

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 171

Country: Niue

Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	Sep-2021	Oct-2021	Nov-2021				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Hanan Airport (1905-2021)	204.0	61.2	111.5	105.9	172.2	148.3	40/116

TABLE 2: Three-month Total Rainfall for September to November 2021

Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Hanan Airport (1905-2021)	376.7	Normal	325.3	476.9	372.0	60/113

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

Very Low: $X < 0.0$

Low: $0 \leq X < 5$

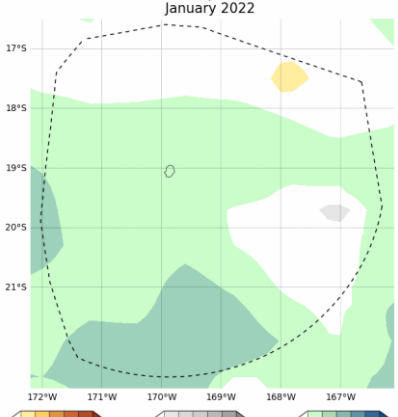
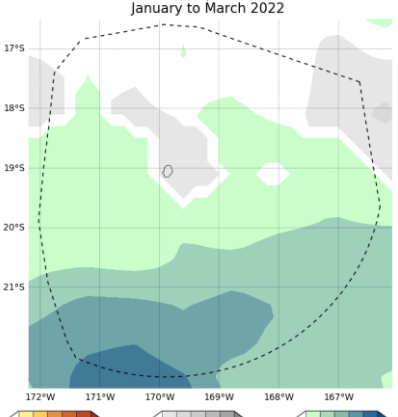
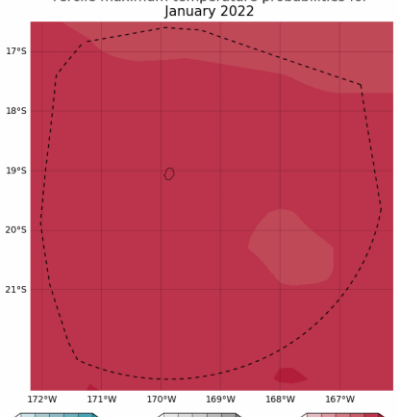
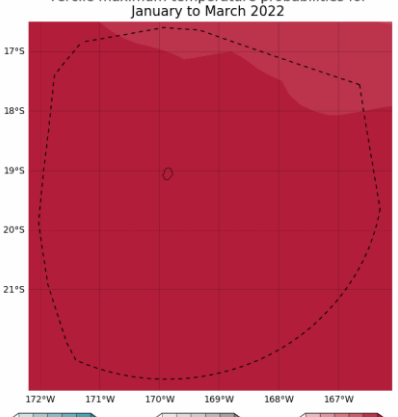
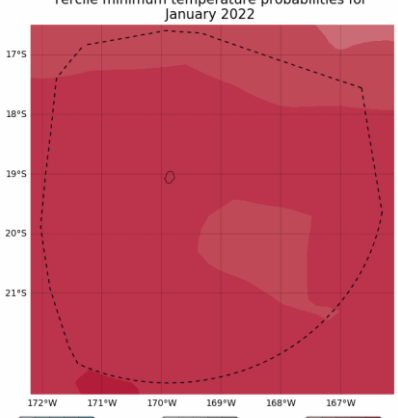
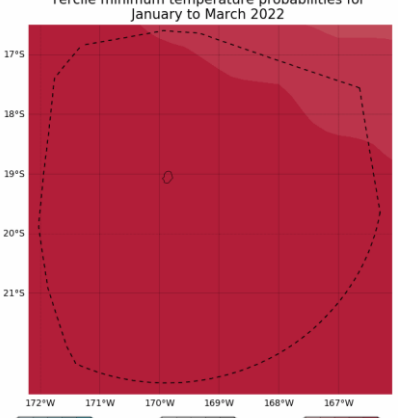
Moderate $5 \leq X < 10$

