

Rainfall frequency and extreme forecasts

—

wet days and wet spells outlooks January to March 2017

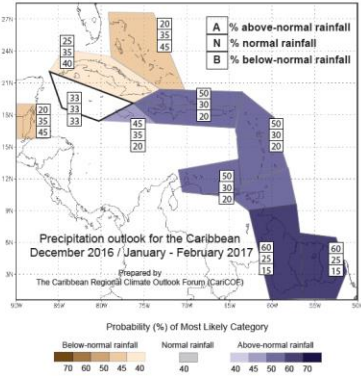
Dr. Cedric VAN MEERBEECK¹ , Wazita Scott¹, Dr. Simon MASON²,
Ángel MUÑOZ², Dr. Teddy ALLEN², Dale Destin³

¹Caribbean Institute for Meteorology and Hydrology (CIMH), Barbados

²International Research Institute for Climate and Society (IRI), USA

³Antigua and Barbuda Meteorological Services



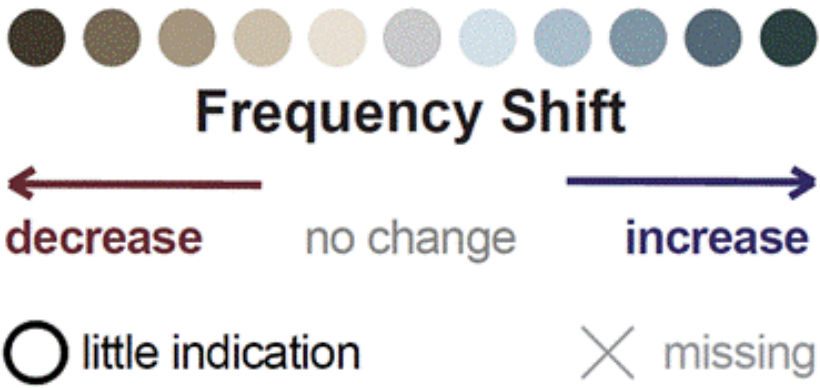


Wet day frequency shifts

Forecast for: January to March 2017

JFM 2017

Frequency of wet days

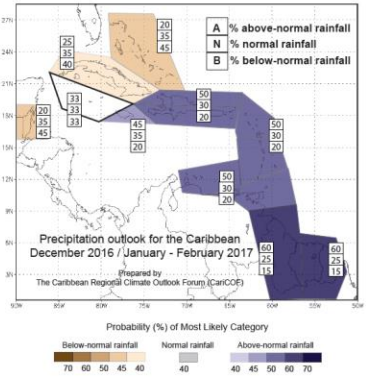


USUALLY: Across the region during November-December-January, about 20 to 40 days out of a total of 90 days are wet days.

FORECAST: JFM rainfall is likely to be above- to normal in much of the region, By contrast, below- to normal is forecast for Bahamas, Belize and Cuba. We forecast little change from the usual amount of wet days (*very low confidence*).

- IMPLICATION:**
- Disruptions of outdoor activities by rainfall tend to be few as compared to other times of the year.
 - Surface dryness will increase faster in the extreme north and west of the region than elsewhere.

