

# Rainfall frequency and extreme forecasts

## —

### wet days and wet spells outlooks

### March to May 2017

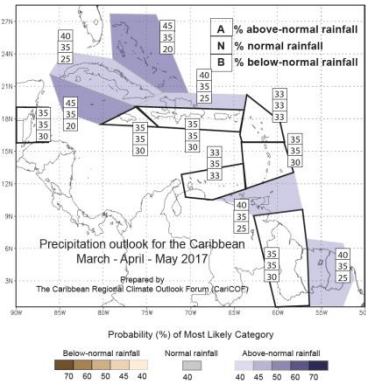
**Dr. Cedric VAN MEERBEECK<sup>1</sup> , Wazita Scott<sup>1</sup>**, Dr. Simon MASON<sup>2</sup>,  
Ángel MUÑOZ<sup>2</sup>, Dr. Teddy ALLEN<sup>2</sup>, Dale Destin<sup>3</sup>

<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

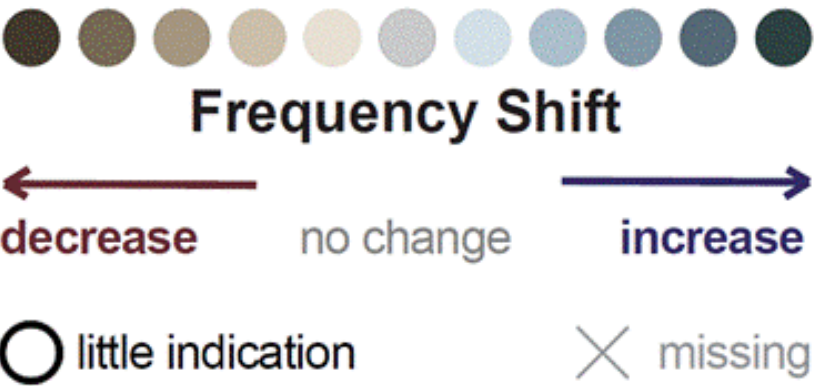




# Wet day frequency shifts

## Forecast for: March to May 2017

MAM 2017  
Frequency of wet days

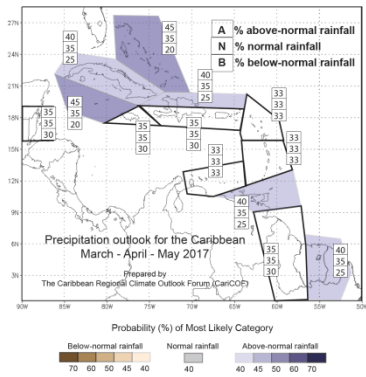


**USUALLY:** Across the region during March, about 15 to 30 days out of a total of 92 days are wet days (coastal Guianas: 35 to 50 days; ABC Islands: 10 or less).

**FORECAST:** MAM rainfall is likely to be above- to normal in much of the region but below- to normal in Belize, Cayman and Cuba. **No significant change in the usual amount of wet days (*low confidence*) is expected across the region.**

- IMPLICATION:**
- Few disruptions of outdoor activities, except in the Guianas.
  - Increase in surface dryness across the region.

