

MARINE METEOROLOGY.

Co-operation of Shipowners, Masters and Mates.

Captains and Officers of ships registered in Great Britain and Northern Ireland, who wish to co-operate regularly with the Meteorological Office should apply to the appropriate Port Meteorological Officer or Agent, a list of whom, with addresses, is given below.

In accordance with the International Convention for Safety of Life at Sea, the Meteorological Office arranges for certain "Selected Ships" to take meteorological observations at specified hours, and to transmit such observations by wireless telegraphy, for the benefit of other ships and the various meteorological services.

Arrangements are also made for a limited number of ships to keep meteorological logs in certain trades for the purpose of completing the meteorological survey of the oceans.

Ships performing these voluntary duties are known as Observing Ships; the whole as the Voluntary Observing Fleet; and the commanders and officers of these ships as the Corps of Voluntary Marine Observers.

At present the observing fleet is limited to a number not exceeding 360 observing ships. The number of British "Selected Ships" is determined upon the British proportion of world tonnage, on the assumption that there should be a total of 1,000 "Selected Ships" of all nations.

The observing fleet list indicating which are "Selected Ships," with the names of commanders, officers, and other particulars, is published in THE MARINE OBSERVER and kept up to date monthly.

A general description of marine meteorological work, including the particulars desired from intending marine observers, is given in Chapter I of THE MARINE OBSERVER'S HANDBOOK, 5th Edition, which is supplied to all observing ships, and may also be obtained from H.M. Stationery Office, direct, or through any bookseller, price 2s. 6d.

THE QUARTERLY MARINE OBSERVER or MONTHLY SUPPLEMENT is sent regularly to the captain of every observing ship, for the information and guidance of his observing officers, and in the case of "Selected Ships," the wireless operators also. The Captains of observing ships are also supplied on request with charts, and atlases, according to trade, if available, as meteorological equipment.

Ships keeping the Meteorological Log, Form 915, are lent a complete set of official tested instruments.

"Selected Ships," other than meteorological log keeping ships, keep the Ships' Meteorological Record, Form 911. All "Selected Ships" also keep the Ships' Wireless Weather Register, Form 138.

No observing ship is detailed as a "Selected Ship" unless she has on board a reliable mercurial barometer.

Official tested instruments are lent to "Selected Ships" when necessary.

The commanders of observing ships keeping the meteorological log are requested to return it (accompanied by Form 138 in the case of "Selected Ships") through the appropriate Port Meteorological Officer or Agent at intervals of not more than five months.

Commanders of observing ships keeping Forms 911 are requested to return them (accompanied by Form 138 in the case of "Selected Ships") by post direct to the Meteorological Office, London, at the end of each voyage, or at intervals of not more than two months.

These forms have the address and "On His Majesty's Service" printed upon them, and should be folded for posting accordingly.

The Port Meteorological Officers and Merchant Navy Agents inspect official instruments in Meteorological log ships half-yearly, and in "Selected Ships" quarterly, when possible; and they will replace defective gear. These officers will also check the accuracy of barometers in observing ships, but marine observers should themselves frequently check by comparison.

The work of the British observing fleet, that of the observing fleets of other nations party to the Convention for Safety of Life at Sea, together with Weather Shipping Bulletins and Gale and Hurricane Warnings conforming to the International Convention for Safety of Life at Sea, provide the necessary information for shipping. Thus a world wide service for all shipping, at the minimum cost to national funds, is provided. Shipowners are asked to facilitate this voluntary work which is done by the commanders and officers of their ships.

Shipowners will greatly assist by facilitating the forwarding of postal matter from the Air Ministry addressed to the Captains of ships.

All ships fitted with W/T are advised to procure the DECODE for use with the International Code for Wireless Weather Messages from Ships, M.O. Pubn. 329, which can be obtained from H.M. Stationery Office, price 3d. This gives a description of the system of communication of "Selected Ships," as well as the DECODE.

For guidance in the practical use of wireless weather intelligence, WIRELESS AND WEATHER AN AID TO NAVIGATION may be obtained from H.M. Stationery Office, through any bookseller, price 5s.

NAUTICAL OFFICERS AND AGENTS OF THE MARINE DIVISION OF THE METEOROLOGICAL OFFICE, AIR MINISTRY.

LONDON ... Captain L. A. BROOKE SMITH, R.D., R.N.R.,
Marine Superintendent.
Commander J. HENNESSY, R.D., R.N.R., Senior
Nautical Assistant.
Room 324, Adastral House, Kingsway, W.C.2.
(Telephone No.: Holborn 3434 Extension 421).
Nearest station Temple, District Railway.

THAMES ... Commander C. H. WILLIAMS, R.N.R., Port
Meteorological Officer, P.L.A. Building, King
George V Dock (south side), London, E.16.
(Telephone No.: Albert Dock 2659. Telegraphic
Address: Barometric Aldock, London).

MERSEY ... Commander M. CRESSWELL, R.N.R., Port
Meteorological Officer, Dock Office, Liverpool.
(Telephone No.: Bank 8959. Telegraphic
Address: Meteorite, Liverpool).

Agents.

BRISTOL Captain T. JOHNSTON, Technical College, Cathays
CHANNEL Park, Cardiff. (Telephone No.: Cardiff 6813).

Agents (contd.).

CLYDE ... Mr. ROBERT CLEARY, Master Mariner, The
Clutha Stevedoring Co., Ltd., Princes Dock,
Glasgow. (Telephone No.: 513 Ibrox).

FORTH ... Captain C. G. BONNER, V.C., D.S.C., Leith Salvage
and Towage Co., Ltd., 2, Commercial Street,
Leith.

HONG KONG, Lieut. Commander E. H. C. BRANSON, R.N.,
China. Chart Depot, H.M. Dockyard.
(Telephone No.: 108 Dockyard).

HUMBER ... Captain A. M. BROWN, Ellerman Wilson Line
Office, Hull. (Telephone No.: Central 16180).

SOUTHAMPTON Captain Sir BENJAMIN CHAVE, K.B.E. Room 35
Royal Mail Buildings.

SYDNEY, Commander G. D. WILLIAMS, D.S.O., R.D., R.N.R.
New South Wales. Captain G. B. MERCER.
Customs House. (Telephone No.: B6421).

TYNE ... Captain J. J. MCEWAN, Marine School, South
Shields.

DERELICTS AND FLOATING WRECKAGE.

Date.	Position.		Description.	Date.	Position.		Description.
	Latitude.	Longitude.			Latitude.	Longitude.	
ENGLISH CHANNEL.					NORTH ATLANTIC.		
10.12.34	48°51'N.	4°59'W.	Black buoy drifting, dangerous to navigation.	2.12.34	38°13'N.	73°44'W.	Red topped spar buoy about 25 feet long, 18 inches diameter.
MEDITERRANEAN.				GULF OF MEXICO.			
4.12.34	37°18'N.	2°15½'E.	Large spherical buoy, painted white with chains and cables attached, marked on side in black letters <i>Ampere 2</i> , dangerous.	3.12.34	26°54'N.	86°55'W.	Large timber about 18 feet long and 2 feet diameter.

CHART OF THE WESTERN NORTH ATLANTIC.

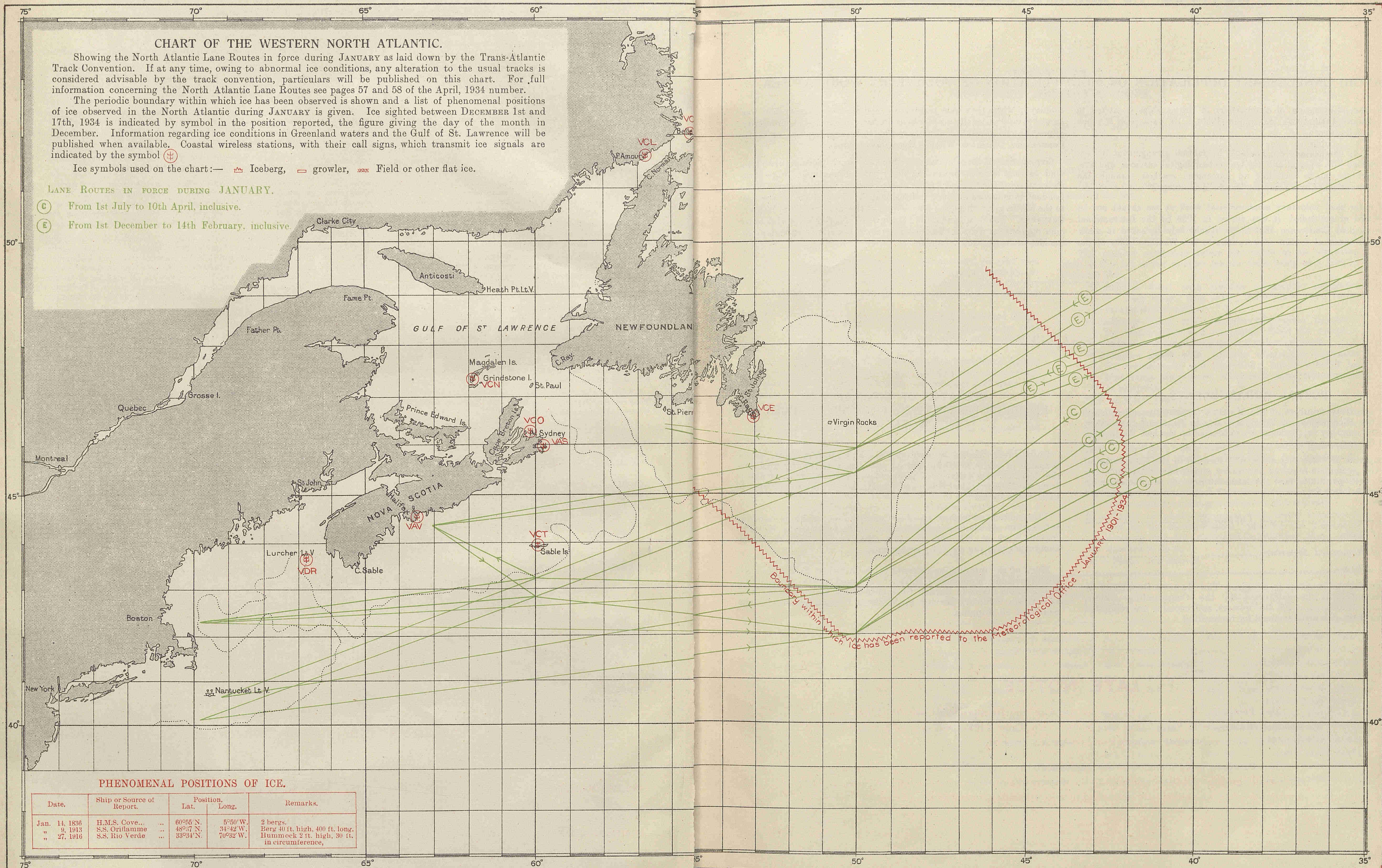
Showing the North Atlantic Lane Routes in force during JANUARY as laid down by the Trans-Atlantic Track Convention. If at any time, owing to abnormal ice conditions, any alteration to the usual tracks is considered advisable by the track convention, particulars will be published on this chart. For full information concerning the North Atlantic Lane Routes see pages 57 and 58 of the April, 1934 number.

The periodic boundary within which ice has been observed is shown and a list of phenomenal positions of ice observed in the North Atlantic during JANUARY is given. Ice sighted between DECEMBER 1st and 17th, 1934 is indicated by symbol in the position reported, the figure giving the day of the month in December. Information regarding ice conditions in Greenland waters and the Gulf of St. Lawrence will be published when available. Coastal wireless stations, with their call signs, which transmit ice signals are indicated by the symbol (⊕).

Ice symbols used on the chart:— Iceberg, growler, Field or other flat ice.

LANE ROUTES IN FORCE DURING JANUARY.

- (C) From 1st July to 10th April, inclusive.
- (E) From 1st December to 14th February, inclusive.



PHENOMENAL POSITIONS OF ICE.

Date.	Ship or Source of Report.	Position. Lat. Long.	Remarks.
Jan. 14, 1836	H.M.S. Cove...	60°56' N. 55°50' W.	2 bergs.
" 9, 1913	S.S. Orinamie ...	48°37' N. 34°42' W.	Berg 40 ft. high, 400 ft. long.
" 27, 1916	S.S. Rio Verde ...	33°34' N. 70°32' W.	Hummock 2 ft. high, 30 ft. in circumference.

NOTICES TO MARINE OBSERVERS.

AVOID UNNECESSARY DUPLICATION OR MULTIPLICATION OF VOLUNTARY WORK AT SEA.

The special attention of commanders of British ships is invited to THE MARINE OBSERVER'S HANDBOOK (1930) p. 10, paragraph 5 which reads as follows:—

“All observations are available by mutual arrangement for exchange with colonial and foreign meteorological services, and are, therefore, made according to agreement reached through the International Commission for Marine Meteorology.”

In order that voluntary meteorological work at sea should not be duplicated or multiplied, it was agreed in 1929 by the International Meteorological Conference that ships should only be asked to make written returns of routine observations to the Weather Office of the

country in which they were registered. The Selected Ship System was agreed to internationally in order to secure better organization, uniformity of practice and prevention of unnecessary work being imposed upon the Commander, Officers or Wireless Operators of ships.

Commanders of British observing ships are accordingly requested to send in their written returns regularly through the appropriate Port Meteorological Officers and Agents or direct to the Meteorological Office, London (as indicated on those returns) and to adhere as far as possible to the advice given them, for the conduct of the work, in THE MARINE OBSERVER. The Commanders of British Observing Ships are advised to refer requests for written observations from other state institutions to the Meteorological Office, London.

POSTAL ARRANGEMENTS.

The quarterly numbers of the MARINE OBSERVER are published on the last Wednesdays of December, March, June and September, while the monthly supplements are published on the last Wednesday of the intervening months.

If captains of observing ships will forward to the Meteorological Office the particulars required hereunder, endeavour will be made as far as mails permit to post the latest number or supplement with appropriate forms for observational work for use on their homeward passage.

S.S..... Captain.....
Port of Call.....
Date of Homeward Departure.....
Postal Address.....

When this information is not given The MARINE OBSERVER or Supplement will be addressed to the Commanding Officer, S.S....., c/o the owners, and captains are requested to make their own arrangements for forwarding.

DESPATCH OF INFORMATION REQUIRED IMMEDIATELY FOR THE CONDUCT OF THE WORK AT SEA.

Shipowners, Marine Superintendents and all concerned in the despatch of mails to Ships abroad are asked to kindly facilitate the despatch and delivery of postal matter received at their offices from the Meteorological Office and Air Ministry Publication Depot to their Ships abroad.

This matter addressed to the Commanders of Ships contains information which is required for the Conduct of Marine Meteorological Work at Sea and is most effective if received by the Commanders at the earliest possible date.

Much of the information referred to is published in the MARINE OBSERVER and Supplements, and is of a seasonal nature. This journal also contains advice to Regular Observing Ships which enables them to perform voluntary service by Wireless Communication for the benefit of all shipping.

