



Australian Government
Bureau of Meteorology

Severe Tropical Cyclone *Walter*

1 – 8 April 2001

Perth Tropical Cyclone Warning Centre
Bureau of Meteorology

A. Summary

Walter Tropical Cyclone *Walter* was named at noon WST on Monday 2 April at which time it was located approximately 260 kilometres east northeast of Christmas Island.

B. Meteorological Description

Walter developed from a middle level low which tracked westwards from northern parts of Australia late in March. A surface low developed below this feature in the northern Indian Ocean, just south of Java. Convection associated with the middle level low developed cyclonic banding within 24 hours of the surface low developing. A middle level ridge to the south of the system pushed the low westward. Increasing low-level vorticity combined with a slight weakening in upper level shear, led to the intensification of the system to cyclone strength on 2 April.

The cyclone initially moved on a westerly track under the influence of a mid-level ridge to the south of the system centre, passing to the north of Christmas Island during the night of 2-3 April. The following night the system veered west southwest and continued to intensify as it now started to penetrate the upper ridge. *Walter* was upgraded to category two intensity at noon WST 3 April. The system continued to intensify and at 0600 WST 4 April *Walter* became attained category three intensity. About 24 hours later, as the system centre moved through the axis of the upper ridge, *Walter* peaked at 95 knots maximum winds (category four) with a weak eye on the satellite imagery. The eye pattern disappeared soon after as a cirrus shield developed over the feature and *Walter* subsequently commenced its weakening phase. At this stage *Walter* was 130 km to the north of Cocos Island and now moving in a southwest direction.

At its closest approach *Walter* passed 70 km to the northwest of Cocos Island, which experienced 56 knot gusts and received 170 mm of rain, but there was only minor tree damage. A trough in the middle levels approached from the west, causing *Walter* to steer to the south southwest. This trough continued to amplify in the middle levels and captured the system on 7 April. The system weakened through the effects of an increasing upper level northerly shear. On 8 April, the low level circulation was exposed as the deep convection was completely sheared. *Walter* fell below cyclone intensity on 8 April.

C. Impact

Minor tree damage occurred at Cocos Island.

D. Observations

Cocos Island experienced 56 knot gusts and cumulative total of 170 mm of rain (24 hour total of 121.6mm to 0900 LST 6 April).

Table 1. Best track summary for Severe Tropical Cyclone *Walter* 1 – 8 April 2001.

Note: Add 8 hours to convert to WST. Refer to best track database for complete track details.

Year	Month	Day	Hour	Latitude	Longitude	Max Wind Knots	Central Pressure hPa	Radius of Gales nm
2001	4	1	0400	10.7	110.7	25	1003	
2001	4	1	1000	10.3	110.0	25	1000	
2001	4	1	1600	10.1	109.5	30	998	
2001	4	1	2200	9.9	109.0	35	995	10
2001	4	2	0400	9.7	107.9	35	995	10
2001	4	2	1000	9.5	106.9	40	992	15
2001	4	2	1600	9.5	105.6	40	990	25
2001	4	2	2200	9.6	104.5	45	988	30
2001	4	3	0400	9.7	103.5	50	985	30
2001	4	3	1000	9.8	102.7	55	980	35
2001	4	3	1600	9.9	101.7	55	978	35
2001	4	3	2200	10.0	100.9	65	970	40
2001	4	4	0400	10.1	100.0	70	965	45
2001	4	4	1000	10.3	98.9	85	950	55
2001	4	4	1600	10.6	98.1	90	945	60
2001	4	4	2200	11.0	96.9	95	940	65
2001	4	5	0400	11.5	96.6	95	940	65
2001	4	5	1000	11.8	96.3	90	945	60
2001	4	5	1600	12.1	96.0	90	945	55
2001	4	5	2200	12.7	95.4	85	950	50
2001	4	6	0400	13.3	94.7	80	955	45
2001	4	6	1000	14.0	94.4	75	960	40
2001	4	6	1600	14.4	94.3	70	965	40
2001	4	6	2200	15.0	94.4	65	970	35
2001	4	7	0400	16.5	95.0	60	975	30
2001	4	7	1000	18.2	95.5	55	980	25
2001	4	7	1600	18.9	95.3	50	985	20
2001	4	7	2200	19.7	95.0	40	990	15
2001	4	8	0400	20.6	94.8	35	994	10
2001	4	8	1000	21.7	94.4	30	998	

Figure 1. Track of Tropical Cyclone *Walter* 1 – 8 April 2001
All times in WST.

