

A5 Navigation Safety

10 Routeing of Ships

1 GENERAL

- 1.1 Rule 10 of the *Collision Regulations* applies to all ships navigating in or near a routeing system.
- 1.2 The information on ships' routeing in this Notice was up-to-date at the time of printing. Monthly editions of the [Notices to Mariners](#) must be consulted for additions and amendments.
- 1.3 Ships which depart from these routes and meet with collisions may involve themselves in legal liability. Admiralty courts have held that, where traffic routeing systems are observed for the common safety of ships and are recognized on official charts, "it is negligent navigation to leave them without reason."
- 1.4 The Canadian compulsory routeing systems are modified by the provisions that fall under the heading "Canadian Modifications" to Rule 10 of the *Collision Regulations* as follows:
 - .1 In Canadian waters and fishing zones, a vessel engaged in fishing may fish in any direction in or near a traffic separation scheme, but shall not impede the passage of any vessel following a traffic lane.
 - .2 Every power-driven vessel of more than 20 metres in length is required to use the route within a traffic separation scheme or routeing system by which it can safely proceed to its destination.
 - .3 Conditional exemptions are also made for special purpose vessels.
- 1.5 Detailed information on the routeing of ships, which includes traffic separation schemes, deep water routes, areas to be avoided and other routeing measures, can be found in the appropriate *Sailing Directions* and in the International Maritime Organization (IMO) publication titled "*Ships' Routeing*."

2 CANADIAN ROUTEING MEASURES

2.1 Compulsory Canadian Routeing Systems

- **In the Approaches to Chedabucto Bay (also adopted by IMO) (amended in 2007)**
Reference charts: 4013, 4233, 4301, 4321, 4335 and 4374 (Canada)
- **In the Bay of Fundy and Approaches (also adopted by IMO) (amended in 2002)**
Reference charts: 4010, 4011, 4012, 4116 (Canada)
- **In the Strait of Juan de Fuca and its Approaches (also adopted by IMO) (amended in 2005)**
Reference charts: 3440, 3461, 3462, 3602 and 3606 (Canada), 18003, 18400, 18421, 18440, 18460, 18465, 18480 and 18485 (United States)
- **In Haro Strait and Boundary Pass (also adopted by IMO)**
Reference charts: 3461, 3462, 3440, and 3601 (Canada), 18421, 18431, 18432 and 18433 (United States).
- **In the Strait of Georgia (also adopted by IMO) (amended in 2004)**
Reference charts: 3462, 3463, 3492 and 3601 (Canada), 18400, 18421, 18431 (United States).

2.2 Recommended Canadian Routeing Systems

- **Johnstone Strait - Race and Current Passages Traffic Separation Scheme**

Reference chart: 3544 (Canada)

Mariners using this traffic separation scheme should be aware of the following recommendation and caution:

"Mariners are recommended to use their radiotelephone to provide information of their presence and warnings to other ships.

CAUTION

In some instances a large vessel proceeding westbound on an ebb tide may have difficulty in making the turn to starboard into Current Passage and clearing Ripple Shoal. Under such circumstances the master may decide to proceed against the traffic flow through Race Passage and should make every effort to warn other traffic in the area."

- **Broughton Strait - Haddington Island Traffic Separation Scheme**

Reference chart: 3546 (Canada)

Mariners using this traffic separation scheme should be aware of the following recommendation and caution:

"Mariners are recommended to use their radiotelephone to provide information of their presence and warnings to other ships.

CAUTION

In some instances large vessels and tugs with long tows proceeding eastbound may have difficulty in making the turn to starboard to pass south of Haddington Island. Under such circumstances the master may decide to proceed against the traffic flow through Haddington Passage but should make every effort to warn other traffic in the area."

- **Vancouver and Approaches Traffic Separation Scheme**

Reference charts: 3463, 3496 and 3526

- **Gulf and River St. Lawrence Routeing System**

Reference charts: 1203, 1220, 1221, 1236, 1320, 4002, 4013, 4020, 4021, 4022, 4024, 4025, 4026 and 4731 (Canada)

System revised and in effect July 1st, 1992.

