

Extreme Weather Event Contingency Plan Weipa – 2019/2020

Introduction

Maritime Safety Queensland (MSQ) is an agency of the Dept. of Transport and Main Roads (DTMR) which works closely and cooperatively with the disaster management agencies, the industry and community on both a State wide and local basis. The recent extreme weather events throughout Queensland have highlighted the need for awareness and vigilance to the risks such events present to the maritime community. MSQ's core focus is on the preservation of life and property on the State's waters and in the prevention/response to ship based pollution.

MSQ has built on these recent experiences and is reissuing its contingency plans as one way of ensuring stronger resilience within the maritime community. Timely awareness and adequate preparation will reduce the impact of such events.

This extreme weather event contingency plan for Weipa sets out the broad framework that will apply for this region. MSQ takes advice on developing weather situations from the Bureau of Meteorology (BOM) which is the government's primary source of weather intelligence.

Weipa is particularly exposed to risks posed by extreme weather, principally tropical cyclones.

The frightening intensity of cyclones can cause widespread destruction and devastation. The commencement of the cyclone season on 1 November means it is imperative all North Queenslanders prepare for the possibility of cyclones affecting the local area.

The local topography of the port offers limited protection from extreme weather and hence the prime intent of the plan is to organise the orderly removal of vessels from their normal moorings to more sheltered locations or, in the case of large vessels to sea.

It is the responsibility of owners and Masters of vessels to take the necessary action within the context of the official weather warnings to protect their passengers, crew and craft and abide by any directions provided by the Regional Harbour Master.

It may be necessary for the Regional Harbour Master to give directions in relation to the operation and movement of vessels when entering, leaving or operating in a pilotage area. This may include but is not limited to the orderly removal of vessels from their normal moorings, to more sheltered locations or in the case of large commercial vessels, the orderly evacuation of these vessels to sea. The closure of the pilotage area effectively means that marine activities cease.

Even if you are an experienced mariner, we encourage you to read this plan and familiarise yourself with its requirements. The contingency plan requires you to think about your own planning in this context and to be prepared to enact this plan if required.

Remember, the best protection against extreme weather events is to plan for such eventualities and respond accordingly.

Angus Mitchell
General Manager
Maritime Safety Queensland

Captain Michael Barnett
Regional Harbour Master
Cairns Region

Objective of this plan

The overall objective of this plan is to provide for the safety of vessels and their operation during extreme weather events. Personal safety is of prime importance at all times.

An extreme weather event may require the evacuation of a pilotage area, a harbour or boat harbour. In such instances, the Regional Harbour Master's primary objective is to have the relevant area secure and for all vessels to have enacted their own safety plans between 48 and 6 hours before the event impacts.

The plan is for the port area to be evacuated at least 6 hours before destructive winds commence and to have all vessels safely moored in their designated areas of shelter by that time. All vessels, other than those being used for emergency purposes are to evacuate and clear the port area.

Owners should be aware that, should they leave their vessel in the port area, they may be liable to prosecution and, additionally, be held accountable for any damage that their vessel may cause or incur.

The Regional Harbour Master's requirements for clearing the port of large vessels will generally be:

- Wind speeds must not have reached 30 knots.
- Ships must be able to sail, for example, machinery working and crew on board.
- The ship must be in a suitable trim to sail.
- The ship's deepest draft must give suitable under keel clearance when sailing.
- The ship may be restricted to sailing on a rising tide.
- Tugs must be available.

Master's and owner's responsibility in regard to this plan

Masters and owners of vessels have an obligation under the *Transport Operations Marine Safety Act 1994* at all times to take appropriate precautions for the safety of their vessels, passengers and crew.

In extreme weather conditions, the Regional Harbour Master may give directions in relation to the operation and movement of vessels within their jurisdiction. Masters and owners are required to follow such directions.

Masters and owners need to familiarise themselves with this plan, determine the most appropriate safety plan for their vessel and respond in accordance with any directions. Masters and owners are also required to monitor developments to ensure that they have the most up-to-date information on weather conditions and any directions in place.

