668 AUSTRALIA - Product - Amendment to Seafarers Handbook for Australian Waters AHP20
Australian Maritime Safety Authority (AA680670 - AA680673)

Page 17 (2.4.5) - Australian Maritime Safety Authority - Search and Rescue - paragraph 8 line 6
Delete Australian Ship Reporting System (AUSREP)
Insert the Modernised Australian Ship Tracking and Reporting System (MASTREP)

Page 81 (6.7.2) - Marine Pollution Reporting - paragraph 2 line 1
Delete AUSREP
Insert MASTREP

Page 123 (8.14.3) - Conduct of a Pilot - paragraph 2 line 14
Delete AUSREP
Insert MASTREP

Page 155 (9.12) - Safety in Antarctic Waters - paragraph 3
Substitute accompanying block

Chapter 10 - Ship Reporting System
Delete pages 161 to 173
Substitute accompanying pages 161 to 170

3. EPIRBs working on a frequency of 406MHz generally work well in the area. Antarctic and Sub Antarctic waters within the Australian Search and Rescue Region are covered by the Modernised Australian Ship Tracking and Reporting System (MASTREP). Mariners are strongly urged to avail themselves of MASTREP (see Ch.10 – MASTREP).

CHAPTER 10) Ship Reporting Systems

10.1 The Modernised Australian Ship Tracking and Reporting System

1. MASTREP is a Ship Reporting System designed to contribute to safety of life at sea and is operated by the Australian Maritime Safety Authority (AMSA) through the Australian Rescue Coordination Centre (RCC Australia) in Canberra. Participation in MASTREP is mandatory for certain vessels but others are encouraged to participate.
2. In 2009 work commenced on identifying AMSA and Australia's future vessel tracking and reporting needs while considering the IMO published mandates of ship reporting requirements and the need for reduced reporting obligations on vessels. This was the catalyst for the design and subsequent development of MASTREP, officially launched on 1 July 2013.
3. The MASTREP system allows Australia to meet its obligations under Chapter 5 of the Annex to the SAR Convention as it relates to Ship Reporting Systems.
4. MASTREP, as prescribed in Marine Order 63 (MASTREP) 2013, is used to track the location of vessels. Under this system:
   - positional reporting for vessels is sourced from the vessel's Automatic Identification System (AIS)
   - communications with vessels continue to be available through Inmarsat, HF, satellite telephony and other means
   - Special Reports are required to support AMSA's role in shipping oversight and incident reporting management.
5. MASTREP provides positional data on vessels transiting Australia's region via AIS technology which ensures that only the closest vessels are requested to assist in a SAR incident, reducing the need for vessels to steam long distances from their intended voyage plan. The Search and Rescue Officers conducting such operations in the Australian region routinely use this facet of MASTREP. Given the expansiveness of Australia's Search and Rescue Region, merchantmen are often the only resources available that can quickly respond to an incident.

10.1.1 Concept of Operations

1. MASTREP uses Position Reports, which must be transmitted by AIS in accordance with the International Convention for the Safety of Life at Sea (SOLAS), Chapter 5, Regulation 19.2.4. Position Reports must transmit the following information:
   a. identity
   b. type
   c. position
   d. course
   e. speed
   f. navigational status
   g. safety related information
2. Position reporting is automated and the data is fed in to the system using AIS. Positional data is usually updated at time intervals between five minutes and five hours depending on the location and source. There is **no requirement** in MASTREP to transmit Sail Plans (SP), Deviation Reports (DR) or Final Reports (FR).
3. **No positive SAR watch is maintained in MASTREP.** MASTREP is a passive ship reporting system and does not involve shore to vessel communications. **ALL DISTRESS MESSAGES SHOULD BE SENT DIRECTLY TO RCC AUSTRALIA WHILE IN THE MASTREP AREA.** Similarly, any vessel copying an SOS, MAYDAY or DSC Alert from a distressed vessel, or otherwise becoming aware that a distress incident has occurred, should contact RCC AUSTRALIA. See Communications with RCC Australia, below.
4. The Master of a vessel must report any malfunction of the vessel's AIS equipment to RCC Australia in accordance with Section 186 of the *Navigation Act 2012*.

