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CNS. 322 (Revised 1963)

7530-21-562-1292

See Q.R.C.N. Art. 48·54, 45·47, 48·31; 71·4803, 48·32, 48·22, 48·51.

This Log when completed is to be transmitted to the Senior Officer in Command for inspection. Upon return it is to be retained in the ship for reference. Completed Logs shall be forwarded in batches of twelve bound in CNS 321B to Naval Records Centre, Sydney, N.S., in accordance with QRCN article 48·54.

SHIP'S LOG

FOR

HMCS PROTECTEUR

Class of Ship AOR

Month of SEPTEMBER **19** 71

Days at Sea	23
Days in Harbour	7
Total Distance Run	6866.4

Navigating Officer.

Captain.

Senior Officer in Command.

ARTICLES 48.31 AND 48.54 QUEEN'S REGULATIONS AND ORDERS FOR THE CANADIAN NAVY

48.31 — TOUCHING GROUND AND COLLISIONS

(1) When one of Her Majesty's Canadian Ships touches ground or is involved in a collision with another vessel, or with a floating or sunken object, every effort shall be made to obtain the exact position of the ship at the time of the accident, and an entry shall be made in the ship's log giving the position and the method by which it was obtained. (*See article 71·4803—"Report of Touching Ground and Collisions."*)

(2) *Possibility of Damage.* When one of Her Majesty's Canadian Ships comes into such close proximity to another vessel that there is a possibility of damage, being sustained by either the ship or the vessel, the details listed in article 71·4803—(Report of Touching Ground and Collisions) shall be carefully noted.

(3) *Preservation of Records.*

(a) When a collision or narrow escape from a collision occurs, or the ship has touched ground, the Captain shall ensure that the following items are preserved:
- (i) the Ship's Log Book,
- (ii) all Engine Room Registers,
- (iii) the Navigating Officer's Note Book,
- (iv) the Officer of the Watch's Note Book,
- (v) the plot, if one was in use,
- (vi) the charts by which Her Majesty's Canadian Ship was being navigated at the time,
- (vii) if the ship has touched ground, the echo sounding machine trace, and
- (viii) the Operations Room Log.

(b) Entries in the records shall not be erased, but if correction is found necessary, the entry shall be crossed through and initialled. Subsequent marking or amendment of the chart or plot shall not be made in any circumstances, other than the use of the chart for the continued safe navigation of the ship.

(4) *Collisions with Docks or Basins.* When a ship collides with or bears hard against the side of a dock or basin, the relevant reports prescribed in Article 71·4803—(Report of Touching Ground and Collisions) shall be made.

48.54 — SHIP's LOG

(1) *Responsibility.* The Navigating Officer shall have charge of the Ship's Log (Form C.N.S. 322). He shall be responsible for its maintenance, storage and disposal and he shall see that it is produced for inspection at the proper times.

(2) *Entries.* Entries in the Ship's Log shall be made in pencil and shall include:

(a) *general*
- (i) the employment of the ship's company,
- (ii) holding Divine Service and reading of prayers,
- (iii) leave granted, stating in which watch or part of the watch,
- (iv) joining and leaving, rank and name of officers, total number of men only,
- (v) general payments,
- (vi) offences committed by officers and punishments requiring warrants, the serial numbers being given (see Article 101·11—Logging Conduct of Officers),
- (vii) every alteration of clocks (to be noted in the remarks column),
- (viii) the time kept each day at noon,
- (ix) salutes and ceremonies, half-masting and re-hoisting of colours,
- (x) dressing ship, stating the reason,
- (xi) evolutions, exercises and landings of parties for service or drill,
- (xii) closing and opening of water-tight doors, or damage control state where applicable,
- (xiii) embarkation and disembarkation of passengers,
- (xiv) details and times of any accident or death occurring on board,
- (xv) notation of any births, baptisms and marriages which take place on board,
- (xvi) notation of damage to, or loss of, important store articles or fixtures, making reference, where necessary, to details in lists kept with store accounts,
- (xvii) terms entered into when engaging a pilot,
- (xviii) any occasion of touching ground or being in collision,
- (xix) any relevant information concerning fishing vessels or gear in the vicinity,
- (xx) the description of weather, wind and sea, the corrected barometer reading and any unusual phenomenon on completion of each watch and at least every hour during threatening weather,
- (xxi) all occasions of testing boats, life rafts, night lifebuoys and their releasing gear,
- (xxii) notation of corrections to meteorological instruments,
- (xxiii) matter whose entry is required by regulations, and
- (xxiv) other important occurrences;

(b) *when in harbour*
- (i) daily notice of main engines for steam at noon and on any alteration,
- (ii) arrival and departure of any ship of Her Majesty's forces, of ships-of-war of another nation and movements of other vessels should they be of interest,
- (iii) names or descriptions of any vessels, lighters, barges or similar craft berthing alongside, with the time of arrival and departure and a statement of the purpose of their coming,
- (iv) damage caused by or to vessels berthing alongside;

(c) *when proceeding to or on arrival from sea*
- (i) times of weighing or slipping and proceeding,
- (ii) times of anchorage or mooring the ship, giving depth of water, amount of cable veered and position by bearings of each anchor; and of securing the ship to a wharf or buoy,
- (iii) the draught of water, fore and aft, before sailing and on arrival in harbour,
- (iv) times of embarking and disembarking a pilot,
- (v) if a pilot is relieved of his duties, the time the action was taken;

(d) *when at sea*
- (i) meeting or finding at anchor of any ship of Her Majesty's forces, a ship of war of another nation, and any other vessel whose presence or movement is of interest,
- (ii) every occurrence connected with the navigation and pilotage of the ship,
- (iii) all discovered or suspected dangers,
- (iv) the set and velocity of currents and tidal streams encountered,
- (v) results of observations made and angles or bearings taken to ascertain the ship's position, currents between noon and noon, and currents experienced on leaving and making land or when running along the land (with the number of hours between observations),
- (vi) the behaviour of the ship during threatening or stormy weather shall be noted occasionally,
- (vii) when in company, the position of the leading ships and, if out of station, the particulars concerning all ships involved, if known),
- (viii) details of aircraft sighted, together with the time of observation (and marks of identification, if known). Movements of aircraft working with the fleet need not be entered unless of unusual interest.

(3) *Signatures and Initials.* The Ship's Log shall be:

(a) initialled by the Officer of the Watch or the Officer of the Day when he is relieved;

(b) signed by the
- (i) Captain weekly,
- (ii) Senior Officer in Command monthly,
- (iii) Inspecting Officer at inspections of the ship,
- (iv) Navigating Officer upon supersession.

(4) *Corrections.* No erasures shall be made in the Ship's Log. When it is necessary to make a correction, a single line shall be drawn through any error and the necessary entry made. The alteration shall then be initialled by the officer who made the original entry.

(5) *Inspections.* The Ship's Log shall be inspected by the:

(a) Captain weekly; (*See article 45.47—"Inspection of Ship's Books by Captain".*)

(b) Senior Officer in Command monthly;

(c) Inspecting Officer at Inspections of the ship. (*See article 45.46—"Inspection of Ship's Books by Senior Officer in Command".*)

(6) *Disposal.* The Ship's Log shall be:

(a) Placed in the cover for Current Ship's Log Book (Form C.N.S. 321A) and kept on the bridge or at the gangway when in use;

(b) forwarded to the Senior Officer in Command on completion; (*See (3) (b) of this article*)

(c) returned to the ship after the Senior Officer in Command has signed it, and placed in the Cover for Completed Ship's Log Books (Form C.N.S. 321B) and retained on board;

(d) forwarded to Naval Records Centre, Sydney, N.S., in batches of twelve:
- (i) commencing on the second anniversary of the first Log of the series, and
- (ii) annually thereafter.

CNS. 322

SHIP'S LOG BOOK

For use at Sea and in Harbour

1. The Log Book is to be carefully preserved. When in use, it is to be kept in the covers provided. When filled, it is to be taken charge of by the Captain, and, after inspection by the Senior Officer in Command, kept on board for reference, if required. Logs shall be forwarded, in batches of twelve, on the expiration of two years from the first log of the series.

2. The Officer of the Watch is responsible for the Log, and for the due observance of the regulations respecting it; and he is to see that it is properly written up, in pencil, and he will sign it with the initials of his name before he leaves the Deck.

3. The Log reading is to be entered hourly in the column provided for the purpose. In the column marked "Distance Run", the distance through the water for each hour is to be registered according to the judgment of the Officer of the Watch, using the Log readings, their errors, if known and the Revolutions as a guide, with allowances for the wind and sea. When the ship has steered on more than one course during the hour, the distance run on each course must be entered.

4. The Standard or Gyro Compass Course, the Direction and Force of the Wind, the State of the Weather, Sea and Swell, are to be registered at the end of each Watch, and when any change occurs.

5. The corrected Barometric Pressure in millibars and the Air and Sea Temperatures are to be registered at 0400, 0800, 1200, 1600, 2000 and 2400; and in stormy weather the corrected Barometric Pressure in millibars is to be registered every hour. Aneroid barometers should be kept corrected to mean sea-level pressure.

6. In recording the Force of the Wind and State of the Weather, Sea and Swell, the scheme on the facing page is to be adopted.

7. The mean number of revolutions of the Engines per minute is to be registered hourly in the column for that purpose.

8. When in sight of Land, or of any known danger, cross bearings of, or angles between, well-defined objects, should be recorded at frequent intervals, and entered in the Log at least once in each Watch, for the information of the relieving Officers. The time of first sighting, and the bearing of land or any marks, and of first obtaining soundings, with the results, are to be recorded.

9. In the space left for *Remarks*, must be recorded full information on all matters of importance or interest; as detailed in QRCN Article 48.54 of which a copy is printed on this form.

At Sea, the Remarks column should contain all relevant information for working up the position of the ship at any moment, taking into consideration all the data logged on the left-hand page of each day.

PRESENT WEATHER CODE (ww)

If precipitation (drizzle, rain, snow, etc.) is occurring at the ship at the time of the weather observation choose the most appropriate number in the range 50 to 99. If no precipitation is occurring at the ship at the time of the weather observation choose the most appropriate number in the range 00 to 49. ALWAYS USE THE HIGHEST CODE NUMBER APPLICABLE.

00-03 CHANGE OF SKY IN LAST HOUR

00 Cloud development not observed
01 Clouds becoming less developed
02 State of sky on the whole unchanged
03 Clouds developing

04-10 HAZE, ETC.

04 Smoky
05 Dry haze
06 Widespread dust
07 Dust raised near station } Not for
08 Dust devils within last hour } marine use
09 Duststorm or sandstorm within last hour
10 Mist (visability 1/2 nautical mile or more)

11-12 SHALLOW FOG

11 In patches } Not deeper than 30'
12 More or less continuous } at sea or 6' ashore

13-17 PHENOMENA WITHIN SIGHT BUT NOT AT STATION

13 Lightning, no thunder heard
14 Precip. in sight, not reaching surface at ship
15 Precipitation beyond 3 miles, reaching surface
16 Precipitation within 3 miles, reaching surface

17-19 PHENOMENA WITHIN LAST HOUR OR AT TIME OF OBSN.

17 Thunder heard, but no precipitation at station
18 Squall(s)
19 Funnel cloud(s)

20-29 PHENOMENA WITHIN HR. BUT NOT AT TIME OF OBSN.

20 Drizzle
21 Rain
22 Snow } Not in showers
23 Rain and snow
24 Drizzle or rain, freezing

25 Shower(s) of rain
26 Shower(s) of snow, or of rain and snow
27 Shower(s) of hail, or of hail and rain
28 Fog
29 Thunderstorm, with or without precipitation

30-39 (Not likely to be used in ship reports)

Slight or moderate		*Severe*
30	Dust or sandstorm, decreasing	33
31	Dust or sandstorm, unchanging	34
32	Dust or sandstorm, increasing	35
36	Drifting snow, generally low	37
38	Blowing snow, generally high	39

40-49 FOG

40 Fog at a distance
41 Fog in patches

Sky discernible	*Visibility less than ½ mi. at time of observation*	*Sky not discernible*
42	Fog, thinning in last hour	43
44	Fog, unchanging in last hour	45
46	Begin'g or thick'g in last hour	47
48	Fog, depositing hard rime	49

50-59 DRIZZLE (Consists of numerous minute drops)

Intermittent		*Continuous*
50	Slight drizzle	51
52	Moderate drizzle	53
54	Thick drizzle	55

Slight		*Moderate or thick*
56	Freezing drizzle	57
58	Drizzle and rain	59

60-69 RAIN

Intermittent		*Continuous*
60	Slight rain	61
62	Moderate rain	63
64	Heavy rain	65

Slight		*Moderate or heavy*
66	Freezing rain	67
68	Rain or drizzle with snow	69

70-79 SOLID PRECIPITATION, NOT IN SHOWERS

Intermittent		*Continuous*
70	Slight snow in flakes	71
72	Moderate snow in flakes	73
74	Heavy snow in flakes	75

76 Ice needles } With or
77 Granulated snow } without
78 Isolated starlike snow crystals } fog
79 Ice pellets

80-84 RAIN SHOWER(S)

80 Slight, with or without squalls
81 Moderate or heavy, with or without squalls
82 Violent, with squalls,
83 Slight, mixed with snow
84 Moderate or heavy, mixed with snow

85-90 SOLID PRECIPITATION IN SHOWER(S)

Slight		*Moderate or heavy*
85	Snow	86
87	Soft or small hail*	88
89	Hail* without thunder	90

(*The hail may be with or without rain or snow)

91-94 THUNDER HEARD DURING PRECEDING HOUR BUT NOT AT TIME OF OBERSVATION

(Note, choose numbers 17 or 29 whenever applicable)

91 Slight rain
92 Moderate or heavy rain } Precipitation
93 Slight snow and rain, or hail } occurring at time of
94 Moderate or heavy snow and rain, or hail } observation

95-99 THUNDERSTORM AT TIME OF OBSERVATION

95 Slgt or mdt tstm without hail } Precipitation
96 Slight or mdt tstm with hail } occurring at
97 Hvy thunderstm without hail } time of obsn.
98 Tstm with dust or sandstorm
99 Heavy thunderstorm with hail (Ditto)

BEAUFORT WIND SCALE AND CORRELATIVE SEA DISTURBANCE TABLE

Beaufort Scale Number	Mean Wind Speed Knots	Limits of Wind Speed in Knots	Descriptive Terms	Coastal Criterion	Sea Criterion	Approximate Equivalent Sea Disturbance Table in Open Sea* — Probable Mean Height of Waves in Feet† Maximum Height in brackets
0	0	Less than 1	Calm.....	——	Sea like a mirror.....	
1	2	1—3	Light air.....	Sufficient to give good steerage to fishing smacks with the "wind free".	Ripples with the appearance of scales are formed but without foam crests.	—(½)
2	5	4—6	Light breeze....	Fishing smacks with topsails and light canvas, "full and by", make up to 2 knots.	Small wavelets, still short but more pronounced; crests have a glassy appearance and do not break.....	½(1)
3	9	7—10	Gentle breeze...	Smacks begin to heel over slightly under topsails and light canvas, make up to 3 knots "full and by".	Large wavelets. Crests begin to break. Foam of glassy appearance. Perhaps scattered white horses.....	2(3)
4	13	11—16	Moderate breeze.....	Good working breeze. Smacks heel over considerably on a wind under all sail.	Small waves, becoming longer; fairly frequent white horses.....	3½(5)
5	19	17—21	Fresh breeze...	Smacks shorten sail.	Moderate waves, taking a more pronounced long form; many white horses are formed. (Chance of some spray)	6 (8½)
6	24	22—27	Strong breeze...	Smacks double-reef gaff mainsails.	Large waves begin to form; the white foam crests are more extensive everywhere. (Probably some spray).....	9½(13)
7	30	28—33	Moderate gale .	Smacks remain in harbour and those at sea lie to.	Sea heaps up and white foam from breaking waves begins to be blown in streaks along the direction of the wind. (Spindrift begins to be seen)	13½(19)
8	37	34—40	Fresh gale.....	Smacks take shelter if possible.	Moderately high waves of greater length; edges of crests break into sprindrift. The foam is blown in well-marked streaks along the direction of the wind.....	18 (25)
9	44	41—47	Strong gale.....	——	High waves. Dense streaks of foam along the direction of the wind. Sea begins to roll. Spray may affect visibility.....	23 (32)
10	52	48—55	Whole gale.....	——	Very high waves with long overhanging crests. The resulting foam in great patches is blown in dense white streaks along the direction of the wind. On the whole the surface of the sea takes a white appearance. The rolling of the sea becomes heavy and shocklike. Visibility is affected..	29 (41)
11	60	56—63	Storm.....	——	Exceptionally high waves. (Small and medium-sized ships might for a long time be lost to view behind the waves.) The sea is completely covered with long white patches of foam lying along the direction of the wind. Everywhere the edges of the wave crests are blown into froth. Visibility affected.....	37 (52)
12	68	64—71	Hurricane.....	——	The air is filled with foam and spray. Sea completely white with driving spray; visibility very seriously affected.....	Over 45
13	76	72—80				
14	85	81—89				
15	95	90—99				
16	104	100—108				
17	114	109—118				

* Determined at coast stations for a height of 33 feet above sea level.
† Figures in brackets indicate the probable maximum height reached by about one wave in ten.

ABBREVIATIONS
For Use In The Ship's Log

NBCD state	NBCD
Abeam	⊥
Alter course	a/c
Anchor	⚓
As requisite	as req
Base course	b/c
Bearing	bg
Cable	c
Cape	Cp
Cease fire	CF
Compass	(C)
Course	co
Course and speed	co & sp
Dead reckoning position	DR
Direction finder	D/F
Distance	dist
Distance made good	DMG
Estimated position	EP
Fathom	fm
Feet	ft
Fix by any method	fix
Green, in relative bearing	G
Harbour	Hbr
Head	Hd
High, for gyro error	H
Hour	Hr
Island	Is
Jetty	Jty
Knot	kt
Left hand edge	|←
Light	Lt
Light Buoy	Lt By
Light House	Lt Ho
Light Vessel	Lt Vsl
Low, for gyro error	L
Magnetic	(M)
Mile	m
Minute	min or ′
Observed Position	OP
Open fire	OF
Point	Pt
Port	pt
Position	pos
Radar	Ra
Radar Beacon	Racon
Radio Beacon	Ro Bn
Radio Direction Finder	Ro D/F
Range	rg
Red, in relative bearing	R
Revolution	rev
Right hand edge	→|
Second	sec
Set course	s/c
Shackle	sh
Special Sea Dutymen	SSD
Speed	sp
Starboard	st
Transit	ø
True	(T)
Various	var
Visibility	vis
Wharf	Whf
Yard	⁎
Zigzag	ZZ

NOTES

(1) The Approximate Equivalent Sea Disturbance Table is only intended as a guide to show roughly what may be expected in the open sea remote from land. It should *never* be used in the reverse way, that is for logging or reporting the state of the sea.
In enclosed waters, or when near land with an off-shore wind, wave heights and lengths will be smaller.

(2) *Sea Waves* are waves caused by the present wind.
Swell Waves are waves originally generated at a distance from the observer and, in general, travel in a direction differing from that of the present wind.

(3) The Height of a Sea or Swell Wave is the vertical distance of the crest above the trough.

VISIBILITY CODE (VV)

Code figures	
90	Under 50 yards.
91	50 yards.
92	200 yards.
93	500 yards.
94	1000 yards.
95	1 Nautical Mile.
96	2 Nautical Miles.
97	5 Nautical Miles.
98	10 Nautical Miles.
99	25 Nautical Miles or more.

NOTE:—If the visibility distance is between two of the distances given in the table use the code figure for the lower distance—*e.g.* 4 Miles will be coded as 96.

HMCS MAPLELEAF — FRI DAY — 1st OF MARCH

Time	Zone Suffix	Log (Stating type) Electro-magnetic	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind		Sea Height (In Feet)	Swell		Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius)		
											Direction (True)	Speed (Knots)		Direction From (True)	Height (In Feet)				Dry Bulb	Wet Bulb	Sea
0100																					
0200		0000·1	0·1	—	Var	Var	Var	Var	23°W												
0300		0007·4	8·0	131	Var	Var	Var	Var	23°W												
0310		0010·3	3·0		156	156	182	3°W													
0326		0015	4·5		101	101	127	3°W													
0400	+4	0024·5	10·0	157	083	083	108	2°W	23°W	6	220	12	4	220	7	96	10	1000·5	18·3	16·7	14·4
0450		0039·8	15·0		083	083	108	2°W													
0500		0043·1	3·0	160	068	068	093	1°W	24°W												
0600		0061·0	18·0	160	068	068	093	1°W	24°W												
0645		0074·5	13·5		068	068															
0700		0078·2	4·5	160	068	066	093	1°W	24°W												
0800	+4	0095·4	18·0	160	068	066	093	1°W	24°W	8	230	18	5	220	7	95	10	999·0	17·2	16·1	13·9
0900		0112·5	18·0	160	068	066	093	1°W	24°W	8	250	23	6	220	8	96	10	995·0			
1000		0130·0	18·0	160	068	066	094	1°W	25°W	8	250	30	6	240	10	95	10	988·5			
1100		0147·3	18·0	160	068	066	094	1°W	25°W	8	270	32	6	240	10	94	61	983·0			
1200	+4	0164·5	18·0	160	068	066	094	1°W	25°W	8	275	26	5	240	8	94	61	986·0	16·7	16·1	13·3
1203		0165·3	0·9	—																	
1300		0179·5	14·3	141	002	000	025	2°E	25°W	8	295	22	5	240	8	94	60	988·0			
1345		0190·5	11·0	—	—	—	—	—													
1355		0192·5	2·5	—	002	000	025	2°E													
1400		0193·5	1·0	51	265	263	288	2°E	25°W												
15		0195·1	1·6	—	Var	Var	Var	Var	25°W												
1500																					
13				50	Var	Var	Var	Var	25°W												
1600	+4	0197·1	2·0							5	320	7	—	—	—	98	01	995·0	17·2	15·6	13·9
1700																					
1800										3	345	3	—	—	—	98	01	997·0	15·6	15·0	13·9
1900																					
2000	+4									0	350	2	—	—	—	98	01	999·5	15·6	15·0	13·9
2100																					
2200																					
2300																					
2400	+4									0	000	2	—	—	—	98	00	1000·0	15·0	14·4	13·9

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
200·9	Starboard and 1st of Port Watches. CPO & PO 1630 – 0755 Tuesday. LS & below 1640 – 0745 " OSUT 1640 – 0100 " WK 1640 – 1015 "	1410 ⚓ { Anglican Church Steeple 348°. ← Dominion Coal Jetty 019°. → Old Railway Pt. 106°. Careening Pt. Bn. 142°.

19 63 **FROM** HALIFAX **TO** ST. JOHN'S, NFLD. , **OR AT** SEA & LOUISBURG.

REMARKS	Initials of the Officer of the Watch
0001 - Came to immediate notice for steam.	
0115 - Called the hands. 0145 SSD closed up, assumed NBCD 1. 0150 - Tug "Whelp" alongside port side. Singled up. 0155 - Slipped, hauled off by tug. Switched on Nav. Lts. 0159 Tug cast off. Proceeded.	
0203 - s/c 142° sp. 7 kts. 0211 - a/c 160°. 0221 - a/c 153°. 0229 - a/c 159° sp. 10 kts. SSD secured. 0230 - Reverted to NBCD 3. 0242 - a/c 175° sp. 15 kts. 0249 - a/c 156°. ⊙ Dartmouth Range brg. 339° by Gyro. Gyro correct. 0310 - a/c 101° spd. 18 kts. 0326 - Outer Automatic Buoy ⊥ pt. 1.1 m. (Ra.) a/c 083°. 0340 - Sambro Is. Lt. 238°. Devils Is. Lt. 310°. Shuten Is. 338°	
0450 - Egg Is. Lt. 350°, 10.45 m. (Ra.) Egg Is. Buoy 000°, ~~5.7~~ 5.8 m. (Ra.) a/c 068°	
0615 - Beaver Pt. Lt. 282° Liscombe Is. Lt. 350° Current since 0450 - Set 205° — ¼ kt. 0642 - Sunrise. Switched off Navigation lights. Gyro 2° L. by Sun's Amplitude. a/c 066° (G).	
0758 - Liscombe Is. Lt. 281° County Is. Lt. 352° 0730 - Lifebuoy Sentry exercised. Lifebuoy Alarm tested.	J.E.
0800 - Divisions and prayers. 0815 - Hands employed cleaning ship.	
0930 - Hands employed painting forward messdeck (WS) and (RP) classes to instruction. 1000 - Exercised seaboats crew. 1030 General Alarm tested.	
1016 - One man suffered broken arm while securing #4 Carley Float. (ABBN1 - A.N. OTHER - 1234 H.). 1030 Cape Canso brg. 287° - 17.8 m. (Ra.).	
1142 - One pair binoculars Patt. #1900 A., Serial 58274, lost overboard.	
1203 - a/c 002° sp. 15 kts. 1230 - Communications publications correct.	
1323 - Louisburg Bell Buoy brg. 000° - 7 m. (Ra.) 1340 SSD closed up, assumed NBCD 1. 1355 - Louisburg Bell Buoy ⊥ pt. 1 m. (Ra.) a/c 275° sp. 10 knots. 1401 - Co. and sp. as reg. for coming to ⚓. 1410 Let go pt. ⚓. 1415 Came to in 6 fms. with 3 sh. 1420 - SSD secured, ⚓ watches set. Remained at immediate notice for steam. - on deck. 1430 - Hands to General Payment.	
1500 - SSD closed up. 1508 - Shortened in to 1 sh. on deck. 1513 Weighed and proceeded. 1530 - Secured alongside Sydney & Louisburg Railway Wharf pt. side to. Reverted to 2 hours notice for steam. Co. & spd. as reg. to berth alongside.	P.J.
1532 - SSD secured, reverted to NBCD 4. 1600 - ABBN1 - A.N. OTHER, 1234 - H. landed to Louisburg General Hospital. 1630 Duty watch to fire drill. 1615 - Cleared Lower Deck. Read Warrant #72.	
1754 - Sunset. 1800 - Shore patrol landed.	~~J.E.~~
1905 - Sub-Lieutenant P. Smith - O-32414 RCN, joined ship from HMCS "STADACONA". Eight men joined ship from HMCS "STADACONA."	
2300 - RCAF aircraft reported missing 50 m. SE. Louisburg. Recalled libertymen. 2330 - Came to immediate notice for steam. 2345 - Shore patrol returned on board.	

Position	Latitude N.	Longitude W.	Depending on	Draught Time	Forward	Aft	Notice for Main Engines at Noon
0800	44° 53'.3	61° 29'.1	0758 (+4) FIX.				
1200	45° 25'.4	59° 58'.8	1159 (+4) (Ra.).	0145	12' 5"	16' 6"	
2000	° '	° '		1425	12' 3"	16' 4"	

HMCS PROTECTEUR — SUNDAY 1ST OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind: Direction (True)	Wind: Speed (Knots)	Sea Height (In Feet)	Swell: Direction From (True)	Swell: Height (In Feet)	Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius): Dry Bulb	Temperature (Celsius): Wet Bulb	Temperature (Celsius): Sea
0100																					
0200																					
0300																					
0400										8	220	10				98	03	1013	18.9	18.3	
0500																					
0600																					
0700																					
0800										8	CALM					98	02	1013	17.2	16.1	
0900																					
1000																					
1100																					
1200	+3									4	270	5				98	01	1013	21.7	18.9	
1300																					
1400																					
1500																					
1600										8	180	10				96	40	1013	22.2	20.6	
1700																					
1800																					
1900																					
2000										8	CALM					96	02	1013	21.1	19.4	
2100																					
2200																					
2300																					
2400										7	270	5				96	10	1014	18.9	18.3	

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
	PNREP FROM 0900 SUNDAY TO 0755 TUESDAY 3 SEP 74	

1974 FROM TO , OR AT HALIFAX, N.S.

REMARKS	Initials of the Officer of the Watch
0636 - SUNRISE	
0800 - COLOURS - DUTY WATCH EMPLOYED AT CLEANING STATIONS	
0900 - SECURE	
1608 - EXERCISED EMERGENCY PARTY - FIRE IN GALLEY.	
1945 - ROUNDS CARRIED 1953 - SUNSET	TJB

Position	Latitude	Longitude	Depending on	Draught			Notice for Main Engines at Noon
				Time	Forward	Aft	
0800	° ′	° ′					
1200	° ′	° ′					12 HOURS
2000	° ′	° ′					

HMCS PROTECTEUR — MON DAY — 2nd OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind: Direction (True)	Wind: Speed (Knots)	Sea Height (In Feet)	Swell: Direction From (True)	Swell: Height (In Feet)	Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius): Dry Bulb	Temperature (Celsius): Wet Bulb	Temperature (Celsius): Sea
0100																					
0200																					
0300																					
0400										4	270	10				96	02	1014	18.3	17.8	
0500																					
0600																					
0700																					
0800										0	310	5				98	01	1014	15.0	13.9	
0900																					
1000																					
1100																					
1200	+3									7	CALM					98	03	1014	18.3	16.7	
1300																					
1400																					
1500																					
1600										7	CALM					98	60	1015	18.3	17.2	
1700																					
1800																					
1900																					
2000										7	010	5				98	02	1015	17.8	15.6	
2100																					
2200																					
2300																					
2400										8	320	5				97	03	1016	17.3	16.7	

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
	PAIRED FROM 0900 MONDAY TO 0755 TUESDAY	

19 74 · FROM TO , OR AT HALIFAX, N.S.

REMARKS	Initials of the Officer of the Watch
0636 - SUNRISE	
0800 - COLOURS - DUTY WATCH EMPLOYED AT CLEANING STATIONS	SJB
0900 SECURE	
1130 EXERCISED EMERGENCY PARTY - FIRE IN SHIPS OFFICE	
1920 ROUNDS CORRECT 1951 SUNSET	LW

Position	Latitude	Longitude	Depending on	Draught			Notice for Main Engines at Noon
				Time	Forward	Aft	
0800	° ′	° ′					
1200	° ′	° ′					12 HOURS
2000	° ′	° ′					

HMCS PROTECTEUR — TUES DAY — 3RD OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind: Direction (True)	Wind: Speed (Knots)	Sea Height (In Feet)	Swell: Direction From (True)	Swell: Height (In Feet)	Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius): Dry Bulb	Temperature (Celsius): Wet Bulb	Temperature (Celsius): Sea
0100																					
0200																					
0300																					
0400										8	050	5				98	50	1015.5	16.1	15.0	
0500																					
0600																					
0700																					
0800										8	290	5				98	02	1015	16.1	15.0	
0900																					
1000																					
1100																					
1200	+3									8	270	5				98	02	1015.5	17.2	17.0	
1300																					
1400																					
1500																					
1600										8	CALM					96	50	1015.5	18.9	18.3	
1700																					
1800																					
1900																					
2000										8	270	6				96	50	1014	16.7	16.7	
2100																					
2200																					
2300																					
2400										8	CALM					96	20	1014	18.3	17.8	

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
	DNRFD FROM 1600 TUESDAY TO 0755 WEDNESDAY	

19 74 FROM TO , OR AT HALIFAX, N.S.

