

Rainfall frequency and extreme forecasts

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Wet days and Wet spells Outlooks February to April 2022

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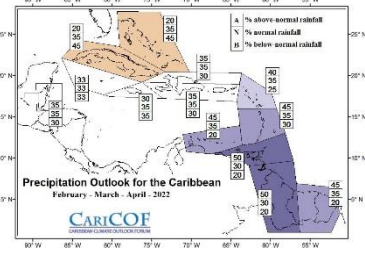
³Antigua and Barbuda Meteorological Services



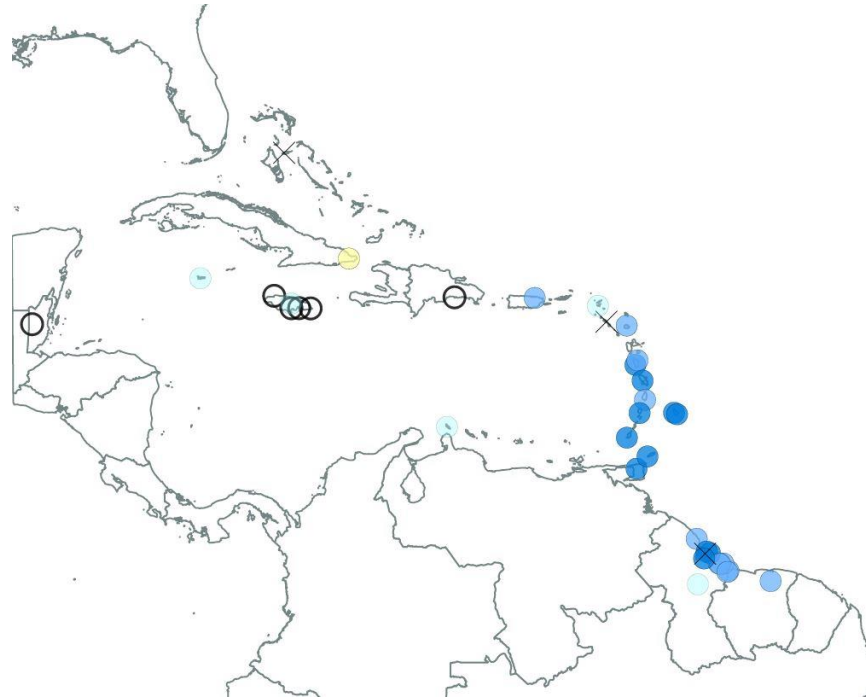
Wet day frequency shifts

Forecast for: February to April 2022

Precipitation outlook



FMA 2022
Frequency of wet days



USUALLY: Out of 90 days in Feb-Mar-Apr, there are about 15 to 30 wet days (ABC Islands: 5-15; coastal Guianas: 20-45).

FORECAST: FMA rainfall may be wetter than usual in the ABC Islands, the Guianas, and the Lesser Antilles, with an expected increase in wet days there as well (*medium confid.*), but usual rainfall or drier elsewhere.

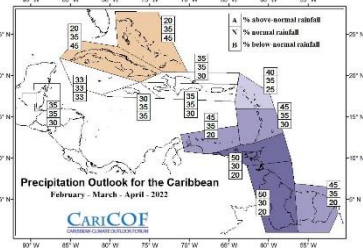
IMPLICATIONS:

- Limited wildfire potential and local airborne dust towards April from Dominica southwards, but a possible increase from the Dom. Rep. westwards.

