

1. IN BRIEF

Variable rainfall pattern were observed during October, with rainfall ranging from *below average* to *well above average* across the country. There were occasional localized heavy rainfall events that led to flash flooding and landslides in some parts of the country, particularly in the Central Division.

Overall, out of the 26 rainfall monitoring stations that reported in, in time for the compilation of this bulletin, 6 recorded *below average*, 8 *average*, 9 *above average* and 3 stations with *well above average* rainfall (Table 2, Figures 1-5).

The highest monthly rainfall of 431.5mm was observed at Nasinu, followed by Vunisea with 406.7mm, Monasavu with 399.0mm, Koronivia with 393.4mm, Laucala Bay (Suva) with 371.3mm, Matuku with 339.3mm, Navua with 337.5mm, Nabouwalu with 277.3mm, Nausori Airport with 269.7mm, and Udu Point with 217.0mm.

On temperatures, the month's warmest day-time temperature of 35.5°C was observed at RKS Lodoni on the 19th, followed by Viwa with 35.2°C on the 12th, Yaqara with 34.8°C on the 4th, and Navua with 33.6°C on the 5th.

The months lowest night-time temperature of 14.7°C was recorded at Nadarivatu on the 21st, followed by Monasavu with 16.1°C on the 22nd, Labasa Airport with 16.6°C on the 20th, and Vaturekuka (Labasa) with 17.5°C on the 21st.

Southeasterly winds were dominant at Nadi Airport, Savusavu Airfield and Matei Airfield, while easterly winds were dominant at Nausori Airport (Figure 7).

Warmer than normal sea surface temperature anomalies were observed across Fiji Waters (Figure 8).

Above normal sea level anomalies persisted across most of the Fiji Waters during October (Figure 10).

2. WEATHER PATTERNS

October is a transitional month for Fiji, influenced by both mid-latitude systems from the southern hemisphere and evolving tropical weather patterns closer to the equator. This interplay results in varying weather conditions, with periods of fine, dry weather interrupted by rainfall events linked to passing troughs or convergence zones. Shifts in wind patterns are common, ranging from easterlies to northerly or westerly flows, depending on the prevailing system. These dynamic weather changes reflect the gradual transition from the drier season toward more unsettled conditions in the coming months.

Easterly wind flow was dominant over the group at the start of the month. A trough of low pressure developed just to the east of the group with some showers being experienced over the eastern parts of the group till the 4th. Another trough of low pressure developed to the west of the group on 5th and associated cloud and showers affected most parts of the country. The trough gradually weakened over the group on the 6th, while an easterly wind flow continued to prevail. A trough of low pressure affected the northern and eastern parts of the group from 10th while the western parts of the country continued to experience generally fine weather apart from the isolated afternoon showers. The trough slowly moved

east, affecting the whole group till the 16th. Another trough with an embedded low pressure developed to the west of the group and approached the group on 17th. The embedded low pressure moved south on 18th, the associated trough of low pressure was analysed over the group while winds shifted to north-easterlies to south-westerlies. The trough moved eastwards and affected the eastern parts of the country on 19th while slowly dissipating. A south to southwest wind flow developed over the group on 20th, slowly shifting to south to southeast wind flow on 21st and to southeast on 22nd. From the 23rd to the 27th, Fiji experienced significant rainfall due to a low-pressure trough coupled with an upper-level disturbance. A high-pressure system situated far to the southeast directed southeasterly trade winds across Fiji, bringing typical trade showers. From the 30th until month-end, a weak trough of low pressure enhanced these trade showers, adding to the ongoing rainy conditions over the group.

Weather conditions over Rotuma were primarily influenced by easterly wind flow and series of low-pressure systems over the group.

3. RAINFALL

During the month, rainfall ranged from *below average* to *well above average* across the country. Tavua, Vunisea and Matuku recorded twice their normal monthly rainfall.

Below average rainfall were observed at Viwa, Penang Mill, Savusavu Airfield, Vanuabalavu, Lakeba and Rotuma, *average* rainfall was observed at Nacocolevu, Yaqara, Dobuilevu, Monasavu, Nausori Airport, Navua, Yasawa-i-Rara and Matei Airfield, while *above average* rainfall was recorded at Nadi Airport, Lautoka Mill, Rarawai Mill (Ba), Koronivia, Laucala Bay (Suva), Nabouwalu, Labasa Airport, Udu Point and Ono-i-Lau.

Overall, out of the 26 rainfall monitoring stations that reported in, in time for the compilation of this bulletin, 6 recorded *below average*, 8 *average*, 9 *above average* and 3 stations with *well above average* rainfall (Table 2, Figures 1-5).

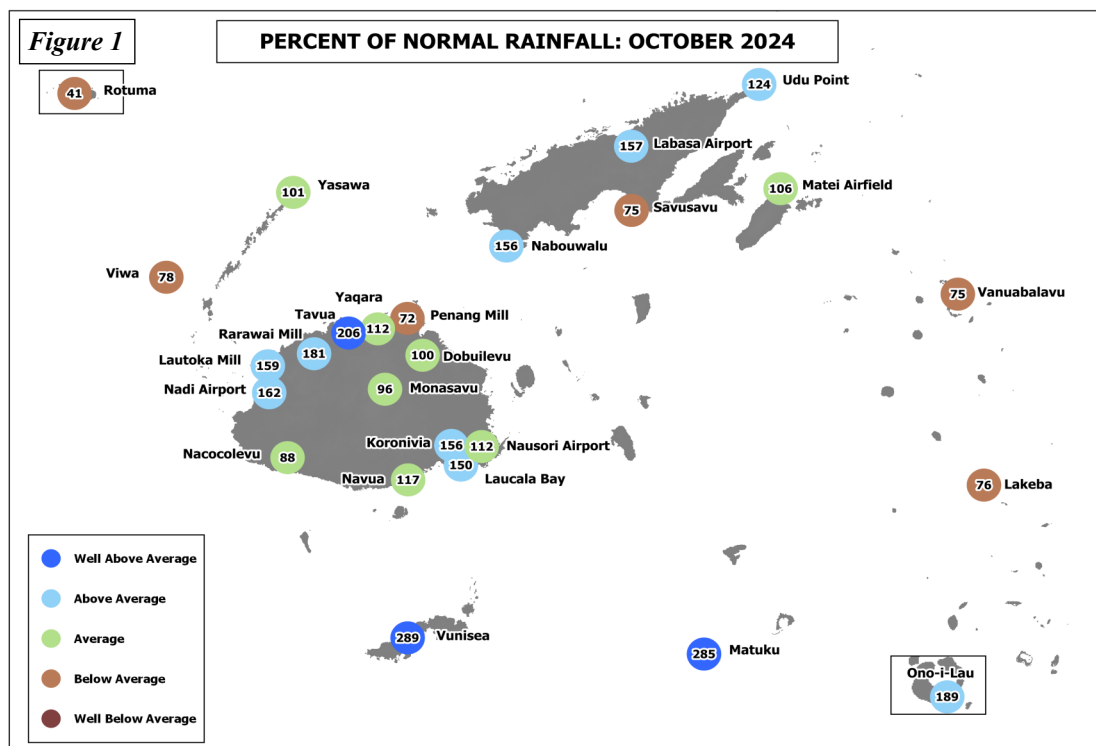
The highest monthly rainfall of 431.5mm was observed at Nasinu, followed by Vunisea with 406.7mm, Monasavu with 399.0mm, Koronivia with 393.4mm, Laucala Bay (Suva) with 371.3mm, Matuku with 339.3mm, Navua with 337.5mm, Nabouwalu with 277.3mm, Nausori Airport with 269.7mm, and Udu Point with 217.0mm. On the other hand, Sigatoka recorded the month's lowest total monthly rainfall of 3.5mm, followed by Levuka with 18.0mm, Viwa with 56.0mm, Penang Mill with 73.7mm, Yaqara with 76.5mm, Nacocolevu with 78.4mm and Lakeba with 78.8mm (Table 2).

