

Rainfall frequency and extreme forecasts

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Wet days and Wet spells Outlooks January to March 2023

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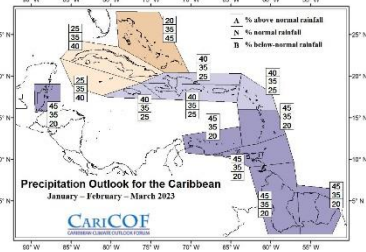
³Antigua and Barbuda Meteorological Services



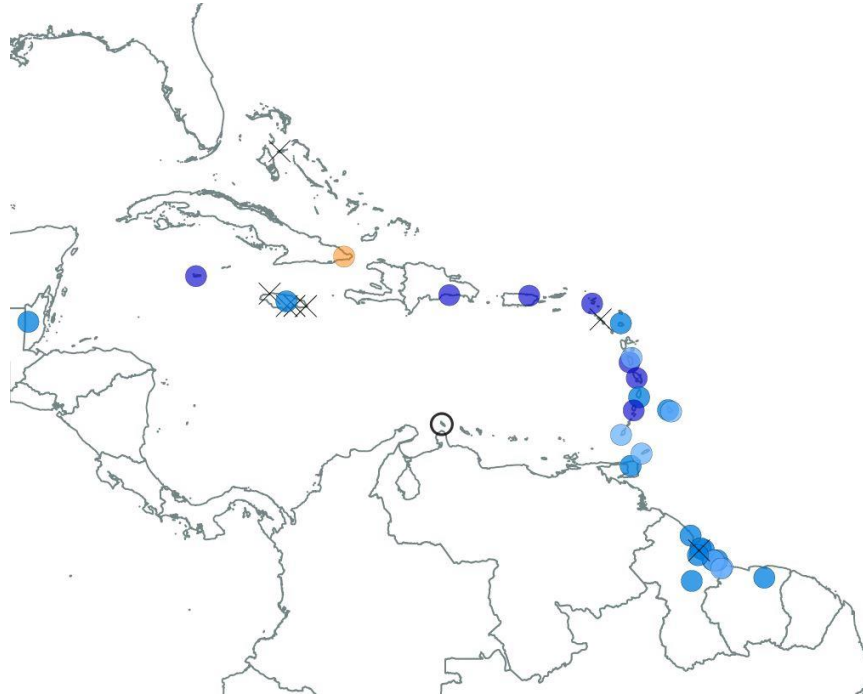
Wet day frequency shifts

Forecast for: January to March 2023

Precipitation outlook



JFM 2023
Frequency of wet days



USUALLY: Out of 90 days in Jan-Feb-Mar, there are about 15 to 30 wet days (ABC Islands: 10-25; coastal Guianas: 20 to 50).

SEASONAL RAINFALL FORECAST:

- At least the usual rainfall totals across most of the region, but possibly drier than usual in The Bahamas, Cayman Is. and Cuba.

WET DAY (= day with rainfall exceeding 1mm) FORECAST:

- A decrease in the number of wet days may be expected in western Cuba (*medium confidence*), with an increase expected elsewhere (*medium to high confid.*).

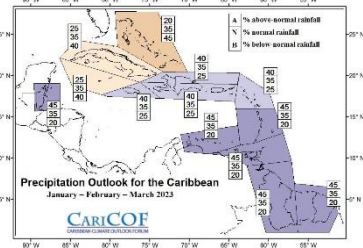
IMPLICATIONS:

- Favourable conditions for outdoor tourism-based activities in view of the decreasing number of wet days.
- Slowly increasing surface dryness, with a possible increase of local airborne dust and wildfire potential across the region. However, a faster increase is likely in Cuba and The Bahamas.

