

ELECTRICAL DIVISION WATCH AND QUARTER BILL

Reg.	Mass	Watch	Part of Ship	Action Station	Defence and D.C. Station	Cruising Station	Special Sea Duty	Cleaning Station	Abandon Ship Station
Lt.	Wd. Rm.	-	Office	A.B.C.D. H.Q.	A.B.C.D. H.Q.	Office	-	-	Whaler
C.E.A.	11	-	Gyro, Plots, Generators	Fd. Swbd.	Fd. Rpr. Pty.	E.As. Shop	Gyro Room	-	Dinghy
Ch.El.	11	-	Reg. & Stores	Aft Swbd.	Aft Rpr. Pty.	Office	-	-	No. 1 Co.R.
E.A.2	11	-	Fire Control	T.S.	T.S.	E.M.R.	-	-	No. 2 Co.R.
P.O.El.	13	1P	High Power	Fd. Rpr. Pty.	Fd. Swbd.	H.P. W'kshop	Fd. Swbd.	1/e Swbds.	No. 3 Co.R.
P.O.El.	13	1S	A/S	Squid House	Squid House	A/S W'kshop	Fd. Swbd.	1/e Met. Rm.	No. 4 Co.R.
P.O.El.	13	2P	Running Mty.	Fd. Rpr. Pty.	Fd. Rpr. Pty.	R.M. W'kshop	Aft Swbd.	1/e E.As. Shop	No. 5 Co.R.
P.O.El.	13	2S	Low Power Boats & Batts.	Aft Rpr. Pty.	Aft Swbd.	Boats & Batts. Workshop	Aft Swbd.	-	No. 6 Co.R.
L.E.H.	4	1P	A/S	A.Co.R.	Fd. Rpr. Pty.	A/S W'kshop	Log	Aft Met. Rm.	No. 1 Float
L.E.H.	4	1S	Low Power Boats & Batts.	Fd. Rpr. Pty.	Aft Rpr. Pty.	Boats & Batts. Workshop	Nav. Lts.	Fd. Swbd.	M.B.
L.E.H.	4	2P	High Power	Aft Rpr. Pty.	Fd. Rpr. Pty.	H.P. W'kshop	Nav. Lts.	Aft Swbd.	Dinghy
L.E.H.	4	2S	Fire Control	Aft Rpr. Pty.	Aft Rpr. Pty.	E.M.R.	Log	1/e E.M.R.	No. 2 Float
E.M.	4	1P	E.As. Mate	Fd. Swbd.	Fd. Swbd.	E.As. Shop	Gyro Rm.	Gyro Room	No. 1 Co.R.
E.M.	4	1S	Fire Control	Fd. Rpr. Pty.	Fd. Rpr. Pty.	E.M.R.	-	Fd. Swbd.	No. 2 Co.R.
E.M.	4	2P	A/S	Fd. Rpr. Pty.	Aft Rpr. Pty.	Swbd. W/K	Fd. Swbd.	Aft Met. Rm.	No. 3 Co.R.
E.M.	4	2S	Running Mty.	Aft Rpr. Pty.	Aft Rpr. Pty.	Swbd. W/K	Fd. Swbd.	Fd. Swbd.	No. 4 Co.R.
E.M.	4	1P	High Power	Aft Rpr. Pty.	Aft Swbd.	Swbd. W/K	Aft Swbd.	Fd. Met. Rm.	No. 5 Co.R.
E.M.	4	1S	Low Power Boats & Batts.	Aft Swbd.	Fd. Rpr. Pty.	Swbd. W/K	Aft Swbd.	Aft Swbd.	No. 6 Co.R.
E.M.	4	-	Office Wtr. & Stores	A.B.C.D. H.Q.	A.B.C.D. H.Q.	Office	-	Office & Store	No. 7 Co.R.
R.E.A.3	11	-	Radar Maint.	275 Office	275 Office	E.M.R.	A.I.C.	-	Whaler
P.O.R.El.	13	-	Radar Maint.	293 Office	293 Office	E.M.R.	E.M.R.	-	No. 8 Co.R.
R.E.M.	4	2P	Radar Maint.	Fd. Rpr. Pty.	Fd. Rpr. Pty.	E.M.R.	B.W.O.	E.M.R.	No. 9 Co.R.
R.E.H.	4	2S	Radar Maint.	Aft Rpr. Pty.	Aft Rpr. Pty.	E.M.R.	T.R.	E.M.R.	No. 10 Co.R.

