

Wheatstone Marine Operations

Pilotage - Passage Plan - Onslow Port Limit to WMT



1.0 INTRODUCTION

Vessels entering the Port of Ashburton require an approved berth to berth passage plan in accordance with IMO Resolution A.893(21) (See ANNEX 25) which can be shared between the Pilot and the Vessel's Master.

This work instruction has been compiled in accordance with documents:

WS1-COP-00175 - Wheatstone Marine Operations - Pilotage - Passage Plan Guideline and Approval Procedure

1.1 Purpose

This document provides the Pilots, Masters and bridge navigation teams, port specific information required to navigate a vessel safely along the prescribed route in a safe and controlled manner, reducing the risk to personnel, environment, and property.

1.2 Scope

This Work Instruction provides details from the commencement to the completion of the recommended route:

From: Onslow Port Limit

To: The Wheatstone Marine Terminal (WMT)



CAUTION:

This passage plan may be tidally **restricted**. UKC calculations must be undertaken prior to any move. Caution must be exercised when using buoys for navigation, particularly post severe storm/cyclone activity.

1.3 Target Audience

This work instruction is primarily intended for use by ABU Marine Pilots, vessel's Master, and vessel's bridge navigation teams.

Document Approvals	Signature/Date
Author	PGNQ
Reviewer	HBEN
Approver	LVNX

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1.4 Acronyms and Abbreviations

The table below defines the acronyms and abbreviations used in this document

Acronym/Abbreviation	Meaning
AMSA	Australian Maritime Safety Authority
AtoN	Aids to Navigation
BRM	Bridge Resource Management
CRT	Constant Radius Turn
ECDIS	Electronic Chart Display Information System
GPS	Global Positioning System
Kts	Knots
m	Metres
MPX	Master Pilot Exchange
MN	Marine Notice
NM	Nautical Mile
OOW	Officer of the Watch
PBG	Pilot Boarding Ground
PI	Parallel Index
PP	Passage Plan
ROT	Rate of Turn
UKC	Under Keel Clearance
VTS	Vessel Traffic Service
WMT	Wheatstone Marine Terminal
WP	Waypoint
ZOC	Zone of confidence

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2.0 PASSAGE PLAN – Onslow Port Limit to WMT

Waypoint	Onslow Port Limit (A0)	<ul style="list-style-type: none"> • Visual Reference: "Sultan Reef" Buoy bearing 247° (T) x 6.85 NM. • The vessel will adjust course and speed as it approaches the PBG to provide an adequate lee for the safe embarkation of the pilot. • Vessel and Pilot Boat Masters are to discuss and agree on vessel speed and heading prior to transfer, to ensure a good lee for boarding. The pilot ladder shall be rigged, as per <i>SOLAS 2010 Chapter V Reg 23</i> as amended, to a height above the waterline as requested by the Pilot Boat Master. • PI to be utilised where practicable (as below). Call "Ashburton VTS" on VHF 14 advising inbound to the WMT and request any traffic updates. • In the event of any critical failure that affects safe navigation, the vessel should be stabilised in a safe position and/or anchored. Ashburton VTS is advised immediately on VHF 14. • The shallowest water (13.9m) exists in approximate position 21°24.5'S 115° 09.15'E
Latitude	21°21.91'S	
Longitude	115°12.29'E	
Course	229°T	
Speed	8 - 10 knots	
Leg Distance	6.5 NM	
Minimum Charted Depth	13.9 m	
Maximum Cross-track Error	As per vessel's passage plan	
Primary Position Fixing	As per vessel's passage plan	
Secondary Position Fixing	As per vessel's passage plan	
Parallel Index	229°T x 2.08 NM Sultan Reef Buoy	<ul style="list-style-type: none"> • IT IS RECOMMENDED THAT ALL VESSELS CARRY OUT THEIR OWN UKC CALCULATIONS TAKING THE FOLLOWING INTO CONSIDERATION: • REFERENCE TO ADMIRALTY SAILING DIRECTIONS NP13 – AUSTRALIA PILOT VOL. 1 • MOBILE SAND WAVES EXISTING IN THE AREA. • IN THE EVENT OF LARGE SWELLS, UKC IS FURTHER REDUCED. • THE CHARTED APPROACH IS ZOC A2



CAUTION:

The area surrounding Sultan Reef is a No-Go Area.