- **Halifax and Approaches Routeing System**

Reference chart: 4012, 4013, 4237, 4320, 8007 (Canada)

- **Placentia Bay Routeing System**

Reference charts: 4839, 4841, 4622, 4624, 4016 and 4047 (Canada)

- **Bull Arm Routeing System**

Reference chart: 4851 (Canada)

2.3 Recommended Great Lakes Routeing Measures

- .1 The Great Lakes routeing measures consist of a system of recommended courses on Lakes Ontario, Erie, Huron, Michigan and Superior.
- .2 These courses are delineated on both Canadian and the United States general charts of the Great Lakes, and are described in the appropriate Sailing Directions.
- .3 In the interest of navigational safety and environmental protection, mariners are advised to observe these courses.
- .4 The person in charge of the navigation of the ships may exercise discretion in departing from the recommended courses whenever weather or ice conditions render it necessary.

2.4 Ice Routeing

Refer to Notice to Mariners No. 6 for ice routeing in Canadian waters.

2.5 Tanker Exclusion Zone - Pacific Coast

- .1 A tanker exclusion zone (TEZ) has been established off the Pacific coast of Canada as a result of the discontinuance of the Trans Alaska Pipeline Tanker Routes.
- .2 The purpose of the TEZ is to keep laden tankers west of the zone boundary in an effort to protect the shoreline and coastal waters from a potential risk of pollution.
- .3 The zone boundary follows the Canada/Alaska border to a point approximately 115 miles west of Langara Island, thence southward to approximately 73 miles southwest of Cape St. James, thence to 40 miles southwest of Amphitrite Point and thence due east to just off Cape Flattery.
- .4 The TEZ is defined as follows:

a line from	54°00'00"N	136°17'00"W
thence to	51°05'00"N	132°30'00"W
thence to	48°32'00"N	126°30'00"W
thence to	48°32'00"N	125°09'00"W
- .5 Loaded TAPS crude oil tankers transiting along the Pacific coast are requested to remain seaward of this zone boundary.

2.6 Precautionary Area

- **Terra Nova Floating Production Storage and Offloading (FPSO) (Grand Banks of Newfoundland)**
Ships should navigate with particular caution in the area having a 10 nm radius centered on 46°28'.53N ad 048°28'.86W. Any ship planning to transit the precautionary area is advised to contact the FPSO vessel on VHF channel 16 and to comply with the instructions given while transiting the area. Ship movement in the area is monitored on a 24 hour basis.
Reference Charts: 4000, 4001, 8011 and 8012 (Canada)

2.7 Area to be avoided (ATBA)

- **Roseway Basin Seasonal ATBA (June through December) (South of Nova Scotia)**
Charts 4003, 4012 and 4230 (Canada)

3 International Routeing Measures

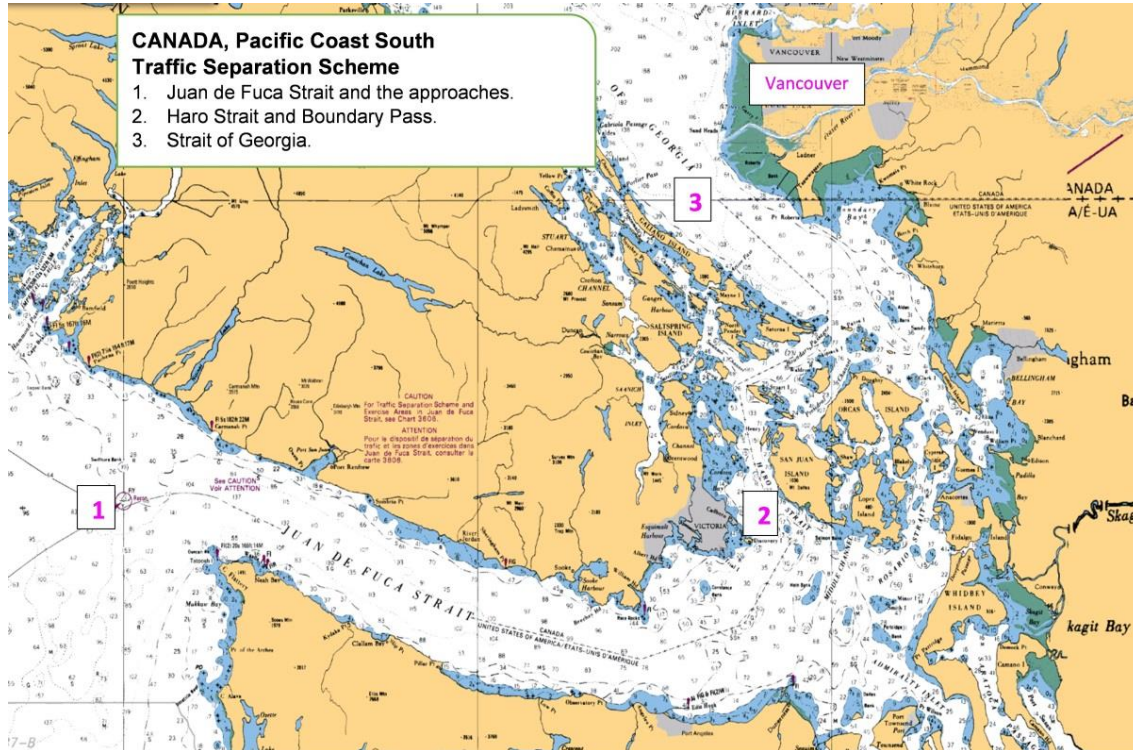
- 3.1 **The IMO publication entitled "*Ships' Routeing*" contains the full details and coordinates of all IMO routeing measures and *Associated Rules and Recommendations on Navigation*. Details for obtaining this IMO publication can be found in Notice to Mariners No. 14. The appropriate *Sailing Directions* should also be referred to for additional information.**

