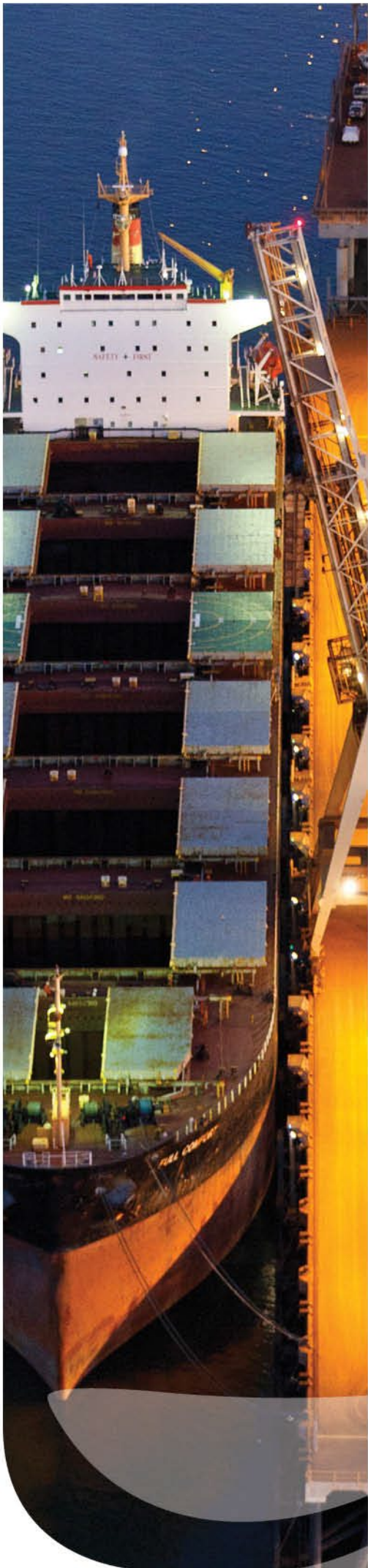




# PORT OF PORT HEDLAND PORT CYCLONE PROCEDURE

A550432



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**DOCUMENT AMENDMENT TABLE**

VERSION	PREPARED BY	DATE	AMENDMENTS
6	Marine Operations Administrator	24.08.2015	Minor Amendments
6.1	Marine Operations Administrator	09.12.2015	Updated emergency contact
7	Shipping Superintendent	12.08.2016	Minor amendments
8	Marine Operations Administrator	03.10.2017	Minor amendments made by Marine team, MOM position removed from document Contact details checked with amendments
9	Marine Operations Administrator	29.10.2018	Minor amendments and annual review by HM and DHM's. Contact details checked with amendments
10	Operations Analyst	29.10.2019	Minor amendments and annual review by HM and DHM's. Contact details checked with amendments
11	Marine Administrator	23.10.2020	Minor amendments - contact details updated.
12	Marine Administrator	06.09.2021	Review completed by HM, DHM & VTSS
13	Marine Administration Officer	02.11.2022	Review completed by HM & VTSS
14	Executive Assistant – Marine	08.09.2023	Review completed by HM & DHM

## DISTRIBUTION LIST

DISTRIBUTION LIST		
No.	Holder	Organisation (Alphabetical Order)
1	Operations	Allways Shipping
2	Terminal Manager	Ampol
3	Project Manager	AMS
4	Surveyor, Port Hedland	AMSA
5	State Manager - WA	Asia World
6	Chief Operating Officer	Atlas Iron
7	Senior Pilot	Auriga Aviation
8	Managing Director	BC Iron
9	Marine Manager	BHP
10	Marine Services Coordinator	BHP
11	Manager Production	BHP
12	Superintendent – Port Services	BHP
13	Officer in Charge	Border Force
14	Port Hedland Manager	BP
15	Managing Director	Brockman Resources
16	Managing Director	Brown Dog Fishing
17	Project Coordinator	Caldive
18	Operations Manager	Cockburn Cement
19	Shipping Manager	Consolidated Minerals
20	WA Terminal Manager	Coogee Chemicals
21	Regional Manager	Department of Transport
22	Port & Marine Operations Manager	Fortescue Metals Group
23	Marine & Towage Superintendent	Fortescue Metals Group
24	Port Hedland Manager	GAC World Shipping

