Torres Strait,
Inner Route of Great Barrier Reef,
Great North East Channel and
Hydrographers Passage
The environmental and cultural significance of the Great Barrier Reef and Torres Strait regions are recognised world over. 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) recognised the Great Barrier Reef as the world’s first Particularly Sensitive Area (PSSA). The IMO also recognised the Torres Strait as a PSSA in 2005.

In 1991 the Australian Government enacted legislation for compulsory pilotage in the Inner Route of the Great Barrier Reef (GBR) between Cape York and Cairns and the Hydrographers Passage. Compulsory pilotage in Torres Strait and Great North East Channel (GNEC) was introduced on 6 October 2006.

The Great Barrier Reef extends from the northern tip of Queensland to Bundaberg in the south, the reef covers over 344,000 square kilometres and consists of some 3000 reefs, 600 continental islands and 300 coral cays.

Torres Pilots provides Australian Maritime Safety Authority (AMSA) licensed pilots in the three (3) compulsory pilotage areas of the Great Barrier Reef (as shown on chartlet on page 11) and is issued by AMSA with a "Pilotage Provider Licence" confirming Torres Pilots compliance with the requirements specified in MO54 (Coastal Pilotage).

Pilots

Torres Pilots has over 39 AMSA licensed pilots. Trainee pilots must comply with AMSA and service standards for qualifications, watch keeping experience, health, under keel clearance management (UKCM) and ECDIS training. Torres Pilots require trainees to have a Master Class 1 qualification and have extensive command experience on commercial vessels operating on international routes. TP pilots regularly attend AMSA approved professional development and check pilot training programs.

Pilotages in the GBR are probably the longest single handed pilotages in the world. Fatigue was identified by the ATSB 2011 review of the GBR pilotage as a major safety issue. Our pilots reside in Cairns and Mackay adjacent to the compulsory pilot boarding grounds, which allows us to better respond to late ETA changes and bookings, whilst at the same time minimising pilot fatigue.

Training

Torres Pilots are trained in Bridge Resource Management. Torres Pilots complete the generic IMO model based course fulfilling the requirements of Standard of Training and Certification of Watchkeepers (STCW95) and are competent in ECDIS system operation. Torres Pilots are regularly assessed for competency, local knowledge, risk management techniques as required under MO54. Additionally, our pilots are assessed for compliance with TP's Safety Management System (SMS). Pilots carry on board ECS, GPS and plotters (PPUs) as a backup in the event of the failure of the onboard navigation systems.
Service Management

Director, Perry Sutton, has been responsible for pilot service management for 35 years. SMS Manager, Peter Randle has 15 years’ experience in marine service companies and agencies.

Safety

Torres Pilots is annually audited by AMSA for compliance with the requirements of MOS4. Additional information on safety systems can be obtained from our Brisbane office.

Torres Pilots use standard passage plans with AMSA approved waypoints, identification of off-course limits, hazard and risk management strategies. Copy is presented to the master when the pilot boards.

Quality Assurance

Torres Pilots has attained AS/NZS ISO 9001-2008 Quality Assurance certification as it is annually audited by the international certification society Det Norske Veritas (DNV).

Pilot Transfers

Inner Route and Great North East Channel (Outer Route)

Pilot Transfers in the Inner Route and Great North East Channel (GNEC) are conducted exclusively by launch. Torres Pilots owns and operates pilot launches stationed in the Torres Strait, the GNEC and Cairns. Our modern launches are the safest and most reliable for pilot transfer operations in the Great Barrier Reef.

Pilots board at the western end of Torres Strait at either Booby Island or Goods Island. Torres Pilots has a pilot base on Thursday Island in Torres Strait. Pilots are available from the Pilot Boarding Ground (PBG) near Dalrymple Island at the north-east boundary of the Great North East Channel (GNEC) compulsory pilotage area. Dalrymple Island PBG is serviced from our GNEC pilot base on Poruma (Coconut) Island. The positions of all Pilot Boarding Grounds (PBGs) are detailed on page 7 and our website.

Hydrographers Passage

Marine Pilot Transfers (MPT) are conducted by ‘land-on’ helicopters at the Blossom Bank PBG for Hydrographers Passage. Torres Pilots operates the only integrated marine pilot and helicopter MPT service for Hydrographers Passage. The CASA approved helicopter company, Flyon, owns and operates helicopters required to ensure continuity of a safe, reliable and on time service in Hydrographers Passage.

The additional advantages to our customers of our new helicopter operations:

1) The helicopters operated by Flyon, are the most reliable and most modern helicopters used for MPT in the Hydrographers Passage.

2) Flyon operates three AW-109E - Augusta twin helicopters are capable of Instrumental Flight Rule used for MPT in the Hydrographers Passage.

3) Flyon’s base in Mackay has a 24 hour maintenance facility.

The decision for Torres Pilots to control helicopter MPTs in Hydrographers Passage will ensure customers receive a high value and reliable service at a reduced fee. Flyon can also supply helicopter services for crew changes and/or parts to vessels anchored off Hay Point and Mackay.

Torres Pilots advises the helicopters used by Flyon are fully compliant with the Australian aviation regulator (CASA) and the BHP aviation standards.

