

PIROI partnership

The PIROI center benefits from :

- TC short term forecasts
- Help desk (direct contact with forecasters)
- Seasonal forecast of TC activity
- Monthly forecast of TC activity

Monthly bulletin

RSMC Cyclone La Réunion

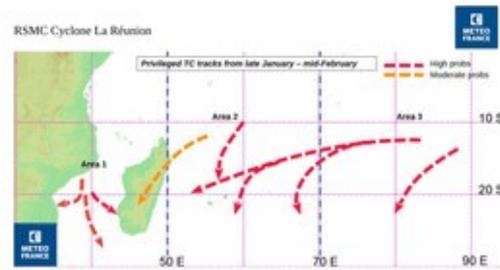
Monthly outlook for cyclonic activity in the South-West Indian Ocean
From January 20 to February 23 2025

Forecast period :
W1: January 20 to 26 (current week)
W2: January 27 to February 02
W3: February 03 to 09
W4: February 10 to 16
W5: February 17 to 23

Cyclonic activity: towards sustained activity during the core of the cyclone season

After the DIKELEDI system, monitored until January 17, cyclonic activity in the southwest Indian Ocean experienced a pause of a few days. It will restart soon with conditions generally favorable to the formation of tropical storms until mid-February (S4). The positive phase of the Indian Ocean Subtropical Dipole, which has so far made tropical storm formation difficult by bringing dry air, is now gradually weakening. Furthermore, with the approach of the heart of the season, the Intertropical Convergence Zone (ITCZ) is and will remain in the coming weeks, in a configuration particularly favorable to a lasting meeting between the monsoon winds and the trade winds around 15° South. Atmospheric conditions within this ITCZ should be more humid and allow for increased rain and storm activity. Finally, ocean temperatures remain high, with significant energy potential over much of the basin. All of these elements create favorable conditions for the formation of new tropical storms, which could even evolve simultaneously over the basin.

Currently and for next week (S2), cyclonic activity is focused around 2 poles: one on the south of the Mozambique Channel and the other on the east of the basin. Under these conditions, a more or less significant influence on certain inhabited lands is possible depending on the precise track, in particular for the south of Madagascar or the southern half of Mozambique (in connection with the suspect zone located over the southern channel) and potentially for certain Mascarene Islands (in connection with the suspect zone located to the east of the basin). Then, and this until mid-February (i.e. S4), the zone most conducive to the formation of tropical storms (with a high risk) should be located rather on the western half of the basin (west of 70°E, i.e. zones 1 and 2 on the diagram below), without excluding genesis far to the east of the inhabited lands (zone 3). Concerning the preferred types of trajectories, with the weakening of the subtropical anticyclone, rather meridional trajectories with a north-south direction, a type of trajectory not yet observed this season, will become more likely. Parabolic trajectories will remain possible, particularly for systems forming in the east of the basin. In this type of configuration, the possibility of influence or even impact for the inhabited lands of the basin usually exposed such as the Mascarenes, Madagascar and Mozambique, remains relevant. For week S5, the large-scale conditions are still too uncertain, which does not allow a clear statement on a trend in cyclonic activity.



NB: For information, the next names on the list of tropical storms in the basin are « ELVIS », « FIRIDA », « GARANCE » and « HONDE ». It is also recalled that a tropical depression system already named in the Australian or Indonesian zones, keeps its initial name.

For further information:

Low frequency state:

The powerful positive oscillation of the Indian Ocean Subtropical Dipole that appeared since mid-November 2024 is beginning to gradually weaken.

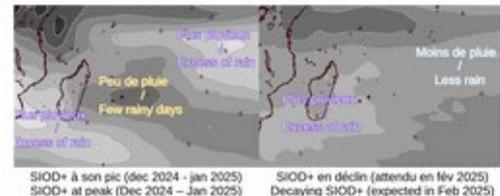


Illustration of atmospheric conditions associated with a positive phase of the Indian Ocean Subtropical Dipole (conditions at the peak of the event like in December 24 / January 25 and transition to the declining phase).

RSMC Cyclone La Réunion

A declining positive phase always tends to favor cyclonic activity in the Mozambique Channel (mainly southern half), even to the east of Madagascar but less in the far east of the basin.

