

AWIO20 FMEE 261229

TROPICAL CYCLONE CENTER / RSMC LA REUNION / METEO-FRANCE

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

DATE: 2020/12/26 AT 1200 UTC

PART 1:

WARNING SUMMARY:

Bulletins WTIO22 FMEE n°0016/4 and WTIO30 FMEE n°0016/4/20202021 issued at 06 UTC on
Tropical Disturbance CHALANE. Next warnings will be issued at 12 UTC.

PART 2 :

TROPICAL WEATHER DISCUSSION:

The basin remains in a Monsoon Trough (MT) pattern, axed along 10°S.

The convective activity is mainly confined to the following three areas:

- In the North-East of the Malagasy coast, the tropical disturbance CHALANE evolves autonomously with respect to the MT.
- South-East of the Chagos archipelagos, a weak low clockwise circulation is also monitored in the MT, in addition to the disturbed area followed for several days, in the Indonesian zone.

Tropical disturbance CHALANE southwest of Tromelin Island:

Position at 0945 UTC : 16.7°S / 52.0°E

Maximum wind over 10 minutes: 30 kt

Estimated central pressure: 1000 hPa

Forward motion: West-South-West at 9 kt

For more information please refer to bulletins WTIO21 and WTIO31 issued at 12Z and followings.

Area of Disturbed Weather near the North-Eastern boarder of the basin :

A low pressure area is visible in the Indonesian area around 10°S/96°E, according to the BOM's bulletin of 0600 UTC (Tropical Cyclone Outlook for the Western Region - IDW 10800). The latest ASCAT swaths (ASCAT-C at 0330 UTC) show a rather wide and poorly defined circulation. According to the latest observations, this minimum is under the influence of a strong shear aloft, in the order of 25 to 30 kt. Information correlated by the last satellite observations of 1000 UTC.

During the next few days, this vortex should continue to move westward and return to our AoR on Monday, but the environmental conditions to come are not very conducive for its intensification. On the one hand, this vortex should not benefit in low layers from sufficient convergence to supply it with moisture. The convergence on the equatorial side is indeed struggling to meet the sustained flow of trade winds. On the other hand, this vortex will remain under the influence of a strong shear aloft, associated with an intrusion of dry air in the middle troposphere. Deterministic and ensemble guidance systems are generally in agreement with this scenario.

Over the next 5 days, the risk for the development of a moderate tropical storm in the north-eastern part of the basin becomes very low from Wednesday onwards.

Southeast of the Chagos archipelago

The Scat-Sat1 swath of 0330 UTC shows the presence of a very wide and elongated circulation in the lower levels, associated with weak winds ranging up to 10 to 15kt. The apparent center of this ill-defined circulation is located near 9°S/74°E, in an very sheared environment.

Over the next few days, the equatorial western flow and polar ones will improve with a relatively low shear aloft. The center of this circulation is located at the end of the altitude ridge. These environmental conditions are quite conducive for the moment and could lead the low pressure system to have a better defined and closed low pressure circulation. This scenario is considered by the IFS and GFS deterministic models, as well as the ensemble guidance systems, even if there is still some uncertainty about the timing of the digging of the low.

During the next 5 days, the risk of a moderate tropical storm forming near the Chagos archipelago becomes moderate from Wednesday.

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.