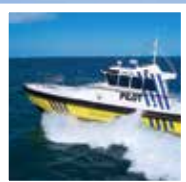


Australian Reef Pilots

When experience and safety count.



Issued April 2013

Providers of Australian Maritime Safety Authority (AMSA) licensed pilots servicing Torres Strait and the Great Barrier Reef.

Great Barrier Reef
Hydrographers Passage

Torres Strait
Whitsunday Passage



Certificate Number 35E14529



Certificate Number 1111



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Pilot Booking Procedure

Contact ARP preferably five (5) days but no less than three (3) days before arrival with the following details. Due to the remote locations serviced in Torres Strait and the Great Barrier Reef, bookings received less than three (3) days prior to arrival shall be accepted subject to the availability of the next rested pilot. Additional costs will apply should there be a requirement to relocate or call-out a pilot to service the booking.

- Vessel name/ IMO number/ call sign
- Required boarding ground
- ETA (LT=UTC + 10 hours)
- Maximum draft
- Destination and intended route
- Sea speed

All initial messages are acknowledged by ARP operations, together with advice regarding ETA update requirements and pilot transfer methods.

Contact Details For Bookings:

Telephone: +61 7 3666 4041

Mobile: +61 413 878 792 (24 hours)

E-mail: operations@reefpilots.com.au

Contact Details For Duty Pilot (Technical Information)

Telephone: +61 7 3666 4092

E-mail: dutypilot@reefpilots.com.au

Boarding Method

Pilots generally board by launch. Please rig a pilot ladder on the lee side, as per SOLAS IMPA regulations. Please have a heaving line available. (See page 19 for details).

Ordering a Pilot Outbound

We would request that ARP be given as much notice as possible.

Areas Serviced

- Great Barrier Reef
- Hydrographers Passage
- Torres Strait
- Whitsunday Passage
- Clarence and Dundas Straits

About Australian Reef Pilots

ARP has been protecting the Great Barrier Reef for more than 125 years.

The company's origins can be traced back as far as 1872 when the first known pilotage along the Queensland coast took place after former Master of a local trader assisted the German immigrant ship "Humbolt" from Moreton Bay to Bowen.

Two years later, the newly-formed Eastern and Australian Mail Steamship Company (E&A) introduced a service between Australia and the Orient via Torres Strait. Two shipmasters, well experienced in Reef waters, provided exclusive Barrier Reef pilotage services to E&A and the company now known as ARP was born.

Many things have changed for the marine pilot industry since those early days. In 1991, compulsory pilotage was introduced for the Inner Route between Cairns and Cape York as well as for Hydrographers Passage and, in 1993, the Australian Federal Government deregulated the industry. ARP has evolved into a sophisticated state of the art operation and as in 1874, safety, professionalism, innovation and customer satisfaction remain as the highest priorities.

ARP's professional services are unmatched and include Great Barrier Reef relief Masters, port pilots in Australia and New Zealand, towage specialists, marine surveys, provision of charts, voyage management, launch operation and hire.

ARP is the first choice for specialised cruise ship pilotage with pilots licenced in the Whitsunday Passage and experienced in navigation through the Clarence and Dundas Straits en route to Darwin and PNG waters. Our experienced pilots provide entertaining bridge commentaries when passing historical regions and lectures for ship's passengers when not engaged in pilotage tasks.



The company owns and operates a modern fleet of five pilot launches and six land-on helicopters as well as pilot houses at Mackay, Cairns and Thursday and Yorke Islands in Torres Strait.

Safety

ARP continues to think outside the square when it comes to safety and innovation in sea pilotage in central and far north Queensland and Torres Strait.

The company has a comprehensive and living Safety Management System (SMS) which is managed by a highly qualified in-house Chief Pilot.

ARP's work in this area has resulted in an ongoing superb safety record. The SMS covers broad issues such as safety, performance, training and certification, auditing processes and is continually evolving.

ARP was the first sea pilotage company in the world to achieve ISO Quality Assurance in 1996 and in March 2013 14001 Environmental Accreditation was achieved.

ARP is proud to have been presented the Australian Industry Group's 2012 "Icon of Industry" award by the Queensland Premier, Mr Campbell Newman. The award recognises commitment to safety, professionalism, innovation and customer satisfaction.

Recent initiatives introduced include, as part of the SMS, the VoyageBank central management system which tracks and plots piloted ships movements. This provides ARP with the ability for real-time monitoring of Reef transits both on board and from shoreside. VoyageBank involves the issue of a pilot's portable pilot unit (PPU) in the form of a tablet which provides a black box-type record of every decision made by the pilot and every movement of the ship. ARP can monitor the passage of ships under their pilotage real-time. A large monitor is in place at Brisbane Head Office tracking the pilotage from start to finish and able to record any happenings outside normal parameters. This has led to a dramatic enhancement in safety of the vessels under ARP pilotage and is also an excellent tool for the training of new entrant pilots.

VoyageBank also records all passage planning, bookings, job allocations and movements and incorporates electronic mapping with approved ECDIS charting which is automatically updated on an ongoing basis.

ARP is the only Queensland coastal pilotage company with access to a state of the art simulation model of the Prince of Wales Channel, the most complex section of Torres Strait and the Great Barrier Reef. The simulation provides an invaluable tool for training of new entrant pilots, emergency situation training and ongoing assessment of piloting standards.