Madden-Julian Oscillation:

Here are our forecasts for the evolution of the MJO over the coming weeks.

	W1	W2	W3	W4	W5
Expected MJO Phase	2-3	4-5	5-6-7	indirect	indirect
Expected MJO Amp.	Strong	Moderate	Fable	indirect	indirect

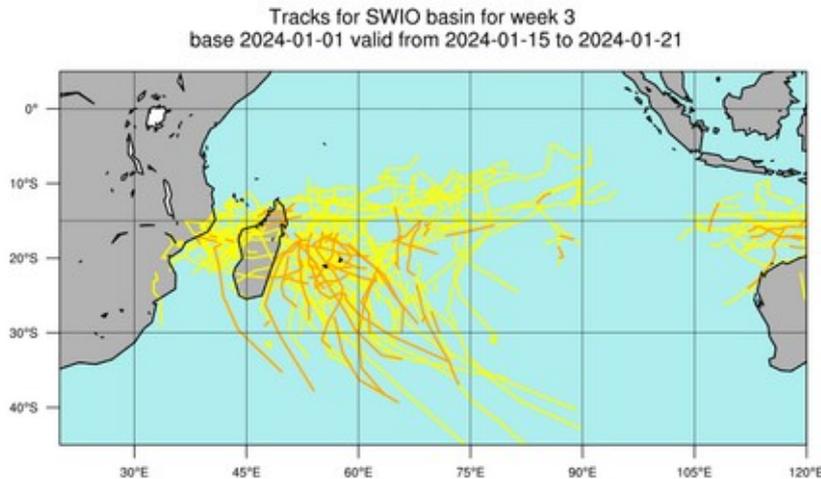


PIROI partnership

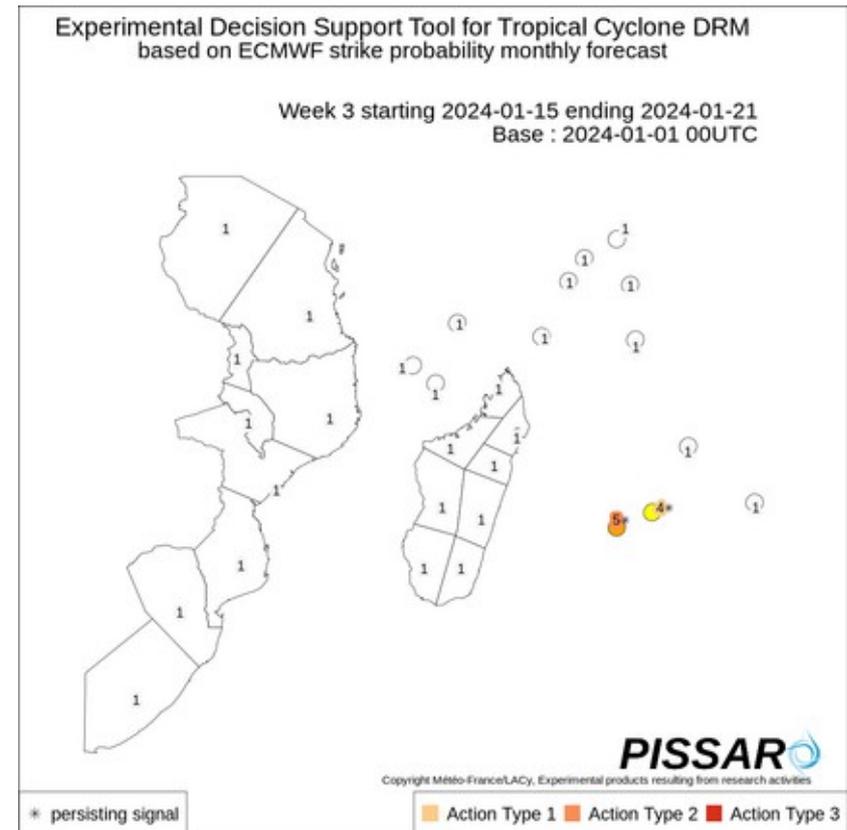
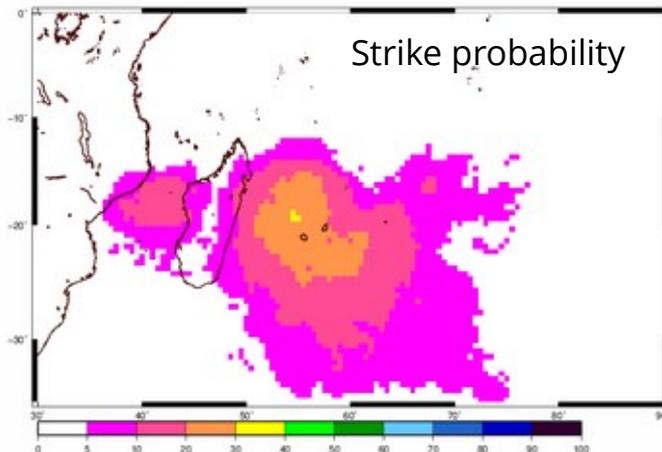
The PIROI center benefits from :

