

Gorgon - Pilotage - Passage Plan – PBG to Port Limits North - WAPET Arrival



1.0 Introduction

Vessels transiting within port limits from the Barrow Island Pilot Boarding Ground (PBG) to Port Limits North, including WAPET, require an approved passage plan which can be shared between Pilots and vessel Masters. This work instruction has been compiled in accordance with documents *GOR-COP-0187 - Pilot Passage Plan Guideline* and approved according to *GOR-COP-0186 - Passage Plan Approval Procedure*.

1.1 Purpose

This work instruction details the navigation route between the PBG and Port Limits North (via WAPET), providing Pilots, Masters and Bridge Navigation Teams sufficient information to conduct a vessel along the route in a safe and controlled manner whilst minimising risk to personnel, environment and property.

1.2 Scope

This Work Instruction begins when a vessel arrives at the PBG and concludes when it reaches an assigned berth or LCT ramp at WAPET, B2 Anchorage or Port Limits North.



CAUTION:

This passage plan is tidally restricted for all vessels calling at WAPET. Likewise, this passage plan may be tidally restricted for vessels transiting to the B2 Anchorage or Port Limits North with drafts greater than 3.4m. All vessels must maintain a UKC in accordance with *ABU110700304 - Port of Barrow Island – Port Information Guide*.

Caution must be taken when using buoys for navigation, particularly post severe storm/cyclone activity.

The vessel may not have the controlling draft and therefore the drafts of any assist vessels must be considered.

1.3 Target Audience

This work instruction is primarily intended for use by ABU Marine Pilots, vessel Masters and vessel Bridge Navigation Teams.

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 |
| BWI | Barrow Island |
| CBM | Conventional Buoy Mooring |
| CD | Clearing Distance |
| ECDIS | Electronic Chart Display and Information System |
| JHA | Job Hazard Analysis |

Document ID: GOR-COP-01857
 Revision ID: 1.0 Revision Date: 29 April 2016
 Information Sensitivity: Public
 Uncontrolled when printed

| Document Approvals | Signature/Date |
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Gorgon - Pilotage - Passage Plan – PBG to Port Limits North - WAPET Arrival



| Acronym/Abbreviation | Meaning |
|----------------------|--|
| kts | knots |
| m | metres |
| MOF | Materials Offloading Facility |
| MPX | Master Pilot Exchange |
| nm | Nautical miles |
| OOW | Officer of the Watch |
| PBG | Pilot Board Ground |
| Pilot | ABU Marine Pilot |
| PI | Parallel index |
| SOLAS | International Convention for Safety Of Life At Sea |
| UKC | Under Keel Clearance |
| XTE | Cross Track Error |

2.0 Waypoint Bank

| Waypoint | Reference | Latitude | Longitude |
|----------|----------------------|------------|-------------|
| WP001 | PBG | 20°48.60'S | 115°36.00'E |
| WP002 | SW South Cardinal | 20°48.00'S | 115°30.25'E |
| WP003 | West Cardinal | 20°47.20'S | 115°29.67'E |
| WP004 | Double Island | 20°44.05'S | 115°30.00'E |
| WP005 | Mushroom Island | 20°43.43'S | 115°28.76'E |
| WP006 | WAPET Landing | 20°43.45'S | 115°28.50'E |
| WP007 | Ant Point | 20°42.80'S | 115°29.30'E |
| WP008 | Surf Point | 20°39.70'S | 115°29.20'E |
| WP009 | B2 Anchorage | 20°42.10'S | 115°29.60'E |
| WP010 | East Mushroom Island | 20°43.54'S | 115°29.72'E |
| WP011 | Berth | Various | Various |

3.0 Route Bank

| Route | Waypoint Sequence |
|---|--|
| 4.1 PBG to Double Island | WP001, WP002, WP003, WP004 |
| 4.2 Double Island to WAPET (LCT Ramp and LBW) | WP004, WP005, WP006, WP011 |
| 4.3 Double Island to Port Limits North | WP004, WP007, WP008 |
| 4.4 Double Island to B2 Anchorage | WP004, WP007, WP009 |
| 4.5 B2 Anchorage to WAPET (LCT Ramp and LBW) | WP009, WP007, WP010, WP005, WP006, WP011 |

