



Great Barrier Reef and Torres Strait Vessel Traffic Service

(Reef VTS) User Guide – 2022



Australian Government

Australian Maritime Safety Authority



Queensland Government

Important

Reef VTS relies on the reports that it receives from ships. The information used by Reef VTS is only as accurate as the information that is given in these ship reports.

Reef VTS may not know about all the hazards in the region and ships may encounter unreported hazards at any time. Any hazards should be reported to Reef VTS immediately.

The Master of a ship is responsible for the ship's operation and is responsible for the safe navigation of the ship under all circumstances.

The information provided within is a guide only. Any ship, owner, operator, charterer, Master, or person directing the movement of a ship must still follow all relevant laws or regulations and must take any precaution required by ordinary seamanship or the special circumstances of the case. Neither the Commonwealth of Australia nor the State of Queensland accept any responsibility for any decision made by any Master or crew member.

If there is any difference between the information in the Reef VTS User Guide and the relevant laws, the relevant laws should be followed.

For more information

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1. Definitions and abbreviations

AIS	Automatic Identification System
AMSA	Australian Maritime Safety Authority
APR	Automated Position Reporting via Inmarsat C
Chemical tanker	a ship to which the BCH or IBC Code applies – see Marine Orders Part 17
Combination carrier	a ship designed to carry either oil or solid cargoes in bulk
GNE	Great North East Channel
GBRMPA	Great Barrier Reef Marine Park Authority
IMO	International Maritime Organization
IMN	Inmarsat Mobile Number
INF Code	Irradiated Nuclear Fuel Code
JRCC	Joint Rescue Coordination Centre
Length of tow	the distance between the stern of the towing vessel and the after end of the tow
Liquefied gas carrier	a ship to which the EGC, GC or IGC Code applies – see Marine Orders Part 17 (Liquefied Gas Carriers and Chemical Tankers)
MASTREP	the Modernised Australian Ship Tracking and Reporting System
MSI	Maritime Safety Information
MSQ	Maritime Safety Queensland, a branch of the Queensland Department of Transport and Main Roads
Navigation Act	the Australian Government’s Navigation Act 2012
Oil tanker	a) a ship constructed or adapted primarily to carry oil in bulk as cargo; or b) a combination carrier when it is carrying oil in bulk as cargo; or c) a chemical tanker when it is carrying oil in bulk as cargo; or d) any other ship fitted with cargo spaces which are constructed and used to carry oil in bulk of an aggregate capacity of 200 cubic metres or more
Overall length	the overall length of a ship is (a) a vertical line passing through a point that is the foremost part of the stem; and (b) a vertical line passing through a point that is the aftermost part of the stern; but if it is not possible to measure the overall length of the ship in this way, the overall length is stated as 110 percent of the length which is shown on the ship’s load-line certificate
REEFREP	the mandatory ship reporting system established by IMO Resolution MSC.52(66), amended by Resolution MSC.161(78) and Resolution MSC.315(88)
Reef VTS	the Great Barrier Reef and Torres Strait Vessel Traffic Service, operated by MSQ as a VTS Authority approved by AMSA under Marine Order 64 (Vessel Traffic Services)
SEI	Ship Encounter Information
TMR	Queensland Department of Transport and Main Roads
UKCM	Under Keel Clearance Management
VTS	Vessel Traffic Service

2. Purpose

The purpose of the Reef VTS user guide is to assist masters of ships transiting the Reef VTS area on the services provided by Reef VTS. It describes:

- the regulatory requirements for ships entering and transiting through the Reef VTS Area, including the mandatory reporting procedures, recommended shipping routes and compulsory pilotage areas;
- contact and communication requirements and
- the vessel traffic services provided by Reef VTS.

The information in this guide does not replace or change any rules in Australia's *Navigation Act 2012* which apply to waters within the Reef VTS Area (see section 4). If there is any difference between the information in the Reef VTS User Guide and the relevant laws, the relevant laws should be followed.

The master of a ship is responsible for the ship's operation and is responsible for the safe navigation of the ship under all circumstances.

The information given here is a guide only. Any ship, owner, operator, charterer, master, or person directing the movement of a ship must still follow all relevant laws or regulations and must take any precautions required by ordinary seamanship or by the special circumstances of the case.

3. Introduction

The environmental and cultural significance of the Great Barrier Reef and Torres Strait regions are internationally recognised. The Great Barrier Reef Marine Park was established in 1975 and added to the World Heritage list in 1981. In 1990 the International Maritime Organization (IMO) named the Great Barrier Reef as the world's first Particularly Sensitive Sea Area (PSSA). The IMO also named Torres Strait as a PSSA in 2005.

3.1 Reef VTS

The Queensland and Australian Governments established Reef VTS in 2004. Its purpose is to:

- make navigation in Torres Strait and the inner route of the Great Barrier Reef safer by working with shipping to give the best possible information on potential traffic conflicts and other navigational information;
- minimise the risk of maritime accidents, and therefore avoid the pollution and damage which such accidents can cause to the marine environment in the Great Barrier Reef and Torres Strait; and
- assist with quick response if a safety or pollution incident does occur.

Reef VTS is operated by Maritime Safety Queensland (MSQ) as a VTS authorised by the Australian Maritime Safety Authority (AMSA) under Marine Order 64 (Vessel Traffic Services). AMSA is an agency of the Australian Federal Government, whilst MSQ is an agency of the Queensland State Government.

Reef VTS operates 24 hours a day from the Townsville and Gladstone VTS Centres, situated on the Queensland coast. Reef VTS uses information from many sources, including the Automatic Identification System (AIS), Radar, Automated Position Reports (APR) via Inmarsat C and the route plans that vessels provide to Reef VTS.

3.2 Vessel Traffic Service (VTS)

To assist with the safe navigation of ships, Reef VTS:

- monitors the movement of participating ships in the Reef VTS Area,
- provides timely, relevant and accurate information to reporting ships,
- maintains a listening watch on Reef VTS VHF working channels,

- receives the information provided by masters under the REEFREP mandatory ship reporting requirements; and
- responds to requests for information, such as ship traffic and maritime safety information.
- respond and report to marine incidents within the Reef VTS area

If Reef VTS has additional information which may help decision-making on-board a vessel, Reef VTS may contact that vessel.

3.3 Authority

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 Regulation V/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).

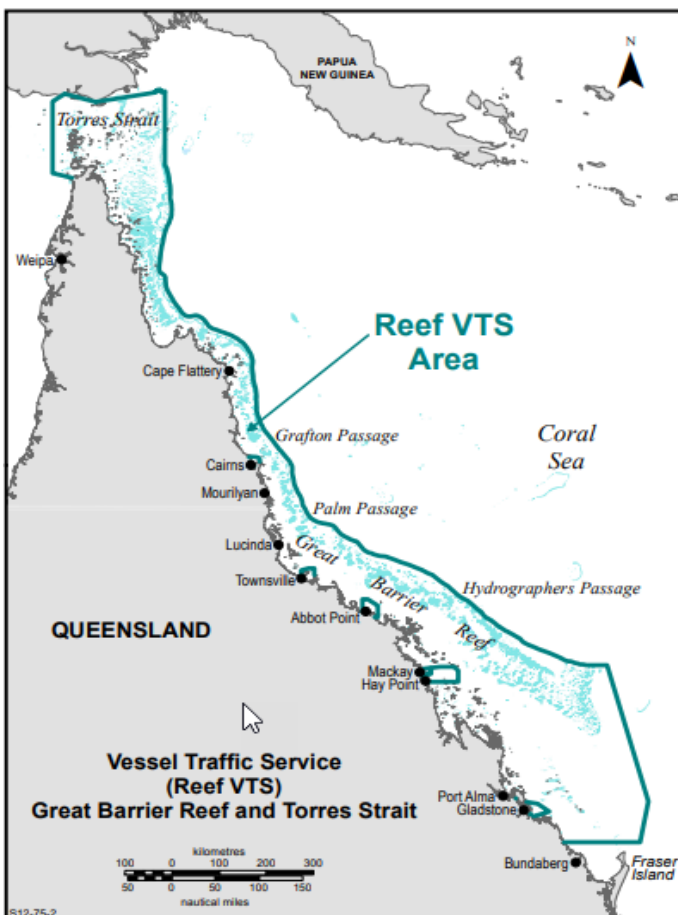
Australia's *Navigation Act 2012* gives the general power to make regulations to implement SOLAS (s339) and the related power to make Australian Marine Orders (s342). The laws about mandatory ship reporting are based on these powers.

Marine Order 63 (Vessel reporting systems) 2019 states that ships which are required to report to Reef VTS must do so whether they are voyaging overseas, between states or within one state.

Reef VTS manages and operates REEFREP.

4. Reef VTS Area

The Reef VTS Area is described as follows and in Marine Order 63 (Vessel reporting systems) 2019.



The waters bounded by a line commencing at:

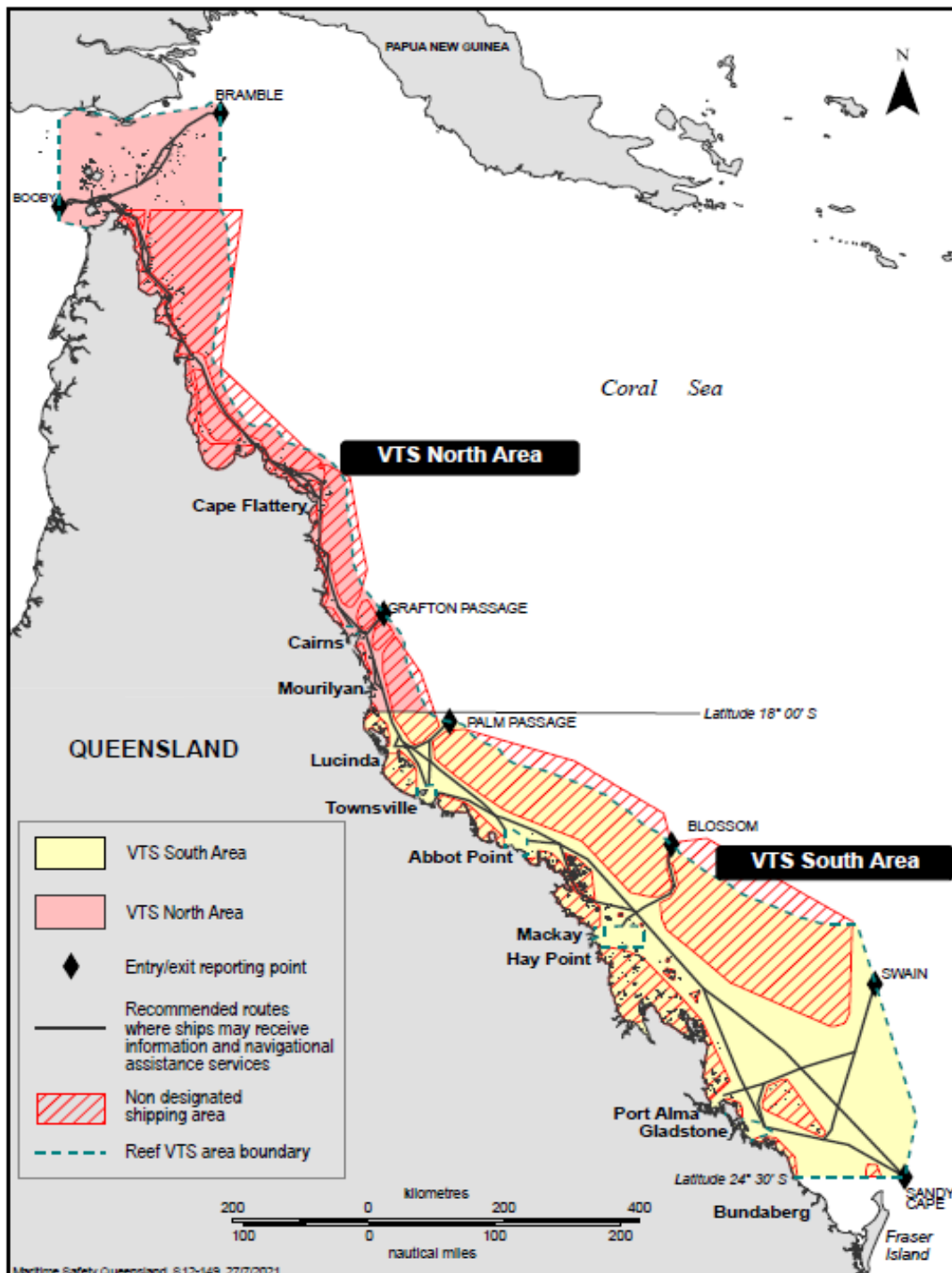
- Slade Point on the coastline of the mainland of Australia on the north-west coast of Cape York Peninsula in approximate position Latitude 10° 56.973' South, Longitude 142° 08.088' East,
- then north-west to Latitude 10° 51.070' South, Longitude 141° 44.130' East,
- then north to Latitude 09° 20.100' South, Longitude 141° 44.130' East,
- then north-easterly to Latitude 09° 10.680' South, Longitude 141° 58.960' East,
- then south-easterly to Latitude 09° 20.910' South, Longitude 142° 36.066' East on the PSSA boundary,
- then generally easterly along the PSSA boundary to its intersection with the meridian of Longitude 144° 00.00' East (includes the waters of Torres Strait with Endeavour Strait, Great North East Channel and to Bramble Cay),
- then south along the meridian of Longitude 144° 00.00' East to its intersection with the outer edge of the Great Barrier Reef at approximate Latitude 10° 41.00' South,

- then in a generally south and south-east direction along the outer edge of the Great Barrier Reef to approximate Latitude 21° 00.00' South, Longitude 152° 30.00' East, • then east to Latitude 21° 00.00' South, Longitude 152° 55.00' East,
- then south-easterly to Latitude 23° 42.00' South, Longitude 153° 45.00' East,
- then generally south-south-westerly to Latitude 24° 30.000' South, Longitude 153° 35.00' East,
- then west to the coastline at approximate Latitude 24° 30.00' South, Longitude 152° 02.581' East,
- then generally northerly following the coastline of the mainland to the starting point, excluding the Vessel Traffic Service areas at the limits of Gladstone, Hay Point, Mackay, Abbott Point, Townsville and Cairns.

Reef VTS area has been divided into two regions, Reef VTS North and Reef VTS South. The Reef VTS area is separated at Latitude 18° 00.00'South. There has been no change to the REEFREP requirements.

Refer section 9 - Mandatory Reporting Requirements.

Chartlet 1 - Reef VTS Area North and South



5. Ships required to report to Reef VTS

5.1 General obligation

The following categories of ships must report to Reef VTS:

- all ships with an overall length of 50 metres or more;
- all oil tankers, liquefied gas carriers, chemical tankers or ships coming within the Irradiated Nuclear Fuel (INF) Code, including those with an overall length of less than 50 metres; and
- Ships which are towing or pushing, or being towed or pushed, where either of the ships belongs to category a) or category b), or where the overall length of the tow is 150 meters or more. The overall length of the tow is measured from the stern of the towing vessel to the after end of the tow.

5.2 Voluntary reporting

Other vessels transiting the Reef VTS Area may report on a voluntary basis as defined in this user guide.

5.3 Warships, naval auxiliaries and government ships

SOLAS Regulation V/11 does not apply to any warship, naval auxiliary, or any ship owned or operated by government; however, SOLAS does state that “such ships are encouraged to participate in ship reporting systems”.

The Australian Government fully supports this approach, and all ships of the Royal Australian Navy are encouraged to participate in REEFREP on a voluntary basis, along with other ships owned or operated by the Australian Government.

6. Master’s responsibilities

It is the responsibility of the ship’s master while in the Reef VTS Area to:

- follow the ship reporting requirements – these are described in Marine Orders and outlined in this user guide;
- confirm that information from Reef VTS has been received when asked to do so;
- respond appropriately to all information, warnings, and advice given by Reef VTS;
- keep a listening watch on Reef VTS VHF working channels;
- make sure that the Inmarsat C terminal is logged into the Pacific Ocean Region (POR) at all times; and
- to ensure that the AIS is transmitting the correct data for the vessel
- as soon as possible, notify Reef VTS of any:
 - a) incident/accident affecting the ship’s safety;
 - b) incident/accident affecting safety of navigation;
 - c) defects affecting the ships safety or navigation
 - d) circumstance that may cause pollution;
 - e) pollutants/containers/packages drifting;
 - f) change to route plan.

Correct reporting is essential to enable Reef VTS to facilitate the safe navigation of ships through the Reef VTS Area.

For further information please refer to [Marine Order 63 \(Vessel Reporting Systems\) 2019](#) and [Marine Order 64 \(Vessel Traffic Services\) 2013](#).

7. Failure to report

Any master, or officer of the watch at the time, who fails to follow the required reporting procedures, or who deliberately transmits information, which is incorrect, false or misleading, will have committed an offence and may be fined if convicted.

Section 215 and 216 of the Navigation Act 2012 makes it an offence for a person to fail to report the required information or provide false or misleading information. The penalty is up to 240 penalty units (presently A\$53,280) or a civil penalty of 2,400 penalty units (presently A\$532,800).

8. Communication with Reef VTS

Communication with Reef VTS is in English, using IMO's Standard Marine Communication Phrases.

The means of communication can be using VHF radio (voice); Mobile Satellite Service (Inmarsat C) or other means.

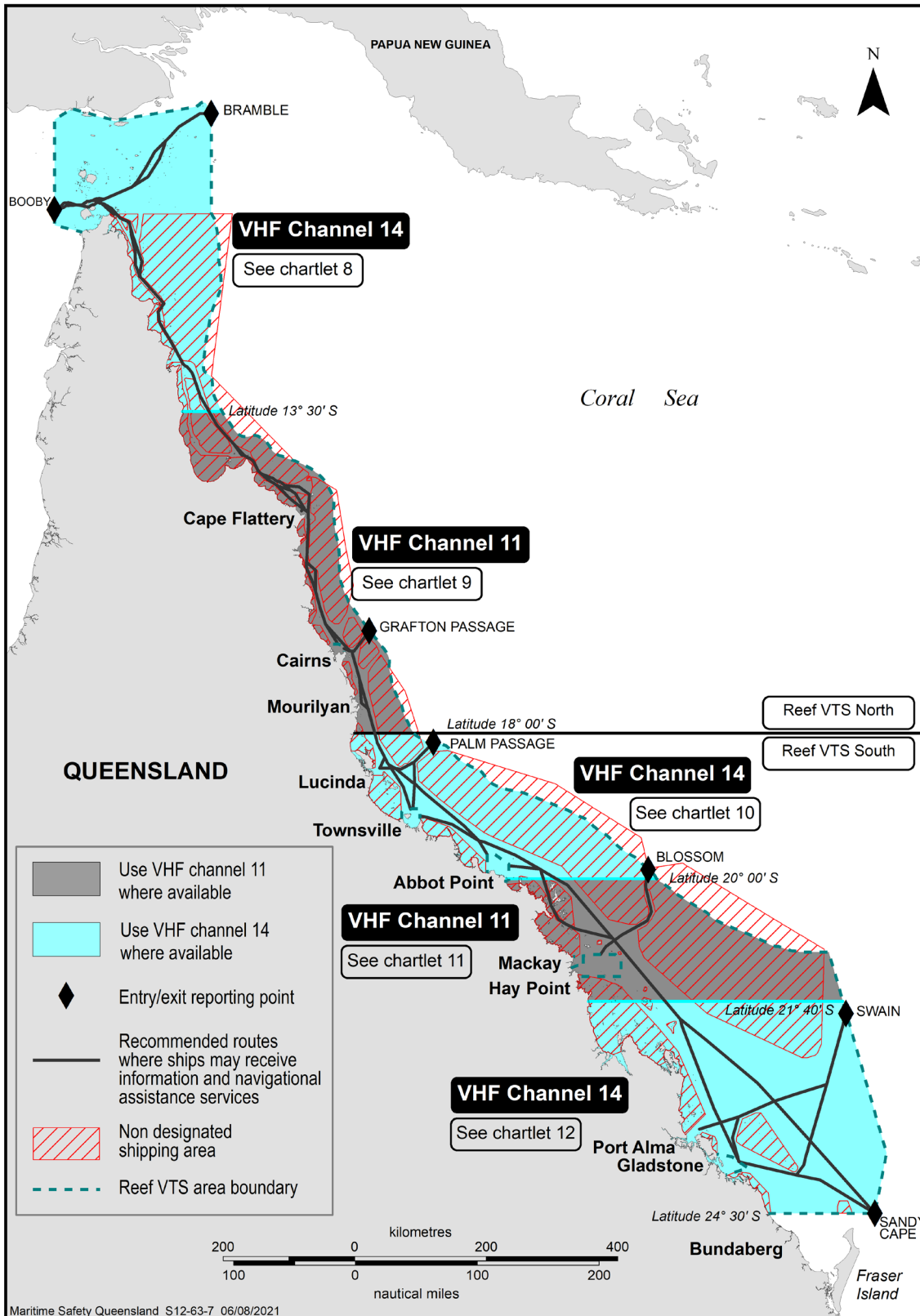
8.1 VHF Radio

VHF Radio – Reef VTS can be contacted 24 hours a day on either VHF Channel 11 or 14 (radio call sign – Reef VTS). The channel to be used will depend on the ship's position as shown in the following table and Chartlet 2 on the next page.