LATE NOTICE

The Pamphlet, M.O. 329, “Decode for use with the International Code for Wireless Weather Messages from Ships,” has been revised as a Third Edition and may be purchased from H.M. Stationery Office or through any bookseller, price 6d.

This Pamphlet being intended for use throughout the British Merchant Navy has been extended to give the necessary guidance to the masters of British Ships for making Weather reports when and where there are not sufficient selected ships to complete the service.

FLEET LIST.

VOLUNTARY OBSERVING SHIPS.

The following is a complete list of British observing ships regularly carrying out voluntary services of marine meteorology with the guidance of the Marine Division of the Meteorological Office.

The names of the Captains and observing officers of observing ships, and the Senior Wireless Operators of Selected Ships are given, as ascertained from the last written return received.

Meteorological Logs, Records, and W/T Weather Registers received between the dates specified at the head of the seventh column are acknowledged by Form number, with commencing and ending dates of period covered by the returns; the date when the last return was received being given in the eighth column.

The Captains of observing ships are requested to take this acknowledgment in cordial thanks and grateful recognition to them and their observing officers and wireless operators for the returns made and the voluntary service rendered in all parts of the world.

The classification of meteorological logs and Selected Ships' records and registers will be notified to the Captains by post card Form 1343. Only in exceptional cases will individual letters be sent to the Captains of observing ships.

The Port Meteorological Officers and Merchant Navy Agents at the ports are advised as necessary, and they will, as necessary, communicate such advice verbally by personal call upon the Captain.

Excellent Awards will be made at the end of the financial year. The names of the Captains and Principal Observing officers gaining these awards will be published in a special list in the Marine Observer.

It is requested that prior notification of changes of service, probable periods of lay up, transfer of Captains, or other circumstances which may prevent the continuance of voluntary meteorological service at sea, may be made to the appropriate Port Meteorological Officer or Merchant Navy Agent.

Ships not making the appropriate written returns within a reasonable period will be removed from the list, steps taken to recover any instruments lent, and the free issue of the Marine Observer discontinued.

The number of voluntary observing ships is limited to a maximum total of 360.

The number of Selected Ships detailed to carry out the voluntary service provided for in Clause (C) of Article 35 of the Convention for Safety of Life at Sea, Merchant Shipping (Safety and Load Line Conventions) Act, 1932, is determined by the British proportion of the world's tonnage; and is at present 287.

Captains are requested to point out any errors which may occur in the list.

Explanation of Abbreviations.

The number appearing before the name of an observing ship in this list is her number for the time being as a British Selected Ship.

†† indicates fitted with wireless telegraphic apparatus for long range, long wave, continuous wave transmission and reception.

*† indicates fitted with wireless telegraphic apparatus for transmission and reception; fitted for reception only of long range, long wave, continuous wave.

** indicates fitted with wireless telegraphic apparatus for transmission and reception; but not fitted for long range, long wave, continuous wave transmission or reception.

M.V. = Motor Vessel.

S.T. = Steam Trawler.

Ships having no such letters after their names are steamships.

M.L. = Equipped with a complete set of tested instruments lent by the Meteorological Office for keeping the meteorological log.

M = Ships' own mercurial barometer, found to be sufficiently accurate and reliable for the purpose of observation for making wireless weather reports.

S. = Partly or wholly equipped with tested instruments lent by the Meteorological Office for the purpose of carrying out the duties of a Selected Ship, when detailed to do so.

A. = Ships' own aneroid.

Name of Vessel.	Captain.	Observing Officers.	Senior Wireless Operator.	Meteorological Instrument Equipment.	Line.	Logs, Registers, or Records Contributed. 7.9.34 to 1.12.34.	Date Last Return Received.
122 †† <i>Accra</i> , M.V. ...	J. C. Shooter ...	O. E. Jones, R. M. Monroe ...	G. Arrowsmith...	M.-S.	Elder Dempster...	Fms. 911 & 138 9.8.34 to 2.11.34	6.11.34
055 *† <i>Actor</i> ...	J. Bellett ...	E. Pearce, C. C. Heaton, K. H. Davies.	T. G. Simpson ...	M.	Harrison ...	" " 10.9.34 to 17.11.34	21.11.34
123 †† <i>Adda</i> , M.V. ...	J. H. Lawson ...	E. Moors, H. L. Papworth ...	A. L. J. Edwards	M.-S.	Elder Dempster...	" " 23.8.34 to 18.11.34	27.11.34
273 *† <i>Adrastus</i> ...	H. Goodaere ...	R. Blakey, R. T. Harries, T. A. Kent.	S. R. Purkiss ...	M.L.	A. Holt ...	Fm. 915 18.2.34 to 9.7.34	15.8.34
090 *† <i>Aeneas</i> ...	J. Hatfield ...	F. H. Barley, G. Edge, G. Drake.	I. E. Jones ...	S.	A. Holt ...	Fms. 911 & 138 26.3.34 to 13.7.34	27.7.34
166 *† <i>Agamemnon</i> , M.V. ...	J. G. Reynard ...	T. R. Phillips, F. Fisher, B. T. Batho.	A. C. Nevin ...	"	" ...	" " 23.8.34 to 28.9.34	23.11.34
<i>Aidan</i> ...	O. J. P. Lee ...	H. O. Williams, A. G. Malcolm, N. Caris.	" ...	M.L.	Booth ...	Fm. 915 5.6.34 to 4.11.34	19.11.34
065 †† <i>Akaroa</i> ...	W. G. Summers ...	H. R. Dunnet, J. L. Stolls, U. T. Wood.	" ...	S.	Shaw Savill ...	Fms. 911 & 138 14.7.34 to 16.10.34	1.11.34
032 †† <i>Alaunia</i> ...	" ...	L. N. MacMillan, H. L. Pryse, J. O. Chambers.	R. L. Otley ...	"	Cunard White Star	" " 3.9.34 to 19.10.34	25.10.34
<i>Alban</i> ...	L. Evans ...	F. R. Holman, R. Parry, A. S. Richardson.	" ...	M.L.	Booth ...	Fm. 915 8.1.34 to 1.4.34	10.4.34
178 *† <i>Alipore</i> ...	E. F. Hannan, R.D., Commr., R.N.R.	W. T. C. Lethbridge, K. P. Naire, G. D. Copeland.	E. T. Hutchings	M.	P. & O. ...	Fms. 911 & 138 3.8.34 to 7.10.34	29.10.34
175 †† <i>Almanzora</i> ...	T. J. C. Buret ...	A. E. H. Randle, G. M. Fletcher, M. Hay.	J. Cadwell ...	S.	Royal Mail ...	" " 12.9.34 to 22.10.34	24.10.34

Name of Vessel.	Captain.	Observing Officers.	Senior Wireless Operator.	Meteoro-logical Instrument Equip-ment.	Line.	Logs, Registers, or Records Contributed. 7.9.34 to 1.12.34.	Date Last Return Received.
012 †† <i>Almeda Star</i> ...	H. C. Howard ...	R. White, H. Austen, R. Scullard.	R. N. Austin ...	M.	Blue Star ...	Fms. 911 & 138 10.9.34 to 24.10.34	29.10.34
022 *† <i>Alynbank</i> ...	D. Gillies ...	S. Morris, A. Hunter, E. Binfield.	D. C. Castin ...	M.L.	A. Weir ...	Fm. 915 20.10.33 to 5.5.34	5.10.34
160 *† <i>Amarapoora</i> ...	W. C. C. Plage ...	C. C. Weir ...	... ..	S.	Henderson ...	Fm. 911 15.7.34 to 26.9.34	3.10.34
103 †† <i>Andalucia Star</i> ...	R. Vernon ...	G. G. McPherson, J. H. Mortimer, F. R. Wood.	F. E. Ash ...	M.	Blue Star ...	Fms. 911 & 138 19.8.34 to 3.10.34	8.10.34
209 †† <i>Aorangi</i> , M.V. ...	J. F. Spring-Brown ...	D. H. Richards, L. P. Bourke, E. M. Anderson.	C. F. G. Taylor ...	M.L.	Canadian- Australasian.	Fm. 915 1.3.34 to 14.6.34	27.8.34
120 †† <i>Apapa</i> , M.V. ...	A. Faill ...	C. V. Evans, B. White ...	J. Rea ...	M.-S.	Elder Dempster	Fms. 911 & 138 29.8.34 to 24.11.34	28.11.34
029 †† <i>Appam</i> ...	J. M. Draper ...	R. K. Palmer, B. C. Haigh, T. R. Walker.	R. J. Dowling ...	S.	" "	" " 12.9.34 to 21.10.34	24.10.34
017 †† <i>Aquitania</i> ...	G. Gibbons, R.D., Capt., R.N.R.	L. R. Sharp, E. A. Divers, W. L. P. Cox.	A. H. Farman ...	"	Cunard White Star	" " 2.9.34 to 15.11.34	17.11.34
115 †† <i>Arandora Star</i> ...	E. W. Moulton ...	L. S. Hassell, J. Brunton, E. Huntley Smith.	J. T. Williams ...	M.-S.	Blue Star ...	" " 8.9.34 to 28.10.34	30.10.34
114 *† <i>Ariguani</i> ...	J. H. H. Seudamore, D.S.C., R.D., Commr., R.N.R.	W. J. Maxwell, T. Crane, G. McKee.	E. M. Evans ...	S.	Elders & Fyffes	" " 8.8.34 to 21.10.34	24.10.34
091 †† <i>Armadaile Castle</i> ...	A. O. Morgan, R.D., Commr., R.N.R.	W. R. Andrews, G. Hillier, R. Partington	F. Longmore ...	"	Union Castle ...	" " 18.8.34 to 7.10.34	9.10.34
095 †† <i>Arundel Castle</i> ...	G. J. Whitfield ...	P. G. McIver, J. L. Walker...	W. A. Brown ...	"	Union Castle ...	" " 25.8.34 to 14.10.34	16.10.34
233 †† <i>Ascania</i> ...	J. G. P. Bissett, R.D., Commr., R.N.R.	E. J. R. Pollitt, J. A. Myles, J. G. Bradley.	A. R. Tripp ...	"	Cunard White Star	" " 20.8.34 to 2.11.34	7.11.34
280 *† <i>Astronomer</i> ...	J. Richards ...	... ..	K. C. Green ...	M.	Harrison ...	" " 31.7.34 to 15.10.34	24.10.34
013 †† <i>Asturias</i> ...	B. Shillitoe, R.D., Commr., R.N.R.	H. M. Rennie, J. G. Thomas, J. H. Rous	T. Bradfield ...	S.	Royal Mail ...	" " 21.10.34 to 25.11.34	27.11.34
133 †† <i>Avelona Star</i> ...	G. E. Hopper ...	J. Coldwell, L. Allen, L. Anson	S. J. J. Scott ...	M.-S.	Blue Star ...	" " 1.8.34 to 8.11.34	10.11.34
068 †† <i>Balmoral Castle</i> ...	C. Le Brocq ...	T. McAllen, H. Bunn, J. F. McEwan.	J. Sharp ...	S.	Union Castle ...	" " 21.7.34 to 11.11.34	13.11.34
179 *† <i>Balranald</i> ...	H. Williams ...	D. C. Swabey, L. Cook, R. D. W. McKay.	E. Whibley ...	M.	P. & O. Branch	" " 22.7.34 to 9.11.34	26.11.34
248 *† <i>Banffshire</i> ...	A. W. P. Gibb ...	R. F. Buckley, F. H. Petherbridge, H. T. Peletier.	W. M. Ewing ...	"	Turnbull Martin	" " 28.3.34 to 16.6.34	2.7.34
180 *† <i>Baradine</i> ...	W. D. C. Smith ...	R. G. Wood, R. S. Kerridge, F. Collinson.	E. Howard ...	"	P. & O. Branch	" " 5.8.34 to 6.11.34	12.11.34
037 *† <i>Baronesa</i> ...	R. W. Compton ...	H. W. Brammall, W. Ellis, B. Ellis.	N. Sanderson ...	"	Houlder ...	" " 27.8.34 to 1.11.34	7.11.34
181 *† <i>Barrabool</i> ...	J. S. Sheepwash ...	J. D. Strike, A. Gething, T. Watkins.	C. T. Seaton ...	"	P. & O. Branch	" " 16.5.34 to 11.8.34	20.8.34
070 *† <i>Bayano</i> ...	A. W. Legge ...	W. Sumner, W. Butcher, A. Crone.	R. E. Blizzard ...	S.	Elders & Fyffes	" " 17.8.34 to 27.10.34	8.11.34
183 †† <i>Bendigo</i> ...	C. C. Watson ...	H. P. Mallett, D. West, T. A. Sargeant.	J. Kininmonth...	M.-S.	P. & O. Branch	" " 10.6.34 to 12.9.34	14.9.34
237 †† <i>Berengaria</i> ...	Sir E. T. Britten, R.D., Commr., R.N.R.	J. D. Archer, J. V. Locke, F. G. Watts.	J. N. Cragg ...	S.	Cunard White Star	" " 26.8.34 to 22.11.34	26.11.34
145 *† <i>Berwickshire</i> ...	E. H. Evens ...	E. Coulthart, J. C. Robertson, E. J. Brittain.	F. Smith ...	"	Turnbull Martin	" " 1.10.34 to 19.10.34	7.11.34
<i>Birchbank</i> ...	R. B. Ellis ...	F. A. Munday, A. F. King, T. Boal.	... ..	M.L.	A. Weir ...	Fm. 915 16.3.34 to 11.9.34	19.9.34
007 *† <i>Bradfyne</i> ...	J. O'Neill ...	P. Evans, F. W. Burn, O. E. Brown.	T. Pearson ...	S.	Reardon Smith ...	Fm. 911 27.11.33 to 5.11.34	13.11.34
<i>Brighton</i> ...	W. Lidbetter ...	E. Balcombe ...	S. Wood ...	"	Southern Rly. ...	Telegraphic Report 30.11.34	30.11.34
057 †† <i>Britannic</i> , M.V. ...	F. A. Frank, D.S.O., R.D., Commr., R.N.R.	A. E. Harvey, A. J. Fisher, O. H. Tugwell.	J. B. Stone ...	"	Cunard White Star	Fms. 911 & 138 10.9.34 to 23.11.34	26.11.34
269 *† <i>British Admiral</i> ...	H. Faulkner ...	H. Munn, T. L. Hill, R. M. Shaw.	H. B. Nisbet ...	M.	British Tankers	" " 28.8.34 to 30.9.34	4.10.34
038 *† <i>British Corporal</i> ...	E. L. W. Evans ...	A. E. Undery, W. C. Wall...	J. E. Peachy ...	"	" " ...	Fm. " " 16.8.34 to 21.10.34	30.10.34
<i>British Enterprise</i> ...	A. Scora ...	F. J. Rand ...	... ..	"	" " ...	Fm. 911 30.6.34 to 23.10.34	31.10.34
249 *† <i>Buteshire</i> ...	C. A. I. Laird ...	P. McMillan, P. H. Hill, J. McLeod.	W. Whimmell ...	S.	Turnbull Martin	Fms. 911 & 138 25.3.34 to 24.10.34	2.11.34
031 †† <i>Caledonia</i> ...	A. Collie ...	R. Blake, T. K. McMillan, — White.	J. F. Reid ...	"	Anchor ...	Fm. " " 30.8.34 to 12.11.34	14.11.34
139 †† <i>California</i> ...	R. W. Smart ...	J. F. Adams, R. L. Robertson, J. McIntosh.	W. Thompson ...	"	" ...	Fms. 911 & 138 21.7.34 to 18.11.34	26.11.34
<i>Cambria</i> ...	E. B. Turner ...	V. A. Phillips ...	J. Pritchard ...	"	L.M. & S. Rly. ...	Telegraphic Report ... 30.11.34	30.11.34
<i>Cambridge</i> ...	R. Williams ...	P. Shakespeare, J. Trotter, V. Canton.	... ..	M.L.	Federal ...	Fm. 915 8.4.34 to 9.8.34	15.8.34
266 †† <i>Cameronia</i> ...	W. Rome ...	E. Stormont, A. Martin, G. Forrest.	J. Harvey ...	S.	Anchor ...	Fms. 911 & 138 23.8.34 to 25.11.34	29.11.34
086 *† <i>Camito</i> ...	D. A. Jack ...	H. J. Perrett, K. MacKay, T. C. Hillman.	D. Bussell ...	"	Elders & Fyffes	" " 30.8.34 to 10.11.34	14.11.34
259 *† <i>Canonesa</i> ...	W. H. Brodie ...	H. L. Sherwell, F. F. Flint, E. J. L. Stone.	C. J. Woolway...	M.	Houlder ...	" " 6.5.34 to 16.6.34	20.6.34
117 *† <i>Cape of Good Hope</i> ...	T. A. Jacobson ...	D. M. Taylor, D. Perry ...	H. J. Coates ...	S.	Lyle S.S. Co. ...	" " 26.6.34 to 20.9.34	29.10.34
092 †† <i>Carnarvon Castle</i> , M.V. ...	C. E. Stuart, R.D., Capt., R.N.R.	G. L. Clarke, E. T. Tamlyn, M. Wilcock.	G. Siever ...	"	Union Castle ...	" " 29.7.34 to 18.11.34	28.11.34
155 †† <i>Carthage</i> ...	R. R. Burge ...	H. J. Cholerton, H. J. Mann, J. L. Dunkley.	G. Bailey ...	M.-S.	P. & O. ...	" " 10.6.34 to 12.9.34	26.9.34
184 †† <i>Cathay</i> ...	C. B. Roche ...	E. Cowell, G. L. Farnfield, E. L. Jones.	H. Dawson ...	"	" ...	" " 1.7.34 to 3.10.34	8.10.34
011 †† <i>Ceramic</i> ...	W. J. Saunders ...	D. K. Crawford, J. Collins ...	W. M. Ross ...	S.	White Star ...	" " 27.8.34 to 25.9.34	19.11.34
191 *† <i>Chindwin</i> ...	G. Paterson ...	J. G. Aitken, A. R. McPherson, P. McCabe.	A. C. Headley ...	"	Henderson ...	" " 4.6.34 to 17.8.34	27.8.34
067 *† <i>Chinese Prince</i> ...	W. Irvine ...	B. J. Jenkins, J. Hennessey, E. G. Jones.	D. T. Roberts ...	M.L.	Furness Withy ...	Fm. 915 9.3.34 to 3.6.34	26.7.34
192 †† <i>Chitral</i> ...	O. Siggers, R.D., Commr., R.N.R.	G. L. Bateman, F. D. Shaw, J. Stansfield.	S. Norwood ...	M.-S.	P. & O. ...	Fms. 911 & 138 23.4.34 to 23.8.34	29.8.34
051 *† <i>City of Auckland</i> ...	W. Rowlands ...	A. G. Freeman, J. W. Cubbon, A. H. Horan.	L. C. Cullimore...	S.	Ellerman ...	" " 1.7.34 to 24.9.34	8.10.34
135 *† <i>City of Barcelona</i> ...	W. Hill ...	J. McK. Arnot, R. S. Conway, G. Roose.	... ..	M.	" ...	Fm. 911 ...14.8.34 to 16.10.34	19.10.34

