

# Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 174

Country: Samoa

## Part 1: Recent climate

**TABLE 1: Monthly Rainfall**

Station (include data period)	Dec-2021	Jan-2022	Feb-2022				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Apia (1890-2022)	395.8	310.3	761.7	271.9	381.1	333.2	126/133
Afiamalu (1903-2022)	522.7	842.2	1054.5	454.3	715.7	569.4	60/69
Nafanua (1965-2022)	477.6	446.1	774.3	361.6	477.8	401.1	45/50
Faleolo (1956-2022)	286.6	237.9	397.2	191.7	293.2	238.3	50/61

**TABLE 2: Three-month Total Rainfall for December 2021 to February 2022**

Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Apia (1890-2022)	1467.8	Above normal	943.5	1364.5	1131.4	99/131
Afiamalu (1903-2022)	2419.4	Above normal	1715.8	2318.2	2003.4	47/67
Nafanua (1965-2022)	1698.0	Normal	1197.5	1713.6	1401.3	29/45
Faleolo (1956-2022)	921.7	Normal	769.3	967.5	874.4	37/59

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

Very Low:  $X < 0.0$

Low:  $0 \leq X < 5$

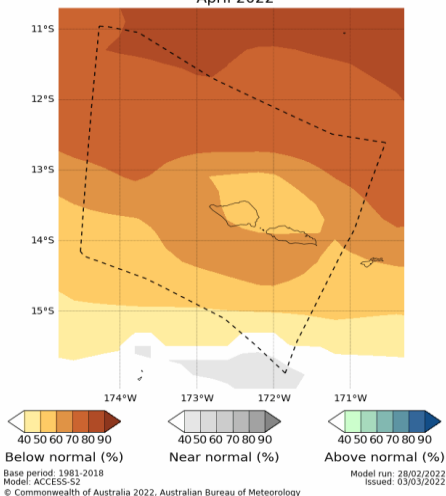
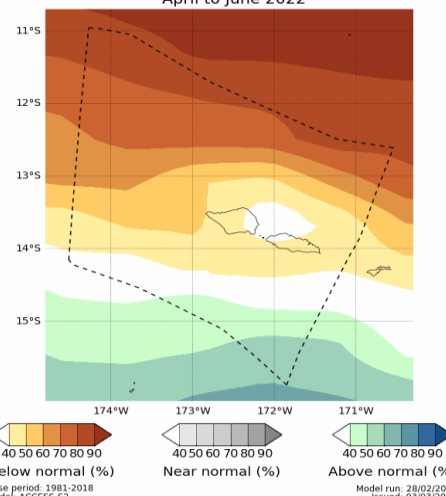
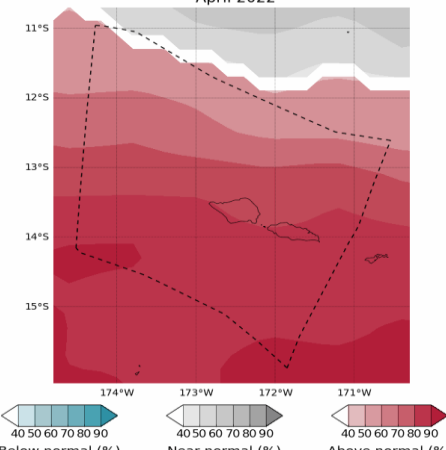
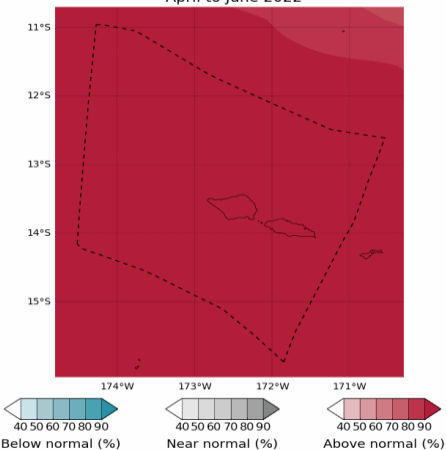
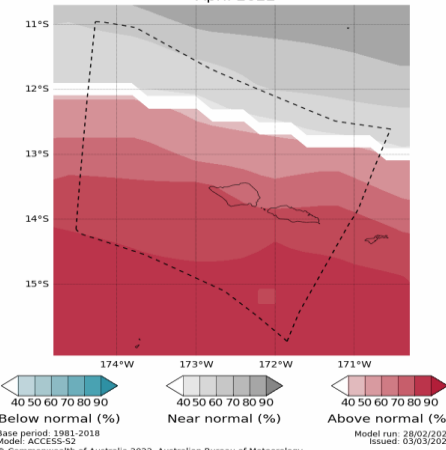
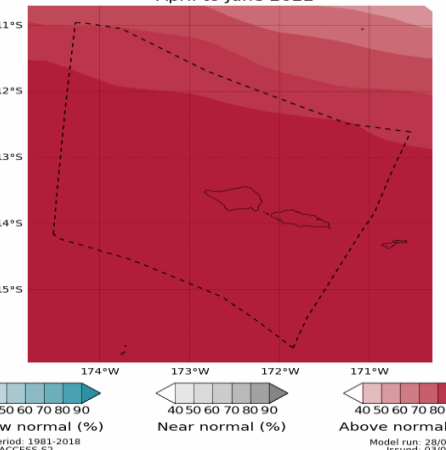
Moderate  $5 \leq X < 10$