Wet spells frequency shifts

Forecast for: February to April 2022

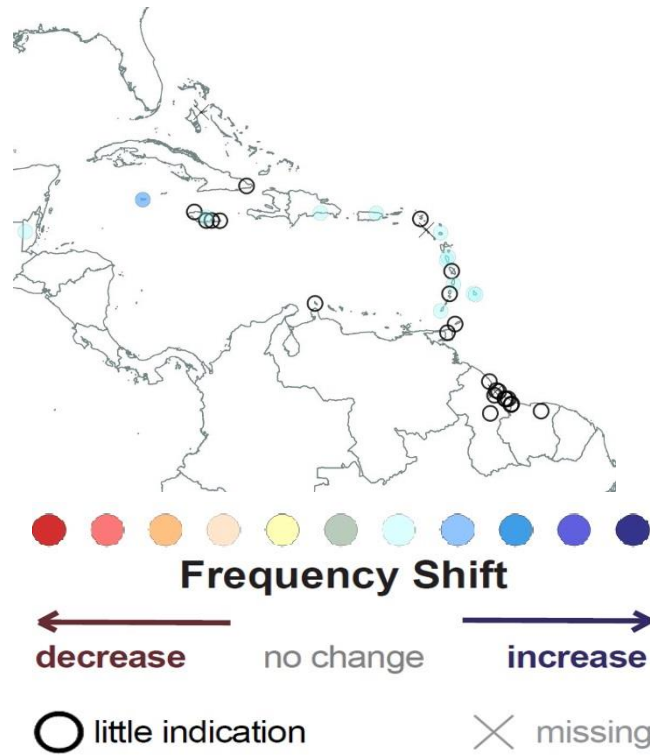
Precipitation outlook



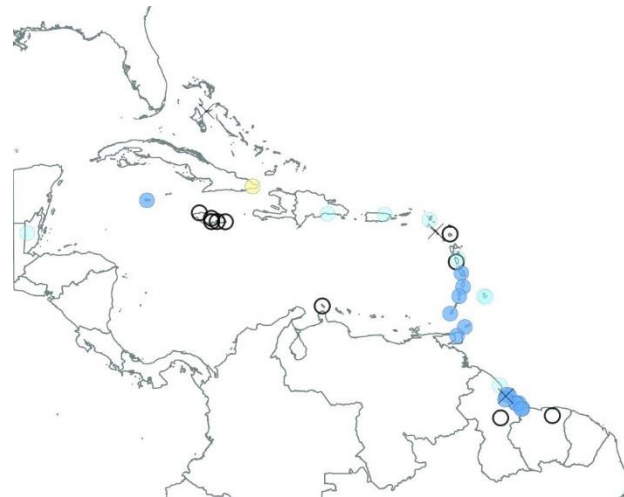
Wet days outlook



FMA 2022 frequency of 7-day wet spells



JFM 2022 frequency of 7-day very wet spells



USUALLY: Up to 3 wet spells (coastal Guianas: up to 4) occur from Feb to Apr, with up to 1 of them ending up very wet (coastal Guianas: up to 2).

FORECAST: FMA rainfall may be wetter than usual in the ABC Islands, the Guianas, and the Lesser Antilles, with an expected increase in wet days there as well (medium confid.), but usual rainfall or drier elsewhere. An increase in wet and very wet spells may be expected across most of the region (*low confid.*).

IMPLICATIONS:

- Increased flooding potential from Dominica southwards in the islands starting April and in the coastal Guianas throughout the period.
- Possible decline of inflows in dams and reservoirs for the western Caribbean.
- Slower than usual depletion of water reservoirs for the core of the dry season from Dominica southwards.

Extreme wet spells frequency shifts

Forecast for: February to April 2022

USUALLY: Up to 1 extreme wet spell occurs from February to April in the coastal Guianas and in mountainous areas of other countries.

