

INTER-GOVERNMENTAL MARITIME  
CONSULTATIVE ORGANIZATION



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**IMCO**

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MARINE TRAFFIC CONTROL SYSTEM IN THE  
ST. LAWRENCE RIVER

At the request of the Government of Canada, the attached note on the establishment of a Marine Traffic Control System in the St. Lawrence River is circulated, for information, to all IMCO Member Governments and Contracting Governments to the International Convention for the Safety of Life at Sea, 1960.

Governments are invited to bring this information to the attention of all concerned.

Encl. 1

22 Berners Street,  
London, W.1.

## Marine Traffic Control System Notification

Submitted by Canada

In the summer of 1966 a marine traffic control system was brought into operation in the St. Lawrence River on an experimental basis. From the data gathered in this operation, a proposal was made to IMCO that Convention amendments be adopted which would have the effect of standardizing the requirements which could be made in respect of VHF radiotelephone equipment aboard ship.

This proposal was examined and was eventually adopted by the fifth session of IMCO Assembly. At the same time a Resolution concerning its implementation was also adopted by Assembly. (A/Res. 128 (V)).

While it is realized that the amendments to the SOLAS Convention will not come into force until the requisite majority of contracting States have accepted them, nevertheless it is felt that the spirit of Resolution 128(V) should be observed from the outset by Canada.

The marine traffic control system in the St. Lawrence River has been reappraised and a number of practical changes will be adopted from 1st April 1968. These changes affect the geographical distribution of the frequency sectors and some reporting points, but the basic operating procedures remain unaltered.

A complete description of the system which will become effective on April 1st, 1968 is contained in Canadian Notice to Mariners # 250/68. The contents of this notice are annexed to this paper.

While the notice states that portable VHF sets are available on a rental basis, this is considered as an additional service which is a terminating commitment. The termination of the service is not envisaged before 1st April 1969 and, in the event, advance notice will be given to the marine industry.

ST. LAWRENCE RIVER - SEPT-ILES TO MONTREAL HARBOUR - Marine Traffic Control System.

MARINE TRAFFIC CONTROL SYSTEM

Notice to Mariners No. 318/67 brought into effect phase one of the St. Lawrence River Marine Traffic Control System from Les Escoumins to Montreal.

Commencing 0500 GMT April 1st. 1968, phase two of this service will be implemented and Notice to Mariners No. 318/67 will be cancelled. While the general reporting procedure will remain unchanged there has been extensive modification to sector separation and assignment of frequencies.

All vessels will therefore be required to carry additional VHF crystals for the exclusive use of Marine Traffic Control. In addition to crystals required for 1967 sector operation i.e. on channels 11, 12 and 14, with 6 and 16 for intermarine use, the following crystals should be fitted, namely channels 9, 10 and 13.

Attention is specifically directed to the last paragraph of this Notice, "Equipment" which states the VHF installation requirements for vessels transitting this system. For vessels not yet provided, portable VHF sets of limited range will be made available on a rental basis for vessels in pilotage waters.

Objectives

The objectives of the Marine Traffic Control System are:-

- (a) to prevent collision between ships
- (b) to prevent collision between ships and other obstructions in the channel
- (c) to maintain a safe, expeditious and orderly flow of traffic on those waters under jurisdiction
- (d) to alert appropriate authorities when ships are in need of assistance.

Movement Control and Responsibility

There is no intention on the part of the Department to attempt to navigate or manoeuver ships from a shore station, and nothing in this Notice overrides the authority of the master or his responsibility for the safe navigation of the ship. Information passed to the master is intended to assist him in the safe conduct of his vessel.

Limits of Marine Traffic Control

The Traffic Control System extends from the meridian passing through the Quebec North Shore town of Sept-Iles westward to Montreal upper harbour limits.

Category of Service

The VHF Radiotelephone system for Marine Traffic Control is intended exclusively for marine safety traffic information and control messages. No duplex facilities are provided; public correspondence and domestic messages will not be accepted.