Pilots

ARP has the most experienced and professional group of Australian Maritime Safety Authority (AMSA) licenced pilots. The group work to consistent procedures under the company SMS and are known as "Guardians of the Reef".

All contracted pilots hold current licences issued by the Regulator, AMSA, and were all former shipmasters or naval equivalents.



The company is committed to exceeding AMSA standards which has resulted in a safety record that sets the benchmark in the Queensland coastal pilotage industry.

Pilot standards are continually monitored shoreside through VoyageBank and simulation as well as check/audit voyages carried out on each pilot in each compulsory district on an ongoing basis. Approximately 20% of the ARP pilot pool are certified Workplace Assessors having been professionally trained as Check Pilots.

The great majority of ARP pilots are employed on a full-time permanent salaried basis as opposed to the casual contract system of employment used by other pilotage providers in the Reef. It is the latter contract system that, citing commercial pressure, was deemed by the Australian Transport Safety Bureau in a 2012 Report as a major contributing factor to safety breaches leading to incidents under that system of pilot utilisation.

The extensive experience of numerous "Grand Pilots", (who have each completed more than 1,000 pilotages through Torres Strait and the great Barrier Reef), is utilised for mentoring and training new entrant pilots.

For more information on ARP – visit www.reefpilots.com.au

Our Boarding Grounds

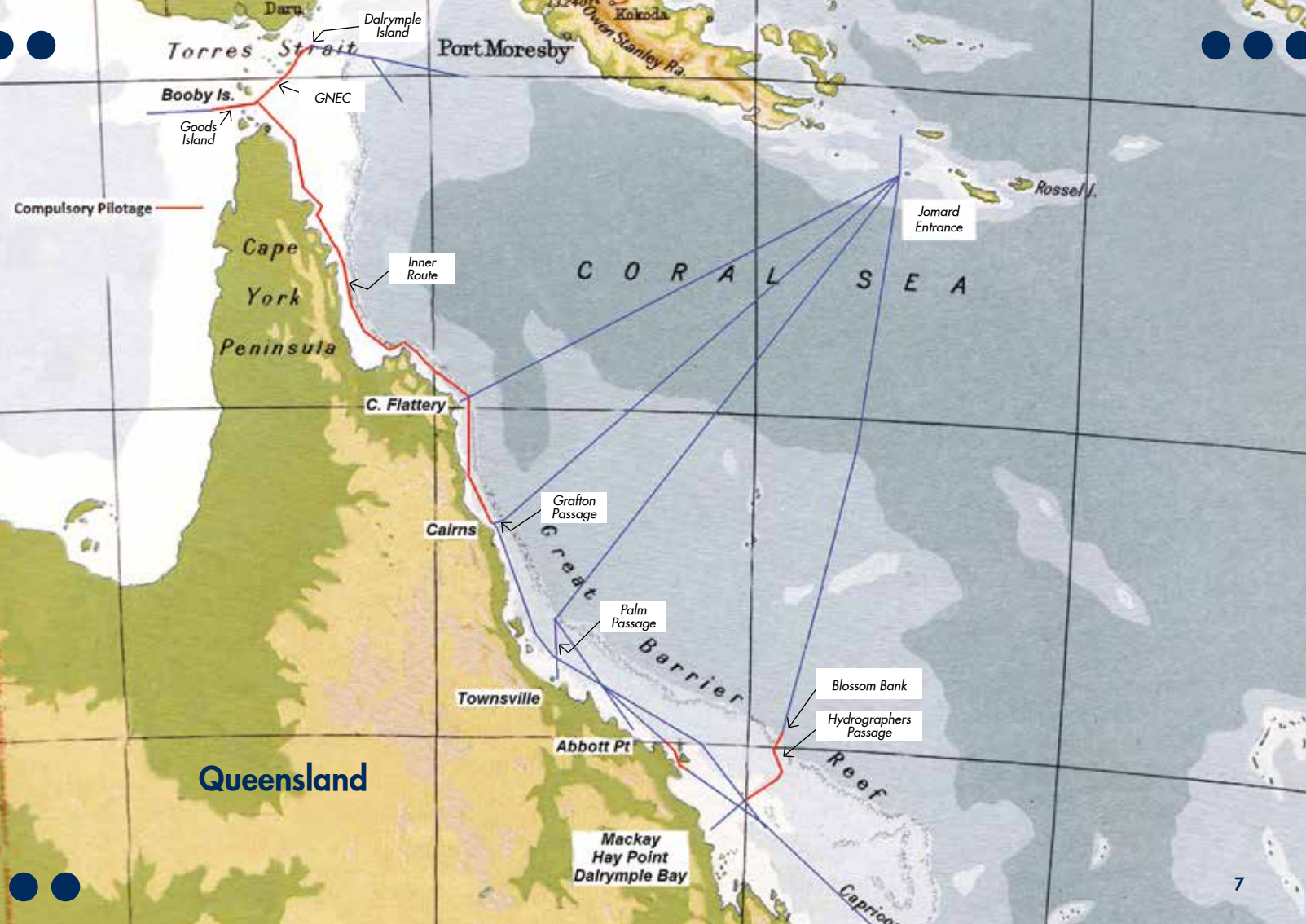
(Please also see Route Map on next page)

ARP has comprehensive coverage of Torres Strait and The Great Barrier Reef which enables it to cater for almost every shipping need. The company has also strategically positioned its bases of operation near boarding grounds, ensuring an ability to provide on-time performance to its customers.