Table 1 Reef VTS Working channels

Latitude from:	Latitude to:	VHF channel
9° 00' S	13° 30' S	14
13° 30' S	18° 00' S	11
18° 00' S	20° 00' S	14
20° 00' S	21° 40' S	11
21° 30' S	24° 30' S	14

Chartlet 2 - Reef VTS VHF Channel overview



8.2 Inmarsat C

Reef VTS will pay the cost of messages sent by Inmarsat C if the ship uses the special access codes (SAC)

SAC 862 for North entry exit points or **SAC 863** for Southern entry/exit points via POR LES 212.

Inmarsat C terminals must be logged into the Pacific Ocean Region (POR).

8.3 Other communications

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

- Telephone: +61 1300 721 293
- Email: reefvtsnorth@msq.qld.gov.au or reefvtsouth@msq.qld.gov.au (depending on location within the Reef VTS area. See Chartlet 1

If a ship's radio equipment fails and the ship cannot send the required reports to Reef VTS, the failure must be recorded in the ship's radio logbook or the official logbook.

9. Mandatory reporting requirements

A ship as mentioned in section 5 of this guide, must send the following reports to Reef VTS:

- Entry Report (ER) see 9.2.1.
- An Entry Report must be made at least 1 hour before a vessel:
 - (a) enters the REEFREP area; or
 - (b) departs from a port in the REEFREP area
- Final Report (FR) see 9.2.3

Additional reports which must be sent to Reef VTS include:

- Route Deviation Report (DR) see 9.2.4
- Intermediate Position Reports (IP) see 9.2.5
- Defect Reports (IR) see 9.2.6

Reports follow standard reporting formats as per IMO Resolution A.851(20) Details of the information required for each report are shown in section 9.2.

Reef VTS is divided into two regions – North and South

Reporting ships are to submit their reports by VHF radio (voice) or Mobile Satellite Service (Inmarsat C) using the following Special Access Codes for each region.

SAC 862 North region – All Ports and entry/exit points north of Lat 18° 00.000S....

Main Ports include – Thursday Island, Cook Town, Cape Flattery, Cairns and Mourilyan.

Main entry/exit points include - Booby, Endeavour, Bramble, and Grafton Passage.

SAC 863 South region – All Ports and Reporting Points south of Lat 18° 00.000S

Main Ports include – Lucinda, Townsville, Abbot Point. Mackay, Hay Point, Port Alma and Gladstone.

Main entry/exit points include – Palm Passage Blossom, Swain and Sandy Cape.

9.1 Reporting codes reference table

Below is the reporting codes reference table

Table 2 Standard Reporting Format

ID	Message type (ER, FR, DR, IP, or IR)
A	Ship name, call sign and IMO number
B	Date and time (UTC)
C	Current Position Latitude and longitude (in degrees and minutes)
E	Course True Course
F	Speed The planned speed of the ship in knots and tenths of a knot
G	Last Port of Call/Port Departing From If entering the Reef VTS area for the first time, state the last port of call. If departing from a port within the Reef VTS area, the name of that port
H	Date, time (UTC) and point of entry to Reef VTS Area Either the name of the entry point or the position (latitude and longitude) of entry of the Reef VTS area
I	Next Port of Call Name of the next port of call date and time in UTC.
J	Pilot Company Details Give the pilot company name.
K	Date, time (UTC) and point of exit from area Either the name of the point leaving the area, or the position (latitude and longitude) of exit.
L	Route information Recommended standard route plans, taking into account vessel draught. See section 12 of this Reef VTS User Guide.
M	Communication methods Primary Inmarsat C details: Inmarsat Mobile Number (IMN), manufacturer and model Ship's satellite phone number.
O	Draught Fore and aft and deepest draught, in meters and decimeters.
P	Cargo on-board Give the normal name of cargo and state whether it is classified as hazardous (yes or no). Note: If required, this information may be given by non-voice means before the first Reef VTS report.
Q	Defects, damage, deficiencies or other limitations Describe details of any damage, failure or breakdown: collision, grounding, fire, explosion, structural failure, flooding, cargo shifting; failure or breakdown of steering gear, propulsion plant, electrical generating system, essential shipboard navigational equipment.
R	Pollution/dangerous goods lost overboard Give brief details of the type of pollution (oil, chemicals and so on) or dangerous goods lost overboard. State the ship's position.
U	Ship type, length (meters) and gross tonnage Give details of the ship, including ship type, length (meters) and gross tonnage.
X	Remarks Give any additional information which would help the navigational safety of shipping in the Reef VTS Area; for example, abnormal weather; faulty navigational aid; or any Dangerous Goods (DG), Harmful Substances (HS) or Marine Pollution (MP) incident reports.

9.2 Reef reporting information required

Send all reports to Reef VTS by Inmarsat C or call on the VHF working channels (see section 10).

9.2.1 Entry report (ER)

Give the following information for an entry report: (* = mandatory for ER)

Table 3 Entry Report (ER)

When/Where	ID	Information required	Example
At least one hour before: Entering the Reef VTS area or Departing from a port within the Reef VTS area	ID	Message Type	ID/ER
	A*	Ship name, call sign and IMO number	A/HAPPY SAILOR/ ABCD/1234567
	B*	Date and time (UTC)	B/010200UTC
	C*	Current Position	C/1120S/14430E
	F*	Speed Ships planned average speed	F/13.5
	G*	Last Port of Call/Port Departing from within the Reef VTS area	G/Singapore, or, G/Hay Point
	H*	Date, time (UTC) and point of entry to Reef VTS Area	H/010400UTC/BOOBY, or, C/1030S14120E
	I*	Next Port of Call and ETA	I/Gladstone/050500UTC NOV 16
	J	Pilot Company Details Give the pilot company name.	J/Australian Reef Pilots or J/ARP
	K*	Date, time (UTC) and point of exit from area	K/042100UTC/SANDY CAPE or, K/042100UTC/2420S 15110E
	L*	Route information See section 12 of this Reef VTS User Guide for recommended route plans.	L/INNER ROUTE DEEP DRAUGHT or L/ALPHA NORTH VIA VARZIN PASSAGE/ HANNIBAL
	M*	Communication methods. Inmarsat C details: Inmarsat Mobile Number (IMN), manufacturer and mode Ship's satellite phone number.	M1/423456789/JRC/JUE- 85C or M2/870773123456
	O*	Draught	O/Fore 11.6/Aft 11.8/Deepest 11.8
	P*	Cargo on-board	P/BULK CHEMICALS/ DG YES
	Q*	Defects, damage, deficiencies or other limitations	Q/Include details as required
U*	Ship type, length (meters) and gross tonnage	U/TANKER/180/28000	
X*	COVID -19 Crew health declaration Is anyone onboard showing any Novel Coronavirus symptoms that include fever, cough, sore throat, headache, difficulty breathing or flu-like symptoms?	X/Yes or X/No	
	Remarks	X/ Include details as required	

9.2.2 Route information

Give standard route plan details as set out in section 12.

Any pre-planned variation from the standard route (for example to deliver a cruise ship itinerary) should be given to Reef VTS when entering the Reef VTS area.

9.2.3 Final report (FR)

Give the following information for a final report: (* = mandatory for FR)

Table 4 Final Report (FR)

When/Where	ID	Information required	Example
Immediately on exiting the Reef VTS Area or Arriving at a port in the Reef VTS Area	ID	Message Type	ID/FR
	A*	Ship name, call sign and IMO number	A/HAPPY SAILOR/ ABCD/1234567
	K*	Date, time (UTC) and point of exit from area	K/042100UTC/Hay Point or, K/042100UTC/2420S 15110E

9.2.4 Route deviation report (DR)

If the ship needs to deviate from the Route Plan which was given to Reef VTS on entry to the Reef VTS Area, this should be reported to Reef VTS before the deviation is made.

However, in situations where a deviation is made without much warning, a report should be sent to Reef VTS within 15 minutes after the deviation made. (* = mandatory for DR)

Table 5 Route deviation Report (DR)

When/Where	ID	Information required	Example
Send to Reef VTS before deviation is made or within 15 minutes after if deviation made without sufficient warning	ID	Message Type	ID/DR
	A*	Ship name, call sign and IMO number	A/HAPPY SAILOR/ ABCD/1234567
	B*	Date and time (UTC)	B/010200UTC
	I	Next Port of Call and ETA	I/Gladstone/050500UTC NOV 16
	K*	Date, time (UTC) and point of exit from area	K/042100UTC/Hay Point or, K/042100UTC/2420S 15110E
	L*	Route information See section 12 of this Reef VTS User Guide for recommended route plans.	L/INNER ROUTE DEEP DRAUGHT or L/ALPHA NORTH VIA VARZIN PASSAGE/ HANNIBAL
	O*	Draught	O/Fore 11.6/Aft 11.8/Deepest 11.8

9.2.5 Intermediate position reports (IP)

Where Reef VTS advises that the ship's position is being tracked by sensors then intermediate position reports are not required.

If the ship's position is not being tracked by sensors, then a brief position report must be given as advised by Reef VTS.

Where required, give the following information for an intermediate position report: (* = mandatory for IP)

Table 6 Intermediate Position Report (IP)

When/Where	ID	Information required	Example
As advised by Reef VTS	ID	Message Type	ID/IP
	A*	Ship name, call sign and IMO number	A/HAPPY SAILOR/ ABCD/1234567
	B	Date and time (UTC)	B/010200UTC
	C*	Current Position	C/1120S/14430E
	F*	Speed - Ships planned average speed	F/13.5

9.2.6 Defect report (IR)

Give the following information for a defect report: (* = mandatory for IR)

Table 7 Defect Report (IR)

When/Where	ID	Information required	Example
Immediately if a ship suffers damage, failure or breakdown which affects the ship's safety or Immediately if there is pollution or cargo lost overboard or	ID	Message Type	ID/IR
	A*	Ship name, call sign and IMO number	A/HAPPY SAILOR/ ABCD/1234567
	C*	Current Position	C/1120S/14430E
	F*	Speed - Ships planned average speed	F/13.5
	Q*	Defects, damage, deficiencies or other limitations	Q/Include details as required

The requirement to report all marine incidents including defects and deficiencies using form 'AMSA 18' and form 'AMSA 19' remains.