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 April and April to June 2022

Monthly: April	Seasonal: April to June
Rainfall (Image 1)	Rainfall (Image 2)
<p>Tercile rainfall probabilities for April 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 Shapfile data extracted from Flinders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <a href="http://www.marine.gov.au">http://www.marine.gov.au</a></p>	<p>Tercile rainfall probabilities for April to June 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 Shapfile data extracted from Flinders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <a href="http://www.marine.gov.au">http://www.marine.gov.au</a></p>
Monthly Maximum temperature (Image 3):	Seasonal maximum temperature (Image 4):
<p>Tercile maximum temperature probabilities for April 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 Shapfile data extracted from Flinders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <a href="http://www.marine.gov.au">http://www.marine.gov.au</a></p>	<p>Tercile maximum temperature probabilities for April to June 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 Shapfile data extracted from Flinders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <a href="http://www.marine.gov.au">http://www.marine.gov.au</a></p>
Monthly minimum temperature (Image 5):	Seasonal minimum temperature (Image 6):
<p>Tercile minimum temperature probabilities for April 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 Shapfile data extracted from Flinders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <a href="http://www.marine.gov.au">http://www.marine.gov.au</a></p>	<p>Tercile minimum temperature probabilities for April to June 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 Shapfile data extracted from Flinders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <a href="http://www.marine.gov.au">http://www.marine.gov.au</a></p>

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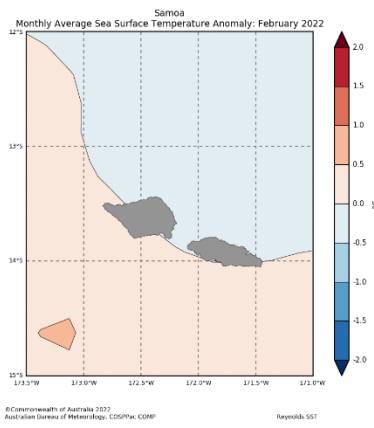
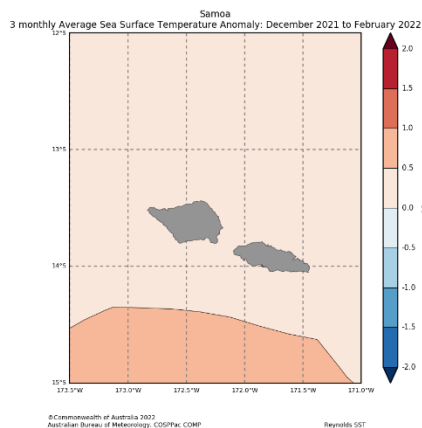
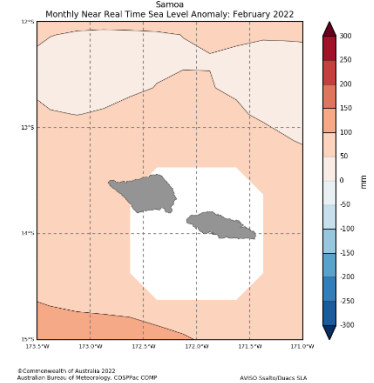
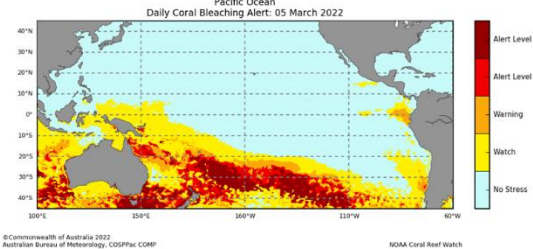
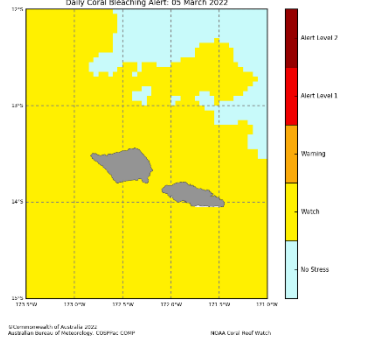
Good:  $10 \leq X < 15$

