PART 4

GENERAL

PROCEDURES

RADIOTELEPHONE PROCEDURES

General

In the interests of safe navigation, and especially during bad weather conditions, masters should ensure that a continuous listening watch is maintained on 2182 kHz. Where practicable, and having due regard for Vessel Traffic Services and Seaway Control requirements, a conscientious listening watch should be maintained on VHF Ch16 (156.8 MHz).

2182 kHz AND CH16 (156.8 MHz) SHALL ONLY BE USED FOR DISTRESS, URGENCY AND SAFETY COMMUNICATIONS AND FOR CALLING PURPOSES. THE CLASS OF EMISSION TO BE USED FOR RADIOTELEPHONY ON THE FREQUENCY 2182 kHz SHALL BE J3E.

MCTS Centres will observe silence periods on the international distress carrier frequency 2182 kHz for three minutes twice each hour beginning on the hour and the half-hour. This practice will continue into the foreseeable future.

Initial calls must be made directly on the safety and calling frequency 2182 kHz. This procedure is required because the MCTS Centres do not monitor MF working frequencies.

Initial calls should be made directly on any of the VHF working frequencies shown in bold type, in the "Receiving" column of the MCTS Centre listing, in which case the MCTS Centre will reply on the corresponding frequency shown in the "Transmitting" column. It is necessary on the initial call for the channel number (see listings) to be indicated. This procedure is required to provide MCTS Officers, who guard a number of frequencies simultaneously, with a positive indication of the correct channel to be selected for answering the call. Before making a call directly on a working frequency, care should be taken to listen for a period long enough to ensure that the channel is not in use.

Requests for radio checks shall be made to the MCTS Centre in the same manner outlined above for initial calls.

If difficulty is experienced in establishing contact with the MCTS Centre, or if contact is desired with another vessel, the initial call may be made on the calling frequency Ch16 in which case the station called will reply on the same frequency. As soon as communication has been established a change must be made to an agreed working frequency and all further communications made on that frequency.

Masters of compulsorily-fitted ships are reminded that a radio log of all distress and urgency communications and safety communications pertaining to own ship should be kept and maintained onboard their vessels.

The following examples will illustrate the procedure to be used.

Initial call, when a vessel is attempting to establish communication on a working frequency with a specific station:

ItemSpokenName of station called (not more than three times).PRESCOTT COAST GUARD RADIOThe words THIS ISTHIS ISType, name, radio call sign of vessel calling (not more than three times)STEAMER FAIRMOUNT CYLDand channelCHANNEL 26Invitation to reply?OVER

Call, when a vessel wishes to establish communications with any station within range (or within a certain area).

Item Spoken

General call (not more than three times).

ALL STATIONS (or ALL SHIPS IN JOHNSTONE STRAITS)

The words THIS IS THIS IS

Type, name and radio call sign of vessel calling (not TANKER IMPERIAL CORNWALL/VCVC

more than three times).

Invitation to reply? OVER

When a station wishes to broadcast information rather than to establish communication, it proceeds with the message instead of giving the invitation to reply.

A radio message from a ship consists of several parts, which shall be transmitted in the following order:

- (a) Type, name and radio call sign of the originating ship.
- (b) The number of the message, (Number 1 shall be given to the first radiotelegram sent each day to each separate station).
- (c) The number of words.
- (d) The date and time the message originated.* (Preferably in UTC. Daylight Saving Time shall not be used).
- (e) The address.
- (f) The text or body of the message.
- (g) The signature.

Note: Items (a), (b), (c) and (d) taken together, are known as the "preamble".

* Date and time may be sent as one group, the first two figures indicate the date, the last four the time.

Example of a ship to shore radio message -

MESSAGE, FROM WEST WIND, CALL SIGN VC2222, NUMBER ONE, NUMBER OF WORDS ONE TWO, FILED ZERO SEVEN ONE TWO TWO FIVE COORDINATED UNIVERSAL TIME, BREAK, ADDRESS OCTERM MONTREAL, BREAK, TEXT, ARRIVING LOADING PIER 1200 LOCAL TOMORROW PLEASE ARRANGE BUNKERING, BREAK, SIGNATURE MASTER, OVER.

An acknowledgment of receipt of a message shall not be given until the receiving operator is certain that the transmitted information has been received correctly.

While it is not practical to lay down precise words and phrases for all radiotelephone procedures, the following should be used where applicable.

Word or phrase	<u>Meaning</u>
ACKNOWLEDGE	Let me know that you have received and understood this message.
CORRECTION	An error has been made in this transmission. The correct version is
GO AHEAD	Proceed with your message.
OVER	My transmission is ended and I expect a response from you.
OUT	This conversation is ended and no response is expected.
READ BACK	After I have given OVER, repeat all this message back to me exactly as received.
ROGER	I have received all of your last transmission.
RECEIVED NUMBER	Receipt of your message number is acknowledged.
STAND BY	Wait until you hear further from me.
VERIFY	Check with the originator and send the correct version.
WORDS TWICE	As a request - Please send each word twice.
	As information - I will send each word twice.

Phonetic Alphabet

When it is necessary to spell out call signs, service abbreviations and words whose spelling might be misinterpreted, the following letter spelling table shall be used:

A - ALFA	F - FOXTROT	K - KILO	O - OSCAR	S - SIERRA	W - WHISKEY
B - BRAVO	G - GOLF	L - LIMA	P - PAPA	T - TANGO	X - X-RAY
C - CHARLIE	H - HOTEL	M - MIKE	Q- QUEBEC	U - UNIFORM	Y - YANKEE
D - DELTA	I - INDIA	N - NOVEMBER	R- ROMEO	V - VICTOR	Z - ZULU
E - ECHO	J - JULIETT				

Times

Times are expressed in four figures, the first two denoting the hour and the last two the minutes, the day starting at midnight with 0000 and ending at 2400. The standard of time (e.g., UTC) is stated at the head of the appropriate column, or against the figures involved.

Time Zone Comparison

NST	NEWFOUNDLAND STANDARD TIME
AST	ATLANTIC STANDARD TIME
EST	EASTERN STANDARD TIME
CST	CENTRAL STANDARD TIME

To convert from Coordinated Universal Time to Local Standard Time look opposite UTC under the appropriate column. For corresponding Daylight Saving Time, add one hour.

UTC	NST	AST	EST	CST
0000	2030	2000	1900	1800
0100	2130	2100	2000	1900
0200	2230	2200	2100	2000
0300	2330	2300	2200	2100
0400	0030	0000	2300	2200
0500	0130	0100	0000	2300
0600	0230	0200	0100	0000
0700	0330	0300	0200	0100
0800	0430	0400	0300	0200
0900	0530	0500	0400	0300
1000	0630	0600	0500	0400
1100	0730	0700	0600	0500
1200	0830	0800	0700	0600
1300	0930	0900	0800	0700
1400	1030	1000	0900	0800
1500	1130	1100	1000	0900
1600	1230	1200	1100	1000
1700	1330	1300	1200	1100
1800	1430	1400	1300	1200
1900	1530	1500	1400	1300
2000	1630	1600	1500	1400
2100	1730	1700	1600	1500
2200	1830	1800	1700	1600
2300	1930	1900	1800	1700

Time Signals

Canada's official time is the responsibility of the National Research Council's Institute for National Measurement Standards, Ottawa, Ont. Its short wave radio station CHU, with transmitters located at 45 17 47N 75 45 22W is equipped with vertical antennas to give the best possible coverage to the maximum number of Canadian users. The signal is

transmitted continuously on 3330kHz, 7335kHz and 14 670kHz, upper single-sideband H3E (AM compatible). A cesium atomic clock generates the carrier frequencies (accurate to a part in 10¹¹) and the UTC seconds pulses (accurate to 50 microseconds). The start of each UTC second is marked by the start of 300 cycles of a 1000 Hz tone, with certain omissions and identifications. Every half-minute is marked by omitting the preceding tone (for second 29). In the 9 seconds preceding each minute, the second pulses are shortened to "ticks' to provide a window for the voice announcement, followed by a longer tone. The start of this tone marks the exact minute given by the announcement. This tone is one-half second long, except for the exact hour - when it is one full second long and in this case only is followed by 9 seconds of silence.

The bilingual voice announcement which is heard each minute takes the form:

"CHU Canada - Coordinated Universal Time -- hours -- minutes -- heures -- minutes" for even minutes, and

"CHU Canada - Temps Universel Coordonné -- heures -- minutes -- hours -- minutes" for odd minutes.

A small number of the longer time announcements use the abbreviation "UTC' rather than the full form.

Following international practice, Canada's official time is based on Coordinated Universal Time (UTC) which is kept within one second of UT1, the time on the Greenwich meridian as used for celestial navigation. Users interested in the ultimate accuracy of celestial navigation can determine UT1 with an accuracy of 0.1 seconds by decoding the difference DUT1 = UT1 - UTC, as transmitted by CHU in the internationally accepted code. The number of tenths of a second of DUT1 can be decoded by counting the number of emphasized second pulses that follow each minute. If the emphasized pulses occur for any of the seconds 1 to 8, DUT1 is positive; if the emphasized pulses occur for any of the seconds 9 to 16, DUT1 is negative. CHU emphasizes second pulses by splitting them (0.1 s of tone, 0.1 s of silence, 0.1 s of tone) so that a double tone is heard.

DISTRESS COMMUNICATIONS IN RADIOTELEPHONY

EARLY NOTIFICATION OF SEARCH AND RESCUE AUTHORITIES OF DEVELOPING SITUATIONS

In the interest of ensuring the highest level of safety, mariners should immediately notify the Canadian Coast Guard, through any Marine Communications and Traffic Services Centre of any situation which is or may be developing into a more serious situation requiring assistance from the Search and Rescue (SAR) System. The need for the earliest possible alerting of SAR Authorities to potential maritime emergencies cannot be over-emphasized.

This advice is given in accordance with IMO Circular MSC/Circ.892 and similar advice found in the ICAO/IMO International Aeronautical and Maritime SAR (IAMSAR) Manual Volume III. Further, there have been similar recommendations arising from serious SAR cases in the Canadian SAR Region where masters have failed to provide this notice until after the situation deteriorated.

This notification allows SAR authorities to carry out preliminary and contingency planning that could make a critical difference if the situation worsens. Time lost in the initial stages of a SAR mission may be crucial to its eventual outcome.

It is always best to consider the "worst-case scenario" and to alert SAR authorities accordingly. This notification places no obligations upon the master except to advise the Canadian Coast Guard when the situation has been corrected.

Canadian MCTS Centres provide coverage of all marine distress frequencies, however, each Centre does not necessarily guard each frequency (refer to Centre listings Part 2). MCTS provides co-ordination between the JRCC/MRSC and the vessel or vessels concerned with the distress.

The radiotelephone distress frequencies are:

- i) 2182 kHz on medium frequency band; and
- ii) 156.8 MHz (channel 16) on very high frequency band (VHF); and
- iii) any other available frequency on which attention might be attracted if transmissions on 2182 kHz and 156.8 MHz are not possible or successful.

The digital selective calling (DSC) frequencies are:

- i) Channel 70 in the VHF band;
- ii) 4207.5 kHz;
- iii) 6312.0 kHz;
- iv) 8414.5 kHz;
- v) 12577 kHz; and
- vi) 16804.5 kHz in the High Frequency bands.

When another craft or person is in distress;

- i) all transmissions capable of interfering with the distress traffic must be stopped;
- ii) attention must be concentrated on the distress communications and all information possible intercepted; and
- iii) a station in the vicinity of the distressed craft must acknowledge receipt of the distress message if received, giving its own position in relation to that of the craft in distress and stating the action being taken.

Distress communications consist of the:

- Distress Signal:
- Distress Call;
- Distress Message; and
- Distress Traffic.

Transmission of a Distress Signal and/or a Distress Call announces that the ship, aircraft or other vehicle that is making the transmission is:

- i) threatened by serious and imminent danger and requires immediate assistance; or
- ii) aware of another ship, aircraft or other vehicle threatened by serious and imminent danger and requires immediate assistance; and
- iii) distress communications should be repeated by the craft in distress until an answer is heard.

The Alarm Signal

The radiotelephone Alarm Signal consists of the continuous alternate transmission of two audio tones of different pitch for a period of at least thirty seconds but not to exceed one minute. The sound of this tone is similar to that used by some ambulances.

The Alarm Signal is used by coast radio station to alert ships:

- i) that a mayday relay broadcast is about to follow; or
- ii) that the transmission of an urgent cyclone warning, which should be preceded by the Safety Signal (SÉCURITÉ), will be sent by a coast radio station; or
- that a person has been lost overboard and the assistance of another ship is required and such other ship cannot be contacted by using the Urgency Signal (PAN PAN) alone.

The Alarm Signal transmitted by the coast radio station will normally be sent for a period not exceeding thirty (30) seconds and will be followed by a ten (10) second continuous tone.

The **Distress Signal** consists of the word "MAYDAY".

The **Distress Call** consists of:

- i) the word "MAYDAY"; (spoken three times)
- ii) the words "This is"; followed by:
- iii) the name of the ship in distress. (spoken three times)

The Distress Call:

- i) should not be addressed to a particular coast radio station or ship; and
- ii) has absolute priority over all other transmissions and all coast radio stations and ships that hear this call must cease any transmissions that will interfere with it and must listen on the frequency used for this call.

The **Distress Message** consists of:

i) the word "MAYDAY";

- ii) the name of the ship in distress;
- iii) the position of the ship in distress;
- iv) the nature of the distress:
- v) the kind of assistance needed;
- vi) any other useful information which might assist the rescue;
- vii) the word "Over" which is an invitation to acknowledge and reply.

Distress Traffic consists of all messages about the immediate assistance required by the ship in distress.

Prior to the transmission of any Distress Traffic, the Distress Signal "MAYDAY" must be sent once before the call.

The control of Distress Traffic is the responsibility of the ship in distress or of the ship or coast radio station sending a Distress Message.

A mobile station that learns that another mobile station is in distress may transmit the distress message if:

- i) the station in distress cannot transmit it;
- ii) the master or person responsible for the craft carrying the station which intervenes believes that further help is necessary;
- iii) although not in a position to render assistance, it has heard a distress message which has not been acknowledged.

In the above situation the distress message takes the following form:

- i) the radiotelephone Alarm Signal if possible;
- ii) the words "MAYDAY RELAY"; (spoken three times)
- iii) the words "This is";
- iv) the identification of the mobile station repeating the message. (spoken three times)

When Distress Traffic has ceased or when silence is no longer necessary the station that has controlled the Distress Traffic must transmit a message on the distress frequency advising that the distress traffic has ceased.

- i) the word "MAYDAY";
- ii) the words "All Stations"; (spoken three times)
- iii) the words "This is";
- iv) the name of the station which has controlled the distress traffic;
- v) the current Coordinated Universal Time (UTC);
- vi) the name of the ship in that was in distress and a brief description of the resolution of the distress;
- vii) the words "SEELONCE FEENEE";
- viii) the word "Out".