Standard Passage Plans

Standard Passage Plans (SPP) and Guidance notes are supplied to vessels by Torres Pilots operations after the Master has indicated the intended draft and ETA, but prior to pilot boarding to allow the master and officer of the watch to familiarise themselves with the information at their convenience. The pilot will conduct a briefing and confirm with the Master the SPP, complete with off course limits, hazard identification, risk management and way points consistent with AMSA’s Queensland Coastal Passage Plan (QCPP).

Communications

Torres Pilots has long range VHF communications at our pilot bases on Thursday Island and Cairns. Our pilot bases monitor communications 24 hours, 365 days a year. Torres Pilots has it’s own dedicated channel VHF 79 for communications as well as maintaining a 24 hour watch on VHF 16.

COMPULSORY PILOTAGE

The Australian Government introduced compulsory pilotage for vessels over 70m in length and all loaded tankers in the Inner Route of the Great Barrier Reef (GBR) between Cape York (Lat 10° 41’ S) and Cairns Roads (Lat 16° 41’ N) in October 1991.

The Australian Government introduced compulsory pilotage for the Torres Strait to the eastern end of the GNEC at Dalrymple Island on the 6th of October 2006.

The International Maritime Organisation (IMO) has adopted an AMSA recommended an extension of the two way route in the GBR & Torres Strait to enhance the safety of navigation and protect the region’s sensitive marine environment.

AMSA/IMO Approved Two-Way Routes

“...adopted a resolution to extend the eastern limit of the GBR and Torres Strait Particularly Sensitive Sea Area (PSSA). The resolution will enhance the safety of navigation and help protect the region’s sensitive marine environment. The new Coral Sea PSSA covers approximately 565,000 square kilometres of the Coral Sea. Three routing systems will be incorporated as Associated Protective Measures (APMs), including a recommendatory ‘Area to be Avoided’ and two two-way routes. The first route lies in Diamond Passage and is approximately 60 nautical miles long. The second route lies west of Holmes Reef and is approximately 53 nautical miles long. The APMs come into effect 1 January 2016.”

Torres Pilots Pty Ltd
A new ship routeing system came into effect on 1 June, 2015 at Papua New Guinea's Jomard Entrance, which lies in the Milne Bay Province of Papua New Guinea (PNG).

The International Maritime Organization's (IMO) Maritime Safety Committee adopted the ship routeing system in November 2014. This was the final approval required for a joint proposal made by PNG’s National Maritime Safety Authority (NMSA) and AMSA to the IMO earlier in 2014.

Four two-way routes and a precautionary area are now established. One of these routes extends approximately 20 nautical miles to the north of Jomard Entry, while the other three routes align with general traffic patterns to and from eastern Australian ports and extend approximate 3.5 nautical miles south of the entrance.

**Pilot Boarding Grounds**

There are two pilot boarding grounds in Torres Strait for east bound transits:
- Booby Island PGB   Lat 10°36'S   Long 141°50'E   (draft ≥ 8.0m)
- Goods Island PBG  Lat 10°34'S   Long 142°04'E   (draft < 8.0m)

The pilot boarding ground in the GNEC for west bound transits is:
- Dalrymple Island PGB  Lat 9°34'S   Long 143°24.5'E

The pilot boarding ground at Cairns is:
- Cairns PGB   Lat 16°47'S   Long 145°53'E

The pilot boarding ground for Hydrographers Passage is:
- *Blossom Bank PGB   Lat 19°43'S   Long 150°26'E
- *Helicopter land on only

The Booby Island PGB is at the western extremity of Torres Strait, 4 miles west of Booby Island. The pilot boarding at Booby Island provides assistance through the shallow Varzin or Gannet Passages. Compulsory pilotage legislation requires 8.0m or more in draft to engage a pilot in Torres Strait to/from Booby Island.

Varzin Passage lies 3 miles north of Gannet Passage and has a minimum datum of 40cm Deeper than Gannet Passage. Varzin Passage is the preferred passage for deep draft vessels.

Goods Island PGB lies 17 miles eastward of Booby Island PGB. Vessels using Goods Island PGB must be less than 8.0m in draft. Vessels ordering their pilot at Goods Island PGB will receive pilot assistance in the Print of Wales Channel but not Gannet or Varzin Passage.

Eastbound vessels enter Prince of Wales Channel 12 miles after clearing Gannet or Varzin Passages and proceed through to Twin Island at the eastern end of Torres Strait; a distance of 40 miles from the Booby Island PGB.
Hydrographers Passage is a deep channel passage 110 miles offshore from Hay Point and Dalrymple Bay Coal Terminals. Marine pilot transfers (MPTs) are conducted via land-on helicopter at Blossom Bank pilot boarding ground. Vessels are required to comply with AMSA Marine Orders Part 57 (Helicopter Operations). Please refer to Torres Pilots operations if more information is required. No launch MPTs are available at Blossom Bank pilot boarding ground.