DISTRIBUTION LIST		
25	Director	Hedland Launch Service Pty Ltd
26	Port Hedland Manager	Inchape Shipping Services
27	QHSE Manager/Dive Supervisor	Indianic Diving
28	Manager, Port Hedland	Intertek Testing Services
29	Operations Manager	JWMS
30	Port Manager	KOTUG
31	Branch Manager	LBH Australia Pty Ltd
32	General Manager	Madson Mechanical Maintenance
33	Concentrate Facility Supervisor	Metals X
34	Logistics Manager	Mineral Resources Limited
35	Branch Manager	Monadelphous
36	Ops Manager - Hedland	Monson Agencies
37	Port Facility Superintendent	Newcrest Mining
38	Marine Superintendent	Odyssey Marine
39	Towage Services Superintendent	Pilbara Marine
40	Officer in Charge	Police
41	Managing Director	Port Hedland Pilots
42	Commodore	Port Hedland Yacht Club
43	Chief Executive Officer	PPA
44	General Manager Marine	PPA
45	Harbour Master	PPA
46	Deputy Harbour Master	PPA
47	VTS Superintendent	PPA
48	Port Hedland VTS	PPA
49	General Manager Terminal Operations	PPA
50	Port Manager Port Hedland East	PPA

DISTRIBUTION LIST		
51	Asset Planning Manager	PPA
52	Utah Port Manager	PPA
53	Security Manager	PPA
54	Security Gate East and West	PPA
55	General Manager Development & Trade	PPA
56	General Manager Engineering & Infrastructure	PPA
57	Engineering Services Manager	PPA
58	Port Manager Lumsden	PPA
59	General Manager Risk & Governance	PPA
60	Environment and Heritage Manager	PPA
61	General Manager, Physical & Human Resources	PPA
62	General Manager Finance & ICT	PPA
63	ICT Manager	PPA
64	Safety Advisor East and West	PPA
65	General Manager - Port Hedland	QUBE - Port Hedland
66	Production Superintendent	Rio Tinto Minerals - DSL
67	General Manager	Rivtow Marine
68	Manager Port	Roy Hill
69	Manager Shipping	Roy Hill
70	Logistics Superintendent	Sandfire Resources
71	Port Hedland Manager	Sea Corporation
72	Operations Manager, Port Hedland	Seafarers Centre
73	Manager	Sealanes
74	Port Hedland Manager	Seawest
75	Manager	SGS (Ship Surveyors)
76	Port Hedland Manager	Ship Agency Services
77	Port Hedland Supervising Officer	State Emergency Service

DISTRIBUTION LIST		
78	Port Hedland Manager	Sturrock Grindrod Maritime
79	Manager	TAMS
80	Mooring & Ropes Manager	Total AMS
81	Manager Technical Services	Town of Port Hedland
82	All Cyclone Mooring Owners	Various and Private
83	All Day Mooring Owners	Various and Private
84	Depot Manager	West Kimberly Cement
85	Port Hedland Manager	Wilhelmsen Ship Services
86	General Manager Hedland Operations	Pilbara Marine Towage

## **1. PREFACE**

Tropical cyclones are amongst the most powerful and destructive meteorological systems on earth. Globally, 80 to 100 develop over tropical oceans each year. Many of these make landfall and can cause considerable damage to property and loss of life.

Before a tropical cyclone forms it is difficult to predict its exact strength and path, including whether it will make landfall. Along the east and west coasts of Australia fewer than half of the cyclones impact onshore areas, with the majority staying out to sea. Conversely, along Australia's north coast more than half of the cyclones impact the coast. Tropical cyclones which remain out to sea can still cause storm surges, gale force winds with gusts in excess of 90km/h around their centre and heavy rainfall leading to extensive flooding.