Distress Signal

Distress Procedure Example

Transmission of the Alarm Signal for between 30 seconds and one minute, if possible, then the following spoken slowly and distinctly.

"MAYDAY" (three times)

"This is" the words name of ship "Nonsuch" (three times) Distress Signal "MAYDAY" "Nonsuch" name of ship position "Off Iles-St-Marie" nature of distress "Struck rock and taking on water" assistance needed "Require help to abandon ship" "5 persons on board" other useful information "Over" invitation to acknowledge and reply

URGENCY COMMUNICATIONS

The Urgency Signal consists of the words "PAN PAN".

The **Urgency Call** consists of:

- i) the words "PAN PAN"; (spoken three times)
- ii) the words "All Stations" or station specific call; (spoken three times)
- iii) the words "This is" followed by;
- iv) the name of the station making the call. (spoken three times)

The urgency signal may be transmitted only on the authority of the master or the person responsible for the ship, aircraft or other vehicle carrying the mobile station.

The Urgency signal indicates that the calling station has a very urgent message to transmit concerning the safety of a ship, aircraft or other vehicle, or the safety of a person.

The urgency signal, the urgency call, and the urgency message shall be sent on the distress frequencies 2182 kHz and Ch16 (156.8 MHz). If transmission on these frequencies is impossible, any other available frequency on which attention might be attracted should be used.

The urgency signal has priority over all other communications, except distress, and all stations which hear it must take care not to interfere with the transmission of the message which follows the urgency signal.

Stations which hear the urgency signal must continue to listen for at least three minutes. At the end of this period, if no urgency message has been heard, normal service may be resumed. However, stations which are in communication on frequencies other than those used for transmission of the urgency signal may continue their normal work without interruption provided the urgency message is not addressed "to all stations".

In the sole case of loss of persons overboard where assistance of other ships is required and cannot successfully be obtained by the use of the urgency signal alone, the radiotelephone alarm signal may be transmitted before the urgency call by the ship involved. This signal shall not be repeated by other stations.

SAFETY COMMUNICATIONS

The Safety Signal consists of the word "SÉCURITÉ".

The Safety Call consists of:

- i) the word "SÉCURITÉ"; (spoken three times)
- ii) the words "All Stations"; (spoken three times)
- iii) the words "THIS IS" followed by:
- iv) the name of the station making the call; (spoken three times)
- v) "Safety Message"
- vi) "Listen 2638 kHz."

The safety signal indicates that the station is about to transmit an important navigational or meteorological warning. The safety message should be sent on a working frequency, which is announced at the end of the call.

The safety call is transmitted on the distress frequencies 2182 kHz and Ch16 (156.8 MHz). If transmission on these frequencies is impossible, any other available frequency on which attention might be attracted shall be used.

All stations hearing the safety signal shall shift to the working frequency indicated in the call and listen to the safety message until satisfied it does not concern them.

The **Safety Message** format consists of:

- i) the word "SÉCURITÉ";
- ii) the words "All Stations"; (spoken three times)

- iii) the words "This is" followed by:
- iv) the name of the station making the call; (spoken three times)
- v) the details of the safety message;
- vi) the word "Out".

AIDS TO NAVIGATION

Positions

All positions expressed in latitude and longitude of the radio aids to navigation listed in this publication are approximate and are taken from the largest scale Canadian Hydrographic Service charts, where available, or British Admiralty charts of the vicinity. Mariners should bear in mind when plotting the position of any given aid that it is preferable to use a chart with the aid already located on it than to plot it from a position given in latitude and longitude.

Reporting Abnormal Operation of Radio Aids

A marine radio aid observed to be operating abnormally should be reported, as soon as possible to an MCTS Centre.

Reports shall be as complete as possible, giving full details including time, date, the position from which the observation was made, and details and description of conditions, such as weather and reception, prevailing at the time of the observation.

It is also requested that ships report abnormal MCTS Centre operation, such as poor quality of marine telephone calls, unreadability of broadcasts, failure to answer calls, etc.

To ensure prompt corrective action, such reports must include the date, time and position of ship when the observation was made, together with details of prevailing weather and reception conditions.

Radio Beacons

Marine radio beacons generally operate in the 285-325 khz. Radio beacon service enable ships fitted with direction finding equipment to take a bearing or to take several consecutive bearings which will provide a fix. See Part 2 for details on individual listings.

Radar Beacons (Racons)

Radar beacons (Racons) may be established at lighthouses, on buoys or at other specific charted locations ashore or afloat to enhance identification and detection range of these features by radar.

Some Racons operate only in the X band 9320-9500 MHz, whilst others are dual band X/S, X band plus S band of 2920-3100 MHz. It should also be noted that the slow sweep (SS) type of Racon will give a response every 72-120 seconds, whilst the frequency agile Racon (FAR) will respond more frequently.

The Racon signal appears on the radar display as a line commencing at the approximate range of the Racon and extending outwards along its line of bearing from the ship toward the limit of the display. The signal displayed may be a solid line or it may be broken into a code consisting of a series of dots and dashes as shown in relevant publications.

SERVICES

MARINE TELEPHONE SERVICE

General

This service enables a person aboard a ship to speak directly to any person ashore, or vice versa, as in ordinary long distance telephone calls. The service is an extension of the public telephone system to ships at sea through MCTS Centres. For procedures in establishing contact with MCTS Centres refer to "Radiotelephone Procedures". No distinction is made in regard to day, night or Sunday calls. Collect calls are admissible in either direction, ship to shore or shore to ship, with the exception that collect calls from ships to the Ice Operations Officer, Halifax, N.S. will not be accepted.

Radiomedical Calls

Mariners may obtain medical advice by calling a Marine Communications and Traffic Services (MCTS) Centre and requesting to be connected to a medical professional. The Canadian Coast Guard will connect the vessel to an appropriate medical professional via the Marine Telephone System.

For mariners who wish to make their own arrangements for medical advice, radiomedical services are available in numerous languages to vessels flying any flag at any location through the International Radio-medical Centre (CIRM) in Rome, Italy. This centre is staffed 24/7/365 by specially trained physicians and radio operators who also have access to specialists in all medical branches. The CIRM can be contacted via the following means:

Telephone 39 6 54223045

Mobile GSM 39 348 3984229

 Fax
 39 6 5923333

 Telex
 043 612068 CIRM I

 Email
 telesoccorso@cirm.it

 Web
 http://www.cirm.it

Placing a Marine Telephone Call

Ship to Shore

- 1. Listen to make sure that the MCTS Centre is not busy with another ship.
- 2. Call the MCTS Centre and when communication has been established give the following:
 - (a) Name of the city being called.
 - (b) Name and/or telephone number of the person being called, and if the call is to be made "collect".
 - (c) Name of the caller or the number of the caller's telephone company credit calling card (if applicable).
- 3. When the call is completed, sign off, using the name and call sign of the ship.
- 4. When first placing the call, if a ship radio operator is unable to compute the charges which should be collected, request the MCTS Centre to "Report Charges". The MCTS Centre will then relay this information to the ship at the end of the call

Shore to Ship

- 1. Dial "0 (zero)" and ask for the "Marine Operator".
- 2. Give the "Marine Operator" the following information:
 - (a) Name of the person and ship being called and if the call is to be made "collect".
 - (b) Name of the city and the telephone number from which the call is being made and number of the caller's telephone company credit calling card (if applicable).

Receiving a Marine Telephone Call

- 1. When you hear your ship being called, reply, giving your ship's name and call sign.
- 2. At the end of the conversation, sign off by announcing the name and call sign of your vessel.

CELLULAR TELEPHONE (*16) SERVICE - MARINE EMERGENCIES

MCTS Centres in certain parts of Canada are connected to the cellular telephone network system where cellular telephone users can, in an emergency situation only, dial *16 or #16 (dependant upon the service provider) on their telephone to access an MCTS Centre in order to obtain assistance.

Mariners are cautioned that a cellular telephone is not a good substitute for a marine radio because the maritime mobile radio safety system in the southern waters of Canada is based principally on VHF communications. VHF has the advantage that a call can be heard by the closest MCTS Centre(s) and by ships in the vicinity which could provide immediate assistance. On the other hand, the telephone cellular network is a party-to-party system and the benefit of the broadcast mode in an emergency situation cannot be obtained.

Mariners are reminded that the use of marine radio distress frequencies to obtain assistance in an emergency situation is the best option and that cellular telephone should be used only as an alternative should the VHF radiotelephone set not be available. Standard distress alerting equipment, such as marine radio and EPIRBS should never be replaced by cellular telephone alone.

Note: Details of this service may be obtained by contacting local cellular telephone companies, however, mariners are cautioned that not all cellular telephone companies provide this service.

DIRECTION FINDING (VHF/DF) SERVICE

MCTS Centres in certain parts of Canada are provided with VHF/DF equipment, primarily to determine or confirm the bearing, from a DF facility, of a vessel requiring assistance in a distress or other emergency situation. In addition, an estimated line of position from a DF facility can be provided to vessels that are uncertain of their locations. Location of VHF/DF facilities will be found in the appropriate Centre listings in Part 2 of this publication. The intent of this service is not to provide a navigation service. Positions must be regarded as estimates only. Mariners are cautioned that any information provided shall be used at their own discretion.

Direction Finding Bearings

Any MCTS Centre will, on request, transmit signals that will enable a ship to take a radio bearing with its own direction finder. It is pointed out to masters of ships fitted with direction finding equipment employing D.F. loops, that serious error may result in bearings taken if metallic material or equipment (poles, wires, winches, etc.) are erected in proximity to the D.F. antenna equipment after calibration.

Masters of ships are urged to exercise caution in the use of commercial radio broadcasting stations as radio beacons. Bearings taken on such stations may be very inaccurate owing to errors caused by coastal refraction and the calibration of the Direction Finder employed may vary considerably due to the wide difference in frequencies used, (i.e. the standard broadcast band spreads over approximately 1060 kHz). In addition, it is advisable to make certain that the position of the broadcast transmitter (not the studio) is accurately known before using it as a navigation aid.

SAILPLAN SERVICE

All small craft operators, including those making day trips, are encouraged to file a Sail Plan with a responsible person. This person should be instructed to call the Joint Rescue Coordination Centre (JRCC) or Maritime Rescue Sub-Centre (MRSC) if the vessel becomes overdue. (The telephone number can be found at the front of most telephone books, and should be included with the Sail Plan). In circumstances where it is not possible to file a Sail Plan with a responsible person, a Sail Plan may be filed by telephone, radio or in person, with any Coast Guard Marine Communications and Traffic Services (MCTS) Centre. While at sea, masters/operators who have filed a sail plan with an MCTS Centre are encouraged to file a daily position report during long trips. Upon your return, be sure to close (or deactivate) the sail plan you filed earlier. Forgetting to do so can result in an unwarranted search for you.

The information to be provided should be in accordance with the listing below.

- vessel identification; (boat's name and licence number)
- sail or power;
- vessel size and type;
- colour of hull, deck, and cabin;
- type of engines;
- other distinguishing features;
- radios and channels monitored; (MF / HF / VHF)
- Maritime Mobile Service Identity (MMSI);
- satellite and/or cellular telephone number;
- description of life rafts or small boats available;
- number and type of flares;
- number of lifejackets PFDs and/or survival suits;
- other safety equipment;
- name, address, and telephone number of vessel owner;
- other information;
- date and time of departure;
- number of people on board;
- departure point;
- route and stop-over points;
- destination:
- estimated date and time of arrival at destination; and
- telephone number of an emergency contact person..

SEARCH AND RESCUE IN CANADIAN AREAS OF RESPONSIBILITY

The Canadian Forces (CF) in co-operation with the Canadian Coast Guard (CCG) has overall responsibility for coordination of federal aeronautical and maritime Search and Rescue (SAR) activities in Canada, including Canadian waters and the high seas off the coasts of Canada. The CF provides dedicated SAR aircraft in support to marine SAR incidents. The CCG coordinates maritime SAR activities within this area and provides dedicated maritime SAR vessels in strategic locations. Joint Rescue Coordination Centres (JRCC) are maintained at Victoria, B.C., Trenton, Ont. and Halifax, N.S. These centres are staffed 24 hours a day by Canadian Forces and Canadian Coast Guard personnel. Each JRCC is responsible for an internationally agreed designated area known as a Search and Rescue Region (SRR). In addition, Maritime Rescue Sub-Centres (MRSC), staffed by Coast Guard personnel are maintained at St. John's, Nfld. and at Québec, QC. to coordinate local marine SAR operations.

JRCC TRENTON 1-800-267-7270 (Central Canada only)

Emergency telephone number 613-965-3870 613-965-7190 (fax) 066-2282 (telex)

431699928 / 29 (telex - INMARSAT C)

JRCC HALIFAX 1-800-565-1582 (Maritime Region only)

Emergency telephone number 902-427-8200 Telex number Inmarsat B on Atlantic Ocean Region West 902-427-2114(fax)

584-331699943 (telex-INMARSATB on AOR West)

493020114 / 15 (telex – INMARSAT C)

MRSC QUEBEC 1-800-463-4393 (Québec Region only)

Emergency telephone number 418-648-3599 418-648-3614 (fax)

MRSC ST. JOHN'S

Emergency telephone number

Telex number

1-800-563-2444 (Newfoundland & Labrador Region only)

709-772-5151

709-772-2597 (fax).

581-331600063 (telex – INMARSAT B – AOR East)

431699930 / 31 (telex – INMARSAT C)

016-4044 (telex)

Canadian Coast Guard Auxiliary

The Canadian Coast Guard Auxiliary (CCGA) is an Association of approximately 4500 dedicated volunteers operating close to 1300 vessels to support the Canadian Coast Guard in Marine Search and Rescue.

For more information on maritime SAR services in Canada, refer to Section 28 of the Annual Edition of Notices to Mariners, published by the Canadian Coast Guard, Marine Navigation Services.

MARINE COMMUNICATIONS AND TRAFFIC SERVICES MESSAGE SERVICE

Message Charges

Messages subject to full international charges:

- (a) Ouarantine messages addressed to "Ouarantine"
- (b) Messages requesting a doctor to meet a ship on arrival
- (c) Ships' business messages
- (d) Private messages.

Applicable charges are available on request from MCTS Centres

Messages handled without charge by MCTS Centres:

- (a) Messages pertaining to weather or ice information and ice routing.
- (b) Messages concerning aids to navigation.
- (c) Amver Messages, addressed Amver HALIFAX
- (d) Radiomedical messages.
- (e) Messages reporting pollution.
- (f) Messages addressed to a port or a member of the Canadian Coast Guard that involves a report of a ship movement, position or condition.
- (g) Messages addressed to a Joint Rescue Co-ordination Centre (JRCC) and Marine Rescue Sub-Centres (MRSC).
- (h) Canadian Pilotage messages
- (i) Official Naval messages.

Weather Messages

Weather reports in the international meteorological code, made at the standard synoptic hours of 0000, 0600, 1200 and 1800 UTC, are solicited from ships of all nationalities which have been recruited by their own national weather service, or other weather services, to make weather reports on a regular basis. These reports should be made and transmitted to the nearest MCTS Centre, irrespective of the ship's position. In fact, reports made close to, or even within sight of land, are equally important to reports made offshore, due to the greater variability of weather conditions in proximity to a coastline.

