

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 165

Country: Samoa

TABLE 1: Monthly Rainfall

Station (include data period)	Mar-2021	Apr-2021	May-2021				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Apia (1890-2021)	254.6	130.9	190.5	142.8	236.7	175.3	83/132
Afiamalu (1903-2021)	274.6	317.5	314.1	246.9	365.2	310.6	37/68
Nafanua (1965-2021)	312.4	207.8	200.0	187.0	261.1	201.4	25/50
Faleolo (1956-2021)	116.0	78.7	41.5	101.9	179.8	138.6	6/60

TABLE 2: Three-month Rainfall for March to May 2021

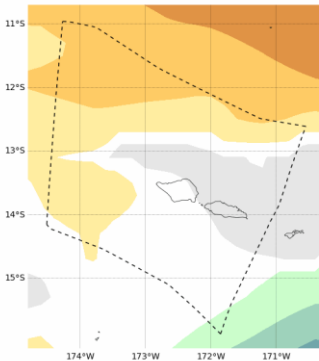
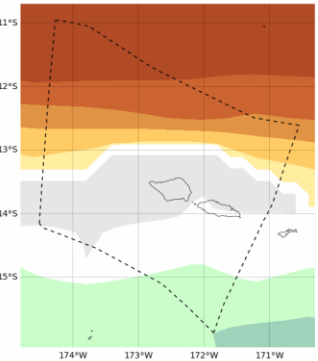
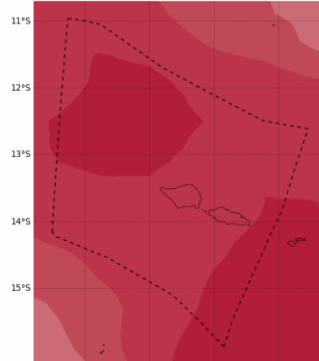
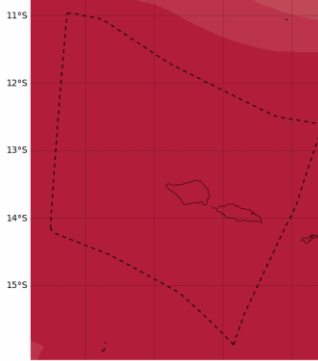
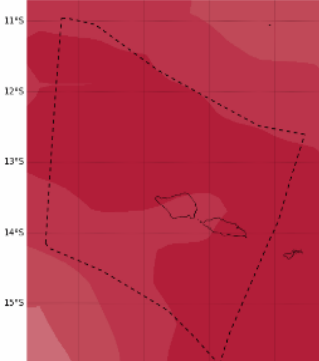
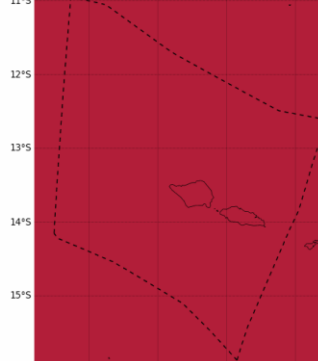
Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 Dec 2020-Jan 2021				Verification: Consistent, Near- consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
Apia (1890-2021)	576.0	Below normal	666.3	883.9	767.8	28/132	27	41	32	0	Near- consistent
Afiamalu (1903-2021)	906.2	Below normal	1060.1	1299.7	1208.0	17/67	35	34	31	-2	Consistent
Nafanua (1965-2021)	720.2	Below normal	787.9	1018.4	872.1	13/49	26	47	27	-1	Near- consistent
Faleolo (1956-2021)	236.2	Below normal	479.6	622.7	541.6	2/59	35	32	33	-2	Consistent

TABLE 3: Seasonal Climate Outlooks using SCOPIC for July to September 2021**Predictor and Period used: NINO3.4 for April to May 2021**

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Apia (1890-2021)	50	387.0	50		-1	35
Afiamalu (1903-2021)	45	627.8	55		0	48
Nafanua (1965-2021)	50	406.0	50		-2	21
Faleolo (1956-2021)	46	275.8	54		0	52

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)	LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Apia (1890-2021)	32	275.4	33	440.1	35	-2	30
Afiamalu (1903-2021)	32	541.1	32	691.0	36	-2	19
Nafanua (1965-2021)	35	341.8	31	505.6	34	-2	35
Faleolo (1956-2021)	27	206.8	35	346.7	38	3	39