Masters and owners are required to notify MSQ of any changes to the following:

- vessel ownership
- residential address
- contact telephone numbers.

This up-to-date contact information is vital for an immediate response to any port emergency. Failure to provide correct details of vessel ownership is an offence under the *Transport Operations (Marine Safety) Act 1994*.

Unless absolutely unavoidable, all owners of vessels on the water should ensure their vessel is capable of moving without assistance, particularly during recognised extreme weather event peak seasons (e.g. cyclone seasons). Failure to do so may present an unacceptable hazard to the vessel, as well as other vessels and infrastructure. This may cause an owner to incur towage expenses.

If owners are unable to attend to their vessels for any significant duration, particularly during the tropical cyclone season, owners are to make arrangements with a person that can act on their behalf in the event of an extreme weather event. That person will be responsible to implement the owner's safety plan. However, the owners are still responsible for the safety of their own vessel. A local contact person must attend to the vessel no later than when a Yellow Alert has been declared for the Port of Weipa.

Extreme weather procedures in detail

In the event of an extreme weather event threat the Regional Harbour Master will take the following action:

- restrict the movement of vessels within a pilotage area if necessary;
- direct, monitor or oversee the evacuation of vessels from a pilotage area, or other affected areas within their jurisdiction if applicable;
- provide directions which restrict and/or allow the entering or leaving of a pilotage area, in effect closing and reopening the port
- ensure that vessels are advised of relevant warnings and response requirements;
- ensure that shipping complies with the response requirements;

These actions will be enacted over four distinct phases that allows for the development of appropriate responses to the threats faced.

Phase 1: Extreme weather event watch - Prevention

An extreme weather event watch will be issued when an extreme weather event or developing event is likely to affect the area **within 48 hours**, but not expected to impact the area within 24 hours. This phase is a critical time for masters and owners to plan and prepare for the impact of the event.

During this period, masters and owners (or their representatives) should review their safety plans and address any matters outstanding (e.g. refuelling and provisioning).

Phase 2: Extreme weather event warning – Preparedness

An extreme weather event warning will be issued when an extreme weather event or developing event is likely to affect the area **within 24 hours**. This phase is critical for masters and owners to complete all preparations in an orderly manner prior to the event occurring.

When deemed necessary, the Regional Harbour Master (Cairns) will direct the evacuation of the port with the assistance and cooperation of personnel from MSQ, NQBP, Rio Tinto Aluminium, Volunteer Marine Coast Guard and Queensland Boating and Fisheries Patrol to regulate and control the safe movements of vessels.

The port has established a three tier alert status.

Yellow Alert

Destructive winds forecast within 24 hours.

- Suspend all loading of ships and obtain a situation report on state of operations including draft.
- Inform ships' masters of situation and place a short notice to sail.
- Obtain information on length of time to bring ships to a readiness to sail.
- Inform Regional Harbour Master (Cairns) of situation and ascertain suitable sailing times, draft requirements, and so on.

If time permits, resume loading. Bring ship to satisfactory handling trim and safe transit draft

- During a Yellow Alert, small vessels should move to designated cyclone mooring areas (Appendix A).
- Owners of recreational vessels are to follow the directions given in the chartlet in Appendix A

Note: When conditions are deteriorating, every endeavour will be made to accommodate the working of cargo in the available time, allowing for tidal constraints.

Blue Alert

Destructive winds forecast within 12 hours.

- Sail all large merchant ships (note: It may already have been necessary to have sailed some ships due to tidal conditions).
- In the event that a ship cannot sail, arrange linesmen, instruct master to take standard cyclone precautions.
- On water authorities prepare to depart.
- All small vessels should be moored in their designated area and final preparations and tying off completed.
- Owners of recreational vessels should be moored in the designated areas with final preparations and tying off complete

Note: The anchoring of large vessels upstream is not recommended due to tidal surges that could inundate the area, which, with high winds, may well strand vessels inland of the river system, making any salvage extremely difficult.