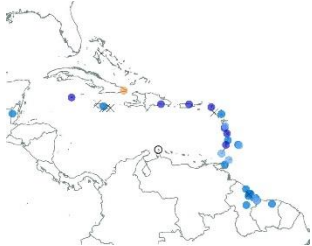
Wet spells frequency shifts

Forecast for: January to March 2023

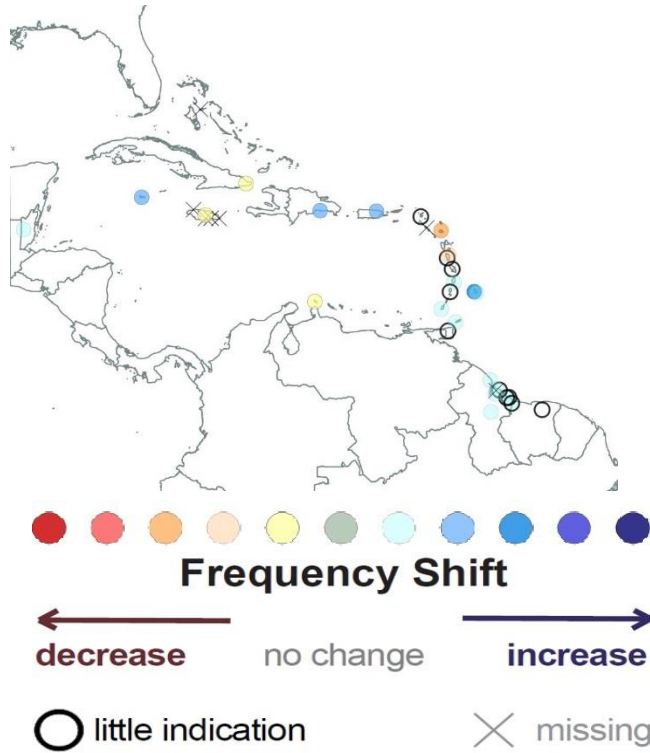
Precipitation outlook



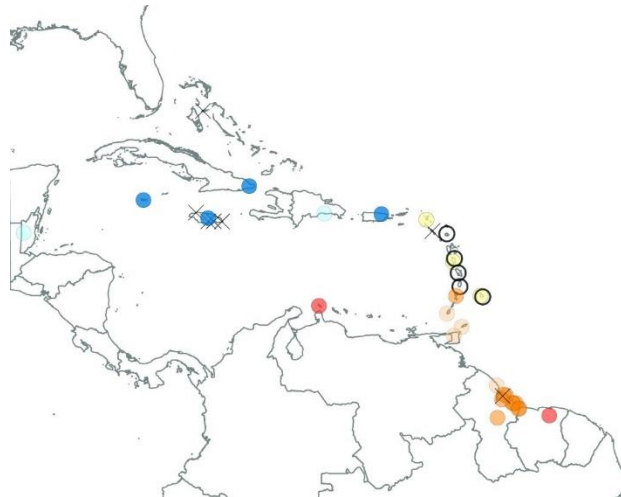
Wet days outlook



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



JFM 2022 frequency of 7-day very wet spells



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

WET SPELLS (=7-day spell with rainfall totals among top 20%)
FORECAST:

- Fewer wet spells than usual are forecast across the ABC islands, eastern Cuba and Jamaica (*low – med. confidence*).

VERY WET SPELLS (=7-day spell with rainfall totals among top 10%)
FORECAST:

- More very wet spells than usual are forecast across most of the Greater Antilles (*med. confidence*) with fewer expected along the Lesser Antilles (*low - medium confid.*) and in the ABC islands and coastal Guianas (*high confid.*).

IMPLICATIONS:

- Limited flooding potential in the islands and Belize at this time of the year, but high in the coastal Guianas until early February, esp. where soils are already saturated.
- Water depletion rates in smaller and larger surface reservoirs and rivers may be accelerated in Belize and the islands.

Extreme wet spells frequency shifts

Forecast for: January to March 2023

USUALLY: Up to 1 or 2 extreme wet spells occur from January to March in the coastal Guianas, but virtually none elsewhere.

