

COPY FOR OFFICIAL USE CROWN COPYRIGHT RESERVED.
MONTHLY SUPPLEMENT NO. 2—JUNE, 1935

TO THE

MARINE OBSERVER—VOL. XII, NO. 118.
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 regularly 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.

The masters of all British ships fitted with wireless telegraphy are asked to assist in this service in aid of navigation by making routine wireless weather reports in accordance with the Selected Ship scheme where and when there are not Selected Ships carrying out the service.

This supplementary service to that of Selected Ships is particularly desirable in the regions and seasons of tropical revolving storms.

A pamphlet entitled "Decode for use with the International Code for Wireless Weather Messages from Ships", M.O. 329, Third Edition, price 6d. can be obtained from H.M. Stationery Office. This gives a description of the world wide system of voluntary Selected Ships routine wireless weather telegraphy, the Tables for decoding reports received from Selected Ships, and notes for the guidance of the masters of British ships.

"A Handbook of Weather, Currents and Ice for Seamen" has recently been published by H.M. Stationery Office, and may be obtained from the Stationery Office or through any bookseller, price 4s. This provides information of the elements named, the Laws of Storms, and gives guidance for weather forecasting at sea. It also gives some information of Ocean Pilotage and is intended as a guide for making use of the services specified in Article 35 of the Convention for Safety of Life at Sea.

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

LONDON Captain L. A. BROOKES 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.	
15.5.35	49°16'N.	4°26'W.	Red conical mooring buoy, dangerous to navigation.	13.5.35	36°18'N.	14°00'E.	Black covered boat with white light, no sign of crew.
15.5.35	39°45'N.	42°35'W.	Unlighted bell buoy with bell operating.	3.5.35	50°12'N.	130°48'W.	Large waterlogged tree trunk about 30 ft. long with heavy roots.
5.5.35	43°13'N.	40°21'W.	Large spar about 30 ft. long, attached submerged wreckage.				

CHART OF THE WESTERN NORTH ATLANTIC.

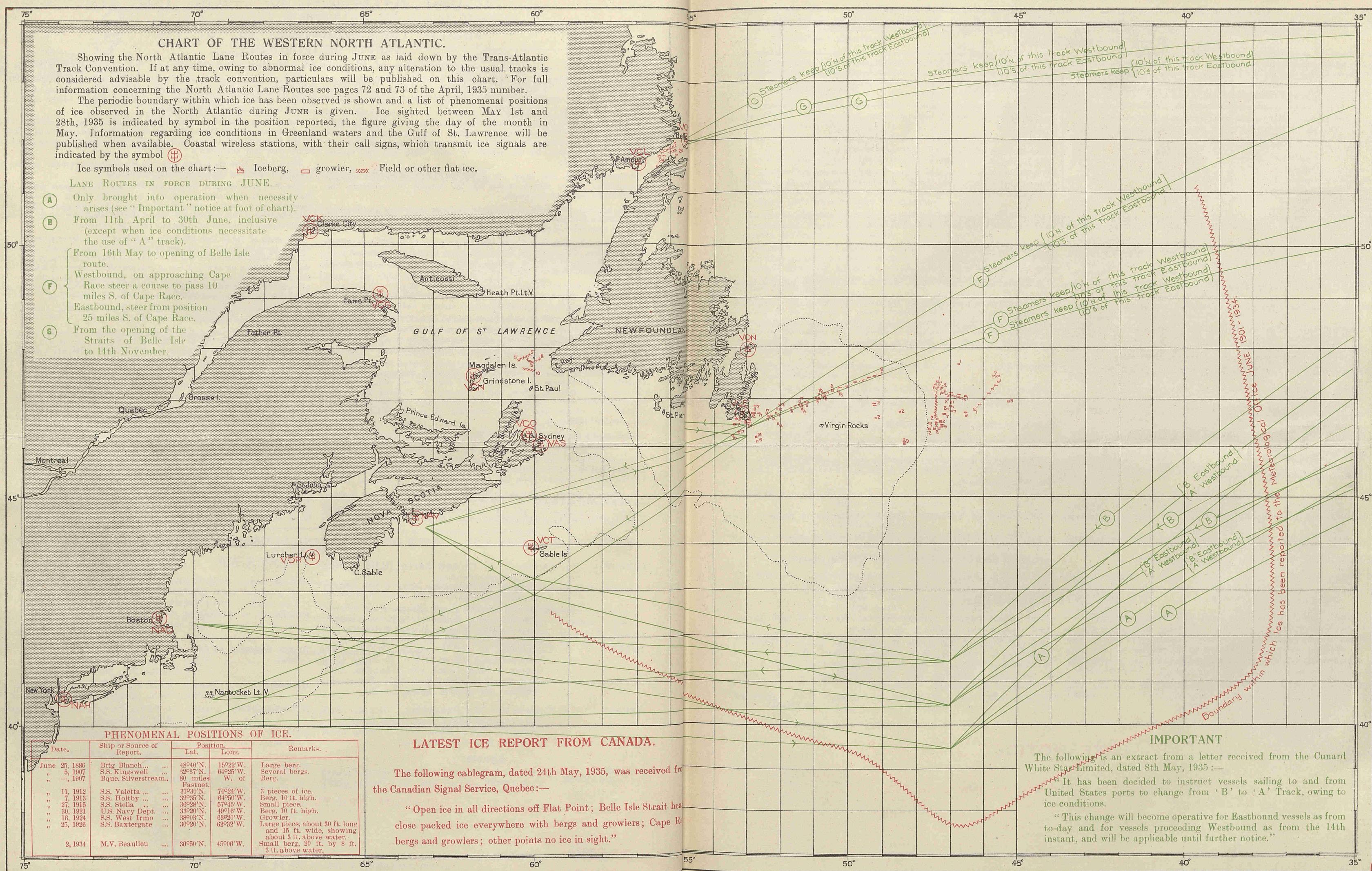
Showing the North Atlantic Lane Routes in force during JUNE as laid down by the Trans-Atlantic Track Convention. If at any time, owing to abnormal ice conditions, any alteration to the usual tracks is considered advisable by the track convention, particulars will be published on this chart. For full information concerning the North Atlantic Lane Routes see pages 72 and 73 of the April, 1935 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 JUNE is given. Ice sighted between May 1st and 28th, 1935 is indicated by symbol in the position reported, the figure giving the day of the month in May. 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 JUNE.

- (A) Only brought into operation when necessity arises (see "Important" notice at foot of chart).
- (B) From 11th April to 30th June, inclusive (except when ice conditions necessitate the use of "A" track).
- (C) From 16th May to opening of Belle Isle route.
- (D) Westbound, on approaching Cape Race steer a course to pass 10 miles S. of Cape Race. Eastbound, steer from position 25 miles S. of Cape Race.
- (E) From the opening of the Straits of Belle Isle to 14th November.



PHENOMENAL POSITIONS OF ICE.

Date.	Ship or Source of Report.	Position.	Remarks.
		Lat.	Long.
June 25, 1886	Brig Blanch...	48°40'N.	15°22'W.
" 5, 1907	S.S. Kingswell ...	32°37'N.	64°25'W.
" 1, 1907	Bque, Silverstream...	80 miles W. of Fastmet.	Several bergs. Berg.
" 11, 1912	S.S. Valetta ...	37°30'N.	74°24'W.
" 7, 1913	S.S. Holtby ...	39°35'N.	64°50'W.
" 27, 1915	S.S. Stella ...	36°28'N.	67°45'W.
" 30, 1921	U.S. Navy Dept.	33°20'N.	49°16'W.
" 16, 1924	S.S. West Irmo ...	38°03'N.	63°30'W.
" 25, 1926	S.S. Baxtergate ...	30°20'N.	62°52'W.
2, 1934	M.V. Beaulieu ...	30°50'N.	45°08'W.

LATEST ICE REPORT FROM CANADA.

The following cablegram, dated 24th May, 1935, was received from the Canadian Signal Service, Quebec:—

"Open ice in all directions off Flat Point; Belle Isle Strait heavily packed ice everywhere with bergs and growlers; Cape Race bergs and growlers; other points no ice in sight."

IMPORTANT

The following is an extract from a letter received from the Cunard White Star Limited, dated 8th May, 1935:—

It has been decided to instruct vessels sailing to and from United States ports to change from 'B' to 'A' Track, owing to ice conditions.

"This change will become operative for Eastbound vessels as from to-day and for vessels proceeding Westbound as from the 14th instant, and will be applicable until further notice."

CORRECTIONS

UP TO MAY 20TH 1935.

MADE SINCE PUBLICATION OF THE APRIL, 1935 MARINE OBSERVER,
AND SUPPLEMENT No. 1, MAY, 1935.

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.
Alcantara	S.	Alban	M.L.	Cambridge	M.L.	to Cambridge
Almeda Star	M-S.	City of Hong Kong	S.	Fordsdale	M.L.	to Fordsdale
Avila Star	M-S.	004† Olympic	S.	Hertford	M.L.	to Hertford
			Port Hunter ...	M.L.	Northumberland ...	M.L.	to Northumberland ...
			Rosaura M.Y., R.Y.S.	M.L.	Port Hobart M.V. ...	M.L.	to Port Hobart M.V. ...
					Tuscan Star M.V. ...	M.L.	to Tuscan Star M.V. ...
					Waipawa M.V. ...	S.	to 004† Waipawa M.V. ...

NOTICES TO MARINE OBSERVERS.

WEATHER REPORTS

The Masters of all foreign going British ships registered in Great Britain and Northern Ireland are requested to make routine wireless weather reports to all ships or the specified coast W.T. stations, when and where there are not selected ships to perform the service, following the procedure of British selected ships.

These reports made in conformity with the voluntary services specified in Article 35 of the Convention for Safety of Life at Sea, are of assistance to navigation, and to the respective Meteorological institutions for many purposes.

The necessary instructions and Tables for coding are given in a pamphlet, M.O.329, which may be obtained from His Majesty's Stationery Office, through any bookseller, price 6d.

A special list of coast W.T. stations detailed to receive these reports will be found on pages 150 to 151, Volume II, Admiralty List of W.T. Signals, 1934, amendments and additions last notified in Admiralty Notice to Mariners of 10th November, 1934.

A Handbook of Weather, Currents and Ice for Seamen can now be purchased from H.M. Stationery Office, price 4s.

This book is designed to assist the great majority of officers of the Merchant Navy.

The corps of Voluntary Marine Observers is requested to bring the above to the notice of the officers of ships which are not in the fleet list published in the "Marine Observer."

ICE REPORTS (FORM 912).

Ice Report Forms are supplied with the MARINE OBSERVER or Supplement each month to all regular observing ships employed in the Trans North Atlantic and Southern Ocean trades. They may also be obtained by any British ship on application to the Port Meteorological Officers or Agents, addresses of whom are given on the front page of this Supplement.

Commanders of ships in these trades are asked to have this form

completed and returned without delay at the end of each passage A nil return is desired should no ice be sighted

Selected Ships on the Trade Routes of the Southern Ocean are requested to add to their routine Wireless Weather reports information of floating ice seen or reported within the last 24 hours so that this information may be disseminated to the utmost advantage of all concerned.

LATE NOTICE

The July Number will be published on June 26th, 1935

LONDON

PRINTED AND PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE

To be purchased directly from H.M. STATIONERY OFFICE at the following addresses; Adastral House, Kingsway, London, W.C.2; 120, George Street, Edinburgh 2; York Street, Manchester 1; 1, St. Andrew's Crescent, Cardiff; 80, Chichester Street, Belfast; or through any Bookseller

1935. Price 6d. Net.

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 regularly 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.

The masters of all British ships fitted with wireless telegraphy are asked to assist in this service in aid of navigation by making routine wireless weather reports in accordance with the Selected Ship scheme where and when there are not Selected Ships carrying out the service.

This supplementary service to that of Selected Ships is particularly desirable in the regions and seasons of tropical revolving storms.

A pamphlet entitled "Decode for use with the International Code for Wireless Weather Messages from Ships", M.O. 329, Third Edition, price 6d. can be obtained from H.M. Stationery Office. This gives a description of the world wide system of voluntary Selected Ships routine wireless weather telegraphy, the Tables for decoding reports received from Selected Ships, and notes for the guidance of the masters of British ships.

"A Handbook of Weather, Currents and Ice for Seamen" has recently been published by H.M. Stationery Office, and may be obtained from the Stationery Office or through any bookseller, price 4s. This provides information of the elements named, the Laws of Storms, and gives guidance for weather forecasting at sea. It also gives some information of Ocean Pilotage and is intended as a guide for making use of the services specified in Article 35 of the Convention for Safety of Life at Sea.

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

LONDON Captain L. A. BROOKES 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.	
10.6.35	51°42'N.	2°23'E.	Red can buoy, white top, black bottom, <i>Noord Hinder</i> in white letters on side.	5.6.35	41°53'N.	42°17'W.	Red conical buoy.
2.6.35	48°31'N.	49°50'W.	Log about 15 ft. long 4 ft. in diameter.	6.6.35	45°20'N.	50°10'W.	Conical buoy.
3.6.35	37°55'N.	39°24'W.	Black cylindrical buoy with conical superstructure, all about 12 ft. high.	7.6.35	48°03'N.	5°33'W.	Red can buoy adrift.
5.6.35	51°24'N.	19°53'W.	Overturned lifeboat.	7.6.35	41°05'N.	68°37'W.	Large red nun buoy marked 2.
				8.6.35	46°18'N.	18°55'W.	Large red bell buoy, dangerous to navigation.
				10.6.35	40°46'N.	19°58'W.	Large piece of wood about 20 metres long, dangerous to navigation.
				17.6.35	49°52'N.	6°47'W.	Floating log, 40 ft. long, dangerous to navigation.

CHART OF THE WESTERN NORTH ATLANTIC.

