

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

DATE: 03/09/2025 AT 1200 UTC

PART 1: WARNING SUMMARY

Nil.

PART 2 : TROPICAL WEATHER DISCUSSION

The basin remains in a winter pattern. Convection is weak near the equator and in the trade wind slowing area near broad low-pressure circulations west of Diego-Garcia and in the Indonesian area.

Later this week, over the eastern part of the basin, the westerly flow could settle along the equator and form a Near Equatorial Trough (NET). This pattern is supported by the first passage of a Kelvin wave over the upcoming days, followed this weekend by the arrival of an Equatorial Rossby wave in a low frequency context close to an Indian Ocean Dipole (IOD) becoming negative.

Within this NET, deterministic model GFS 18UTC and 06UTC with some members of the GEFS and EPS suggest the formation of a closed circulation or even a storm from Sunday. However, most of deterministic models (IFS, GFS00TU, AIFS) struggle to produce a closed circulation, and even less a significant deepening, notably because of a sheared environment.

For the next 5 days, for now, there is no potential for the development of a moderate tropical storm, for this area.

Extended outlook :

At the beginning and middle of next week, under the influence of the Equatorial Rossby wave and a new Kelvin wave, the vorticity within this closed circulation could increase and lead to a risk of cyclogenesis. In addition, the passage of this second Kelvin wave along the TPE could lead to a second core of vorticity over the very east of the basin.

NOTA BENE: The likelihood is an estimate of the chance of genesis of a moderate tropical storm over the basin 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.