ENVIRONMENTAL WARNING:

During the whale migration season (June to December), be aware of whales passing through this area.

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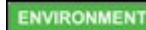


Waypoint	Ashburton PBG A (A1)	<ul style="list-style-type: none"> The Pilot Boarding Ground is 1.4 NM Southeast of Sultan Reef Visual Reference: "Sultan Reef" Buoy bearing 319° (T) x 2.08 NM. Be aware of Onslow Salt and other vessels navigating in this area. The Pilot will board the vessel at/or in vicinity of the PBG and carry out the MPX prior to taking conduct of the vessel. Do not cross the PBG without a Pilot onboard. Call "Ashburton VTS" on VHF 14 advising Pilot onboard time, deepest draft and Pilots Licence Number. Ship's Bridge Team to fix position regularly and advise Pilot during pilotage and during approach to Wheatstone channel entry. Racon Morse 'G' (Golf) indicates Beacon R01 of Wheatstone Channel. A physical astern engine test will be witnessed by the pilot after boarding the vessel, if it was not done within 3 hrs of arrival at the PBG-A Tugs are expected to meet the vessel towards the end of this leg and made fast prior entering the LNG channel at a safe speed commensurate with their manoeuvring capabilities at prevailing conditions. PI to be utilised where practicable (as below). In the event of any critical failure that affects the pilotage and safe navigation, the vessel should be stabilised in a safe position and if required anchored. Ashburton VTS is advised immediately on VHF 14. The shallowest known depth 13.3m is in position: 21° 29.88' S 115° 3.458' E
Latitude	21°26.20'S	
Longitude	115°07.00'E	
Course	229°T	
Speed	8 - 10 knots	
Leg Distance	4.3 NM	
Minimum Charted Depth	13.5 m	
Maximum Cross-track Error	400m	
Primary Position Fixing	Visual / PPU / Radar	
Secondary Position Fixing	Chart/ECDIS/GPS	
Parallel Index	229° x 2.08 NM Sultan Reef Buoy	



CAUTION:

The area surrounding Sultan Reef is a No-Go Area.




ENVIRONMENTAL WARNING:

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Waypoint	Thevenard Island (A2)	<ul style="list-style-type: none"> • An alteration of 035° to Port is required 2.4' Southeast of Thevenard Island. • This is a 1.0 NM Constant Radius Turn (CRT). • PI to be utilised where practicable (as below). • The vessel alters course 2.5NM NNE of the LNG Channel. • Maximum Cross-track Error is 100m until 1 mile north of "Gate 1" when it reduces to 50m • The Ebb tide sets to the West & the Flood tide sets to the East and may affect the vessel. • The vessel shall reduce her speed to a max of 7.5 knots prior to entering the channel with the proviso that the Pilot is empowered to incrementally increase speed above this limit sufficient to overcome any concerning leeway/set that they may experience. • Call "Ashburton VTS" on VHF 14 when entering Port of Ashburton port limit (0.14 NM north of "Gate 1"). • Plan to have all tugs made fast to the vessel before passing the Abort Point, however all tugs must be fast prior to entering the Wheatstone Channel. • Number of tugs and positioning shall be considered for each vessel ensuring compliance with the Pilbara Ports Authority and Pilot's requirements (as per Chevron ABU procedures). • Be aware of Onslow Salt and other vessels navigating or anchored in this area. • AtoN "Gate 8" marks the approx. transit into water depths less than 8m at chart datum on either side of the channel. Vessels shall be constrained to the channel unless draughts otherwise allow. • When passing through "Gate 10" the vessel's speed should be reduced to 4~5 knots (entering the Turning Basin). • At "Gate 11" the vessel's speed should be reduced to ~3 Knots. • Leads mark the centre of the channel. The day boards are rectangular and painted in Red-White-Red vertical stripes. The lights are Green Isophase 4s (synchronised) with a nominal range of 6 NM. • In the event of any critical failure, which affects the act of pilotage, the vessel should be stabilised in a safe position and if required anchored. Ashburton VTS advised immediately on VHF 14.
Latitude	21° 29.03'S	
Longitude	115°03.50'E	
Course	193.7°T	
Speed	Max 7.5 knots reducing to ~3 knots	
Leg Distance	12 NM	
Minimum Charted Depth	13.5 m	
Maximum Cross-track Error	100 m reducing to 50 m	
Primary Position Fixing	Visual / PPU / Radar	
Secondary Position Fixing	Chart /ECDIS/GPS	
Parallel Index	193.7° x 0.06 NM Channel Spar Buoys	<p style="text-align: center;">CAUTION: The area surrounding Saladin Shoal is a No-Go Area.</p> 