REMARKS	Initials of the Officer of the Watch
0639 SUNRISE	
0755 TWO MEN JOINED SHIP FROM PORT STE. JEAN 0800 COLOURS	
0900 - HANDS EMPLOYED BY DEPARTMENT	
1200 - RELINQUISHED DUTIES OF SCOPA - CANCOMDESRON ONE ASSUMED SCOPA	
1600 - SECURE	
1818 - EXERCISED EMERGENCY PTY AT FIRE STNS - PILOT READY ROOM	
1940 - ROUNDS CORRECT 1949 - SUNSET	

Position	Latitude	Longitude	Depending on	Draught			Notice for Main Engines at Noon
				Time	Forward	Aft	
0800	° ′	° ′					
1200	° ′	° ′					12 HOURS
2000	° ′	° ′					

HMCS PROTECTEUR WEDNESDAY 4TH OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind: Direction (True)	Wind: Speed (Knots)	Sea Height (In Feet)	Swell: Direction From (True)	Swell: Height (In Feet)	Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius): Dry Bulb	Temperature (Celsius): Wet Bulb	Temperature (Celsius): Sea
0100																					
0200																					
0300																					
0400										8	050	5				98	50	1015.5	16.1	15	
0500																					
0600																					
0700																					
0800										8	290	5				98	42	1015	16.1	15	
0838		8337.34	0.0		VAR	VAR	VAR	VAR	22°W												
0900		8337.44	0.6	0.05	VAR	VAR	VAR	VAR	22°W												
1000		8349.77	12.4	62.3	VAR	VAR	VAR	VAR	22°W												
1005		8351.63	1.4		160	160	179	3°E													
1026		8358.29	6.1	59.4	170	170	189½	2½°E	22°W												
1100		8363.52	5.5		200	200	223	1°W													
1110		8367.10	3.2		200	200	223	1°W													
1200	+3	8375.93	7.1	52.9	270	270	292½	¼°W	22°W	6	200	15	2	200	4	96	42	1015.5	22.1	21.1	17.2
1300		8384.83	9.3	46.4	VAR	VAR	VAR	VAR	22°W												
1400		8396.50	10.4	52.2	VAR	VAR	VAR	VAR	22°W												
1500		8403.32	8.0	40.2	VAR	VAR	VAR	VAR	22°W												
1600	+3	8420.39	17.7	88.5	VAR	VAR	VAR	VAR	22°W	8	200	15	3	200	4	96	47	1016.0	23.9	21.1	17.2
1700		8430.00	9.6	48.0	VAR	VAR	VAR	VAR	22°W												
1705		8430.01	0.0	0.0	VAR	VAR	VAR	VAR	22°W												
1800																					
1900																					
2000										8	200	15				95	60	1015	21.7	20.6	
2100																					
2200																					
2300																					
2400																					

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
91.3	PNRFD FROM SECURE WEDNESDAY TO 0755 THURSDAY	

19 74 FROM HALIFAX TO SEA , OR AT HALIFAX

REMARKS	Initials of the Officer of the Watch

0039- SUNRISE

0745- EMBARKED 88 RMC CADETS FOR "SHIP WINDOW"
0800- COLOURS : HANDS TO STATIONS FOR LEAVING HARBOUR

0805- PILOT MR ROSE EMBARKED
0816- SSD AND CABLE PARTY CLOSED UP
BLIND PILOTAGE CERTIFICATE CLOSED UP
ASTERN CONDITION Y
0830- OBEYED TELEGRAPHS
0831- TUG LIVERPOOL SECURED FOR QUARTER
0838- SLIPPED AND PROCEEDED ASTERN ON PORT 8
0842- COMMENCED TURNING AT REST BOARD
0849- PILOT DISEMBARKED SLIPPED TUG
0851- A/C 130 SPD
ASTERN AT 1000 T
0855- A/C 130
0857- A/C 130
0856 VIS FIX
NOT JETTY — 125°
N.S. HOSP — 160°
GEO IS. LT — 180°
0903- A/C 133°
0904- A/C 135°
0905- A/C GEO'S IS ASTERN SPD
0907- A/C 204 VIS 300M
0910- A/C 159°
0913- IVES KNOLL BUOY LIGHT
0916- A/C 190°
0918- COMMENCED FOG SIGNALS
0911- BARD LIGHTED
0917- INNER H.O. BUOY 2B
0921- A/C 155°
0923- MAUGHERS BEACH LT (RADAR)
0930 A/C 176°
0936- LITCHFIELD TIJUAL BUOY LIGHTED
0940- A/C 160°
0949- SPEED
0950- SECURED SSD : CABLE PARTY.

1005 A/C 170
1010 RAS SSD CLOSED UP
1020 CEASED FOG SIGNALS
1024 SP 12
1025 SP 10
1026 A/C 200. COMMENCED FOG SIGNALS
1035 MARGAREE COMMENCED TRIAL RAS APPROACH
1040 MARGAREE COMMENCED RAS FOG SIGNALS
COMPLETED TRIAL RAS APPROACH & RETURNED TO WAITING STATIONS
1048 MARGAREE COMMENCED RAS APPROACH
1052 MARGAREE ALONGSIDE STBDSIDE FIRST LINES PAST
1033 RADAR
SAMBRO IS. 6.6 MI
MORRIS PT 8.0 MI
KETCH HD. 8.6 MI

1112 COMPLETED RAS - TEULING + SOLID TRANSFER
1115 MARGAREE TOOK STATION 500M ON PORT QUARTER
1118 A/C 270. CEASED FOG SIGNALS
1129 MARGAREE COMMENCED RAS APPROACH.
1138 MARGAREE ALONGSIDE PORTSIDE FIRST LINES PAST.
1145 COMMENCED JACKSTAY TRANSFER
1135 DECCA
44° 13.2' N
63° 36.8' W

1202- ALL LINES RECOVERED.
1206- SP 5
1210- LOWERED SONAR DOME.
1211- SECURED RAS SSD
1240 - A/C 105° SP 8
1248 - SP 18
1254 - A/C 060°
1230 DECCA
44° 13.5' N
63° 49' W

1310 - A/C 045° SP 10
1319 - A/C 000°
1321 - SP 5
1330 - COMMENCED GUN FUNCTIONING TRIALS
1336 - A/C 330°
1340 - COMPLETED GUN FUNCTIONING TRIALS
1345 - A/C 085° SP 15
1357 - SP 18
1401 - CO + SP VAR FOR TRIALS
1335 DECCA
44° 18.6' N
63° 38.4' W

1413 - SP 0
1435 - FLYING STATIONS
1442- RAISED SONAR DOME
1444 - TRIALS COMPLETED
1445 - SET CO 085 SP 12
1450 - SP 18
1455 - A/C 120°
1500 - RECOVERED SK 07
1430 DECCA
44° 20.1' N
63° 30.1' W

1502 - A/C 060°
1508 - A/C 054°
1511 - A/C 045°
1512 - SECURED FLYING STATIONS
1519 - A/C 350°
1523 - A/C 335°
1531 - A/C 338°
1535 - A/C 333°
1545 - SSD CLOSED UP
1557- A/C 328
1558- CABLE PARTY CLOSED UP
1526 DECCA
44° 23.2' N
63° 24.9' W

1603- A/C 355°
1611 - A/C 339°
1613- SP 16
1614 - A/C 340°
1615- HAUGHERS BEACH LIGHTED
1616- SP 15
1617- SP 12
1618- M.G. BUOY LIGHT
1620- SP 10; AT PLEASANT SHOAL BUOY LIGHT 7
1621- SP 8
1628- GEO. IS LIGHT
1631- PILOT MR ROSE EMBARKED
1632- COMMENCED SLOW TURN TO PORT
1642- STOPPED ENGINE; TUGS GONDOCK AND GLENMORE SECURED PORT QTR
1645- COMMENCED APPROACH TO JETTY 8
1658- FIRST LINE SECURED
1636 VIS FIX
WEST RIDGE TR — 304½°
RADIO TR — 234½°
DOME — 282°

1704- TUGS SLIPPED
1705- SECURED STBD SIDE TO JETTY 8; FINISHED WITH MAIN ENGINES
REVERTED TO 12 HRS WES
1717- SECURED SSD : CABLE PARTY
1725- PILOT OTSEA EMBARKED
1730- RMC CADETS DISEMBARKED

1945 - ROUNDS CORRECT
1947 - SUNSET

2000- EXERCISED EMERGENCY PARTY - FLOODING IN SONAR COMPARTMENT

2359 - GUARD OFFICER CHALLENGED AND IDENTIFIED AT BROW

Position	Latitude	Longitude	Depending on	Draught Time	Draught Forward	Draught Aft	Notice for Main Engines at Noon
0800	° '	° '					
1200	44° 13.3'N	63° 42.9'W	1200 (+3) DECCA	0800	30'8"	32'4"	STEAMING.
2000	° '	° '		1710	30'1"	32'3"	

HMCS PROTECTEUR — THURSDAY 5TH OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind: Direction (True)	Wind: Speed (Knots)	Sea Height (In Feet)	Swell: Direction From (True)	Swell: Height (In Feet)	Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius): Dry Bulb	Temperature (Celsius): Wet Bulb	Temperature (Celsius): Sea
0100																					
0200																					
0300																					
0400										8	360	20				96	63	1014	16.1	15.6	
0500																					
0600																					
0700																					
0800										6	360	25				97	01	1015	13.9	11.7	
0900																					
1000																					
1100																					
1200	+3									6	000	20				98	02	1021	16.1	13.9	
1300																					
1400																					
1500																					
1600										1	360	20				98	01	1024	18.9	14.4	
1700																					
1800																					
1900																					
2000										1	020	10				98	02	1024	15.6	14.4	
2100																					
2200																					
2300																					
2400										1	CALM					98	02	1028	14.4	12.2	

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
	PERSONNEL NOT REQUIRED FOR DUTY FROM 1600 THURSDAY TO 0755 ~~WEDNESDAY~~ FRIDAY	

19 74 **FROM** **TO** **, OR AT** HALIFAX

REMARKS	Initials of the Officer of the Watch
0641 - SUNRISE	
0800 - COLOURS - HANDS EMPLOYED AT CLEANING STATIONS	
0900 HANDS EMPLOYED BY DEPARTMENTS	
1600 SECURED	
1748 EXERCISED FIRE STATIONS JP5 FUELLING COMPARTMENT	
1940 ROUNDS CORRECT 1946 SUNSET	

H.M.C.S. PROTECTEUR
SEP - 5 1974
COMMANDING OFFICER

Position	Latitude	Longitude	Depending on	Draught			Notice for Main Engines at Noon
				Time	Forward	Aft	
0800	° ′	° ′					
1200	° ′	° ′					12 Hours
2000	° ′	° ′					

HMCS PROTECTEUR — FRIDAY — 6TH OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind: Direction (True)	Wind: Speed (Knots)	Sea Height (In Feet)	Swell: Direction From (True)	Swell: Height (In Feet)	Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius): Dry Bulb	Temperature (Celsius): Wet Bulb	Temperature (Celsius): Sea
0100																					
0200																					
0300																					
0400										1	CALM					97	02	1020	13.9	12.8	
0500																					
0600																					
0700																					
0800										7	CALM					97	03	1029	12.2	10.6	
0900																					
1000																					
1100																					
1200	13									3	CALM					98	01	1029	16.1	13.9	
1300																					
1400																					
1500																					
1600										8	270	5				98	03	1029.5	18.2	15.6	
1700																					
1800																					
1900																					
2000										8	270	5				98	02	1030.0	16.7	15.4	
2100																					
2200																					
2300																					
2400										4	CALM					98	01	1029.0	15.6	14.4	

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
	PNRFD From 0925 Fri 6 Sept to 0755 ~~Sat~~ Sun 8 Sept	

1974 **FROM** **TO** , **OR AT** HALIFAX, N.S.

REMARKS	Initials of the Officer of the Watch
0642 SUNRISE	
0800 COLOURS	
0830 DUTY WATCH EMPLOYED AT CLEANING STATIONS	
1705 DIVERS IN WATER	
1810 COMPLETED DIVING OPERATIONS	
1944 SUNSET	
2240 EXERCISED EP - JP5 spill on Flight deck	

Position	Latitude	Longitude	Depending on	Draught			Notice for Main Engines at Noon
				Time	Forward	Aft	
0800	° ′	° ′					
1200	° ′	° ′					12 hrs
2000	° ′	° ′					

HMCS PROTECTEUR SATUR DAY 7th OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount – (Eighths)	Wind: Direction (True)	Wind: Speed (Knots)	Sea Height (In Feet)	Swell: Direction From (True)	Swell: Height (In Feet)	Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius): Dry Bulb	Temperature (Celsius): Wet Bulb	Temperature (Celsius): Sea
0100																					
0200																					
0300																					
0400										7	CALM					98	03	1027	15.6	14.4	
0500																					
0600																					
0700																					
0800										8	CALM					98	02	1025	15.6	14.4	
0900																					
1000																					
1100																					
1200	+3									8	270	5				98	50	1024	15.0	15.0	
1300																					
1400																					
1500																					
1600										8	270	5				98	63	1020	15.6	15.6	
1700																					
1800																					
1900																					
2000										6	270	5				98	01	1019	15.0	11.1	
2100																					
2200																					
2300																					
2400										4	090	5				98	01	1017	13.9	13.3	

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
	PERSONNEL NOT REQUIRED FOR DUTY FROM 0730 SATURDAY UNTIL 0800 SUNDAY	

19 74 **FROM** **TO** , **OR AT** HALIFAX

REMARKS	Initials of the Officer of the Watch
s.19(1) [redacted]	
0643 SUNRISE	
0800 Colours Duty watch employed at cleaning stations	
0900 - SECURED FRIDAY'S DUTY WATCH	
[redacted]	
1935- ROUNDS CORRECT 1942- SUNSET	

Position	Latitude	Longitude	Depending on	Draught			Notice for Main Engines at Noon
				Time	Forward	Aft	
0800	° ′	° ′					
1200	° ′	° ′					12 HOURS
2000	° ′	° ′					

HMCS PROTECTEUR — SUN DAY — 8TH OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind: Direction (True)	Wind: Speed (Knots)	Sea Height (In Feet)	Swell: Direction From (True)	Swell: Height (In Feet)	Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius): Dry Bulb	Temperature (Celsius): Wet Bulb	Temperature (Celsius): Sea
0100																					
0200																					
0300																					
0400										4	270	5				98	02	1017	13.9	13.2	
0500																					
0600																					
0700																					
0800										7	090	5				98	02	1017	12.8	12.2	
0900																					
0930		8431.51	0.0	—	VAR	VAR	VAR	VAR	22°W												
1000		8434.75	2.9	18.8	VAR	VAR	VAR	VAR	22°W												
1100		8449.45	14.8	71.7	VAR	VAR	VAR	VAR	22°W												
1200	+3	8463.40	13.8,	68.2	VAR	VAR	VAR	VAR	22°W	8	055	12	3	100	2.	98	02	1021.5	18.3	15.6	16.7
1300		8474.79	11.6	57,0	VAR	VAR	VAR	VAR	22°W												
1400		8485.90	9.9	48.9	180	180	201	1°E	22°W												
1500		8497.74	12.0	59.9	180	180	201	1°E	22°W												
1600	+3	8499.23 8511.80	1.5 12.3	68.6	180 030	180 030	201 053	1°E 1°W	22°W	3	040	12	1	120	3	98	01	1021.5	21.1	13.3	16.7
1700		8526.72	14.9	73.5	175	175	196	1°E	22°W												
1800	+3	8541.84	15.1	73.7	175	175	196	1°E	22°W	4	175	2	1	050	6	98	02	1022.0	20.0	15.6	16.7
1900		8555.89	14.5	73.6	175	175	196	1°E	22°W												
2000	+3	8573.00	14.3	75.0	175	175	196	1°E	22°W	6	175	2	1	040	3	98	02	1022.0	18.3	15.6	17.2
2100		8587.90	14.90	73.5	175	175	196	1°E	22°W												
2200		8603.51	15.61	73.5	175	175	196	1°E	22°W												
2300		8618.28	14.77	70.9	175	175	196	1°E	22°W												
2400	+3	8633.31	15.03	68.9	175	175	196	1°E	22°W	6	175	2	1	040	3	98	02	1022.5	16.7	14.4	17.2

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
197.8		

1974 FROM TO , OR AT

REMARKS	Initials of the Officer of the Watch
0644-SUNRISE	
0800 - COLOURS; HANDS EMPLOYED PREPARING FOR SEA ~~0805 - PILOT MR ROSE~~	
0830 - CAME TO 1 AN NFS	
0845 - PILOT MR ROSE ONBOARD 0900 - HANDS TO SEAS FOR LEAVING HBR	
0915 - SSD AND CABLE CLOSED UP ASSURED W/CD COND Y; 0925 - BOTHNAG HORS READY FOR LEAVING CO 0930 - CAME T IMMEDIATE NFS 0930 - OBEYED TELEGRAPHS; TUG GLENBROOK SECURED STBD QUARTER 0935 - SLIPPED AND COMMENCED BACKING AT JETTY 8 0940 - COMMENCED TURING ASTERN TO PORT; SP 4 0942 - S/C 135 SPB 0943 - PILOT DISEMBARKED; SLIPPED TUG 0946 - A/C 132° 0949 - A/C 133° 0950 - SP 10 0952 - A/C 174° 1810 0953 - CROSS LSTBD 0954 - SP 12 0958 - A/C 200 1000 - BARGE LSTBD 0950 VIS FAIR FLARE TR-125° CHY - 088° NOT JETTY - 046½	
1001 - SP 16 1002 - PT PLEASANT SHOAL BUOY 1STBD; A/C 160° 1004 - A/C 159° 1008 - HAUGHERS BEACH LT. 1 BRG 1010 - A/C 175° 1011 - A/C 174° 1013 - NARS RK BUOY 1STBD 1014 - A/C 175° 1015 - SECURED BOTH HAUGHERS FOR SEA 1016 - SECURED SSD; CABLE AWAY 1018 - LITCHFIELD BUOY 1STBD 1031 - A/C 160° 1030 - CHEBUCTO HD LT 1STBD 1037 - A/C 158 1037 - SP 14 1038 - SP 12 1044 - SP 11 1055 - MYLIUS STBD 1030 VIS FAIR SAMBRO REF - 206 FINALLY BRG - 324½ CHEBUCTO - 255½	
1101 SP 10 1103 A/C 156 1111 A/C 280. LOWERED SONAR DOME 1116 SP 12 1118 SP 14 1119 SP 15 1120 SP 16 RECOVED SK 13 1130 A/C 210 1137 A/C 240 1143 A/C 225 1148 A/C 185, SP 14 1150 COMMENCED GUN FIRING RUN 1159 A/C 176 SP 12 1200 SP 10 1130 DECCA 44° 19.1 N 63° 27.9 W	
1210 A/C 040 SP 16 COMPLETED GUN FIRING RUN 1217 A/C 080 1225 A/C 130 SP 10 KTS 1244 A/C 180° SJB 1230 DECCA 44° 13.9 N 63° 31.0 W.	
1330 DECCA 44° 05.3 N 63° 29.7 W	
1400 - RAS STATIONS	
1430 - SP 14 KTS 1430 DECCA 44° 01.7 N 63° 29.2 W	
1500 - IROQUOIS COMMENCED RAS APPROACHES	
1508 - ALG 030° 1516 - FIRST LINE ACROSS 1535 - FLYING STATIONS! 1557 - LAST LINE RECOVERED 1600 - SECURED RAS SSD. 1530 DECCA 43° 57.9 N 63° 23.4 W SJB	
1615 SK 13 Launched to ~~ASW~~ SHEARWATER 1622 STOOD Down Flying Stns 1630 DECCA 4358.6 N 63 16 W	
1700 FLYING STATIONS 1735 SK 13 Recovered on board 1745 SECURED FLYING STATIONS 1735 Decca 43 42.5 N 63 13.5 W	
1830 DECCA 43° 30' N 63° 12' W	
1935 - SUNSET - GYRO CORRECT BY BEARING AMPLITUDE AZIMUTHS SWINGER OFF. 1930 DECCA 43° 15.5 N 63° 09.8 W	
2029 DECCA 43° 01.3 N 63° 08.5 W.	
2133 DECCA 42° 46.5 N 63° 07.3 W.	
2230 SP 14 KTS 2235 DECCA 42° 32.0 N 63° 06.5 W	
2333 DECCA 42° 18.5 N 63° 04.5 W	

Position	Latitude	Longitude	Depending on	Draught			Notice for Main Engines at Noon
				Time	Forward	Aft	
0800	° '	° '					
1200	44° 14.4 N	63° 36.0 W	1200 (+3) DECCA	0800	30'0"	31'7"	STEAMING.
2000	43° 08.2 'N	63° 09.2 'W	2000 (+3) DECCA				

HMCS PROTECTEUR MONDAY 9TH OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind		Sea Height (In Feet)	Swell		Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius)		
											Direction (True)	Speed (Knots)		Direction From (True)	Height (In Feet)				Dry Bulb	Wet Bulb	Sea
0100		8648.02	14.71	68.7	175	175	196	1°E	22W												
0200		8663.33	15.31	68.8	175	175	196	1°E	22W												
0240					175	175	196	1°E													
0300		8677.31	13.98	68.7	110	110	126	3°E	22°W												
0314					110	110	126	3°E													
0350					000	000	022	½°W													
0400	+3	8685.96	8.5	42.9	090	090	091	1½°E	22W	5	135	12	1	040	5	98	02	1022	19.4	15.6	26.1
0420		8688.55	2.6		090	090	109½	1½°E													
0500		8694.26	5.2	39.0	180	180	200	1°E	21°W												
0600		8702.54	7.8	38.9	180	180	200	1°E	21°W												
0642		8706.01	5.5		180	180	200	1°E													
0700		8711.64	2.5	40.5	000	000	021½	1½°W	21°W												
0725		8714.93	3.3	35.2	090	090	109½	1½°E													
0800	+3	8717.11	3.7	~~71.5~~	075	075	095	1°E	21°W	6	100	6	1	050	4	98	02	1023	20.6	17.2	26.1
0900		8731.21	14.7	71.5	075	075	095	1°E	21W												
1000		8745.00	14.8	73.0	075	075	095	1°E	21W												
1100		8760.74	14.8	73.4	075	075	095	1°W	21W												
1200	+3	8775.69	14.9	73.6	075	075	095	1°W	21W	5	090	14	1	050	6	98	01 02	1023.0	22.5	17.8	22.8
1206			1.5		055	055	075	1°E													
1300		8790.36	13.3	73.4	075	075	095	1°E ~~1°W~~	21W												
1400		8805.25	14.7	73.5	075	075	095	1°E	21W												
1500		8820.60	14.8	73.5	075	075	095	1°E	21W												
1600	+3	8836.36	14.8	73.9	075	075	095	1°E	21W	2	145	7	2	060	4	98	02	1023.5	23.3	17.8	26.1
1700		8849.92	13.6	73.5	075	075	096	1°E	22°W												
1800	+3	8864.80	13.6	73.4	075	075	096	1°E	22°W	1	160	10	1	060	8	98	02	1023.5	22.8	17.8	21.7
1900		8879.54	14.5	73.4	075	075	096	1°E	22W												
2000	+3	8894.90	15.8	73.5	075	075	096	1°E	22W	1	160	10	1	060	6	98	02	1024.0	22.2	17.2	21.1
2100		8909.34	15.0	75.0	075	075	096	1°E	22W												
2200		8924.44	14.1	69.9	075	075	096	1°E	22W												
2300		8938.83	14.0	68.1	075	075	096	1°E	22W												
2400	+3	8955.10	15.7	76.7	075	075	096	1°E	22W	0	140	5	1	060	6	98	01	1024.5	18.3	15.6	26.1

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
317.7		

1974 FROM TO , OR AT SEA

REMARKS		Initials of the Officer of the Watch
C0175 SP14	0030 DECCA {42°13.5N 63°03.1W	
	0130 DECCA {41°56'N 63°00'W	
0240 - a/c 110	0230 DECCA {41°47'N 62°57'W	
0304 - HMCS SKEENA ASSUMED GUARD 0540 - a/c 090 0305 - DETACHED FROM TASK GROUP 5P8 0814 - a/c 000	0340 DECCA {41°36'N 62°48'W	
0420 - a/c 180	0421 DECCA {41°35'N 62°42.5'W	
	0537 DECCA {41°29'N 62°43'W	
0642 - a/c 000° 0645 - SUNRISE - GYRO ERROR ½° LOW BY BEARING AMPLITUDE 0700 - a/c 090°	0630 DECCA {41°21'N 62°42.5'W	
0725 - a/c 095° SP5 0800 SP15	0730 DECCA {41°20.5'N 62°38.5'W	
	0900 DECCA FIX {41°22N C2018W	
0930 - FLYING STATIONS		
1000 - RAS STATIONS; RAS SSD CLOSED UP		
1005 - LAUNCHED SK13 1008 - FLYING STNS STOOD DOWN 1030 - COMMENCED RAS APPROACHES 1113 - FLYING STATIONS 1114 - LAST LINE SKEENA 1126 - RECOVERED SK13	1036 - FIRST LINE PASSED MARGAREE STBD 1042 - FIRST LINE PASSED IROQUOIS PORT 1048 - LAST LINE IROQUOIS 1055 - LAST LINE MARGAREE 1145 - FLYING STNS STOOD DOWN 1156 - FIRST LINE SKEENA PORT (DISTANCE LINE ONLY) 1200 - a/c 270 055°	1056 - FIRST LINE SKEENA PORT 1200 DECCA FIX {41°32N C1025W
1206 A/C 075 1213 SKEENA COMPLETED RAS ALONGSIDE + RETURN TO SECTOR SCREEN 1216 MARGAREE + IROQUIS COMMENCED RAS APPROACH	1222 MARGAREE ALONGSIDE STBDSIDE 1224 IROQUIS ALONGSIDE PORTSIDE 1226 MARGAREE + IROQUIS COMPLETED RAS APPROACHES + RETURN TO SECTOR SCREEN	1226 SECURED RAS SSD 1227 DECCA {41° 36.5N 61 19.0 W
1400 COMMENCED SCREENEX WITH MARGAREE		1311 DECCA {41° 38.0N 61° 06.0W
1450 COMPLETED SCREENEX WITH MARGAREE 1455 MARGAREE COMMENCED RAS APPROACH PORTSIDE		1443 DECCA {41° 44.0N 60° 39.0 W
1505 MARGAREE ALONGSIDE PORTSIDE 1510 HANDS TO RAFT STATIONS 1515 MARGAREE DEPARTED RAS STATION + TOOK WAITING STATION ON STBD QUARTER	1520 MARGAREE COMMENCED RAS APPROACH 1525 SECURED RAFT STATIONS 1530 EMERGENCY FLYING STATIONS 1585 MARGAREE COMPLETED RAS APPROACH + RETURNED TO SECTOR SCREEN	1550 SECURED EMERGENCY FLYING STATIONS FLYING STATIONS STOOD FAST 1600 - SECURED FLYING STATIONS
1630 - FLYING STATIONS 1645 - RECOVERED SK 05	1652 - LAUNCHED SK 05 1653 - SECURED FLYING STATIONS	1900 OMEGA {41° 51.5'N 59° 55.5'W
		1812 OMEGA {41°56.0N 59°36.0W
1912 FLYING STN ON DECK TEST RUN 1923 SUNSET 1950 SECURED FLYING STNS		
2100 COMMENCED SCREENING EXERCISE 2105 - SP14		2000 OMEGA FIX {42°02N 59° 03W
		2210 OMEGA FIX {42°11N 58°24W
2300 - COMPLETED SCREENING EXERCISE; PROTECTEUR GUIDE THROUGHOUT 2315 - SP16		

Position	Latitude	Longitude	Depending on	Draught			Notice for Main Engines at Noon
				Time	Forward	Aft	
0800	41° 19.5' N	62° 34.5' W	0800 (+3) DECCA				STEAMING
1200	41° 32.5N	61° 25.0 W	1200(+3) DECCA LORAN OMEGA				
2000	42° 02' N	59° 03' W	2000(+3) OMEGA FIX				

HMCS PROTECTEUR — TUES DAY — 10th OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind		Sea Height (In Feet)	Swell		Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius)		
											Direction (True)	Speed (Knots)		Direction From (True)	Height (In Feet)				Dry Bulb	Wet Bulb	Sea
0100		8972.70	15.0	79.5	075	075	097	1°E	23°W												
0200		8985.80	15.0	79.4	075	075	097	1°E	23°W												
0300		9001.33	15.0	79.3	075	075	097	1°E	23°W												
0400	+3	9017.39	15.0	79.2	075	075	097	1°E	23°W	1	180	15	2	065	4	98	02	1022.5	18.3	16.1	18.9
0500		9033.18	15.8	79.2	075	075	097	1°E	23°W												
0600		9048.94	15.8	79.2	075	075	097	1°E	23°W												
0700		9065.00	16.0	79.4	075	075	097	1°E	23°W												
0800	+3	9080.55	16.8	79.5	075	075	097	1°E	23°W	1	200	9	0	065	4	98	02	1023	21.1	18.3	18.3
0900		9096.60	16.1	79.7	075	075	097	1°E	23°W												
1000		9112.14	15.6	79.2	075	075	097	1°E	23°W												
1100		9127.80	15.7	79.1	075	075	047	1°E	23°W												
1200	+3	9143.00	15.2	79.1	075	075	098	1°E	24°W	6	230	18	1	070	4	98	02	1023	21.7	18.3	22.2
1300		9159.22	15.6	78.2	075	075	098	1°E	24°W												
1400		9174.15	15.2	76.0	075	075	098	1°E	24°W												
1500		9189.20	14.6	72.8	075	075	098	1°E	24°W												
1600	+3	9204.60	14.8	73.3	075	075	098	1°E	24°W	5	215	20	3	070	6	98	02	1022	22.2	18.3	13.9
1700		9220.00	15.4	78.7	VAR	VAR	VAR	VAR	24°W												
1800	+3	9235.84	15.5	78.1	080	080½	103	1°E	24°W	7	200	17	2	070	5	98	02	1021	17.2	16.1	12.8
1900		9251.44	15.6	79.3	VAR	VAR	VAR	VAR	24°W												
2000	+3	9267.32	15.9	79.2	080	080	103	1°E	24°W	5	205	17	2	070	5	98	02	1022	16.1	15.6	15.9
2100		9283.10	15.9	79.2	080	080	103	1°E	24°W												
2200		9298.74	15.9	79.2	080	080	103	1°E	24°W												
2300		9314.20	16.0	80.1	080	080	103	1°E	24°W												
2400	+3	9330.20	15.8	80.5	080	080	102	1°E	24°W	0	225	19	2	070	5	98	02	1021.5	16.0	15.6	16.0

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
373.2		

19 74 FROM TO OR AT SEA

REMARKS		Initials of the Officer of the Watch
	0001 OMEGA {42° 17'N 57° 53'W	
	0200 OMEGA {42°25'N 57°14'W	
	0400 OMEGA {42° 33'N 56° 33'W	SLB
	0600 OMEGA {42° 42'N 53° 58'W	
0618 - SUNRISE - GYRO ERROR ½° LOW BY AMPLITUDE BEARINGS		
	0800 OMEGA {42° 50.5'N 55° 12.0W	
	0900 OMEGA {42 56 N 54 45 W	
09[illegible] CONDUCTED RAS 0930 FLYING STNS		
1010 LAUNCHED SK 07 1015 SECURED FLYING STNS 1035 L. MARGAREE NBCD EXERCISE 1042 COMPLETED NBCD EXERCISE		
1127 FLYING STNS 1150 RECOVERED SK 07 1155 SECURED FLYING STNS	1110 OMEGA {43 06.5N 54 05 W	
	1230 OMEGA {43° 10'N 53° 36'W	
1322 - SP 15 1400 - RAS STATIONS	1400 OMEGA {43° 20'N 52° 54'W	
1410 - RAS SSD CLOSED UP 1432 - 1ST LINE PASSED SKEENA STBD 1438 - 1ST LINE PASSED MARGAREE PORT		
1513 - LAST LINE MARGAREE PASSED 628 BBLS DIST. 1520 - FLYING STATIONS 1519 - LAST LINE SKEENA PASSED 937 DIST. 1542 - EXERCISED RAS ALTERNATION TO STBD 1528 - 1ST LINE PASSED IROQUOIS STBD 1600 - LAST LINE IROQUOIS PASSED 1084 BBLS DIST.	1545 OMEGA {43° 19'N 52° 29'W	
1601 A/C 120 1605 A/C 086 SP 16 1603 A/C 075 SECURED RAS SSD 1607 SECURED FLYING STATIONS 1604 LAUNCHED SK 13		
	1759 OMEGA {43° 28.0'N 51°, 38.0'W	
1838 - FLYING STNS 1848 - RECOVERED SK 13 1845 - A/C 120 1852 - A/C 080 1847 - SUNSET 1900 - STOOD DOWN FLYING STNS 1930 - RAS STATIONS 1945 - RAS SSD CLOSED UP 2000 - COMMENCED RAS APPROACH EXERCISE	2000 OMEGA {43° 25'N 51° 04'W	
2005 - 1ST LINES PASSED, SKEENA STBD / MARGAREE PORT 2034 - 1ST LINE PASSED IROQUOIS STBD 2027 - LAST LINE MARGAREE 2050 - LAST LINE IROQUOIS 2027 - LAST LINE SKEENA		
2128 - COMPLETED RAS APPROACH EXERCISE 2130 - SECURED RAS SSD	2200 OMEGA {43° 29'N 50° 18'W	
	2400 OMEGA {43° 30.5'N 49° 41'W	

Position	Latitude	Longitude	Depending on	Draught			Notice for Main Engines at Noon
				Time	Forward	Aft	
0800	42° 50.5'N	55° 12.0W	OMEGA				STEAMING
1200	43° 09.8 N	53° 40.5 W	OMEGA				
2000	43° 25' N	51° 04' W	OMEGA				

