

WA Tropical Cyclone Season Summary 2001/2002

Overview of Season

There were six tropical cyclones in the WA area of responsibility, however only two of these, Chris and Bonnie, occurred off the northwest coast. Chris was the only cyclone to affect the coastline in early February. However, Chris was an intense system reaching category five level before crossing the Pilbara coast northeast of Port Hedland causing significant damage to Pardoo and Wallal stations.

This was less than the expected number of cyclones issued in the pre-season outlook that was based on neutral ENSO conditions with the Southern Oscillation index near zero.

Tropical Cyclone ALEX 26 - 30 October 2001

A tropical low in the central Indian Ocean was named Tropical Cyclone Alex on Friday the 26th near 8S 94E about 600nm northwest of Cocos Islands. Alex moved steadily westwards entering the area of responsibility of Mauritius/La Reunion Meteorological Services early on the 28th and was renamed TC Andre. TC Alex/Andre then moved in a steady west to southwest direction until 18UTC on the 29th when it moved to the north for a period of 24 hours. The cyclone then moved to the southwest and weakened below cyclone intensity at 1200UTC on the 31st near 9S 81E.

Tropical Cyclone BESSI 27-30 November 2001

An Indian Ocean low was named Tropical Cyclone Bessi on the 27th near 8S 94E, about 560 km NW of Cocos Island. Bessi moved in a general southwesterly direction and did not affect any island communities. Bessi moved west of 90°E at about 2900UTC on the 29th entering the area of responsibility of Mauritius/La Reunion Meteorological Services and was renamed TC Bako.

Severe Tropical Cyclone CHRIS 2-7 February 2002

A tropical low developed into Tropical Cyclone Chris at about 6am WST on Sunday 3 February 2002 (02/22UTC) when it was located about 340km northwest of Broome. The cyclone rapidly intensified as it tracked on a generally southerly course towards the coast. Chris reached Category 3 intensity at 9pm WST on the 3rd (03/1300UTC), and category 5 strength at noon on the 5th (05/0400UTC). Chris was close to maximum intensity as it crossed the coast at 4am on the 6th (05/2000UTC) about 160km eastnortheast of Port Hedland between Pardoo and Wallal stations. Chris continued its south to southwest movement but rapidly weakened overland. It passed just to the west of Marble Bar at about 3pm on the 6th (06/0600UTC) and was subsequently downgraded below tropical cyclone intensity in the early hours of

the 7th.

Fortunately, the cyclone crossed a sparsely populated area of the coastline. However, Pardoo roadhouse suffered significant damage as the cyclone passed about 30km to the east. Radar imagery suggests that the roadhouse experienced close to the maximum winds of the system. Residents sheltered in the chiller room and were unharmed. Although Pardoo Station (about 60km to the westsouthwest of the cyclone crossing location), escaped with only minor damage, widespread cattle losses occurred. Pardoo and Wallal stations lost 1000 to 1500 of cattle each and 13 windmill each. Pardoo also lost 160km of fencing.

Flooding

The worst flooding occurred at Nullagine (230km SE of Port Hedland) on the Nullagine River. Heavy rain upstream at Bonney Downs (306mm) caused the Nullagine River to burst its banks, inundating the town in the early hours of the morning of the 7th. Despite the extent of the flooding no injuries occurred.

The remote Aboriginal community at Jigalong also received flooding on the 7th. Apart from the exceptional rain at Bonney Downs, reported rainfall in the eastern Pilbara was generally between 100 and 200mm. However, it is likely that the actual rainfall near the immediate track of the storm was much greater. Heavier falls exceeding 200mm were recorded in the West Kimberley owing to several days of heavy rain from rain bands emanating from TC Chris. Derby received a three-day total of 288mm.

Tropical Cyclone DIANNE April 2002

A tropical low in the central Indian Ocean was named Tropical Cyclone Dianne on the 7th near 12S 98E and moved in a general southwesterly direction. A warning was issued for the Cocos Islands and although the cyclone passed 30km to the south at about 07 06UTC winds did not reach galeforce intensity. Dianne developed to category 4 intensity just after entering the area of responsibility of Mauritius/La Reunion Meteorological Services late on the 8th and was renamed TC Jerry.

Tropical Cyclone BONNIE 9-14 April 2002

A tropical low east of Timor developed into a tropical cyclone at about 18UTC on the 9th April and was named *Bonnie* by the Darwin Tropical Cyclone Warning Centre. The system initially moved to the southwest into the Perth TCWC's area of responsibility and passing over the southern tip of Timor between 12-18 UTC on the 10th. Bonnie then moved westwards passing over the island of Sambu on the 11th and weakening below tropical cyclone intensity temporarily between 06-12 UTC on the 11th. Bonnie then re-intensified over the next 15 hours reaching maximum intensity on the 12th with maximum estimated mean winds of 85 km/h (45 knots). The system then weakened under increasing shear but remained a weak cyclone until about 06UTC on the 14th.

Although Bonnie moved over island areas of Timor and Sambu it is not known if there was any damage.

Tropical Cyclone ERROL 9-10 May 2002

TC Errol was a weak late season system that briefly attained tropical cyclone intensity on the 9th before weakening early on the 10th, about 600 km north of Cocos Is. The system did not impact any island communities although eventually it did pass to the east of Cocos Is on the 15th as a weak tropical low. Operationally it was maintained at tropical cyclone intensity until the 14th, however reanalysis indicates that winds around the system were below gale force.

Tracks of tropical cyclones, 2002-03.

