



CYCLONE AND SEVERE WEATHER PLAN

Contents

Introduction.....	3
Table 1: Cyclone Stage Advice, Notifications and Actions.....	4
Tropical Cyclone Forecast Resources	5
Table 2: Wind Category & Effect	6
Table 3: Wind Speed Conversions.....	7
Severe Weather.....	8
Lightning Detection and Advisory Protocol – Cairns Airport.....	8
Flooding.....	8
Cyclone and Severe Weather Committee	8
Document Control	10

Introduction

The Disaster Management Act 2003 S13(1) defines a disaster as a serious disruption in a community, caused by the impact of an event, that requires significant coordinated response by the State and other entities to help the community recover from the disruption. Disasters that may affect Cairns Airport include:

- Tropical cyclones
- Gale-Force winds
- Flooding
- Storm Surges
- Storms
- Earthquake
- Tsunamis
- Volcanic Ash
- Tornados

The Cairns Airport Cyclone and Severe Weather Plan Standard Operating Procedure (SOP) details the actions to be taken in to counter potential danger and damage that may occur because of a Natural Disaster caused by a cyclone event.

Post disaster where airport infrastructure suffers significant damage impacting on airport operations the Airport Emergency Committee (AEC) would be convened to manage disaster recovery program as per the Airport Emergency Plan (AEP).

Table 1: Cyclone Stage Advice, Notifications and Actions

STAGE	ACTIVITY	WIND SPEEDS	NOTIFICATION	COMMENTS / ACTIONS
Stage 1	CYCLONE WATCH - Initiated by Bureau of Meteorology (BOM) by announcement of a Cyclone affecting the region.	Gale Force Winds (above 75 kmph) (41 kt) 24 - 48 hrs away	Advice via SMS by Cairns Airport	Cyclone watch: - NQA team members to ensure company procedures are followed as per SOPs and review company procedures. - Tenants review cyclone plan and company procedures. - Secure or remove non-essential equipment from open areas. - Check emergency stores equipment (fuel, generators, radio's etc.).
Stage 2	CYCLONE WARNING - Initiated by BOM by announcement of a Cyclone affecting the region.	Gale Force Winds (above 75 kmph) (41 kt) 24 hrs away	Advice via SMS by Cairns Airport	Cyclone Warning: - Cyclone Committee is convened. - Complete initial preparation. - Implement company procedures. - Complete removing / securing non-essential equipment. - Remove / secure light aircraft. - Continue to monitor cyclone activity via BOM website / media etc.
Stage 3	CYCLONE WARNING CURRENT – BOM Monitoring System	Gale Force Winds (above 100 kmph) (54kt) 6-12 hrs away	Advice Via SMS by Cairns Airport	Cyclone Warning Current: - Commence partial shutdown of facilities, including unused aerobridges, documents computer etc. - Consider sending non-essential staff home. - Light aircraft & essential vehicles (Fuel Tankers and ARFFS Fire Tenders) relocated / stored /securely tied down. - Consider flood precautions / sandbagging etc. - Continue to monitor cyclone activity via BOM website / media etc.
Stage 4	CYCLONE WARNING CURRENT – BOM Monitoring System	Gale Force Winds (above 100 kmph) (54kt) at airport are 3-6 hrs away	Advice Via SMS by Cairns Airport	Cyclone Warning Current: - Stage shut down of airport facilities, including aerobridge, terminals, airport ground lighting, radar etc. - ATC, ARFFS, Airlines will cease operations as soon as possible after declaration of Stage 4. - Airport tenants expected to complete their own shut down of their own operations in a similar time frame. - After consultation with ATC, and upon departure of last aircraft, Cairns Airport Manager Aerodrome will issue a NOTAM advising of non-availability of airport facilities (from time/date). - All staff should have departed airport - Cyclone Committee is stood down.
Stage 5	CYCLONE WARNING CURRENT	Gale Force Winds (above 100 kmph) (54kt) have commenced	Nil Advice by Cairns Airport	Cyclone Warning Current: ALL AIRPORT OPERATIONS HAVE CEASED
Stage 6	CYCLONE WARNING CURRENT	Gale Force Winds (above 100 kmph) (54kt) have passed	Nil Advice by Cairns Airport	Cyclone Warning Current: ALL AIRPORT OPERATIONS REMAIN CEASED ALL CLEAR NOT YET ANNOUNCED – STAGE 5 MAY BE RE-DECLARED
Stage 7	CYCLONE WARNING MAY STILL EXIST	Gale Force Winds have passed Cairns, though a Cyclone warning may still exist	Nil Advice by Cairns Airport	CYCLONE WARNING MAY STILL EXIST – Post Cyclone flooding to be considered and monitored - Cyclone Committee to reconvene - Commence call in of essential staff to return airport to normal operational status - NOTAM to be lifted by Cairns Airport Aerodrome Operations - Timing to be determined by Airport Cyclone Committee and through the Chair
Stage 8	CYCLONE WARNING CANCELLED	Declaration of All Clear by District Disaster Coordinator	Advice via SMS by Cairns Airport Declaration of all clear	Cyclone Warning Cancelled - Staff returning to airport to re-commence operations - Tenants to commence clean-up operations - Tenants to liaise with Cairns Airport Infrastructure and Maintenance Department regarding loss of services and damage to facilities NOTE: Following a severe cyclone Stage 8 may extend to several days as clean up continues