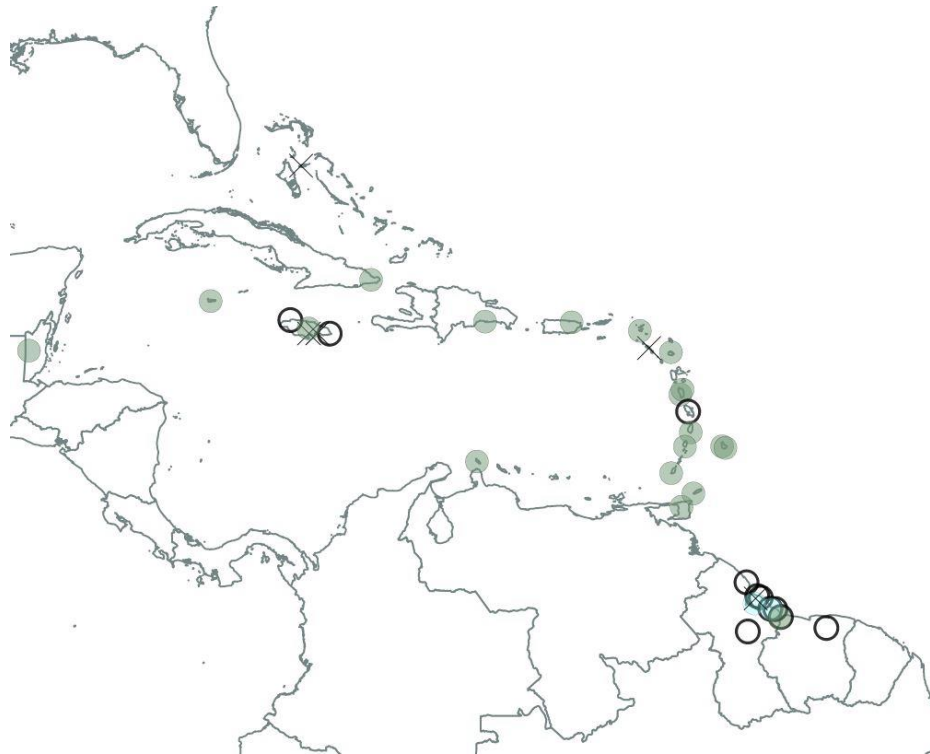
FORECAST: FMA rainfall may be wetter than usual in the ABC Islands, the Guianas, and the Lesser Antilles, with an expected increase in wet days there as well (medium confid.), but usual rainfall or drier elsewhere. An increase in wet and very wet spells may be expected across most of the region (low confid.).

Extreme wet spells are not on forecast across the region.

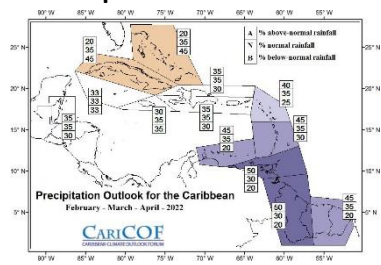
IMPLICATIONS:

- Marginal increase if any for flash flood, landslide/rockfall and soil erosion potential in Belize and the islands through March.