10. Reef VTS

The purpose of VTS is to contribute to safety of life at sea, safety and efficiency of navigation and the protection of the environment within the VTS area by mitigating the development of unsafe situations through:

- The provision of timely and relevant information on factors that may influence the ship's movements and assist on-board decision making.
- The monitoring and management of ship traffic to ensure the safety and efficiency of ship movements.
- Responding to developing unsafe situations

The information that Reef VTS uses comes from AIS, Radar, Automated Position Reporting (APR) via Inmarsat C and the route plans which ships have given to Reef VTS. Route plans are only as accurate as the information that is given in these reports and masters are encouraged to take care that reports are correct.

Navigational support can be provided to a vessel on request from the master or by observation if the VTS Operator deems it necessary.

Reef VTS may not know about all the hazards in the Reef VTS Area. If a ship encounters any hazard which is not already included in Maritime Safety Information (for example, a faulty navigational aid), it should advise Reef VTS.

10.1 VTS Information

10.1.1 Ship Encounter Information (SEI)

Reef VTS predicts ship encounters and sends this information to individual ships as Ship Encounter Information (SEI), usually through Inmarsat C messaging. SEI is specific for each individual vessel there is no general broadcasts.

Reef VTS advises individual ships of SEI:

- when the ship enters the Reef VTS Area;
- when a ship enters an SEI calculation area; and,
- at any other time when requested by a vessel.

10.1.2 Ship Encounter Information Message

A ship will receive SEI about predicted ship encounters and Maritime Safety Information (MSI) for the next nominated hours of its transit. Depending on the SEI calculation area

The SEI message information is separated into two sections;

- Ship Encounter: the situation that two participating vessels are (predicted to be) near to each other.
- Vessel in Area: an identified vessel with no route that is in the predicted area around a participating vessel for which an SEI message is calculated.

10.1.2.1 How to interpret Ship encounter information.

The Ship encounter information message is to be read as follows.

1. Name of ship to be encountered,
2. Location of the predicted encounter (Latitude/longitude),
3. At date and time of encounter
4. Course and speed of the ship to encounter, and
5. CPA/TCPA. (distance to encounter/ time to encounter)

Within the message letter indicators will be displayed to provide additional information, such as;

(P) ship is piloted

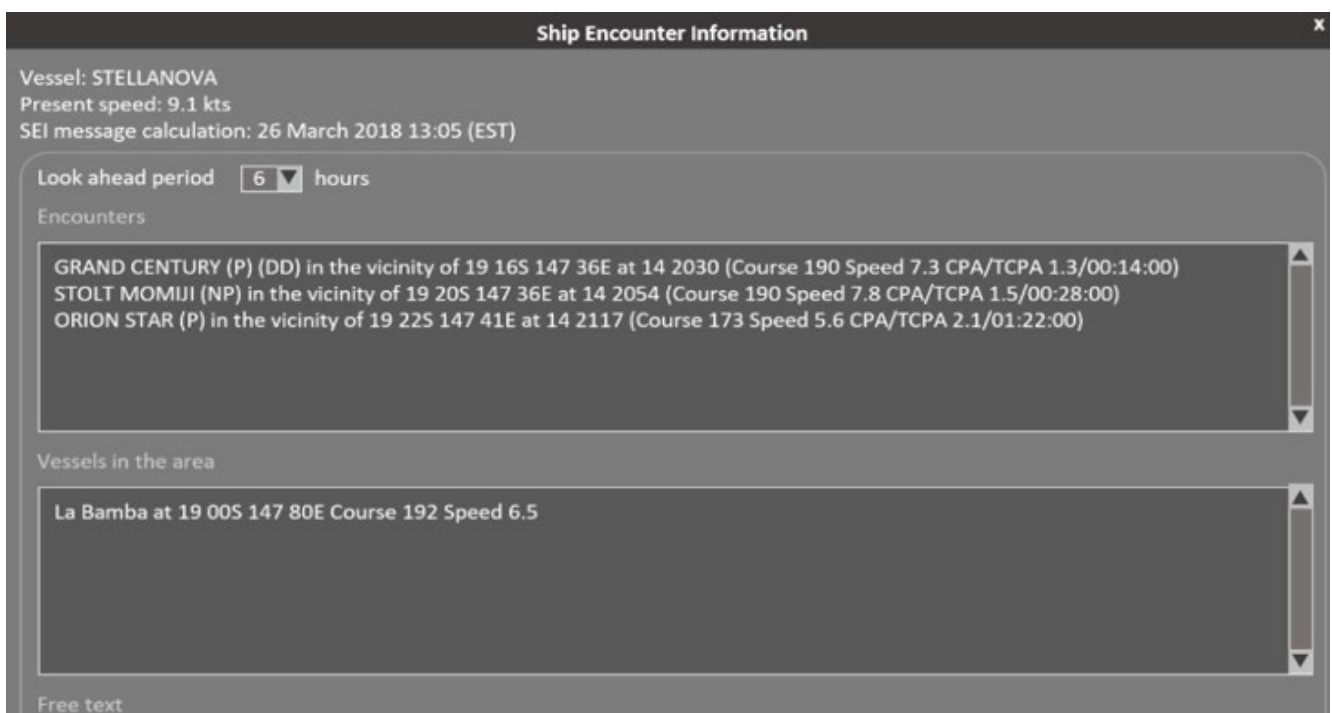
(NP) ship has no pilot

(DD) Deep draught \geq 10 metres

(T) Towing vessel.

Vessel in the area, lists the vessel name, vessel location (latitude/Longitude), vessel course and speed.

Figure 1 SEI Example



10.1.3 New or changed traffic information

Reef VTS monitors the transit of a ship to identify any significant changes to the traffic information which Reef VTS has previously given. An example of this could be when a new ship is identified or there is a change in estimated time of arrival (ETA) because of an increase or decrease in speed.

If deemed necessary, Reef VTS may re calculate SEI for a vessel.

10.1.3.1 Shipping information updates

During a ships transit through the Reef VTS area the ship may receive multiple SEI messages depending on the size of the SEI Calculation area or transiting through multiple SEI calculation areas.

A ship may contact Reef VTS at any time to ask for an SEI update.

10.1.3.2 Receiving ship encounter information

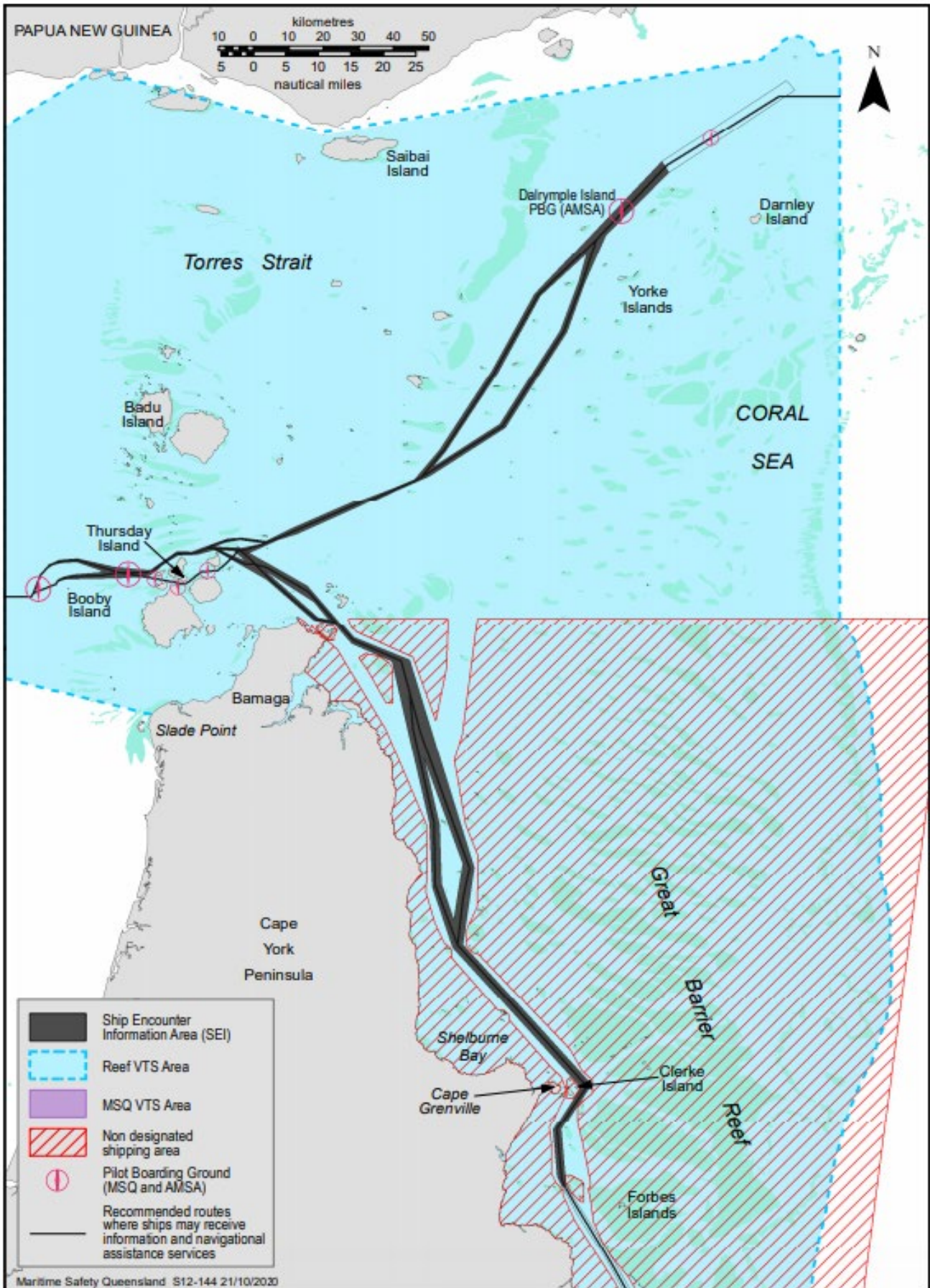
Reef VTS provides SEI in different ways:

- Electronic messages to ships: Inmarsat C
 - (a) The ship must give Reef VTS the make, model and IMN of the ship's Inmarsat C terminal.
 - (b) Please make sure messages from Reef VTS are read when they are received. If a problem exists in receiving electronic messages, then contact Reef VTS to arrange for SEI to be provided by VHF communications.
- VHF voice communications
 - (c) Ships must keep a listening watch on the Reef VTS VHF working channels. Reef VTS uses VHF channels 11 and 14 as shown in section 11