Pollution Messages

All vessels plying Canadian and adjacent waters are requested to report oil slicks or pollution of any type to the nearest MCTS Centre.

Medical Advice Messages

Masters of ships may obtain medical advice by addressing a radiotelegram to "Radiomedical" and routing it via the nearest MCTS Centre which will refer the message to the nearest medical authority and transmit the reply to the ship.

Quarantine Messages

1. In the following circumstances only, the person in charge of a vessel shall, by radio, at least 24 hours prior to the vessel's estimated time of arrival at its port of destination, notify the quarantine officer at the quarantine station designated in paragraph (3) for that port of the occurrence:

Where, in the course of a voyage of a vessel,

- (a) a member of the crew or a passenger on board the vessel exhibits one or more of these symptoms,
 - Fever or chills (profuse sweating, unusually flushed or pale skin, shivering;
 - Rash:
 - Stiff neck;
 - Confusion or disorientation;
 - Bruising or bleeding without injury;
 - Yellowing of skin or eyes;
 - Profuse watery or bloody stools;
 - Cough, difficulty breathing and/or sore throats;
 - Severe headache;
 - Colored sputum (yellow, green, brown), or sputum containing blood; or,
 - Death

that person should be isolated in order to minimize the exposure of crew and passengers, and the Quarantine Station / Quarantine Officer contacted.

- (b) the person in charge of the vessel is, during the period
 - i. of four weeks preceding the estimated time of arrival of the vessel, or
 - ii. since he last submitted a declaration of health as required by section 16, whichever is the lesser, aware of any instance of illness among the crew or passengers that he suspects is of a communicable nature and may lead to the spread of disease,
- (c) the vessel has, within sixty days of its estimated time of arrival in Canada, been in a country that, in the opinion of a quarantine officer, is infected or suspected of being infected a communicable disease, or
- (d) a certificate establishing that the vessel has been de-ratted or exempted from de-ratting procedures has expired or is about to expire.
- 2. At the same time, the person in charge of a vessel shall, by radio, provide the quarantine officer with the following information:
 - (a) the name and nationality of the vessel;
 - (b) the ports called at during the voyage of the vessel;
 - (c) the nature of the cargo on board the vessel;
 - (d) the number of persons comprising the crew of the vessel;
 - (e) the number of passengers on board the vessel;
 - (f) the port of destination of the vessel and the name of the vessel's owner or, if the owner is not in Canada, the name of the vessel's agent in Canada;
 - (g) the condition of all persons on board the vessel and details of any death or illness occurring during the voyage;
 - (h) whether the body of any person is being carried on the vessel;
 - (i) the estimated time of arrival of the vessel at the port of destination; and
 - (j) the date and place of issuance of any de-ratting certificate or de-ratting exemption certificate applicable to the vessel.
- 3. For the purposes of paragraph (1), the quarantine station for vessels bound for
 - (a) a port in the Province of Nova Scotia or a port in the Province of Prince Edward Island, is Quarantine Station, Halifax, Nova Scotia 902-873-7659 (24 hour phone line);

- (b) a port in the Province of New Brunswick, is Quarantine Station, Halifax, Nova Scotia 902-873-7659 (24 hour phone line);
- (c) a port in the Province of Newfoundland, is Quarantine Station, Halifax, Nova Scotia 902-873-7659 (24 hour phone line);
- (d) a port in the Province of Quebec or any Canadian port via the St. Lawrence River, is Quarantine Station, Montreal, Quebec 514-229-2561(24 hour phone line);
- (e) a port on Hudson Bay is Quarantine Station Calgary, Alberta 403-221-3067 (24 hour phone line)

When circumstances outlined in paragraph (1) require vessels bound for any St. Lawrence River or Great Lakes port to notify the quarantine officer, this should be done preferably 48 hours prior to arrival at Quebec City or, if not preceding past Quebec City, 48 hours prior to arrival at destination. To ensure prompt and efficient service, messages should be sent through an east coast MCTS Centre.

4. The person in charge of a vessel who wishes to change his port of destination after receiving instructions from the quarantine officer shall notify him of such change and request new instructions.

Pilotage Messages

For detailed information on Notices to Obtain Pilot, Notices of Departure, Notices of Movage, Optional Notices and Required Information, please refer to Section 23 of the latest Annual Edition of Notices to Mariners, published by the Canadian Coast Guard, Marine Navigation Services.

Official Naval Messages

For detailed information on Naval Messages to Canadian and Commonwealth ships in Canadian areas, please refer to Section 39 of the latest Annual Edition of Notices to Mariners, published by the Canadian Coast Guard, Marine Navigation Services.

ICE ADVISORY SERVICE

Gulf of St. Lawrence, St. Lawrence River, South and East Coasts of Newfoundland and Labrador Coast

Commencing December 15, each year, and until ice in the Gulf of St. Lawrence is no longer likely to hinder shipping, an experienced ship master will be attached to ECAREG CANADA as Ice Operations Officer. During this period, vessels inbound to the Gulf of St. Lawrence should report using the address ECAREG CANADA through any MCTS Centre twenty-four hours prior to their expected entry into the Cabot Strait, stating their position, destination, whether loaded or in ballast, ice class if any, and classification society. This procedure will facilitate the passing of ice information and a suggested shipping track as necessary. Ships bound for ports on the South and East Coasts of Newfoundland and along the coast of Labrador should also report to ECAREG CANADA for ice information, routing and escort as necessary. Gulf shipping interests are requested to maintain close contact with the Ice Operations Office so that all routing and escort assistance needed may be provided as circumstances permit.

All radio communications mentioned in this notice addressed to ECAREG CANADA and passed through a MCTS Centre will be handled free of charge to the ship.

Ships outbound from Canadian ports east of Sept-Iles should report to the Ice Operations Officer ECAREG CANADA through any MCTS Centre twenty-four hours in advance of sailing time, if possible, for ice information, suggested routing and escort if deemed necessary.

Ships outbound from Sept-Iles and ports west of Sept-Iles may obtain the latest bulletin pertaining to reported ice conditions, forecast and recommended routing for the Gulf and River St. Lawrence by calling Quebec, Les Escoumins or Montreal MCTS Centre on the control frequency of the sector in which the vessel is located. Vessels bound seaward when passing off Sept-Iles, should further contact ECAREG CANADA through any MCTS Centre for up-to-date ice information, routing and icebreaker escort if required.

During the winter navigation season, MCTS Centres broadcast ice advisories and forecasts on a regular schedule as indicated in the MCTS Centre listings. Ice forecasts will normally be for five day periods when ice is light and of no

immediate concern to shipping. Frequency of issue will be increased and forecast periods shortened when direct tactical support to shipping is required. Ice advisories will normally include a summary of existing ice conditions, a forecast of ice conditions for an appropriate period (2 to 5 days) and may include a suggested shipping track. This information is also broadcast in the form of charts by facsimile from stations so equipped.

Great Lakes

The Fisheries and Oceans Canada operates a service for the support of vessels navigating in Canadian waters of the Great Lakes during the season in which navigation is restricted by ice. This service includes the promulgation of up-to-date information on ice conditions, routing advice, aids to navigation and the provision of icebreaker support when available and considered necessary, also the formation of convoys when conditions dictate.

The following information outlines the services and facilities provided by the Canadian Coast Guard:

- (1) Assembly and distribution of ice advisories, forecasts, and synoptic ice charts.
- (2) Routing advice through light ice conditions, upon request.
- (3) Coordination and direction of icebreaker support activities.

The service is known as "Ice Sarnia" and will commence December 1st, each year, and terminate when ice conditions permit unrestricted navigation.

Address: Ice Sarnia

Canadian Coast Guard,

105 Christina St. South Telephone: 519-383-1855 SARNIA ON N7T 7W1 Facsimile: 519-337-2498

The Canadian Coast Guard has a limited number of icebreakers available for the support of shipping and these are heavily committed. Therefore, it is emphasized that icebreaker support cannot always be provided on short notice. In order to make the most efficient use of available resources it is most important that Ice Sarnia be kept informed about the position and projected movements of vessels on the Great Lakes. Masters or agents should notify Ice Sarnia as soon as their sailing time is known, giving their ETD and destination in order to receive the most up-to-date information.

Arctic and Hudson Strait and Bay

The Canadian Coast Guard operates a service for the support of ships navigating in the ice congested Canadian Arctic, and other ice free northern waters, during the summer navigation season. Access to this service can be obtained by calling NORDREG CANADA. This support includes the promulgation of up-to-date information on ice conditions; advice on routes; aids to navigation; icebreaker support when available and considered necessary; and organization of convoys when conditions dictate.

Throughout the navigation season, ice advisories, forecasts and synoptic ice charts are issued by Canadian Ice Service in Ottawa, and broadcast daily by radio and radio facsimile. Particulars of the time of transmissions and radio frequencies used, etc. will be found in Part 2 of this publication.

The Canadian Coast Guard has established an MCTS Centre at Iqaluit, Nunavut. The Centre opens in mid June and is staffed until mid-November.

Address: Fisheries and Oceans Telephone: 867-979-5724 or 979-5269

Canadian Coast Guard

NORDREG Canada

P.O. Box 189

Facsimile: 867-979-4264

Telex (Telefax): 063-15529

Telegraphic Identifier: NORDREG CDA

IQALUIT NU X0A 0H0 E-mail: IQANORDREG@INNAV.GC.CA

The Canadian Coast Guard has a limited number of icebreakers available for the support of shipping. Because of heavy commitments, it is emphasized therefore, that icebreaker support cannot always be provided at short notice. In order to make the best possible use of available resources, it is most important that the Arctic Canada Traffic System (NORDREG CANADA) is as well informed as possible about the position and movements of ships in the Canadian Arctic. Ships bound for or leaving Hudson Bay, or the High Arctic are required to contact NORDREG CANADA in accordance with procedures specified in Part 3, Vessel Traffic Services, of this publication.

CANADIAN HYDROGRAPHIC SERVICE - Conversion of charts to North American Datum 1983 (NAD 83)

The Canadian Hydrographic Service is converting navigational charts to the North American Datum 1983 (NAD 83).

NAD 83 is considered equivalent to the World Geodetic System 1984 (WGS 84) recently adopted as the horizontal datum for world-wide use. The advantage of the new datum is its compatibility with the NAVSTAR (GPS) satellite positioning system.

The difference in the position of the same point when quoted on the former NAD 27 and the new NAD 83 is up to 60 metres on the Atlantic coast, about 110 metres on the Pacific coast and almost zero near Chicago although there can be local discrepancies from these approximations.

Horizontal positions obtained from satellite receivers are based on NAD 83 (WGS 84) and must be converted to the horizontal chart datum (if not NAD 83) before being used. In some cases, the horizontal position obtained by LORAN-C coordinate converters, after due correction for Additional Secondary Factor (see Part 6), is based on NAD 83 and must also be converted to horizontal chart datum (if not NAD 83).

A note has been added to nearly all existing charts indicating the datum on which the chart is based, and providing the increase or decrease required to convert the latitude and longitude from NAD 83 to the chart datum.

New Charts and New Editions being produced are now almost always based on NAD 83.

Note: Latitude and longitude positions given in this publication are in NAD 27 unless otherwise indicated.

WORLDWIDE RADIO NAVIGATIONAL WARNING SYSTEM

(a) NAVAREA Warnings

In accordance with the decisions of the Ad Hoc Joint IHO/IMO Committee on Radio Navigational Warnings, the United States conditionally, on January 1, 1977, accepted responsibility for NAVAREAS IV and XII in the Worldwide Radio Navigational Warning System.

NAVAREA IV covers the North Atlantic Ocean West of 35°W and north of 7°N. These messages are broadcast from: Boston (NMF) at 0140 UTC on 6314, 8416.5 and 12579 FIB and at 1630 UTC on 8416.5, 12579 and 16806.5 FIB.

NAVAREA XII covers the North Pacific Ocean east of 180° and north of the equator, plus the area north of 3° 25'S and east of 120°W. These messages are broadcast by Honolulu (NMO) at 0330 and 1730 UTC daily, on 8416.5, 12579 and 22376 kHz FIB.

The area warning system should normally be sufficient for the ships which proceed along the main oceanic routes of an Area. However, in some waters knowledge of the coastal warnings may prove necessary.

(b) Subject Matter Of Warnings

The following list of messages considered suitable for transmission as warnings in this service is not exhaustive and should only be regarded as a guideline. Furthermore, it presupposes that sufficiently precise information about the items has not previously been disseminated in Notices to Mariners.

- (i) casualties to lights, fog signals and buoys affecting main shipping lanes;
- (ii) the presence of dangerous wrecks in or near main shipping lanes and, if relevant, their marking;
- (iii) establishment of major new aids to navigation or significant changes to existing ones when such establishment or change might be misleading to shipping;
- (iv) the presence of large unwieldy tows in congested waters;
- (v) drifting mines;
- (vi) areas where search and rescue (SAR) and anti-pollution operations are being carried out (for avoidance of such areas);
- (vii) ships and aircraft on or over the open sea reported in distress, seriously overdue or missing;
- (viii) the presence of newly discovered rocks, shoals, reefs and wrecks likely to constitute a danger to shipping, and, if relevant, their marking;
- (ix) unexpected alteration or suspension of established routes;
- (x) cable or pipe-laying activities, the towing of large, submerged objects for research or geophysical exploration, the employment of manned or unmanned submersibles, or other underwater operations constituting potential dangers in or near shipping lanes;
- (xi) establishment of off-shore structures in or near shipping lanes;
- (xii) significant malfunctioning of radio-navigation services;
- (xiii) information concerning special operations which might affect the safety of shipping, sometimes over wide areas, e.g. naval exercises, missile firings, space missions, nuclear tests, etc. These should be initially promulgated by the Area Co-ordinator concerned not less than five days in advance of the scheduled event, wherever possible. The messages should be repeated as considered necessary until the event is completed.
- (xiv) Navigational warnings broadcast within the Area should be consecutively numbered throughout the calendar year.

(c) Coastal Warnings

Coastal warnings are concerned with information listed in paragraphs (a) above which is sufficient for mariners to know when they enter a given Sub-area or region. However, coastal warnings should not be restricted to main shipping lanes.

