

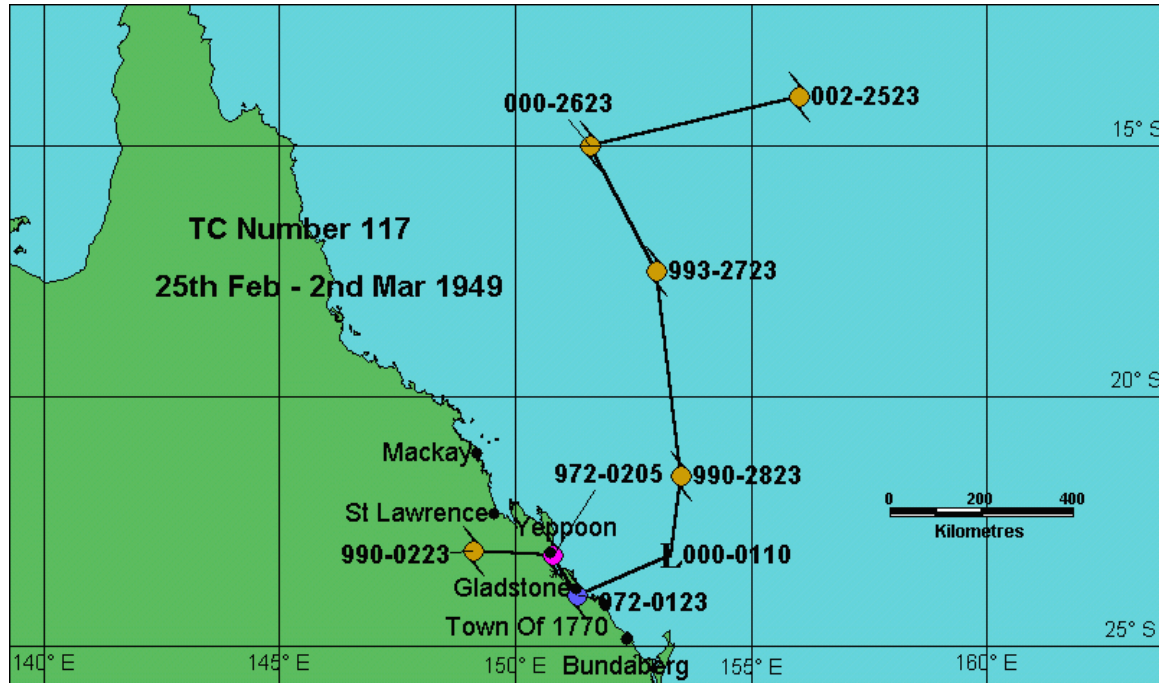
HARDEN UP

QUEENSLAND

CASE STUDY: Rockhampton Cyclone, 1949

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A Tropical Cyclone came close to Gladstone at 2pm on the 2 March 1949 and then crossed the coast south of Emu Park and passed close and to the north of Rockhampton. There was widespread damage in 15 towns. Two men died, one in Rockhampton and the other in Gladstone as they were blown from the roofs of their homes while making repairs. Another man was killed in Rockhampton after being struck by a falling branch. A child was killed in Bundaberg by a falling gum tree. A dairy farmer was drowned in the Biloela district and another man was drowned near Thangool. The lowest barometer reading in Rockhampton (not in the eye) was 965.1 hPa and the maximum wind gust on the airport anemometer was 87 knots just after 7pm on the 2nd. A survey by the Mayor in Rockhampton showed that over 1000 houses were damaged, 500 severely. Most of the 1500 homes in Gladstone were damaged and many buildings were extensively damaged. At Yeppoon northwesterly winds were estimated at 87 knots and 100 buildings were noticeably damaged, 30 to 40 were badly damaged and 4 were demolished. In Yeppoon 25 inches (635mm) of rain was recorded in 24h which flooded business premises. In Emu Park the damage was worse than Yeppoon where whole buildings collapsed and almost all houses lost all or parts of their roofs. Several houses were moved off their blocks. One house lost its roof with half the roofing iron blown 450 metres away and the rest blown into the sea. The worst wind was around the period between 3 and 4pm. The Yeppoon to Emu Park scenic road was devastated with trees littering the whole highway. The beaches were badly eroded with Kemp Beach suffering badly where most of the trees were damaged. 47 cattle carcasses were washed up onto the beaches. Heavy seas closed the ports of Rockhampton, Gladstone, Bundaberg and Maryborough while a lightship was grounded on Breaksea Spit. There were severe floods in Central Qld and 3 drovers were drowned.