HMCS PROTECTEUR — WEDNESDAY 11TH OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind		Sea Height (In Feet)	Swell		Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius)		
											Direction (True)	Speed (Knots)		Direction From (True)	Height (In Feet)				Dry Bulb	Wet Bulb	Sea
0100		9346.13	16.0	80.7	080	080	103	1E	24W												
0200		9362.40	16.0	80.7	080	080	103	1E	24W												
0300		9378.23	16.0	80.7	080	080	103	1E	24W												
0400	+3	9394.13	16.0	80.6	080	080	103	1E	24W	1	200	17	2	225	6	98	03	1026.5	12.2	11.1	15.6
0500		9409.98	16.0	80.4	080	080	103	1°E	24°W												
0600		9425.73	16.0	80.4	080	080	103	1°E	24°W												
0700		9441.80	16.0	80.2	080	080	103	1°E	24°W												
0700																					
0800	+3	9458.24	16.4	85.2	070	070	093	1°E	24°W	6	220	20	2	240	5	98	03	1021.5	15.6	15.0	13.9
0900		9475.00	16.8	84.8	070	070	093	1°E	24°W												
1000		9491.54	16.5	83.8	070	070	093	1°E	24°W												
1045					130	130	151	3°E													
1047					070	070	093	1°E													
1100		9507.64	16.1	86.6	130	130	151	3°E	24°W												
1105					070	070	093	1°E													
1155					130	130	151	3°E													
1200	+3	9523.44	15.8	85.2	070	070	093	1°E	24°W	7	210	20	2	240	5	98	01	1021.5	15.6	14.4	11.1
1300		9538.00	17.0	86.7	070	070	093	1°E	24°W												
1400		9556.20	17.0	85.1	070	070	093	1°E	24°W												
1500		9572.58	17.0	85.1	070	070	093	1°E	24°W												
1600	+3	9589.30	17.0	85.9	070	070	093	1°E	24°W	8	250	18	2	230	8	96	50	1020	17.2	16.7	12.8
1700		9605.53	17.0	84.0	070	070	093	1°E	24W												
1800	+3	9622.72	17.0	85.9	070	070	093	1°E	24W	8	250	15	2	230	6	95	63	1019.5	17.2	16.7	13.9
1900		9638.98	17.0	85.1	070	070	093	1°E	24°W												
2000	+3	9654.32	17.0	85.2	070	070	093	1°E	24°W	8	300	17	2	230	4	95	63	1019.0	17.2	16.7	13.9
2100		9671.66	17.1	85.2	070	070	093	1°E	24°W	—											
2200		9687.00	16.4	85.3	070	070	093	1°E	24°W												
2300		9704.06	17.1	85.3	070	070	093	1°E	24°W												
2320		9710.15	5.6		070	070	093	1°E													
2330		9718.30	2.8		230	230	255	3°W													
2400	+3	9721.40	3.5	85.0	235	235	260	3°W	24°W	8	300	8	2	310	5	97	63	1019	16.7	15.6	12.0

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
397.1		

1974 FROM HALIFAX TO HAMBURG , OR AT

REMARKS		Initials of the Officer of the Watch
0001 - RADAR AT STANDBY		
	0200 OMEGA FIX { 43°34N 48°54W	
	0330 OMEGA FIX { 43°39N 48°30W	
0546 SUNRISE. NAV LTS SWITCH. OFF	0510 OMEGA { 43° 43'N 47° 49'W	
0700 A/C 070 SP 17	0630 OMEGA { 43° 49'N 47° 22.0W	
	0748 OMEGA { 43° 53.0N 47° 52.0W	
	0900 OMEGA { 44° 00'N 46° 30'W	
0914 - S/W TO MCR CONTROL 0927 - S/W TO BRIDGE CONTROL 1000 - FLYING STNS		
1045 - a/c 130 1100 - a/c 130 1046 - LAUNCHED SK 13 1047 - a/c 070		
1105 - a/c 070 1155 - a/c 130 1107 - STOOD DOWN FLYING STNS 1115 - FLYING STNS 1158 - RECOVERED SK 13	1200 OMEGA { 44° 15'N 45° 20'W	
1203 - LAUNCHED SK 05 1204 - a/c 070° 1215 - STOOD DOWN FLYING STATIONS		
1230 - RAS STATIONS 1245 - RAS SEA CLEAR UP	1345 OMEGA { 44° 27'N 44° 41'W	
1405 - 1st LINE PASSED IROQUOIS STBD 1406 - 1st LINE PASSED MARGAREE PORT 1433 - LAST LINE IROQUOIS PASSED 557 BOLS DIESEL 1437 - LAST LINE MARGAREE PASSED 552 DIST 1500 - 1st LINE PASSED SKEENA STBD PASSED 455 BBLS DIST	1436 OMEGA { 44° 29.5'N 44° 23'W	
1515 - FLYING STATIONS 1535 - LAUNCHED SK 19 1547 - LAST LINE IROQUOIS	1600 OMEGA { 44° 36'N 43° 50'W	
1615 - COMMENCED ENGINE TEST (ON DECK) SK 07 1638 - COMPLETED ENGINE TEST 1635 - SECURED FLYING STNS 1700 - SKEENA DETACHED TO THE NORTH 1707 - DECCA RADAR TO OPERATE 1715 - IROQUOIS POSITIONED PORT SIDE 200M		
1824 SUNSET. NAV LTS SW OFF	1805 OMEGA { 44° 49.0N 43° 01.5W	
	1920 OMEGA { 44° 52.0N 42° 34.6W	
	2100 OMEGA { 45° 09'N 41° 57'W	
	2213 LORAN { 45° 15'N 41° 24'W	
2320 - a/c 230 2330 - a/c 235		

Position	Latitude	Longitude	Depending on	Draught Time	Draught Forward	Draught Aft	Notice for Main Engines at Noon
0800	43° 55.0N	46° 47.0W	0748 (+3) OMEGA				STEAMING
1200	44° 14.5N	45° 20.0W	1200 (+3) OMEGA				
2000	44° 54.5N	42° 22.5W	1920 (+3) OMEGA				

HMCS PROTECTEUR — THURSDAY 12th OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind: Direction (True)	Wind: Speed (Knots)	Sea Height (In Feet)	Swell: Direction From (True)	Swell: Height (In Feet)	Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius): Dry Bulb	Temperature (Celsius): Wet Bulb	Temperature (Celsius): Sea
0100		9736.70	17.1	85.7	VAR	VAR	VAR	VAR	24°W												
0200		9752.40	17.5	82.6	250	250	275½	1½°W	24°W												
0300		9769.93	17.0	84.8	250	250	275½	1½°W	24°W												
0400	+3	9788.65	17.0	85.4	250	250	275½	1½°W	24°W	4	330	10	2	310	5	98	02	1019.0	15.0	13.3	16.7
0430		9795.45	6.8		250	250	275½	1½W	24W												
0455		~~9802.56~~ 9798.3	7.1		030	030	055	1W	24W												
0500		9800.60	1.1	72.2	000	000	025	1W	24W												
0514		9802.80	2.1		000	000	025	1W	24W												
0530		9808 30	2.5		180	180	203	1E	24W												
0600		9810.52	2.7	45.4	335	335	358	1E	24W												
0614		9813.52 ~~58~~	3.0		335	335	358	1E	24W												
0633		9817.10	~~4.5~~ 4.6		040	040	065	1W	24W												
0700		9823.60	6.5	59.7	130	130	151	3E	24W												
0730		9830.51	7.2		130	130	151	3E	24W								03				
0800	+3	9837.43	7.2	68.7	040	040	065	1W	24W	6	330	17	2	310	5	98	02	1021.5	15.6	12.8	16.7
0900		9851.84	13.0	64.3	024	024	048½	1/2°W	24°W												
1000		9866.05	13.0	64.6	024	024	048½	1/2°W	24°W												
RCS 1032 RCS 1037 1100		9879.53	12.1	60.6	VAR	VAR	VAR	VAR	24°W												
1200	+3	9889.10	8.2	41.8	000	000	024½	½°W	24°W	6	000	6	—	310	3	98	01	1022.0	18.9	13.9	18.3
1300		9902.83	13.7	60.9	030	030	054½	1½°W	24°W												
1306					030	030	054½	½°W													
1400		9913.68	10.8	48.3	210	210	235	¾°W	24°W	10											
1409					~~000~~ 210	~~000~~ 210	~~024½~~ 235	~~½°W~~ ¾°W	~~24°W~~ 24°W												
1500		9928.23	14.6	69.6	000	000	024½	½°W	24°W												
1552					000	000	024½	½°W	24°W												
1600	+3	9944.34	16.1	80.7	025	025	050	1°W	24°W	7	245	8	1	180	2	98	02	1021.5	17.8	12.2	18.9
1610		9944.05	2.8		025	025	050														
1635		9954.13	7.1	85.4	032	032	057	1°W	24°W												
1700		9960.60	7.1		026	026	051														
1718		9965.75	5.1		026	026	051														
1800	+3	9977.12	11.9	85.1	030	030	055	1°W	24°W	8	220	8	1	110	2	98	03	1021.0	15.0	12.2	18.4
1900	+3	9993.41	17.0	85.2	030	030	055	1W	24W												
2000	+2																				
2010		9995.60	2.5		030	030	055	1°W													
2100		0009.70	14.5	85.2	034	034	059	1°W	24°W												
2200		0026.83	17.0	85.2	034	034	059	1°W	24°W												
2300		0043.50	17.0	85.2	034	034	059	1°W	24°W												
2340		0054.24	11.7		034	034	059	1°W													
2348		0056.15	1.8	85.2	255	255	280½	½°W	24°W	8	225	18	1	110	2	98	60	1018.0	13.3	12.2	14.4
2400	+2	0057.00	3.5		034	034	059	1°W													

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
339.8		

19 74 **FROM** **TO** **, OR AT**

REMARKS	Initials of the Officer of the Watch
0010 - a/c 250° 0025 - a/c 280° 0032 - a/c 250°	
0115 LORAN { 45° 02'N / 41° 40'W	
0309 LORAN/OMEGA { 44° 53.5'N / 42° 28.0'W	SJB
0425 - SIGHTED ~~HMCS ALGERIAN~~ TF 401, CTF 401 VADM JG FINNEMAN USN EMBARKED USS NEWPORT NEWS, BBG 225/20M, 0430 - a/c 020 SP1R 0455 - a/c 000° 0502 - SP7 0529 - SUNRISE; NAV LTS SWITCHED OFF 0514 - a/c 180° 0530 - a/c 335° 0525 - SP8 0614 - a/c 040° 0633 - a/c ~~134~~ 130 SP15	H.M.C.S. PROTECTEUR SEP 12 1974 COMMANDING OFFICER
0730 - a/c 040° ~~SP15~~; ASSUMED GUIDE 0800 - HANDS EMPLOYED PREPARING TO FUEL IROQUOIS A/C 024	D
0845 RAS SSD CLOSED UP IROQUIS TOOK STATION 500' ON STBD. QUARTER 0900 IROQUIS COMMENCED RAS APPROACH 0903 IROQUIS ALONGSIDE STBDSIDE FIRST LINES PAST 0951 COMPLETED RAS IROQUIS RETURNED TO SECTOR SCREEN. 0916 FLYING STATIONS 0830 OMEGA { 45° 28.0 N / 42° 45.0 W	
1032 a/c 070 SP10 1037 A/C 024 SP13 SECURED FLYING STATIONS 1034 SK 03 COMMENCED VERTREP. 1053 a/c 000 SP10 1036 SK 03 COMPLETED VERTREP. 1114 SP8 1130 DR { 42° 24' N / 46° 09' W 1200 - RAS SSD CLOSEDUP a/c 030 SP14	
1224 - 1ST LINE TO HMCS SKEENA 1245 - SP12 1248 - SP10 1301 - EXERCISED EMERGENCY BREAKAWAY 1306 - a/c 210 1332 - FLYING STATIONS	
1402 - RECOVERED SK05 1412 - SP15 1407 - LAUNCHED SK06 1455 - LAUNCHED SK 07 1409 - a/c 000 SP12 1459 - RECOVERED SK33 1410 - SP14	
1502 - LAUNCHED SK33 1520 - SP16 1533 - RECOVERED SK33 1552 - a/c 025 1505 - STOOD DOWN FLYING STNS 1521 - SP17 - FLYING STNS 1539 - STOOD DOWN FLYING STNS 1511 - RAS STNS 1525 - 1ST LINE TO HMCS MARGAREE 1546 - EXERCISED EMERGENCY BREAKAWAY 1517 - RAS SSD CLOSEDUP 1533 - RECOVERED SK07 1548 - SECURED RAS SSD	
1610 - a/c 032° 1630 - LAUNCHED SK 06 1615 - FLYING STATIONS 1632 - STOOD DOWN FLYING STATIONS 1623 - RECOVERED SK 06 1635 - a/c 026° 1700 DR { 47° 09'N / 41° 58'W	
1718 - a/c 030° 1745 - FLYING STATIONS	SJB
1806 - SUNSET; NAVLIGHTS SWITCHED ON 1830 - RECOVERED SK17 (SIKORSKY) 1882 - SK17 LAUNCHED 1900 - RECOVERED SK17; CLOCKS ADVANCED TO ZONE (-4)	D
2010 - SECURED FLYING STNS A/C 034	
2115 LORAN { 47° 13'N / 41° 26'W	
2245 LORAN { 47° 28'N / 40° 57'W	
2300 FLYING STATIONS	RAB
2340 A/C 255 2348 A/C 034 2345 LAUNCHED SK 07 2350 - SECURED FLYING STATIONS	

Position	Latitude	Longitude	Depending on	Draught Time	Draught Forward	Draught Aft	Notice for Main Engines at Noon
0800	45° 22.0N	42° 38.0W	0309 OMEGA/LORAN				
1200	42° 30.0N	45° 58.5W	1130 DR				STEAMING
2000	47° 42.0N	41° 33W	DR				

HMCS PROTECTEUR — FRI DAY — 13TH OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind: Direction (True)	Wind: Speed (Knots)	Sea Height (In Feet)	Swell: Direction From (True)	Swell: Height (In Feet)	Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius): Dry Bulb	Temperature (Celsius): Wet Bulb	Temperature (Celsius): Sea
0100		0075.25	18.3	84.9	038	038	063	1°W	24°W												
0200		0090.39	15.1	84.8	038	038	063	1°W	24°W												
0300		0107.01	15.62	84.4	038	038	063	1°W	24°W												
0400	+2	0123.90	17.0	84.9	038	038	063	1°W	24°W	8	220	22	3	110	5	98	02	1018	13.9	12.8	15.6
0500		0139.74	16.6	83.0	038	038	064	1°W	25°W												
0600		0156.09	17.0	85.0	038	038	064	1°W	25°W												
0700		0173.09	17.0	85.0	038	038	064	1°W	25°W												
0800	+2	0188.77	17.0	85.0	038	038	064	1°W	25°W	8	220	22	3	110	8	97	50	1010.0	12.2	11.7	15.1
0900		0204.91	16.0	85.2	038	038	064	1W	25W												
0938		0213.91	9.0		038	038	064	1W	25W												
		2	7.0																		
1000		0227.07	~~16.00~~	82.2	032	032	058	1W	25W												
1003		0227.73	0.9		032	032	058	1W	25W												
1013		0234.42	2.8		330	330	356	1W	25W												
1048		0237.77	7.8		038	038	064	1W	25W												
1100		0230.80	3.3	81.9	030	030	056	1W	25W												
1107		0238.80	2.0		030	030	056	1W	26W												
1200	+2	0253.20	14.5	84.6	037	037	065	1W	26W	8	230	20	~~2~~ 1R	210	6	97	50	1004.5	15.0	13.9	11.1
1300		0269.93	17.8	84.9	037	037	065	1°W	25°W												
1400		0285.21	15.0	74.4	037	037	063	1°W	25°W												
1400																					
1415		0289.44	4.2		020	020	046	1°W													
1425			2.8	85.4	355	355	020	½°W	25°W												
1500		0300.62	9.9		020	020	046	1°W													
1512					020	020	046	1°W													
1600	+2	0317.13	16.5	87.2	038	038	064	1°W	25°W	7	335	20	1	230	5	98	42	1004	13.9	12.2	10.6
1640					038	038	064	1°W													
1700		0333.37	16.2	83.4	045	045	071	1°W	25°W												
1800	+2	0348.78	15.4	79.4	045	045	071	1°W	25°W	7	336	20	1	230	5	98	80	1005	13.3	12.2	10.6
1900		0363.97	15.6	78.0	Var	Var	Var	Var	25°W												
2000	+2	0380.00	16.2	83.6	Var	Var	Var	Var	25°W	8	325	23	2	310	6	98	02	1006.5	12.2	11.1	10.6
2100		0396.24	17.8	87.6	038	038	064 ~~070~~	1W ~~066~~	25W												
2111		0398.89	2.1		038	038	064	1W	25W												
2200		0411.66	15.9	90.1	046	046	078	1W	25W												
2300		0429.08	17.5	90.2	046	046	072	1W	25W												
2324		0435.20	7.1		046	046	072	1W	25W												
2400	+2	0448.8	10.4	90.1	040	040	066	1W	25W	2	325	21	2	330	6	98	01	1011.0	9.4	7.8	10.0

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
397.3		

19 74 FROM HALIFAX N.S. TO HAMBURG, GERMANY , OR AT

REMARKS	Initials of the Officer of the Watch
0020 LORAN { 47°56'N 40°47'W	
0609 - SUNRISE 0640 LORAN { 49° 20'N 39°07.5'W	
0800 - HANDS EMPLOYED AT CLEANING STNS (FRIDAY ROUTINE) 0805 - ISSUED GUIDE	
0900 - SP 16 0938 - RP a/c 032° 0952 - USS AMERICA REPORTED SUBMARINE CONTACT 155°/3.2 n FROM PROTECTEUR 1003 - a/c 330° 1013 - a/c 038° 1040 - CAPTAIN'S ROUNDS 1048 - a/c 030° 1107 - SP 17 a/c 037	
1300 E.P { 50° 44'N 37° 40'W	
1334 Sp 12 1350 Sp 17 1400 A/C 020	
1415 Sp A&B A/C 355 1425 A/C 024 1430 - TRANSFERRED 2866 BBLS DIST - 283 BBLS DIESEL OIL FM CARGO TO SHIP'S TANKS 1450 E.P { 51° 08'N 37° 16'W	
1512 a/c 038 1600 - TRANSFERRED FUEL FROM CARGO TO SHIPS TANKS - 2866 BBLS DISTILLATE + 283 BBLS DIESEL	
1640 - a/c 045 SP 16 1640 LORAN { 51°19.9'N 36°47'W	
1725 - RAS STNS 1726 - RAS SSD CLOSED UP 1736 - 1ST LINE STBD SIDE TO HMCS SKEENA 1800 LORAN/OMEGA { 51°45'N 36°17'W	
1805 - LAST LINE TO HMCS SKEENA PASSED 536 BBLS DISTILLATE & 120 BBLS JP5 1807 - SECURED RAS SSD 1811 - a/c 035° 1816 - a/c 038° SP 19 1833 - a/c 020° SP 16 1842 - a/c 025° 1847 - SUNSET 1851 - a/c 250°	
1908 - a/c 020° 1909 - a/c 018° 1912 - a/c 030° SP 19 1914 - RAS SSD CLOSED UP ; RAS STATIONS 13 1938 - a/c 038° 1944 - 1ST LINE PASSED MARSHALL STBD 2000 LORAN/OMEGA { 52° 10'N 36° 00'W	
2015 - LAST LINE MARSHALL PASSED 882 BBLS of distillate 2017 SECURED RAS SSD 2033 - SP 18 2035 - DETACHED FROM USS AMERICA (CTU 21.1.2)	
2111 - a/c 046	
2300 LIRNAV { 52°24N 34°5W	
2324 - a/c 040°	

Position	Latitude	Longitude	Depending on	Draught			Notice for Main Engines at Noon
				Time	Forward	Aft	
0800	49° 32' N	38° 45' W	OCHO LORAN FIX				
1200	50° 30' N	38° 00' W	OCHO LORAN FIX				
2000	52° 10' N	36° 00' W	2000 LORAN/OMEGA FIX				STEAMING

HMCS PROTECTEUR SATUR DAY 14TH OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind		Sea Height (In Feet)	Swell		Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius)		
											Direction (True)	Speed (Knots)		Direction From (True)	Height (In Feet)				Dry Bulb	Wet Bulb	Sea
0012		0446.33	3.6		040	040	066	1°W													
0100		0461.14	14.3	90.1	055	055	080½	½°W	25°W												
0140		0473.20	12.0		055	055	080½	½°W													
0200		0479.40	6.1	90.1	100	100	122½	2½°E	25°W												
0300		0495.01	18.0	90.1	VAR	VAR	VAR	VAR	25°W												
0303		0496.00	.9		047	047	072½	½°W													
0400	+2	0512.20	17.2	90.1	055	055	080½	½°W	25°W	2	325	23	2	330	4	98	02	1010.0	8.3	7.2	10.0
0444					055	055	080½														
0500		0529.22	17.0	90.1	047	047	072½	1½°W	25°W												
0600		0545.64	16.4	90.0	047	047	072½	1½°W	25°W												
0601					047	047	072½														
0700		0562.33	16.7	90.0	050	050	075½	1½°W	25°W												
0800	+2	0579.30	16.5	90.1	050	050	075½	1½°W	25°W	4	340	20	3	290	5	98	02	1013	10.6	8.6	10.0
0900		0596.60	18.0	90.1	050	050	074½	½°W	24°W												
1000		0618.00	18.0	90.0	050	050	074½	½°W	24°W												
1100		0629.20	18.0	89.9	050	050	074½	½°W	24°W												
1200	+2	0645.70	17.9	89.4	050	050	074½	½°W	24°W	5	295	16	2	325	3	98	02	1015.0	15.6	12.8	10.0
1300		0668.80	17.0	89.9	050	050	074½	½°W	24°W												
1400		0679.00	17.0	89.6	050	050	074½	½°W	24°W												
1500		0696.58	17.6	89.7	050	050	074½	½°W	24°W 24°												
1600	+2	0713.6	17.0	89.7	050	050	074½	½°W	24°W	8	300	16	2	300	4	98	03	1014.0	14.4	11.1	10.0
1700		0729.98	18.0	89.7	050	050	074½	½°W	24°W												
1800	+2	074662	18.0	89.7	050	050	074½	½°W	24°W	8	245	13	2	320	2	98	02	1014.0	11.1	9.4	10.6
1900		0763.51	16.9	89.6	050	050	074½	½°W	24°W												
2000	+2	0779.69	17.9	89.6	050	050	074½	½°W	24°W	8	230	15	2	320	2	98	02	1014	11.1	9.4	10.6
2100		0796.90	17.9	89.5	050	050	074½	½°W	24°W												
2200		0814.11	17.9	89.5	050	050	074½	½°W	24°W												
2300		0830.26	17.9	89.5	050	050	074½	½°W	24°W												
2330	+2	0838.25	9.0	89.5	050	050	074½	½°W	24°W	8	240	17	2	320	2	98	02	1014.0	10.6	9.4	10.6
2400																					

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
412.1		

1974 FROM TO OR AT

REMARKS	Initials of the Officer of the Watch
0012 · A/C · 055	
0140 A/C 100 0145 RAS SSD CLOSED UP	
0202 A/C 090 0245 SECURED RAS SSD 0207 A/C 070 0224 A/C 047	
0303 A/C 055 0310 LORAN { 53° 06'N / 33° 40'W	
0444 - a/c 047 0449 - RAS STNS 0456 - RAS SSD CLOSED UP	
0506 - 1ST LINE HMCS IROQUOIS 0541 - SECURED RAS SSD 0538 - LAST LINE HMCS IROQUOIS PASSED 608 bbls of DIESEL 0540 - SUNRISE; NAV LHTS S/W OFF 0545 LORAN { 53°42'N / 32°45'W 0601 - a/c 050	
1147 Obs Pos { 54°43'N / 30°06.5'W	
1315 - FLYING STATIONS 1351 - LAUNCHED SK 07 TO IROQUOIS - BRG 250/45M	
1605 - FLYING STATIONS 1622 RECOVERED SIK 07	
1707 RECOVERED SIK 17.	
1812 - SUNSET; NAV LHTS S/W ON 1836 - FLYING STNS	
2030 - LAUNCHED SK 13 2032 - SECURED FLYING STATIONS	
2330 (+2) - CLOCKS ADVANCED ONE HOUR TO ZONE (+1) - 2210 LORAN { 56° 48.5'N / 25° 42'W	

Position	Latitude	Longitude	Depending on	Draught			Notice for Main Engines at Noon
				Time	Forward	Aft	
0800	54° 00.0'N	31° 40.0'W	0545 LORAN				STEAMING
1200	54° 43' N	30° 02' W	1149 Obs Pos				
2000	56° 22' N	27° 08' W	1147 OBS POS				

HMCS PROTECTEUR — SUNDAY — 15TH OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind		Sea Height (In Feet)	Swell		Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius)		
											Direction (True)	Speed (Knots)		Direction From (True)	Height (In Feet)				Dry Bulb	Wet Bulb	Sea
0100	+1	0847.25	8.5	87.5	050	050	074	1W	23W												
0200		0864.02	17.2	89.6	050	050	074	1W	23W												
0254		0879.48	15.8		050	050	074	1W	23W												
0300		0880.85	1.4	90.0	085	085	108	0°	23W												
0304		0881.90	1.1		085	085	108°	0°	23W												
0400	+1	0898.30	16.1	89.9	050	050	074°	1°W	23W	8	200	14	2	320	3	98	02	1014.0	10.0	8.9	10.0
0500		0914.40	17.8	89.6	050	050	073	1°W	22W												
0600		0930.79	17.9	89.7	050	050	073	1°W	22W												
0700		0947.61	17.9	89.8	050	050	073	1°W	22W												
0800	+1	0964.53	16.9	89.7	050	050	073	1°W	22W	8	175	16	2	280	3	98	02	1012	10.6	8.9	10.0
0900		0981.65	17.1	89.5	050	050	072	1°W	21°W												
1000		0998.40	16.8	89.5	050	050	072	1°W	21°W												
1100		1014.95	16.6	89.6	050	050	072	1°W	21°W												
1200	+1	1031.71	17.9	89.6	050	050	072	1°W	21°W	8	160	18	2	280	3	98	02	1011.5	10.6	9.4	11.1
1300		1048.20	17.9	89.4	050	050	072	1°W	21°W												
1400		1064.85	17.9	89.4	050	050	071	1°W	20°W												
1500		1081.98	17.9	89.5	050	050	071	1°W	20°W												
1600	+1	1099.51	17.9	89.6	050	050	071	1°W	20°W	8	150	22	3	170	4	98	02	1007.5	10.6	10.0	11.1
1700		1115.5	17.0	89.6	050	050	071°	1°W	20°W												
1800	+1	1131.97	17.0	89.6	050	050	071°	1°W	20°W	8	150	22	2	130	4	97	53	1006.0	9.4	6.1	11.1
1900		1148.56	17.7	89.6	050	050	071	1°W	20°W												
2000	+1	1165.00	16.44	84.8	050	050	071	1°W	20°W	8	145	25	2	130	4	97	53	1006.0	8.9	6.1	11.1
2100		1173.84	8.8	38.8	050	050	070	1°W	19°W												
2200		1182.10	8.3	38.2	050	050	070	1°W	19°W												
2300		1189.63	7.5	39	050	050	070	1°W	19°W												
2330	+1	1192.17	3.8	39.1	050	050	070	1°W	19°W	8	145	29	2	130	4	97	5	1000	9.4	9.4	10.6
2400																					

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
367.1		

1974 FROM ~~HAMBURG~~ HALIFAX TO HAMBURG , OR AT

REMARKS			Initials of the Officer of the Watch
0254 - a/c 085			
0304 - a/c 050	0330 LRN FIX	57°13N 24°30W	
	0415 LORAN	57° 14'N 23° 55'W	
	0540 LORAN	57° 38'N 23° 22.5'W	
0603 SUNRISE. NAV LTS SWITCHED OFF	0700 LORAN	57° 55.5'N 22° 45.0'W	
	0810 LORAN	58°07'N 22°22'W	
1053 - FLYING STNS			
1200 - STOOD DOWN FLYING STATIONS	1130 LORAN	58°40'N 20°44'W	
	1349 LORAN	59°09'N 19°46'W	
1415 - FLYING STATIONS 1450 - LAUNCHED SK 07 1454 - STOOD DOWN FLYING STATIONS			
1540 - FLYING STATIONS 1555 - RECOVERED SK 07 1600 - SECURED FLYING STATIONS			
	1650 LRN FIX	59°38N 18°20W	
1838 SUNSET. NAV LTS SWITCHED ON	1805 LORAN	59° 49'N 17° 56'W	
1950 - SP16 1955 - SP8 1952 - SP14 1954 - SP12	2000 LORAN	60° 10.5'N 17° 04.6'W	
	2245 LORAN	60°25'N 16° 32'W	
2330 - CLOCKS ADVANCED ONE HOUR TO TIME ZONE (Ø)			

Position	Latitude	Longitude	Depending on	Draught			Notice for Main Engines at Noon
				Time	Forward	Aft	
0800	58° 04.4' N	22° 34.5 W	0700 (+1) LORAN				
1200	58° 40.0 N	20° 58.0 W	1130 (+1) LORAN				STEAMING
2000	60° 10.5 N	17° 04.0 W	2000 (+1) LORAN				

HMCS PROTECTEUR — MONDAY 16th OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind: Direction (True)	Wind: Speed (Knots)	Sea Height (In Feet)	Swell: Direction From (True)	Swell: Height (In Feet)	Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius): Dry Bulb	Temperature (Celsius): Wet Bulb	Temperature (Celsius): Sea
0100	+Ø	1196.30	3.9	39.1	050	050	070	1°W	19°W												
0200		1202.30	7.7	38.8	050	050	070	1°W	19°W												
0300		1207.22	7.8	39.2	050	050	070	1°W	19°W												
0400	Ø	1212.64	6.3	39.2	050	050	070	1°W	19°W	8	145	36	3	130	8	97	50	996.0	9.4	10.0	10.6
0500		1218.13	6.0	39.2	050	050	070	1W	19°W												
0600		1230.51	11.4	68.0	050	050	070	1W	19°W												
0610		1238.18	1.7		050	050	070	1W	19°W												
0700		1247.05	15.3	90.2	060	060	079	1W	18°W												
0800	Ø Z	1263.77	17.0	89.7	060	060	079	1W	18°W	8	235	36	2	250	6	97	50	990.0	11.1	11.1	10.6
0900		1280.60	17.0	89.7	060	060	079	1°W	18°W												
1000		1296.86	17.0	89.5	VAR	VAR	VAR	VAR	18°W												
1041		1307.26	8.2		060	060	079	1°W													
1100		1309.66	3.8	60.0	245	245	264½	1½°W	18°W												
1155		1318.02	10.8		245	245	264½	1½°W													
1200	Ø	1319.49	1.4	61.5	065	065	084	1°W	18°W	6	255	35	4	220	8	98	01	990.5	15.0	13.9	11.1
1208		1321.10	1.7		065	065	084	1°W													
1300		1329.10	10.6	62.4	245	245	264½	1½°W	18°W												
1400		1339.18	10.08	64.1	VAR	VAR	VAR	VAR	18°W												
1500		1354.54	15.36	75.0	065	065	084	1°W	18°W												
1600	Ø	1367.95	13.41	71.0	065 225 065	065 225 065	084 244 084	1°W ¾°W 1°W	18°W	6	230	32	4	220	9	97	02	993.5	11.7	10.6	11.1
1700		1383.20	15.0	75.4	065	065	084	1°W	18°W												
1800	Ø	1398.61	15.0	75.4	065	065	083	1°W	17°W	7	230	35	4	230	8	98	25	992.5	10.6	10.0	11.1
1900		1413.94	15.0	73.7	065	065	083	1W	17°W												
2000	Ø Z	1429.74	15.0	73.4	065	065	083	1W	17°W	7	230	33	4	230	10	98	02	992.0	10.0	9.4	11.1
2100		1444.84	14.7	72.9	065	065	083	1°W	17°W												
2200		1460.92	16.1	80.5	065	065	083	1°W	17°W												
2300		1476.90	18.0	89.4	065	065	082	1°W	16°W												
2400	Ø	1493.47	16.7	89.1	065	065	082	1W	16°W	6	250	32	4	225	9	97	02	991.0	10.0	10.0	11.1

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
311.9		

1974 . . . FROM HALIFAX TO HAMBURG . . . . OR AT

REMARKS		Initials of the Officer of the Watch
	0040 LORAN { 60° 29'N 16° 25'W	
	0400 LRN FIX { 60°44N 15°55W	SJB
0530 - STEAM DRIVEN LUBRICATING OIL PUMP REPAIRED; SP 18 0610 - a/c 060°	0530 LRN FIX { 60°53N 15°33W	
0635 - SUNRISE; SWITCHED OFF NAV. LTS.		
0800 - HANDS EMPLOYED AT CLEANING STNS	0720 LRN FIX { 61°07N 14°04.5W	
	0845 LORAN { 61°20'N 14°00'W	
0915 - a/c 225° 0939 - a/c 265° 0959 - RAS STATIONS 1000 - a/c 060°		
1009 - FLYING STATIONS 1031 - RAS SSD CLOSED UP 1041 - a/c 245° SP 10 1044 - RECOVERED SK 13 1052 - STOOD DOWN FLYING STATIONS 1055 - 1ST LINE MARIANNE TO PORT 1058 - 1ST LINE SASENA TO STBD		
1140 - LAST LINE MARGARET 1151 - LAST LINE SASENA 1155 - a/c 065° SP 15 1200 - FLYING STATIONS	1130 LORAN { 61° 18'N 13° 49'W	
1208 - a/c 245° SP 12 1220 - 1ST LINE IROQUOIS to PORT 1250 - LAUNCHED SK 07		
1318 - LAST LINE IROQUOIS 1320 - HC 065° SP 15 1322 - SECURED RAS SSD 1335 - a/c 245 SP 8 1342 - RECOVERED SK #6 1346 - a/c 120 SP 15 1352 - a/c 065 1355 - SECURED FLYING STNS	1345 LORAN { 61° 08'N 14° 04'W	
1510 - FLYING STNS 1530 - a/c 225 SP 8 1535 - LAUNCHED SK 05 1536 - a/c 065 SP 15 1537 - SECURED FLYING STNS		
	1609 LORAN { 61°20'N 13° 06'W	
	1705 LORAN { 61°25'N 12°40'W	
~~1900~~ 1904 - SUNSET; SWITCHED ON NAV LTS 1934 - DARKENED SHIP; NAV LTS SWITCHED OFF.		
2133 SP 18	2045 LORAN { 61° 46'N 11° 18'W	
	2235 LORAN { 61° 59.5'N 9° 58.0'W	