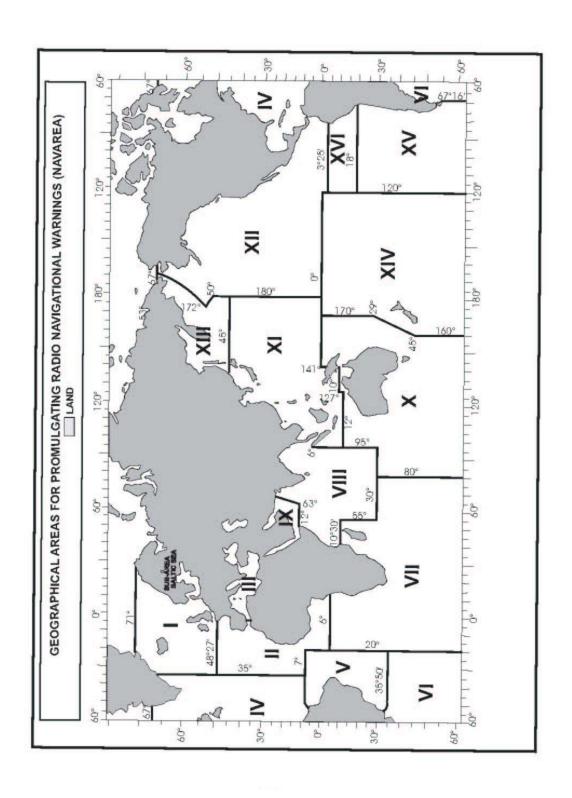
(d) Local Warnings

Local warnings supplement the coastal system by giving detailed information on aspects which the ocean-going ship normally does not require. However, local warnings may be issued in the national language only.

(e) Danger Messages

In accordance with Section 82 of the Navigation Safety Regulations, the master of a ship which meets with dangerous ice, a dangerous derelict, or any other direct danger to navigation, a tropical storm or a storm which the master believes might develop into a tropical storm, or encounters sub-freezing air temperatures associated with gale force winds causing severe ice accretion on superstructures, or winds of force 10 or above on the Beaufort scale for which no storm warning has been received, shall communicate this information to ships in the vicinity and the nearest coast station.

Please refer to Section 82(4) of the Navigation Safety Regulations for the information required in a danger message.



INSPECTION OF RADIO APPARATUS

The Canadian Coast Guard on behalf of Transport Canada, is responsible for the conduct of ship radio inspections pursuant to the Canada Shipping Act. Queries concerning the standards governing inspections of radio apparatus fitted in ships for safety purposes may be sent to:

Project Manager, Ship Radio Inspection Fisheries and Oceans Canada Canadian Coast Guard 200 Kent Street, 7th Floor, Station 7S022 OTTAWA ON K1A 0E6

Tel: 613-998-1520 Fax: 613-998-9258

E-Mail: pittmand@dfo-mpo.gc.ca

Owners and masters of Canadian ships, that are required to be fitted with a radio installation under the provisions of the *Canada Shipping Act*, are reminded that they are responsible to ensure that the installation is inspected by a Radio Inspector not more than one month before the ship first proceeds to sea and at least every year thereafter in order that they may be issued with an appropriate Safety or Inspection Certificate.

A non-Canadian ship which does not have a valid Radio Safety Certificate on board may be detained by a port Customs Officer until a valid certificate has been obtained.

A fee for the conduct of ship radio inspections is levied in accordance with the *Ship Radio Inspection Fees Regulations*. The fee is payable upon completion of the inspection.

Applications for radio inspections of Canadian ships should be filed with the Canadian Coast Guard (CCG). The form entitled: Application for Radio Inspection, Compulsory Fitted Ships (82-0643) should be used for this purpose. Such request by owners, agents or masters should be received by the CCG at least three days (72 hours) in advance of the date requested for inspection.

The owners, agents or masters of Canadian ships requiring radio inspection while outside of Canada should make application by fax or letter to:

Transport Canada Director General Marine Safety Directorate Tower C, Place de Ville 330 Sparks Street OTTAWA ON K1A 0N8 Telephone: 613-998-0611

Fax: 613-954-1032

Non-Canadian ships (except Liberian ships) may obtain a cargo Ship Safety Radio Certificate (GMDSS) in Canada. Applications should originate with the owners, ship agents or masters of the ships concerned and be supported by confirmation from the Consul or other official representative of the country in which the ship is registered. Confirmation shall be in writing. It is the responsibility of the owner, agent or master to contact the Consul or official representative and arrange to submit the necessary confirmation to the local CCG inspection office. Where time is limited, a verbal request for an inspection may be accepted from the Consul or official representative (a person who has a document from an Administration giving him the official power to act on their behalf), provided that the confirmation is submitted later.

Applications for radio inspections of Canadian ships wintering in U.S. Great Lakes ports should be made by the owners, agents or masters on F.C.C. form 809 and filed directly with the FCC Field Engineering office nearest to the port of which the inspections are desired. Copies of form 809 are available from any of the FCC offices serving the Great Lakes.

Ship Radio Inspection Contacts:

Canadian Coast Guard

Newfoundland and Labrador Fisheries and Oceans Canada Telephone & Fax: 1888-454-3177

Outside Canada Telephone & Fax: 1-709-454-3177

Charlottetown, Prince Edward Island, C1A 7M8

Supervisor of Technical Maintenance Fisheries and Oceans Canada Canadian Coast Guard P.O. Box 1236

Telephone: 902-566-7976

Fax: 902-566-8221

Saint John, New Brunswick, E2L 4B3 Supervisor of Technical Maintenance

Fisheries and Oceans Canada Canadian Coast Guard P.O. Box 700, Water Street **Telephone:** 506-636-4743

Fax: 506-636-5000

Dartmouth, **Nova Scotia**, B2Y 4A2 Supervisor of Technical Maintenance Fisheries and Oceans Canada Canadian Coast Guard

P O Box 1006

Telephone: 902-426-3753 Fax: 902-426-6908

Yarmouth, Nova Scotia, B5A 4B1

Senior Technician Fisheries and Oceans Canada Canadian Coast Guard

P.O. Box 37

Telephone: 902-742-6858

Fax: 902-742-0411

Canadian Coast Guard Quebec Fisheries and Oceans Canada Telephone: 514-283-5684

Fax: 514-283-2129

Prescott, **Ontario**, K0E 1T0

Supervisor of Technical Maintenance

Fisheries and Oceans Canada

Canadian Coast Guard Ships Electronic Workshop

401 King Street West, P.O. Box 1000 **Telephone:** 613-925-2865 ext. 246

Fax: 613-925-5540

Sarnia, Ontario, N7T 7W1

Supervisor of Technical Maintenance

Fisheries and Oceans Canada

Canadian Coast Guard Ships Electronic Workshop

105 Christina Street South

P.O. Box 2839

Telephone: 519-464-5106

Fax: 519-464-5108

Thunder Bay, **Ontario**, P7B 6R9 Supervisor of Technical Maintenance

Fisheries and Oceans Canada

Canadian Coast Guard Ships Electronics Workshop

100 Main Street, Suite 400 Telephone: 807-345-8084 Fax: 807-344-5893

Sydney, **Nova Scotia**, B1P 6K7

Supervisor of Technical Maintenance Fisheries and Oceans Canada Canadian Coast Guard Ships

1190 Westmount Road, P.O. Box 8630

Telephone: 902-564-7750 Fax: 902-564-8608

RADIO STATION LICENSING AND MMSI NUMBERS

To obtain further information on radio station licensing and Maritime Mobile Service Identity (MMSI) numbers contact Industry Canada at: http://strategis.ic.gc.ca/epic/internet/insmt-gst.nsf/vwGeneratedInterE/sf01742e.html or locate the nearest Industry Canada office through the local telephone directory.

76-000-000-PF-JP-001 (12-2004)

Pêches et Océans Canada

Coast Guard

Garde côtière

APPLICATION for a RADIO INSPECTION of a COMPULSORILY FITTED VESSEL								
Name of Vessel	Port of Registry		MMSI		Call Sign			
Gross Tonnage		Length		Official Nu	mber		IMO Number	
Agent: Name, Addre	ss, Telephone	Number		Check if a	Change	o this inspectors the second of Voyage? of Certificate	nspection?	
				1			me & Telephone	
Check appropriate V ☐ Cargo	essei type	☐ Fishii	na	Inspection	Requested -	Date:	Tin	ie:
☐ Tanker ☐ Government Sear ☐ Drilling Unit ☐ Oil and Gas Stand	ch & Rescue	ish Processing Pass Tow-	enger	Port, dock	or quay, at w	vhich survey	is to be condu	cted
Application is hereby Treaty as applicable document(s) be issue Please check all app	If after inspect d.	ction the radio	•					
	-							
RADIO INSPEC		`	•					
RADIO INSPEC	TION CERTIFIC	ATE (Great La	kes Basin)					
☐ CARGO SHIP R	ADIO SAFETY	CERTIFICATE	`	☐ Rene	wal Survey			
☐ REPORT OF IN:	SPECTION con-	cerning a radio	installation on	board a passe	enger ship eng	gaged in inte	rnational voyage:	S.
LETTER OF CE international voy		oncerning a ra	dio installation of	on board a No	n-Convention	cargo ship t	o allow Customs	Clearance for an
	Home	Trade	Minor Wat	ters 🗌 I or	Inland Wate	ers 🔲 I or	Foreign	International
VOVA OF TYPE	☐ I, ☐ II,	☐ III or ☐ IV		ΠП				
VOYAGE TYPE: Sea Area: A1 A2 A3 A4								
CONDITIONS OF INSPECTION:								
a) Transport Canada is responsible for the conduct of ship radio inspections pursuant to the Canada Shipping Act. The Minister of Transport has appointed Canadian Coast Guard Radio Inspectors to carry out radio inspections.								
b) An application for inspection shall be submitted to the Canadian Coast Guard office nearest to the desired port of inspection at least 3 days in advance of inspection date.								
c) When an inspection is requested of a ship registered elsewhere than in Canada, the application must be accompanied by a letter from the Consul or another official representative of the Administration concerned in accordance with Regulation 13, Chapter 1, SOLAS 1974, or Protocol 1988.								
d) The ship's electi determined for the	•	be available a	nd a person wit	th authority to	operate the ra	adio station s	shall be on board	at the date and time
e) Fees are payable as outlined in the Ship Radio Inspection Fees Regulations (SRIFR)								
	Date			Signature of	Agent or Ma	ster		

82-0643

SYSTEMS

GMDSS - GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM IN CANADA

What is GMDSS?

The Global Maritime Distress and Safety System (GMDSS) is an international system using improved terrestrial and satellite technology and ship-board radio systems. It ensures rapid alerting of shore-based rescue and communications authorities in the event of an emergency. In addition, the system alerts vessels in the immediate vicinity and provides improved means of locating survivors.

GMDSS was developed through the International Maritime Organization (IMO) and represents a significant change in the way maritime safety communications are conducted. While it is mandatory for all ships subject to the International Convention for the Safety Of Life At Sea (SOLAS) (cargo ships 300 gross tons or greater and all passenger vessels, on international voyages), GMDSS will impact on all radio-equipped vessels, regardless of size. All SOLAS ships are required to fully comply with GMDSS.

Why GMDSS?

GMDSS was developed to **SAVE LIVES** by modernizing and enhancing the current radiocommunications system. By utilizing satellite and digital selective calling technology, GMDSS provides a more effective distress alerting system. It improves the current system by:

- increasing the probability that an alert will be sent when a vessel is in distress;
- increasing the likelihood that the alert will be received;
- increasing the ability to locate survivors;
- improving rescue communications and coordination; and
- providing mariners with vital maritime safety information.

Maritime Safety Information (MSI)

Maritime Safety Information broadcasts, which comprise distress alerts, SAR information, navigational and weather warnings, as well as forecasts, can be received in three different ways in GMDSS:

- 1. NAVTEX receivers are fully automatic and receive broadcasts in coastal regions up to 300 nautical miles offshore.
- 2. Inmarsat-C terminals receive Enhanced Group Call SafetyNET (EGC) broadcasts for areas outside NAVTEX coverage.
- 3. HF Narrow Band Direct Printing (NBDP) receivers can be used where service is available as an alternate to EGC.

GMDSS Sea Areas - International

Although ship-to-ship alerting is still an important function in GMDSS, the emphasis is on two way communications between ships and shore facilities. All GMDSS ships must be capable of communicating with the shore and transmitting a distress alert by two different means. The equipment carried by a GMDSS ship is therefore determined by its area of operation and the availability of shore-based communications services.

There are four "Sea Areas" defined in the GMDSS:

Sea Area A1 Within range of shore-based VHF/DSC coast station (40 nautical miles)

Sea Area A2 Within range of shore-based MF/DSC coast station (excluding sea areas A1)(150 nautical miles)

Sea Area A3 Within the coverage of an Inmarsat geostationary satellite (approximately 70°N to 70°S)

(excluding sea areas A1 & A2)

Sea Area A4 The remaining areas outside sea areas A1, A2 & A3 (Polar Regions)

GMDSS Sea Areas - Canada

In Canada, as a result of consultations with the Canadian marine industry, it has been decided to implement sea areas A1 on the east and west coasts. Outside of A1 will be an A3 sea area with an A4 sea area in the Arctic.

Consideration was given to the implementation of an A2 sea area, but due to budgetary constraints and the marine industry's preference for sea areas A1 and A3, sea area A2 is not being planned at this time. A1 sea area for the Great Lakes and St. Lawrence River is currently under construction.

Communications between GMDSS Vessels & Non-GMDSS Vessels

Since February 1, 1999, GMDSS larger ships have been maintaining an automated listening watch on GMDSS VHF/DSC Ch 70 and MF/DSC 2187.5 kHz. This at time creates the situation, where vessels fitted with traditional, non-GMDSS radio equipment, may have had difficulties alerting or contacting a GMDSS ship. The Coast Guard is addressing this by monitoring both GMDSS and traditional distress frequencies. Canadian Coast Guard MCTS Centres will continue to monitor 2182 kHz and Ch 16 for distress, urgency, safety and calling purposes for the foreseeable future. Further, the Coast Guard and Transport Canada encourage all vessels to fit VHF/DSC in the interest of increased safety.

Important Safety Notice concerning VHF/DSC

After having received a distress, urgency or safety broadcast announcement on VHF/DSC Channel 70 the VHF/DSC equipment will automatically switch the DSC radio to VHF Channel 16 for the subsequent voice announcements. Mariners who are required by the *VHF Practices and Procedures Regulations* to monitor a specific VTS sector frequency should return the radio to the appropriate working frequency after determining, on Channel 16, the impact of the VHF/DSC alert broadcast announcement on their vessel's' operations.

It has been determined that vessels maintaining a listening watch on a VTS sector frequency, per the requirements of the *VTS Zones Regulations* may, if navigating in congested waters, <u>temporarily</u> discontinue DSC watchkeeping on VHF/DSC Channel 70 until the required manoeuvre has been completed.

Vessels inadvertently or accidentally transmitting a distress/urgency/safety broadcast on VHF/DSC must cancel the distress/urgency/safety broadcast on VHF Channel 16. Intentionally sending a false distress alert carries penalties under both the *Canada Shipping Act* and the *Radiocommunications Act*.

VHF/DSC equipment must be programmed with the correct Maritime Mobile Service Identity (MMSI) numbers (reference Radio Station licensing and MMSI numbers section in Part 4, also reference section 2 for the MCTS Centres' MMSI numbers).

