Extreme Weather Event Contingency Plan Townsville

2015/2016

Queensland Government

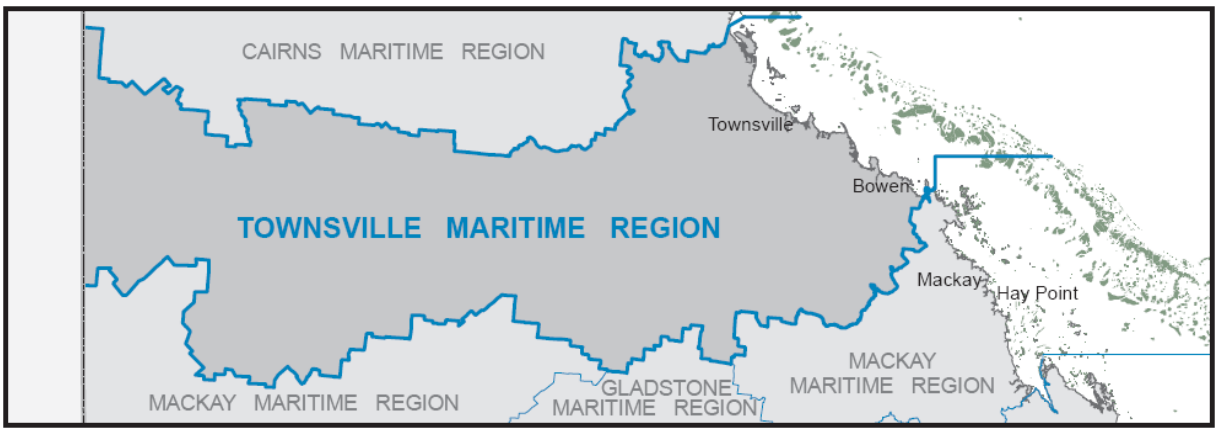
Introduction

The extreme weather events of last season have highlighted the need for awareness and vigilance to the risks such events present to maritime operations.

Maritime Safety Queensland has built on these recent experiences and is reissuing its contingency plans to ensure stronger resilience from the maritime community. Timely awareness and adequate preparation will reduce the impact of such events.

This extreme weather event contingency plan for Townsville sets out the particular arrangements for this region.

The Townsville region extending from Gloucester Passage, South East of Bowen in the south to Meunga Creek, north of Cardwell to the north, is particularly exposed to risks posed by tropical cyclones.



The commencement of the cyclone season on 1 November means it is imperative that all north Queenslanders are prepared for the possibility of storms affecting the local area.

The intensity of cyclones can cause widespread destruction and devastation. The local topography of the region and its port offer limited protection from a tropical cyclone hence the prime intent of the plan is to provide small craft owners and operators with adequate warning to secure their vessels for severe weather conditions and organise the orderly removal of large commercial vessels from the port to sea.

Even if you are an experienced mariner, we encourage you to read this plan for your region and familiarise yourself with its requirements. As you will see, 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.

Patrick Quirk
General Manager
Maritime Safety Queensland

Captain Frank D'Souza
Regional Harbour Master
Townsville 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 the port, part of a port, a harbour or boat harbour. In such instances, the regional harbour master's objective is to have the port area evacuated and for all vessels to have enacted their own safety plans between forty eight and six hours but no later than six hours before the event is expected to impact.

This plan utilises emergency management concepts such as a comprehensive approach and principles such as an all agencies approach in its creation to best manage emergent events

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 and develop 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 Maritime Safety Queensland of any changes to the following:

- vessel ownership;
- residential address; and
- 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 or have alternative means of moving their vessel, particularly during extreme weather event peak seasons (for example 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 you are unable to attend to your vessel at short notice for any significant duration, particularly during the tropical cyclone season, you are to make arrangements with a person that can act on your behalf in the event of an extreme weather event. That person will be responsible to implement your safety plan. However, you as the owner are still responsible for the safety of your vessel.

In the event of extreme weather, masters and owners of vessels should avoid entering waterways if you have no purpose to be there.

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 if necessary;
- direct and oversee the evacuation of the port or specific areas of the port or other affected areas if applicable; and
- close and reopen the port if necessary.

The Regional Harbour Master will also:

- advise mariners of relevant warnings and response requirements; and
- seek compliance with the response requirements.

