



MAURITIUS METEOROLOGICAL SERVICES

CLIMATE OCTOBER 2021



Introduction

October 2021 was the 5th wettest on record since the last 30 years. La-Nina conditions developed during the month and consolidated during the last week. The Indian Ocean Dipole (IOD) in the equatorial Indian Ocean moved towards neutral conditions. The Subtropical Indian Ocean Dipole remained neutral with a tendency to gradually migrate towards positive values. The Madden Julian Oscillation (MJO) had a weak contribution over the Western Indian Ocean during the second fortnight.

Rainfall

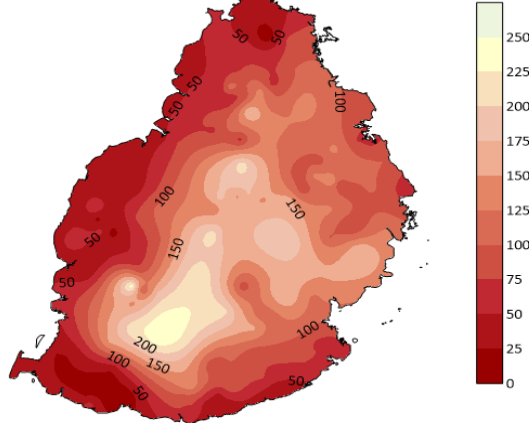
An average of 111 mm of rainfall was recorded over the island equivalent to 152% of the long term mean for the month; 70% of the total rainfall was recorded in the first fortnight and 30% in the second. The highest cumulative rainfall for the month was around 250 mm recorded in the region of Grand Bassin.

Rainfall was in excess to the east, northeast and over the central plateau by 50 to 100 mm and was deficient along the coastal regions of the North, Northwest and southwest, by more than 70 mm.

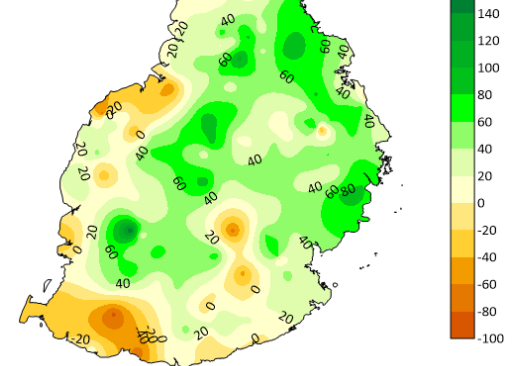
Over several regions of the Central Plateau and to the south and east, about 15 to 20 rain days (≥ 1 mm of rain) were observed.

Highest 24-hour rainfall ranged between 50 to 80 mm in the vicinity of Grand Bassin.