Red Alert

Destructive winds forecast within 6 hours.

Port Closed

Vessels are not to leave their cyclone moorings until the official all clear is given by the Regional Harbour Master (Cairns). Only movements of an emergency nature will be permitted during a Red Alert.

Phase 3: Actual extreme weather event - Response

By this phase, all vessels are expected to have enacted their vessel safety plans noting that the port is closed and/or vessel movements restricted commensurate with the threat to safety of vessel movements or the environment.

Mariners should maintain a listening watch on VHF frequencies 16 and 12.

It is also important to be alert during the 'eye' of the cyclone as a period of calm may be experienced before the winds resume from the opposite direction.

Vessels are not to leave their cyclone moorings until the official all clear is given by the Regional Harbour Master (Cairns).

Phase 4: After the extreme weather event has passed - Recovery

The Regional Harbour Master will assess residual risks and determine which actions need to be addressed. Do not assume that as the extreme weather event has passed it is safe to move your vessel.

Vessels, commercial and recreational, are not to leave their cyclone moorings until the official all clear is given by the Regional Harbour Master.

Mariners should maintain a listening watch on VHF frequencies 16 and 12 and follow advice/directions given by Weipa VTS.

Movements will be at the RHM's discretion and can be in stages including limited Internal Port movements until the Channel or areas within the Port are deemed safe.

Owners and masters of vessels should be aware that aids to navigation may be affected by the extreme weather event.

Owners and masters should refer to Notices to Mariners for the latest updates. Furthermore, port infrastructure will require inspection to ensure that facilities are fit for purpose.

Port Closure

The Regional Harbour Master may effectively close the port, wholly or in part, by giving general or particular direction to restrict the:

- entering or leaving of vessels in or out of a pilotage area; and/or
- movement of vessels in the pilotage area.

Such direction will be appropriate with the threat to the safety of shipping or the environment and may occur at any time prior to the extreme weather event.

The closure of the port or restriction on vessel movements will, as far as practical, be implemented in consultation with key authorities and in a timely manner in order to minimise risks.

Reopening of the port

A Pilotage area may be effectively re-opened by the Regional Harbour Master following direction to allow the entering or leaving of ships in and out of a pilotage area, or movement of vessels within a pilotage area. Such direction will be provided:

- when satisfied that all danger has passed, and the Pilotage area is safe for vessels to re-enter or exit; and
- following inspections and surveys to critical maritime infrastructure (for example navigational aids and wharves) as well as clearance of navigational hazards.

The Vessel Traffic Services Centre (Callsign Weipa VTS) will coordinate the safe movement of vessels following the opening of the Pilotage area in accordance with normal practice. Berths will be re-opened, and operations resumed when structural assessments have been completed and wind and sea conditions are within operational limits.

Communication

The successful implementation of this plan relies on high quality communication of information and directions.

From the commencement of Yellow Alert, the Weipa Cyclone Control Centre (CCC) will monitor VHF channel 16 and telephone 07 4090 6000.

The CCC will relay messages from the Regional Harbour Master (Cairns) and act as a co-ordination and control centre.

Once in position all small vessels are to contact the CCC and advise of location and number of persons remaining on board. If the vessel is to be left unattended the owners or masters are to advise the CCC of their contact telephone numbers.

The Vessel Traffic Services Centre (callsign Weipa VTS), will implement the extreme weather event contingency plan on behalf of the Regional Harbour Master (Cairns) by acting as a central communications point and will be designated as the Maritime Control Centre for the duration and aftermath of the extreme weather event.

The vessel Maritime Control Centre call sign will be '**Weipa VTS**'.

VHF channels **16** and **12** will be continuously monitored before and during the extreme weather event, unless the centre is evacuated. Extreme weather watches, warnings and any directions will be issued on these channels frequently as directed by the Regional Harbour Master.