NOTES

1. Owing to shortage of workshops, below is a typical distribution of compartments belonging to the electrical department.
2. Electronics Maintenance Room (E.M.R.)
Used by Radar, Fire Control, A/S staff to carry out repairs on their electronic equipment.
3. After Switchboard
Fitted with battery charging panel.
4. Forward Metadyne Compartment
High Power Workshop.
5. Aft Metadyne Compartment
A/S Workshop.
6. 275 Office
Electrical Office.
7. E.As. Shop
E.As. staff and running machinery party.
8. Abandon Ship stations will be allocated by the Executive Officer.
9. This is a luxury staff.
10. Forward switchboard is located in Low Power Room.

Part (e) speaks for itself. When orders of a temporary nature are required it is better to call the staff together and tell them what you want rather than to put it down on paper.

Fire Orders

In addition to being included in Part (a) a simple set of Fire Orders should be posted on boards and prominently displayed in all Electrical Compartments.

First Aid and Electric Shock

Notices dealing with First Aid and especially the treatment of acid burns and electric shock should also be prominently displayed.

Distribution of Orders

One copy of your orders should be supplied to:-

The Captain.

The Executive Officer.

The Engineer Officer.

The Navigation Officer.

The Communications Officer.

All Heads of Electrical Sections.

The Squadron Electrical Officer.

A copy should be kept in the Electrical Office and all electrical ratings joining the ship should be required to read and sign this copy within 48 hours of joining the ship.

The Watch Bill

The Watch Bill (specimen opposite) for the Electrical Department is by custom prepared by the senior Electrician rating. If he is worth his salt you will never have to do more than read it. You will be well advised to read it. It will tell you your Abandon Ship station.

The Watch Bill is prominently displayed in a place where electrical ratings are in the habit of foregathering. You may rely on the Chief Electrician to ensure that all the staff read it.

CHAPTER 2

REPORTS AND RETURNS

The following table shows reports and returns which are normally rendered by the Electrical Officer or with which he is concerned. It is not exhaustive and does not include local or squadron returns which will be found in the appropriate Orders.

Precise instructions as to rendering can usually be found on the cover of the pad of blank forms or on the forms themselves but they are summarised in this chapter for convenience of reference.

Each Station, Command and Squadron will issue a list of returns normally separated into those required

- (a) Weekly.
- (b) Monthly.
- (c) Quarterly.
- (d) Yearly and half-yearly.
- (e) As occasion arises.

Study these carefully and insert them in your table.

Form	Title	Dates for rendering	To Whom	Authority & References
M.S.	Half-yearly Report on Electrical Material	31st May 30th November	See Text	A.F.O. 774/54
M.S.	Half-yearly Report on Radio Material	31st May 30th November	See Text	A.F.O. 774/54
S. 1116	Radio Equipment Inventory (ships)	31st May and on first commissioning	See Text	C.A.F.O. 91/54, 149/54
S. 1117	Radar Equipment Inventory (ships)	and on transferring to a new station		
SJ118A	Radio and Radar Equipment Inventory for Naval Air Stations	and after refit, modernisation or conversion involving major alterations		
S.M18B	Radio and Radar Equipment Inventory for Shore Wireless Stations			
SJ118C	Radio and Radar Equipment Inventory for Training Establishments			
SJ118D	Radio and Radar Equipment Inventory for Y and D.F. Stations			
SJ118E	Radio and Radar Equipment Inventory for Terminal Telegraph equipment ashore			