The use of satellite imagery and improved data acquisition combined with the latest technology in computer modelling have all but transformed the art of predicting the weather. Despite these advances, there is no room for complacency when it comes to the threat of a tropical cyclone.

The objective of the PPA Port Cyclone Procedure Port of Port Hedland is to have in place appropriate measures to minimise the potential adverse effects of a tropical cyclone impact to the Port of Port Hedland.

*Harbour Master – Port of Port Hedland*



## **2. INTRODUCTION**

The northwest Australian coastline between Broome and Exmouth is the most cyclone-prone region of the entire Australian coastline, having the highest frequency of coastal crossings. On average about five tropical cyclones occur during each tropical cyclone season over the warm ocean waters off the northwest coast between 105°E and 125°E. On average about two cyclones cross the coast, one of which is severe. The Australian cyclone season runs from 1 November to 30 April. These storms can be intense with recorded wind speeds of greater than 250km/h and central pressures as low as 905 millibar (mb).

PPA Port Cyclone Procedure Port of Port Hedland has been developed under the auspices of the Western Australia Port Authorities Act 1999. The procedure provides port stakeholders with an overview of the port's cyclone response strategy. The procedure identifies the responsibilities of the Harbour Master, Port Proponents, Port users, Port Services, Ships' Masters, Marine Pilots, Port Hedland VTS, Mooring Owners and the Town of Port Hedland (TOPH) in order to minimise the potential adverse effects of a tropical cyclone impact to the Port of Port Hedland.

PPA will generally respond to a tropical cyclone threat in five (5) stages; monitor, prepare, clear port, shut down & re-open. These response stages will consider all available and relevant factors, including however not limited to length of time required by port proponents, port service providers and port users to action their cyclone preparations.

## **3. SCOPE**

This procedure has been drafted and will be administered by the Port Authority in accordance with its responsibilities under the Western Australia Port Authorities Act 1999.

The Pilbara Ports Authority Port Hedland (PPA) has the statutory authority to give effect to these procedures within the gazetted port boundaries and within the declared compulsory pilotage area. This procedure applies to all port services under the Western Australia Port Authorities Act 1999 and the associated Port Authority Regulations 2001.

## **4. OBJECTIVES**

Cyclones present an indisputable risk to the Port of Port Hedland which include but are not limited to injury, loss of life and damage to port infrastructure leading to significant financial implications. The objective of this procedure is to have in place appropriate measures to minimise the potential adverse effects of a tropical cyclone impact to the Port of Port Hedland.

## **5. PURPOSE**

The purpose of this procedure is to:

- Ensure port proponents, port services and port users, including visiting commercial / recreational vessels seeking refuge in the port, understand the Port Authorities cyclone response requirements.
- Provide a set of guidelines intended to assist and influence the decision making of the Port Authority in the event of a tropical cyclone threat.
- Ensure all large commercial vessels have adequate time to clear the port and obtain adequate sea room before being impacted by gale or storm force wind associated with a tropical cyclone.
- All tugs are moored / secured in good time prior to the onset of adverse environmental conditions.
- Localised workboats, pleasure craft are moored / secured or retrieved from the port in good time prior to the onset of adverse environmental conditions.

Maritime related tropical cyclone procedures of port proponents, port services and port users should as far as practicable complement the PPA Port Hedland cyclone procedures.

In all circumstances, the functions of the Harbour Master, in accordance with the Western Australia Port Authorities Act 1999 will hold precedence over private enterprise tropical cyclone procedures, contingency and evacuation plans that impact the gazetted port boundaries.

## **6. RESPONSIBILITIES**

### **6.1 Procedure**

This procedure is to be reviewed annually and will remain in force throughout the year, although the officially recognised tropical cyclone season extends from 1 November to 30 April.

