



Australian Government
Bureau of Meteorology

Severe Tropical Cyclone *Billy*

5 – 12 May 1986

Perth Tropical Cyclone Warning Centre
Bureau of Meteorology

A. Summary

A low formed southwest of Sumatra and moved to the southeast reaching cyclone intensity overnight from 5-6 May. *Billy* then adopted a southerly then southwesterly course as it intensified briefly crossing west of 90E on 9 May and being renamed *Lila* by Mauritius Meteorological Service. *Billy* re-entered the western region as it peaked in intensity at 95 knots before gradually weakening owing to increasing wind shear as it accelerated to the southeast.

The low crossed the Western Australian coast at Geraldton and rainfall of up to 70 mm fell across the Southwest Land Division bringing valuable opening rains to the agricultural sector.

B. Meteorological Description

Billy developed to the southwest of Sumatra in a weak monsoonal trough lying east-west along approximately 5°S on 4 May 1986. The developing low moved southeast and winds reached gale-force at 1800 UTC 5 May near 6.1°S, 92.2°E. The cyclone continued southeast towards Cocos Island, however, at 9.3°S, 93.6°E (1200 UTC 7 May) it moved onto a southwesterly track and at 1200 UTC 9 May entered the Mauritius area of responsibility and was renamed *Lila*.

The cyclone remained within the Mauritius area until 1800 UTC 10 May at which time it again assumed a southeasterly track and re-entered the Western region at 17.5°S, 90.0°E. The name *Billy* was reapplied. At this stage the cyclone had reached its maximum intensity with a central pressure of 950 hPa and an estimated maximum wind speed of 175 km/h (95 knots). The major steering influence was an upper-level high pressure system located just south of the equator at approximately 100°E.

After re-entering the Western region *Billy* began to accelerate under the influence of strengthening northwest to westerly winds. At the same time weakening began as a result of the strong vertical shear and the entrainment of cool air from the maritime layer. By 0000 UTC 13 May (26.1°S, 106.6°E) the central pressure of the cyclone had risen to 996 hPa, however, the residual low persisted for a considerable period. In the three days after 0000 UTC 12 May it travelled over 1100 km per day.

The remnant low crossed the West Australian coast at Geraldton with a central pressure of 1000 hPa. Rains from the system extended across the bulk of the Southwest Land Division with 24-hour falls of up to 70 mm. The low passed out of the Western region at 31.5°S, 129.0°E at about 0100 UTC 15 May. The total distance travelled by the system in all stages up to 129.0°E was approximately 6000 km.

C. Impact

No damage was reported. Rains in the southwest of Western Australia from the decaying low opened the new agricultural season.

D. Observations

The strongest wind recorded was 93 km/h by a ship 160 km southwest of the centre of *Billy* when it was at 13.7°S, 90.3°E.

Table 1 Best track summary for Tropical Cyclone *Billy* 4 – 15 May 1986.

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
1986	05	4	1800	4.7	89.3	25	1002	
1986	05	5	0000	4.8	90.2	25	1001	
1986	05	5	0600	5.0	91.2	30	1000	
1986	05	5	1200	5.5	91.8	35	999	
1986	05	5	1800	6.1	92.2	35	997	
1986	05	6	0000	6.5	92.3	45	993	
1986	05	6	0600	7.1	92.4	45	990	
1986	05	6	1200	7.5	92.7	45	990	
1986	05	6	1800	7.8	92.8	45	990	
1986	05	7	0000	8.1	93.1	50	988	
1986	05	7	0600	8.5	93.4	55	985	
1986	05	7	1200	8.7	93.5	55	984	
1986	05	7	1800	9.3	93.6	60	982	
1986	05	8	0000	9.7	93.4	60	980	
1986	05	8	0300	9.9	93.2	60	979	
1986	05	8	0600	10.1	92.9	60	978	
1986	05	8	0900	10.4	92.8	65	977	
1986	05	8	1200	10.9	92.7	65	976	
1986	05	8	1600	11.4	92.4	75	968	
1986	05	8	1800	11.6	92.3	85	960	
1986	05	8	2100	11.9	91.9	85	960	
1986	05	9	0000	12.3	91.8	85	960	
1986	05	9	0600	13.0	91.1	85	960	
1986	05	9	1200	13.7	90.3	85	960	85
1986	05	9	1800	14.4	89.7	85	960	

1986	05	10	0000	15.0	89.5	85	959	220
1986	05	10	0600	15.9	89.6	85	958	185
1986	05	10	1200	16.8	89.7	90	954	195
1986	05	10	1800	17.8	90.0	95	950	205
1986	05	11	0000	18.6	90.9	95	954	170
1986	05	11	0600	19.4	92.0	80	962	240
1986	05	11	1200	20.1	93.1	75	970	155
1986	05	11	1800	20.5	94.5	65	976	
1986	05	12	0000	21.7	96.3	60	982	
1986	05	12	0600	22.7	99.0	50	988	290
1986	05	12	1200	23.4	101.3	45	991	
1986	05	12	1800	25.0	103.8	40	994	
1986	05	13	0000	26.1	106.7	35	996	
1986	05	13	0600	27.4	109.9	35	998	
1986	05	13	1200	28.3	113.6	35	999	
1986	05	13	1800	29.7	116.2	30	1000	
1986	05	14	0000	30.1	118.0	25	1001	
1986	05	14	0600	30.7	120.5	25	1001	
1986	05	14	1200	31.1	122.9	25	1002	
1986	05	14	1800	31.1	125.2	25	1002	
1986	05	15	0000	31.7	130.2	25	1004	
1986	05	15	0300	32.0	131.8	25	1004	

Figure 1. Track of Tropical Cyclone *Billy*, 5 – 15 May 1986

All times in WST.