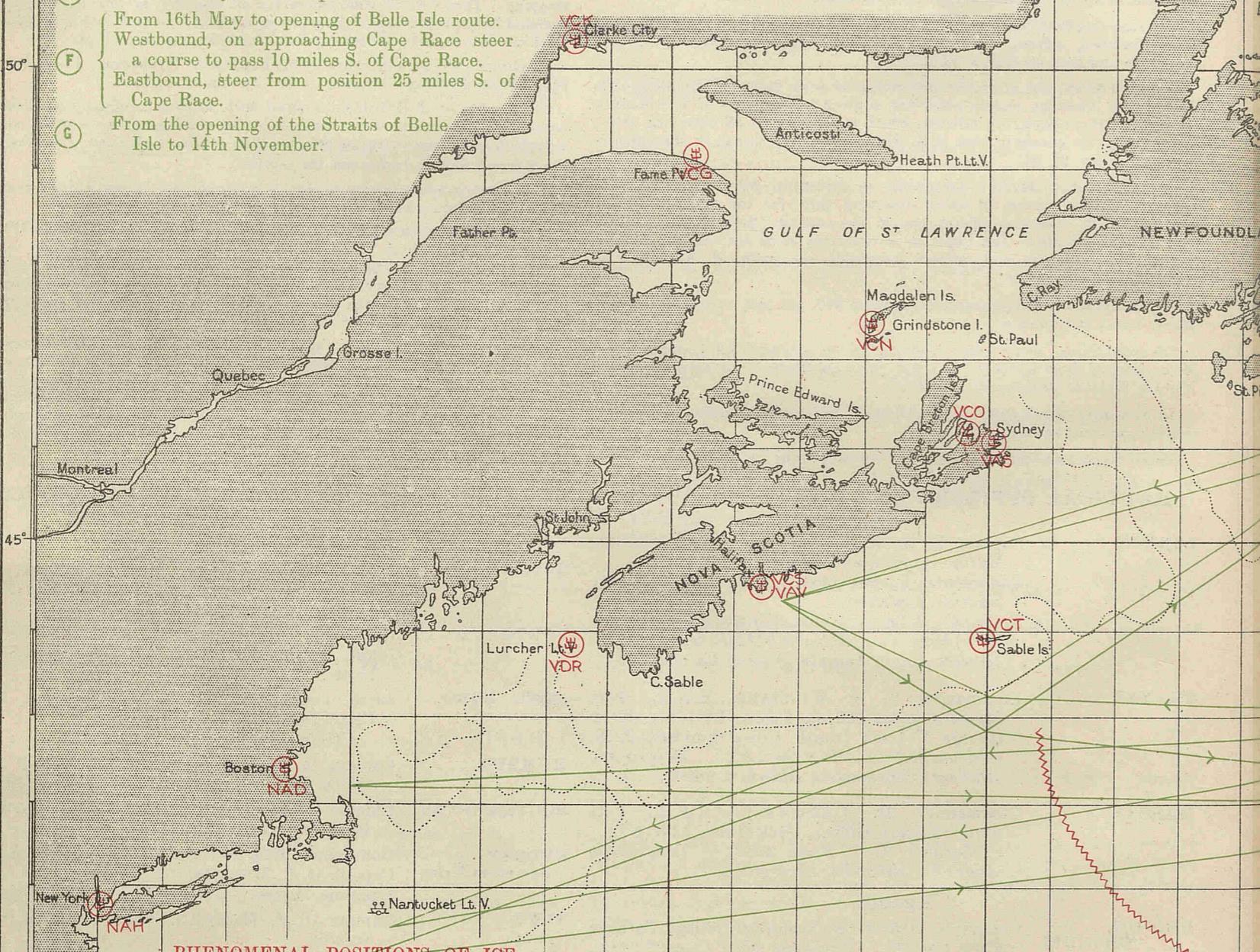
Showing the North Atlantic Lane Routes in force during JULY as laid down by the Trans-Atlantic Track Convention. If at any time, owing to abnormal ice conditions, any alteration to the usual tracks is considered advisable by the track convention, particulars will be published on this chart. For full information concerning the North Atlantic Lane Routes see pages 72 and 73 of the April, 1935 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 JULY is given. Ice sighted between JUNE 1st and 21st, 1935 is indicated by symbol in the position reported, the figure giving the day of the month in June. 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 JULY

- (C) From 1st July to 10th April inclusive.
- (F) From 16th May to opening of Belle Isle route. Westbound, on approaching Cape Race steer a course to pass 10 miles S. of Cape Race. Eastbound, steer from position 25 miles S. of Cape Race.
- (G) From the opening of the Straits of Belle Isle to 14th November.



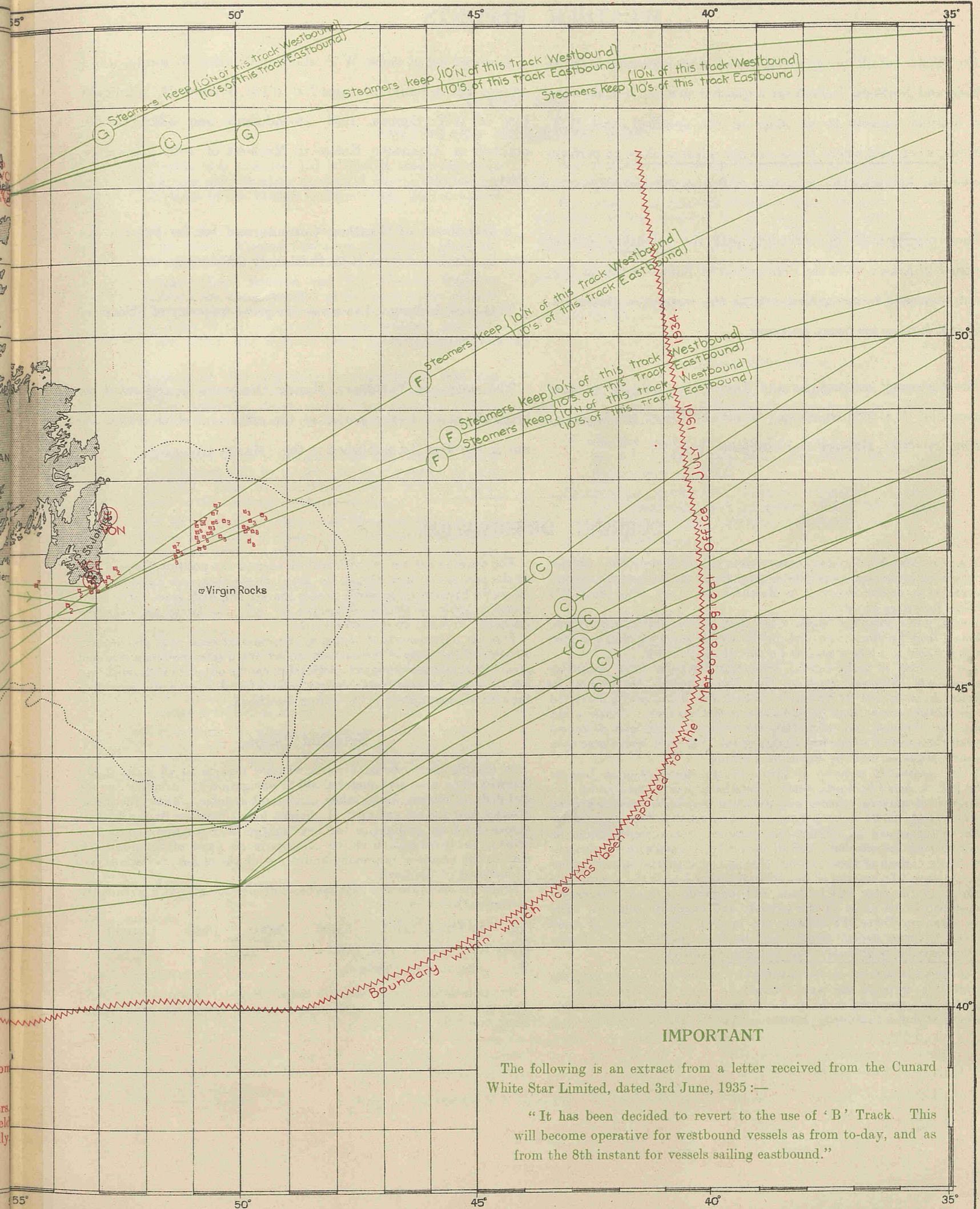
PHENOMENAL POSITIONS OF ICE.

Date,	Ship or Source of Report,	Position	Remarks,
July, —, 1890	S.S. Slavonna	48°53'N. 24°11'W.	Last remnants of berg.
" —, 1902	2 reports by Fishermen	56°30'N. 6°30'W.	40 to 50 ft. long, 15 ft. wide, 2 ft. 6 in. out of water.
" 31, 1909	S.S. Shimosa	36°54'N. 30°01'W.	25 ft. long, 3 to 8 ft. wide.
" 10, 1913	S.S. Lothian...	37°27'N. 36°18'W.	Piece 6 ft. high, 50 ft. in cir. Piece of berg 3 or 4 ft. out of water.
" 18, 1916	U.S. Hydrographic Bulletin	32°00'N. 51°28'W.	
" 23, 1916	S.S. San Giorgio	42°00'N. 63°24'W.	Berg. 60 ft. long.
" 23, 1918	U.S. Hyd. Bulletin...	44°25'N. 35°01'W.	Large berg.
" 18, 1921	" Do.	44°30'N. 39°28'W.	Small berg about 15 ft. sq.
" 21, 1921	" Do.	39°09'N. 40°38'W.	Berg.
" 31, 1921	" Do.	37°37'N. 27°29'W.	Berg.
" 10, 1926	S.S. Chelatros	42°42'N. 36°45'W.	2 pieces of ice.
" 16, 1933	S.S. Rein	52°32'N. 22°W.	Small piece of ice about 25 ft. long, 12 ft. wide.

LATEST ICE REPORT FROM CANADA.

The following cablegram, dated 21st June, 1935, was received from the Canadian Signal Service, Quebec:—

"Belle Isle Strait; numerous bergs, some huge, and growlers. Heavy loose ice off Belle Isle and Battle Harbour, considerable field ice reported outside. Cape Race; icebergs sighted occasionally. Other points, no ice."



IMPORTANT

The following is an extract from a letter received from the Cunard White Star Limited, dated 3rd June, 1935:—

"It has been decided to revert to the use of 'B' Track. This will become operative for westbound vessels as from to-day, and as from the 8th instant for vessels sailing eastbound."

NOTICES TO MARINE OBSERVERS.

WEATHER REPORTS

The Masters of all foreign going British ships registered in Great Britain and Northern Ireland are requested to make routine wireless weather reports to all ships or the specified coast W.T. stations, when and where there are not selected ships to perform the service, following the procedure of British selected ships.

These reports made in conformity with the voluntary services specified in Article 35 of the Convention for Safety of Life at Sea, are of assistance to navigation, and to the respective Meteorological institutions for many purposes.

The necessary instructions and Tables for coding are given in a pamphlet, M.O.329, which may be obtained from His Majesty's Stationery Office, through any bookseller, price 6d.

A special list of coast W.T. stations detailed to receive these reports will be found on pages 150 to 151, Volume II, Admiralty List of W.T. Signals, 1934, amendments and additions last notified in Admiralty Notice to Mariners of 10th November, 1934.

A Handbook of Weather, Currents and Ice for Seamen can now be purchased from H.M. Stationery Office, price 4s.

This book is designed to assist the great majority of officers of the Merchant Navy.

The corps of Voluntary Marine Observers is requested to bring the above to the notice of the officers of ships which are not in the fleet list published in the "Marine Observer."

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.

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.

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, 8.3.35 to 6.6.35.	Date Last Return Received
122 †† <i>Accra</i> , M.V. ...	J. C. Shooter	J. E. Dutton, R. M. Monroe...	G. Arrowsmith...	M.-S.	Elder Dempster...	Fms. 911 & 138 8.3.35 to 12.4.35	17.4.35
055 *† <i>Actor</i>	J. Bellett	C. C. Heaton, K. H. Davies, D. H. Gorddard.	S. Connell ...	M.	Harrison	„ „ 28.1.35 to 8.2.35	15.2.35
123 †† <i>Adda</i> , M.V. ...	J. H. Lawson	J. Richardson, H. L. Papworth.	A. L. J. Edwards	M.-S.	Elder Dempster...	„ „ 29.11.34 to 3.3.35	6.3.35
273 *† <i>Adrastus</i> ...	H. Goodacre	T. A. Kent, R. T. Harries, R. Blakey.	S. R. Purkiss ...	M.L.	A. Holt	Fm. 915 14.7.34 to 5.12.34	16.1.35
090 *† <i>Aeneas</i>	J. Hatfield	G. Drake, F. H. Barley, R. E. Higgins.	I. E. Jones ...	S.	A. Holt	Fms. 911 & 138 31.12.34 to 18.4.35	23.4.35
166 *† <i>Agamemnon</i> , M.V. <i>Aidan</i>	J. G. Reynard C. Saxton	A. P. Billington, T. R. Phillips, E. Butler, A. G. Malcolm, J. Whayman, A. R. Gerrard.	A. C. Nevin ...	„	„	„ „ 13.1.35 to 29.4.35	2.5.35
065 †† <i>Akaroa</i>	W. G. Summers ...	H. R. Dunnet, U. T. Wood	M.L.	Booth	Fm. 915	1.12.34 to 22.2.35	4.3.35
032 †† <i>Alauania</i>	E. J. Rodgers, R.D., Capt. R.N.R.	A. J. Cuthill, J. M. Boston, J. O. Chambers.	H. E. Chamberlain.	S.	Shaw Savill ... Cunard White Star	Fms. 911 & 138 29.11.34 to 10.3.35 „ „ 11.3.35 to 31.5.35	21.3.35 4.6.35
129 †† <i>Alcantara</i> ...	B. Shillitoe, R.D., Commr. R.N.R.	... ... ... ...	... ... ...	„	Royal Mail ...	... ... ... ...	... ...
178 *† <i>Alipore</i>	J. K. Chaplin, R.D., Commr. R.N.R.	W. T. C. Lethbridge, G. D. Copeland, K. P. Nair.	C. Wolf ...	M.	P. & O.	Fms. 911 & 138 30.1.35 to 4.4.35	20.4.35
175 †† <i>Almanzora</i> ...	T. J. C. Buret, D.S.C....	T. Davies, W. S. Thomas, E. N. Gilles	J. Caldwell ...	S.	Royal Mail ...	„ „ 24.2.35 to 3.6.35	5.6.35
086 †† <i>Almeda Star</i> ...	H. C. Howard	S. Morris, J. G. Donald, G. Linfield.	M.-S.	Blue Star	... ...	... ...	... ...
022 *† <i>Alynbank</i> , M.V. ...	D. Gillies	S. Morris, J. G. Donald, G. Linfield.	M.L.	A. Weir ...	Fm. 915	27.5.34 to 2.11.34	29.12.34