Canadian Coast Guard Marine Communications and Traffic Services (MCTS) Centres

To help ease the transition to GMDSS and bridge the communication gap between the two systems, Canadian Coast Guard MCTS Centres will continue to monitor the current distress and safety channels VHF Ch16 and MF 2182 kHz for the foreseeable future. Once Canada's sea areas have all been implemented, lower cost DSC equipment is available, and it is determined that these services are no longer required, these listening watches may be discontinued. This decision will be evaluated at that time.

To supplement the broadcasting of Maritime Safety Information (MSI) on NAVTEX and INMARSAT EGC, MCTS Centres will continue safety broadcasts using the existing VHF continuous marine broadcast system.

CANADIAN NAVTEX SERVICE

NAVTEX Service is available from the following transmitting sites:

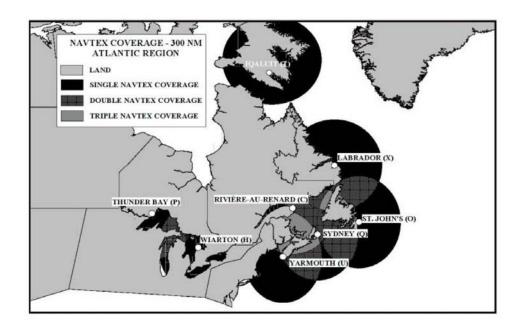
Site	Position	Range (NM)	ID
St. John's	47 30N 52 40W	300	0
Labrador	53 42N 57 02W (NAD 83)	300	X
Sydney	46 10N 60 00W	300	Q (English)
			J (French)
Yarmouth	43 45N 66 07W	300	U (English)
			V (French)
Rivière-au-Renard	50 15N 66 10W	300	C (English)
			D (French)
Thunder Bay	48 25N 89 20W	300	P
Wiarton	44 20N 81 10W	300	Н
Iqaluit	63 43N 68 33W	300	T (English)
			S (French)

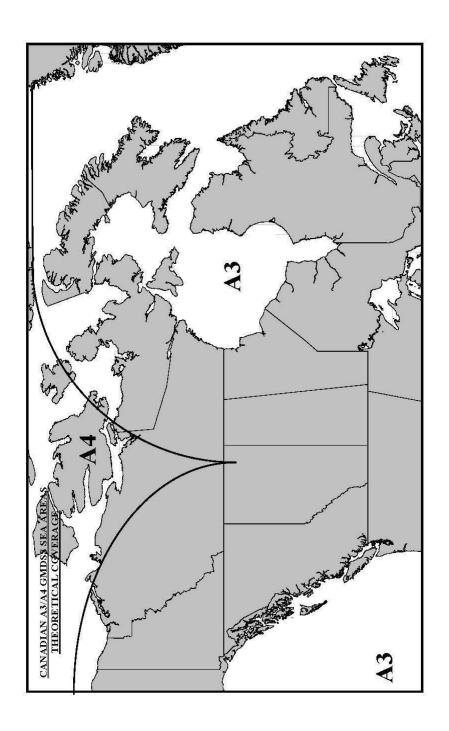
The service uses the frequency 518 kHz (English) and 490 kHz (French) on a timeshared basis for the broadcast of the following subject-Indicator content:

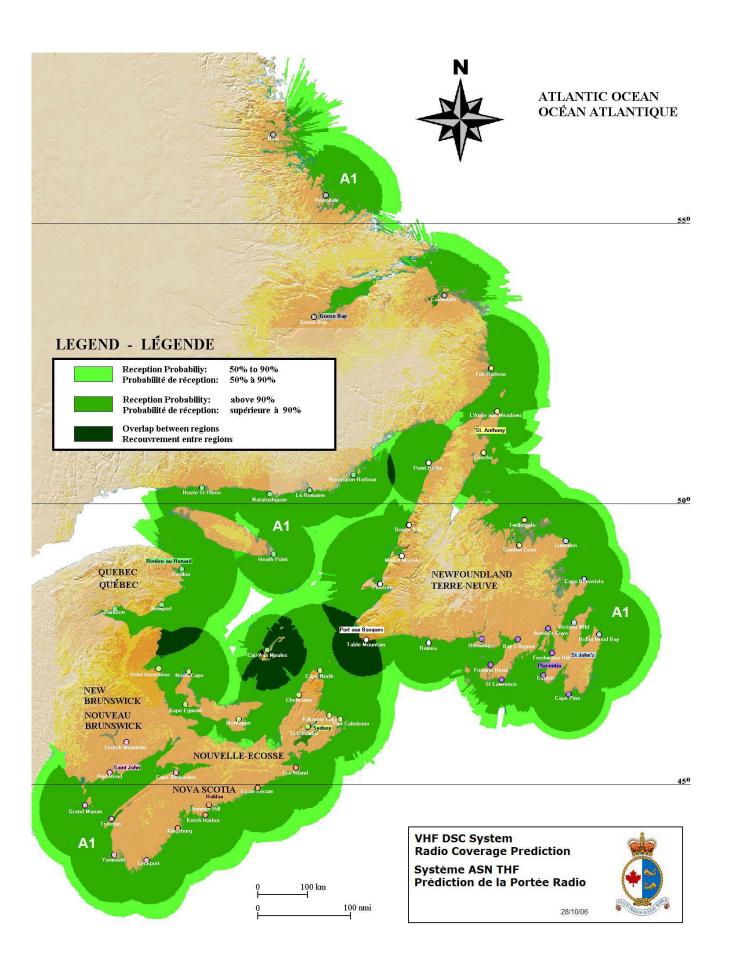
(A) Navigational Warnings	(E)	Meteorological forecasts
(B) Meteorological Warnings	(H)	Loran-C messages
(C) Ice Reports	(K)	DGPS Notices to Shipping

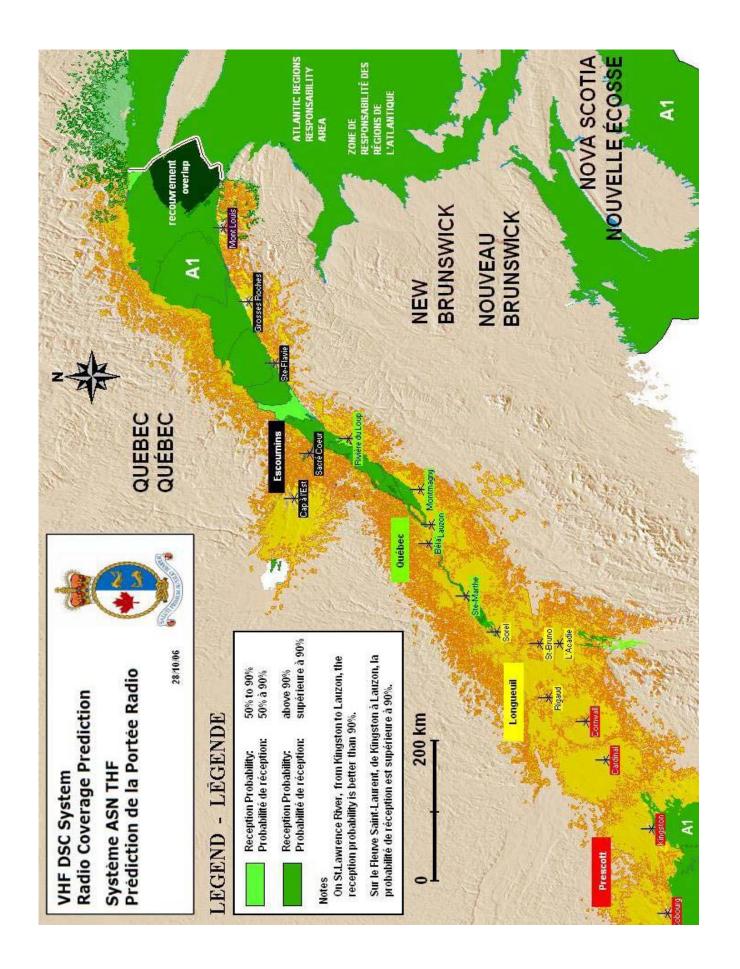
(D) Search and Rescue Reports

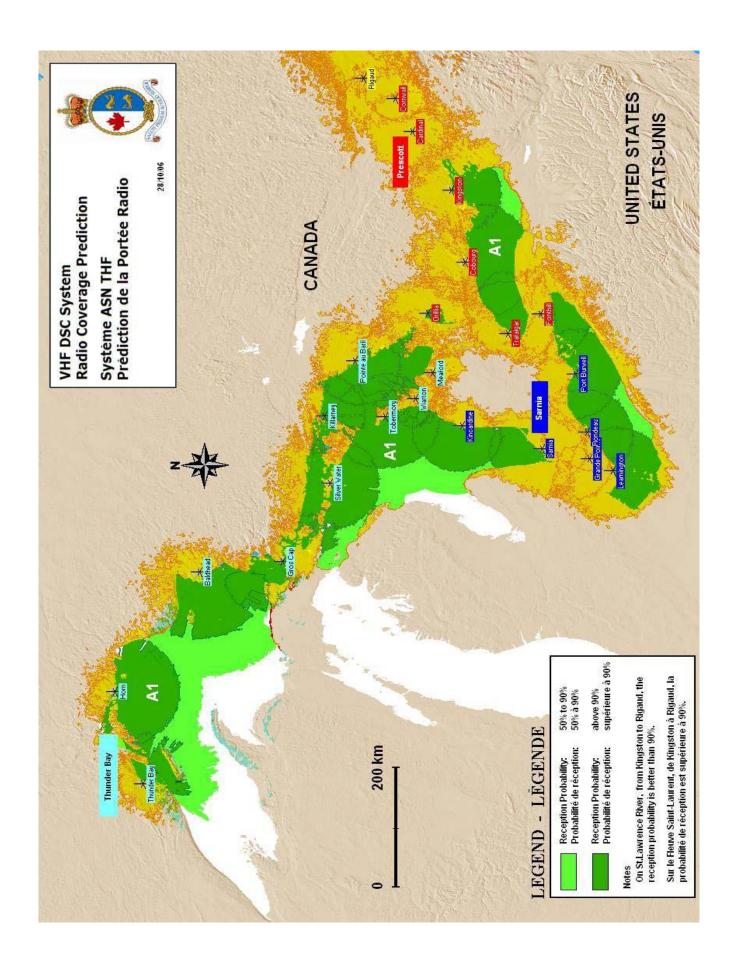
Broadcast time and content is shown in individual MCTS Centre listings. For Wiarton site consult Prescott MCTS listing.











TRANSPORT CANADA'S REQUIREMENTS FOR THE GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS) AND GUIDANCE ON IMPORTANT OPERATIONAL ALERTING PROCEDURES

Masters and radio operators are urged to review and use the following important information on the use of GMDSS radio equipment to help ensure the GMDSS and Search and Rescue (SAR) services can operate as efficiently and effectively as possible.

New Regulations

Following several years of development and consultation, the new *Ship Station (Radio) Regulations*, 1999 and the new *Ship Station (Radio) Technical Regulations*, 1999 came into force on April 1, 2001. These Regulations affect Canadian domestic ships operating on the seacoasts of Canada, which are not in a Vessel Traffic Services Zone, and that:

- are 20 metres in length or more and certified to carry more than 12 passengers; or
- have a gross tonnage of 300 tons or more

These ships will be carrying and using new radio equipment consistent with the GMDSS.

The new regulations also phase-in requirements over the next couple of years that will apply to smaller commercial ships operating on the seacoasts of Canada (Note in particular that by **April 1, 2002**, vessels 8 metres or more in length and operating more than 20 miles from shore will need an EPIRB. By **February 1, 2003**, tow boats, vessels carrying more than 6 passengers and vessels of closed construction more than 8 metres in length will need a VHF/DSC radio). In addition, amendments have been made to other regulations to update the requirements pertaining to survival craft radio equipment e.g., *Life Saving Equipment Regulations, Small Fishing Vessel Inspection Regulations and the Large Fishing Vessel Inspection Regulations and the Large Fishing Vessel Inspection Regulations*. The following table summarizes the carriage requirements of the *Ship Station (Radio) Regulations, 1999*. However the actual regulations should be consulted for specific requirements and are available at: http://www.tc.gc.ca/acts-regulations/GENERAL/C/CSA/menu.htm

DEMERGENCY POSITION INDICATING RADIO BEACONS (406 MHZ)

It is recommended that a float-free EPIRB be carried on board ships and pleasure crafts operating offshore. To be effective, 406 MHz EPIRBs **must be registered** in the National SAR Secretariat's 406MHz Canadian Beacon Registry you can register your 406 MHz EPIRBs by (telephone at 1 800 727-9414 by facsimile 613-996-3746) or on the web at: http://www.nss.gc.ca/site/cospas-sarsat/emergencyBeacon_e.asp

- Inmarsat announced that they discontinued their monitoring service of INMARSAT "E" EPIRB distress alerts as of **December 1, 2006**: http://www.maritime.inmarsat.com/news/00014622.aspx.
- Mariners should check with INMARSAT for exchange of any currently held INMARSAT 'E' EPIRBs. Further, mariners should only purchase and fit COSPAS-SARSAT 406 MHz EPIRBs.
- Float-free EPIRBs should not be fitted under ledges or structures that would impede their ability to float free. Do not install the EPIRB with lanyard attached to the superstructure of your vessel.
- Both manually activated EPIRBs and float-free EPIRBs should be readily accessible so that in the event of an emergency, it is available for immediate use.
- EPIRBs should be tested using the "TEST" button, by the operator every 6 months. This test should be recorded in the radio log.
- EPIRB battery packs and hydrostatic release units should be replaced per the manufacturer's recommendations.

A list of 406 MHz EPIRBs approved for use in Canada is available on the Web at: http://www.tc.gc.ca/MarineSafety/APCI-ICPA/default.asp

Ship Station (Radio) Regulations, 1999

Ships ≥ 20m and certified to carry >12 passengers, or ships ≥300gt
All other ships

Italics represent new requirements to be complied with by April 1st, 2001, unless otherwise indicated.