Precipitation outlook



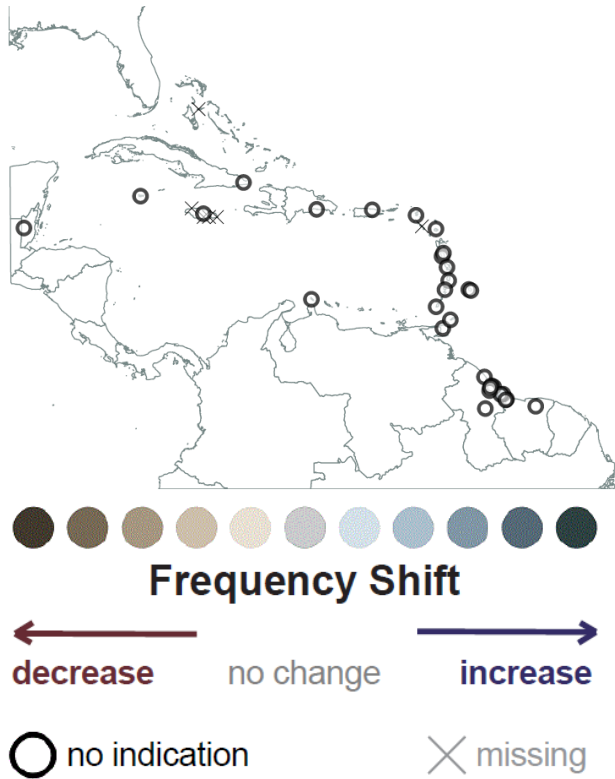
Wet days outlook



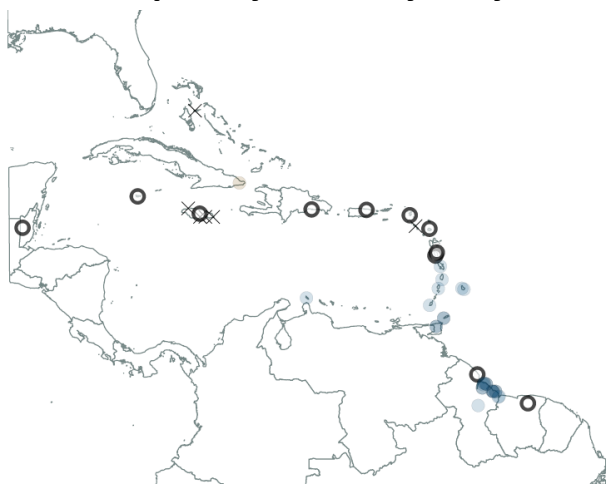
# Wet spells frequency shifts

## Forecast for: March to May 2017

FMA 2017 frequency of 7-day wet spells



FMA 2017 frequency of 7-day very wet spells



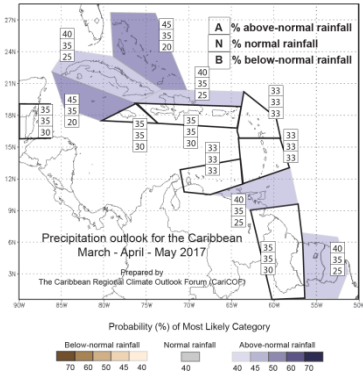
**USUALLY:** 1 to 3 wet spells (ABC Islands up to 1; coastal Guianas: 2 to 5) occur from March to May, with up to 1 or 2 of them ending up very wet (ABC Islands: up to 1; coastal Guianas: 1 to 3).

**FORECAST:** MAM rainfall is likely to be above- to normal in much of the region but below- to normal in Belize, Cayman and Cuba. **No significant change in the usual amount of wet days, wet or very wet spells (*low confidence*) are expected, except for an increase in Barbados, the Windwards and Guyana (*low to medium confidence*).**

### IMPLICATION:

- Little recharge of large water reservoirs.
- Depletion of large reservoirs.

Precipitation outlook



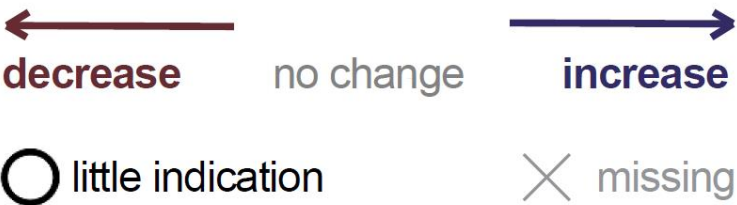
# Extreme wet spells frequency shifts

## Forecast for: March to May 2017

### MAM 2017 frequency of extreme (top 1%) 3-day wet spells



### Frequency Shift



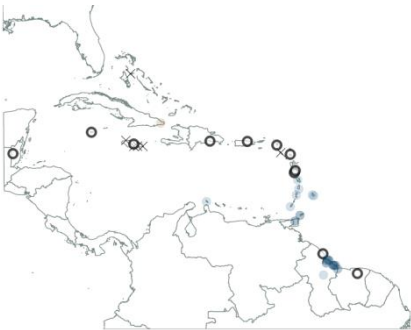
Wet days outlook



Wet spells outlook



Very wet spells outlook



**USUALLY:** Up to 1 extreme wet spell occur between March to May (ABC Islands: 0).

**FORECAST:** MAM rainfall is likely to be above- to normal in much of the region, but below- to normal in Belize, Cayman and Cuba. No significant change in the usual amount of wet days, wet, very wet **or extremely wet spells** (*low confidence*) are expected, except for an increase in Barbados, the Windwards and Guyana (*low to medium confidence*).

