

1. IN BRIEF

The presence of troughs of low pressure systems, associated with Tropical Depression 11F resulted in *average to well above average* rainfall recorded at various parts of the country during the month. Most stations across the country observed more than twice their normal monthly rainfall, resulting in *well above average* rainfall.

Overall, out of the 25 rainfall monitoring stations that reported in, in time for the compilation of bulletin, 18 recorded *well above average* rainfall, 5 *above average* and 2 stations with *average* rainfall (Table 2, Figures 1-5).

Nadarivatu recorded the highest monthly rainfall of 1396.5mm, followed by Nadi with 988.6mm, Lautoka Mill with 907.1mm, Rarawai Mill (Ba) with 892.8mm, Yaqara with 892.5mm, Navua with 875.0mm, Monasavu with 869.6mm, Labasa Airport with 859.1mm (Table 2).

Nadi (988.6mm) and Labasa Airport's (859.1mm) monthly rainfall became the stations new highest ever March rainfall, both replacing a 60years record respectively. Viwa also managed to record its new highest March monthly rainfall, replacing a 2018 record. (Table 1)

On temperatures, the month's warmest day-time temperature of 36.8°C was observed at RKS Lodoni on the 2nd, followed by Rarawai Mill (Ba) with 36.2°C and Seqaqa with 35.8°C, both on the 3rd. The month's coolest night-time temperature of 19.6°C was recorded at Monasavu on the 29th, followed by Matei with 19.9°C, Vanuabalavu with 20.1°C and Ono-i-Lau with 20.5°C, all on the 30th.

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

Warmer than normal sea surface temperature anomalies were observed at most parts of the country (Figure 8). *Above normal* sea level anomalies persisted across most of the Fiji Waters during March 2024 (Figure 10).

Flooding in low-lying areas and major rivers, as well as a landslide event, was reported due to heavy rainfall events (Figure 12a-12t).

A mini tornado was reported in Nakasi (near Nausori) on the 23rd, with strong winds experienced for about 30 seconds. (Figure 13a-13b).

2. WEATHER PATTERNS

The weather in March was dominated by a series of troughs of low pressure systems associated with Tropical Depression 11F together with the moist northerlies and easterlies.

A weak trough lay to the southwest of Fiji on the 1st and affected parts of the country till the 4th with the moist easterlies becoming dominant over the group thereafter from the 5th to the 8th.

On the 9th, TD11F was analysed to the far west of Fiji with its associated active trough affecting the whole country until the 17th. Periods of rain with heavy falls were observed in most centres in the northern, central and western divisions. This was coupled by strong north to north-westerly winds over Fiji waters directed by TD11F as it made its way passing Fiji to the west.

The highest 24-hour rainfall amounts recorded for this period was in Ono-i-Lau with 100.3mm on the 12th, 211.5mm, 132.5 and 416.5mm in Nadarivatu on the 14th,

15th and 16th and 153.5mm in Labasa on the 17th. Nadarivatu recorded the highest rainfall for the month.

This same trough lingered over Fiji and continued to affect parts of the country with occasional to periods of rain and isolated heavy falls from the 18th to the end of the month. The highest 24-hour rainfall amounts recorded for this period was in Koronivia with 219.0mm on the 19th, 131.0mm in Nausori on the 25th and 157.0mm in Ba on the 29th.

Rotuma's weather was also affected by a series of troughs of low pressure systems and the moist easterlies for the month of March.

3. RAINFALL

Average to well above average rainfall was observed across the country during the month, primarily due to the presence of a series of low-pressure systems and tropical disturbances, contributing to afternoon showers and thunderstorms. These conditions resulted in few episodes of flooding in low-lying areas and major rivers across the country.

Overall, out of the 25 rainfall monitoring stations that reported in, in time for the compilation of bulletin, 18 recorded well above average rainfall, 5 above average and 2 stations with average rainfall (Table 2, Figures 1-5).

Most stations across the country recorded well above average, with more than twice their normal monthly rainfall. Exceptions were for Tavua, Monasavu, Seaqaqa, and Matei, which received above average rainfall, with Udu Point and Vanuabalavu, recording average rainfall.

The highest monthly rainfall of 1396.5mm was observed at Nadarivatu, followed by Nadi with 988.6mm, Lautoka Mill with 907.1mm, Rarawai Mill (Ba) with 892.8mm, Yaqara with 892.5mm, Navua with 875.0mm, Monasavu with 869.6mm, Labasa Airport with 859.1mm, Penang Mill with 839.2mm, and Viwa with 815.8mm. On the other hand, Vanuabalavu recorded the month's lowest total monthly rainfall of 211.1mm, followed by Udu Point with 327.3mm and Matei with 346.4mm. (Table 2).

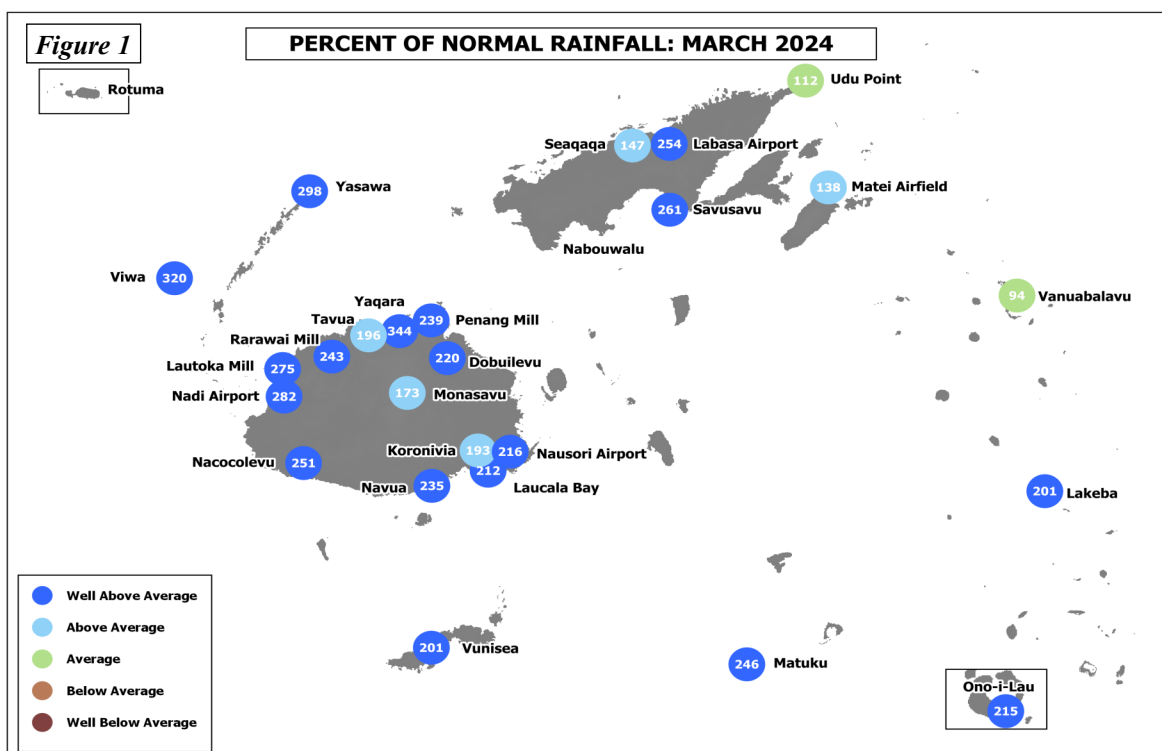
On the 9th, Tropical Depression 11F (TD11F) was located to the far west of Fiji, with its associated active trough affecting the entire country until the 17th. This same trough lingered over Fiji and continued to impact parts of the country with occasional periods of rain and isolated heavy falls from the 18th until the end of the month. These conditions led to flood-

ing in low-lying areas and major rivers across the country, particularly in the Western, Central, and Northern Divisions.