A detailed track of the cyclone through the region has been constructed below.

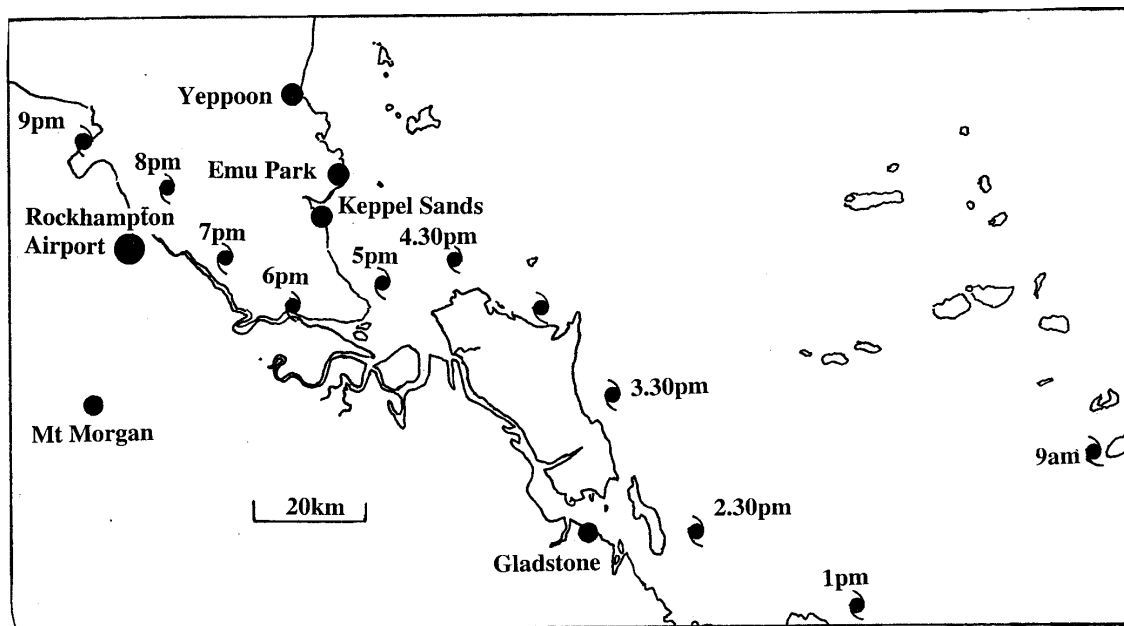


Figure 1. Track of the 1949 severe tropical cyclone from 9am 2 March 1949 to 9pm 2 March 1949.

The lowest barometer reading at Gladstone was 975.3hPa at 2.30pm 2 March 1949 when the wind there was changing from southwesterly to southerly and increasing to 65 knots (120 km/h). This indicated that the centre of the cyclone was passing to the east of Gladstone at this time.

The eye of the cyclone passed over Cape Capricorn (northeast point on Curtis Island) between 2pm and 4.25 pm 2 March 1949. The wind there was calm at 4.25pm and then rapidly increased to 65 knots (120 km/h) at 4.30pm. The worst of the wind damage occurred at Emu Park around 4pm when the wind was from the northwest. This indicated that the cyclone passed to the south of Emu Park.

At 7pm 2 March 1949 the wind at Rockhampton was southwesterly at 50knots (93km/h) and the bar was 968.1hPa. This data implied that the cyclone then was near to and slightly south of west of Rockhampton. The lowest bar at Rockhampton was 965.1 hPa at 8pm when the wind was from the south-southeast at 52 knots (96km/h). Thirty minutes earlier the maximum wind gust of 87 knots was recorded at Rockhampton. We have calculated that the cyclone passed just to the north of Rockhampton shortly after 8pm 2 March 1949. The cyclone traveled more than 40km overland before passing to the north of Rockhampton when its central pressure was near 960hPa. Tropical cyclones rapidly weaken soon after landfall so that the central pressure of this cyclone as it approached Yeppoon was likely 950 hPa or less.

