

Rainfall frequency and extreme forecasts

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Wet days and Wet spells Outlooks December to February 2022-'23

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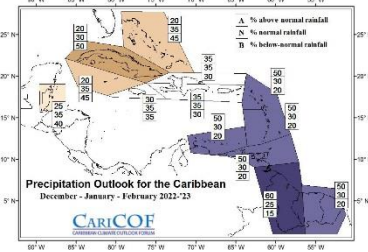
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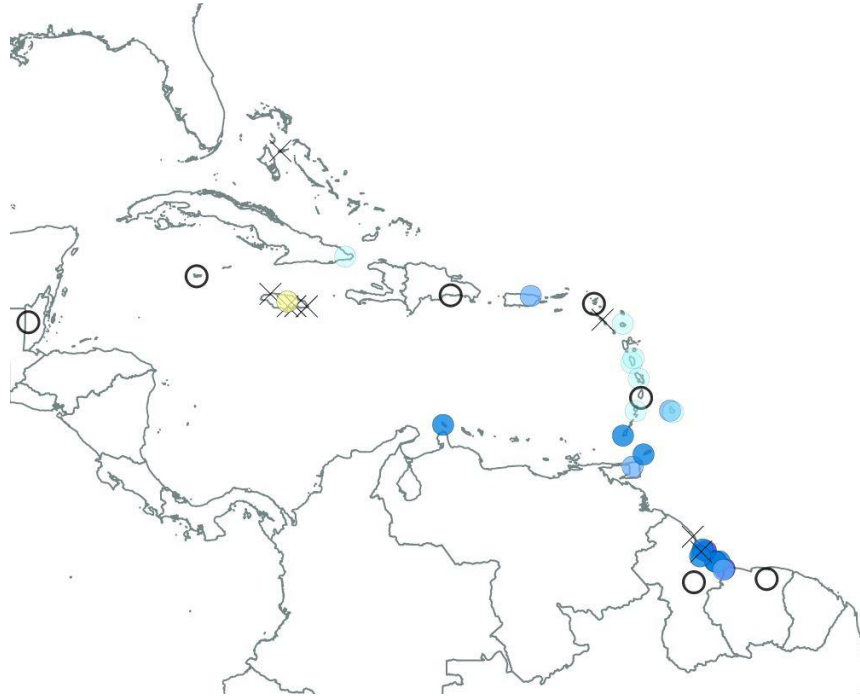
Wet day frequency shifts

Forecast for: November to January 2022-'23

Precipitation outlook



DJF 2022-'23
Frequency of wet days



USUALLY: Out of 90 days in Dec-Jan-Feb, there are about 25 to 40 wet days (ABC Islands: 10-35; coastal Guianas: 30 to 50).

SEASONAL RAINFALL FORECAST:

- At least the usual rainfall totals east and southwards of Jamaica, but possibly drier than usual in The Bahamas, Belize, Cayman Is. and Cuba.

SEASONAL WET DAY FORECAST (day when rainfall > 1mm):

- An increase in the number of wet days may be expected across the Lesser Antilles (*low confidence*), the Guianas, and the ABC islands (*medium confid.*).

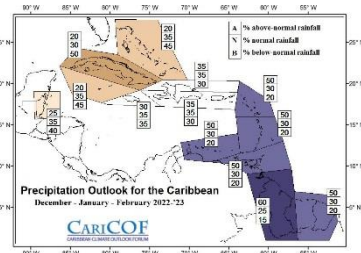
IMPLICATIONS:

- The number of wet days should decrease towards February and, along with it, outdoor activity disruptions and environmental conditions conducive to moisture related pests. However, this decrease will likely be slower than usual in the ABC Is. and coastal Guyana, and possibly slower in the Lesser Antilles.

