Pacific Islands - Online Climate Outlook Forum (OCOF) No. 114

Country Name: Republic of the Marshall Islands

TABLE 1: Monthly Rainfall

| Station (include data period) | | | February 2017 | | | | | | |
|-------------------------------|---------------------------|--------------------------|---------------|-----------------------------|-----------------------------|-------------------------|---------|--|--|
| | December 2016 Total | January 2017 Total | Total | 33%tile Rainfall (mm) | 67%tile Rainfall (mm) | Median Rainfall (mm) | Ranking | | |
| MAJURO | 299.0 | 448.3 | 239.5 | 110.5 | 231.6 | 164.0 | 43/63 | | |
| KWAJALEIN | 263.1 | 228.6 | 142.2 | 35.4 | 90.1 | 66.4 | 60/73 | | |
| | | | | | | | | | |

TABLE 2: Three-monthly Rainfall December 2016 to February 2017

[Please note that the data used in this verification should be sourced from table 3 of OCOF #110]

| Station | Three-month Total | 33%tile Rainfall (mm) | 67%tile Rainfall (mm) | Median Rainfall (mm) | Ranking | Forecast probs.* (include LEPS) | Verification* (Consistent, Near-consistent Inconsistent? |
|-----------|-------------------|-----------------------------|-----------------------------|----------------------------|---------|------------------------------------|---|
| MAJURO | 986.8 | 576.7 | 743.2 | 657.2 | 56/63 | 23%/35%/ 42% (9.4%) | Consistent |
| | | | | | | | |
| KWAJALEIN | 633.9 | 317.9 | 432.1 | 381.3 | 65/71 | 19%/ 42% /39% (8.9%) | Near Consistent |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

<u>Period</u>:*below normal/normal/above normal

<u>Predictors and Period used for December 2016 to February 2017 Outlooks (refer to OCOF #110)</u>: **2-MONTH NINO3.4SSTA (September to October 2016)**

Forecast is <u>consistent</u> when observed and predicted (tercile with the highest probability) categories coincide (are in the same tercile).

Forecast is <u>near-consistent</u> when observed and predicted (tercile with the highest probability) differ by only one category (i.e. terciles 1 and 2 or terciles 2 and 3).

Forecast is <u>inconsistent</u> when observed and predicted (tercile with the highest probability) differ by two categories (i.e. terciles 1 and 3).

TABLE 3: Seasonal Climate Outlooks using SCOPIC for April to June 2017

Predictors and Period used: NINO3.4SSTA (January to February 2017)

| Station | Below Median (prob) | Median Rainfall (mm) | Above Median (prob) | LEPS | Hit-rate |
|-----------|---------------------------|----------------------------|---------------------------|-------|----------|
| MAJURO | 49% | 838.5 | 51% | -1.1% | 41.9% |
| KWAJALEIN | 48% | 612.2 | 52% | 2.7% | 52.2% |
| | | | | | |

| Station | Below Normal (prob) | 33%ile rainfall (mm) | Normal (prob) | 66%ile rainfall (mm) | Above Normal (prob) | LEPS | Hit-rate |
|-----------|---------------------------|----------------------------|------------------|----------------------------|---------------------------|------|----------|
| MAJURO | 31% | 668.4 | 34% | 963.7 | 35% | 2.0% | 37.1% |
| KWAJALEIN | 31% | 518.5 | 34% | 716.2 | 35% | 1.3% | 37.3% |

TABLE 4: Seasonal Climate Outlooks using POAMA2 for April to June 2017

| Station | Lower Tercile (prob) | 33%ile rainfall (mm) | Middle Tercile (prob) | 66%ile rainfall (mm) | Upper Tercile (prob) | |
|-----------|----------------------------|----------------------------|-----------------------------|----------------------------|----------------------------|--|
| MAJURO | 12% | 638.0 | 6% | 901.0 | 82% | |
| KWAJALEIN | 5% | 402.0 | 5% | 706.0 | 90% | |

Summary Statements

Rainfall for February 2017:

Rainfall for February 2017 for the Marshall Islands was recorded above normal at both stations in the RMI (Majuro and Kwajalein)

Accumulated rainfall for December 2016 to February 2017, including outlook verification:

Accumulated rainfall for the past three months was above normal rainfall at both Majuro and Kwajalein.

The seasonal rainfall outlook verification was consistent for Majuro and near-consistent for Kwajalein.

Outlooks for April to June 2017:

1. SCOPIC:

The seasonal rainfall outlook for April to June 2017 using SCOPIC statistical model offers little guidance for the coming season as the chances of above-normal, normal and belownormal rainfall are similar.

2. POAMA:

The seasonal rainfall outlook for April to June 2017 using POAMA dynamical model favours above normal rainfall at both Majuro and Kwajalein, with normal rainfall the second most likely outcome. The least likely outcome is below normal rainfall at both stations.

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

 $Very \ Low: \ 0 \le X < 5 \qquad \qquad Moderate \ 5 \le X < 10 \qquad \qquad Good: \ 10 \le X < 15 \qquad High: \ 15 \le X < 25$

Very High: $25 \le X < 35$ Exceptional: $X \ge 35$