THE MARINE OBSERVER

Name of Vessel.	Captain.	Observing Officers.	Senior Wireless Operator.	Meteorological Instrument Equipment.	Line.	Logs, Registers, or Records Contributed. 8.3.35 to 6.6.35.	Date Last Return Received.
160 *† <i>Amarapoora</i> ...	W. C. C. Plage ...	C. C. Weir, R. Treasurer, J. Thomson.	A. Douglas ...	S.	Henderson ...	Fms. 911 & 138 6.4.35 to 5.5.35	18.5.35
<i>Amsterdam</i> ...	B. M. Stone ...	R. Wright ...	D. T. Wright ...	"	L. & N. E. Rly...	Telegraphic Report 6.6.35	6.6.35
209 †† <i>Aorangi</i> , M.V. ...	J. F. Spring-Brown	E. M. Anderson, L. P. Bourke, J. W. S. Madden.	C. F. G. Taylor	M.L.	Canadian-Australasian.	Fm. 915 11.10.34 to 24.1.35	25.3.35
120 †† <i>Apapa</i> , M.V. ...	A. Faill ...	C. V. Evans, W.E. Humphreys, L. Collings.	J. Rea ...	M.-S.	Elder Dempster	Fms. 911 & 138 6.2.35 to 4.5.35	9.5.35
029 †† <i>Appam</i> ...	P. Sola, D.S.O., R.N.R.	J. A. Cleeton, B. C. Haigh, R. Clark.	R. J. Dowling ...	S.	" " "	" " 20.2.35 to 20.5.35	24.5.35
017 †† <i>Aquitania</i> ...	P. R. Vaughan, D.S.C., R.D., Commr., R.N.R.	G. H. Norris, D. McLean, C. A. Dives	A. H. Farman ...	"	Cunard White Star	" " 9.5.35 to 22.5.35	24.5.35
115 †† <i>Arandora Star</i> ...	E. W. Moulton ...	L. S. Hassell, C. Hill-Willis, E. Prickett.	C. Hunt ...	M.-S.	Blue Star	" " 27.1.35 to 10.5.35	15.5.35
114 *† <i>Ariguaní</i> ...	J. H. H. Scudamore, D.S.C., R.D., Commr., R.N.R.	G. McKee, G. E. Hargreaves, B. R. Coe.	E. M. Evans ...	S.	Elders & Fyffes	" " 9.2.35 to 27.4.35	30.4.35
039 †† <i>Arlanza</i> ...	O. Schlanbusch	M. J. Morton, J. Smith, G. M. Fletcher.	W. Smith ...	"	Royal Mail	" " 31.1.35 to 4.5.35	9.5.35
091 †† <i>Armadale Castle</i> ...	A. O. Morgan, R.D., Commr., R.N.R.	P. Clissold, A. E. Payne ...	P. Haslam ...	"	Union Castle	" " 23.2.35 to 14.4.35	17.4.35
095 †† <i>Arundel Castle</i> ...	G. J. Whitfield ...	P. G. McIver, J. Clutterbuck	A. Donkin ...	"	" " "	" " 2.3.35 to 21.4.35	25.4.35
233 †† <i>Ascania</i> ...	J. G. P. Bisset, R.D., Commr., R.N.R.	E. W. Connell, H. L. Pryse, E. J. R. Pollitt.	R. L. Ottery ...	"	Cunard White Star	Fm. 912 " 18.3.35 to 13.5.35	17.5.35
280 *† <i>Astronomer</i> ...	J. Richards ...	E. T. Pearse, E. V. Dunn, W. G. Ellis.	W. Goldsworthy	M.	Harrison	Fms. 911 & 138 22.4.35 to 13.5.35	17.5.35
013 †† <i>Asturias</i> ...	A. Purvis ...	E. Sandy's, J. H. Rous, J. G. Thomas.	T. Bradfield ...	S.	Royal Mail	" " 9.2.35 to 11.3.35	13.3.35
012 †† <i>Atlantis</i> ...	F. R. Milcs, R.D., Capt. R.N.R.	A. Chamberlain, H. Chamberlain, W. Williams.	"	M.-S.	" " "	" " 17.2.35 to 29.3.35	2.4.35
133 †† <i>Avelona Star</i> ...	G. E. Hopper ...	L. Allen, F. W. Brown, J. Golightly.	S. J. J. Scott ...	"	Blue Star	" " 11.3.35 to 25.4.35	26.4.35
045 †† <i>Avila Star</i> ...	R. J. Thomas ...	"	"	"	" " "	" " "	" " "
068 †† <i>Balmoral Castle</i> ...	C. Le Brocq ...	T. McAllen, J. Wilford, A. H. Parry.	J. Sharp ...	S.	Union Castle	Fms. 911 & 138 26.1.35 to 18.5.35	22.5.35
179 *† <i>Balranald</i> ...	H. Williams ...	W. Bateman, L. Cook, D. C. Swabey.	E. Whibley ...	M.	P. & O. Branch	" " 20.3.35 to 11.4.35	20.5.35
248 *† <i>Banffshire</i> ...	A. W. P. Gibb ...	R. F. Carter ...	H. Brenholg ...	"	Turnbull Martin	" " 14.1.35 to 12.3.35	20.5.35
180 *† <i>Baradine</i> ...	W. D. C. Smith ...	R. G. Wood, R. S. Kerridge, F. Collinson.	E. Howard ...	"	P. & O. Branch	" " 25.11.34 to 26.2.35	7.3.35
037 *† <i>Baronesa</i> ...	R. W. Compton ...	H. W. Brammall, F. W. Kent, J. R. Faulkner.	F. Essex ...	"	Houlder	" " 31.12.34 to 8.3.35	11.3.35
181 *† <i>Barrabool</i> ...	J. S. Sheepwash ...	J. D. Strike, P. G. Lawrence, N. H. Thompson.	C. T. Seaton ...	"	P. & O. Branch	" " 23.1.35 to 25.4.35	13.5.35
070 *† <i>Bayano</i> ...	R. J. Bostock ...	W. Butcher, R. W. King ...	R. E. Blizzard	S.	Elders & Fyffes	" " 6.2.35 to 21.4.35	25.4.35
183 †† <i>Bendigo</i> ...	F. N. Wyatt ...	H. T. Rigden, H. P. Mallett, D. West.	A. V. Littlecot ...	M.-S.	P. & O. Branch	" " 11.2.35 to 23.5.35	24.5.35
237 †† <i>Berengaria</i> ...	Sir E. T. Britten, Kt., R.D., Commr., R.N.R.	J. V. Locke, J. W. Caunce, F. G. Watts.	J. N. Cragg ...	S.	Cunard White Star	" " 28.2.35 to 16.5.35	21.5.35
145 *† <i>Berwickshire</i> ...	E. H. Evans ...	E. Culthart, J. C. Robertson, E. J. Brittain.	F. Smith ...	"	Turnbull Martin	" " 26.2.35 to 7.4.35	27.5.35
<i>Birchbank</i> , M.V.	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>Bradfynne</i> ...	J. O'Neill ...	T. G. Newby, P. Evans, C. Fairney.	K. N. Lane ...	S.	Reardon Smith	Fm. 911 26.11.34 to 3.5.35	9.5.35
<i>Brighton</i> ...	W. Lidbetter ...	E. Balcombe ...	A. S. Wood ...	"	Southern Rly.	Telegraphic Report... 3.6.35	3.6.35
057 †† <i>Britannic</i> , M.V. ...	W. A. Hawkes, R.D., A.D.C., Capt., R.N.R.	A. Fisher, J. Roberts, G. T. Kavanagh.	J. B. Stone ...	"	Cunard White Star	Fms. 911 & 138 20.1.35 to 11.5.35	15.5.35
260 *† <i>British Admiral</i> ...	H. Faulkner ...	C. Thompson, J. J. Nesbitt, W. K. Harris.	F. Turnville ...	M.	British Tankers	Fm. 912 20.1.35 to 11.5.45	15.5.35
038 *† <i>British Corporal</i> ...	J. H. Sloan ...	W. C. Wall, W. P. Booth,	G. R. Upton ...	"	" " "	Fms. 911 & 138 27.1.35 to 20.5.35	30.5.35
242 *† <i>British Enterprise</i> ...	R. R. Johnson ...	H. A. Scott ...	G. S. Lightowers	"	" " "	14.2.35 to 9.5.35	14.5.35
249 *† <i>Buteshire</i> ...	C. A. I. Laird ...	P. McMillan, P. H. Hill, A. C. MacIntyre.	W. Whimell	S.	Turnbull Martin	" " 17.2.35 to 11.5.35	18.5.35
				"	" " "	18.12.34 to 1.4.35	25.4.35
				"	" " "	18.12.34 to 1.4.35	25.4.35
031 †† <i>Caledonia</i> ...	A. Collie ...	— Squires, R. Blake, T. K. McMillan.	J. F. Reid ...	"	Anchor	Fms. 911 & 138 17.2.35 to 1.6.35	4.6.35
139 †† <i>California</i> ...	R. W. Smart ...	J. F. Adam, J. S. Robertson, B. S. Leiper.	D. Thompson ...	"	Fms. 911 & 138	17.2.35 to 1.6.35	4.6.35
<i>Camibia</i> ...	E. B. Turner ...	F. G. Manning ...	J. Pritchard ...	"	L.M. & S. Rly.	Telegraphic Report... 1.6.35	1.6.35
<i>Cambridge</i> ...	R. Williams ...	G. Dibley, J. Trotter, J. Smallwood.	"	"	Federal	Fm. 915 17.11.34 to 2.2.35	9.3.35
250 *† <i>Canonesa</i> ...	W. H. Brodie ...	B. H. Walker ...	F. O. Brown ...	M.	Houlder	Fms. 911 & 138 31.1.35 to 31.3.35	8.4.35
117 *† <i>Cape of Good Hope</i> M.V.	T. A. Jacobson ...	D. M. Taylor, D. Perry, W. D. Wilson.	H. J. Coates ...	S.	Lyle S.S. Co.	" " 14.12.34 to 10.3.35	20.3.35
266 †† <i>Carinthia</i> ...	P. A. Murchie, O.B.E., R.D., Capt., R.N.R.	P. L. Williams, G. S. H. Hutchinson, H. Hudson.	J. Harvey ...	"	Cunard White Star	Fm. 912 " 6.5.35 to 26.5.35	4.6.35
			"	"	" " "	21.5.35 to 26.5.35	4.6.35
092 †† <i>Carnarvon Castle</i> , M.V. ...	C. E. Stuart, R.D., Capt., R.N.R.	C. H. Pettitt, F. R. Pape ...	G. Scurr ...	"	Union Castle	Fms. 911 & 138 2.2.35 to 25.5.35	28.5.35
155 †† <i>Carthage</i> ...	H. M. Jack ...	H. J. Mann, H. J. Cholerton, J. L. Dunkley.	F. Rose ...	M.-S.	P. & O.	" " 20.1.35 to 24.4.35	9.5.35
184 †† <i>Cathay</i> ...	C. B. Roche ...	R. E. Cowell, W. Fitzroy, G. L. Farmfield.	H. Dawson ...	"	" " "	3.2.35 to 7.5.35	9.5.35
011 †† <i>Ceramic</i> ...	H. C. Elford ...	G. F. Cresswell, G. Roe, B. M. Hill.	W. Ross ...	S.	Shaw, Savill & Albion	" " 20.1.35 to 9.5.35	14.5.35
191 *† <i>Chindwin</i> ...	G. Paterson ...	J. S. Whitehead, J. G. Aitken, A. R. McPherson.	A. C. Headley ...	"	Henderson	" " 14.1.35 to 25.3.35	2.4.35
067 *† <i>Chinese Prince</i> ...	{ W. Irvine ...	E. G. Jones, A. L. Wiles, J. Hennessey.	W. Miller ...	M.L.	Furness Withy	Fm. 915 27.7.34 to 23.10.34	11.12.34
192 †† <i>Chitral</i> ...	{ F. T. Pearson...	H. J. M. Perry, A. Pomeroy, A. G. Stainsforth.	P. Rowley ...	M.-S.	P. & O.	Fms. 911 & 138 6.1.35 to 10.4.35	18.4.35
051 *† <i>City of Auckland</i> ...	H. Elliott Smith, R.D., R.N.R.	J. W. Cubbon, A. H. Horan, C. Wilks.	L. C. Cullimore...	S.	Ellerman	" " 24.12.34 to 13.3.35	18.3.35
135 *† <i>City of Barcelona</i> ...	W. Rowlands ...	J. G. Jackson, R. Jeffers, L. Williams.	J. E. Francis ...	M.	" " "	20.12.34 to 20.2.35	23.2.35

