

Rainfall frequency and extreme forecasts

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Wet days and Wet spells Outlooks August to October 2019

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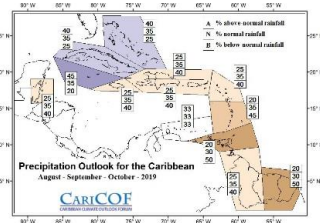
³Antigua and Barbuda Meteorological Services



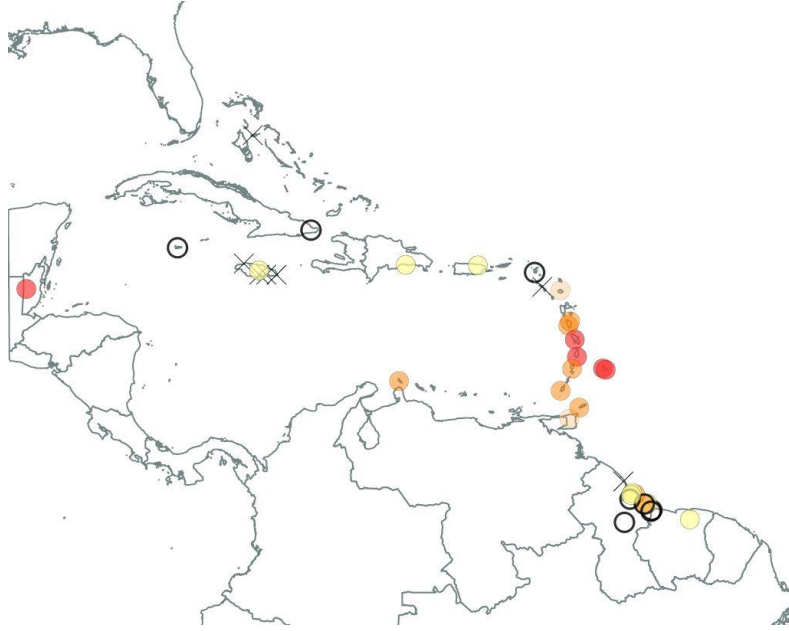
Wet day frequency shifts

Forecast for: August to October 2019

Precipitation outlook



ASO 2019
Frequency of wet days



USUALLY: Out of 92 days in Aug-Sep-Oct, there are about 35 to 50 wet days in relatively flat areas of Belize and the islands, but around 45 to 60 in mountainous areas and 15 to 30 in coastal Guianas (ABC Islands: 10-20).

FORECAST: JAS rainfall may be drier than usual in the Barbados, Belize, Guianas, Jamaica, and Windwards. The forecast indicates about 10% fewer wet days especially in most of those areas (*medium to high confidence*), but not much change in other areas nor in the Guianas (*low confid.*).

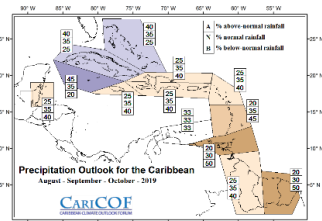
IMPLICATIONS:

- Surface wetness during the peak of the wet season may be slightly lower than usual, particularly in Barbados, Belize, Windwards.
- Less reliable rains for agriculture than usual for the ABC Isls., Barbados, Belize, Windwards.

