



**Australian Government**  
**Bureau of Meteorology**

## **Severe Tropical Cyclone *Floyd*** 18-27 March 2006

Perth Tropical Cyclone Warning Centre  
Bureau of Meteorology

### **A. Summary**

*Floyd* was a small cyclone that reached category 4 intensity on 23 March before rapidly weakening. Cyclone advices were issued for the western Pilbara and upper west coastal areas as *Floyd* approached but the system weakened and remained offshore without impacting coastal parts. *Floyd* did have an economic impact as some resource companies evacuated offshore oil and gas installations.

### **B. Meteorological Description**

A tropical low developed on 18 March south of the Indonesian island of Sumba and moved to the west to southwest, gradually strengthening. The low is estimated to have reached cyclone intensity around 2100 UTC on 20 March while located about 875 km west-northwest of Cape Leveque. The moderate easterly shear on 21 March gradually eased and *Floyd* developed rapidly later on 22 March, reaching hurricane-force intensity at 0000 UTC 23 March while located about 1090 km north-northwest of Exmouth.

*Floyd* reached maximum intensity of 105 knots at 0000 UTC on 24 March, approximately 1000 km northwest of Exmouth. The eye of the system was very small with a diameter of about 10-15 nm as evidenced on the microwave image. Arguably *Floyd* may have reached category 5 intensity on the basis of the Infra red image at 2330 UTC 22 March showing a DT of 6.5 however images before and after show a DT of only 5.5 and 5.0 respectively.

The cyclone at the time was making a turn to the south due to the approach of a mid-latitude trough. *Floyd* slowly weakened as it moved on a southeasterly track towards the north-western coastline of Western Australia. Microwave imagery showed that *Floyd* underwent an eyewall replacement cycle on 24 March, culminating around 0000 UTC 25 March. The storm reached a point about 300 km northwest of Exmouth at 1200 UTC on 26 March, but had encountered cooler SSTs and strong upper-level winds and weakened to below tropical cyclone six hours later.

### **C. Impact**

*Floyd* did have an economic impact as some resource companies evacuated offshore oil and gas installations.

### **D. Observations**

Nil.

Table 1. Best track summary for Tropical Cyclone *Floyd*, 18-27 March 2006.

