AWIO20 FMEE 231254
TROPICAL CYCLONE CENTER / RSMC LA REUNION / METEO-FRANCE

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

DATE: 2022/01/23 AT 1200 UTC

PART 1:
WARNING SUMMARY:

Warning WTIO24 and WTIO30 FMEE 007/01 issued at 06UTC on Tropical Disturbance 01-200212022.
Next warnings issued at 12Z.

PART 2 :
TROPICAL WEATHER DISCUSSION:

The trans-equatorial monsoon flow is present over the entire length of the basin. It supplies the Monsoon trough (MT) which is established from 16S in the Mozambique Channel in relation with Tropical Disturbance 01 to 9S over the easternmost part of the basin.
Within this trough, several areas of vorticity are under monitoring, northeast of Madagascar, around 70E and around 85E.

Tropical disturbance 01-20212022 :
Position at 9UTC : 15.2S/44.4E
Movement : 10kt West-North-West
Average wind 10min : 25kt
Estimated MSLP : 1001hPa

The system emerged into the northern Mozambique Channel
For more information, please refer to the technical bulletins WTI024 and WTIO30 which will be issued at 12UTC and following.

Area north of the Mascarene Islands :
Within the low-pressure area surrounding the system 01-20212022, a vorticity area is also present northeast of the Malagasy coast. Currently no closed circulation is present as shown by the ASCAT C pass of 0624Z.

During the last few days, several numerical models suggested a risk of cyclogenesis in this area, but the risk seems to be decreasing. Indeed, the conditions are likely to become permanently unfavorable to the formation and strengthening of a minimum. The convergence on the equatorial side will clearly weaken with the aspiration of the monsoon flow towards 01 further west. Although the polar feed will strengthen with the arrival of the new high-pressure cell tomorrow, this should not last with the probable aspiration of this flow towards the cyclogenesis area further east.

There is no longer a risk of a moderate tropical storm developing north of the Mascarene Islands.

Over the center and east of the basin:

Several low pressure circulations are present in this part of the basin.

A first one is located around 10.9S 74.1E according to satellite images. But it is devoid of deep convection and the last ASCAT swaths put it in the middle of a large area of light winds within the MT. The conditions are therefore not conducive at short range.

Further east, although there is no confirmed observation of a closed circulation, the two trade winds are converging near an area of low pressure. Under these conditions and a favorable environment aloft, the numerical models suggest the formation of a closed circulation in the next few hours.

Over the next few days, the evolution of these two areas seems closely related. Ensemble models now seem to favour the hypothesis of cyclogenesis in the eastern area to the detriment of the central one, probably because of the more advantageous conditions at short range. Indeed, the convergence of the polar side of the circulation south of Diego Garcia is both hindered by the eastern circulation but also a baroclinic low in the south. However, a deepening of this system or both simultaneously is not impossible. At longer range, it seems likely that these two low pressure areas will merge.

The risk of formation of a moderate tropical storm is low east of the basin from Tuesday.

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.