- Requirements for Safety Convention ships are not shown as they must comply with the Safety Convention
- · Requirement for ships on inland voyages and minor waters voyages are not shown since there are no new requirements
- Regulations do not apply to a pleasure yacht not carrying a master or crew for hire, or a tow-boat in a booming ground

	G A A1				
Equipment	Sea Area A1 or	Sea Area A3	Sea Area A4		
Equipment	VHF Area	Sea Alea AS	Sea Alea A4		
	VIII / II Ca	Yes			
	-unless ship operates within a VTS Zone,		1 2003 or until the sea area 41		
VHF Radio with DSC	is completed, whichever is latest	men will have until sumacity 5	1, 2003, or until the sea area 111		
(SSRR)	is completed, whenever is tutest	Yes			
(SSIII)	- by February 1, 2003, or after sea are		latest		
	• ships ≥8m in length and of closed cons	4 .			
	• ships carrying >6 passengers, and				
	• tow boats				
	-exempted are ships on a home-trade vo				
	-current VHF radiotelephone provisions	remain in effect until then			
Inmarsat Ship Earth Station with EGC,	no	Yes	Yes		
and MF Radio with DSC,		(EGC required only if	MF/HF option only		
Or		outside NAVTEX range)			
MF/HF Radio with DSC and NBDP		no			
(SSRR)					
	no	Yes	no		
	no	Yes	no		
		• if ≥ 150gt tow boat			
NAVTEX Receiver		 if ≥ 300gt cargo ship 			
(no change to current requirement-SSRR)		• if \geq 24m fishing, or			
		 if passenger ship 			
	Yes				
EPIRB (float-free)	Yes				
(SSRR)	• if ≥20m (and beyond home trade IV voyage)				
	• if tug >5gt and <20m if voyage >50 miles long and >2 miles from shore				
	• if ≥ 15gt and go beyond home-trade I				
	• if ≥8m and go beyond home-trade III		2		
	(Note: EPIRB does not have to be float- exempted are ships on home-trade voyage		OVID GOS		
D. I. T I. () (CADT.)		ges, class IV of fillinor waters v	, ,		
Radar Transponder(s) (SARTs) (SSRR, Life Saving Equipment	no	2	Yes		
Regulations, Large Fishing Vessel		2 are required, unless ship is certified to carry ≤12 passengers and is <500gt, then carry 1			
Inspection Regulations, and Small Fishing					
Vessel Inspection Regulations)	Yes				
· coot inspection regulations)	1 if 20m in length or over on > HTII voyages; but, can continue to carry 2 Class II EPIRBs instead until				
	one of the batteries expire.				
		Yes			
Survival Craft VHF Portable Radio	3 are required, unless ship is certified to carry ≤ 12 passengers and is ≤ 500 gt, then carry 2 (new				
(Life Saving Equipment Regulations,	ships on home-trade voyages,				
Large Fishing Vessel Inspection	n , , , , , , , , , , , , , , , , , , ,				
Regulations)					
	no Yes				
		3 are required if ship is certified to carry >12 passengers and			
		is >5gt			
		Yes			
Reserve Source of Energy	Yes				
	if ship is ≥20m, is carrying more than 6 passengers, or is a tow-boat				

DSC: digital selective calling **EGC**: enhanced group calling **NBDP**: narrow band direct printing **Additional requirements:** emergency procedures card, operating and routine maintenance manuals, consumable spare parts, radio publications, time piece, weather facsimile (Arctic), spare antennas (some ships ≥20m).

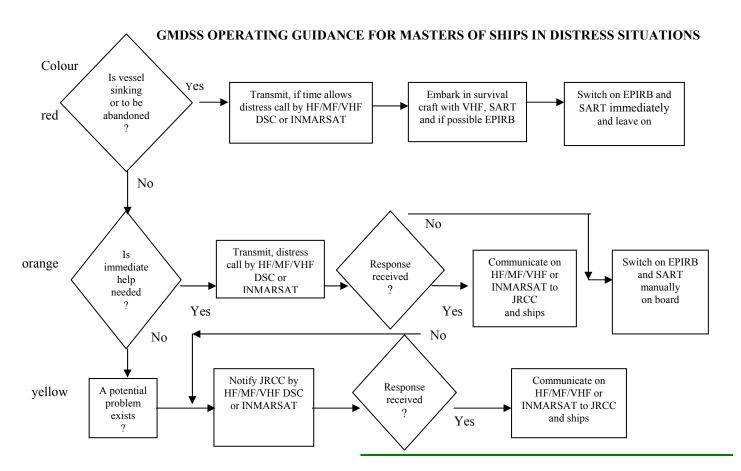
Guidance for Masters in Distress Situations and Alerting of SAR Authorities

In 1992, the International Maritime Organization (IMO) prepared a flow chart providing GMDSS operating guidance for masters of ships in distress situations (COM/Circ.108). It was recommended that this chart be displayed on the ship's bridge.

Later, another circular (MSC/Circ.892) was prepared to strongly emphasize the importance for ships to alert SAR authorities at the earliest possible moment in any situation that may involve a danger to life or that has the potential of developing into such a situation.

The following is for the mariner's information and guidance:

- GMDSS Operating Guidance for Masters of Ships in Distress Situations and;
- Alerting the Search and Rescue Authorities



- 1. EPIRB should float-free and activate automatically if it cannot be taken into survival craft.
- 2. Where necessary, ships should use any appropriate means to alert other ships.
- 3. Nothing above is intended to preclude the use of any and all available means of distress alerting.

RADIO DISTRESS COMMUNICATIONS

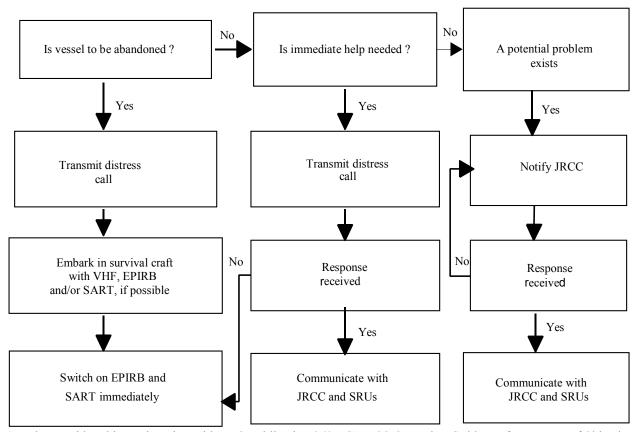
	Digital Selective Calling (DSC)	Radiotelephone	Radiotelex
VHF	Channel 70	Channel 16	
MF	2187.5 kHz	2182 kHz	2174.5 kHz
HF4	4207.5 kHz	4125 kHz	4177.5 kHz
HF6	6312 kHz	6215 kHz	6268 kHz
HF8	8414.5 kHz	8291 kHz	8376.5 kHz
HF12	12577 kHz	12290 kHz	12520 kHz
HF16	16804.5 kHz	16420 kHz	16695 kHz

Alerting the Search and Rescue Authorities (MSC/Circ.892)

- 1. The need for the earliest possible alerting of the search and rescue (SAR) co-ordination authority to maritime emergencies cannot be over-emphasized
- It is essential to enable shore-based facilities to respond without delay to any situation which constitutes, or has the
 potential to constitute, a danger to life. Time lost in the initial stages of an incident may be crucial to its eventual
 outcome. It cannot be regained.
- 3. Factors to be considered include position (in relation to hazards and to shore-based or other SAR units); time of day; weather conditions (actual & forecast); the number of persons at risk or potentially at risk; specific assistance required, etc.
- 4. It is always best to consider the 'worst-case scenario' and to alert the SAR organisation accordingly. Depending on the circumstances, the co-ordinating authority may choose to alert or despatch SAR facilities as a precautionary measure and/or to reduce transit times. If assistance is not subsequently required, any such positive response can be easily curtailed. But time lost through delays in notification can *never* be regained.
- 5. It is therefore essential that the SAR co-ordinating authority be informed *immediately* of:
 - i) all maritime SAR incidents;
 - ii) any situation which may develop into a SAR incident; and
 - iii) any incident which may involve or lead to danger to life, the environment or to property which may require action from the SAR services and/or other authorities.

Operating guidance for masters of ships in distress or urgency situations*

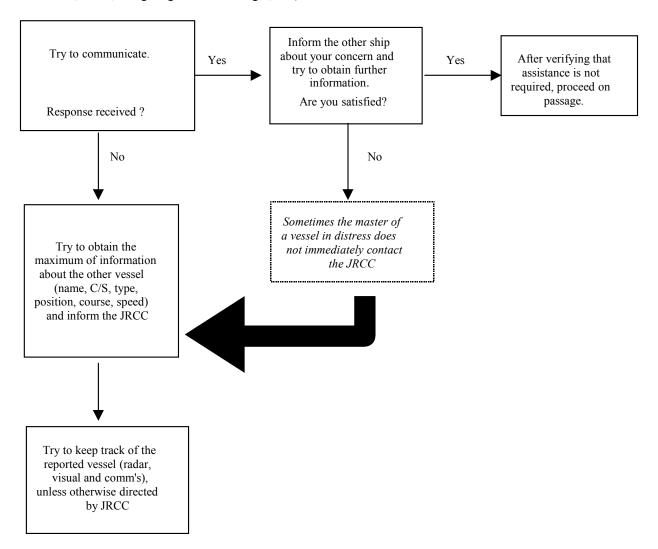
6. The following diagram shows standard procedures for distress/urgency message routeing. It is for guidance only, and does not preclude the use of any and all available means of distress alerting.



^{*} To be considered in conjunction with IMO publication 969 - GMDSS Operating Guidance for Masters of Ships in Distress Situations (COM/Circ.108 of 23 January 1992).

Operation guidance for masters of ships observing another vessel apparently in danger

7. The following diagram shows suggested procedures for reporting concerns about the safety of another vessel (fire, smoke, adrift, navigating towards a danger, etc.).



Note: For local JRCC contact information, refer to section SEARCH AND RESCUE IN CANADIAN AREAS OF RESPONSIBILITY (Part 4 of this publication).

False Distress Alerts and Distress Relay Alerts

The GMDSS has been in force for ships on international voyages since February 1, 1999, following its seven-year phase-in. During this time, considerable experience was gained internationally in the operation of the GMDSS. While the GMDSS has proven its overall effectiveness, the high number of accidental distress alert activations and the inappropriate and unintended Digital Selective Calling (DSC) distress relay alerts have detracted from the efficiency of the system. Excessive false alerts and distress relay alerts can create an unnecessary burden and workload for SAR services. They may also cause confusion and undermine mariner's confidence in the GMDSS. They could potentially have a serious impact on real distress situations.

With the aim of minimizing the number of false alerts and distress alert relays, the following information is provided:

- "Instructions for Mariners and Others on How to Cancel a False Alert" (appendix to IMO Resolution A.814(19) entitled Guidelines for the Avoidance of False Distress Alerts)
- "Procedure for Responding to DSC Distress Alerts by Ships" (COMSAR/Cir.21)

Instructions for Mariners and Others* on How to Cancel a False Distress Alert

(Appendix to IMO Resolution A.814(19))

DSC

1 VHF

- 1. switch off transmitter immediately**;
- 2. switch equipment on and set to Channel 16; and
- 3. make broadcast to "All Stations" giving the ship's name, call sign and DSC number, and cancel the false distress alert.

Example

All Stations, All Stations, All Stations This is NAME, CALL SIGN, DSC NUMBER, POSITION.

Cancel my distress alert of DATE, TIME UTC, = Master NAME, CALL SIGN, DSC NUMBER, DATE, TIME UTC

2 MF

- 1. switch off equipment immediately**;
- 2. switch equipment on and tune for radiotelephony transmission on 2182 kHz; and
- 3. make broadcast to "All Stations" giving the ship's name, call sign and DSC number, and cancel the false distress alert.

Example

All Stations, All Stations, All Stations This is NAME, CALL SIGN, DSC NUMBER, POSITION.

Cancel my distress alert of DATE, TIME UTC, = Master NAME, CALL SIGN, DSC NUMBER, DATE, TIME UTC

- * Appropriate signals should precede these messages in accordance with the ITU Radio Regulations Chapter NIX.
- ** This applies when the false alert is detected during transmission.

3 HF

As for MF, but the alert must be cancelled on all the frequency bands on which it was transmitted. Hence, in stage 2.2 the transmitter should be tuned consecutively to the radiotelephony distress frequencies in the 4, 6, 8, 12 and 16 MHz bands, as necessary.

4 Inmarsat-C

Notify the appropriate JRCC to cancel the alert by sending a distress priority message via the same CES through which the false distress alert was sent.

NAME, CALL SIGN, IDENTITY NUMBER, POSITION, Cancel my Inmarsat-C distress alert of DATE, TIME UTC = Master +

5 EPIRBs

If for any reason an EPIRB is activated accidentally, the ship should contact the nearest coast station or an appropriate coast earth station or JRCC and cancel the distress alert.

6 General

- 6.1 Notwithstanding the above, ships may use any means available to them to inform the appropriate authorities that a false distress alert has been transmitted and should be cancelled.
- 6.2 No action will normally be taken against any ship or mariner for reporting and cancelling a false distress alert. However, in view of the serious consequences of false alerts, and the strict ban on their transmission, Governments may prosecute in cases of repeated violations.

Procedure for Responding to DSC Distress Alerts by Ships (COMSAR/Circ.25)

1 Introduction

The Sub-Committee on Radiocommunications and Search and Rescue (COMSAR) decided that Digital Selective Calling (DSC) relays of distress alerts on all shipborne DSC equipment should be reduced and prepared a procedure for responding to VHF/MF and HF distress alerts, given in flow diagrams 1 and 2 which follow, recommending that it be displayed on the ship's bridge as A4 size posters. It also prepared the following guidance.

2 Distress relays

- 2.1 Radio personnel serving on ships should be made aware of the consequences of transmitting a distress relay call and of routeing a DSC distress relay alert to other than coast stations (CS).
- 2.2 The number of unintended activations of DSC distress alerts and DSC distress relay alerts creates extra work load and confusion to (M) JRCCs and also causing delay in the response-time. The original distress alert from a ship in distress should not be disrupted by other ships, by transmitting a DSC distress relay alert.
- 2.3 Recommendation ITU-R M.541-8 on Operational procedures for the use of DSC equipment in the Maritime Mobile Service identifies only two situations in which a ship would transmit a distress relay call (distress relay alert):

- 1. on receiving a distress alert on a HF channel, which is not acknowledged by a coast station within 5 minutes. The distress relay call should be addressed to the appropriate coast station (Annex 1, paragraph 3.4.2 and Annex 3, paragraph 6.1.4); and
- 2. on knowing that another ship in distress is not itself able to transmit the distress alert and the Master of the ship considers that further help is necessary. The distress relay call should be addressed to "all ships" or to the appropriate coast station (Annex 3, paragraph 1.4).
- 2.4 In no case is a ship permitted to transmit a DSC distress relay call on receipt of a DSC distress alert on either VHF or MF channels.
- 2.5 Distress relay calls on HF channels should be initiated manually.
- 2.6 Compliance with operational and technical provisions above would prevent transmissions of inappropriate distress relay calls.

3 All coast stations call

- 3.1 Recommendation ITU-R M.493-9 on DSC systems for use in the Maritime Mobile Service provides for "group calls" an address consisting of the characters corresponding to the station's Maritime Mobile Service identity (MMSI) and a number of administrations have already assigned a "group call" MMSI to their coast stations in addition to the coast station's individual MMSI.
- 3.2 By multilateral agreements, a "group call" MMSI could be assigned to all coast stations of a specific region, e.g., an JRCC area and could comply with IMO's requirement without need of introducing further modifications to GMDSS equipment.
- 3.3 An alternative method to implement an "all coast stations" call without the need to modify Recommendation ITU-R M.493-9 could be to define one MMSI world-wide as an address for all coast stations, in accordance with Nos. S19.100 to S19.126 of the ITU Radio Regulations. However, this solution would also require a modification of the setup at each coast station participating in the GMDSS.