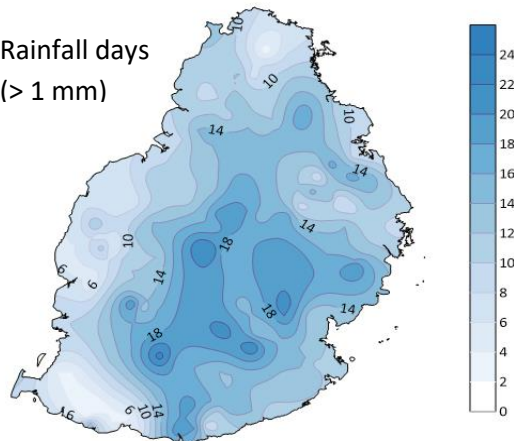
Monthly rainfall



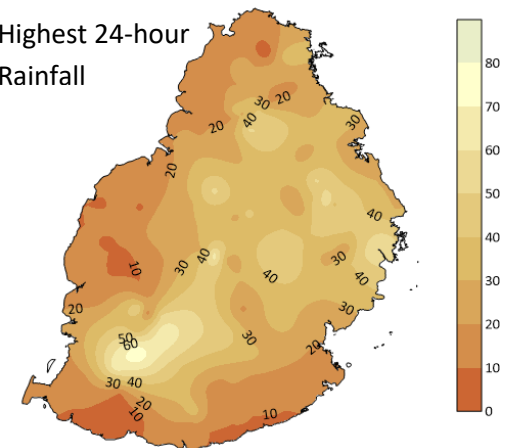
Monthly rainfall
Anomaly



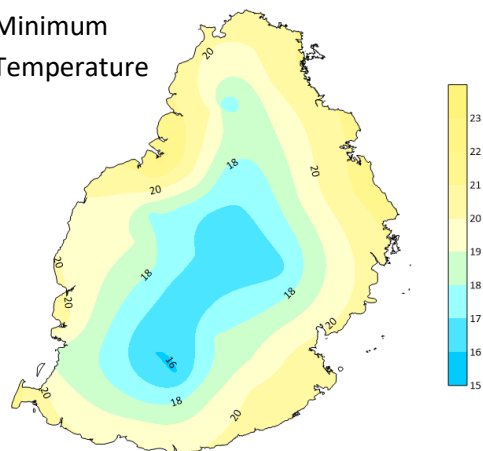
Rainfall days
(> 1 mm)



Highest 24-hour
Rainfall



Minimum
Temperature

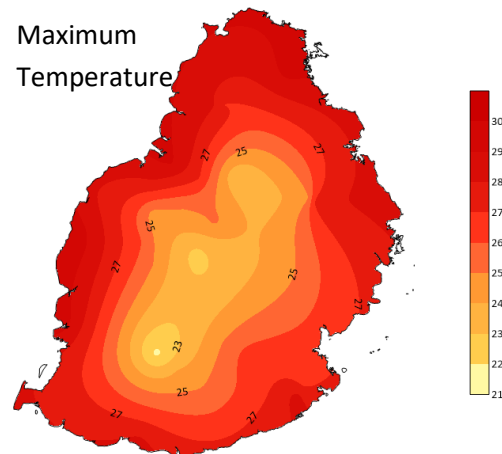


Temperature

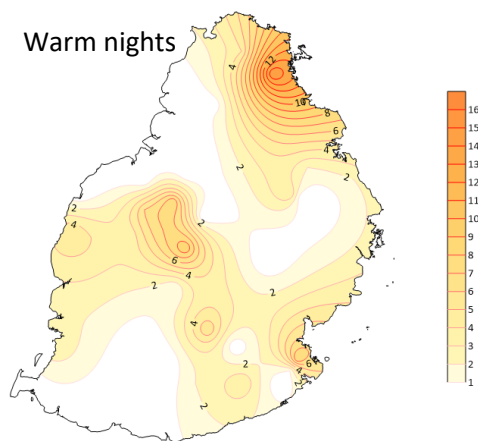
Mean maximum temperature was close to the normal. The highest maximum recorded was 32.1 °C at Riviere Noire on Day 23 and the lowest was 18.5 °C at Grand Bassin on Day 03.

The mean minimum temperature was also near average, with a high of 23.6°C at Port Louis and Belle Mare on Day 24 and a low of 13.2 °C in the region of Bois Cheri on Day 16

Maximum
Temperature



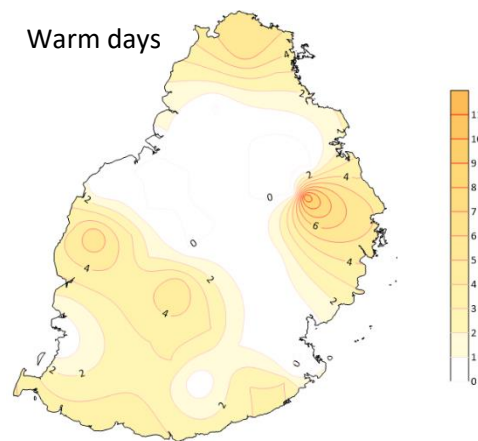
Warm nights



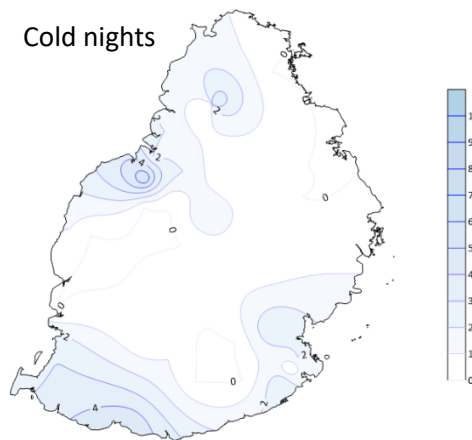
Warm nights were particularly observed to the northeast; 15 warm nights at Digue Seche.

The region experiencing highest warm days were to the east. Queen Victoria observed 10 warm days.