The highest 24-hour rainfall of 217mm was recorded at Vunisea on the 17th, followed by Nabouwalu with 160mm on 13th, Navua with 149mm on the 25th, Laucala Bay (Suva) with 142mm on the 25th, Tavua with 121mm on the 25th, Monasavu with 113mm on the 25th, Nasinu with 102mm on the 16th, Keiyasi with 99mm on the 5th, and Ono-i-Lau with 88mm on the 18th.

Notably, from the 23rd to the 27th, Fiji experienced significant rainfall due to a low-pressure trough coupled with an upper-level disturbance. These conditions led to flooding in low-lying areas and rivers in the Central Division.

Koronivia recorded the highest number of rain days (rainfall ≥0.1mm) with 25 days, followed by both Laucala Bay (Suva) and Monasavu with 23 days, Navua with 21 days, Nasinu and Nausori Airport both with 20 days, Udu Point with 19 days, Savusavu Airfield with 17 days, RKS Lodonu, Dobuilevu and Rotuma all with 16 days and Vunisea, Nabouwalu, and Labasa Airport all with 15 days. Consequently, Sigatoka recorded the least number of rainfall days with 5 days, followed by Yaqara with 6 days, Levuka with 7 days, Viwa and Tavua both with 8 days, and Momi, Yasawa-i-Rara, Rarawai Mill (Ba) and Lautoka Mill all with 10 days.

Vunisea recorded its highest daily rainfall of 217.0mm on the 17th, since observations began in 1929 (Table 1).



Normal: Long term average from 1991 to 2020
 Well Below Average: Rainfall less than 40% of normal
 Below Average: Rainfall between 40 to 79%
 Rain Day: Rainfall ≥ 0.1mm

Average: Rainfall between 80 to 119%
 Above Average: Rainfall between 120 to 199%
 Well Above Average: Rainfall greater than or equal to 200% of normal

4. AIR TEMPERATURES

A. Maximum Day-time Air Temperatures

Near normal to above normal day-time air temperatures were observed across the country during the month. Out of the 22 climate stations that reported in time for the analysis of data, 16 recorded anomalies $\geq +0.5^{\circ}\text{C}$, and 6 within $\pm 0.5^{\circ}\text{C}$.

On average, the warmest days were recorded at both Viwa and Yaqara with 32.1°C , followed by RKS Lodonu with 32.0°C , Labasa Airport with 31.7°C , Rotuma and Momi both with 30.8°C , Penang Mill with 30.3°C , Yasawa-i-Rara, Nadi Airport and Lautoka Mill all with 30.2°C , Korolevu with 30.0°C , and Vaturekuka (Labasa) with 29.9°C . Consequently, Monasavu recorded the coolest days on average with 24.9°C , followed by Nadarivatu with 25.6°C , Ono-i-Lau with 27.9°C , Vunisea with 28.4°C , Vanuabalavu with 28.6°C , Matuku with 28.7°C , and Laucala Bay (Suva) with 28.8°C .

The month's highest day-time temperature of 35.5°C was observed at RKS Lodonu on the 19th, followed by Viwa with 35.2°C on the 12th, Yaqara with 34.8°C on the 4th, Navua with 33.6°C on the 5th, Yasawa-i-Rara and Labasa Airport both with 33.5°C on the 30th and 31st, respectively, and Korolevu with 33.3°C on the 25th. On the other hand, the coolest day-time temperature of 20.9°C was at Nausori Airport on the 11th, followed by Monasavu with 21.5°C on the 24th, Ono-i-Lau with 22.5°C on the 17th, and Nadarivatu with 22.7°C on the 15th.

There were no new day-time temperature records established during the month.

B. Minimum Night-time Air Temperatures

Similarly, above normal to below normal night-time temperatures were recorded at majority of the climate stations during the month. For the 23 stations that reported in, 17 recorded anomalies $\geq +0.5^{\circ}\text{C}$, 5 within $\pm 0.5^{\circ}\text{C}$, and 1 with anomalies $\leq -0.5^{\circ}\text{C}$.

The coolest nights on average were at Nadarivatu with 17.3°C , followed by Monasavu with 18.1°C , Korolevu with 20.5°C , Sigatoka with 20.9°C , Rarawai Mill (Ba) with 21.1°C , Nacocolevu and Labasa Airport both with 21.4°C , Vaturekuka (Labasa) with 21.5°C , and Matei Airfield with 21.7°C . Consequently, on average, the warmest night-time temperatures were observed at Viwa with 25.7°C , Rotuma with 25.5°C , RKS Lodonu with 24.4°C , Udu Point with 24.0°C , and Vanuabalavu with 23.8°C .

Most of the coolest daily night-time temperatures were recorded during the middle of the month. The lowest night-time temperature of 14.7°C was recorded at Nadarivatu on the 21st, followed by Monasavu with 16.1°C on the 22nd, Labasa Airport with 16.6°C on the 20th, Vaturekuka (Labasa) with 17.5°C on the 21st, and Rarawai Mill (Ba) with 18.0°C on the 8th. On the other hand, the warmest night-time temperature of 28.0°C was recorded at Viwa on the 18th, followed by Rotuma with 27.1°C on the 6th, RKS Lodonu with 26.8°C on the 10th, and Yaqara with 26.0°C on the 27th.

There were no new night-time temperature records established during the month.

TABLE 1. CLIMATE RECORDS ESTABLISHED IN OCTOBER 2024

<u>Element</u>	<u>Station</u>	<u>Observed (record)</u>	<u>On</u>	<u>Rank</u>	<u>Previous (record)</u>	<u>Year</u>	<u>Records Began</u>
Daily Rainfall	Vunisea	217.0mm	17 th	New High	163.9mm	1981	1929

Note: All comparisons in this summary are with respect to “Climatic Normals”. This is defined to be the average climate condition over a 30-year period. Fiji uses 1991-2020 period as its “climatic normal” period.

