

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 182

Country: Samoa

Part 1: Recent climate

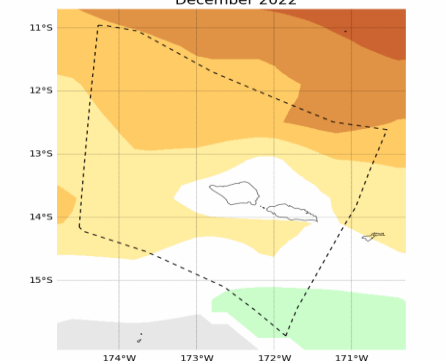
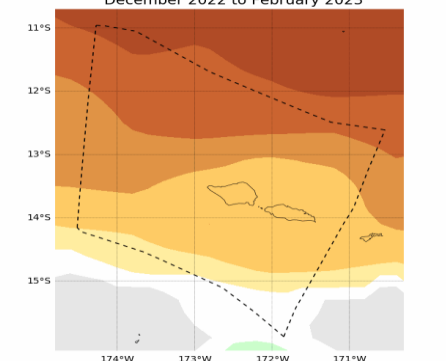
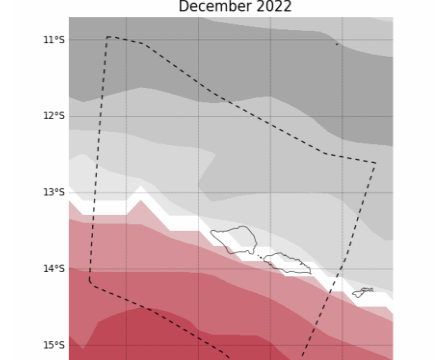
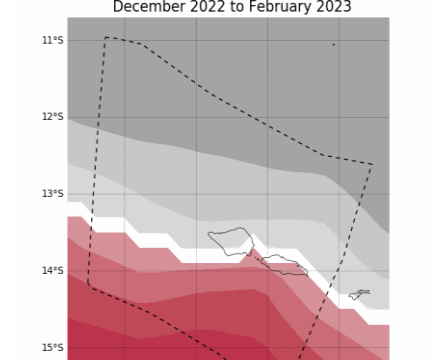
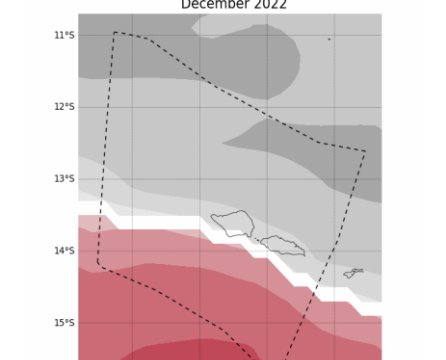
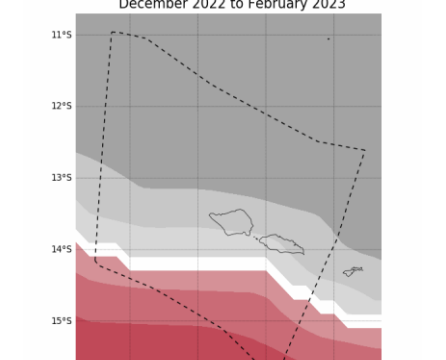
TABLE 1: Monthly Rainfall

Station (include data period)	Aug-2022	Sep-2022	Oct-2022				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Apia (1890-2022)	156.2	110.5	340.8	152.0	257.3	201.0	116/133
Afiamalu (1903-2022)	259.9	111.2	398.8	250.1	417.3	341.6	46/71
Nafanua (1965-2022)	206.7	118.6	298.7	179.2	341.0	237.9	32/51
Faleolo (1956-2022)	69.7	41.1	190.5	123.7	191.8	155.2	39/61

