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TROPICAL CYCLONE CENTER / RSMC LA REUNION / METEO-FRANCE

BULLETIN FOR CYCLONIC ACTIVITY AND SIGNIFICANT TROPICAL WEATHER IN
THE SOUTHWEST INDIAN OCEAN

DATE: 2022/05/02 AT 1200 UTC

PART 1:

WARNING SUMMARY:

Nil.

PART 2 :

TROPICAL WEATHER DISCUSSION:

The basin is in a Near Equatorial Trough (NET) pattern along 5°S and east of 50°E. The associated convective activity has been recently increasing along the equator, in connection with strengthening of the westerly equatorial flow, allowing better vorticity in the mixing zone with the trade winds, to which some equatorial wave activity also contributes, in particular Kelvin and MJO building up over the Indian Ocean. In the eastern tip of the NET, in the Indonesian area of responsibility, a weak clockwise circulation started to form this Monday around 4°S/94°E. Partial available ASCAT data show a broad circulation, still ill-defined, with associated maximum winds of around 15 to 20kt far from the center and moderate convective activity on the northeast edge of the low.

In the coming days, with the Kelvin wave moving towards the east of the basin and becoming better phased with the MJO and also crossing a westward-moving Equatorial Rossby wave at the end of the week, the equatorial westerly wind burst should reach peak intensity over the eastern Indian Ocean and trigger the formation from Thursday or Friday of 2 symmetrical twin vortices on each side of the equator near the 90°E meridian. Numerical models suggest more rapid development of the northern hemisphere vortex (near the Bay of Bengal) and more hesitant for the southern hemisphere vortex. The latter should be located on Friday in the extreme north-east of our basin. While the latest ECMWF deterministic runs do not suggest development into a tropical storm (only reaching tropical depression), other models including the GFS, as well as some EPS and GEFS scenarios, suggest relatively significant deepening of this low during the weekend or early next week, while remaining between 85 and 90°E or slightly east of 90°E. Chances of reaching tropical storm stage are slightly up in the last EPS. Nevertheless, limiting factors remain present, in particular the presence of dry air in the vicinity of the low and also a lack of convergence on the equatorial side of the NET. The risk of cyclogenesis in our basin should therefore become low from Saturday 7 May.

There is a low risk (probability lower than 30%) of formation of a tropical storm over the extreme northeast of the basin from Saturday onwards.

NOTA BENE: The likelihood is an estimate of the chance of the genesis of a moderate tropical storm over the basin and within the next five days:

Very low:	less than 10%	Moderate:	30% to 60%	Very high:	over 90%
Low:	10% to 30%	High:	60% to 90%		

The Southwestern Indian Ocean basin extends from the equator to 40S and from the african coastlines to 90E.