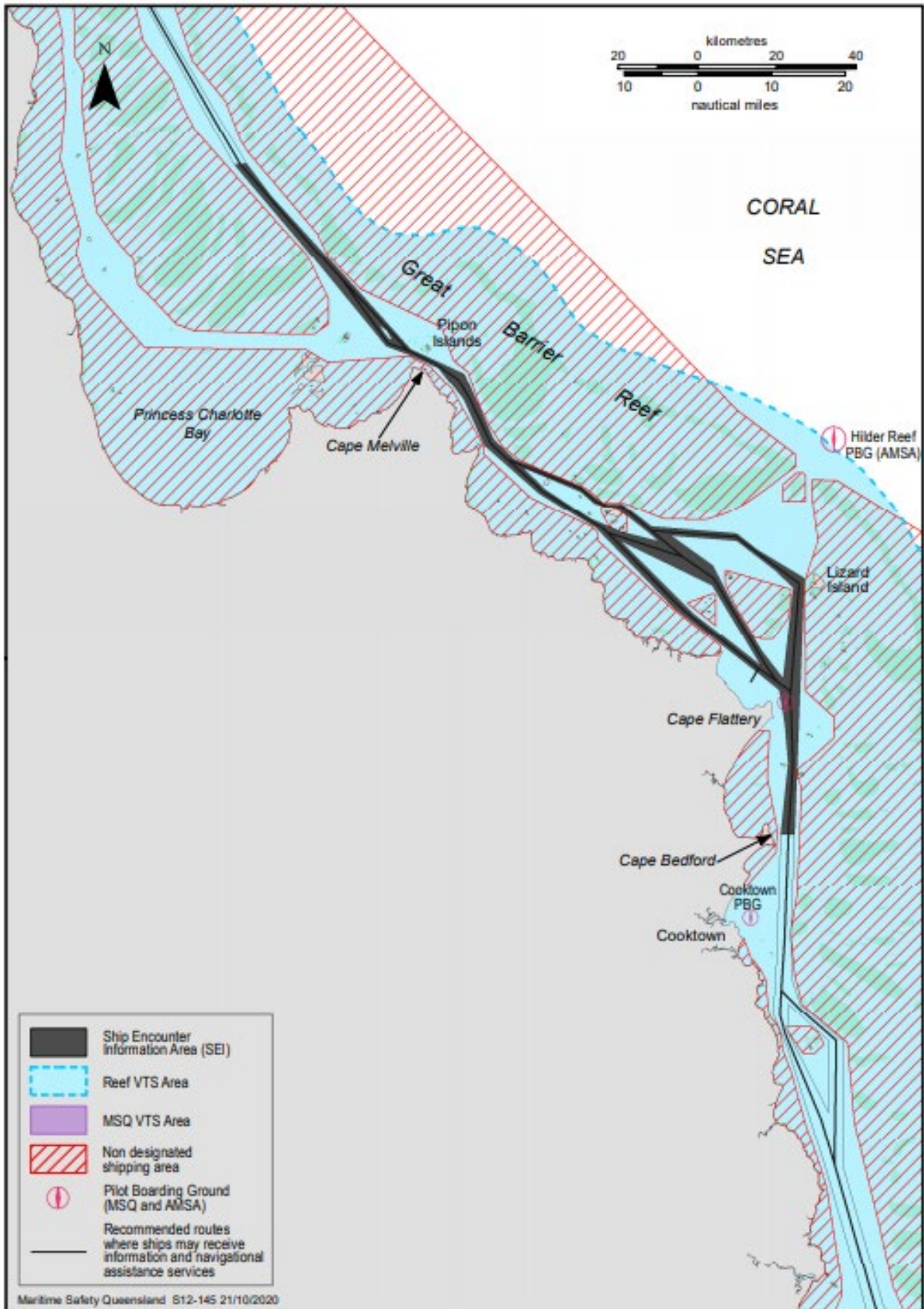
10.1.4 SEI Area Chartlets

The following chartlets show the areas where SEI is calculated and provided to ships transiting these areas

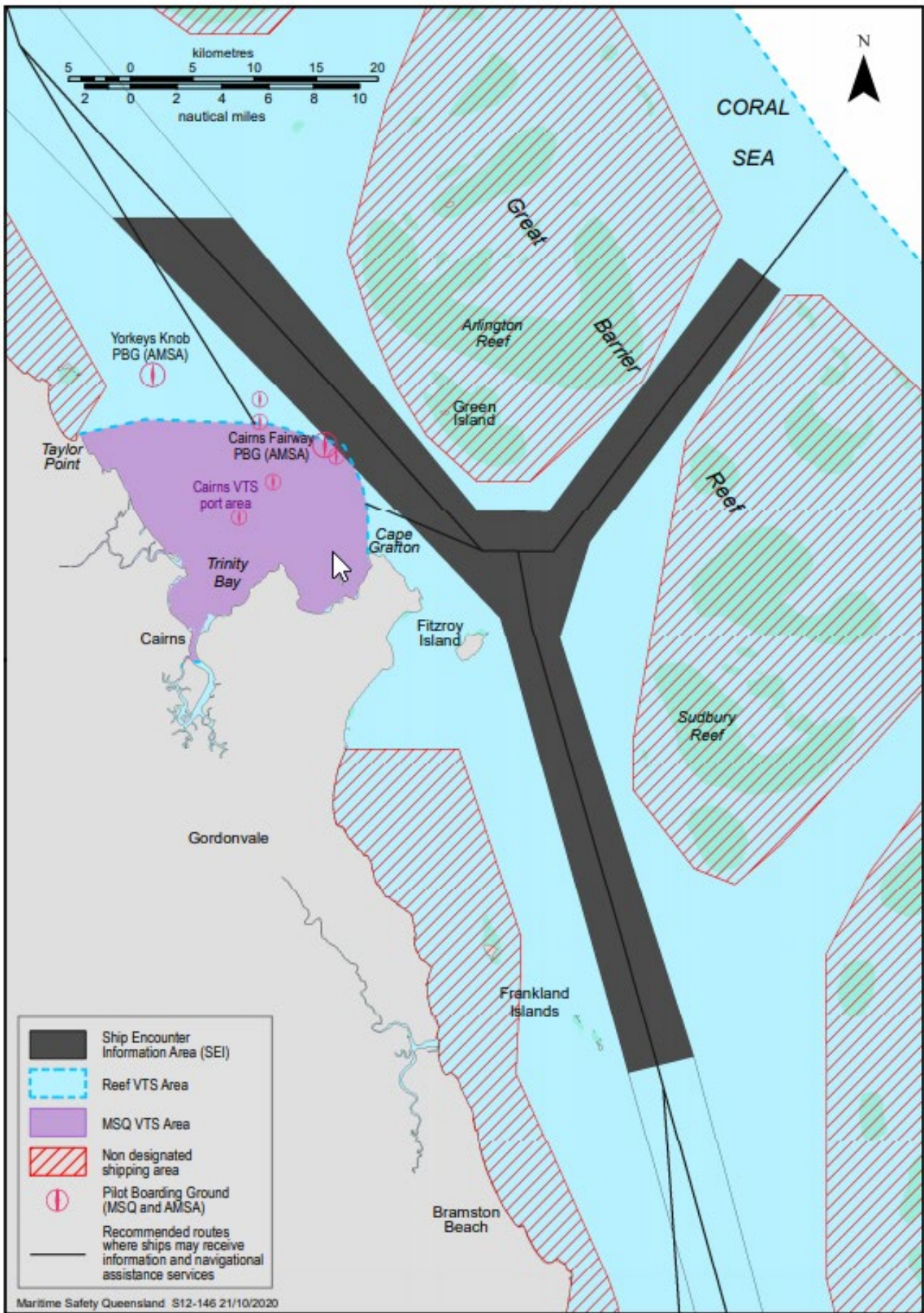
Chartlet 3 - Torres Strait, east to Dalrymple PBG, south to Clerke Island



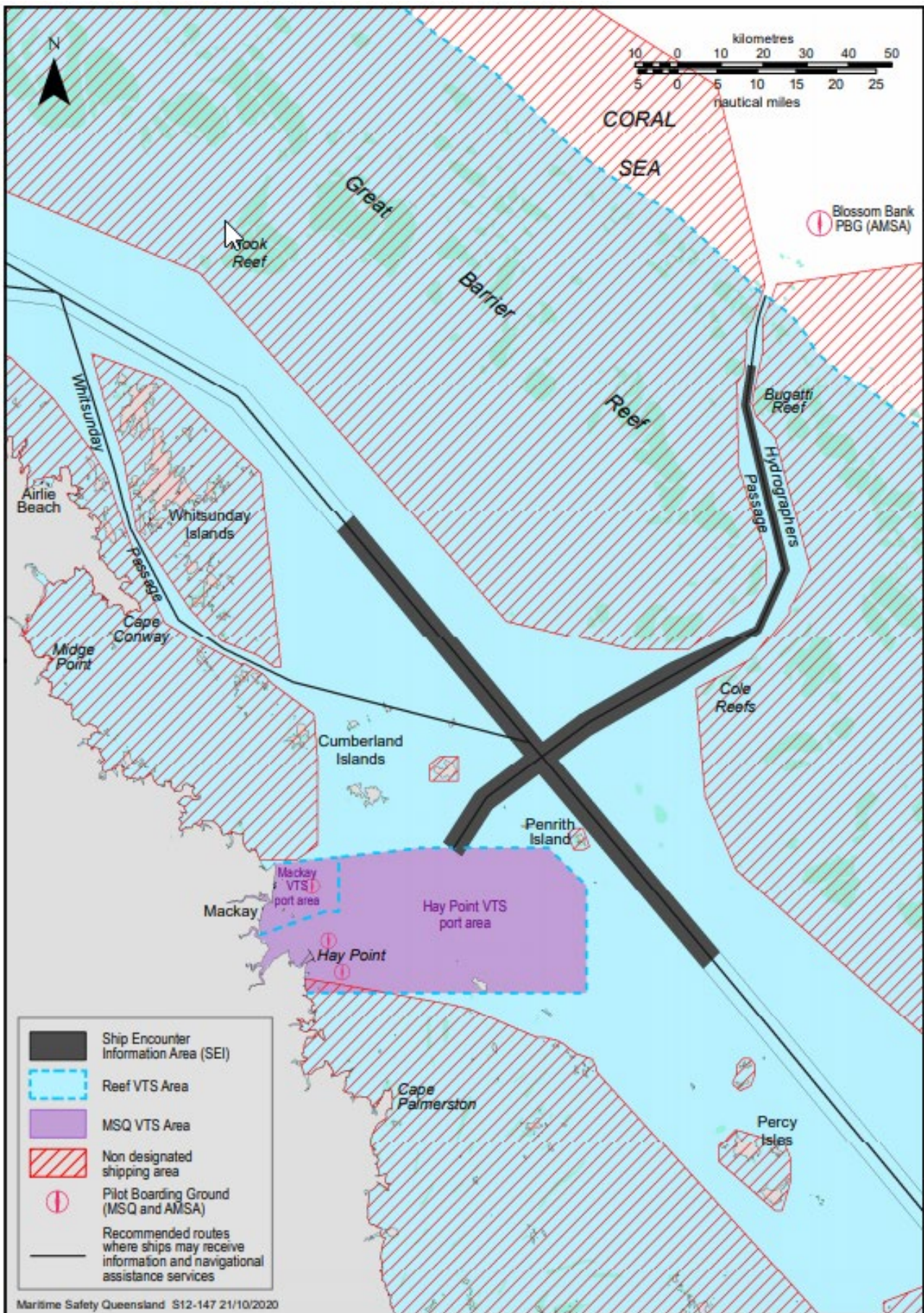
Chartlet 4 - North Pipon to Cape Flattery



Chartlet 5 - Fitzroy Island Approaches



Chartlet 6 - Hydrographers Passage to Hay Point VTS Area



10.1.5 Maritime Safety Information (MSI)

Reef VTS provides ships Maritime Safety Information (MSI) that is relevant to their location and intended movement. If a ship encounters any hazard that may affect the navigational safety of other ships, it should contact Reef VTS.

