

AWIO20 FMEE 141112

TROPICAL CYCLONE CENTER / RSMC LA REUNION / METEO-FRANCE

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

DATE: 2024/08/14 AT 1200 UTC

PART 1:

WARNING SUMMARY:

Nil.

PART 2 :

TROPICAL WEATHER DISCUSSION:

A Near Equatorial Trough (NET) pattern remains present between 70E and 80E and along 3-4S. Convective activity in the vicinity of this NET has increased since yesterday. A clockwise circulation begins to be visible this Wednesday on satellite animations, centered near 4.5S/76E, with convective bands beginning to wrap around the center. Recent ASCAT passes missed this vorticity precursor, thus providing no additional information. Initial Dvorak classification criteria have not yet been met but could be by tomorrow Thursday if this trend continues.

Over the next few days, vorticity and moisture convergence within the NET will continue to be favoured by ongoing very active equatorial wave dynamics. Indeed, in addition to the respective contributions of the MJO's wet phase and a powerful Equatorial Rossby wave, a new Kelvin wave is also expected this weekend, reinforcing the equatorial west-north-west flow to the north of the circulation. This, combined with high oceanic heat content for the season (SST close to 29°C around 5S and 27°C around 10S), will produce an unusually favorable context for cyclogenesis for the heart of the southern hemisphere winter.

Numerical models suggest a more or less complete development of this low-pressure circulation at the end of the week, as it tracks near the Chagos archipelago. However, this development could be hampered by the presence of moderate northeasterly shear or sub-optimal low-level convergence. The latest runs of the GFS and its GEFS ensemble tend to delay or limit deepening of this system due to competition between two precursors. Conversely, a growing number of EPS ensemble members are forecasting the formation of a tropical storm between this weekend and early next week. The European scenario seems to be a little more on track than the American scenario. Tropical storm development risk has thus been raised to medium to take account of this increasing cyclogenesis signal in the european ensemble forecast.

Over the next 5 days, the risk of tropical storm development near the Chagos archipelago is estimated to be low from Friday August 16, becoming moderate from Saturday August 17 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.