ORDERING A PILOT

Please give four (4), or more, day’s notice to our Operations team in Brisbane by:

- Email: operations@torrespilots.com.au
- Fax: +61 7 3217 9722

Please advise following details:

- Pilot boarding ground or port
- Time/Date pilot required (LT = UTC + 10 hours)
- Destination and intended route
- Maximum transit draft
- Vessel’s operational speed
- Vessel’s IMO and call sign
- Vessel’s email, Sat C or fax numbers

Once the requested information has been received by Operations team in Brisbane, an acknowledgement will be forwarded to the Master and confirm the booking by providing the vessel a Torres Pilots’ booking number.

Included in our booking message will be guidance notes for the pilotage and a pre-boarding questionnaire that should be completed by the Master and sent to our Brisbane office. The pre-boarding questionnaire will request information such as vessel stability data, vessel conditions, displacement and manoeuvring / speed table.

A sample of a booking message for a pilotage commencing at Booby Island PGB follows on page 9.

Upon receipt of the master’s response to the questionnaire, Brisbane operations will send a set of way points for the pilotage to be considered by the master and to be entered in the vessel’s navigation system.

Government regulation requires the Master to contact REEFVTS not later than 2 hours prior to entry of compulsory pilotage zones and should quote the Torres Pilots booking number in his advise to REEFVTS. Page twenty-six (26) details further information about REEFVTS.
- PSC (G7G, GSG, GGD, FS CDR)
- GMF (G'MT, GM COR, G0M, GOM, GM ACT)
- Maneuvering RPM/speed table, including minimum dead slow ahead speed.
- Confirm steering can be achieved at minimum dead slow ahead
- Any dangerous cargo onboard
- Last port and next port
- Contact Telephone Number
- Pilot ladder including manropes meet SOLAS regulations and have been regularly inspected for any defects. Note: if freeboard is over 9m please rig combination ladder with pilot ladder. Please also ensure combination ladder has also been inspected for defects.
- Please confirm there are no obstructions to designated pilot boarding area that will impede with pilot transfer
- If convenient, please arrange to have an emergency steering drill or instruction conducted prior to your arrival (a steering gear or engine failure within the GBR pose the greatest risks to groundings & possible pollution due to the close proximity of the reefs & the long duration of pilotage so this would be a wise precaution).
- Please confirm that all equipment and machinery are in good operational condition. Please advise any defects or deficiencies that may affect safe passage. Please refer to the check list below.

**Bridge equipment**

<table>
<thead>
<tr>
<th></th>
<th>Yes/no</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radars (X &amp; S band) &amp; ARPA</td>
<td></td>
</tr>
<tr>
<td>Gyro compass &amp; repeaters</td>
<td></td>
</tr>
<tr>
<td>Magnetic compass (deviation &lt; 5 degrees)</td>
<td></td>
</tr>
<tr>
<td>Any other bridge equipment defects</td>
<td></td>
</tr>
<tr>
<td>Navigation charts for GBR passage onboard?</td>
<td></td>
</tr>
</tbody>
</table>

**Radio equipment**

<table>
<thead>
<tr>
<th></th>
<th>Yes/no</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inmarsat C terminal(s)</td>
<td></td>
</tr>
<tr>
<td>VHF radios</td>
<td></td>
</tr>
<tr>
<td>Satellite phone</td>
<td></td>
</tr>
<tr>
<td>Any other radio equipment defects</td>
<td></td>
</tr>
</tbody>
</table>

Best regards

______________ – Operations

Torres Pilots Brisbane

Tel: 61 7 3217 9544
Fax: 61 7 3217 9722
Email: operations@torrespilots.com.au
South East Asia Routes Chartlet

Queensland Coal Mines and Ports

*Courtesy of QLD Mines and Infrastructures
TORRES STRAIT DRAFT and UKC RESTRICTIONS

Draft Limitation

The maximum draft for vessels transiting Torres Strait is 12.2m. Vessels proceeding via the GNEC (Outer Route) or Inner Route are limited to this draft. The draft limitation is confirmed in Annual Australian Notice to Mariners No. 23 from the Australian Hydrographer.

The maximum draft between Central Queensland Ports and Hydrographers, Palm or Grafton Passages is limited only by the permissible draft at the loading port.

Tidal Windows

Vessels at the 12.2m maximum draft are able to transit Torres Strait nearly every day of the year provided the tidal rise is in accordance with the tidal prediction. On some days of the year there is only one tide per day with sufficient rise to enable a safe transit with the required under keel clearance (UKC). The maximum delay a vessel could anticipate whilst awaiting a tide varies with the season, generally being less during the north-west season from the end of November to March.

Tide Messages

Vessels drawing in excess of 10.5m will require some tidal rise to transit Varzin Passage and Prince of Wales Channel in the Torres Strait to allow the required UKC. Masters of east and south bound vessels should advise their ETAs at Booby Island PBG and draft when requesting pilotage assistance. The Thursday Island pilot base will calculate and advise deep draft vessels of the relevant tidal windows for safe passage with the required UKC.

