

# Rainfall frequency and extreme forecasts — wet days and wet spells outlooks OND 2015

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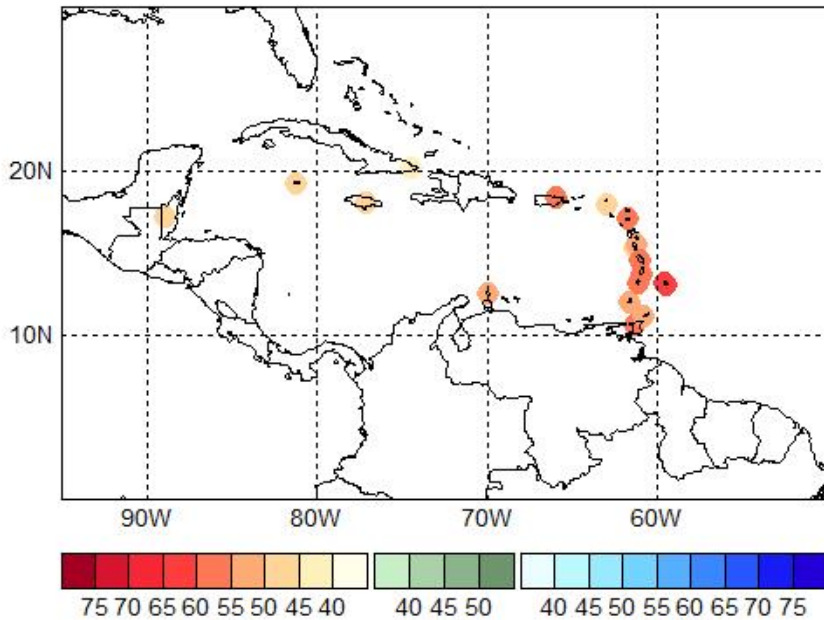
<sup>2</sup>International Research Institute for Climate and Society (IRI), USA

<sup>3</sup>Antigua and Barbuda Meteorological Services



# Forecasting wet day frequency within a season

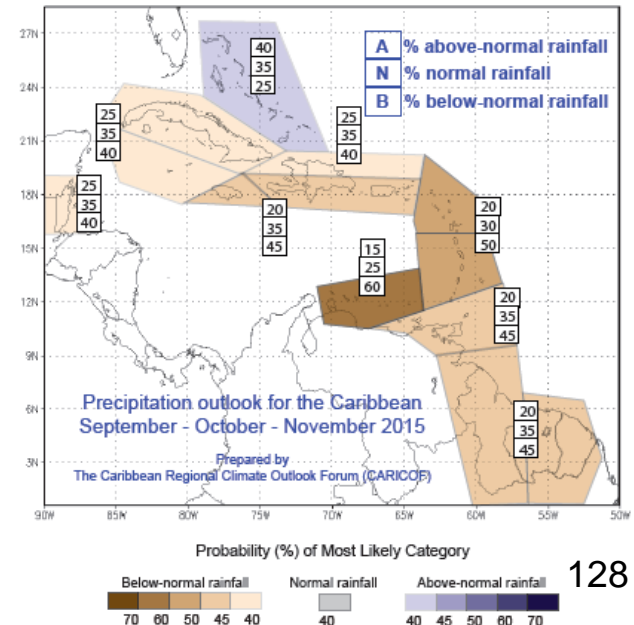
OND 2015 Wet days frequency shifts



Frequency shift

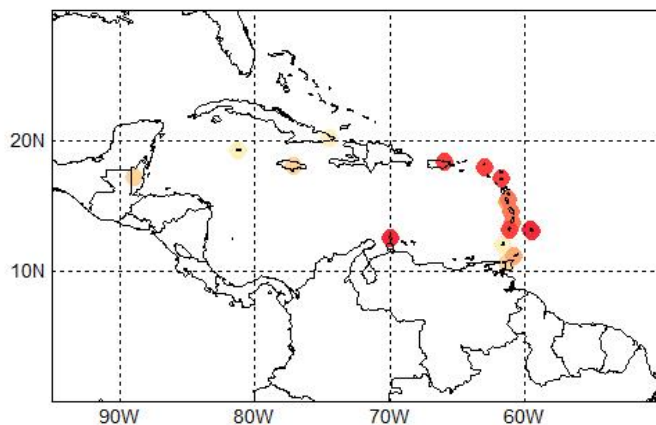
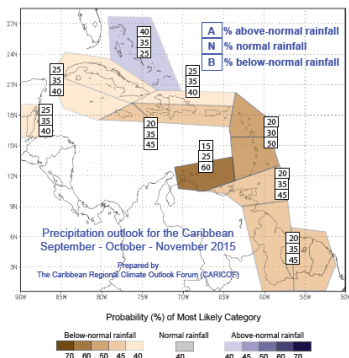
← decrease      no change      → increase