4 Use of Routeing Systems

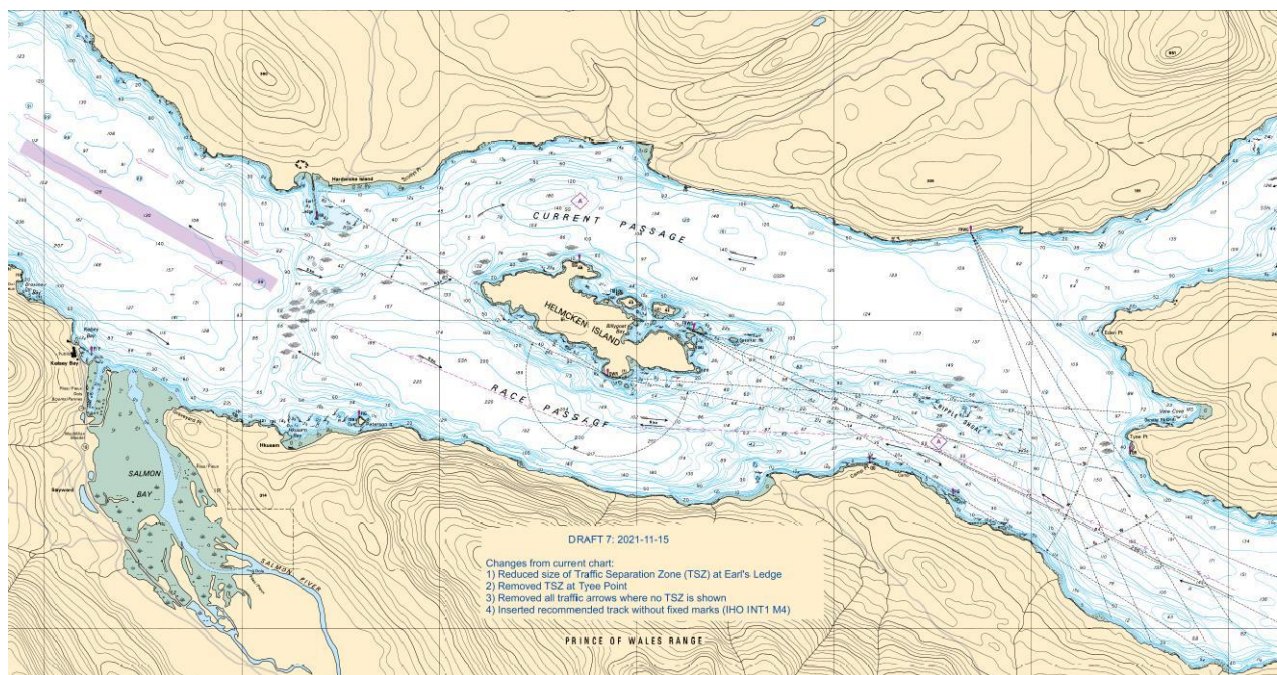
- 4.1 Routeing systems are intended for use by day and by night in all weather, in ice free waters or under light ice conditions where no extraordinary maneuvers or icebreaker assistance are required.
- 4.2 Routeing systems are recommended for use by all ships unless stated otherwise. Bearing in mind the need for adequate under-keel clearance, a decision to use a routeing system must take into account the charted depth, the possibility of changes in the sea-bed since the time of the last survey, and the effects of meteorological and tidal conditions on water depths.