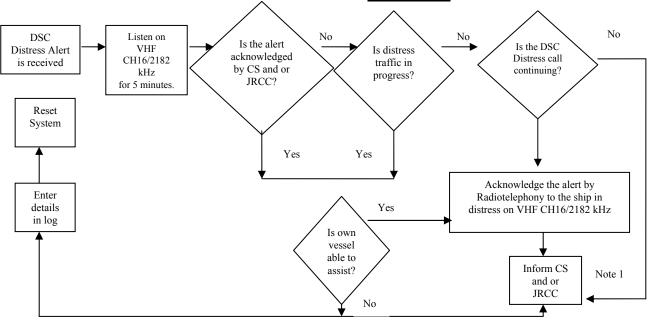
4 Authorization

It should be noted that on ships, distress alerts, distress acknowledgements and distress relay calls can only be transmitted with permission of the Master of the ship.

5 Flow diagrams

- 5.1 The simplified flow diagrams 1 and 2 describe actions to be taken aboard ships upon receipt of distress alerts from other ships. Administrations should give wide distribution of these flow diagrams to ships and training institutions.
- 5.2 Member Governments are invited to bring the above guidance and the attached flow diagrams to the attention of their shipowners, seafarers, coast stations, JRCCs and all others concerned.

FLOW DIAGRAM 1 (COMSAR/Cir.25) ACTIONS BY SHIPS UPON RECEPTION OF VHF/MF DSC DISTRESS ALERT



REMARKS:

Note 1: Appropriate or relevant JRCC and/or Coast Station shall be informed accordingly. If further DSC alerts are received from the same source and the ship in distress is beyond doubt in the vicinity, a DSC acknowledgement may, after consultation with a JRCC or Coast Station, be sent to terminate the call.

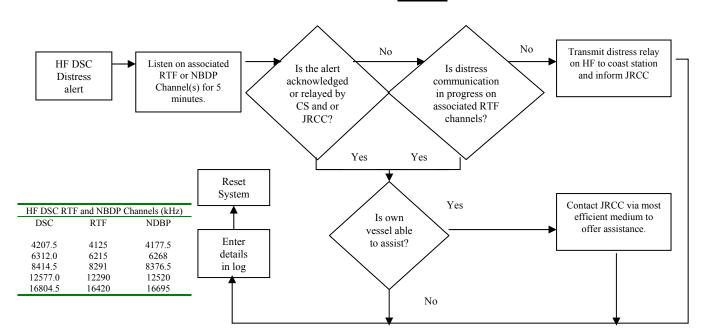
Note 2: In no case is a ship permitted to transmit a DSC distress relay call on receipt of a DSC distress alert on either VHF channel 70 or MF Channel 2187.5 kHz

CS = Coast Station

JRCC = Joint Rescue Co-ordination Center

Is

FLOW DIAGRAM 1 (COMSAR/Cir.25) ACTIONS BY SHIPS UPON RECEPTION OF HF-DSC DISTRESS ALERT



REMARKS:

Note 1: If it is clear the ship or persons in distress are not in the vicinity and/or other crafts are better placed to assist, superfluous communications which could interfere with search and rescue activities are to be avoided. Details should be recorded in the appropriate logbook.

Note 2: The ship should establish communications with the station controlling the distress as directed and render such assistance as required and appropriate.

Note 3: Distress relay calls should be initiated manually.

CS = Coast Station

JRCC = Joint Rescue Coordination Centre

Amver Ship Reporting System:

Note: A 96-hour pre-arrival report to U.S. ports is required under 33 CFR 160.

The Amver System, operated by the United States Coast Guard, is a maritime mutual assistance program that provides important aid to the development and co-ordination of search and rescue (SAR) efforts in the oceans of the world. Merchant vessels of all nations making offshore passages of more than 24 hours are encouraged to send sail plans and periodic position reports to the Amver Centre in Martinsburg, W.V. There is no charge for these radio messages when they are sent through MCTS Centres. Information from these messages is entered into a computer that generates and maintains dead reckoning positions for participating vessels throughout their voyages. The predicted locations and SAR characteristics of all vessels known to be within a given area are furnished upon request to recognised SAR agencies of any nation for use during an emergency. Predicted vessels' locations are disclosed only for reasons related to maritime safety.

Amver is a free and voluntary program. An Amver participant is under no greater obligation to render assistance during an emergency than a vessel that is not participating. Benefits to shipping include:

- improved likelihood of rapid aid in emergencies;
- reduced number of calls for assistance to vessels not favourably located;
- reduced time lost for vessels responding to calls for assistance.

Details of Amver System operations may be obtained from Amver Maritime Relations Office, U.S Coast Guard, Battery Park Building, 1 South Street, New York, N.Y. 10004-1499 (Telephone: 212-668-7764, Fax 212-668-7684). Amver instructions are also available at Coast Guard Captain of the Port and Marine Safety Offices in major United States coastal ports. The instructions are published in the following languages: Chinese, Danish, Dutch, English, French, German, Greek, Italian, Japanese, Norwegian, Polish, Portuguese, Spanish, and Swedish. Requests for instructions should state the language desired if other than English. Amver website: http://www.amver.com

Ship Station (Radio) Technical Regulations, 1999 now specify compulsory participation in Amver for certain ships when departing on an offshore voyage of more than 24 hours duration.

The provisions apply to all Canadian ships and to all non-Canadian ships engaged in the coasting trade of Canada. Of this group, the following are exempted:

- fishing vessels engaged in fishing;
- ships operated by the Canadian government on law enforcement duties;
- vessels whose voyages will be within the waters of an Arctic Shipping Safety Control Zone, Hudson Bay, James Bay or Ungava Bay; and
- vessels in other waters provided their voyages are within VHF or MF coverage areas.

It should be noted that the above exemptions do not amount to a prohibition; and that all other ships proceeding on an offshore voyage of more than 24 hours duration are encouraged to participate in Amver.

I. To Participate

Any merchant vessel of one thousand gross tons or more on a voyage of greater than twenty-four hours to anywhere on the globe is to be part of the Amver system. International participation is voluntary regardless of vessel's or company's flag, country of origin, or destination.

II. The Information Reported

Information voluntarily provided by vessels to Amver is kept strictly confidential, and is protected by the Coast Guard. It will be released only for safety purposes.

III. What and When You Report

A. Sail plan message should be sent on or before departure.

- B. Position Reports should be sent within twenty-four hours of departure and subsequently no less frequently than every forty-eight hours until arrival.
- C. Arrival Reports should be sent immediately prior to or upon arrival at the Port of Destination.
- D. Reports are to be sent during the Radio Officer's normal duty hours.
- E. At the discretion of the vessel, reports may be sent more frequently than the above schedule, as, for example, in heavy weather or under other adverse conditions.

IV. Report Format

As previous Amver participants will note, the format described below represents a change which serves two purposes: First, the new format will permit the automated data processing system to enter your information into Amver more accurately and efficiently. Second, the new format conforms to the International Maritime Organisation (IMO) proposed standard, thus reducing the number of different formats in use. As other systems also adopt the IMO format, we will have moved closer to a single format worldwide.

V. Amver System Communications Network

The following methods are recommended for ships to transmit Amver Sail Plan, Position, Deviation and Arrival reports. Details are available on the Amver web site at http://www.amver.com.

Electronic Mail via the Internet: Amver's address is: amvermsg@amver.org

AMVER/SEAS "Compressed Message" via Inmarsat-C thru TELENOR: Amver address: NOAA telephone number entered in the ADDRESSBOOK. For information, please see the instruction sheet for your brand of Inmarsat-C transceiver. AMVER/SEAS software can be downloaded from the Internet at:

http://www.seas.amverseas.noaa.gov/seas/goosplots.html or requested from:

TELENOR Satellite Services 1101, Wootton Parkway, 10th Floor Rockville, Maryland 20852 301-838-7800 Internet E-Mail: customercare@telenor-usa.com

HF Radiotelex Service of U.S. Coast Guard Communications Stations: Full information on how to send Amver messages this way can be found at: http://www.navcen.uscg.mil/marcomms/egcomms/call.htm

HF Radio at no cost via Coast Guard Contractual Agreements with the following companies:

Globe Wireless Super Station Network Mobile Marine Radio (WLO)

Telex: Amver Address: (0) 230 127594 AMVERNYK

Telefax: To the USCG Operations Systems Centre in Martinsburg: 304-264-2505

If messages are relayed through Canadian Coast Guard Ships no ship charge will be assessed. All Amver messages forwarded via the stations listed should be addressed to Amver Halifax, rather than COAST GUARD New York, to ensure that no charge is applied in delivery.

VI. Amver Voyage Report Types

There are four types of Amver Reports - Sail Plan, Arrival, Position, and Deviation Reports.

- A. Reporting format. Each line of Amver Report text starts with a line identifier. Line identifiers are "AMVER" or a single letter. The line identifier and the data items on the line are each separated from each other by a single slash ("/"). Lines are terminated by two slashes ("//").
- B. Reporting data. Amver participants need to be familiar with four types of reports Sail, Arrival, Position, and Deviation Reports. Note that Amver permits sail plan and departure to be combined into a single report. Amver accepts sail plan information separately for example, several days prior to departure. Report identifiers are as follow:

AMVER/SP// Sail Plan & Departure AMVER/PR// Position Report AMVER/FR// Arrival Report. AMVER/DR// Deviation Report.

C. Details. Paragraph IX includes a discussion of each report type. Each example is followed by an explanation. Note that not all the lines in the example are necessary for each type of report. The required and optional lines are discussed in each section.

VII. Other Required Information

Amver also needs other information, which might be useful in an emergency. This includes data such as the ship length, communications equipment, radio watch schedule, speed, rig, and so forth. This information is collected separately once, by completion of the Search and Rescue Questionnaire (SAR-Q) found on the Amver web site at http://www.amver.com which is then retained in the automatic data processing system, periodically validated, and used only for search-and-rescue purposes.

VIII. Release of Information

All voluntary information collected under these instructions will be only released to recognised search-and-rescue authorities. Information regarding vessels required to participate in Amver will be forwarded to the U.S. Maritime Administration, via the keyword MAREP on the Y-Line.

IX. Description of Voyage Reports

An example and explanation of each of the four types of Amver reports follows. Numbers in parentheses refer to footnotes at the end of the section.

A. Sail Plan & Departure Report. The "L" lines contain routing and "turnpoint" information needed by Amver. Amver needs data about every intended turnpoint, but also accepts information about any points along the intended track, even though they might not be turnpoints. Turnpoint information in needed by Amver to maintain plot accuracy.

EXAMPLE:	EXPLANATION:
AMVER/SP//	Required -
A/SANDY JOAN//ABCD//	AMVER/SP//
B/110935Z//	A /vessel/name/International Radio Call Sign//
E/145//	B /intended time of departure or departure time // (1)
F/126//	G /port of departure/latitude//longitude// (2)
G/NORVOROSK/4510N/03820E//	I /port of destination/latitude//longitude/estimated time of arrival/(1) (2) (3)
I/GIBRALTERGI/3600N/00600W/140730Z//	of affival/ $(1)(2)(3)$
	T / (1) (2) (1)
L/RL/140/4130N/02910E/112000Z//	L / route information// $(1)(3)(4)$
L/RL/140/4010N/02620E/112300Z//	Z // end of report
L/RL/140/3630N/02330E/120330Z//	
L/RL/140/3650N/01520E/121500Z//	Optional -
L/RL/140/3800N/01000E/130100Z//	E /current course// (5)
L/LR/060//	F /estimated average speed// (6)
M/GKA/GKM//	M /current coastal radio station//next coastal radio

EXAMPLE: EXPLANATION:

station, if any//

V/MD/NURSE//

X/NEXT/REPORT/120900Z//

Z/SITOR/INSTALLED/SELCALL/NUMBER/IS/9999/

X /up to 65 characters of amplifying comments// (8) (9)

3. Arrival Report.

Z//EOR

EXAMPLE:	EXPLANATION:
AMVER FR//	Required -
A/SANDY/JOAN/ABCD	AMVER/FR//
K/NEW YORK/US/4040N/07420W/180600Z//	A /vessel name/International Radio Call Sign//
X/PROBLEMS WITH MF XMTR AGENT/ADVISED//	K /port name/latitude/longitude/time of arrival// (1) (3)
Z//EOR	Z // end of report
	Optional -
	X /up to 65 characters of amplifying comments// (8) (9)

C. Position Report.

EXAMPLE:	EXPLANATION:
AMVER/PR//	Required -
A/SANDY/JOAN/ABCD//	AMVER/PR//
B/120300Z//	A /vessel name International Radio Call Sign//
C/3630N/02330E//	B /time at position// (1)
E/145//	C /latitude/ longitude// (3)
F/126//	Z //end of report
M/GKM//	
X/NEXT REPORT/131800Z//	Optional -
Z//EOR	E /current course (5)//
	F /average speed (6)//
	M /current coastal radio station/ next coastal radio
	station, if any//
	X /up to 65 characters of amplifying comments (8) (9)//

D. Deviation Report. Used to report sail plan and other changes.

EXAMPLE:	EXPLANATION:
AMVER/DR//	Required -
A/SANDY/JOAN/ABCD//	AMVER/DR//
B/120300Z//	A /vessel name International Radio Call Sign//
E/095//	Z //end of report
F/220//	
G/NORVOROSK/4470N/03780E//	One or more of the following optional items -
I/NEW YORK US/4040N/07420W/180800Z//	B /intended time of departure// (1)
L/GC/220//	E /intended course// (5)
M/GKA/WSL/NMN//	F /intended average speed// (6)
V/MD/NURSE//	G /port of departure/latitude/longitude// (2)
X/DIVERTING BEST SPEED TO NEW YORK US//	I /port of destination/latitude/longitude/estimated time
Z//EOR	of arrival//(1) (2) (3)
	L / route information// (1) (3) (4)
	M /current coastal radio station/ next coastal radio
	station, if any//
	V /onboard medical resources// (7)
	X /up to 65 characters of amplifying comments// (8) (9)

Footnotes:

(1) All times must be expressed as a six-digit group giving date of month (first two digits), hours and minutes (last four digits). Only Coordinated Universal Time (i.e. Greenwich Mean Time) is to be used. The six-digit date-time-group is to be followed by either Z or GMT. The month is optional, and may be added, if appropriate. The first three digits of the English-language month is used. The following examples are acceptable:

290900Z 290900 Z 290900Z DEC

- (2) Port latitude longitude refers to the geographic position of the pilot station. Both port name and geographic position are required from U.S. flag vessels.
- (3) Latitude is a four-digit group expressed in degrees and minutes, and suffixed with "N" for north or "S" for south. Longitude is a five-digit group expressed in degrees and minutes, and suffixed with "E" for east or "W" for west. For example: C/4000N/03500W//
- (4) The "L" lines contain most of the sail plan information. As many "L" lines as needed may be used. The "L" lines contain routing data to each of the intermediate points, and to the destination. Data about all turnpoints are required, unless the voyage will follow a great circle with no delays at intermediate points. In addition to turnpoint information, data about other points along each leg are useful. Following, is the information desired for each intermediate point: navigation, method, leg speed, latitude, longitude, port or landmark name ETA estimated time of departure.