10.1.2 Participation

1. The Commonwealth of Australia *Navigation Act 2012* and Marine Orders Part 63 makes the provision of Position Reports **mandatory** for certain vessels. The following vessels **must** report to MASTREP:
   - foreign vessels from the arrival at its first port in Australia until its departure from its final port in Australia; and
   - all regulated Australian vessels whilst in the MASTREP area.

10.1.3 Voluntary Participation

1. Vessels participating in MASTREP transmit positional data to RCC Australia. This enables vessels in the vicinity of search and rescue incidents to be determined. To assist AMSA in achieving its purpose, Masters are strongly encouraged to report to MASTREP voluntarily even where it is not mandated. Such participation will enhance the safety of reporting vessels and that of others operating in the Australian SRR.
2. Domestic commercial vessels fitted with Global Maritime Distress and Safety System (GMDSS) and AIS technology are also encouraged to participate in the system.

10.1.4 Communications with RCC Australia

1. The primary means of communication with MASTREP are:
   - **Inmarsat C:** Messages sent to MASTREP using special access code (SAC 1243) via the Perth LES (Pacific 212 or Indian 312 Ocean Region satellites) will be reverse charged to RCC Australia.
   - **HF DSC:** Messages sent via the AMSA HF DSC network will be free of charge. Initial contact through the AMSA HF DSC station is made by using a DSC safety priority call to MMSI 005030001. The message can then be passed on an appropriate RT frequency. All reports sent by voice should include the mandatory format fields including the identifying letter.
   - If Inmarsat C reports are not sent using SAC 1243 via 212 or 312 it is likely that the message will not be received by RCC Australia and charges will apply to the vessel.
2. If for any reason communications are not possible via Inmarsat C or via the AMSA HF DSC station, the required information must be passed by alternative means to RCC Australia using one of the following:
   - Other Inmarsat phone/fax services: Vessels will be charged for messages sent to RCC Australia using Inmarsat systems other than Inmarsat C.
   - Other (non Inmarsat) satellite phone/fax service: A reverse charge telephone call or facsimile may be used to pass reports when in port.
3. Further information or advice on MASTREP and copies of MASTREP instructions are available free of charge from:

RCC Australia- Maritime Telephone:	+61 (0)2 6230 6811 or free call 1800 641 792 (within Australia)
RCC Australia Fax:	+61 (0)2 6230 6868 or free call 1800 622 153 (within Australia)
RCC Australia - email:	rccaus@amsa.gov.au
Website:	www.amsa.gov.au

10.2 The AMVER Organization

1. The Automated Mutual Assistance Vessel Rescue System (AMVER) is a computer based, voluntary global ship reporting system sponsored by the United States Coast Guard. Appropriate ship position information is made available to recognized SAR agencies of any nation to aid the assistance of persons in distress at sea.
2. Masters of vessels outside the MASTREP area are encouraged to make reports to AMVER by email or transmit Inmarsat C messages through TELENOR using Aussaguel LES (321) when in the Indian Ocean Region and Santa Paula LES (201) when in the Pacific Ocean Region to ensure the reports are received by AMVER.AMVER communications stations and message formats are described in

Admiralty List of Radio Signals Volume 1 (ALRS Vol 1). See website below for further information.

Website:	www.amver.com
email:	amvermsg@amver.org

10.3 The Great Barrier Reef and Torres Strait Vessel Traffic Service - REEFVTS

1. The Great Barrier Reef and Torres Strait Ship Reporting System (REEFREP) was established as a mandatory ship reporting system under the International Convention for the Safety of Life at Sea (SOLAS Chapter V Regulation 11). REEFREP was formally adopted by the IMO's Maritime Safety Committee in Resolution MSC.52(66), and later amended by Resolutions MSC.161(78) and MSC.315(88).
2. REEFREP is an integral component of the Great Barrier Reef and Torres Strait Vessel Traffic Service (REEFVTS). Within the REEFVTS area ships identify themselves and report their intended passage through the region. This information, together with the monitoring and surveillance systems used by REEFVTS, assists with the proactive monitoring of a ship's transit through the Great Barrier Reef and Torres Strait.
3. The purpose of REEFVTS is to enhance navigational safety in Torres Strait and the Inner Route of the Great Barrier Reef thereby minimising the risk of a maritime accident and consequential pollution and major damage to the marine environment. REEFVTS also provides the ability to respond more quickly in the event of any safety or pollution incident.