Geographical Sub-Division of Sectors

For Traffic information and Control purposes the river is divided into six sectors as follows:-

Sector One:	From Sept-Iles To Pointe au Boisvert	Channel Assigned: No. 14 Frequency: 156.7mHz.
Sector Two:	From Pointe au Boisvert To Cap Maillard	Channel Assigned: No. 12 Frequency: 156.6mHz.
Sector Three:	From Cap Maillard To Ste. Croix	Channel Assigned: No. 11 Frequency: 156.55mHz.
Sector Four:	From Ste. Croix To Tracy	Channel Assigned: No. 9 Frequency: 156.45mHz.
Sector Five:	From Tracy To Berth 110	Channel Assigned: No. 10 Frequency: 156.5mHz.
Sector Six:	From Berth 110 To Upper Harbour Limits	Channel Assigned: No. 13 Frequency: 156.65mHz
	Docking and undocking within Montreal Harbour for ship/tug communication in immediate berth vicinity	Channel Assigned: No. 9 Frequency: 156.45mHz.

### Communications

The above mentioned VHF channels have been designated for Marine Traffic Control purposes and vessels in the designated sectors shall standby on the appropriate assigned frequency.

### Location of Stations

The System is controlled from Quebec City for the region between Sept-Iles and Tracy and from Montreal for the region between Tracy and the upper limits of Montreal harbour.

In order to ensure reliable transmission and reception of messages, unmanned satellite radiotelephone stations are located at various strategic positions.

Manned radiotelephone stations are located at Quebec and Montreal.

Permission to leave the designated frequency must be obtained from the Traffic Control Centre controlling the sector in which the vessel is being navigated.

### Operating Procedures

The Control Centres at Quebec and Montreal are manned at all times by day and night. Call signs originated by the Centres will be identified by the call sign "QUEBEC CONTROL" or "MONTREAL CONTROL", as appropriate and ships will be addressed by their names.

All times will be given in Eastern Standard Time, (GMT-5), or Eastern Daylight Saving Time (GMT-4), whichever is in effect. The 24 hour clock system will be used.

### Language

The personnel operating the Control Centres are bilingual in English and French.

### Listening Watches

Ships shall maintain a continuous listening watch in respect of sectors on the designated frequencies as indicated.

International Practices to be followed

Radio-telephone procedures are to be those formulated by the International Telecommunications Union as outlined in the Radio-Telephone (Maritime Service) Handbook.

Clearances (Permission to Proceed)

When a clearance is required the master must obtain the necessary clearance from the proper Control Centre before:-

- (a) Entering into waters under the Marine Traffic Control jurisdiction.
- (b) Proceeding to any berth.
- (c) Leaving any berth.
- (d) Shifting from one berth to another.

Berth means wharf, pier, anchorage or mooring buoys.

Period during which clearance remains valid

A Marine Traffic Control clearance will constitute authority for the master of a vessel to proceed with the manoeuvre for which permission has been granted subject to the following limitations:-

- (a) Clearance for leaving any berth automatically expires 15 minutes after it has been granted, and if the ship is delayed for any reason it must, except in an emergency, obtain another clearance before proceeding. Should an emergency occur that necessitates action without permission, The Control Centre must be advised immediately.
- (b) The valid time for clearance, other than from a berth, may vary and the Traffic Control Officer will, if he deems it necessary place a limit on the time during which action must be taken.

Reporting by Ships

Mandatory Reporting Points

Upbound and downbound, transiting vessels are to report to the Control Centre when passing the following reporting points:-

1. South of Sept-Iles
2. Pointe-des-Monts
3. Manicouagan Point
4. Pointe-a-Michel

5. Pointe-au-Boisvert.....Sector Change Point
6. Les Escoumins (Pilot boarding and disembarking point)
7. Red Islet.....Westbound ships shall pass north of Red Islet. Eastbound ships shall pass south, but may pass north when entering the Saguenay River.
8. Cap-au-Saumon
9. Goose Cape
10. Cap Maillard.....Sector Change Point
11. Cap Brule
12. St. Jean
13. Ste. Petronille
14. Quebec City (Pilotage Station)
15. St. Nicholas
16. Ste. Croix.....Sector Change Point
17. Grondines
18. Batiscan
19. Trois-Rivieres (Pilotage Station)
20. Yamachiche Bend
21. Tracy.....Sector Change Point
22. Contrecoeur (Iron Ore Dock)
23. Cap St. Michel
24. Berth 110

NOTE: When changing sectors, a ship must report to the controller of the sector being left, as well as to the controller of the sector being entered.