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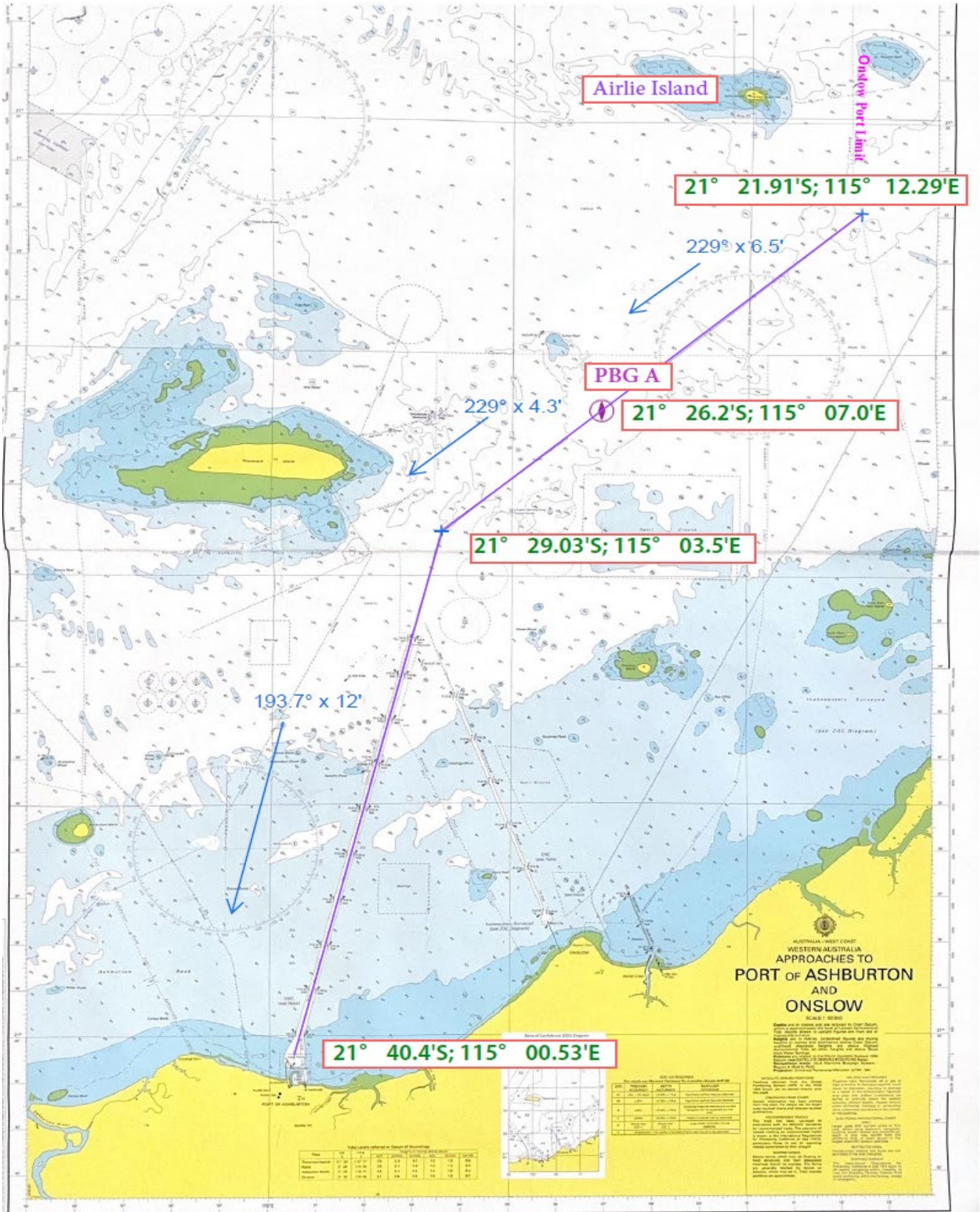
Waypoint	03	<ul style="list-style-type: none"> The Turning Basin: Dredged to a depth of 13.5m unless declared otherwise. Leads mark the centre of the channel and the 600m diameter dredged turning circle. The vessel shall be swung within the prescribed 600 m diameter turning basin well clear of the berth (>100m off berth). Vessels will normally be berthed port side alongside. However, there are instances when a vessel may be berthed starboard side alongside. Approach and berthing speed to be within the prescribed WMT Channel & Berth Operating Criteria. Number of tugs and positioning to be considered for each vessel ensuring compliance with the Pilbara Ports Authority and Pilot's requirements (as per Chevron ABU procedures). Ensure adequate clearing distances between the vessel and her tugs from obstructions such as other vessels, navigational marks, and mooring dolphins. In the event of any critical failure, which affects the act of pilotage, consider maintaining position in the turning basin utilising tugs, escorting the vessel to the berth, or anchoring in a safe position. Ashburton VTS is to be advised immediately on VHF 14.
Latitude	21° 40.40' S	
Longitude	115° 00.53' E	
Course	Various	
Speed	<3 ~ Var Knots	
Leg Distance	Var	
Minimum Charted Depth	13.5 m	
Maximum Cross-track Error	50 m	
Primary Position Fixing	Visual / PPU / ECDIS	
Secondary Position Fixing	Chart /Radar/GPS	
Parallel Index	N/A	

