AWIO20 FMEE 051115
TROPICAL CYCLONE CENTER / RSMC LA REUNION / METEO-FRANCE

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

DATE: 05/10/2025 AT 1200 UTC

PART 1: WARNING SUMMARY

Nil.

PART 2 : TROPICAL WEATHER DISCUSSION

The western part of the basin remains in a winter configuration, but a weak branch of Near-Equatorial Trough (NET) has reformed over its eastern part, between 75 and 85E and around 5S, linked to a temporary strengthening of equatorial westerlies. Convective activity has slightly increased compared with recent days, and is locally moderate east of 70E in the trade winds' slow-down area along the southern edge of the NET.

The current weak NET structure has been favoured by the passage of an Equatorial Rossby wave, which temporarily overlapped with a Kelvin wave over the east of the basin on October 5th, thus enhancing equatorial westerlies. Nevertheless, convergence and vorticity within the NET are expected to remain insufficient over the next few days, notably due to the strengthening of the dry phase of the MJO over the Indian Ocean, which should inhibit synoptic ascent. Indeed, the moist phase of the MJO is set to re-emerge strongly near Central America (around 60W) in the middle and at the end of the coming week (8-12 October), as the VP200 forecast maps show. The overall background therefore remains unfavourable for cyclogenesis in our basin in the short term.

Development of a tropical storm is not expected over the next 5 days.

10-day outlook :
From mid-October onwards, the dry phase of the MJO should move away towards the Maritime Continent, while the moist phase should begin to approach Africa. As a result, conditions should become slightly more favourable for synoptic ascent over the Indian Ocean, and also with with a weaker-than-average wind shear (westerly anomaly at 200hPa). A couple of Kelvin waves are then likely to move ahead of the MJO and interact with the Rossby wave near the center of the basin, which could locally enhance vorticity within the NET. However, the easterly surface wind anomaly near the equator ahead of the moist MJO could more or less limit the NET's dynamism, thus adding uncertainty to the forecast.
GEFS and EPS ensemble models suggest a gradual increase in cyclogenesis probabilities at the start of the second half of October. The situation will therefore need to be closely monitored.

NOTA BENE: The likelihood is an estimate of the chance of genesis of a moderate tropical storm over the basin 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.