## Rainfall frequency and extreme forecasts

# wet days and wet spells outlooks January to March 2016

**Dr. Cedric VAN MEERBEECK**<sup>1</sup>, Wazita Scott<sup>1</sup>, Dr. Simon MASON<sup>2</sup>, Ángel MUÑOZ<sup>2</sup>, Dr. Teddy ALLEN<sup>2</sup>, Dale Destin<sup>3</sup>

<sup>1</sup>Caribbean Institute for Meteorology and Hydrology (CIMH), Barbados <sup>2</sup>International Research Institute for Climate and Society (IRI), USA <sup>3</sup>Antigua and Barbuda Meteorological Services









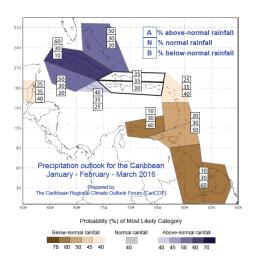


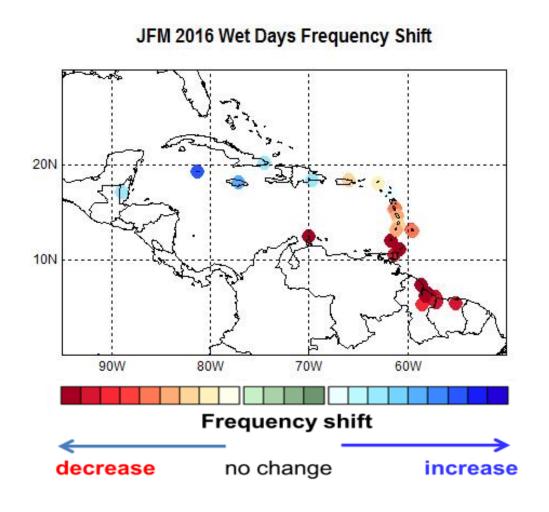




## Wet day frequency shifts

Forecast for: January to March 2016





USUALLY: Number of wet days is low from January to March, except the Guianas which are in their secondary wet season.

FORECAST: January to March rainfall expected to be below- to normal in eastern and southern Caribbean with fewer wet days (high confidence), but above- to normal in Cayman, Cuba and Lucayan Islands.

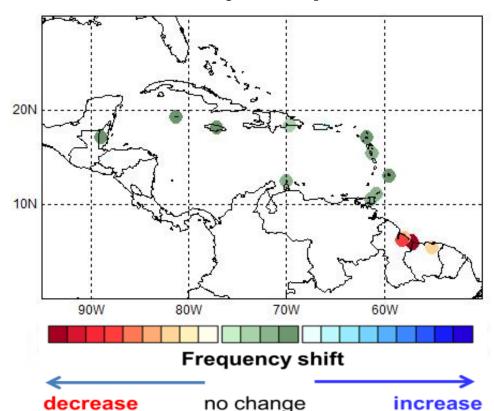
#### **IMPLICATION:**

Increasing surface dryness; fewer disruptions of outdoor activities and limited recharge of water reservoirs in Guianas.

## **Extreme wet spells frequency shifts**

Forecast for: January to March 2016





USUALLY: Very few wet spells occur after December, except in the Guianas.

FORECAST: January to March rainfall expected to be below- to normal in eastern and southern Caribbean with fewer wet days (high confidence), wet spells (medium confidence) and extreme wet spells (medium confidence, but above- to normal in Cayman, Cuba and Lucayan Islands.

### IMPLICATION: Limited flash flood potential.

JFM 2016 Wet Days Frequency Shift

January to March	Number of wet days in JFM 2016		Number of 7-day wet spells in JFM 2016 (20% wettest)		Number of 7-day very wet spells in JFM 2016 (10% wettest)		Number of 3-day extremely wet spells in JFM 2016 (1% wettest)	
2016 Forecast	Climatology		Climatology	Forecast	Climatology	Forecast	Climatology	Forecast
Antigua (VC Bird)	16-35		0-2	0-2	0-1	0-1.2	0-0	0-0
Aruba (Beatrix)	7-27	0-13	0-5	0-2.9	0-2	0-1.3	0-0	0-0
Barbados (CIMH)	16-39	13-32	0-2	0-1.1	0-1	0-0	0-0	0-0
Barbados (GAIA)	20-33	14-33	0-2	0-1.1	0-1	0-0	0-0	0-0
Belize (C. Farm)	14-26	15-32	1-3	0-2.3	0-1.2	0-1.6	0-0	0-0
Cayman	8-19	12-25	0-1.3	0-2.2	0-1	0-0	0-0	0-0
Cuba (Punta Maisi)	9-20	11-26	1-4	1.9-5.1	0-2.5	0-3.1	0-0.5	0-0
Dominica (Canefield)								
Dominica (Douglas Charles)	28-47	21-46	0-2.8	0-2.7	0-1.5	0-0	0-0	0-0
Dom. Republic (Las Americas)								
Grenada (MBIA)	15-33	9-22	0-2.8	0-1	0-1	0-0	0-0	0-0
Guyana (Albion)	19-44	10-31	0-6	0-2.2	0-4.4	0-0.7	0-1	0-0
Guyana (Blairmont)	20-51	13-37	0-5.5	0-2.1	0-4	0-0	0-2	0-0
Guyana (Georgetown)	23-50	14-34	0-5	0-2.3	0-4	0-1.3	0-1.5	0-0
Guyana (New Amsterdam)	21-47	14-34	0-6.1	0-2.3	0-4	0-1	0-1.5	0-0
Guyana (Timehri)	23-53	16-37	0-5	0-2	0-4	0-1.2	0-1.5	0-0
Jamaica (Worthy Park)	14-26	16-31	3-8	3.4-8.9	1-5.7	0.8-6.8	0-0	0-0
Martinique (FDF Desaix)	39-54	26-56	0-1	0-1.1	0-0	0-0		
Puerto Rico (San Juan)	26-42	22-38					0-1	0-0
St. Lucia (Hewanorra)	24-42	23-40					0-0	0-0
St. Maarten (TNCM)	28-44	24-45					0-0	0-0
St. Vincent (ET Joshua)	38-53	30-55					0-0	0-0
Suriname (Zanderij)	32-55	27-44						
Tobago (ANR Robinson)	17-35	9-24					0-0	0-0
Trinidad (Piarco)	15-35	8-21					0-0	0-0
caricof@cimh.edu.bb brown is a decrease in frequency, dark blue an increase: grey none are expected								CARIBBEAN CLIMATE OUTLOOK FORUM