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## Part 2: Recent Ocean summary statement

### Monthly: February 2022

Monthly: February	Last three months: December 2021 to February 2022:
<p><b>Sea Surface Temperature (Image 1):</b></p>  <p>Samoa Monthly Average Sea Surface Temperature Anomaly: February 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPac CORP</p> <p>Reynolds SST</p>	<p><b>Sea Surface Temperature (Image 4):</b></p>  <p>Samoa 3 monthly Average Sea Surface Temperature Anomaly: December 2021 to February 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPac CORP</p> <p>Reynolds SST</p>
<p><b>Sea level (Image 2):</b></p>  <p>Samoa Monthly Near Real Time Sea Level Anomaly: February 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPac CORP</p> <p>AVISO SeaWiFS/SLA</p>	
<p><b>Daily coral bleaching alert (Image 3):</b></p>  <p>Pacific Ocean Daily Coral Bleaching Alert: 05 March 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPac CORP</p> <p>NOAA Coral Reef Watch</p>	 <p>Samoa Daily Coral Bleaching Alert: 05 March 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPac CORP</p> <p>NOAA Coral Reef Watch</p>

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Part 2i. Monthly and Seasonal Outlooks for April and April to June 2022

Monthly: April	Seasonal: April to June
Monthly sea surface temperature (Image 5):	Seasonal sea surface temperature (Image 6):
<p>Difference from average sea surface temperature forecast for April 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Topographic data extracted from Flanders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <a href="http://www.maritimeregions.org/">http://www.maritimeregions.org/</a></p> <p>Model run: 07/03/2022 Issued: 09/03/2022</p>	<p>Difference from average sea surface temperature forecast for April to June 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Topographic data extracted from Flanders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <a href="http://www.maritimeregions.org/">http://www.maritimeregions.org/</a></p> <p>Model run: 07/03/2022 Issued: 09/03/2022</p>
Monthly sea level (Image 7):	Seasonal sea level (Image 8):
<p>Difference from average sea surface height forecast for April 2022</p> <p>© Commonwealth of Australia 2022 Bureau of Meteorology</p> <p>Model: ACCESS-S2 Base Period: 1981-2018</p> <p>Model Run: 24 Issued: 09</p>	<p>Difference from average sea surface height forecast for April 2022 to June 2022</p> <p>© Commonwealth of Australia 2022 Bureau of Meteorology</p> <p>Model: ACCESS-S2 Base Period: 1981-2018</p> <p>Model Run: 24 Issued: 09</p>
4-week Coral Bleaching (Image 9):	
<p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 27 March 2022</p> <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPac COMP</p> <p>NOAA Coral Reef Watch</p>	<p>Samoa 4 Weeks Coral Bleaching Outlook: 03 April 2022</p> <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPac COMP</p> <p>NOAA Coral Reef Watch</p>

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## Summary Statement

### Monthly and last three months: February 2022/December 2021 to February 2022 statement (Highly significant changes)

*Above normal* rainfall was recorded at all stations in February 2022. Apia and Nafanua recorded their eight and sixth wettest February on record.

*Above normal* rainfall was recorded at all stations in the past three months across Samoa.

## Part 1i. Monthly and Seasonal Outlooks for April and April to June 2022

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

The monthly and seasonal rainfall outlook for Samoa for April and April to June is likely to be *Below Normal*.

The monthly and seasonal temperature outlook for Samoa is very likely to be *Above Normal*.

## Part 2: Recent Ocean summary statement

### Monthly and last three months: February/December 2021 to February 2022 (Highly significant changes)

The monthly sea surface temperature outlook for Samoa shows sea surface temperatures are likely to be *normal* for the period of February. The last three months sea surface temperature outlook for Samoa shows sea surface temperatures are likely to be *normal* from December 2021 to February 2022.

The outlook for Samoa shows above normal sea level differences of 50m to 100m for the period of February.

## Part 2i. Monthly and Seasonal Outlooks for April and April to June 2022

### Ocean Variable statement (Highly significant changes)

The monthly sea surface temperature outlook for Samoa shows sea surface temperatures are likely to be *normal* for April 2022. The seasonal sea surface temperature outlook for Samoa shows sea surface temperatures are likely to be *normal* for the period of April to June.

The monthly sea level outlook for Samoa shows above normal sea level differences of -30m to 60m for the period of April. The seasonal sea level outlook for Samoa shows above normal sea level differences of -30m to 100m for the period of April to June.

There is a coral bleaching *watch* for Samoa for the next four weeks.

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

Product	Date: February 2022	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate data request	21st	Construction company	1	1	
EAR Watch					
Climate Bulletin					
Ocean Bulletin					
<b>Total</b>			<b>1</b>	<b>1</b>	

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