TABLE 2. DAILY CLIMATE REPORTING SITES: SUMMARY FOR OCTOBER 2024

	RAINFALL				AIR TEMPERATURES								SUNSHINE		
	TOTAL	RAIN		MAX. FALL	AVERAGE DAILY			EXTREME		TOTAL	*				
	MM	%	+	MM ON	MAX. C	#	MIN. C	#	MAX. C	MIN. C	HRS	%			
NADI AIRPORT	140.7	162	12	50	15	30.2	0.1	22.0	0.7	31.8	13	19.9	22	213	96
LAUCALA BAY	371.3	150	23	142	25	28.8	0.3	23.2	0.5	30.6	19	21.0	21	167	108
NACOCOLEVU RESEARC	78.4	88	12	24	15	29.6	0.0	21.4	1.5	33.1	26	19.1	7	170	121
ROTUMA (AWS)	145.5	41	16	36	27	30.8	0.5	25.5	0.8	32.5	18	23.6	21		
VIWA ISLAND (AWS)	56.0	78	8	28	17	32.1	1.9	25.7	2.0	35.2	12	24.3	22		
YASAWA-I-RARA (AWS)	96.0	101	10	39	24	30.2	0.5	22.9	0.0	33.5	30	20.8	24		
UDU POINT (AWS)	217.0	124	19	75	2	29.2	-0.2	24.0	0.4	30.1	17	21.3	21		
NABOUWALU	277.3	156	15	160	13	29.5	1.3	23.4	0.4	31.3	11	22.0	11		
LABASA AIRFIELD	161.9	157	15	28	11	31.7	0.6	21.4	0.9	33.5	31	16.6	20		
SAVUSAVU AIRFIELD	129.0	75	17	27	13	29.3	1.0	23.2	0.8	32.5	10	20.0	21		
KORONIVIA RESEARCH	393.4	156	25	74	25	29.3	1.2	22.0	0.8	32.8	19	19.2	20		
NAUSORI AIRPORT	269.7	112	20	68	16	28.9	1.1	22.1	0.9	32.1	19	19.4	20		
NAVUA (AWS)	337.5	117	21	149	25	29.4	2.0	21.8	1.0	33.6	5	19.5	21		
MONASAVU HYDRO DAM	399.0	96	23	113	25	24.9	1.6	18.1	1.2	27.9	29	16.1	22		
FSC LAUTOKA MILL	128.3	159	10	46	17	30.2	0.1	22.2	0.6	32.5	26	20.1	22		
FSC RARAWAI MILL	160.0	181	10	42	13	NA	NA	21.1	1.1	NA	NA	18.0	8		
FSC PENANG MILL	73.7	72	14	26	13	30.3	0.6	23.1	0.9	32.0	3	20.6	3		
MATEI AIRFIELD	212.6	106	14	59	2	29.3	0.9	21.7	-1.1	30.1	12	19.5	21		
VANUABALAVU (AWS)	117.5	75	13	40	10	28.6	0.4	23.8	1.0	29.8	31	21.4	1		
LAKEBA	78.8	76	13	27	13	29.2	1.0	22.1	-0.2	30.0	26	19.5	22		
VUNISEA	406.7	289	15	217	17	28.4	1.1	21.8	0.3	30.5	28	20.0	25		
MATUKU	339.3	285	14	87	25	28.7	0.8	23.1	0.7	30.9	30	20.5	26		
ONO-I-LAU	148.8	189	12	88	18	27.9	0.9	22.7	1.4	30.2	29	19.5	18		
YAQARA AWS	76.5	112	6	49	25	32.1		23.7		34.8	4	18.8	20		
LEVUKA AWS	18.0		7	10	13	U/S		U/S		U/S		U/S			
KEIYASI AWS	213.5		14	99	5	U/S		U/S		U/S		U/S			
LOMAIVUNA AWS	U/S			U/S		U/S		U/S		U/S		U/S			
NADARIVATU AWS	138.0		14	53	25	U/S		U/S		U/S		U/S			
RKS LODONI AWS	155.0		16	53	2	32.0		24.4		35.5	19	19.4	20		
MOMI AWS	86.5		10	39	17	30.8		22.3		32.9	9	20.4	21		
SIGATOKA AWS	3.5		5	2	12	29.3		20.9		31.9	26	18.8	1		
VATUREKUKA AWS	135.0		14	30	13	29.9		21.5		31.8	27	17.5	21		
KOROLEVU AWS	106.0		13	30	17	30.0		20.5		33.3	25	18.9	21		
WAINIKORO AWS	U/S			U/S		U/S		U/S		U/S		U/S			
SAQANI AWS	U/S			U/S		U/S		U/S		U/S		U/S			
SEAQAQA AWS	U/S			U/S		U/S		U/S		U/S		U/S			
DOBUILEVU TB3	147.5	100	16	45	13										
NASINU TB3	431.5		20	102	16										
TAVUA TB3	160.5	206	8	121	25										

	TEMPERATURE(C)				HUMIDITY		WIND	
	DRY		WET		RH%	VP	(AVERAGE AT 9AM)	
	MEAN						KT	
NADI AIRPORT	26.1	27.6	23.3	68	27.6	7.3		
LAUCALA BAY	26.0	26.9	24.4	81	26.5	7.6		
NACOCOLEVU RESEARC	25.5	27.3	23.8	76	27.1			
ROTUMA (AWS)	28.2							
VIWA ISLAND (AWS)	28.9							
YASAWA-I-RARA(AWS)	26.6							
UDU POINT (AWS)	26.6							
NABOUWALU	26.5	27.4	24.3	77	27.3			
LABASA AIRFIELD	26.5	28.3	24.3	71	28.8	8.9		
SAVUSAVU AIRFIELD	26.2	27.1	24.1	78	26.8	8.1		
KORONIVIA RESEARCH	25.7	26.8	24.2	81	26.4			
NAUSORI AIRPORT	25.5	26.9	24.2	79	26.5	5.0		
MONASAVU HYDRO DAM	21.5	21.2	20.6	95	18.8			
FSC LAUTOKA MILL	26.2	26.5	24.1	82	25.9			
FSC RARAWAI MILL	U/S	28.3	23.9	70	28.8			
FSC PENANG MILL	26.7	27.3	24.1	77	27.1			
MATEI AIRFIELD	25.5	27.5	24.7	79	27.5	12.0		
VANUABALAVU (AWS)	26.2							
LAKEBA	25.7	27.3	24.4	79	27.1			
VUNISEA	25.1	25.9	23.1	79	25.0			
MATUKU	25.9	26.1	23.5	80	25.3			
ONO-I-LAU	25.3	26.1	23.4	80	25.3	12.5		

MEAN TEMPERATURE IS (MAX+MIN)/2; WIND IS MEAN SPEED AT 06,12,18,24 HOURS.
 \$:SOLAR RADIATION CALCULATED FROM SUNSHINE DURATION. # :DEPARTURE FROM LONG-TERM AVERAGES (1991-2020). + :NUMBER OF DAYS WITH 0.1 MM OR MORE RAIN. * :PERCENT OF LONG-TERM AVERAGES.
 BLUE FONT: MISSING RECORDS OF LESS THAN OR EQUAL(≤) TO 5 DAYS. U/S: UNSERVICEABLE

Figure 2

Nadi Airport (Western Division) - Temperature & Rainfall Records for the last 13 Months (October 2023 - October 2024)

