



Australian Government
Bureau of Meteorology

Tropical Cyclone *Tim*

23 - 25 January 2005

Perth Tropical Cyclone Warning Centre
Bureau of Meteorology

A. Summary

Tropical cyclone *Tim* developed rapidly in a favourable low shear and strong upper outflow environment on 23 January but as it tracked to the west southwest it encountered cooler water and dissipated on 25 January. *Tim* was a small category one system with gales estimated at only 100 km. There was no known damage associated with this system.

B. Meteorological Description

Intensity

A weak tropical low emerged from within the monsoon trough on 22 January and moved to the southwest. Although still lacking organisation on IR images overnight, the microwave imagery showed some convection about a low to mid-level circulation centre. The low rapidly developed in the ensuing 12 hours being located in a very favourable environment of low shear with favourable outflow aloft associated with a mid-latitude upper trough to the south. Convection increased over the circulation centre during 23 January and cyclone intensity is estimated at 1200 UTC supported by Quikscat. Overnight microwave images suggested the formation of an eye.

Maximum intensity of 45 knots was estimated early on 24 January (see Fig. 2) consistent with Quikscat.

The system did not exhibit consistent curved band features which made Dvorak intensity estimates quite difficult. Visible imagery during 24 January showed more of a CDO (central dense overcast) pattern. Given the small-scale of the system it is likely the intensity responded quite quickly to changes in convection near the centre.

Cyclone intensity was maintained during the day as confirmed by Quikscat, however, overnight convection weakened considerably, and it estimated that *Tim* weakened to tropical low status by 0000 UTC 25 January. The primary mechanism for weakening is believed to be the cooler waters below 26°C that *Tim* encountered on 24 January.

Motion

TC *Tim* moved to the west southwest under the influence of a strong mid-level ridge to the southeast over continental Australia.

Structure

TC *Tim* was very small having a very tight inner circulation but being largely devoid of banding features.

C. Impact

There was no known damage associated with TC *Tim*.

D. Observations

Nil.

Table 1 Best track summary for Tropical Cyclone *Tim* 22 – 25 January 2005.

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 Speed	Central Pressure hPa	Rad. Gales nm	Rad. Max Wind (RMW)
2005	01	22	0000	135	1124	13	1006		
2005	01	22	0600	140	1120	13	1005		27
2005	01	22	1200	140	1114	13	1005		27
2005	01	22	1800	140	1111	13	1002		27
2005	01	23	0000	140	1108	13	1000		27
2005	01	23	0600	145	1104	15	997		27
2005	01	23	1200	151	1099	21	992	11	37
2005	01	23	1800	153	1094	23	990	11	37
2005	01	24	0000	156	1089	23	990	11	37
2005	01	24	0600	158	1080	23	990	9	37
2005	01	24	1200	161	1072	21	992	9	37
2005	01	24	1800	163	1062	18	995	7	27
2005	01	25	0000	165	1053	15	998		27
2005	01	25	0600	165	1040	13	1000		22
2005	01	25	1200	165	1027	13	1002		18

Figure 1. Track of Tropical Cyclone *Tim* 22 – 25 January 2005.
All times in WST.

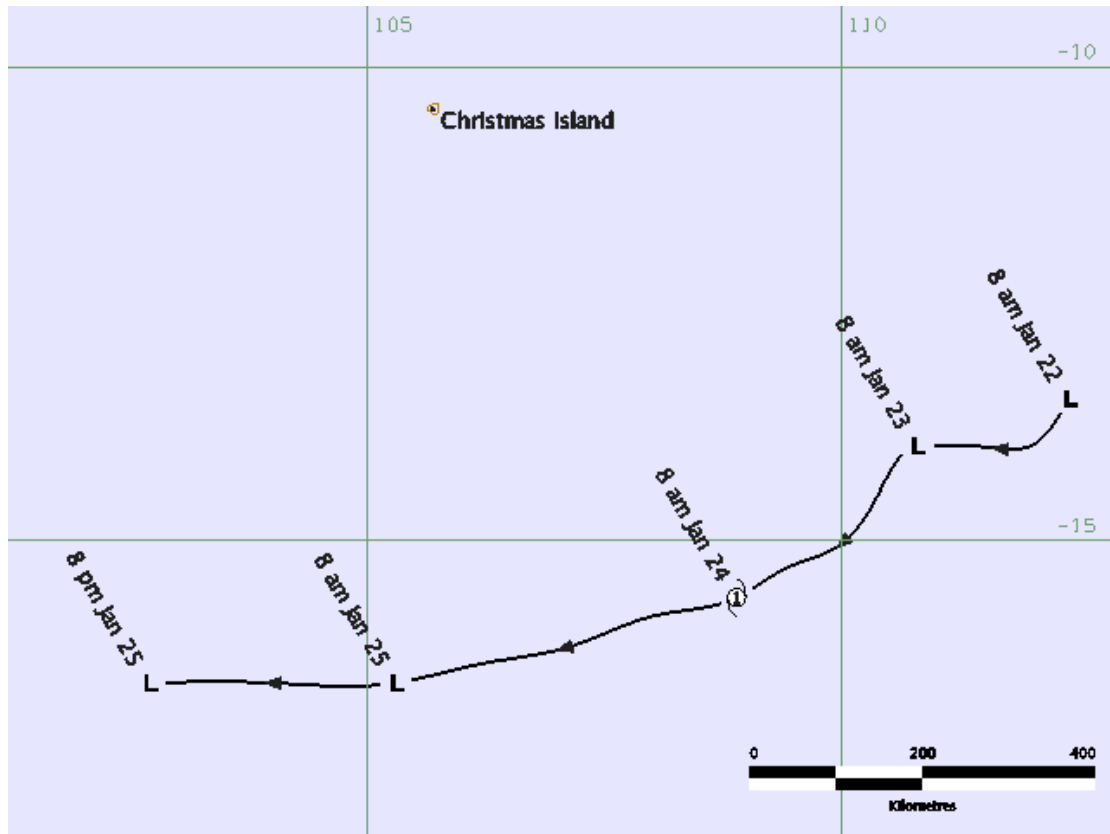


Figure 2. Microwave image of Tropical Cyclone *Tim* close to maximum intensity, 2355 UTC 24 January 2004. (image courtesy of US NRL: <http://www.nrlmry.navy.mil/>)