Position	Latitude	Longitude	Depending on	Draught			Notice for Main Engines at Noon
				Time	Forward	Aft	
0800	61°15'N	19°15'W	0720 LRN FIX				
1200	61°15'N	13°56'W	1130 LORAN				
2000	61° 42'N	11° 18'W	2000(ϕ) LORAN				STEAMING

HMCS PROTECTEUR — TUES DAY — 17TH OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind: Direction (True)	Wind: Speed (Knots)	Sea Height (In Feet)	Swell: Direction From (True)	Swell: Height (In Feet)	Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius): Dry Bulb	Temperature (Celsius): Wet Bulb	Temperature (Celsius): Sea
0054 0100		1509.90	16.4	89.4	065 060	065 060	081 076	1°W	15°W												
0140 0156 0200		1525.87	15.7	89.4	060 030 060	060 030 060	076 046 076	1°W	15°W												
0300		1542.73	17.9	88.2	060	060	076	1°W	15°W												
0400	Ø	1558.60	17.9	89.5	060	060	075	1°W	14°W	6	190	30	4	225	8	98	03	990	11.6	11.0	10.0
0500		1575.01	17.8	88.9	060	060	075	1°W	14°W												
0600		1589.32	14.1	70.6	060	060	075	1°W	14°W												
0700		1603.66	15.1	76.5	060	060	075	1°W	14°W												
0800	Ø	1620.10	16.0	89.4	060	060	074	1°W	13°W	6	185	35	4	190	8	98	02	985.0	10.6	8.8	10.0
0900		1636.50	18.5	89.6	060	060	073½	½W	13W												
1000		1652.60	17.0	85.7	060	060	073½	½W	13W												
1100		1668.62	16.0	85.8	060	060	073½	½W	13W												
1200	Ø	1684.66	16.5	85.6	060	060	072½	½W	12W	7	185	30	4	180	10	98	01	987.0	10.0	10.0	10.0
1300		1700.70	17.0	85.6	VAR	VAR	VAR	VAR	12W												
1400		1716.76	12.4	63.1	060	060	071½	½W	11W												
1500		1728.50	12.4	63.1	VAR	VAR	VAR	VAR	11W												
1600	Ø	1741.80	12.0	60.0	020	020	032	1°W	11W	7	185	34	4	150	11	97	02	987.5	11.7	11.7	10.0
1700		1753.99	12.0	60.1	020	020	032	1°W	11°W												
1800	Ø	1766.52	12.8	64.0	VAR	VAR	VAR	VAR	11°W	8	200	16	5	190	10	98	02	986.5	10.0	8.9	10.6
1900		1779.90	12.2	60.8	210	210	222	1°W	11°W												
2000	Ø	1791.93	15.0	74.5	VAR	VAR	VAR	VAR	11°W	9	210	12	4	190	10	98	02	986.0	10.0	8.9	10.6
2100		1805.37	12.0	62.5	075	075	086 ~~076~~	1W	10W												
2200		1817.79	12.0	60.4	075	075	086°	1W	10W												
2300		1830.22	12.0	56.3	075	075	085°	1W	9W												
2400	Ø	1843.1	12.0	56.7	075	075	085°	1W	9W	4	280	38	3	190	7	98	01	991.0	12.2	10.6	10.0

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
352.7		

1974 FROM HALIFAX TO HAMBURG , OR AT

REMARKS		Initials of the Officer of the Watch
0054 - a/c 060	0100 LORAN 62°16'N 08°38'W	
0140 - a/c 030 0156 - a/c 060		
	0315 RDR FIX 62°29.5N 07°31.0W	
	0420 RADAR 62°39'N 06°51'W	
0521 - Sp 12 0533 - Sunrise	0520 RADAR + LORAN 62°44'N 06°27'W	
0625 - Sp 18	0700 LORAN 62°54'N 05°45'W	
0800 - Hands Employed at Cleaning Stns	0800 LRN FIX 63°01'N 5°12'W	
0857 - Sp 17	0900 LRN FIX 63°11'N 4°40'W	
	1000 LRN FIX 63°19'N 04°08'W	
	1100 LRN FIX 63°25'N 3°36'W	
1230 Flying Stations 1236 A/c 030	1238 A/c 020 1244 A/c 060 1245 Secured Flying Stations	
	1355 DECCA 63° 50'N 2° 06'W	
1423 A/c 020 Sp 12 1425 A/c 190 1435 A/c 180	1445 A/c 020 1423 LORAN 63° 53'N 1° 48'W	
	1555 LORAN 64° 04'N 1° 40'W	
1710 - a/c 110° 1730 - Ras Stations 1745 - Ras SSD Closed up	1755 - a/c 185° 1758 - a/c 210°	1735 LORAN 64° 15'N 01° 10'W
1816 - 1st Line Margaree Stb'd 1825 - Sunset 1852 - Last Line Margaree	1857 - Secured Ras SSD 1900 - a/c 089° Sp 15	1900 LORAN 64° 06'N 01° 19'W
1905 - a/c 098° Sp 17 1912 - a/c 105°	1920 - a/c 100° 1935 - a/c 090° 1940 - a/c 075°	1946 - Sp 11 2000 LRN FIX 64°08N 0°46'W
		2100 LRN FIX 64°10'0 0°14W
		2300 LRN FIX 64°16N 0°31E

Position	Latitude	Longitude	Depending on	Draught Time	Draught Forward	Draught Aft	Notice for Main Engines at Noon
0800	63°01'N	5°12'W	0800 LRN FIX				
1200	63° 34.0N	2° 58.0W	1200 LRN FIX				STEAMING
2000	64° 08'N	0° 46'W	2000 LRN FIX				

HMCS PROTECTEUR — WEDNESDAY — 18th OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind: Direction (True)	Wind: Speed (Knots)	Sea Height (In Feet)	Swell: Direction From (True)	Swell: Height (In Feet)	Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius): Dry Bulb	Temperature (Celsius): Wet Bulb	Temperature (Celsius): Sea
0100		1856.51	11.9	59.2	075	075	085	1°W	9°W												
0200		1870.89	12.3	64.2	075	075	085	1°W	9°W												
0225			5.9		075	075	085	1°W	9°W												
0300		1885.00	6.2	64.4	052	052	061	0°													
0322					052	052	061	0°													
0400	04	1895.5	10.50	55.7	180	180	188	1°E	9°W	7	285	28	2	190	6	98	02	999.6	9.4	8.3	10.6
0445					180	180	188	1°E													
0500		1903.40	7.9	51.2	120	120	126	2½°E	9°W												
0538					120	120	126	2½°E													
0600		1912.82	9.4	48.2	220	220	230	1¼°W	9°W												
0615					220	220	230	1¼°W													
0700		1916.70	3.9	44.7	230	230	240	1¼°W	8°W												
0708					230	230	240	1¼°W													
0717					240	240	250														
0800	0	1926.90	10.2	52.3	065	065	058	1½°E	8°W	8	285	37	3	270	15	97	02	998	8.3	7.8	10.6
0900		1942.51	14.1	81.1	065	065	072½	½°E	8°W												
1000		1958.11	14.0	80.8	065	065	072½	½°E	8°W												
1045		1968.44	10.5		065	065	071½	½°E													
1100		1972.48	3.5	68.6	100	100	105	2°E	7°W												
1200	ϕ	1987.26	11.1	71.5	100	100	105	2°E	7°W	8	280	30	3	290	12	97	02	1000.0	10.0	8.3	10.6
1245		1998.14	9.0		100	100	105	2E	7W												
1300		2000.56	3.0	69.6	210	210	220°	3E	7W												
1400		2015.13	12.0	73.6	210	210	220°	3E	7W												
1500		2026.94	14.0	78.6	210	210	220°	3E	7W												
1600	ϕ	2040:50	14.0	74.9	210	210	220°	3E	7W	8	285	28	4	260	12	97	60	1006.0	8.3	7.2	10.0
1640					210	210	220	3°E													
1649					230	230	239½	2½°E													
1700		2053.14	12.7	72.3	210	270	220	3°E	7W												
1721					210	210	220	3°E													
1800	ϕ	2065.88	12.7	73.3	220	220	239½	2½°E	7W	6	275	34	4	260	12	98	02	1010.0	8.3	6.7	10.6
1900		2078.50	12.6	75.8	220	220	224½	2½°E	7W												
2000	ϕ	2092.60	14.2	71.2	220	220	224½	2½°E	7°W	7	270	36	3	260	12	98	02	1010	8.3	6.7	10.0
2100		2105.60	14.7	73.6	VAR	VAR	VAR	VAR	7°W												
2200		2117.00	15.2	76.1	310	310	316½	13°E	8°W												
2300		2129.67	14.4	72.3	VAR	VAR	VAR	VAR	8°W												
2400	ϕ	2146.00	14.4	84.4	185	185	192	1°E	8°W	6	265	32	5	260	15	98	60	1011.0	8.9	5.6	10.6

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
293.9		

1974 FROM HALIFAX TO HAMBERG , OR AT

REMARKS		Initials of the Officer of the Watch
0025 SP 12	0015 DECCA 64° 22.5 N 01° 05.0 E	
	0123 DECCA 64° 25.0 N 1° 36.0 E	
0225 A/C 052	0250 DECCA 64° 32.0 N 2° 18.0 E	
0310 SP 10 0322 A/C 180	0342 DECCA 64° 32.0 N 2° 39.0 E	
0445 - a/c 120	0430 DECCA 64° 25' N 02° 38' E	
0509 - SUNRISE 0538 - a/c 150 0600 - a/c 220	0535 DECCA 64° 19' N 02° 55' E	
0615 - a/c 230 0650 - SP 12	0630 DECCA 64° 13' N 02° 52' E	
0708 - a/c 240 0717 - SP 14 0729 - a/c 065	0735 DECCA 64° 12' N 02° 42' E	
	0937 DECCA 64° 24.5' N 03° 46' E	
1045 - a/c 100°	1033 DECCA 64° 28.5 N 04° 12' E	
	1131 DECCA 64° 27.5' N 04° 44' E	
1245 - a/c 210°		
	1400 DECCA FIX 64° 11 N 5° 06 E	
1435 - 2 UPPER DECKS REACHED OUT OF BOUNDS	1500 DECCA FIX 63° 59 N 4° 53 E	
	1530 DECCA FIX 63° 58 N 4° 48 E	
1640 A/C 230 1649 A/C 210	1657 DECCA 63° 37' N 4° 27' E	
1721 A/C 220	1748 DECCA 63° 28' N 4° 12' E	
1805 - SUNSET	1837 DECCA 63° 16' N 04° 00' E	
	1930 DECCA 63° 09' N 03° 46' E	
2018 - a/c 180° 2025 - a/c 130° 2043 - a/c 310° SP 19	2045 - a/c 305° 2048 - SWITCHED ON NAV LIGHTS	2030 DECCA 63° 00' N 03° 40' E
2144 SP 12 2200 - a/c 270°	2200 DECCA 63° 06.5' N 03° 14' E	
2217 - a/c 180° SP 15 2219 - a/c 150° SP 16 2230 - a/c 190° SP 18	2237 - a/c 185°	2300 DECCA 62° 57' N 03° 04' E
	2400 DECCA FIX 62° 41 N 3° 02 E	

Position	Latitude	Longitude	Depending on	Draught			Notice for Main Engines at Noon
				Time	Forward	Aft	
0800	64° 15' N	02° 58' E	0800 DECCA FIX				STEAMING
1200	64° 27'-N	04° 59' E	1200 DECCA				
2000	63° 03' N	03° 34' E	2000 DECCA				

HMCS PROTECTEUR — THURSDAY — 19th OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind: Direction (True)	Wind: Speed (Knots)	Sea Height (In Feet)	Swell: Direction From (True)	Swell: Height (In Feet)	Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius): Dry Bulb	Temperature (Celsius): Wet Bulb	Temperature (Celsius): Sea
0100		2162.22	16.0	88.1	185	185	192°	1E	8°W												
0119		2167.14	5.5		185	185	192°	1E	8°W												
0158		2177.12	10.0		175	175	182°	1E	8°W												
0200		2177.94	0.5	85.4	185	185	192°	1E	8°W												
0300		2194.00	17.0	82.7	195	185	192	1E	8W												
0400	Ø	2209.33	17.0	84.3	185	195	192	1E	8W	8	230	25	4	260	10	97	03	1011.5	8.3	7.2	10.6
0403		2210.99	.9		185	185	192	1E													
0415		2214.62	3.3		220	220	229½	½°W	8°W												
0500		2226.13	13.9	85.1	180	180	187	1E													
0530		2233.51	6.9		180	180	187	1°E													
0600		2238.27	6.7	68.0	310	310	316½	1½°E	8°W												
0700		2250.94	13.0	69.9	310	310	316½	1½°E	8°W												
0733					310	310	316½	1½°E	8W												
0800	Ø	2264.97	14.03	70.0	235	235	244	1¼°W	8°W	7	235	18	3	200	10	96	80	1008	12.2	12.2	10.6
0900		2277.47	12.5	66.6	VAR	VAR	VAR	VAR	8W												
1000		2289.43	11.9	62.6	VAR	VAR	VAR	VAR	8°W												
1100		2298.53	9.2	54.8	VAR	VAR	VAR	VAR	8W												
1200	Ø	2310.50	12.0	63.0	VAR	VAR	VAR	VAR	8W	7	230	14	3	230	12	98	60	1005	12.2	11.1	11.7
1300		2321.81	15.1	75.6	VAR	VAR	VAR	VAR	8°W												
1400		2337.10	15.1	75.6	040	040	048½	½°W	8°W												
1500		2352.92	14.7	73.3	040	040	048½	½°W	8°W												
1540		2357.91	5.5		040	040	048½	½°W													
1600	Ø	2361.70	2.6	39.7	090	090	096½	1½°E	8°W	6	230	18	2	230	6	98	01	1005.0	13.3	12.2	11.1
1628		2365.44	4.0		080	080	086½	1½°E	8W												
1700		2370.97	4.0	39.1	250	230	239°	1E	8W												
1800	Ø	2373.52	8.0	36.2	VAR	VAR	VAR	VAR	8W	6	245	18	2	250	5	98	02	1005.0	12.2	11.1	11.1
1900		2378.61	5.1	36.2	270	270	278	¼W	8W												
2000	Ø	2385.65	8.0	39.5	270	270	278	¼W	8°W	8	220	8	1	230	6	98	02	1005	16.7	10.6	11.1
2100		2391.45	7.9	39.6	270	270	278	¼W	8°W												
2110		2392.30	.9		270	270	278	¼W													
2200		2400.12	8.0	43.3	000	000	008½	½W	8°W												
2203		2401.01	.6		000	000	008½	½W													
2300		2414.11	13.1	67.3	180	180	187	1°E	8°W												
2400	Ø	2430.60	14.9	74.2	180	180	187	1°E	8°W	8	335	18	1	230	6	98	02	1007	9.4	8.9	11.1

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
360.8		

19 74 FROM HALIFAX TO HAMBURG , OR AT

REMARKS			Initials of the Officer of the Watch
0055 - NAV LTS SWITCHED OFF		0100 DECCA FIX: GZ°RGN 3°00E	
0119 - a/c 175; SP17 0158 - a/c 185° SP16		0200 DECCA FIX: GZ°10N 3°06E	
0218 - SP17		0300 DECCA FIX: G1°54N 3°06E	
		0400 DECCA FIX: G1°37N 3°04E	
0403 - a/c 220°		0500 DECCA: 21° 20'N / 03° 05'E	
0415 - a/c 180°			
0420 - SP 16	0500 - HANDS TO RAS STATIONS		
0515 - RAS SSD CLOSED UP	0536 - 1ST LINE SKEENA PORT	0600 DECCA: 21° 25'N / 02° 49'E	
0529 - SUNRISE	0541 - 1ST LINE IROQUOIS STBD		
0530 - a/c 310° SP 14			
0614 - LAST LINE SKEENA 1080bbls dist	0653 - 1ST LINE MARGAREE STBD	0700 DECCA: 61° 33'N / 02° 31'E	
0646 - LAST LINE IROQUOIS 950bbls diesel			
0725 - LAST LINE MARGAREE 889bbls dist	0733 - a/c 235° SP15	0800 DECCA: 61° 33'N / 02° 12'E	
0727 - a/c 220	0741 - FLYING STATIONS		
0728 - SECURED SSD	0800 - STOOD DOWN FLYING STATIONS		
0815 - a/c 220	0838 - 1ST LINE HURON	0838 DECCA: 61° 28.5'N / 0° 58.0E	
0825 - RAS STATIONS - RAS SSD CLOSED UP	0841 - a/c 270°		
0832 - a/c 260° SP 14	0849 - a/c 290°		
0903 - FLYING STNS	0943 - SECURED RAS SSD 0959 - a/c 180	0900 DECCA: 61° 29'N / 01° 50'E	
0925 - RECOVERED SK 04	0944 - a/c 180° SP 10		
0932 - STOOD DOWN FLYING STNS	0951 - a/c 220 SP 10		
0941 - LAST LINE HURON PASSED 290bbls diesel 287bbls JP5			
1005 - a/c 230 SP 12	1035 - a/c 245 1055 - a/c 080	1012 DECCA: 61° 29.5'N / 01° 32'E	
1008 - a/c 260	1041 - SP 15		
1023 - SP 10	1045 - a/c 230		
1025 - a/c 275	1049 - a/c 260 SP 10		
1104 - SP 15	1149 - a/c 100	1100 DECCA: 61° 21'N / 01° 29'E	
1116 - FLYING STNS	1152 - a/c 080		
1136 - a/c 260 SP 10			
1137 - RECOVERED SK 34			
1230 - a/c 000° SP 12	1250 - a/c 040° SP 15	1300 DECCA: 61° 26'N / 01° 51'E	
1240 - a/c 020°			
		1400 DECCA: 61° 36'N / 02° 13'E	
		1500 DECCA: 61° 47'N / 02° 33'E	
1500 - SP 8			
1510 - FLYING STATIONS		1600 DECCA: 61° 50.5'N / 02° 46'E	
1520 - STOOD DOWN FLYING STATIONS			
1552 - FLYING STATIONS			
1628 - a/c 230		1650 DECCA FIX: 61°59N 2°47E	
1635 - LAUNCHED SK 13			
1705 - LAUNCHED SK ~~34~~ 04	1730 - FLYING STNS 1757 - a/c 270	1755 DECCA FIX: 61°50N 2°44E	
1709 - FLYING STNS STOOD DOWN	1734 - a/c 270 1758 - SUNSET; DARKENED SHIP		
1710 - a/c 240°	1749 - SK 07 RECOVERED		
1712 - a/c 000°	1756 - FLYING STNS STOOD DOWN		
		1820 DECCA: 61° 51'N / 02° 41'E	
		1925 DECCA: 61° 51'N / 02° 26'E	
2001 - STEERING GEAR BREAKDOWN, STEERING FROM TILLER FLAT	2057 FLYING STATIONS	2050 DECCA: 61° 51'N / 2° 05'E	
2025 REVERTED TO FORWARD STEERING			
2110 A/C 000	2126 SP 6		
2119 LAUNCHED SK 07	2139 FLYING STATIONS. SP 10		
2124 SECURED FLYING STATION			
2203 RECOVERED SK 07		2240 DECCA: 61° 56'N / 2° 04'E	
2217 A/C 180 SP 15			
		2334 DECCA: 61° 42'N / 2° 03.5'E	

Position	Latitude	Longitude	Depending on	Draught			Notice for Main Engines at Noon
				Time	Forward	Aft	
0800	61° 33' N	02° 12' E	0800 DECCA				STEAMING.
1200	61° 21' N	01° 37' E	1200 DECCA				
2000	61° 51' N	02° 17.5E	2000 (Ø) DECCA				

HMCS PROTECTEUR — FRI DAY — 20th OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind: Direction (True)	Wind: Speed (Knots)	Sea Height (In Feet)	Swell: Direction From (True)	Swell: Height (In Feet)	Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius): Dry Bulb	Temperature (Celsius): Wet Bulb	Temperature (Celsius): Sea
0100		2449.30	14.7	73.4	180	180	187	1°E	8°W												
0200		2459.99	14.3	71.4	180	180	187	1°E	8°W												
0230		2463.08	3.1		270	270	278	½°W													
0300		2466.23	3.3	31.9	275	275	283	0	8°W												
0335		2469.88	3.4		275	275	283	0													
0400	Ø	2473.00	3.3	38.0	290	290	297	¾°E	8°W	6	335	13	1	280	6	98	02	1009.0	9.1	8.9	11.1
0415		2474.5	2.1		090	090	097	¾E	8W												
0500		2480.20	4.2	38.9	090	090	097	1E	8W												
0600		2488.73	6.3	38.8	090	090	097	1E	8W												
0700		2497.30	7.8	38.9	090	090	097	1E	8W												
0800	Ø	2505.83	7.8	38.9	090	090	097	1E	8W	7	275	8	1	280	4	98	02	1008.8	10.0	9.4	11.1
0900		2514.63	7.8	38.9	090	090	097	1°E	8°W												
1000		2523.61	7.8	38.9	090	090	097	1°E	8°W												
1100		2532.10	8.3	41.9	VAR	VAR	VAR	VAR	8°W												
1115		2534.68	2.5		270	270	278	¼°W													
1200	Ø	2545.90	12.3	71.7	310	310	316½	1½°E	8°W	8	270	8	1	330	5	99	60	1010.0	10.6	9.4	11.7
1207					310	310	316½	1½°E	8°W												
1300		2562.27	16.4	88.9	ØØØ	ØØØ	ØØ8½	½°W	8°W												
1400		2579.ØØ	17.7	89.8	ØØØ	ØØØ	ØØ8½	½°W	8°W												
1500		2595.31	16.3	89.8	VAR	VAR	VAR	VAR	8°W												
1600	Ø	2611.74	17.2	87.2	VAR	VAR	VAR	VAR	8°W	8	280	13	1	330	5	98	02	1007	10.6	9.4	11.1
1700		2624.49	15.0	75.2	VAR	VAR	VAR	VAR	8°W												
1800	Ø	2640.90	12.2	61.2	VAR	VAR	VAR	VAR	8°W	8	245	9	1	245	4	98	02	1005.0	10.0	8.9	10.6
1900		2656.5	15.6	77.5	VAR	VAR	VAR	VAR	8°W												
2000	Ø	2671.82	15.8	79.6	VAR	VAR	VAR	VAR	8°W	8	245	9	1	250	4	98	02	1005.0	10.0	8.9	10.6
2100		2688.50	15.9	79.5	035	035	043½	½°W	8°W												
2144		2699.15	11.1		035	035	043½	½°W													
2200		2703.00	8.9	73.6	040	040	048½	½°W	8°W												
2220		2706.10	2.8		040	040	048½	½°W													
2300		2714.24	7.1	49.7	070	070	077½	½°E	8°W												
2330		2718.11	4.0		070	070	077½	½°E													
2345		2720.25	2.1		045	045	053½	½°W													
2400	Ø	2722.90	3.5	53.9	180	180	187	1°E	8°W	8	170	26	1	250	4	98	80	1000.0	10.0	8.9	11.1

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
285.6		

1974 FROM HALIFAX TO HAMBURG ; OR AT

REMARKS			Initials of the Officer of the Watch
		0100 DECCA 61°21'N 03°04'E	
0130 - BLOW SOOT 0200 - a/c 290° SP 8		0200 DECCA 61°06'N 02°01'E	
0230 - a/c 295°		0300 DECCA 61°06'N 01°47'E	
0335 - a/c 240°		0400 DECCA 61°09'N 01°33'E	JB
0415 - a/c 090°		0500 DECCA FIX 61°07N 1°34E	
0630 - SUNRISE		0600 DECCA FIX 61°07N 1°47E	
		0700 DECCA FIX 61°07N 2°08E	
0800 - HANDS EMPLOYED AT CLEANING STATIONS (FRIDAY ROUTINE)		0730 DECCA FIX 61°07N 2°15E	
		0850 DECCA 61° 08'N 02° 40'E	
0947 - FLYING STATIONS		0930 DECCA 61° 08'N 02° 49'E	
1011 - a/c 280° 1019 - a/c 260° 1021 - RECOVERED SK 05	1025 - LAUNCHED SK 05 1030 - STOOD DOWN FLYING STATIONS 1045 - a/c 290° SP 10	1034 DECCA 61°09'N 02°55'E	
1115 - a/c 310° SP 16		1118 DECCA 61°07'N 02° 45'E	JB
1207 - a/c 000 SP 18		1232 DECCA 61°22'N 02°27'E	
		1323 DECCA 61°36.5N 02°28.8E	
1417 - a/c 330 1431 - a/c 230 1446 - a/c 210 1459 - a/c 040		1439 DECCA 61°51.5N 02°21.8E	
1505 - SP 17 1514 - SP 18 1518 - a/c 220 1525 - a/c 000	1536 - a/c 090 1549 - a/c 150 SP 14	1530 DECCA 61°53.6N 02°20.8E	
1604 - a/c 180° 1619 - a/c 290° 1642 - SP 13	1643 - FLYING STATIONS 1648 - a/c 255° 1658 - a/c 245° SP 16	1619 DECCA 61°49'N 02°35'E	
1708 - LAUNCHED SK 09 1713 - STOOD DOWN FLYING STATIONS 1719 - a/c 310° SP 12	1723 - a/c 000° 1735 - SECURED FLYING STATIONS 1800 - a/c 070° SP 16	1728 DECCA 61°48'N 02°05'E	JB
1801 - SUNSET 1808 - SP 16 1819 - a/c 100°	1851 - a/c 040° (DARKENED SHIP) 1820 - a/c 050 1855 - a/c 055° 1800 - a/c 040	1828 DECCA FIX 61°56N 3°19E	
1906 - a/c 035° 1917 - a/c 025° 1920 - a/c 030°	1925 - a/c 035° 1945 - 2ND TA OPERATIONAL	2000 DECCA FIX 62°09N 2°53E	
		2030 DECCA 62° 15'N 3° 04'E	
2126 SP 14 2144 A/C 040		2108 DECCA 62° 23.5'N 3° 17.0E	
2220 A/C 070 SP 8		2230 DECCA 62° 37.5'N 3° 45.0E	
2330 A/C 045 2345 A/C 180 SP 14.		2330 DECCA 62° 41.0N 4° 04.0E	

Position	Latitude	Longitude	Depending on	Draught Time	Draught Forward	Draught Aft	Notice for Main Engines at Noon
0800	61° 07' N	2° 21' E	0730 DECCA FIX				
1200	61° 14' N	2° 27' E	1200 - DECCA				STEAMING
2000	62° 09' N	2° 53' E	2000 DECCA FIX				

HMCS PROTECTEUR — SATURDAY — 21ST OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind: Direction (True)	Wind: Speed (Knots)	Sea Height (In Feet)	Swell: Direction From (True)	Swell: Height (In Feet)	Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius): Dry Bulb	Temperature (Celsius): Wet Bulb	Temperature (Celsius): Sea
0100		2736.89	14.0	54.8	VAR	VAR	VAR	VAR	7°W												
0200		2746.62	9.7	45.0	VAR	VAR	VAR	VAR	7°W												
0255					180	180	186	1°E													
0259					200	200	206														
0300		2752.75	6.1	45.0	220	220	228	½°W	7°W												
0320					220	220	228	½°W													
0355					320	320	326	1°E													
0400	Ø	2758.80	9.3	46.5	135	135	141½	2½°E	7°W	8	170	26	2	250	6	98	02	996	10.2	10.6	10.0
0438		2767.08	7.6		135	135	139	3°E													
0500		2777.00	9.2	55.8	320	320	328½	1½°W	7°W												
0550		2780.20	14.8		330	330	338½	1½°W													
0600		2782.45	3.0	88.9	320	320	328½	1½°W	7°W												
0619		2786.48	4.2		320	320	328½	1½°W													
0700		2795.65	10.0	71.0	180	180	186	1°E	7°W												
0800	Ø	2810.42	14.7	73.4	180	180	186	1°E	7°W	8	170	32	3	165	10	97	64	991.5	11.7	11.7	10.6
0900		2825.58	14.0	74.4	180	180	186	1°E	7°W												
1000		2840.36	14.0	74.3	180	180	186	1°E	7°W												
1100		2855.56	14.0	74.3	180	180	186	1°E	7°W												
1101		2856.00	0.5		180	180	186	1°E	7°W												
1200	Ø	2870.66	13.5	74.3	210	210	218°	1W	7°W	7	225	10	1	165	4	98	01	991.5	11.7	11.1	12.8
1300		2886.11	15.40	74.3	210	210	218	1W	7°W												
1400		2896.37	10.21	52.0	210	210	218	1W	7°W												
1403		2897.05	.7		230	230	234	3°E													
1417		2899.85	2.9	72.1	000	000	007½	½°W	7°W												
1500		2910.67	11.1		060	060	068½	1½°W													
1550		2923.15	13.1		060	060	068½	1½°W													
1600	Ø	2924.50	1.2	64.9	190	190	196½	½°E	7°W	4	185	16	1	180	6	98	02	992.0	11.7	10.6	14.4
1700		2931.74	7.2	39.4	VAR	VAR	VAR	VAR	7°W												
1730					093	093	098½	1½°E													
1758					210	210	218	≈1¼°W													
1800	Ø	2938.74	7.0	39.1	000	000	007½	½°W	7°W	5	175	16	1	180	4	98	02	992.0	11.7	10.0	12.8
1900		2944.96	7.8	39.2	VAR	VAR	VAR	VAR	7°W												
1908		2946.45	1.5		180	180	186	1°E													
2000	Ø	2951.18	5.5	38.5	279	279	286½	½°W	7°W	5	150	10	1	180	4	98	02	992.5	12.8	11.7	13.3
2100		2958.46	4.5	27.6	279	279	286½	½W	7W												
2125		2956.82	1.8		279	279	286½	½W	7W												
2200		2959.54	2.7	27.6	270	270	277	0°	7W												
2210		2959.00	0.6		270	270	277	0°	7W												
2300		2966.00	5.4	41.5	255	255	263°	1W	7W												
2307		0966.75	1.0		255	255	263°	1W	7W												
2400	Ø	2976.92	10.1	60.0	270	270	277	0°	7W	2	140	16	1	240	8	99	01	989.5	12.8	11.1	12.8

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
263.3		

1974 FROM TO , OR AT

REMARKS		Initials of the Officer of the Watch
0004-a/c 015 0014 - a/c 335 SP18 0030 - a/c 000 0045 - a/c 010 SP 10	0100 DECCA { 62°41'6N 04°18'E	
0114 - a/c 006 0121 - a/c 270 SP15 0138 - a/c 180 SP10 0141 - a/c 150 0154 - a/c 130	0200 DECCA { 62°56'3N 04°14'E	
0234 - SP8 0255 - a/c 200 0254 - a/c 230	0300 DECCA { 62°49'N 04°29'E	
0320 - a/c 320 SP10 0334 - a/c 135	0325 DECCA { 62°48'2N 04°26'8E	
0438 - a/c 320° SP 12 0445 - SP 14 0450 - SP 16 0500 - a/c 330° SP 19	0449 DECCA { 62° 46'N 04° 38'E	
0519 - Sunrise 0550 - a/c 320°	0600 DECCA { 63° 03'N 04° 22'E	
0619 - a/c 180° SP 14 0627 - SP 10 0649 - SP 15	0700 DECCA { 63° 00'N 04° 15'E	
	0800 DECCA { 62° 46'N 04° 17'E	
0859 - a/c 212°		
	0930 DECCA FIX { 62°28N 4°07E	
1051 - RAS STATIONS 1101 - a/c 210°	1030 DECCA FIX { 62°16N 3°58E	
1100 - RAS SSB CLOSED UP 1117 - IROQUOIS COMMENCED APPROACH PORTSIDE 1124 - FIRST LINE PASSED TO IROQUOIS	1200 DECCA FIX { 61°59N 3°34E	
1219 - SKEENA COMMENCED APPROACH STBDSIDE 1223 - SKEENA ALONGSIDE STBDSIDE - FIRST LINE 1235 - LAST LINE IROQUOIS 1240 - MARGAREE COMMENCED RAS APPROACH PORTSIDE 1243 - 1ST LINE MARGAREE 1255 - FLYING STATIONS	1256 DECCA { 61°47.5N 3°19.0E	
1312 - LAST LINE SKEENA 1321 - LAST LINE MARGAREE 1328 - SP8 1329 - SECURED RAS SSD - a/c 000	1327 DECCA { 61° 44.6 N 3° 09.5 E	
1402 LAUNCHED SK 17 1403 A/C 000 SP 15 1417 A/C 060	1425 DECCA { 61° 47.0N 3° 09.0E	
1543 SP 8 1550 A/C 190	1525 DECCA { 61° 54.0 N 3° 39.5 E	
1601 - a/c 210 1603 - RECOVERED SK17 1610 - a/c 000 1632 - a/c 090 1641 - a/c 093	1627 DECCA { 61° 57'0N 3° 43'0E	
1710 - FLYING STNS 1730 - a/c 210 1753 - SUNSET 1756 - LAUNCHED SK17 1757 - STOOD DOWN FLYING STNS 1758 - a/c 000	1703 DECCA { 61°58'NN 03°51'E	
1809 - a/c 270° 1845 - Flying Stations 1850 - a/c 250° 1853 - a/c 210° 1855 - a/c 180° 1900 - SP 12	1900 DECCA { 61°56'N 03°45'E	
1907 - RECOVERED SK 19 1908 - a/c 279° SP 6 1912 - 1 SECURED FLYING STATIONS	2000 DECCA { 61° 58'N 03° 35'E	
	2100 DECCA FIX { 61°59N 3°28E	
2125 - a/c 270 2150 - NAV LTS SWITCHED ON (NIL)	2200 DECCA FIX { 62°01N 3°22E	
2210 - a/c 255 SP7 2238 - SP8 2242 - SP12 2243 - SKEENA JOINED FROM SE AND PLACED IN A SCREEN ON STBD BOW 2245 - MARGAREE JOINED FROM WEST AND PLACED IN A SCREENING POSITION ON PORTBOW	2300 DECCA FIX { 62°01N 3°10E	
2307 - a/c 270° 2311 - OVERFLOWN BY A HELO AND ILLUMINATED 2337 - NAV LTS SWITCHED OFF	2330 DECCA FIX { 62°01N 2°57E	

Position	Latitude	Longitude	Depending on	Draught Time	Draught Forward	Draught Aft	Notice for Main Engines at Noon
0800	62° 46' N	04° 17' E	0800 DECCA				
1200	61° 59' N	3° 34' E	1200 DECCA FIX				STEAMING
2000	61° 58' N	3° 35' E	2000 DECCA				

HMCS PROTECTEUR — SUN DAY — 22ND OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind: Direction (True)	Wind: Speed (Knots)	Sea Height (In Feet)	Swell: Direction From (True)	Swell: Height (In Feet)	Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius): Dry Bulb	Temperature (Celsius): Wet Bulb	Temperature (Celsius): Sea
0100		2984.53	8.9	44.0	270	270	277	0°	7°W												
0200		2987.88	6.4	38.6	270	270	277	0°	7°W												
0225		2991.25	4.2		270	270	277	0°	7°W												
0300		2998.30	8.2	62.9	255	255	263	1°W													
0400	Ø	3010.13	13.10	65.6	270 / 130	270 / 130	263 / 134½	1°W / 2½°E	7°W	4	115	18	4	200	10	98	13	990.Ø	11.7	10.0	11.7
0443					130	130	134½	2½°E													
0500		3022.86	12.73	68.6	180	180	18	1°E	7°W												
0600		3037.75	14.9	77.9	180	180	186½	1°E	7½°W												
0700		3050.9	13.2	72.0	180	180	187	1°E	8°W												
0800	Ø	3062.83	13.4	73.7	180	180	187	1°E	8°W	5	175	26	1	200	10	98	02	983	12.2	11.7	11.7
0900		3072.53	12.0	63.4	180	180	187	1°E	8°W												
1000		3082.29	9.0	64.7	180	180	189	1°E	8°W												
1100		3090.10	8.2	52.8	270	270	278	¼°W	8°W												
1200	Ø	3097.03	6.5	47.5	270	270	278	¼°W	8°W	8	180	30	3	190	10	98	80	980.0	12.2	12.2	11.7
1250		3102.97	5.5		270	270	278 / 097°	0°	8°W												
1300		3108.77	1.5	48.4	090	090	~~279~~	1°E	8W												
1337		3109.45	3.5		090	090	097	1E	8W												
1352		3111.70	2.3		105	105	112°	1E	8W												
1400		3112.78	1.2	48.4	090	090	097	1E	8W												
1500		3122.44	9.1	48.4	090°	090°	097°	1E	8W												
1600	Ø	3132.06	9.0	48.4	090°	090°	097°	1E	8W	8	180	30	4	190	8	98	80	981.0	11.1	10.6	12.2
1700		3142.06	9.7	48.4	090°	090	097	1E	8W												
1800	Ø	3152.15	9.6	48.4	090	090	097	1E	8W	7	210	30	4	200	8	98	80	981.5	11.1	10.6	12.2
1815					090	090	097	1E	8W												
1900		3159.29	7.1	48.8	270	270	278¼	1/4°W	8W												
2000	Ø	3166.22	7.0	47.9	270	270	278	1/4°W	8W	6	230	30	3	245	8	96	Ø2	982	11.7	11.7	12.8
2100		3174.22	7.2	50.1	320	320	326½	1½°E	8°W												
2200		3184.86	8.8	58.8	320	320	326½	1½°E	8°W												
2300		3193.95	12.2	73.2	320	320	326½	1½°E	8°W												
2400	Ø	3213.22	11.0	73.3	330	330	336½	1½°E	8°W	8	250	30	4	245	10	98	02	985.0	11.7	11.1	12.2

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
253.4		

19 ... **FROM** ... **TO** ... **, OR AT** ...