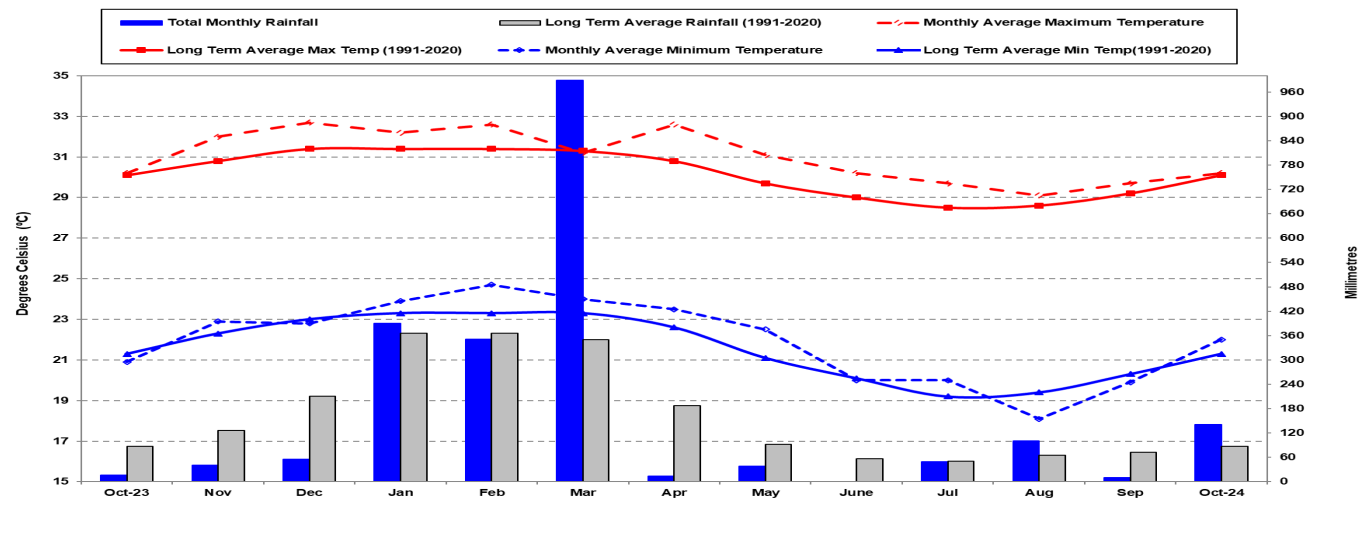


Figure 3

Laucala Bay - (Suva) (Central Division) - Temperature & Rainfall Records for the last 13 Months (October 2023 - October 2024)

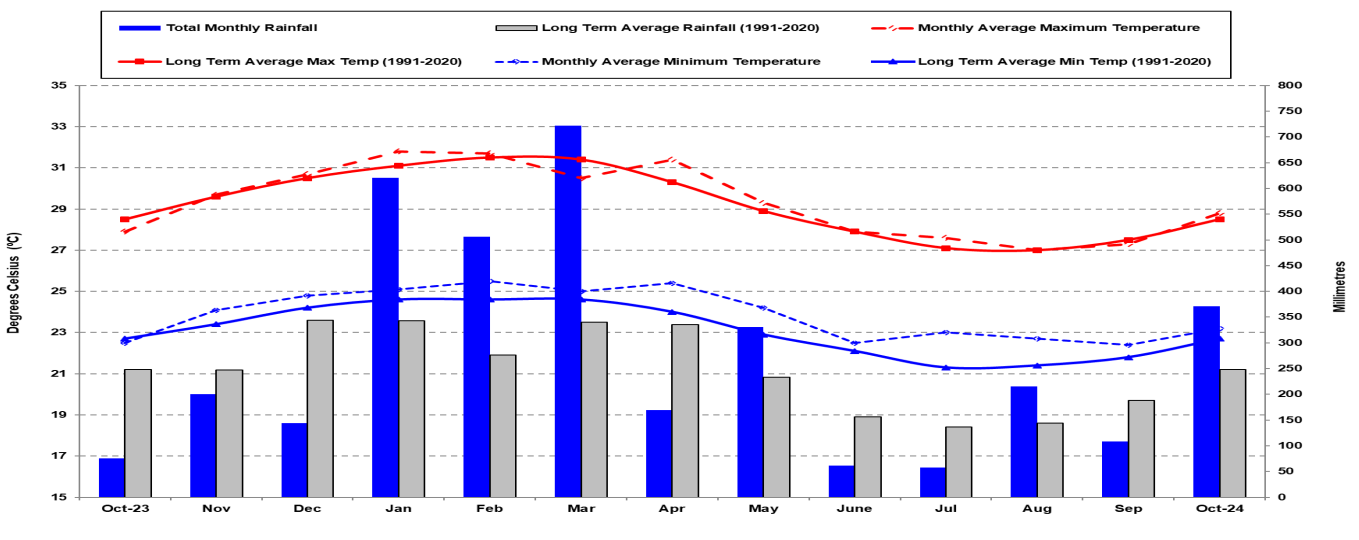


Figure 4

Udu Point (Eastern Division) - Temperature & Rainfall Records for the last 13 Months (October 2023 - October 2024)

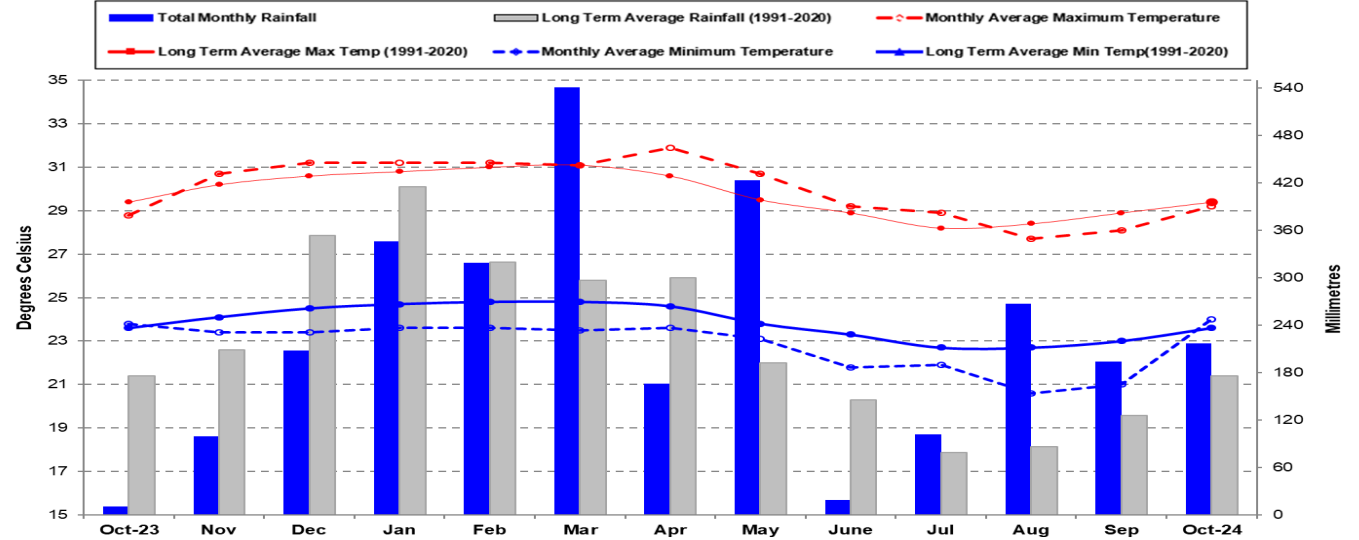
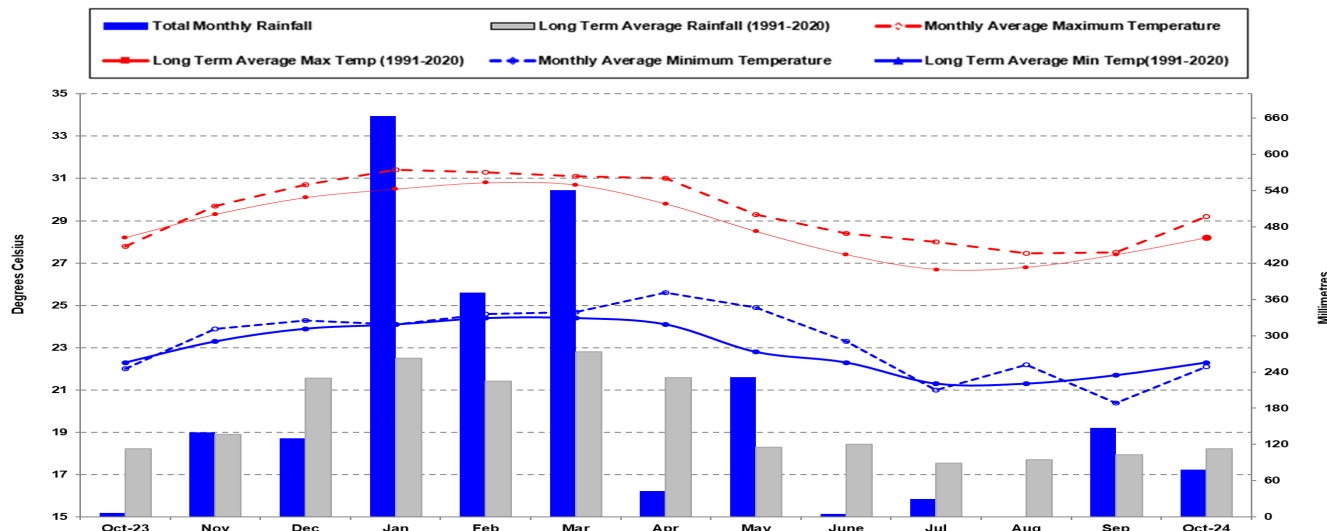