Gorgon - Pilotage - Passage Plan – PBG to Port Limits North - WAPET Arrival



4.0 Passage Plan - PBG to Port Limits North - WAPET Arrival

4.1 PBG to Double Island

| | | |
|----------------------------------|-------------------------|--|
| Waypoint | WP001 (PBG) | <ul style="list-style-type: none"> Pilot will board at the PBG as shown on AUS 62. Extra caution to be taken in vicinity of the PBG due to the potential for converging traffic. At the PBG, the Flood tide sets to the South West. The Ebb tide sets to the North East. Vessel and Pilot Boat are to discuss and agree on vessel speed and heading prior to transfer, ensuring a good lee is provided for boarding. The pilot ladder will be rigged as per <i>SOLAS 2010 Chapter V Reg 23</i> as amended and secured to a height above the waterline as requested by the Pilot Boat. Pilot, Master and Bridge team will conduct MPX fully explaining No Go Zones, abort points and other relevant information. Anchors are to be cleared away and ready for letting go prior to entering port limits. Call the Port of Barrow on VHF Ch10 when crossing port limits. Parallel indexing to be setup and utilised throughout passage. The CBM to the South of the track and the Lowendal Shoal to the North of the track are both No Go Zones. Be aware of converging traffic in the vicinity of the South Cardinal Mark. Be aware of the CBM oil pipeline in the vicinity of the South Cardinal Mark. In the event of any failure, the vessel will (if possible) return to port limits or anchor (being aware of the oil pipeline and other obstructions). Night operations may require additional or alternate position fixing due to backscatter and masking of lights due to shore lights. |
| Latitude | 20°48.60'S | |
| Longitude | 115°36.00'E | |
| Course | 276°T | |
| Speed | ~6 to 10kts | |
| Leg Distance | 5.4nm | |
| Minimum Depth at CD | 6.1m | |
| Maximum Cross Track Error | 100m | |
| Primary Fixing | Visual | |
| Secondary Fixing | GPS/RADAR | |
| Parallel Index | South Cardinal at 0.2nm | |

Gorgon - Pilotage - Passage Plan – PBG to Port Limits North - WAPET Arrival



| | | |
|----------------------------------|---------------------------|--|
| Waypoint | WP002 (SW South Cardinal) | <ul style="list-style-type: none"> • Be aware of traffic departing the MOF. • The Flood tide sets to the South. The Ebb tide sets to the North. • Be aware of converging traffic from the North. • A No Go Zone exists to the East of the track. • In the event of any failure, the vessel will (if possible) return to port limits or anchor (being aware of the oil pipeline and other obstructions). |
| Latitude | 20°48.00'S | |
| Longitude | 115°30.25'E | |
| Course | 326 ⁰ T | |
| Speed | ~6 to 10kts | |
| Leg Distance | 1.00nm | |
| Minimum Depth at CD | 5.2m | |
| Maximum Cross Track Error | 100m | |
| Primary Fixing | Visual | |
| Secondary Fixing | GPS/RADAR | |
| Parallel Index | West Cardinal at 0.3nm | |

Gorgon - Pilotage - Passage Plan – PBG to Port Limits North - WAPET Arrival



| | | |
|----------------------------------|------------------------|--|
| Waypoint | WP003 (West Cardinal) | <ul style="list-style-type: none"> Call the Port of Barrow on VHF Ch10 when passing the West Cardinal Mark. The Flood tide sets to the South. The Ebb tide sets to the North. Tidal streams can be very strong (~3 to 4kts at times) around the northern end of Double Island. No Go Zones exist to the West and East of the track. Double Island (WP004): Lat 20°44.05'S, Long 115°30.00'E. |
| Latitude | 20°47.20'S | |
| Longitude | 115°29.67'E | |
| Course | 006°T | |
| Speed | ~6 to 10kts | |
| Leg Distance | 3.2nm | |
| Minimum Depth at CD | 5.0m | |
| Maximum Cross Track Error | 50m | |
| Primary Fixing | Visual | |
| Secondary Fixing | GPS/RADAR | |
| Parallel Index | Channel Rock at 0.16nm | |

