



Australian Government
Bureau of Meteorology

Tropical Cyclone *Dianne*

7 - 11 April 2002

Perth Tropical Cyclone Warning Centre
Bureau of Meteorology

A. Summary

A tropical low in the central Indian Ocean was named Tropical Cyclone *Dianne* on 7 April near 12°S 98°E and moved in a general southwesterly direction. A warning was issued for the Cocos Islands and although the cyclone passed 30 km to the south at about 1400 WST on 7 April, winds on the Islands did not reach gale force intensity. *Dianne* developed to category 4 intensity just after entering the area of responsibility of Mauritius/La Reunion Meteorological Services late on 8 April and was renamed TC *Jery*.

B. Meteorological Description

Intensity Analysis

The tropical low formed in a low shear environment along a monsoon trough with a second low about 10 degrees further west and a strong easterly trade wind flow to the southeast. The low exhibited classical pre-cyclone convective banding features on 6 April. The low developed rapidly reaching tropical cyclone intensity at 0500 WST on 7 April when the 0430 WST infrared image indicated a strong curved band feature.

Structure

Favoured by a low shear environment, *Dianne* continued to develop rapidly in the following 48 hours after cyclogenesis reaching maximum intensity just after crossing 90°E into the area of responsibility of Mauritius/La Reunion Meteorological Services. Winds were strongest in southern quadrants on 6 April and 8 April as indicated by Quikscat images.

Dianne had developed an eye by the time it crossed 90°E on 9 April as shown by the 0130 WST infrared image. The 9 April 1330 WST visible image shows a somewhat small ragged eye but with good banding features. *Dianne* began to encounter increasing shear on 9 April and weakened over cooler waters on 10 April and 11 April.

Motion

Dianne tracked on a steady west to southwest track at about 20 to 25 km/h under the influence of a strong mid-level ridge to the south on 6-7 April until it

reached maximum intensity at about 0800 WST on 9 April near 17°S 89°E. By 2000 WST on 9 April and as *Dianne* weakened, it moved on a more southerly then south-southeasterly track as the mid-level ridge eroded and a mid-latitude trough approached from the west.

C. Impact

There was no known impact associated with TC *Dianne*.

D. Observations

Nil.

Table 1. Best track summary for Dianne,6 – 11 April 2002.

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
2002	04	6	0000	10.4	101.5	20	1004	
2002	04	6	0600	11.0	101.0	25	1002	
2002	04	6	1200	11.8	100.4	25	1000	
2002	04	6	1800	12.1	99.2	30	997	
2002	04	6	2100	12.2	98.5	35	995	30
2002	04	7	0000	12.2	98.0	40	992	30
2002	04	7	0300	12.3	97.3	45	988	45
2002	04	7	0600	12.5	96.8	45	986	55
2002	04	7	0900	12.7	96.4	50	984	55
2002	04	7	1200	13.3	96.0	55	980	65
2002	04	7	1500	13.8	95.1	60	975	65
2002	04	7	1800	14.0	94.3	60	975	65
2002	04	7	2100	14.3	93.6	60	975	65
2002	04	8	0000	14.5	93.0	65	970	65
2002	04	8	0300	14.7	92.3	65	970	65
2002	04	8	0600	15.0	91.8	65	970	80
2002	04	8	0900	15.3	91.1	70	965	80
2002	04	8	1200	15.5	90.6	75	960	95
2002	04	8	1500	15.6	90.2	80	955	95
2002	04	8	1800	15.8	89.9	85	950	95
2002	04	8	2100	16.2	89.6	90	945	80
2002	04	9	0000	16.6	89.3	90	945	80
2002	04	9	0300	17.0	89.1	90	945	80
2002	04	9	0600	17.3	88.5	90	945	80
2002	04	9	0900	17.6	88.3	85	950	80
2002	04	9	1200	17.7	88.1	85	950	65
2002	04	9	1500	18.0	88.0	85	950	65
2002	04	9	1800	18.3	87.9	85	950	65
2002	04	9	2100	18.5	87.9	85	950	65
2002	04	10	0000	18.9	87.9	80	955	65
2002	04	10	0300	19.2	88.0	80	955	65
2002	04	10	0600	19.7	88.0	75	960	65
2002	04	10	0900	19.8	88.2	70	965	65
2002	04	10	1200	20.0	88.3	65	970	65
2002	04	10	1800	20.5	88.5	55	980	65
2002	04	11	0000	21.0	88.7	50	985	65
2002	04	11	0600	22.2	89.1	40	990	55
2002	04	11	1200	23.2	89.4	35	995	45
2002	04	11	1500	23.7	89.6	30	997	

Figure 1. Track of Tropical Cyclone Dianne 6 -12 April 2002

All times in WST.

