Rainfall frequency and extreme forecasts

Wet days and Wet spells Outlooks April to June 2023

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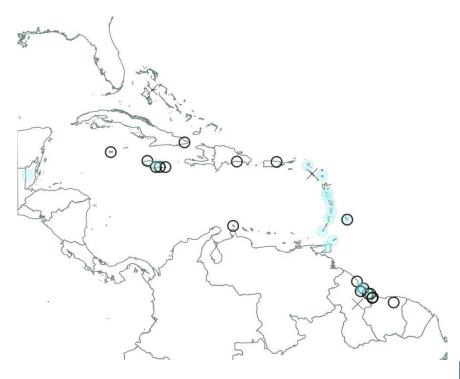
Wet day frequency shifts

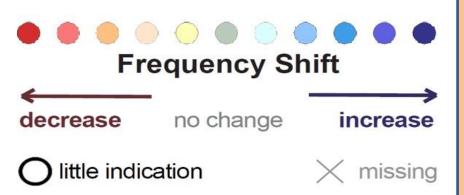
Forecast for: April to June 2023

Precipitation outlook



AMJ 2023 Frequency of wet days





USUALLY: Across the region during April-May-June, about 25 to 40 days out of a total of 91 days are wet days (coastal Guianas: 45 to 60 days; ABC Islands: 10 or less).

SEASONAL RAINFALL FORECAST:

 Usual rainfall totals across the region are expected except in the Guianas where at least as wet as usual conditions are expected.

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

• Slight increase in wet days in Belize and the Lesser Antilles (*low confidence*) with little change from the usual number of wet days expected elsewhere.

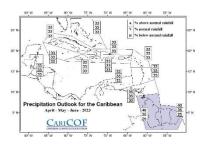
IMPLICATIONS:

 Generally favourable conditions for outdoor tourismbased activities, but increasing surface dryness, with a potential increase of local airborne dust and wildfire potential due to a low number of wet days until April (Greater Antilles and Guianas) or May (elsewhere).

Wet spells frequency shifts

Forecast for: April to June 2023

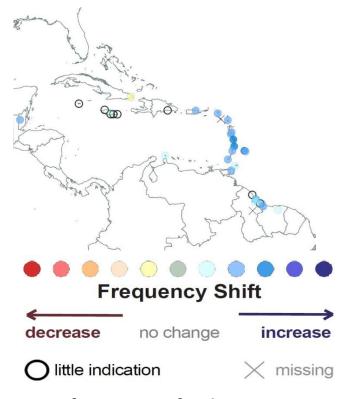
Precipitation outlook







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



AMJ 2022 frequency of 7-day very wet spells



USUALLY: 1 to 4 wet spells (ABC Islands up to 2; coastal Guianas: 3 to 6) occur from April to June, with 1 or 2 of them ending up very wet (ABC Islands: up to 1; coastal Guianas: 1 to 4).

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

• A decrease in the number of wet spells may be expected in Eastern Cuba (*low confidence*) and an expected increase elsewhere (*med. confidence*) with the exception of Cayman Is., Jamaica and the Dominican Republic where there is little indication of change from the normal.

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

• An increase in the number of very wet spells may be expected east of and including Jamaica (med. confidence).

IMPLICATIONS:

- Limited flooding potential until April in the islands and Belize,
 but moderate potential in the Guianas during the dry season.
- Increasing flooding potential in May, particularly in the Greater Antilles and Guianas, but except for the ABC Islands.
- Water depletion rates in smaller and larger surface reservoirs and in rivers may be faster than usual in Cuba.

Extreme wet spells frequency shifts

Forecast for: April to June 2023

missing



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

USUALLY: Up to 1 or 2 extreme wet spells occur between April to June (Guianas: up to 2 or 3).



extreme (top 1%) **3-d**

little indication

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

• Little change from the usual number of 3-day extremely wet spells is expected across most of the region (low to medium confid.).

Wet spells outlook

Very wet spells outlook

Frequency Shift decrease no change increase

IMPLICATIONS:

 The occurrence of extreme wet spells is rare in April, but increases into May across most of the region (except the ABC Islands). This translates to a moderate potential for flash floods and cascading hazards from May onwards, particularly in the Greater Antilles and Guianas.