Figure 5

Lakeba (Eastern Division) - Temperature & Rainfall Records for the last 13 Months (October 2023 - October 2024)



5. DAILY RAISED PAN EVAPORATION

Figure 6

Daily Evaporation for October 2024

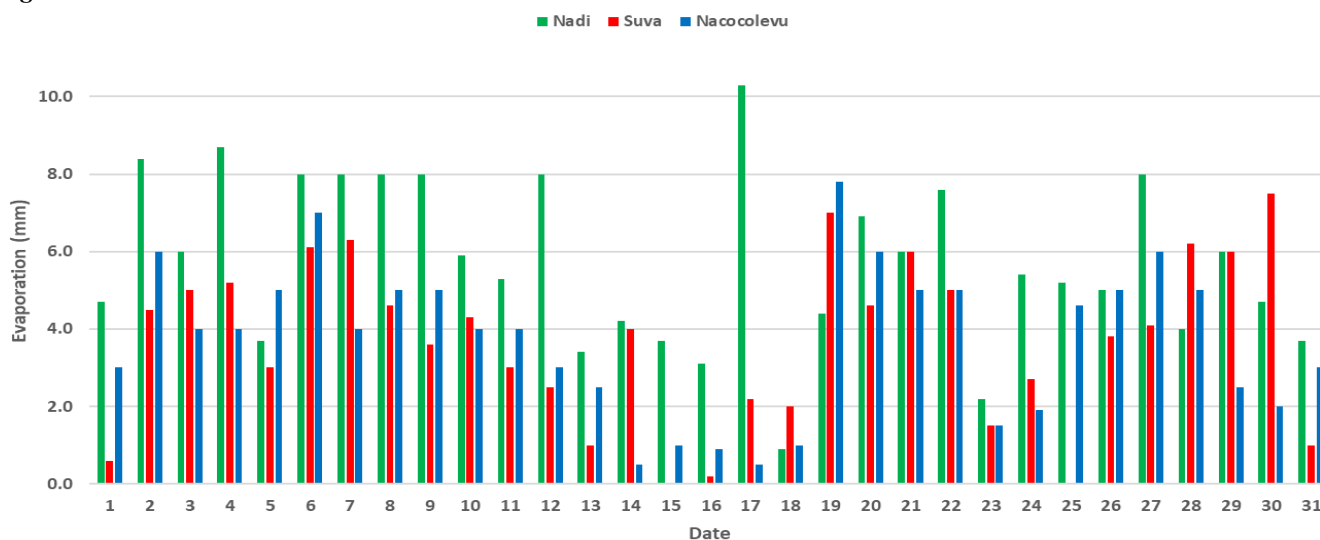


Figure 6: The total monthly raised pan evaporation at Nadi Airport, Laucala Bay (Suva) and Nacocolevu (Sigatoka) were 177.4mm, 113.5mm and 115.7mm, respectively. Nadi’s highest daily evaporation was 10.3mm on the 17th with Suva’s highest daily evaporation of 7.5mm on the 30th, and Nacocolevu (Sigatoka) recorded its highest of 7.8mm on the 19th.

6. SOLAR RADIATION

The Nadi solar radiation instrument was unserviceable during the month of October 2024.

7. WIND SUMMARY

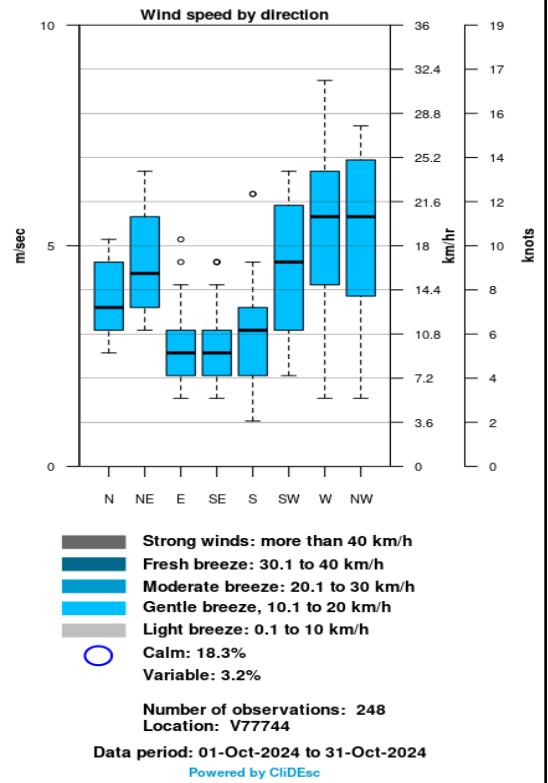
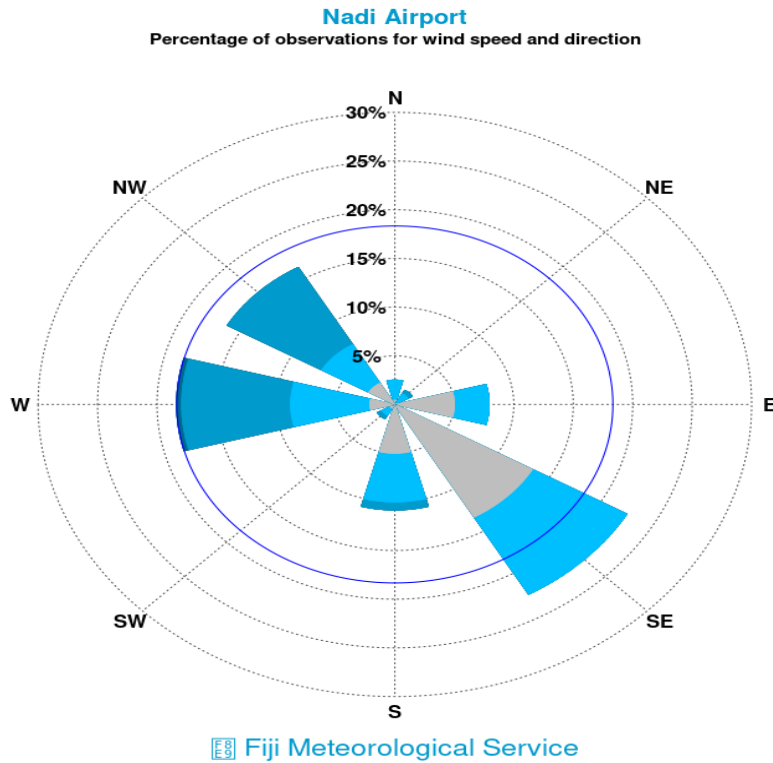


