.)

5240.—Drawing Office Assistants—Recruitment and Revised Rates of Pay

(C.E. 6780/44.—28 Sep. 1944.)

Establishments which are unable, owing to the prevailing shortage, to fill their vacancies for Draughtsmen are again reminded that a supply is available of women and a few youths and men, who have received an intensified course of instruction at one of the Government Training Centres for employment in the grade of Drawing Office Assistant.

2. Local Ministry of Labour and National Service Offices will nominate candidates for such employment in approved vacancies on application. In the case of headquarters departments application should be made through C.E. Branch, Admiralty, Bath.

3. The rates of pay for Drawing Office Assistants who have been trained at a Government Training Centre have now been revised with effect from 1st June, 1944, as follows:—

	<i>Men</i>	<i>Women</i>
Age 17	35s. per week	35s. per week
Age 18	49s. per week	44s. per week
Age 19	53s. per week	48s. per week
Age 20	57s. per week	52s. per week
Age 21 and over, up to	70s. per week	56s. per week
and thereafter with Admiralty approval by merit to	85s. per week	68s. per week

These rates are exclusive of Civil Service War Bonus.

4. Departments and Establishments should forward to C.E. Branch, Admiralty, Bath, as soon as possible a list of the names of all Drawing Office Assistants in their employment who were recruited from a Government Training Centre in order that the appropriate adjustments in their pay may be authorized.

5. Drawing Office Assistants not recruited through a Government Training Centre may, if recommended, be considered for appropriate adjustments in pay according to training, experience and ability, but not necessarily up to the level of the new rates now authorized for ex Government Training Centre staffs.

(A.F.O. 1850/42 is cancelled.)

5241.—Shackles—Nomination of Distributors

(P. 6748/44.—28 Sep. 1944.)

In certain areas, a distributor firm has been appointed to hold limited stocks of shackles for that particular district on which ship store dealers, other distributors and users can draw to meet urgent requirements.

2. Except in the case of (a), no Admiralty pattern shackles have been supplied to these firms. Local purchase requirements for commercial shackles may, however, be available from their stocks.

3. Dockyards and depots may like to be aware of these firms in connection with placing local purchase orders for shackles in an emergency. Distributors appointed to date and the districts they cover are as follows :—

- (a) Messrs. Wood & Clark, Blythswood Street, Glasgow, covering the Scottish area.
- (b) Messrs. Loveridge, Ltd., Cardiff, covering the Bristol and S.W. coast areas ;
- (c) Messrs. W. & E. Moore, Ltd., Poplar High Street, London, covering the London area ;
- (d) Messrs. Charles Booth & Co., 38, 40 and 42, Park Lane, Liverpool, 1, covering the Liverpool district, including Birkenhead ;
- (e) The Fleetwood Trawlers' Supply Co., Ltd., 240-244, Dock Street, Fleetwood, covering the Fleetwood district ;
- (f) Messrs. Clark & Co., Robinson Lane, Humber Bank, Fish Docks, Grimsby, covering the Grimsby and Hull area ;
- (g) Messrs. G. Heyn & Sons, Ltd., Head Line Buildings, Belfast, covering Northern Ireland ;
- (h) Messrs. Taylor, Pallister & Co., Ltd., Dunstan Staiths, Dunstan-on-Tyne, Gateshead II, covering the Newcastle area.

The name of the distributor firm for the Southampton area will be announced later.

(A.F.O. 3917/44 is cancelled.)

5242.—United Nations Relief and Rehabilitation Administration

(C.E. 57260/44.—28 Sep. 1944.)

Attention is drawn to A.F.O. 5129/44 shown in Section 1 of this issue.

5243.—Luminising, and Use of Other Radio-active Compounds—Additional Measures to Safeguard the Health of Personnel

(L. 5491/44.—28 Sep. 1944.)

Under the Factories (Luminising) (Health and Safety Provisions) Orders, 1942 and 1943 (A.F.O. 5936/43), certain regulations for safety and health have to be applied in all Admiralty Establishments which are factories (within the meaning of Section 151 of the Factories Act, 1937) in which luminising is, or is proposed to be, carried on. In order to ensure that these regulations are being adequately observed, arrangements are to be made forthwith, in all such establishments, for the Medical Officer of the establishment (or the Local Admiralty Surgeon and Agent, if there is no Medical Officer), to inspect the premises, in company with one of H.M. Inspectors of Factories, unless the premises have already been inspected by H.M. Inspector of Factories, and the Head of the Establishment is satisfied that the regulations are being fully observed.

2. In view of the considerable dangers to which workpeople employed in luminising, or otherwise using radio-active substances, are exposed, it has been decided that the following *additional* safeguards are to be applied in all Admiralty establishments, in respect of all civilian employees (industrial and non-industrial), who are employed in luminising processes, or in any other work involving the use of radio-active substances (e.g. for radiological examination of metals and other materials), and to any Naval personnel engaged on similar work.