TABLE 4: Monthly and Seasonal Climate Outlooks using ACCESS-S for July to September 2021

Monthly rainfall	Seasonal rainfall
<p>Tercile rainfall probabilities for July 2021</p>  <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>Model: ACCESS-S1 Model run: 31/05/2021 Base period: 1990-2012 Issued: 03/06/2021</p> <p><small>© Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at http://www.maritimengos.org/</small></p>	<p>Tercile rainfall probabilities for July to September 2021</p>  <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>Model: ACCESS-S1 Model run: 31/05/2021 Base period: 1990-2012 Issued: 03/06/2021</p> <p><small>© Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at http://www.maritimengos.org/</small></p>
Monthly Tmax	Seasonal Tmax
<p>Tercile maximum temperature probabilities for July 2021</p>  <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>Model: ACCESS-S1 Model run: 31/05/2021 Base period: 1990-2012 Issued: 03/06/2021</p> <p><small>© Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at http://www.maritimengos.org/</small></p>	<p>Tercile maximum temperature probabilities for July to September 2021</p>  <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>Model: ACCESS-S1 Model run: 31/05/2021 Base period: 1990-2012 Issued: 03/06/2021</p> <p><small>© Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at http://www.maritimengos.org/</small></p>
Monthly Tmin	Seasonal Tmin
<p>Tercile minimum temperature probabilities for July 2021</p>  <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>Model: ACCESS-S1 Model run: 31/05/2021 Base period: 1990-2012 Issued: 03/06/2021</p> <p><small>© Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at http://www.maritimengos.org/</small></p>	<p>Tercile minimum temperature probabilities for July to September 2021</p>  <p>Below normal (%) Near normal (%) Above normal (%)</p> <p>Model: ACCESS-S1 Model run: 31/05/2021 Base period: 1990-2012 Issued: 03/06/2021</p> <p><small>© Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009M), version 11. Available online at http://www.maritimengos.org/</small></p>

Summary Statements

Rainfall for May 2021: Rainfall was *normal* for Apia, Afiamalu and Nafanua, while Faleolo recorded *below normal* rainfall. Faleolo recorded its sixth driest May on record.

Accumulated rainfall for March to May 2021, including outlook verification: *Below normal* rainfall was recorded throughout the country. The outlook that was issued in February was verified to be *consistent* at Afiamalu and Faleolo and *near-consistent* at Apia and Nafanua. Faleolo recorded its second driest March to May on record.

Outlooks for July to September 2021:

1. **SCOPIC:** The outlook for Faleolo shows a near-equal likelihood of above-normal and normal rainfall. Below normal is the least likely. For other stations, the outlook offers little guidance as the chances of above-normal, normal and below-normal rainfall are similar.

2. ACCESS-S:

Monthly rainfall: The outlook shows *normal* rainfall for Upolu and the north-eastern side of Savai'i. The outlook offers little guidance for the rest of Savai'i.

Monthly maximum temperature and monthly minimum temperature: *Above normal* temperatures are favoured across Samoa for July.

Seasonal rainfall: The outlook shows normal rainfall as the most likely outcome for Samoa's main islands for **July to September**. However, the outlook offers little guidance for the southern part of Upolu.

Seasonal maximum temperature and seasonal minimum temperature: The outlook shows *above normal* temperatures are favoured for Samoa for the July to September period.

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: $X \geq 35$

TABLE 5: Stakeholder Engagement- Evaluations of how effective NMS engage with stakeholders

Product	Date: May 2021	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin	Website/Email	Health/Fire Emergency/ Disaster Management/Tourism/ Electric Power Corporation/Media Outlets/Agriculture/Samoa Water Authority/Environment and Conservation/Farmers Association/Fisheries	60	12	18
Monthly Climate Briefing	20th May	Health/Water Resource	10	5	5
Ocean Bulletin	Website/Email	Health/Fire Emergency/ Disaster Management/Tourism/ Electric Power Corporation/Media Outlets/Agriculture/Samoa Water Authority/Environment and Conservation/Fisheries	60	12	18
Total			130	29	41