The highest 24-hour rainfall includes 220mm at Nadi Airport, 150mm at Labasa Airport, 194mm at Monasavu, 162mm at Lautoka Mill, 196mm at Rarawai Mill, 134mm at Yaqara, 131mm at Keyasi, 417mm at Nadarivatu, 117mm at Wainikoro, and 169mm at Tavua, all on the 16th. Additionally, there was 202mm at Penang Mill on the 17th, 154mm at Laucala Bay, 219mm at Koronivia, 196mm at Nausori, 197mm at Navua, 123mm at Seaqaqa, and 205mm at Nasinu, all on the 19th, 171mm at Yasawa-i-Rara on the 24th, 101mm at Lomaivuna on the 25th, 103mm at Vanuabalavu, 128mm at Vunisea, 105mm at RKS Lodon and 144mm at Dobuilevu, all on the 29th.

Monasavu recorded the highest number of rain days (rainfall ≥ 0.1 mm) with 31 days, followed by Laucala Bay (Suva) and Koronivia both with 30 days, Navua and Saqani both with 29 days and Penang Mill, Nadarivatu, Nasinu, Wainikoro, Nacocolevu and Savusavu all with 28 days. Consequently, Tavua recorded the least number of rain days with 10 days, followed by Vanuabalavu with 19 days, Momi with 20 days, Nadi Airport with 22 days, Udu Point with 23 days, and Lakeba, Vunisea, Viwa, Yaqara, and Lautoka Mill all with 24 days.

The highest total monthly rainfall was recorded at Nadi Airport, Labasa Airport and Viwa, since observation began in 1942, 1956 and 1978, respectively (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 ≥ 0.1 mm

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

Generally *normal to below normal* day-time air temperatures were observed across the country during the month. Out of the 21 climate stations that reported in time for the analysis of data, 1 recorded anomalies $\geq +0.5^{\circ}\text{C}$, 13 within $\pm 0.5^{\circ}\text{C}$, and 7 with anomaly $\leq -0.5^{\circ}\text{C}$.

The warmest days on average were recorded at RKS Lodonu with 34.1°C , followed by Seaqqa with 32.4°C , Viwa with 32.1°C , Yaqara with 31.8°C , Labasa Airport with 31.7°C , Wainikoro and Saqani both with 31.5°C , Lautoka Mill and Vanuabalavu both with 31.4°C , and Rarawai Mill (Ba) with 31.3°C . Consequently, Monasavu recorded the coolest days on average with 25.9°C , followed by Ono-i-Lau with 29.5°C , Yasawa-i-Rara and Matuku both with 29.6°C , Vunisea with 29.9°C , and Sigatoka, Momi and Nacocolevu all with 30.4°C .

The month's highest day-time temperature of 36.8°C was observed at RKS Lodonu on the 2nd, followed by Rarawai Mill (Ba) with 36.2°C on the 3rd, Seaqqa with 35.8°C on the 3rd, Viwa with 35.2°C on the 2nd, Lautoka Mill with 35.1°C on the 3rd, Labasa Airport with 35.0°C on the 9th, and Saqani with 34.9°C on the 3rd. On the other hand, the coolest day-time temperature of 22.5°C was at Monasavu on the 9th, followed by Lomaivuna with 25.5°C on the 30th, Nacocolevu with 25.6°C on the 30th, and Vaturekuka (Labasa) with 25.7°C on the 17th.

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

B. Minimum Night-time Air Temperatures

Generally *above average* night-time temperatures were recorded over most parts of the country during the month. Of the 21 stations, 11 recorded anomalies $\geq +0.5^{\circ}\text{C}$, 5 within $\pm 0.5^{\circ}\text{C}$, and 5 with anomaly $\leq -0.5^{\circ}\text{C}$.

The coolest days on average was at Monasavu with 20.9°C , followed by Lomaivuna with 22.5°C , Matei and Korolevu both with 23.2°C , Vaturekuka with 23.3°C , Ono-i-Lau and Vanuabalavu both with 23.4°C , Udu Point with 23.5°C , Sigatoka with 23.6°C , Rarawai Mill (Ba) and Navua both with 23.8°C , and Labasa Airport, Wainikoro, Nacocolevu and Vunisea all with 23.9°C . Consequently, on average, the warmest night-time temperatures were observed at RKS Lodonu with 26.6°C , followed by Viwa with 25.6°C , Laucala Bay (Suva) with 25.0°C , Penang Mill, Yaqara and Saqani all with 24.9°C , Lakeba with 24.7°C , and Seaqqa with 24.6°C .

The coolest daily night-time temperatures were recorded mostly during the last week of the month. The lowest night-time temperature of 19.6°C was recorded at Monasavu on the 29th, followed by Matei with 19.9°C on the 30th, Vanuabalavu with 20.1°C on the 30th, Ono-i-Lau with 20.5°C on the 30th, Lomaivuna and Vaturekuka (Labasa) both with 20.7°C on the 3rd and 31st, respectively, Rarawai Mill (Ba) with 21.0°C on the 6th, and Wainikoro and Saqani both with 21.3°C on the 31st. On the other hand, the warmest night-time temperature of 29.9°C was recorded at RKS Lodonu on the 5th, followed by Penang Mill with 28.0°C on the 12th, Viwa with 27.8°C on the 5th, Yaqara with 27.2°C on the 9th and Lakeba with 27.1°C on the 5th.

Labasa Airport, Koronivia and Monasavu recorded their highest monthly average minimum temperature of 23.9°C , 24.4°C and 20.9°C , since observations began in 1956, 1950 and 1980 respectively (Table 1).

TABLE 1. CLIMATE RECORDS ESTABLISHED IN MARCH 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>
Monthly Rainfall	Nadi Airport	988.6mm	-	New High	918.2mm	1964	1942
Monthly Rainfall	Labasa Airport	859.1mm	-	New High	846.2mm	1964	1956
Monthly Rainfall	Viwa	815.8mm	-	New High	572.4mm	2018	1978
Average Minimum Temperature	Labasa Airport	23.9°C	-	New High	23.1°C	1973 1980 1988 2003	1956
Average Minimum Temperature	Koronivia	24.4°C	-	New High	24.1°C	2007	1950
Average Minimum Temperature	Monasavu	20.9°C	-	New High	20.1°C	2001	1980