FLEET LIST

iii

Name of Vessel.	Captain.	Observing Officers.	Senior Wireless Operator.	Meteorological Instrument Equipment.	Line.	Logs, Registers, or Records Contributed, 8.3.35 to 6.6.35.	Date Last Return Received.
265 *† <i>City of Baroda</i>	L. Nicoll	J. F. Macauley, A. H. G. Jones, A. Ecclestone,	R. H. Hallam	S.	Ellerman...	Fms. 911 & 138	2.4.35 to 12.5.35
158 *† <i>City of Cairo</i>	A. N. Hogg	W. H. Dalton, H. Griffith, G. L. Walworth,	R. Cruikshank	M.	" ...	" "	28.1.35 to 17.4.35
282 *† <i>City of Canton</i>	J. H. Rutter	D. Lamb, J. Priestley, R. Broadbent,	T. Foster...	"	" ...	" "	25.3.35 to 17.4.35
157 *† <i>City of Delhi</i>	J. Wyper	W. MacAdam, J. Muir, N. Groundwater.	P. T. Dwane	S.	" ...	" "	22.9.34 to 7.2.35
030 *† <i>City of Dieppe</i>	H. Cartwright	W. G. Baillie ...	R. C. Smith	"	" ...	" "	14.1.35 to 29.4.35
049 *† <i>City of Evansville</i>	D. O. Evans	A. G. Daniels ...	F. J. Lynn	M.	" ...	" "	21.3.35 to 3.5.35
220 †† <i>City of Exeter</i>	D. M. Bremner	J. Wotherspoon	V. Hugo	S.	" ...	" "	16.12.34 to 12.5.35
089 *† <i>City of Hereford</i>	E. Readwin	H. A. Rose ...	R. Allan	M.	" ...	" "	19.2.35 to 24.4.35
028 †† <i>City of London</i>	J. G. Brown	B. E. Hooper, V. Wilson, E. W. Gillies.	J. Lyons	S.	" ...	" "	17.2.35 to 30.4.35
256 *† <i>City of Lyons</i>	F. Penberthy	J. Stevenson, A. Cran, W. E. Barnett,	S. Lindsay	M.	" ...	" "	9.3.35 to 30.3.35
066 †† <i>City of Nagpur</i>	N. McNeil, O.B.E.	E. Walton, F. Revel, W. Gibb.	A. E. Dowe	S.	" ...	" "	5.2.35 to 18.3.35
074 †† <i>City of Paris</i>	H. L. Walton, O.B.E., R.D., Commr. R.N.R.	A. Hamilton, H. Foxon, R. McDougal.	H. Peever	"	" ...	" "	27.2.35 to 23.4.35
<i>City of Perth</i>	D. H. Metcalf	A. M. Westlake, J. Owen, R. F. Henry.	M.L.	"	" ...	Fm. 915	14.4.33 to 8.9.33
271 *† <i>City of Roubaix</i>	W. Gray	T. L. Vaughan, H. N. Jones, K. MacKenzie.	W. Leuchars	M.	" ...	Fms. 911 & 138	11.11.34 to 28.2.35
272 *† <i>City of Singapore</i>	T. Cooper	G. T. Mathias, D. Pattison, S. Ayles.	E. Osborne	"	" ...	" "	14.1.35 to 16.5.35
035 *† <i>City of Sydney</i>	E. G. Hoppins	S. Brett, P. G. A. King, C. Collard.	J. Whitfield	"	" ...	" "	5.4.35 to 13.4.35
167 *† <i>City of Tokio</i>	R. R. Spurring	G. R. Jackson...	W. H. Wilson	S.	" ...	Fm. 911 "	11.9.34 to 5.1.35
<i>City of Winchester</i>	E. Mason	J. Ingoldsby ...	"	"	" ...	"	8.2.35 to 19.3.35
125 *† <i>City of Windsor</i>	E. E. Bulkeley	J. Midlen, J. Underdown, W. T. Cain.	D. Franklin	"	" ...	Fms. 911 & 138	28.2.35 to 22.4.35
<i>City of Yokohama</i>	A. V. Radcliffe	F. J. R. Roore	J. Morrison	M.	Clan"	Fm. 911	9.2.35 to 4.5.35
027 *† <i>Clan Farquhar</i>	R. M. Robertson	T. A. Watkinson, J. Browne, G. W. Spiller.	"	"	" ...	Fms. 911 & 138	18.2.35 to 9.3.35
050 *† <i>Clan Macalister</i>	F. J. Stenson, R.D., A.D.C., Capt., R.N.R.	R. A. Harris, E. E. Arthur, H. Lockyer.	L. F. Reed	S.	" ...	" "	27.1.35 to 22.5.35
241 *† <i>Clan Macbeth</i>	H. Andrews	H. Whitehead, A. V. Howard, I. W. M. Gill.	A. J. G. Sayer	"	" ...	" "	8.1.35 to 13.4.35
222 *† <i>Clan Macdougall</i> , M.V.	L. F. Redford, R.N.R.	D. F. Sutton, E. Jenkin, A. Chisholm.	S. Simpson	"	" ...	" "	15.10.34 to 29.12.34
287 *† <i>Clan Macfarlane</i>	W. J. Hughes	J. H. Wright, J. R. Moss	R. Lowther	"	" ...	" "	16.2.35 to 17.3.35
118 *† <i>Clan Macindoe</i>	H. E. G. Scott-Smith, O.B.E., R.D., R.N.R.	E. H. O. Stone, H. J. M. Watkins, C. Rodger.	W. C. Munro	"	" ...	" "	7.9.34 to 10.2.35
082 *† <i>Clan Macnair</i>	W. G. Holman	R. Armstrong, B. V. Brown, R. R. Baxter.	R. Newman	"	" ...	" "	7.1.35 to 10.4.35
255 *† <i>Clan Macneil</i>	A. Low	H. F. Town, B. H. Magill, E. Coultais.	A. Haslam	"	" ...	" "	21.11.34 to 6.2.35
001 *† <i>Clan Macphee</i>	A. R. Cossar	J. Dulson, R. G. Bagnall, H. Hind.	E. T. Hitchings	"	" ...	" "	19.3.35 to 7.4.35
168 *† <i>Clan Mactaggart</i>	W. F. West	H. R. Crosscombe, R. D. Helme, F. W. Robertson.	H. Kipling	"	" ...	" "	1.1.35 to 19.3.35
002 *† <i>Clan Macwhirter</i>	T. M. Macfarlane	R. K. Phillips, V. Green, J. M. Findlay.	D. B. Carstairs	"	" ...	" "	11.3.35 to 1.4.35
003 *† <i>Clan Malcolm</i>	J. Pollock	D. H. Brewer	A. P. Goodman	"	" ...	8.10.34 to 24.12.34	2.1.35
283 *† <i>Clan Morrison</i>	R. P. Galer, R.D., Commr., R.N.R.	E. Croucher, A. Banks, H. C. Carter.	F. Robbie	"	" ...	" "	5.3.35 to 31.5.35
279 *† <i>Clan Urquhart</i>	G. Young	J. Millar, W. M. Graham, C. Allister.	A. Butcher	M.	" ...	" "	17.3.35 to 4.4.35
<i>Clement</i>	W. Griffiths	W. Mendus, F. J. Law, E. Needham.	M.L.	Booth	Fms. 911 & 138	11.1.35 to 11.4.35	17.4.35
041 *† <i>Clydebank</i> M.V.	G. Sutherland	A. Hastings	S.	A. Weir	"	"	"
124 *† <i>Comeric</i>	W. Broome	A. Stafford-Watts, W. Smith, J. W. Robinson.	J. L. Ryder	"	" ...	" "	6.1.35 to 4.4.35
016 *† <i>Comriebank</i> , M.V.	S. Currie	C. R. Aitken, L. St. J. French, J. Mackay.	H. W. Jackson	"	" ...	" "	31.1.35 to 11.5.35
185 †† <i>Comorin</i>	C. W. Cartwright, D.S.C.	F. D. Shaw, H. S. Wood, G. W. Tweed.	M.-S.	P. & O.	"	Fm. 911	9.1.35 to 21.3.35
198 *† <i>Contractor</i>	D. L. Whyte	R. L. Bryde, J. H. Roberts, A. L. Cottier.	L. H. Plastow	M.	Harrison	Fms. 911 & 138	18.2.35 to 13.5.35
187 *† <i>Coptic</i> , M.V.	J. Avern, Commr. R.N.R.	R. H. Barnes, D. A. Emile, R. R. L. Rosoman.	P. M. Edwards	S.	Shaw, Savill & Albion.	" "	5.12.34 to 31.3.35
258 †† <i>Corfu</i>	F. E. French, R.D., Capt., R.N.R.	L. A. Hill, H. Tee, J. T. Sheffield.	R. V. McCreath	M.-S.	P. & O.	" "	17.2.35 to 24.5.35
<i>Cornwall</i>	A. E. Lettington, D.F.C.	A. Shepherd, D. Holden, A. Brown	M.L.	Federal	"	Fm. 915	24.9.34 to 26.1.35
214 *† <i>Counsellor</i>	J. Jackson	J. F. Wallis, A. A. Johnson, A. J. Turner.	H. Edwin	M.	Harrison	Fms. 911 & 138	7.2.35 to 25.4.35
036 *† <i>Cumberland</i>	T. L. Maltby	R. Warren, N. A. Thomas, J. W. Leslie.	E. Slater	S.	Federal	" "	24.1.35 to 2.5.35
285 *† <i>Custodian</i>	T. O'Connor	W. Pemberton, F. Bryant ...	W. Davidson	M.	Harrison	" "	30.12.34 to 12.3.35
169 *† <i>Dalgoma</i> , M.V.	P. H. Beeching	H. E. Evans, J. Marsland, G. Campbell.	M. A. Champney	"	British India	" "	18.2.35 to 7.5.35
<i>Dearne</i>	T. H. Woodhead	F. Sherwood, H. F. Richardson, G. A. Pitman.	M.L.	Goole Stm. Shipping	Fm. 915	18.8.34 to 26.1.35	4.2.35
<i>Deebank</i>	J. K. Brook, D.S.O., R.D., Commr. R.N.R.	T. C. Cormack, G. B. Gray, A. Cameron.	"	A. Weir	"	18.10.34 to 5.4.35	28.5.35
138 *† <i>Designer</i>	W. A. Hansen	G. J. Crispin ...	C. E. Appleton	M.	Harrison	Fm. 911	18.1.35 to 26.3.35
061 *† <i>Devon</i>	J. Blencowe	J. McPhail, — Parker, — Goodman.	R. O. Shaughnessy.	"	British India	"	23.2.35 to 29.3.35
284 *† <i>Director</i>	B. Worthington	H. Philpott, A. Robertson, J. R. Cowell.	R. Jones	"	Harrison	"	7.1.35 to 26.3.35
221 *† <i>Domala</i> M.V.	H. T. Cooke	C. W. Leadbetter, E. B. Cutlack, F. C. Conolly.	D. T. de Witt	"	British India	Fms. 911 & 138	1.4.35 to 25.4.35
103 †† <i>Doric</i>	A. C. Greig, O.B.E., R.D., Capt. R. N. R.	A. Thompson	S.	Cunard White Star	Fm. 911	13.4.35 to 26.4.35	29.4.35