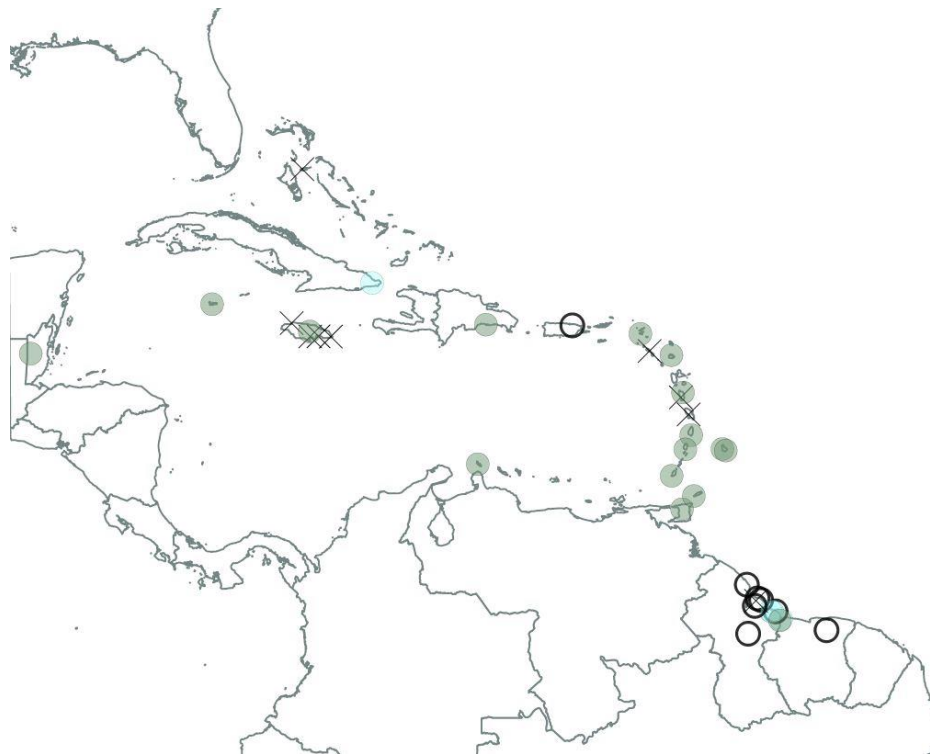
EXTREME WET SPELLS (= 3-day with rainfall totals among top 1%) FORECAST:

- No change from the usual number of 3-day extremely wet spells is expected across the region. *(low to medium confid.)*

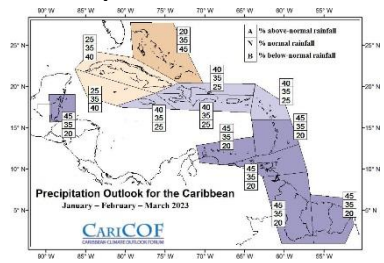
IMPLICATIONS:

- There is a high chance of occurrence of extreme wet spells in the coastal Guianas up until early February and moderate chance thereafter. This translates to a high potential for flash floods and cascading hazards decreasing to moderate from about mid-February onwards.
- Very limited flash flood potential in the Caribbean Islands and Belize.

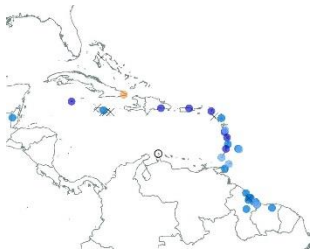
JFM 2022-'23 frequency of extreme (top 1%) 3-day wet spells



