Australian Government
Bureau of Meteorology

Tropical Cyclone *Ophelia*

13-17 December 1996

Perth Tropical Cyclone Warning Centre
Bureau of Meteorology

A. Summary

TC *Ophelia* formed to the east of Christmas Island. Its track was somewhat unusual in that it moved towards the southeast for most of its lifetime. It intensified rapidly to cyclone intensity by the morning of 15 December, however its intensification phase was short-lived as it encountered vertical wind shear early on 17 December.

The cyclone had no impact on Christmas Island or northwest Australia.

B. Meteorological Description

Ophelia formed from an area of convection within the monsoon trough to the east of Christmas Island during an active phase of the intra-seasonal oscillation. It formed between two tropical cyclones, *Nicholas* and *Elvina**,*** beneath the axis of the upper ridge. There was moderate cross equatorial northwest flow to the north of the low. It intensified rapidly to cyclone intensity by the morning of 15 December. As *Ophelia* was a small cyclone it was susceptible to vertical wind shear. Shear resulted from northwest flow in the mid-levels superposed by north-northeast flow in high-levels. By 17 December a low-level centre became exposed on the northern flank of the main cloud mass. The track of *Ophelia* was somewhat unusual in that it moved towards the southeast for most of its lifetime, under the influence of northwest steering flow.

C. Impact

The cyclone had no impact on Christmas Island or northwest Australia.

D. Observations

Wind/Pressure
Estimated minimum central pressure: 980 hPa at 0100-0700 UTC 16 December
Estimated average maximum wind speed: 55 knots (95km/h)
Estimated radius to gales: 120 kilometres

Rainfall
No report of significant rainfall associated with TC *Ophelia*.

Table 1. Best track summary for *Ophelia*, 13 – 19 December 1996

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
1996	12	13	1000	9.1	107.9	25	1002	
1996	12	14	0400	9.1	108.0	25	1000	
1996	12	14	0700	9.3	108.0	25	1000	
1996	12	14	1000	9.6	108.0	30	998	
1996	12	14	1600	9.8	108.1	30	998	
1996	12	14	2200	9.8	108.3	30	998	
1996	12	15	0100	9.8	108.4	35	995	55
1996	12	15	0400	10.1	108.6	35	995	55
1996	12	15	0700	10.2	108.6	40	990	55
1996	12	15	1000	10.4	108.7	40	990	55
1996	12	15	1600	10.9	109.2	45	985	55
1996	12	15	2200	11.3	110.0	45	985	55
1996	12	16	0100	11.6	110.4	55	980	65
1996	12	16	0400	12.0	110.8	55	980	65
1996	12	16	0700	12.3	111.2	55	980	65
1996	12	16	1000	12.6	111.7	45	985	55
1996	12	16	1600	13.0	112.6	45	985	55
1996	12	16	2200	13.3	113.6	40	990	55
1996	12	17	0400	13.6	114.6	40	990	55
1996	12	17	0700	13.7	115.1	40	990	55
1996	12	17	1000	13.7	115.5	35	995	55
1996	12	17	1600	13.8	116.1	30	998	
1996	12	17	2200	13.8	116.6	25	1000	
1996	12	18	0400	13.8	117.1	25	1000	
1996	12	18	0700	13.8	117.4	25	1000	
1996	12	18	1000	14.1	117.6	25	1000	
1996	12	18	1600	14.5	117.5	25	1000	
1996	12	18	2200	14.9	117.4	25	1000	
1996	12	19	0400	15.3	117.2	25	1000	
1996	12	19	1000	15.6	116.8	25	1000	

Figure 1. Track of Tropical Cyclone *Ophelia*, 13 -19 Dcember 1996.
All times in WST.