

# Rainfall frequency and extreme forecasts

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## Wet days and Wet spells Outlooks July to September 2023

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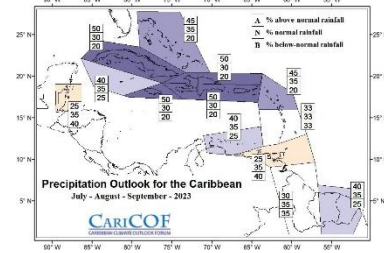
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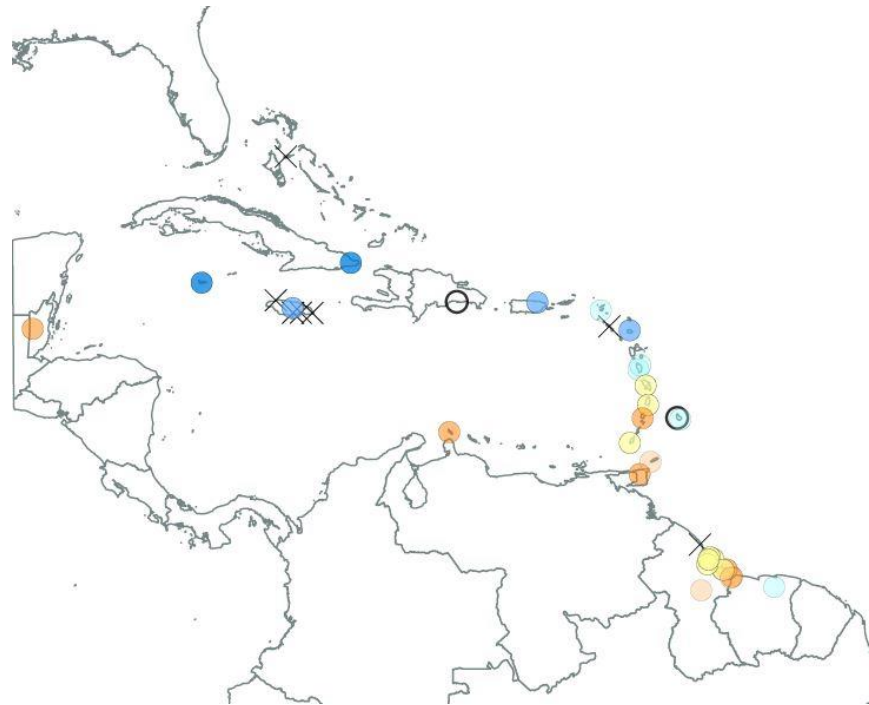
# Wet day frequency shifts

## Forecast for: July to September 2023

### Precipitation outlook



### JAS 2023 Frequency of wet days



**USUALLY:** Out of 92 days in Jul-Aug-Sep, there are about 35 to 59 wet days in relatively flat areas of Belize and the islands, but 50 to 65 in mountainous areas and in coastal Guianas (ABC Islands: 5-15).

**FORECAST:** JAS may be drier than usual in Belize and Trinidad & Tobago, and at least as wet as usual elsewhere.

- More wet days than usual may be expected in the islands north and west of Martinique (medium confidence) with fewer than normal wet days in Belize and elsewhere (low to medium confidence).*

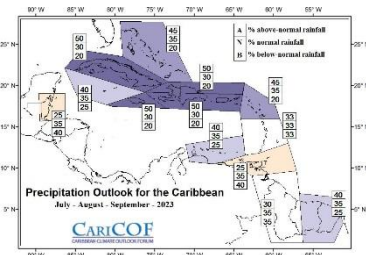
### IMPLICATIONS:

- Frequent outdoor activity disruptions due to rainfall across the Guianas through early-August, as well as across Belize and the islands throughout the period even in places with fewer wet days than usual.
- Increasing surface wetness could make environmental conditions more conducive to moisture related pests but, at the same time, largely prevent wildfires.