Under Keel Clearance – refer AMSA Marine Notice on page 20

Minimum under keel clearances (UKC) required are as follows:

<table>
<thead>
<tr>
<th>Draft</th>
<th>Varzin Passage</th>
<th>POW Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 11.90</td>
<td>1.0m</td>
<td>1.0m</td>
</tr>
<tr>
<td>Less than 11.90m or Greater</td>
<td>1.0m</td>
<td>10% of draft</td>
</tr>
</tbody>
</table>

Torres Pilots is using AMSA-approved UKCM transit plans for Torres Strait using the AMSA UKCM System. The system was developed by the world leader, OMC International. Our transit plans will more accurately calculate tidal windows, UKCs and optimize vessel speeds whilst allowing for squat, pitch, roll and met-ocean conditions (wind, tidal flow and wave sensors) effecting deep draft vessels transiting Torres Strait. The UKCM system allows Torres Pilots and vessel operators to plan and monitor the safe and efficient passage of deep draft vessels transiting Torres Strait. The AMSA UKCM system has been mandatory from 1st January, 2014. TP Pilots will assist Masters with use of the UKCM system.

Squat

The Torres Strait is a shallow but fortunately not a narrow channel with the attendant canal effect. Consequently the designated UKC for various drafts is more than sufficient to cater for squat in this area. The 40 miles between Booby PBG and the eastern end of the Strait is conducted at speeds in keeping with the vessel’s draft and the water available at any given time. Average passage time for a large deep draft vessel is about 3.5 hours.

Tide Gauges

There are five tide gauges in Torres Strait. They are located at:

- Booby Island
- Goods Island
- Turtle Head (Hammond Island)
- Ince Point (Wednesday Island)
- Nardana Patches

Tidal heights are broadcast on VHF Marine 68 (156.425MHz)

Wave Rider Buoy

There is one located at:

- Gannet Passage (between Booby and Goods Island)
- Varzin Passage

Tidal Flow Meter

There is one located at:

- Nardana

TP Duty Pilot

TP has a Thursday Island based duty pilot with the following safety benefits:

- The duty pilot is located at the Torres Strait pilot base on Thursday Island. The duty pilot also monitors the VHF broadcasts of the tide gauges (five gauges in Torres Strait broadcasting on VHF Marine Channel 68) and meteorology (wave height & tidal flow) meters. Real time tidal heights are critical for determining accurate tidal windows for deep draft transits / UKCs of vessels
- The TP duty pilot position rotates through our on duty pilot roster in the Torres Strait to ensure continuous coverage 24 hours a day / 365 days per year.
Coastal Pilotage

Vessel masters, owners and operators are reminded of the coastal pilotage requirements within the Great Barrier Reef and Torres Strait, as prescribed in Marine Order 54 (Coastal pilotage) 2014.

An AMSA-licensed coastal pilot is required for any vessel that navigates in a defined coastal pilotage area:

a. that is 70m or longer in length overall; or
b. that is loaded:
   i. oil carrier; or
   ii. chemical carrier; or
   iii. liquefied gas carrier
not including naval vessels.

Coastal pilotage areas are defined as:

- Hydrographers Passage
- Inner Rocks
- Torres Strait
- Great North East Channel
- Whitsundays

It is important to note that the master of a vessel is not relieved of responsibility for the conduct and safe navigation of the vessel whilst the vessel is under pilotage.

Masters or owners may apply to AMSA for exemption from the pilotage requirements of the Navigation Act. An application must be made to the Great Barrier Reef Marine Park Authority to navigate without a licensed pilot in Hydrographers Passage, Inner Route and Whitsundays.

Coastal Pilotage Area Limits

Hydrographers Passage pilotage area means the area bounded by a line that progressively joins the following points:

<table>
<thead>
<tr>
<th>Point</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20° 59.11'S</td>
<td>149° 49.36'E</td>
</tr>
<tr>
<td>2</td>
<td>20° 59.91'S</td>
<td>150° 07.36'E</td>
</tr>
<tr>
<td>3</td>
<td>20° 28.31'S</td>
<td>150° 18.06'E</td>
</tr>
<tr>
<td>4</td>
<td>20° 02.91'S</td>
<td>150° 03.06'E</td>
</tr>
<tr>
<td>5</td>
<td>19° 54.91'S</td>
<td>150° 16.56'E</td>
</tr>
<tr>
<td>6</td>
<td>19° 59.91'S</td>
<td>150° 10.56'E</td>
</tr>
<tr>
<td>7</td>
<td>19° 00.91'S</td>
<td>150° 33.06'E</td>
</tr>
<tr>
<td>8</td>
<td>20° 01.14'S</td>
<td>150° 26.66'E</td>
</tr>
<tr>
<td>9</td>
<td>20° 06.91'S</td>
<td>150° 17.21'E</td>
</tr>
<tr>
<td>10</td>
<td>20° 19.91'S</td>
<td>150° 27.66'E</td>
</tr>
<tr>
<td>11</td>
<td>20° 32.91'S</td>
<td>150° 27.06'E</td>
</tr>
<tr>
<td>12</td>
<td>20° 41.51'S</td>
<td>150° 11.06'E</td>
</tr>
<tr>
<td>13</td>
<td>20° 54.41'S</td>
<td>150° 01.86'E</td>
</tr>
<tr>
<td>14</td>
<td>20° 59.11'S</td>
<td>149° 49.36'E</td>
</tr>
</tbody>
</table>

Inner Route pilotage area means the waters bounded by:

i. the Australian mainland; and
ii. the outer eastern edge of the REEPREP reporting area; and
iii. the northern boundary of the Great Barrier Reef Region (latitude 18° 41.007'S); and
iv. latitude 16° 30.01'S; and
v. the Torres Strait, excluding the waters to the north of latitude 10° 28.00'S and east of longitude 142° 30.00'E.

