



cleaning services
building maintenance
ground maintenance

Bayview Marina Cyclone Emergency Response Plan January 2011

Purpose

Being prepared to handle an event, be it a Cyclonic Wind, Marine Accident or Oil Spill is the major factor in ensuring that the event is managed efficiently and safely. To assist the management and staff of Bayview Marina Estate, response plans have been prepared for cyclones, marine accidents and oil spills. It is intended that the plans evolve and deficiencies are rectified with each annual or post event review.

The aim of the Cyclone Emergency Response Plan is to provide a process to prepare for and respond to cyclonic wind activity at the Bayview Marina Estate.

Scope

All persons employed by the Bayview Marina Estate, berth owners, boat owners and live-a-board tenants must follow this emergency response plan.

Prior to Cyclone Season

As a part of the daily operations of the Marina the following activities will be undertaken.

1. All telephones within the Marina office will have a list of emergency numbers secured onto or next to, the phones. Emergency numbers (Annexure 1) will include but not be limited to the following:
 - Darwin Port Corporation, Fort Hill Operations Manager/Harbourmaster, Wharf Supervisor, Duty Officer;
 - Bureau of Meteorology general weather information service and tropical cyclone information hotline;
 - Police, Fire Brigade, Hospital and Ambulance;
 - Northern Territory Emergency Service;
 - Pollution Response Line; and
 - Maritime Search and Rescue.
 - WorkSafe NT
2. Cyclone Emergency Response Plan Summary to be attached to the notice board at the Bayview Marina Facilities Building (Annexure 4 &5).
3. The induction process for new marina staff and marina members will include familiarisation with the Cyclone Emergency Response Plan.
4. Marina staff will conduct a cyclone drill at the beginning of the cyclone season in October.
5. Ensure that Cyclone Emergency Stores are inspected, current and stores replaced if necessary. (Annexure 2)

6. Ensure that no items are left lying around that could become a lethal projectile in case of high winds. For the cleaning up of building site within the Estate contact WorkSafe NT.

Useful Information

Estimated Mooring Loads as advised by American Boat and Yacht Council

Boat Length	Wind Speed			
	95km/h	115km/h	180km/h	235km/h
15 metres	2,250 kgs	4,500 kgs	9,500 kgs	12,700 kgs
12 metres	1,600 kgs	2,950 kgs	4,500 kgs	6,750 kgs
9 metres	900 kgs	1,600 kgs	2,250 kgs	2,750 kgs

Categories of Cyclones

Category	Wind Speed in km/h	Effect to water craft
1	90-125	Boats may drag moorings
2	125-164	Small boats may break moorings
3	165-224	Some boats destroyed
4	225-279	Many boats destroyed
5	>280	Catastrophic

Stages of Cyclone Warning Advice

(Issued by Bureau of Meteorology for the Gulfs of Carpentaria, Van Diemen, Joseph Bonaparte, Beagle or Arafura Sea or Timor Sea that could affect the Marina operations)

Cyclone Watch – expect cyclone activity within 48 hours.

Cyclone Warning – expect cyclone activity within 24 hours

Cyclone Imminent – expect cyclone activity within 6 –12 hrs

Cyclone All Clear – cyclone activity is no longer a threat

CYCLONE WATCH (Destructive Winds within 48 hours)

1. Ensure that all staff and Marina Residents are aware that an advice has been issued.
2. Turn the tidal recharge gates and recharge pump off.
3. Nominated staff member to:
 - Obtain and record updates from the Bureau of Meteorology tropical cyclone information hotline and ABC Regional Radio 105.7;
 - Post updated information on the central notice board; and
 - Inform Estate Manager of latest information.

4. Advise boat owners that all craft as a minimum must be secured as per configuration shown in (Annexure 4)

CYCLONE WARNING Stage 1 (Destructive Winds within 24 hours)

The following action must be taken immediately.

1. Staff secures marina office, car park, rubbish bin area, store, berthing area. (i.e. secure loose objects, remove objects which could be airborne, move objects away from windows etc.)
2. Ensure that all staff and marina users are aware that a Cyclone Warning has been issued, through messages on the notice board, in the laundry and the mirrors in the toilets.
3. Inform all boat owners that we intend to drop the level of water in the Marina to **6.2 meters chart datum** (as shown on the lock consol for the marina depth).
4. Inspect that all vessels are moored in accordance with the diagram shown in (Annexure 4).
5. Advise live-a-board tenants to secure vessel and to arrange accommodation elsewhere, (not on vessel) should CYCLONE WARNING go to 6-12 hours.
6. Contact vessels which are scheduled to enter the marina within the next 24 hours. Advise vessel that should CYCLONE WARNING go to 12 hours, it may not be possible to admit the vessel to the marina without endangering the whole marina.
7. Advise owners that power to the fingers could be turned off at any time depending on conditions but will definitely be turned off when a cyclone is imminent within 6 hours.
8. Inform all owners with air docks to fill them with water and moor vessels securely with the air dock in the submerged position.