Warm days



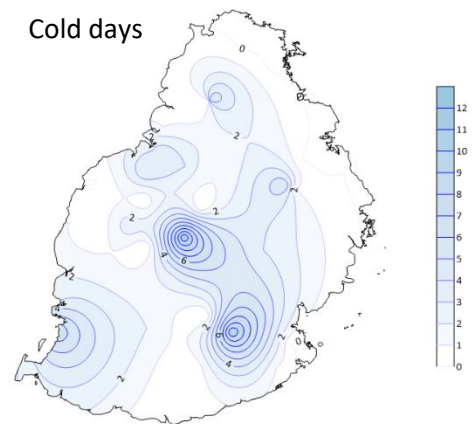
Cold nights

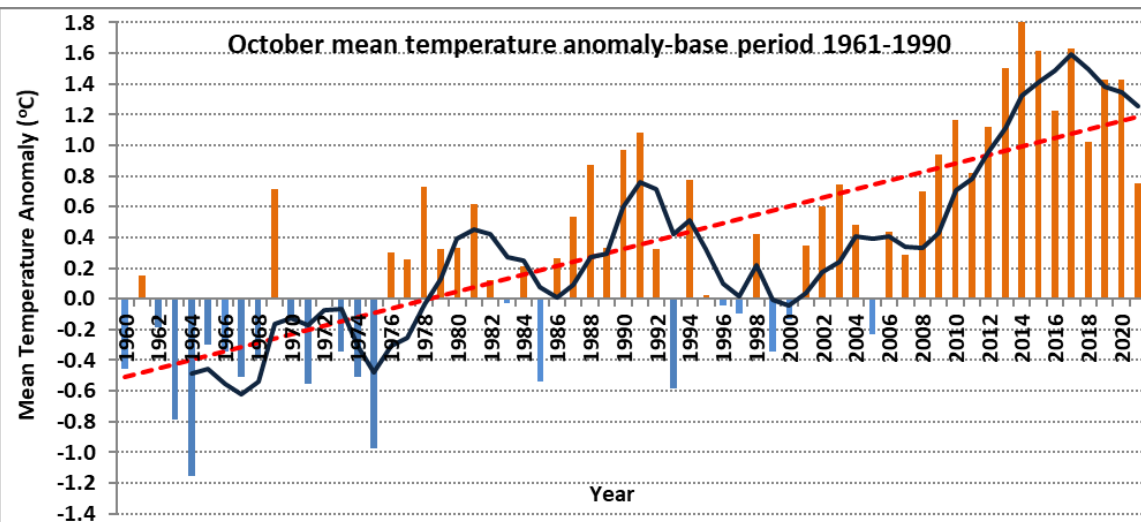


Cold nights were mostly observed to the northwest and south with 6 such nights at Domaine les Pailles.

The highest number of cold days was observed over the central plateau and to the southeastern slopes amounting to 11 at Belle Rive and 10 at Rose Belle.