For example:

L/RL/125/0258N/07710W/ABACO/111200Z// L/RL/125/0251N/07910W/NWPROVCHAN/112145Z// L/RL/125/0248N/08020W/120255Z// L/RL/125//

NAVIGATION METHOD IS REQUIRED. It is either "GC" for great circle, or "RL" for rhumb line.

LEG SPEED is useful, but is not required. See footnote (6).

LATITUDE LONGITUDE IS REQUIRED. See footnote (3).

PORT OR LANDMARK NAME is useful, but is not required.

ETA IS REQUIRED. See footnote (1).

ESTIMATED TIME OF DEPARTURE IS REQUIRED, if the ship will lay over at the intermediate point.

A final NAVIGATION METHOD is required to route the ship to its destination. A final LEG SPEED is useful, but not required.

- (5) True course is a three-digit group.
- (6) Speed is a three-digit group in knots and tenths of knots. For example, 20.5 knots would be written as 205, without a period or decimal point.
- (7) If the optional "V" line is used, one or more of the following is required:

/MD/ for physician

/PA/ for physician's assistant

/NURSE/ /NONE/

For example: V/DOCTOR/NURSE//

- (8) Any information provided in the Remarks line will be stored in the Amver's automatic data processing system for later review. However, no immediate action will be taken, nor will the information be routinely passed to other organizations. The remarks line can not be used as a substitute for sending information to other search-and-rescue authorities or organizations. However, Amver will, at the request of other SAR authorities, forward remarks line information to the requesting agencies.
- (9) Next report information is not currently used by the Amver System, but is expected to aid in future development.

DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS)

Since May 2000, Full Operational Service (FOS) of the Canadian Coast Guard DGPS service has been available from 19 DGPS stations located on the East and West coasts of Canada and parts of the Great Lakes. DGPS corrections are broadcast from medium frequency (MF) radiobeacon transmitters located to cover selected marine areas and waterways. The broadcasts are in accordance with international standards for radiobeacon DGPS services. DGPS provides continuous precise positioning of better than 10 metres for 95% or better of the time (provided that suitable DGPS receiver equipment is utilized, properly installed and maintained).

Additional information on the use of the DGPS service will be announced through Notices to Mariners. General information is also available from the CCG Web Site: http://www.ccg-gcc.gc.ca/dgps/main_e.htm

The corrections from the DGPS service are calculated at the reference station in the NAD 83 coordinates. To process the information properly, DGPS receivers should be adjusted to the WGS 84 setting. Although WGS 84 and NAD 83 are essentially the same (only a few centimetres difference), it is highly recommended that all DGPS receivers be set to WGS 84 to take full advantage of the precision of DGPS. When utilizing charts other than NAD 83, DGPS latitude and longitude positions must be adjusted to the appropriate datum using the information contained in the charts.

The table that follows provides information on existing DGPS broadcasts. A list of United States Coast Guard (USCG) DGPS transmitters providing coverage in Canadian waters may be obtained directly from the USCG. http://www.navcen.uscg.gov/dgps/default.htm

Figures 1, 2 & 3 show the nominal coverage from existing broadcast stations. Users should be aware that coverage is subject to short and long term variations due to environmental and seasonal conditions.

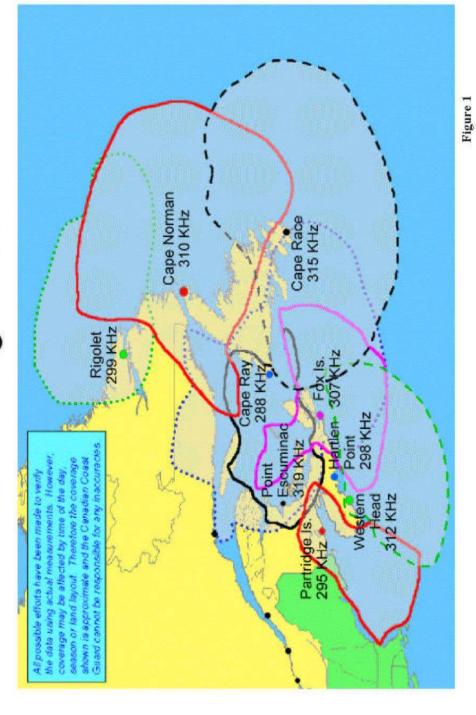
CCG DGPS BROADCASTS St. Lawrence River and Atlantic Coast

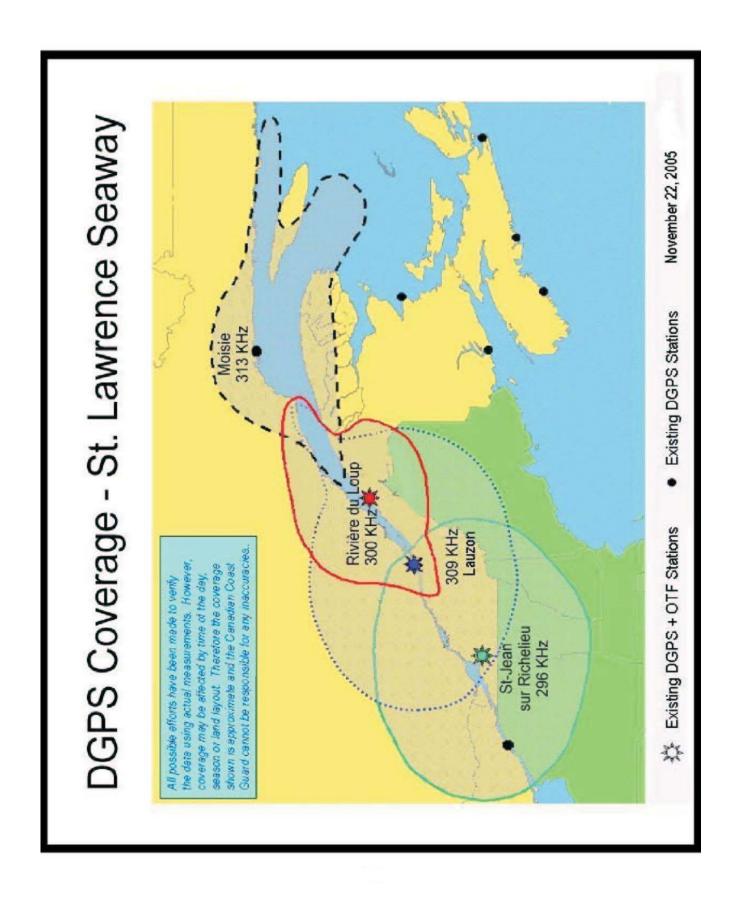
Station Name	Location	Frequency &	IALA	IALA	Remarks
	NAD83	Transmission	Reference	Radiobea	
		rate	Station ID	con ID	
St. Jean sur Richelieu, Que.	45°19'N 73°19'W	296 kHz 200bps	312, 313	929	Full operational service
Lauzon, Que.	46°49'N 71°10'W	309 kHz 200bps	316, 317	927	Full operational service
Rivière du Loup, Que.	47°46'N 69°36'W	300kHz 200bps	318, 319	926	Full operational service
Moisie, Que.	50°12'N 66°07'W	313 kHz 200bps	320, 321	925	Full operational service
Point Escuminac, N.B.	47°04'N 64°48'W	319 kHz 200bps	332, 333	936	Full operational service
Partridge Island, N.B.	45°14'N 66°03'W	295 kHz 200bps	326, 327	939	Full operational service
Western Head, N.S.	43°59'N 64°40'W	312 kHz 200bps	334, 335	935	Full operational service
Hartlen Point, N.S.	44°36'N 63°27'W	298 kHz 200bps	330, 331	937	Full operational service
Fox Island, N.S.	45°20'N 61°05'W	307 kHz 200bps	336, 337	934	Full operational service
Cape Race, N.L.	46°46'N 53°11'W	315 kHz 200bps	338, 339	940	Full operational service
Cape Ray, N.L.	47°38'N 59°14'W	288 kHz 200bps	340, 341	942	Full operational service
Rigolet, N.L.	54°11'N 58°27'W	299 kHz 200bps	344, 345	946	Full operational service
Cape Norman, N.L.	51°30'N 55°49'W	310 kHz 200bps	342, 343	944	Full operational service

CCG DGPS BROADCASTS Great Lakes and St. Lawrence River

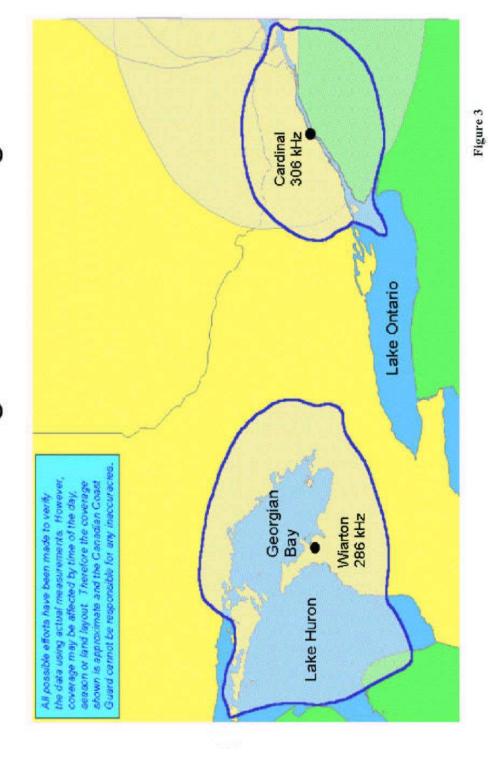
Station Name Location Frequency & **IALA** *IALA* Remarks NAD83 **Transmission** Reference Radiobea Rate Station ID con ID Cardinal, Ont. 44°47'N 75°25'W 306khz 200bps 308, 309 919 Full operational service 44°45'N 81°07'W 918 Wiarton, Ont. 286khz 200bps 310, 311 Full operational service







DGPS Coverage - Central Region



PRE-ARRIVAL INFORMATION REPORT (PAIR)

Note: The following pre-arrival information requirement does not apply to vessels operating solely on the Great Lakes or to the portions of a vessel's voyage on the Great Lakes after pre-arrival information has been given prior to its entrance into the St. Lawrence Seaway.

The master of the following vessels, engaged on a voyage from a port in one country to a port in another country:

- o SOLAS vessels of 500 tons gross tonnage or more
- o SOLAS and NON-SOLAS vessels carrying 12 passengers or more
- o NON-SOLAS vessels that are more than 100 tons, gross tonnage; excluding fishing vessels, pleasure craft and government vessels
- NON-SOLAS vessels that are a towing vessel engaged in towing a barge astern or alongside or pushing ahead, if the barge is carrying certain dangerous cargoes.

shall ensure their vessel do not enter Canadian waters unless the master submits their pre-arrival information to a Canadian Marine Communications and Traffic Services (MCTS) centre before entering Canadian waters. All pre-arrival information must be provided 96 hours prior to entering Canadian waters unless the total duration of the voyage before entering Canadian waters is less than 96 hours in which case the notification must be provided 24 hours prior to entering Canadian waters. If the duration of the segment of the voyage before entering Canadian waters is less than 24 hours, vessels are required to send a pre-arrival report as soon as practicable before entering Canadian waters but no later than the time of departure from their last port of call.

The Pre-Arrival Information must be sent to one of the addresses below:

a) Vessels planning to transit through Canadian territorial waters or enter Canadian waters inbound to a Canadian port on the West Coast shall send pre-arrival information to the Canadian Coast Guard Regional Marine Information Centre (RMIC) via one of the following methods listed below:

E-mail: OFFSHORE@RMIC.GC.CA

INMARSAT: telex 04352586 "CGTC VAS VCR"

any Canadian Coast Guard MCTS Centre, free of charge; or

directly to CVTS Offshore by Fax: 604-666-8453

b) Vessels planning to transit through Canadian territorial waters or enter Canadian waters inbound to a Canadian port on the East Coast including a Canadian or American port in the Great Lakes shall send pre-arrival information to ECAREG Canada via one of the following methods listed below:

 St. John's MCTS Centre
 Halifax MCTS Centre

 Telex - 016-4530
 OR
 Telex - 019-22510

 Facsimile - 709-772-5369
 Facsimile - 902-426-4483

Telegraphic Identifier - CCGTC SNF

Telegraphic Identifier - CCG MRHQ DRT

Email: hlxecareg1@innav.gc.ca

c) Vessels planning to transit through Canadian territorial waters or enter Canadian waters inbound to a Canadian port within the Canadian Arctic Zone shall send pre-arrival information to NORDREG Canada via one of the following methods listed below:

*Iqaluit MCTS Centre Facsimile – 867-979-4264 Telex (Telefax) 063-15529

Telegraphic Identifier - NORDREG CDA Email: IQANORDREG@INNAV.GC.CA

*Open only during the navigation season (approximately mid-June to mid-November).

It is the responsibility of the Master of the vessel to ensure all information provided to the Government of Canada (Transport Canada) in the pre-arrival information is complete and accurate. Masters of vessels subject to the *Marine Transportation Security Regulations* (as described above) failing to submit or submitting an incomplete or inaccurate pre-arrival information risk subjecting their vessel to control actions such as, but not limited to: inspection, detention, redirection or expulsion from Canadian waters.

The vessel's pre-arrival information shall include the following:

- a) its name;
- b) its country of registry;
- c) the name of its registered owner;
- d) the name of its operator;
- e) the name of its classification society;
- f) its international radio call sign;
- g) its International Ship Security Certificate, Canadian Vessel Security Certificate or ship security compliance document number;
- h) its International Maritime Organization number, if it is a SOLAS ship;
- i) the date of issuance, date of expiry and name of the issuing body of its International Ship Security Certificate, Canadian Vessel Security Certificate, or ship security document;
- j) confirmation that the vessel has an approved vessel security plan;
- k) the current MARSEC level;
- 1) a statement of when its last 10 declarations of security were completed;
- m) details of any security threats to the vessel during the last ten calls at marine facilities;
- n) a statement as to whether the vessel consents to tracking by the Canadian Government;
- o) details of any deficiencies in its security equipment and systems, including the communication systems, and the way in which the master of the vessel intends to correct them;
- p) if applicable, the name of it's agent and contact person and their 24-hour telephone and facsimile numbers;
- q) if applicable, the name of the vessel's charterer;
- r) its position and time at which it reached that position;
- s) its course and speed;
- t) its destination and estimated time of arrival at its destination;
- u) the name of a contact person at the marine facility that it will visit and their 24-hour telephone and facsimile numbers;
- v) the following information in respect of its last ten marine facilities visited:
 - i) the receiving facility;
 - ii) the marine facility visited;
 - iii) the city and country;
 - iv) the date and time of arrival, and
 - v) the date and time of departure;
- w) a general description of the cargo, including cargo amount; and
- x) if applicable, the presence and description of any dangerous substances or devices on board.

All reasonable measures shall be taken whenever a change occurs in the information previously provided in any pre-arrival information made pursuant to the *Marine Transportation Security Regulations*, to the appropriate MCTS Centre as soon as possible.