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 MARCH 2024

	RAINFALL				AIR TEMPERATURES						SUNSHINE				
	TOTAL	RAIN		MAX.	AVERAGE DAILY			EXTREME		TOTAL	*				
	MM	%	DAYS	FALL	MAX.	#	MIN.	#	MAX.	MIN.	HRS	%			
NADI AIRPORT	988.6	282	22	220	16	31.2	0.0	24.0	0.7	34.8	4	22.1	7	160	83
LAUCALA BAY	721.8	212	30	154	19	30.5	-0.9	25.0	0.4	33.4	2	23.4	10	94	52
NACOCOLEVU RESEARCH	611.7	251	28	68	21	30.4	-1.5	23.9	1.2	34.6	3	22.6	6	89	61
ROTUMA ISLAND				MISSING OBSERVATIONS											
VIWA ISLAND	815.8	320	24	97	29	32.1	0.2	25.6	0.6	35.2	2	23.5	9		
YASAWA-I-RARA (AWS)	751.0	298	26	171	24	29.6	-1.8	24.1	-0.4	34.5	2	22.9	31		
UDU POINT WEATHER	327.3	112	23	76	14	31.1	0.0	23.5	-1.3	32.6	3	22.2	17		
NABOUWALU				MISSING OBSERVATIONS											
LABASA AIRFIELD	859.1	254	27	150	16	31.7	-0.3	23.9	1.4	35.0	9	21.9	31		
SAVUSAVU AIRFIELD	554.2	261	28	82	16	31.1	0.2	24.4	0.5	33.6	23	21.5	31		
KORONIVIA RESEARCH	716.0	193	30	219	19	31.2	0.2	24.4	0.9	33.6	2	22.7	31		
NAUSORI AIRPORT	759.3	216	26	196	19	30.8	-0.1	24.1	0.6	33.5	1	22.5	20		
NAVUA (AWS)	875.0	235	29	197	19	30.7	0.2	23.8	0.9	33.6	2	22.3	25		
MONASAVU HYDRO DAM	869.6	173	31	194	16	25.9	0.0	20.9	1.3	29.5	2	19.6	29		
FSC LAUTOKA MILL	907.1	275	24	162	16	31.4	0.0	24.2	0.2	35.1	3	22.6	6		
FSC RARAWAI MILL	892.8	243	25	196	16	31.3	-0.9	23.8	1.0	36.2	3	21.0	6		
FSC PENANG MILL	839.2	239	28	202	17	31.2	-0.1	24.9	1.2	33.3	2	23.1	28		
MATEI AIRFIELD	346.4	138	27	57	16	31.0	0.3	23.2	-1.3	32.6	3	19.9	30		
VANUABALAVU	211.1	94	19	103	29	31.4	0.8	23.4	-1.3	33.1	3	20.1	30		
LAKEBA	540.7	201	24	74	23	31.1	0.4	24.7	0.4	33.4	1	22.0	30		
VUNISEA	621.9	201	24	128	29	29.9	-0.7	23.9	-0.3	32.5	6	22.0	21		
MATUKU	581.7	246	26	84	20	29.6	-0.8	24.1	-0.5	31.9	1	22.2	21		
ONO-I-LAU	418.9	215	25	100	12	29.5	-0.6	23.4	-1.1	32.4	2	20.5	30		
YAQARA AWS	892.5	344	24	134	16	31.8		24.9		34.5	2	22.9	31		
LEVUKA AWS	365.0		26	60	16	U/S		U/S		U/S		U/S			
KEIYASI AWS	736.5		26	131	16	U/S		U/S		U/S		U/S			
LOMAIVUNA AWS	717.0		27	101	25	30.6		22.5		33.9	2	20.7	3		
NADARIVATU AWS	1396.5		28	417	16	U/S		U/S		U/S		U/S			
RKS LODONI AWS	545.5		27	105	29	34.1		26.6		36.8	2	24.0	31		
MOMI AWS	686.0		20	98	16	30.4		24.4		34.3	5	22.7	20		
SIGATOKA AWS	465.5		26	93	21	30.4		23.6		33.7	3	22.4	5		
VATUREKUKA AWS	633.5		27	154	17	30.7		23.3		33.7	1	20.7	31		
KOROLEVU AWS	394.0		27	88	16	30.6		23.2		33.3	15	21.7	25		
WAINIKORO AWS	620.5		28	117	16	31.5		23.9		34.0	1	21.3	31		
SAQANI AWS	616.5		29	90	16	31.5		24.9		34.9	3	21.3	31		
SEAQAQA AWS	524.0	147	25	123	19	32.4		24.6		35.8	3	22.4	5		
DOBUILEVU TB3	774.0	220	27	144	29										
NASINU TB3	708.5		28	205	19										
TAVUA TB3	547.5	196	10	169	16										

TEMPERATURE (C) HUMIDITY WIND

	TEMPERATURE (C)		HUMIDITY		WIND
	MEAN	(AVERAGE AT 9AM)	DRY	WET	
NADI AIRPORT	27.6	27.4	25.7	87	27.3 5.1
LAUCALA BAY	27.7	28.0	26.1	85	28.3
NACOCOLEVU RESEARCH	27.1	28.1	26.1	85	28.4
ROTUMA ISLAND					
VIWA ISLAND	28.8	29.0	27.0	87	30.0
YASAWA-I-RARA (AWS)	26.9				
UDU POINT WEATHER	27.3	29.0	26.6	82	30.0
NABOUWALU					
LABASA AIRFIELD	27.8	28.1	26.2	86	28.4 7.6
SAVUSAVU AIRFIELD	27.7	28.3	26.2	85	28.8 5.0
KORONIVIA RESEARCH	27.8	28.0	26.9	92	28.3
NAUSORI AIRPORT	27.5	27.9	26.0	86	28.1 4.2
NAVUA (AWS)	27.3				
MONASAVU HYDRO DAM	23.4	23.1	22.7	97	21.1
FSC LAUTOKA MILL	27.8	27.7	27.0	95	27.8
FSC RARAWAI MILL	27.6	27.5	25.8	88	27.5
FSC PENANG MILL	28.0	28.0	26.2	88	28.3
MATEI AIRFIELD	27.1	28.9	26.5	83	29.8 8.1
VANUABALAVU	27.4	29.1	26.4	82	30.1
LAKEBA	27.9	29.0	26.6	83	30.0
VUNISEA	26.9	27.5	25.6	86	27.5
MATUKU	26.9	27.1	25.1	85	26.8
ONO-I-LAU	26.4	27.8	25.6	85	27.9

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 (1981-2010). + :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