For quality control purposes, this document is only valid on the day it is printed. Official versions are stored on the intranet
 Cairns Airport Cyclone and Severe Weather Plan_V1_EffectiveDate 14/10/2025_ReviewDate_14/10/2026

Tropical Cyclone Forecast Resources

TROPICAL CYCLONE FORECAST AND TRACK MAPS

The Bureau of Meteorology provides a **Tropical Cyclone 7 day Forecast and Track Maps** which are available on the Bureau's web page at <http://www.bom.gov.au/cyclone/7dayforecast/> Information is also available via radio, television stations and the Cairns Regional Council Disaster Dashboard at <https://disaster.cairns.qld.gov.au/>

Information is also available via the below resources:

Method	Details	Number/Website
Telephone	Cyclone Advice	1300 659 210
Internet	All weather warnings	www.bom.gov.au Tropical cyclone forecast Australian Warning System https://disaster.cairns.qld.gov.au/
Social media	X Facebook	https://x.com/BOM_Qld https://www.facebook.com/bureauofmeteorology

Table 2: Wind Category & Effect

Category	Max Wind Gust	Typical Effects
1	90 -125km/h (<67 kt)	Negligible house damage, damage to some crops, trees and caravans and craft may drag moorings
2	125 – 164 km/h (67 – 89 kt)	Minor house damage, significant damage to signs, trees and caravans - heavy damage to some crops - risk of power failure - small craft may break moorings
3	165 – 224 km/h (90 – 121 kt)	Some roof and structural damage, some caravans destroyed - power failure likely
4	225 – 279 km/h (121 – 150 kt)	Significant roofing loss and structural damage, many caravans destroyed and blown away, dangerous airborne debris - widespread power failures
5	>280 km/h (> 151 kt)	Extremely dangerous with widespread destruction

Table 3: Wind Speed Conversions

Km/h	Kt	Kt	km/h
10	5	10	19
20	11	20	37
30	16	30	56
40	22	40	74
50	27	50	93
60	32	60	111
70	38	70	130
80	43	80	148
90	49	90	167
100	54	100	185
110	59	110	204
120	65	120	222
130	70	130	241
140	76	140	259
150	81	150	278
160	86	160	296
170	92	170	315
180	97	180	333
190	103	190	352
200	108	200	370
210	113	210	389
220	119	220	407
230	124	230	426
240	130	240	444
250	135	250	463
260	140	260	482
270	146	270	500
280	151	280	519

Severe Weather

Lightning Detection and Advisory Protocol – Cairns Airport

Cairns Airport has subscribed to the Vaisala Thunderstorm Manager to receive real-time lightning detection alerts using advanced technologies. These alerts are distributed via SMS and email through Whispir, based on detection triggers from the Vaisala system.

Please note that Cairns Airport staff are not formally trained in meteorology. Any actions taken in response to the advice provided should be based on each organisation's own risk assessments, procedures, and interpretation of the information received.

To complement Vaisala data, Cairns Airport may also receive meteorological advice from Qantas and Virgin services. This supplementary advice may be actioned when it is more conservative than the Vaisala alerts.

