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 Master.

This work instruction has been compiled in accordance with the 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: The Wheatstone Marine Terminal (WMT)
To: Onslow Port Limits

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
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Reviewer	HBEN Ben Horner Digitally signed by Ben Horner Date: 2024.11.23 10:16:52 +08'00'
Approver	LVNX John Meade - LVNX Digitally signed by John Meade - LVNX Date: 2024.11.23 10:20:52 +08'00'

1.4 Acronyms and Abbreviations

The below table 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

2.0 PASSAGE PLAN – WMT to Onslow Port Limit

Waypoint	Berth	• Pilot shall board the vessel and carry out the MPX prior to taking conduct of the vessel. • Call "Ashburton VTS" on VHF 14 advising outbound from the berth, deepest draft, Pilots Licence Number and requesting traffic updates. • In keeping with port safety procedures, the vessel must be alongside and in position prior to "letting go" mooring lines. • 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 Marine Procedures). • Ensure adequate clearing distances between the vessel and her tugs from obstructions such as other vessels, navigational marks, and mooring dolphins. • Manoeuvre clear of the berth into the turning basin and align vessel to make good the approach into the channel for a course of 014° (T). • It is expected that vessels will usually be berthed port side alongside. However, there may be instances, when due to manifold configurations, a vessel may be berthed starboard side to. • Leads mark the centre of the channel. The day boards are rectangular (Height 3.3m x Width 1.66m) and painted in Red-White-Red vertical stripes. The lights are Green Isophase 4s (synchronised) with a nominal range of 6 NM. • The Ebb tide sets to the West /the Flood tide sets to the East and may affect the vessel. • In the event of any critical failure, which affects the act of pilotage, consider escorting the vessel into the Turning Basin, maintaining position utilising tugs, escorting the vessel to the berth, or anchoring. • The Berth is dredged to a depth of 13.5m unless declared otherwise.
Latitude	-	
Longitude	-	
Course	Var	
Speed	<1.5 knots	
Leg Distance	Var	
Minimum Charted Depth	13.5 m	
Maximum Cross-track Error	N/A	
Primary Position Fixing	Visual / PPU / ECDIS	
Secondary Position Fixing	Chart /Radar/GPS	
Parallel Index	N/A	

Waypoint	03
Latitude	21° 40.40’ S
Longitude	115° 00.53’ E
Course	013.7°T
Speed	~1.0 knots increasing to max 7.5 knots
Leg Distance	12 NM
Minimum Charted Depth	13.5 m
Maximum Cross-track Error	50m increasing to 100m
Primary Position Fixing	Visual / PPU / Radar
Secondary Position Fixing	Chart /ECDIS/GPS
Parallel Index	013.7°T x 0.06 NM Channel Spar Buoys

- The Turning Basin: Dredged to a depth of 13.5m, unless declared otherwise.
- PI to be utilised where practicable (as below).
- Maximum Cross-track error is 50m until 1 mile north of “Gate 1” when it increases to 100m.
- The vessel shall increase her speed to a maximum of 7.5 knots in 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.
- AtoN “Gate 8” marks the approx. limits of 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.
- A Tug shall remain fast until the vessel is clear of the channel at “Gate 1”.
- Tugs to be released at a speed that is safe considering environmental conditions and their manoeuvring capabilities.
- Be aware of Onslow Salt and other vessels when near waypoint A2.
- Racon Morse ’G’ (Golf) indicates Beacon R01 of Wheatstone Channel.
- Leads mark the centre of the channel. The day boards are rectangular (Height 3.3m x Width 1.66m) and painted in Red-White-Red vertical stripes. The lights are Green Isophase 4s (synchronised) with a nominal range of 6 NM.
- Call “Ashburton VTS” on VHF 14 on exiting the Port of Ashburton port limit (0.14NM north of “Gate 1”).
- In the event of any failure, which affects the act of pilotage, consider escorting the vessel into the Turning Basin, maintaining position utilising tugs, or anchoring in the Turning Basin
- The shallowest known depth 13.3m is in position: 21° 29.88’ S 115° 3.458’ E

CAUTION:
The area surrounding Saladin Shoal is a No-Go Area.