### **6.2 Harbour Master**

The Harbour Master or in his absence, his delegate, is responsible for the implementation and execution of the PPA Port Cyclone Procedure Port of Port Hedland.

### **6.3 Port Proponents / Port Services / Port Users**

Port Proponents / Port Services / Port Users are responsible for ensuring that they have tropical cyclone contingency plans and procedures in place.

A copy of such plans shall be provided to the PPA Port Hedland and updated as necessary prior to 01 October each year.

Port Proponents / Port Services / Port Users shall nominate a contact person

within their plans to liaise with the PPA in the event of a cyclone.

PPA will provide Port Proponents / Port Services / Port Users tropical cyclone notifications via the PPA Cyclone Distribution List. The PPA Cyclone Distribution List will be updated by PPA Port Hedland prior to 01 November each year.

#### **6.4 Ship Master's**

The Ship's Master is responsible for ensuring the safety of the vessel and its compliance with Port Authority regulations, including the requirements of this procedure.

Emphasis is to be placed on the vessel maintaining adequate stability and suitable trim, to ensure that it can depart the port safely at short notice should the need arise.

The Master shall always ensure that engines and other essential machinery is fully operational. Vessels main engines are not to be immobilised within the port or anchorage area without the Harbour Master's permission. Engine immobilisations will be declined 96 hours before expected onset of gale force winds.

Masters are to keep abreast of developing tropical cyclone activity, the potential impact to the Port of Port Hedland and the responsibilities of the Master / crew as the port progresses through tropical cyclone threat stages. Except for an emergency, Masters are to liaise directly with their nominated agent for the latest tropical cyclone advice.

#### **6.5 Marine Pilots**

To assist PPA Port Hedland and vessel operators, Marine Pilots are to:

- Ensure Masters are aware of the PPA Port Cyclone Procedure Port of Port Hedland and the specific responsibilities of the Ship's Master.
- Facilitate the effective execution of this procedure with concerned parties.
- Provide Port Hedland Pilot (PHP) & PPA Pilot representation through the Duty Marine Pilot or nominated Marine Pilot during the five (5) stages of tropical cyclone threat response as required.

#### **6.6 Port Hedland VTS**

At the direction of the Harbour Master, Port Hedland VTS is to:

- Suspend vessel movements to the designated inner anchorages.
- Compile an order of departure for vessels anchored within the inner anchorages. In determining order of departure, VTS will factor UKC requirements at 2E/3E, traffic separation and vessel anchorage position.

- Utilise DUKC® in order to liaise with respective terminals to compile a departure schedule for berthed vessels over subsequent tides.
- Vessels departing with a departure draft in excess of 12.5m and / or a displacement greater than maximum berthing displacement for a specific berth may not be permitted to return to berth upon tropical cyclone threat stage five (5) 're-open'.
- Execute the scheduled movement of vessels in accordance with Port of Port Hedland User Guidelines and Procedures and Vessel Movement Protocols.
- Monitor and ensure ongoing compliance.
- Facilitate the orderly resumption of port activities, including the return of vessels to the Port of Port Hedland upon tropical cyclone threat stage five (5) 're-open'.

Note: Port Hedland VTS typically provides 24/7 service of the VTS Coverage Area. Port Hedland VTS may temporarily suspend VTS services encompassing the VTS Coverage Area on the declaration of a 'Red Alert' by the Department of Fire and Emergency Services (DFES).

Port Hedland VTS will resume 24/7 service of the VTS Coverage Area once the 'All Clear' has been declared by the Department of Fire and Emergency Services (DFES) and it is safe to resume operations at the direction of the Harbour Master.

#### **6.7 Mooring Owners**

Each commercial vessel (including barges) remaining within Port Hedland Harbour throughout a declared Cyclone season must have an approved designed and installed Cyclone Mooring along with an approved Cyclone Management Plan. In accordance with the Port Authorities Small Vessel Mooring Procedures Port of Port Hedland owners of cyclone moorings are to obtain a written report on the condition of the mooring prior to the start of the cyclone season each year. The mooring owner is to provide to the PPA a copy of the mooring inspection report within seven (7) working days of the inspection and in the case of an annual report pertaining to a cyclone mooring, not later than 31st October of the relevant year.