FLEET LIST

iii

Name of Vessel.	Captain.	Observing Officers.	Senior Wireless Operator.	Meteoro-logical Instrument Equip-ment.	Line.	Logs, Registers, or Records Contributed. 7.9.34 to 1.12.34.	Date Last Return Received.
265 *† City of Baroda	J. Brown ...	H. G. Williams, R. E. Hannaford, J. L. Robertson.	J. McMurran ...	S.	Ellerman...	Fms. 911 & 138 26.7.34 to 29.9.34	22.10.34
158 *† City of Cairo ...	E. G. Hoppins...	J. H. Brown, H. Laird, D. M. Williams.	T. O. Sandham...	M.	" ...	Fm. 911 13.5.34 to 10.8.34	28.8.34
282 *† City of Canton ...	J. H. Rutter ...	J. N. Pulford, G. Conolly, D. Lamb.	" ...	"	" ...	" 1.10.34 to 22.10.34	20.11.34
157 *† City of Delhi ...	J. Wyper ...	P. R. Winship, W. N. Piercy, J. Muir.	P. T. Dwane ...	S.	" ...	Fms. 911 & 138 16.4.34 to 25.8.34	1.9.34
030 *† City of Dieppe	H. Cartwright ...	J. Hudson, J. P. A. Arthur, N. F. Ayres.	" ...	"	" ...	Fm. 915 5.12.33 to 25.3.34	28.4.34
049 *† City of Evansville	D. O. Evans ...	G. Vickers, A. Field, W. Smith	F. Markham ...	M.	" ...	Fm. 911 17.9.34 to 4.11.34	23.11.34
220 †† City of Exeter ...	D. M. Bremner ...	W. S. Jackson, N. Groundwater, E. Gillies.	T. Fleetwood ...	S.	" ...	Fms. 911 & 138 8.5.34 to 6.7.34	11.7.34
089 *† City of Hereford	C. V. Avery ...	R. S. Webber, J. F. Lindell, W. S. Doidge.	B. P. Dalglish	M.	" ...	" 24.4.34 to 20.8.34	31.8.34
City of Hong Kong	D. L. Lloyd ...	F. MacLachlan ...	" ...	S.	" ...	" ...	" ...
028 †† City of London ...	J. G. Brown ...	R. Kellie, V. Wilson, J. G. G. Fyfe.	C. Smith ...	"	" ...	Fms. 911 & 138 4.7.34 to 1.9.34	21.9.34
256 *† City of Lyons ...	H. Johnston ...	A. Cran, W. E. Barnett, J. Stevenson.	S. Lindsay ...	M.	" ...	" 8.10.34 to 27.10.34	20.11.34
066 †† City of Nagpur...	A. Lee ...	H. A. Hazeel ...	" ...	S.	" ...	" 2.7.34 to 14.9.34	1.10.34
074 †† City of Paris ...	H. L. Walton, O.B.E., R.D., Commr. R.N.R.	A. Hamilton, A. Macfie, T. Stewart.	H. Warren ...	"	" ...	" 30.9.34 to 10.10.34	19.10.34
City of Perth ...	D. H. Metcalf ...	A. M. Westlake, J. Owen, R. F. Henry.	" ...	M.L.	" ...	Fm. 915 14.4.33 to 8.9.33	9.10.33
271 *† City of Roubaix	W. Gray ...	C. Collard, W. H. Dalton J. H. Owen.	J. W. Alexander	M.	" ...	Fms. 911 & 138 19.8.34 to 4.9.34	13.9.34
272 *† City of Singapore	T. Cooper ...	G. T. Mathias, D. Pattison, S. Ayles.	P. Francis ...	"	" ...	" 18.8.34 to 6.11.34	9.11.34
035 *† City of Sydney ...	F. McKay ...	J. Kinley, S. Brett, P. G. A. King.	E. R. Bloom ...	"	" ...	" 12.8.34 to 15.10.34	19.10.34
167 *† City of Tokio ...	H. G. Booth ...	C. F. Clarke ...	W. Connell ...	S.	" ...	" 1.3.34 to 8.4.34	30.5.34
City of Winchester ...	Burton ...	" ...	" ...	M.L.	" ...	" ...	" ...
125 *† City of Windsor	E. E. Bulkeley ...	C. S. Cheyney, J. Midlen, J. Underdown.	S. V. Knight ...	S.	" ...	" 9.10.34 to 28.10.34	20.11.34
City of Yokohama	J. A. Singleton...	F. J. R. Roore ...	" ...	"	" ...	Fm. 911 7.8.34 to 5.9.34	8.9.34
027 *† Clan Farquhar ...	R. M. Robertson	J. Browne ...	" ...	M.	Clan ...	" 19.5.34 to 11.8.34	18.8.34
050 *† Clan Macalister	F. J. Stenson, R.D., A.D.C., Capt., R.N.R.	H. Duncan, E. E. Arthur ...	E. Harvey ...	S.	" ...	Fms. 911 & 138 30.7.34 to 16.11.34	27.11.34
241 *† Clan Macbeth ...	H. Andrews ...	H. Whitehead, A. V. Howard, P. N. Colepeper.	G. Barrett ...	"	" ...	" 1.4.34 to 16.7.34	9.8.34
222 *† Clan Macdougall	L. F. Redford, R.N.R.	D. F. Sutton, S. G. Cresswell, E. Jenkin.	S. Simpson ...	"	" ...	" 9.6.34 to 1.9.34	11.9.34
287 *† Clan Macfarlane	W. J. Hughes ...	J. H. Wright, J. R. Moss	R. Lowther ...	"	" ...	" 1.8.34 to 7.10.34	16.10.34
118 *† Clan Macindoe...	H. E. G. Scott-Smith, O.B.E., R.D., R.N.R.	J. B. Sparkes, T. N. Soane, C. R. Wheat.	W. C. Munro ...	"	" ...	" 12.4.34 to 3.7.34	4.8.34
Clan Macnair ...	W. G. Holman...	R. Armstrong.	" ...	"	" ...	Fm. 911 11.9.34 to 2.10.34	6.11.34
255 *† Clan Macneil ...	A. Low ...	H. F. Town, B. H. Magill, E. Coultas.	A. Haslam ...	"	" ...	Fms. 911 & 138 22.8.34 to 25.10.34	27.10.34
001 *† Clan Macphee ...	A. R. Cossar ...	J. Dulson, R. G. Bagnall, H. Hind.	J. D. Marshall...	"	" ...	" 7.8.34 to 10.10.34	15.10.34
168 *† Clan Mactaggart	W. F. West ...	H. R. Crosscombe, R. D. Helme J. A. Ward	G. L. Brown ...	"	" ...	" 13.6.34 to 24.10.34	30.10.34
002 *† Clan Macwhirter	R. Hinton Browne ...	H. T. Watkins, J. O. O'Helier, W. H. Ball.	C. A. Kerr ...	"	" ...	" 14.7.34 to 5.10.34	10.10.34
003 *† Clan Malcolm ...	J. Pollock ...	D. H. Brewer...	A. P. Goodman	"	" ...	" 3.6.34 to 4.9.34	6.9.34
283 *† Clan Morrison ...	R. P. Galer, R.D., Commr., R.N.R.	A. Hambly, E. Croucher, J. Brodie.	A. R. Cox ...	"	" ...	" 27.4.34 to 12.8.34	17.8.34
279 *† Clan Urquhart ...	G. Young ...	W. M. Graham, ...	A. Butcher ...	M.	" ...	Fms. 911 & 138 12.8.34 to 29.8.34	25.9.34
041 *† Clydebank M.V.	G. Sutherland ...	W. Mendus, F. J. Law, E. Needham.	A. Hastings ...	S.	A. Weir ...	" 20.7.34 to 16.10.34	26.11.34
124 *† Comerica	W. Broome ...	" ...	" ...	"	" ...	" ...	" ...
016 *† Comliebank, M.V.	S. Currie ...	C. R. Aitken, L. St. J. French, J. Mackay.	J. Cunningham	"	" ...	Fms. 911 & 138 7.7.34 to 12.8.34	7.9.34
185 †† Comorin ...	C. W. Cartwright, D.S.C.	H. S. Wood, J. Sims, F. D. Shaw.	R. V. Gregory ...	M.-S.	P. & O. ...	" 19.8.34 to 22.11.34	28.11.34
198 *† Contractor ...	D. L. Whyte ...	A. L. Cottier, J. H. Roberts, R. L. Bryde.	J. M. Lewis ...	M.	Harrison ...	" 31.8.34 to 1.10.34	10.10.34
187 *† Coptic, M.V. ...	D. Christie ...	R. H. Barnes, S. Wallis, R. R. L. Rosoman.	T. Todd ...	S.	Shaw Savill & Albion.	Fm. 915 4.7.34 to 28.10.34	6.11.34
258 †† Corfu ...	F. E. French, R.D., Capt., R.N.R.	C. S. Cooke, D. M. F. Lombard, J. T. Sheffield.	R. V. McCreath	M.-S.	P. & O. ...	Fms. 911 & 138 29.7.34 to 7.11.34	26.11.34
Cornwall ...	H. E. Reilly ...	G. Dibley, A. Brown, W. W. Wakeford.	" ...	M.L.	Federal ...	Fm. 915 28.3.34 to 7.7.34	21.7.34
006 *† Coronado ...	R. A. Thorburn, R.D., Commr., R.N.R.	W. Ireland, W. J. Dodd ...	R. Oakley ...	S.	Elders & Fyffes	Fm. 911 14.9.34 to 23.11.34	28.11.34
214 *† Counsellor ...	J. Jackson ...	E. B. Stephens, A. J. Turner, A. A. Johnson.	H. Edwin ...	M.	Harrison ...	Fms. 911 & 138 17.6.34 to 25.8.34	29.8.34
036 *† Cumberland ...	T. L. Maltby ...	N. A. Thomas, N. A. Blount, R. A. Bellfield.	E. Slater ...	S.	Federal ...	" 14.2.34 to 16.5.34	24.5.34
285 *† Custodian ...	T. O'Connor ...	H. Fitzsimmons, W. Pemberton, F. Bryant.	W. H. Golds-worthy.	M.	Harrison ...	" 22.5.34 to 12.8.34	28.8.34
169 *† Dalgoma ...	P. H. Beeching ...	J. Marsland, T. A. Robinson, R. A. Lord.	J. B. Cleave ...	"	British India ...	" 21.8.34 to 5.10.34	9.10.34
Dearne ...	T. H. Woodhead ...	H. Robinson, F. Sherwood, E. E. Lea.	" ...	M.L.	Goole Stm.Shipping	Fm. 915 3.3.34 to 12.8.34	25.8.34
Deebank ...	J. Robertson ...	H. E. Cormack ...	" ...	"	A. Weir ...	" 23.5.34 to 28.9.34	5.10.34
138 *† Designer ...	W. A. Hansen ...	G. J. Crispin ...	H. Raw ...	M.	Harrison ...	Fms. 911 & 138 7.6.34 to 2.7.34	30.7.34
061 *† Devon ...	J. Blencowe ...	J. MacFall ...	" ...	"	British India ...	" ...	" ...
Diplomat ...	W. E. Harraden ...	F. W. Page, H. Jones ...	" ...	"	Harrison...	Fm. 911 28.8.34 to 15.11.34	30.11.34
284 *† Director ...	B. Worthington ...	O. H. Goddard, J. R. Cowell, A. Robertson.	W. Davidson ...	"	" ...	Fms. 911 & 138 2.7.34 to 5.9.34	10.9.34
Discoverer ...	W. Rowberry ...	E. P. Simmons, W. G. Imrie	" ...	"	" ...	Fm. 911 4.8.34 to 31.10.34	6.11.34
251 *† R.R.S. Discovery II.	A. L. Nelson ...	R. Walker, H. Kirkwood, L. C. Hill.	A. Morriss ...	M.L.	Falkland Is. Govt.	Fm. 915 11.2.34 to 27.5.34	16.7.34
221 *† Domala M.V. ...	J. Endersby ...	W. R. Day, J. Miller, C. W. Leadbetter.	R. H. James ...	M.	British India ...	Fm. 911 9.8.34 to 11.11.34	15.11.34