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

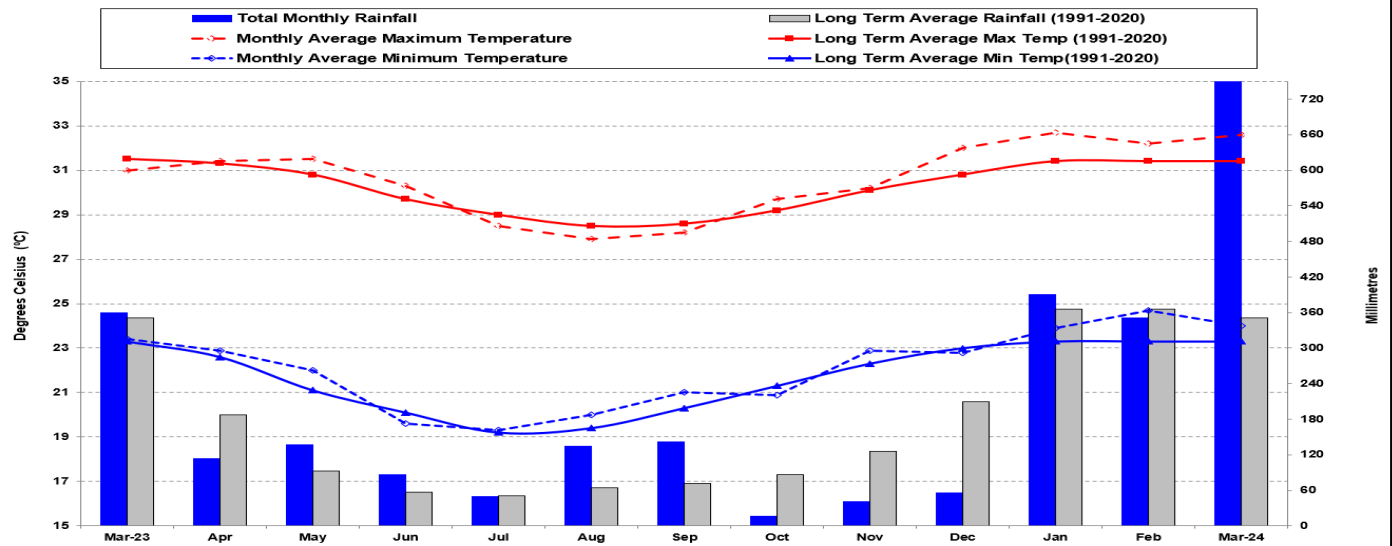


Figure 3

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

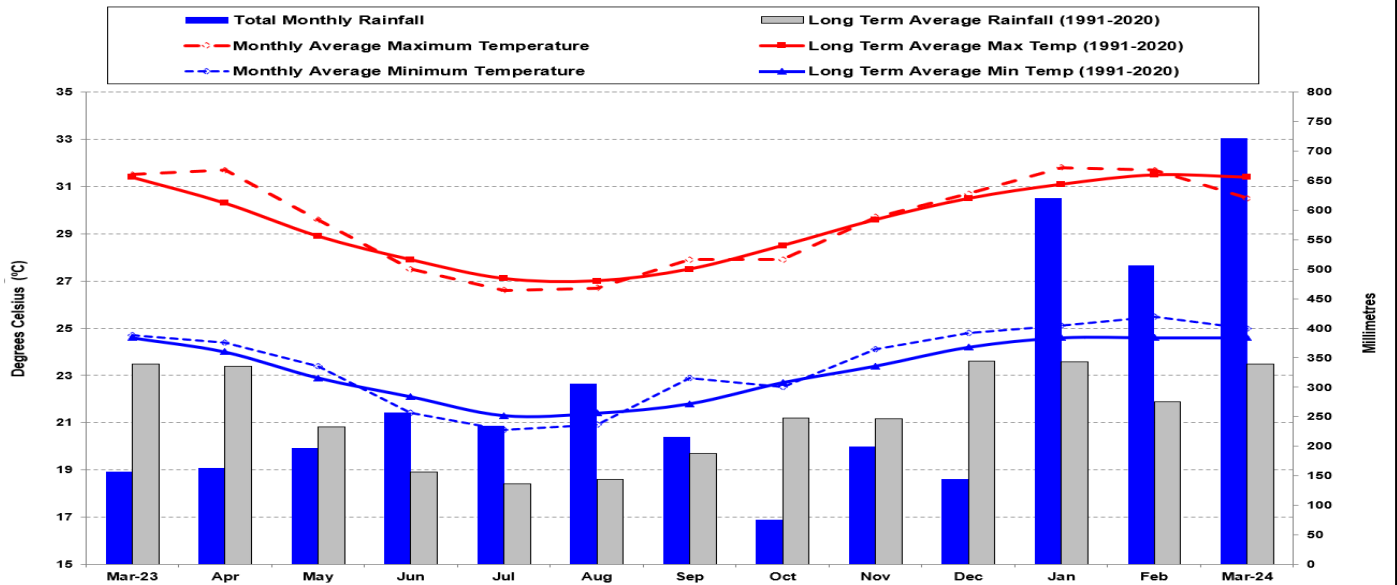


Figure 4

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

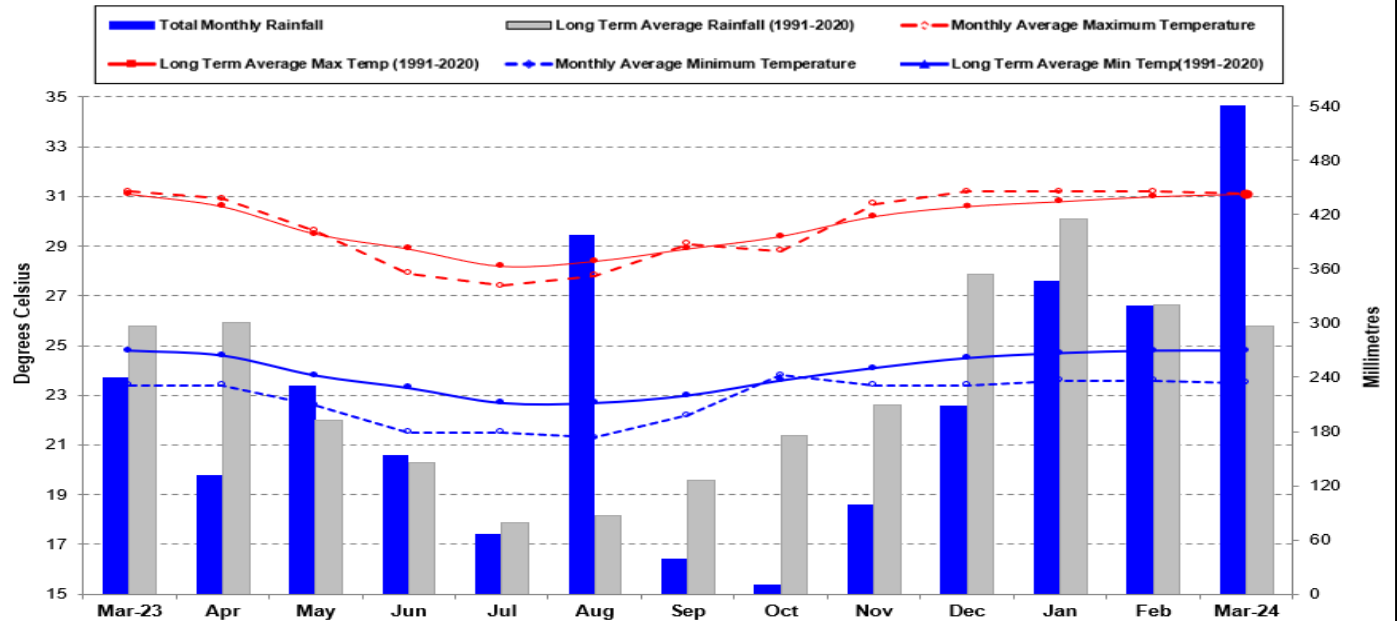
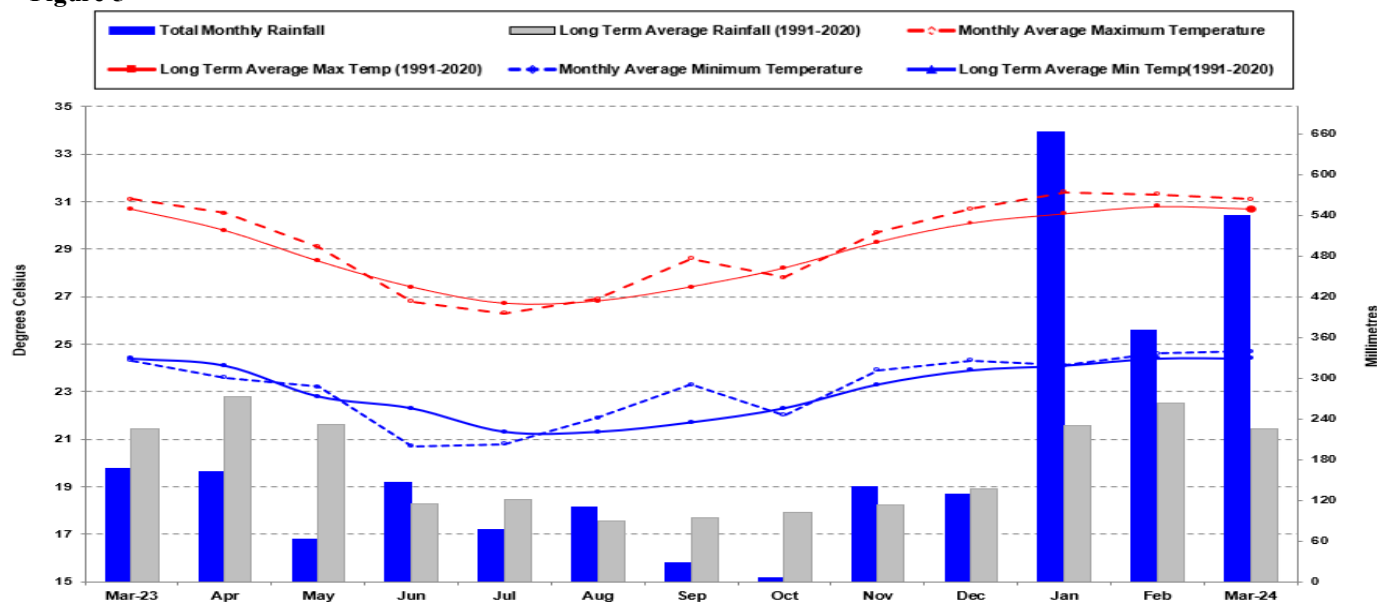