The mean sea level charts (over page) show that the cyclone lay out to sea east of Yeppoon on 1 March 1949 when it would have been directing large waves towards the Capricorn Coast. The isobaric pattern indicated a cyclone of medium size. Seas badly damaged the beaches along the Capricorn Coast.

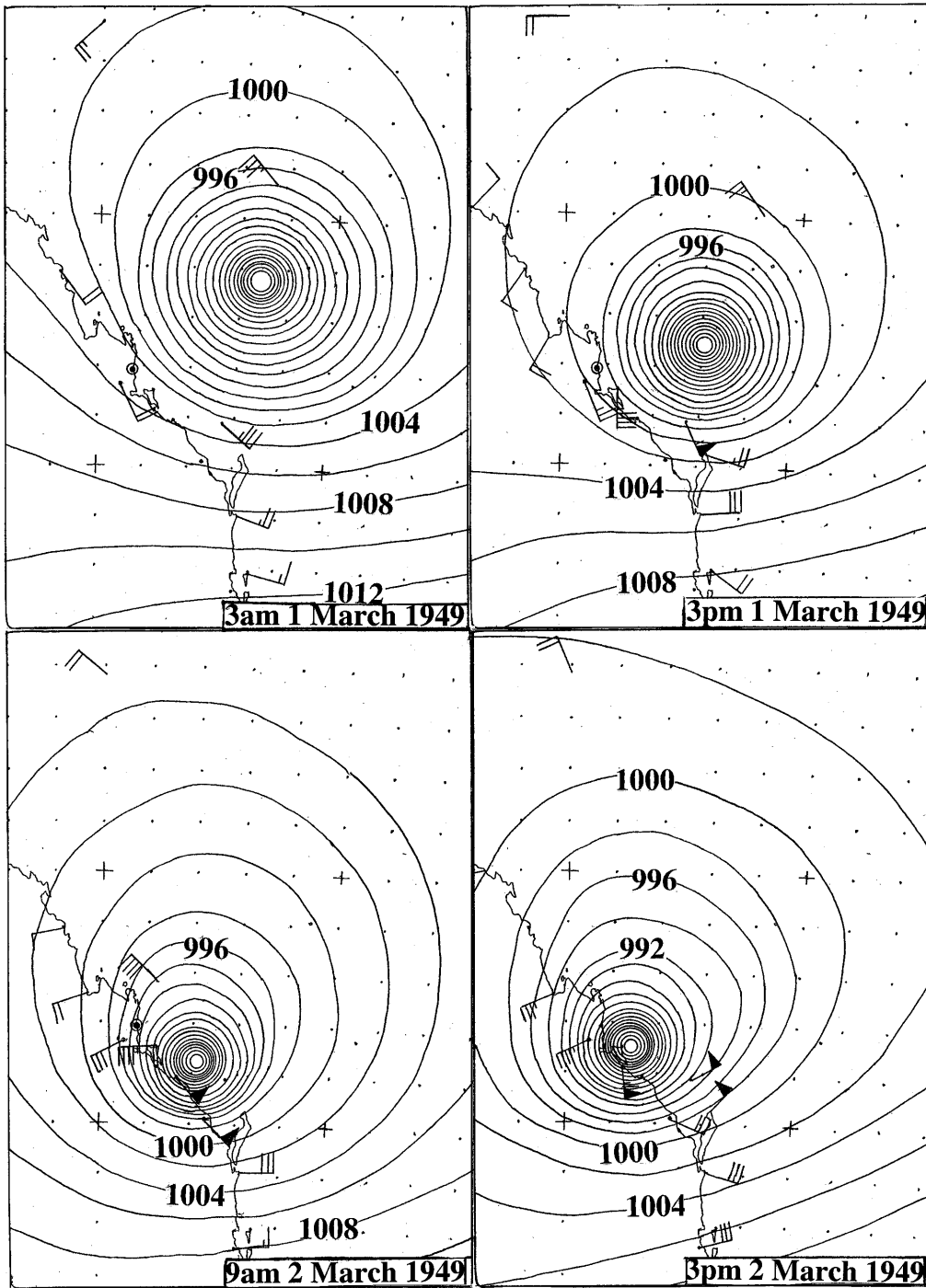


Figure 2. Mean sea level charts for 1st of March, 1949.