CYCLONE WARNING Stage 2 (Destructive Winds within 12 hours)

The following action must be taken immediately.

1. Advise boat owners to:-
 - Secure vessel, reduce wind load to a minimum by removing all awnings, roller furled sails, deck gear stowed, motors removed from dinghies and stowed. Provide chafe protection to all deck lines.
 - Seek accommodation elsewhere (not on vessel).
 - All dinghies to be removed from marina or alternatively, sunk to the gunnels and securely tied to the pylons.
2. Conduct a final check of the marina. Advise any person remaining on board their craft that they are doing so at their own risk and help will not be available as it could endanger the lives of those attempting to assist.
3. Remove all fire fighting equipment & life buoys from containers, remove shade sail and secure in Marina Facilities Building.

4. The water level of the marina should now be lowered to 6.2 metres chart datum.

CYCLONE IMMINENT (Destructive Winds within 6 hours)

The Port of Darwin's Operations Manager/Harbourmaster, will advise when the Port is closed and re-opened. If space is available he may request boats be taken into the marina for shelter.

The following action must be taken immediately.

1. Turn off the electricity and water to the Lock, the Marina Berths and Board Walk at the switch boards and water mains taps.
2. Conduct a final check of the Marina and order all Marina users and staff of the premises. Warn any person remaining on board their vessel that they are doing so at their own risk and help will not be available as it could endanger the lives of those attempting to assist. If no alternative accommodation is available for live-a-board tenants, advise they can use the toilet area in marina facilities building for shelter.
3. Check on the number of persons sheltering in the Marina Facilities Building toilets. Ensure that a record is made of the name of each person.
4. Advise Emergency Services Co-ordinator and the Port of Darwin's Operations Manager/Harbour Master that the Marina is "locked down" and all staff must go home to seek immediate shelter.
5. Listen to radio and remain in shelter until all clear is given.

CYCLONE ALL Clear (Destructive winds have stopped)

The following action must be taken immediately.

1. On returning to the marina, all staff should be briefed, emphasising that their workplace is no longer what it was, as safety procedures and safeguards may no longer be in place due to damage. Special attention must be given to their surroundings when going about their duties.
2. Conduct a check of the Marina for anyone who remained with a boat. Ensure that they are OK and render assistance if necessary.
3. Make list of any apparent damage. In the event there is possible water damage to electrical circuits and water lines do not turn on. Wait until such time as qualified persons are available to assess and repair the damage.
4. If extensive damage has occurred, the relevant authorities are to be notified by the Marina Estate Manager.
5. Bayview Marina Estate Manager is to initiate clean up action as soon as possible.

6. Any vessel that wishes to leave the Marina, after the Port of Darwin has been declared open by the Darwin Port Corporation's Operations Manager/Harbourmaster, must contact him and receive permission and updates on navigational hazards in the Harbour.

ANNEXURE 1

EMERGENCY CONTACT NUMBERS

Darwin Port Corporation

Switchboard	8999 3994
Operations Manager	0447 200 838
Harbour Master Mobile	0419 840 041
Port Working Channel	VHF Channel 10

NT Emergency Services

Switchboard	8922 3630
Duty Officer Mobile	0408 896 245
NT Fire Services	8922 1504
NT Police	8922 3344

Bureau of Meteorology

Switchboard	8920 3800
Severe Weather Section	8920 3820
Cyclone Information Service	1300 659 211
http://www.bom.gov.au/weather/cyclone	

Bayview Estate Management

Estate Office	8981 3788
Fax	8981 3733

Bayview Marina

Lockmaster Mobile	0418 910 888
Radio Contact	VHF Channel 68

HEM – for electrical and mechanical maintenance

Marty Davidson	0408 058 067
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ISAS – lock control and electronic switch gear maintenance

* After Hours Mobile	0417 869 903
* Working Hours	8947 2313

Work Safe NT

1800 019 115

ANNEXURE 2

CYCLONE EMERGENCY STORES

VHF Radio and Charger	1	On Permanent issue to Lockmaster
Dolphin Torch	1	Located at Lock Console
Spare Batteries	1	Located in stores Facilities Building
Spare Bulbs Torch	1	Located in stores Facilities Building
Matches Waterproof Pkts	6	Located in stores Facilities Building
Gas Bottle (full)	1	Located in stores Facilities Building
Gas Ring	1	Located in stores Facilities Building
Large Plastic Rubbish Bags	30	Located in stores Facilities Building
Masking Tape (50mm)	2	Located in stores Facilities Building
Coil Rope (50M)	2	Located in stores Facilities Building
Plastic Water Containers	4	Located in stores Facilities Building
Water Pura Tablets Packets	6	Located in stores Facilities Building