MSI is sent to ships with the Ship Traffic Information. MSI is also given in broadcasts from JRCC Australia in the form of navigational warnings (AusCoast Warnings).

Figure 2 MSI Example



10.2 Responding to developing unsafe situations.

Responding to developing unsafe situations involves support to the navigational safety of the ship through the provision of essential navigational information to assist on board navigational decision-making. It may also involve the provision of navigational advice and/or instruction.

If Reef VTS has information which may help decision-making on-board a ship, Reef VTS may contact that ship.

If Reef VTS believes that the ship is heading into an unsafe situation (i.e. entering shallow water or deviating from a planned route), Reef VTS may contact a ship in response to the developing situation.

A ship may receive information or advice in all areas within the Reef VTS area.

The master remains responsible for the safe navigation of the ship at all times and should not rely on the availability of navigational assistance from Reef VTS.

11. Other rules and regulations

11.1 Pilotage areas in the Reef VTS area

Under Australian law 'regulated ships must carry a licensed coastal pilot in sections of the Torres Strait and the Great Barrier Reef. Coastal pilots are licensed by the Australian Maritime Safety Authority.

A 'regulated ship' includes ships with an overall length of 70 metres or more, and all loaded oil tankers, chemical tankers and liquefied gas carriers (irrespective of length).

A coastal pilot is required for a tug and tow if either the towing vessel or the vessel being towed has an overall length of 70 metres or more, regardless of the length of tow.

The areas where a coastal pilot is required are shown in Chartlet 7. Ship masters must ensure that a pilot is aboard the ship at all times in these areas (by embarking the pilot prior to entry and disembarking the pilot after exiting the pilotage area).

The Queensland Coastal Passage Plan (QCPP) has been developed as a guide for the conduct of coastal pilotage in these areas.

Further information on coastal pilotage and QCPP is available on the AMSA website www.amsa.gov.au (under Coastal Pilotage).

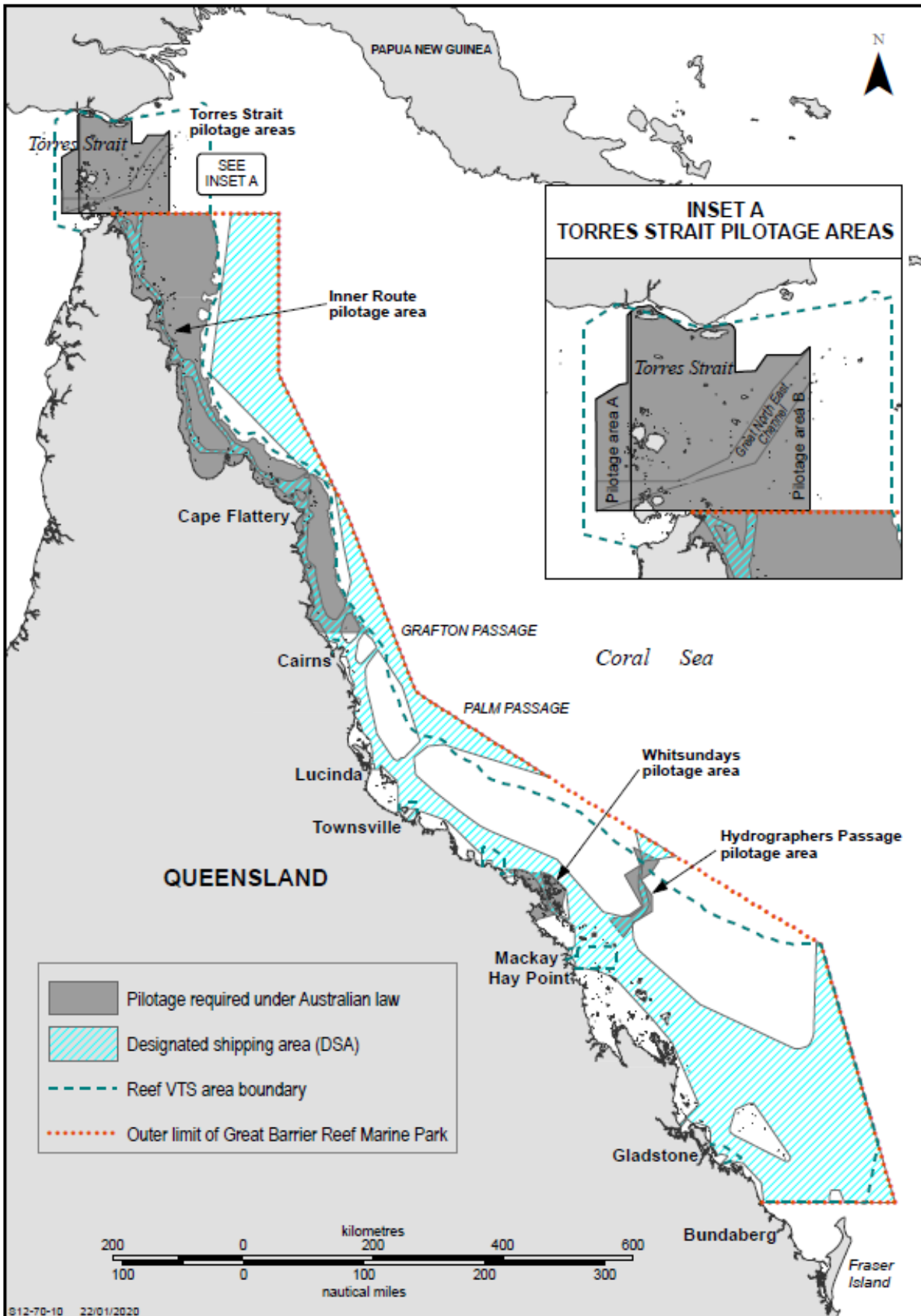
11.1.1 Great Barrier Reef – Inner Route, Hydrographers Passage and Whitsundays

All regulated ships must carry a licensed coastal pilot when they are transiting through:

- the Inner Route of the Great Barrier Reef between Cape York (latitude 10° 41' S) and the vicinity of Cairns Roads (latitude 16° 40' S);
- Hydrographers Passage; and
- the Whitsundays.

Further information including the boundaries of these pilotage areas can be found in Marine Orders Part 54 (Coastal Pilotage) and the Great Barrier Reef Marine Park Regulations (1983).

Chartlet 7 - Coastal pilotage and Designated Shipping Area (DSA)



11.1.2 Torres Strait – Great North Eastern Channel

All regulated ships with a draught of 8 metres or more must have a licensed coastal pilot on-board when transiting Torres Strait Compulsory Pilotage Area A (bounded by the longitudes 141° 50' E and 142° 05' E for ships moving eastward and between 142° 05' E and 141° 51.70' E for ships moving westward).

All regulated ships of any draught must have a licensed coastal pilot on-board when transiting Torres Strait Pilotage Area B (bounded by the longitudes 142° 05' E and 143° 22' E for ships moving eastward, and 142° 05' E and 143° 24' E for ships moving westward).

The outermost boundaries have been established to ensure that a pilot boarding a ship entering the Torres Strait has sufficient preparation time on-board prior to entering the respective pilotage area. Further information on coastal pilotage is available in Marine Order 54 (Coastal Pilotage).

11.2 Torres Strait – Under Keel Clearance Management

AMSA has introduced an Under-Keel Clearance Management (UKCM) System. The goal of this system is to improve the safety and efficiency of shipping through Torres Strait. This is a web-based system for enhancing the safety of vessels whose keel is close to the seabed in the shallow Torres Strait region.

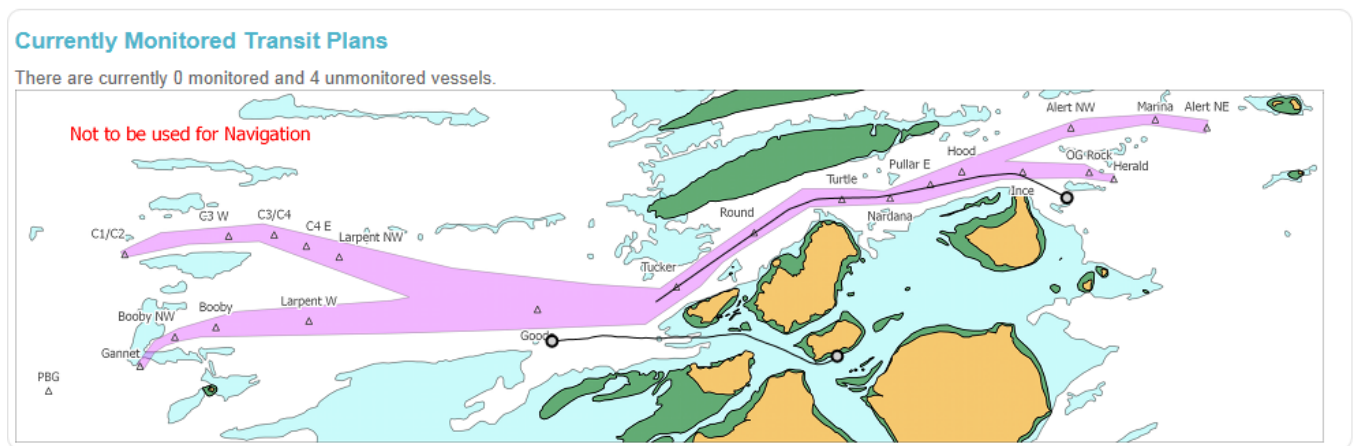
The use of UKCM system is mandatory for all vessels with a draught of 9 metres to a maximum draught of 12.5 metres for all vessels.

However, circumstances may warrant use of the UKCM system for vessels of lesser draught.

The responsibility for safe navigation continues to reside with mariners (masters and pilots) through the appropriate use of the UKCM System.