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 January and January to March 2022

Monthly	Seasonal
Rainfall (Image 1)	Rainfall (Image 2)
<p>Tercile rainfall probabilities for January 2022</p>  <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapefile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (EZZs), version 1.1. Available online at http://www.marineregions.org Model run: 04/12/2021 Issued: 06/12/2021</p>	<p>Tercile rainfall probabilities for January to March 2022</p>  <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapefile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (EZZs), version 1.1. Available online at http://www.marineregions.org Model run: 04/12/2021 Issued: 06/12/2021</p>
Monthly Maximum temperature (Image 3):	Seasonal maximum temperature (Image 4):
<p>Tercile maximum temperature probabilities for January 2022</p>  <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapefile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (EZZs), version 1.1. Available online at http://www.marineregions.org Model run: 04/12/2021 Issued: 06/12/2021</p>	<p>Tercile maximum temperature probabilities for January to March 2022</p>  <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapefile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (EZZs), version 1.1. Available online at http://www.marineregions.org Model run: 04/12/2021 Issued: 06/12/2021</p>
Monthly minimum temperature (Image 5): Insert map	Seasonal minimum temperature (Image 6): Insert map
<p>Tercile minimum temperature probabilities for January 2022</p>  <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapefile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (EZZs), version 1.1. Available online at http://www.marineregions.org Model run: 04/12/2021 Issued: 06/12/2021</p>	<p>Tercile minimum temperature probabilities for January to March 2022</p>  <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapefile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (EZZs), version 1.1. Available online at http://www.marineregions.org Model run: 04/12/2021 Issued: 06/12/2021</p>

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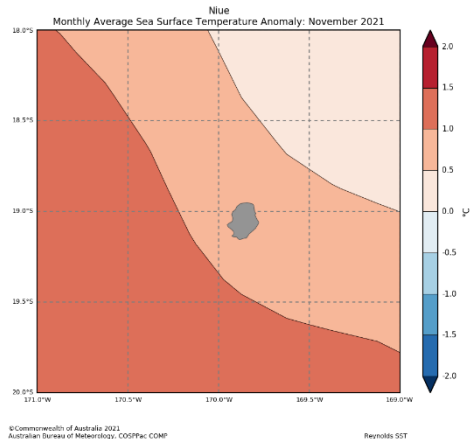
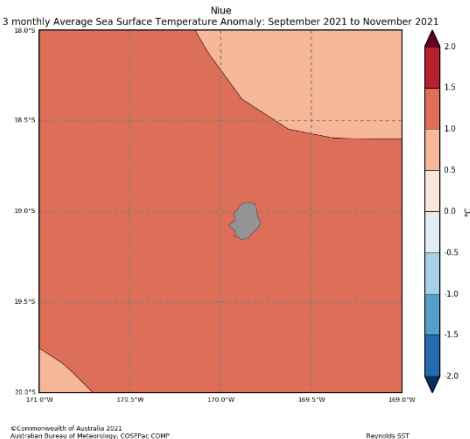
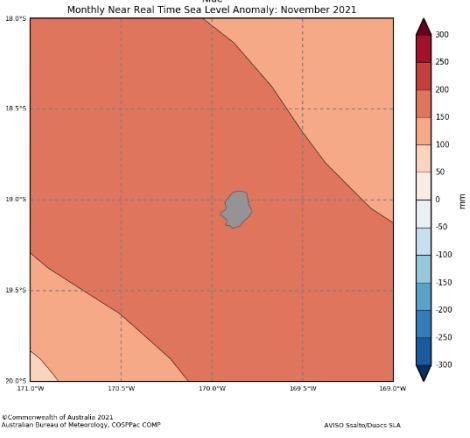
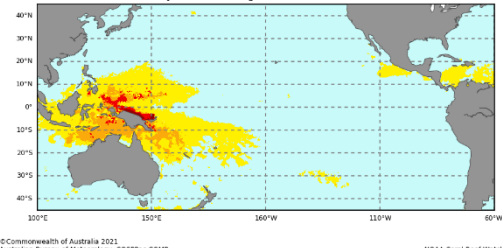
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Part 2: Recent Ocean summary statement

