

CASE STUDY: Cairns Cyclone, 1913

By Mr Jeff Callaghan

Retired Senior Severe Weather Forecaster, Bureau of Meteorology, Brisbane

A tropical cyclone crossed the coast near Cairns. The front of Stock Exchange was blown in, the Rice Mill on the Esplanade was severely damaged, balconies were stripped off buildings, two houses were lifted completely off their stumps, a sawmill was unroofed and other sheds were unroofed. Many trees were blown down. The sea came onto the land with a strong easterly gale on the morning of the 31st damaging many boats and smashing the seawall. Banana plantations were destroyed at Freshwater near Cairns. All trees were blown down on Green Island and it was denuded of vegetation. Seas broke right over Upola Bank and thousands of dead birds were found lying on the sandbanks. At Yarrabah the boy's Quarters were blown down, the girl's Quarters were badly damaged and out buildings were unroofed and a baby died. At Innisfail balconies and roofs were lost, though severe floods caused most damage. Goods and buildings washed down the river and four lives were lost. In the district 90% of banana crop lost and there was severe damage to other crops. *SS Innamincka* was grounded and the Schooner *Dancing Wave* was lost.

Conditions at Cairns

- Wednesday 29 January 8pm – Bar 1007.5hPa
- Early am Thursday 30 January – wind rose to hurricane SE winds and bar 1000.3hPa. Big branches snapped off trees along Esplanade. Big seas were rolling down the inlet.
- Noon Thursday 30 January – Bar 997.3hPa - Big coconut trees suffered damage.
- PM Thursday - Wind increased further during the afternoon.
- Thursday 4pm - Bar 995.6hPa – Balcony roof of Railway hotel blown off. -portion of roof on Dillons factory in McLeod St was blown off – house in McLeod St lifted off its blocks. A house in Sheridan St also lifted off its blocks – another on the Harbor board flats suffered the same fate.
- Thursday 7pm – Balcony roof of other premises blown off- bar rose then slightly.
- Thursday just before midnight – Wind turned east still hurricane force.
- Dawn Friday 31 January 1913 – The easterly had raised the sea which relentlessly dashed onto the
- Esplanade – Near the Strand Hotel the sea was washing entirely over the wall, and from the Hotel to the wharves there was an almost unbroken sheet of water.

Mean Sea Level analysis and track

The Bureau of Meteorology best track (Figure 1) shows the cyclone pass to the north of Cairns at 1100UTC 30 January (9pm 30th AEST). The MSL analyses (Figure 2) show the cyclone move west while located north of a relatively weak high-pressure ridge.

Rainfall

From the rainfall distribution maps the heavy rainfall in the Cairns region lasted three days with heaviest in the 24hours to 9am 31 January 1913. Some of the heavier totals were:

- Aloomba State School 21 km SSE of Cairns: 130.8mm 29 Jan 342.9mm 30 Jan 248.9mm 31 Jan 31.8mm 1 Feb

- Babinda -- 50 km SSE of Cairns: 51.1mm 29 Jan 228.3mm 30 Jan 324.9mm 31 Jan 521.0mm 1 Feb
- Barrine- 37 km SSW of Cairns: 10.2mm 29 Jan 152.4mm 30 Jan 338.8mm 31 Jan 171.5mm 1 Feb
- Cairns Post Office: 13.2mm 29 Jan 121.4mm 30 Jan 354.1mm 31 Jan 95.3mm 1 Feb
- Glen Broughton 5 km SE of Cairns: 12.7mm 29 Jan 245.1mm 30 Jan 379.0mm 31 Jan 63.5mm 1 Feb
- Hambledon Mill 13 km SSW Cairns: 99.6mm 29 Jan, 439.9mm 30 Jan, 125.1mm 31 Jan, 21.6mm 1 Feb
- Harvey Creek 43 km SSE of Cairns: 37.3mm 29 Jan 244.3mm 30 Jan 627.9mm 31 Jan 344.2mm 1 Feb
- Flying Fish Point 72 km SSE of Cairns: 40.6mm 29 Jan 125.2mm 30 Jan 408.9mm 31 Jan 68.6mm 1 Feb
- Goondi 72 km SSE of Cairns: 198.4mm 29 Jan 612.1mm 30 Jan 106.7mm 31 Jan 3.0mm 1 Feb
- Innisfail: 42.4mm 29 Jan 208.3mm 30 Jan 531.1mm 31 Jan 102.6mm 1 Feb

Flooding

Record floods in Cairns and Malanda districts with much damage to roads and bridges and railway lines, highest floods on record at Innisfail and various other places. At Innisfail, cane crops were covered and stock drowned; over 100 houses under water; telegraph lines submerged for miles. Herbert River in heavy flood at Ingham; water 25 feet over the bridge, all low-lying land submerged; all farms around Long Pocket and Hawkins Creek under water; numerous washaways on the railway line between Cardwell and Lucinda. At Cairns, the Mulgrave River was 20 feet over Railway Bridge. The Barron River was in flood with a big flood in the Freshwater District. The Myola gauge on the Barron River reached 14.8metres (ranked 2nd highest of all time). The Johnstone River reached 8.09metres at Innisfail (highest on record).

