

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 170

Country: Vanuatu

Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	Aug-2021	Sep-2021	Oct-2021				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Northern Region							
Sola (1971-2021)	257.3	186.4	396.2	214.3	430.6	340.8	31/50
Pekoa (1971-2021)		161.9	722.2	88.9	172.9	130.0	51/51
Lamap (1961-2021)	109.5	128.0	289.0	65.4	160.7	99.1	54/60
Southern Region							
Bauerfield (1972-2021)	102.6	82.6	241.9	56.9	142.7	100.4	45/49
Port Vila (1953-2021)	83.0	47.0	250.5	57.3	129.8	84.1	65/69
Whitegrass (1972-2021)	19.7	32.6	154.6	20.0	62.5	34.1	46/50
Aneityum (1952-2021)	4.5	42.8	247.3	63.4	141.2	90.4	63/70

TABLE 2: Three-month Total Rainfall for August to October 2021.

Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Northern Region						
Sola (1971-2021)	839.9	Normal	631.5	966.3	814.9	28/48
Pekoa (1971-2021)			256.8	431.9	342.9	
Lamap (1961-2021)	526.5	Above normal	218.2	338.2	261.8	54/60
Southern Region						
Bauerfield (1972-2021)	427.1	Above normal	214.4	327.1	275.8	42/49
Port Vila (1953-2021)	380.5	Above normal	219.7	333.7	292.1	54/69
Whitegrass (1972-2021)	206.9	Above normal	112.0	181.4	149.4	36/49
Aneityum (1952-2021)	294.6	Normal	277.2	398.2	338.9	29/70

NB: The X LEPS % score has been categorised as follows:

Very Low: $X < 0.0$

Low: $0 \leq X < 5$

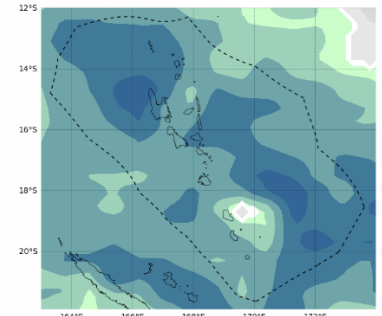
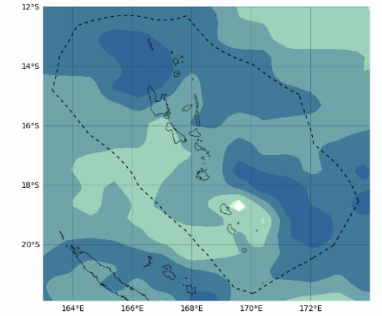
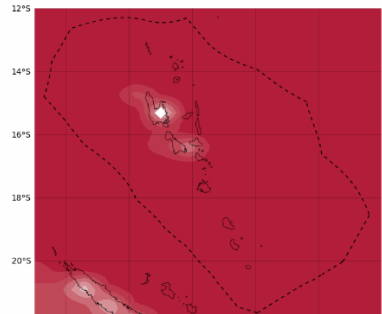
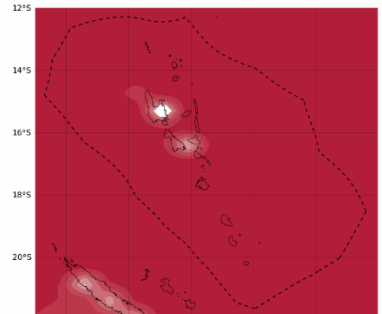
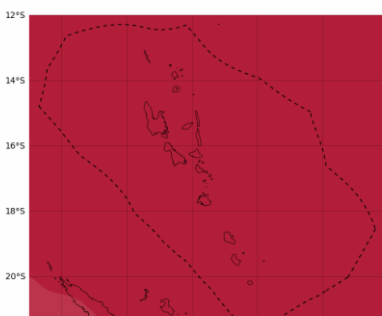

Moderate $5 \leq X < 10$

Good: $10 \leq X < 15$

High: $15 \leq X < 25$

Very High: $25 \leq X < 35$ Exceptional: $X \geq 35$

Part 1i. Monthly and Seasonal Outlooks for December and December 2021 to February 2022