TABLE 2: Three-month Total Rainfall for August to October 2022

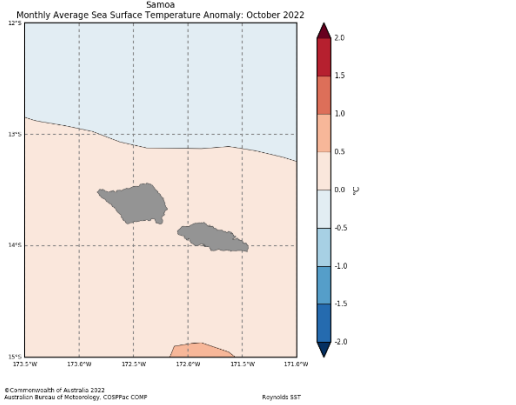
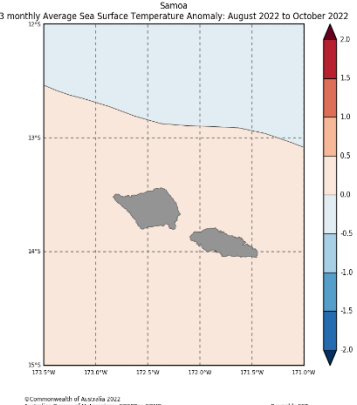
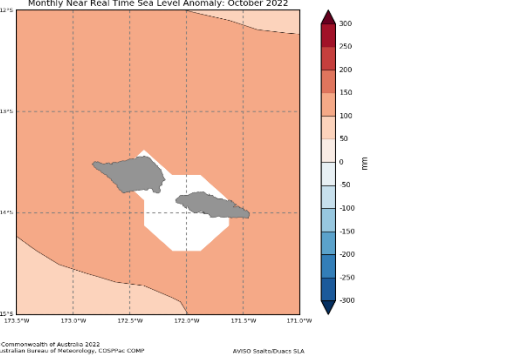
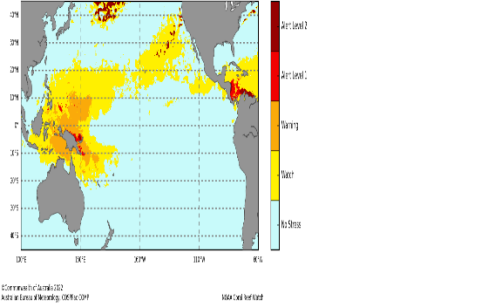
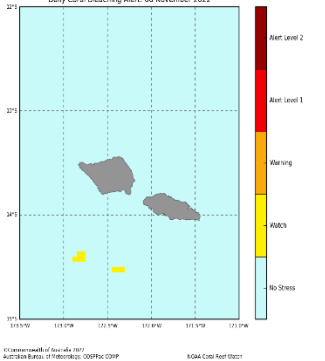
Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Apia (1890-2022)	607.5	Above normal	386.7	535.4	468.6	109/133
Afiamalu (1903-2022)	769.9	Normal	631.9	832.6	731.2	42/68
Nafanua (1965-2022)	624.0	Above normal	450.8	595.2	521.1	35/50
Faleolo (1956-2022)	301.3	Normal	261.0	421.8	350.7	25/59

Part 1i. Monthly and Seasonal Outlooks for December 2022 and December 2022 to February 2023

Monthly: December	Seasonal: December to January
Rainfall (Image 1)	Rainfall (Image 2)
<p>Tercile rainfall probabilities for December 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (EZZs), version 11. Available online at http://www.marinegovernance.org/</p>	<p>Tercile rainfall probabilities for December 2022 to February 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (EZZs), version 11. Available online at http://www.marinegovernance.org/</p>
Monthly Maximum temperature (Image 3):	Seasonal maximum temperature (Image 4):
<p>Tercile maximum temperature probabilities for December 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (EZZs), version 11. Available online at http://www.marinegovernance.org/</p>	<p>Tercile maximum temperature probabilities for December 2022 to February 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (EZZs), version 11. Available online at http://www.marinegovernance.org/</p>
Monthly minimum temperature (Image 5):	Seasonal minimum temperature (Image 6):
<p>Tercile minimum temperature probabilities for December 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (EZZs), version 11. Available online at http://www.marinegovernance.org/</p>	<p>Tercile minimum temperature probabilities for December 2022 to February 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (EZZs), version 11. Available online at http://www.marinegovernance.org/</p>

Part 2: Recent Ocean Observation

Monthly/Three months: October 2022 and August to October 2022

Monthly: October	Last three months: August to October 2022:
<p>Sea Surface Temperature (Image 1):</p>  <p>Samoa Monthly Average Sea Surface Temperature Anomaly: October 2022</p> <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPac COMP</p> <p>Reynolds SST</p>	<p>Sea Surface Temperature (Image 4):</p>  <p>Samoa 3 monthly Average Sea Surface Temperature Anomaly: August 2022 to October 2022</p> <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPac COMP</p> <p>Reynolds SST</p>
<p>Sea level (Image 2):</p>  <p>Samoa Monthly Near Real Time Sea Level Anomaly: October 2022</p> <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPac COMP</p> <p>AVISO SeaWiFS Sea Level</p>	
<p>Daily coral bleaching alert (Image 3):</p>  <p>Pacific Ocean Daily Coral Bleaching Alert: 06 November 2022</p> <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPac COMP</p> <p>NOAA Coral Reef Watch</p>	 <p>Samoa Daily Coral Bleaching Alert: 06 November 2022</p> <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPac COMP</p> <p>NOAA Coral Reef Watch</p>