Form	Title	Dates for rendering	To Whom	Authority & References
S. 1182	Proposed Alteration and Additions	As occasion arises	Administrative Authority (in triplicate)	A.F.O. 723/55
S. 197	Amendments to List of Equipment, Spare Gear, Portable Fittings, etc.	1st January 1st July	Superintendent of the Dockyard	Q.R. & A.I. Art. 5662
S. 198	Half-yearly Report on Candidates for Branch Rank	31st May 30th November	See Instructions printed on Form S. 198	Q.R. & A.I. Art. 0505
S. 1177A	Gyro Compass and Magnetic Compass Report	Quarterly on Quarter day	Director of Compass Dept. (See Form 1177)	Q.R. & A.I. Art. 3546
S. 507	Half-yearly Return of Recommends for advancement of ratings	31st May 30th November	Commodore of Port Division Depot	B.R. 1066 Chapter I.
D. 248	Magazines Electrical Fittings Certificate	On completion of building, larger repairs, etc. refit	See Form	B.R. 862 B.R. 1754
S. 339(a)	Certificate of completion of Dockyard repairs	As occasion arises (ships in commission only).	Administrative Authority	Q.R. & A.I. Art. 5602
D. 448	Report of Inspection after building or on completion of large repairs	As occasion arises	See Form	B.R. 2071
S. 126	Report of Stores Lost, damaged or broken by accident, neglect or theft	As occasion arises	SEE CHAPTER ON STORES AND STOREKEEPING	
S. 1183	Report of Defective Electrical Equipment	As occasion arises	See Chapter on Maintenance Documents	A.F.O. 1183/54, 1407/54 479/55.
S. 1565	Usage Data of Electronic Spares	Monthly	Director of Stores, Admiralty	No in date reference.
S. 162	State of Complement	Monthly	Commodore of Depot, Admiralty (Director of Manning).	B.R. 14 (51) A.F.O. 1754/55 1955/55 2763/55
M.S.	Report on Electric Cables	Annually on 30th September		Q.R. & A.I. Art. 5481
S. 442	Application for and report of result of examination	As occasion arises	See Text	B.R. 1066

HALF-YEARLY REPORTS ON GENERAL ELECTRICAL MATERIAL
AND RADIO EQUIPMENT

Optional Half-yearly reports on matters affecting details of Ship's General Electrical Material and Radio Equipment may be rendered by the Electrical Officer and forwarded by the Captain on 31st May and 30th November. Although these reports are optional you are urged to send them in if you have anything of value to report.

Both reports should be rendered in duplicate, the Half-yearly General Electrical Material Report to the Captain, H.M.S. COLLINGWOOD, and the Radio Equipment Report to the Captain Superintendent, A.S.R.E., Portsmouth, Gosham, Portsmouth, Hants.

Reports are to be divided into sections, each dealing with a particular equipment, component, or aspect of the work of the ship's Electrical Department. Each section is to be on a separate sheet.

Matters which have already been dealt with on Form S.1183 should not be included as these reports are forwarded to the same authorities and will already be under investigation. Reports on Compasses should be dealt with separately on Form S.1177A and those on the state of Electrical Cables should be rendered as shown in the table above.

The following items fall within the scope of these reports:-

- Minor maintenance difficulties.
- Deficiencies in space and layout of workshops.
- Lack of testing equipment or tools.
- Performance.
- Suggestions for improvements to future design.
- Allowances of stores and spare gear.
- Publications.
- Equipments fitted for trials.
- New types of equipment.
- Radio and radar equipments as enumerated from time to time by Admiralty Fleet Order.

Where ships are attached to squadrons the reports should be forwarded through the Administrative Authority so that the Squadron Electrical Officer may collate the experience gained on common faults and add his further remarks.

A summary of the Radio Reports, with comments by the appropriate Departments, is published half-yearly by A.S.R.E. and is distributed to ships without demand. These books are extremely useful and should be readily accessible to the Radio staff. To facilitate this they have recently been down-graded from Confidential to Restricted but much of the matter therein would justify a higher security grading and the greatest care should be taken to ensure their safety.

THE RADIO EQUIPMENT INVENTORY

Forms S.1116, etc.

Five typewritten copies of Form S.1116 and S.1117 are to be forwarded to the Administrative Authority and one placed in the Ship's Book on the following occasions:-

- (a) Annually on 31st May.
- (b) On first commissioning.
- (c) On transferring to a new station.
- (d) After a refit, modernisation or conversion involving major alterations and additions to radio equipment.