Boarding Grounds

ARP pilots can board at the following Queensland pilot boarding grounds and if required will endeavour to board pilots at ports outside of the usual areas of operation if required and if it is logistically possible.

	Position	VHFCh/Sat Phone	Launch/Heli
Hydrographers Passage (Blossom Bank)	19° 43'S 150° 26'E	VHF 16. 09.	Helicopter only
Cairns (Yorkeys Knob)	16° 44'S 145° 45'E	20	Launch or Helicopter
Cape Flattery (Two Mile Opening)	14° 21'S 145° 29.3'E	VHF 16, 11	Helicopter only
Great North East Channel (Dalrymple Is)	9° 34'S 143° 24'E	13	Launch
Torres St (Goods Is)	10° 34'S 142° 04'E	20	Launch or Helicopter
Torres St (Booby Is)	10° 36'S 141° 50'E	20	Launch or Helicopter



Torres Strait

Port Moresby

Booby Is.

GNEC

Goods Island

Compulsory Pilotage

Cape York

Peninsula

Inner Route

C. Flattery

Calms

Grafton Passage

Palm Passage

Townsville

Abbott Pt

Blossom Bank

Hydrographers Passage

Queensland

Mackay
Hay Point
Dalrymple Bay

C O R A L S E A

Jomard Entrance

Rossel J.



Compulsory Pilotage Districts

The Great Barrier Reef is the world's largest coral reef system and is the only living thing that can be seen from space. It is composed of more than 2,900 individual reefs and 900 islands stretching for more than 1,600 mi (2,600 kilometres) over an area of approximately 133,000 sq mi (344,400 square kilometres).

ARP's fundamental obligation is to protect the Great Barrier Reef Marine Park and the World Heritage Area. We take great pride in being labelled the 'Guardians of the Reef' by ensuring ships navigate the Reef safely.

The entire World Heritage Area is regulated by the Great Barrier Reef Marine Park Authority and all cruise ships engaging in tourist activities require a permit.

Although zoning plans restrict or limit the access of vessels to most areas of the reef system, there are a number of compulsory pilotage districts within these zones.

The following compulsory pilotage districts require a pilot licensed by AMSA on board at all times:

Inner Route *(See map page 12)*

The Inner Route is between the Great Barrier Reef and the Queensland coast, stretching for some 1,300 miles (2,000 km) from the Tropic of Capricorn to Torres Strait.


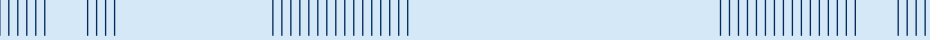
All vessels of 70 metres or more in overall length (loaded oil tankers, chemical tankers and liquefied gas carriers irrespective of length) transiting this district are required to use the services of an AMSA licensed pilot between Torres Strait and Cairns. Please note – the draft of vessels will determine their boarding ground in Torres Strait (please see Draft Restrictions for more information).

Hydrographers Passage *(See map page 14)*

Hydrographers Passage offers a track through the Great Barrier Reef in Central Queensland, linking the ports of Hay Point and Dalrymple Bay as well as Mackay with the Coral Sea. All vessels 70 metres or more in length (loaded oil tankers, chemical tankers and liquefied gas carriers irrespective of length) are required to use the services of a licensed pilot.

Great North East Channel *(See map page 11)*

The Great North East Channel pilotage located in Torres Strait (between Cape York and the Papua New Guinea coast) is around 120 miles between Dalrymple Island and the western approaches of Torres Strait.



All vessels 70 metres or more in length (loaded oil tankers, chemical tankers and liquefied gas carriers irrespective of length) are required to use the services of an AMSA licensed pilot. Please note – the draft of vessels will determine their boarding ground in Torres Strait (*please see Draft Restrictions for more information*).

Whitsunday Passage

All vessels 70 metres or more in length (loaded oil tankers, chemical tankers and liquefied gas carriers irrespective of length) are required to use the services of an AMSA licensed pilot.

Draft Restrictions

The two tidally restricted and therefore controlling areas for traversing Torres Strait are Varzin Passage and the Prince of Wales Channel. Use of daily tide rises enables the service to pilot ships through these areas with a maximum draft not exceeding 12.2 metres (40 feet). Our in-house expertise is readily available for accurate calculation of tidal windows.

ARP has a Duty Pilot available to provide our clients with 24/7 service. This involves the provision of pre-arrival way points and UKC management plans, routing recommendations and ready access to technical information.