**FORECAST: Region wide, October to December rainfall expected to be below- to normal, with fewer wet days than usual.**



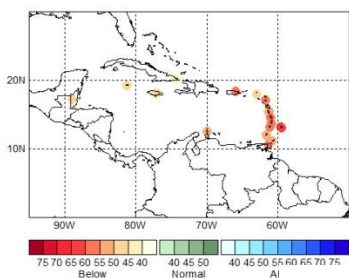
# Forecasting shifts in wet spell frequency within a season

## OND 2015 frequency of 7-day wet spells

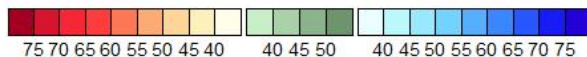
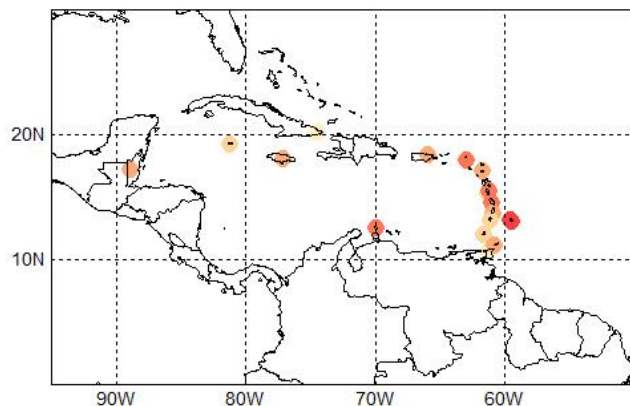


**FORECAST:** Region-wide, October to December rainfall expected to be below- to normal, with fewer wet days and wet spells than usual.

### OND 2015 Wet days frequency shifts



## OND 2015 frequency of 7-day very wet spells

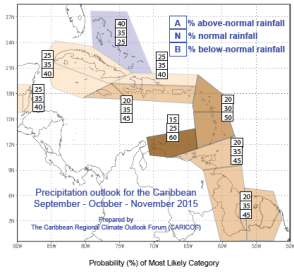


# Forecasting shifts in *extreme* wet spell frequency within a season

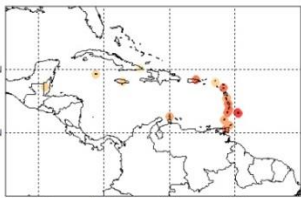
## OND 2015 frequency of *extreme* (top 1%) 3-day wet spells

**FORECAST:** Region-wide, October to December rainfall expected to be below- to normal, with fewer wet days, wet spells and extreme wet spells than usual.

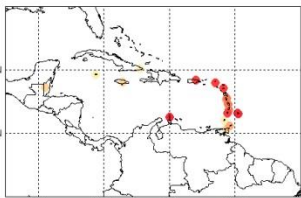
**Reduced flash flood potential across the region.**



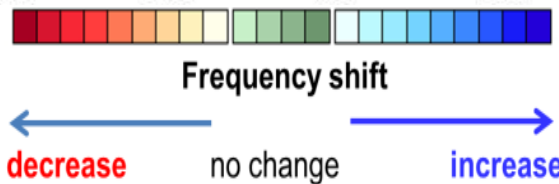
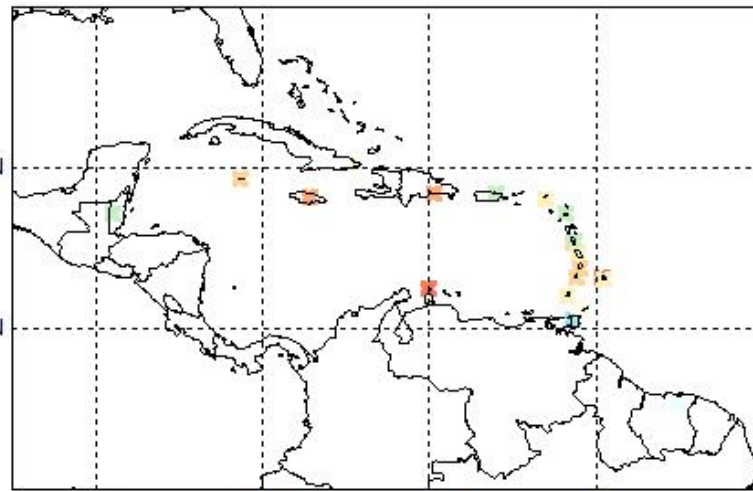
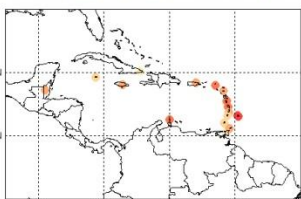
OND 2015 Wet days frequency shifts