More information on the UKCM System is available at the AMSA website www.amsa.gov.au

Figure 3 Torres Strait Under Keel Clearance Management Corridor



All times are in Torres Strait local time (AEST) (UTC+10). All tides are given in metres above LAT.

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11.3 Designated Shipping Areas in the Great Barrier Reef Marine Park

The Great Barrier Reef Marine Park Authority (GBRMPA) has put in place a Designated Shipping Area and General Use Zones within the Great Barrier Reef Marine Park as part of the Great Barrier Reef Marine Park Zoning Plan.

Ship operators need a permit from GBRMPA to navigate outside the Designated Shipping Area and General Use Zones. See figure 3

A penalty of up to 2,000 penalty units (presently A\$444,000) for an individual and 20,000 penalty units (presently A\$4,440,000) for a body corporate applies if a ship is navigated outside the Designated Shipping Area and the General Use Zones without written permission from GBRMPA.

Further information is available from GBRMPA by phoning +61 7 4750 0700, emailing info@gbmpa.gov.au or at the GBRMPA website www.gbrmpa.gov.au.

11.4 MASTREP

The Modernised Australian Ship Tracking and Reporting System (MASTREP) is a ship reporting system operated by AMSA and is part of the services offered by the Joint Rescue Coordination Centre (JRCC Australia) in Canberra.

MASTREP is designed to minimise the reporting requirements on vessels by using AIS technology to provide positional advice to AMSA. There is no requirement in MASTREP to send Sailing Plans, Deviation Reports and Final Reports.

Marine Order 63 (Vessel reporting systems) 2019 defines the MASTREP area and lists the ships which must report to MASTREP. The system is mandatory for:

- 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

Please note that no positive search and rescue watch is maintained in MASTREP. It is a passive ship reporting system and does not involve shore to vessel communications for normal operation. The requirement to report all marine incidents including defects and deficiencies using form 'AMSA 18' and form 'AMSA 19' remains. Additionally, Information Reports may be sent to JRCC Australia to provide advice relating to items not covered under AMSA 18 or 19 reporting requirements, for example floating navigational hazards.

Further information is provided in the MASTREP and Australian Mandatory Reporting Guide. This guide is available from AMSA offices or the AMSA website www.amsa.gov.au.

11.5 Pollution reporting

The MARPOL 73/78 definition of "nearest land" prohibits operational discharges in the Great Barrier Reef and Torres Strait regions.

The following should be reported to Reef VTS:

- any quantity of oil (including diesel fuel, petrol and oil products);
 - any discharge from a ship of chemicals or chemical residues; or
 - garbage (food waste, glass, plastic etc.).
- Information on reporting ship sourced pollution is available on:
- AMSA website www.amsa.gov.au
 - MSQ website www.msq.qld.gov.au/Marine-pollution

12. Standard route plans

12.1 Inner route

There are three standard route plans for transiting the Reef VTS area by the inner route between Booby and Sandy Cape. The route plan applies in either direction of the transit and also applies to any portion of the inner route.

The standard route plan should be communicated to Reef VTS by stating:

- inner route;
- predefined route by communicating the ship's draught of deep, moderate or shallow; and
- the name of any alternative legs intended to be taken that vary from the standard route (for example, shaded boxes) for that draught category.

For example, a ship plans to transit the inner route, moderate draught route via Varzin Passage (rather than using the standard route via Gannet Passage). This should be communicated to Reef VTS as "INNER ROUTE, MODERATE VIA VARZIN".

Table 8 Standard Inner Routes

Deep draught		Moderate draught		Shallow draught	
Standard route	Alternative	Standard route	Alternative	Standard route	Alternative
Booby		Booby		Booby	
Via Varzin Passage	Via Gannet Passage	Via Gannet Passage	Via Varzin Passage	Via Gannet Passage	
Via East of Cairncross	Via West of Cairncross	Via East of Cairncross	Via West of Cairncross	Via East of Cairncross	Via West of Cairncross
Via Fairway Channel		Via Fairway Channel		Via Fairway Channel	
Via Howicks		Via Miles	Via Howicks	Via Miles	
Via Lizard Island/ Palfrey		Via Mid- Decapolis		Via Petherbridge	Via Mid- Decapolis
Two Isles		Two Isles		Two Isles	
Gubbins West	Via Gubbins East	Gubbins West	Via Gubbins East	Gubbins West	Via Gubbins East
Via North Holbourne		Via North Holbourne		Via North Holbourne	
Sandy Cape/ Swain		Sandy Cape/ Swain		Sandy Cape/ Swain	

12.2 Great North East Channel

Ships transiting the Great North East Channel (GNE) enter or exit the Reef VTS area in two main locations. These are Booby or Bramble.

The standard route plan should be communicated to Reef VTS by stating:

- GNE Channel;
- the first set of alternative legs intended to be taken; and
- the second set of alternative legs intended to be taken.

For example, a ship enters at Booby and exits at Bramble, the first leg is via Varzin Passage and the second leg is via West of Coconut Island. This should be communicated to Reef VTS as

GNE, VIA VARZIN AND WEST OF COCONUT ISLAND”.

Table 9 GNE Routes

Standard route	Alternative
BOOBY	
via Gannet Passage	via Varzin Passage
via West of Coconut Island	via East of Coconut Island
BRAMBLE	

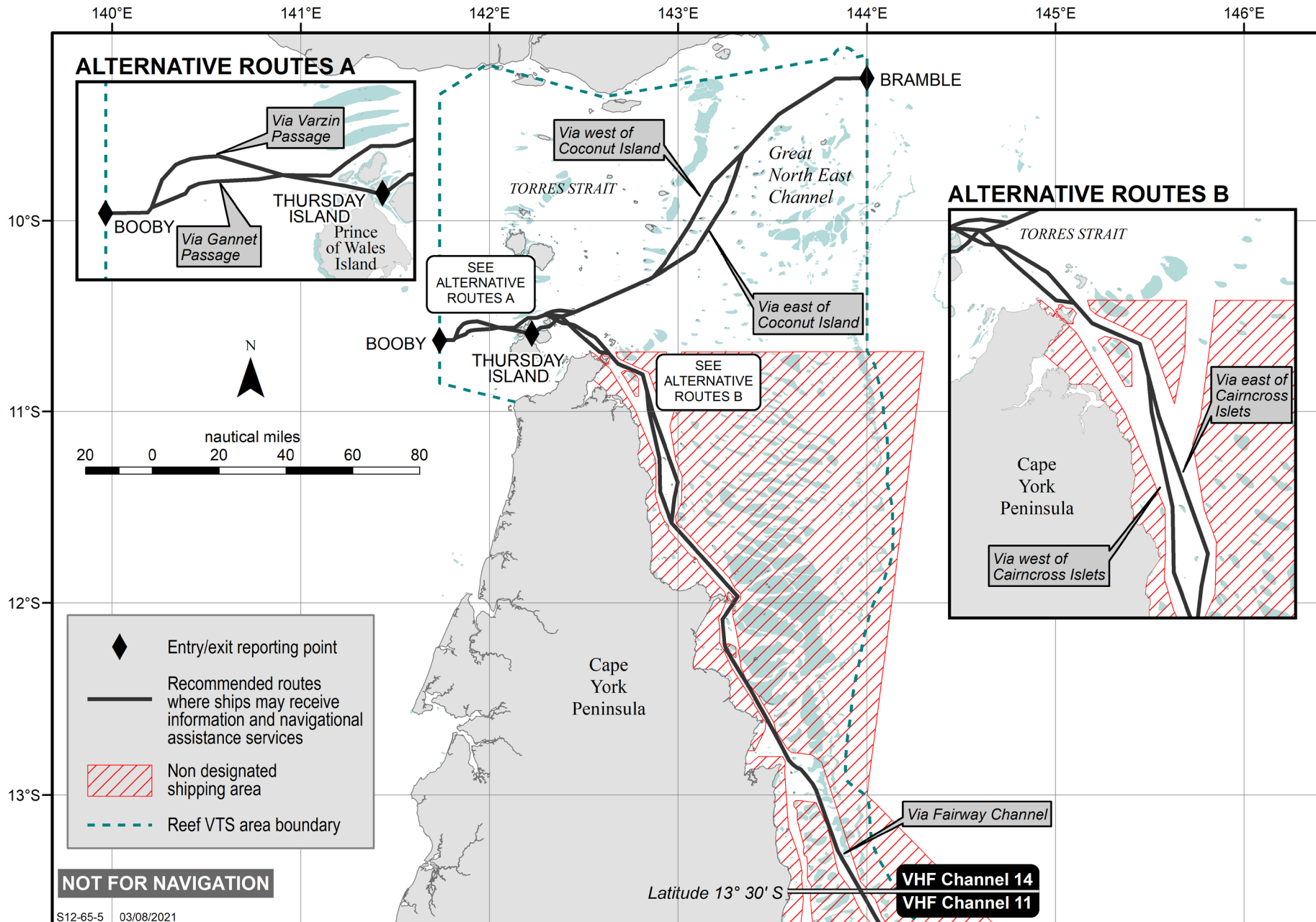
The Queensland Coastal Passage Plan provides more details on routes, waypoints and navigation aids in the pilotage areas (outlined in Section 11.1). The Queensland Coastal Passage Plan can be accessed from the AMSA website www.amsa.gov.au (under Coastal Pilotage) and is also available in hard copy.