It is also important to note that the Torres Strait pilotage area is divided into the following sub-areas:

1. Torres Strait Area A means the area between longitudes 141° 50'E and 142° 05'E.

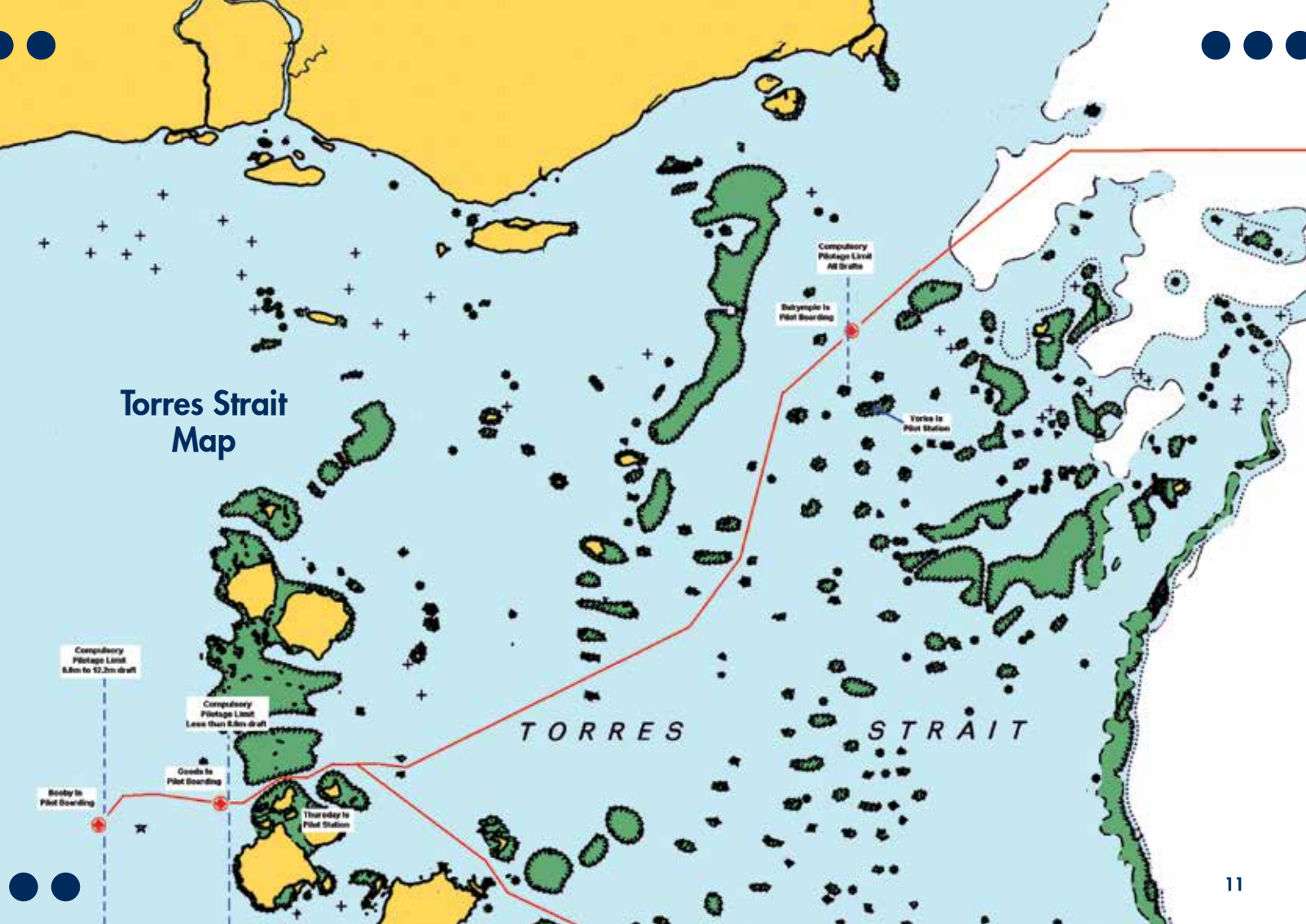
2. Torres Strait Area B means the area between longitudes 142° 05'E and 143° 24'E.