10.3.1 System Overview

1. REEFVTS is manned and operated 24 hours a day by personnel operating from the REEFVTS Centre, radio call identity "REEFVTS", situated in Townsville.
2. REEFVTS provides both an information service and navigational assistance services in the REEFVTS area. In summary, the services delivered include:
   - Ship Traffic Information (STI) - Ship encounters are predicted and this information is sent to individual ships as STI, usually through Inmarsat C messaging.
   - Maritime Safety Information (MSI) - Information that is relevant to the ships location and intended movement is provided.
   - Navigational Assistance - REEFVTS may contact that ship, if there is information available to REEFVTS which may help onboard decision making such as where the ship is heading into shallow water or deviating from a planned route.
3. REEFVTS may not know about all the hazards in the area. If a ship encounters any hazard that is not already included in Maritime Safety Information (e.g. a faulty navigational aid) they should advise REEFVTS so they may pass that information on to other mariners.

10.3.2 Mandatory Reporting Requirement

1. The following categories of ships are required to report to REEFVTS, irrespective of whether they are on overseas, interstate or intrastate voyages:

   a) all ships of 50 metres or greater overall length

   b) all oil tankers, liquefied gas carriers, chemical tankers or ships coming within the INF Code, regardless of length

   c) ships engaged in towing or pushing where the length of the tow exceeds 150 metres, or a vessel described in a) or b) is involved.
2. Other vessels transiting the REEFVTS area are encouraged to report on a voluntary basis.
3. Mariners are referred to AMSA *Marine Orders Part 56* for details of their obligations under REEFREP. This is available on the AMSA website.

Website:	www.amsa.gov.au

10.3.3 Communicating with REEFVTS

1. Communication with REEFVTS is in English. The IMO's Standard Marine Communication Phrases are to be used.
2. The means of communication with REEFVTS are:

Inmarsat C

3. REEFVTS will pay the cost of messages sent by Inmarsat C if the ship uses the special access code (SAC) 861 via POR LES 212.
4. When setting up the Inmarsat C address book, select either: ASCII or 7-bit or IA5 for data presentation or character code.

VHF Radio

5. A VHF radio network is available along the Queensland coast and Torres Strait to communicate with REEFVTS. REEFVTS keeps a listening watch at all times on the VHF working Channels 11 and 14 as shown in diagram on next page.

Other Communications

6. If for any reason a ship cannot communicate via Inmarsat C or the VHF working channel, the ship must send the required information to REEFVTS in another way. The ship can use one of the following:

Telephone:	+61 7 4726 3428 1300 721 293
Fax:	+61 7 4721 0633
email:	reefvts@vtm.qld.gov.au

7. If a ship's radio equipment fails and the ship cannot send the required reports to REEFVTS, the failure must be recorded in the ship's radio log book or the official log book.

10.3.4 REEFVTS Area

1. Nautical paper charts Aus 4620, 4621, 4635 and 490 provide details of the REEFVTS Area, categories of ships required to report, mandatory reporting positions and VHF Working Channels (see diagram p167).

10.4 REEFVTS Reports

1. The Master is responsible for ensuring that the information required by REEFVTS is reported to the VTS Centre. The following reports must be provided to REEFVTS:
   - Pre-Entry Position Report
   - Entry Report
   - Route Plan Report
   - Route Deviation Report
   - Intermediate Position Reports
   - Defect Reports
   - Final Report.
2. Send all reports to REEFVTS by Inmarsat C or call on the VHF working channels. Mariners are encouraged to send reports in IMO format.
3. A summary of the reports is listed below and the REEFVTS User Guide should be consulted for a more detailed description. Copies of the REEFVTS User Guide are available online, hardcopies from AMSA or can be requested via email.

