



Australian Government
Bureau of Meteorology

Severe Tropical Cyclone *Ilona*

12 – 18 December 1988

Perth Tropical Cyclone Warning Centre
Bureau of Meteorology

A. Summary

Severe Tropical Cyclone *Ilona* formed developed off the west Kimberley coast and recurved to the south crossing the Pilbara coast at category three intensity near Mardie station west of Karratha. *Ilona* caused damage to communities along the central Pilbara coast including Dampier, Karratha, Roebourne and Wickham and also to inland centres at Pannawonica and Tom Price before weakening inland and also caused heavy rainfall in central parts of Western Australia.

B. Meteorological Description

A tropical low formed off Darwin on 12 December and tracked to the southwest passing near the northwest Kimberley coast before taking a more westward track and developing to cyclone intensity near Adele Island early on 13 December.

The cyclone steadily decelerated as it intensified. It began to recurve towards the south towards Pilbara coast during 15 December as it reached category three intensity. *Ilona* maintained intensity passing near North Rankin platform on 17 December before crossing the coast near Mardie at midnight.

Ilona weakened after landfall but still caused minor damage inland before decaying.

C. Impact

Ilona caused some minor damage in the Pilbara. Dampier was the hardest hit town where 12 boats sank, capsized, demasted or washed ashore. Karratha, Roebourne and Wickham also sustained damage to roofs, fences and powerlines. Fortescue Roadhouse, west of Dampier, experienced the eye just after 02:00 WST on 18 December also sustained some damage. Damage was also reported from inland centres such as Tom Price and Pannawonica. *Ilona* brought much needed rain to most of the Pilbara with falls exceeding 100mm.

D. Observations

Wind/Pressure

Mardie station reported at hourly intervals:

Midnight: mean wind 78 kn (144 km/h) gusting 94 kn (174 km/h); pressure 965.5hPa.

01:00 WST mean wind 75kn (139km/h) gusting 92kn (170km/h); pressure 965.3hPa.

Given that a period of calm occurred for five minutes at about 00:30 WST, it is likely the minimum pressure would have been about 960 hPa.

Table 1. Best track summary for Ilona 12 – 19 December 1988

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
1988	12	12	0000	12.0	128.3	25	1000	
1988	12	12	0300	12.6	127.6	25	1000	
1988	12	12	0600	13.2	126.8	30	998	
1988	12	12	0900	13.8	126.3	30	998	
1988	12	12	1200	14.5	125.7	30	997	
1988	12	12	1500	15.0	124.7	30	997	
1988	12	12	1800	15.3	124.1	30	997	
1988	12	13	0000	15.9	122.8	35	996	
1988	12	13	0600	16.3	121.6	35	995	
1988	12	13	1200	16.7	120.6	35	994	
1988	12	13	1800	16.7	119.7	35	993	
1988	12	14	0000	16.5	118.5	40	992	
1988	12	14	0600	16.3	117.3	40	991	20
1988	12	14	1200	16.2	116.6	45	988	55
1988	12	14	1800	16.1	116.2	50	984	85
1988	12	15	0000	16.1	115.8	50	980	85
1988	12	15	0300	16.0	115.6	55	977	110
1988	12	15	0600	16.2	115.5	60	974	110
1988	12	15	0900	16.2	115.4	60	972	140
1988	12	15	1200	16.3	115.3	65	970	140
1988	12	15	1500	16.4	115.3	65	970	140
1988	12	15	1800	16.5	115.2	65	969	140
1988	12	16	0000	16.8	115.2	65	967	175
1988	12	16	0600	17.0	115.2	70	965	140
1988	12	16	1200	17.4	115.3	70	964	140
1988	12	16	1800	17.8	115.3	70	962	110
1988	12	17	0000	18.3	115.4	70	960	155
1988	12	17	0600	19.2	115.7	70	960	180
1988	12	17	1200	20.2	116.0	70	960	135
1988	12	17	1500	20.9	116.0	70	960	105
1988	12	17	1800	21.6	116.2	70	965	65
1988	12	17	2100	22.3	116.4	65	970	25
1988	12	18	0000	23.2	116.8	60	975	15
1988	12	18	0600	24.7	117.7	45	985	15
1988	12	18	1200	25.9	119.1	35	995	
1988	12	18	1800	26.4	120.3	35	996	
1988	12	19	0000	26.4	121.8	30	998	
1988	12	19	0600	26.6	123.7	30	998	
1988	12	19	1200	26.7	125.7	25	999	
1988	12	19	1600	26.7	127.0	25	1000	

Figure 1. Track of Tropical Cyclone *Ilona*, 12 – 20 December 1988
All times in WST.