Wet spells frequency shifts

Forecast for: November to January 2022-'23

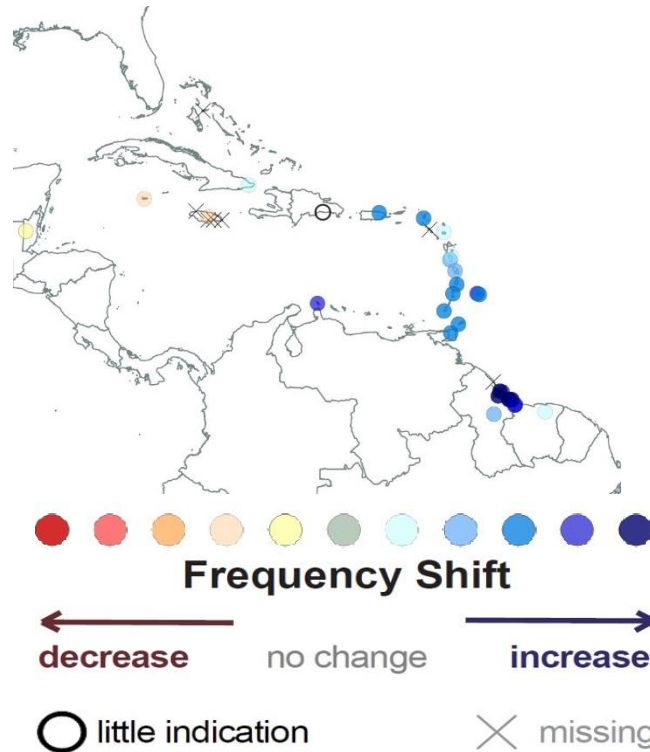
Precipitation outlook



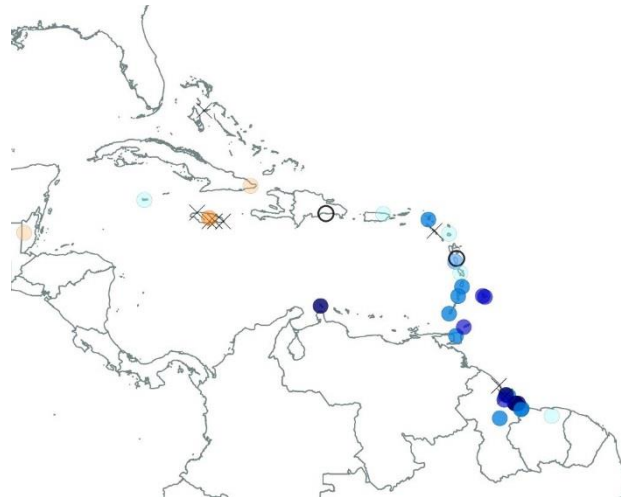
Wet days outlook



DJF 2022-'23 frequency of 7-day wet spells



DJF 2022 frequency of 7-day very wet spells



USUALLY: Between 1 and 3 wet spells occur from December to February (ABC Islands: 2 to 6; coastal Guianas: 1 to 5), with up to 1 or 2 of them ending up very wet (ABC Islands & coastal Guianas: up to 3).

SEASONAL RAINFALL FORECAST:

- At least the usual rainfall totals east and southwards of Jamaica, but possibly drier than usual in The Bahamas, Belize, Cayman Is. and Cuba.

WET SPELL FORECAST (top 20% of 7-day wet spells):

- More wet spells than usual are forecast across most of the islands east of the Dominican Republic (*low – med. confidence*) and in the coastal Guianas (*high confid.*).

VERY WET SPELL FORECAST (top 10% of 7-day wet spells):

- More very wet spells than usual are forecast across most of the islands east of the Dominican Republic (*low – med. confidence*) and in the coastal Guianas (*high confid.*).

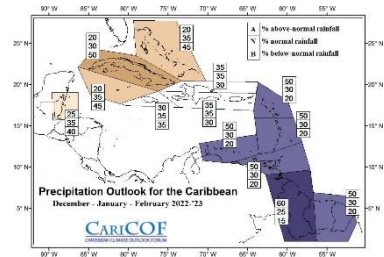
IMPLICATIONS:

- Recharge rates of water reservoirs likely even faster than usual in view of frequent wet spells in the coastal Guianas.
- There is a high potential for long term flooding and cascading hazards in the coastal Guianas, and a moderate potential in Caribbean islands and Belize, esp. where soils are saturated.

Extreme wet spells frequency shifts

Forecast for: November to January 2022-'23

Precipitation outlook



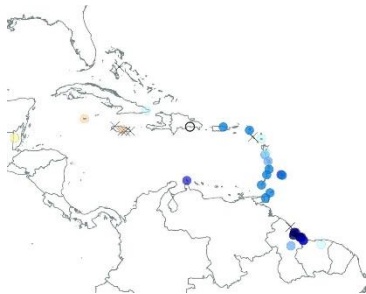
DJF 2022-'23 frequency of extreme (top 1%) 3-day wet spells



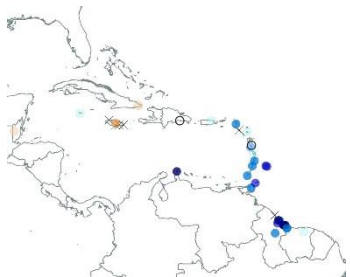
Wet days outlook



Wet spells outlook



Very wet spells outlook



USUALLY: Up to 1 extreme wet spells occur from December to February in Belize and the islands (coastal Guianas: up to 2).

SEASONAL RAINFALL FORECAST:

- At least the usual rainfall totals east and southwards of Jamaica, but possibly drier than usual in The Bahamas, Belize, Cayman Is. and Cuba.

EXTREME WET SPELL FORECAST (top 1% of 3-day wet spells):

- An increase in the number of 3-day extremely wet spells may be expected in Belize (*medium confid.*), across the windward islands (*low to medium confid.*) and throughout the Guianas (medium confid.)