Websites:	www.amsa.gov.au www.msq.qld.gov.au
email:	reefvts@amsa.gov.au

10.4.1 Pre-Entry Position Report

1. A Pre-Entry Position Report is required at least 2 hours prior to entering the REEFVTS area or departing from a port within the REEFVTS area.
2. The purpose of a pre-entry report is to advise REEFVTS of the ship intentions (e.g. entry to the REEFVTS area) and take the necessary steps to ensure that the ship's Inmarsat C terminal is operational when the vessel enters the region. The vessel's Inmarsat C terminal is to be logged into the Pacific Ocean Region.
3. The following message fields are required (see table 1 on p.168 for format):

Mandatory fields:	A, B, C, H, K, M

10.4.2 Entry Report

1. An Entry Report is required when a ship enters the REEFVTS area or departs from a port within the REEFVTS area. Masters are encouraged to provide a route plan with the Entry Report. However, it is understood that this may not be possible until a pilot boards.
2. The following message fields are required (see table 1 on p.168 for format):

Mandatory fields:	A, B, C, F, J, K, L, O, P, Q, U, X

10.4.3 Route Plan Report

1. If a route plan is not included in the entry report, then it must be provided within 1 hour of entering the REEFVTS area or departing from a port within the REEFVTS area. More information on standard routes and associated chartlets for the Inner Route and Great North East Channel are detailed in the REEFVTS User Guide.
2. The following message fields are required (see table 1 on p.169 for format):

Mandatory fields:	A, B, C, F, K, L

3. Route plan details are to be provided by one or more of the following methods:

Standard Route Plan

4. These have been developed to enable communication of the intended routes based on the name of the route (e.g. Inner Route, Great North East Channel), predefined route by communicating the ship's draft (e.g. deep, moderate or shallow), and the name of any alternative legs intended to be taken that vary from the standard route.

Mandatory Reporting Points

5. Route plans can be provided by reporting at Mandatory Reporting Points as the vessel progresses through the REEFVTS area. When a vessel reports, the next two Mandatory Reporting Points need to be advised. Where there are two or more routes between Mandatory Reporting Points, the planned (e.g. Alpha North to Hannibal via Varzin Passage).

Waypoints

6. The use of non-standard routes is accommodated by providing a list of the planned waypoints for the transit - either the latitude or longitude of the planned waypoints, the Mandatory Reporting Point names, or a combination of both.

10.4.4 Intermediate Position Reports

1. Where REEFVTS advises that the ship's position is being tracked by sensors then Intermediate Position Reports at the Mandatory Reporting Points are not required.
2. If the ship's position is not being tracked by sensors, then a brief position report must be given as advised by REEFVTS.
3. Note: Make sure that the ship's Inmarsat C terminal is logged into the Pacific Ocean Region (POR).
4. The following message fields are required (see table 1 on p.168 for format):

Mandatory fields:	A, B, C, F

10.4.5 Route Deviation Report

1. If the ship deviates from the Passage Plan which was sent to REEFVTS, this information should be reported to REEFVTS before the deviation is made. However, in situations where a deviation is made without much warning, a report should be sent to REEFVTS as soon as possible.
2. A new route plan report is to be sent to REEFVTS.

10.4.6 Defect Report

1. Reports must be provided without delay should a ship suffer damage, failure or breakdown which affects the safety of the ship.
2. The following message fields are required (see table 1 on p.168 for format):

Mandatory fields:	A, B, C, F
Additional fields: (if appropriate)	Q, R, X

3. Reports of pollution or cargo lost overboard must also be reported to REEFVTS without delay using fields Q and R, or special reports as defined by the IMO for incidents involving Dangerous Goods (DG), Harmful Substances or Marine Pollutants (MP). See 10.5 for further details.