In addition to SMS notifications, a blue and white lighting system will be activated airside to indicate lightning detected within 10 nautical miles (nm) and 5 nm of Cairns Airport.

Flooding

Following the flooding of the Barron River Delta associated with Tropical Cyclone Jasper in 2023, Cairns Airport installed and commissioned four Qteq Remote Surface Water Monitoring Stations at key locations across the airport. These systems deliver real-time data during and after flood events to support planning and decision making; however, they do not provide predictive insights. Information provided by the Bureau of Meteorology is interpreted by the Cyclone and Severe Weather Committee to guide decision-making during all severe weather events.

Cyclone and Severe Weather Committee

The Cyclone and Severe Weather Committee is convened at Stage 2 Cyclone Warning.

Chair of the Cyclone Committee in succession is:

- Chief Operating Officer
- Head of Operations
- Emergency & Operational Resilience Manager

Cairns Airport membership of the Cyclone Committee is:

Chief Executive Officer	Head of Airline Partnerships
Chief Operating Officer	Media & Communications Manager
GM Infrastructure & Property	Property Manager
Chief Financial Officer	Marketing Manager
GM People & Culture	Security Operations Manager
General Counsel & Company Secretary	Manager Infrastructure (CNS)
Head of Operations (CNS)	Manager Infrastructure
Head of Operations (MKY)	Manager ICT

Manager Tourism Development	Operations Project Manager
Manager Ground Transport	Commercial Manager - Terminals
Manager Assets Strategy and Transformation	Emergency & Operational Resilience Manager
Aerodrome Operations Manager	Aerodrome Operations Supervisor
Terminal Operations Manager	Airport Duty Managers

The core members of the **Cairns Airport Cyclone and Severe Weather Committee** comprise of:

Cairns Airport	JL Aviation Fuelling
Airservices Australia Air Traffic Control – Cairns Tower Infrastructure Support Services Aviation Rescue and Fire Fighting Service	Swissport
Aircraft Turnaround Engineering	Menzies Aviation
Alliance	Nautilus Aviation
Australian Border Force	Qantas
Australian Federal Police	Queensland Government Air
Air New Zealand	Rex
Air Niugini	RFDS
Aus flight Handling	SmartLynx Australia
Department of Agriculture, Fisheries and Forestry	Skytek
Daifuku	Singapore Airlines
DNATA	Trident Services
Exemplar	Menzies Aviation
Lagardere AWPL	Menzies Cargo
Leidos	Pacific Direct
Hinterland	Regional Trade Distribution Centre
Integrated Aviation Maintenance	Virgin Australia
Jet Aviation	Viva Energy (JUHI)
Jetstar	

Note 1: The Chair of the Cyclone Committee will advise any change to the operational status of the airport to the Chief Executive Officer and Media & Communications Manager.

Note 2: The Emergency & Operational Resilience Manager or, if unavailable, the Chair of the Cyclone Committee will advise of any change to the operational status of the airport to the:

- Cairns Local Disaster Management Group – Cairns Region (LDMG-CR) Local Disaster Coordinator: P 07 4044 3531 M 0467 990 031
 - Email Rhys.Newton@cairns.qld.gov.au
 - Local Disaster Coordination Centre – Call centre (when activated): 1300 396 102;
 - Email cairnsdisastermanagement@cairns.qld.gov.au
- Cairns District Disaster Management Group (FN DDMG)
 - Executive Officer Cairns DDMG – Mobile 0467 712 133 Email DDC.Cairns@police.qld.gov.au

Note 3: The Emergency & Operational Resilience Manager or, if unavailable, the Chair of the Cyclone Committee will Log on to BOM [Queensland Weather and Warnings](#) in preparation for the meeting.

Note 4: The Cyclone and Severe Weather Committee may be activated to support the management of any severe weather event that poses a risk to airport operations or the safety and wellbeing of the airport community.

Document Control

Version	Status	Sponsor	Author
1	Approved	Head of Operations	Emergency & Operational Resilience Manager

Amendments	Date	By whom
Version 1 – Plan renamed and reset to version 1 – Severe Weather included in the plan	14 Oct 2025	Emergency & Operational Resilience Manager