In the Cairns Post of the 1 February 1913 there was little mention of the Barron River until on the back page there was talk of a man arriving in town from Freshwater (near the Barron) and now an inner suburb and describing the Barron in flood and he said 'The Barron River yesterday was in flood and was almost as wide as the memorable flood of 1911'.

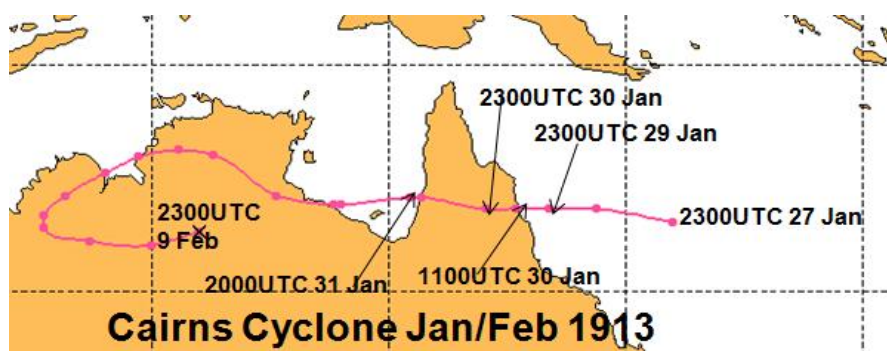


Figure 1 Track of 1913 Cairns Cyclone.

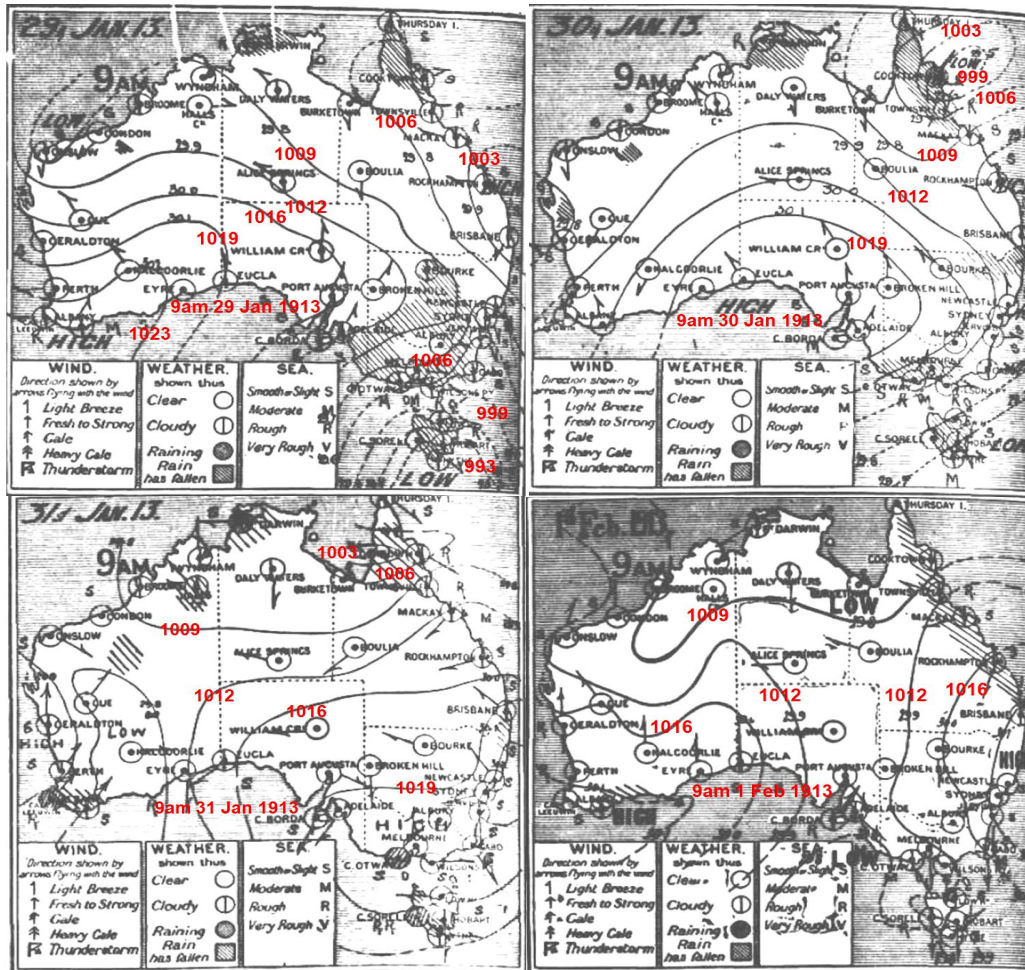


Figure 2 Mean Sea Level analyses from the Sydney Morning Herald from 9am 29 January 1913 to 9am 1 February 1913.