Gorgon - Pilotage - Passage Plan – PBG to Port Limits North - WAPET Arrival



4.2 Double Island to WAPET (LCT Ramp and LBW)

| | | |
|----------------------------------|-------------------------|--|
| Waypoint | WP004 (Double Island) | <ul style="list-style-type: none"> The Flood tide sets to the South. The Ebb tide sets to the North. Tidal streams can be very strong (~3 to 4kts at times) around the northern end of Double Island. Ensure adequate clearing distances are maintained between the vessel and any navigational danger, obstruction and/or navigation mark. A minimum UKC of 0.5m must be maintained throughout the transit. At night, visual references are very limited. It is recommended, in addition to keeping a proper lookout, that assist vessels use their navigation equipment to help with position awareness. Be aware of dangers in the vicinity of Mushroom Island and the GBB. Be aware of both inbound and outbound traffic to/from the WAPET Landing areas. Note: Courses and approaches stipulated in this document may need to be varied on occasion to counteract the strong effect of prevailing tidal/weather conditions experienced at WAPET. |
| Latitude | 20°44.05'S | |
| Longitude | 115°30.00'E | |
| Course | 298°T | |
| Speed | ~3 to 6kts | |
| Leg Distance | 1.3nm | |
| Minimum Depth at CD | 0.4m | |
| Maximum Cross Track Error | 50m | |
| Primary Fixing | Visual | |
| Secondary Fixing | GPS/RADAR | |
| Parallel Index | Double Island at 0.11nm | |

Gorgon - Pilotage - Passage Plan – PBG to Port Limits North - WAPET Arrival



| | | |
|----------------------------------|---------------------|---|
| Waypoint | WP005 (Mushroom Is) | <ul style="list-style-type: none"> The Flood tide sets to the South. The Ebb tide sets to the North. Leads bear 266°(T). Be aware of dangers to the South of the track and shallows to the North of the track. A minimum UKC of 0.5m must be maintained throughout the transit. At night, visual references ahead of the vessel are limited. As such, a greater reliance on radar fixing and PI methods may be required. |
| Latitude | 20°43.43'S | |
| Longitude | 115°28.76'E | |
| Course | 266°T | |
| Speed | ~3kts | |
| Leg Distance | 0.2nm | |
| Minimum Depth at CD | 0.9m | |
| Maximum Cross Track Error | 50m | |
| Primary Fixing | Visual | |
| Secondary Fixing | GPS/RADAR | |
| Parallel Index | | |

Gorgon - Pilotage - Passage Plan – PBG to Port Limits North - WAPET Arrival



| | | |
|----------------------------------|-----------------------|--|
| Waypoint | WP006 (WAPET Landing) | <ul style="list-style-type: none"> Conduct manoeuvre as required to the LCT ramps or LBW. A minimum UKC is to be maintained as per <i>ABU110700304 - Port of Barrow Island – Port Information Guide</i>. Be aware of strong tidal streams and prevailing winds affecting the vessel. Be aware of shallows to the North of the LCT ramps. Ensure adequate clearing distances are maintained between the vessel and any obstruction, such as other vessels, navigational marks and mooring dolphins. Manoeuvring from Waypoint WP006 to the LCT ramps or LBW is to be undertaken at slow speed (<1kts). At night, visual references ahead of the vessel are limited. As such, a greater reliance on radar fixing and PI methods may be required. Call Port of Barrow on VHF Ch10 once first line is ashore and again when all fast. Pilot will normally disembark by Pilot Boat. The vessel is to follow any instruction from the Pilot Boat in regards to the rigging of the ladder. The pilot ladder will be rigged as per <i>SOLAS 2010 Chapter V Reg 23</i> as amended and secured to a height above the waterline as requested by the Pilot Boat. |
| Latitude | 20°43.45'S | |
| Longitude | 115°28.50'E | |
| Course | Various | |
| Speed | <1kts | |
| Leg Distance | Various | |
| Minimum Depth at CD | Various | |
| Maximum Cross Track Error | N/A | |
| Primary Fixing | Visual | |
| Secondary Fixing | GPS/RADAR | |
| Parallel Index | N/A | |