- 4.3 A ship navigating in or near a traffic separation scheme shall in particular comply with Rule 10 of the Collision Regulations to minimize the development of risk of collision with another ship. The other rules of the Collision Regulations apply in all respects, and particularly the rules of part B, sections II and III, if risk of collision with another ship is deemed to exist.
- 4.4 At junction points where traffic from various directions meet, a true separation of traffic is not really possible, as ships may need to cross routes or change to another route. Ships should therefore navigate with great caution in such areas and be aware that the mere fact that a ship is proceeding along a through-going route gives that ship no special privilege or right of way.
- 4.5 A deep-water route is primarily intended for use by ships which, because of their draught in relation to the available depth of water in the area concerned, require the use of such a route. Through traffic to which the above consideration does not apply should, as far as practicable, avoid using deep-water routes. A deep-water route is a route within defined limits which has been surveyed for clearance of sea bottom and submerged obstacles as indicated on a chart.
- 4.6 A precautionary area should be avoided, if practicable, by passing ships not making use of the associated traffic separation schemes or deep-water routes, or entering or leaving adjacent ports. A precautionary area is an area within defined limits where ships must navigate with particular caution and within which the direction of traffic flow may be recommended.
- 4.7 In a two-way route, including two-way deep-water route, ships should as far as practicable keep to the starboard side. A two-way route is a route within defined limits inside which two-way traffic is established. The aim is to provide safe passage of ships through waters where navigation is difficult or dangerous.