FMA 2022 frequency of extreme (top 1%) 3-day wet spells



Precipitation outlook



Wet days outlook



Wet spells outlook



Very wet spells outlook



February to April 2022

| | 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) | 16-32 | 23-43 | 0.9-2.4 | 1.4-3.9 | 0-1.1 | 0.3-1.7 | 0-0.5 | 0-0 |
| Aruba (Beatrix) | 5-20 | 12-47 | 0.8-3.5 | 2.4-7.9 | 0-1.6 | 1.5-5.4 | 0-0 | 0-1.1 |
| Barbados (CIMH) | 16-33 | 22-45 | 0.4-1.7 | 0.8-2.8 | 0-0.9 | 0.4-1.8 | 0-0 | 0-0.3 |
| Barbados (GAIA) | 19-31 | 23-42 | 0.6-2.2 | 0.8-3.5 | 0-0.9 | 0.7-1.9 | 0-0 | 0-0.5 |
| Belize (C. Farm) | 12-21 | 19-41 | 0.7-2 | 1.2-4.2 | 0.2-1.1 | 0.1-1.7 | 0-0 | 0-0.5 |
| Cayman | 7-18 | 10-22 | 0-1.5 | 0.2-2.3 | 0-0.9 | 0-1.1 | 0-0 | 0-0 |
| Cuba (Punta Maisi) | 10-18 | 11-24 | 1.7-3.2 | 1.7-4.7 | 0.4-1.7 | 0.2-1.8 | 0-0.6 | 0-0 |
| Dom. Republic (Las Americas) | 12-20 | 13-24 | 0.8-2.1 | 0.7-2.9 | 0.2-1.1 | 0-1.4 | 0-0 | 0-0.3 |
| Dominica (Canefield) | 28-41 | 35-57 | 0-2.7 | 0.4-3.9 | 0-1.1 | 0-1.7 | 0-0 | 0-0 |
| Dominica (Douglas Charles) | 40-58 | 48-68 | 0.4-2.2 | 0.8-3.5 | 0-1.5 | 0.1-1.4 | 0-0.5 | 0-0 |
| Grenada (MBIA) | 13-28 | 18-45 | 0-2.3 | 0.6-3.6 | 0-1.1 | 0.1-2.4 | 0-0 | 0-0.8 |
| Guyana_73 | 15-28 | 17-35 | 1.1-4.4 | 1.2-4.3 | 0.4-2.7 | 1-4 | 0-1 | 0-1.9 |
| Guyana (Albion) | 21-40 | 28-57 | 0.5-4.1 | 1.6-7.2 | 0-2.4 | 1.5-5.9 | 0-1 | 0-2.8 |
| Guyana (Blairmont) | 23-47 | 30-64 | 0.7-3.7 | 1.3-6.8 | 0.2-2.4 | 1.4-5.7 | 0-1.5 | 0-2.9 |
| Guyana (Charity) | | | | | | | | |
| Guyana (Enmore) | 23-42 | 32-54 | 0.9-3.6 | 1.7-4.7 | 0.4-2.5 | 1.2-4.8 | 0-1.5 | 0-1.3 |
| Guyana (Georgetown) | 23-45 | 35-64 | 0.7-3.9 | 1.1-7.6 | 0-2.4 | 1.4-7.4 | 0-1.1 | 0-3.4 |
| Guyana (Greatfall) | | | | | | | | |
| Guyana (New Amsterdam) | 23-44 | 31-59 | 0.7-3.7 | 1.3-5.8 | 0.1-2.6 | 1.5-5.9 | 0-1.1 | 0-2.5 |
| Guyana (Skeldon) | 22-43 | 30-52 | 1.1-4.1 | 1.3-4.2 | 0.4-2.4 | 0.9-2.9 | 0-0.6 | 0-1.6 |
| Guyana (Timehri) | 24-48 | 38-68 | 0.4-3.5 | 1.7-6.1 | 0-2.4 | 1.2-5.2 | 0-1.1 | 0-1.9 |
| Guyana_Wales | | | | | | | | |
| Jamaica (Worthy Park) | 13-26 | 14-26 | 0.7-3 | 0.4-2.7 | 0-1.8 | 0-1.3 | 0-0 | 0-0 |
| Martinique (FDF Desaix) | 35-50 | 43-64 | 0.4-1.9 | 1-3.5 | 0-0.9 | 0.1-1.4 | 0-0 | 0-0 |
| Puerto Rico (San Juan) | 24-38 | 30-50 | 0.9-2.8 | 1.6-4.3 | 0.2-1.3 | 0.4-1.8 | 0-1 | 0-1 |
| St. Lucia (Hewanorra) | 23-38 | 30-47 | 0.2-2.4 | 1.1-3.1 | 0-1.1 | 0.3-1.6 | 0-0.5 | 0-0 |
| St. Maarten (TNCM) | 25-41 | 29-50 | 1.1-3.3 | 1.8-5.9 | 0.2-1.4 | 0.3-2.5 | 0-0 | 0-1.2 |
| St. Vincent (ET Joshua) | 35-50 | 40-63 | 0.2-2.6 | 0.8-3.3 | 0-1.2 | 0.7-2.4 | 0-0 | 0-0 |
| Suriname (Zanderij) | 36-54 | 41-58 | 1.7-4.6 | 1.7-3.8 | 0.7-2.7 | 0.9-2.6 | 0-1 | 0-1.2 |
| Tobago (ANR Robinson) | 15-33 | 24-45 | 0-1.5 | 0.7-4 | 0-0.5 | 0.2-1.8 | 0-0 | 0-0.7 |
| Trinidad (Piarco) | 13-33 | 27-45 | 0.2-2.2 | 0.3-2.9 | 0-1.3 | 0-1.6 | 0-0 | 0-0 |

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



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