If the plan requires for the Regional Harbour Master to give directions in relation to the operation and movement of vessels within their jurisdiction (such as port evacuation, closure and/or the movement of vessels to safer moorings), these actions will be coordinated by the Maritime Control Centre. In such instances, all vessels must contact the Maritime Control Centre before moving to their area of shelter, either by:

- telephoning 4052 7470, 1300 551 899; or
- calling on VHF channel 16 or VHF channel 12.

Key Contacts

Name	Contact Number
Regional Harbour Master	07 4052 7412
Weipa Harbour (Cairns VTS)	07 4052 7470 & 1300 551 899
Cyclone Control Centre	07 4090 6000
Rio Tinto Aluminium	07 4069 8962
North Queensland Bulk Ports	07 4069 7749
Weipa Police	07 4090 6000
Boating & Fisheries Patrol	07 4069 8114

Key Websites

Detailed weather updates: www.bom.gov.au

MSQ Website www.msq.qld.gov.au

Appendix A

MARITIME EXTREME WEATHER EVENT PLAN (CYCLONE) WEIPA



ALERT SCHEDULE

To ensure an orderly evacuation, the alert schedule is to be observed when announced by the Regional Harbour Master over VHF ch 16.

EXTREME WEATHER EVENT WATCH:

Destructive winds within 48 hours.
Review safety plans and prepare for the impact of the event.

YELLOW ALERT

Destructive winds within 24 hours.

- ◆ Plant on cyclone alert Phase 1.
- ◆ Commence plot of cyclone
- ◆ Suspend loading, obtain a situation report
- ◆ Give masters short notice to sail.
- ◆ Get readiness to sail.
- ◆ Inform RHM of situation and ascertain suitable sailing times.
- ◆ Inform Weipa Tugs.
- ◆ If time and draft permit bring load to best handling trim.
- ◆ Small vessels to designated cyclone mooring areas.

BLUE ALERT

Destructive winds within 12 hours.

- ◆ Plant on cyclone alert Phase 2.
- ◆ Man control centre fully.
- ◆ Hourly met. data to plant.
- ◆ Sail all ships where possible.
- ◆ Linesmen, standard cyclone precautions for ships in port.
- ◆ On water authorities prepare to depart.
- ◆ All small vessels should be moored in their designated area and final preparations and tying off completed.

RED ALERT

Destructive winds within 6 hours.

Port closed.

Vessels are NOT to leave their cyclone moorings until the official ALL CLEAR has been given by the Regional Harbour Master.

OBJECTIVE

To have the port area evacuated at least six hours before destructive winds commence and to have all vessels safely moored in their designated areas of shelter by that time. All vessels, other than those being used for emergency purposes are to evacuate and clear the port area and marinas. Owners should be aware that, should they leave their vessel in the port area, they may be liable to prosecution and, additionally, be held accountable for any damage that their vessel may cause or incur.

VESSEL COMMUNICATIONS & CONTROL CENTRE:

From the commencement of Yellow Alert, the Weipa Cyclone Control Centre (the C.C.C.) will monitor VHF Ch 16 and telephone (07) 4069 9119.

The Weipa Cyclone Control Centre will relay messages from the Regional Harbour Master and act as co-ordination and control centre.

Once in position, all small vessels are to contact the C.C.C. and advise them of the area in which they are moored and how many people will be remaining on board. If a vessel is to be left unattended, its owners are to advise the C.C.C. of their contact telephone numbers.

The Harbour Master's requirements for clearing the port of large vessels will generally be:

- ◆ Wind speeds must not have reached 30 knots.
- ◆ Ships must be able to sail, e.g. machinery working and crew on board, trim suitable.
- ◆ The ship's deepest draught must give suitable clearance when sailing.
- ◆ The ship can only sail 1.25 hours before high water, or at low water.
- ◆ Tugs must be available.