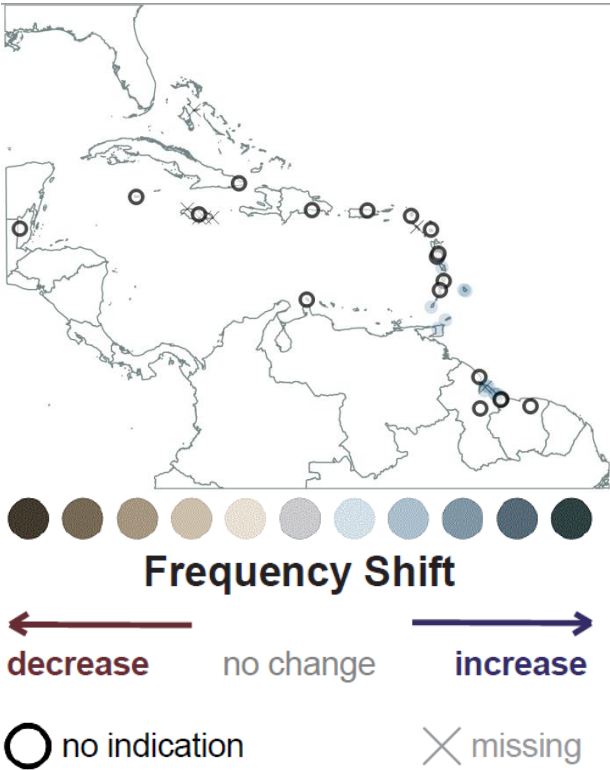
Precipitation outlook



Wet spells frequency shifts

Forecast for: January to March 2017

JFM 2017 frequency of 7-day wet spells



JFM 2017 frequency of 7-day very wet spells



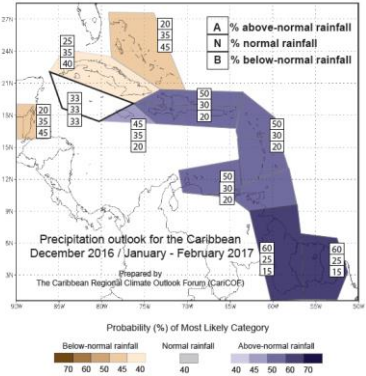
USUALLY: Up to 3 wet spells (ABC Islands and coastal Guianas: up to 4) occur from January to March, with up to 1 of them ending up very wet (ABC Islands: up to 2; coastal Guianas: up to 3).

FORECAST: JFM rainfall is likely to be above- to normal in much of the region, By contrast, below- to normal is forecast for Bahamas, Belize and Cuba. We forecast little change from the usual amount of wet days, **wet spells or very wet spells** (*very low confidence*).

IMPLICATION:

- Depletion of large reservoirs during dry season likely slower than in 2015.

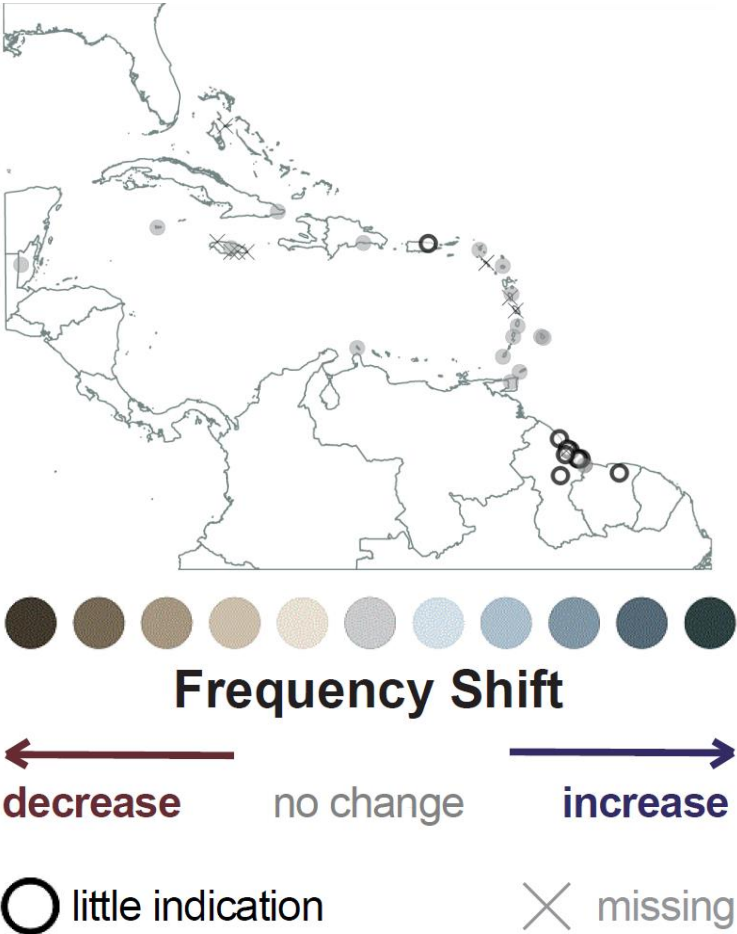
Precipitation outlook



Extreme wet spells frequency shifts

Forecast for: January to March 2017

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



USUALLY: Virtually no extreme wet spells occur between January and March, except in coastal Guianas (up to 1) which are in their short wet season.