Precipitation outlook



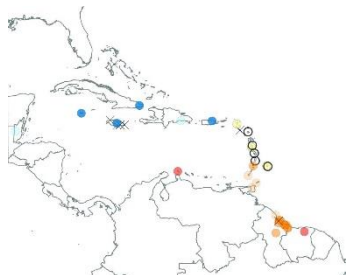
Wet days outlook



Wet spells outlook



Very wet spells outlook



January to March 2023

	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)	8-17	10-22	0.4-1.1	0.2-1	0-0.5	0-0.5	0-0
Aruba (Beatrix)	3-13	3-14	0.6-2.2	0.5-1.9	0-0.9	0-0.5	0-0	0-0
Barbados (CIMH)	8-19	11-24	0.2-0.9	0.3-1.3	0-0.5	0-0.4	0-0	0-0
Barbados (GAIA)	10-16	9-22	0.4-1.1	0.4-1.3	0-0.5	0-0.4	0-0	0-0
Belize (C. Farm)	7-13	8-17	0.5-1.3	0.4-1.6	0.2-0.7	0.1-0.7	0-0	0-0
Cayman	4-10	6-13	0-0.9	0.2-1.1	0-0.5	0-0.7	0-0	0-0
Cuba (Punta Maisi)	5-10	4-10	0.8-1.7	0.7-2	0.2-0.9	0.4-1.2	0-0.1	0-0
Dom. Republic (Las Americas)	6-10	7-13	0.4-1	0.4-1.3	0-0.5	0-0.6	0-0	0-0
Dominica (Canefield)	14-23	16-33	0-1.6	0.2-1.5	0-0.6	0-0.5	0-0	0-0
Dominica (Douglas Charles)	21-30	19-34	0.2-1.1	0.2-0.9	0-0.7	0-0.5	0-0	0-0
Grenada (MBIA)	7-16	8-19	0-1.3	0.1-1.5	0-0.7	0-0.4	0-0	0-0
Guyana_73	6-14	7-17	0.4-2.3	0.6-2.3	0.2-1.5	0-0.9	0-0.5	0-0.5
Guyana (Albion)	10-22	12-29	0.1-2.4	0.4-2.2	0-1.5	0-0.8	0-0.5	0-1
Guyana (Blairmont)	10-26	14-33	0.2-2.2	0.4-2.2	0-1.5	0-0.8	0-1	0-1.1
Guyana (Charity)								
Guyana (Enmore)	11-23	13-27	0.2-2.1	0.3-2	0.2-1.6	0-1.1	0-1	0-1
Guyana (Georgetown)	11-25	14-30	0.2-2.2	0.4-2.2	0-1.3	0-1	0-0.6	0-1
Guyana (Greatfall)	16-28	19-34	0.5-1.7	0.6-1.9	0-1.1	0-0.8	0-0.1	0-0.2
Guyana (New Amsterdam)	10-23	13-29	0.2-2	0.4-2	0-1.6	0-0.8	0-0.6	0-1
Guyana (Skeldon)	10-23	12-27	0.5-2.2	0.4-2	0.2-1.3	0-0.8	0-0.1	0-0
Guyana (Timehri)	12-26	16-33	0.2-2	0.4-2.2	0-1.3	0-0.8	0-0.6	0-1.1
Guyana_Wales								
Jamaica (Worthy Park)	7-13	8-16	0.2-1.5	0-1.3	0-0.7	0-0.9	0-0	0-0
Martinique (FDF Desaix)	19-27	19-38	0.2-1.1	0.2-1.3	0-0.5	0-0.8	0-0	0-0
Puerto Rico (San Juan)	13-21	14-25	0.5-1.3	0.5-1.9	0-0.5	0.1-1.3	0-0.5	0-0.5
St. Lucia (Hewanorra)	12-21	14-24	0.2-1.1	0.4-1.2	0-0.5	0-0.8	0-0	0-0
St. Maarten (TNCM)	14-22	15-28	0.6-1.9	0.4-2	0.2-0.7	0-1	0-0	0-0
St. Vincent (ET Joshua)	20-27	20-36	0.2-1.3	0.2-1.2	0-0.6	0-0.7	0-0	0-0
Suriname (Zanderij)	16-27	19-30	0.8-2.2	0.7-2.2	0.2-1.3	0-1.6	0-0.5	0-0.6
Tobago (ANR Robinson)	8-17	9-22	0-0.9	0-0.6	0-0.3	0-0.7	0-0	0-0
Trinidad (Piarco)	7-17	8-20	0-1.3	0.2-1.4	0-0.7	0-0.8	0-0	0-0

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



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