THE MARINE OBSERVER

Name of Vessel.	Captain.	Observing Officers.	Senior Wireless Operator.	Meteorological Instrument Equipment.	Line.	Logs, Registers, or Records Contributed, 8.3.35 to 6.6.35.	Date Last Return Received.
136 *† <i>Doric Star</i> ...	S. N. Capon ...	J. L. Dawson, C. H. Watson, E. A. Irvine,	L. F. Reed ...	M.	Blue Star ...	Fms. 911 & 138 31.8.34 to 10.12.34	17.12.34
058 *† <i>Dorset</i> , M.V. ...	F. Ashworth ...	J. R. Ricketts, E. A. Rae, G. E. Mason,	E. K. Roberts ...	"	Federal ...	" " 27.11.34 to 3.4.35	4.5.35
142 †† <i>Duchess of Atholl</i> ...	A. Hall ...	C. E. Duggan, E. V. Glennie, R. McKillop.	E. Murphy ...	M.-S.	Canadian Pacific {	" " 22.2.35 to 11.5.35	13.5.35
152 †† <i>Duchess of Bedford</i> , R.N.R. ...	G. R. Parry, R.D., Commr., R.N.R.	L. Outram, E. J. Oatridge, W. Stanley.	W. Davies ...	" "	{	Fms. 911 & 138 3.3.35 to 16.5.35	21.5.35
151 †† <i>Duchess of Richmond</i> ...	H. A. Moore, R.D., Commr., R.N.R.	A. Mansey, W. P. P. Phillips, N. Scallan.	F. Yoston ...	S.	" "	Fm. 912 3.3.35 to 16.5.35	21.5.35
143 †† <i>Duchess of York</i> ...	W. B. Coyle, R.D., Commr., R.N.R.	J. Stewart, A. Mackie, F. Stoll.	J. W. Potts ...	M.-S.	" "	Fms. 911 & 138 31.1.35 to 23.5.35	27.5.35
<i>Duke of Argyll</i> ...	J. W. Richmond ...	F. Ardern, H. Thompson ...	G. Crankshaw	S.	L.M.S. Railway ...	Fm. 912 17.3.35 to 30.5.35	3.6.35
<i>Duke of Lancaster</i> ...	H. A. Tulley ...	W. Cole ...	F. Garrett ...	"	Telegraphic Report ...	" " 3.6.35	3.6.35
<i>Duke of Rothesay</i> ...	F. C. Raven ...	J. Irwin, H. Clarke ...	G. Pilling ...	"	" " 2.6.35	2.6.35	
253 *† <i>Dumana</i> , M.V.	H. T. Hudson, R.D., Commr., R.N.R.	W. M. Bain, A. H. Usher, L. O. Harborow.	H. Soulsby ...	M.	British India ...	Fms. 911 & 138 6.6.35	6.6.35
098 †† <i>Dunbar Castle</i> , M.V. ...	A. H. Blackman ...	J. G. W. Tilly, L. H. Farrow ...	P. P. Williams ...	S.	Union Castle ...	" " 2.3.35 to 3.5.35	9.5.35
052 *† <i>Dunster Grange</i> , M.V. ...	G. F. Wilson ...	E. G. Raynor, R. G. Williams, E. Monckton.	H. Varley ...	M.	Houlder ...	" " 2.3.35 to 1.5.35	17.5.35
102 *† <i>Duquesa</i> ...	C. R. Frost ...	A. McEwan, R. F. Martin, A. M. B. Case.	H. Croker ...	"	Furness Withy ...	" " 14.1.35 to 19.3.35	26.3.35
215 *† <i>Durenda</i> , M.V.	A. A. Parker ...	J. W. Douglas, J. E. Jones, A. C. Gardner.	— Alexander ...	British India ...	" "	1.3.35 to 24.3.35	1.4.35
064 *† <i>Durham</i> , M.V. ...	H. L. Upton, D.S.C., R.D., Capt., R.N.R.	C. J. P. Guille, A. W. Marshall, H. C. R. Bell.	M. H. Savage ...	Federal	" "	16.10.34 to 20.1.35	30.1.35
<i>Eastern Coast</i> ...	W. Quirk ...	F. Dawson, F. Darby ...	M.L.	Coast Lines ...	Fm. 915 23.7.34 to 18.12.34	7.1.35	
077 †† <i>Edinburgh Castle</i> ...	C. N. Bickford ...	M. S. Hudson ...	S.	Union Castle ...	Fms. 911 & 138 9.2.35 to 31.3.35	3.4.35	
107 †† <i>El Argentino</i> , M.V. ...	F. Ellis, D.S.C. ...	G. Brighton, H. N. Sherwell, J. G. Freeman,	J. Badcock ...	M.	Houlder ...	" " 31.3.35 to 29.5.35	31.5.35
009 *† <i>Elmworth</i> , M.V. ...	A. W. Gofton ...	L. Lidguard, P. McFarlane, V. Robson.	E. Digweed ...	R. S. Dalglish ...	" "	16.12.34 to 27.3.35	13.5.35
109 *† <i>El Paraguayo</i> ...	R. Owen ...	J. Knight, R. L. Aldridge ...	A. G. Macbeth	Houlder ...	" "	4.2.35 to 10.5.35	15.5.35
108 *† <i>Eltree Grange</i> ...	S. Mathews ...	C. Feaver, W. F. Heritage ...	A. Bartlett ...	" "	" " 10.12.34 to 6.4.35	17.4.35	
110 *† <i>El Uruguayo</i> ...	T. McNamara ...	F. E. Hailstone ...	W. Hughes	" "	" " 18.3.35 to 18.5.35	21.5.35	
088 *† <i>Empire Star</i> ...	E. Fielding ...	H. Partridge, F. W. Grist, G. Leardie.	J. Jamieson ...	Blue Star ...	" "	25.1.35 to 11.5.35	30.5.35
193 †† <i>Empress of Australia</i> ...	A. Rothwell ...	F. Falconer, W. Thorburn, R. Burns.	J. Butler ...	Canadian Pacific	" "	16.2.35 to 4.6.35	6.6.35
034 †† <i>Empress of Britain</i>	R. N. Stuart, V.C., D.S.O., R.D., Commr. R.N.R.	D. Dunn, A. C. Harrisson, N. Duck.	F. W. Bradley ...	" "	" "	9.2.35 to 27.5.35	29.5.35
154 †† <i>Empress of Canada</i>	A. J. Hosken ...	T. Maeduff, C. F. Alltree, F. Poole.	J. Newberg ...	M.L.	" "	Fm. 915 14.12.34 to 17.4.35	23.5.35
153 †† <i>Empress of Japan</i> ...	L. D. Douglas, R.D., R.N.R.	W. C. Halliday, J. S. Clarke, G. W. R. Graves.	J. McLaren ...	" "	" "	16.11.34 to 20.3.35	25.4.35
134 *† <i>Esperance Bay Explorer</i> , F.R.S. ...	R. McKenzie ...	F. L. Kean, G. Howchen, H. Hamilton.	A. Stander ...	M.	Aberdeen Commonwealth. Scottish Fishery Board.	Fms. 911 & 138 15.2.35 to 18.5.35	21.5.35
<i>Fordsdale</i> ...	F. G. Fraser ...	" " " " " "	M.L.	" " " " " "	" " " " " "	" " " " " "	" " " " " "
239 *† <i>Foylebank</i> , M.V. ...	H. P. Thurston ...	L. B. Miller, W. G. H. Bolton, L. B. Miller.	S.	Shaw Savill ...	Fm. 915 19.1.35 to 11.5.35	20.5.35	
046 †† <i>Franconia</i> ...	C. D. Logie ...	H. Ingledew, R. N. Wilkie, J. MacCallum.	J. McAleese ...	"	A. Weir ...	Fms. 911 & 138 26.1.35 to 28.4.35	14.5.35
159 *† <i>Fresno City</i> , M.V. ...	A. T. Brown, R.D., Capt., R.N.R.	N. Kingscote ...	" " " " " "	Cunard White Star	Fm. 911 5.2.35 to 15.2.35	3.4.35	
186 †† <i>Georgic</i> , M.V. ...	B. D. Thomas ...	R. W. Davies, P. J. Ryan, E. Scott.	T. C. Morrison ...	"	Reardon Smith ...	Fm. 911 & 138 4.2.35 to 20.4.35	24.5.35
234 *† <i>Glaucus</i> ...	J. C. Townley, R.D., Capt., R.N.R.	J. B. Jones, B. Harrison, J. H. Walker.	H. S. Reid ...	Cunard White Star	" "	23.4.35 to 24.5.35	27.5.35
026 *† <i>Glenbank</i> , M.V. ...	W. B. Ewan ...	W. B. Blamey ...	A. Johnson ...	M.L.	A. Holt ...	Fm. 915 13.6.34 to 27.10.34	8.12.34
126 *† <i>Glengarry</i> , M.V. ...	E. N. K. Blackmore ...	J. Evans.	W. Williamson ...	S.	A. Weir ...	Fms. 911 & 138 26.1.35 to 3.4.35	29.4.35
085 *† <i>Governor</i> ...	J. Angier ...	S. W. Bell, P. G. Neill, H. K. Martin.	H. H. Ridgeway	M.	Glen ...	" " 8.10.34 to 19.1.35	30.1.35
111 *† <i>Hardwicke Grange</i> ...	J. Davidson ...	A. Watson, G. Greaves ...	D. Scott ...	Harrison	" "	3.1.35 to 6.5.35	13.5.35
218 *† <i>Harmonides</i> ...	W. H. Fowler ...	A. O. Seybold, W. S. Ellis, E. J. L. Stone.	T. Downer ...	Houlder ...	" "	28.1.35 to 3.4.35	12.4.35
262 *† <i>Hauraki</i> , M.V. ...	F. R. Elwell ...	C. Hare, G. Sargeant, A. G. Beynon.	W. S. Armstrong ...	S.	R. P. Houston ...	" " 6.2.35 to 3.5.35	27.5.35
<i>Hertford</i> ...	E. Harris ...	W. E. Jones, W. McGarry, T. Stevenson.	L. Trenn ...	M.L.	Union S.S. Co., N.Z.	Fm. 915 7.9.34 to 17.12.34	20.2.35
<i>Hibernia</i> ...	J. Burton Davies ...	M. Willmott, H. Cockerill, N. Warren.	M. Willmott, H. Cockerill, N. Warren.	S.	Federal ...	" " 13.1.35 to 29.4.35	13.5.35
182 †† <i>Highland Brigade</i> , M.V. ...	J. R. Bulmer ...	J. Hughes	D. T. Rockey ...	L.M. & S. Railway Royal Mail ...	Telegraphic Report	4.6.35	4.6.35
116 †† <i>Highland Chieftain</i> , M.V. ...	C. A. Cocks, D.S.C., R.D., Capt., R.N.R.	W. Wrake, J. H. Fitton, J. James	A. Reynolds ...	" "	Fms. 911 & 138 7.2.35 to 24.3.35	2.4.35	
099 †† <i>Highland Monarch</i> , M.V. ...	J. A. Hodges ...	J. Scott, G. S. Grant, A. Ballardie.	G. H. Killick ...	" "	" "	21.3.35 to 6.5.35	13.5.35
230 †† <i>Highland Patriot</i> , M.V. ...	R. G. Clayton, D.S.C., R.D., Capt., R.N.R.	R. N. Fletcher, T. Bolland, N. F. Seaton.	E. F. Weatherhead.	" "	" "	4.3.35 to 23.4.35	29.4.35
250 †† <i>Highland Princess</i> , M.V. ...	R. A. Robinson ...	P. Yeatman, W. Tennant, C. Webster.	N. Carpenter ...	" "	" "	21.3.35 to 7.4.35	13.4.35
075 *† <i>Hobson's Bay</i> ...	A. E. Cornick ...	F. E. C. Cox, H. Davies, J. C. Blake.	H. Morgan ...	" "	" "	23.1.35 to 20.5.35	24.5.35
060 †† <i>Homeric</i>	T. V. Roberts, R.D., Commr., R.N.R.	F. Charney, C. Hollyoak, W. Williams.	A. R. Porter ...	M.	Aberdeen Commonwealth.	" " 3.1.35 to 6.4.35	17.4.35
261 *† <i>Huntingdon</i> ...	W. S. Quinn ...	J. Thompson ...	" " " " " "	Cunard White Star	Fm. 911 27.1.35 to 3.5.35	7.5.35	
200 *† <i>Huntsman</i> ...	H. G. B. Field ...	C. Cremin, C. B. Cathie, J. A. Knott ...	A. R. Mugridge ...	Federal ...	Fms. 911 & 138 20.12.34 to 6.4.35	15.4.35	
006 *† <i>Hurunui</i> ...	A. H. Brown ...	C. P. Vaughan, D. H. Bryant, A. S. Milne.	E. W. Robson ...	M.	Harrison ...	" " 26.2.35 to 11.5.35	14.5.35
260 *† <i>Inanda</i> ...	F. C. Pretty, D.S.C. ...	" " " " " "	" " " " " "	New Zealand Shipping.	" " " " " "	" " " " " "	" " " " " "
<i>Ingoma</i> ...	W. H. Gibbings ...	T. E. Steele, W. S. Eustance, D. N. Penfold.	E. J. Cook ...	M.	Harrison ...	Fms. 911 & 138 10.3.35 to 17.4.35	23.4.35
144 *† <i>Inverbank</i> , M.V. ...	J. T. Ling ...	F. D. W. Bryant ...	" " " " " "	Harrison ...	Fm. 911 10.2.35 to 16.5.35	21.5.35	
	W. Forsyth ...	A. E. Loades, L. C. Smith, D. Jackson ...	D. Armstrong ...	S.	A. Weir ...	Fms. 911 & 138 21.1.35 to 14.5.35	24.5.35

