

AWIO20 FMEE 271123

TROPICAL CYCLONE CENTER / RSMC LA REUNION / METEO-FRANCE

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

DATE: 2019/02/27 AT 1200 UTC

PART 1:

WARNING SUMMARY:

Nil.

PART 2 :

TROPICAL WEATHER DISCUSSION:

Convection over the near equatorial area remains globally strong under the influence of the wave activity described in the previous bulletins (active MJO phase with a Kelvin wave propagating ahead of it, an Equatorial-Rossby wave coming from the East accompanied by a weak MRG). Sat animations show the cirrus clouds fanning on both sides of the equator, materializing the strong upper divergence. A Monsoon Trough (MT) pattern is strengthening with an axis located near 12S North of Madagascar and near 06S East of Diego Garcia. Three weak circulations are located today within the MT.

**Suspect area in the North-East of Madagascar :**

A low-level clouds vortex is visible in the North-Eastern vicinity of the Amber Cape. Convection is concentrated within the Western semi-circle, where the surface convergence is the strongest, thanks to the acceleration along the coastline and to the monsoon flow. This morning ASCAT swath shows a symmetrical clockwise circulation with max winds of about 15kt. With a rather strong South-Easterly shear aloft and a quick passage over land, no significant development is forecasted and this weak system should gradually disappear over the next days while drifting West-South-Westwards. It should also bring thunderstorms and significant rainfall over the northern Madagascan territories, the Comoros archipelago and Mayotte.

**Over the next 5 days, there is no risk of development of a moderate tropical storm over the Northern half of the Mozambique Channel.**

**Suspect area in the East of Agalega :**

A wide rotation area is still located in the South-West of Diego Garcia, although this morning's ASCAT swath reveals a rather asymmetrical and ill-defined circulation. Convection is strong over the area but remains scattered. The future evolution of this weak system remains rather uncertain. The American model (GFS) keeps on suggesting a weak development, impeded by the deepening of the other suspect area in the East (see next paragraph), through a decrease in poleward low-level convergence and an increase of the upper wind shear due to a strong outflow. The last available runs suggested an even weaker system, quasi-insignificant. The European model (ECMWF) was forecasting a much stronger development, penalizing the other system. However, this morning's ECMWF 00Z run has now shifted to the GFS solution. The ensemble prediction has also shifted towards the GFS scenario, with a single significant system developing in the East. Waiting for the confirmation of this ECMWF shift in the next model runs, the cyclogenesis risk has been downgraded.

**Over the next 5 days, the risk of development of a moderate tropical storm becomes low from Monday in the East of Agalega.**

**Suspect area East of Diego-Garcia :**

A wide clockwise circulation is visible on the sat animations between Diego Garcia and the 90th meridian, but the ASCAT swath did not cover the central area of circulation this morning. Convection is strong all over this wide area but currently remains ill-organized. OMM buoy nb 1501515 is monitoring a 3-hPa decrease over the last 24 hours. Over the next days, with strengthening trade winds, a more meridian monsoon flow and a clear improvement in the upper levels, the environment becomes particularly conducive for cyclogenesis. The wave activity is probably responsible for these large-scale changes. All models and ensemble available are now in good agreement to forecast a cyclogenesis followed by a significant gradual intensification next week.

**Over the next 5 days, the risk of development of a moderate tropical storm becomes moderate Saturday then high from Monday in the East 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:*

<i>Very low:</i>	<i>less than 10%</i>	<i>Moderate:</i>	<i>30% to 60%</i>	<i>Very high:</i>	<i>over 90%</i>
<i>Low:</i>	<i>10% to 30%</i>	<i>High:</i>	<i>60% to 90%</i>		

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