#### Entering the System

The master of a vessel will be presented with an Information Card by the pilot at Les Escoumins for completion. This information will then be immediately passed to the Control Centre at Quebec by VHF.

For vessels not carrying a pilot such information as may be required by the Traffic Control Centre will be requested by VHF.

Traffic entering the system from the West would normally have passed the required information, if further information is required it will be requested by Control Centre.

#### Transitting the System

Vessels are required to give progress reports when passing the mandatory reporting points. Such information would normally consist of the-



- (a) Name of vessel
- (b) Location
- (c) ETA at next reporting point
- (d) Adverse weather conditions (i.e. fog, snow or ice)

Vessels may give additional navigation safety calls at other locations should conditions so warrant, however, masters and pilots are cautioned that conversation should be kept at the minimum consistent with the safety requirements of the situation.

#### Co-Ordination

A vessel shall be under the control of only one Control Centre at any given time and responsibility for the control of such vessel shall be transferred when required from one Control Centre to another.

Information of a vessel's movement within the system will be transmitted to the Marine Information Centre at Montreal and will be distributed from there in order to ensure efficient pilot despatch. Vessels not yet fitted with VHF equipment of the designated channels may therefore experience delay while arrangements for the despatch of pilots are made.

#### Routine Information Broadcast

Routine Broadcasts on:-

- (a) Notices to Shipping
- (b) Weather and ice conditions
- (c) Status of navigational marks and aids
- (d) Reported obstructions

will be given every hour at the following times unless radio telephone traffic is so urgent that a delay is necessary in which case the broadcast will be made as soon as possible after the scheduled time.

Sector one .....	on the hour
Sector two .....	12 minutes after hour
Sector three .....	24 minutes after hour
Sector four .....	36 minutes after hour
Sector five .....	48 minutes after hour
Sector six .....	on the hour

Urgent advices will be broadcast immediately they have been received and will be repeated during the next routine broadcast.

The value of the broadcasts will depend entirely on the accuracy of the reports given by ships.

Information by Request

The Control Centres will give any ship, on request, such information on traffic, weather or other conditions as is known to the Control Centre.

Additional Information

All broadcasts are recorded on tape.

The Control Centres also monitor transmissions on frequency 156.8 (channel 16) and frequency 156.3 (channel 6).

Vessels shall proceed with care and at such speed that will not endanger persons or property.

Ships should report immediately any of the following events:-

- (a) an accident to the vessel or fire on board.
- (b) sighting another vessel involved in an accident, or in apparent difficulty.
- (c) sighting any obstruction dangerous to shipping.
- (d) noticing any navigation mark or aid that is damaged, missing, not functioning properly or out of position.
- (e) any serious reduction of visibility.

Equipment

In order to take advantage of the Traffic Control System and to avoid unnecessary delays all vessels approaching from seaward should be provided with a VHF set meeting the following standards:-

A vertically polarized unity gain antenna at a nominal height of 30 feet above the water, a transmitter R.F. power output of 10 watts, and a receiver sensitivity of two microvolts across the input terminals for 20 db signal to noise ratio.

Control of the VHF channels shall be immediately available on the bridge, convenient to the conning position and such installation shall conform to the requirements laid down in Radio Regulations for equipment used in the VHF International Maritime Mobile Radiotelephone Service and shall be capable of operation on the following channels:-

156.8	mHz	.....	Channel 16
156.7	mHz	.....	Channel 14
156.65	mHz	.....	Channel 13
156.6	mHz	.....	Channel 12
156.55	mHz	.....	Channel 11

156.5	mHz	.....	Channel 10
156.45	mHz	.....	Channel 9
156.3	mHz	.....	Channel 6

NOTE: Additional channels may be brought into use if found necessary and after due notice has been given.

Authority: Chief, Marine Traffic Control.  
(8100-35)