# Wet spells frequency shifts

## Forecast for: July to September 2023

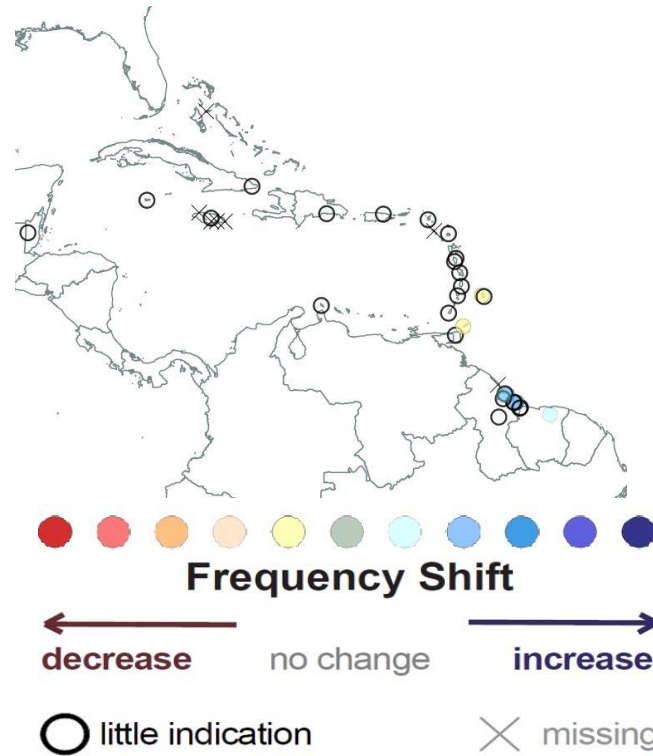
### Precipitation outlook



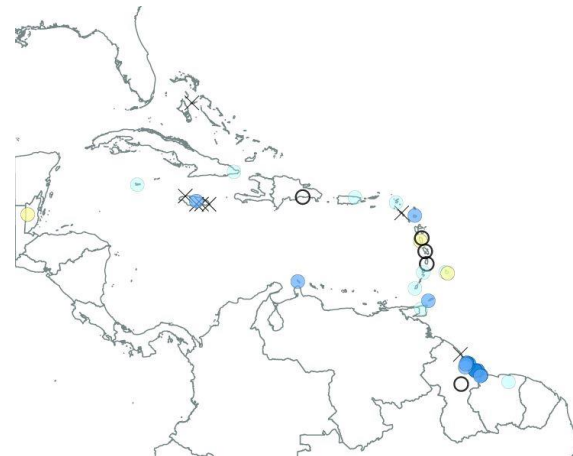
### Wet days outlook



### JAS 2023 frequency of 7-day wet spells



### JAS 2023 frequency of 7-day very wet spells



**USUALLY:** 3 to 6 wet spells (ABC Islands: up to 3) occur from July to September, with 1 to 3 of them ending up very wet (ABC Islands: up to 2).

**FORECAST:** JAS may be drier than usual in Belize and Trinidad & Tobago, and at least as wet as usual elsewhere.

- *Overall, the usual number of wet spells is expected (low confidence)*
- *An increase from the usual numbers of very wet spells is expected for the ABC islands, the Guianas, the southern windward islands, the northern leeward islands, Cayman Islands and Jamaica; however, a slight decrease is forecast in Barbados, Belize, and Dominica (low to medium confidence).*

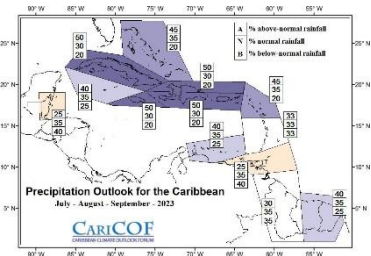
### IMPLICATIONS:

- The usual recharge rates of large water reservoirs and soil moisture throughout the region in view of the recurrence of wet spells into the wet season.
- The chance of recurrent very wet spells translates to flood potential (1) increasing from moderate in July to high in August and September in Belize and the islands; (2) decreasing from high to moderate in August in the Guianas.