Authority: Transport Canada

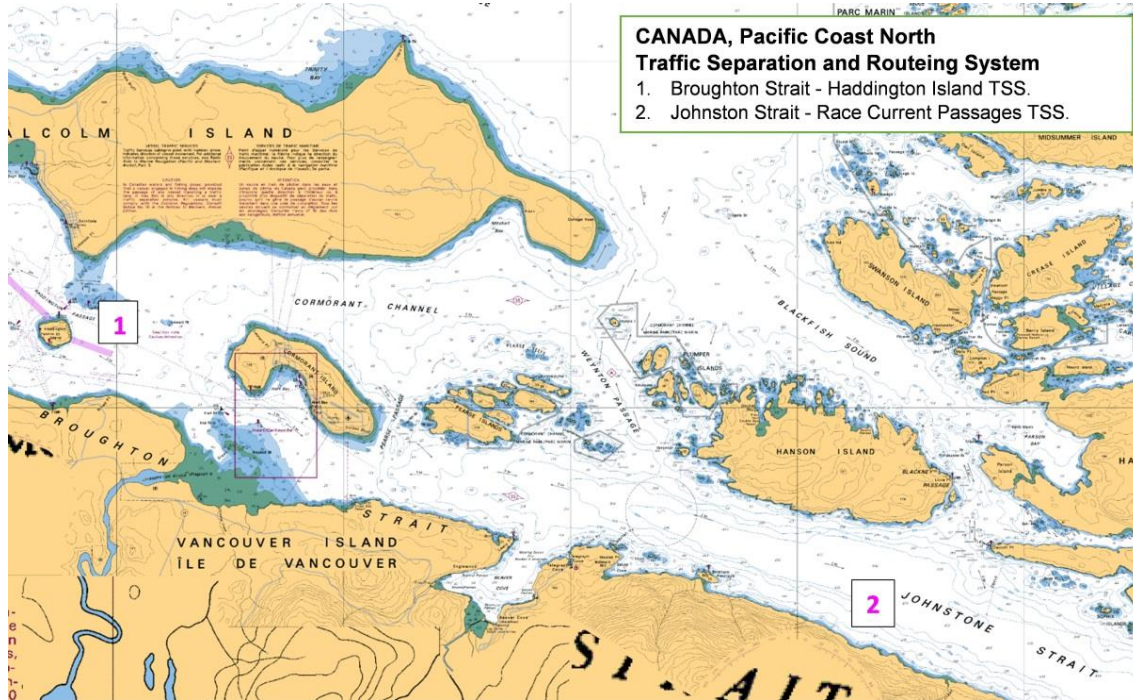


IMO adopted - Compulsory Canadian Routing System - Pacific Coast south



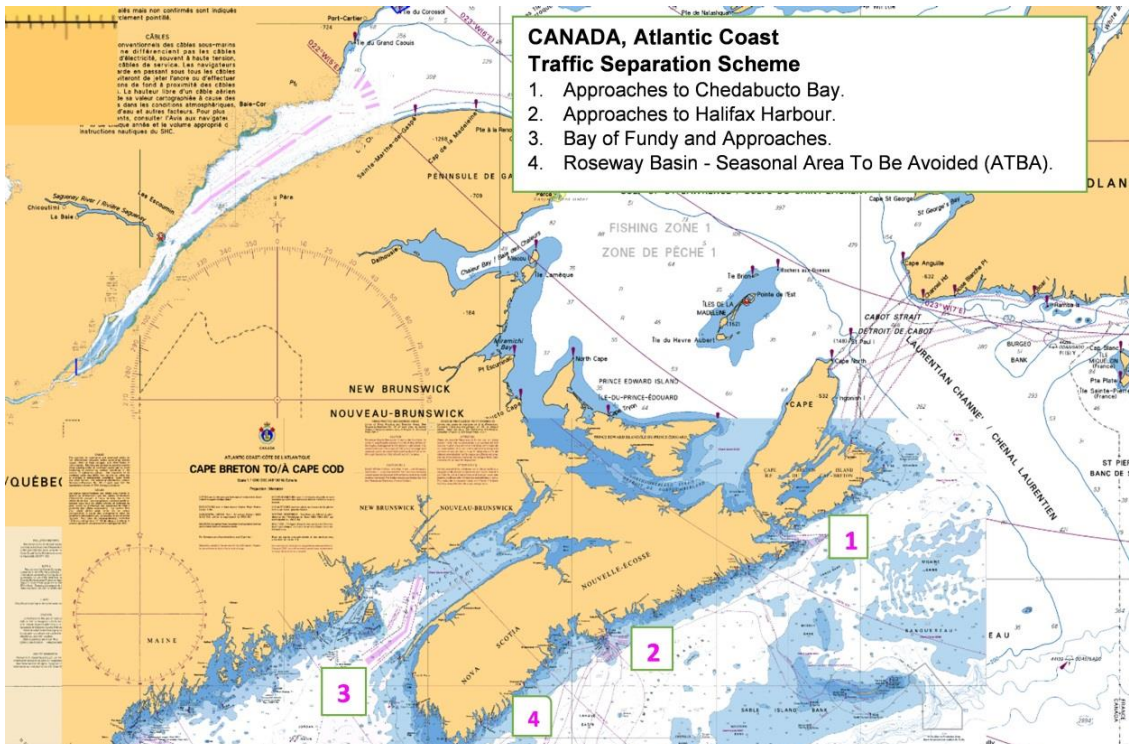
Recommended Canadian Routing Systems - Johnstone Strait - Race and Current Passages TSS

Modified Routing System



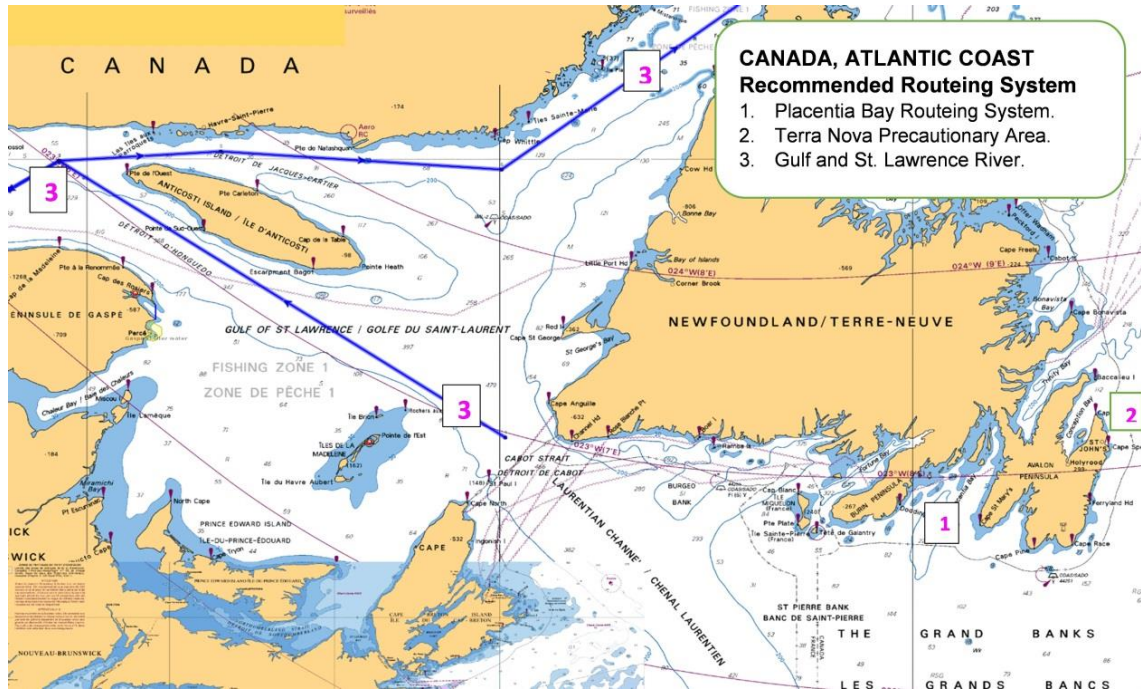
**CANADA, Pacific Coast North
 Traffic Separation and Routing System**
 1. Broughton Strait - Haddington Island TSS.
 2. Johnstone Strait - Race Current Passages TSS.