Cold days

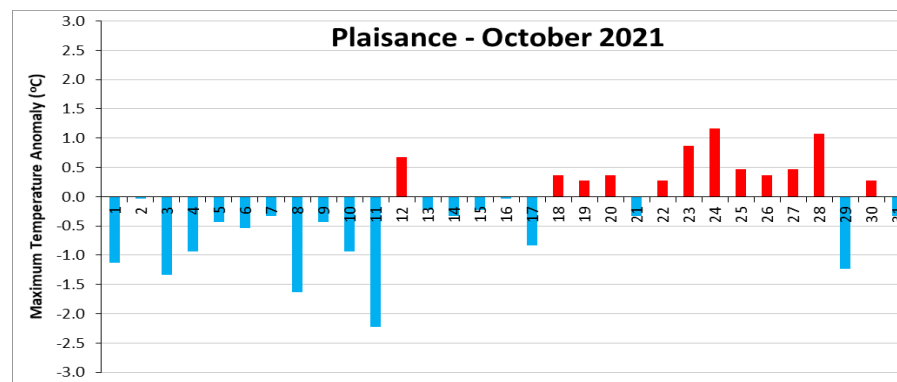
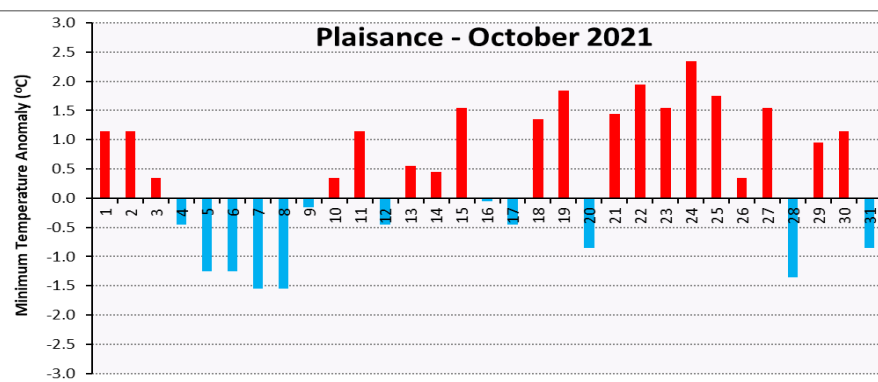
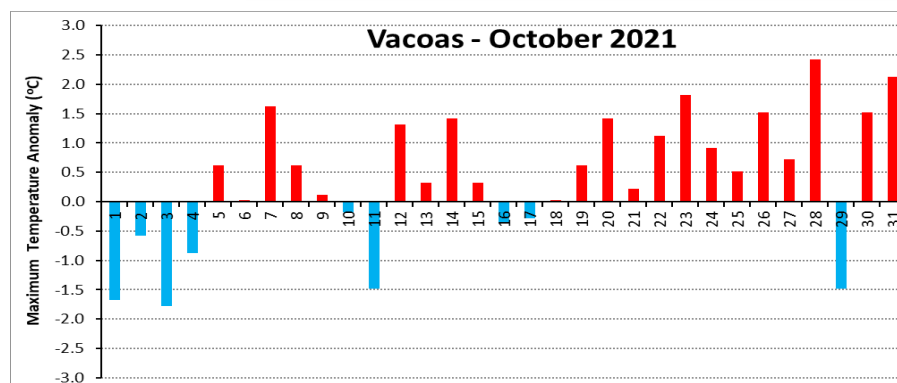
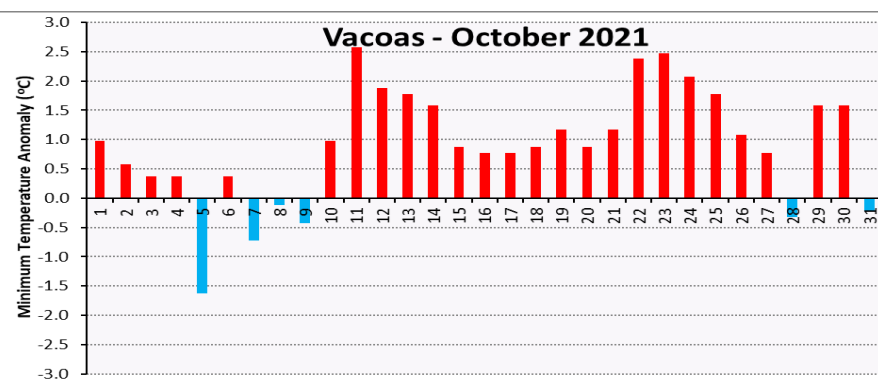




Compared to LTM 1991-2020, the mean temperature over the island was close to the normal (0.1 °C). The mean minimum and maximum temperatures were also close to the normal (+0.4 °C and -0.3 °C) respectively.

The island experienced cooler days at first but it became warmer during the second fortnight. Warm days anomaly temperatures and cold days anomaly temperatures were above and below by 2-4 °C respectively. Day 24 was the warmest day and day 3 was the coolest day.

Nights were mostly warm except during the first week. The coolest night was on Day 5 and the warmest night was on Day 23.

