

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

DATE: 07/09/2025 AT 1200 UTC

PART 1: WARNING SUMMARY

Nil.

PART 2 : TROPICAL WEATHER DISCUSSION

The basin features a Near-Equatorial Trough (NET) pattern east of 65E and along 4 to 8S, favored by a recent equatorial westerly wind burst.

Convection is moderate to strong in the trade wind slowing area along the southern edge of the NET and especially in the vicinity of a building low embedded within the NET east of Diego Garcia.

This equatorial westerly wind burst and the NET configuration are currently favoured by the passage of an equatorial Rossby wave over the eastern part of the basin, combined with a re-emerging MJO within a negative Indian Ocean Dipole (IOD) background.

Over the next few days, the slow westward drift of the Rossby wave should enhance vorticity and convergence in the Chagos area and then further west. Convergence is also likely to be enhanced between September 8th and 9th by a mixed Rossby-gravity (MRG) wave increasing the trans-equatorial north-westerly flow.

Low-pressure area over the east of the basin, near the Chagos archipelago :

This Saturday morning's ASCAT pass (at 0419Z) show a low-pressure circulation which is still elongated with no real change in aspect compared to yesterday, but with stronger winds. Its center can be located near 7.2S/74.0E at 12Z. Winds still reach 28kt in the southern semi-circle. Associated convection is mainly present south of the low's center under the effect of wind shear. Low level clouds curvature remains quite poor for the moment but recent satellite imagery depicts a short curved band feature starting to form.

It is still too early for an initial Dvorak T1.0 or T1.5 classification due to a lack of curvature in the cloud mass, but conditions could be met in the next few hours if convection persists.

In the next few days, low-level convergence should continue to improve, initially north of the low until Tuesday (north-westerly wind component triggered by equatorial wave activity) and then to the south from Wednesday onwards (trade wind surge). Some moderate to strong north-north-easterly wind shear should limit intensification potential in the short term but is expected to slightly drop from Monday morning, thus providing a narrow window for development. Ocean heat content should be sufficient along the low's forecast track at least until mid-week (SST near 27C).

Among deterministic models, it is noteworthy that a few runs now suggest the formation of a tropical storm (for example, the 00Z IFS as early as Monday morning, and the 06Z IFS for Monday afternoon). Ensemble models from GEFS and the EPS respectively show low to strong chances of cyclogenesis over the coming week, with a slight increase compared to previous days' forecast.

The risk of formation of a tropical storm near the south of the Chagos area is low from Monday 8th then moderate from Tuesday September 9th onwards.

Extended outlook :

Regarding the low described above, models suggest that a slight risk of cyclogenesis could remain until the September 13-14th weekend, while moving westwards.

In addition, another low-pressure area could form in the Indonesian area before approaching 90E by mid-September, but its intensification potential is still very uncertain.

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.