Recommended Canadian Routing Systems – Broughton Strait and Johnstone Strait TSS



**CANADA, Atlantic Coast
 Traffic Separation Scheme**
 1. Approaches to Chedabucto Bay.
 2. Approaches to Halifax Harbour.
 3. Bay of Fundy and Approaches.
 4. Roseway Basin - Seasonal Area To Be Avoided (ATBA).

IMO adopted - Compulsory Canadian Routing System – Atlantic Coast TSS

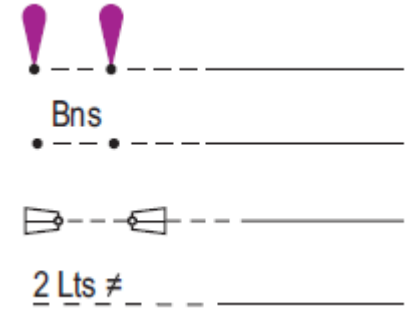
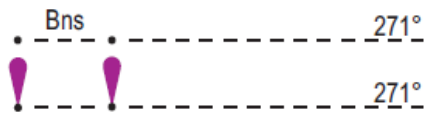
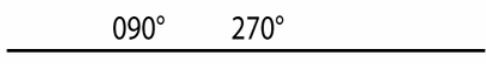
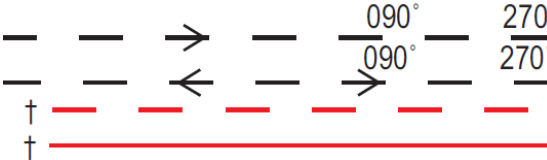
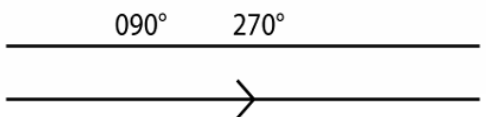
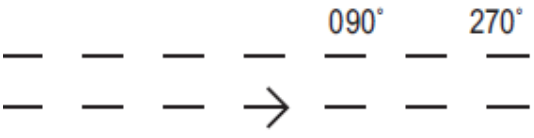


Recommended Canadian Routeing Systems – Atlantic Coast

Symbol for basic element of routing measures

Unless otherwise specified symbols are printed on charts in colour, usually magenta.

Tracks

Ref.	Description	CHS Symbology
1	Leading line (solid line is the track to be followed; ≠ means "in line")	
2	Transit, Clearing line	
3	Recommended track based on a system of fixed marks	
4	Recommended track not based on a system of fixed marks	
5.1	One-way track (and DW track) based on a system of fixed marks	
5.2	One-way track (and DW track) not based on a system of fixed marks	

Routeing Measures


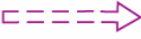





Ref.	Description	CHS Sybology
10	Established (mandatory) direction of traffic flow	
11	Recommended direction of traffic flow	
12	Separation line (large-scale, smaller scale)	
13	Separation zone	
14	Limit of restricted routeing measure	
15	Limit of routeing measure	
16	Precautionary area	

Chart 1 provides explanations of the symbols, abbreviations and terms used in CHS nautical charts. HTML and PDF versions of Chart 1 are maintained for update. [Canadian Chart 1 Symbols, Abbreviations and Terms](#)

NOTES

1. Arrows dispersed over width of route. Arrows may be curved. Where the traffic lane is converging, arrows should be oriented to the approximate average directions of the side boundaries.
2. Arrow omitted at intersections (other than roundabouts) to avoid implying priority of one lane.
3. Separation line 3 mm wide where chart scale permits.
4. Tint light enough not to obscure detail beneath it.
5. If traffic lanes are separated by natural obstacles, may be replaced by the symbol for general maritime limits at the boundaries of the lanes.
6. Stems of dashes pointing towards the area in question.
7. Symbol intended for tracks to be followed closely through inadequately surveyed areas.