Figure 7a: Looking at Nadi’s 3 hourly observations, southeasterly winds were most dominant during the month, followed by westerly and then northwesterly winds. Wind strength ranged from light to fresh breeze, while 18.3% observations accounted for calm winds.

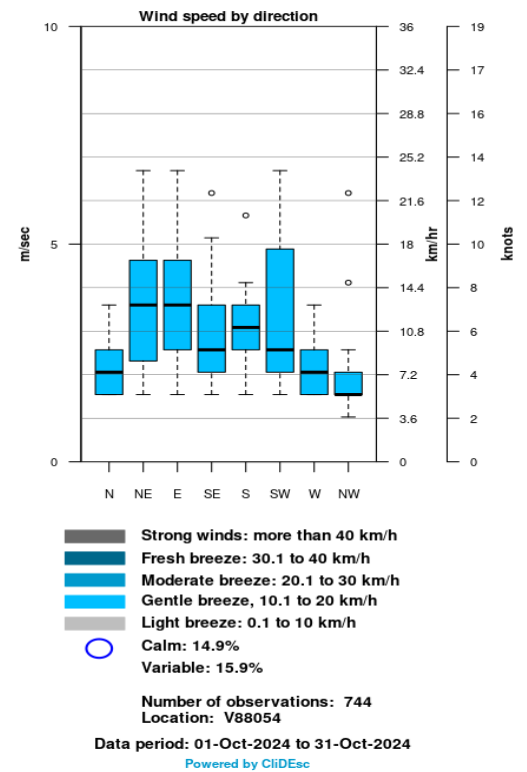
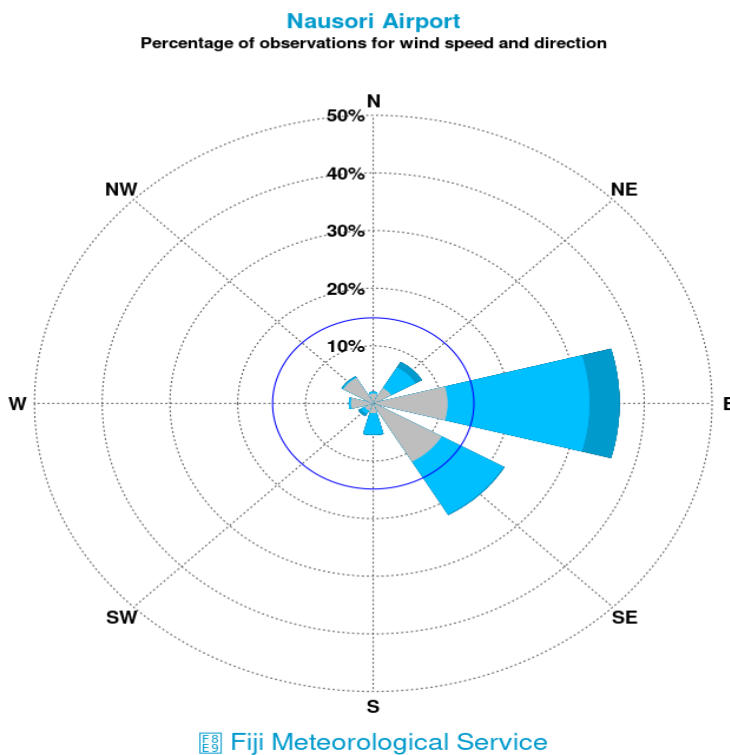


Figure 7b: For Nausori Airport’s hourly wind observations, easterly winds were most dominant during the month, followed by southeasterly and then northeasterly winds. Wind strength ranged from light to moderate breeze, while 14.9% observations accounted for calm winds.

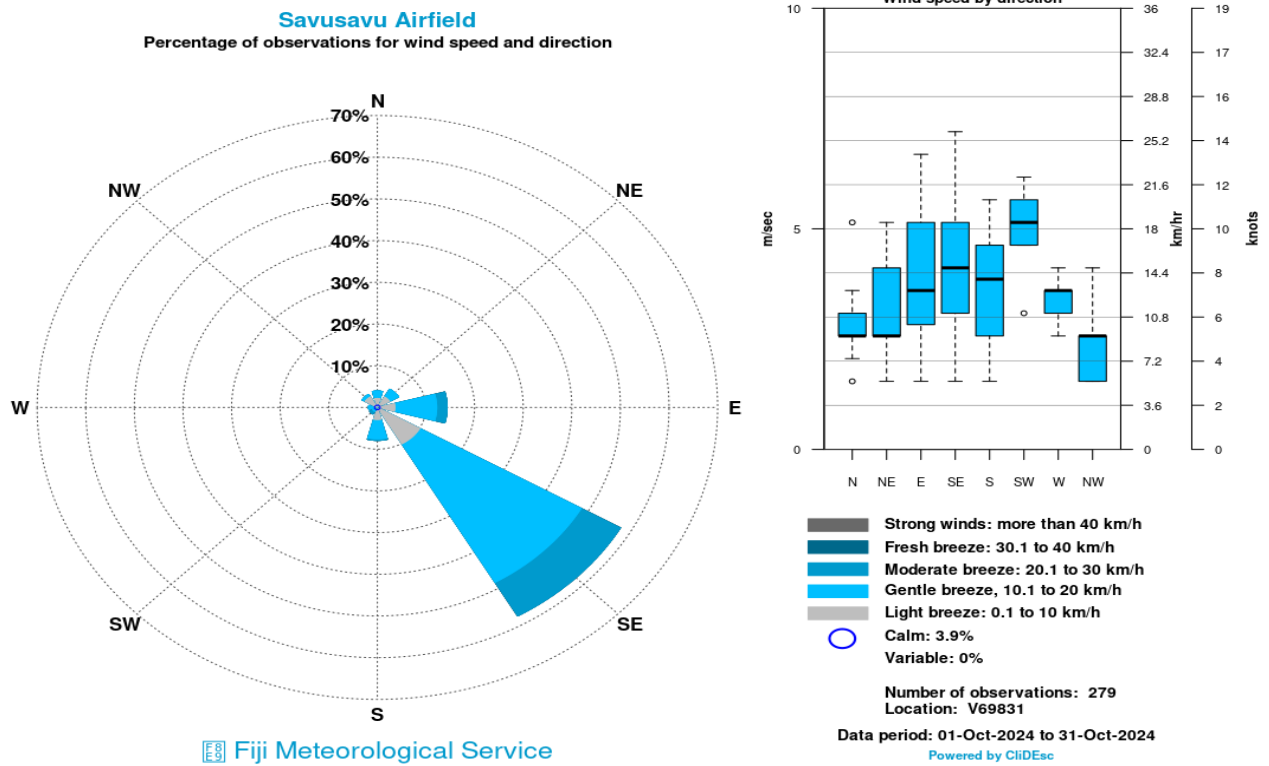


Figure 7c: For Savusavu Airfield’s hourly observations (0800hrs to 1600hrs), southeasterly winds were most dominant during the month, followed by easterly and then southerly winds. Wind strength ranged from light to moderate breeze, with calm winds observed 3.9% of the time.