Torres Strait means the waters bounded by:

a. on the south by latitude 10° 41.60'S; and
b. on the east:
   i. for a vessel moving eastward - by longitude 143° 23.00'E; or
   ii. for any other vessel - by longitude 143° 24.00'E; and
   c. on the north by the line of Australia’s Exclusive Economic Zone (EEZ); and
d. on the west:
   i. for a vessel of less than 8m draught - by longitude 142° 05.00'E; or
   ii. for a vessel of 8m draught or more moving westward - by longitude 141° 50.00'E; or
   iii. for a vessel of 8m draught moving westward - by longitude 141° 01.00'E.

Great North East Channel pilotage area means the area bounded by a line that progressively joins the following points:

<table>
<thead>
<tr>
<th>Point</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10° 41.00'</td>
<td>141° 50.07'</td>
</tr>
<tr>
<td>2</td>
<td>10° 28.07'</td>
<td>141° 50.07'</td>
</tr>
<tr>
<td>3</td>
<td>10° 20.05'</td>
<td>142° 27.07'</td>
</tr>
<tr>
<td>4</td>
<td>10° 18.05'</td>
<td>142° 48.07'</td>
</tr>
<tr>
<td>5</td>
<td>9° 48.07'</td>
<td>143° 08.07'</td>
</tr>
<tr>
<td>6</td>
<td>9° 30.05'</td>
<td>143° 24.07'</td>
</tr>
<tr>
<td>7</td>
<td>9° 45.07'</td>
<td>143° 24.07'</td>
</tr>
<tr>
<td>8</td>
<td>10° 20.05'</td>
<td>143° 00.07'</td>
</tr>
<tr>
<td>9</td>
<td>10° 41.00'</td>
<td>141° 50.07'</td>
</tr>
</tbody>
</table>

Whitsundays pilotage area means the area bounded by a line that begins at the northernmost point of Cape Gloucester at low water, at about latitude 20° 03.94'S, longitude 148° 27.91'E, and continues progressively:

b. west along parallel of latitude 20° 36.73'S to the coastline of the mainland at low water, near Middle Point; and
c. generally northerly, easterly, south-easterly and north-westerly along the coastline of the mainland at low water to the point where the boundary began.

Sgt Presser
Deputy Chief Executive Officer
June 2015

Australian Maritime Safety Authority
DPO Box 2161
CANBERRA ACT 2601

Navigation Act 2012 section 325
2 All coordinates listed are WGS84.
3 The outer eastern edge of REEPREP reporting area is defined on official nautical charts produced by the Australian Hydrographic Service (AHS).
4 The Great Barrier Reef Region is defined in the Great Barrier Reef Marine Park Act 1975.
5 The Whitsundays pilotage area is defined in the Great Barrier Reef Marine Park Regulations 1983.

Internet address for all current Marine Notices: www.amsa.gov.au

Page 1 of 2
Under Keel Clearance Management (UKCM) in Torres Strait

Purpose

The purpose of this Marine Notice is to:

- outline AMSA’s management framework for UKCM in Torres Strait;
- summarise the various responsibilities for UKCM and
- remind masters that all coastal pilots transiting ships with draughts of at least 8m through the Prince of Wales Channel, the Gannet Passage or the Varzin Passage are required to use the Under Keel Clearance Management (UKCM) system, implemented by AMSA, when complying with Marine Order 54 (Coastal Pilotage) 2014 (MO54).

Background

The UKCM system became operational in 2011 for use in the Prince of Wales Channel and both Gannet and Varzin Passages. The UKCM system contributes to safe marine navigation which facilitates the protection of the marine environment and enhances the safety and efficiency of transiting vessels.

The purpose of the UKCM system is to ensure that the best possible under keel clearance information, updated in real time, is available to assist in the planning and safe conduct of vessel transits.

The UKCM system is a web-based aid to navigation (AtoN) for use by ships’ masters, pilotage providers and licensed coastal pilots. When a successful UKCM transit plan has been calculated, coastal pilots can also save and print the plan for use and wider promulgation. This hardcopy printed plan is to be used in the event of any potential loss of connectivity to the web-based system during any UKCM transit.

Further technical and explanatory information can be found on the AMSA website at www.amsa.gov.au/navigation/services/ukcm.

Area of Operation

The UKCM system is designed to cover navigable ship routes between the longitudes of 141 degrees and 50 minutes east and 142 degrees and 27 minutes east. These routes are defined in MO54. Routes are limited to those areas designated by the Australian Hydrographic Service as having a data quality indicator of Category A Zone of Confidence (ZOC).

UKCM Training

AMSA has introduced a UKCM system Competency Based Training and assessment process. There are two on-line training programs available; one specifically designed for pilots, pilot providers and REEFVTS Operators; and one designed for use by planners, masters, pilot launch operators and other approved users. The training for pilots includes a one-on-one competency assessment with an AMSA assessor.