April to June 2023	No. (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)	18-32	18-36	1.5-4.3	1.5-5.8	0.4-2.6	0.7-3.2	0-1	0-1.2	
Aruba (Beatrix)	4-9	3-11	0.4-1.7	0.3-2.1	0-1.3	0-1.4	0-1	0-0	
Barbados (CIMH)	18-36	20-38	0.9-4.1	1.3-5.3	0.4-1.9	0.6-2.5	0-0.5	0-0	
Barbados (GAIA)	19-37	21-38	0.9-4.1	1.3-5	0.4-2.6	0.7-2.8	0-1	0-1	
Belize (C. Farm)	17-28	18-30	1.3-3	1.4-4	0.5-2.1	0.6-2.3	0-1	0-0.5	
Cayman	18-29	16-30	2.1-3.9	1.6-4.6	0.9-2.6	0.7-3.1	0-1	0-1.5	
Cuba (Punta Maisi)	8-18	7-19	1.3-3.4	0.8-3.7	0.4-2.1	0-2.1	0-1	0-1.2	
Dom. Republic (Las Americas)	17-31	16-32	1.7-4.8	1.6-5.2	0.6-3.4	0.7-3.7	0-1	0-0.8	
Dominica (Canefield)	29-45	27-50	1-3.5	1.3-5.7	0-2.5	0.3-2.8	0-0		
Dominica (Douglas Charles)	41-64	41-67	1.1-5.1	1.6-6.3	0.4-2.9	0.5-3.3	0-2	0-1.3	
Grenada (MBIA)	19-35	20-39	1.3-3.6	1.3-4.8	0.2-2.2	0.7-2.7	0-1	0-0.6	
Guyana_73	27-41	27-41	2.8-6	3.2-7	1.5-3.4	1.4-4	0-1	0-1.7	
ayana (Albion)	38-52	38-55	2.6-5.8	3-6.6	1.3-3		0-2	0-2.1	
Guyana (Blairmont)	44-58	42-60	2.8-6.2	3.3-6.5	1.3-3.4		0-1.1	0-1.7	
uyana (Charity)									
Guyana (Enmore)	42-54	42-56	2.7-5.6	2.9-6.8	1.3-3	1.3-3.7	0-1	0-1.7	
Guyana (Georgetown)	46-59	45-60	3-6.4	3.2-6.8	1.3-3.6		0-1	0-1.4	
Guyana (Greatfall)									
Guyana (New Amsterdam)	43-60	42-61	3-6.2	3.3-6.4	1.5-3.9	1.5-4.3	0-2	0-1.7	
Guyana (Skeldon)	41-57	42-59	3.2-6.4	3.5-7	1.1-3.9		0-1	0-1.3	
Guyana (Timehri)	49-61	48-63	3-6.4	3.1-7.1	1.1-3.6		0-2	0-2.4	
Guyana_Wales									
amaica (Worthy Park)	20-37	21-40	2.4-4.9	2-5.7	0.9-3	0.9-3.5	0-2	0-1.8	
Ոartinique (FDF Desaix)	35-51	34-55	1.3-3.6	1.6-5.1	0.4-2.1	0.7-2.6	0-1	0-0.6	
uerto Rico (San Juan)	25-42	26-44	1.8-4.9	2-6.2	0.9-3.9		0-1.5	0-1.4	
t. Lucia (Hewanorra)	26-43	25-46	1.1-4.3	1.4-5.8	0.2-2.1	0.6-2.7	0-1	0-0.7	
t. Maarten (TNCM)	22-33	22-34	1.3-3.4	1.5-4.2	0.4-2.1	0.6-2.5	0-1	0-0.9	
t. Vincent (ET Joshua)	33-56	35-59	1.1-4.1	1.2-5.2	0.4-2.1	0.7-2.4	0-1	0-0.9	
uriname (Zanderij)	57-69	56-70	3.4-7.1	3.6-8	1.8-4.3		0-2	0-2.2	
obago (ANR Robinson)	27-44	29-47	1.3-4.1	1.6-5.2	0.4-1.9	0.8-2.6	0-1	0-1.2	
rinidad (Piarco)	22-36	23-39	1.3-3.4	1.4-4.7	0.4-2.1	0.8-2.7	0-1	0-1.2	



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