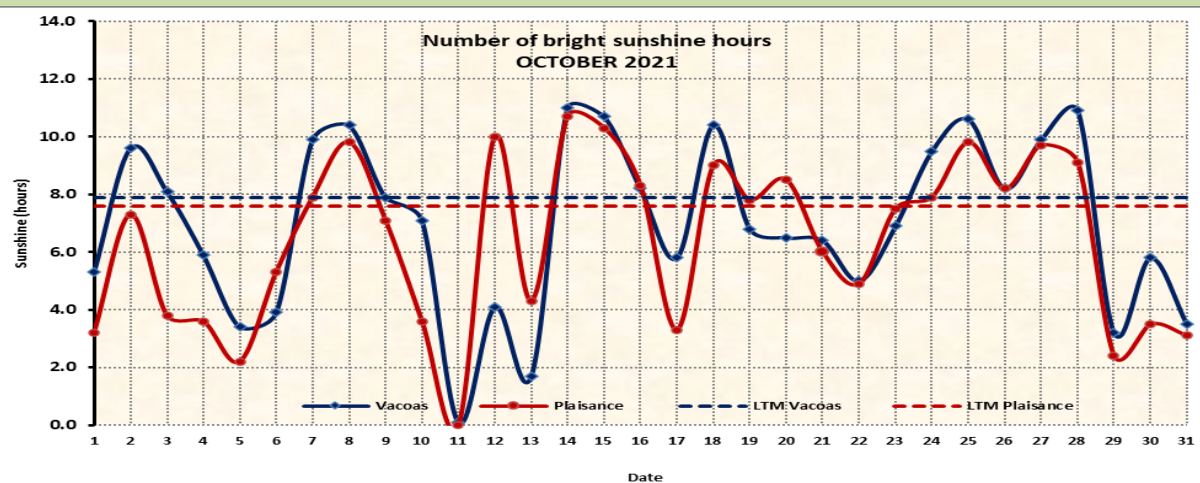
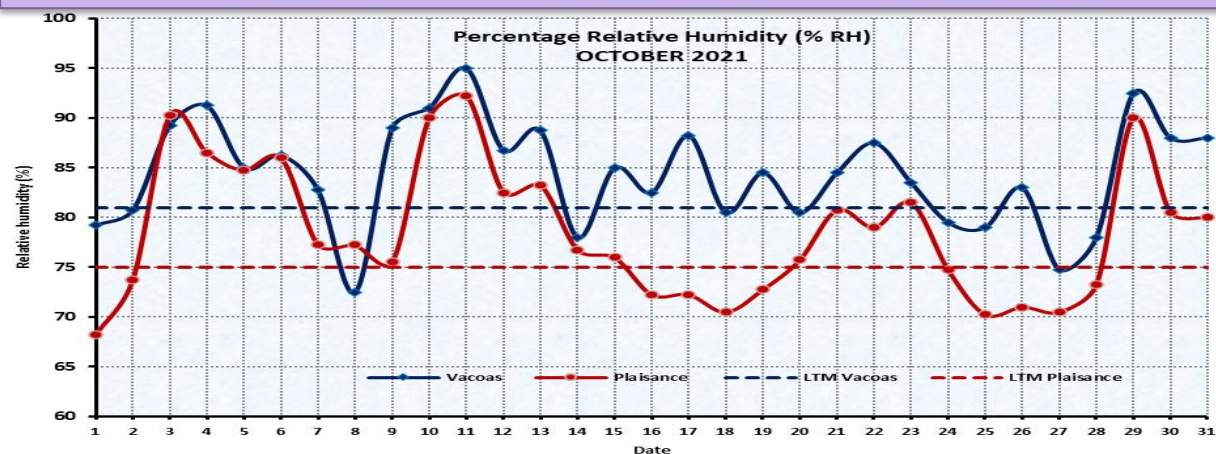


Sunshine and Humidity

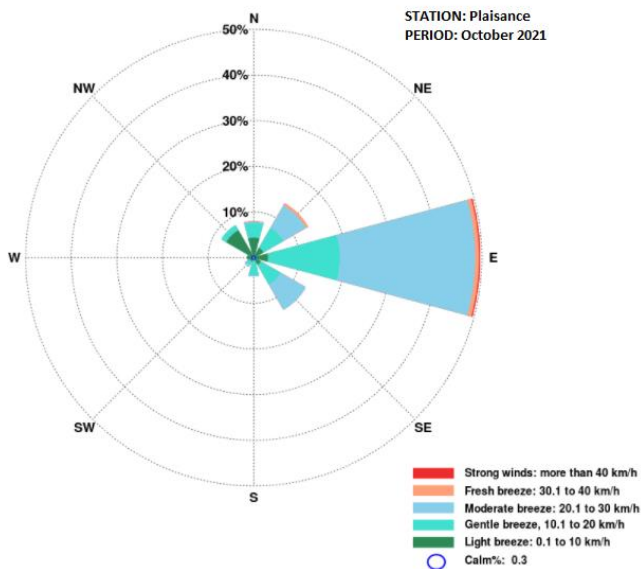
The mean relative humidity was close to the normal at both stations. The daily humidity ranged from 73 to 95 % at Vacoas and from 68 to 92 % at Plaisance.