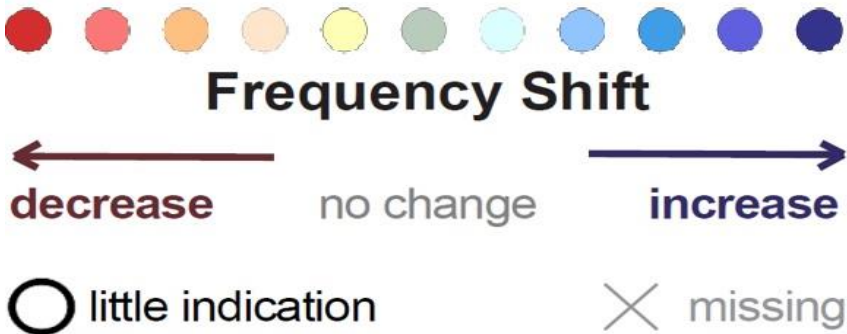
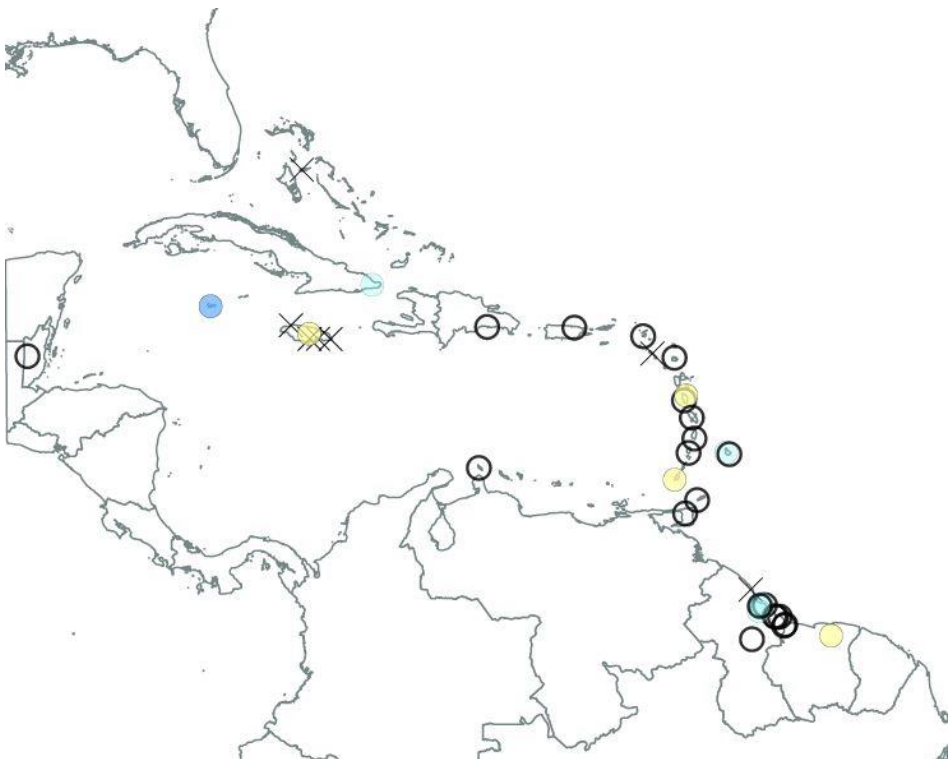
# Extreme wet spells frequency shifts

## Forecast for: July to September 2023

### Precipitation outlook



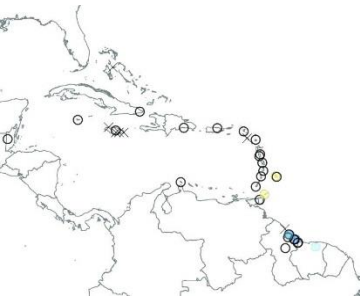
### JAS 2023 frequency of extreme (top 1%) 3-day wet spells



### Wet days outlook



### Wet spells outlook



### Very wet spells outlook



**USUALLY:** Up to 1 extreme wet spell occurs between July to September in most places, but up to 2 in mountainous areas.

**FORECAST:** JAS may be drier than usual in Belize and Trinidad & Tobago, and at least as wet as usual elsewhere.

- The usual number of extreme wet spells in most areas (low confidence), with the exception of Grand Cayman where an increase is forecast (medium confidence).*

### IMPLICATIONS:

- In view of the chance of extreme wet spells increasing towards August in Belize and the islands the potential for flash floods and associated hazards is expected to increase from moderate to high. The opposite trend is expected in the Guianas by the end of August.