Name of Vessel.	Captain.	Observing Officers.	Senior Wireless Operator.	Meteorological Instrument Equipment.	Line.	Logs, Registers, or Records Contributed. 7.9.34 to 1.12.34.	Date Last Return Received.
136 *† <i>Doric Star</i> ...	S. N. Capon ...	G. L. Evans, M. C. O'Hare, E. A. Irvine.	G. A. Dobson ...	M.	Blue Star ...	Fms. 911 & 138 6.2.34 to 16.5.34	28.5.34
058 *† <i>Dorset</i> , M.V. ...	F. Ashworth ...	... ..	... ..	"	Federal ...	... ..	... ..
275 *† <i>Dramatist</i> ...	A. J. Meek ...	B. P. Longster, C. V. Watts, R. L. Williams.	R. Cramborne ...	"	Harrison ...	Fms. 911 & 138 24.8.34 to 22.10.34	3.11.34
142 †† <i>Duchess of Atholl</i> ...	G. F. McCombie, R.D., R.N.R.	R. Walgate, C. E. Duggan, E. V. Glennie.	E. Murphy ...	M.-S.	Canadian Pacific	" " 9.9.34 to 22.11.34	27.11.34
152 †† <i>Duchess of Bedford</i> ...	J. Turnbull, C.B.E., R.D., Commodore, R.N.R.	L. Outram, E. J. Oatridge, W. Hardy.	S. H. Sinclair ...	"	" " {	Fm. 91 " 26.8.34 to 8.11.34 26.8.34 to 11.10.34	12.11.34 15.10.34
151 †† <i>Duchess of Richmond</i> ...	A. Rothwell ...	W. P. P. Phillips, N. Scallan, M. Duck.	T. J. O'Regan ...	"	" " {	Fms. 911 & 138 16.9.34 to 1.11.34 Fm. 912 16.9.34 to 3.10.34	3.11.34 6.10.34
143 †† <i>Duchess of York</i> ...	E. Griffith, R.N.R.	C. D. Watt, J. Stewart, A. Mackie.	J. Potts... ..	"	" "	Fms. 911 & 138 2.9.34 to 15.11.34	19.11.34
253 *† <i>Dumana</i> ...	H. T. Hudson, R.D., Commr., R.N.R.	W. M. Bain, A. H. Usher, L. O. Harbrow.	A. Emslie ...	M.	British India ...	" " 26.7.34 to 21.8.34	8.10.34
098 †† <i>Dunbar Castle</i> , M.V. ...	A. H. Blackman ...	L. H. Farrow, D. McKenzie	P. P. Williams...	S.	Union Castle ...	" " 18.8.34 to 20.10.34	26.10.34
052 *† <i>Dunster Grange</i> , M.V. ...	G. F. Wilson ...	E. G. Raynor, R. G. Williams, E. Monckton.	G. E. Norrish ...	M.	Houlder ...	" " 29.7.34 to 4.10.34	22.10.34
102 *† <i>Duquesa</i> ...	C. R. Frost ...	A. McEwan, R. F. Martin, D. Murray.	H. Croker ...	"	Furness Withy ...	" " 16.9.34 to 14.11.34	19.11.34
215 *† <i>Durenda</i> , M.V. ...	A. A. Parker ...	J. W. Douglas, G. Thornton.	P. McHugh ...	"	British India ...	" " 11.6.34 to 19.10.34	12.11.34
064 *† <i>Durham</i> , M.V. ...	H. L. Upton, D.S.C., R.D., Commr., R.N.R.	C. W. Guille ... ..	... ..	"	Federal ...	... ..	...
<i>Eastern Coast</i> ...	W. Quirk ...	C. E. Martin, F. Darby, J. T. Williams.	... ..	M.L.	Coast Lines ...	Fm. 915 13.1.34 to 3.7.34	17.7.34
077 †† <i>Edinburgh Castle</i> ...	C. N. Bickford ...	M. S. Hodson ...	A. G. Blow ...	S.	Union Castle ...	Fms. 911 & 138 4.8.34 to 25.11.34	27.11.34
107 *† <i>El Argentino</i> , M.V. ...	F. Ellis, D.S.C.	G. Brighton, C. G. Adlard, J. Freeman.	A. Stratton ...	M.	Houlder ...	" " 19.8.34 to 16.10.34	22.10.34
009 *† <i>Elmworth</i> , M.V. ...	A. W. Gofton ...	L. Lidguard, P. McFarlane, A. H. Compton.	L. Cushion ...	"	R. S. Dalgleish ...	" " 9.8.34 to 3.10.34	27.10.34
109 *† <i>El Paraguay</i> ...	R. Owen ...	G. Fletcher, F. G. Rice, R. L. Aldridge.	J. Hunt... ..	"	Houlder ...	" " 11.6.34 to 9.8.34	18.8.34
108 *† <i>Elstree Grange</i> ...	S. Mathews ...	C. Feaver, W. F. Heritage ...	A. E. George ...	"	" " ...	" " 29.8.34 to 20.10.34	7.11.34
110 *† <i>El Uruguayo</i> ...	T. McNamara ...	F. E. Hallstone ...	R. C. Smith ...	"	" " ...	" " 6.8.34 to 12.10.34	18.10.34
088 *† <i>Empire Star</i> ...	G. Owen, R.D., Commr., R.N.R.	J. L. Dawson, F. W. B. Gaubert, J. N. Wilson.	A. H. Walley ...	S.	Blue Star ...	" " 21.11.33 to 18.2.34	9.3.34
034 †† <i>Empress of Britain</i> ...	R. N. Stuart, V.C., D.S.O., R.D., Commr., R.N.R.	D. Dunn, A. C. Harrison, A. H. Piggott.	L. B. Cleary ...	"	" " ... {	Fm. 912 " 26.8.34 to 31.10.34 26.8.34 to 31.10.34	3.11.34 3.11.34
154 †† <i>Empress of Canada</i> ...	W. T. Kinley ...	W. C. Halliday, G. E. Morrell, E. Evelyn	R. D. Thomas ...	M.L.	" " ...	Fm. 915 7.4.34 to 22.8.34	25.9.34
153 †† <i>Empress of Japan</i> ...	L. D. Douglas, R.D., R.N.R.	A. Kennedy, J. S. Clarke, T. Macduff.	J. McLure ...	"	" " ...	" 6.4.34 to 25.7.34	29.8.34
134 *† <i>Esperance Bay</i> ...	R. McKenzie ...	H. P. Last, R. Grant, A. E. Smith.	A. Stander ...	M.	Aberdeen Commonwealth.	Fms. 911 & 138 27.8.34 to 18.9.34	28.9.34
<i>Fordsdale</i> ...	J. Avern, Commr., R.N.R.	L. B. Miller, D. Ashley-Emile, J. Tillatt.	... ..	M.L.	Shaw Savill ...	" " 23.7.34 to 11.11.34	16.11.34
239 *† <i>Foylebank</i> ...	C. D. Logie ...	H. Ingledew, R. N. Wilkie, J. MacCallum.	J. McAlease ...	S.	A. Weir ...	" " 10.9.34 to 29.9.34	27.10.34
159 *† <i>Fresno City</i> ...	B. D. Thomas ...	B. E. Duffield, F. W. P. Davies, C. S. Whitticombe.	T. Prenton ...	"	Reardon Smith ...	" " 30.4.34 to 2.6.34	26.7.34
186 †† <i>Georgic</i> , M.V. ...	F. F. Summers, R.D., Commr., R.N.R.	W. G. B. Jones, B. Harrison, J. Farrell.	H. A. Reid ...	"	Cunard White Star {	Fm. 912 " 24.8.34 to 9.11.34 24.8.34 to 15.9.34	13.11.34 18.9.34
234 *† <i>Glaucus</i> ...	W. B. Ewan ...	O. Thomas, F. O. Browning, T. R. Walker.	J. C. Wilson ...	M.L.	A. Holt ...	Fm. 915 11.1.34 to 29.5.34	19.7.34
026 *† <i>Glenbank</i> , M.V. ...	E. N. K. Blackmore ...	C. Sherwood, W. McBean, W. Thorne.	W. Williamson...	S.	A. Weir ...	Fms. 911 & 138 21.7.34 to 23.8.34	25.9.34
126 *† <i>Glengarry</i> , M.V. ...	J. Angier ...	R. W. Brooks, P. G. Neill, S. W. Bell.	J. E. Kemp ...	M.	Glen ...	" " 21.5.34 to 2.9.34	5.9.34
085 *† <i>Governor</i> ...	J. Davidson ...	A. Watson, G. Greaves ...	G. F. Peel ...	"	Harrison ...	" " 10.6.34 to 21.8.34	27.8.34
111 *† <i>Hardwicke Grange</i> ...	W. H. Fowler ...	W. L. Baker, A. O. Seybold, W. E. Ellis.	A. Turner ...	"	Houlder ...	" " 26.2.34 to 7.8.34	8.9.34
218 *† <i>Harmonides</i> ...	F. R. Elwell ...	C. Hare, L. C. Higgins, M. H. Gerrey.	W. S. Armstrong	S.	R. P. Houston ...	" " 6.8.34 to 8.11.34	16.11.34
262 *† <i>Hauraki</i> , M.V. ...	E. Harris ...	H. J. P. Weston, J. E. Warwick, W. McGarry.	L. Trenn ...	M.L.	Union S.S. Co., N.Z. Federal ...	Fm. 915 19.5.34 to 23.8.34	2.11.34
<i>Hertford</i> ...	E. R. Kemp ...	H. K. Cockerill, N. L. Warren, A. B. Goord.	P. Moroney ...	"	" " ...	" 10.3.34 to 23.6.34	27.6.34
<i>Hibernia</i> ...	J. R. Bulmer ...	R. Woodall ...	... ..	S.	L.M. & S. Railway	Telegraphic Report 24.11.34	24.11.34
182 †† <i>Highland Brigade</i> ...	C. A. Cocks, D.S.C., R.D., Capt., R.N.R.	W. Wrake, S. Woolley, J. I. James.	A. Reynolds ...	M.S.	Royal Mail ...	Fms. 911 & 138 20.9.34 to 4.11.34	9.11.34
116 †† <i>Highland Chieftain</i> , M.V. ...	D. Collings ...	P. R. Burrell, G. S. Grant, G. Leach.	J. Malcolm ...	"	" " ...	" " 23.8.34 to 6.10.34	15.10.34
099 †† <i>Highland Monarch</i> , M.V. ...	R. G. Clayton, D.S.C., R.D., Capt., R.N.R.	R. N. Fletcher, E. V. Scullard, J. H. Fitton.	E. F. Weatherhead.	"	" " ...	" " 6.8.34 to 25.9.34	1.10.34
230 †† <i>Highland Patriot</i> ...	R. A. Robinson ...	P. Yeatman, W. B. Sennen	J. Hylton ...	"	" " ...	" " 25.7.34 to 19.11.34	28.11.34
250 †† <i>Highland Princess</i> , M.V. ...	O. V. Schlanbusch ...	F. E. C. Cox, H. Davies, W. S. Thomas.	H. Morgan ...	"	" " ...	" " 6.9.34 to 21.10.34	31.10.34
075 *† <i>Hobson's Bay</i> ...	T. V. Roberts, R.D., Commr., R.N.R.	F. Charnley, W. Williams, R. Hamilton.	A. R. Porter ...	M.	Aberdeen Commonwealth.	" " 10.5.34 to 11.8.34	16.8.34
261 *† <i>Huntingdon</i> ...	H. G. B. Field ...	C. Cremin, C. W. Roberts, E. R. Rae.	A. R. Mugridge	S.	Federal ...	" " 9.8.34 to 15.9.34	1.10.34
200 *† <i>Huntsman</i> ...	H. Russell ...	C. P. Vaughan, D. H. Bryant	H. Smith ...	M.	Harrison ...	" " 30.6.34 to 27.9.34	15.10.34
260 *† <i>Inanda</i> ...	W. H. Gibbings ...	T. E. Steele, W. S. Eustance, D. N. Penfold.	E. J. Cook ...	"	" " ...	" " 16.8.34 to 23.10.34	27.10.34
<i>Ingoma</i> ...	J. T. Ling ...	... ..	... ..	"	" " ...	... ..	...
144 *† <i>Inverbank</i> , M.V. ...	W. Forsyth ...	... ..	... ..	S.	A. Weir ...	... ..	...