The number of daily bright sunshine hours was slightly below normal at Plaisance and at Vacoas; the anomaly was -0.8 and -1.1 respectively. The highest number of sunshine hours of 11.0 was recorded on Day 21 at Vacoas, and the lowest sunshine hour recorded was nil recorded at Plaisance on Day 11.

The total number of monthly bright sunshine hours at Vacoas was 216.7 (90% of LTM) and at Plaisance it was 198.1 (86% of LTM).

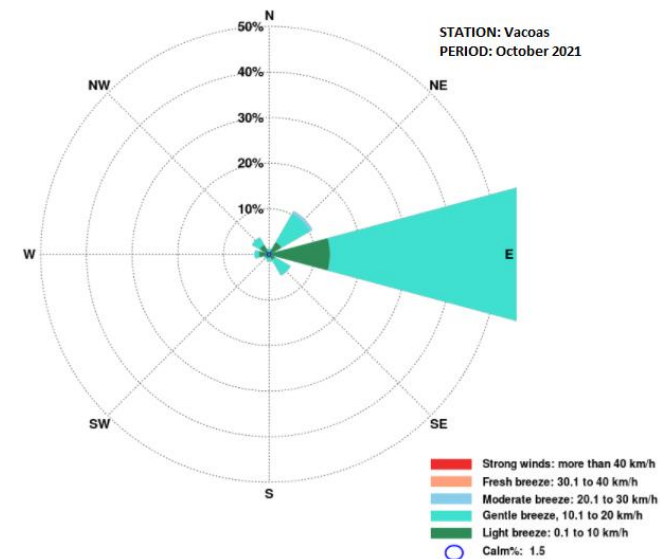


Winds

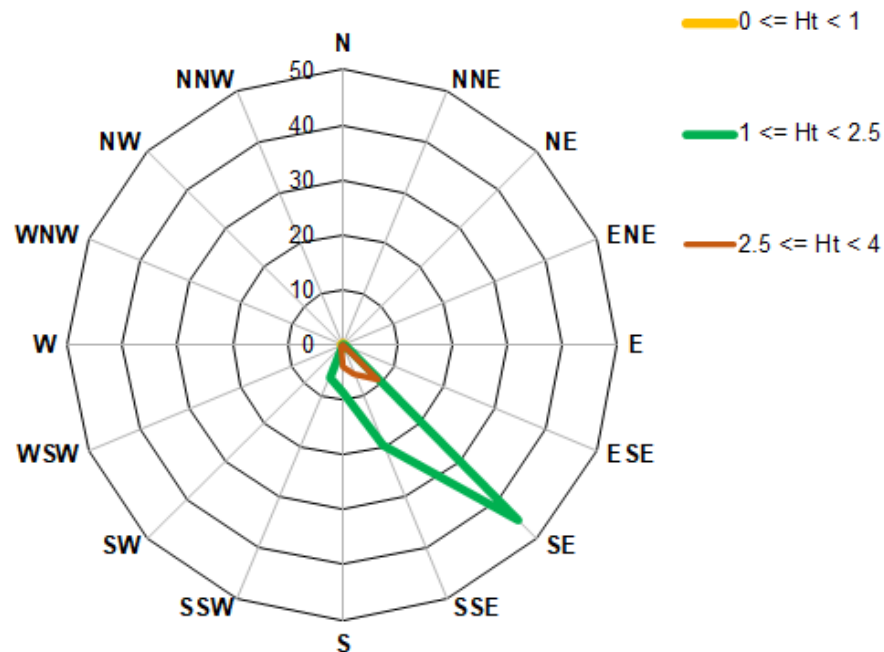


Wind frequencies from Plaisance (left) and Vacoas (right) shows winds mainly from the eastern sector. On few occasions, fresh breeze was observed at Plaisance.

| Regions | Date | Highest gusts (km/h) |
|---------------------|--------|----------------------|
| Champ de Mars | 16 | 72 |
| Domaine les Pailles | 9 | 65 |
| St Felix | 17 | 61 |
| Beaux Songes | 3;9;29 | 58 |
| Vacoas | 9 | 58 |
| Le Morne | 9 | 54 |
| Nouvelle Decouverte | 3;25 | 54 |