10.4.7 Final Report

1. A final report is required when exiting the REEFVTS area, or when arriving at a port within the REEFVTS area.
2. The following message fields are required (see table 1 on p.168 for format):

Mandatory fields:	A, B, C

10.4.8 Interaction between REEFVTS and MASTREP

1. REEFTVS automatically forwards regular position reports to RCC Australia.
2. When a vessel departs a port within the REEFVTS AREA and intends to report to MASTREP when it exits the REEFVTS Area, the vessel should ensure that Position Reports are transmitted by AIS in accordance with the International Convention for the Safety of Life at Sea (SOLAS), Chapter 5, Regulation 19.2.4.
3. When a vessel departs the REEFVTS Area and is reporting to MASTREP, the Master must report any malfunction of the vessel's AIS equipment to RCC Australia in accordance with Section 186 of the *Navigation Act 2012.*
4. Further information about reporting to MASTREP is provided in the MASTREP and Australian Mandatory Reporting Guide. A copy of this Guide is available from AMSA offices or the AMSA website.

Website:	www.amsa.gov.au

10.5 Special Reports to MASTREP and REEFVTS

1. A vessel must advise MASTREP (RCC Australia) or REEFVTS (REEFVTS Centre) as appropriate when damage or defects occur which affect its operation or seaworthiness, or when a discharge of dangerous goods, harmful substances or marine pollutants is about to or is likely to occur. The following specific reports are to be used.

10.5.1 Dangerous Goods Reports

1. When an incident occurs involving the loss or likely loss overboard of packaged dangerous goods, including those in freight containers, portable tanks, rail and road vehicles and shipborne barges into the sea, a Dangerous Goods Report (DG) is to be sent. Particulars not immediately available should be reported in a supplementary message. The primary report should contain message format fields:

Mandatory fields:	A, B, C, M, Q, R, S, T, U
Additional fields:	P,Q

2. If the condition of the ship is such that there is a danger of further loss, fields P and Q should be reported. See table 2 p.168 - Dangerous Good Reports for further details.

10.5.2 Harmful Substances Reports

1. When an incident takes place involving the discharge or probable discharge of oil (Annex I of MARPOL) or noxious liquids in bulk (Annex II of MARPOL), a Harmful Substances Report (HS) is to be sent. Particulars not immediately available should be reported in a supplementary message. The primary report should contain message format fields.

Mandatory fields:	A, B, C, E, L, M, N, Q, R, S, T, U. X

2. The Master of a ship engaged in an operation to render assistance or undertake salvage work should report, as far as practicable, fields:

Mandatory fields:	A, B, C, E, F, L, M, N, P, Q, R, S, T, U, X

3. See table 3 on p.169 - Harmful Substance Reports.

10.5.3 Marine Pollutants Reports

1. In the case of the loss or likely loss overboard of harmful substances in packaged form, including those in freight containers, portable tanks, road and rail vehicles and shipborne barges, identified in the International Maritime Dangerous Goods Code as marine pollutants (Annex III to MARPOL) a Marine Pollutants Report (MP) is to be sent. In the case of actual discharges the primary report should include message format fields:

