Australian Government

Bureau of Meteorology

Severe Tropical Cyclone *Connie*
15 – 20 January 1987

Perth Tropical Cyclone Warning Centre
Bureau of Meteorology

A. Summary

A low that moved off the west Kimberley coast north of Broome rapidly intensified reaching cyclone intensity on 17 January then peaking at category three intensity on 19 January. Tropical Cyclone *Connie* tracked to the southwest then south crossing the Pilbara coast 20 km west of Port Hedland at 0900 UTC 19 January. Port Hedland recorded a maximum wind gust of 171 km/h. *Connie* then weakened as it moved south then southeast over remote areas of inland Western Australia.

At Port Hedland a number of houses were unroofed. Beach erosion and minor flooding also occurred but there were no deaths or injuries. At Whim Creek the hotel was unroofed. Pastoral stations in the area reported stock losses, as well as damage to windmills and buildings. Fortunately *Connie* crossed the coast at close to low tide preventing any significant storm tide impact.

B. Meteorological Description

Tropical cyclone *Connie* formed from a low which originated over land to the northeast of Derby. The low, with a central pressure of 1002 hPa at 0000 UTC 15 January, drifted southwest past Derby and then northwest, moving out to sea near Cape Leveque. Rapidly intensifying, the low reached tropical cyclonic intensity by 1200 UTC 17 January at 17.1°S, 121.9°E, about 650 km northwest of Broome.

Connie then moved southwest under the influence of an upper-level high pressure system located over central Australia and continued to intensify. By 0600 UTC 19 January the cyclone reached maximum intensity with an estimated mean maximum wind speed of 85 knots. Three hours later *Connie* crossed the coast at 20.3°S, 118.5°E about 20 km west of Port Hedland and continued inland on a southerly track and weakened slowly. By 1200 UTC 20 January, at 23.5°S, 118.2°E (about 350 kilometres south of Port Hedland), the system ceased producing gale force winds. However, a deep low with a central pressure of 980 hPa still remained and moved steadily south-southeast, crossing into the Great Australian Bight at 32.1°S, 126.2°E (1800 UTC 22 January) with a central pressure of 996 hPa. The system finally lost identity at 36.9°S, 127.1°E (0600 UTC 23 January) and became part of a southern low pressure system.

A maximum wind gust of 171 km/h was recorded at Port Hedland Airport at 1147 UTC 19 January, when the mean wind speed was 93 km/h. This was the strongest wind recorded during the cyclone.

C. Impact

Only moderate damage was sustained due to the cyclone. Beach erosion and minor flooding occurred at Port Hedland, where a number of houses were also unroofed. No human deaths or injuries were reported, though 30 people were evacuated in the Port Hedland area as a precautionary measure. At Whim Creek the hotel was unroofed. Pastoral stations in the area reported stock losses, as well as damage to windmills and buildings.

At Port Hedland a positive tidal anomaly of 2.0 metres was recorded at 1130 UTC 19 January shortly after the cyclone had crossed the coast. The anomaly occurred at a predicted low tide of 2.0 metres. (Highest astronomical tide for Port Hedland is 7.6 metres.) A maximum wave height of 6.8 metres was recorded 15 kilometres offshore from Port Hedland by professional survey instrumentation

Table 1 Best track summary for Severe Tropical Cyclone *Connie*, 15 – 23 January 1987 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
1987	01	15	0000	15.8	124.8	25	1002	
1987	01	15	0300	15.8	124.8	25	1001	
1987	01	15	0600	16.0	124.7	30	999	
1987	01	15	0900	16.3	124.6	30	999	
1987	01	15	1200	16.5	124.5	30	999	
1987	01	15	1500	16.6	124.4	25	1000	
1987	01	15	1800	16.7	124.2	25	1000	
1987	01	15	2100	16.8	124.1	30	999	
1987	01	16	0000	16.9	124.0	25	1002	
1987	01	16	0300	17.0	123.9	25	1001	
1987	01	16	0600	17.2	123.7	30	999	
1987	01	16	0900	17.3	123.0	30	998	
1987	01	16	1200	17.2	122.9	30	998	
1987	01	16	1500	17.2	122.8	30	998	
1987	01	16	1800	16.7	122.6	30	997	
1987	01	16	2100	16.5	122.3	30	997	
1987	01	17	0000	16.5	122.1	30	997	
1987	01	17	0300	16.6	122.0	35	996	
1987	01	17	0600	16.8	121.9	35	995	
1987	01	17	0900	16.9	121.9	35	995	
1987	01	17	1200	17.1	121.9	35	994	

1987	01	17	1500	17.2	121.7	35	994	
1987	01	17	1800	17.7	121.3	35	993	
1987	01	17	2100	17.7	121.4	40	991	
1987	01	18	0000	17.8	121.0	45	988	
1987	01	18	0300	17.9	120.5	45	986	
1987	01	18	0600	18.1	119.9	50	983	75
1987	01	18	0900	18.2	119.4	55	980	85
1987	01	18	1200	18.5	119.2	60	976	
1987	01	18	1500	18.7	119.0	60	973	95
1987	01	18	1800	19.1	118.7	65	970	95
1987	01	18	2100	19.4	118.7	70	966	55
1987	01	19	0000	19.5	118.6	75	962	50
1987	01	19	0300	19.8	118.6	80	955	60
1987	01	19	0600	19.9	118.5	85	950	65
1987	01	19	0900	20.3	118.5	85	950	55
1987	01	19	1200	20.5	118.4	80	955	
1987	01	19	1500	20.9	118.0	75	960	45
1987	01	19	1800	21.2	117.5	70	965	105
1987	01	19	2100	21.7	118.0	65	970	40
1987	01	20	0000	22.0	118.4	60	974	30
1987	01	20	0300	22.3	118.4	55	977	
1987	01	20	0600	22.6	118.3	55	980	25
1987	01	20	0900	23.0	118.2	55	980	
1987	01	20	1200	23.5	118.2	55	980	
1987	01	20	1500	23.9	118.4	55	980	
1987	01	20	1800	24.5	118.6	55	980	
1987	01	20	2100	25.1	118.8	55	980	
1987	01	21	0000	25.9	118.9	50	982	
1987	01	21	0300	26.3	119.5	45	985	
1987	01	21	0600	27.0	119.6	40	990	
1987	01	21	0900	27.2	119.7	40	990	
1987	01	21	1200	27.5	120.0	40	990	
1987	01	21	1500	28.0	120.5	40	992	
1987	01	21	1800	28.4	121.5	35	993	
1987	01	21	2100	29.1	122.1	35	994	
1987	01	22	0000	29.3	122.7	35	994	
1987	01	22	0300	29.5	123.3	35	993	
1987	01	22	0600	29.9	123.9	40	992	
1987	01	22	0900	30.4	124.6	35	994	
1987	01	22	1200	30.7	125.2	35	994	
1987	01	22	1500	31.7	125.8	35	995	
1987	01	22	1800	32.1	126.2	35	996	
1987	01	22	2100	32.5	126.5	35	996	
1987	01	23	0000	34.0	127.0	30	997	
1987	01	23	0300	35.0	127.1	30	998	
1987	01	23	0600	36.9	127.1	35	996	

Figure 1. Track of Severe Tropical Cyclone *Connie*, 15 – 23 January 1987
All times in WST.