Sea state



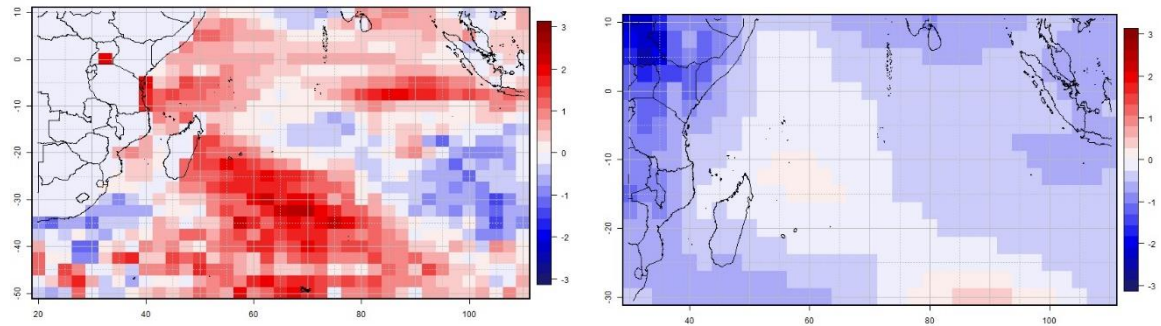
Significant waves recorded indicated that the sea was mainly moderate with southeasterly and southerly swell wave of heights between 1 and 2.5 m.

| Sea parameter | Date | Height in meters |
|-----------------------------------|------|------------------|
| Highest significant wave recorded | 14 | 2.62 |
| Highest wave recorded | 10 | 4.66 |

FORECAST FOR DECEMBER-JANUARY-FEBRUARY (DJF)

Weak La Nina condition in the equatorial Pacific Ocean will persist during the forecast period and is expected to peak to moderate intensity in December 2021. IOD will remain neutral whereas SIOD is forecasted to become positive.

The Mascarene region will be in a warm pool during this period as shown in the SST chart.



Sea surface temperature (a) and pressure (b) anomaly charts for DJF 2021-2022

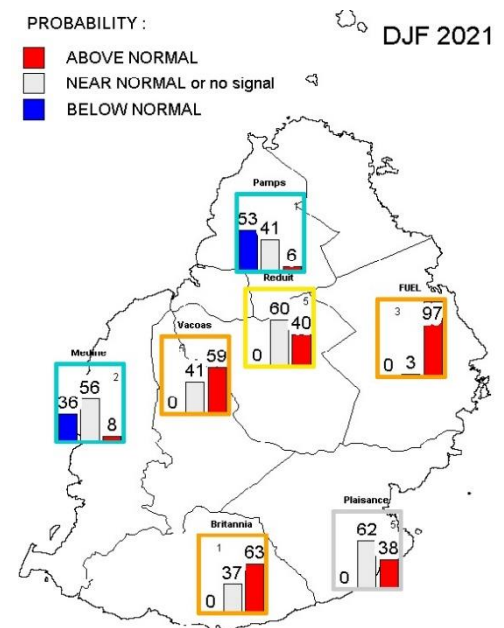
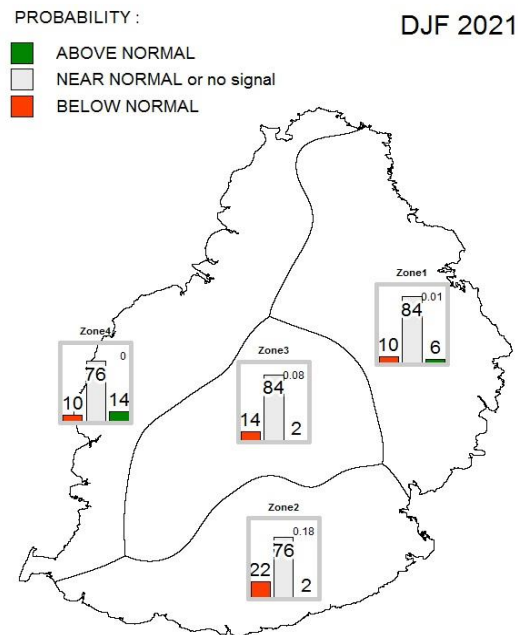
Consensus forecast for Mauritius

Cumulative monthly rainfall is expected to be below normal.

The monthly rainfall forecast consensus is as follows: -

- December below normal (~ 115 mm),
- January below normal (~ 170 mm),
- February slightly below normal (~ 275 mm)

Mean temperature is forecasted to be slightly above normal except for the west and north where it is expected to be normal.



Statistical Model Forecast of (a) rainfall and (b) temperature

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