The Harbour Master may revoke a mooring authorisation if the mooring owner does not comply with the Small Vessel Mooring Procedures Port of Port Hedland.

Owners of unapproved or unsafe moorings will be required to remove them from the harbour.

Approvals for the placement of suitably designed Cyclone Moorings for private craft will not be at the expense of those provided for commercial vessels.

The Harbour Master may remove a mooring from the waters of the port if after reasonable enquiries is unable to identify or find the owner of that mooring or if the owner of that mooring fails to provide an annual report.

Removal of unapproved moorings by PPA will be at the cost of the mooring owner.

#### **6.8 Town of Port Hedland**

The Town of Port Hedland (TOPH) will manage the closing of public boat ramps. Boat ramps will usually be closed off on the declaration of a 'Blue Alert' by the Department of Fire and Emergency Services (DFES) to prevent small craft from launching.

The closing of Boat Ramps will not prevent craft returning from sea for retrieval.

### **7. GENERAL**

#### **7.1 Pre-Season**

This cyclone procedure is to be reviewed annually prior to 01 November and updated or amended as necessary. The amended version will be posted to the PPA website <https://www.pilbaraports.com.au/>.

It is recommended that all Port Proponents / Port Services / Port Users review their procedures and documentation to ensure that they reflect the current practice.

#### **7.2 Cyclone Season (1 November – 30 April)**

During the cyclone season, Masters of bulk carriers and other cargo vessels should ensure that their vessel is at all times capable of vacating the berth and / or port at short notice. In the event of a tropical low or a cyclone forming off the Northern or Western Australian coast, this requirement becomes paramount.

Port Proponents / Port Services / Port Users / Stakeholders should be prepared for potential disruptions to port operations.

#### **7.3 Cyclone Threat Assessment Criteria**

Designated specific zones or distances from a cyclone that act as trigger points for activating these procedures have not been stipulated by the PPA.

Cyclones and tropical lows will be assessed and dealt with on their own merits in relation to their potential to impact the port. Whilst sea state is a major consideration for laden ships in the main shipping channel and operation of smaller craft such as tugs, the proximity of gale force winds associated with the cyclone (or low) will also have a bearing on the Harbour Master's decision to transition into the five (5) stages of tropical cyclone threat response.

The Harbour Master's decision to transition into the five (5) stages of tropical cyclone threat response is done so in accordance with the Western Australia Port Authorities Act 1999.

Port Proponents / Port Services / Port Users / Stakeholders should be aware that the PPA's tropical cyclone threat response is influenced by potential wind forces and sea state conditions. These factors may well be prior to any significant increase in sea conditions or ahead of any advice concerning the likely impact obtained from the Bureau of Meteorology (BOM) or the Department of Fire and Emergency Services (DFES) - State Emergency Service (SES).

Community Cyclone Stages (promulgated by DFES / SES):

LEVEL OF ALERT	INDICATION
Blue	Cyclone expected to impact within 48 hours
Yellow	Cyclone expected to impact in 12 hours
Red	Cyclone impact imminent

Bureau of Meteorology Tropical Cyclone Severity Categories:

The severity of a tropical cyclone is described in terms of categories ranging from 1 (weakest) to 5 (strongest) related to the maximum mean wind speed as shown in the below table.

Note: Corresponding approximate wind gusts are also provided as a guide. Stronger gusts may be observed over hilltops, in gullies and around structures.

CATEGORY	AVERAGE WIND SPEED (KM/H)	MAX GUST (KM/H)	CENTRAL PRESSURE
1	63 – 90	<125	>985
2	90 – 120	125 – 170	985 – 970
3	120 – 160	170 – 225	970 – 945
4	160 – 200	225 – 280	945 – 920
5	>200	>280	<920

Tropical lows will be monitored and action, if deemed necessary, taken on the basis that the low may deepen to a cyclonic system at very close range to the port.