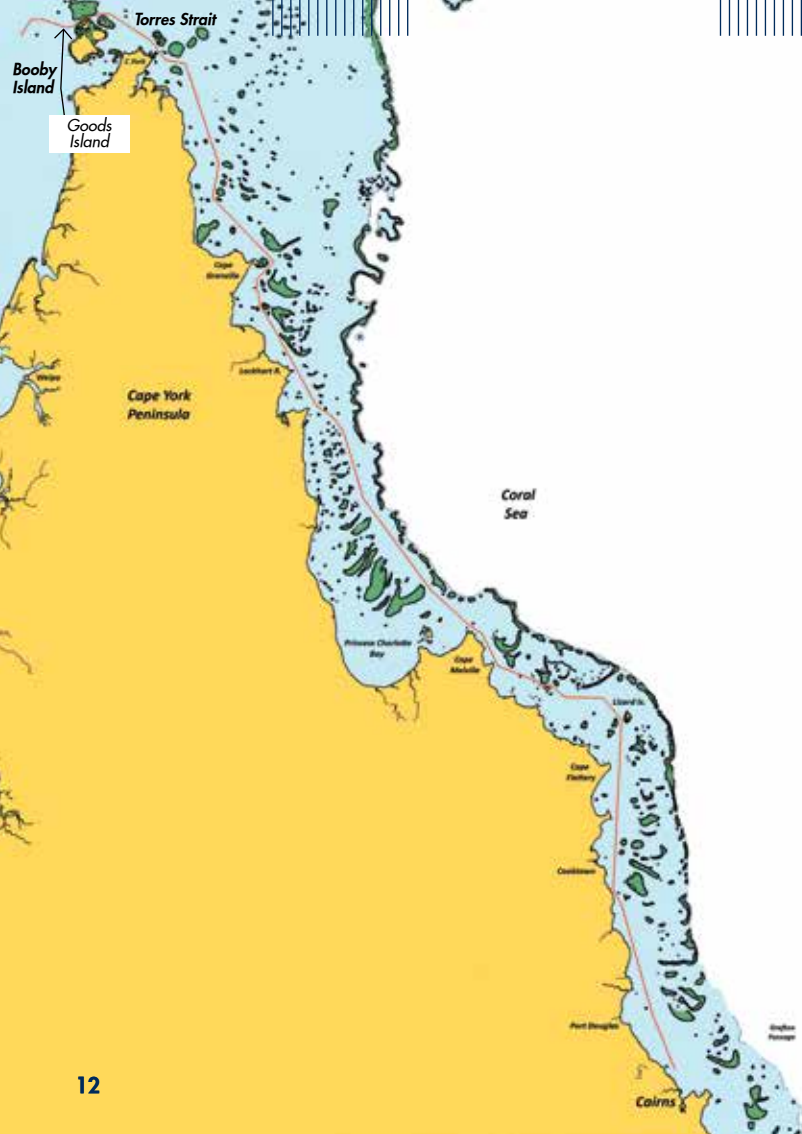
All vessels 70 metres or more in length (loaded oil tankers, chemical tankers and liquefied gas carriers irrespective of length) are required to use the services of an AMSA licensed pilot when transiting these two areas. The only exception is vessels with a draft of less than eight metres when transiting Area A do not require a pilot and may board/land pilots at Area B.

Vessels loading in any Queensland port and using Hydrographers Passage, Palm Passage, Grafton Passage or the southern entrance to the Great Barrier Reef are limited only by the permissible draft at the loading port.



Torres Strait Map





Inner Route Map



Hydrographers Passage

In October 2012, ARP committed to the long-term lease of a state-of-the-art twin engine IFR Agusta 109 Power helicopter to provide a 24 hour, all-weather marine pilot transfer service to/from Blossom Bank in servicing Hydrographers Passage pilotage.

ARP provides a robust and reliable all-hours service with 28 of its marine pilots licenced for Hydrographers Passage pilotage and a 12 month forward roster of marine pilots to ensure ongoing availability at late notice through strategic positioning of pilots on location at Hay Point/DBCT. Additionally, the ARP Duty Pilot provides full pre-arrival technical assistance ie; waypoints, deep draft plans etc.

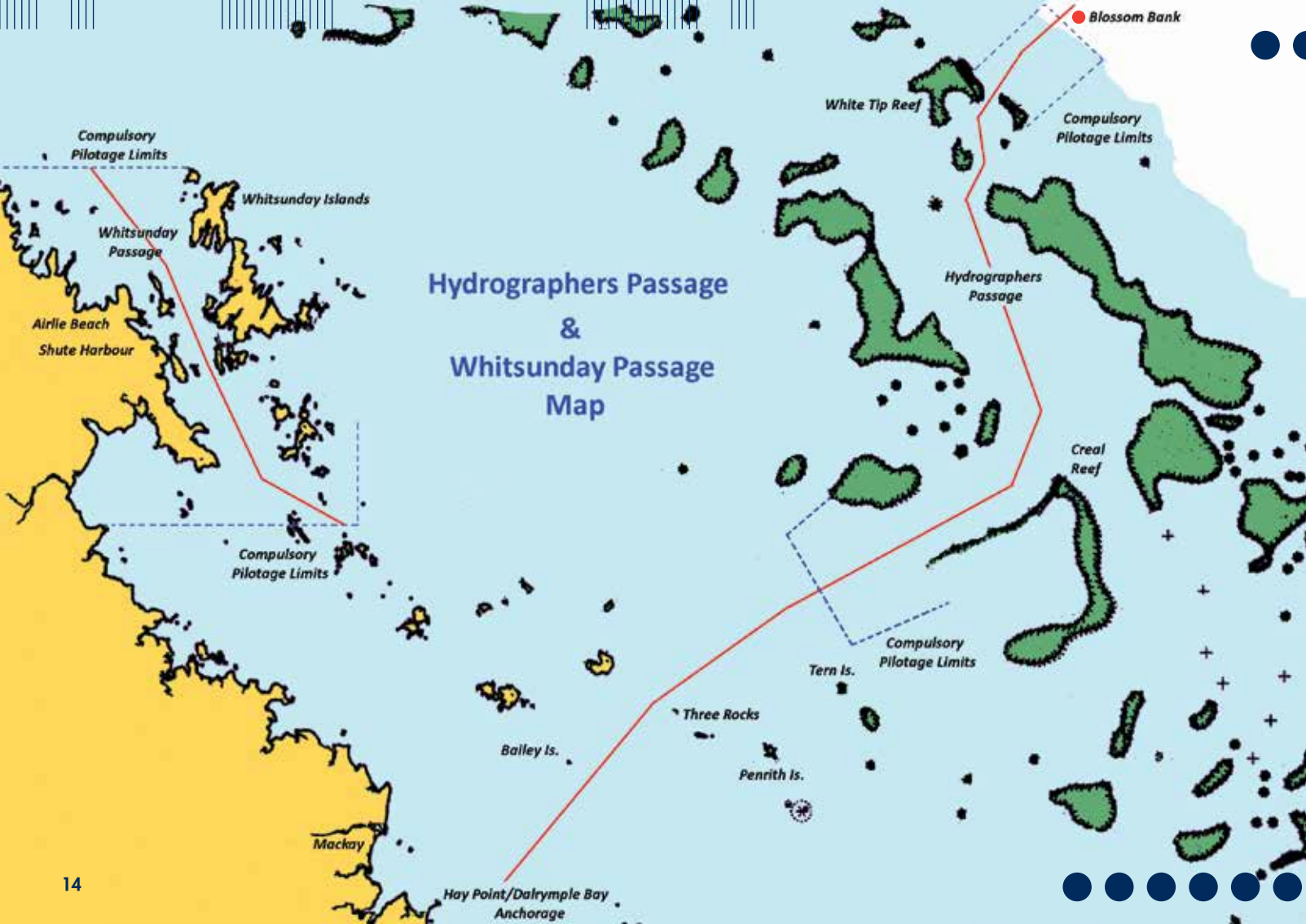
It has become ARP's primary method of servicing Hydrographers Passage pilotage.