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.

The most common form of extreme weather event in the Townsville region is a Tropical Cyclone. The Bureau of Meteorology (BOM) will issue a cyclone watch which indicates destructive winds are forecast to impact the area within 48 hours.

Once cyclone watch status is adopted, masters and owners (or their representatives) should review their safety plans and address any matters outstanding (for example fuel, food & water, contact details) and ensure that their vessel is prepared for severe weather (please refer to appendix A and appendix B for further information). All smaller vessels are required to move to their planned severe weather moorings.

Commercial Ferries and barge owners and operators are required to implement procedures as set out in your cyclone safety management plan.

Commercial vessels moored alongside and at anchorage should ensure that the vessel is prepared in all respects (engines on immediate notice, stability, etc.), secure all loose gear and consider additional moorings. Please note that depending on the circumstances, commercial vessels may be directed to sea.

Mariners should maintain a listening watch on the key VHF frequencies (see the communication section).

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.

Once a cyclone warning status is adopted, the following actions should be completed:

- small craft owners and operators:
  - your vessels should be moored in their planned cyclone mooring and final preparations and securing completed.
- commercial Ferries and barge owners and operators:

  - implement procedures as indicated in your Cyclone Safety Management plan; and
  - consult with the regional harbour master regarding suspension of service.
- commercial vessel alongside and at anchorage. The regional harbour master may direct the evacuation as required and close the region's ports.

Mariners should maintain a listening watch on the key VHF frequencies (see the communication section for more details).

At this stage, the authorities may also be securing the office and preparing to depart.

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 may be closed and/or vessel movements restricted depending on the threat to safety of vessel movements or the environment. Mariners should note that it is likely to be too late to consider the safety of your vessel and that extreme weather conditions may limit the ability of emergency services to assist you should you run into difficulties. Your actions should be directed towards your own personnel safety.

If the port is closed, no vessel movements are expected.

For small craft owners and operators, your vessels should be moored in their planned cyclone mooring, secured and all outstanding tasks completed. It is recommended that all unnecessary personnel be evacuated.

For commercial ferry and barge owners and operators, you should have completed all procedures as indicated in your cyclone safety management plan. You should have also consulted with the regional harbour master regarding suspension of service. Please note that the commercial port may be cleared of all vessels.

Mariners should maintain a listening watch on the key VHF frequencies (see the communication section).

During the passing of the 'eye' of the cyclone a period of calm may be experienced. It is important to be alert and anticipate a sudden resumption of strong winds from the opposite direction.

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

The regional harbour master will assess residual risks and determine the actions needed to be addressed. Do not assume that as the extreme weather event has passed and it is now safe to move your vessel.

Vessels 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 the key VHF frequencies (refer the communication section).

Owners and masters of vessels should be aware that aids to navigation may be affected by the extreme weather event. Owners and masters should reference Notices to Mariners for the latest updates. Furthermore, port infrastructure will need to be inspected to ensure that facilities are fit for purpose.

Port Closure

The regional harbour master may close the port, wholly or in part, or restrict the movement of vessels in the pilotage area, depending on the threat to the safety of shipping or the environment. This can occur at any time prior to the 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

The pilotage area will not be re-opened until the regional harbour master is satisfied that all danger has passed, and the pilotage area is safe for vessels to re-enter and following inspections and surveys to critical maritime infrastructure (for example navigational aids, wharfs) as well as clearance of navigational hazards.

The Vessel Traffic Services Centre 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 wind and sea conditions are within operational limits.

Communication

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

The Vessel Traffic Services Centre will implement the extreme weather event contingency plan on behalf of the regional harbour master by acting as the central communications point for the duration and aftermath of the extreme weather event.

The Vessel Maritime Control Centre call sign is **Townsville VTS.**

VHF channels **16, 12, 11** and **14** will be continuously monitored before and during the extreme weather event. Extreme weather watches, warnings and any directions will be issued on these channels.

If the plan requires for actions such as port evacuation or closure will be coordinated by the Townsville VTS.

Key Contacts

Name	Contact Number
Regional Harbour Master	(07) 4421 8100
Townsville VTS	1300 721 263 OR 1300 721 293
Townsville Water Police	(07) 4759 9790
Port of Townsville	(07) 4781 1600

Key Websites

Detailed weather updates: www.bom.gov.au

MSQ Website www.msq.qld.gov.au

Appendix A - Your safety plan

The master or 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.