Summary of Roles

<table>
<thead>
<tr>
<th>Entity</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipping Company / Ships Agent</td>
<td>Provide to the pilotage provider the required vessel particulars including ships stability details and ETA at the UKCM area.</td>
</tr>
<tr>
<td>Ships’ Master</td>
<td>Provide the required final stability particulars well in advance to embarking a coastal pilot to ensure appropriate UKCM transit planning.</td>
</tr>
<tr>
<td>Coastal Pilots &amp; Pilotage Providers</td>
<td>Use the UKCM system to generate transit plans, manage tidal windows and monitor active vessel transits.</td>
</tr>
<tr>
<td>AMSA</td>
<td>Oversee and regulate the use of the UKCM system by coastal pilots and pilot providers in accordance with MO54. Provide training, support and assessment of pilots in the use of the UKCM system. Provide validated metrological, oceanographic and tidal sensor data for use by the UKCM system. Provide pilotage provider/pilot access to the UKCM system.</td>
</tr>
<tr>
<td>REEFVTS</td>
<td>Receive reports from pilots in accordance with MO54, Schedule 3, Section 6. Provide UKCM-related information, as part of the on-going delivery of an Information Service.</td>
</tr>
</tbody>
</table>

Contact us

Further information can be sought from media@amsa.gov.au or for technical information NSWPILOT@amsa.gov.au.

Gary Prosser
Deputy Chief Executive Officer
January 2016
Australian Maritime Safety Authority
GPO Box 2181
CANBERRA ACT 2601
File No. 2016/79

Internet address for all current Marine Notices: www.amsa.gov.au
CHARTS

AMSA expects all vessels navigating in the GBR and Torres Strait, which are subject to SOLAS Chapter V, and which are relying on paper charts, to carry a complete folio of fully corrected paper charts for the areas visited. In particular, the correct large scale charts should be available such that pilotage is always conducted on the best scale chart available. For ships operating with an approved ECDIS system, the corresponding chart permits and updates should be available. Torres Pilots’ pilots carry GBR chart extracts or electronic charts of the compulsory pilotage areas in the event of the absence of board charts or failure of electronic charting systems.

Vessels navigating inside the compulsory pilotage area shall carry on board the following Australian charts:

**Outer Route: Great East Channel**
- Aus 292 POW Channel & Adolphus Channel
- Aus 293 Prince of Wales Channel
- Aus 296 Goods Island to Proudfoot Shoal
- Aus 377 Bligh Entrance to Eastern Fields
- Aus 839 Arden Island to Cairncross Islet
- Aus 840 Arden Island to Bramble Cay

**Inner Route: Torres Strait to Cairns**
- Aus 270 Plans in Queensland (sheet 2)
- Aus 281 First Three Mile Opening to Cape Direction
- Aus 292 POW Channel & Adolphus Channel
- Aus 293 Prince of Wales Channel
- Aus 296 Goods Island to Proudfoot Shoal
- Aus 700 Western Approaches to Torres Strait
- Aus 830 Low Isles to Russell Island
- Aus 831 Cape Flattery to Low Isles
- Aus 832 Barrow Island Point to Cape Flattery
- Aus 833 Claremont Island to Barrow Island Point
- Aus 834 Cape Weymouth to Claremont Island
- Aus 835 Cairncross Islet to Cape Weymouth
- Aus 839 Arden Island to Cairncross Islet

**Hydrographers Passage**
- Aus 821 Hydrographers Passage
- Aus 823 Percy Island to Mackay
- Aus 824 Penrith Island to Whitsunday Island

Vessels intending to employ ECDIS to meet the chart carriage requirements of the international Convention for the Safety of Life at Sea (SOLAS) Chapter V (i.e. not carrying a full folio of paper charts) must conform to the relevant performance standards of the IMO specified in Resolution A.817(19) including back-up arrangements.

Such vessels must have loaded the official ENCs for the voyage. Official ENCs are those produced by a recognised authority such as a national Hydrographic Office. Commercially produced ENCs may not meet the IMO carriage requirements. Further information can be obtained from AMSA Marine Notice 2017/07 and its associate information sheet.

Government employed pilots provide pilotage at all Queensland government ports. Government pilots will not assist with harbour movements or berthing unless appropriate port charts are onboard.

Torres Pilots can assist with delivery of the required charts, a full list of Queensland port charts required are listed on the Torres Pilots website. Torres Pilots operations will arrange supply of the relevant charts and marine notices if requested.

GENERAL INFORMATION

The Torres Strait

The Torres Strait is named after the first known European explorer in the region, Spanish navigator Luis Baés de Torres, who sailed through the area in 1606. Torres Strait waters cover a total area of 35,000 square kilometres and contain over 100 islands, as well as coral cays, exposed sandbanks and reefs.

The strait’s overall population of 8000, of which approximately 6000 are Torres Strait Islanders and Aboriginal people, is spread over 18 small island communities. The communities are all remote, about 1000km from the nearest city and each has a population between 80 and 600.

The Torres Strait Islanders are independent people and possess strong seafaring and fishing traditions; they maintain bonds with the sea through their culture, lifestyle and history.