IMPLICATIONS:

- The very high chance of occurrence of extreme wet spells in the coastal Guianas / moderate chance in the Caribbean Islands and Belize, translates to a very high / moderate potential for flash floods and cascading hazards.

December to February 2022-'23

	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)	26-42	26-45	1.7-3.7	1.7-4.3	0.7-2.2	0.6-2.4	0-0.5	0-0.7	light blue an increase, grey none are expected
Aruba (Beatrix)	17-40	19-55	2.6-7.3	4.1-11.5	0.5-4.5	2.1-7.6	0-1.5	0-1.5	
Barbados (CIMH)	26-45	28-50	1.3-3.5	1.9-5.4	0.5-2	0.8-3	0-0.5	0-1	
Barbados (GAIA)	27-41	27-45	1.5-3.8	1.7-5.2	0.5-2.2	0.9-2.7	0-0.5	0-2	
Belize (C. Farm)	26-43	23-44	1.5-4.4	1.3-4.5	0.7-2.2	0.3-2.1	0-1	0-1.1	
Cayman	15-24	13-26	0.7-2.6	0.4-2.7	0.2-1.5	0.2-1.7	0-0.5	0-0.8	
Cuba (Punta Maisi)	15-25	15-28	2.2-4.3	2.2-5.2	0.7-2.4	0.5-2.4	0-0.5	0-0.6	
Dom. Republic (Las Americas)	15-22	14-23	0.9-1.9	0.7-2.8	0-1.3	0.1-1.4	0-0.1	0-0.5	
Dominica (Canefield)	38-53	38-55	1.3-3.5	1.1-4.5	0.3-1.7	0.4-2.1	0-1	0-0.7	
Dominica (Douglas Charles)	52-64	50-68	1.3-3.8	1.3-4.5	0.3-2	0.4-2.4	0-0.5	0-0.9	
Grenada (MBIA)	26-40	25-50	1.5-4	1.8-5.4	0.5-2.2	0.9-3.3	0-1.1	0-1.5	
Guyana_73	15-32	21-40	1.3-4.7	2-6	0.4-3	0.9-4	0-2	0-2	
Guyana (Albion)	27-50	30-59	1.3-5.7	2.9-10.3	0.4-3.2	1.6-6.5	0-1.5	0.3-4.1	
Guyana (Blairmont)	31-54	33-64	1.3-5.2	2.6-9.4	0.5-3	1.5-6.3	0-2	0.2-3.9	
Guyana (Charity)									
Guyana (Enmore)	27-52	36-64	1.7-4.9	2.7-6.5	0.9-3.4	1.5-4.2	0-1.4	0-2.1	
Guyana (Georgetown)	35-60	39-65	1.1-5.6	2.6-11.1	0.5-4.3	1.9-8.6	0-2.5	0.3-4.3	
Guyana (Greatfall)	34-56	36-66	1.2-4.2	2-8.2	0.2-2.1	1-6.5	0-0.1	0-0.2	
Guyana (New Amsterdam)	31-54	34-61	1.4-4.7	2.6-8.4	0.6-3.4	1.8-6.6	0-2	0.2-3.4	
Guyana (Skeldon)	32-45	31-51	1.7-4.3	2.2-5.2	0.4-2.5	0.8-2.9	0-1.7	0-1.8	
Guyana (Timehri)	40-64	44-71	1.5-5.3	3-9	0.7-3	1.3-5.9	0-1	0.1-2.1	
Guyana_Wales									brown is a decrease in frequency,
Jamaica (Worthy Park)	19-27	15-28	1-2.8	0.6-2.5	0-1.9	0-1.5	0-0.5	0-0.1	
Martinique (FDF Desaix)	48-60	45-64	1.8-3.9	1.5-5	0.5-2	0.5-1.9	0-1	0-1.2	
Puerto Rico (San Juan)	35-48	34-54	2-4.5	2.3-5.4	0.7-2.2	0.8-2.8	0-1	0-0.9	
St. Lucia (Hewanorra)	35-48	34-51	1.3-3.1	1.9-4.5	0.5-1.9	0.5-2.1	0-0.5	0-0.7	
St. Maarten (TNCM)	32-50	32-51	1.9-4.9	2.3-6.4	0.7-2.6	0.9-3.1	0-1	0-1	
St. Vincent (ET Joshua)	47-64	46-65	1.5-3.9	1.7-5.4	0.7-2.2	1-2.8	0-0.5	0-1	
Suriname (Zanderij)	39-52	38-55	1.7-3.4	1.8-3.7	0.4-1.7	0.6-3.4	0-1	0-1.5	
Tobago (ANR Robinson)	31-45	32-49	1.1-3.2	1.2-4.6	0.5-2	0.8-2.3	0-1	0-1.5	
Trinidad (Piarco)	30-41	29-48	1.8-4.1	1.9-5.7	0.7-2.6	0.9-3.3	0-1	0-1.7	



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