

Rainfall frequency and extreme forecasts — wet days and wet spells outlooks SON 2015

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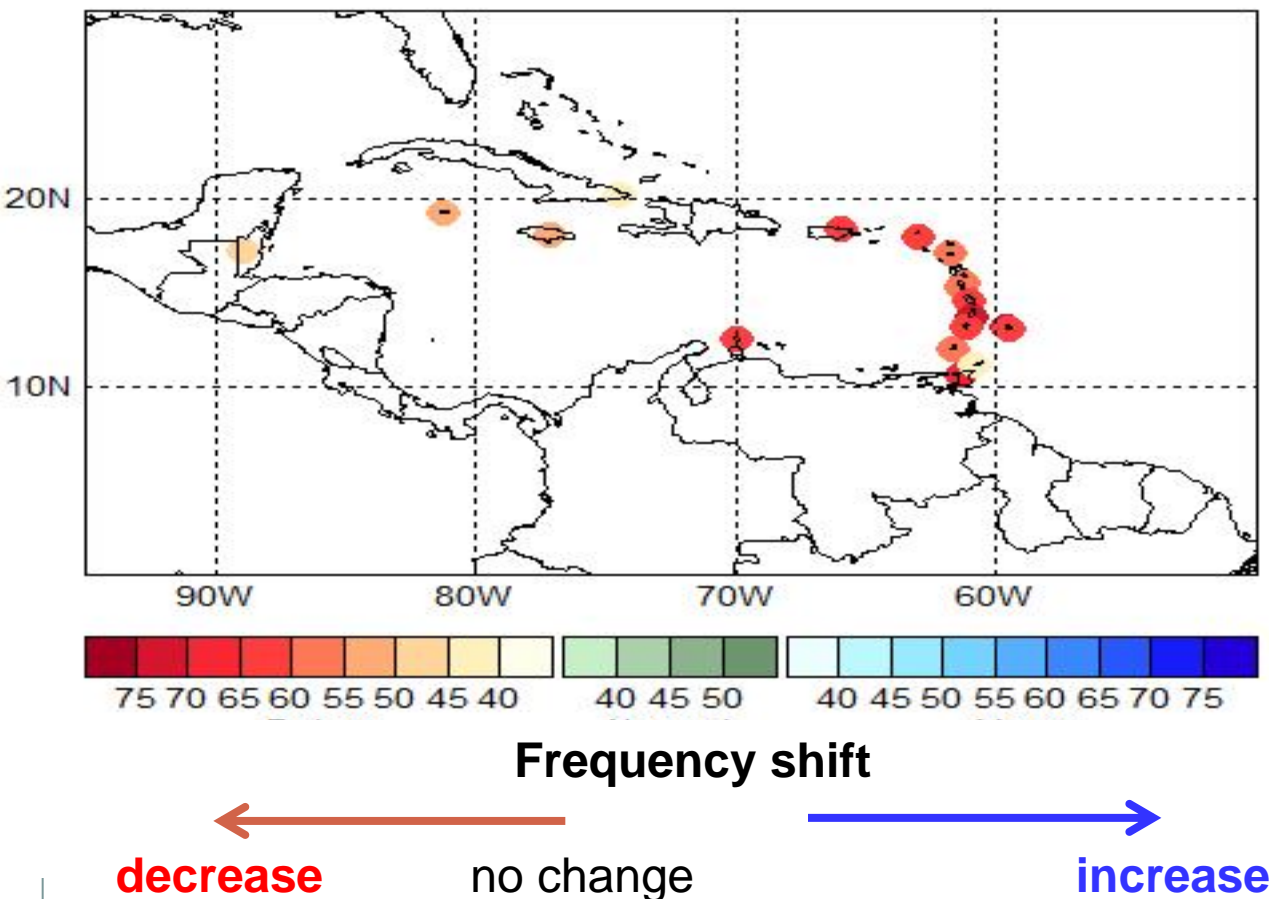
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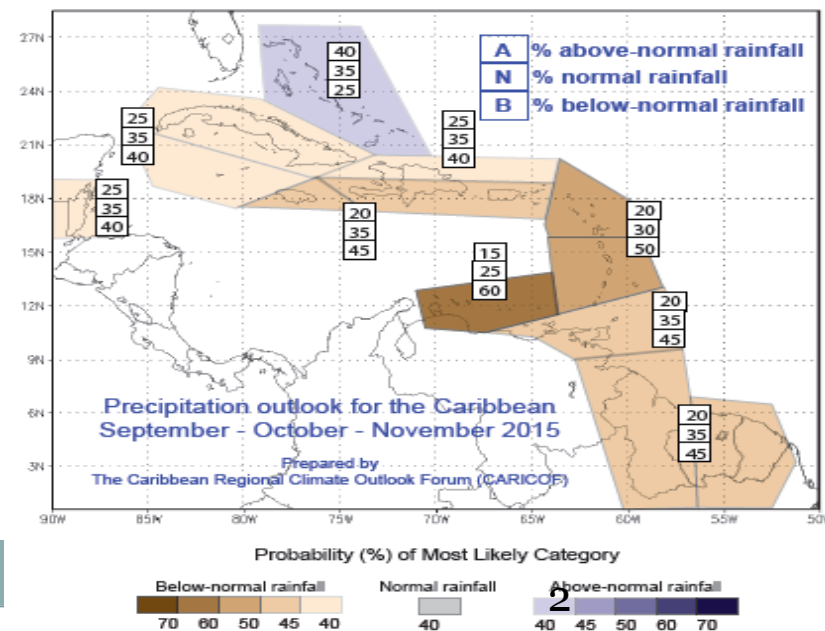


