

Tropical Cyclone Ilsa

9 - 17 December 1999

Perth Tropical Cyclone Warning Centre Bureau of Meteorology 24 July 2008

A. Summary

Tropical Cyclone *Ilsa*, the first in the Western Region for the 1999-2000 season, formed to the northeast of Cocos Islands on 11 December 1999. It was tracked for a period of almost nine days and its development was impeded by vertical windshear for a large part of its lifetime. After a long track eastwards across the Indian Ocean it eventually crossed the WA coastline along the Eighty Mile Beach during the early afternoon of 17 December. During the lifetime of *Ilsa*, Tropical Cyclone *John* formed in the Timor Sea and crossed the Pilbara coast on the morning of 15 December.

B. Meteorological Description

The development of *Ilsa* was associated with a broadscale cross equatorial surge in the northwest monsoon. This followed a strong surge in the northeast trade flow across the South China Sea.

Motion

Ilsa was located on the northern side of the monsoon trough in strong northwest low level flow. The influence of the circulation of TC *John* caused *Ilsa* to move on a more easterly track during the period 13-15 December.

Structure

Ilsa felt the effects of environmental shear apart from a short period following genesis. The shear resulted from strong low level northwesterly flow superposed by northeast flow in high levels.

C. Impact

Huge waves generated by the strong northwesterly flow north of *Ilsa* caused some damage and flooding in low lying areas on Christmas Island. Other than this, no other known impacts were reported.

D. Observations

Winds

Mean wind speed of 30 knots were reported from Mandora at 1500 WST on 17 December. A period of near gale-force winds was also experienced at Christmas Island as the cyclone passed to the south.

Rainfall

At landfall Pardoo Station reported more than 100 mm of rain in a few hours.

Table 1. Best track summary for *Ilsa for 8 - 17 December 1999*. Note: Add 8 hours to convert to WST.

			Harri	Position	Position	Max wind	Central	Rad. of
Year	Month	Day	Hour (UTC)	Latitude S	Longitude E	10-min knots	Pressure hPa	Gales nm
1999	12	8 8	2200	9.0	95.0	25	1002	11111
1999	12	9	2200	9.2	97.2	25	1002	
1999	12	10	0400	9.3	97.8	25	1000	
1999	12	10	1000	9.8	98.4	30	997	
1999	12	10	1600	10.1	99.0	30	997	
1999	12	10	2200	10.5	99.6	35	995	55
1999	12	11	0400	10.8	100.3	40	990	55
1999	12	11	1000	11.1	100.7	50	985	55
1999	12	11	1600	11.3	101.4	50	985	55
1999	12	11	2200	11.7	102.1	55	980	80
1999	12	12	0400	11.9	102.7	55	980	80
1999	12	12	1000	12.2	103.2	50	985	80
1999	12	12	1600	12.3	103.7	50	985	80
1999	12	12	2200	12.3	104.2	50	985	80
1999	12	13	0400	12.3	104.7	40	990	55
1999	12	13	1000	12.3	105.4	40	990	55
1999	12	13	1600	12.3	106.4	40	990	55
1999	12	13	2200	12.3	107.4	40	990	55
1999	12	14	0400	12.3	108.4	40	990	55
1999	12	14	1000	12.3	109.5	40	990	55
1999	12	14	1600	12.3	110.5	40	990	55
1999	12	14	2200	12.4	111.5	40	990	55
1999	12	15	0400	12.5	112.4	40	990	55
1999	12	15	1000	12.7	113.5	40	990	55
1999	12	15	1600	13.5	114.5	40	992	55
1999	12	15	2200	14.6	115.5	40	992	55
1999	12	16	0400	15.6	116.7	40	992	55
1999	12	16	0700	16.2	117.5	40	992	55
1999	12	16	1000	16.9	118.2	35	994	25
1999	12	16	1600	17.6	118.9	35	994	25
1999	12	16	2200	18.6	119.8	35	994	25
1999	12	17	0400	19.6	120.7	35	994	25
1999	12	17	0700	19.9	121.0	35	995	25
1999	12	17	1000	20.2	121.3	35	995	25

Figure 1. Track of Tropical Cyclone $\it Ilsa$, 9 - 17 December 1999. All times in WST.

