



Australian Government
Bureau of Meteorology

Severe Tropical Cyclone *Pearl*

11 – 21 January 1994

Perth Tropical Cyclone Warning Centre
Bureau of Meteorology

A. Summary

Tropical cyclone *Pearl* was a very small, severe cyclone in the Indian Ocean. The cyclone moved on a generally westward path from just off the West Kimberley coastline, attaining hurricane-force intensity for several days and covering a distance of more than 4000 kilometres before decaying in the central Indian Ocean west of 90°E on 20 January.

There was no report of significant impact associated with TC *Pearl*.

B. Meteorological Description

Intensity

A low was first analysed early on 11 January when located to the northwest of Broome. The low was positioned beneath the upper ridge axis which, when combined with a moderate cross-equatorial northwesterly flow, appeared to contribute to abnormally rapid cyclogenesis. By 0600 UTC 12 January *Pearl* had reached hurricane intensity and peaked at 85 knots on 17 January before gradually weakening and being downgraded to a tropical low on 20 January.

Motion and Structure

Pearl was steered by the middle-level easterly flow to the north of the subtropical ridge axis. It was located beneath the upper-level ridge axis during most of its lifetime and thus experienced little shear. Weakening occurred when it moved to the south of the upper ridge axis into a region of increasing westerly flow.

C. Impact

There was no report of significant impact associated with TC *Pearl*.

D. Observations

Wind/Pressure and Rainfall

There was no report of significant wind and rainfall associated with TC *Pearl*.

Table 1. Best track summary for *Pearl 11* – 21 January 1994

Note: Add 8 hours to convert to WST. Refer to best track database for complete track details.

Year	Month	Day	Hour (UTC)	Position Latitude S	Position Longitude E	Max wind 10min knots	Central Pressure hPa	Rad. of Gales nm
1994	01	11	0000	15.4	121.4	20	1004	
1994	01	11	0600	15.8	120.7	25	1000	
1994	01	11	1200	16.2	120.0	35	995	25
1994	01	11	1800	16.6	119.3	45	985	25
1994	01	12	0000	16.9	118.6	60	975	40
1994	01	12	0600	17.1	117.8	70	965	40
1994	01	12	1200	17.2	116.5	75	960	40
1994	01	12	1800	16.9	115.2	75	960	40
1994	01	13	0000	16.5	114.2	75	960	40
1994	01	13	0600	16.8	113.1	75	960	40
1994	01	13	1200	17.0	111.8	75	960	40
1994	01	13	1800	17.3	110.6	75	960	40
1994	01	14	0000	17.1	109.4	70	965	40
1994	01	14	0600	16.9	108.1	70	965	40
1994	01	14	1200	17.0	106.8	70	965	40
1994	01	14	1800	16.8	105.8	70	965	40
1994	01	15	0000	16.4	104.8	70	965	40
1994	01	15	0600	16.3	103.6	70	965	40
1994	01	15	1200	16.3	102.4	70	965	40
1994	01	15	1800	16.2	101.3	70	965	40
1994	01	16	0000	16.0	100.2	80	955	40
1994	01	16	0600	16.0	98.7	80	955	40
1994	01	16	1200	16.0	97.5	80	955	40
1994	01	16	1800	16.2	96.2	80	955	40
1994	01	17	0000	16.2	95.0	80	955	40
1994	01	17	0600	16.4	94.0	85	950	40
1994	01	17	1200	16.4	93.0	85	950	40
1994	01	17	1800	16.6	92.2	85	950	40
1994	01	18	0000	16.7	91.4	80	955	40
1994	01	18	0600	16.9	90.6	75	960	40
1994	01	18	1200	17.1	89.9	70	965	40
1994	01	18	1800	17.4	89.2	60	975	40
1994	01	19	0000	17.9	88.7	45	985	25
1994	01	19	0600	18.6	88.0	40	990	25
1994	01	19	1200	19.8	87.6	35	995	25
1994	01	19	1800	20.9	87.5	35	995	25
1994	01	20	0000	22.0	87.5	25	1000	
1994	01	20	1200	23.2	87.8	20	1005	
1994	01	21	0000	24.1	88.8	20	1005	

Figure 1. Track of Tropical Cyclone *Pearl*, 11 – 21 January 1994.
All times in WST.