| Year | Month | Day | Hour (UTC) | Position Latitude S | Position Longitude E | Position Accuracy nm | Max wind 10-min knots | Max gust knots | Central Press. hPa | Rad. of gales nm | Rad. of storm force winds nm | Radius of hurricane force winds nm | Radius Max. Wind (RMW) nm |
|------|-------|-----|------------|---------------------|----------------------|----------------------|-----------------------|----------------|--------------------|------------------|------------------------------|------------------------------------|---------------------------|
| 2006 | 3     | 18  | 1200       | 11.5                | 118.9                | 30                   | 20                    | 45             | 1004               |                  |                              |                                    |                           |
| 2006 | 3     | 18  | 1800       | 11.5                | 118.7                | 30                   | 20                    | 45             | 1004               |                  |                              |                                    |                           |
| 2006 | 3     | 19  | 0000       | 11.5                | 118.5                | 30                   | 20                    | 45             | 1004               |                  |                              |                                    |                           |
| 2006 | 3     | 19  | 0600       | 11.5                | 118.3                | 30                   | 20                    | 45             | 1004               |                  |                              |                                    |                           |
| 2006 | 3     | 19  | 1200       | 11.4                | 118                  | 30                   | 25                    | 45             | 1002               |                  |                              |                                    |                           |
| 2006 | 3     | 19  | 1800       | 11.3                | 117.7                | 30                   | 25                    | 45             | 1002               |                  |                              |                                    |                           |
| 2006 | 3     | 20  | 0000       | 11.3                | 117.2                | 25                   | 25                    | 45             | 1002               |                  |                              |                                    |                           |
| 2006 | 3     | 20  | 0600       | 11.4                | 116.8                | 25                   | 25                    | 45             | 1000               |                  |                              |                                    |                           |
| 2006 | 3     | 20  | 1200       | 11.5                | 116.7                | 30                   | 25                    | 45             | 998                |                  |                              |                                    |                           |
| 2006 | 3     | 20  | 1800       | 11.8                | 116.7                | 25                   | 30                    | 45             | 994                |                  |                              |                                    |                           |
| 2006 | 3     | 21  | 0000       | 12.2                | 116.4                | 25                   | 35                    | 50             | 990                | 20               |                              |                                    | 20                        |
| 2006 | 3     | 21  | 0600       | 12.6                | 115.6                | 20                   | 35                    | 50             | 990                | 35               |                              |                                    | 20                        |
| 2006 | 3     | 21  | 1200       | 13                  | 115.3                | 20                   | 40                    | 55             | 988                | 40               |                              |                                    | 20                        |
| 2006 | 3     | 21  | 1800       | 13.2                | 114.4                | 20                   | 45                    | 60             | 984                | 50               |                              |                                    | 15                        |
| 2006 | 3     | 22  | 0000       | 13.3                | 113.4                | 20                   | 50                    | 70             | 980                | 60               |                              |                                    | 10                        |
| 2006 | 3     | 22  | 0600       | 13.3                | 112.5                | 20                   | 50                    | 70             | 978                | 60               | 15                           |                                    | 10                        |
| 2006 | 3     | 22  | 1200       | 13.4                | 111.6                | 20                   | 55                    | 80             | 970                | 60               | 20                           |                                    | 10                        |
| 2006 | 3     | 22  | 1800       | 13.4                | 110.9                | 20                   | 60                    | 85             | 968                | 60               | 20                           |                                    | 10                        |
| 2006 | 3     | 23  | 0000       | 13.4                | 110.2                | 15                   | 65                    | 90             | 964                | 65               | 30                           | 20                                 | 10                        |
| 2006 | 3     | 23  | 0600       | 13.5                | 109.5                | 15                   | 70                    | 95             | 956                | 65               | 30                           | 20                                 | 10                        |
| 2006 | 3     | 23  | 1200       | 14                  | 109.2                | 15                   | 90                    | 125            | 936                | 65               | 30                           | 20                                 | 10                        |
| 2006 | 3     | 23  | 1800       | 14.6                | 108.6                | 15                   | 100                   | 145            | 924                | 65               | 30                           | 20                                 | 10                        |
| 2006 | 3     | 24  | 0000       | 15.1                | 108.2                | 15                   | 105                   | 150            | 916                | 65               | 30                           | 20                                 | 10                        |
| 2006 | 3     | 24  | 0600       | 15.7                | 108.4                | 15                   | 105                   | 150            | 916                | 65               | 30                           | 20                                 | 10                        |
| 2006 | 3     | 24  | 1200       | 16.5                | 108.6                | 15                   | 100                   | 145            | 924                | 65               | 30                           | 20                                 | 10                        |
| 2006 | 3     | 24  | 1800       | 17.1                | 108.9                | 15                   | 90                    | 125            | 938                | 75               | 35                           | 20                                 | 10                        |
| 2006 | 3     | 25  | 0000       | 17.6                | 109.4                | 15                   | 90                    | 125            | 938                | 75               | 30                           | 20                                 | 15                        |
| 2006 | 3     | 25  | 0600       | 18.1                | 110.2                | 15                   | 90                    | 125            | 940                | 60               | 30                           | 20                                 | 15                        |
| 2006 | 3     | 25  | 1200       | 18.7                | 111.1                | 15                   | 80                    | 110            | 952                | 60               | 30                           | 20                                 | 20                        |
| 2006 | 3     | 25  | 1800       | 18.9                | 111.6                | 15                   | 70                    | 95             | 964                | 55               | 30                           | 20                                 | 20                        |
| 2006 | 3     | 26  | 0000       | 19.1                | 112.1                | 15                   | 60                    | 85             | 972                | 50               | 25                           |                                    | 20                        |
| 2006 | 3     | 26  | 0600       | 19.3                | 112.3                | 15                   | 50                    | 70             | 982                | 40               | 25                           |                                    | 20                        |
| 2006 | 3     | 26  | 1200       | 19.8                | 112.2                | 15                   | 35                    | 50             | 992                | 30               |                              |                                    | 20                        |
| 2006 | 3     | 26  | 1800       | 20.1                | 112.1                | 20                   | 30                    | 45             | 996                |                  |                              |                                    |                           |
| 2006 | 3     | 27  | 0000       | 20.7                | 111.8                | 20                   | 25                    | 45             | 998                |                  |                              |                                    |                           |
| 2006 | 3     | 27  | 0600       | 21.5                | 111.4                | 20                   | 25                    | 45             | 1000               |                  |                              |                                    |                           |

Figure 1. Track of Tropical Cyclone *Floyd*, 19 – 27 March 2006.  
All times in WST.