Waypoint	Thevenard Island (A2)
Latitude	21° 29.03'S
Longitude	115°03.50'E
Course	049.0°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	049°T x 2.08 NM Sultan Reef Buoy

- An alteration of 035° to Starboard is required.
- This is a 1.0nm Constant Radius Turn (CRT).
- The vessel alters course 2.5nm NNE of the Wheatstone Channel.
- The vessel's speed may be increased if UKC allows.
- PI is to be utilised where practicable (as below).
- Vessel Master, Pilot and Pilot Vessel Master are to discuss and agree on vessel's position, speed and heading to disembark and ensure a good lee for pilot transfer.
- Should other vessels be transiting the area, the Onslow Salt Channel, or be anchored in the five Port of Onslow anchorages designated A,B,C,D or E, the Pilot should ensure the vessel is well clear before disembarking, subject to the vessel Master's agreement.
- The pilot ladder shall be rigged as per *SOLAS 2010 Chapter V Reg 23* as amended and secured to a height above the water line as requested by the Pilot Boat Master.
- Once the Pilot and Master are satisfied with the vessel's position, course and speed the pilot will hand over the conduct of the vessel to the Master and disembark.
- Call "Ashburton VTS" on VHF 14 notifying them of pilot disembarkation - advise them the vessel is outbound to Onslow Port Limits and request traffic updates.
- In the event of any critical failure, which affects the safe navigation, the vessel should be stabilised and anchored in a safe position if required. "Ashburton VTS" is to be advised immediately on VHF 14.

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

Waypoint	Ashburton PBG A (A1)
Latitude	21° 26.20'S
Longitude	115°07.00'E
Course	049.0°T
Speed	8 - 10 knots
Leg Distance	6.5 NM
Minimum Charted Depth	13.9m
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	As per vessel's passage plan

- Visual Reference: "Sultan Reef" Buoy bearing 319° (T) x 2.08 NM.
- The vessel shall proceed to the Onslow Port Limits following the recommended track. Once clear of Port Limits, the vessel must report same to "Ashburton VTS" on VHF 14.
- PI is to be utilised where practicable.
- Be aware of Onslow Salt vessels navigating in this area.
- In the event of any critical failure, which affects the safe navigation, the vessel should be stabilised and anchored in a safe position, if required. "Ashburton VTS" is to be advised immediately on VHF 14.
- The shallowest water (13.9m) exists in approximate position 21°24.5'S 115° 09.15'E

- IT IS RECOMMENDED THAT ALL VESSELS CARRY OUT THEIR OWN UKC CALCULATIONS TAKING THE FOLLOWING INTO CONSIDERATION:
  1. REFERENCE TO ADMIRALTY SAILING DIRECTIONS NP13 – AUSTRALIA PILOT VOL. 1
  2. MOBILE SAND WAVES EXISTING IN THE AREA.
  3. IN THE EVENT OF LARGE SWELLS, UKC IS FURTHER REDUCED.
  4. THE CHARTED APROACH 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