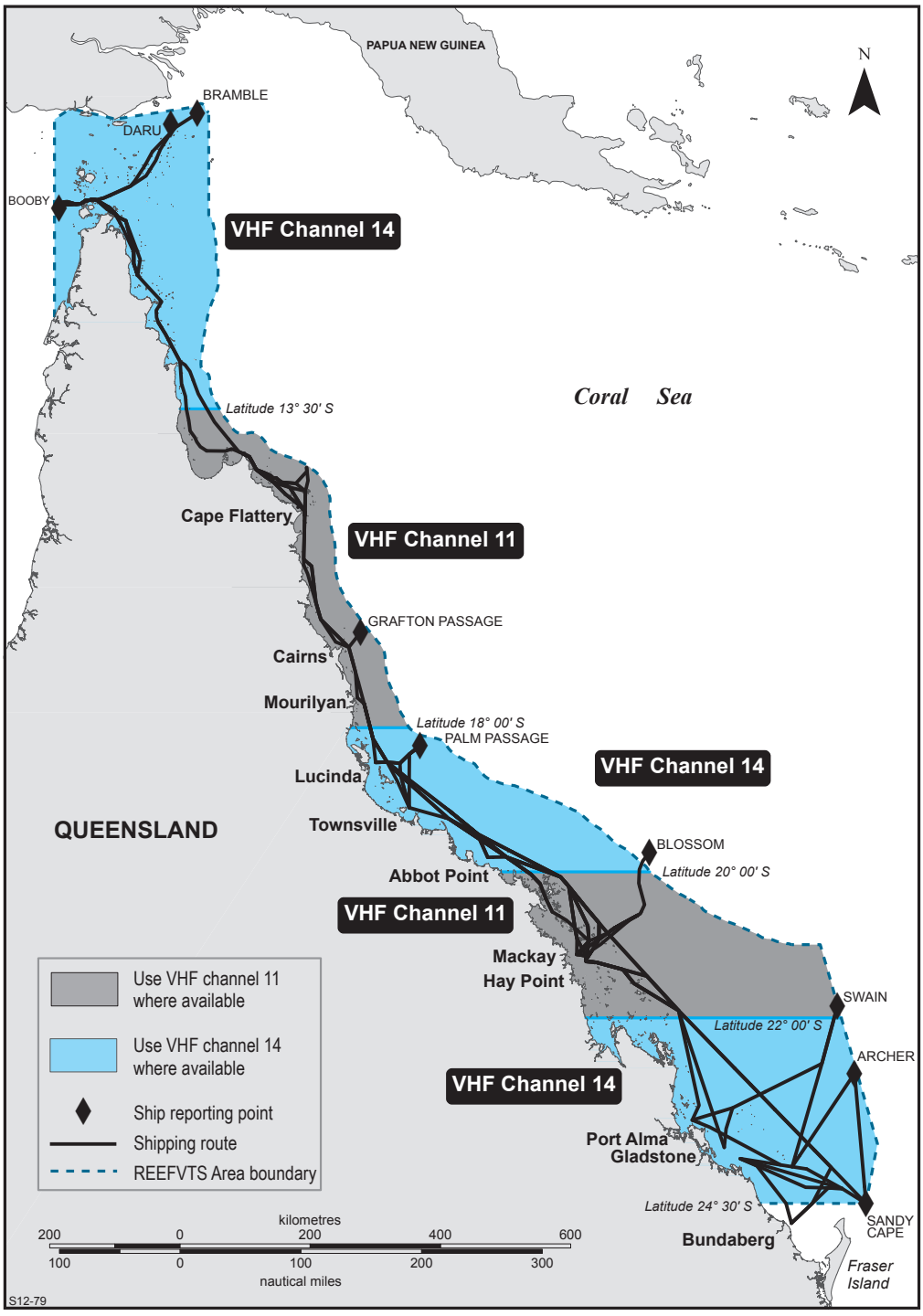
Mandatory fields:	A, B, C, M, Q, R, S, T, U, X

2. In the case of a probable discharge field P should also be included.

3. The Master of a ship engaged in an operation to render assistance or undertake salvage work should report, as far as practicable, fields:

Mandatory fields:	A, B, C, M, P, Q, R, S, T, U, X.

4. See table 4 on p.170 - Marine Pollutants Reports.



REEFVTS VHF Channel overview

Source: Maritime Safety Queensland

Table 1 - REEFVTS Message fields reference codes

Line	Content	Example field text
A	Ship Name / Callsign / IMO number	A/HIBISCUS/BCBC/8502453//
B	Date/Time (UTC)	B/010200UTC//
C	Current position (name of mandatory reporting point, or lat/long)	C/BOOBY//
F	Speed (The planned Speed of the ship in knots and tenth of knots)	F/13//
H	Date, time (UTC) and point of entry to area (enter the name of the first mandatory reporting point entering the area or lat/long)	H/1036S/14144E//
J	Pilot on board - name and number	J/YES/BROWN/0012134//
K	Date, time (UTC) and point of exit from REEFVTS Area	K/041300UTC/SANDY CAPE//
L	Route Information (Usually a Route Plan. If not, the name of the next two Mandatory Reporting Points, or the course if the ship is not tracking between Mandatory Reporting Points)	L/INNER ROUTE DEEP//, or L/ALPHA NORTH VIA VARZIN PASSAGE/ HANNIBAL//
M	Communication Methods (including Inmarsat IMN, manufacturer and model)	M/450111333/JRC/JUE-75C//
O	DRAFT (fore and aft, in metres and decimetres)	O/FORE 11.5/AFT 11.3//
P	Cargo (normal name of cargo, whether dangerous)	P/BULK CHEMICALS/DG YES//
Q	Defects and other limitations	include as required
R	Pollution/dangerous goods lost overboard	include as required
U	Ship type, length (metres) and gross tonnage	U/TANKER/180/28000
X	Additional information which would contribute to navigation safety in REEFVTS Area	include as required