Ships in Reserve should not forward these forms unless there have been changes since they were last rendered. Shore Establishments should report on the forms shown in the table.

The Electrical Officer is responsible for the preparation of the forms and the nomenclature used in E Lists, (see Chapter 4) should be used where possible. If this is not possible, (e.g. with prototype equipment), the equipment should be reported under a title which is readily recognisable.

Minor alterations to equipments which are embodied between reports should be reported by letter and included in the next annual report. All changes made in an inventory since the last return are to be underlined in red. Spare columns may be used for equipments in positions not shown on the form.

Whenever non-standard equipment or equipment not of British manufacture is reported the following details should be given:-

- (a) Type of equipment and identification letters or numbers.
- (b) Name of manufacturer.
- (c) Serial No.
- (d) Frequency range.
- (e) Type of modulation, (if applicable).
- (f) Power supplies.
- (g) Power consumption.
- (h) Power output.
- (j) Any other relevant information.

Current A.F.Os. give types and designations of equipments for which details ((a) to (c) above), are not required.

Form S. 1182

This is more fully dealt with in the Chapter on Dockyards and A. & As. It suffices at present to say that when an alteration or addition to the Ship's Electrical System is deemed essential a proposal on Form S. 1182 (in triplicate), should be forwarded to the Administrative Authority who will add his remarks and forward two copies to the Secretary of the Admiralty.

The Engineer Officer is responsible for the co-ordination of A. & As. and the Temporary Distinguishing Letter will be allocated by him.

A record of all proposed Alterations and Additions should be kept in the Electrical Log and Progress Book, (see Chapter on Office Organisation).

A typical A. & A. proposal is shown at the end of this chapter.

AMENDMENTS TO LIST OF EQUIPMENT, PORTABLE FITTINGS
SPARE GEAR, ETC.

Form S. 197

See Chapter on Stores and Storekeeping.

HALF-YEARLY RETURN OF RECOMMENDATIONS FOR ADVANCE-
MENT OF RATINGS

Form S. 507

See Chapter on Service Documents.

MAGAZINE ELECTRICAL FITTINGS CERTIFICATE

Form D. 248

This is a Dockyard Form raised by the Dockyard Officers certifying that the Electrical fittings, etc. in Magazines and Explosive Store Rooms and other compartments with high explosive or fire risk, are safe for use. The Commanding Officer must also sign the form and he will require the Electrical Officer's advice before doing so. The form is rendered after building conversion, refit, etc. One copy is forwarded to the Secretary of the Admiralty and one is kept in the Ship's Book.

A copy of Form D. 248 will be found at the end of this chapter.

APPLICATION FOR AND REPORT OF RESULT OF EXAMINATION

Form S. 442

When one of your staff applies to take examination for advancement, or you are required to examine a man from another ship Form S. 442 will be raised in duplicate.

The Captain, with your assistance, must satisfy himself as to the eligibility of the candidate and sign the certificate on the front of the form. The result is recorded on the back and in the event of the candidate being successful the original should be handed to him while the duplicate is forwarded to the Commodore of the Port Division, (where the advancement is by roster), or pinned to the man's History Sheet where the Captain is allowed to advance the man without reference to superior authority.

The result of the examination should always be entered on Page 1 of the man's History Sheet.

Form S.442 is sometimes used as a method of recommendation. For example, under the latest regulations a Fourth Class Artificer must undergo a course before being rated Third Class. When the man is eligible and recommended for this course Form S.442 should be raised (front side only) and forwarded to the Commodore, NOT TO THE ELECTRICAL SCHOOL.

For details of which officers can examine candidates for what ratings see B.R. 1066.

THE MINOR PUNISHMENT BOOK (Q.R. & A.I. Article 2092)

The Captain is empowered by the Queen's Regulations to delegate to the Electrical Officer certain powers of punishment. These powers only apply to offences concerning the work of the Department. A return in the minor Punishment Book, S.242 of all such punishments awarded is to be forwarded to the Captain weekly. Nil returns are to be forwarded.