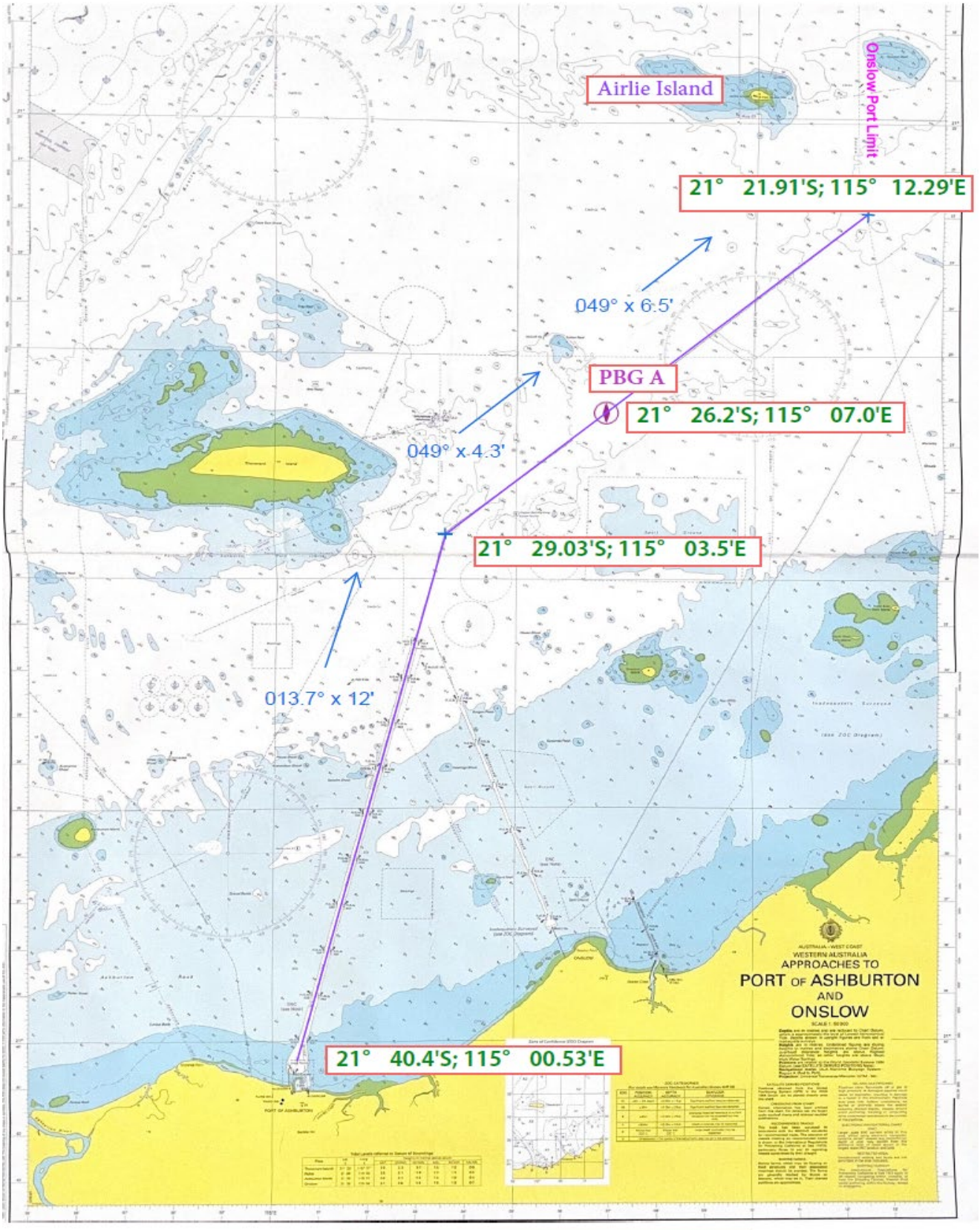
Waypoint	Onslow Port Limit (A0)
Latitude	21°21.91'S
Longitude	115°12.29'E
Course	As per vessel's passage plan
Speed	As per vessel's passage plan
Leg Distance	N/A
Minimum Charted Depth	N/A
Maximum Cross-track Error	As per vessel's passage plan
Primary Position Fixing	As per vessel's passage plan
Secondary Position Fixing	As per vessel's passage plan
Parallel Index	As per vessel's passage plan

- Visual reference: Sultan Reef Buoy bearing 247° (T) x 6.85 NM
- Call "Ashburton VTS" on VHF 14 at Onslow Port Limit - advise them of exiting Onslow Port Limit.
- In the event of any critical failure which affects the safety of navigation, the vessel should be stabilised and anchored in a safe location if required. Ashburton VTS is to be advised as appropriate.

ENVIRONMENT

ENVIRONMENTAL WARNING:

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



NOT TO BE USED FOR NAVIGATION

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 complaint 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 the Pre-Arrival Form)
- All bridge equipment must be operational and functioning correctly before the act of pilotage commences.
- The vessel's position fixes, course and speed must be readily available for 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 vessel's position, and determined it is safe to do so, MPX shall be conducted between the Pilot, Master, and the bridge team. The Pilot shall take conduct of the vessel after the MPX.
- To ensure an appropriate level of BRM Pilot to utilise a "Closed Loop" system of communications for the relay of orders. The Master/OOW is to ensure the bridge is managed such that all orders can be clearly heard, understood, and responded to. The Master/OOW is to monitor courses, helm orders and engine settings to ensure compliance with the Pilot's directions.
- Pilotage is compulsory within the Ports of Ashburton and Onslow. The Pilot shall have the conduct of the vessel always whilst manoeuvring within the pilotage waters of the port(s). It is acknowledged however, that the Master always remains in overall command of his/her vessel. Adhering to good BRM principles, Pilot shall ensure a shared mental model is developed 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 shall be continuously monitored by

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 action 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 vessels 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 shall be formulated and agreed between the Pilot and Master; any additional hazards will be identified, and any mitigations/controls must 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.

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	03 Sep 2015	Simon Bishop	Dave Acomb
2.0	Issued for use – minor changes	27 May 2016	Manjur Khan	Dave Acomb
3.0	Issued for use – passage plan extended to Onslow Port Limit.	27 July 2017	Peter Gracias	Hamish Murray
4.0	Issued for use – ENC chart numbers updated.	09 Oct 2017	Peter Gracias	Simon Bishop
5.0	Issued for use	26 Sep 2018	Simon Bishop	John Codispoti
6.0	Issued for use	10 May 2020	Manjur Khan	Peter Waller
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
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 outbound route	23 Nov 2024	Peter Gracias	John Meade