- (i) Arrangements are to be made for blood tests to be carried out on all such employees, at intervals of not more than 3 months, by the Medical Officer of the establishment, or the Admiralty Surgeon and Agent.

- (ii) As soon as possible after the issue of this Order, and subsequently at intervals of 3 months, "Test 1" is to be carried out upon all employees engaged in these processes. "Test 1" consists in each worker wearing a special photographic film for one week. These films will be issued with instructions by the National Physical Laboratory, and returned to them, and a report on the dosage of radiation received by each worker will be sent to the establishment. Should the film show a dosage approaching or exceeding the generally accepted tolerance dose, further investigation will be necessary. Application for the films for this test (one per worker), should be made to the Director, National Physical Laboratory, Teddington, Middlesex, together with a remittance of 2s. per film, mentioning "Test 1 for workers using Radio-active substances in Industry". The laboratory will then forward one film and one record card for each worker, with the necessary instructions. Arrangements for the carrying out of this test should be made under the supervision of the Medical Officer of the establishment, or the Admiralty Surgeon and Agent. After exposure, in accordance with the instructions, the film or films should be returned to the laboratory (using the addressed label provided). The laboratory will then issue its report to the management.

- (iii) The reports received on Test 1 should then receive careful consideration by the Medical Officer of the establishment, or the Admiralty Surgeon and Agent and be forwarded with his observations to M.D.G. If the reports show the need for further investigation, arrangements will then be made, if M.D.G. considers this necessary, for Test 2 to be carried out. Test 2 involves examination for radon in the exhaled air of the worker and in cases where these examinations are positive, or where there are other indications of excessive exposure, examination for direct gamma radiations from the worker. This test will be carried out at the establishment by representatives of the National Physical Laboratory, and the fee, which will include, where necessary, the technical inspection of the work-room and technique, will be £5, plus 10s. for each employee examined. Travelling and subsistence expenses will also be charged.

3. Fees for the above test should be charged to Vote 11N.

4. Any medical reasons for transferring any worker from luminising to other duties should be reported to the M.D.G.

5. The tests indicated should involve little loss of working time, but for any interruption of work which may be involved in the tests no check of pay should be made.

(A.F.O. 5936/43.)

5244.—Relaxation of Duties under the Fire Guard Orders

(C.E. 57183/44.—28 Sep. 1944.)

It has been decided that certain relaxations of fire guard duties, during darkness as well as daylight, may be allowed in such prescribed areas, and at such prescribed premises in unprescribed areas, as are now judged to be unlikely targets for incendiary attack.

2. Subject to paragraph 5 below, complete relaxation of all fire guard duties shall be introduced from 1200 hours on Tuesday 12th September, 1944, in the following areas :—

- (a) Daylight : From half hour after Black-out to half hour before Black-out : All areas.
- (b) At Night : From half hour before Black-out to half hour after Black-out : The whole of Regions Nos. 1, Northern ; 7, South-Western ; 8, Wales ; 9, Midland ; 10, North West ; and 11, Scottish. Regions Nos. 2, North Eastern (except Hull County Borough and the Urban District of Goole and Selby) ; 3, North Midland (except Immingham, County Borough of Grimsby and Urban District of Scunthorpe) ; 6, Southern (except Slough Borough, Southampton County Borough, Portsmouth County Borough, Gosport Borough, Parish of Millbrook in the Rural District of Romsey, and Stockbridge).

3. As regards prescribed premises in unprescribed areas, complete relaxation may similarly be applied, with effect from the same date in Regions other than Nos. 4, 5 and 12.

4. The prescribed areas in which full fire guard protection will be retained at night will be all those in Regions Nos. 4, Eastern; 5, London; and 12, South Eastern.

5. *Fire Brigade and Civil Defence Duties.*—Regarding duties under Article 29 of the Fire Guard (Business and Government Premises) Order, 1943, promulgated in A.F.O. 5173/43, in the areas specified in paragraphs 2 (b) and 3 above, liability for fire brigade duties both during and outside working hours will continue until 1200 hours on Sunday, 1st October, 1944. Liability for Civil Defence duties during working hours will continue until 1200 hours on Sunday 1st October, 1944, but liability for duties outside working hours will cease at 1200 hours on Tuesday, 12th September, 1944.

6. In Regions 4, 5 and 12 and the exceptions enumerated in paragraph 2 (b) of this Order, Fire Brigade and Civil Defence duties will continue during night-time until further notice.

7. The Ministry of Home Security have prepared a model form of instrument for use in amending arrangements for the purpose of relieving fire guards, in relaxed areas, from routine attendance to perform duties under arrangements in force. A copy of this instrument (Model B) is reproduced as Appendix A to this Order for the assistance of those concerned with the making and approval of arrangements under A.F.O. 5173/43.