AUDITS OF NON-PUBLIC FUNDS

Form S.256

All non-public funds held by Ship's Officers are to be audited on 30th June, 31st October and on 28/29th February. The form is straightforward but before carrying out the audit and signing the form you should read:-

- (a) The instructions on the form.
- (b) Q.R. & A.I. Articles 1581 et sequitur.
- (c) Q.R. & A.I. Appendix 20.

REPORT OF DEFECTIVE ELECTRICAL/RADIO/COMPASS EQUIPMENT

SHIP..... SHIP'S SERIAL No. DATE.....

DESCRIPTION OF DEFECTIVE ITEM.....

PATTERN No..... Handbook/Drawing Ref. No.....

Maker..... Serial No..... Year.....

DESCRIPTION OF SET/OUTFIT/UNIT.....

Maker..... Serial No..... Year.....

Other tally plate details.....

DESCRIPTION OF DEFECT (Including suspected cause).....

Ambient temperature..... Degrees Humidity Normal High

Subjected to voltage surges Yes No Subjected to shock/excessive vibration Yes No

HAS COMPONENT/UNIT BEEN OVERLOADED THROUGH FAILURE OF SOME OTHER COMPONENT? Yes No

HAS COMPONENT/UNIT BEEN OVERLOADED THROUGH DESIGN LIMITATION? Yes No

Has component/unit been exposed to spray or immersion? Yes No

HOURS IN USE..... SWITCHING CYCLES (approx.)..... MONTHS IN STORE.....

Evidence of careless handling. In use. Yes No In store. Yes No

EVIDENCE OF DEFECTIVE MANUFACTURE. Yes No Repeated failure Yes No

If damage due to faulty packing give details of packing, case marking, consignor, etc.....

AMPLIFYING REMARKS TO QUESTIONS ANSWERED BY TICKS AND SUGGESTIONS FOR OVERCOMING FAILURE.....

BALANCE SHEET AND AUDIT

(Q.R. & A.I. Articles 1581—1587.)

H.M.S. "....." Mess and/or Fund }
 Date for period ended }
 or on occasion of }

BALANCE SHEET

LIABILITIES	£	s.	d.	ASSETS	£	s.	d.
				Money in Cash Box ...			
				Money at Bank ...			
				Value of Stock in hand*			
Balance Creditor ...				Balance Debtor ...			

* At cost price, less percentage for depreciation if necessary.

We hereby certify that the above is a true and correct statement.

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Honorary Treasurer

(To be signed by all members of the Mess or Fund Committee—Q.R. & A.I. Art. 1583(5)).

AUDIT

..... We hereby certify that we have audited the above account and that Q.R. & A.I. Appendix 20 has been complied with.

2. All books, bills and receipts have been produced to us in support of the above statement as required by the regulations, and we believe it to be correct.

*3. The cash balances and accounts of all funds in charge of the same Treasurer as is named above have been examined at the same time.

• NOTE.—This paragraph should be ruled through when the particular account under audit is kept by the Supply Officer or Supply Officer (Cash) of the ship (Q.R. & A.I. Appendix 20, Part 2, Para. 10.)

Date.....

CERTIFICATES

(To be completed in all audits of Mess Funds and Wine Accounts.)

MESS FUNDS

We certify that

(a) The monthly rate of messing charge per head is £ : s. d. (Q.R. & A.I. Article 1409).

(b) the account overleaf includes all mess funds for which the members of the mess as a body are liable.

†(c) The mess is catered for by a messman under the terms of an agreement entered into by him and the mess committee that the mess is not liable for any debts contracted by the messman.

†(d) All monies due to the messman by members of the mess have been paid to him except as follows :—

Table with columns for 'Balance Creditor' and 'Balance Debtor'.

We hereby certify that the above is a true and correct statement.

(To be signed by all members of the Mess or Fund Committee—(Q.R. & A.I. Art. 1282))

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Messman Honorary Treasurer

To be signed by all members of the Mess Committee

WINE ACCOUNTS

(e) To the best of our belief all instructions relative to the keeping of wine accounts have been duly observed during the period under examination.

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Auditors

† To be deleted if inapplicable.