Monthly	Seasonal
Rainfall (Image 1)	Rainfall (Image 2)
<p>Tercile rainfall probabilities for December 2021</p>  <p>Base period: 1981-2018 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Diagnostic data extracted from Flanders Marine Institute (2020), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at http://www.marinegaps.org</p>	<p>Tercile rainfall probabilities for December 2021 to February 2022</p>  <p>Base period: 1981-2018 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Diagnostic data extracted from Flanders Marine Institute (2020), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at http://www.marinegaps.org</p>
Monthly Maximum temperature (Image 3):	Seasonal maximum temperature (Image 4):
<p>Tercile maximum temperature probabilities for December 2021</p>  <p>Base period: 1981-2018 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Diagnostic data extracted from Flanders Marine Institute (2020), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at http://www.marinegaps.org</p>	<p>Tercile maximum temperature probabilities for December 2021 to February 2022</p>  <p>Base period: 1981-2018 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Diagnostic data extracted from Flanders Marine Institute (2020), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at http://www.marinegaps.org</p>
Monthly minimum temperature (Image 5):	Seasonal minimum temperature (Image 6):
<p>Tercile minimum temperature probabilities for December 2021</p>  <p>Base period: 1981-2018 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Diagnostic data extracted from Flanders Marine Institute (2020), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at http://www.marinegaps.org</p>	<p>Tercile minimum temperature probabilities for December 2021 to February 2022</p>  <p>Base period: 1981-2018 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Diagnostic data extracted from Flanders Marine Institute (2020), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at http://www.marinegaps.org</p>

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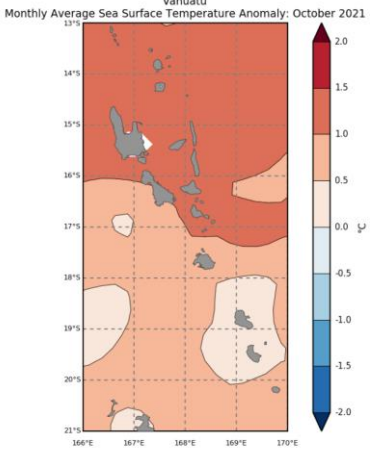
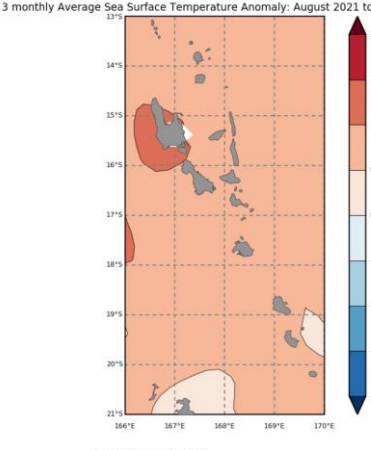
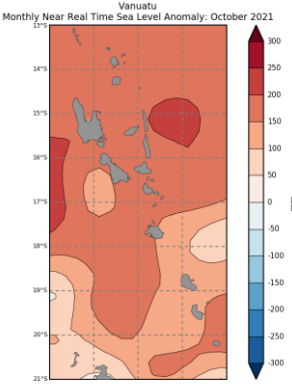
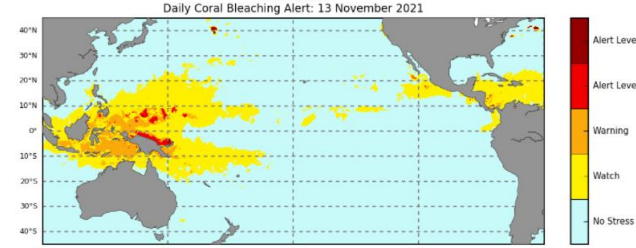
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Part 2: Recent Ocean summary statement

Monthly: October 2021

Monthly: October	Last three months: August to October 2021:
Sea Surface Temperature (Image 1):	Sea Surface Temperature (Image 4):
 <p>Vanuatu Monthly Average Sea Surface Temperature Anomaly: October 2021</p> <p>©Pacific Community (SPC) 2021 Geoscience Energy and Maritime Division, COSPPac SPP Reynolds SST</p>	 <p>Vanuatu 3 monthly Average Sea Surface Temperature Anomaly: August 2021 to October 2021</p> <p>©Pacific Community (SPC) 2021 Geoscience Energy and Maritime Division, COSPPac SPP Reynolds SST</p>
Sea level (Image 2):	
 <p>Vanuatu Monthly Near Real Time Sea Level Anomaly: October 2021</p> <p>©Pacific Community (SPC) 2021 Geoscience Energy and Maritime Division, COSPPac SPP AVISO SeaWiFS SLA</p>	
Daily coral bleaching alert (Image 3):	
 <p>Pacific Ocean Daily Coral Bleaching Alert: 13 November 2021</p> <p>©Pacific Community (SPC) 2021 Geoscience Energy and Maritime Division, COSPPac SPP NOAA Coral Reef Watch</p>	

