

AWIO20 FMEE 101307

TROPICAL CYCLONE CENTER / RSMC LA REUNION / METEO-FRANCE

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

DATE: 2023/01/10 AT 1200 UTC

PART 1:

WARNING SUMMARY:

Nil.

PART 2 :

TROPICAL WEATHER DISCUSSION:

The basin remains in a Monsoon trough (MT) pattern centered between 8°S and 10°S and between 50E and 80E. The associated convective activity is moderate and concentrated mainly on the equatorial side of the MT and south of Diego-Garcia near a low pressure circulation. The convection has become more compact around the low pressure system south of Diego-Garcia.

**South of Diego-Garcia:**

Current scatterometer observations allow us to see a closed but elongated shape circulation, centered around 9.8S/73.7E, confirmed by the satellite image.

The environmental conditions are mixed as to the strengthening of this vorticity precursor. The latest ECMWF run (00 UTC) models a trade wind intrusion of dry air near the precursor, which may explain why this model tends to attenuate it, while GFS continues a good supply of moisture and strengthens the deepening of this precursor. Over the next weekend, the already good upper level divergence on the equatorial side could also strengthen on the polar side.

The different models (ECMWF/ARP/GFS) start to diverge from Thursday: ARP shows a new low over the Seychelles while ECMWF 00UTC develops another one between Algelega and Diego-Garcia. These different scenarios are reflected in the EPS and GEFS ensemble forecasts. The probabilities of development of these new lows into tropical storms seem to occur next week. The scenario of development of the first precursor currently south of Diego-Garcia remains the predominant option but other alternative scenarios are to be considered, reflected by the dispersion in the models and runs.

The previous ECMWF runs agreed more with GFS, making the precursor deepen south of Diego-Garcia, but the last run (00UTC) moderates this deepening, which takes us to a still low probability (not moderate) of tropical storm formation.

**During the next 5 days, there is a low risk of formation of a tropical storm from Friday south of Diego-Garcia.**

*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.*