Operational Discharges in the GBR

The protection of the marine environment is everybody’s responsibility. AMSA and the Great Barrier Reef Marine Park Authority (GBRMPA) take pollution incidents very seriously. Masters and vessels which illegally discharge seawage, garbage or oil into Australian waters face potential prosecution and significant fines. All regulations must be strictly followed. In particular:

- Ballast water must not be exchanged within the Great Barrier Reef
- No Garbage whatsoever should be thrown over the side
- No cargo residues can be washed from the decks (except the helicopter hatch if use and the area adjacent to the pilot ladder)

The Great Barrier Reef is patrolled daily by aircraft fitted with thermal imaging equipment and cameras.
REEFVTS

Mandatory Ship Reporting System

Ships transiting through the Great Barrier Reef and the Torres Strait must report to REEFVTS.

A full summary of the reporting requirements can be found on page seven (7) of the “Great Barrier Reef & Torres Strait Vessel Traffic Service (REEFVTS) User Manual – August 2017”.

A copy of this user manual can be obtained from AMSA and Maritime Safety Queensland or from the internet at


Pre-Entry Report

Ships must provide a Pre-Entry Report at least one (1) hour prior to entering the Ship Reporting System.

REEFVTS Contact Details

Phone: 1300 721 293
Fax: +61 7 4721 0633
Email: (ships) reefvts@vtm.qld.gov.au

Marine Notices

A full list of current marine notices is available from the AMSA website at:
### COASTAL DISTANCES VIA INNER ROUTE

<table>
<thead>
<tr>
<th>Location</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Kembla</td>
<td>29</td>
</tr>
<tr>
<td>Botany Bay</td>
<td>28</td>
</tr>
<tr>
<td>Sydney</td>
<td>31</td>
</tr>
<tr>
<td>Newcastle</td>
<td>29</td>
</tr>
</tbody>
</table>
| Point Cartwright | 30 |}

### DISTANCES FROM TORRES STRAIT – Pilot to Pilot

#### Distances from Booby Island

<table>
<thead>
<tr>
<th>Location</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amamapare</td>
<td>555</td>
</tr>
<tr>
<td>Panama (Balloa)</td>
<td>8491</td>
</tr>
<tr>
<td>Jakarta</td>
<td>2132</td>
</tr>
<tr>
<td>Port Moresby</td>
<td>344</td>
</tr>
<tr>
<td>Groote Eylandt</td>
<td>391</td>
</tr>
<tr>
<td>Singapore</td>
<td>2506</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>2739</td>
</tr>
<tr>
<td>Suva</td>
<td>3266</td>
</tr>
<tr>
<td>Kochi</td>
<td>2558</td>
</tr>
<tr>
<td>Surabaya</td>
<td>1711</td>
</tr>
<tr>
<td>Kobe</td>
<td>3132</td>
</tr>
<tr>
<td>Suva</td>
<td>3266</td>
</tr>
<tr>
<td>Laem Chabang</td>
<td>717</td>
</tr>
<tr>
<td>Daru</td>
<td>148</td>
</tr>
<tr>
<td>Melbourne</td>
<td>2273</td>
</tr>
<tr>
<td>Umuada</td>
<td>195</td>
</tr>
<tr>
<td>Noumea</td>
<td>1713</td>
</tr>
<tr>
<td>Visakhapatnam</td>
<td>4075</td>
</tr>
<tr>
<td>Yokohama</td>
<td>3226</td>
</tr>
<tr>
<td>* via Great North East Channel</td>
<td></td>
</tr>
</tbody>
</table>

#### Distances from Booby Island to N.Z. Ports

<table>
<thead>
<tr>
<th>Location</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auckland</td>
<td>2495</td>
</tr>
<tr>
<td>via Cairns Fairway</td>
<td>2495</td>
</tr>
<tr>
<td>Lyttleton</td>
<td>2779</td>
</tr>
<tr>
<td>via GNEC</td>
<td>2779</td>
</tr>
<tr>
<td>Nelson</td>
<td>2576</td>
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<tr>
<td>via Cairns Fairway</td>
<td>2576</td>
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<tr>
<td>via GNEC</td>
<td>2576</td>
</tr>
<tr>
<td>New Plymouth</td>
<td>2428</td>
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<tr>
<td>via Cairns Fairway</td>
<td>2428</td>
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<tr>
<td>via GNEC</td>
<td>2582</td>
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<tr>
<td>Tauranga</td>
<td>2573</td>
</tr>
<tr>
<td>via Cairns Fairway</td>
<td>2641</td>
</tr>
<tr>
<td>via GNEC</td>
<td>2641</td>
</tr>
<tr>
<td>Wellington</td>
<td>2604</td>
</tr>
<tr>
<td>via Cairns Fairway</td>
<td>2604</td>
</tr>
<tr>
<td>via GNEC</td>
<td>2754</td>
</tr>
<tr>
<td>Whangarei</td>
<td>2436</td>
</tr>
<tr>
<td>via Cairns Fairway</td>
<td>2436</td>
</tr>
<tr>
<td>via GNEC</td>
<td>2528</td>
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</tbody>
</table>