REMARKS		Initials of the Officer of the Watch
0030 Sp6	0055 DECCA { 62° 01.5N 2° 31.0E	
	0157 DECCA { 62° 02.0N 2° 23.5E	
0214 Sp12 0225 A/c 255 Sp14 0300 A/c 270		
0303 Sp 12 0400 A/c 130	0346 DECCA { 61° 59.0N 2° 02.0E	
0438 - SP15 0443 - A/C180	0428 DECCA { 61°56'N 01°58'E	
0537 - SUNRISE	0534 DECCA { 61°42'N 02° 02'E	
	0634 DECCA { 61°30'N 02°02'E	
	0734 DECCA { 61°16'N 02°00'E	
0830 - FLYING STATIONS 0838 - SP 10	0900 DECCA { 61°04'N 01°58'E	
0908 - LAUNCHED SK 19 0910 - STAND DOWN FLYING STATIONS - SP 15 1000 - A/C 290° SP 10	1000 DECCA { 60°55'N 01°58'E	
1052 - FLYSTNS	1100 DECCA { 60°55'N 01°39'E	
1104 - RECOVERED SK 19 1113 - SECURED FLYING STATIONS	1200 DECCA { 60°55'N 01°24'E	
1250 - A/C 090°	1300 DECCA FIX { 60°55N 1°16E	
1337 - A/C 105° 1352 - A/C 090°	1400 DECCA FIX { 60°55N 1°33E	
	1500 DECCA FIX { 60°55N 1°56E	
	1530 DECCA FIX { 60°55.5N 2°01E	
	1648 DECCA { 60° 56.0 N 2° 26 E	
1748 SUNSET. NAV LTS ON.	1726 DECCA { 60° 56.0N 2° 39.0E	
1815 - A/C 270	1900 DECCA { 60°57'N 02°47.5E	
2000 - A/C 320°	1931 DECCA { 60°57'N 02°40'E	
	2100 DECCA { 61°03'N 2°25'E	
2135 - SP 15	2200 DECCA { 61°10'N 2°14'E	
2300 - A/C 330°	2300 DECCA { 61°19'N 1°58'E	
	2400 DECCA { 61° 29.5N 01° 49'E	

Position	Latitude	Longitude	Depending on	Draught			Notice for Main Engines at Noon
				Time	Forward	Aft	
0800	61° 15' N	02° 00' E	0900 DECCA				STEAMING.
1200	60° 55' N	01° 24' E	1200 DECCA				
2000	60° 58' N	02° 35' E	2000 DECCA				

HMCS PROTECTEUR — MON DAY — 23RD OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind: Direction (True)	Wind: Speed (Knots)	Sea Height (In Feet)	Swell: Direction From (True)	Swell: Height (In Feet)	Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius): Dry Bulb	Temperature (Celsius): Wet Bulb	Temperature (Celsius): Sea
0100		3224.85	12.0	59.7	VAR	VAR	VAR	VAR	8W												
0200		3232.90	10.1	50.8	VAR	VAR	VAR	VAR	8W												
0300		3240.97	8.1	42.2	VAR	VAR	VAR	VAR	8W												
0319		3242.72	1.8		165	165	170	3E	8W												
0400	ϕ	3250.00	6.3	44.9	090	090	097	1E	8W	7	215	15	2	145	8	98	01	984.0	11.7	11.0	11.1
0500		3259.36	8.0	39.9	090	090	097	1E	8W												
0600		3266.75	10.4	50.6	270	270	278½	½W	8W												
0700		3275.00	10.4	51.0	270	270	278½	½W	8W												
0800	ϕ	3284.66	8.4	45.7	090	090	097	1E	8W	6	240	30	2	240	6	98	02	987.6	10.6	9.4	11.7
0853		3294.29	8.9	49.0	090	090	097	1°E	8°W												
0900		3295.38	1.0		240	240	249½	1½°W													
1000		3306.54	12.0	60.2	240	240	249½	1½°W	8°W												
1100		3320.24	13.7	73.9	240	240	249 1/2	1½°W	8°W												
1200	ϕ	3335.74	15.5	85.5	240	240	249 1/2	1½W	8W	6	235	24	2	240	5	98	ϕ2	988.5	10.6	9.4	11.1
1300		3350.49	13.3	66.7	VAR	VAR	VAR	VAR	8°W												
1400		3359.38	11.2	56.2	VAR	VAR	VAR	VAR	8°W												
1500		3368.65	11.3	56.8	VAR	VAR	VAR	VAR	8°W												
1526		3374.70	5.2		060	060	067½	½°E													
1600	ϕ	3381.80	5.9	56.8	225	225	234½	1½°W	8°W	6	220	25	1	240	5	98	02	990.5	11.7	9.4	11.1
1700		3393.52	11.8	56.9	VAR	VAR	VAR	VAR	8W												
1728		3399.54	5.5		150	150	156.0	5E	8W												
1800	ϕ	3404.72	5.5	55.1	000	000	009	1W	8W	5	240	26	2	300	5	98	01	991.5	10.6	9.4	11.1
1900		347.45	12.4	62.1	000 270 300	000 270 300	009 278½ 307	1W ½W 1E	8W												
2000	ϕ	3432.20	14.7	74.2	300	300	307	1E	8W	6	240	25	2	300	4	98	02	992.0	10.6	9.4	11.1
2100		3447.43	15.2	74ϕ	3ϕϕ	3ϕϕ	3ϕ7	1E	8W												
2140					3ϕϕ	3ϕϕ	3ϕ7	1E													
2157					ϕϕϕ	ϕϕϕ	ϕϕ8½	½W													
2200		3457.40	9.9	52.4	330	330	337	1E	8W												
2201					330	330	337	1E													
2300		3468.45	11.1	10ϕ.2	ϕϕϕ	ϕϕϕ	ϕϕ8½	½W	8W												
2400	ϕ	3483.85	14.9	71.5	ϕ45	ϕ45	ϕ53½	½W	8W	8	28ϕ	14	2	235	4	98	81	992	1ϕ.6	1ϕ.ϕ	11.1

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
274.5		

19 74 . . . . FROM HALIFAX TO HAMBURG . . . . , OR AT

REMARKS			Initials of the Officer of the Watch
0004 - a/c 310° SP16 TO TAKE STN IN ASTERN IROQUOIS 0051 - a/c 280 0049 - a/c 280° 0050 - a/c 270°	0057 - a/c 270 SP8 0100 - NAV LTS SWITCHED OFF		
0111 - a/c 090° 0159 - a/c 080° 0114 - SP 10 0115 - a/c 310 0150 - a/c 300 ; IROQUOIS RECOVERED HELO		0135 DECCA FIX { C1034N 01°32E	
0220 - a/c 180° : NAV LTS SWITCHED ON 0230 - a/c 140° 0240 - a/c 090, NAV LTS SWITCHED OFF	0245 - a/c 165° 0246 - DIMMER NAV LTS SWITCHED ON		
0312 - a/c 090		0400 DECCA FIX { C1030N 1055E	
0500 A/C 270		0453 DECCA { 61° 30 N 2° 11' E	
0547 SUNRISE. NAV LTS OFF		0533 DECCA { 61° 30.5 N 2° 07.0 E	
0700 A/C 090		0656 DECCA { 61° 30.0N 1° 45.0E	
		0748 DECCA { 61° 30.0N 1° 57.5E	RCB
0820 - FLYING STATIONS 0830 - RAS STATIONS 0841 - SP 12	0844 - RAS SSB CLOSED UP 0853 - a/c 240°	0900 DECCA { 61° 28.5'N 02° 19'E	
0904 - FIRST LINE, IROQUOIS - PORT 0916 - LAUNCHED SK 19 0919 - STOOD DOWN FLYING STATIONS	0930 - FIRST LINE, SKEENA - STBD 0937 - LAST LINE, IROQUOIS TRANSFERRED 542 BBLS DIESEL OIL 0952 - LAST LINE, SKEENA TRANSFERRED 926 BBLS DIST.	1000 - FIRST LINE, MARGAREE - STBD 1052 DECCA { 61°24'N 02° 02.5'E	
1030 - LAST LINE, MARGAREE TRANSFERRED 819 BBLS DIST 1031 - a/c 095° SP 18 1032 - SECURED RAS SSB			
1200 - TRANSFERRED 4410 BBLS DIST FROM CARGO TO SHIPS TANKS.			
1205 - CL + SP VAR TO TAKE STATION ON IROQUOIS 1233 - FLYING STATIONS - 1247 - a/c 250° SP13	1248 - RECOVERED SK 33 1255 - LAUNCHED SK 33 1256 - STOOD DOWN FLYING STATIONS 1258 - CO + SP VAR TO TAKE STATION ON IROQUOIS	1300 DECCA { 61° 24'N 02° 34'E	
1319 - IN STATION IROQUOIS 4 2000* CO 090 SP 10 1355 - a/c 225°		1400 DECCA { 61° 24'N 02° 39'E	
1415 - FLYING STATIONS 1419 - a/c 040° 1451 - a/c 225°	1454 - LAUNCHED SK 17 1459 - a/c 060° 1500 - STOOD DOWN FLYING STATIONS	1500 DECCA { 61° 21'N 02° 46'E	
1524 - FLYING STATIONS 1526 - a/c 225° 1532 - RECOVERED SK 33	1530 - LAUNCHED SK 33 1558 - RECOVERED SK 17 1600 - a/c 060°	1600 DECCA { 61° 19'N 02° 47'E	SCB
1624 - a/c 1400 1651 - a/c 140° 1627 - a/c 1600 1652 - a/c 1950 1655 - a/c 150° SP12 ASSUMED GUIDE			
1728 - a/c 000° SP10		1710 DECCA FIX { G1012N 3°01E	
1822 NAV LTS ON 1825 A/C 270 1827 A/C 300 SP 15			
		1951 { 61°25.5N 3° 03.5E	RCB
~~2001 - a/c 330~~		2100 DECCA { 61°33'N 02°37'E	
2111 - SP10 2140 - a/c 000 2147 - a/c 330 SP15			
2201 - a/c 006 SP10 2246 - SP15		2235 DECCA { 61° 39.5N 02°28'E	
2316 - a/c 045			

Position	Latitude	Longitude	Depending on	Draught Time	Draught Forward	Draught Aft	Notice for Main Engines at Noon
0800	61° 30'N	02° 03.5 E	0800 DECCA				
1200	61° 23.0N	02° 35.5 E	1200 DECCA				STEAMING
2000	61° 27.0 N	3° 01.5E	1951(0) DECCA				

HMCS PROTECTEUR — TUES DAY — 24th OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind		Sea Height (In Feet)	Swell		Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius)		
											Direction (True)	Speed (Knots)		Direction From (True)	Height (In Feet)				Dry Bulb	Wet Bulb	Sea
0100		3498.70	15.0	76.0	VAR	VAR	VAR	VAR	8°W												
0200		3514.64	15.1	77.3	090	090	095½	1½°E	7°W												
0300		3531.30	15.2	73.4	090	090	095½	1½°E	7°W												
0315		3535.62	3.9		090	090	095½	1½°E													
0400	Ø	3545.75	11.4	77.9	000	000	007½	½°W	7°W	4	290	16	2	235	4	98	02	992.0	11.1	10.6	11.1
0430		3554.28	7.0		000	000	007½	½W	7W												
0500		3560.00	7.0	68.3	270	270	277	0	7W												
0600		3574.96	12.0	73.6	270	270	277	0	7W												
0652		3587.20	10.0		270	270	277	0	7W												
0700		3589.00	2.0	69.7	230	230	238	1W	7W												
0743		3598.30	9.0		230	230	238	1W	7W												
0800	Ø	3601.65	3.0	60.3	270	270	277	0	7W	6	290	10	1	310	5	98	03	992.5	10.0	9.4	10.6
0900		3616.15	14.3	71.6	VAR	VAR	VAR	VAR	7W												
1000		3628.86	12.5	62.5	VAR	VAR	VAR	VAR	7W												
1100		3642.18	14.4	72.0	VAR	VAR	VAR	VAR	7W												
1200	Ø	3655.35	13.1	67.1	VAR	VAR	VAR	VAR	7W	7	335	12	Ø	310	4	98	02	993.Ø	10.6	9.4	10.6
1300		3667.39	12.0	59.2	VAR	VAR	VAR	VAR	7W												
1400		3680.00	12.6	59.9	VAR	VAR	VAR	VAR	7W												
1500		3693.36	13.4	59.9	VAR	VAR	VAR	VAR	7W												
1600	Ø	3703.90	15.54	60.0	VAR	VAR	VAR	VAR	7W	6	330	11	1	325	4	98	02	993	11.1	10.6	10.6
1634		3713.70	8.1		115	115	119	3°E													
1700		3719.44	4.8	64.5	090	090	095½	1½°E	7°W												
1800	Ø	3734.56	14.6	72.7	090	090	095½	1½°E	7°W	7	030	20	1	325	4	98	02	991.5	11.1	10.0	10.6
1820		3741.20	3.5		090	090	095½	1½°E	7W												
1900		3749.5	7.0	73.3	260	260	267	0	7W												
2000	Ø	3764.68	10.5	73.3	260	260	267	0	7W	7	025	22	1	320	4	98	02	992.0	11.1	10.0	10.6
2100		3780.08	14.5	73.0	260	260	267	0	7W												
2148		3793.70	11.6		260	260	267	0													
2200		3796.00	2.9	72.9	000	000	007½	½W	7W												
2225		3804.15	6.3	76.3	000	000	007½	½W													
2300		3810.77	7.5		030	030	037½	½W	7W												
2310		3813.20	2.2		030	030	037½	½W													
2400	Ø	3826.28	12.1	74.9	090	090	095½	1½E	7W	4	000	16	1	320	5	98	02	990.0	10.0	8.9	10.6

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
324.0		

19 74 FROM HALIFAX TO HAMBURG , OR AT

REMARKS		Initials of the Officer of the Watch
0010 - a/c 000° 0015 - a/c 020° 0045 - a/c 090° 0050 - a/c 080° 0100 - a/c 090°	0100 DECCA 61° 58.5'N 03° 00'E	
0145 - SWITCHED ON a/c WARNING LIGHTS 0155 - SWITCHED OFF a/c WARNING LIGHTS	0200 DECCA 61° 57.5'N 03° 32.5'E	
0250 - BLEW SOOT	0300 DECCA 61° 56.5'N 04° 04'E	
0315 - a/c 000°	0400 DECCA 62° 03'N 04° 12'E	
0430 - a/c 270°	0500 DECCA FIX 62° 08N 3° 58E	
0515 - COMMENCED LONG LEGGED BIG ZAG. 0528 - SUNRISE; NAV LPS SWITCHED OFF	0600 DECCA FIX 62° 09N 3° 37E	
0638 - RADAR SWITCHED OFF 0641 - SP10 0643 - a/c 270° - STOPPED ZIG ZAG 0745 - RESUMED BIG ZAG 0800 - HANDS EMPLOYED AT CLEANING STNS 0652 - a/c 230° 0655 - SP18	0700 DECCA FIX 62° 07N 3° 12E 0800 DECCA FIX 62° 05N 2° 48E	
0812 A/C 000 0816 SP 18 0819 A/C 310 0820 SURFACE DEFENCE STATIONS 0822 A/C 010 SP15 0825 FLYING STATIONS 0826 A/C 000 0853 SECURED SURFACE DEFENCE STATIONS	0829 DECCA 62° 06.5'N 2° 45.0E	
0902 SP 10 0913 A/C 330 SK 17 LAUNCHED 0915 STOOD DOWN FLYING STATIONS 0924 A/C 300 SP15 0934 FLYING STATIONS 0944 A/C 380 0950 RECOVERED SK 17 0952 A/C 260 0955 STOOD DOWN FLYING STATIONS	0953 DECCA 62° 16.5'N 2° 39.0E	
1006 A/C 160 1010 A/C 140 1018 A/C 090 1022 A/C 270 SP12 1026 SP 8 1038 A/C 000 SP18 1050 A/C 345	1058 DECCA 62° 18.5'N 2° 33.0E	
1102 SP 15 1112 A/C 270 SP 10 1132 A/C 150 SP 18 1133 SP 10 1138 A/C 090 SP 15 1145 A/C 000 SP 18 1165 A/C 180 SP 10	1200 DECCA 62° 21.0'N 2° 34.0'E	
1202 - a/c 270 SP 12 1218 - ~~EXCUSED~~ COMMENCED ZIGZAG BASE CO 270 COURSES REQ.	1300 DECCA 62° 22.8N 2° 13.8E	
1336 - CEASED ZIG ZAG 1354 - a/c 115	1400 DECCA 62° 19.4N 01° 57.5E	
	1500 DECCA 62° 12.5N 02° 11'E	
1520 - FLYING STNS 1536 - a/c 030 1538 - RECOVERED SK 05 1546 - LAUNCHED SK 05 1547 - RESUMED ZIG ZAG BASE CO 115 SP 12 CO AS REQ.	1600 DECCA 62° 11.5N 02° 27'E	
1639 - a/c 090° SP 15 1644 - RESUMED ZIGZAG	1700 DECCA 62° 10.5'N 02° 50'E	
1747 - SUNSET	1800 DECCA 62° 09'N 03° 10'E	
1820 - a/c 260° 1826 - ~~SA~~ RESUMED 32 PLANES	1900 DECCA FIX 62° 08N 3° 10E	
	2000 DECCA FIX 62° 05N 2° 47E	
2148 A/C 000	2105 DECCA 62° 07.0'N 2° 19.0E	
2225 A/C 030 SP 16	2253 DECCA 62° 12.0'N 2° 16.0E	
2310 A/C 090 2325 SP 15	2359 DECCA 62° 10.5'N 2° 49.0E	

Position	Latitude	Longitude	Depending on	Draught Time	Draught Forward	Draught Aft	Notice for Main Engines at Noon
0800	62° 05.0'N	2° 48.0E	0800 (ϕ) DECCA				
1200	62° 21.0'N	2° 34.0E	1200 (ϕ) DECCA				STEAMING
2000	62° 05'N	2° 47'E	2000 DECCA FIX				

HMCS PROTECTEUR — WEDNESDAY — 25TH OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind: Direction (True)	Wind: Speed (Knots)	Sea Height (In Feet)	Swell: Direction From (True)	Swell: Height (In Feet)	Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius): Dry Bulb	Temperature (Celsius): Wet Bulb	Temperature (Celsius): Sea
0100		3841.46	15.2	73.0	VAR	VAR	VAR	VAR	7W												
0200		3856.37	14.9	74.0	VAR	VAR	VAR	VAR	7W												
0300		3871.50	15.3	67.0	VAR	VAR	VAR	VAR	7W												
0400	Ø	3885.12	13.6	69.3	VAR	VAR	VAR	VAR	7W	5	010	18	1	315	4	98	02	991	10.6	8.9	10.6
0500		3900.62	9.0	71.2	180	180	186	1°E	7°W												
0600		3915.76	8.1	68.3	180	180	186	1°E	7°W												
0609		3917.10	1.5		180	180	186	1°E													
0640		3926.05	7.9		240	240	248½	1½°W													
0700		3930.87	4.3	68.3	180	180	186	1°E	7°W												
0800	Ø	3945.40	8.6	68.3	180	180	186	1°E	7°W	8	345	19	1	320	5	97	02	985.0	9.4	8.9	10.6
0846		3956.74	6.2		180	180	186	1°E													
0900		3959.88	2.4	67.7	000	000	007½	½°W	7°W												
1000		3972.44	8.6	60.4	000	000	007½	½°W	7°W												
1100		3984.65	8.5	60.4	000	000	007½	½°W	7°W												
1200	Ø	3997.80	7.0	60.4	000	000	007½	½°W	7W	8	355	23	1	320	6	97	61	985.0	10.0	10.0	10.6
1221		3999.80	4.1		000	000	007½	½W													
1242		4005.10	4.2		180	180															
1300		4009.70	3.9	60.6	000	000	007½	½W	7W												
1330		4015.10	6.5		000	000	007½	½W													
1349		4018.63	3.4		336	336	341½	1½E													
1400		4022.50	3.0	64.5	025	025	033	1°W	7W												
1500		4036.84	14.0	69.3	VAR	VAR	VAR	VAR	7W												
1600	Ø	4049.63	12.8	63.3	VAR	VAR	VAR	VAR	7W	8	240	17	1	330	4	98	02	986.0	10.6	10.6	10.0
1700		4061.10	11.5	59.5	VAR	VAR	VAR	VAR	7W												
1800	Ø	4073.58	12.5	59.5	VAR	VAR	VAR	VAR	7W	8	350	10	1	330	4	97	21	986.0	10.6	10.6	10.6
1815		4077.75	2.9		000	000	008½	½°W													
1900		4086.15	6.4		270	270	278	½°W	8°W												
2000	Ø	4099.01	11.2	59.2	270	270	278	½°W	8°W	8	345	21	1	290	4	98	02	987.0	10.0	10.0	10.6
2100		4111.80	10.2	59.1	090	090	097	1E	8W												
2200		4124.67	10.2	59.0	090	090	097	1E	8W												
2300		4137.14	10.2	58.9	270	270	278	0	8W												
2400	Ø	4149.36	10.2	73.6	270	270	278	0	8W	8	345	14	1	315	5	98	02	990.0	10.0	10.0	11.1

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
270.3		

1974 FROM HALIFAX TO HAMBURG , OR AT

REMARKS		Initials of the Officer of the Watch
0159 - CEASED ZIG ZAG CO 083	0129 DECCA 62°08'N 03°22.5E	
0223 - a/c 090 0234 - COMMENCED ZIG ZAG BASE CO 000 SP 15 0227 - SP 7 0234 - a/c 000	0239 DECCA 62°09.6N 03°47.2E	
0320 - CEASED ZIG ZAG CO 030 0351 - a/c 180 0356 - RESUMED ZIG ZAG, BASE CO 180 SP 15	0400 DECCA 62°12.4N 03°50.8E	
0446 - SP 14	0500 DECCA 62°05'N 03°58'E	
0535 - SUNRISE	0600 DECCA 61°59.5'N 03°56'E	
0607 - a/c 240° 0643 - RESUMED ZIG ZAG 0629 - RESUMED ZIG ZAG 0640 - a/c 180°	0700 DECCA 61°51.5'N 03°35'E	
	0800 DECCA 61°43.5'N 03°43'E	
0830 - RAS STATIONS 0850 - FLYING STATIONS 0846 - a/c 000° SP 12 0900 - 1ST LINE PASSED, SKEENA, STOD	0900 DECCA 61°38.5'N 03°34'E	
0924 - STOOD DOWN FLYING STATIONS 0938 - LAST LINE, SKEENA TRANSFERRED 913 BBLS DIST. 130 BBLS JP5 0946 - FLYING STATIONS 0953 - 1ST LINE PASSED, MARAUDER, STOD.	1000 DECCA 61°45'N 03°35'E	
1025 - LAST LINE, MARAUDER TRANSFERRED 769 BBLS DIST. 1038 - STOOD DOWN FLYING STATIONS 1040 - 1ST LINE PASSED, IROQUOIS, STOD. 1100 - a/c 345°	1100 DECCA 61°53'N 03°37.5'E	
1110 - LAST LINE, IROQUOIS TRANSFERRED 771 BBLS DIESEL OIL 241 BBLS JP5 1112 - a/c 000° 1114 - SECURED RAS SSD 1116 - FLYING STNS 1141 - LAUNCHED HELO 12411 1144 - FLYING STNS STOOD DOWN 1200 - TRANSFERRED 91 BBLS JP5 FROM CARGO TANKS TO SHIP'S TANKS	1200 DECCA FIX 62°00N 3°38E	
1221 A/C 180 1242 A/C 000 1251 FLYING STATIONS		
1303 RECOVERED SK17 1305 STOOD DOWN FLYING STATIONS 1325 SP 15 1330 COMMENCED ZIG ZAG PLAN A/C 336 1344 FLYING STATIONS 1348 SECURED FLYING STATIONS 1349 A/C 025	1352 DECCA 62° 27.5N 2° 44.0E	
1406 A/C 046 1436 A/C 335 1450 A/C 290	1456 DECCA 62° 34.6 N/- 2° 49.6 E	
1510 A/C 000 1518 A/C 294 SP 12 1540 A/C 337 1600 a/c 027		
1629 - a/c 339 1653 - RECOVERED SK 05 1639 - FLYING STNS 1641 - a/c 025		
1704 - LAUNCHED SK 05 1736 - a/c 270 1706 - a/c 046 1739 - SUNSET 1726 - CEASED ZIG ZAG CO 046 1800 - a/c 000° SP 16	1710 LORAN 62°55'N 02°41.5E	
1815 - a/c 270° SP 12	1900 DECCA 63°01'N 02°17'E	
1915 - COMMENCED ZIG ZAG 1943 - CEASED ZIG ZAG 2000 - a/c 090° - RECOMMENCED ZIG ZAG	2000 DECCA 63°01.5'N 01°53'E	
	2100 DECCA FIX 62°58N 2°01E	
2142 - CEASED ZIG ZAG RESUMED BASE COURSE 090° 2145 - SCREEN PROCEEDING TO NEW STATION? BASED ON R20° 2200 - a/c 270; COMMENCED ZZ PLAN 17.	2200 DECCA FIX 63°00 N. 2°01E	
	2352 DECCA FIX 62°58N 2°01E	

Position	Latitude	Longitude	Depending on	Draught			Notice for Main Engines at Noon
				Time	Forward	Aft	
0800	61° 43.5' N	03° 43' E	0900 DECCA				
1200	62° 00' N	3° 38' E	1200 DECCA FIX				STEAMING
2000	63° 01.5' N	01° 53' E	2000 DECCA				

HMCS PROTECTEUR THURSDAY 26TH OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind: Direction (True)	Wind: Speed (Knots)	Sea Height (In Feet)	Swell: Direction From (True)	Swell: Height (In Feet)	Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius): Dry Bulb	Temperature (Celsius): Wet Bulb	Temperature (Celsius): Sea
0100		4161.88	11.9	58.9	VAR	VAR	VAR	VAR	9°W												
0200		4174.18	11.9	59.0	VAR	VAR	VAR	VAR	9°W												
0300		4187.94	11.8	58.9	VAR	VAR	VAR	VAR	9°W												
0400	Ø	4201.00	11.8	58.9	VAR	VAR	VAR	VAR	9°W	7	325	18	1	315	4	98	02	990.0	10.0	10.8	10.6
0500		4213.80	12.8	58.9	VAR	VAR	VAR	VAR	9°W												
0600		4226.83	13.0	58.9	VAR	VAR	VAR	VAR	9°W												
0700		4240.00	13.7	59.0	VAR	VAR	VAR	VAR	9°W												
0800	0	4253.00	6.5	58.9	VAR	VAR	VAR	VAR	9°W	6	315	15	1	310	4	98	02	992	8.9	8.3	10.6
0900		4266.30	10.2	59.0	180	180	188	1°E	9°W												
1000		4278.82	12.6	58.1	180	180	188	1°E	9°W												
1100		4291.70	7.4	59.4	180	180	188	1°E	9°W												
1200	Ø	4304.54	10.1	59.3	180	180	188	1°E	9°W	6	335	23	1	300	4	98	25	995.5	9.4	8.3	10.6
1248		4314.80	8.0		180	180	188	1°E	9W												
1300		4317.06	4.0	59.3	090	090	097	1°E	8W												
1400		4329.83	12.0	59.2	090	090	097	1°E	8W												
1430		4336.36	6.0		090	090	097	1°E	8W												
1500		4341.13	6.0	59.2	000	000	009	1W	8W												
1600	Ø	4358.06	16.0	78.1	180	180	187	1°E	8W	4	270	28	1	280	4	98	01	996.0	8.5	7.2	11.1
1700		4373.98	15.9	79.7	180	180	187	1°E	8W												
1800	Ø	4390.18	16.3	79.7	180	180	187	1°E	8W	4	280	26	1	265	4	98	02	997.Ø	9.4	7.2	11.1
1900		4406.00	15.8	79.8	180	180	187	1°E	8W												
1904					180	180	187	1°E	8W												
2000		4421.74	15.7	79.8	000	000	008½	½W	8W	4	280	26	1	265	4	98	02	998.5	10.0	8.3	11.1
2020		4426.75	5.2		000	000	008±	±°W													
2100		4439.86	10.5	79.6	040	040	048±	±°W	8°W												
2112		4440.90	3.2		040	040	048±	±°W													
2200		4453.99	14.2	86.8	060	060	068	0	8°W												
2300		4469.20	15.8	79.2	VAR	VAR	VAR	VAR	8°W												
2400	Ø	4484.90	15.0	73.6	000	000	008½	½°W	8°W	4	270	22	1	265	4	98	02	998.0	10.0	8.3	11.1