Map S10c-8-4

Map Datum: GDA94 (WGS84 compatible)
Map projection: UTM MGA Zone 54
Prepared 30 September 2013
Maritime Safety Queensland - Spatial Services



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Appendix B

Your safety plan

The master and owner's responsibility is at all times to take appropriate precautions for the safety of their vessels, passengers and crew.

All masters and owners should have developed a vessel safety plan in response to extreme weather events. The plan should take into account the most likely risks arising from the hazards presented for your region.

You should trial your plan to ensure that it can be enacted competently and rapidly. Do not wait until the last minute to plan and prepare your response to extreme weather risks.

General considerations

A well prepared vessel with fully functional equipment is a key element to a successful safety plan.

Ensure that your vessel is in a seaworthy state

Maintain your vessel to ensure that deferred maintenance does not compromise the seaworthiness of your vessel at critical times. Check that all bilge pumps are operational and that all self-draining openings are clear and will remain so. Make sure all safety equipment is available, in working order and up-to-date where applicable (for example flares). Check all cleats and associated fittings for integrity. Generally, mooring lines are stronger than these. Keep storm anchors, spare warps and spare fenders ready at hand but well secured to prevent them creating a potential hazard in the event you must move the vessel. Securely stow all loose items. Secure all hatches and vents. Provision your vessel with fresh water, food and fuel and ensure that the batteries are charged.

Ensure your mooring arrangements are up for the job at hand

Check all mooring lines and warps for chafing and deterioration and replace if necessary. Man-made synthetic fibres such as polyethylene, polypropylene and polyester deteriorate in the sunlight and may show little signs of deterioration prior to failure. You should have a schedule worked out to replace mooring lines in accordance with manufacturer's recommendations. Allow for a sufficient number of mooring lines so that you can double up your mooring arrangements. Have sufficient fenders for the anticipated mooring arrangements. Check anchor chains, shackles and anchor warps for wear and replace if necessary. If you intend to utilise a swing mooring, ensure that the mooring chain has been recently inspected. You should also be aware that flooding events resulting from extreme weather events may result in build-up of debris around the mooring chain, compromising the integrity of the mooring arrangement.

Reduce wind loadings

Remove all deck gear including lifebuoys, dodgers, bimini covers, clears and so on and store below. Remove sails, self-furling sails and covers. If this is not possible, double wrap or tie these components in such a way that the wind cannot tease any ends out and allow flapping of gear to commence.

Secure your tender

Ideally, tenders should be stored in dinghy lockers, garaged or deflated and stowed if applicable. If stored with the vessel, tenders should be securely lashed inverted on deck to prevent filling with water – do not contemplate towing tenders. If left on purpose-built davits, tenders should be cleaned out and securely lashed and bungs removed.

Mooring considerations

Double up mooring lines, by running duplicated ropes to alternative bollards. Do not run duplicates to the same bollards – a single bollard failure should not release the craft from a safe mooring arrangement. The duplicate lines should be in good condition and run slightly slack to ensure that they are only required to work in the event of the chafing through the primary mooring lines. Vessels should not be secured to piles as this prevents pontoons moving with tidal and surge movements. Take particular care to protect against chafing. Ensure lines are made fast to substantial boat parts, for example mast steps, winches and so on, bearing in mind cleats are known to have been torn out of decks. Do not use chain to secure your boat to pontoon bollards. Chains have no ability to stretch, where ropes have a certain amount of give. If the master or owner elects to stay on-board with the vessel, any mooring lines should be adjustable from on-board and sufficiently taut to ensure the vessel and pontoon move as one.

Other factors

You are likely to be required to disconnect all shore power leads and water hoses.

Hardstand storage

Hard stand storage is a viable alternative for trailer vessels or vessels undergoing maintenance. Hardstand storage may have the additional considerations:

- Windage is considerably increased through hardstand storage. Take particular care to secure and stow all deck items. Place the vessel head to the wind if possible;
- Ensure wheels are chocked and trailer brakes applied;
- Attach the trailer to the nearest strong point(s);
- Flying debris, particularly in the hardstand areas, may be lethal.