Forecasting wet day frequency within a season

SON 2015 Wet days frequency shifts

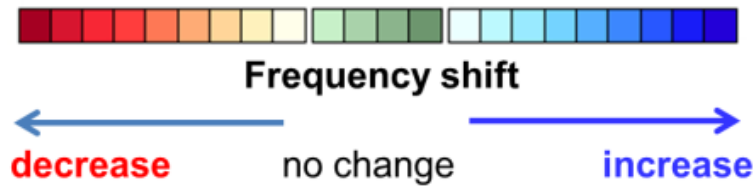
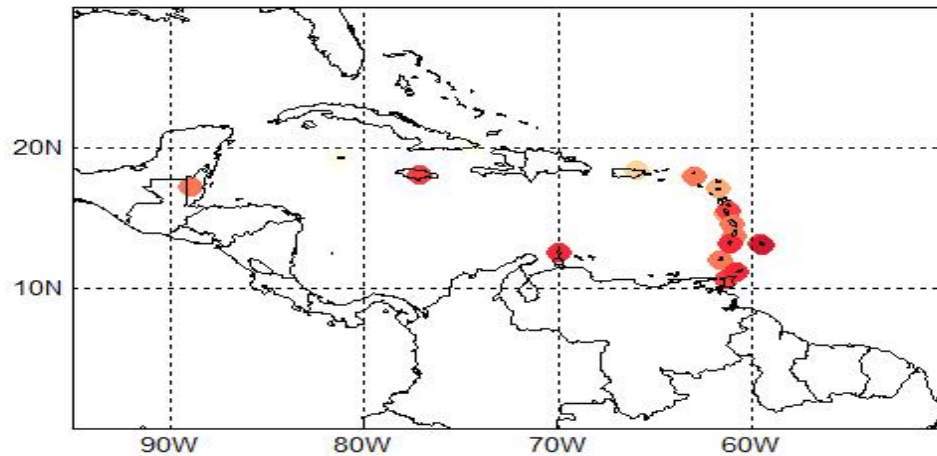
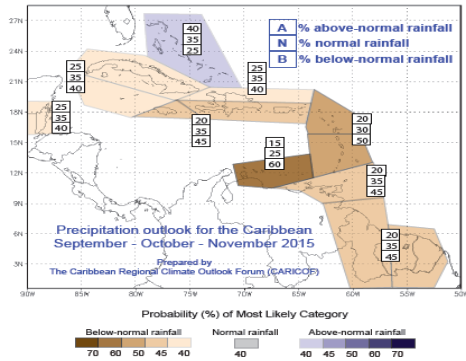


FORECAST: Region wide, September to November rainfall expected to be below- to normal, with fewer wet days than usual.



