

Extreme Weather Event Contingency Plan Gold Coast – 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 Gold Coast 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.

The Gold Coast region is rarely exposed to cyclone activity. The last cyclone to cross the coast was Cyclone Zoe in 1974, however, since that time another five cyclones have come within 150 nautical miles of the Gold Coast but none have crossed the coast. Their effects have been felt along the southern Queensland coast with gale force winds, heavy seas and heavy rain recorded.

The Gold Coast region is more affected by severe summer storms mostly during the months of October through to February. Usually electrical disturbances these storms have produced wind gusts of up to 80 knots, although, winds mostly don't exceed 45 knots and typically only for short durations. Heavy rain and hail is also experienced during these storms and localised flash flooding can result.

Heavy rainfall causing flooding has been experienced on the Gold Coast as a result of winter low pressure systems crossing near to the coast. The associated rainfall runoff can cause strong currents in the rivers that flow into the Broadwater.

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, including the operation of ferries to/from all island resorts.

Even if you are an experienced mariner, we encourage you to read this plan for the Gold Coast 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.

Angus Mitchell
General Manager
Maritime Safety Queensland

Captain Glenn Hale
Regional Harbour Master
Brisbane 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 persons from marinas and from boats moored on some inland waterways and boat harbours. In such instances, the Harbour Master's objective is to have the local marinas and boat harbours evacuated of persons and for all vessels to have enacted their own safety plans at least 12 hours before the event is expected to impact.

Local marina operators should have updated evacuation and emergency plans for times when extreme weather is forecast. Ensure that you are familiar with your local marina's emergency plans.

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

Masters and owners of recreational vessels have an obligation under the *Transport Operations Marine Safety Act 1994* (TOMSA) at all times to take appropriate precautions for the safety of their vessels, passengers and crew. Similarly, owners, masters and crew of Commercial vessels have an obligation under the *Marine Safety (Domestic Commercial vessel) National Law Act 2012* (National Law) to take appropriate precautions for the safety of their vessels, passengers and crew. These actions and precautions should be consistent with the vessels Safety Management System.

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 of all vessels 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.

To ensure MSQ can provide timely notification of possible weather events, operators are requested to ensure that the details listed below are kept up-to-date. This information is also vital for an immediate response to any port emergency.

- vessel ownership (name)
- residential address
- contact telephone numbers.

MSQ Gold Coast maintains a register of email and mobile details of commercial vessels operating in the area to notify vessel owners of any important maritime information, including emergent events. You can add your details to the register by msq.goldcoast.reception@msq.qld.gov.au.

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 (e.g. cyclone season). 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 at short notice for any significant duration, particularly during the summer storm and tropical cyclone season, owners 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, the owners are still responsible for the safety of their vessel.

In the event of extreme weather, masters and owners of vessels should avoid entering waterways if there is no valid 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 within a pilotage area if necessary
- direct and 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.

The Regional Harbour Master will also:

- advise mariners of relevant warnings and response requirements
- seek compliance 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 (eg fuel, food & water, contact details etc).

The following procedures are to be followed on initial receipt of an extreme weather event watch:

- Review and enact the marina's severe weather procedures
- Vessels owners on moorings should be aware of apparatus integrity
- Mooring lines are to be doubled with secondary lines to alternative cleats
- Check boat cleats for integrity
- Have plenty of line to secure your vessel and position spare fenders and lines
- Do not use chain to secure the vessel
- Ensure ropes and other synthetic fibres are in good order and are capable of withstanding high loads
- Ensure that all scuppers and freeing ports are clear and will remain clear
- Confirm that all bilge pumps are operational
- Secure loose articles below deck and secure all hatches
- Reduce wind loading to a minimum and stow all loose gear below
- Shore power and water leads are to be disconnected
- Monitor the weather forecasts
- Make sure you comply with all directions issued by the Harbour Master or delegates

- Listen to radio broadcasts for updates on conditions

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.

- At this time liaison with marina staff will assist to determine the course of action to be taken in the local area.
- All vessels should by now be securely moored with additional lines
- Listen to radio broadcasts and check weather forecasts to evaluate weather conditions and determine evacuation plans.

Phase 3: Actual extreme weather event - Response

By this phase, all vessels are expected to have enacted their vessel safety plans noting that the pilotage area may be 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 key VHF frequencies for weather and conditions updates. Flying debris will be a major danger to any persons on marinas, stay indoors.

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, it is now safe to move your vessel.

If police or the Harbour Master have issued directions to evacuate a certain area or waterway, check with the relevant agency before returning to your vessel or mooring area.

Broadcasts will be made over key VHF frequencies to alert vessel owners of the lifting of navigation restrictions and any hazards that may have been identified in local waters.

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. Charted depths may have been altered as a result of storm surge and or flood water run-off, mariners are advised to exercise extreme caution when navigating local waterways.

Port Closure

The Harbour Master may effectively close the pilotage area, 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 within a 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 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 re-opened by the 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 leave; and
- following inspections and surveys to critical maritime infrastructure (e.g. navigational aids, wharves) 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, call sign '**Brisbane VTS**' will implement the extreme weather event contingency plan on behalf of the Harbour Master by acting as the central communications point for the duration and aftermath of the extreme weather event.

On the Gold Coast communication support may be provided through Volunteer Marine Rescue and Australian Volunteer Coast Guard using call sign '**Gold Coast Seaway Tower**'.

VHF channels **16**, **67**, and **73** will be 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 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 '**Brisbane VTS**' and if required broadcast locally through '**Gold Coast Seaway Tower**'.

Key Contacts

Name	Contact Number
Area Manager (Greg Turner)	5585 1810
MSQ after-hours contact	07 3305 1700
Gold Coast Water Police	5509 5700
Gold Cost Seaway Tower	5591 2948 or 5591 2900
Gold Coast Waterways Authority	5539 7350 or 5539 7373

Key Websites

Detailed weather updates: www.bom.gov.au
MSQ Website www.msq.qld.gov.au

Appendix A

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.

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.

Please ensure you have provided all your current contact details to the marina manager for timely receipt of any important correspondence relating to weather events and your berth responsibilities.

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 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. Some marinas have particular arrangements for the stowage of vessel tenders. You may need 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

Hardstand storage is a viable alternative for trailer vessels or vessels undergoing maintenance. However, vessel windage is considerably increased through hardstand storage. In such situations, owners and masters of vessels should:

- place the vessel head to the wind if possible
- take particular care to secure and stow all deck items
- ensure wheels are chocked and trailer brakes applied
- attach the trailer or cradle to the nearest strong point(s).

You should note that flying debris, particularly in the hardstand areas, can cause serious injury or may be lethal during a severe weather event. Please exercise all due care when operating in these areas.