FLEET LIST

V

Name of Vessel.	Captain.	Observing Officers.	Senior Wireless Operator.	Meteorological Instrument Equipment.	Line.	Logs, Registers, or Records Contributed. 7.9.34 to 1.12.34.	Date Last Return Received.
189 †† <i>Ionic</i> ...	W. H. P. Jackson ...	N. E. Banks ...	S. A. Sorrell ...	S.	Shaw, Savill & Albion	Fms. 911 & 138 19.5.34 to 2.9.34	5.9.34
<i>Ixion</i> ...	C. J. Watson ...	B. Kelly, H. H. Sanderson, J. D. Auld.	... ..	M.L.	A. Holt ...	Fm. 915 12.7.34 to 30.9.34	7.11.34
226 *† <i>Japanese Prince</i> , M.V.	J. Smith ...	W. M. Henry, J. H. King, L. W. Cooper.	J. Everitt ...	"	Prince ...	" 10.1.34 to 24.7.34	29.8.34
188 †† <i>Kaisar-i-Hind</i> ...	W. A. Cotching ...	H. N. Thompson, H. William- son, A. E. Clay.	E. Harbutt ...	M.-S.	P. & O. ...	Fms. 911 & 138 12.8.34 to 8.11.34	26.11.34
206 *† <i>Karama</i> , M.V....	E. Davies ...	W. Hill, N. S. Milne, R. J. McKenzie.	W. P. Collins ...	S.	Shaw Savill & Albion.	Fm. 915 7.6.34 to 21.9.34	2.10.34
281 *† <i>Kemmendine</i> ...	R. B. Reid ...	C. R. Roy ...	... ..	M.	Henderson ...	Fm. 911 16.6.34 to 30.8.34	5.9.34
147 †† <i>Laconia</i> ...	B. B. Oram, R.D., Commr., R.N.R.	J. Ashcroft, J. C. Boyce, N. Kingscote.	K. Greenall ...	S.	Cunard White Star	Fms. 911 & 138 20.8.34 to 3.11.34	7.11.34
193 *† <i>Lahore</i> ...	A. E. Salway ...	D. I. Spencer, S. R. Eva, R. A. Fraser.	H. J. Close ...	M.	P. & O. ...	" " 9.7.34 to 29.9.34	5.10.34
062 †† <i>Lancastria</i> ...	G. R. Dolphin, R.D., Commr. R.N.R.	J. C. Dawson ...	... ..	S.	Cunard White Star	" " 10.9.34 to 21.10.34	23.10.34
082 *† <i>La Paz</i> , M.V. ...	W. J. Good ...	G. Pattison, S. E. Ayland ...	F. Tunnard ...	M.	Pacific S.N. Co. ...	" " 3.1.34 to 4.4.34	10.4.34
076 *† <i>Larys Bay</i> ...	W. M. Jemyn ...	C. Meyer, ...	... ..	"	Aberdeen Com- monwealth.	" " 20.7.34 to 23.10.34	30.10.34
112 *† <i>La Rosarina</i> ...	L. Bearpark ...	T. C. Townsend, S. W. Howell, H. Powell.	H. Delve ...	"	Houlder ...	" " 13.5.34 to 20.7.34	23.7.34
267 *† <i>Lassell</i> ...	J. M. Lindesay ...	R. L. Hagley ...	... ..	S.	Lampart & Holt	" " 23.7.34 to 17.6.34	1.11.34
100 †† <i>Laurentic</i> ...	W. S. Quinn ...	A. Thompson, F. W. Laws, R. A. Roberts.	W. Davies ...	"	Cunard White Star	" " 2.9.34 to 20.9.34	22.9.34
083 *† <i>Lautaro</i> , M.V. ...	F. D. Cox ...	J. Williams, E. C. Hicks ...	W. Findlay ...	M.	Pacific S.N. Co. ...	" " 25.4.34 to 24.8.34	28.8.34
093 *† <i>Levernbank</i> , M.V.	W. W. Elliott ...	W. H. Timberlake, J. Small- wood, J. E. Clarke.	J. Gillespie ...	S.	A. Weir ...	" " 7.9.34 to 11.11.34	16.11.34
254 *† <i>Limerick</i> , M.V....	A. J. Angell ...	W. B. Clark ...	A. E. Hunter ...	M.	Federal ...	Fms. 911 & 138 11.2.34 to 11.6.34	5.7.34
093 *† <i>Llandaff Castle</i> ...	H. L. Scholefield ...	A. G. Bidwell, D. Campbell, J. Sowden.	... ..	S.	Union Castle ...	" " 13.8.34 to 13.10.34	22.10.34
094 *† <i>Llandovery Castle</i>	J. MacMahon, R.D., Commr., R.N.R.	H. R. Northwood ...	J. Gilbert ...	"	" " ...	" " 14.7.34 to 15.9.34	22.9.34
097 †† <i>Llangibby Castle</i> , M.V.	W. Weller ...	S. S. Smith, J. A. Wilson ...	H. W. Langshaw	"	" " ...	" " 24.6.34 to 18.8.34	29.8.34
216 *† <i>Llanstephan Castle</i>	J. H. Kirkwood ...	E. F. Potter, A. C. Taylor, J. D. Richards.	R. H. Taff ...	M.	Pacific S.N. Co. ...	" " 1.5.34 to 10.8.34	13.8.34
084 *† <i>Lobos</i> , M.V. ...	R. J. Herschel ...	L. Seddon, T. W. Kent ...	R. H. Taylor ...	"	Harrison ...	" " 10.9.34 to 18.11.34	26.11.34
137 *† <i>Logician</i> ...	R. E. Dunn, O.B.E.	A. Lyall ...	A. Fairweather	"	Pacific S.N. Co. ...	" " 19.7.34 to 28.10.34	2.11.34
008 *† <i>Losada</i> , M.V. ...							
232 *† <i>Madura</i> ...	J. A. Wright ...	C. W. Allerton, A. W. Willis, K. R. C. Letts.	H. O. Francis ...	"	British India ...	" " 7.6.34 to 15.8.34	18.8.34
078 *† <i>Magician</i> ...	A. G. Peterkin ...	W. E. Shotton, H. G. Skelley	... ..	"	Harrison ...	" " 3.9.34 to 15.11.34	19.11.34
231 *† <i>Mahana</i> ...	J. M. Cameron...	H. M. Thompson, C. C. Good, C. L. Carroll.	R. L. Salway ...	S.	Shaw Savill & Albion.	Fm. 915 24.5.34 to 2.9.34	11.9.34
101 *† <i>Mahia</i> ...	C. M. Andrews...	R. A. Costa, B. D. Atkin, R. K. Bolton.	R. Bell ...	"	" " ...	Fms. 911 & 138 13.3.34 to 22.6.34	4.7.34
140 *† <i>Mahratta</i> ...	W. Hill ...	H. F. Scoins, N. Grayson, W. Couling.	P. F. Dunford ...	M.	Brocklebank ...	" " 11.9.34 to 13.10.34	6.11.34
014 *† <i>Mahrona</i> ...	R. G. Hanna ...	J. B. Leigh, M. R. Melville, J. B. Newman.	W. Ritch ...	"	" " ...	" " 30.8.34 to 16.9.34	15.10.34
242 *† <i>Mahseer</i> ...	T. A. Tyson ...	H. Dart, V. Froebel ...	J. Caddy ...	"	" " ...	" " 22.5.34 to 27.9.34	8.10.34
015 *† <i>Mahsud</i> ...	R. W. Kershaw ...	H. Gillespie, J. R. Paisley, C. A. Jackson.	G. D. Plant ...	"	" " ...	" " 16.7.34 to 12.11.34	16.11.34
042 *† <i>Maimoa</i> ...	H. P. Thurston ...	J. A. McNab, A. Turnbull, A. S. Anthes.	R. Small ...	S.	Shaw Savill & Albion.	" " 14.3.34 to 9.7.34	18.7.34
054 †† <i>Majestic</i> ...	R. B. Irving, O.B.E. R.D., Capt., R.N.R.	R. B. O'Brien, J. P. Evans, A. H. Young.	J. R. Thomson...	"	Cunard White Star	" " 30.8.34 to 8.11.34	10.11.34
018 *† <i>Makalla</i> ...	L. T. Owen ...	J. Richardson, A. Hill, A. G. Gorham.	W. Fallowfield	M.	Brocklebank ...	" " 6.9.34 to 4.10.34	6.11.34
225 *† <i>Makura</i> ...	D. MacDonald ...	N. H. Pearson, S. H. Craw- ford, J. N. Collins.	E. J. Gough ...	M.L.	Canadian- Australasian	Fm. 915 18.1.34 to 14.5.34	11.7.34
236 *† <i>Malayan Prince</i>	E. Harcastle ...	C. S. Smith, W. R. Harries, J. Baird.	A. A. Lees ...	"	Prince ...	" " 5.5.34 to 11.9.34	21.11.34
219 *† <i>Malda</i> ...	F. Caffyn ...	V. R. Christmas, R. A. Crozin, L. A. Wintle.	— Littlecote ...	M.	British India ...	Fms. 911 & 138 5.5.34 to 26.7.34	30.7.34
195 †† <i>Maloja</i> ...	J. B. Browning, R.D., Commr., R.N.R.	J. D. Green, P. Howarth, H. M. Askin.	A. Macbeth ...	M.-S.	P. & O. ...	" " 28.7.34 to 31.10.34	8.11.34
<i>Mamari</i> ...	W. B. Starr, R.D., Commr., R.N.R.	R. M. Pattinson ...	... ..	M.L.	Shaw Savill & Albion.	... ..	...
146 *† <i>Mandasor</i> ...	L. C. Shore ...	G. C. Cullen, E. Williams, A. Horspool.	R. H. Jones ...	M.	Brocklebank ...	Fms. 911 & 138 5.7.34 to 6.10.34	29.10.34
177 *† <i>Mantola</i> ...	D. F. James ...	J. Small, J. Duncan, L. J. Kew.	J. A. Vallance ...	"	" " ...	" " 1.8.34 to 15.10.34	23.10.34
197 †† <i>Mantua</i> ...	J. M. Legg ...	J. Paice, N. W. Leach, W. Jolliffe.	F. Hervey ...	M.-S.	P. & O. ...	" " 29.7.34 to 25.10.34	9.11.34
<i>Maron</i> , M.V. ...	J. A. Stewart ...	M. Turner, J. Holden, J. McCarthy.	... ..	M.L.	A. Holt ...	Fm. 915 12.4.34 to 8.9.34	16.10.34
104 *† <i>Marquesa</i> ...	R. Smiles ...	J. Allerton, F. Feint, G. Jen- nings.	J. Lyons ...	M.	Furness Houlder	Fms. 911 & 138 1.7.34 to 7.9.34	10.9.34
213 †† <i>Mashobra</i> ...	W. A. J. Welsh ...	W. D. L. Reves, L. W. Scott	F. Rose ...	M.-S.	British India ...	" " 1.4.34 to 21.6.34	20.7.34
021 *† <i>Masula</i> ...	H. Dawes, D.S.O., O.B.E.	P. Vaughan, J. W. King, R. Potter.	W. Beatty ...	M.	" " ...	" " 12.8.34 to 25.10.34	7.11.34
217 *† <i>Matakana</i> ...	F. A. Orriss ...	W. A. Sims-Reeves, H. Howe, D. Masters.	N. Kinder ...	S.	Shaw Savill & Albion.	" " 17.6.34 to 13.10.34	24.10.34
235 †† <i>Mataroa</i> ...	A. McIntosh ...	E. B. Macfarren ...	... ..	"	Brocklebank ...	Fms. 911 & 138 23.8.34 to 30.10.34	7.11.34
023 *† <i>Matheran</i> ...	H. D. Fulcher ...	W. Spencer, R. Penston, T. Johnston.	J. Heathcote ...	M.	" " ...	" " 23.8.34 to 30.10.34	7.11.34
223 *† <i>Matiana</i> ...	L. D. Patterson ...	A. H. Baird, J. W. Dwane, J. Bridgeman.	K. Alston ...	"	British India ...	" " 5.7.34 to 15.9.34	22.10.34
024 *† <i>Matra</i> ...	N. P. Cornish ...	A. E. Austin, T. F. Eggleston, C. Parry.	E. R. Copps ...	"	Brocklebank ...	" " 30.7.34 to 24.10.34	2.11.34