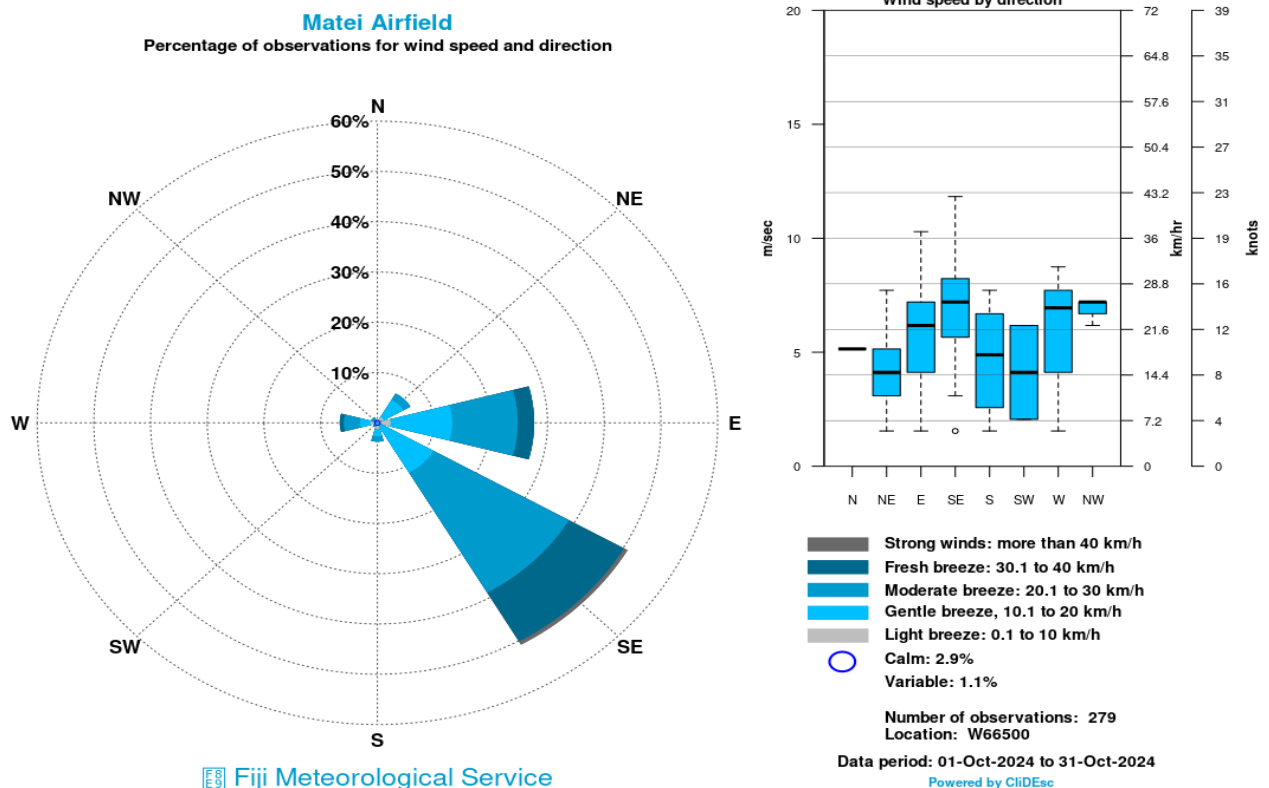


Figure 7d: For Matei Airfield’s hourly wind observations (0800hrs to 1600hrs), southeasterly winds were dominant followed by easterly and then northeasterly winds. Wind strength ranged from light to strong breeze, with calm winds observed 2.9% of the time.

8. SEA SURFACE TEMPERATURE (SST)

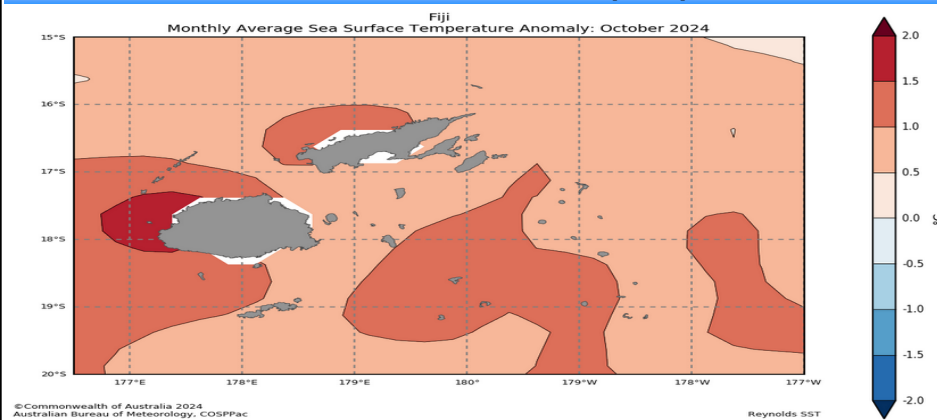


Figure 8: Warmer than normal sea surface temperature anomalies were observed across most of the Fiji Waters, with anomalies 1.5-2.0°C observed west of Viti Levu.

Source: <https://oceanportal.spc.int/portal/app.html#climate>

9. CLOUD COVER

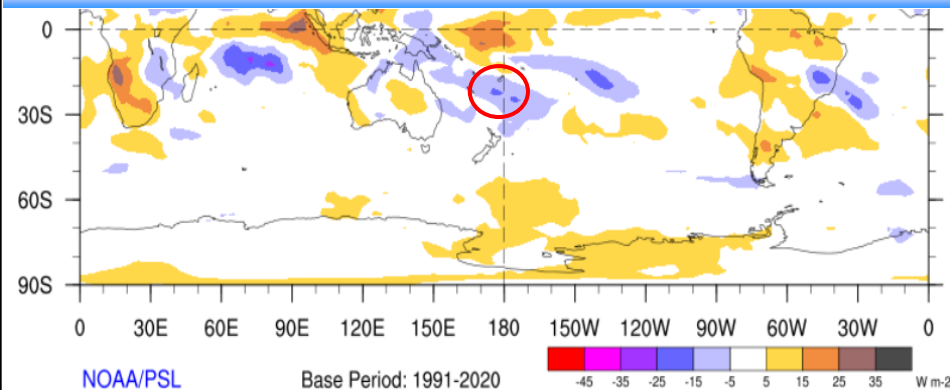


Figure 9: Above normal cloud cover was present over the Fiji Group during October (Fiji in red circle).