OND 2015 7 day wet spell freq. shift



OND 2015 7-dy very wet spell (90 perc.) freq. shift



# October to December 2015 Forecast

	Number of wet days in OND 2015		Number of 7-day wet spells in OND 2015 (20% wettest)		Number of 7-day very wet spells in OND 2015 (10% wettest)		Number of 3-day extremely wet spells in OND 2015 (1% wettest)	
	Climatology Forecast		Climatology Forecast		Climatology Forecast		Climatology Forecast	
Antigua (VC Bird)	32-44	<b>28-41</b>	3-7	<b>2.2-5.6</b>	1.6-4	<b>0-3.7</b>	0-1	<b>0-1.1</b>
Aruba (Beatrix)	18-44	<b>16-35</b>	3-11	<b>1.7-6.8</b>	1-8.4	<b>0-5.2</b>	0-3	<b>0-1.7</b>
Barbados (CIMH)	35-48	<b>30-44</b>	3-7	<b>2.3-5.5</b>	1.6-5	<b>0.5-3.8</b>	0-2	<b>0-1.3</b>
Barbados (GAIA)	35-49	<b>31-44</b>	3.7-7	<b>2.7-5.8</b>	1-5	<b>0.7-3.7</b>	0-2	<b>0-1.5</b>
Belize (C. Farm)	32-49	<b>28-47</b>	3-6	<b>2.2-6</b>	1-4	<b>0.5-3.5</b>	0-1.1	<b>0-1.1</b>
Cayman	22-40	<b>19-37</b>	1.9-7	<b>1.5-6.1</b>	0.6-4.4	<b>0-3.8</b>	0-2.7	<b>0-1.6</b>
Cuba (Punta Maisi)	18-32	<b>16-31</b>	2.6-8	<b>2.3-8</b>	0.6-5.6	<b>0-5.3</b>	0-2	<b>0-1.8</b>
Dominica (Canefield)	40-55	<b>38-52</b>	2-6.6	<b>1.4-5.5</b>	1.2-4	<b>0-3.7</b>	0-1.2	<b>0-0.7</b>
Dominica (Douglas Charles)	57-69	<b>54-68</b>	3.9-8	<b>2.2-6.1</b>	1-5.1	<b>0-3.7</b>	0-1.2	<b>0-1.4</b>
Dom. Republic (Las Americas)							0-2	<b>0-0.6</b>
Grenada (MBIA)	33-49	<b>31-45</b>	3-7.4	<b>2.6-7.5</b>	1-5.2	<b>0.4-3.8</b>	0-2	<b>0-1.6</b>
Jamaica (Worthy Park)	23-39	<b>20-37</b>	2-6.3	<b>2-5.3</b>	1-4	<b>0.7-3.1</b>	0-1	<b>0-0.3</b>
Martinique (FDF Desaix)	47-62	<b>42-60</b>	3-7.4	<b>2.2-6.1</b>	1.7-5.3	<b>0.8-3.6</b>	0-2	<b>0-1.4</b>
Puerto Rico (San Juan)	39-52	<b>33-49</b>	2-6.4	<b>1.9-5.4</b>	0.6-4.3	<b>0-3.4</b>	0-1	<b>0-1.1</b>
St. Lucia (Hewanorra)	40-54	<b>36-51</b>	3-7	<b>2.7-6</b>	1.6-5	<b>0.9-3.9</b>	0-1.6	<b>0-1.3</b>
St. Maarten (TNM)	36-50	<b>32-48</b>	3-7.4	<b>2.3-5.9</b>	1.6-5	<b>0-3.7</b>	0-2	<b>0-1.7</b>
St. Vincent (ET Joshua)	51-64	<b>47-62</b>	3.7-8	<b>1.8-6</b>	2-6.8	<b>0-4.8</b>	0-2.5	<b>0-1.5</b>
Suriname (Zanderij)							0-1	<b>0-0.8</b>
Trinidad (Piarco)	41-53	<b>38-50</b>	3-6.3	<b>2.2-5.9</b>	1-4	<b>0.8-4</b>	0-1	<b>0-1.8</b>
Tobago (ANR Robinson)	39-50	<b>37-48</b>	4-8	<b>3-7.1</b>	2-5	<b>1.3-4.4</b>	0-2	<b>0-1.8</b>

**brown** is a decrease in frequency, **dark blue** an increase