12.3 Reef VTS Chartlets

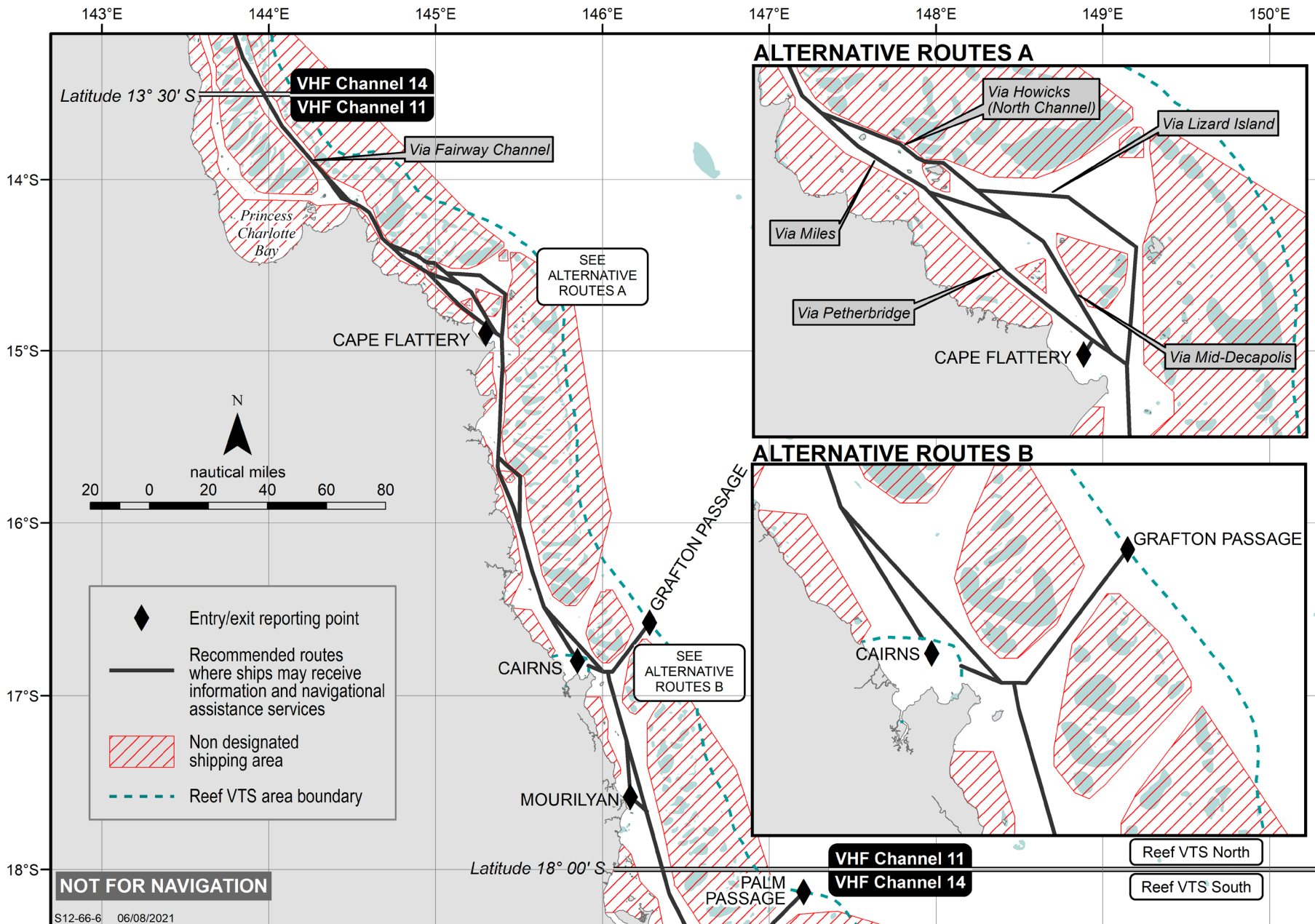
The following chartlets show:

- details of the standard routes and alternatives;
- the VHF working channels;

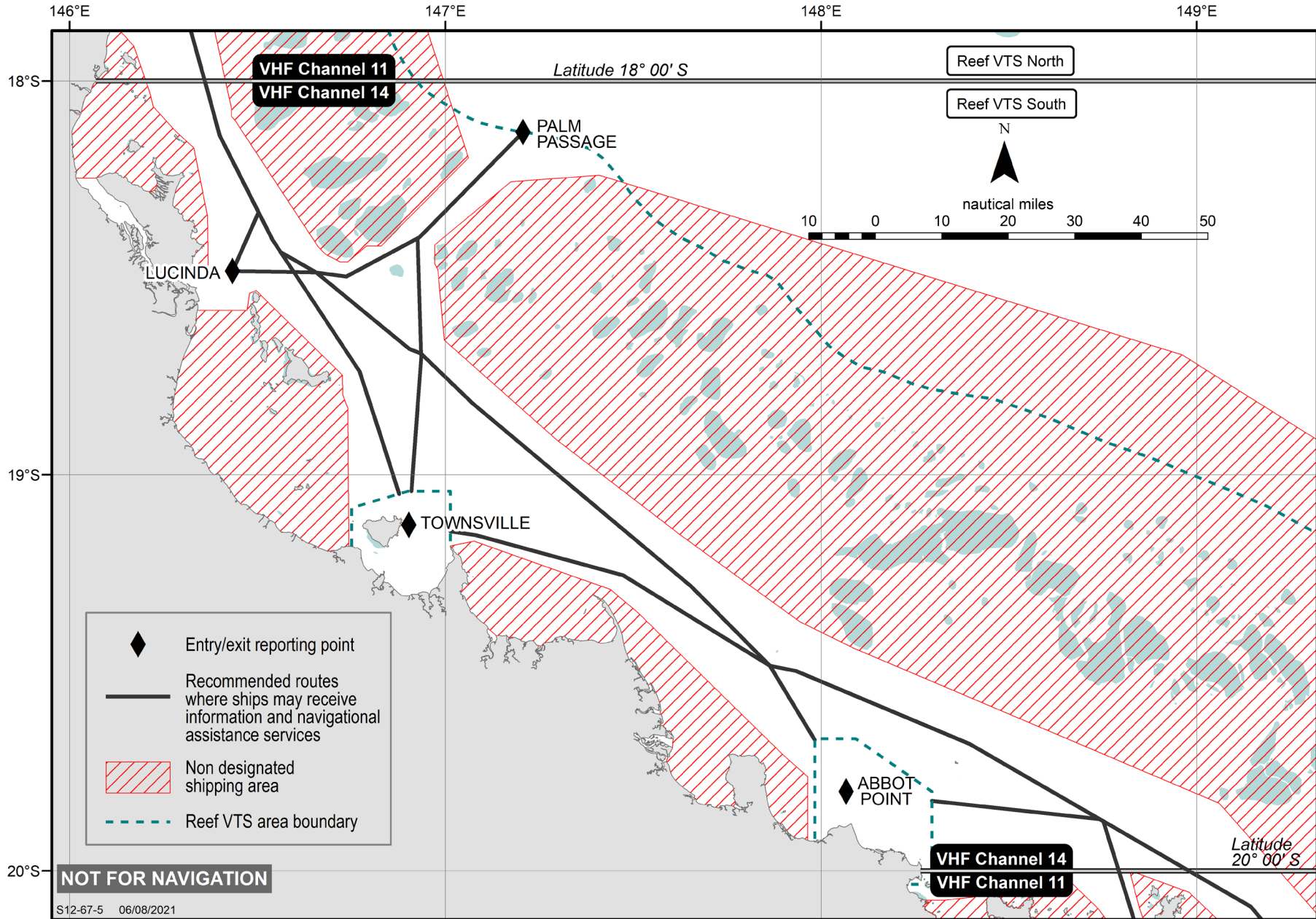
Chartlet 8 - Use VHF channel 14 where available



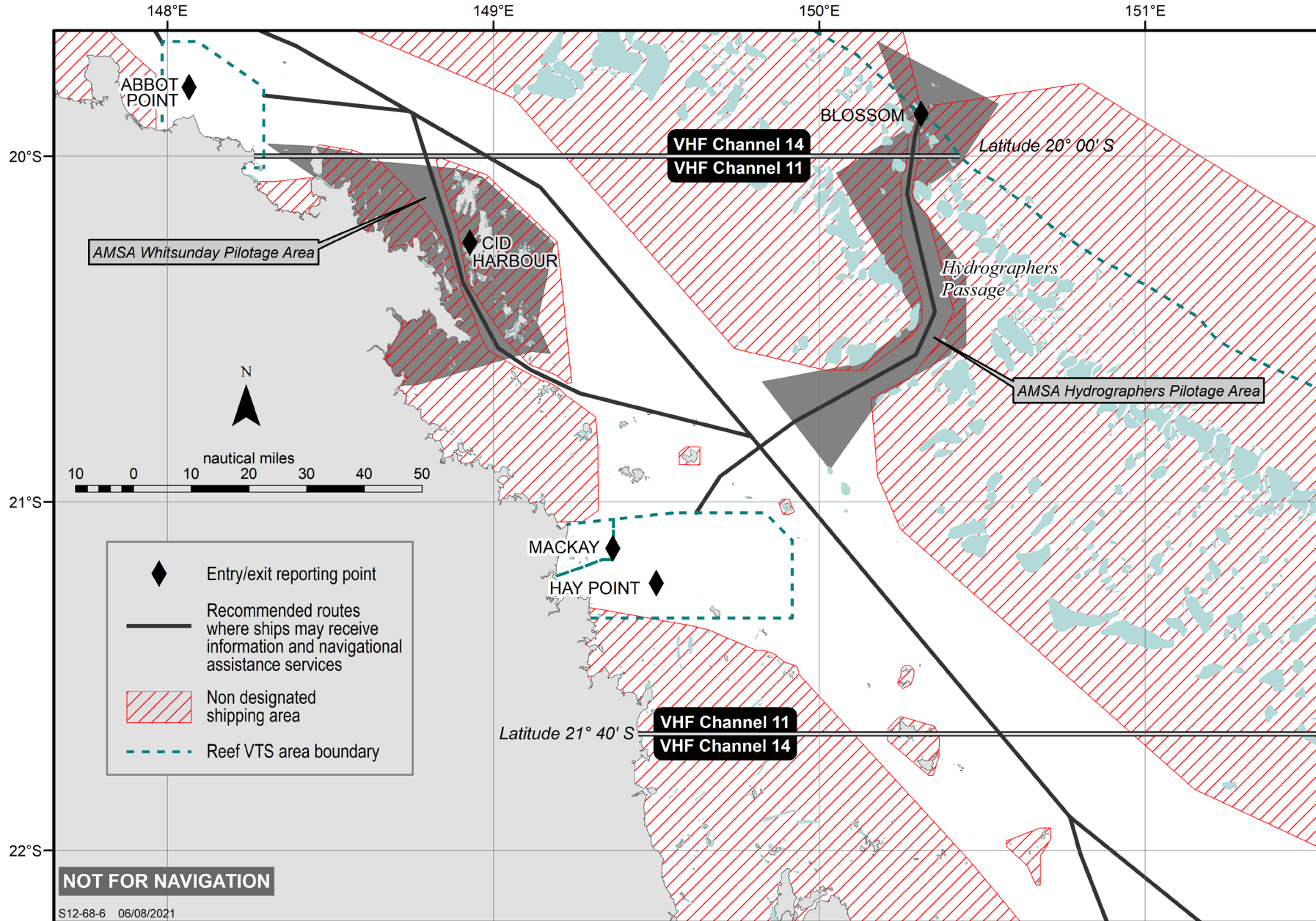
Chartlet 9 - Use VHF channel 11 between latitudes 13° 30S and 18°S



Chartlet 10 - Use VHF channel 14 where available between latitudes 18°S and 20°S



Chartlet 11 - Use VHF channel 11 between latitudes 20°S and 22°S



Chartlet 12 - Use VHF channel 14 where available between latitudes 22° and 24° 30S