PPA subscribes to a tailored forecast service via BOM's Special Services Unit (SSU).

## **8. RESPONSE STAGES**

As a guide, the PPA will generally respond to a cyclone threat in five stages:

STAGE	KEY ELEMENT	PARAMETER
1	Monitor	Cyclone or tropical Low has formed in northern waters
2	Prepare	Cyclone tracking toward the Port with the potential for impact
3	Clear Port	Potential for “Gale Force” winds to impact the port within 12 hours
4	Shut Down	Potential for “Gale Force” winds to impact the port within 6 hours
5	Re-Open	Cyclone or threat of cyclone has passed

The actions associated with each stage are summed up as follows:

### **8.1 Stage 1: Monitor**

A cyclone or tropical low has formed somewhere off the Northern or Western Australian coasts.

PPA Port Hedland will monitor the system to make an early assessment of its likely path and potential to impact on the port.

### **8.2 Stage 2: Prepare**

Tropical low or cyclone tracking in such a way that there is potential for the system to impact on the port.

PPA Port Hedland will begin to prepare the port. This stage will involve regular communication and consultation between the PPA Port Hedland, Port Proponents, Port Services & Port Users. Operational plans and intentions of the Port Proponents, Port Services & Port Users will be discussed and evaluated against plausible response scenarios.

Once gale force winds are forecast to potentially impact the port within 48 hours, vessel loading will need to be managed so that vessels do not become tidally constrained beyond the subsequent high water. Environmental conditions will continue to be monitored and evaluated by PPA Port Hedland. Restrictions on vessel movement and sailing drafts may be imposed by the Harbour Master. It may be deemed necessary for terminals & vessels to amend load plans to ensure vessels are not precluded from potential stage 3 response ‘Clear Port’.

The stage 2 ‘prepare’ process will be regularly assessed following each Bureau of Meteorology (BOM) update. It may be necessary to revisit PPA Port Hedland’s, Port Proponents, Port Services & Port Users operational plans and intentions.



### **8.3 Stage 3: Clear Port**

Forecast of Gale Force winds expected to impact the Port of Port Hedland within 36 hours.

PPA Port Hedland will commence to clear large commercial vessels from berths and anchorage, with a view to having such vessels clear of port limits and the channel 12 hours prior to the potential onset of Gale Force winds. This time frame has been determined to observe margins of safety and to allow vessels adequate time to clear the coast before encountering storm conditions. The Harbour Master will confirm stage 3 'Clear Port' advice to all port stakeholders.

Prior 'arrived vessels' required to depart the anchorage in accordance with this procedure will maintain their Berthing Priority Number (BPN).

'Berthed vessels' required to depart the inner harbour in accordance with this procedure that have not completed cargo-loading operations and sail with a draft less than 12.5 meters and do not exceed maximum berthing displacement limitations will be permitted to re-berth in order to complete cargo-loading once the Harbour Master has declared the stage 5 're-open'.

### **8.4 Stage 4: Shutdown**

Forecast of Gale Force winds expected to impact the Port of Port Hedland within 6 hours.

The Port of Port Hedland will be closed to all commercial operations. Small commercial vessels i.e. workboats, tugs etc. will be directed by the Harbour Master to cease regular activities and to secure to their moorings, proceed to their havens, be removed from the water, or proceed to sea.

The Harbour Master will confirm stage 4 'Shutdown' advice to all port stakeholders. All small vessels should be secured, shutdown and crews ashore before the onset of gale force winds.

During stage 4 'shutdown' the Port of Port Hedland will be closed to all vessels except for vessels requesting or seeking a 'place of refuge'.

Mariners should note that whilst Port Hedland is a 'place of refuge' there are limited facilities and no common user cyclone moorings. Common areas within the port afford little water at low tide. Mooring areas may be congested due to the presence of commercial vessels associated with port development projects.