Figure 5

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



5. DAILY RAISED PAN EVAPORATION

Daily Evaporation for March 2024

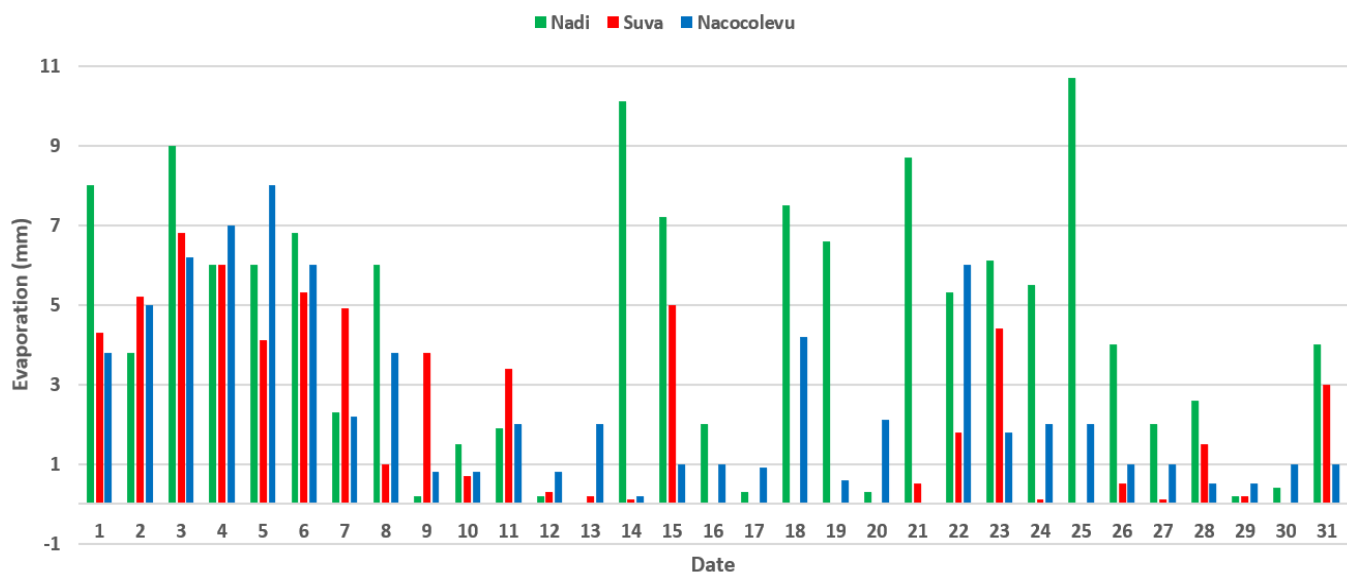


Figure 6: The total monthly raised pan evaporation at Nadi Airport, Laucala Bay (Suva) and Nacocolevu (Sigatoka) were 135.2mm, 63.2mm and 75.2mm, respectively. Nadi’s highest daily evaporation was 10.7mm on the 25th, with Suva’s highest daily evaporation of 6.8mm on 3rd, and Nacocolevu (Sigatoka) recorded its highest of 8.0mm on 5th.

6. SOLAR RADIATION

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

7. WIND SUMMARY

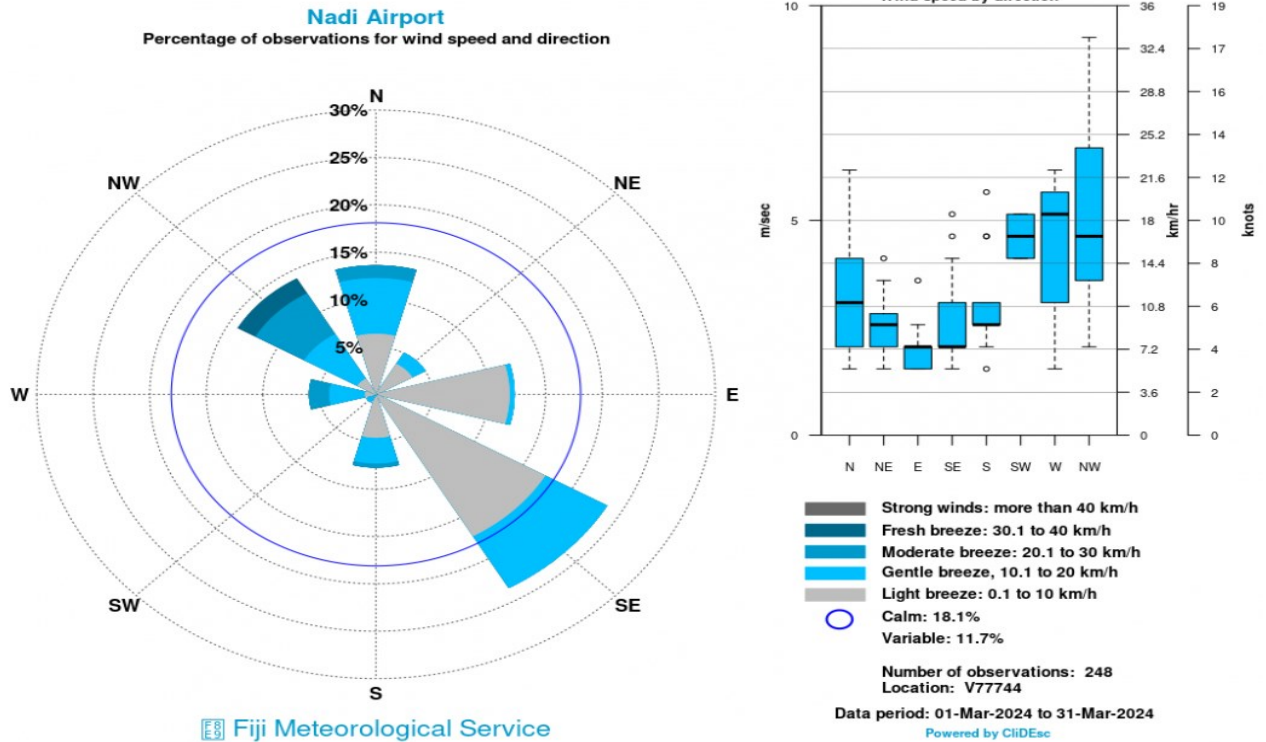


Figure 7a: Looking at Nadi’s 3 hourly observations, southeasterly winds were most dominant during the month, followed by northwesterly and then northerly winds. Wind strength ranged from light to fresh breeze, while 18.1% observations accounted for calm winds.