Monthly: November 2021

<p>Monthly: November</p> <p>Sea Surface Temperature (Image 1):</p>  <p>©Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPPac COMP</p>	<p>Last three months: September to November 2021:</p> <p>Sea Surface Temperature (Image 4):</p>  <p>©Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPPac COMP</p>
<p>Sea level (Image 2):</p>  <p>©Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPPac COMP</p>	<p>Daily coral bleaching alert (Image 3):</p>  <p>©Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPPac COMP</p> <p>NOAA Coral Reef Watch</p>

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Part 2i. Monthly and Seasonal Outlooks for January and January to March 2022

Monthly: January	Seasonal: January to March
Monthly sea surface temperature (Image 5):	Seasonal sea surface temperature (Image 6):
<div><p>Difference from average sea surface temperature forecast for January 2022</p><p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Sea surface data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004), version 11. Available online at http://www.marinegovernance.org</p><p>Model run: 04/12/2021 Issued: 06/12/2021</p></div>	<div><p>Difference from average sea surface temperature forecast for January to March 2022</p><p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Sea surface data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2004), version 11. Available online at http://www.marinegovernance.org</p><p>Model run: 04/12/2021 Issued: 06/12/2021</p></div>
Monthly sea level (Image 7):	Seasonal sea level (Image 8):
<div><p>Difference from average sea surface height forecast for January 2022</p><p>© Commonwealth of Australia 2021 Bureau of Meteorology</p><p>Model: ACCESS-S2 Base Period: 1981-2018</p><p>Model Run: 28/11/2021 Issued: 07/12/2021</p></div>	<div><p>Difference from average sea surface height forecast for January to March 2022</p><p>© Commonwealth of Australia 2021 Bureau of Meteorology</p><p>Model: ACCESS-S2 Base Period: 1981-2018</p><p>Model Run: 28/11/2021 Issued: 07/12/2021</p></div>
4-week Coral Bleaching (Image 9):	
<div><p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 26 December 2021</p><p>© Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPac COMP</p><p>NOAA Coral Reef Watch</p></div>	

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Summary Statement

Monthly and last three months: November 2021/September to November statement (Highly significant changes)

Hanan Airports monthly and last three months: November 2021 rainfall was normal and September to November rainfall was also normal.

Part 1i. Monthly and Seasonal Outlooks for January and January to March 2022

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

The rainfall outlook for Niue for January is likely to be above normal while January 2022 to March 2022 period is likely to be normal. Maximum and Minimum monthly and seasonal temperatures is very likely to be above normal.

Part 2: Recent Ocean summary statement

Monthly and last three months: November/September to November 2021 (Highly significant changes)

The Sea surface temperature for the month of November shows warmer conditions experienced in Niue with maximum temperature anomaly of 1.0 degrees Celsius. Sea level for the month of November was higher than normal, with a maximum sea level of 200mm.

Part 2i. Monthly and Seasonal Outlooks for January and January to March 2022

Ocean Variable statement (Highly significant changes)

The outlook for Niue shows a significant temperature difference of up to 1.2 degrees Celsius warmer than average in the far south for January and over the months January to March.

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

Product	Date: November 2021	Stakeholder	Total Number of Participants	Number of males	Number of females
Climate Bulletin	04 Nov 2021 Radio Program	General Public	60	20	40
		Government Officials	20	10	10
		Private Sector	15	5	10
EAR Watch					
Monthly Climate Briefing	24 Nov 2021 Niue Climate Outlook	Government all staff	25	10	15
		Weather Group	15	7	8
		Stakeholders	20	10	10
		Government Officials	15	5	10
Ocean Outlook					
Climate data request					
Total			170	67	103

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