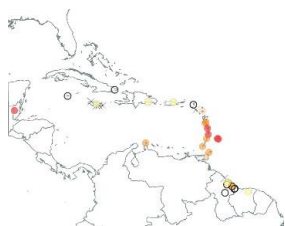
Wet spells frequency shifts

Forecast for: August to October 2019

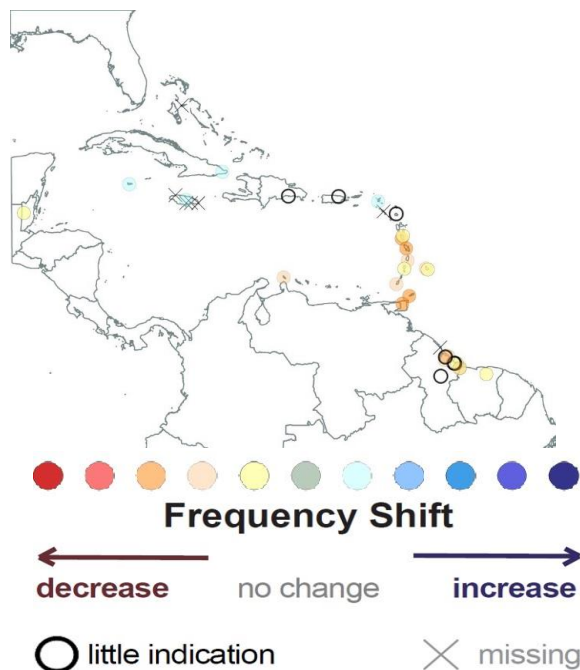
Precipitation outlook



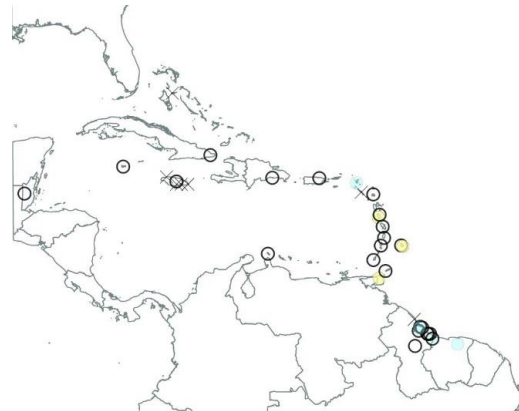
Wet days outlook



JAS 2019 frequency of 7-day wet spells



JAS 2019 frequency of 7-day very wet spells



USUALLY: Between 3 to 6 wet spells (coastal Guianas: 1-3) occur from August to October, with 1 to 4 of them ending up very wet (coastal Guianas: up to 2).

FORECAST: JAS rainfall may be drier than usual in the Barbados, Belize, Guianas, Jamaica, and Windwards. The forecast indicates about 10% fewer wet days especially in most of those areas (*medium to high confidence*), and possibly slightly fewer wet spells (*low confid.*), but not much change in other areas nor in the Guianas (*low confid.*).

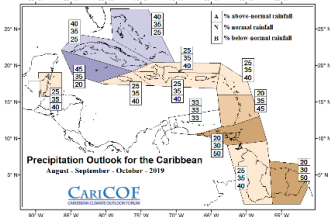
IMPLICATIONS:

- Potentially slower recharge of large water reservoirs and soil moisture in Barbados and Windwards.
- A general concern of flood potential across most of the region in view of the usual number of very wet spells.

Extreme wet spells frequency shifts

Forecast for: August to October 2019

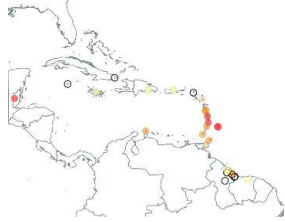
Precipitation outlook



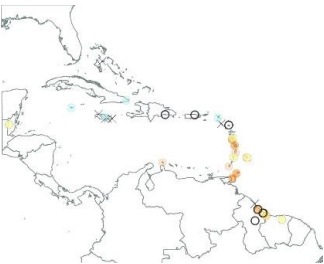
JJA 2019 frequency of extreme (top 1%) 3-day wet spells



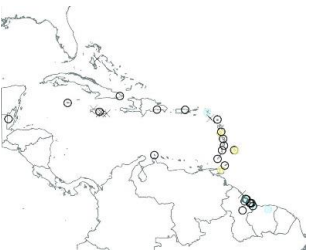
Wet days outlook



Wet spells outlook



Very wet spells outlook



USUALLY: Up to 2 extreme wet spell occur between August to October, except in the Guianas where it is the dry season.

FORECAST: JAS rainfall may be drier than usual in the Barbados, Belize, Guianas, Jamaica, and Windwards. The forecast indicates about 10% fewer wet days especially in most of those areas (*medium to high confidence*), and possibly slightly fewer wet spells (*low confid.*), but not much change in other areas nor in the Guianas (*low confid.*). **No significant change in the number of extreme wet spells is forecast for most areas (*low confid.*)**

IMPLICATION:

Flash flood potential is expected to be of general concern throughout the period, particularly in September and October.