FLEET LIST

V

Name of Vessel.	Captain.	Observing Officers.	Senior Wireless Operator.	Meteorological Instrument Equipment.	Line.	Logs, Registers, or Records Contributed. 8.3.35 to 6.6.35.	Date Last Return Received.	
189 †† <i>Ionic</i>	W. H. P. Jackson ...	L. Bull, H. Last, D. Hewett...	S. A. Sorrell ...	S.	Shaw, Savill & Albion	Fms. 911 & 138 7.10.34 to 15.1.35	30.1.35	
<i>Isle of Guernsey</i> ...	C. D. Keene ...	H. F. Breuilly, F. E. Trout,	E. Bamford ...	"	Southern Rly.	Telegraphic Report 31.5.35	31.5.35	
<i>Isle of Jersey</i> ...	F. W. Holt, M.B.E. ...	M. C. Whiting, C. E. Durley, P. Lewis.	C. McCarthy ...	"	"	" 29.5.35	29.5.35	
<i>Isle of Sark</i> ...	R. J. Large ...	P. Lewis, C. E. Durley ...	J. T. Williams ...	M.L.	A. Holt ...	3.6.35	3.6.35	
<i>Ixion</i> ...	C. J. Watson ...	J. D. Auld, J. R. Sturgess, J. Wallace.	F. C. Wall ...		Fm. 915	4.1.35 to 25.3.35	30.4.35	
226 *† <i>Javanese Prince</i> , M.V.	{ J. Smith ... E. E. Jones ...	W. M. Henry, J. H. King, L. W. Cooper.	J. Everitt ...	"	Prince	27.7.34 to 24.11.34	9.1.35	
188 †† <i>Kaisar-i-Hind</i> ...	M. G. Draper ...	A. E. Clay, H. Williamson, H. N. Thompson.	E. Habicht ...	M.-S.	P. & O. ...	Fms. 911 & 138 17.3.35 to 24.4.35	26.4.35	
206 *† <i>Karamea</i> , M.V....	E. Davies ...	W. A. Rodgers, W. Hill, R. J. McKenzie.	A. Shattock ...	S.	Shaw Savill & Albion.	" "	11.11.34 to 27.2.35	7.3.35
281 *† <i>Kemmendine</i> ...	R. B. Reid ...	C. R. Roy, J. A. Anderson ...	R. Ford ...	M.	Henderson	" "	27.1.35 to 7.4.35	15.4.35
147 †† <i>Laconia</i> ...	B. B. Oram, R.D., Commr., R.N.R.	J. Ashcroft, A. Fasting, J. C. Boyce.	W. M. McArdle ...	S.	Cunard White Star	" "	18.3.35 to 1.6.35	4.6.35
062 †† <i>Lancastria</i> ...	E. Edkin, O.B.E., R.D., A.D.C., Capt. R.N.R.	W. M. Stewart, O. V. Lucas, N. F. Dennison.	R. Greenall ...	"	" "	" "	10.3.35 to 24.5.35	27.5.35
076 *† <i>Largs Bay</i> ...	W. M. Jermyn ...	C. Meyer, A. Galvin, J. Renton	F. E. Ash ...	M.	Aberdeen Commonwealth.	" "	25.11.34 to 28.2.35	9.3.35
112 *† <i>La Rosarina</i> ...	W. E. Williams ...	W. S. Hamblin, T. C. Towns-end, S. W. Howell.	W. R. Bain ...	"	Houlder	" "	21.1.35 to 21.3.35	23.3.35
267 *† <i>Lassell</i> , M.V. ...	E. Wilkinson ...	W. Bevin, T. J. Sweeney, B. S. Harkney.	L. Brazill ...	S.	Lamport & Holt	" "	13.11.34 to 31.1.35	6.2.35
083 *† <i>Lastaro</i> , M.V. ...	F. D. Cox ...	J. Williams, A. Turner ...	W. House ...	M.	Pacific S.N. Co.	6.10.34 to 31.1.35	6.2.35	
251 *† <i>Leverbank</i> , M.V.	W. W. Elliott ...	R. E. Sadler ...	A. Weir ...	S.	Fm. 311 "	6.1.35 to 13.2.35	26.3.35	
254 *† <i>Limerick</i> , M.V....	A. J. Angell ...	W. H. Timberlake, J. Smallwood, J. E. Clarke.	J. Gillespie ...	M.	Federal	Fms. 911 & 138 11.2.34 to 11.6.34	5.7.34	
093 *† <i>Llandaff Castle</i> ...	H. L. Scholefield ...	W. E. Clark ...	G. Lewis ...	S.	Union Castle	" "	23.2.35 to 27.4.35	7.5.35
094 *† <i>Llandovery Castle</i> ...	J. MacMahon, R.D., Commr., R.N.R.	A. G. Bidwell, J. Bowden ...	A. E. Hunter ...	"	" "	" "	27.1.35 to 30.3.35	8.4.35
097 †† <i>Llangibby Castle</i> , M.V.	H. R. Northwood ...	F. C. F. Longland ...	J. Gilbert ...	"	" "	" "	23.3.35 to 25.5.35	1.6.35
216 *† <i>Llanstephan Castle</i>	W. Weller ...	J. L. Goatley ...	H. W. Langshaw ...	"	" "	" "	7.1.35 to 24.1.35	11.4.35
084 *† <i>Lobos</i> , M.V. ...	E. H. Large, R.D., Commr., R.N.R.	J. D. Richards, J. Murdock ...	R. Brownlee ...	M.	Pacific S.N. Co.	" "	17.2.35 to 22.5.35	25.5.35
137 *† <i>Logician</i> ...	R. F. Herschel ...	T. W. Kent, F. R. Hickin ...	H. W. Quinn ...	"	Harrison	" "	9.12.34 to 28.2.35	6.3.35
008 *† <i>Losada</i> , M.V. ...	R. E. Dunn, O.B.E. ...	A. Lyall ...	A. Fairweather ...	"	Pacific S.N. Co.	" "	8.12.34 to 25.2.35	26.3.35
232 *† <i>Madura</i> ...	J. A. Wright ...	A. Kidner, K. R. C. Letts, R. A. Bidmead.	H. O. Francis ...	"	British India	" "	21.1.35 to 27.3.35	2.4.35
231 *† <i>Mahana</i> ...	J. M. Cameron...	C. C. Good, J. Paine, A. Turnbull.	— Jackson ...	S.	Shaw Savill & Albion.	" "	10.10.34 to 4.1.35	11.2.35
101 *† <i>Mahia</i> ...	C. M. Andrews...	R. A. Costa, R. K. Bolton, E. L. Harper.	C. H. Lott ...	"	" "	" "	25.9.34 to 26.1.35	4.2.35
140 *† <i>Mahratta</i> ...	W. Hill ...	N. B. Exley, N. Grayson, W. Couling.	P. F. Dunford ...	M.	Brocklebank	" "	21.1.35 to 30.3.35	5.4.35
014 *† <i>Mahronda</i> ...	L. T. Owen ...	J. B. Leigh, J. B. Newman, H. Hains.	W. Ritch ...	"	" "	" "	23.3.35 to 25.4.35	7.5.35
015 *† <i>Mahsud</i> ...	R. W. Kershaw ...	H. Gillespie, J. R. Paisley, C. A. Jackson.	G. D. Plant ...	"	" "	" "	4.2.35 to 10.4.35	23.4.35
042 *† <i>Maimoa</i> ...	W. G. West ...	H. C. Howe, H. Winyard, C. Parker.	G. L. Brown ...	S.	Shaw Savill & Albion.	" "	13.12.34 to 30.3.35	4.4.35
054 †† <i>Majestic</i> ...	R. V. Peel, R.D., Commodore, R.N.R.	R. B. O'Brien, W. Fitzgerald, A. H. Young.	J. R. Thomson ...	"	Cunard White Star	" "	23.2.35 to 30.5.35	1.6.35
018 *† <i>Makalla</i> ...	C. Shaw ...	A. Hill, G. Thomas, A. G. Gorham.	W. Fallowfield ...	M.	Brocklebank	" "	19.2.35 to 24.3.35	1.4.35
225 *† <i>Makura</i> ...	D. MacDonald ...	F. Young, D. H. Richards, J. A. Kirk.	E. J. Lough ...	M.L.	Canadian-Australasian Prince	Fm. 915	25.10.34 to 8.2.35	27.4.35
236 *† <i>Malayan Prince</i> , M.V.	E. Hardcastle ...	C. S. Smith, W. R. Harries, C. J. H. Dunford.	A. A. Lees ...	"	" "	" "	21.9.34 to 5.1.35	28.2.35
219 *† <i>Malda</i> ...	F. Caffyn ...	A. W. Willis, D. O. Gough, J. F. Twite.	— Aspin ...	M.	British India	Fms. 911 & 138 15.12.34 to 10.3.35	20.3.35	
195 †† <i>Maloja</i> ...	J. B. Browning, R.D., Commr., R.N.R.	K. W. Richardson, P. Howarth, H. M. Askin.	A. Macbeth ...	M.-S.	P. & O. ...	" "	17.11.34 to 21.2.35	25.2.35
<i>Mamari</i> ...	W. B. Starr, R.D., Commr., R.N.R. ...	R. M. Pattinson, F. M. Murphy, W. G. Burt.	S. K. Olston ...	"	Shaw Savill & Albion.	Fm. 915	23.11.34 to 18.3.35	29.3.35
146 *† <i>Mandasor</i> ...	L. C. Shore ...	E. Williams ...	R. Hammond ...	M.-S.	Brocklebank	Fm. 911	24.2.35 to 27.3.35	17.4.35
177 *† <i>Mantola</i> ...	D. F. James ...	J. Duncan, L. J. Kew, G. Challis.	S. K. Olston ...	"	British India	Fms. 911 & 138 21.11.34 to 5.2.35	14.2.35	
197 *† <i>Mantua</i> ...	J. M. Legg ...	N. W. Leach, T. D. Forbes, D. S. Charles	R. Hammond ...	M.-S.	P. & O. ...	" "	16.3.35 to 3.4.35	8.4.35
<i>Maron</i> , M.V. ...	{ J. A. Stewart... R. Brown ...	J. Holden, J. McCarthy, L. C. Glynn.	— Aspin ...	M.L.	A. Holt ...	Fm. 915	19.9.34 to 2.2.35	13.3.35
104 *† <i>Marquesa</i> ...	R. Smiles ...	J. Allerton, F. Feint, G. Jennings.	J. Skinner ...	M.	Furness Houlder	Fms. 911 & 138 11.2.35 to 19.4.35	25.4.35	
213 *† <i>Mashobra</i> ...	J. L. Beatty ...	H. O'Donohoe, H. Stadden, K. W. Letbe.	T. F. Holden ...	M.-S.	British India	" "	4.2.35 to 22.4.35	22.5.35
217 *† <i>Matakana</i> ...	F. A. Orriss ...	W. A. Sims-Reeve, C. W. Sendall, D. Masters.	W. Ingle ...	S.	Shaw Savill & Albion.	" "	19.12.34 to 16.4.35	27.4.35
235 †† <i>Mataroa</i> ...	A. McIntosh ...	E. B. Macfarren, R. S. Winder C. A. Parsloe.	J. P. Carey ...	"	" "	" "	4.11.34 to 6.2.35	12.2.35
023 *† <i>Matheran</i> ...	H. D. Fulcher ...	F. C. Madden, R. Penston, T. Johnston.	J. Heathcote ...	M.	Brocklebank	" "	24.2.35 to 22.3.35	15.4.35
223 *† <i>Matiana</i> ...	L. D. Patterson ...	A. H. Baird, J. Bridgeman, V. Irving.	F. Arnott ...	"	British India	" "	15.2.35 to 27.4.35	3.6.35
024 *† <i>Matra</i> ...	N. P. Cornish ...	A. E. Austin, T. F. Eggleston, C. Parry.	E. R. Capps ...	"	Brocklebank	" "	3.12.34 to 22.2.35	3.4.35