**IMPLICATION:** Flash flood potential not a major concern until the end of April.

March to May 2017

	No. of wet days		No. of 7-day wet spells (20% wettest)		No. of 7-day very wet spells (10% wettest)		No. of 3-day extremely wet spell (1% wettest)	
	Climatology	Forecast	Climatology	Forecast	Climatology	Forecast	Climatology	Forecast
Antigua (VC Bird)	17-29	15-31	1.2-3.8	0.9-3.8	0.4-2.4	0.3-2.2	0-1	0-1.4
Aruba (Beatrix)	2-9	2-11	0.4-1.3	0.2-1.6	0-0.9	0-1.1	0-0	0-0
Barbados (CIMH)	14-28	14-29	0.4-2.2	0.3-2.5	0-1.5	0-1.7	0-0.9	0-0.4
Barbados (GAIA)	15-29	15-31	0.4-2.4	0.4-2.7	0-1.5	0.1-1.7	0-1	0-0.5
Belize (C. Farm)	10-22	8-21	0.4-1.9	0.4-2.1	0-1.3	0-1.3	0-0	0-0
Cayman	9-22	8-23	0.9-2.4	0.9-2.7	0.4-1.7	0.3-1.8	0-1	0-1.1
Cuba (Punta Maisi)	8-20	7-21	1.3-3.9	1.1-4	0.4-1.7	0.3-2	0-1	0-1.2
Dom. Republic (Las Americas)	13-25	12-27	1.2-3.7	1.2-4.2	0.4-2.2	0.4-2.5	0-1	0-0.7
Dominica (Canefield)	21-35	21-37	0-2	0-2.5	0-1.4	0-1.3	0-0	0-0
Dominica (Douglas Charles)	36-60	35-59	1.3-3.4	1.1-4	0-1.9	0.1-2.2	0-1.6	0-1.6
Grenada (MBIA)	10-25	9-26	0-1.4	0.1-1.7	0-0.9	0-1.4	0-0	0-0
Guyana_73	19-33	18-31	1.7-5.7	1.7-5.6	0.9-2.8	0.9-3.7	0-1	0-1.3
Guyana (Albion)	27-45	25-43	1.7-4.3	2-4.6	0.9-2.8	1-2.9	0-1	0-1.3
Guyana (Blairmont)	31-48	29-48	1.9-4.8	1.8-4.8	0.9-3	0.9-3.6	0-1	0-1.4
Guyana (Charity)	27-40	21-42	1.7-3.4	1.5-3.9	0.9-2	0.7-2.2	0-1	0-0.8
Guyana (Enmore)	31-44	28-44	1.7-4.7	1.7-4.9	0.9-2.6	0.9-3.1	0-1.1	0-1.7
Guyana (Georgetown)	34-50	29-48	1.3-4.1	1.6-4.4	0.9-2.1	1-2.8	0-1	0-1.2
Guyana (Greatfall)	34-59	29-63	1.9-5.1	1.7-5.4	0.6-3	0.6-4.3	0-2	0-2.8
Guyana (New Amsterdam)	33-48	28-48	1.7-4.7	1.9-4.9	0.9-3	1.1-3.3	0-1	0-1.2
Guyana (Skeldon)	32-50	30-47	1.8-5.1	1.8-5.6	0.9-3	1-3.7	0-1	0-0.9
Guyana (Timehri)	35-55	32-51	1.7-4.8	1.9-4.7	0.4-2.6	0.8-3.1	0-1.9	0-1.7
Guyana (Wales)	34-49	32-51	1.7-4.4	1.8-4.7	0.9-3	0.8-3.3	0-1.3	0-1.5
Jamaica (Worthy Park)	20-33	18-32	2.1-4.3	1.8-4.4	0.7-2.7	0.5-2.9	0-1	0-1.5
Martinique (FDF Desaix)	28-47	26-48	0.9-2.6	0.7-2.8	0.4-1.4	0.2-1.6	0-0	0-0.1
Puerto Rico (San Juan)	25-38	22-38	0.9-3.7	1.2-4	0.7-2.6	0.5-2.8	0-1.4	0-2
St. Lucia (Hewanorra)	21-39	19-38	0.4-2.6	0.4-2.6	0-1.5	0-1.6	0-0.9	0-0.4
St. Maarten (TNM)	22-33	20-36	0.9-3	1-3.3	0.4-1.5	0.4-1.8	0-0.9	0-0.2
St. Vincent (ET Joshua)	31-53	27-53	0.4-2.6	0.3-2.8	0-1.4	0-1.5	0-0.1	0-0
Suriname (Zanderij)	47-60	43-60	2.5-5.7	2.2-6.1	1.6-3.3	1.1-4	0-1.9	0-2.1
Tobago (ANR Robinson)	14-31	13-30	0-1.7	0.2-2	0-0.9	0-1	0-0	0-0
Trinidad (Parco)	12-31	12-30	0.3-2.6	0.2-2.5	0-1.3	0-1.5	0-0.6	0-0.1

**brown** is a decrease in frequency, **dark blue** an increase, **grey** none are expected