Gorgon - Pilotage - Passage Plan – PBG to Port Limits North - WAPET Arrival



4.3 Double Island to Port Limits North

| | | |
|----------------------------------|---------------------------|--|
| Waypoint | WP004 (Double Island) | <ul style="list-style-type: none"> The Flood tide sets to the South. The Ebb tide sets to the North. Tidal streams can be very strong (~3 to 4kts at times) around the northern end of Double Island. Extra caution to be taken in the vicinity of Mushroom Island due to traffic congestion to/from WAPET. A No Go Zone exists to the East of the track. |
| Latitude | 20°44.05'S | |
| Longitude | 115°30.00'E | |
| Course | 332°T | |
| Speed | ~6 to 10kts | |
| Leg Distance | 1.4nm | |
| Minimum Depth at CD | 5.0m | |
| Maximum Cross Track Error | 100m | |
| Primary Fixing | Visual | |
| Secondary Fixing | GPS/RADAR | |
| Parallel Index | Mushroom Island at 0.44nm | |

Gorgon - Pilotage - Passage Plan – PBG to Port Limits North - WAPET Arrival



| | | |
|----------------------------------|---------------------|---|
| Waypoint | WP007 (Ant Point) | <ul style="list-style-type: none"> • The Flood tide sets to the South. The Ebb tide sets to the North. • No Go Zones exist to the West and East of the track. • At night, visual references ahead of the vessel are limited. As such, a greater reliance on radar fixing and PI methods may be required. • Call the Port of Barrow on VHF Ch10 when crossing port limits outbound. • Be aware of Tringa Rock (and associated breakers) North of Surf Point, just outside of port limits. • Be aware of the submerged pipeline to the north of the track. • At night, visual references ahead of the vessel are limited. As such, a greater reliance on radar fixing and PI methods may be required. • The Pilot will disembark in the vicinity of port limits, subject to environmental conditions and Pilot's discretion (this area often experiences unfavourable swell, making Pilot disembarkation difficult). • Surf Point (WP008): Lat 20°39.70'S, Long 115°29.20'E. • Vessel and Pilot Boat are to discuss and agree on vessel speed and heading prior to Pilot transfer, ensuring a good lee is provided for disembarkation. The pilot ladder will be rigged as per <i>SOLAS 2010 Chapter V Reg 23</i> as amended and secured to a height above the waterline as requested by the Pilot Boat. |
| Latitude | 20°42.80'S | |
| Longitude | 115°29.30'E | |
| Course | 358°T | |
| Speed | ~6 to 10kts | |
| Leg Distance | 3.1nm | |
| Minimum Depth at CD | 5.0m | |
| Maximum Cross Track Error | 100m | |
| Primary Fixing | Visual | |
| Secondary Fixing | GPS/RADAR | |
| Parallel Index | Surf Point at 1.0nm | |

Gorgon - Pilotage - Passage Plan – PBG to Port Limits North - WAPET Arrival



4.4 Double Island to B2 Anchorage

| | | |
|----------------------------------|---------------------------|--|
| Waypoint | WP004 (Double Island) | <ul style="list-style-type: none"> • The Flood tide sets to the South. The Ebb tide sets to the North. Tidal streams can be very strong (~3 to 4kts at times) around the northern end of Double Island. • Extra caution to be taken in the vicinity of Mushroom Island due to traffic congestion to/from WAPET. • A No Go Zone exists to the East of the track. |
| Latitude | 20°44.05'S | |
| Longitude | 115°30.00'E | |
| Course | 332°T | |
| Speed | ~6 to 10kts | |
| Leg Distance | 1.4nm | |
| Minimum Depth at CD | 5.0m | |
| Maximum Cross Track Error | 100m | |
| Primary Fixing | Visual | |
| Secondary Fixing | GPS/RADAR | |
| Parallel Index | Mushroom Island at 0.44nm | |