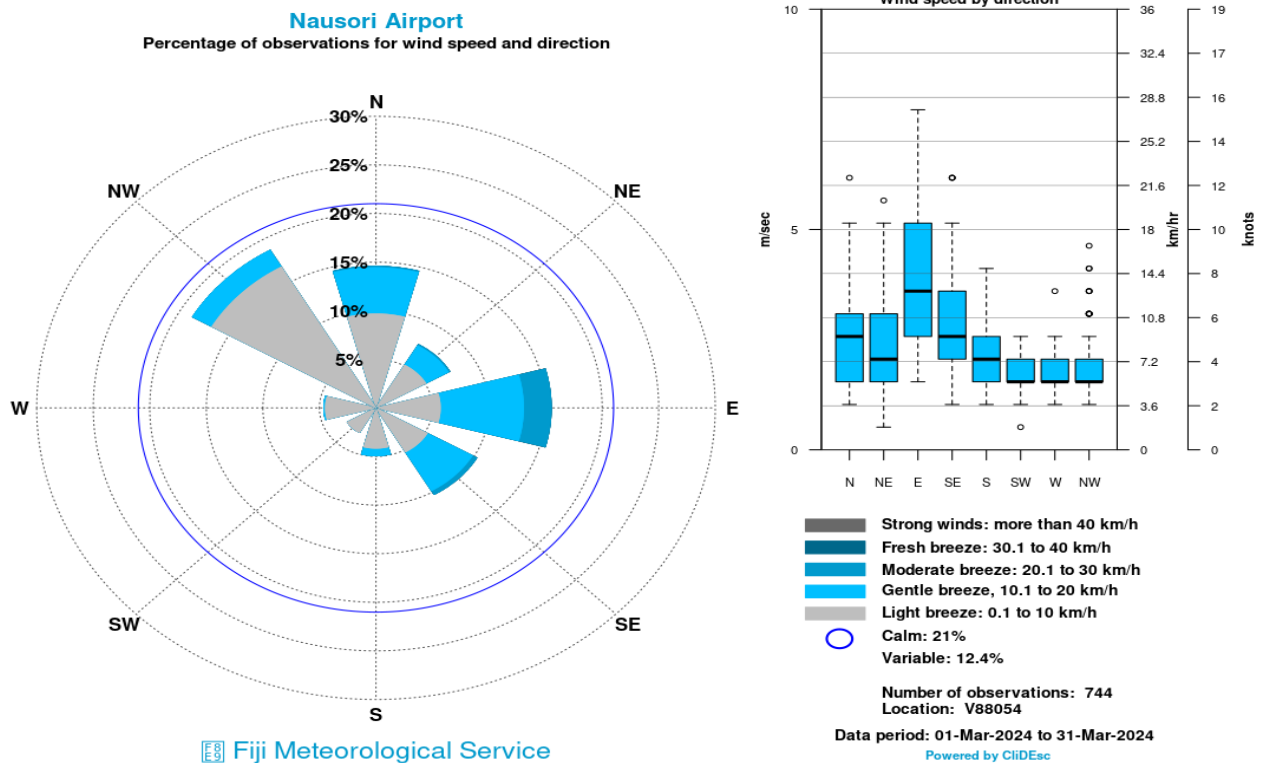


Figure 7b: For Nausori Airport’s hourly wind observations, northwesterly winds were dominant followed by easterly and then northerly winds. Wind strength ranged from light to moderate breeze, while 21% of observations accounted for calm winds.

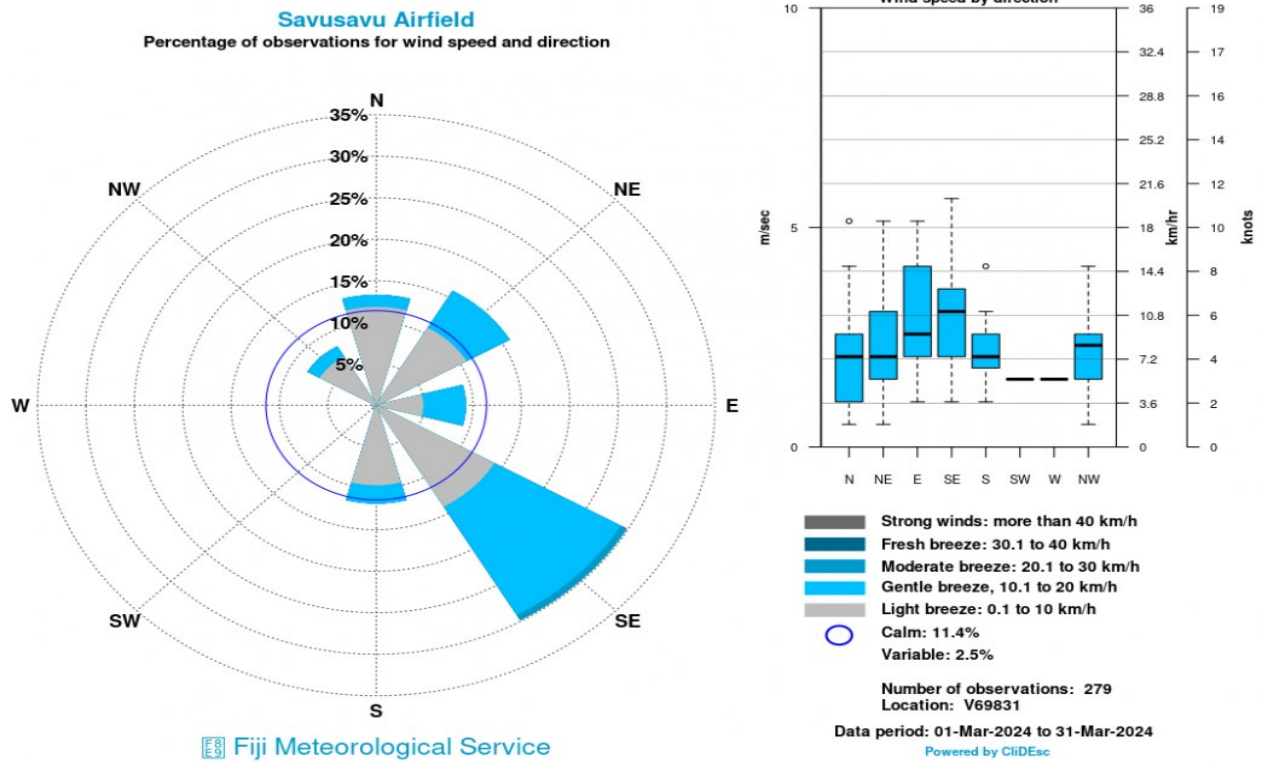


Figure 7c: For Savusavu Airfield’s hourly observations (0800hrs to 1600hrs), southeasterly winds were most dominant during the month, followed by northeasterly and then northerly winds. Wind strength ranged from light to moderate breeze, with calm winds observed 11.4% of the time.