FORECAST: JFM rainfall is likely to be above- to normal in much of the region, By contrast, below- to normal is forecast for Bahamas, Belize and Cuba. We forecast little change from the usual amount of wet days, wet spells or very wet spells (*very low confidence*). **Apart from the coastal Guianas, we forecast no extreme wet spells (*high confid.*).**

IMPLICATION: Flash flood potential not a major concern until the end of March, with the possible exception of the Guianas.

Wet days outlook



Wet spells outlook



Very wet spells outlook



January to March 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 spells (1% wettest)	
	Climatology	Forecast	Climatology	Forecast	Climatology	Forecast	Climatology	Forecast
Antigua (VC Bird)	16-34	17-37	0.8-2.3	0.7-2.6	0-0.9	0-1	0-0	0-0
Aruba (Beatrix)	7-25	7-28	1.1-4.3	1.3-4.5	0-2	0.1-2	0-0	0-0
Barbados (CIMH)	17-38	19-41	0.2-1.7	0.3-2.1	0-0.9	0-0.9	0-0	0-0
Barbados (GAIA)	21-33	18-39	0.5-2.1	0.6-2.3	0-0.9	0-0.8	0-0	0-0
Belize (C. Farm)	14-25	14-30	0.9-2.6	0.7-2.5	0.4-1.3	0.1-1.2	0-0.2	0-0
Cayman	8-19	8-19	0-1.6	0-1.6	0-0.7	0-0.9	0-0	0-0
Cuba (Punta Maisi)	10-19	9-22	1.7-3.4	1.5-3.8	0.4-1.7	0.4-1.8	0-0.2	0-0.1
Dominica (Canefield)	29-46	26-54	0-3	0.1-2.8	0-1.1	0-1.3	0-0	0-0
Dominica (Douglas Charles)	43-59	38-63	0.4-2.1	0.6-2.2	0-1.3	0-1.1	0-0	0-0
Grenada (MBIA)	15-31	15-34	0-2.4	0.2-2.5	0-1.1	0-1.1	0-0	0-0
Guyana_73	12-27	13-30	0.8-4.4	1-4.5	0.4-2.9	0.4-2.6	0-1	0-0.6
Guyana (Albion)	19-44	20-49	0.2-4.7	0.7-4.7	0-2.9	0.3-2.6	0-1	0-1.2
Guyana (Blairmont)	20-51	23-55	0.4-4.2	0.7-4.4	0-2.9	0.2-2.4	0-1.9	0-1.3
Guyana (Enmore)	22-45	25-46	0.4-4.2	0.7-4.5	0.4-3.1	0.3-3.1	0-1.9	0-1.4
Guyana (Georgetown)	23-49	26-52	0.3-4.2	0.6-4.4	0-2.6	0.1-2.9	0-1	0-1.5
Guyana (New Amsterdam)	21-46	25-52	0.4-3.9	0.9-4.1	0-3	0.2-2.6	0-1	0-1
Guyana (Skeldon)	20-46	23-50	0.9-4.2	1-4.1	0.3-2.6	0.4-2.2	0-0.7	0-0.3
Guyana (Timehri)	23-52	28-57	0.4-3.9	0.9-4.3	0-2.6	0.2-2.6	0-1	0-1.6
Jamaica (Worthy Park)	14-25	12-26	0.4-3	0.2-2.9	0-1.4	0-1.4	0-0	0-0
Martinique (FDF Desaix)	39-54	32-64	0.4-2.1	0.5-2.6	0-0.9	0-0.9		
Puerto Rico (San Juan)	26-41	24-43	0.9-2.6	0.8-2.9	0-0.9	0-1.1	0-0.9	0-0.4
St. Lucia (Hewanorra)	24-42	25-43	0.4-2.1	0.8-2.2	0-0.9	0-0.9	0-0	0-0
St. Maarten (TNCM)	28-43	26-46	1.3-3.7	0.9-3.8	0.2-1.4	0.1-1.5	0-0	0-0
St. Vincent (ET Joshua)	39-54	35-61	0.4-2.5	0.5-2.5	0-1	0-1.2	0-0	0-0
Suriname (Zanderij)	32-53	35-56	1.4-4.3	1.5-4.4	0.4-2.6	0.8-2.5	0-1	0-0.9
Tobago (ANR Robinson)	17-34	16-37	0-1.5	0-1.3	0-0.4	0-0.7	0-0	0-0
Trinidad (Piarco)	15-34	15-37	0-2.5	0.1-2.5	0-1.3	0-1.2	0-0	0-0

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