Part 2i. Monthly and Seasonal Outlooks for December 2022 and December 2022 to February 2023

Monthly: December	Seasonal: December to February
Monthly sea surface temperature (Image 5):	Seasonal sea surface temperature (Image 6):
<div><p>Difference from average sea surface temperature forecast for December 2022</p><p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flinders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.marinegovernance.org/</p><p>Model run: 05/11/2022 Issued: 07/11/2022</p></div>	<div><p>Difference from average sea surface temperature forecast for December 2022 to February 2023</p><p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flinders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.marinegovernance.org/</p><p>Model run: 05/11/2022 Issued: 07/11/2022</p></div>
Monthly sea level (Image 7):	Seasonal sea level (Image 8):
<div><p>Difference from average sea surface height forecast for December 2022</p><p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flinders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.marinegovernance.org/</p><p>Model run: 05/11/2022 Issued: 07/11/2022</p></div>	<div><p>Difference from average sea surface height forecast for December 2022 to February 2023</p><p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flinders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.marinegovernance.org/</p><p>Model run: 05/11/2022 Issued: 07/11/2022</p></div>
4-week Coral Bleaching (Image 9):	
<div><p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 27 November 2022</p><p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, CSIRO, GPO NOAA Coral Reef Watch</p></div>	<div><p>Samoa 4 Weeks Coral Bleaching Outlook: 27 November 2022</p><p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, CSIRO, GPO NOAA Coral Reef Watch</p></div>

Summary Statement

Monthly and last three months: October 2022/August to October 2022 statement

October rainfall for Afiamalu, Nafanua and Faleolo was *near-normal*, with *above normal* rainfall recorded for the Apia station. The three-monthly rainfall was *above normal* at Apia and Nafanua, and *near-normal* at Afiamalu and Faleolo.

Part 1i. Monthly and Seasonal Outlooks for December 2022 and December 2022 to February 2023

Monthly /Seasonal rainfall and temperature Outlook statements

The rainfall for December offers little guidance as the chances of *above normal*, *normal* and *below normal* are similar. Rainfall over December to February is likely to be *below normal*.

Minimum temperatures during December are likely to be *near-normal* over most of the country, but the outlook offers little guidance for December maximum temperatures as the chances of *above normal*, *near-normal* and *below normal* are similar in most areas.

Maximum and minimum temperatures averaged over December to February are likely to be *near-normal* for most of Samoa. The main exception is the southern half of Upolu where maximum temperatures are likely to be *above normal*.

Part 2: Recent Ocean summary statement

Monthly and last three months: October/August to October 2022

October ocean temperatures around Samoa show sea surface temperatures between 0°C to 0.5°C were likely to be *above normal*.

Averaged over August to October, ocean temperatures around Samoa were near to normal.

October sea levels around Samoa were 100mm to 150mm *above normal*.

Coral bleaching alerts reveal no thermal stress.

Part 2i. Monthly and Seasonal Outlooks for December 2022 and December 2022 to February 2023

Ocean Variable statement

Sea surface temperatures and sea level are forecast to be near normal for the month of December, and the December to February period.

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

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

Product	Date: October 2022	Stakeholder	Total Number of Participants	Number of male	Number of female
Seasonal Climate Outlook	30th	RED Cross, Water Authority (SWA), Media, Health, Works & Infrastructure, Land & Transport Authority, Agriculture & Fisheries, Fire Services, Ministry of Women, National University of Samoa, Tourism, Foreign Affairs, Communication and Information Technology, Disaster Managers, Marines	65	27	38
EAR Watch	30th	RED Cross, Water Authority (SWA), Media, Health, Works & Infrastructure, Land & Transport Authority, Agriculture & Fisheries, Fire Services, Ministry of Women, National University of Samoa, Tourism, Foreign Affairs, Communication and Information Technology, Disaster Managers, Marines	65	27	38
Monthly Climate Briefing	30th	Australian high commissioner	10	6	4
Ocean Outlook	30th	RED Cross, Water Authority (SWA), Media, Health, Works & Infrastructure, Land & Transport Authority, Agriculture & Fisheries, Fire Services, Ministry of Women, National University of Samoa, Tourism, Foreign Affairs, Communication and Information Technology, Disaster Managers, Marines	65	27	38
Total			75	33	42