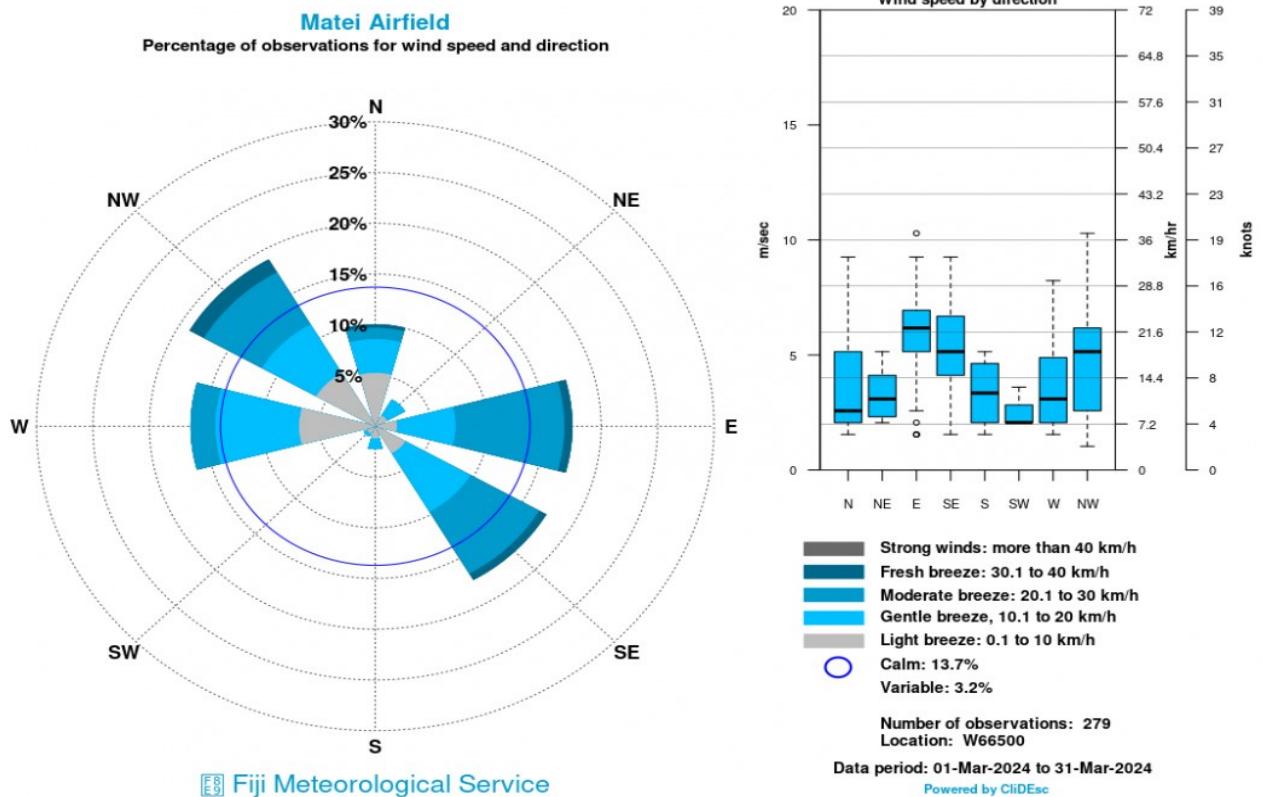


Figure 7d: For Matei Airfield’s hourly wind observations (0800hrs to 1600hrs), northwesterly winds were dominant followed by southeasterly and then easterly winds. Wind strength ranged from light to fresh breeze, with calm winds observed 13.7% of the time.

8. SEA SURFACE TEMPERATURE (SST)

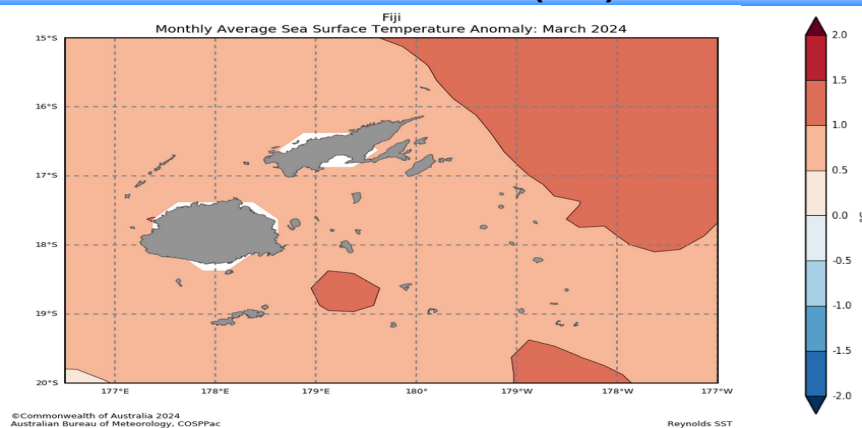


Figure 8: Warmer than normal sea surface temperature anomalies were observed across most of the Fiji Waters, with anomalies 0.5-1.0°C.

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

9. CLOUD COVER

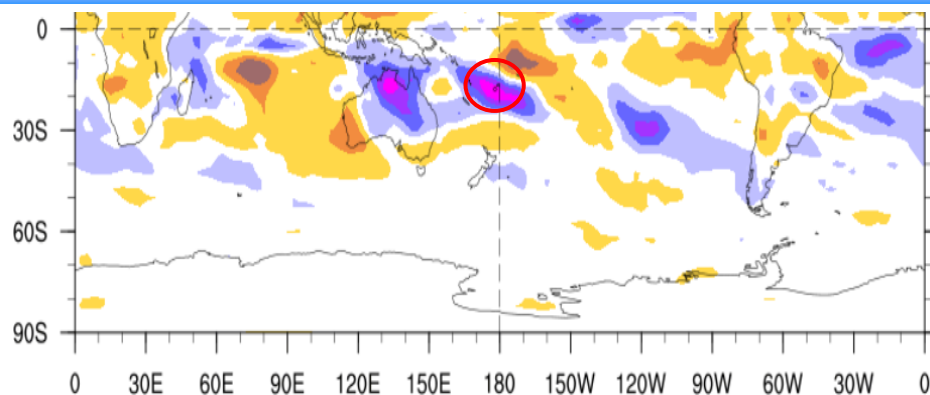


Figure 9: Above normal cloud cover was present over the Fiji Group during March, which is related to the more wet days we have been experiencing in March (Fiji in red circle).