# July to September 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)	29-41	30-47	2.6-4.9	2.4-5.6	0.9-3	1-4.2	0-1	0-1.2
Aruba (Beatrix)	6-17	4-17	1.1-3.9	0.8-4.5	0.4-2.1	0.4-2.8	0-1	0-0
Barbados (CIMH)	37-48	35-50	3.4-6.4	3.3-6.6	1.4-3.2	1.5-3.9	0-1	0-1.3
Barbados (GAIA)	39-49	38-51	3.9-6.2	3.7-6.6	1.5-3.9	1.1-3.9	0-1	0-1.5
Belize (C. Farm)	37-49	31-48	2.7-5.6	2.7-6.2	1.3-3.4	1-3.5	0-1.1	0-1.5
Cayman	31-44	31-49	3.5-6.2	3.3-6.9	1.1-3.4	1.3-4.4	0-1	0-1.2
Cuba (Punta Maisi)	10-18	11-24	1.3-3.9	1.1-4.5	0.4-1.7	0.2-2	0-1	0-0.4
Dom. Republic (Las Americas)	24-34	25-36	3.3-5.1	2.3-5.6	1.7-3.1	1.2-4.2	0-1	0-1.4
Dominica (Canefield)	52-64	51-67	3.8-7.2	3.8-7.8	1.8-5.5	1.2-5.3	0-2.5	0-2
Dominica (Douglas Charles)	56-69	55-74	2.8-6.6	2.5-7	0.9-3.2	0.9-4	0-1	0-1
Grenada (MBIA)	40-48	36-51	3.9-6.4	3.3-6.4	1.7-3.6	1.4-4.5	0-2	0-1.5
Guyana_73	17-26	13-25	1.8-4.1	1.3-5	0.4-2.4	0.7-3.6	0-0.2	0-0
Guyana (Albion)	26-42	21-39	2.1-4.7	2.4-6	0.9-3	1.2-3.8	0-1	0-0.8
Guyana (Blairmont)	33-46	28-45	2.1-5.1	1.8-6.1	0.7-2.6	0.8-3.6	0-1	0-0.8
Guyana (Charity)								
Guyana (Enmore)	28-42	21-46	1.7-4.3	1.9-5.7	0.4-2.7	1-4.2	0-1	0-0.6
Guyana (Georgetown)	35-51	31-52	1.7-4.3	1.5-4.5	0.4-2.6	0.8-3	0-1	0-0.5
Guyana (Greatfall)	34-51	29-55	1.8-5.4	1.5-5.8	0.9-2.6	0.7-3.1	0-1	0-1.4
Guyana (New Amsterdam)	31-43	29-44	1.9-5.1	1.7-5.4	0.9-2.6	0.9-3.4	0-1	0-0.8
Guyana (Skeldon)	31-38	28-39	2.1-3.9	1.7-4.5	0.7-2.6	0.8-3.4	0-1	0-1.2
Guyana (Timehri)	46-58	41-58	2.2-4.7	2-5.1	0.9-2.6	0.9-3.5	0-1	0-0.5
Guyana_Wales								
Jamaica (Worthy Park)	30-42	30-47	2.7-5.6	2.6-6.1	0.9-3	1.2-4.3	0-2	0-1.5
Martinique (FDF Desaix)	53-64	50-64	3.9-7.1	3.6-7	1.7-3.7	1.4-3.6	0-1.5	0-1.5
Puerto Rico (San Juan)	36-50	37-57	2.6-5.4	2.5-6.1	0.9-3.2	0.9-3.8	0-1	0-1.3
St. Lucia (Hewanorra)	45-59	42-58	3.4-5.6	3.2-6.3	1.7-3.4	1.2-3.5	0-1.1	0-1.5
St. Maarten (TNCM)	33-49	32-53	2.2-5.8	2.2-5.7	0.9-3	0.8-3.2	0-1	0-0.9
St. Vincent (ET Joshua)	56-65	49-64	3.4-5.4	3.3-5.8	1.3-3.2	1.4-3.2	0-1.1	0-1.4
Suriname (Zanderij)	37-51	35-54	2-3.4	1.9-4.1	0.9-1.7	0.7-2.9	0-1	0-1.1
Tobago (ANR RobinOND)	48-59	45-57	3.9-6.4	3.7-6.6	1.5-3.4	1.6-3.6	0-1	0-1.3
Trinidad (Piarco)	36-53	32-55	3.4-5.6	3.1-5.8	1.7-3.4	1.6-3.5	0-1	0-1.1

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



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