### DISTANCES FROM TORRES STRAIT TO AUSTRALIAN EAST COAST PORTS

#### Distances from Booby Island to Australian Ports via Great North East Channel & Outer Route

<table>
<thead>
<tr>
<th>Location</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbot Point</td>
<td>887</td>
</tr>
<tr>
<td>via Palm Passage</td>
<td>887</td>
</tr>
<tr>
<td>Mackay</td>
<td>1009</td>
</tr>
<tr>
<td>via Palm Passage</td>
<td>1009</td>
</tr>
<tr>
<td>Brisbane (Pt Cartwright)</td>
<td>1445</td>
</tr>
<tr>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Melbourne</td>
<td>2290</td>
</tr>
<tr>
<td>via Grafton Passage</td>
<td>2290</td>
</tr>
<tr>
<td>Bundaberg</td>
<td>1392</td>
</tr>
<tr>
<td>via Palm Passage</td>
<td>1392</td>
</tr>
<tr>
<td>Mourilyan</td>
<td>721</td>
</tr>
<tr>
<td>via Grafton Passage</td>
<td>721</td>
</tr>
<tr>
<td>Cairns Fairway</td>
<td>858</td>
</tr>
<tr>
<td>via Grafton Passage</td>
<td>858</td>
</tr>
<tr>
<td>Newcastle</td>
<td>1858</td>
</tr>
<tr>
<td>via Cairns Fairway</td>
<td>1858</td>
</tr>
<tr>
<td>Gladstone</td>
<td>1349</td>
</tr>
<tr>
<td>via Capricorn Passage</td>
<td>1349</td>
</tr>
<tr>
<td>Port Kembla</td>
<td>1944</td>
</tr>
<tr>
<td>via Palm Passage</td>
<td>1944</td>
</tr>
<tr>
<td>Hay Point</td>
<td>1015</td>
</tr>
<tr>
<td>via Hydro</td>
<td></td>
</tr>
<tr>
<td>via Palm Passage</td>
<td>1015</td>
</tr>
<tr>
<td>Sydney</td>
<td>1913</td>
</tr>
<tr>
<td>via Palm Passage</td>
<td>1913</td>
</tr>
<tr>
<td>Lucinda</td>
<td>775</td>
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<tr>
<td>via Grafton Passage</td>
<td>775</td>
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<tr>
<td>Townsville</td>
<td>930</td>
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<tr>
<td>via Palm Passage</td>
<td>930</td>
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</table>

Note: Distance from Booby Island to Hydrographers Passage (Blossom Bank PBG) via the GNEC & recommended Outer Route is 902nm.
## Distances from Hay Point

<table>
<thead>
<tr>
<th>Route</th>
<th>Qinzhou</th>
<th>Hong Kong</th>
<th>Kaohsiung</th>
<th>Xiamen</th>
<th>Taipei</th>
<th>Shanghai</th>
<th>Rizhao</th>
<th>Qingdao</th>
<th>Incheon</th>
<th>Busan / Pusan</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Hay Point via Hydrographers Passage</td>
<td>4083</td>
<td>3719</td>
<td>3456</td>
<td>3613</td>
<td>3545</td>
<td>3784</td>
<td>4028</td>
<td>4139</td>
<td>3960</td>
<td>3791</td>
</tr>
<tr>
<td>From Hay Point via Inner Route</td>
<td>3751</td>
<td>3670</td>
<td>3642</td>
<td>3699</td>
<td>3628</td>
<td>4144</td>
<td>4388</td>
<td>4499</td>
<td>4594</td>
<td>4492</td>
</tr>
</tbody>
</table>

### Distances from Hay Point to Jomard Entrance

- **via Hydrographers Passage**: 643
- **via Palm Passage**: 750
- **via Grafton Passage**: 834
- **via Capricorn Channel**: 964

### Distances from Hay Point to Rossel Island

- **via Hydrographers Passage**: 675
- **via Palm Passage**: 905
- **via Grafton Passage**: 949
- **via Capricorn Channel**: 909

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*Courtesy of IMO*
TORRES PILOTS PTY LTD CONTACT DETAILS

**Brisbane Head Office**
Address: 26 Love St, Bulimba Q 4171
Postal Address: PO Box 674, Bulimba Q 4171
Director: Perry Sutton
Email: operations@torrespilots.com.au
Telephone: Office +61 7 3217 9544 (24 hours)
Fax: + 61 7 3217 9722

**Pilot Base – Thursday Island Office**
(Torres Strait and Great North East Channel)
Address: 65 Waiben Esplanade, Thursday Island Q 4875
Postal Address: PO Box 622, Thursday Island Q 4875
Email: tioperations@torrespilots.com.au
Telephone: +61 7 4069 2251 (24 hours)
Fax: +61 7 4069 2252
VHF: 79 and 16 ‘Torres Pilots’

**Pilot Base – Cairns**
(Inner Route)
Address: Lot 9 / 36 Buchan Street, Portsmith, Cairns Q 4870
Postal Address: PO Box 7221, Cairns Q 4870
Email: cairnsoperations@torrespilots.com.au
Telephone /Fax: +61 7 4035 5278
VHF: 79 and 16 ‘Torres Pilots’

**Pilot Base - Mackay**
(Hydrographers Passage)
Operators: Flyon Pty Ltd
Email: operations@flyon.com.au
Telephone: +61 (0)437 279 861
VHF: 16 and 9 ‘Torres Pilots’