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Part 2i. Monthly and Seasonal Outlooks for December and December 2021 to February 2022

<p>Monthly: December</p> <p>Monthly sea surface temperature (Image 5):</p> <p>Difference from average sea surface temperature forecast for December 2021</p> <p>Base period: 1981-2018 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Issued: 10/11/2021 Model run: 08/11/2021 Model: ACCESS-S2 L2000e sea ice model output available at http://climate.csiro.au/marine/ice.html</p>	<p>Seasonal: December to February</p> <p>Seasonal sea surface temperature (Image 6):</p> <p>Difference from average sea surface temperature forecast for December 2021 to February 2022</p> <p>Base period: 1981-2018 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Issued: 10/11/2021 Model run: 08/11/2021 Model: ACCESS-S2 L2000e sea ice model output available at http://climate.csiro.au/marine/ice.html</p>
<p>Monthly sea level (Image 7):</p> <p>Difference from average sea surface height forecast for December 2021</p> <p>© Commonwealth of Australia 2021 Bureau of Meteorology Model: ACCESS-S2 Base Period: 1981-2018 Model Run: 27/10/2021 Issued: Map not issued</p>	<p>Seasonal sea level (Image 8):</p> <p>Difference from average sea surface height forecast for December 2021 to February 2022</p> <p>© Commonwealth of Australia 2021 Bureau of Meteorology Model: ACCESS-S2 Base Period: 1981-2018 Model Run: 27/10/2021 Issued: Map not issued</p>
<p>4-week Coral Bleaching (Image 9):</p> <p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 05 December 2021</p> <p>Alert Level 2 Alert Level 1 Warning Watch No Stress</p> <p>© Pacific Community (SPC) 2021 Geoscience Energy and Maritime Division, COSPPac SPP NOAA Coral Reef Watch</p>	

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Summary Statement

Monthly and last three months: October 2021/August to October statement (Highly significant changes)

Normal rainfall was recorded at Sola station while all other stations; Pekoa, Lamap, Bauerfield, Port Vila, white grass and Aneityum recorded above normal rainfall in October. Pekoa recorded its wettest October on record, while Bauerfield and Port Vila experienced their 5th wettest October.

From August to October, Sola and Aneityum recorded normal rainfall while Pekoa, Lamap, Bauerfield, Port Vila and White-grass experiences above normal rainfall. Lamap recorded it's seventh wetter August-October on record.

Part 1i. Monthly and Seasonal Outlooks for December and December 2021 to February 2022

Monthly /Seasonal rainfall and temperature Outlook statements (Highly significant changes)

The rainfall outlook for Vanuatu for both December and December to February 2022 period is likely to be above average.

Part 2: Recent Ocean summary statement

Monthly and last three months: October/August to October 2021 (Highly significant changes)

Above average SST was experienced over the country in period of October and August to October, with an average difference of 1.0 degrees, in October over northern region and 0.5 degrees from August to October for whole Vanuatu except Sanma.

Above average SL was also experienced over the country in October, with the highest SL of 150mm seen over northern and central region.

Part 2i. Monthly and Seasonal Outlooks for December and December 2021 to February 2022

Ocean Variable statement (Highly significant changes)

Above average SSTs will be expected in Vanuatu from December and December to February 2022, with average difference of 0.8-1.2 degree Celsius.

The expected sea level for Vanuatu on December and December to February will be above average for Torba and Penama Province while the rest of the country is expecting normal to near normal with Average differences of 30 – 100mm.

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TABLE 3: Stakeholder Engagement- Evaluations of how effective NMS engage with stakeholders

Product	Date: October 2021	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin					
EAR Watch					
Monthly Climate Briefing					
Ocean Outlook					
Climate data request					
Total					

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