Name of Vessel.	Captain.	Observing Officers.	Senior Wireless Operator.	Meteoro-logical Instrument Equip-ment.	Line.	Logs, Registers, or Records Contributed. 7.9.34 to 1.12.34.	Date Last Return Received.
278 *† <i>Middlesex</i> ...	H. T. Wilde ...	E. G. Williams, C. Coraran, H. I. Phillips.	J. McCarthy ...	S.	Federal ...	Fms. 911 & 138 30.1.34 to 19.4.34	27.6.34
194 †† <i>Moldavia</i> ...	C. H. C. Allin ...	H. Toon, W. Alexander, R. Perry.	J. W. Quain ...	M.-S.	P. & O. ...	" " 9.9.34 to 3.10.34	12.11.34
199 †† <i>Mongolia</i> ...	H. R. Rhodes ...	H. M. Flint, G. Aspinall, T. Hopkins.	A. Morris ...	"	" ...	" " 11.8.34 to 14.11.34	21.11.34
148 †† <i>Montcalm</i> ...	H. A. Moore, R.D., Commr., R.N.R.	F. W. Roberts, D. Ewing ...	J. Biggins ...	"	Canadian Pacific	" " 2.9.34 to 11.10.34	13.10.34
149 †† <i>Montclare</i> ...	M. F. Murray ...	W. Thorburn, A. Tibbett, B. Russell.	H. A. Bowman	"	" "	" " 31.8.34 to 18.10.34	20.10.34
150 †† <i>Montrose</i> ...	A. H. Hall ...	E. F. Aikman, W. J. Roberts	A. G. Hill ...	"	" "	2.9.34 to 27.10.34	6.11.34
164 †† <i>Mooltan</i> ...	E. P. Lyndon, R.D., R.N.R.	J. M. Sinclair, A. D. Dennis, M. A. Trenfield.	J. E. Marsh ...	"	P. & O. ...	Fm. 912 11.10.34 to 27.10.34	5.11.34
196 †† <i>Mulbera</i> ...	L. W. Leaske, R.D., R.N.R.	P. M. Wilson, E. J. Studart, J. L. Williams.	G. Penketh ...	"	British India ...	Fms. 911 & 138 5.5.34 to 8.8.34	13.8.34
<i>Myrtlebank</i> , M.V.	A. Niblock ...	... ..	... ..	S.	A. Weir ...	23.8.34 to 10.10.34	19.10.34
073 *† <i>Nagara</i> ...	S. Weller ...	F. Fraser, J. L. Smith ...	E. G. Blackburn	M.	Royal Mail ...	Fms. 911 & 138 14.9.34 to 31.10.34	6.11.34
201 †† <i>Naldera</i> ...	R. C. Dene ...	E. J. R. North, F. W. J. Pearce, E. R. Physick.	R. T. Soans ...	S.	P. & O. ...	" 17.8.34 to 12.11.34	17.11.34
<i>Nankin</i> ...	N. B. Skinner ...	B. W. Dun, J. H. Simpson, B. S. Johnson	... ..	M.L.	Eastern and Aus- tralian.	Fm. 915 2.5.34 to 23.7.34	2.10.34
227 *† <i>Nardana</i> ...	C. Dorking White ...	H. Goater, W. Clarke, R. G. Mulhallen.	R. Rawcliffe ...	M.	British India ...	Fms. 911 & 138 2.6.34 to 23.10.34	8.11.34
202 †† <i>Narkunda</i> ...	F. Sudell, R.D., Commr., R.N.R.	H. C. Slinn, G. Randall, C. H. Moulton.	H. Varley ...	M.-S.	P. & O. ...	" " 2.6.34 to 6.9.34	10.9.34
<i>Nascopie</i> ...	T. F. Smellie ...	A. J. Randall, R. Stephen.	... ..	S.	Hudson's Bay Co.	Fm. 911 8.7.34 to 30.9.34	19.10.34
286 *† <i>Natia</i> ...	E. W. Bridges ...	T. Davies, F. S. Davison ...	G. A. Doreing ...	M.	Royal Mail ...	Fms. 911 & 138 25.7.34 to 15.9.34	18.9.34
<i>Nellore</i> ...	C. H. G. Lorriard, M.C.	G. E. Smith, H. E. Nuzum, J. H. Armstrong.	... ..	M.L.	Eastern and Aus- tralian.	Fm. 915 2.6.34 to 26.8.34	23.11.34
019 *† <i>Nerbudda</i> ...	J. Blencowe ...	K. H. Goodman, H. C. Turner, B. C. Brooking.	R. O'Shaugh- nessy.	M.	British India ...	Fms. 911 & 138 31.7.34 to 23.9.34	26.9.34
162 *† <i>Nestor</i> ...	F. Adecock ...	R. W. Aitken, H. Readshaw, L. Richards.	C. F. Townsend	S.	A. Holt ...	" " 13.8.34 to 14.9.34	15.10.34
210 *† <i>Niagara</i> ...	T. V. Hill ...	G. H. Kime, D. A. Menlove, J. W. S. Madden.	G. M. Power ...	M.L.	Canadian- Australasian.	Fm. 915 1.2.34 to 19.5.34	11.7.34
<i>Norfolk</i> ...	R. L. H. McNish, D.S.O., R.N.R.	H. Williamson, T. Windus, P. A. Block.	... ..	"	Federal ...	" 21.2.34 to 8.6.34	23.6.34
<i>Northern Coast</i> ...	H. Cameron ...	H. F. Thomson, B. C. Carlett	... ..	"	Coast Lines ...	... 29.3.34 to 27.8.34	3.9.34
<i>Northumberland</i>	A. E. Lettington ...	J. Marshall, D. Lyver, H. S. Cashmore.	... ..	"	Federal ...	24.3.34 to 20.7.34	24.7.34
<i>Observer</i> ...	J. Lowe...	W. Wearing, F. Harnden, C. A. Daly.	... ..	M.	Harrison...	Fm. 911 27.8.34 to 8.11.34	13.11.34
004 †† <i>Olympic</i> ...	J. W. Binks, R.D., R.N.R.	G. Brooks, H. S. Law, R. H. Shaw.	N. Clarke ...	S.	Cunard	Fms. 911 & 138 7.9.34 to 11.10.34	16.10.34
243 *† <i>Opawa</i> , M.V.	F. W. Robinson ...	J. McCulloch, J. C. Grose, H. S. Dawson.	F. W. Fowler ...	M.	New Zealand	Fm. 912 28.9.34 to 11.10.34	16.10.34
170 †† <i>Orama</i> ...	E. P. Cameron, R.D., Capt., R.N.R.	J. W. Mackay, L. W. Hodges, A. Addison.	J. W. Wilson	S.	Shipping.	Fms. 911 & 138 12.6.34 to 11.10.34	17.10.34
080 *† <i>Orari</i> ...	J. G. Almond ...	E. D. Gregory, F. A. Wilson, A. T. H. Weatherall.	W. E. Fordham	M.	Orient ...	Fm. 912 12.6.34 to 11.10.34	17.10.34
246 †† <i>Orbita</i> ...	M. Galloway ...	G. Gerety, A. Sissons	J. Whitehill ...	M.-S.	New Zealand	Fms. 911 & 138 2.7.34 to 18.9.34	2.10.34
087 †† <i>Orduña</i> ...	D. R. Morgan ...	W. Vickers, R. D. Eckford, D. I. Jones.	S. O'Neill ...	"	Shipping.	Fm. 911 2.5.34 to 27.8.34	4.9.34
171 †† <i>Orford</i> ...	A. L. Owens, R.D., Capt., R.N.R.	P. Sargent, K. M. Morrison, W. H. Barker.	A. F. Edwards...	"	Pacific S.N. Co.	Fms. 911 & 138 24.7.34 to 27.9.34	2.10.34
174 †† <i>Ormonde</i> ...	M. J. Sarson ...	C. E. Coles, J. M. Swanson, B. Paul.	B. Baxter ...	S.	" "	" " 12.5.34 to 25.8.34	28.8.34
172 †† <i>Oronsay</i> ...	C. G. Matheson, D.S.O., R.D., Commadore, R.N.R.	G. B. M. Jones, E. M. Mac- kay, J. N. Hulm.	P. Darby ...	"	Orient ...	" " 14.5.34 to 2.9.34	4.9.34
173 †† <i>Orontes</i> ...	F. R. O'Sullivan ...	F. S. Gray, R. W. Roberts, J. K. Johnson.	S. G. Boon ...	M.-S.	" ...	" " 25.1.34 to 5.3.34	5.4.34
105 †† <i>Orsova</i> ...	G. G. Thorne, R.D., Capt., R.N.R.	F. K. Manley, W. N. Smith, R. B. Stannard.	R. B. Knights...	S.	" ...	" " 27.5.34 to 29.8.34	7.9.34
156 †† <i>Otranto</i> ...	L. V. James, D.S.C. ...	G. R. Grandage, J. Birch, L. L. Lloyd Jones.	H. R. Cheese ...	M.-S.	" ...	" " 30.4.34 to 31.7.34	4.8.34
044 *† <i>Pacific Exporter</i>	C. E. Holland, Commr., R.N.R.	E. A. Tyrrell, C. Fryer ...	C. North ...	S.	Furness Withy ...	" " 20.3.34 to 14.6.34	20.6.34
277 *† <i>Pakeha</i> ...	E. T. Grayston, D.S.C., R.D., Commr. R.N.R.	T. H. Davies, C. A. Knox, B. D. Atkin.	T. J. A. Tynan	"	Shaw Savill & Albion.	" " 5.8.34 to 13.11.34	23.11.34
<i>Paris</i> ...	C. Manton ...	E. W. Smith ...	A. H. Jones ...	"	Southern Ry. ...	Telegraphic Report ... 19.10.34	19.10.34
<i>Penola</i> , Schooner.	R. E. D. Ryder, Lieut., R.N.	... ..	... ..	M.L.	British Graham Land Expedition.	... ..	...
204 *† <i>Peshawur</i> ...	E. P. Parfitt ...	S. Kerridge, H. Anderson, H. S. Allen.	... ..	M.	P. & O. ...	Fms. 911 & 138 3.9.34 to 15.10.34	19.11.34
039 *† <i>Planter</i> ...	A. H. Brown ...	J. C. Sinclair, G. Davies ...	J. L. Ryder ...	S.	Harrison ...	" " 1.7.34 to 10.10.34	15.10.34
040 *† <i>Port Adelaide</i> ...	R. Williams ...	E. G. Jones, W. E. Dingle, G. Puttick.	H. G. Cowan ...	"	Commonwealth & Dominion.	" " 26.6.34 to 23.10.34	3.11.34
238 *† <i>Port Alma</i> , M.V.	S. C. Cottell ...	T. L. Kidwell, W. B. Hopkins, A. L. Walton.	R. Tuck ...	"	" " "	Fm. 915 14.6.34 to 13.10.34	24.10.34
128 *† <i>Port Auckland</i> ...	C. A. Robinson ...	W. Easton, C. E. Midwinter, P. Bradnell.	S. Adams ...	"	" " "	Fms. 911 & 138 27.7.33 to 14.11.33	9.12.33
268 *† <i>Port Bowen</i> ...	A. H. Brown ...	R. Bottess, W. Craig, E. N. Howard.	... ..	"	" " "	" " 14.12.33 to 12.4.34	1.6.34
130 *† <i>Port Caroline</i> ...	G. S. Hall ...	J. S. Moate, R. Nicholl ...	J. P. B. Jeffery	"	" " "	" " 23.2.34 to 18.6.34	25.6.34
190 *† <i>Port Chalmers</i> , M.V.	S. W. Hayter ...	C. R. Townshend ...	... ..	"	" " "	... ..	...
131 *† <i>Port Darwin</i> ...	J. J. Hudson ...	P. Howe, H. Duckling, W. Wakefield.	J. S. Kinnaird ...	"	" " "	Fms. 911 & 138 20.2.34 to 22.5.34	2.6.34
072 *† <i>Port Denison</i> ...	H. C. Jeffery ...	E. Wheeler, H. B. Walker, A. G. Russell.	V. T. Cole ...	"	" " "	" " 4.3.34 to 11.7.34	23.7.34
<i>Port Dunedin</i> , M.V.	G. W. Hearn ...	L. C. Asser, F. W. Elgar, V. N. Ford.	W. B. Craig ...	M.L.	" " "	" " 8.3.34 to 6.7.34	11.7.34

FLEET LIST

vii

Name of Vessel.	Captain.	Observing Officers.	Senior Wireless Operator.	Meteorological Instrument Equipment.	Line.	Logs, Registers, or Records Contributed. 7.9.34 to 1.12.34.	Date Last Return Received.
010 *† <i>Port Fremantle</i> , M.V.	W. J. Enright, R.D., Commr., R.N.R.	A. Young, A. Holloway, G. Garner.	H. Lothian ...	S.	Commonwealth & Dominion	Fm. 915 31.3.34 to 15.7.34	17.8.34
163 *† <i>Port Gisborne</i> , M.V.	W. G. Higgs ...	R. B. Linklater, D. Watson, A. McClounan.	... ..	"	" " " "	Fm. 915 13.7.34 to 24.10.34	29.10.34
252 *† <i>Port Hardy</i> ...	J. Jack ...	D. F. Morgan, J. G. Thorn, W. D. Henderson.	K. H. Bond ...	"	" " " "	Fm. 912 13.7.34 to 24.10.34	29.10.34
<i>Port Hobart</i> , M.V.	T. Kippins ...	G. M. B. Lovegrove, L. E. Ring, P. Beaham.	... ..	M.L.	" " " "	Fms. 911 & 138 30.4.34 to 22.6.34	5.10.34
127 *† <i>Port Wellington</i>	R. S. Durham, D.S.C....	A. J. Knell, E. Rogerson, R. R. Russel.	... ..	S.	" " " "	Fm. 915 22.4.34 to 31.7.34	8.8.34
106 *† <i>Princesa</i> ...	A. B. Friend ...	E. Loughheed, O. S. Sheard, F. Poulson.	R. Shackleton ...	M.	Houlder ...	10.3.34 to 24.6.34	7.7.34
063 *† <i>Queen City</i> ...	R. V. Arkwright ...	J. W. Botterill ...	... ..	S.	Reardon Smith ...	Fms. 911 & 138 4.9.34 to 19.9.34	21.9.34
205 †† <i>Rajputana</i> ...	P. C. Headlam, R.D., Commr., R.N.R.	G. A. Webb S. H. Baldwin, K. W. Richardson.	W. Banbury ...	M.-S.	P. & O. ...	Fm. 911 14.5.34 to 20.7.34	1.10.34
228 †† <i>Ranchi</i> ...	C. E. Short ...	T. T. Ferguson, J. P. McArthur, C. Hutchinson.	W. Stevenson ...	"	" " " "	Fms. 911 & 138 13.5.34 to 15.8.34	20.8.34
224 †† <i>Rangitane</i> ...	A. W. McKellar, R.D., Capt., R.N.R.	G. E. Law, S. R. Leggett, C. B. Cathie.	W. Smith ...	"	New Zealand Shipping	" " 9.9.34 to 1.11.34	3.11.34
257 †† <i>Rangitata</i> , M.V.	J. L. B. Hunter ...	R. S. Miller, R. S. Frost, V. Glassborow.	A. Dodman ...	"	" " " "	" " 30.6.34 to 2.10.34	15.10.34
240 †† <i>Rangitiki</i> , M.V.	H. Barnett ...	T. M. Devitt, C. A. Jones, R. Vincent.	L. V. Horn ...	"	" " " "	" " 10.8.34 to 28.10.34	14.11.34
207 †† <i>Ranpura</i> ...	G. H. S. Furlong, O.B.E., R.D., Capt., R.N.R.	G. Maclean, J. Peter, M. G. Morris.	J. S. Skinner ...	"	P. & O. ...	" " 2.6.34 to 2.9.34	8.9.34
071 †† <i>Rawalpindi</i> ...	R. H. Stringer, O.B.E., R.D., Commr., R.N.R.	E. G. May, W. L. Stockdale...	S. W. Sharp ...	"	" " " "	" " 23.6.34 to 28.9.34	9.10.34
247 *† <i>Recorder</i> ...	J. J. Egerton ...	W. P. Baker, A. S. Milne, F. W. Wallis.	R. Wardill ...	M.	Harrison ...	" " 5.8.34 to 5.11.34	14.11.34
132 *† <i>Reina del Pacifico</i> , M.V.	J. Ross ...	R. Bridson, J. K. Campbell, W. A. Hearle.	W. G. Sutherland	"	Pacific S.N. Co. ...	" " 16.7.34 to 25.9.34	2.10.34
<i>Remuera</i> ...	E. A. Holland ...	H. Hill, D. H. Clegg, J. C. Baker.	... ..	M.L.	New Zealand Shipping	" " 4.9.34 to 25.10.34	30.10.34
<i>Rhexenor</i> ...	C. F. Melling ...	C. T. Morgan, W. F. Lockhead, A. E. Bartlett.	... ..	"	A. Holt ...	Fm. 915 8.4.34 to 15.7.34	21.7.34
<i>Rosaura</i> , M.Y.,	H. M. S. Laidlaw, R.D., Commr., R.N.R.	... ..	... ..	"	Baron Moyne, P.C., D.S.O.	Fm. 912 17.3.34 to 29.7.34	12.9.34
<i>Rotorua</i> ...	C. B. Lamb ...	H. N. Lawson, J. Knott, R. H. Carter.	... ..	"	New Zealand Shipping	... .. 3.10.34	26.10.34
203 *† <i>Royal Star</i> ...	T. Williams ...	N. Clarkson, H. Arton, M. C. O'Hare.	J. Darling ...	M.	Blue Star ...	Fm. 915 3.8.34 to 22.11.34	29.11.34
<i>Ruahine</i> ...	G. Kinnell ...	A. Hocken, N. Baddeley, D. Martin.	... ..	M.L.	New Zealand Shipping	Fms. 911 & 138 29.6.34 to 11.10.34	19.10.34
<i>St. Helier</i> ...	R. Pitman ...	G. Cartwright ...	... ..	S.	G.W. Railway ...	Fm. 915 5.5.34 to 21.8.34	27.8.34
<i>St. Julien</i> ...	T. Richardson ...	T. D. Thomas, F. E. Martin	... ..	A.	Bunch Steam ...	Telegraphic Report 29.11.34	29.11.34
<i>St. Keverne</i> , S.T.	A. Hatton ...	... ..	... ..	"	Fishing Co. ...	... .. 18.10.34	18.10.34
046 †† <i>St. Patrick</i> ...	C. W. Sanderson ...	T. D. Thomas ...	... ..	S.	G.W. Railway ...	Fm. 911 12.8.34 to 10.9.34	19.9.34
<i>Samaria</i> ...	R. G. Malin, R.D., R.N.R.	J. H. Kenworthy ...	... ..	"	Cunard White Star	Fm. 912 18.8.34 to 22.8.34	18.9.34
<i>Scotia</i> ...	O. Plenge ...	R. I. Jones ...	... ..	"	L.M. & S. Railway	Telegraphic Report 1.9.34	1.9.34
033 †† <i>Seythia</i> ...	W. S. Quinn ...	W. M. Stewart, A. B. Fasting, W. J. Foster.	F. H. Williams...	"	Cunard White Star	... .. 27.10.34	27.10.34
211 *† <i>Shropshire</i> , M.V.	R. P. Mann ...	J. K. Gemmel, H. B. Peate, A. C. Muir.	D. McLellan ...	"	Bibby ...	Fms. 911 & 138 3.9.34 to 18.11.34	20.11.34
121 *† <i>Siamese Prince</i> , M.V.	E. E. Litchfield ...	W. A. Niven, H. J. Steele, R. M. Dennis	W. Childs ...	M.L.	Prince ...	" " 8.7.34 to 15.9.34	18.9.34
<i>Silverwalnut</i> , M.V.	J. Smith, R.N.R.	H. Rowe, W. J. Law, W. S. Wellford.	... ..	"	Thompson ...	Fm. 915 2.5.34 to 2.9.34	16.10.34
141 *† <i>Somerset</i> ...	E. R. Pilcher ...	H. M. Knight, B. C. Hamilton, J. N. A. Low.	A. E. Howard ...	S.	Federal ...	" " 19.4.34 to 20.8.34	12.10.34
<i>Spero</i> ...	W. A. Dossor ...	A. Kirk, G. Hodgson ...	... ..	M.L.	Ellerman Wilson	Fms. 911 & 138 25.12.33 to 6.5.34	22.5.34
020 *† <i>Stirlingshire</i> ...	F. T. Mee ...	R. E. Smallbone, E. G. G. Mobbs.	P. B. Allison ...	S.	Turnbull Martin...	Fm. 915 27.1.34 to 7.7.34	16.7.34
270 †† <i>Strathaird</i> ...	E. A. J. W. Carter R.D., R.N.R.	L. T. Brown, R. A. B. Kimp-ton.	F. W. Helm ...	"	P. & O. ...	Fms. 911 & 138 27.3.34 to 23.8.34	28.8.34
059 †† <i>Strathnaver</i> ...	R. Harrison, D.S.O., R.D., A.D.C., Capt., R.N.R.	C. W. Mayne, S. Peters, M. Lagham.	P. R. Hobbs ...	M.-S.	" " " "	" " 26.8.34 to 17.10.34	12.11.34
274 *† <i>Sultan Star</i> ...	W. Bevan ...	J. Lewis, G. L. Evans, R. McIlraith.	J. J. Winsor ...	M.	Blue Star ...	" " 14.7.34 to 17.10.34	20.10.34
<i>Tacoma Star</i> ...	W. Walsh ...	D. G. Russell, J. O. Davies, G. Wooller.	... ..	S.	" " " "	" " 22.7.34 to 4.9.34	10.9.34
229 *† <i>Tactician</i> ...	F. Trinick, O.B.E. ...	L. J. Sharman, R. Swain, W. Parry.	J. Lord ...	M.	Harrison ...	Fm. 911 22.5.34 to 2.9.34	14.9.34
045 †† <i>Tainui</i> ...	A. McIntosh ...	H. Winyard, D. Pickersgill, L. R. Bull.	... ..	S.	Shaw, Savill & Albion	Fms. 911 & 138 21.6.34 to 16.9.34	18.9.34
081 *† <i>Tairoa</i> ...	S. Oswald ...	W. Thowless, H. D. Pim, J. Jackson.	H. Stemettt ...	"	" " " "	Fm. 915 23.3.34 to 6.7.34	16.7.34
264 *† <i>Tanda</i> ...	E. T. Pilcher, R.N.R....	E. Norquay, W. B. Williams, F. O. Colvin.	W. Harris ...	M.L.	E. & A. S.S. Co....	Fms. 911 & 138 24.5.34 to 21.9.34	2.10.34
165 *† <i>Tantalus</i> , M.V....	W. T. Birch ...	J. H. Brown, J. MacPhee, N. P. Smith.	J. Nicholas ...	S.	A. Holt ...	Fm. 915 13.1.34 to 9.4.34	19.6.34
047 *† <i>Taranaki</i> , M.V.	— Williams ...	T. B. Marsdon, B. M. Norris, C. Stewart.	P. Budge ...	"	Shaw, Savill & Albion	Fms. 911 & 138 5.8.34 to 18.10.34	26.11.34
069 *† <i>Tekoa</i> ...	J. Howell Price, D.S.O., D.S.C.	L. W. Fulcher, A. Kirk, R. C. Robinson.	F. Gardiner ...	M.	New Zealand Shipping	" " 31.3.34 to 12.7.34	18.7.34
048 †† <i>Themistocles</i> ...	C. Wood, D.S.C. ...	E. Johanson, G. Manley, A. Blewett.	J. P. Carey ...	M.-S.	Aberdeen Commonwealth	" " 2.7.34 to 4.11.34	13.11.34
161 *† <i>Titan</i> ...	W. B. Ewan ...	J. A. C. McGregor, A. R. Davidson, J. M. Sim.	G. Pearce ...	S.	A. Holt ...	" " 8.7.34 to 30.9.34	3.10.34
244 *† <i>Tongariro</i> ...	P. B. Clarke, D.S.C. ...	G. W. Pring, L. Mercer, J. W. Leslie.	E. G. Stride ...	"	New Zealand Shipping	" " 22.5.34 to 18.11.34	30.11.34
025 †† <i>Transylvania</i> ...	D. W. Bone ...	T. O. Dunn, A. Middleton, B. S. Leiper.	J. McDonald ...	"	Anchor ...	" " 20.5.34 to 30.9.34	2.10.34
						Fm. 912 1.10.34 to 4.11.34	7.11.34
						14.10.34 to 4.11.34	7.11.34