ANNEXURE 3

VHF CHANNELS USED IN THE PORT OF DARWIN

CHANNEL	USED BY	TYPE OF USE
16	All Ships	Emergency
10	All ships in the port	Port working frequency
12 & 13	Ships and tugs	Ship manoeuvring with the assistance of tugs
14 & 69	Naval Ships	Navy working frequency in the port
06	Frances Bay Lockmaster	Used by the Lockmaster in talking to ships entering and leaving the Frances Bay Mooring Basin
11	Cullen Bay Lockmaster	Used by the Lockmaster in talking to ships entering and leaving the Cullen Bay Marina
08	Tipperary Waters Lockmaster	Used by the Lockmaster in talking to ships entering and leaving the Tipperary Waters Marina
68	Bayview Marina Lockmaster	Used by the Lockmaster in talking to ships entering and leaving the Bayview Marina
17	Hudson Creek	Used by Rooney's Shipping in Hudson Creek
9	Perkins Shipping	Used by Perkins Shipping in Sadgroves Creek
72	All ships	General chat channel used also by Australian Customs

All craft must keep a listening watch on channel 10 either by fixed, dual or scan mode whilst navigating in the Port of Darwin.

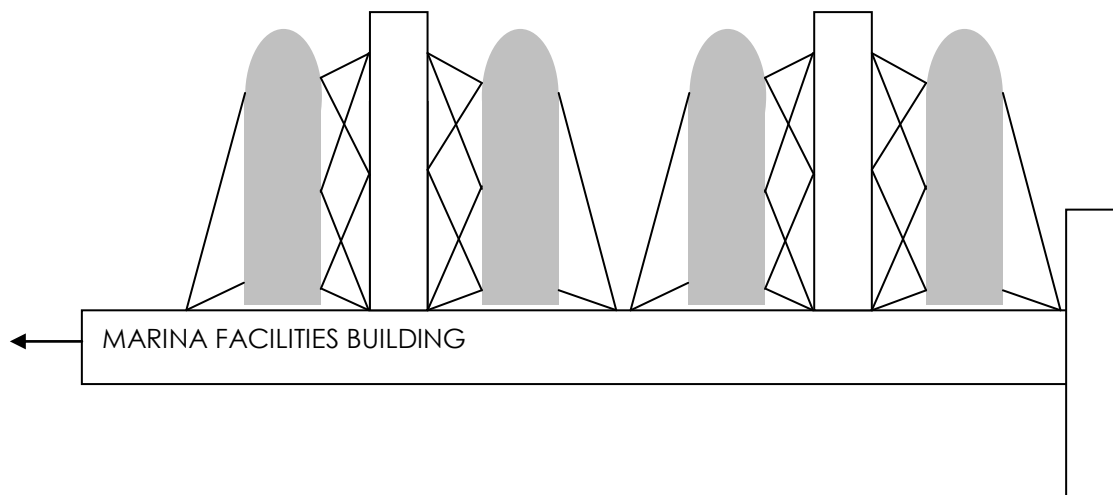
ANNEXURE 4

CYCLONE EMERGENCY RESPONSE PLAN SUMMARY

CYCLONE WATCH (Destructive Winds within 48 hours)

Inform Marina users that an advice has been issued by the Bureau of Meteorology.

Advise boat owners that their craft as a minimum must be secured as per configuration shown below;



For the cleaning up of possible projectiles on building site within the Bayview Marina Estate contact WorkSafe NT ph: 1800 019 115.

CYCLONE WARNING (Destructive Winds within 24 hours)

The level of water in the Marina will be dropped to 6.2 meters chart datum and electrical power and water to the berths could be turned off at any time depending on conditions, but will definitely be turned off when a cyclone is due within 6 hours.

Live-a-board tenants must secure their vessel and arrange accommodation elsewhere in case the "Cyclone Warning" is upgraded to "Cyclone Imminent".

Boats from the Marina that are currently not moored in the Marina are to be informed, that in case the conditions should deteriorate to a "Cyclone Imminent", it may not be possible to admit the vessel to the Marina.

CYCLONE IMMINENT (Destructive Winds within 6 - 12 hours)

Boat owners to ensure that their vessel is secure and the wind load is reduced to an absolute minimum.

Live-a-board tenants must seek shelter elsewhere now.

All dinghies to be removed from Marina or alternatively, securely tied up and submerge in the water.

Power and water to the Lock, Marina Berths and Boardwalk will be turned off.

Final check of the Marina by the Lockmaster, staff and marina users will be ordered off the premises.

Emergency Services Co-ordinator and the Port of Darwin's Operations Manager/Harbour Master are advised that the Bayview Marina is now "locked down".

CYCLONE ALL CLEAR

Marina will reopen after the area has been declared safe.

Vessels that wish to leave the Marina, after the Port of Darwin has been declared open, must contact the Harbour Master's Office and receive permission and updates on navigational hazards in the Harbour.

ANNEXURE 5

Estimated Mooring Loads as advised by American Boat and Yacht Council

Boat Length	Wind Speed			
	95km/h	115km/h	180km/h	235km/h
15 metres	2,250 kg's	4,500 kg's	9,500 kg's	12,700 kg's
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