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
313.4		

1974 FROM HALIFAX TO HAMBURG, OR AT

REMARKS			Initials of the Officer of the Watch
0009 A/C 292 0034 A/C 267 0100 A/C 251	0048 DECCA	62° 59.5N 1° 38.5E	
0110 A/C 214 0132 A/C 324 0200 A/C 270 CEASED ZIGZAG PLAN	0153 DECCA	62° 57.5N 1° 17.5E	
0214 A/C 180 0221 COMMENCED ZIGZAG PLAN A/C 166 0253 A/C 171 0239 A/C 217	0248 DECCA	62° 52.5N 1° 07.0E	
0309 A/C 202 0334 A/C 177 0400 - A/C 161	0338 DECCA	62° 44.0N 1° 01.0E	RAB
0410 - A/C 124 0432 - A/C 143 0439 - A/C 109 0500 - A/C 234	0428 DECCA	62° 34.4N 01° 15.1E	
0516 - A/C 166 0537 - SUNRISE 0539 - A/C 217 0553 - A/C 171	0534 DECCA	62° 24.7N 01° 11.8E	
0604 - A/C 180 0632 - A/C 202 0634 - A/C 177 0700 - A/C 161	0631 DECCA	62° 14.8N 01° 10.5E	
0710 - A/C 124 0732 - A/C 234 0740 - A/C 210 0800 - A/C 143	0728 DECCA	62° 04.5N 01° 17.6E	
0833 - FLYING STATIONS	0827 LORAN	61° 54'N 01° 23'E	
0903 - LAUNCHED SK 19 0904 - STOOD DOWN FLYING STATIONS 0945 - SURFACE DEFENCE STATIONS	1000 DECCA	61° 40'N 01° 11'E	
1005 - SECURED SURFACE DEFENCE STATIONS 1045 - FLYING STATIONS	1100 DECCA	61° 32'N 01° 09'E	
1104 - RECOVERED SK 19 1113 - STOOD DOWN FLYING STATIONS	1200 DECCA	61° 23'N 01° 09'E	RAB
1240 - NEW SCREEN FORMED ON 090°; CEASED E RESUMED BASE COURSE OF 180° 1248 - A/C 090°; RESUMED 22			
1353 - CEASED 22; RESUMED BASE COURSE OF 090°	1305 DECCA FIX	61°14N 1°12E	
1418 - NEW SCREEN FORMED ON 000° 1420 - A/C 000° 1500 - A/C 180°	1520 DECCA FIX	61°18N 1°39E	
	1645 DECCA	60° 55.5N 1° 37.0E	
1741 SUNSET	1715 DECCA	60° 47.5N 1° 37.0E	RAB
	1830 DECCA	60° 52.1N 01° 38.1E	
2020 - A/C 040° - SWITCHED ON NAVIGATION LIGHTS 2025 - SWITCHED OFF NAVIGATION LIGHTS	2100 DECCA	60° 44'N 01° 55'E	
2112 - A/C 060° SP 18 2200 - A/C 000°	2200 DECCA	60° 54'N 02° 19'E	
2218 - SP 15 2222 - FLYING STATIONS 2227 - A/C 330° 2230 - RECOVERED SK 09 2235 - LAUNCHED SK 09 2236 - A/C 000° 2239 - SECURED FLYING STATIONS 2245 - A/C 345° 2255 - A/C 000°	2300 DECCA	61° 09'N 02° 16'E	
	2400 DECCA	61° 22'N 02° 24'E	

HMCS PROTECTEUR
SEP 20 74
COMMANDING OFFICER

Position	Latitude	Longitude	Depending on	Draught			Notice for Main Engines at Noon
				Time	Forward	Aft	
0800	62° 02' N	01° 14' E	0800 DECCA				
1200	61° 23' N	01° 09' E	1200 DECCA				STEAMING
2000	60° 32' N	01° 39' E	2000 DECCA				

HMCS PROTECTEUR — FRIDAY — 27TH OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind: Direction (True)	Wind: Speed (Knots)	Sea Height (In Feet)	Swell: Direction From (True)	Swell: Height (In Feet)	Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius): Dry Bulb	Temperature (Celsius): Wet Bulb	Temperature (Celsius): Sea
0008		4487.05	0.9		000	000	008	1W	8W												
0100		4498.80	14.6	73.1	270	270	278	0°	8W												
0138		4507.74	8.0		270	270	278	0°	8W												
0200		4513.30	7.0	72.2	180	180	187	1E	8W												
0300		4523.54	12.3	64.0	VAR	VAR	VAR	VAR	8W												
0400	ϕ	4538.82	12.3	61.0	VAR	VAR	VAR	VAR	8W	4	315	20	1	265	4	98	OR	998.5	10.6	7.8	10.6
0440		4545.91	8.0		090	090	097	1E													
0500		4550.50	4.2	61.8	270	270	278	0°	8W												
0535		4551.71	1.2		270	270	278	0°													
0555		4561.01	8.9		180	180	187	1E	8W												
0600		4562.04	1.0	55.8	000	000	009	1W													
0635		4567.87	5.2		000	000	009	1W													
0700		4572.00	3.6	47.9	150	150	155	3°E	8W												
0723		4576.21	4.0		150	150	155	3°E													
0738		4579.53	3.0		215	215	225	2°W													
0800	ϕ	4582.98	4.1	53.9	270	270	278	0°	8W	4	265	13	—	265	4	98	02	999.5	9.4	7.8	10.6
0900		4595.99	13.0	60.3	270	270	278	0°	8W												
1000		4610.78	14.8	77.5	VAR	VAR	VAR	VAR	8W												
1100		4627.09	16.3	83.4	VAR	VAR	VAR	VAR	8W												
1200	ϕ	4641.60	14.5	70.8	VAR	VAR	VAR	VAR	8W	7	240	8	ϕ	265	4	98	80	999	10.6	8.9	11.1
1300		4655.15	11.6	58.1	180	180	187	1°E	8°W												
1400		4668.60	12.0	59.9	180	180	187	1°E	8°W												
1500		4682.24	12.0	59.9	180	180	187	1°E	8°W												
1600	ϕ	4695.76	11.9	59.7	150	150	156	2°E	8°W	7	110	9	ϕ	210	3	98	60	999.0	15.0	12.2	10.6
1725		4714.72	5.5		150	150	156	2E	8W												
1700		4709.41	6.5	60.0	135	135	140	3E	8W												
1800	ϕ	4722.89	12.0	60.0	135	135	140	3E	8W	6	110	9	ϕ	210	3	99	01	998.0	10.6	8.9	10.6
1900		4736.67	12.0	60.0	150	150	156	2E	8W												
2000	ϕ	4750.70	12.0	60.0	150	150	156	2E	8W	6	235	9	ϕ	210	3	98	02	998.0	10.6	8.7	12.8
2100		4764.00	13.3	65.4	150	150	156	2E	8W												
2200		4777.92	13.9	60.0	150	150	156	2°E	8W												
2300		4791.50	13.6	60.0	150	150	156	2°E	8W												
2336	ϕ	4798.39	6.5	60.1	150	150	156	2°E	8W	7	050	6	1	210	3	98	02	995.5	10.6	9.4	12.2
2400																					

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
299.1		

19 74 FROM HALIFAX TO HAMBURG , OR AT

REMARKS		Initials of the Officer of the Watch
0008- a/c 270° POSSIBLE	0100 DECCA FIX { 61°19N 1°56E	
0135- RED FLARE BRG 090° 0140- IROQUOIS, MARGAREE SKEENA FORMED HOOSE LINE OF BRG 5000° CO 090 SP14 TO SEARCH DATUM 0138- a/c 180 TO CLEAR FORMATION	0140 DECCA FIX { 61°23.5N 1°39E	
0202- a/c 245 0225- a/c 135° 0255- a/c 270° SP14 0212- a/c 000° 0235- a/c 110° 0240- a/c 105°		
~~0330- a/c 270°~~ 0330- a/c 270° 0335- a/c 280° 0341- a/c 090 SP12 0319- a/c 290°	0400 DECCA FIX { 61°18N 1°37E	
0440 A/c 270 0448 Sp 14	0450 DECCA { 61° 18.5N 1° 51.0E	
0505 A/C 180 0520 Sp 10 0546 SUNRISE NAV LTS OFF 0555 A/C 000	0537 DECCA { 61° 15.0N 1° 43.0E	
0626 FLYING STATIONS 0642 STOOD DOWN FLYING STATIONS 0635 A/C 150 0637 RECOVERED SK 07 0639 LAUNCHED SK 07	0647 DECCA { 61° 16.0N 1° 45.5E	
0723 A/C 215 0730 FLYING STATIONS 0738 A/C 270 SP12 0800 LAUNCHED SK 17	0758 DECCA { 61° 10.0N 1° 43.0E	
	0900 DECCA { 61°11.2N 01°19'E	
0906- a/c 180 0930- CEASED ZIG ZAG CO 180 0907- SP15 0910- COMMENCED ZIG ZAG EACH CO 180 SP15		
1019- a/c 180 1037- a/c 160 SP17 1045- a/c 270 1020- RECOVERED SK 33 1038- RESUMED ZIG ZAG BCO 180 1046- SP15 1025- LAUNCHED SK 33 1042- CEASED ZIG ZAG 1043- a/c 240	1056 DECCA { 60°52'N 01°23'E	
1102- a/c 240 1150- a/c 261 1148- FLYING STATIONS 1105- a/c 190 1132- a/c 236 1150- RAS STATIONS 1106- RECOVERED SK 17 1200- RECOVERED SK 33 1113- RESUMED ZIG ZAG BASECO 270 1132 CEASED ZIG ZAG CO 180 SP12		
1203- LAUNCHED SK 33 1214- MARGAREE ⊢ FIRST LINE PASSED 1204- RAS SSD CLOSED UP 1250- LAST LINE MARGAREE 1205- STOOD DOWN FLYING STATIONS	1249 DECCA { 60° 38'N 01° 09'E	
1305- SKEENA ⊢ FIRST LINE PASSED 1339- LAST LINE SKEENA 1354- IROQUOIS ⊢ FIRST LINE PASSED		
1418- FLYING STATIONS 1437- LAST LINE IROQUOIS 1430- RECOVERED SK 33 1439- SECURED RAS SSD 1435- LAUNCHED SK 33 1442- STOOD DOWN FLYING STATIONS 1500- a/c 150°	1425 DECCA { 60° 09'N 0° 58'E	
1515- FLYING STATIONS 1557- SECURED FLYING STATIONS 1528- RECOVERED SK 09 1554- LAUNCHED SK 19	1600 DECCA { 59° 51'N 01° 09'E	
1604- SECURED FLYING STNS 1625- SECURED FLYING STNS 1606- FLYING STNS 1610- RECOVERED HMCS IROQUOIS 1617- LAUNCHED HMCS IROQUOIS TO SKEENA	1700 DECCA FIX { 59°04N 1°20E	
1735- a/c 135° 1744- SUNSET SWITCHED ON NAV LTS 1800 - A/c 150	1800 DECCA FIX { 59°32N 1°35E	
	1845 DECCA { 59° 24.0N 1° 43.0E	
	A23 DECCA { 59° 18.0N 1° 50.0E	
	2100 DECCA { 59°00'N 02°07'E	
	2200 DECCA { 58°49.8N 02°19.9E	
	2300 DECCA { 58° 38.5N 02°33.0E	
2330(ϕ) - CLOCKS ADVANCED ONE HR TO TIME ZONE (-1)	2315 DECCA { 58° 36.5N 02° 34.9E	

Position	Latitude	Longitude	Depending on	Draught			Notice for Main Engines at Noon
				Time	Forward	Aft	
0800	61° 10.0N	1° 41.5E	0758 (ϕ) DECCA				STEAMING
1200	60° 39' N	00° 58' E	1200 DECCA				
2000	59° 12.0N	1° 57.0E	2000 (ϕ) DECCA				

HMCS PROTECTEUR — SATURDAY — 28th OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind		Sea Height (In Feet)	Swell		Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius)		
											Direction (True)	Speed (Knots)		Direction From (True)	Height (In Feet)				Dry Bulb	Wet Bulb	Sea
0100	-1	4805.37	6.1	60.1	150	150	155	2°E	7°W												
0200		4818.00	12.1	60.0	150	150	155	2°E	7°W												
0300		4831.00	12.2	60.4	150	150	155	2°E	6°W												
0400	-1	4844.16	12.0	64.8	150	150	155	2°E	6°W	8	050	24	1	210	3	97	61	988.5	11.1	10.6	12.2
0500		4857.77	11.0	60.0	150	150	155	1°E	6°W												
0600		4870.41	11.0	60.1	150	150	~~155~~ 154	2°E	6°W												
0700		4883.80	11.0	60.0	150	150	~~155~~ 154	2°E	6°W												
0709		4854.24	1.7		150	150	~~155~~ 154	2°E	6°W												
0717		4895.60	1.3		160	160	165	2E	6°W												
0719		4896.54	1.1		150	150	154	2E	6°W												
0800	-1	4896.21	6.9	60.0	142	142	146°	2E	6°W	5	030	22	2	210	8	98	01	993.0	12.2	11.1	12.2
0900		4907.1	11.93	58.3	143	142	144	2½E	4½W												
1000		4918.4	11.22	55.8	143	142	144	2½E	4½W												
1100		4929.6	11.25	56.2	143	142	144	2½E	4½W												
1200	(-1)	4941.79	11.9	58.3	143	142	144	2½E	4½W	7	220	28	2	220	8	98	02	987.0	10.0	9.4	13.3
1204					143	142	144	2½E													
1300		4953.00	11.2	60.2	145	144	146	2½E	4½W												
1400		4965.33	12.3	60.2	145	144	146	2½E	4½W												
1500		4975.70	10.4	52.2	145	144	146	2½E	4½W												
1600	-1	4981.50	7.2	39.7	145	144	146	2½E	4½W	7	260	16	1	230	8	98	02	991.5	11.1	8.9	13.3
1700		4987.63	6.8	38.4	145	144	146½	2½°E	4°W												
1800	-1	4993.85	6.9	38.4	145	144	146½	2½°E	4°W	7	260	22	1	230	8	98	02	995.5	11.1	8.9	13.3
1810		4994.62	1.0		145	144	146½	2½E	4°W												
1900		5004.60	9.9	55.7	~~155~~ 154	155	156	2E	4°W												
2000	-1	5014.72	10.0	54.3	154	155	156	2E	4°W	8	230	16	3	230	7	97	80	998.0	11.7	10.0	14.4
2100		5027.80	13.1	60.7	154	155	156	2E	4W												
2200		5041.6	13.1	62.2	154	155	156	2E	4W												
2256		5053.61	11.8		154	155	156	2E													
2300		5054.83	1.3 ~~1.2~~ RW	62.2	162	163	164	2E	4W												
2400	-1	5068.05	13.1	62.1	162	163	164	2E	4W	4	240	24	1	210	5	98	02	1001.5	10.0	8.9	15.0

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
260.9		

1974 FROM HALIFAX TO HAMBURG , OR AT

REMARKS		Initials of the Officer of the Watch
	0100 DECCA { 58°28'N 02°42'E	
0200- BLEW SOOT	0200 DECCA { 58°17'N 02°53'E	
	0300 DECCA { 58°06'N 03°03'E	
	0350 DECCA { 58°02'N 03°08'E	
	0500 DECCA FIX { 57°48N 3°23E	
0043-SUNRISE; NAV LTS SWITCHED OFF	0700 DECCA FIX { 57°24N 3°46E	
0709-a/c 160° 0714-a/c 150° 0719-a/c 142 0900-HANDS EMPLOYED CLEANING SHIP (FRIDAY ROUTINE)	0800 DECCA FIX { 56°17.8N 3°52.0E	
	0832 DECCA { 57 13·5N 03 59·0E	
	0950 DECCA { 57 04·0N 04 12·0E	
1043 COMMENCED CAPTAINS ROUNDS	1035 DECCA { 56 58·5N 04 20·0E	
1130-HANDS TO GENERAL PAYMENT	1130 DECCA { 56 51·0N 04 30·0E	
1204-a/c 145		
	1330 DECCA { 56° 32.6N 04° 56.8E	
1432-SPB	1439 DECCA { 56° 21.2N 05° 13.0E	
	1530 DECCA { 56° 18.8N 06° 18.9E	
	1680 DECCA { 56° 14'N 05° 29'E	
	1730 DECCA { 56° 09'N 05° 39'E	
1810-a/c 155°G 154°(T) 1818-SP12 1822-SUNSET; NAV LTS SWITCHED ON	1900 DECCA FIX { 55°58N 5° 51E	
1930-SP B (LOG SET) 1945-SONAR DOME HOUSED; SP12	2000 DECCA FIX { 55°49.7N 6°00.0E	
	2030 DECCA { 55° 44.3N 6° 05.4E	
	2106 DECCA { 55° 38.5N 6° 11.3E	
2256-A/C 162	2227 DECCA { 55° 23.7N 6° 24.8E	
	2344 DECCA { 55° 10.7N 6° 34.8E	

Position	Latitude	Longitude	Depending on	Draught			Notice for Main Engines at Noon
				Time	Forward	Aft	
0800	58° 17.8N	03° 52.0E	0800 (-1) DECCA				
1200	56° 45.6	04° 37.8E	1200 (-1) DECCA				STEAMING
2000	55° 49.7N	06° 00.0E	2000 (-1) DECCA				

HMCS PROTECTEUR SUN DAY 29TH OF SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind		Sea Height (In Feet)	Swell		Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius)		
											Direction (True)	Speed (Knots)		Direction From (True)	Height (In Feet)				Dry Bulb	Wet Bulb	Sea
0100		5080.60	12.6	62.2	160	159	161 1/2	2 1/2° E	4° W												
0200		5094.47	13.8	62.0	160	159	161 1/2	2 1/2° E	4° W												
0300		5108.32	13.8	63.7	160	159	161 1/2	2 1/2° E	4° W												
0335					160	159	161 1/2	2 1/2° E													
0400	-1	5122.11	11.9	63.2	145	144	147 1/2	1 1/2° E	4° W	4	240	24	1	210	5	98	02	1002	16.0	8.9	12.8
0500		5135.90	12.8	64.9	147	146	148 1/2	1 1/2° E	4° W												
0600		5150.48	17.2	67.9	147	146	148 1/2	1 1/2° E	4° W												
0637		5158.50	7.6		147	146	148 1/2	1 1/2° E													
0700		5165.22	6.1	66.2	090	089	090 1/2	2 1/2° E	4° W												
0800	-1	5176.30	10.9	58.3	VAR	VAR	VAR	VAR	4° W	3	215	16	CALM	-		98	02	1007.5	9.4	8.3	15.0
0900		5192.88	15.0	71.5	VAR	VAR	VAR	VAR	4° W												
1000		5208.63	16.5	82.5	VAR	VAR	VAR	VAR	4° W												
1100		5220.68	12.4	61.9	VAR	VAR	VAR	VAR	4° W												
1200	(-1)	5225.35	13.1	66.1	VAR	VAR	VAR	VAR	3° W	3	200	12	0	—	0	98	02	1007.5	10.0	9.4	14.4
1300		5236.48	8.7	42.6	VAR	VAR	VAR	VAR	3° W												
1400		5237.10	0.8	9.2	VAR	VAR	VAR	VAR	3° W												
1405		5237.11	0.0	0.0	VAR	VAR	VAR	VAR	3° W												
1500																					
1600										4	—	ø	—	—	—	98	03	1009.0	13.1 ~~11.9~~	11.8 ~~13.1~~	
1700																					
1800																					
1900																					
2000										4	-	ø	-	-	-	98	02	1009.0	13.9	11.8	
2100																					
2200																					
2300																					
2400										4	-	ø	-	-	-	98	02	1009.0	11.1	9.4	

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
169.2	PERSONNEL NOT REQUIRED FOR DUTY FROM 1600 SUNDAY TO 0755 MONDAY	

1974 FROM HALIFAX TO HAMBURG ., OR AT

REMARKS	Initials of the Officer of the Watch
0040 DECCA { 55° 00.7N / 06° 41.2E	
0137 DECCA { 54° 51.7N / 06° 48.1E	
0232 DECCA { 54° 41.4N / 06° 53.8E	
0335-a/c 145 0400 - a/c 147° (T) 0351 DECCA { 54° 28.2N / 07° 02.2E	
0444 - SP 14 0434 DECCA { 54° 21.5'N / 7° 11.5'E	
0534 - DEUTSCHE BUCHT LT VESSEL IN TRANSIT WITH HELGOLAND LT 087½° (GYRO) GYRO ERROR 1° LOW 0530 DECCA { 54° 11.3'N / 7° 23.1'E	
0629 - SUNRISE 0639 - a/c 090° SP 13 0630 DECCA { 54° 00.3'N / 7° 36.7'E	
0703 - a/c 130° 0740 - a/c 070° 0754 - a/c 095° 0719 - a/c 095° 0748 - a/c 065° 0758 - NO.1 ELBE LT VESSEL 1ST RBD 0725 - SP 12 0751 - a/c 070° 0730 DECCA { 53° 58.3'N / 7° 57.6'E	
0800 - SSD AND CABLE PARTY CLOSED UP; ENTERED ELBE RIVER	
0805 - PILOT MR H.G. VOSS EMBARKED 0826 - DEPTH 58 FT 0832 - a/c 100 0849 - a/c 100 0859 - a/c 105° 0807 - a/c 090 SP 18 0827 - a/c 092° 0833 - a/c 098 0853 - BUOY F AF LS BUOY N LS 0820 - a/c 088; BUOY A 1ST RBD 0827 - BUOY AE LS 0836 - BUOY C LS 0852 - a/c 099 0824 - a/c 090; BUOY AF 1ST RBD 0831 - BUOY B LS 0840 - DEPTH 57 FT 0858 - DEPTH 30 FT 0900 - a/c 106 NO. 1 ELBE LIGHT LP	
0901 - a/c 110; DEPTH 24' 0911 - a/c 150° BUOY L LS 0919 - a/c 151 0930 - PASSING CUXHAVEN STR. BRG. 0941 - a/c 088 DEPTH 26' 0955 - BUOY S 1ST RBD 0904 - NO3 ELBE LP 0914 - a/c 148; SAFE TRANSIT KEYS FOR MAINMAST BRAND, MAN PROCEEDING ASTERN. 0922 - SP 10 0981 - a/c 125; MAN DOWN FROM MAINMAST. 0948 - BUOY Q LS 0958 - a/c 077 0908 - a/c 140; BUOY K LS 0916 - BUOY A LS 0923 - a/c 145 0938 - SP 18 0944 - a/c 082 BUOY T 1ST RBD 0910 - DEPTH 29 FT 0985 - a/c 134 0939 - a/c 086; BUOY P2 LS 0947 - BUOY R LS 0957 - a/c 075° 0951 - a/c 080 BUOY R2 1ST RBD 1000 - DEPTH 36 FT	
1001 - BUOY U LS 1022 - BUOY Z LS 1028 - BUOY A LS 1038 - BUOY C LS 1058 - BUOY F LS 1058 - a/c 160° 1008 - a/c 070° 1023 - NORD-OSTSEE CANAL LOCKS LP; PILOT MR VOSS DISEMBARKED PILOT MR BEAHER EMBARKED 1031 - a/c 040 1041 - a/c 118 1054 - BUOY G LS a/c 135 1059 - a/c 162° 1009 - a/c 065; BUOY V LS 1032 - BUOY B LS 1044 - a/c 130 1010 - BUOY X LS; a/c 060 1034 - a/c 100 1046 - BUOY D LS 1055 - a/c 140 1014 - a/c 083 SP 5 1037 - a/c a/c 116° 1049 - BUOY E LS 1056 - BUOY H LS 1100 - a/c 160°	
1101 - BUOY K LS 1112 - a/c 140° 1118 - BUOY P LS SP 10 1131 - BUOY T LS 1137 - BUOY V LS 1147 - DEPTH 21 FT 1154 - DEPTH 25' 1103 - a/c 162° 1113 - a/c 80 1184 - a/c 139° 1132 - a/c 163° 1138 - SP 10 1148 - a/c 145° 1155 - BUOY K BUOY 1 S 1104 - BUOY L LS BUOY Q LS 1120 - a/c 140° SP 15 1133 - BUOY T LS 1140 - a/c 157° 1150 - a/c 130° SP 15 1158 - BUOY B LS 200° 1107 - BUOY M LS 1114 - DEPTH 22' 1126 - BUOY S LS 1134 - BUOY U LS 1144 - BUOY V 2 LS BUOY U LS 1200 - BUOY A LS 200° 1115 - a/c 122 a/c 160 1146 - a/c 150 1154 - a/c 187° BUOY X LS	
1208 - SP 12 1208 - BUOY G LS a/c 116° 1219 - a/c 097° 1229 - BUOY J LS 1236 - BUOY M LS 1205 - BUOY B LS 1210 - a/c 100° 1223 - BUOY G LS 1230 - BUOY K LS 1245 - SP 3; PILOT MR BEAHER DISEMBARKED; PILOT MR KRAUSE EMBARKED 1206 - a/c 125° 1211 - a/c 095° 1225 - BUOY N LS 1232 - BUOY L LS a/c 102 1206 - a/c 120 1212 - BUOY O LS 1227 - BUOY I LS 1214 - a/c 092 1229 - a/c 103° 1235 - SP 8 1256 - a/c 100	
1305 - a/c 088° 1306 - HARBOUR POLICE HR LS 1309 - TUG BUGSIER 3 SECURED FOR'D TUG BUGSIER 6 SECURED PORT QTR 1310 - TUG BUGSIER 6 SECURED STBD QTR 1315 - SME 1323 - TURNED AT REST TO STBD 1330 - TURN COMPLETED; PROCEEDING UPRIVER TO BERTH STERN TO BY TUG. 1345 - COMMENCED APPROACH TO JETTY; SLIPPED TUG BUGSIER 6 1347 - FAST LINE SECURED	
1405 - SECURED ALONGSIDE JETTY ÜBERSEEBRÜCKE, PORT OF HAMBURG; SLIPPED TUGS SECURED SSD & CABLE PARTY, AND FINISHED WITH MAIN ENG REVERTED TO 2 HRS NOTICE FOR SEA/PT. 1445 - PILOT MR KRAUS DEBARKED	
1500 - PORT CAPTAIN (HAMBURG) CAPT HÜNGAR PAID AN OFFICIAL CALL ON THE CAPTAIN.	
1803 - SUNSET	
2030 - HANDS CORRECT	

Position	Latitude	Longitude	Depending on	Draught Time	Draught Forward	Draught Aft	Notice for Main Engines at Noon
0800	53° 59.8 N	8° 08.8 E	0800 DECCA				
1200	36° 00.8N	9° 35.5 E	1200 USUAL FIX	1600	23'9"	27'4"	12 ~~HRS~~ 4 HOURS.
2000	° '	° '					

HMCS PROTECTEUR **MON DAY** 30th **OF** SEPTEMBER

Time	Zone Suffix	Log (Stating type)	Distance Run Miles and Tenths	Mean Revns. per Minute	True Course	Gyro Compass Course	Standard Compass Course	Deviation	Variation	Cloud Amount (Eighths)	Wind		Sea Height (In Feet)	Swell		Visibility (Code vv)	Present Weather (Code ww)	Corrected Barometric Pressure in Millibars	Temperature (Celsius)		
											Direction (True)	Speed (Knots)		Direction From (True)	Height (In Feet)				Dry Bulb	Wet Bulb	Sea
0100																					
0200																					
0300																					
0400										1	CALM		–	–	–	97	01	1009.0	8.9	7.2	–
0500																					
0600																					
0700																					
0800										5	CALM		–	–	–	97	03	1009.0	9.4	8.3	–
0900																					
1000																					
1100																					
1200	(-1)									5	CALM		–	–	–	97	02	1011.5	11.7	10.6	–
1300																					
1400																					
1500																					
1600										7	CALM		–	–	–	97	03	1011.0	12.8	10.7	–
1700																					
1800																					
1900																					
2000										6	CALM		–	–	–	97	01	1015.0	11.1	10.0	–
2100																					
2200																					
2300																					
2400										0	CALM		–	–	–	98	01	1015.3	11.1	10.0	–

Distance run through the Water Midnight to Midnight	Leave Granted to Ship's Company	Anchor Bearings
	PERSONNEL NOT REQUIRED FOR DUTY FROM 1200 MONDAY TO 0755 TUESDAY.	

19 74 FROM TO HAMBURG GERMAN , OR AT UBERSEEBRÜCKE JE

REMARKS	Initials of the Officer of the Watch
0618 – SUNRISE	
0620 – ESSO FUELING BARGE BERGERWALDEN ALONGSIDE	
0800 – COLOURS ; HANDS EMPLOYED AT CLEANING STATIONS.	
0900 – SECURED CLEANING STATIONS ; HANDS EMPLOYED BY DEPARTMENTS.	
1030 – COMMANDING OFFICER DEPARTED FOR OFFICIAL CALLS ON CANADIAN CONSUL GENERAL MR E.H. MAGUIRE; SENATOR NOLLING REPRESENTATIVE OF SENATE OF HAMBURG AND CAPTIAN BRASACK COMMANDER HAMBURG GARRISON.	
1110 – FUELING BARGE SLIPPED 8511 BBLS DIST TAKEN ON BOARD.	
1200 – SECURE	
1210 – ESSO FUELING BARGE ALTONA ALONGSIDE	
1415 – COMMANDING OFFICER RETURNED ON BOARD FROM OFFICAL CALLS ; 1418 – CANADIAN CONSUL GENERAL RETURNED CALL.	
1470 – FUELING BARGE SLIPPED 3382 BBLS DIST TAKEN ON BOARD.	
1500 – REPRESENTATIVE OF SENATE OF HAMBURG RETURNED CALL REGIERUNGSDIREKTOR DR H-H DÖRMER	
1515 – COMMANDER, HAMBURG GARRISON RETURNED CALL – KAPITAN ZUR SEE Paul BRASACK.	
1801 – SUNSET	
1920 – ROUNDS CORRECT	

HRCS PROJECTEURS
SEP 30 74
COMMANDING OFFICER

Position	Latitude	Longitude	Depending on	Draught Time	Forward	Aft	Notice for Main Engines at Noon
0800	° '	° '					
1200	° '	° '		1500	28'7"	27'0"	12 4 Hours
2000	° '	° '					

CAUTION - THE FOLLOWING RULES (INTERNATIONAL, ST. LAWRENCE RIVER, AND RULES OF THE ROAD FOR THE GREAT LAKES) ARE SUBJECT TO CHANGE AND REFERENCE SHOULD BE MADE TO Q.R.C.N. AND OTHER RELEVANT PUBLICATIONS.

REGULATIONS FOR PREVENTING COLLISIONS AT SEA

Established by Order-in-Council P.C. 1953-1287 dated 13 Aug. 1953. (Effective 1 January, 1954).

Part A.—Preliminary and Definitions

Rule 1

(*a*) These Rules shall be followed by all vessels and seaplanes upon the high seas and in all waters connected therewith navigable by seagoing vessels, except as provided in Rule 30. Where, as a result of their special construction, it is not possible for seaplanes to comply fully with the provisions of Rules specifying the carrying of lights and shapes, these provisions shall be followed as closely as circumstances permit.

(*b*) The Rules concerning lights shall be complied with in all weathers from sunset to sunrise, and during such times no other lights shall be exhibited, except such lights as cannot be mistaken for the prescribed lights or impair their visibility or distinctive character, or interfere with the keeping of a proper look-out.

(*c*) In the following Rules, except where the context otherwise requires:

(i) the word "vessel" includes every description of water craft, other than a seaplane on the water, used or capable of being used as a means of transportation on water;

(ii) the word "seaplane" includes a flying boat and any other aircraft designed to manœuvre on the water;

(iii) the term "power-driven vessel" means any vessel propelled by machinery;

(iv) every power-driven vessel which is under sail and not under power is to be considered a sailing vessel, and every vessel under power, whether under sail or not, is to be considered a power-driven vessel;

(v) a vessel or seaplane on the water is "under way" when she is not at anchor, or made fast to the shore, or aground;

(vi) the term "height above the hull" means height above the upper-most continuous deck;

(vii) the length and breadth of a vessel shall be deemed to be the length and breadth appearing in her certificate of registry;

(viii) the length and span of a seaplane shall be its maximum length and span as shown in its certificate of airworthiness, or as determined by measurement in the absence of such certificate;

(ix) the word "visible", when applied to lights, means visible on a dark night with a clear atmosphere;

(x) the term "short blast" means a blast of about one second's duration;

(xi) the term "prolonged blast" means a blast from four to six seconds' duration;

(xii) the word "whistle" means whistle or siren;

(xiii) the word "tons" means gross tons.

Part B.—Lights and Shapes

Rule 2

(*a*) A power-driven vessel when under way shall carry:

(i) On or in front of the foremast, or if a vessel without a foremast then in the forepart of the vessel, a bright white light so constructed as to show an unbroken light over an arc of the horizon of 20 points of the compass (225 degrees), so fixed as to show the light 10 points (112½ degrees) on each side of the vessel, that is, from right ahead to 2 points (22½ degrees) abaft the beam on either side, and of such a character as to be visible at a distance of at least 5 miles.