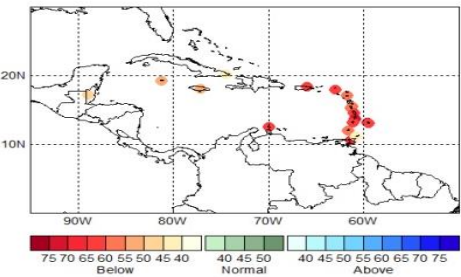
Forecasting shifts in wet spell frequency within a season

SON 2015 frequency of 7-day wet spells

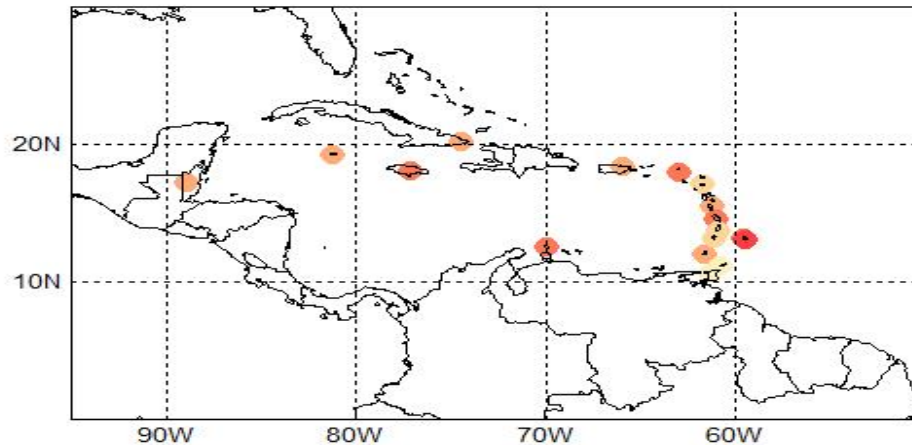


FORECAST: Region-wide, September to November rainfall expected to be below- to normal, with fewer wet days and wet spells than usual.

SON 2015 Wet days frequency shifts



SON 2015 frequency of 7-day very wet spells

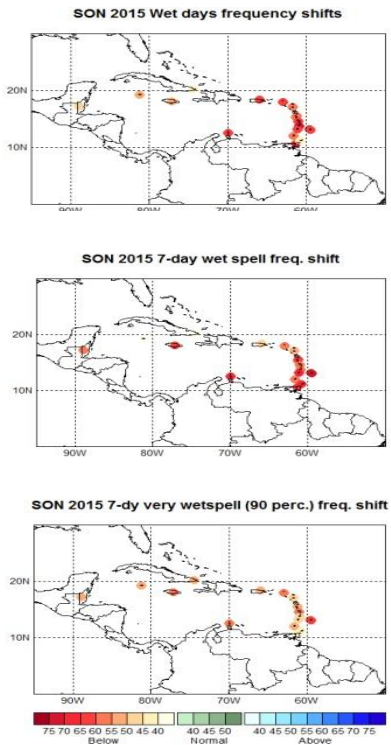
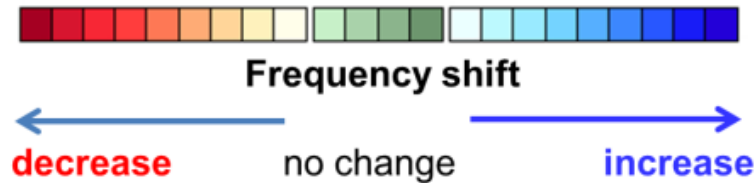
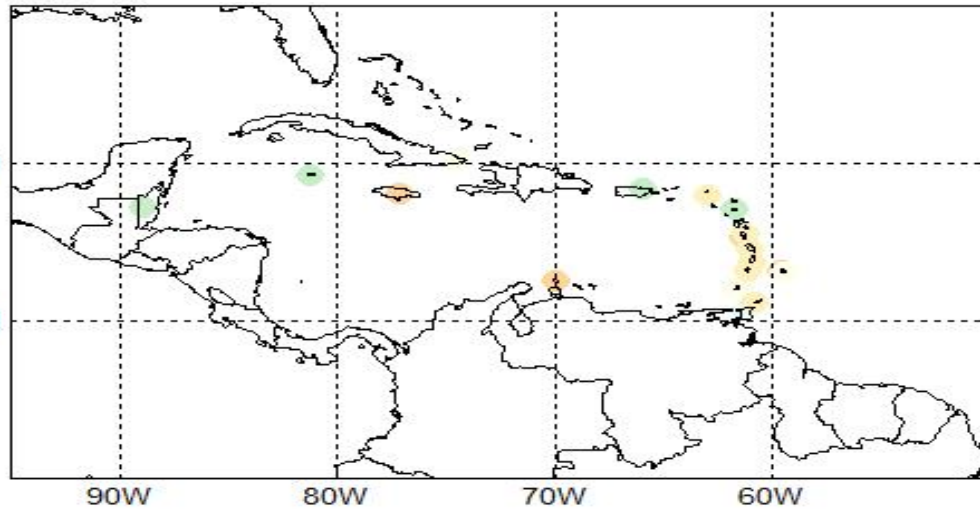
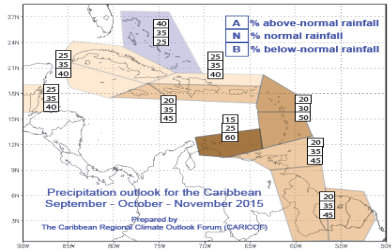