Vessels entering the port at stage 4 'shutdown' with no prior arrangements in place and seeking refuge should contact 'Port Hedland VTS' via VHF Ch 12/16 and state their intentions.



Small commercial vessel cyclone operational plans are to allow enough time for the vessel to enter the Port of Port Hedland before stage 4 'Shutdown'. This will enable the small commercial vessel to be either retrieved or secured to its mooring, with crew ashore before the onset of gale force winds.

Vessels mooring within the port are to advise 'Port Hedland VTS' via VHF Ch 12/16, when they are securely moored and when crew have vacated the vessel.

#### **8.5 Stage 5: Re-Open**

Cyclone or risk of impact has passed.

The Port will move to stage 5 'Re-open' when a thorough assessment has been conducted and conditions permit. This may result in a phased re-opening. The Port of Port Hedland anchorage may be re-opened before the channel, inner harbour or berths. The re-opening of the Port of Port Hedland does not constitute that conditions will necessarily be suitable for normal operations. Masters of vessels, Port Proponents, Port Services & Port Users will need to make their own assessment as to the suitability of prevailing conditions for safe operations.

The Harbour Master will confirm stage 5 'Re-open' advice to all port stakeholders. No vessel movement is permitted within the Port of Port Hedland prior to Harbour Master advice.

Prior to the resumption of unrestricted port operations, port infrastructure such as navigation aids, berths and the shipping channel will be inspected / surveyed as deemed necessary to ensure that they have not been damaged or compromised. Terminal operators will need to declare to the Harbour Master that their berth facilities are fully serviceable & in readiness to commence operations prior to the resumption of vessel berthing. The extent of infrastructure inspection / survey will be determined on a consultative basis with PPA Port Hedland and will be dependent on the severity and impact of the tropical low / cyclone within the Port.

Any damage observed as a result of the tropical low / cyclone is to be reported to the Harbour Master / 'Port Hedland VTS' immediately.

All small craft operators are to report to either the Harbour Master or 'Port Hedland VTS', the status of their vessels and moorings as soon as practicable after stage 5 're-open'. Breakaways, damage or required assistance is to be immediately reported.

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**9. EMERGENCY PROCEDURES**

If a vessel is unable to comply with this procedure, the Harbour Master will initiate contingency arrangements which may include activating the Port of Port Hedland Emergency Plan.

**APPENDIX 1: CONTACT AND EMERGENCY NUMBERS**

CONTACT	PHONE	ALTERNATIVE CONTACT NO.
Port Hedland VTS	(08) 9173 9030	0438 303 708 VHF 16 & 12
PPA Port Hedland Scheduling	(08) 9173 9081	0438 021 769
Pilbara Ports Authority (Office Hours)	(08) 9173 9000	
General Manager Marine	(08) 9173 9068 (EA)	
Harbour Master	(08) 9173 9021	
Deputy Harbour Master	(08) 9173 9134	0437 296 583
Deputy Harbour Master	(08) 9173 9196	0438 691 166
Deputy Harbour Master	(08) 9173 9128	0409 528 872
VTS Superintendent	(08) 9173 9025	0437 988 856
General Manager Terminal Operations	(08) 9173 9050	0407 742 473
Port Manager Harbour East	(08) 9173 9054	0419 238 197
Port Manager Lumsden	(08) 9173 9103	0437 175 465
Landside Operations Superintendent (East)	(08) 9173 9108	0418 724 570
Maintenance Superintendent (East)	(08) 9173 9103	0437 175 465
Maintenance Superintendent (Utah)	(08) 9173 8906	0427 830 714
Security Manager	(08) 9173 9038	0407 442 863
Port Hedland Pilots	(08) 9173 9040	Duty Mobile
Auriga Aviation Senior Pilot	(08) 9173 9041	Duty Mobile
Rivtow Marine General Manager	(08) 9174 7800	0438 838 304
BHP Towage	(08) 9173 6835	044 8277 748
KOTUG Towage	0436 928 659	0459 978 169
Pilbara Marine Towage	(08) 9230 1865	0418 691 864
Odyssey Marine	0448 080 067	0447 020 700
Jetwave Marine	0427 913 438	0490 941 381
Hedland Launch Service Pty Ltd Director	(08) 9173 2394	0417 915 574
BHP Shipping Superintendent	(08) 9173 6324	0400 563 332
BHP Logistics Scheduler	(08) 6321 9093	0419 409 620