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Waypoint	Berth	<ul style="list-style-type: none"> • In keeping with the port safety procedures, the vessel shall be alongside the fenders and in position prior to running mooring lines unless safety otherwise dictates. • Advise "Ashburton VTS" on VHF 14 once the vessel is all fast. • A minimum of 1.0m UKC must be maintained at all times alongside the berth. • Whilst at alongside, vessels must monitor: <ul style="list-style-type: none"> ○ VHF 14 for "Ashburton VTS" and call for any assistance
Latitude	-	
Longitude	-	
Course	N/A	
Speed	Zero	
Leg Distance	N/A	
Minimum Charted Depth	13.5 m	
Maximum Cross-track Error	N/A	
Primary Position Fixing	N/A	
Secondary Position Fixing	N/A	
Parallel Index	N/A	

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3.0 EXECUTION OF PASSAGE PLAN - EXPECTATIONS

3.1 Notes for Master and Bridge Team

- This Passage plan should be promulgated to the vessel prior to her arrival at the Port of Ashburton.
- The Master should review the passage plan, the route plotted on an official chart, and the bridge team briefed. Any concerns or questions are to be raised with the Port or Pilots prior to the vessel arriving at the PBG.
- Where paper charts are not the primary means of navigation on board the vessel, an IMO compliant ECDIS must be utilised.
- Vessels visiting the Ports of Ashburton and Onslow carrying paper charts must be in possession of latest copies of AUS 64, AUS 743, and AUS 69.
- Vessels fitted with ECDIS shall have installed AUS ENC Cells, AU422114, AU422115, AU5069P2.
- In accordance with AMSA regulations, all charts (paper and ECDIS) and navigational publications must be corrected to the latest edition of the Australian and Western Australian Notice to Mariners, including any applicable Temporary Notices to Mariners that may be in force. Marine Notices promulgated for the Port of Ashburton are available from the Pilbara Ports Authority website.
- If at any time the Master or bridge team is unsure or uncertain of the pilot's actions, they are expected to challenge the Pilot as required in accordance with Bridge Resource Management (BRM) principles.
- Any bridge or vessel deficiencies must be communicated in advance to the pilots (on pre-arrival form)
- All bridge equipment must be operational and functioning correctly before the act of pilotage commences.
- The vessel's navigation fix information must be readily available to the Pilot when first arriving on the bridge and at any stage during the passage.
- Anchors are to be cleared away and ready for letting go prior to the Pilot boarding.
- Once the pilot has boarded and aligned himself with the vessels position, and determined it safe to do so, MPX shall be conducted between the Pilot, Master, and bridge team. The Pilot shall take conduct of the vessel after the MPX.
- To ensure an appropriate level of BRM, Pilots to utilise a "Closed Loop" system of communications for the relay of orders. The Master/OOW is to ensure the bridge is managed as such that all orders can be clearly heard, understood, and responded to. The Master/OOW is to monitor course, helm orders and engine settings to ensure compliance with the Pilot's directions.
- Pilotage is compulsory within the Port of Ashburton / Onslow. The Pilot shall have the conduct of the vessel always whilst manoeuvring within the pilotage waters of the port. It is acknowledged however, that the Master always remains in overall command of his/her vessel. Adhering to good BRM principles, the Pilots will ensure a shared mental model and actively encourage a "Challenge and Response" environment. If at any time the Master/bridge team is unsure of the actions being taken, they are to challenge the Pilot and vice versa.
- Ship's position fixes, proximity to dangers and UKC must be continuously monitored by