Some detail of the VH-TRW:

- Fastest production helicopter approximately 45 minutes from Mackay to the Blossom Bank pbg
- Full Category A, single engine climb ability
- 8 seats
- Air-conditioned and sound proofed
- 3 axis autopilot + stormscope
- 5 cell fuel unit allowing range in excess of 420nm
- The Royal Australian Navy utilises exact aircraft due to extreme slope limits it is capable of handling.



Taking the Hydrographers Passage/Jomard/Vitiaz Strait/Sagewin and Lombok Strait route to Europe via the Suez Canal is at least 140 miles shorter than the track via the Great Australian Bight. Apart from the distance benefit, ships taking the northern route avoid the debilitating head winds and westerly swells in the Great Australian Bight. In winter months, even ships from Hay Point to Europe via the Cape of Good Hope can take the northern track around PNG, saving significant time and providing favourable loadlines.







Marine Pilot Transfer Options

Launch

Ship Masters should ensure that pilot ladders and pilot boarding arrangements comply strictly with current SOLAS regulations and the requirements of the International Maritime Pilots Association. Please also have a strong heaving line ready with which to lift aboard the pilot's baggage (usually two items).

(See page 19).

Helicopter

Masters should consult the International Chamber of Shipping's Guide to Helicopter/Ship Operations. All crew members should remain clear of the landing hatch unless instructed otherwise by the helicopter or reef pilot.

The helicopter will call on the designated VHF channel 30 to 40 minutes before the given ETA. About 10 minutes before landing, the helicopter will again call on the prearranged VHF channel to obtain the final information required to make a safe landing on your ship.

The following questions will be asked:

What is your course and speed?

Please respond with your course in degrees true and speed in knots. In most cases, the helicopter landing will be safest when your ship is at full sea speed.

Is your ship rolling?

Please respond with the number of degrees your ship is rolling from side to side. If your roll is too large for the helicopter to land safely, you will be asked to change course to a heading which will reduce the roll to an acceptable range.

What is the relative wind direction and speed?

Please respond with the wind direction across your helicopter landing area, measured in degrees from the bow and either port or starboard, as appropriate. Wind speed is best described in knots.

What is your helicopter landing hatch?

Please respond with the hatch number of your helicopter landing site.

Request permission to land

If everything is satisfactory, please grant permission to land and then standby on the current VHF channel until the pilot is on board. While the helicopter, is on deck, please ensure that no one approaches the helicopter unless specifically requested to do so and then only from a direction which enables the helicopter pilot to maintain visual contact with the crew person.

Please do not manoeuvre the vessel while the helicopter is on the deck.





Required Boarding Arrangements for Pilot Launch Transfers

The Maritime Safety Committee, at its 88th session (24 November-3 December 2010), approved amendments to SOLAS regulation V/23 which, inter alia, include amendments to the Required Boarding Arrangements for Pilots (resolution MSC.308(88)).

In addition, the 27th regular session of the Assembly, in December 2011, adopted resolution A.1045(27) on Pilot transfer arrangements.

