AWIO20 FMEE 221323
TROPICAL CYCLONE CENTER / RSMC LA REUNION / METEO-FRANCE

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

DATE: 2019/01/22 AT 1200 UTC

PART 1:
WARNING SUMMARY:

Nil.

PART 2 :
TROPICAL WEATHER DISCUSSION:

West of 60E, the monsoon flow feeds convective activity and the suspect area in the southern Mozambique Channel. East of 75E, the pattern is close to a Near Equatorial Trough (NET), mostly west of 95E, under the influence of several tropical waves especially an Equatorial Rossby (ER).

Overland Depression EX-DESMOND :
Position at 09UTC : 17.3S / 36.3E
Movement : North-Eastward 7kt.
Maximum mean winds : 20/25 kt in the southern semi-cercle offshore.
Central pressure : 1005 hPa
A low level vortex was visible this morning on satellites images. The low is likely to disappear shortly. Heavy rains are still going to occur in the western part of the circulation until late tomorrow.

Zone of Disturbed weather north of Europa:

After crossing Madagascar island during the last 24 hours, the broad circulation is once again offshore, north of Europa. last satellite images seems to indicate that the center of this vast low pressure area is located near 18.5S/41.8E at 10Z. A low level vortex was shortly visible in the eastern semi-circle, embedded in the broader flow. Partial ASCAT data and ground data from Juan de Nova and Europa indicate that the feeding is rather good with around 15kt on each side. Last microwave data do not show any sign of a more defined structure in the inner core.

Under the upper ridge, shielded from the shear, over warm waters, and with a good equatorial convergence thanks to the monsoon flow, environmental conditions appears conducive for a cyclogenesis. Only its current ill defined inner core seems to limit its deepening potential at short range. Later this week, while moving south-east ahead of an deep trough in the south-west on Friday, the conditions are expected to become unfavorable. The increase of the north-westerly upper constraint and the decay of the oceanic potential south of 27/28S are likely to end the intensification.

Numerical guidance is in a good agreement with the track and the cyclogenesis, but differ on the deepening rate. Arome and GFS are among the most prone to deepen while IFS suggest a slower development, due to the broad inner core. Naming stage is likely in the next 48 hours.

The risk that this system becomes a moderate tropcial storm becomes high from tomorrow Wednesday.

Suspect area West of Cocos Islands :

Satellite images and 0742Z AMSR2 show that the circulation is a bit elongated, with most of deep convection in the southern part. Partial ASCAT data confirm the asymmetric structure with maximum winds up to 20kt in the polar feeding and only 10/15kt at north. Center is located close to 12.4S/93.5E.

Tomorrow, the low should enter our AoR. In the followings days, environmental conditions are mixed, partially conducive for development.The strengthening westerly then north-westerly equatorial inflow will favor the symmetrization of the circulation, while at south trade wind feeding will remain excellent. However the environmental air mass will remain very dry and the equatorial convergence a bit weak. Determinisitic and ensemble models suggest the deepening of a small system due to the dry environment.

The risk that this system becomes a moderate tropical storm becomes low on Thursday and moderate from Friday.

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 50%*	*Very high:*	*over 90%*
Low:	*10% to 30%*	*High:*	*50% to 90%*		

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