THE MARINE OBSERVER

Name of Vessel.	Captain.	Observing Officers.	Senior Wireless Operator.	Meteorological Instrument Equipment.	Line.	Logs, Registers, or Records Contributed. 8.3.35 to 6.6.35.	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, R. Perry, J. S. G. Christian.	J. W. Quain ...	M.-S.	P. & O. ...	” ” 30.12.34 to 30.5.35	1.6.35
199 †† <i>Mongolia</i> ...	H. R. Rhodes ...	H. M. Flint, E. J. Spurling, R. J. Paice.	A. Morris ...	”	” ” ”	2.12.34 to 15.4.35	21.5.35
148 †† <i>Montcalm</i> ...	W. G. Busk-Wood, R.D., Commr., R.N.R.	F. W. Roberts, D. Ewing ...	J. Biggins ...	”	Canadian Pacific {	Fm. 912 ” 10.3.35 to 29.5.35	31.5.35
149 †† <i>Montclare</i> ...	C. H. Sapworth ...	J. M. Roche ...	”	”	” ” ”	Fm. 911 ” 10.3.35 to 29.5.35	31.5.35
150 †† <i>Montrose</i> ...	P. Pugh ...	W. J. Roberts, D. Parsons ...	A. G. Hill ...	”	” ” ”	Fms. 911 & 138 17.2.35 to 22.5.35	24.5.35
164 †† <i>Mooltan</i> ...	E. P. Lyndon, R.D., R.N.R.	J. M. Sinclair, A. D. Dennis, M. A. Trenfield.	H. Williamson ...	”	P. & O. ...	Fm. 912 ” 17.2.35 to 22.5.35	24.5.35
196 †† <i>Mulbera</i> ...	W. A. Grant-Pyves ...	P. M. Wilson, A. M. Dean, J. L. Williams.	A. P. P. Adams ...	”	British India ...	Fms. 911 & 138 10.2.34 to 15.5.35	20.5.35
078 *† <i>Myrtlebank</i> , M.V.	G. S. Holbrook ...	J. Syme, W. T. Norvell, C. Smith.	J. Kirree ...	S.	A. Weir ...	” ” ” 27.1.35 to 17.3.35	12.4.35
073 *† <i>Nagara</i> ...	B. J. Davies ...	H. Lang, F. Fraser, F. Jones,	E. G. Blackburn ...	M.	Royal Mail ...	” ” ” 27.2.35 to 25.4.35	1.5.35
201 †† <i>Naldera</i> ...	R. C. Dene ...	E. J. R. North, F. W. J. Pearce, E. R. Physick,	R. T. Soans ...	S.	P. & O. ...	” ” ” 26.11.34 to 29.2.35	6.3.35
<i>Nankin</i> ...	N. B. Skinner ...	G. D. Clarke, J. H. Simpson, B. S. Johnson	” ” ”	M.L.	Eastern and Australian.	Fm. 915 1.8.34 to 21.10.34	1.1.35
227 *† <i>Nardana</i> ...	C. Dorking White ...	H. Goater, W. Clarke, L. W. Kerton	L. J. Hadler ...	M.	British India ...	Fms. 911 & 138 3.12.34 to 15.4.35	1.5.35
202 †† <i>Narkunda</i> ...	J. H. Biggs, R.D., Commr., R.N.R.	W. N. Eade, H. C. Shinn, G. Randall.	C. Herbert ...	M.-S.	P. & O. ...	” ” ” 11.1.35 to 18.4.35	23.4.35
286 *† <i>Nascopie</i> ...	T. F. Smellie ...	A. J. Randall, R. Stephen, H. A. Wright, F. S. Devison ...	” ” ”	S.	Hudson's Bay Co.	Fm. 911 8.7.34 to 30.9.34	19.10.34
286 *† <i>Natia</i> ...	E. W. Bridges ...	A. G. Rose, J. H. Armstrong, J. H. Simpson.	R. Waylett ...	M.	Royal Mail ...	Fms. 911 & 138 14.1.35 to 5.3.35	18.3.35
<i>Nellore</i> ...	T. J. Mills ...	K. H. Goodman, H. C. Turner, B. C. Brookings.	F. R. de B. Snape ...	M.L.	Eastern and Australian.	Fm. 915 2.12.34 to 24.2.35	27.4.35
019 *† <i>Nerbudda</i> ...	J. Blencowe ...	R. W. Aitken, H. Readshaw, P. S. Evans.	R. O'Shaughnessy.	M.	British India ...	Fms. 911 & 138 31.7.34 to 23.9.34	26.9.34
162 *† <i>Nestor</i> ...	F. Adecock ...	G. H. Kime, J. Billingham, A. J. McKenzie.	C. F. Townsend ...	S.	A. Holt ...	” ” ” 18.1.35 to 1.5.35	4.5.35
210 *† <i>Niagara</i> ...	{ T. V. Hill ...	G. H. Wilkinson, T. Windus, P. A. Block.	G. M. Power ...	M.L.	Canadian-Australasian.	Fm. 915 10.10.34 to 22.2.35	30.4.35
<i>Norfolk</i> ...	{ W. Martin ...	H. J. Cowan, H. F. Thomson	” ” ”	Federal ...	Federal ...	” ” 5.9.34 to 5.2.35	15.2.35
<i>Northern Coast</i> ...	R. L. H. McNish, D.S.O., R.N.R.	G. Saul, W. Redwood, H. Mackilligan.	” ” ”	Coast Lines	” ” ” 31.8.34 to 4.2.35	11.2.35	
<i>Northumberland</i> ...	H. Cameron ...	” ” ”	S.	Federal ...	” ” ” 16.12.34 to 16.4.35	25.4.35	
243 *† <i>Opawa</i> , M.V. ...	F. W. Robinson ...	J. McCulloch, J. C. Grose, H. S. Dawson.	F. W. Fowler ...	M.	New Zealand Shipping {	Fms. 911 & 138 28.11.34 to 4.4.35	10.4.35
170 †† <i>Orama</i> ...	E. P. Cameron, R.D., Capt., R.N.R.	C. Edgecombe, L. W. Hodges, A. Gray.	J. W. Willson ...	S.	Orient ...	Fm. 912 28.11.34 to 4.4.35	10.4.35
080 *† <i>Orari</i> ...	J. G. Almond ...	H. S. Rogers, A. T. H. Weatherall, J. H. Underwood.	W. E. Fordham ...	M.	New Zealand Shipping.	Fms. 911 & 138 18.2.35 to 21.5.35	5.6.35
246 †† <i>Orbita</i> ...	J. H. Kirkwood ...	E. Baxter, J. Whitehouse, P. L. Hockey.	D. H. Sinclair ...	M.-S.	Pacific S.N. Co.	” ” ” 11.11.34 to 23.2.35	28.2.35
087 †† <i>Orduna</i> ...	A. Ridyard, O.B.E. ...	R. D. Eckford, W. Vickers, T. R. Thomas.	W. G. Campbell ...	” ” ”	Orient ...	” ” ” 19.3.35 to 23.5.35	30.5.35
171 †† <i>Orford</i> ...	A. L. Owens, R.D., Capt., R.N.R.	K. M. Morrison, P. Sargent, W. H. Barker.	A. F. Edwards ...	” ” ”	” ” ” 14.2.35 to 14.4.35	17.4.35	
174 †† <i>Ormonde</i> ...	M. J. Sarson ...	C. E. Coles, F. Sly, E. M. MacKay.	B. Baxter ...	S.	” ” ” 7.1.35 to 9.4.35	11.4.35	
172 †† <i>Oronsay</i> ...	C. G. Matheson, D.S.O., R.D., Commodore, R.N.R.	G. B. H. Jones, G. W. Pinckney, J. N. Hulm.	P. Darby ...	” ” ”	” ” ” 9.12.34 to 12.3.35	21.3.35	
173 †† <i>Orontes</i> ...	F. R. O'Sullivan ...	R. W. Roberts, C. Denton, J. K. Johnson.	S. G. Boon ...	M.-S.	” ” ” 12.11.34 to 13.2.35	20.2.35	
105 †† <i>Orsova</i> ...	R. L. F. Hubbard, R.D., Commr., R.N.R.	F. K. Manley, W. N. Smith, R. L. Galpin.	R. B. Knights ...	S.	” ” ” 19.2.35 to 13.5.35	21.5.35	
156 †† <i>Otranto</i> ...	L. V. James, D.S.C. ...	J. Birch, G. R. Grandage, L. L. Lloyd Jones.	J. L. Curry ...	M.-S.	” ” ” 23.12.34 to 26.3.35	1.4.35	
044 *† <i>Pacific Exporter</i> M.V. ...	C. E. Holland, Commr., R.N.R.	H. Edmonds, H. Moss, W. Wilcock.	W. Moore ...	S.	Furness Withy ...	” ” ” 21.1.35 to 23.4.35	26.4.35
277 *† <i>Pakeha</i> ...	E. T. Grayston, D.S.C., R.D., Commr. R.N.R.	A. J. Tillett, D. Pickersgill, B. D. Atkin.	” ” ”	Shaw Savill & Albion.	” ” ” 26.12.34 to 3.4.35	23.4.35	
<i>Paris</i> ...	C. Munton ...	E. W. Smith ...	A. H. Jones ...	M.L.	Southern Rly. ...	Telegraphic Report... 12.5.35	12.5.35
<i>Penola</i> , Schooner	R. E. D. Ryder, Lieut., R.N.	” ” ”	” ” ”	” ” ”	British Graham Land Expedition.	” ” ” 13.5.35	13.5.35
204 *† <i>Peshawur</i> ...	E. P. Parfitt ...	A. Robbins, S. Kerridge, T. Hopkins.	A. H. Garbett ...	M.	P. & O. ...	Fms. 911 & 138 24.3.35 to 30.4.35	3.6.35
040 *† <i>Port Adelaide</i> ...	R. Williams ...	E. G. Jones, W. E. Dingle, H. Garner.	W. Ash ...	S.	Commonwealth & Dominion.	” ” ” 26.12.34 to 16.4.35	7.5.35
238 *† <i>Port Alma</i> , M.V. ...	S. C. Cottell ...	T. L. Kidwell, W. B. Hopkins, W. D. Henderson.	L. D. Corbett ...	” ” ”	” ” ” 16.11.34 to 4.3.35	11.3.35	
128 *† <i>Port Auckland</i> ...	C. A. Robinson ...	W. Easton, E. C. Read, H. Crail.	K. Riley ...	” ” ”	Fm. 912 ” 4.2.35	11.3.35	
268 *† <i>Port Bowen</i> ...	A. H. Brown ...	E. W. Rogerson, R. Bettess, A. V. C. Hoadley.	H. Naylor ...	” ” ”	Fms. 911 & 138 14.1.35 to 3.5.35	13.5.35	
130 *† <i>Port Caroline</i> ...	G. S. Hall ...	L. W. Cody, L. J. Skailles, R. W. Nicholl.	J. H. Bradford ...	” ” ”	” ” ” 24.1.35 to 25.5.35	29.5.35	
190 *† <i>Port Chalmers</i> , M.V. ...	S. W. Hayter ...	C. R. Townsend, H. A. Munday, C. V. Hancock.	R. Faulkner ...	” ” ”	Fm. 912 ” 24.1.35 to 25.5.35	29.5.35	
131 *† <i>Port Darwin</i> ...	J. J. Hudson ...	F. J. Lavers, C. Gorley, W. Wakefield.	H. Maclarens ...	” ” ”	Fms. 911 & 138 22.3.35 to 24.4.35	3.6.35	
072 *† <i>Port Denison</i> ...	S. A. E. Gregory ...	E. Wheeler, B. Millburn, A. G. Russell.	V. T. Cole ...	” ” ”	” ” ” 1.11.34 to 25.2.35	6.3.35	
<i>Port Dunedin</i> , M.V. ...	G. W. Hearn ...	A. Brown ...	W. J. Craig ...	” ” ”	” ” ” 20.9.34 to 21.1.35	11.2.35	
					Fm. 911 ” 28.1.35 to 5.5.35	15.5.35	
					” ” ” 28.1.35 to 30.4.35	24.5.35	

FLEET LIST

vii

Name of Vessel.	Captain.	Observing Officers.	Senior Wireless Operator.	Meteorological Instrument Equipment.	Line.	Logs, Registers, or Records Contributed. 8.3.35 to 6.6.35.	Date Last Return Received.
010 *† <i>Port Fremantle</i> , M.V.	W. J. Enright, R.D., Commr., R.N.R.	A. Young, N. Nuzzell, G. Garner.	H. Lothian	S.	Commonwealth & Dominion	Fms. 911 & 138 26.8.34 to 20.10.34	30.1.35
163 *† <i>Port Gisborne</i> , M.V.	W. G. Higgs ...	R. B. Linklater, A. Mc Clounan, H. B. Walker.	H. Smith	"	" "	" " 29.11.35 to 18.3.35	21.3.35
252 *† <i>Port Hardy</i> ...	J. Jack ...	W. M. Clough, D. F. Morgan, A. Alexander.	K. H. Bond	"	" "	" " 28.10.34 to 14.3.35	1.4.35
<i>Port Hobart</i> , M.V.	T. Kippins, D.S.C. ...	W. Rowland-Hill, J. S. Moate, R. Owen.	... ...	"	" "	Fm. 915 1.1.35 to 23.4.35	3.5.35
127 *† <i>Port Wellington</i>	R. Needham ...	A. J. Knell, E. Rogerson, R. R. Russel.	J. Jeffrey	"	" "	Fms. 911 & 138 22.8.34 to 30.12.34	16.1.35
<i>Prague</i> ...	F. E. Beeching, D.S.C. ...	S. J. Holland, F. Woods ...	A. Potter	L. & N.E. Rly. ...	Telegraphic Report	3.6.35	3.6.35
106 *† <i>Princesa</i> ...	A. B. Friend ...	E. Lougheed, O. S. Sheard, F. Poulsou.	R. Shackleton	M.	Houlder ...	Fms. 911 & 138 11.3.35 to 16.5.35	20.5.35
063 *† <i>Queen City</i> ...	R. V. Arkwright ...	J. W. Botterill ...	...	S.	Reardon Smith ...	Fm. 911 17.7.34 to 12.5.35	14.5.35
205 †† <i>Rajputana</i> ...	P. C. Headlam, R.D., Commr., R.N.R.	P. B. Brett, G. A. Wild, S. H. Baldwin.	W. Banbury	M.-S.	P. & O. ...	Fms. 911 & 138 23.12.34 to 27.3.35	1.4.35
228 †† <i>Ranchi</i> ...	C. E. Short ...	T. T. Ferguson, D. Armstrong, C. Hutchinson.	W. Stevenson	"	" ...	" " 11.11.34 to 14.2.35	18.2.35
224 †† <i>Rangitane</i> , M.V.	A. W. McKellar, R.D., Capt., R.N.R.	S. R. Leggett, L. Mercer, G. E. Law.	W. E. Smith	"	New Zealand Shipping	" " 9.2.35 to 14.5.35	21.5.35
257 †† <i>Rangitata</i> , M.V.	J. L. B. Hunter ...	W. J. Glassborow, R. H. Browne, H. P. Williamson, N. Baddeley, C. A. Jones ...	J. Ellison	"	" "	" " 17.11.34 to 20.2.35	27.2.35
240 †† <i>Rangitiki</i> , M.V.	H. Barnett ...	R. E. Tucker, G. Maclean, M. G. Morris.	L. V. Horn	"	P. & O. ...	" " 13.1.35 to 16.4.35	9.5.35
207 †† <i>Ranipura</i> ...	G. H. S. Furlong, O.B.E., R.D., Capt., R.N.R.	F. C. B. Watkins, F. E. Cox, A. O. Gething.	J. R. C. Johnson	"	" "	" " 1.2.35 to 21.3.35	28.3.35
071 †† <i>Rawalpindi</i> ...	R. H. Stringer, O.B.E., R.D., Commr., R.N.R.	J. F. Phillips, W. P. Baker, J. R. Lloyd.	S. W. Sharp	"	" ...	" " 13.12.34 to 8.5.35	24.5.35
247 *† <i>Recorder</i> ...	J. J. Egerton ...	W. A. Hearle, R. Bridson, J. K. Campbell.	R. C. Lobb	M.	Harrison	" " 4.11.34 to 25.1.35	30.1.35
132 *† <i>Reina del Pacifico</i> , M.V.	J. Ross ...	D. H. Clegg, H. Hill, R. S. Frost.	A. W. Davey	"	Pacific S.N. Co. ...	" " 21.1.35 to 25.3.35	1.4.35
<i>Remuera</i> ...	E. A. Holland ...	A. E. Bartlett, R. T. Dryden, J. L. Barrett.	D. H. Clegg, H. Hill, R. S. Frost.	M.L.	New Zealand Shipping	Fm. 915 15.12.34 to 24.3.35	1.4.35
<i>Rhexenor</i> ...	{ C. F. Mellings ... G. G. Rundell...	N. A. Warner	A. Holt ...	"	"	12.8.34 to 16.12.34	8.2.35
<i>Rotorua</i> ...	C. B. Lamb ...	H. N. Lawson, R. H. Carter, B. C. Hamilton.	...	"	New Zealand Shipping	" 8.12.34 to 3.4.35	23.4.35
203 *† <i>Royal Star</i> ...	T. Williams ...	N. Clarkson, H. Arton, W. E. Buckingham.	T. O'Shea	M.	Blue Star ...	Fms. 911 & 138 2.2.35 to 5.3.35	9.3.35
<i>Ruahine</i> ...	G. Kinnell ...	A. Hocken, F. R. F. Wilson, V. Canton.	...	M.L.	New Zealand Shipping	Fm. 915 2.2.35 to 9.5.35	17.5.35
<i>St. Helier</i> ...	R. Pitman ...	G. Cartwright ...	S.	G.W. Railway ...	Telegraphic Report	13.4.35	13.4.35
<i>St. Julien</i> ...	T. Richardson ...	F. E. Martin ...	E. Trapnell	"	Bunch Steam ...	4.6.35	4.6.35
<i>St. Keverne</i> , S.T.	A. Hatton ...	...	...	A.	Fishing Co. {	Fm. 911 " 10.2.35 to 29.4.35	7.5.35
<i>St. Patrick</i> ...	C. W. Sanderson ...	F. P. Collins, J. F. Drake, J. C. Dawson.	J. Harvey	S.	G.W. Railway ...	Fm. 912 10.2.35 to 11.3.35	15.4.35
<i>Samaria</i> ...	J. McRostie ...	N. Lloyd Williams ...	...	...	Cunard White Star {	Telegraphic Report 1.9.34	1.9.34
<i>Scotia</i> ...	W. T. Griffith ...	R. N. Yould, W. J. Foster, J. Quayle.	F. H. Williams ...	"	Star {	Fms. 911 & 138 22.4.35 to 25.5.35	28.5.35
033 †† <i>Scythia</i> ...	G. R. Dolphin, R.D., Commr., R.N.R.	A. C. Muir, J. K. Gemmel, J. S. Milner.	D. McLellan	"	L.M. & S. Railway	Fm. 912 22.4.35 to 25.5.35	28.5.35
211 *† <i>Shropshire</i> , M.V.	R. P. Mann ...	W. A. Niven, H. J. Steele, R. M. Dennis.	W. Childs	M.L.	Cunard White Star {	Telegraphic Report 24.5.35	24.5.35
121 *† <i>Siamese Prince</i> , M.V.	E. E. Litchfield ...	H. J. Dean, W. S. Welford, W. J. Law.	J. Jenkinson	"	Fms. 911 & 138 3.3.35 to 19.5.35	22.5.35	
<i>Silverwalnut</i> , M.V.	J. Smith, R.N.R. ...	H. M. Knight, T. E. Davies, B. C. Hamilton.	H. A. Haddon	S.	Federal ...	20.1.35 to 29.3.35	2.4.35
141 *† <i>Somerset</i> ...	E. R. Pilcher ...	A. Kirk, G. H. Duncan, G. Hodgeson.	...	M.L.	Ellerman Wilson	Fm. 915 13.7.34 to 22.12.34	28.12.34
<i>Spero</i> ...	W. A. Dossor ...	J. MacCrane, R. E. Smallbone, E. G. G. Mobbs.	P. B. Allison	S.	Turnbull Martin...	Fms. 911 & 138 11.3.35 to 25.4.35	3.6.35
020 *† <i>Stirlingshire</i> , M.V.	F. T. Mee, F.R.G.S. ...	R. A. B. Kimpton, R. H. Hand, L. T. Brown.	F. W. Helm	"	P. & O. ...	" " 26.1.35 to 1.5.35	7.5.35
270 †† <i>Strathaird</i> ...	W. P. Townshend, R.D., Capt., R.N.R.	S. Peters, W. Waghorn, A. J. McHattie.	P. R. Hobbs	M.-S.	" ...	" " 23.2.35 to 30.5.35	1.6.35
059 †† <i>Strathnaver</i> ...	R. Harrison, D.S.O., R.D., A.D.C., Capt., R.N.R.	J. Lewis, R. McIlraith, G. Wooller.	P. G. Winsor	M.	Blue Star ...	" " 15.2.35 to 2.5.35	9.5.35
274 *† <i>Sutlan Star</i> ...	W. H. Bevan ...	D. G. Russell, J. O. Davies, J. H. Mortimer.	...	S.	Fm. 911 24.10.34 to 11.1.35	21.1.35	
<i>Tacoma Star</i> ...	W. Walsh ...	R. Swain, T. Winstanley, A. Moreton.	F. Flint	M.	Harrison ...	Fms. 911 & 138 5.2.35 to 23.4.35	4.5.35
081 *† <i>Tairoa</i> ...	S. Oswald ...	H. D. Pim, M. G. Stuart, A. E. Weller.	J. B. Smith	S.	Shaw, Savill & Albion	" " 4.2.35 to 10.3.35	26.3.35
021 †† <i>Tamaroa</i> ...	G. Williams ...	L. H. Edmonds, A. Blewitt, R. Reed...	P. Maloney	M.-S.	" "	" " 27.1.35 to 30.4.35	9.5.35
264 *† <i>Tanda</i> ...	E. T. Pilcher, R.N.R. ...	F. O. Colvin, W. B. Williams, G. N. Reed.	W. Harris	M.L.	E. & A. S.S. Co. ...	Fm. 915 10.9.34 to 8.1.35	16.3.35
165 *† <i>Tantalus</i> , M.V.	W. T. Birch ...	J. MacPhee, N. P. Smith, C. W. Taylor.	J. Nicholas	S.	A. Holt ...	Fms. 911 & 138 26.1.35 to 17.4.35	24.5.35
047 *† <i>Taranaki</i> , M.V.	W. J. Williams... ...	T. B. Marsdon, B. M. Morris, A. G. Fisher.	W. Shotten	"	Shaw, Savill & Albion	" " 15.8.34 to 26.11.34	3.12.34
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	" " 2.7.34 to 4.11.34	13.11.34
048 †† <i>Themistocles</i> ...	C. Wood, D.S.C. ...	E. Johanson, G. Hawley, J. Wildsmith.	G. M. Hardie	M.-S.	Aberdeen Commonwealth	" " 23.12.34 to 22.3.35	28.3.35
161 *† <i>Titan</i> ...	W. B. Ewan ...	J. A. C. McGregor, A. R. Davidson, J. M. Sim, G. W. Pring, L. Mercer, J. W. Leslie.	G. Pearce	S.	A. Holt ...	" " 5.1.35 to 5.4.35	15.4.35
244 *† <i>Tongariro</i> ...	P. B. Clarke, D.S.C. ...	E. G. Stride	...	New Zealand Shipping	" "	20.5.34 to 30.9.34	2.10.34
025 †† <i>Transylvania</i> ...	R. W. Smart ...	R. L. Robertson, I. McVey, H. D. Campsie.	J. McDonald	"	Anchor ...	Fm. 912 " 3.3.35 to 18.5.35	21.5.35
						3.3.35 to 18.5.35	21.5.35

