

## FORECAST DISCUSSION 14H00 EST 21<sup>st</sup> December, 2006 Valid 12:00Z 22<sup>nd</sup> December 2006 - 00z 24<sup>th</sup> December 2006

At T+24, the general pattern at 200hpa over the Southern Africa (South of the Equator) shows a strong anticyclone or high pressure system centered at about 21S 22E which will cause zonal flow in areas south of 23S where westerly to northwesterly winds of 25 to 75kt are prevailing. A sharp trough extending north-west of 32S 00W is approaching from the west and the flow north of 20S is easterly to southeasterly 20 to 45kt. At T+ 48 Hrs the cut off high moves slightly northwards as the trough moves east closer to land and is centered at about 20S 21E. A short wave trough or perturbation moves through over southern Madagascar as the high migrates to the north. At T+72 Hrs the trough moves through over the southern part of South Africa but has weakened quite a lot as the high pressure system continues to move northwards and is centered at about 20S 20E. Another trough moves through over Madagascar but the winds are still light and there is no indication of a jet stream moving through. Both ECMWF and the UK-Met models puts the center of the 200hpa high pressure at 21S 30E at T+24 and 20S 30E at T+48 which a bit to the south compared to GFS but at T+72 the center of the high is at 20S 20E similar to GFS.

At 500hpa a Tropical cyclone Bondo can be seen centered at about 08S 48E and a trough moving through over the eastern parts of South Africa. Another trough extending northwestwards of 10W is approaching South Africa. At T+48 the cyclone moves closer to the coast of Tanzania and is centered at about 8S 42E. An area of high pressure centered at about 22S 22E dominates the central parts of Southern Africa. Two distinct weak troughs will move over the southern parts of South Africa and Madagascar, respectively. At T+72 the cyclone is situated at about 10S 40E with the high dominant over much of Southern Africa, and the wind flow for all days over South Africa is northwest to southwest at 20 to 45 Knots. The UK- Met and ECMWF models indicate similar situation.

At 850hpa Tropical Cyclone Bondo can be seen clearly as confirmed by the satellite imagery. GFS ensemble suggests 30-50% chance of 24 hour cumulative rainfall exceeding 100 mm over the Indian Ocean just north of Madagascar while ECMWF suggests 20 to over 90% chance. An anticyclonic system centered 35S 40E pushes a ridge towards southern Madagascar and helps maintain Bondo north of the Mozambique Channel for the next 48 hours. The models indicate the cyclone movement to be west-southwest for the next 2 to 3 days with winds of up to 125kt with gusts of up to 150kt according to the JTWC (see below). For further information on TC Bondo, visit: https://metocph.nmci.navy.mil/jtwc.php

There is a resemblance in the flow pattern between of UK- Met, ECMWF and GFS models. However, ECMWF is suggesting winds of up to 55kt around the cyclone center, while NCEP and UK Met suggest 45kt.

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## **SUMMARY TABLES FOR RISK AREAS**

DAY 1: Friday 22<sup>nd</sup> December 2006

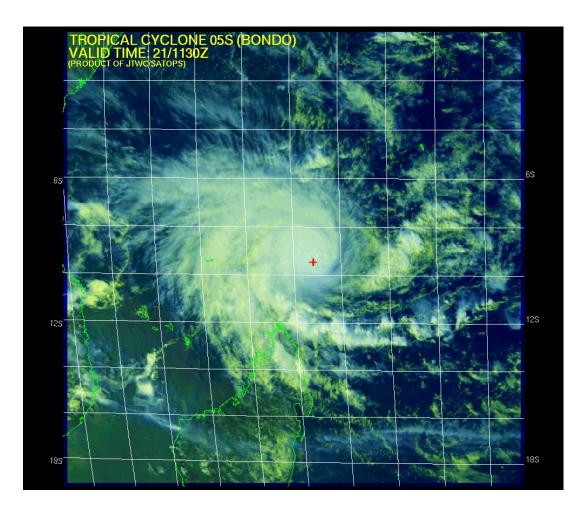
RISK	HEAVY PRECIPITATION				STRONG WINDS				
	No risk	Low risk	Medium risk	High risk	No risk	Low risk	Medium risk	High risk	
Botswana				In the SW	Х				
Madagascar				Extr NE				Extr NE	
Mozambique			Extreme NW		Х				
Tanzania			In the SW		Х				
Zimbabwe	Х				Х				

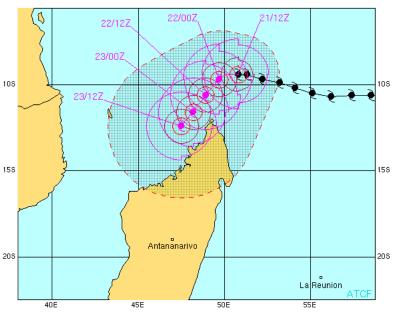
DAY 2: Saturday 23<sup>rd</sup> December 2006

RISK	HEAVY PRECIPITATION				STRONG WINDS				
	No risk	Low risk	Medium risk	High risk	No risk	Low risk	Medium risk	High risk	
Botswana	Х				Х				
Madagascar				Extr NE				Extr NE	
Mozambique	Х				Х				
Tanzania			In the NE		Х				
Zimbabwe	Х				Х				

DAY 3: Sunday 24<sup>th</sup> December 2006

RISK	HEAVY PRECIPITATION				STRONG WINDS				
	No risk	Low risk	Medium risk	High risk	No risk	Low risk	Medium risk	High risk	
Botswana	Х				Х				
Madagascar				Extr NE				Extr NE	
Mozambique	Х				Х				
Tanzania		Extreme NE			Х				
Zimbabwe	Х				Х				





TROPICAL CYCLONE 058 (BONDO) WARNING #8
2112002 POSIT: NEAR 9.45 50.8E
MOVING 270 DEGREES TRUE ATOS KNOTS
MAXIMUM SIGNIFICANT WAVE HEIGHT: 40 FEET
21/12Z, WINDS 115 KTS, GUSTS TO 140 KTS
22/00Z, WINDS 115 KTS, GUSTS TO 140 KTS
22/12Z, WINDS 115 KTS, GUSTS TO 140 KTS
23/20Z, WINDS 115 KTS, GUSTS TO 150 KTS
23/20Z, WINDS 125 KTS, GUSTS TO 150 KTS
23/12Z, WINDS 125 KTS, GUSTS TO 150 KTS

O TROPICAL DEPRESSION

O TROPICAL STORM
TYPHOON
PAST6 HOURLY CYCLONE POSITS IN BLACK
FORECAST CYCLONE POSITS IN COLOR



## FORECAST MAP FOR DAY1