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

10. SEA LEVEL

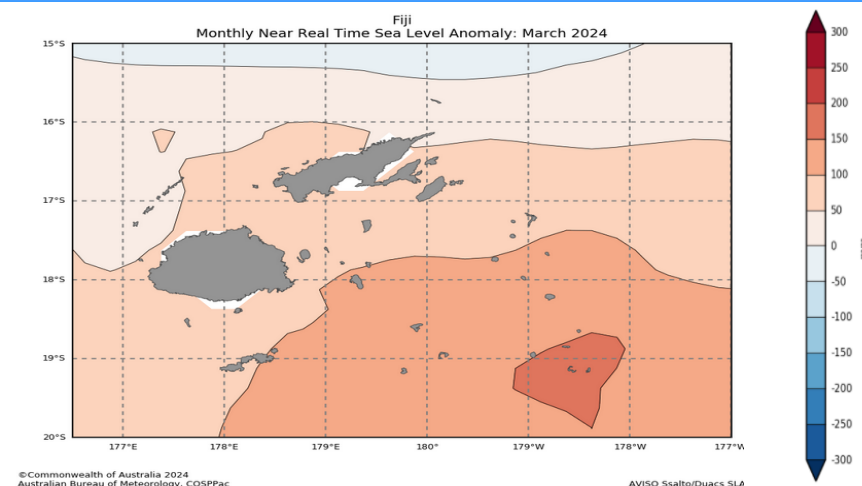


Figure 10: Above normal sea level anomalies persisted across most of the Fiji Waters during March.

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

11. WIND ANOMALIES

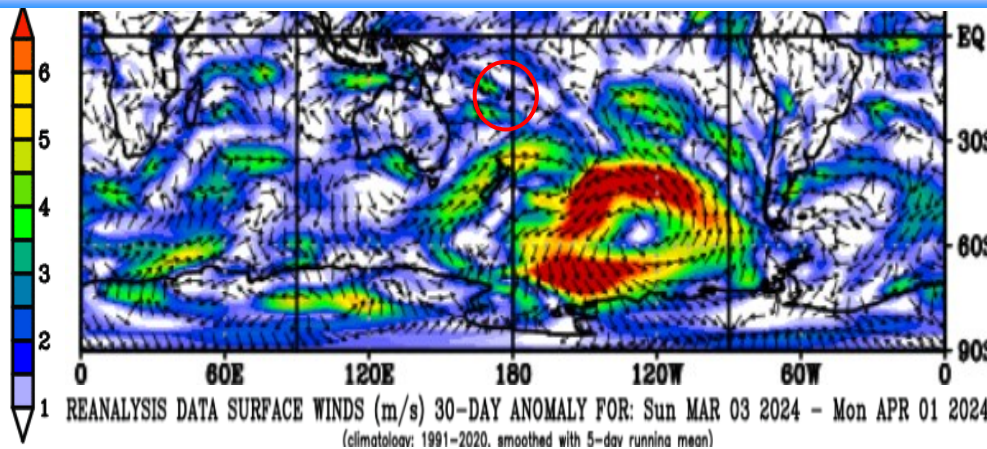


Figure 11: Northwesterly wind anomalies were observed over the Fiji Group during the month (base period: 1991-2020) (Fiji in red circle).

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

12. FLASH FLOODING: 13th, 15th, 16th, 17th, 19th, 21st, 25th and 30th

Heavy rainfall led to flash floods in low-lying areas and major rivers over most parts of the country, especially in the Western, Central, and Northern Divisions on the 13th, 15th, 16th, 17th, 19th, 21st, 25th, and 30th. Significant rainfall amounts were recorded as follows: 149.9mm in Labasa on the 16th, 193.5mm in Monasavu on the 16th, 195.6mm in Rarawai on the 16th, 142.6mm in Nadi on the 19th, 154.3mm in Laucala Bay (Suva) on the 19th, 196.2mm in Nausori on the 19th, 117.7mm in Lautoka on the 29th and 154.8mm in Penang (Rakiraki) on the 30th. Flash flooding resulted in road closures and inaccessibility in these areas, with a landslide reported at Dilkusha in Nausori on the 19th as a consequence of continuous heavy rain.



Figure 12a: Kings Road near Waisai Bridge on the 13th. Source: Fiji Roads Authority.



Figure 12b: Nadelei Road, Tavua on the 13th. Source: Fiji Roads Authority.

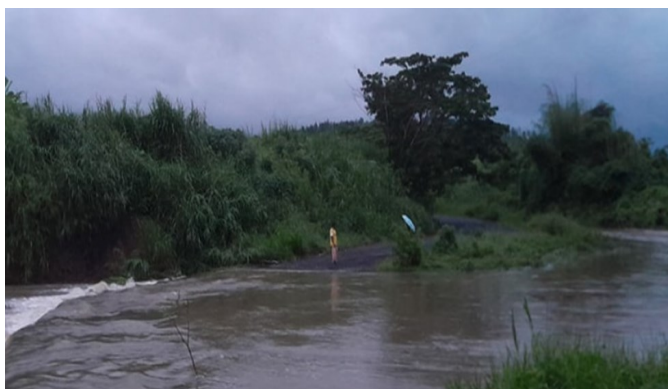


Figure 12c: Vunisamaloa, Ba on the 15th. Source: Fiji Roads Authority.



Figure 12d: Navula bridge, Saru, Lautoka on the 15th. Source: Fiji Roads Authority.



Figure 12e: Naqumu Crossing, Seaqaqa on the 15th. Source: Fiji Roads Authority.



Figure 12f: Lalakoro Crossing, Seaqaqa on the 15th. Source: Fiji Roads Authority.



Figure 12g: Vaivai crossing, Lautoka on the 16th. Source: Fiji Roads Authority.



Figure 12h: Konaŝami Low Level Crossing, Bulileka Road, Labasa on the 16th. Source: Fiji Roads Authority.



Figure 12i: Nadi Town on the 16th. Source: National Disaster Management Office.



Figure 12j: Sabeto -Waimalika Road (Queens Highway) on the 17th. Source: Fiji Meteorological Service.



Figure 12k: Rakiraki Town on the 17th. Source: National Disaster Management Office.



Figure 12l: Landslide along Dilkusha in Nausori on the 19th. Source: National Disaster Management Office.



Figure 12m: Rewa Bridge in Nausori on the 19th. Source: National Disaster Management Office.



Figure 12n: Matacawa Road, Tavua. on the 19th. Source: Fiji Roads Authority.



Figure 12o: Tavualevu Village, Tavua on the 21st. Source: National Disaster Management Office



Figure 12p: Waiyanitu Settlement in Namosi on the 25th. Source: National Disaster Management Office.



Figure 12q: Rakiraki Town on the 30th. Source: National Disaster Management Office.



Figure 12r: Urata road, Labasa on the 30th. Source: Fiji Roads Authority.



Figure 12s: Vunitogolao Village, Rakiraki on the 30th. Source: National Disaster Management Office.



Figure 12t: Vunitogolao Village, Rakiraki on the 30th. Source: National Disaster Management Office.

13. Mini Tornado: 23rd

A mini tornado was reported in Nakasi on the 23rd in the afternoon around 2pm. Strong winds were experienced for only about 30 seconds. Two houses in Niudamu, Nakasi, suffered damage, while a 64-year-old man sustained minor injuries following the event. Five families were without electricity as their power lines were damaged.

The situations that can cause the damages that have been reported are: 1) Microburst and 2) Thunderstorms. A microburst is a localized column of sinking air (downdraft) within a thunderstorm and is usually less than or equal to 2.5 miles in diameter. Microbursts can cause extensive damage at the surface and, in some circumstances, can be life-threatening.

Tornadoes, on the other hand, are violently rotating columns of air extending from a thunderstorm, which are in contact with the ground. All thunderstorms have the potential to produce tornadoes, but the type of storm that is mostly tornadic is a supercell. Supercells may produce strong, violent tornadoes, or several tornadoes over a period of several hours.



Figure 13a: Damages by mini tornado in Nakasi on the 23rd.
Source: Fijivillage.



Figure 13b: Damages by mini tornado in Nakasi on the 23rd.
Source: Fijivillage.

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.