Name of Vessel.	Captain.	Observing Officers.	Senior Wireless Operator.	Meteorological Instrument Equipment.	Line.	Logs, Registers, or Records Contributed. 7.9.34 to 1.12.34.	Date Last Return Received.
119 *† <i>Trojan Star</i> ...	D. H. Mills ...	W. A. G. Curphey, W. L. Hall, J. B. Thompson.	L. Waterhouse...	M.	Blue Star ...	Fms. 911 & 138 3.3.34 to 10.7.34	14.7.34
245 *† <i>Turakina</i> ...	J. Laird ...	G. E. Mason, R. H. Browne, C. S. Thomas.	N. Hallett ...	"	New Zealand Shipping	" " 23.3.34 to 6.7.34	11.7.34
276 †† <i>Tuscania</i> ...	W. B. Rome ...	J. Noble, J. Gibson, D. Barclay.	J. Fleming ...	S.	Anchor ...	" " 10.6.34 to 1.7.34	3.7.34
<i>Tuscan Star</i> , M.V.	G. Wilson ...	R. T. Hales, L. Mates, J. H. Bayne.	... ..	M.L.	Blue Star ...	Fm. 915 13.5.34 to 7.8.34	14.8.34
113 *† <i>Upwey Grange</i> , M.V.	H. P. Goodrick ...	A. Bradbury, G. T. Hurst, P. J. Walker.	F. W. Miller ...	M.	Houlder ...	Fms. 911 & 138 20.6.34 to 20.8.34	23.8.34
176 *† <i>Vancouver City</i> , M.V.	H. E. Egerton ...	J. K. Robson, H. David, L. A. Harvey.	S. W. Sloan ...	S.	Reardon Smith ...	Fm. 911 3.8.34 to 17.10.34	1.11.34
079 †† <i>Viceroy of India</i>	E. J. Thornton, R.D., Capt., R.N.R.	F. E. Cox, K. Tee, E. R. Rose.	H. S. Horn ...	M.-S.	P. & O. ...	Fms. 911 & 138 19.8.34 to 23.10.34	26.10.34
053 †† <i>Voltaire</i> ...	V. Gore-Hickman ...	F. J. Durrant... ..	W. Burnett ...	S.	Lampport & Holt	" " " 25.8.34 to 11.10.34	16.10.34
<i>Waipawa</i> , M.V.	J. W. Johnson ...	... ..	... ..	M.L.	Shaw, Savill & Albion	" " "	"
263 *† <i>Wairuna</i> ...	F. L. G. Jauney ...	N. Liepen, R. Brebner, D. C. N. Champion.	J. Rae ...	"	Union S.S. Co. of N.Z.	Fm. 915 22.12.33 to 16.4.34	29.6.34
212 †† <i>Waivera</i> , M.V.	J. H. Gaskell, R.N.R.	R. G. James, C. Heywood, A. Mackenzie.	A. Babbage ...	S.	Shaw, Savill & Albion	Fms. 911 & 138 16.9.34 to 22.10.34	28.11.34
005 †† <i>Warwick Castle</i> ...	W. M. Betts ...	J. Oakley, C. R. Purse ...	H. Oliver ...	"	Union Castle ...	" " 15.9.34 to 5.11.34	8.11.34
060 †† <i>Westernland</i> ...	W. Morehouse ...	W. Hesketh, D. Liggett, F. Chilman.	J. C. R. Eustice...	"	Red Star... ..	" " 10.9.34 to 23.11.34	26.11.34
056 *† <i>Westmoreland</i> ...	E. A. Burton ...	R. Coin, F. T. Renny, H. Forster.	R. Glover ...	"	New Zealand Shipping	" " 21.4.34 to 22.7.34	30.7.34
129 †† <i>William Scoresby</i> , R.R.S.	C. R. U. Boothby, R.N.R.	E. E. Clifton ... ..	... ..	M.L.	Falkland Is. Govt.	... ..	"
208 †† <i>Winchester Castle</i> , M.V.	J. H. Kerbey ...	R. F. Pembry	W. A. Smith ...	S.	Union Castle ...	Fms. 911 & 138 11.8.34 to 30.9.34	2.10.34
096 †† <i>Windsor Castle</i> ...	A. Barrow ...	G. Mayhew, J. D. Fisher ...	J. Hodgson ...	"	Southern Railway	" " 11.9.34 to 24.10.34	30.10.34
<i>Worthing</i> ...	B. Shaw ...	H. Smith	C. Kelley ...	"	Henderson ...	Telegraphic Report 30.11.34	30.11.34
<i>Yoma</i> ...	J. A. Wilson ...	J. Crawford, P. D. Barr, A. Driscoll.	... ..	M.	... ..	Fm. 911 25.8.34 to 7.11.34	9.11.34
043 *† <i>Zealandic</i> , M.V.	H. R. Gordon ...	G. Sangwin, T. Chapman, E. Vaughan.	W. Latimer ...	S.	Shaw, Savill & Albion	Fms. 911 & 138 23.4.34 to 6.8.34	11.8.34
<i>Conway</i> , H.M.S.	M. G. Douglas, R.D., Commr., R.N.R.	The Senior Cadets ... ..	... ..	Cadets M.L.	... ..	Cadets' Met. Log. 29.4.34 to 23.7.34	31.7.34
<i>Pangbourne Nautical College</i> .	A. F. G. Tracy, Commr., R.N.	" " ... ..	... ..	"	... ..	" " 26.4.34 to 21.7.34	25.7.34
<i>Worcester</i> , H.M.S.	G. C. Steele, V.C., Commr., R.N.	" " ... ..	... ..	"	... ..	" " 4.5.34 to 25.7.34	30.7.34
<i>Watling Island</i>	... ..	The Keepers ... ..	... ..	Lighthouse Register	... ..	Lighthouse Register 1.1.34 to 30.6.34	28.7.34
<i>Cape Pembroke</i> ... (Falkland Is.)	... ..	" " ... ..	... ..	"	... ..	" " 1.1.34 to 30.6.34	8.8.34

SHIPS WATER SAMPLING THE NORTH ATLANTIC. FISHERIES LABORATORY, LOWESTOFT.

Name of Vessel.	Captain.	Observing Officer.	Line.	Received at Government Chemist, London.
<i>Dakarian</i>	W. Baird	A. A. Heaton	Leyland	30 Water Samples, 24.8.34.
<i>Darian</i>	T. Chapman	F. R. Hicken	"	30 " " 5.10.34.
<i>Davisian</i>	T. J. Higson	W. Lawton	"	29 " " 11.9.34.
<i>Doretian</i>	J. Collins	G. Penston	"	30 " " 19.9.34.
<i>Hilary</i>	L. Evans	G. E. Freeman	Booth	60 " " 5.10.34.

January, M.O., 1935.

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MARINE METEOROLOGY, ATLASES AND BOOKS

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Charts of Meteorological Data for the Nine 10° Squares of the Atlantic which lie between 20° N. and 10° S., and extend from 10° to 40° W., with accompanying Remarks, ending with the Best Routes across the Equator. (No. 27, 1876) 24s. (17×20 in.)

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Meteorological Charts of the North Atlantic for each month of the year, giving normals of Pressure, Air and Sea Surface Temperature and Ocean Currents, with Frequencies of Winds, also Ice Limits. (No. 149A, 1923.) 1s. each. ($35 \times 22\frac{1}{2}$ in.) Sold by J. D. Potter, 145, Minories, E.1.

Synchronous Weather Charts of the North Atlantic and the adjacent Continents, 1st August, 1882, to 3rd September, 1883. Parts I to IV (33 sheets each). (No. 71, 1886) 17s. each Part. (26×22 in.)

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Wind Charts for the Coastal Regions of South America, from information collated and prepared in the Meteorological Office. (No. 159, 1902.) ($27 \times 20\frac{1}{2}$ in.) (Published by the Admiralty.)

The relation between Pressure, Temperature, and Air Circulation over the South Atlantic Ocean. By M. W. Campbell Hepworth, C.B., R.D., Captain R.N.R., Marine Superintendent. (No. 177, Second Edition, 1917.) 1s. (8vo.)

CHARTS :—*continued.*

BAFFIN BAY AND DAVIS STRAIT :—

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INDIAN OCEAN :—

Meteorological Charts of the East Indian Seas for each month of the year, giving Normals of Pressure, Air and Sea Temperatures and Ocean Currents, with Frequencies of Winds. (No. 181A, 1923.) 1s. each. ($35 \times 22\frac{1}{2}$ in.) Sold by J. D. Potter, 145, Minories, E.1.

Monthly Current Charts for the Indian Ocean, from information collated and prepared in the Meteorological Office. (No. 124, 1896.) ($20 \times 24\frac{1}{2}$ in.) (Published by the Admiralty.)

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Meteorological Charts of the Red Sea. (No. 106, 1895.) 21s. ($22 \times 13\frac{1}{2}$ in.)

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Decode for use with the International Code for Wireless Weather Messages from Ships. Third Edition. (No. 329, 1934.) 6d. (8vo.)

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IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the said Court, at the City of New York, this 10th day of June, 1901.

JOSEPH P. KELLY, Clerk of the Court.

JOSEPH P. KELLY

JOSEPH P. KELLY

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MONTHLY SUPPLEMENT No. 1—FEBRUARY, 1935

TO THE

MARINE OBSERVER—Vol. XII, No. 117.