Forecasting shifts in *extreme* wet spell frequency within a season

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

FORECAST: Region-wide, September to November 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.

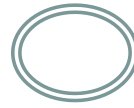


September to November 2015 Forecast

	Number of wet days in SON 2015		Number of 7-day wet spells in SON 2015 (20% wettest)		Number of 7-day very wet spells in SON 2015 (10% wettest)		Number of 3-day extremely wet spells in SON 2015 (1% wettest)	
	Climatology	Forecast	Climatology	Forecast	Climatology	Forecast	Climatology	Forecast
Antigua (VC Bird)	31-44	29-41	3.7-8	2.6-6.8	1-5.4	0.4-5.3	0-1.4	0-1.6
Aruba (Beatrix)	14-31	9-24	3-9	1.5-5.7	1-7.4	0-4.9	0-3	0-1.8
Barbados (CIMH)	37-50	31-43	4.7-8.7	3.6-6.7	2.7-6	0-5	0-3	0-2.1
Barbados (GAIA)	40-49	35-45	5-8	3.3-6.5	2-6	0.9-5.1	0-2	0-2
Belize (C. Farm)	31-48	29-47	3-7	2.1-6	1-4.4	0-4.7	0-2	0-1.7
Cayman	29-46	26-43	4-8	4.1-8.1	1.9-5	0-5.4	0-2.6	0-2.4
Cuba (Punta Maisi)	17-31	15-31	3-8	2.5-8.2	1-6	0-5.4	0-2	0-1.9
Dominica (Canefield)	41-55	38-51	3-10	2.3-9.1	1.3-6.3	0.7-7.8	0-2	0-1.7
Dominica (Douglas Charles)	56-69	52-66	4-8.5	2.6-6.6	2-5.4	1.3-5.5	0-1.2	0-1.7
Dom. Republic (Las Americas)								
Grenada (MBIA)	35-49	32-45	2.7-8	1.5-7.1	1-5	0-5.3	0-2.2	0-1.9
Jamaica (Worthy Park)	27-46	24-42	3.2-7	2.3-6	1-4	0-4.1	0-2	0-1.4
Martinique (FDF Desaix)	52-62	42-58	4.7-8	3.1-7.2	2-5.4	1.1-5	0-2	0-1.9
Puerto Rico (San Juan)	38-52	34-47	3-7	2.9-6.6	1-4.4	0.4-3.9	0-1	0-1.3
St. Lucia (Hewanorra)	43-54	39-48	5-8	3.8-6.9	2-5	0-5.2	0-2	0-1.7
St. Maarten (TNM)	36-51	31-46	3.7-7.4	2.5-6.5	1.7-5	0.7-4.7	0-2	0-1.5
St. Vincent (ET Joshua)	54-67	48-61	4.7-9	3-6.6	2-6.6	1-6	0-2.9	0-2.2
Suriname (Zanderij)								
Trinidad (Piarco)	43-54	37-48	2.7-7	0-5.6	1-4.4	0-5	0-1.4	0-1.7
Tobago (ANR Robinson)	40-51	37-51	3-8	2.3-6.2	2-5	1.1-5.5	0-2	0-1.8

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

Rainfall frequency forecasts



- A proof of concept
 - **YOUR INPUT:** threshold values (e.g. 100mm in 1 week) and duration of interest for wet spells
 - The more extreme, the less predictable.
 - Technical methodology for rainfall frequency prediction can be applied to dry spells and heat waves.



Thank you