Table 2 - Dangerous Goods Reports

A	Ship Name/Callsign/IMO Number
B	Date/Time of incident
C	Position
M	Coastal Radio Stations monitored/Inmarsat numbers
P	P1: Technical name(s) of goods P2: UN number(s) P3: IMO hazard class(es) P4: Names of manufacturers of goods, or consignee or consignor P5: Types of packages (portable tanks, container, vehicle etc). Include official registration marks and numbers assigned to the unit P6: Estimated quantity and likely condition of the goods
R	R1: Technical name(s) of the goods R2: UN number(s) R3: IMO hazard class(es) R4: Names of manufacturers of goods, or consignee or consignor R5: Types of packages (portable tanks, container, vehicle etc). Include official registration marks and numbers assigned to the unit R6: Estimated quantity and likely condition of the goods R7: Whether lost goods floated or sank R8: Whether loss is continuing R9: Cause of loss

Table 3 - Harmful Substance Reports

A	Ship Name / Callsign / IMO Number
B	Date /Time of incident
C	Position
E	Course
F	Speed
L	Route
M	Coastal Radio Stations monitored / Inmarsat numbers
N	Nominated daily reporting time
P	P1: Type of oil or technical name of the noxious liquid substances on board P2: UN number(s) P3: IMO pollution category (A, B, C or D), for noxious liquid substances P4: Names of manufacturers of goods, or consignee or consignor P5: Quantity
Q	Q1: Condition of the ship as relevant Q2: Ability to transfer cargo / ballast / fuel
R	R1: Type of oil or technical name of the noxious liquid substances on board R2: UN number(s) R3: IMO pollution category (A, B, C or D), for noxious liquid substances R4: Names of manufacturers of goods, or consignee or consignor R5: Quantity R6: Whether lost substances floated or sank R7: Whether loss is continuing R8: Cause of loss R9: Estimated movement of discharge or lost substances, giving current conditions if known R10: Estimate of the surface area of the spill if possible
T	Name, address, telex and telephone number of ship's owner and representative (charterer, manager and operator or their agent)
X	X1: Action being taken with regard to the discharge and the movement of the ship X2: Assistance or salvage efforts which have been requested or provided X3: The Master of an assisting or salvaging vessel should report particulars of the action undertaken or proposed

Table 4 - Marine Pollutants Reports

A	Ship Name/Callsign/ MO Number
B	Date/Time of incident
C	Position
M	Coastal Radio Stations monitored/Inmarsat numbers
P	P1: Technical name(s) of goods P2: UN number(s) P3: IMO hazard class(es) P4: Names of manufacturers of goods, or consignee or consignor P5: Types of packages (portable tanks, container, vehicle etc). Include official registration marks and numbers assigned to the unit P6: Estimated quantity and likely condition of the goods
Q	Q1: Condition of the ship as relevant Q2: Ability to transfer cargo/ballast/fuel
R	R1: Technical name(s) of the goods R2: UN number(s) R3: IMO hazard class(es) R4: Names of manufacturers of goods, or consignee or consignor R5: Types of packages (portable tanks, container, vehicle etc). Include official registration marks and numbers assigned to the unit R6: Estimated quantity and likely condition of the goods R7: Whether lost goods floated or sank R8: Whether loss is continuing R9: Cause of loss
T	Name, address, telex and telephone number of ship's owner and representative (charterer, manager and operator or their agent)
X	X1: Action being taken with regard to the discharge and the movement of the ship X2: Assistance or salvage efforts which have been requested or provided X3: The Master of an assisting or salvaging vessel should report particulars of the action undertaken or proposed