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the Master/OOW and cross-referenced with the passage plan.

- If the Master leaves the bridge there must be a clear and concise handover of responsibility and duties to the OOW, and the pilot notified of any changes to members of the bridge team. If there is any doubt as to the pilot's actions or intentions, members of the bridge team are required to seek clarification from the pilot.
- Proper, formal records of navigational activities and any incidents must be recorded in the appropriate logbooks. Information recorded must be of an appropriate standard so that the vessel's progress into the Port can be reconstructed later.

3.2 Notes for the Pilot

- The pilot shall take conduct of the vessel in a clear and unambiguous manner.
- The pilot shall assist the bridge team to ensure radar conspicuous points, parallel indexing, and any clearing bearings/ranges are properly understood.
- Pilot shall ensure tug numbering and communication protocols are fully explained.
- The pilots shall carry out the MPX and present this to the Master for agreement prior to commencing the passage.
- If for any reason there is a need to deviate from the standard Passage Plan, a revised Passage Plan must be formulated and agreed between the Pilot and Master; any additional hazards shall be identified, and any mitigations/controls shall be detailed on the Master Pilot Exchange (MPX) document.

If there is a need to deviate from the passage plan for any reason, the bridge team must be fully briefed as to the pilot's intentions, and the pilot should make every opportunity to return to the passage plan as soon as possible.

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4.0 REFERENCES

The following documentation is to be utilised by the Pilot for communication of the passage plan to all relevant parties.

Ref. No.	Description	Document ID
1	Wheatstone Marine Operations - Pilotage - Master Pilot Exchange - WMT	WS1-COP-00368
2	SOLAS 2010 Chapter V Reg 23	
3	IMO Resolution A.893(21) (See ANNEX 25)	

5.0 PASSAGE PLAN APPROVAL

The preparation, review and approval of this Passage Plan has been carried out in conjunction with requirements as laid out in Document Number WS1-COP-00174

Document Author	Peter Gracias	Approver	John Meade
Reviewer List	Ben Horner		

6.0 DOCUMENT CONTROL

6.1 Ownership

Document Author	Peter Gracias	Owner	ABU Marine
Approver	John Meade		

6.2 Revision History

Rev	Description	Date	Prepared By	Approved By
1.0	Issued for use	02 Sept 2015	Simon Bishop	Dave Acomb
2.0	Issued for Use – minor changes	09 Oct 2015	Simon Bishop	Dave Acomb
3.0	Issued for use – minor changes	26 May 2016	Manjur Khan	Dave Acomb
4.0	Issued for use - passage plan extended to Onslow Port Limit.	01 Aug 2017	Peter Gracias	Hamish Murray
5.0	Issued for use – ENC chart numbers updated.	05 Oct 2017	Peter Gracias	Simon Bishop
6.0	Issued for use	22 Sep 2018	Simon Bishop	John Codispoti
7.0	Issued for use – minor changes to address DoT feedback.	01 Jun 2020	Manjur Khan	Peter Waller
8.0	Minor Review – amend RACON on R01	03 Nov 2020	Manjur Khan	John Meade
9.0	Issued for use – periodic review	02 Oct 2023	Peter Gracias	John Meade
10.0	Issued for use – update ENC numbers	10 Oct 2023	Peter Gracias	Simon Bishop

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11.0	Issued for use – remove reference to Saladin "A"	26 Mar 2024	Peter Gracias	Simon Bishop
12.0	Issued for use – added chartlet excerpt showing inbound route	23 Nov 2024	Peter Gracias	John Meade