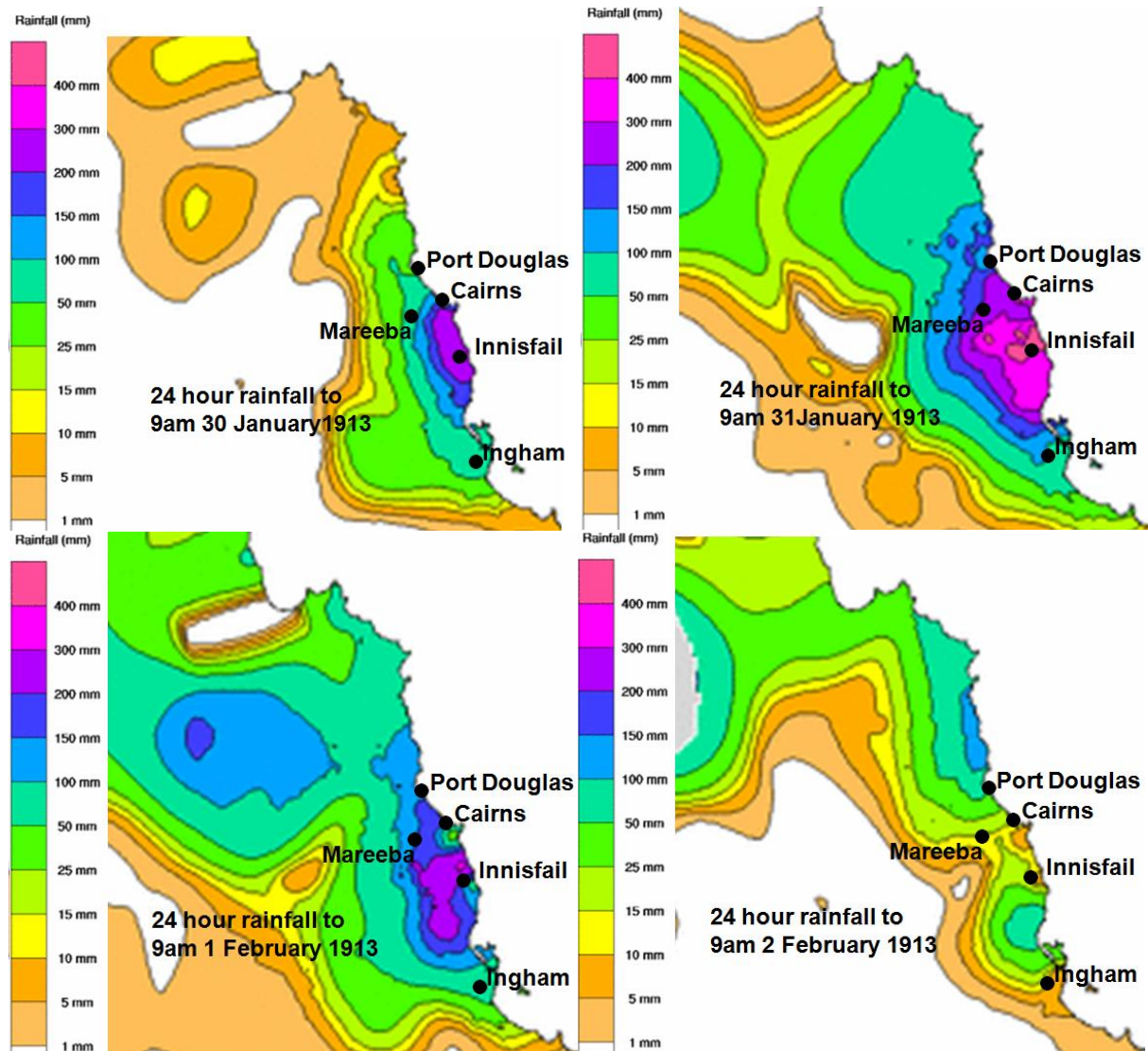


Figure 3 24hour rainfall to 9am 30 January 1913 (top left), to 9am 31 January 1913 (top right), to 9am 1 February 1913 (lower left) and to 9am 2 February 1913 (lower right).