THE MARINE OBSERVER

Name of Vessel.	Captain.	Observing Officers.	Senior Wireless Operator.	Meteorological Instrument Equipment.	Line.	Logs, Registers, or Records Contributed. 8.3.35 to 6.6.35.	Date Last Return Received.
119 *† <i>Trojan Star</i> ...	G. Owen, R.D., Commr., R.N.R.	W. A. G. Curney, W. L. Hall, F. O. W. Stokes.	F. F. Smith ...	M.	Blue Star ...	Fms. 911 & 138 13.2.35 to 22.5.35	29.5.35
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. Herbert, D. Chamberlain.	J. Fleming ...	S.	Anchor ...	" 15.3.35 to 29.4.35	3.5.35
<i>Tuscan Star</i> , M.V.	G. J. Lewis ...	R. T. Hales, L. Mates, J. H. Bayne.	... ...	"	Blue Star ...	Fm. 915 26.1.35 to 24.4.35	3.5.35
113 *† <i>Upwey Grange</i> , M.V.	H. P. Goodrick ...	A. Bradbury, G. T. Hurst, P. J. Walker.	C. H. North ...	M.	Houlder ...	Fms. 911 & 138 26.2.35 to 15.4.35	23.4.35
176 *† <i>Vancouver City</i> M.V.	H. E. Egerton ...	H. David, J. K. Robson, W. F. Wilde.	A. J. Sloan ...	S.	Reardon Smith ...	Fm. 911 9.3.35 to 9.5.35	24.5.35
275 †† <i>Vandyck</i> ...	P. Symons ...	J. A. Baragwanath ...	F. Slater ...	"	Lamport & Holt	" ... 18.3.35 to 4.5.35	9.5.35
079 †† <i>Viceroy of India</i> Vienna ...	J. W. Hartley ...	E. R. Rose, W. Leach, M. Greasy.	H. S. Horn ...	M.-S.	P. & O. ...	Fms. 911 & 138 3.3.35 to 19.5.35	22.5.35
B. R. Booth ...	R. V. Adams, R. L. Stephenson.	G. Madle ...	S.	L. & N.E. Rly. ...	Telegraphic Report	30.4.35	30.4.35
053 †† <i>Voltaire</i> ...	V. E. Gore-Hickman ...	E. W. Hardie, D. P. Woods ...	W. Burnett ...	"	Lamport & Holt	Fms. 911 & 138 14.2.35 to 2.6.35	4.6.35
004 †† <i>Waipawa</i> , M.V.	J. W. Johnson ...	R. Grant, N. Milne, N. Atkinson.	... ...	"	Shaw, Savill & Albion	Fm. 915 6.11.34 to 2.3.35	9.3.35
263 *† <i>Wairuna</i> ...	J. Rankine ...	A. Lucas, A. Cousin, H. H. Pike.	R. Bell ...	"	Union S.S. Co. of N.Z.	" 21.11.34 to 13.3.35	13.5.35
212 †† <i>Waiwera</i> , M.V.	J. H. Gaskell, R.D., R.N.R.	R. G. James, C. L. Carroll, A. Mackenzie.	A. Babbage ...	"	Shaw, Savill & Albion	Fms. 911 & 138 14.1.35 to 20.4.35	25.4.35
005 †† <i>Warwick Castle</i> M.V.	W. M. Betts ...	F. A. G. Hunter ...	H. Oliver ...	"	Union Castle ...	" " 19.1.35 to 11.5.35	14.5.35
056 *† <i>Westmoreland</i> ...	E. R. Kemp ...	R. Coen, H. Durell, G. Letts	R. Glover ...	"	New Zealand Shipping	" " 21.3.35 to 22.4.35	13.5.35
208 †† <i>Winchester Castle</i> , M.V.	J. H. Kerbey ...	R. F. Pembray ...	W. A. Smith ...	"	Union Castle ...	" " 16.2.35 to 7.4.35	10.4.35
096 †† <i>Windsor Castle</i> , M.V.	A. Barron ...	G. Mayhew, J. D. Fisher ...	J. Hodgson ...	"	Southern Railway	" 19.3.35 to 1.5.35	7.5.35
<i>Worthing</i> ...	B. Shaw ...	H. Smith ...	C. Kelley ...	"	Henderson ...	" 3.6.35	3.6.35
<i>Yoma</i> ...	J. A. Wilson ...	J. Crawford, P. D. Barr, A. Driscoll.	... ...	M.	"	Fm. 911 15.12.34 to 4.3.35	11.3.35
043 *† <i>Zealandic</i> , M.V.	H. R. Gordon ...	G. Sangwin, A. Masters, S. Wallis.	N. Musgrave ...	S.	Shaw, Savill & Albion	Fms. 911 & 138 3.2.35 to 27.4.35	3.5.35
<i>Conway</i> , H.M.S.	T. M. Goddard, Commr., R.N.R.	The Senior Cadets ...	... ...	Cadets M.L.	... ...	Cadets' Met. Log. 20.1.35 to 31.3.35	24.4.35
Pangbourne Nautical College, Worcester, H.M.S.	A. F. G. Tracy, Commr., R.N. G. C. Steele, V.C., Commr., R.N.	" "	... ...	"	... ...	" " 17.1.35 to 1.4.35	24.4.35
" "	... ...	... ...	... ...	"	... ...	" " 18.1.35 to 10.4.35	24.4.35
<i>Watling Island</i> ...	... ...	The Keepers ...	... ...	Lighthouse Register	... ...	Lighthouse Register 1.7.34 to 31.12.34	15.2.35
<i>Cape Pembroke</i> ... (Falkland Is.)	... ...	" "	... ...	"	... ...	" 1.7.34 to 31.12.34	15.2.35

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, 10.4.35.
<i>Darian</i> ...	T. Chapman ...	L. Seddon ...	" ...	30 " " 20.2.35.
<i>Davision</i> ...	T. J. Higson ...	W. Lawton ...	" ...	30 " " 29.3.35.
<i>Dorelian</i> ...	J. Collins ...	G. Penston ...	" ...	30 " " 11.12.34.
<i>Hilary</i> ...	R. H. Buck, R.D., Capt. R.N.R.	G. E. Freeman ...	Booth ...	60 " " 30.3.35.

July, M.O., 1935.

PUBLISHED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE

MARINE METEOROLOGY.

ATLASES :—

ATLANTIC (NORTH) :—

Atlas of Currents on the Main Trade Routes of the North Atlantic. (No. 323, 1930.) 6s. 6d. ($29\frac{1}{4} \times 19\frac{1}{2}$ in.)

BAFFIN BAY AND DAVIS STRAIT :—

Monthly Meteorological Charts of Baffin Bay and Davis Strait. (No. 221, 1917.) 8s. ($30 \times 25\frac{1}{2}$ in.)

RED SEA :—

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

SOUTHERN OCEAN :—

Meteorological Charts of the Southern Ocean between the Cape of Good Hope and New Zealand. (No. 123, 1917.) 7s. 6d. ($12\frac{1}{2} \times 9\frac{1}{2}$ in.)

BOOKS :—

A Handbook of Weather, Currents and Ice, for Seamen.

(No. 379, 1935.) 4s. (8vo.)

The Marine Observer's Handbook. Fifth Edition. (No. 218, 1930.) 2s. 6d. (8vo.)

Decode for use with the International Code for Wireless Weather Messages from Ships, with notes for the guidance of masters of British ships for making Weather Reports. Third Edition. (No. 329, 1934.) 6d. (8vo.)

JOURNAL :—

The Marine Observer.

The quarterly review of the Marine Division of the Meteorological Office in co-operation with Voluntary Marine Observers; with monthly supplements.

Deals with Weather, Climate, Currents and Ice as they are met in daily life at sea :—

Quarterly numbers 4s. net, 2d. postage; Monthly Supplements 6d. each net, 1d. postage.

Annual Subscription (including Supplements) 21s., post free.
Cover for Volume 2s. net, 4d. postage.

The Publications in this list can be purchased directly from
H.M. STATIONERY OFFICE at the following addresses :—

Adastral House, Kingsway, London, W.C.2; 120 George Street, Edinburgh 2; York Street, Manchester 1;
1 St. Andrew's Crescent, Cardiff; 80 Chichester Street, Belfast;
or through any Bookseller

Printed under the authority of His Majesty's Stationery Office
By Eyre and Spottiswoode Limited, East Harding Street, E.C.4
Printers to the King's Most Excellent Majesty