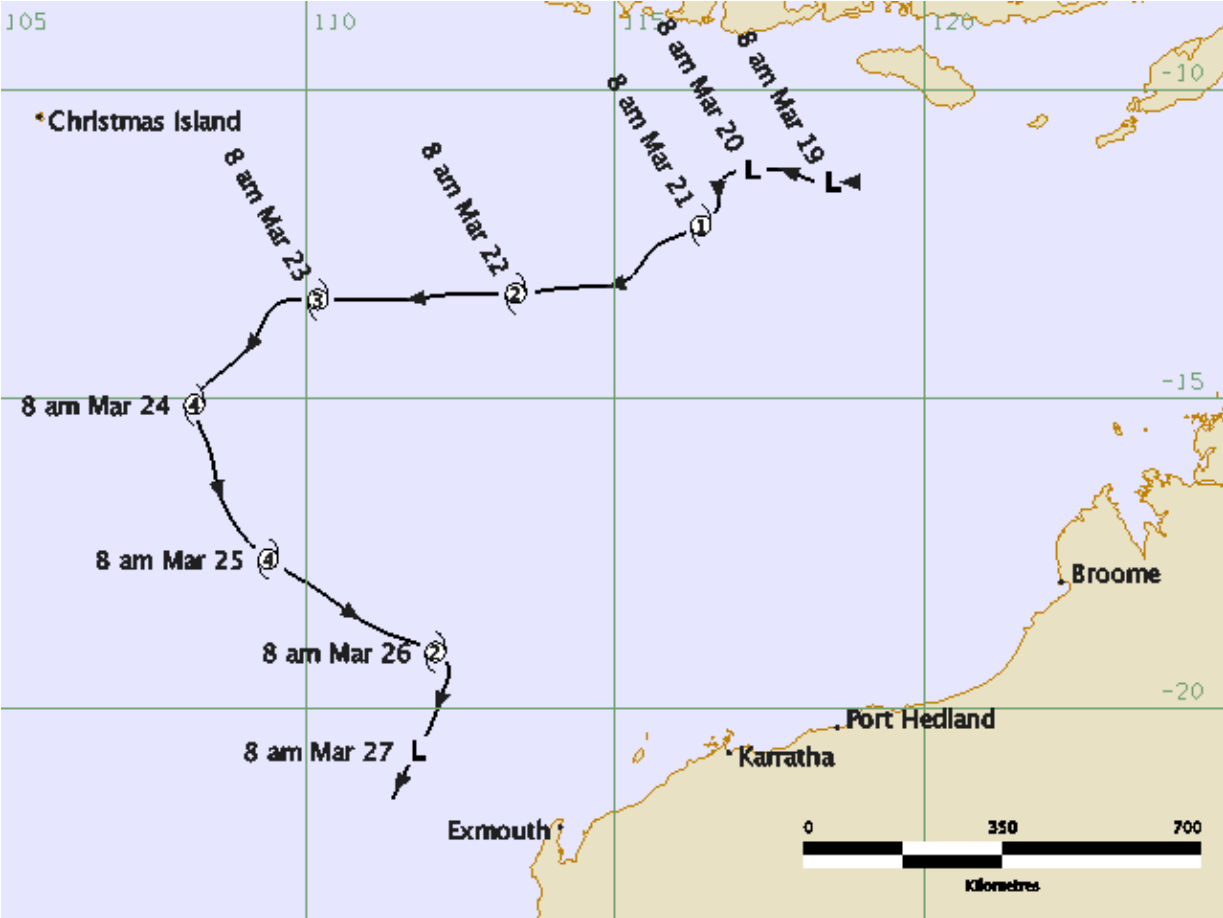


Figure 2. SSMIS 85GHz Microwave image of Tropical Cyclone *Floyd* close to maximum intensity, 0106 UTC 24 March 2006.

(image courtesy of US NRL: <http://www.nrlmry.navy.mil/>)