(ii) Either forward of or abaft the white light mentioned in subsection (i) a second white light similar in construction and character to that light. Vessels of less than 150 feet in length, and vessels engaged in towing, shall not be required to carry this second white light but may do so.

(iii) These two white lights shall be so placed in a line with and over the keel that one shall be at least 15 feet higher than the other and in such a position that the lower light shall be forward of the upper one. The horizontal distance between the two white lights shall be at least three times the vertical distance. The lower of these two white lights or, if only one is carried, then that light, shall be placed at a height above the hull of not less than 20 feet, and, if the breadth of the vessel exceeds 20 feet, then at a height above the hull not less than such breadth, so however, that the light need not be placed at a greater height above the hull than 40 feet. In all circumstances the light or lights, as the case may be, shall be so placed as to be clear of and above all other lights and obstructing superstructures.

(iv) On the starboard side a green light so constructed as to show an unbroken light over an arc of the horizon of 10 points of the compass (112½ degrees), so fixed as to show the light from right ahead to 2 points (22½ degrees) abaft the beam on the starboard side, and of such a character as to be visible at a distance of at least 2 miles.

(v) On the port side a red light so constructed as to show an unbroken light over an arc of the horizon of 10 points of the compass (112½ degrees), so fixed as to show the light from right ahead to 2 points (22½ degrees) abaft the beam on the port side, and of such a character as to be visible at a distance of at least 2 miles.

(vi) The said green and red side lights shall be fitted with inboard screens projecting at least 3 feet forward from the light, so as to prevent these lights from being seen across the bows.

(*b*) A seaplane under way on the water shall carry:

(i) In the forepart amidships where it can best be seen a bright white light, so constructed as to show an unbroken light over an arc of the horizon of 220 degrees of the compass, so fixed as to show the light 110 degrees on each side of the seaplane, namely, from right ahead to 20 degrees abaft the beam on either side, and of such a character as to be visible at a distance of at least 3 miles.

(ii) On the right or starboard wing tip a green light, so constructed as to show an unbroken light over an arc of the horizon of 110 degrees of the compass, so fixed as to show the light from right ahead to 20 degrees abaft the beam on the starboard side, and of such a character as to be visible at a distance of at least 2 miles.

(iii) On the left or port wing tip a red light, so constructed as to show an unbroken light over an arc of the horizon of 110 degrees of the compass, so fixed as to show the light from right ahead to 20 degrees abaft the beam on the port side, and of such a character as to be visible at a distance of at least 2 miles.

Rule 3

(*a*) A power-driven vessel when towing or pushing another vessel shall, in addition to her sidelights, carry two bright white lights in a vertical line one over the other, not less than 6 feet apart, and when towing more than one vessel shall carry an additional bright white light 6 feet above or below such lights, if the length of the tow, measuring from the stern of the towing vessel to the stern of the last vessel towed, exceeds 600 feet. Each of these lights shall be of the same construction and character and one of them shall be carried in the same position as the white light mentioned in Rule 2 (*a*) (i), except the additional light, which shall be carried at a height of not less than 14 feet above the hull. In a vessel with a single mast, such lights may be carried on the mast.

(*b*) The towing vessel shall also show either the stern light specified in Rule 10 or in lieu of that light a small white light abaft the funnel or aftermast for the tow to steer by, but such light shall not be visible forward of the beam. The carriage of the white light specified in Rule 2 (*a*) (ii) is optional.

(*c*) A seaplane on the water, when towing one or more seaplanes or vessels, shall carry the lights prescribed in Rule 2 (*b*) (i), (ii) and (iii); and, in addition, she shall carry a second white light of the same construction and character as the white light mentioned in Rule 2 (*b*) (i), and in a vertical line at least 6 feet above or below such light.

Rule 4

(*a*) A vessel which is not under command shall carry, where they can best be seen, and, if a power-driven vessel, in lieu of the lights required by Rule 2 (*a*) (i) and (ii), two red lights in a vertical line one over the other not less than 6 feet apart, and of such a character as to be visible all round the horizon at a distance of at least 2 miles. By day, she shall carry in a vertical line one over the other not less than 6 feet apart, where they can best be seen, two black balls or shapes each not less than 2 feet in diameter.

(*b*) A seaplane on the water which is not under command may carry, where they can best be seen, two red lights in a vertical line, one over the other, not less than 3 feet apart, and of such a character as to be visible all round the horizon at a distance of at least 2 miles, and may by day carry in a vertical line one over the other not less than 3 feet apart, where they can best be seen, two black balls or shapes, each not less than 2 feet in diameter.

(*c*) A vessel engaged in laying or in picking up a submarine cable or navigation mark, or a vessel engaged in surveying or underwater operations when from the nature of her work she is unable to get out of the way of approaching vessels, shall carry, in lieu of the lights specified in Rule 2 (*a*) (i) and (ii), three lights in a vertical line one over the other not less than 6 feet apart. The highest and lowest of these lights shall be red, and the middle light shall be white, and they shall be of such a character as to be visible all round the horizon at a distance of at least 2 miles. By day, she shall carry in a vertical line one over the other not less than 6 feet apart, where they can best be seen, three shapes each not less than 2 feet in diameter, of which the highest and lowest shall be globular in shape and red in colour, and the middle one diamond in shape and white.

(*d*) The vessels and seaplanes referred to in this Rule, when not making way through the water, shall not carry the coloured sidelights, but when making way they shall carry them.

(*e*) The lights and shapes required to be shown by this Rule are to be taken by other vessels and seaplanes as signals that the vessel or seaplane showing them is not under command and cannot therefore get out of the way.

(*f*) These signals are not signals of vessels in distress and requiring assistance. Such signals are contained in Rule 31.

Rule 5

(*a*) A sailing vessel under way and any vessel or seaplane being towed shall carry the same lights as are prescribed by Rule 2 for a power-driven vessel or a seaplane under way, respectively, with the exception of the white lights specified therein, which they shall never carry. They shall also carry stern lights as specified in Rule 10, provided that vessels towed, except the last vessel of a tow, may carry, in lieu of such stern light, a small white light as specified in Rule 3 (*b*).

(*b*) A vessel being pushed ahead shall carry, at the forward end, on the starboard side a green light and on the port side a red light, which shall have the same characteristics as the lights described in Rule 2 (*a*) (iv) and (v) and shall be screened as provided in Rule 2 (*a*) (vi), provided that any number of vessels pushed ahead in a group shall be lighted as one vessel.

Rule 6

(*a*) In small vessels, when it is not possible on account of bad weather or other sufficient cause to fix the green and red sidelights, these lights shall be kept at hand lighted and ready for immediate use, and shall, on the approach of or to other vessels, be exhibited on their respective sides in sufficient time to prevent collision, in such manner as to make them most visible, and so that the green light shall not be seen on the port side nor the red light on the starboard side, nor, if practicable, more than 2 points (22½ degrees) abaft the beam on their respective sides.

(*b*) To make the use of these portable lights more certain and easy, the lanterns containing them shall each be painted outside with the colour of the lights they respectively contain, and shall be provided with proper screens.

Rule 7

Power-driven vessels of less than 40 tons, vessels under oars or sails of less than 20 tons, and rowing boats, when under way shall not be required to carry the lights mentioned in Rule 2, but if they do not carry them they shall be provided with the following lights:

(*a*) Power-driven vessels of less than 40 tons, except as provided in section (*b*), shall carry:

(i) In the forepart of the vessel, where it can best be seen, and at a height above the gunwale of not less than 9 feet, a bright white light constructed and fixed as prescribed in Rule 2 (*a*) (i) and of such a character as to be visible at a distance of at least 3 miles.

(ii) Green and red sidelights constructed and fixed as prescribed in Rule 2 (*a*) (iv) and (v), and of such a character as to be visible at a distance of at least 1 mile, or a combined lantern showing a green light and a red light from right ahead to 2 points (22½ degrees) abaft the beam on their respective sides. Such lantern shall be carried not less than 3 feet below the white light.

(*b*) Small power-driven boats, such as are carried by seagoing vessels, may carry the white light at a less height than 9 feet above the gunwale, but it shall be carried above the sidelights or the combined lantern mentioned in subsection (*a*) (ii).

(*c*) Vessels of less than 20 tons, under oars or sails, except as provided in section (*d*), shall, if they do not carry the sidelights, carry where it can best be seen a lantern showing a green light on one side and a red light on the other, of such a character as to be visible at a distance of at least 1 mile, and so fixed that the green light shall not be seen on the port side, nor the red light on the starboard side. Where it is not possible to fix this light, it shall be kept ready for immediate use and shall be exhibited in sufficient time to prevent collision and so that the green light shall not be seen on the port side nor the red light on the starboard side.

(*d*) Small rowing boats, whether under oars or sail, shall only be required to have ready at hand an electric torch or a lighted lantern showing a white light, which shall be exhibited in sufficient time to prevent collision.

(*e*) The vessels and boats referred to in this Rule shall not be required to carry the lights or shapes prescribed in Rules 4 (*a*) and 11 (*e*).

Rule 8

(*a*) (i) Sailing pilot-vessels, when engaged on their station on pilotage duty and not at anchor, shall not show the lights prescribed for other vessels, but shall carry a white light at the masthead visible all round the horizon at a distance of at least 3 miles, and shall also exhibit a flare-up light, or flare-up lights at short intervals, which shall never exceed 10 minutes.

(ii) On the near approach of or to other vessels they shall have their sidelights lighted ready for use and shall flash or show them at short intervals, to indicate the direction in which they are heading, but the green light shall not be shown on the port side, nor the red light on the starboard side.

(iii) A sailing pilot-vessel of such a class as to be obliged to go alongside of a vessel to put a pilot on board may show the white light instead of carrying it at the masthead and may, instead of the sidelights above mentioned, have at hand ready for use a lantern with a green glass on the one side and a red glass on the other to be used as prescribed above.

(*b*) A power-driven pilot-vessel when engaged on her station on pilotage duty and not at anchor shall, in addition to the lights and flares required for sailing pilot-vessels, carry at a distance of 8 feet below her white masthead light a red light visible all round the horizon at a distance of at least 3 miles, and also the sidelights required to be carried by vessels when under way. A bright intermittent all round white light may be used in place of a flare.

(*c*) All pilot-vessels, when engaged on their stations on pilotage duty and at anchor, shall carry the lights and show the flares prescribed in sections (*a*) and (*b*), except that the sidelights shall not be shown. They shall also carry the anchor light or lights prescribed in Rule 11.

(*d*) All pilot-vessels, whether at anchor or not at anchor, shall, when not engaged on their stations on pilotage duty, carry the same lights as other vessels of their class and tonnage.

Rule 9

(*a*) Fishing vessels when not fishing shall show the lights or shapes prescribed for similar vessels of their tonnage. When fishing they shall show only the lights or shapes prescribed by this Rule, which lights or shapes, except as otherwise provided, shall be visible at a distance of at least 2 miles.

(*b*) Vessels fishing with trolling (towing) lines, shall show only the lights prescribed for a power-driven or sailing vessel under way as may be appropriate.

(*c*) Vessels fishing with nets or lines, except trolling (towing) lines, extending from the vessel not more than 500 feet horizontally into the seaway shall show, where it can best be seen, one all round white light and in addition, on approaching or being approached by another vessel, shall show a second white light at least 6 feet below the first light and at a horizontal distance of at least 10 feet away from it (6 feet in small open boats) in the direction in which the outlying gear is attached. By day such vessels shall indicate their occupation by displaying a basket where it can best be seen; and if they have their gear out while at anchor, they shall, on the approach of other vessels, show the same signal in the direction from the anchor ball towards the net or gear.

(*d*) Vessels fishing with nets or lines, except trolling (towing) lines, extending from the vessel more than 500 feet horizontally into the seaway shall show, where they can best be seen, three white lights at least 3 feet apart in a vertical triangle visible all round the horizon. When making way through the water, such vessels shall show the proper coloured sidelights but when not making way they shall not show them. By day they shall show a basket in the forepart of the vessel as near the stem as possible not less than 10 feet above the rail; and, in addition, where it can best be seen, one black conical shape, apex upwards. If they have their gear out while at anchor they shall, on the approach of other vessels, show the basket in the direction from the anchor ball towards the net or gear.

(*e*) Vessels when engaged in trawling, by which is meant the dragging of a dredge net or other apparatus along or near the bottom of the sea, and not at anchor:

(i) If power-driven vessels, shall show in the same position as the white light mentioned in Rule 2 (*a*) (i) a tri-coloured lantern, so constructed and fixed as to show a white light from right ahead to 2 points (22½ degrees) on each bow, and a green light and a red light over an arc of the horizon from 2 points (22½ degrees) on each bow to 2 points (22½ degrees) abaft the beam on the starboard and port sides, respectively; and not less than 6 nor more than 12 feet below the tri-coloured lantern a white light in a lantern, so constructed as to show a clear, uniform, and unbroken light all round the horizon. They shall also show the stern light specified in Rule 10 (*a*).

(ii) If sailing vessels, shall carry a white light in a lantern so constructed as to show a clear, uniform, and unbroken light all round the horizon, and shall also, on the approach of or to other vessels show, where it can best be seen, a white flare-up light in sufficient time to prevent collision.

(iii) By day, each of the foregoing vessels shall show, where it can best be seen, a basket.

(*f*) In addition to the lights which they are by this Rule required to show vessels fishing may, if necessary in order to attract attention of approaching vessels, show a flare-up light. They may also use working lights.

(*g*) Every vessel fishing, when at anchor, shall show the lights or shapes specified in Rule 11 (*a*), (*b*) or (*c*); and shall, on the approach of another vessel or vessels, show an additional white light at least 6 feet below the forward anchor light and at a horizontal distance of at least 10 feet away from it in the direction of the outlying gear.

(*h*) If a vessel when fishing becomes fast by her gear to a rock or other obstruction she shall in daytime haul down the basket required by sections (*c*), (*d*) or (*e*) and show the signal specified in Rule 11 (*c*). By night she shall show the light or lights specified in Rule 11 (*a*) or (*b*). In fog, mist, falling snow, heavy rainstorms or any other condition similarly restricting visibility, whether by day or by night, she shall sound the signal prescribed by Rule 15 (*c*) (v), which signal shall also be used, on the near approach of another vessel, in good visibility.

NOTE.—*For fog signals for fishing vessels, see Rule* 15 (*c*) (ix).

Rule 10

(*a*) A vessel when under way shall carry at her stern a white light, so constructed that it shall show an unbroken light over an arc of the horizon of 12 points of the compass (135 degrees), so fixed as to show the light 6 points (67½ degrees) from right aft on each side of the vessel, and of such a character as to be visible at a distance of at least 2 miles. Such light shall be carried as nearly as practicable on the same level as the sidelights.

NOTE.—*For vessels engaged in towing or being towed, see Rules* 3 (*b*) *and* 5.

(*b*) In a small vessel, if it is not possible on account of bad weather or other sufficient cause for this light to be fixed, an electric torch or a lighted lantern shall be kept at hand ready for use and shall, on the approach of an overtaking vessel, be shown in sufficient time to prevent collision.

(*c*) A seaplane on the water when under way shall carry on her tail a white light, so constructed as to show an unbroken light over an arc of the horizon of 140 degrees of the compass, so fixed as to show the light 70 degrees from right aft on each side of the seaplane, and of such a character as to be visible at a distance of at least 2 miles.

Rule 11

(*a*) A vessel under 150 feet in length, when at anchor, shall carry in the forepart of the vessel, where it can best be seen, a white light in a lantern so constructed as to show a clear, uniform, and unbroken light visible all round the horizon at a distance of at least 2 miles.

(*b*) A vessel of 150 feet or upwards in length, when at anchor, shall carry in the forepart of the vessel, at a height of not less than 20 feet above the hull, one such light, and at or near the stern of the vessel and at such a height that it shall be not less than 15 feet lower than the forward light, another such light. Both these lights shall be visible all round the horizon at a distance of at least 3 miles.

(*c*) Between sunrise and sunset every vessel when at anchor shall carry in the forepart of the vessel, where it can best be seen, one black ball not less than 2 feet in diameter.

(*d*) A vessel engaged in laying or in picking up a submarine cable or navigation mark, or a vessel engaged in surveying or underwater operations, when at anchor, shall carry the lights or shapes prescribed in Rule 4 (*c*) in addition to those prescribed in the appropriate preceding sections of this Rule.

(*e*) A vessel aground shall carry by night the light or lights prescribed in sections (*a*) or (*b*) and the two red lights prescribed in Rule 4 (*a*). By day she shall carry, where they can best be seen, three black balls, each not less than 2 feet in diameter, placed in a vertical line one over the other, not less than 6 feet apart.

(*f*) A seaplane on the water under 150 feet in length, when at anchor, shall carry, where it can best be seen, a white light, visible all round the horizon at a distance of at least 2 miles.

(*g*) A seaplane on the water 150 feet or upwards in length, when at anchor, shall carry, where they can best be seen, a white light forward and a white light aft, both lights visible all round the horizon at a distance of at least 3 miles; and, in addition, if the seaplane is more than 150 feet in span, a white light on each side to indicate the maximum span, and visible, so far as practicable, all round the horizon at a distance of 1 mile.

(*h*) A seaplane aground shall carry an anchor light or lights as prescribed in sections (*f*) and (*g*), and in addition may carry two red lights in a vertical line, at least 3 feet apart, so placed as to be visible all round the horizon.

Rule 12

Every vessel or seaplane on the water may, if necessary in order to attract attention, in addition to the lights which she is by these Rules required to carry, show a flare-up light or use a detonating or other efficient sound signal that cannot be mistaken for any signal authorized elsewhere under these Rules.

Rule 13

(*a*) Nothing in these Rules shall interfere with the operation of any special rules made by the Government of any nation with respect to additional station and signal lights for ships of war, for vessels sailing under convoy, or for seaplanes on the water; or with the exhibition of recognition signals adopted by shipowners, which have been authorized by their respective Governments and duly registered and published.

(*b*) Whenever the Governments concerned shall have determined that a naval or other military vessel or waterborne seaplane of special construction or purpose cannot comply fully with the provisions of any of these Rules with respect to the number, position, range or arc of visibility of lights or shapes, without interfering with the military function of the vessel or seaplane, such vessel or seaplane shall comply with such other provisions in regard to the number, position, range or arc of visibility of lights or shapes as her Government shall have determined to be the closest possible compliance with these Rules in respect of that vessel or seaplane.

Rule 14

A vessel proceeding under sail, when also being propelled by machinery, shall carry in the daytime forward, where it can best be seen, one black conical shape, point upwards, not less than 2 feet in diameter at its base.

Rule 15

(*a*) A power-driven vessel shall be provided with an efficient whistle, sounded by steam or by some substitute for steam, so placed that the sound may not be intercepted by any obstruction, and with an efficient fog-horn, to be sounded by mechanical means, and also with an efficient bell. A sailing vessel of 20 tons or upwards shall be provided with a similar fog-horn and bell.

(*b*) All signals prescribed by this Rule for vessels under way shall be given:

(i) by power-driven vessels on the whistle;

(ii) by sailing vessels on the fog-horn;

(iii) by vessels towed on the whistle or fog-horn.

(*c*) In fog, mist, falling snow, heavy rainstorms, or any other condition similarly restricting visibility, whether by day or night, the signals prescribed in this Rule shall be used as follows:

(i) A power-driven vessel making way through the water, shall sound at intervals of not more than 2 minutes a prolonged blast.

(ii) A power-driven vessel under way, but stopped and making no way through the water, shall sound at intervals of not more than 2 minutes two prolonged blasts, with an interval of about 1 second between them.

(iii) A sailing vessel under way shall sound, at intervals of not more than 1 minute, when on the starboard tack one blast, when on the port tack two blasts in succession, and when with the wind abaft the beam three blasts in succession.

(iv) A vessel when at anchor shall at intervals of not more than 1 minute ring the bell rapidly for about 5 seconds. In vessels of more than 350 feet in length the bell shall be sounded in the forepart of the vessel, and in addition there shall be sounded in the after part of the vessel, at intervals of not more than 1 minute for about 5 seconds, a gong or other instrument, the tone and sounding of which cannot be confused with that of the bell. Every vessel at anchor may in addition, in accordance with Rule 12, sound three blasts in succession, namely, one short, one prolonged, and one short blast, to give warning of her position and of the possibility of collision to an approaching vessel.

(v) A vessel when towing, a vessel engaged in laying or in picking up a submarine cable or navigation mark, and a vessel under way which is unable to get out of the way of an approaching vessel through being not under command or unable to manœuvre as required by these Rules shall, instead of the signals prescribed in subsections (i), (ii) and (iii) sound, at intervals of not more than 1 minute, three blasts in succession, namely, one prolonged blast followed by two short blasts.

(vi) A vessel towed, or, if more than one vessel is towed, only the last vessel of the tow, if manned, shall, at intervals of not more than 1 minute, sound four blasts in succession, namely, one prolonged blast followed by three short blasts. When practicable, this signal shall be made immediately after the signal made by the towing vessel.

(vii) A vessel aground shall give the signal prescribed in subsection (iv) and shall, in addition, give three separate and distinct strokes on the bell immediately before and after each such signal.

(viii) A vessel of less than 20 tons, a rowing boat, or a seaplane on the water, shall not be obliged to give the above-mentioned signals, but if she does not, she shall make some other efficient sound signal at intervals of not more than 1 minute.

(ix) A vessel when fishing, if of 20 tons or upwards, shall at intervals of not more than 1 minute, sound a blast, such blast to be followed by ringing the bell; or she may sound, in lieu of these signals, a blast consisting of a series of several alternate notes of higher and lower pitch.

Rule 16

Speed to be moderate in fog, etc.

(*a*) Every vessel, or seaplane when taxi-ing on the water, shall, in fog, mist, falling snow, heavy rainstorms or any other condition similarly restricting visibility, go at a moderate speed, having careful regard to the existing circumstances and conditions.

(*b*) A power-driven vessel hearing, apparently forward of her beam, the fog-signal of a vessel the position of which is not ascertained, shall, so far as the circumstances of the case admit, stop her engines, and then navigate with caution until danger of collision is over.

Part C.—Steering and Sailing Rules

Preliminary

1. *In obeying and construing these Rules, any action taken should be positive, in ample time, and with due regard to the observance of good seamanship.*

2. *Risk of collision can, when circumstances permit, be ascertained by carefully watching the compass bearing of an approaching vessel. If the bearing does not appreciably change, such risk should be deemed to exist.*

3. *Mariners should bear in mind that seaplanes in the act of landing or taking off, or operating under adverse weather conditions, may be unable to change their intended action at the last moment.*

Rule 17

When two sailing vessels are approaching one another, so as to involve risk of collision, one of them shall keep out of the way of the other, as follows:

(*a*) A vessel which is running free shall keep out of the way of a vessel which is close-hauled.

(*b*) A vessel which is close-hauled on the port tack shall keep out of the way of a vessel which is close-hauled on the starboard tack.

(*c*) When both are running free, with the wind on different sides, the vessel **which has the wind on the port side shall keep out of the way of the other.**

(*d*) When both are running free, with the wind on the same side, the vessel which is to windward shall keep out of the way of the vessel which is to leeward.

(*e*) A vessel which has the wind aft shall keep out of the way of the other vessel.

Rule 18

(*a*) When two power-driven vessels are meeting end on, or nearly end on, so as to involve risk of collision, each shall alter her course to starboard, so that each may pass on the port side of the other. This Rule only applies to cases where vessels are meeting end on, or nearly end on, in such a manner as to involve risk of collision, and does not apply to two vessels which must, if both keep on their respective courses, pass clear of each other. The only cases to which it does apply are when each of two vessels is end on, or nearly end on, to the other; in other words, to cases in which, by day, each vessel sees the masts of the other in a line, or nearly in a line, with her own; and by night, to cases in which each vessel is in such a position as to see both the sidelights of the other. It does not apply, by day, to cases in which a vessel sees another ahead crossing her own course; or, by night, to cases where the red light of one vessel is opposed to the red light of the other or where the green light of one vessel is opposed to the green light of the other or where a red light without a green light or a green light without a red light is seen ahead, or where both green and red lights are seen anywhere but ahead.

(*b*) For the purposes of this Rule and Rules 19 to 29 inclusive, except Rule 20 (*b*), a seaplane on the water shall be deemed to be a vessel, and the expression "power-driven vessel" shall be construed accordingly.

Rule 19

When two power-driven vessels are crossing, so as to involve risk of collision, the vessel which has the other on her own starboard side shall keep out of the way of the other.

Rule 20

(*a*) When a power-driven vessel and a sailing vessel are proceeding in such directions as to involve risk of collision, except as provided in Rules 24 and 26, the power-driven vessels shall keep out of the way of the sailing vessel.

(*b*) A seaplane on the water shall, in general, keep well clear of all vessels and avoid impeding their navigation. In circumstances, however, where risk of collision exists, she shall comply with these Rules.

Rule 21

Where by any of these Rules one of two vessels is to keep out of the way, the other shall keep her course and speed. When, from any cause the latter vessel finds herself so close that collision cannot be avoided by the action of the giving-way vessel alone, she also shall take such action as will best aid to avert collision (see Rules 27 and 29).

Rule 22

Every vessel which is directed by these Rules to keep out of the way of another vessel shall, if the circumstances of the case admit, avoid crossing ahead of the other.

Rule 23

Every power-driven vessel which is directed by these Rules to keep out of the way of another vessel shall, on approaching her, if necessary, slacken her speed or stop or reverse.

Rule 24

(*a*) Notwithstanding anything contained in these Rules, every vessel overtaking any other shall keep out of the way of the overtaken vessel.

(*b*) Every vessel coming up with another vessel from any direction more than 2 points (22½ degrees) abaft her beam, i.e. in such a position, with reference to the vessel which she is overtaking, that at night she would be unable to see either of that vessel's sidelights, shall be deemed to be an overtaking vessel; and no subsequent alteration of the bearing between the two vessels shall make the overtaking vessel a crossing vessel within the meaning of these Rules, or relieve her of the duty of keeping clear of the overtaken vessel until she is finally past and clear.

(*c*) If the overtaking vessel cannot determine with certainty whether she is forward of or abaft this direction from the other vessel, she shall assume that she is an overtaking vessel and keep out of the way.

Rule 25

(*a*) In a narrow channel every power-driven vessel when proceeding along the course of the channel shall, when it is safe and practicable, keep to that side of the fairway or mid-channel which lies on the starboard side of such vessel.

(*b*) Whenever a power-driven vessel is nearing a bend in a channel where a power-driven vessel approaching from the other direction cannot be seen, such vessel, when she shall have arrived within one-half mile of the bend, shall give a signal by one prolonged blast of her whistle, which signal shall be answered by a similar blast given by any approaching power-driven vessel that may be within hearing around the bend. Regardless of whether an approaching vessel on the farther side of the bend is heard, such bend shall be rounded with alertness and caution.

Rule 26

All vessels not engaged in fishing shall, when under way, keep out of the way of any vessels fishing with nets or lines or trawls. This Rule shall not give to any vessel engaged in fishing the right of obstructing a fairway used by vessels other than fishing vessels.

Rule 27

In obeying and construing these Rules due regard shall be had to all dangers of navigation and collision, and to any special circumstances, including the limitations of the craft involved, which may render a departure from the above Rules necessary in order to avoid immediate danger.

Part D.—Miscellaneous

Rule 28

(*a*) When vessels are in sight of one another, a power-driven vessel under way, in taking any course authorized or required by these Rules, shall indicate that course by the following signals on her whistle, namely:—

One short blast to mean "I am altering my course to starboard."
Two short blasts to mean "I am altering my course to port."
Three short blasts to mean "My engines are going astern."

(*b*) Whenever a power-driven vessel which, under these Rules, is to keep her course and speed, is in sight of another vessel and is in doubt whether sufficient action is being taken by the other vessel to avert collision, she may indicate such doubt by giving at least five short and rapid blasts on the whistle. The giving of such a signal shall not relieve a vessel of her obligations under Rules 27 and 29 or any other Rule, or of her duty to indicate any action taken under these Rules by giving the appropriate sound signals laid down in this Rule.

(*c*) Nothing in these Rules shall interfere with the operation of any special rules made by the Government of any nation with respect to the use of additional whistle signals between ships of war or vessels sailing under convoy.

Rule 29

Nothing in these Rules shall exonerate any vessel, or the owner, master or crew thereof, from the consequences of any neglect to carry lights or signals, or of any neglect to keep a proper look-out, or of the neglect of any precaution which may be required by the ordinary practice of seamen, or by the special circumstances of the case.

Rule 30

Reservation of Rules for Harbours and Inland Navigation

Nothing in these Rules shall interfere with the operation of a special rule duly made by local authority relative to the navigation of any harbour, river, lake, or inland water, including a reserved seaplane area.

Rule 31

Distress Signals

When a vessel or seaplane on the water is in distress and requires assistance **from other vessels or from the shore, the following shall be the signals to be used** or displayed by her, either together or separately, namely:

(*a*) A gun or other explosive signal fired at intervals of about a minute.

(*b*) A continuous sounding with any fog-signal apparatus.

(*c*) Rockets or shells, throwing red stars fired one at a time at short intervals.

(*d*) A signal made by radiotelegraphy or by any other signalling method consisting of the group . . . — — — . . . in the Morse Code.

(*e*) A signal sent by radiotelephony consisting of the spoken word "Mayday".

(*f*) The International Code Signal of distress indicated by N.C.

(*g*) A signal consisting of a square flag having above or below it a ball or anything resembling a ball.

(*h*) Flames on the vessel (as from a burning tar barrel, oil barrel, etc.).

(*i*) A rocket parachute flare showing a red light.

The use of any of the above signals, except for the purpose of indicating that a vessel or a seaplane is in distress, and the use of any signals which may be confused with any of the above signals, is prohibited.

Note.—A radio signal has been provided for use by vessels in distress for the purpose of actuating the auto-alarms of other vessels and thus securing attention to distress calls or messages. The signal consists of a series of twelve dashes, sent in 1 minute, the duration of each dash being 4 seconds, and the duration of the interval between two consecutive dashes 1 second.

Rule 32

All orders to helmsmen shall be given in the following sense: right rudder or starboard to mean "put the vessel's rudder to starboard"; left rudder or port to mean "put the vessel's rudder to port".

ST. LAWRENCE RIVER REGULATIONS

Established by Order in Council P.C. 1954-1925. (Effective 8 December, 1954).

REGULATIONS FOR THE ST. LAWRENCE RIVER FROM FATHER POINT TO VICTORIA BRIDGE AT MONTREAL

1. These regulations may be cited as the St. Lawrence River Regulations.

2. These Regulations apply to the St. Lawrence River between Victoria Bridge at Montreal and Father Point including the harbours of Montreal, Three Rivers and Quebec.

3. When any aid to navigation or any mark or dredge of the Department of Transport is moved, carried away or damaged by any person, vessel or vehicle, such person or the person in charge of the vessel or vehicle shall forthwith replace or repair the aid to navigation, mark or dredge, to the fullest extent possible in the circumstances.

4. The owner of every vessel is liable to the Crown for damage done by such vessel to any aid to navigation or other property of the Crown.

5. No person shall encumber navigable waters or in any way obstruct the navigation thereof with stones, filth, rubbish, timber, logs, spars, rafts, cribs or wrecks of vessels; or throw therein fuel-oil, coal ashes, cinders, hay, straw, ballast or any other matter or thing by which navigation may be impeded or injured; and a further like penalty to that which is hereinafter imposed for a breach of this section shall be incurred by any person guilty of such breach, if he does not remove or cause to be removed any such obstruction within a reasonable time to the satisfaction of the Minister of Transport after being required to do so by any officer appointed for such purpose by the Minister; and a further like penalty shall be incurred for every subsequent day during which such obstruction is not removed.

6. No vessel while under way or drifting shall trail its anchor.

7. No vessel drawing nine feet of water or less and no barge or raft shall, except in case of accident, stress of weather or force of current use the deep water channels

(*a*) near Pointe aux Trembles (en haut);

(*b*) at, between or near Varennes and Buoy 5-M St. Ours Traverse, except between Buoys 104-M and 116-M, and between Buoys 122-M and 124-M;

(*c*) in Lake St. Peter between the upper end of the St. Francis Bank and the English Bank;

(*d*) at or near Port St. Francis;

(*e*) at, between or near Batiscan and Cap Charles;

(*f*) in the dredged channel below Quebec known as Madame Reef-Brule Bank Channel, between Buoys 120½B and 112B, except between Buoys 114¼B and 114B; or

(*g*) at or near Buoys 109½B, 109B and 108B.

8. Vessels drawing nine feet of water or less and barges and rafts shall at all times keep to the proper side of the fairway and away from the established steamer track between Quebec and Father Point, except when crossing the steamer track at right angles.

9. Rafts descending the river, whether in tow or otherwise, shall

(*a*) keep to the north of Ile Deslauriers or Laurette Island, and Ile Bellegarde; and

(*b*) when opposite to Ile au Raisin in Lake St. Peter, keep to the south of the Ship Channel, as far as Nicolet Traverse.