- Monthly forecast of TC activity

Specific product designed according to their



période du 2024-01-15 au 2024-01-21
Précision mensuelle CEPMMT base 2024-01-01



Tailored product for PIROI : Color associated to a reliability index of the forecast, associated to specific actions taken by PIROI : (1) Enhanced watch / (2) Alert / (3) Preparedness actions

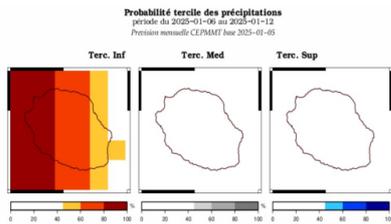
Water management support in La Réunion

Platform to share information about rainfall : Committee for drought watch

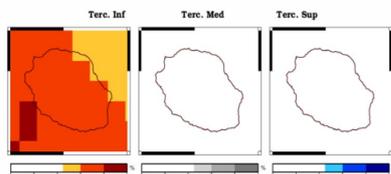
- Stakeholders from various sectors (agriculture, water distribution, disaster risk managers, energy production) around the state representative.
- Technical advisors : Meteo France (rainfall) – Office de l'eau (rivers and groundwater)
- Regular meetings (once a month when the situation requires it)
- One feedback meeting at the end of the rainy season. (procedures assessment)

Monthly forecast products

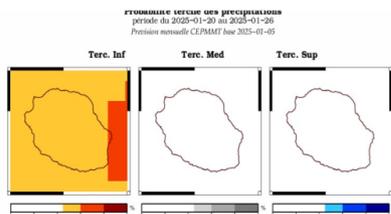
Semaine en cours



Semaine prochaine

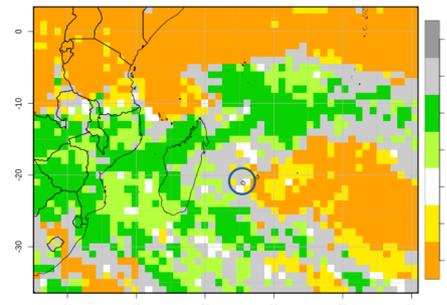


Semaine suivante

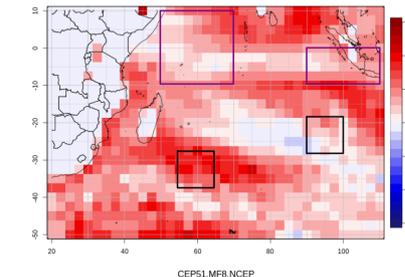


Seasonal forecast products

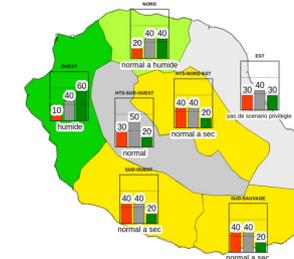
Rainfall Scenario - JFM 2025 - It 1



Forecast Mix GCM SSTglobal - JFM2025-It1



- Forts contrastes sur la région en lien avec les influences maritimes pré-citées. Les Mascareignes en bordure d'une influence déficitaire
- Scénario retenu sur la Réunion: temps globalement **normal à sec** avec un signal plus **humide** dans le nord et l'ouest et une situation plus **incertaine** dans l'est.



PROBABILITE :
 ■ SUPERIEUR A LA NORMALE
 ■ PROCHE DE LA NORMALE
 ■ INFERIEUR A LA NORMALE

- Températures toujours supérieures aux normales