Gorgon - Pilotage - Passage Plan – PBG to Port Limits North - WAPET Arrival



| | | |
|----------------------------------|-------------------|--|
| Waypoint | WP007 (Ant Point) | <ul style="list-style-type: none"> Note the 4.4m patch within the designated boundaries of the B2 Anchorage. The Flood tide sets to the South. The Ebb tide sets to the North. A No Go Zone exists to the East of the track. Call Port of Barrow on VHF Ch10 immediately prior to anchoring to confirm position. Call Port of Barrow on VHF Ch10 once the vessel is brought up to her anchor and in all regards secure. At night, visual references ahead of the vessel are limited. As such, a greater reliance on radar fixing and PI methods may be required. B2 Anchorage (WP009): Lat 20°42.10'S, Long 115°29.60'E. Pilot will disembark by Pilot Boat. The vessel is to follow any instruction from the Pilot Boat in regards to the rigging of the ladder. The pilot ladder will be rigged as per <i>SOLAS 2010 Chapter V Reg 23</i> as amended and secured to a height above the waterline as requested by the Pilot Boat. |
| Latitude | 20°42.80'S | |
| Longitude | 115°29.30'E | |
| Course | 022°T | |
| Speed | ~3 to 5kts | |
| Leg Distance | 0.8nm | |
| Minimum Depth at CD | 4.4m | |
| Maximum Cross Track Error | 100m | |
| Primary Fixing | Visual | |
| Secondary Fixing | GPS/RADAR | |
| Parallel Index | | |

Gorgon - Pilotage - Passage Plan – PBG to Port Limits North - WAPET Arrival



4.5 B2 Anchorage to WAPET (LCT Ramp and LBW)

| | | |
|----------------------------------|----------------------|---|
| Waypoint | WP009 (B2 Anchorage) | <ul style="list-style-type: none"> Pilot will embark by Pilot Boat. The vessel is to follow any instruction from the Pilot Boat in regards to rigging of the ladder. The pilot ladder will be rigged as per <i>SOLAS 2010 Chapter V Reg 23</i> as amended and secured to a height above the waterline as requested by the Pilot Boat. Note the 4.4m patch within the designated boundaries of the B2 Anchorage. The Flood tide sets to the South. The Ebb tide sets to the North. A No Go Zone exists to the East of the track. Call Port of Barrow on VHF Ch10 when heaving anchor and again when anchor is aweigh. At night, visual references ahead of the vessel are limited. As such, a greater reliance on radar fixing and PI methods may be required. |
| Latitude | 20°42.10'S | |
| Longitude | 115°29.60'E | |
| Course | 202°T | |
| Speed | ~3 to 6kts | |
| Leg Distance | 0.8nm | |
| Minimum Depth at CD | 4.4m | |
| Maximum Cross Track Error | 100m | |
| Primary Fixing | Visual | |
| Secondary Fixing | GPS/RADAR | |
| Parallel Index | | |

Gorgon - Pilotage - Passage Plan – PBG to Port Limits North - WAPET Arrival



| | | |
|----------------------------------|--------------------------|--|
| Waypoint | WP007 (Ant Point) | <ul style="list-style-type: none"> • The Flood tide sets to the South. The Ebb tide sets to the North. • No Go Zones exist to both the East and West of the track. • At night, visual references ahead of the vessel are limited. As such, a greater reliance on radar fixing and PI methods may be required. • A minimum UKC of 0.5m must be maintained throughout the transit. |
| Latitude | 20°42.80'S | |
| Longitude | 115°29.30'E | |
| Course | 152°T | |
| Speed | ~6kts | |
| Leg Distance | 0.8nm | |
| Minimum Depth at CD | 5.0m | |
| Maximum Cross Track Error | 100m | |
| Primary Fixing | Visual | |
| Secondary Fixing | GPS/RADAR | |
| Parallel Index | Mushroom Island at 0.44m | |