August to October 2019

	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)	30-45	29-41	3.1-6	2.8-6.2	0.9-3.9	1.2-4.2	0-1
Aruba (Beatrix)	8-21	5-18	1.7-5.1	1.2-4.8	0.4-3.4	0.8-3.6	0-1.5	0-1.6
Barbados (CIMH)	37-50	30-44	4.2-7.2	3.4-6.7	2-4.3	1.7-4.3	0-2	0.1-1.9
Barbados (GAIA)	39-49	35-46	4.4-6.9	4-6.5	1.8-4.1	1.7-4.2	0-1.5	0-1.8
Belize (C. Farm)	33-50	26-45	3-6.3	2.7-6	1.3-3.8	0.9-3.6	0-2	0-1.9
Cayman	34-46	32-47	4.3-6.8	4.2-7.2	1.7-4.3	1.5-5	0-1.8	0-1.8
Cuba (Punta Maisi)	12-27	12-30	2.6-5.1	2.3-5.8	1-3.4	1.1-3.4	0-1.5	0-1.7
Dom. Republic (Las Americas)	27-37	25-38	3.9-6	3.5-6.4	1.8-3.6	1.4-4.5	0-2	0-1.7
Dominica (Canefield)	45-59	41-55	3.5-6.2	2.4-6.2	1.7-4.4	1.3-4.6	0-2.5	0-2.1
Dominica (Douglas Charles)	58-70	53-69	3.5-6.9	2.9-6.4	1.7-3.7	1.5-4	0-1.1	0-1.4
Grenada (MBIA)	37-47	32-45	3.9-6.4	2.7-6.3	1.3-3.7	1.3-4.4	0-1.2	0-1.5
Guyana_73	10-20	9-25	0.7-3	0.6-3.2	0-1.7	0.1-2	0-0.9	0-0.6
Guyana (Albion)	14-29	12-32	1.1-3.5	0.8-3.4	0.5-1.7	0.5-1.9	0-1	0-0.4
Guyana (Blairmont)	18-32	15-30	0.9-3	0.7-2.9	0-1.3	0.1-1.4	0-0.1	0-0.1
Guyana (Charity)								
Guyana (Enmore)	16-30	13-29	0.9-3	0.7-2.6	0.4-1.3	0.3-1.4	0-0.1	0-0.2
Guyana (Georgetown)	21-38	19-39	0.5-2.6	0.4-2.4	0-1.5	0.1-1.3	0-0.4	0-0.1
Guyana (Greatfall)								
Guyana (New Amsterdam)	20-29	17-32	0.4-3	0.4-3	0-1.3	0-1.4	0-0.1	0-0.3
Guyana (Skeldon)	20-30	19-32	0.9-3	0.7-2.6	0.4-1.7	0.6-1.7	0-1	0-0.5
Guyana (Timehri)	34-44	32-46	1.7-3.4	1.3-3.3	0.4-1.7	0.4-1.9	0-0	0-0
Guyana_Wales	27-38	25-38	1.7-3	1.4-3.5	0.1-1.7	0.2-1.9	0-0.2	0-0.2
Jamaica (Worthy Park)	31-48	28-46	3.4-6.3	3.2-6.9	1.3-3.7	1.4-4.3	0-2	0-1.8
Martinique (FDF Desaix)	50-62	44-58	3.9-7.3	3.1-6.4	1.8-4.3	1.6-3.9	0-2	0-2
Puerto Rico (San Juan)	39-51	36-49	3.3-5.6	2.4-5.8	0.9-3	1.1-3.6	0-1	0-1.3
St. Lucia (Hewanorra)	44-58	38-51	3.9-6.4	2.9-6.5	2-3.9	1.3-4.4	0-2	0-1.7
St. Maarten (TNCM)	35-49	35-51	2.8-5.6	2.8-7	1-3.4	1.1-3.6	0-1	0-1.6
St. Vincent (ET Joshua)	53-63	49-62	3.3-6.9	2.8-6.9	1.6-3.4	1.5-3.6	0-2	0-1.9
Suriname (Zanderij)	25-42	22-40	0.9-3.1	0.7-2.9	0.3-2.2	0.2-2.8	0-0.2	0-0.1
Tobago (ANR Robinson)	43-56	40-55	3.9-5.6	3-5.7	1.3-3.4	1-3.4	0-1	0-1.4
Trinidad (Piarco)	37-52	32-48	3.7-5.6	2.9-5.4	1.7-3	1.4-3.2	0-1	0-1.4

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



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