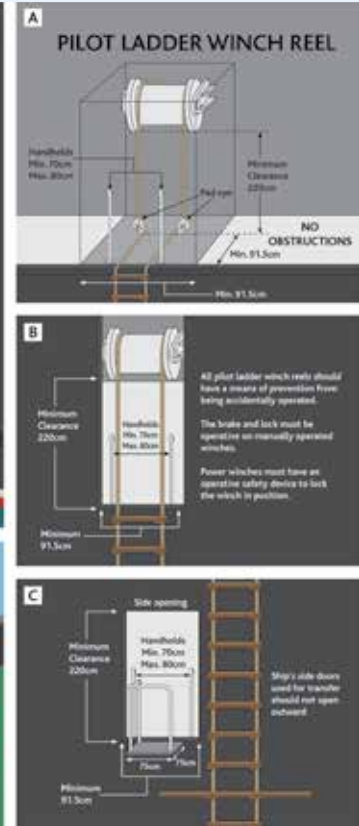
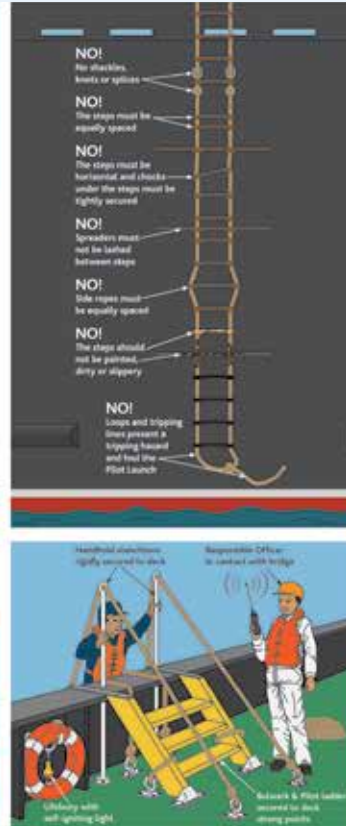
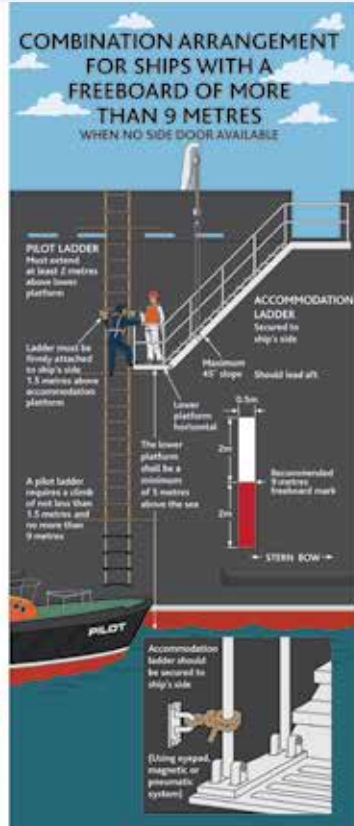
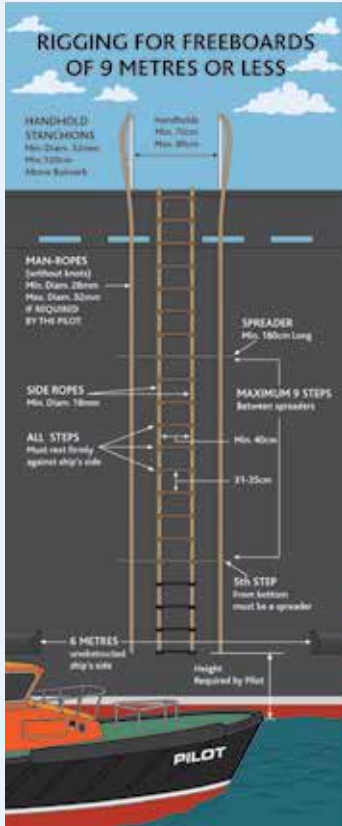
These changes required amendments to the poster previously circulated under cover of MSC/Circ.568/Rev.1. The revised poster incorporates the most significant changes adopted by MSC 88.

The Maritime Safety Committee, at its 90th session (16 to 25 May 2012), concurred with the recommendation of the 57th session of the NAV Sub-Committee regarding required boarding arrangements for pilots (6 to 10 June 2011) and approved a revision of the poster.

As recommended by the International Maritime Organization, Australian Reef Pilots is actively bringing the revised poster to the attention of pilots, seafarers, shipowners, ship operators and others concerned with pilot boarding arrangements.



Required Boarding Arrangements for Pilot Launch Transfers



Distance Tables

Booby Island proceeding South to:

Destination	Inner Route	Outer Route (via GNEC)
Cape Flattery	376 miles	791 miles (Grafton Passage)
Cairns (Yorkeys Knob)	484 miles	673 miles
Cairns (Harbour Pilot)	490 miles	673 miles
Mourilyan	543 miles	709 miles (Grafton Passage)
Lucinda	599 miles	795 miles (Palm Passage)
Palm Passage (Pith Reef)	636 miles	748 miles
Townsville	644 miles	806 miles (Palm Passage)
Abbot Point	718 miles	872 miles (Palm Passage)
Mackay	851 miles	1006 miles (Palm Passage)
Hay Point/Dalrymple Bay	854 miles	1009 miles (Palm Passage)
Port Alma	1018 miles	1306 miles (Capricorn Channel)
Gladstone	1043 miles	1312 miles (Capricorn Channel)
Bundaberg	1128 miles	1323 miles (Curtis Channel)
Brisbane	1267 miles	1448 miles
Newcastle	1670 miles	1852 miles
Sydney/Botany Bay	1728 miles	1911 miles
Port Kembla	1762 miles	1944 miles
Melbourne	2274 miles	2456 miles
Auckland	2505 miles	2596 miles
Tauranga	2572 miles	2663 miles
Wellington	2628 miles	2749 miles
Whangarei	2456 miles	2547 miles

Booby Island proceeding North and West to:

