AWIO20 FMEE 041121
TROPICAL CYCLONE CENTER / RSMC LA REUNION / METEO-FRANCE

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

DATE: 2022/05/04 AT 1200 UTC

PART 1:
WARNING SUMMARY:

Nil.

PART 2 :
TROPICAL WEATHER DISCUSSION:

The basin depicts a Near Equatorial Trough (NET) pattern centered around 7°S East of 60°E.

The convective activity associated with this structure is weak to moderate and mainly located on the south-western edge of this NET, in the slowdown of the trade winds, as well as over the extreme east of the basin, around a weak low pressure area.

Over the next few days, under the action of strong wave activity (Kelvin wave / MJO), environmental conditions should improve further and thus trigger the development of a closed low level circulation center over the extreme east of the basin.

Over the extreme eastern part of the basin:

The 0330UTC scatterometer data highlight a weak clockwise circulation center, wide and poorly defined, towards 06°S / 89 °E, with winds of about 20kt maximum.

Currently, this low-level precursor does not yet have optimal conditions for launching cyclogenesis due to the lack of low level convergence on the equatorial side, and a small northeasterly constraint aloft. However, under the effect of a westerly surge related to equatorial waves (MJO & Kelvin), the low level vorticity should increase further and promote the beginnings of a digging at the end of the week. However, at the same time the minimum should bend its trajectory in the Australian Responsability. In the short term, this vortex could benefit from the strengthening of the trade winds with the approach of the ridge to the south-west, a better low level convergence on the polar side and a good upper divergence. However, the deterministic models (especially IFS and GFS) differ in terms of timing: the European one remains much more moderate than its American counterpart. The ensemble models (EPS and GEFS) continue to suggest a significant deepening at the end of the week over the far East of the basin, and even in the Australian basin at the end of the period.

In view of the time frame and the proximity to the border of our area of responsibility (90E), the risk of cyclogenesis in the southwest Indian Ocean remains estimated at low today and becomes moderate from Saturday. This system does not represent any threat to inhabited lands during the next few days, and could evolve over the Australian area of responsibility at the end of the period (a point that remains to be clarified during the next few days).

There is a low risk (probability between 10% and 30%) of a storm forming over the extreme east of the basin. This risk becomes moderate (probability between 30% and 60%) from Saturday.

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.