Marina-based safety plans

Marina-based plans may be appropriate for your region. You should note that the design and construction of marinas requires the consideration of the likely range of weather conditions that might be experienced so that the overall structures would withstand the expected loads including storm surge while vessels are moored in the berths.

Notwithstanding the care which was taken in establishing design and construction criteria that were considered to be appropriate, no guarantee can be given that the structures are capable of maintaining their integrity in the complete range of extreme weather conditions. Remember vessels are moored at owners' risk and it is the owner's prerogative to move their vessel if they feel insecure in the marina, noting that any vessel movement should occur in line with the extreme weather contingency plan for the port.

In addition to the general points made above, marina-based safety plans need to consider the following issues. It is important that you discuss this with your marina management to understand their requirements so that your plan is consistent with marina operations:

The loadings on marina berths

Some marinas allow for berths to remain occupied provided the berth has a pontoon equivalent to the overall length (LOA) of the vessel occupying it. Vessels may also be allowed to bear against the fingers/pontoons noting that suitable or additional fendering is likely to be required.

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. Some marinas allow for anchors to be lowered in the marina berth to the sea bottom. Ensure there is enough slack to rise and fall of the vessel due to swell and storm surges. If the master or owner elects to stay on-board with the vessel, any mooring lines should be adjustable from onboard 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. Some marinas have particular arrangements for the stowage of vessel tenders. Marina management may determine the time when personnel are barred from the pontoons and/or hardstand areas. Ensure that you abide by any such direction.

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.

Appendix B – Summary of Alerts

	CYCLONE SEASON - Conditions normal – maintain a state of readiness.	
PHASE 1 - WATCH	***Small Vessels*** Implement your cyclone/severe weather Safety Management plan.	*Small Vessel Owners and Operators*
	Commercial Ferries / barges Implement procedures as indicated in your cyclone/severe weather Safety Management plan.	*Ferries/Barge operators*
	Large Vessels at Port and anchorage Ship's crew to full complement Prepare vessel for departure at short notice Ensure vessel maintains adequate stability for rough weather Based on the severity and anticipated landfall the RHM may consider directing vessels to sea.	*Masters of commercial Vessels*
	Tugs – ensure crews are available	*Tug Manager*
	Mooring Crew - ensure crews are available	*Mooring co.*
PHASE 2 - WARNING	***Small Vessels*** *Ensure all vessels are secured as per your safety plan.*	*Small Vessel Owners and Operators*
	Commercial Ferries / barges Implement your cyclone/severe weather Safety Management plan. Consult with Regional Harbour Master and prepare for suspension of services.	*Ferries/Barge operators*
	Large Vessels at Port and anchorage Large vessels will be directed to put to sea ***Note**: **Could occur at any time during Phase 1 Conditions.***	*Masters of commercial Vessels*
	Tugs – manned up and standby to assist, secure on cyclone/severe moorings on departure of last vessel.	*Tug Manager*
	Pilots - Standby or deployed	*Pilotage Services*
	Mooring Crew - Standby or deployed	*Mooring company*
PHASE 3 - WARNING	***Small craft owners and operators -*** Your vessels should be moored in their planned cyclone mooring and secured. It is recommended that all unnecessary personnel evacuated.	*Small Vessel Owners and Barge Operators*
	Commercial Ferries / barges -Implement your cyclone/severe weather Safety Management plan. Consult with Regional Harbour Master and prepare for suspension of services.	*Ferry operators*
	Commercial vessels Commercial port cleared of all commercial vessels. Tugs / Port vessels, Pilot Boat secured on their cyclone/severe moorings	*Master's of commercial Vessels*
	The Regional Harbour Master may decide to close the port. **No vessel movements are expected once the port is closed.**	
PHASE 4 -RECOVERY	When the extreme weather event has passed and do not assume it is now safe to move your vessel. *Owners and masters of vessels should be aware that aids to navigation may be affected by the extreme weather event.* The Regional Harbour Master will assess residual risks and determine the actions needed to be addressed. *Vessels should not to leave their cyclone moorings until the official all clear is given by the Regional Harbour Master.*	