8. A model form of instrument (Model D) has also been prepared for use in the unlikely event of cancellation of relaxation. A copy of this is reproduced as Appendix B to this Order.

9. The general policy is to reduce obligations under the Fire Guard Orders to the minimum compatible with the present risk of enemy attack, whilst ensuring that in all important premises and areas the Fire Guard and Civil Defence Organizations could be quickly restored to full working strength if changed conditions should require it. Fire Guard Orders are accordingly being relaxed: they have not been revoked.

10. In order to implement this policy, fire-fighting, first-aid and other equipment should be maintained in a serviceable condition.

11. The relaxation of fire guard and other duties should result in a reduction of work required to be performed by Passive Defence controlling and organizing staff. Arrangements may be made to allocate the spare capacity of such staff to other work appropriate to their grading, but no member of the controlling or organizing staff should be transferred to a post from which it would not be possible to withdraw him at short notice without Admiralty approval.

12. If it is considered to be expedient, and practicable, at any establishment to maintain for the present nucleus Civil Defence services on a voluntary and part-time basis, it may be done and the fact should be reported to the Admiralty (C.E. Branch I).

13. *Joint arrangements.*—In those areas where full relaxation of fire guard duties is allowed, joint arrangements for the protection of Admiralty premises will be regarded as having lapsed from 1200 hours on Tuesday, 12th September, 1944, and all expenses connected therewith will cease to be payable from that date. Where, however, expenses include Admiralty contributions to the wages of whole-time paid fire watchers, such contributions may be paid to a date necessary to the termination of their services having regard to the usual notice of termination of services having to be given.

14. *Whole-time paid fire watchers in Admiralty Establishments.*—Similarly, in areas where complete relaxation is permitted, full-time paid fire watchers (or "night watchers") should be given immediate notice of discharge—where this has not so far been done—unless there are any outstanding labour vacancies, already notified to the Ministry of Labour and National Service, for which such men are suitable and in which they are willing to be employed.

APPENDIX A

MODEL "B"

(for putting the fire guards on call)

FIRE GUARD (BUSINESS AND GOVERNMENT PREMISES) ORDER, 1943
NOTICE OF AMENDMENT OF ARRANGEMENTS

1. Pursuant to paragraph (1) of Article 4 of the Fire Guard (Business and Government Premises) Order, 1943, the Admiralty, being the appropriate department under the said Order for the premises mentioned in the Schedule hereto, hereby makes the following amendments of the arrangements respectively in force under the said Order for the said premises:—

Any provision in any of the said arrangements which requires a specified number of persons to be available at any of the said premises shall, having regard to the present stage of hostilities, have effect as if it required that number of persons to be liable to be called to those premises if and when required by the said appropriate department for the purpose of performing duties under the said arrangements.

2. These amendments shall in relation to members of a fire brigade maintained for any of the said premises take effect from noon on the 1st day of October, 1944, and in relation to all other persons take effect from noon on the 12th day of September, 1944.

SCHEDULE

Dated this day of September, 1944.

.....
for and on behalf of the Admiralty.....
(Address)

APPENDIX B

MODEL "D"

(For restoring the arrangements)

FIRE GUARD (BUSINESS AND GOVERNMENT PREMISES) ORDER, 1943
NOTICE OF AMENDMENT OF ARRANGEMENTS

1. Pursuant to paragraph (1) of Article 4 of the Fire Guard (Business and Government Premises) Order, 1943, the Admiralty, being the appropriate department for the premises mentioned in the Schedule hereto, hereby makes the following amendments of the arrangements in force under the said Order for the said premises:—

The said arrangements shall have effect as if the amendments thereof dated the.....day of September, 1944, had not been made.

2. These amendments shall take effect as from noon on the.....day of194 .

SCHEDULE

Dated this.....day of.....194

.....
for and on behalf of the Admiralty.....
(Address)

(Admiralty Message 111210 B September)

(A.F.O. 5173/43.)

THE STATE OF TEXAS, COUNTY OF DALLAS, ss. I, the undersigned, a Notary Public in and for the State of Texas, do hereby certify that the within and foregoing is a true and correct copy of the original of the same as the same appears from the records of the County of Dallas, State of Texas, in and to which I am duly sworn.

Given under my hand and seal of office, at the City of Dallas, this 1st day of January, 1901.

Notary Public in and for the State of Texas.

Witness my hand and seal of office, at the City of Dallas, this 1st day of January, 1901.

Notary Public in and for the State of Texas.

THE STATE OF TEXAS, COUNTY OF DALLAS, ss. I, the undersigned, a Notary Public in and for the State of Texas, do hereby certify that the within and foregoing is a true and correct copy of the original of the same as the same appears from the records of the County of Dallas, State of Texas, in and to which I am duly sworn.

Given under my hand and seal of office, at the City of Dallas, this 1st day of January, 1901.

Notary Public in and for the State of Texas.

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