10. No vessel, when passing any dredge, wreck or tow of barges, shall move at greater than slow speed.

11. Between Victoria Bridge at Montreal and the western limits of the harbour of Quebec every vessel overtaking another and intending to pass shall, at a distance of one-half mile from the other vessel, give one prolonged blast on its whistle, to which the other shall, if safe and practicable, reply by a similar signal, decrease its speed, to dead slow if necessary, and direct its course to port, and the overtaking vessel, upon arriving in close proximity to the overtaken vessel, shall also reduce its speed, maintaining only sufficient speed to enable it to pass the overtaken vessel to starboard; after having answered the prolonged blast of the overtaking vessel by a similar signal, if the overtaken vessel does not consider it safe and practicable to allow the other vessel to pass to starboard, it shall, after an interval of not less than one minute and not more than two minutes, give one short blast and direct its course to starboard and the overtaking vessel shall direct its course to port and pass accordingly.

12. A vessel navigating against the current or tide shall before meeting another vessel at any sharp turn or narrow passage, or where the navigation is intricate, stop, and if necessary, come to a position of safety below or above the point of danger and there remain until the channel is clear.

13. The following conditions apply to vessels being towed:

(*a*) if canal barges, there shall not be more than ten in number, five in length and two abreast;

(*b*) if sand barges, there shall not be more than six in number, three in length and two abreast;

(*c*) if mixed vessels, there shall not be more than eight in number, four in length and two abreast; and

(*d*) a complete tow from the stem of the tug to the stern of tow shall not exceed 1,000 feet in length.

14. (1) A steam vessel when at anchor shall, between sunrise and sunset, carry in its forward part a black ball not less than two feet in diameter, and at or near the stern another such ball; the forward ball shall be carried at a height above the superstructure or other erections other than the funnel on the vessel, but in no case less than twenty feet above the hull, and the stern or after ball shall not be less than fifteen feet lower than the forward ball; the above signals shall be reversed when the vessel is anchored only by the stern.

(2) Every vessel anchoring with a stern anchor shall notify the Signal Service at Quebec by wireless thereof, which in turn shall notify all vessels.

14A. (1) Every dredge shall show at its forward and after ends

(*a*) from sunrise to sunset, two black balls or shapes not less than two feet in diameter, and

(*b*) from sunset to sunrise, two red lights

suspended one over the other not less than six feet apart and not less than ten feet outside the hull on the side on which other vessels are to pass.

(2) In the case of a dipper dredge, the shapes and lights prescribed by subsection (1) shall be suspended at a sufficient height and a sufficient distance from its side that they shall, with the dipper arm and boom athwartship, be visible at all times.

15. Every person who commits a breach of these regulations is liable on summary conviction to a penalty not exceeding five hundred dollars and the costs of the conviction and, in default of payment of such penalty and costs, to imprisonment for a period of not more than thirty days.

RULES OF THE ROAD FOR THE GREAT LAKES

Established by Order in Council P.C. 1954-1927. (Effective 8 December, 1954).

Rules of the Road for the Great Lakes

Definitions

1. In these rules,

(*a*) "motor boat" includes every vessel propelled by machinery and not more than sixty-five feet in length except vessels towing, the length to be measured from end to end over the deck, excluding sheer;

(*b*) "pilot" includes the master, officer or other person in charge of the navigation of a vessel;

(*c*) "prescribed" means prescribed by these Rules;

(*d*) "steam vessel" includes any vessel propelled by machinery, whether under sail or not;

(*e*) "sailing vessel" includes every steam vessel that is under sail and is not being propelled by machinery;

(*f*) "under way" — a vessel is under way when she is not at anchor, made fast to the shore, or aground; and

(*g*) "visible" when applied to lights means visible on a dark night with a clear atmosphere.

Application

2. (1) These rules apply on Lakes Ontario, Erie, Huron (including Georgian Bay), Michigan and Superior, their connecting and tributary waters, and the Ottawa and St. Lawrence Rivers and their tributaries as far east as the lower exit of the Lachine Canal and the Victoria Bridge at Montreal.

(2) The rules concerning lights apply in all weathers from sunset to sunrise, and during such time no other lights that could be mistaken for the prescribed lights or impair their visibility shall be exhibited.

Steam Vessels

3. (1) Except in the cases hereinafter expressly provided for, a steam vessel when under way shall carry,

(*a*) on or in front of the foremast, or if a vessel without a foremast, then in the fore part of a vessel, a bright white light so constructed as to show an unbroken light over an arc of the horizon of twenty points of the compass, so fixed as to throw the light ten points on each side of the vessel, namely, from right ahead to two points abaft the beam on either side, and of such a character as to be visible at a distance of at least five miles; such light shall be at a greater height above the water than the side lights required by paragraphs (*b*) and (*c*);

(*b*) on the starboard side, a green light, so constructed as to show an unbroken light over an arc of the horizon of ten points of the compass, so fixed as to throw the light from right ahead to two points abaft the beam on the starboard side and of such a character as to be visible at a distance of at least two miles; and

(*c*) on the port side, a red light, so constructed as to show an unbroken light over an arc of the horizon of ten points of the compass, so fixed as to throw the light from right ahead to two points abaft the beam on the port side, and of such a character as to be visible at a distance of at least two miles.

(2) The green and red lights required by paragraphs (*b*) and (*c*) of subsection (1) shall each be fitted with an inboard screen projecting at least three feet forward from the light, so as to prevent the light from being seen across the bow.

(3) A steam vessel of over one hundred feet register length when under way shall carry, in addition to the lights prescribed by subsection (1), a bright white light so fixed as to throw the light all around the horizon, and of such a character as to be visible at a distance of at least three miles, such lights to be placed in line with the keel at least fifteen feet higher than, and more than fifty feet abaft, the light required by paragraph (*a*) of subsection (1); or in lieu thereof two such lights of the same character and height as herein described placed not over thirty inches apart horizontally, one on either side of the keel, and so arranged that one or the other or both shall be visible from any angle of approach.

(4) A steam vessel not more than one hundred feet in length when under way shall carry, in addition to the lights prescribed by subsection (1), a bright white light aft to show all around the horizon; such light shall be placed in line with the keel higher than the light required by paragraph (*a*) of subsection (1).

Vessels towing, other than those towing rafts

4. A steam vessel having a tow other than a raft, shall in addition to the lights prescribed for vessels of her length by rule 3, carry forward a second bright white light; such light shall be of the same construction and character and fixed in the same manner as the light prescribed by rule 3 (1) (*a*) and shall be carried in a position not less than six feet vertically above or below that light; such steam vessel shall also carry a small white light abaft the funnel or aftermast for the tow to steer by, but such light shall not be visible forward of the beam.

Vessels Towing Rafts

5. A steam vessel having a raft in tow shall, instead of the forward lights mentioned in rule 4, carry on or in front of the foremast, or if a vessel without a foremast, then in the fore part of the vessel, two white lights in a horizontal line athwartships and not less than eight feet apart, each so fixed as to throw the light all around the horizon and of such a character as to be visible at a distance of at least five miles; such steam vessel shall also carry the small white steering light aft, of the character and fixed as required by rule 4, and shall also comply with the requirements of rule 3 respecting side lights, screens and range lights.

Tugboats

6. (1) A tugboat under one hundred tons register (net) whose principal business is harbour towing, shall carry the red and green side lights carried by other steam vessels; and at the foremast head or, if the tugboat has no foremast, then on top of the pilot house, a white light so constructed as to show a uniform and unbroken light over an arc of the horizon of twenty points of the compass, and so fixed as to throw the light ten points on each side of the vessel, namely, from right ahead to two points abaft the beam on either side, and of such a character as to be visible at a distance of at least three miles; and when towing, except when towing a raft, shall carry an additional white light of the same character and construction as the headlight and carried not less than three feet vertically above or below the headlight.

(2) When towing a raft, two headlights shall be carried in a horizontal line athwartships not less than four feet apart, each so fixed as to throw the light all around the horizon, and of such a character as to be visible at a distance of at least three miles; such headlights shall be in lieu of the headlights prescribed by subsection (1).

Ferryboats

7. (1) Every double-end ferryboat propelled by machinery, except a cable ferry, shall carry the green and red side lights required for other vessels, and in lieu of the white lights shall carry two bright white lights as a central range, one at or near each end of the vessel; the white lights shall be placed at equal heights above the hull, in the centre line of the vessel, and so constructed as to be visible at a distance of at least three miles all around the horizon; the green and red side lights shall be of such a character as to be visible at a distance of at least two miles, and shall be fitted with inboard screens projecting at least three feet forward from the lights, to prevent them from being seen across the bow.

(2) Other ferryboats propelled by machinery, except cable ferries, shall carry the lights prescribed for steam vessels of their length.

Open Boats

8. (1) An open boat is not obliged to carry the side lights required for other vessels but shall, if she does not carry such lights, carry a lantern having a green slide on one side and a red slide on the other side; and on the approach of or to other vessels such lantern shall be exhibited in sufficient time to prevent collision and in such manner that the green light shall not be seen on the port side nor the red light on the starboard side; an open boat, when at anchor or stationary, shall exhibit a bright white light; she shall not, however, be prevented from using a flare-up light in addition when considered expedient.

(2) A rowing boat or a canoe, whether having a sail or not, shall show a white light in sufficient time to prevent collision.

Motor Boats

9. (1) Motor boats as defined in these rules are classified as follows:
Class A: less than sixteen feet in length;
Class 1: sixteen feet or over and less than twenty-six feet in length;
Class 2: twenty-six feet or over and less than forty feet in length; and
Class 3: forty feet or over and not more than sixty-five feet in length.

(2) Such motor boats are not obliged to carry the lights prescribed by rule 3, but if they do not carry them they shall be provided with the following lights:

(*a*) A motorboat of Class A or Class 1 shall carry

(i) a bright white light aft to show all around the horizon;

(ii) a combined lantern in the fore part of the vessel and lower than the white light aft, so constructed and fixed as to show a green light from right ahead to two points abaft the beam on the starboard side and a red light from right ahead to two points abaft the beam on the port side.

(*b*) A motorboat of Class 2 or Class 3 shall carry

(i) a bright white light in the fore part of the vessel, as near the stem as practicable, so constructed as to show an unbroken light over an arc of the horizon of twenty points of the compass, and so fixed as to throw the light from right ahead to two points abaft the beam on either side;

(ii) a bright white light aft to show all around the horizon, placed higher than the white light forward; and

(iii) on the starboard side a green light so constructed as to show an unbroken light over an arc of the horizon of ten points of the compass, and so fixed as to throw the light fron

ahead to two points abaft the beam on the starboard side; on the port side a red light so constructed as to show an unbroken light over an arc of the horizon of ten points of the compass, and so fixed as to throw the light from right ahead to two points abaft the beam on the port side; the sidelights shall be fitted with inboard screens of sufficient height and length and so placed as to prevent the lights from being seen across the bow.

(3) Every white light prescribed by this rule shall be of such a character as to be visible at a distance of at least two miles; every coloured light prescribed by this rule shall be of such a character as to be visible at a distance of at least one mile.

Sailing Vessels and Vessels Being Towed

10. (1) A sailing vessel under way and any vessel being towed shall carry the side lights prescribed by rule 3.

(2) A vessel being towed shall also carry a small white light aft, but such light shall not be visible forward of the beam.

(3) A sailing vessel shall, on the approach of another vessel, show temporarily a white light in the dirction of the approaching vessel.

Small Vessels

11. (1) Whenever, as in the case of small vessels under way during bad weather, the green and red side lights cannot be fixed, these lights shall be kept at hand lighted and ready for use and shall, on the approach of or to other vessels, be exhibited in sufficient time to prevent collision, in such manner as to make them most visible, and so that the green light shall not be seen on the port side nor the red light on the starboard side nor, if practicable, more than two points abaft the beam on their respective sides.

(2) The lanterns containing the lights prescribed by subsection (1) shall each be painted on the outside with the colour of the light they respectively contain, and shall be provided with proper screens.

Canal Boats in Tow of Steam Vessels

12. (1) Canal boats when in tow of steam vessels shall carry lights as follows:

(*a*) When towed astern of steam vessels and towed singly or tandem they shall each carry a green light on the starboard side, a red light on the port side, and a small bright white light aft;

(*b*) When towed astern in one or more tiers, two or more abreast, the boat on the starboard side of each tier shall carry a green light on her starboard side and the boat on the port side of each tier shall carry a red light on her port side, and each of the outside boats in the last tier also shall carry a small bright white light aft;

(*c*) When towed alongside and on the starboard side of a steam vessel, the boat towed shall carry a green light on the starboard side, and when towed on the port side of a steam vessel, the boat towed shall carry a red light on the port side,

(*d*) When towed alongside a steam vessel, one boat on the starboard side and the other on the port side, the starboard boat shall carry a green light on the starboard side and the port boat shall carry a red light on the port side,

(*e*) When a tow of one or more boats is being pushed ahead of a steam vessel such tow shall carry a green light on the starboard side and a red light on the port side so placed that they mark the tow at its maximum projection to starboard and port respectively, and may carry an amber light at the extreme forward end of the tow as near the centre line as it is practicable to carry such light, such amber light shall be so constructed as to show an unbroken light over an arc of the horizon of twenty points of the compass, so fixed as to throw the light ten points on each side, from right ahead to two points abaft the beam on either side, and of such a character as to be visible at a distance of at least three miles.

(2) The coloured side lights shall be so constructed as to show a uniform and unbroken light over an arc of the horizon of ten points of the compass, so fixed as to throw the light from right ahead to two points abaft the beam on their respective sides, and of such a character as to be visible at a distance of at least two miles; the minimum size of glass globes shall be six inches in diameter and five inches high in the clear; the said coloured sidelights shall be fitted with inboard screens so as to prevent them from being seen across the bow.

(3) The small bright white light aft required to be carried on a canal boat in tow shall not be visible forward of the beam.

(4) For the purposes of this rule, the term "canal boat" includes barges, scows and other nondescript craft.

Vessels not under command

13. (1) A vessel over sixty-five feet in length that is not under command shall carry where they can best be seen and, if a steam vessel, in lieu of the white light required by rule 3 (1) (*a*) two red lights in a vertical line one over the other not less than three feet apart, and of such a character as to be visible all around the horizon at a distance of at least two miles; such vessel, when not making way through the water, shall not carry the side lights required by rule 3 (1)(*b*) and (*c*), but when making way shall carry them.

(2) By day such vessel shall carry in a vertical line one over the other not less than three feet apart, where they can best be seen, two black balls, each two feet in diameter.

Vessels at anchor

14. (1) A vessel under one hundred and fifty feet register length, when at anchor, shall carry forward, where it can best be seen, but at a height not exceeding twenty feet above the hull, a white light constructed so as to show a clear, uniform and unbroken light visible all around the horizon at a distance of at least one mile.

(2) A vessel of one hundred and fifty feet or upward in register length, when at anchor, shall carry in the forward part of the vessel two white lights at the same height of not less than twenty and not exceding forty feet above the hull, and not less than ten feet apart horizontally and athwartships, except that each need not be visible all around the horizon but so arranged that one or the other, or both shall show a clear, uniform and unbroken light and be visible from any angle of approach at a distance of at least one mile; and at or near the stern of the vessel two similar lights, similarly arranged and at such height that they shall be not less than fifteen feet lower than the forward lights; in addition to the four anchor lights above specified, at least one white decklight shall be displayed in every interval of one hundred feet along the deck measuring from the forward lights, such decklights to be not less than two feet above the desk and arranged, so far as intervening structures will permit, so as to be visible from any angle of approach.

(3) Between sunrise and sunset every vessel over sixty-five feet in length, when at anchor, shall carry forward, where it can best be seen, one black ball not less than two feet in diameter.

(4) A vessel over sixty-five feet in length, which is aground, shall carry by night the white light or lights prescribed for a vessel at anchor and, in addition, shall carry, where they can best be seen by approaching vessels, two red lights in a vertical line one over the other, not less than three feet apart, visible all around the horizon at a distance of at least two miles; by day such vessel shall carry in a vertical line one over the other not less than three feet apart, where they can best be seen, three black balls each two feet in diameter.

Certain Naval or Military Vessels and Vessels not otherwise provided for

15. (1) Whenever it shall be determined to the satisfaction of the Minister of Transport that a naval or other military vessel of special construction or purpose cannot comply fully with the provisions of any of these rules with respect to number, position, range or arc of visibility of lights or shapes, such vessel shall comply with such other provisions in regard to the number, position, range or arc of visibility of lights or shapes as shall have been determined by the Minister to be the closest possible compliance with these rules in respect to that vessel; provided that notice of such noncompliance with the rules together with the character and positions of lights or shapes to be displayed on such vessel, shall be published by "Notice to Mariners".

(2) Every vessel not otherwise provided for in these rules, when under way, or at anchor, shall carry a white light forward; such light shall be carried at least eight feet above the surface of the water, in a lantern so fixed and constructed as to show a clear, uniform and unbroken light all around the horizon, and of such a character as to be visible at a distance of at least one mile.

Rafts

16. (1) Rafts when under way, at anchor or moored shall carry lights as follows:

(*a*) a raft of one crib and not more than two in length shall carry one white light; a raft of three or more cribs in length and one crib in width shall carry one white light at each end of the raft; a raft of more than one crib abreast shall carry one white light on each outside corner of the raft, making four lights in all;

(*b*) a bag or boom raft shall carry a bright white light at each end of the raft, and one of such lights on each side midway between the forward and after ends.

(2) The white lights required by these rules for rafts shall be carried in lanterns so fixed and constructed as to show clear, uniform and unbroken lights visible all around the horizon, and of such a character as to be visible at a distance of at least one mile; such lights shall be carried at a height of not less than eight feet above the surface of the water.

Use of searchlights

17. No person shall direct the rays of a searchlight or other blinding light on the pilot house or navigating bridge of any vessel under way.

Fog Signals

18. (1) A steam vessel shall be provided with an efficient whistle, sounded by steam or by some substitute for steam, placed before the funnel not less than eight feet from the deck, or in such other place where the sound will not be intercepted by any obstruction, and of such a character as to be heard in ordinary weather at a distance of at least two miles, and with an efficient bell; a sailing vessel shall be provided with an efficient fog horn and with an efficient bell.

(2) In fog, mist, falling snow or heavy rainstorms, or when visibility is low from any other cause, whether by day or by night, fog signals shall be used as follows:

(*a*) a steam vessel under way, excepting only a steam vessel with a raft in tow, shall sound at intervals of not more than one minute three distinct blasts of its whistle;

(*b*) every vessel in tow of another vessel shall, at intervals of not more than one minute, sound four strokes on a good and efficient and properly placed bell, by striking the bell twice in

succession, followed by a little longer interval, and then again striking twice in quick succession (as in striking "four bells" to indicate time);

(*c*) a steam vessel with a raft in tow shall sound at intervals of not more than one minute a screeching or Modoc whistle for from three to five seconds;

(*d*) a sailing vessel when under way and not in tow shall sound on the foghorn, at intervals of not more than one minute, when on the starboard tack one blast, when on the port tack two blasts in succession, when with the wind abaft the beam three blasts in succession;

(*e*) a vessel at anchor and a vessel aground in or near a channel or fairway shall at intervals of not more than two minutes ring the bell rapidly for from three to five seconds and, in addition, at intervals of not more than three minutes shall sound on the whistle or horn a signal of one short blast, two long blasts, and one short blast in quick succession;

(*f*) a vessel of less than ten tons register tonnage, not being a steam vessel, shall not be obliged to give the signals prescribed by paragraphs (*a*) to (*e*), but if she does not she shall make some other efficient sound signal at intervals of not more than one minute;

(*g*) any vessel or raft not otherwise provided for in this rule, when under way, anchored or moored, and not in port, shall make an efficient sound signal at intervals of not more than one minute.

Speed of ships in fog

19. In fog, mist, falling snow or heavy rainstorms, or when visibility is low from any other cause, every vessel shall go at a moderate speed; a steam vessel hearing, apparently not more than four points from right ahead, the fog signal of another vessel shall at once reduce her speed to bare steerageway, and thereafter navigate with caution until the vessels shall have passed each other.

Steering and Sailing Rules

20. Risk of collision can, when circumstances permit, be ascertained by carefully watching the bearing of an approaching vessel; when the bearing does not appreciably change, risk of collision should be deemed to exist.

Sailing Vessels

21. When two sailing vessels are approaching one another so as to involve risk of collision one of them shall keep out of the way of the other, as follows:

(*a*) a vessel that is running free shall keep out of the way of a vessel that is closehauled;

(*b*) a vessel that is closehauled on the port tack shall keep out of the way of a vessel that is closehauled on the starboard tack;

(*c*) when both vessels are running free, with the wind on different sides, the vessel that has the wind on the port side shall keep out of the way of the other;

(*d*) when both vessels are running free, with the wind on the same side, the vessel that is to windward shall keep out of the way of the vessel that is to leeward.

Steam Vessels Meeting End On

22. (1) When two steam vessels are meeting end on, or nearly end on, so as to involve risk of collision, each shall alter her course to starboard, so that each shall pass on the port side of the other.

(2) When steam vessels are meeting end on, or nearly end on, each steam vessel shall pass on the port side of the other; and the pilot of either steam vessel may be first in determining to pursue this course, and thereupon shall give, as a signal of this intention, one distinct blast of his whistle, which the pilot of the other steam vessel shall answer promptly by a similar blast of his whistle and thereupon such steam vessels shall pass on the port side of each other; but if the courses of such steam vessels are so far on the starboard of each other as not to be considered by their pilots as meeting end on, or nearly end on, the pilot so first deciding shall immediately give two distinct blasts of his whistle, which the pilot of the other steam vessel shall answer promptly by two similar blasts of his whistle, and they shall pass on the starboard side of each other.

Meeting in Rivers and Channels where there is a current

23. In all narrow channels where there is a current, and in the rivers Saint Mary, St. Clair, Detroit, Niagara, St. Lawrence and Ottawa, when two steam vessels are meeting, the descending steam vessel shall have the right of way, and shall before the vessels shall have arrived within the distance of one-half mile of each other, give the signal necessary to indicate the side on which she intends to pass.

Steam Vessels Crossing

24. (1) When two steam vessels are crossing so as to involve risk of collision the vessel that has the other on her own starboard side shall keep out of the way of the other.

(2) When two steam vessels are approaching each other at right angles or obliquely so as to involve risk of collision, other than when one steam vessel is overtaking another, the steam vessel that has the other on her own port side shall hold her course and speed; and the steam vessel which has the other on her own starboard side shall keep out of the way of the other by directing her course to starboard so as to cross the stern of the other steam vessel or, if necessary to do so, slacken her speed or stop or reverse; the steam vessel having the other on her own port side shall blow one distinct blast of her whistle as a signal of her intention to cross the bow of the other, holding her course and speed, which signal shall be promptly answered by the other steam vessel by one distinct blast of her whistle as a signal of her intention to direct her course to starboard so as to cross the stern of the other steam vessel or otherwise keep clear.

(3) If from any cause whatever conditions are such as to prevent immediate compliance by the vessels with each other's signals, the misunderstanding or objection shall be at once made apparent by blowing the danger signal, and both vessels shall be stopped, and reversed if necessary, until signals for passing with safety are made and understood.

Steam and Sailing Vessels Approaching Each Other

25. When a steam vessel and a sailing vessel are proceeding in such directions as to involve risk of a collision the steam vessel shall keep out of the way of the sailing vessel.

Right of Way

26. Where, by any of these rules one of two vessels is required to keep out of the way, the other shall keep her course and speed.

Duty to slacken speed or stop

27. Every steam vessel which is directed by these rules to keep out of the way of another vessel shall, on approaching such vessel, if necessary, slacken her speed or stop or reverse.

Overtaking Vessels

28. (1) Notwithstanding anything contained in these rules every vessel overtaking any other shall keep out of the way of the overtaken vessel.

(2) When one steam vessel is overtaking another and the steam vessel astern shall desire to pass on the right or starboard side of the steam vessel ahead, she shall give one distinct blast of the whistle as a signal of such desire and, if the vessel ahead answers with one blast, she shall direct her course to starboard; or if she shall desire to pass on the left or port side of the vessel ahead, she shall give two distinct blasts of the whistle as a signal of such desire and, if the vessel ahead answers with two blasts, she shall direct her course to port; or if the vessel ahead does not think it safe for the vessel astern to pass at that time, she shall immediately signify the same by giving the danger signal of several short and rapid blasts of the whistle, not less than five; the steam vessel astern shall then hold back and, after an appropriate interval, if she still desires to pass, make the proper signal so indicating; but under no circumstances shall the steam vessel astern attempt to pass the steam vessel ahead until such time as they have reached a point where it can be safely done, and the steam vessel ahead shall signify her willingness by blowing the proper answering signal; the steam vessel ahead shall in no case attempt to cross the bow or crowd upon the course of the other steam vessel.

(3) Every vessel coming up with another vessel from any direction more than two points abaft her beam, that is, in such a position, with reference to the vessel which she is overtaking, that at night she would be unable to see either of that vessel's sidelights, shall be deemed to be an overtaking vessel, and no subsequent alteration of the bearing between the two vessels shall make the overtaking vessel a crossing vessel within the meaning of these rules, or relieve her of the duty of keeping clear of the overtaken vessel until the overtaken vessel is finally passed and cleared.

(4) As the overtaking vessel cannot always know with certainty whether she is forward of or abaft this direction from the other vessel, she should, when in doubt, assume that she is an overtaking vessel and keep out of the way.

Narrow Channels

29. (1) In all channels less than five hundred feet in width, no steam vessel shall pass another going in the same direction unless the steam vessel ahead be disabled or signify her willingness that the steam vessel astern shall pass; the steam vessel astern may then pass, subject, however, to the other rules applicable to such a situation.

(2) When steam vessels proceeding in opposite directions are about to meet in a channel less than five hundred feet in width, such steam vessels shall be slowed to a moderate speed, according to the circumstances.

Signals indicating course

30. (1) In all weathers every steam vessel under way, in taking any course authorized or required by these rules, shall indicate that course by a signal on her whistle, to be accompanied, whenever required, by a corresponding alteration of her course; and every steam vessel receiving a signal from another shall promptly respond with the same signal or sound the danger signal as provided in rule 31.

(2) Except as otherwise provided in these rules,

(*a*) one blast shall mean "I am directing my course to starboard"; and

(*b*) two blasts shall mean "I am directing my course to port".

(3) These signals shall be used, not only when an alteration of course is required, but at all times before vessels approach within half a mile of each other, from whatever direction, if their courses will bring them within that distance from each other.

Danger Signal

31. If, when steam vessels are approaching each other, the pilot of either vessel fails to understand the course or intention of the other, whether from signals being given or answered erroneously, or from other causes, the pilot so in doubt shall immediately signify the same by giving the danger signal of several short and rapid blasts of the whistle, not less than five, and if both vessels shall have approached within half a mile of

other, both shall be immediately slowed to a speed barely sufficient for steerageway and, when necessary, stopped and reversed, until the proper signals are given, answered and understood, or until the vessels shall have passed each other.

Cross Signals Prohibited

32. Pilots shall in no circumstances use "cross signals", that is, answering one blast of the whistle with two, or two blasts with one; whenever a pilot receives either of the whistle signals provided in rule 30 (2) and he deems it imprudent to comply with that signal, he shall immediately give the danger signal and observe the rule applying thereto (rule 31).

Approaching a short bend or curve in channel

33. Whenever a steam vessel is nearing a short bend or curve in the channel where, from the height of the banks or other cause, a steam vessel approaching from the opposite direction cannot be seen for a distance of half a mile, the pilot of such steam vessel, when he has arrived within half a mile of such bend or curve, shall give a blast of the whistle of at least eight seconds duration, which shall be answered by a similar blast given by the pilot of any approaching steam vessel within hearing on the other side and within half a mile of such bend or curve; should such a signal be so answered by a steam vessel upon the farther side of the bend or curve, then the usual signals for meeting and passing shall immediately be given and answered.

Leaving a Dock or Berth

34. When a steam vessel is leaving a dock or berth she shall give one blast of the whistle of at least eight seconds duration, which shall be answered by a similar blast given by any approaching steam vessel; both vessels shall be governed by rule 35 until the course of the vessel leaving the dock or berth becomes apparent, after which time the applicable steering and sailing rules shall be observed.

Special Circumstances

35. In obeying and construing these rules due regard shall be had to all dangers of navigation and collision and to any special circumstances which may render a departure from them necessary in order to avoid immediate danger.

Neglect of Rules or Other Precautions

36. Nothing in these rules shall exonerate any vessel, or the owner or master or crew thereof, from the consequences of any neglect to carry lights or signals, or of any neglect to keep a proper lookout, or of the neglect of any precaution which may be required by the ordinary practice of seamen, or by the special circumstances of the case.

Unnecessary Sounding of Whistle

37. No person shall authorize or permit unnecessary sounding of the whistle.

Distress Signals

38. When a vessel is in distress and requires assistance from other vessels or from the shore, the signals to be used or displayed, either together or separately, are as follows:

(*a*) In the daytime:

(i) a gun or other explosive signal fired at intervals of about a minute;

(ii) the distant signal, consisting of a square flag, having either above or below it a ball or some object resembling a ball;

(iii) continuous sounding with any fog-signal apparatus.

(*b*) At night:

(i) a gun or other explosive signal fired at intervals of about a minute;

(ii) flames from the vessel (as from burning of a tarbarrel or oilbarrel);

(iii) rockets or shells, throwing stars of any colour or description, fired one at a time, at short intervals;

(iv) a continuous sounding with any fog-signal apparatus.

Bell and Whistle Signals Between Bridge and Engine Room

39. When signals between bridge and engine room are made by bell or whistle they shall be given as follows:

1 stroke or 1 blast (when engines are stopped)	Go Ahead
1 stroke or 1 blast (when engines are turning)	Stop
2 strokes or 2 blasts	Go Astern
3 strokes or 3 blasts	Slow
4 strokes or 4 blasts	Full Speed

2 strokes or 2 blasts shall always mean "Go astern", irrespective of other signals previously given.

Supplement

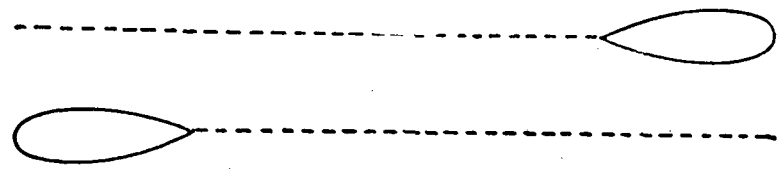
Diagrams

The following diagrams are intended to illustrate the steering and sailing rules:

First Situation

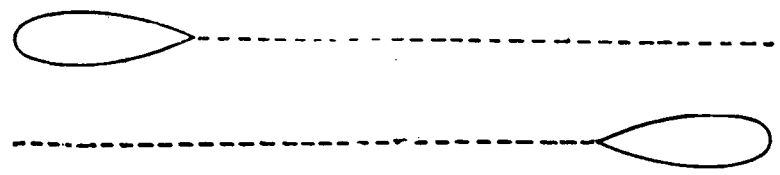
Here the two coloured lights visible to each will indicate their direct approach end on to each other. In this situation it is a standing rule that both shall direct their courses to starboard and pass on the port side of each other, each having previously given one distinct blast of the whistle.

Second Situation



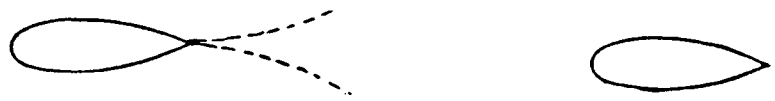
In this situation the red light only will be visible to each, the screens preventing the green lights from being seen. Both vessels are evidently passing to port of each other, which is permissible in this situation, each pilot having previously signified his intention by one distinct blast of the whistle.

Third Situation



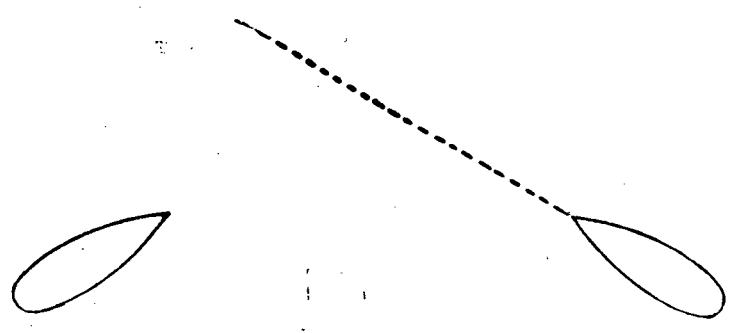
In this situation the green light only will be visible to each, the screens preventing the red light from being seen. They are therefore passing to starboard of each other, which is permissible in this situation, each pilot having previously signified his intention by two distinct blasts of the whistle.

Fourth Situation



In this situation one steam vessel is overtaking another steam vessel from some point more than two points abaft the beam of the overtaken steam vessel. The overtaking steam vessel may pass on the starboard or port side of the steam vessel ahead after the necessary signals for passing have been given, with assent of the overtaken steam vessel, as prescribed in rule 28.

Fifth Situation



In this situation two steam vessels are approaching each other at right angles or obliquely in such manner as to involve risk of collision, other than where one steam vessel is overtaking another.

The steam vessel which has the other on her own port side shall hold her course and speed, and the other shall keep clear by crossing astern of the steam vessel that is holding course and speed; or, if necessary to do so, shall slacken her speed or stop or reverse. Both steam vessels shall otherwise observe the provisions of rules 30 and 31 with respect to the signals for passing and the danger signal.

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OTTAWA, 1969

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