Source: <http://www.esrl.noaa.gov/psd/map/clim/olr.shtml>

10. SEA LEVEL

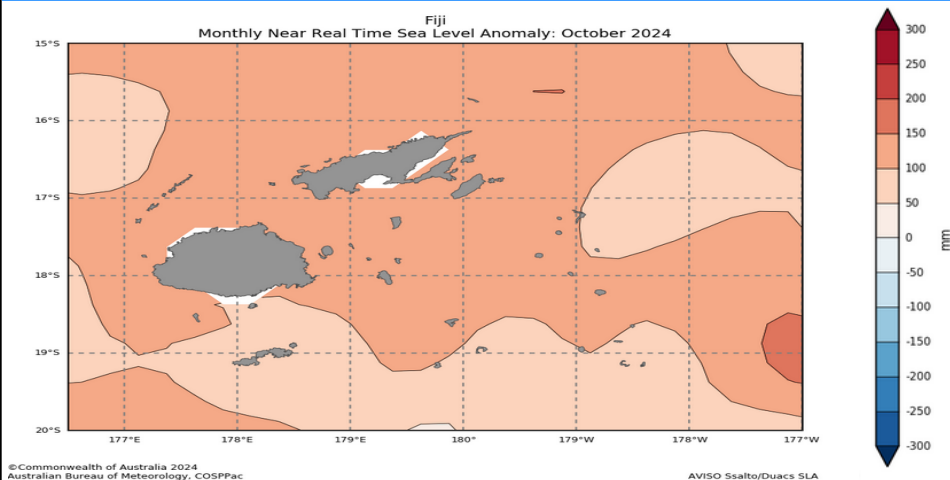


Figure 10: Above normal sea level anomalies persisted across most of the Fiji Waters during October.

Source: <https://oceanportal.spc.int/portal/app.html#sealevel>

11. WIND ANOMALIES

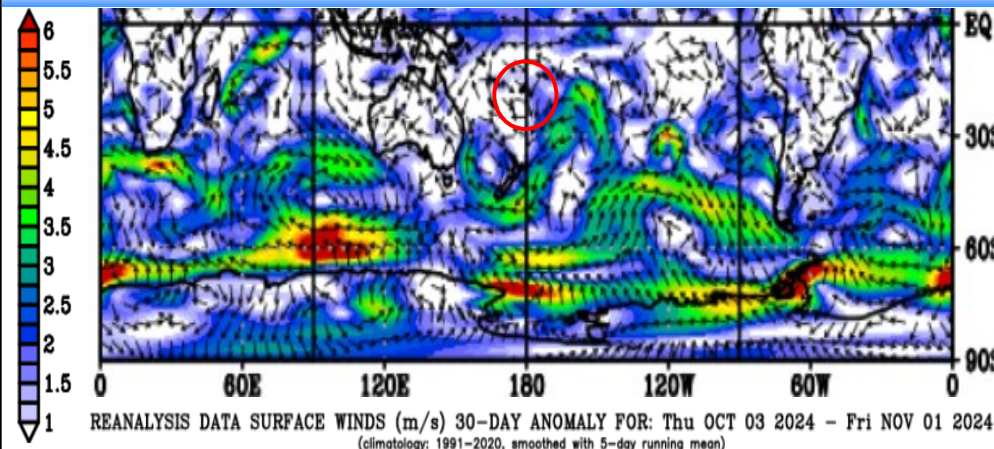


Figure 11: North-westerly winds were observed over the Fiji Group during the month (base period: 1991-2020) (Fiji in red circle).

Source: https://www.esrl.noaa.gov/psd/map/images/rnl/sfcwnd_30b.rnl.html

12. FLASH FLOODING: 17th & 26th

Localized heavy rainfall led to flash flooding in Kadavu on the 17th. Significant 24-hour rainfall of 217mm was recorded at Vunisea on the 17th. Another episode of flooding occurred in the Central Division on the 26th. Significant 24-hour rainfall of 149mm was recorded at Navua, followed by Laucala Bay (Suva) with 142mm, all on the 25th. Flash flooding resulted in road closures and inaccessibility in these areas (Figure 12b-f). Reportedly, few of the houses in Sawani, Nausori were inundated with flood waters.



Figure 12a: Waisomo Crossing in Kadavu, inundated with flood waters on the 17th. Source: Fiji Roads Authority.



Figure 12b: Flooding in Wailoku on the 26th. Source: Fiji Roads Authority.



Figure 12c: Flooding in Sawani on the 26th. Source: FijiVillage.



Figure 12d: Flooding in Sawani, Nausori on the 26th. Source: FBC News.



Figure 12e: Vatuwaqa Crossing, Naitasiri underwater on the 26th. Source: FBC News.



Figure 12f: Surface flooding in Grantham Road on the 26th. Source: Fiji Roads Authority.

13. LANDSLIDE: 18th and 26th

Heavy rainfall in localized areas of the country led to few landslide events. Landslides were reported in Vunisea, Kadavu on the 18th (Figure 13a). Towards the end of the month, continuous rainfall in the Central Division led to a number of landslide events on the 26th (Figure 13b and Figure 13c).



Figure 13a: Landslide in Vunisea, Kadavu on the 18th. Source: Fiji Roads Authority.



Figure 13b: Landslide at Nabukaluka Delailasakau Road, Naitasiri on 26th. Source: Fiji Roads Authority.



Figure 13c: Landslip at Qiolevu Road on 26th. Source: Fiji Roads Authority.

14. COASTAL INUNDATION

A coastal inundation alert was issued for the southern parts of the Fiji Group in anticipation of the highest tide of the year, coinciding with the moderate swells generated by the squash zone within the vicinity of the group.

Minor coastal inundation was experienced over Mali Island in Macuata, due to northwesterly winds (onshore flow during the high tide). Seawater encroached houses near the coastal areas of Mali Island (Figure 14a).



Figure 14a: Coastal inundation on Mali Island in Macuata on the 18th. Source: The Fiji Times

EXPLANATORY NOTES

Anomalies - denote the departure of an element (rainfall, temperature, sea surface temperature, cloud cover, sea level and wind) from its long-period average value for a particular location.

Trough - an elongated area of low atmospheric pressure that is associated with a cyclone, or low. Sometimes referred to as a 'trough of low pressure'.

Rain - Liquid precipitation in the form of water droplets. Rain falls from dense, continuous clouds, called 'stratiform' clouds.

Shower - precipitation from individual clouds, often characterised by the sudden beginning or ending. Showers fall from 'lumpy looking', 'cauliflower' clouds, called 'cumuloform' clouds.

Trade Winds - the trade winds are the east to southeasterly winds (in the Southern Hemisphere) which affect tropical and subtropical regions.

High pressure systems or anticyclones are atmospheric circulations that rotate anti-clockwise in the Southern Hemisphere. Anticyclones are areas of higher pressure and are generally associated with lighter winds and fine and settled conditions.

Low pressure systems or mid-latitude cyclones are atmospheric circulations that rotate clockwise in the Southern Hemisphere (anti-clockwise in the Northern Hemisphere). Cyclones are areas of lower pressure and generally associated with stronger winds, unsettled conditions, cloudiness and rainfall.

Sea Surface Temperature (SST) - the temperature of the water's surface. It is usually measured using buoys, ship data, and satellites.