Gorgon - Pilotage - Passage Plan – PBG to Port Limits North - WAPET Arrival



| | | |
|----------------------------------|--------------------------|--|
| Waypoint | WP010 (East Mushroom Is) | <ul style="list-style-type: none"> The Flood tide sets to the South. The Ebb tide sets to the North. A No Go Zone exists to north of the track in the vicinity of Mushroom Island. Be aware of dangers in the vicinity of Mushroom Island and the GBB. Ensure adequate clearing distances are maintained between the vessel and any navigational danger, obstruction and/or navigation mark. A minimum UKC of 0.5m must be maintained throughout the transit. At night, visual references are very limited. It is recommended, in addition to keeping a proper lookout, that assist vessels use their navigation equipment to help with position awareness. Be aware of both inbound and outbound traffic to/from the WAPET Landing areas. Note: Courses and approaches stipulated in this document may need to be varied on occasion to counteract the strong effect of prevailing tidal/weather conditions experienced at WAPET. |
| Latitude | 20°43.54'S | |
| Longitude | 115°29.72'E | |
| Course | 277°T | |
| Speed | ~3 to 6kts | |
| Leg Distance | 0.9nm | |
| Minimum Depth at CD | 0.4m | |
| Maximum Cross Track Error | 50m | |
| Primary Fixing | Visual | |
| Secondary Fixing | GPS/RADAR | |
| Parallel Index | Mushroom Island at 0.08m | |

Gorgon - Pilotage - Passage Plan – PBG to Port Limits North - WAPET Arrival



| | | |
|----------------------------------|---------------------|---|
| Waypoint | WP005 (Mushroom Is) | <ul style="list-style-type: none"> The Flood tide sets to the South. The Ebb tide sets to the North. Leads bear 266°(T). Be aware of dangers to the South of the track and shallows to the North of the track. A minimum UKC of 0.5m must be maintained throughout the transit. At night, visual references ahead of the vessel are limited. As such, a greater reliance on radar fixing and PI methods may be required. |
| Latitude | 20°43.43'S | |
| Longitude | 115°28.76'E | |
| Course | 266°T | |
| Speed | ~3kts | |
| Leg Distance | 0.28nm | |
| Minimum Depth at CD | 0.9m | |
| Maximum Cross Track Error | 50m | |
| Primary Fixing | Visual | |
| Secondary Fixing | GPS/RADAR | |
| Parallel Index | | |

Gorgon - Pilotage - Passage Plan – PBG to Port Limits North - WAPET Arrival



| | | |
|----------------------------------|-----------------------|--|
| Waypoint | WP006 (WAPET Landing) | <ul style="list-style-type: none"> Conduct manoeuvre as required to the LCT ramps or LBW. A minimum UKC is to be maintained as per <i>ABU110700304 - Port of Barrow Island – Port Information Guide</i>. Be aware of strong tidal streams and prevailing winds affecting the vessel. Be aware of shallows to the North of the LCT ramps. Ensure adequate clearing distances are maintained between the vessel and any obstruction, such as other vessels, navigational marks and mooring dolphins. Manoeuvring from Waypoint WP006 to the LCT ramps or LBW is to be undertaken at slow speed (<1kts). At night, visual references ahead of the vessel are limited. As such, a greater reliance on radar fixing and PI methods may be required. Call Port of Barrow on VHF Ch10 once first line is ashore and again when all fast. Pilot will normally disembark by Pilot Boat. The vessel is to follow any instruction from the Pilot Boat in regards to the rigging of the ladder. The pilot ladder will be rigged as per <i>SOLAS 2010 Chapter V Reg 23</i> as amended and secured to a height above the waterline as requested by the Pilot Boat. |
| Latitude | 20°43.45'S | |
| Longitude | 115°28.50'E | |
| Course | Various | |
| Speed | <1kts | |
| Leg Distance | Various | |
| Minimum Depth at CD | Various | |
| Maximum Cross Track Error | N/A | |
| Primary Fixing | Visual | |
| Secondary Fixing | GPS/RADAR | |
| Parallel Index | N/A | |