CONTACT	PHONE	ALTERNATIVE CONTACT NO.
FMG Shipping Coordinators (24 Hours)	(08) 9158 5121	
Atlas Iron Port Manager	(08) 6228 8443	0439 131 045 0417 569 187 (24HR)
QUBE East Superintendent, Port Hedland	(08) 9120 8525	0419 524 850
QUBE West Superintendent, Port Hedland	(08) 9173 8800	0408 993 759
Rio Tinto Minerals Production Superintendent	(08) 9173 0217	0437 138 711 0418 927 923 (24HR)
Roy Hill Port Manager – Port	(08) 9174 3618 (08) 9174 3569 (24HR)	0437 057 887

## **APPENDIX 2: SHIP MASTERS PORT CYCLONE PROCEDURE CARD (1 NOVEMBER – 30 APRIL)**

### Responsibilities:

The Ship's Master is responsible for ensuring the safety of the vessel and its compliance with Port Authority regulations, including the requirements of this procedure.

Emphasis is to be placed on the vessel maintaining adequate stability and suitable trim, to ensure that it can depart the port safely at short notice should the need arise.

The Master shall always ensure that engines and other essential machinery is fully operational. Vessels main engines are not to be immobilised within the port or anchorage area without the Harbour Master's permission. Engine immobilisations will be declined 96 hours before expected onset of gale force winds.

Masters are to keep abreast of developing tropical cyclone activity, the potential impact to the Port of Port Hedland and the responsibilities of the Master / crew as the port progresses through tropical cyclone threat stages. With the exception of an emergency, Masters (Owners and/or Technical Managers) are to liaise directly with their nominated agent for the latest tropical cyclone advice.

### Cyclone Assessment Criteria

As a (guide only) the PPA will generally respond to a cyclone threat in five stages:

STAGE	KEY ELEMENT	PARAMETER	ACTION
1	Monitor	A cyclone or tropical low has formed somewhere off the Northern or Western Australian coasts.	Monitoring the system to make early assessment of path.
2	Prepare	Tropical low or cyclone tracking in such a way that there is potential for the system to impact on the port.	Commence securing of unfixed equipment. Review vessel load plans. Review vessel sailing drafts, tidal information and environmental data. Communication between PPA / Port Proponents / Port Services / Port Users.
3	Clear Port	Forecast of Gale Force winds expected to impact the Port of Port Hedland within 12 hours.	Clear large commercial berthed vessels from port. Clear large commercial vessels from Port Hedland anchorage - VTS Coverage Area. Port closed to large commercial vessels.

STAGE	KEY ELEMENT	PARAMETER	ACTION
4	Shut-down	Forecast of Gale Force winds expected to impact the Port of Port Hedland within 6 hours.	All small commercial vessels secured to cyclone moorings. Port closed to all vessels with the exception of vessels seeking 'place of refuge'.
5	Re-open port	Cyclone or risk of impact has passed.	Visual assessment of port infrastructure - Nav aids, channel & berths. Re-open anchorage. Gradual resumption of unrestricted port of operations.

Note: Prior 'arrived vessels' required to depart the anchorage in accordance with PPA Port Cyclone Procedure Port of Port Hedland will maintain their Berthing Priority Number (BPN).

#### **10. PROCESS OWNER**

The Harbour Master has overall responsibility for the PPA Port Cyclone Procedure.