Destination	Distance
Amamapre	550 miles
Bing Bong	430 miles
Busan	3085 miles
Cape Town	6820 miles
Dalrymple Island	123 miles
Daru Offshore Terminal	147 miles
Darwin	706 miles (Clarence Strait)
Fremantle	2524 miles
Gebe Island	1076 miles
Gove	334 miles
Groote Eylandt	391 miles
Haldia	3977 miles
Hong Kong	2718 miles
Kaohsiung	2630 miles
Karumba	430 miles
Keelung	2636 miles
Manila	2166 miles
Port Moresby	351 miles
Shanghai	2935 miles
Singapore	2508 miles
Suez canal	7294 miles
Weipa	140 miles

Distance Tables

Jomard Passage proceeding Southwards to:

Destination	Distance	Via
Cape Flattery	497 miles	1.5 mile Entrance
Cairns	524 miles	Grafton Passage
Mourilyan	558 miles	Grafton Passage
Lucinda	583 miles	Palm Passage
Townsville	594 miles	Palm Passage
Abbot Point	660 miles	Palm Passage
Mackay	668 miles	Hydrographers Passage
Hay Point/Dalrymple Bay	661 miles	Hydrographers Passage
Port Alma	786 miles	Hydrographers Passage
Port Alma	826 miles	Capricorn Channel
Gladstone	819 miles	Hydrographers Passage
Gladstone	838 miles	Capricorn Channel
Bundaberg	846 miles	Curtis Channel
Brisbane	966 miles	Hixson Cay
Newcastle	1377 miles	Saumarez Reef
Sydney/Botany Bay	1437 miles	Saumarez Reef
Port Kembla	1471 miles	Saumarez Reef
Melbourne	1983 miles	Saumarez Reef
Auckland	2045 miles	
Tauranga	2118 miles	
Wellington	2219 miles	Cook Strait
Whangarei	1988 miles	

Jomard Passage proceeding North and West to:

Destination	Distance	Via
Busan	3127 miles	Vitiaz Strait
Cape Agulhus	7985 miles	Vitiaz, Sagewin & Lombok Straits
Haldia	4945 miles	Balabac, Singapore Straits
Hong Kong	3022 miles	Vitiaz Strait
Inchon	3325 miles	Vitiaz Strait
Kaohsiung	2771 miles	Vitiaz Strait
Nagoya	2908 miles	New Ireland, East Cape
Osaka	2933 miles	Vitiaz Strait
Qingdao	3373 miles	Vitiaz Strait
Shanghai	3068 miles	Vitiaz Strait
Singapore	3410 miles	Isumrud Strait, Balabac Strait
Suez Canal	8376 miles	Vitiaz, Sagewin & Lombok Straits
Tianjin	3621 miles	Vitiaz Strait
Tokuyama	2979 miles	Vitiaz Strait
Vishakhapatnam	4996 miles	Balabac, Singapore Straits
Yokohama	2893 miles	New Ireland, East Cape

Hay Point to Suez

For ships with suitable draft the shortest distance from Central Queensland Ports and the Suez Canal is the route via Torres Strait. For ships with draft more than 12.20m the most economical route is via Hydrographers Passage, Diamond Passage, Jomard Entrance, Vitiaz Strait, Sagewin Strait and Lombok Strait. It is shorter than travelling south-about and, in general, the weather is more favourable. e.g. The distance from Hay Point to the Suez Canal via Hydrographers Passage and Jomard Entrance is 9,040 miles whereas the same voyage via the Great Australian Bight is 9,180 miles.

Hay Point to Europe

Although the route from Hay Point to Europe via Hydrographers Passage, Diamond Passage, Jomard Entrance, Vitiaz Strait, Sagewin Strait, Lombok Strait and the Cape of Good Hope is about 600 miles longer than the route south of Australia it is much shorter in steaming time, especially in the winter months.

Hay Point to Japan

The voyage from Hay Point to Japan via Hydrographers Passage, Diamond Passage and Jomard Entrance is about 250 miles shorter than proceeding via the Capricorn Channel and Rossel Island.



Pilot Booking Procedure

Contact ARP preferably five (5) days but no less than three (3) days before arrival with the following details. Due to the remote locations serviced in Torres Strait and the Great Barrier Reef, bookings received less than three (3) days prior to arrival shall be accepted subject to the availability of the next rested pilot. Additional costs will apply should there be a requirement to relocate or call-out a pilot to service the booking.

- Vessel name/ IMO number/ call sign
- Required boarding ground
- ETA (LT=UTC + 10 hours)
- Maximum draft
- Destination and intended route
- Sea speed

All initial messages are acknowledged by ARP operations, together with advice regarding ETA update requirements and pilot transfer methods.

Contact Details For Bookings:

Telephone: +61 7 3666 4041

Mobile: +61 413 878 792 (24 hours)

E-mail: operations@reefpilots.com.au

Contact Details For Duty Pilot (Technical Information)

Telephone: +61 7 3666 4092

E-mail: dutypilot@reefpilots.com.au

Boarding Method

Pilots generally board by launch. Please rig a pilot ladder on the lee side, as per SOLAS IMPA regulations. Please have a heaving line available. (See page 19 for details).

Ordering a Pilot Outbound

We would request that ARP be given as much notice as possible.

Areas Served

- Great Barrier Reef
- Hydrographers Passage
- Torres Strait
- Whitsunday Passage



AUSTRALIAN
REEF PILOTS
GUARDIANS OF THE REEF

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