5.0 Execution of Passage Plan – Expectations

5.1 Notes for Master and Bridge Team

- Prior to commencing the passage inbound, the Master is to review the passage plan and plot the plan onto the appropriate charts or ECDIS system, briefing his/her Bridge teams accordingly. Any concerns or questions are to be raised with the Pilot prior to commencing the passage.
- In accordance with AMSA regulations, all charts (paper and electronic) and navigational publications must be corrected to the latest edition of the Australian and Western Australian Notices to Mariners, including any applicable Temporary Notices to Mariners that may be in force. Additionally, the vessel is to have available and understand the BWI Marine Notices that are in force. BWI Marine Notices and other relevant port information are located on the Port of Barrow Island website.
<https://www.chevronaustralia.com/our-businesses/barrow-island/barrow-island-port>
- Charts required for the passage are the latest editions of Australian Hydrographic charts AUS 62, AUS 65, AUS 66 and AUS 67.
- Any deficiencies that may affect the vessel's operating performance are to be reported to the Pilot at the first available opportunity prior to commencing the passage inbound.
- All bridge navigational equipment must be switched on and functioning correctly prior to the Pilot boarding. All navigation systems, including paper charts, are to be arranged and displayed so that the Pilot can quickly determine the vessel's position, course and speed at any time during the passage.
- Anchors are to be cleared away and ready for letting go prior to the Pilot boarding.
- A MPX involving the Pilot, Master, and Bridge team will be conducted after the Pilot has arrived on the bridge. The Pilot will take conduct of the vessel at the conclusion of the MPX.
- To ensure an appropriate level of BRM, Pilots 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 course, helm orders and engine settings to ensure compliance with the Pilot's directions.
- Pilotage is compulsory for the Port of BWI and the Pilot will have the conduct of the vessel at all times whilst manoeuvring within port limits. It is acknowledged however, that the Master always remains in overall command of his vessel. Adhering to good BRM principles, Pilots actively encourage a "Challenge and Response" environment. If at any time the Master/OOW is unsure of the actions being taken, they are to challenge the Pilot and vice versa.
- Ship's position, proximity to dangers and UKC should be continuously monitored by the Master/OOW and cross-referenced with the passage plan. If the Master leaves the bridge, the OOW must always seek clarification from the Pilot when in any doubt as to the Pilot's actions or intentions.
- It is important to keep formal records of all navigational activities and any incidents in the appropriate Bridge Movement Logbook. Information recorded should be of an

Gorgon - Pilotage - Passage Plan – PBG to Port Limits North - WAPET Arrival



appropriate standard so that the vessel's progress in to the Port can be reconstructed at a later date.

5.2 Notes for the Pilot

- Conduct of the vessel will be assumed by the Pilot in an unambiguous manner.
- The Pilot will assist the Bridge team to ensure radar conspicuous points, parallel indexing and any clearing bearings/ranges are properly understood.
- For each leg of the passage the Pilot is to brief the Master on the required fixing interval and methods used to determine ship's position. In determining the most appropriate fixing method and interval the following will be taken into consideration:
 - The state of wind, sea and weather
 - Proximity to navigational dangers
 - Traffic density
 - Manoeuvring characteristics of the vessel
 - Navigational equipment available, and
 - How position data is displayed, i.e. ECDIS or paper charts
- The Pilot is to ensure all navigation hazards (e.g. No Go Zones) are clearly marked on the chartlet.
- The Pilot will ensure tug and communication protocols are explained fully.
- If for any reason prior to commencing the passage plan, there is a need to deviate from the standard passage plan, a revised passage plan will be formulated and agreed between the Pilot and Master; any additional hazards will be identified and any mitigations/controls shall be detailed in an appropriate JHA.
- When manoeuvring vessels such that they are closing to within 50 metres of a fixed jetty, wharf or other moored vessel, approach speeds are to be less than 1.0 knot in order that all way can be taken off the vessel quickly and in a controlled manner, preventing any unplanned close quarters contact with said shore facilities or vessels.

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.

6.0 Document Control

6.1 Ownership

| | | | |
|------------------------|------------------|--------------|------------|
| Document Author | Cameron Crampton | Owner | Brad Ryman |
| Reviewer List | Michael Birchall | | |

6.2 Revision History

| Rev | Description | Date | Prepared By | Approved By |
|-----|------------------|---------------|------------------|-------------|
| 1.0 | Approved for Use | 29 April 2016 | Cameron Crampton | Brad Ryman |