MARINE METEOROLOGY.

Co-operation of Shipowners, Masters and Mates.

Captains and Officers of ships registered in Great Britain and Northern Ireland, who wish to co-operate regularly with the Meteorological Office should apply to the appropriate Port Meteorological Officer or Agent, a list of whom, with addresses, is given below.

In accordance with the International Convention for Safety of Life at Sea, the Meteorological Office arranges for certain "Selected Ships" to take meteorological observations at specified hours, and to transmit such observations by wireless telegraphy, for the benefit of other ships and the various meteorological services.

Arrangements are also made for a limited number of ships to keep meteorological logs in certain trades for the purpose of completing the meteorological survey of the oceans.

Ships performing these voluntary duties are known as Observing Ships; the whole as the Voluntary Observing Fleet; and the commanders and officers of these ships as the Corps of Voluntary Marine Observers.

At present the observing fleet is limited to a number not exceeding 360 observing ships. The number of British "Selected Ships" is determined upon the British proportion of world tonnage, on the assumption that there should be a total of 1,000 "Selected Ships" of all nations.

The observing fleet list indicating which are "Selected Ships," with the names of commanders, officers, and other particulars, is published in THE MARINE OBSERVER and kept up to date monthly.

A general description of marine meteorological work, including the particulars desired from intending marine observers, is given in Chapter I of THE MARINE OBSERVER'S HANDBOOK, 5th Edition, which is supplied to all observing ships, and may also be obtained from H.M. Stationery Office, direct, or through any bookseller, price 2s. 6d.

THE QUARTERLY MARINE OBSERVER or MONTHLY SUPPLEMENT is sent regularly to the captain of every observing ship, for the information and guidance of his observing officers, and in the case of "Selected Ships," the wireless operators also. The Captains of observing ships are also supplied on request with charts, and atlases, according to trade, if available, as meteorological equipment.

Ships keeping the Meteorological Log, Form 915, are lent a complete set of official tested instruments.

"Selected Ships," other than meteorological log keeping ships, keep the Ships' Meteorological Record, Form 911. All "Selected Ships" also keep the Ships' Wireless Weather Register, Form 138.

No observing ship is detailed as a "Selected Ship" unless she has on board a reliable mercurial barometer.

Official tested instruments are lent to "Selected Ships" when necessary.

NAUTICAL OFFICERS AND AGENTS OF THE MARINE DIVISION OF THE METEOROLOGICAL OFFICE, AIR MINISTRY.

LONDON ... Captain L. A. BROOKE SMITH, R.D., R.N.R.,
Marine Superintendent.
Commander J. HENNESSY, R.D., R.N.R., Senior
Nautical Assistant.
Room 324, Adastral House, Kingsway, W.C.2.
(Telephone No.: Holborn 3434 Extension 421).
Nearest station Temple, District Railway.

THAMES ... Commander C. H. WILLIAMS, R.N.R., Port
Meteorological Officer, P.L.A. Building, King
George V Dock (south side), London, E.16.
(Telephone No.: Albert Dock 2659. Telegraphic
Address: Barometric Aldock, London).

MERSEY ... Commander M. CRESSWELL, R.N.R., Port
Meteorological Officer, Dock Office, Liverpool.
(Telephone No.: Bank 8959. Telegraphic
Address: Meteorite, Liverpool).

Agents.

BRISTOL CHANNEL Captain T. JOHNSTON, Technical College, Cathays
Park, Cardiff. (Telephone No.: Cardiff 6813).

Agents (contd.).

CLYDE ... Mr. ROBERT CLEARY, Master Mariner, The
Clutha Stevedoring Co., Ltd., Princes Dock,
Glasgow. (Telephone No.: 513 Ibrox).

FORTH ... Captain C. G. BONNER, V.C., D.S.C., Leith Salvage
and Towage Co., Ltd., 2, Commercial Street,
Leith.

HONG KONG, China. Lieut. Commander E. H. C. BRANSON, R.N.,
Chart Depot, H.M. Dockyard.
(Telephone No.: 108 Dockyard).

HUMBER ... Captain A. M. BROWN, Ellerman Wilson Line
Office, Hull. (Telephone No.: Central 16180).

SOUTHAMPTON Captain Sir BENJAMIN CHAVE, K.B.E. Room 35
Royal Mail Buildings.

SYDNEY, New South Wales. Commander G. D. WILLIAMS, D.S.O., R.D., R.N.R.
Captain G. B. MERCER.
Customs House. (Telephone No.: B6421).

TYNE ... Captain J. J. MCEWAN, Marine School, South
Shields.

DERELICTS AND FLOATING WRECKAGE.

Date.	Position.		Description.	Date.	Position.		Description.
	Latitude.	Longitude.			Latitude.	Longitude.	
ENGLISH CHANNEL.							
14.1.35	50°37'N.	0°27'W.	Black spherical buoy, upper works missing.	North Atlantic—continued.			
18.1.35	49°11'N.	4°30'W.	Large buoy.	14.1.35	42°08'N.	57°27'W.	Rusty bell buoy.
ST. GEORGE'S CHANNEL.				18.1.35	48°07'N.	5°28'W.	Black conical buoy.
17.1.35	51°50'N.	5°42'W.	Submerged ship's lifeboat.	20.1.35	51°29'N.	8°39'W.	Two red conical buoys adrift, dangerous to navigation, about 20 feet apart.
NORTH ATLANTIC.							
4.1.35	60m. W. by N. of Mizen Head.		Sea covered with timber for about 3 miles, and part of vessel's bridge floating.	6.1.35	28°22'N.	92°26'W.	Two cylindrical dredging pontoons with pipe line on top drifting north-westward.
5.1.35	40°34'N.	6°48'W.	Partially submerged wreckage approx. 30 feet long, covered barnacles, dangerous to navigation.	INDIAN OCEAN.			
12.1.35	29°08'N.	68°20'W.	Black spherical buoy.	2.1.35	10°16'N.	87°17'E.	Round log about 25 feet long, 2 feet diameter, dangerous to navigation.

CHART OF THE WESTERN NORTH ATLANTIC.

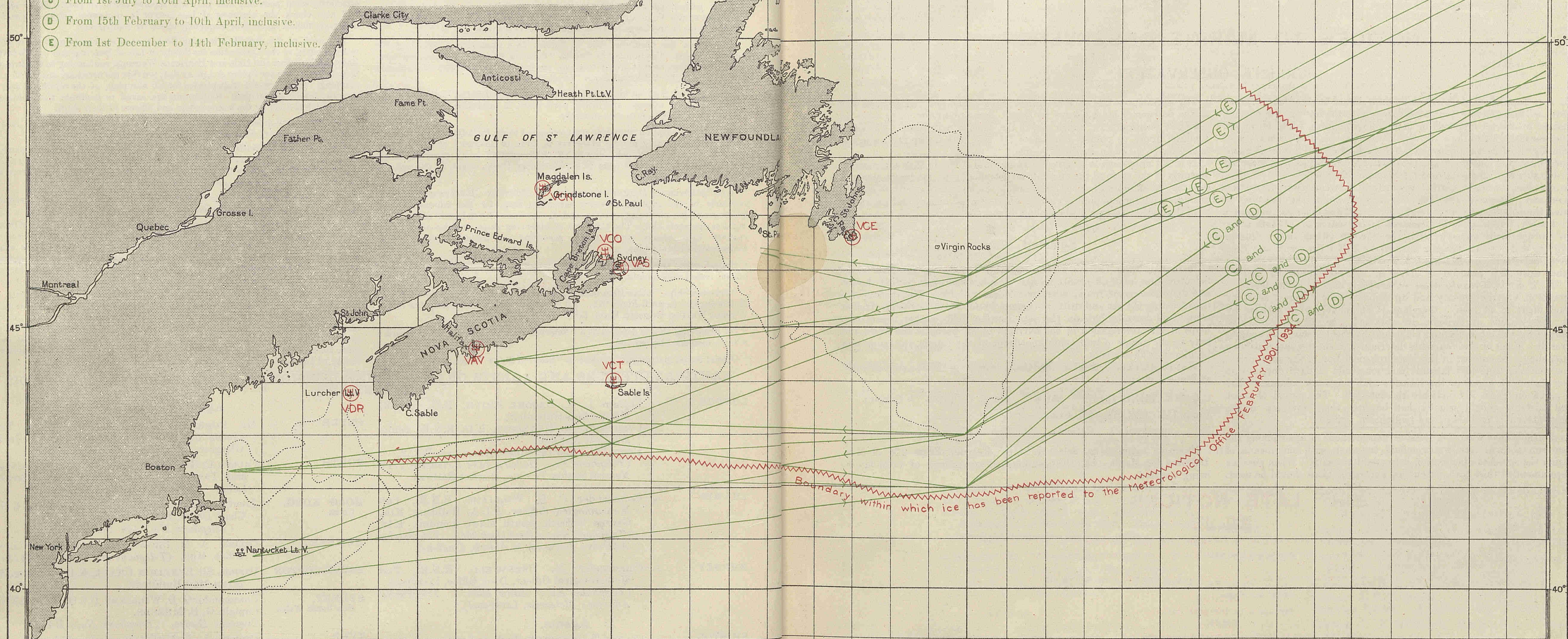
Showing the North Atlantic Lane Routes in force during FEBRUARY as laid down by the Trans-Atlantic Track Convention. If at any time, owing to abnormal ice conditions, any alteration to the usual tracks is considered advisable by the track convention, particulars will be published on this chart. For full information concerning the North Atlantic Lane Routes see pages 57 and 58 of the April, 1934 number.

The periodic boundary within which ice has been observed is shown and a list of phenomenal positions of ice observed in the North Atlantic during FEBRUARY is given. Ice sighted between JANUARY 1st and 29th, 1935 is indicated by symbol in the position reported, the figure giving the day of the month in January. Information regarding ice conditions in Greenland waters and the Gulf of St. Lawrence will be published when available. Coastal wireless stations, with their call signs, which transmit ice signals are indicated by the symbol (⊕).

Ice symbols used on the chart: — Iceberg, □ growler, ■ Field or other flat ice.

LANE ROUTES IN FORCE DURING FEBRUARY.

- (C) From 1st July to 10th April, inclusive.
- (D) From 15th February to 10th April, inclusive.
- (E) From 1st December to 14th February, inclusive.



PHENOMENAL POSITIONS OF ICE.

Date.	Ship or Source of Report.	Position.		Remarks.
		Lat.	Long.	
Feb. 3, 1922	S.S. Weehawken ...	41°42' N	58°59' W.	Ice (sustained bow damage).

CORRECTIONS

UP TO JANUARY 21st, 1935.

MADE SINCE PUBLICATION OF THE JANUARY, 1935 MARINE OBSERVER

FLEET LIST.

Additions.		Deletions.		Alterations.			
Name of Vessel.	Met. Equipt.	Name of Vessel.	Met. Equipt.	Name of Vessel.	Met. Equipt.	Name of Vessel.	Met. Equipt.
012†† Atlantis ...	M.S.	012†† Almeda Star ...	M.	046†† Samaria ...	S.	to Samaria ...	S.
266†† Carinthia...	S.	266†† Cameronia ...	S.	Port Dunedin M.V.	M.L.	to Port Dunedin M.V.	S.
Clement ...	M.L.	060†† Westernland ...	S.				
Empress of Aus- tralia.	S.						
046†† Franconia ...	S.						
060†† Homeric ...	S.						
Tamaroa ...	M.S.						

NOTICES TO MARINE OBSERVERS.

CURRENT OBSERVATION.

It is very desirable that good current data should be recorded. Spaces are provided for current experienced throughout the day and for current determined at shorter intervals in Meteorological Logs, while Form 911 provides for either or both.

Generally the difference between the *Dead Reckoning Position* at noon, reckoned from previous noon, and the *Observed Position* has been accepted as attributable to a single current for the whole 24 hours.

It is necessary to make careful distinction between *Dead Reckoning Position* and *Estimated Position*, the former being the position as reckoned from the last fix by courses steered and distances run, corrected for all known errors and disturbances *except* current. When a fix cannot be obtained, an estimation for current (when one is known generally to exist) is sometimes applied to the D.R.; the result may then be conveniently termed the *Estimated Position*.

If this estimated position is given in the Meteorological Log or Form 911, it should be clearly stated, otherwise it may be misleading.

Currents of varying velocity and direction may be experienced along the track made in 24 hours; therefore, when reliable fixes such as by Stellar observations at twilight are obtained, the current should be determined for the intervals, and all should be checked with the noon to noon result. Each of these currents determined at shorter intervals than 24 hours should be entered in the Meteorological Log in the appropriate column, and the time and latitude and longitude of each observation position should be given in the latitude and longitude columns. The times given on Form 911 indicate the interval. The period of short interval currents should usually not be less than say, six hours. The best interval is probably from twilight to twilight.

It is desirable that whenever possible two methods of ascertaining the distance run through the water should be used, with one means of measuring the speed the inclination is to credit the ship. When possible it is recommended that both patent log and revolutions should be used.

For working out the set and drift of current the position *from* as well as the position *to* must always be *fixes*. Some observers have used an *estimated* position *from*, which makes the set and drift false. The same remarks apply to course allowances for set; the latter are naturally necessary to make an *estimated* course.

It is not only records of strong or abnormal currents that are desired. Records of the state of the current, no set, small sets, moderate sets and great sets at all times when the information can be obtained with reliability are necessary for completing current charts for all oceans and providing the information desired in the sailing directions.

Selected Ships.

In making their routine wireless weather reports to all ships (C.Q.) Selected ships may give material aid to navigation by including the set and drift of current found when considered reliable. This practice of broadcasting the set and drift of current found between Stellar fixes at sunset and dawn twilight in the next routine W/T weather report also helps in our investigation of the currents in all parts of the world and may be the means of improving knowledge of the causes, variations and peculiarities of currents.

When the set and drift is included the code message may be conveniently shortened thus:

C.Q. WEATHER 13167 55106 00000 16979 Current
From 15N. 52E. To 16N. 54E.
58° one knot. *Dalgoma*.

Example taken from Selected Ships' Register Form 138 of M.V. *Dalgoma* for March 5th, 1933, supplementary groups of code figures being omitted.

LATE NOTICES

M.O. 329.

A third edition of this Pamphlet was published on December 13th, 1934, corrected to 1st November, 1934

The work of British Selected Ships has proved so satisfactory that the instructions for their guidance were broadened and clarified in January, 1934.

Accordingly, it has been necessary to revise and bring up-to-date this pamphlet, which still bears the title:—

DECODE for use with the International code for WIRELESS WEATHER MESSAGES FROM SHIPS

but now includes a fuller description of the Selected Ship system, schedule for communication, tables for coding and decoding weather reports, and notes for the guidance of the masters of British ships which are not Selected Ships.

This pamphlet has been recommended to the owners of all ships fitted with W.T., registered in Great Britain and Northern Ireland.

With it, reports made by Selected Ships of all nations may be decoded.

Price 6d. net. Post free, 7d.

LONDON

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1935 Price 6d. Net.