

Rainfall frequency and extreme forecasts

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Wet days and Wet spells Outlooks December to February 2021-'22

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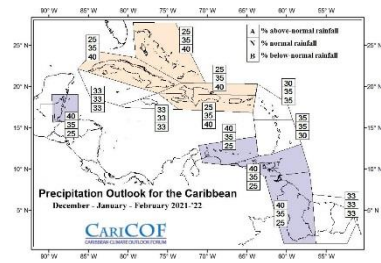
³Antigua and Barbuda Meteorological Services



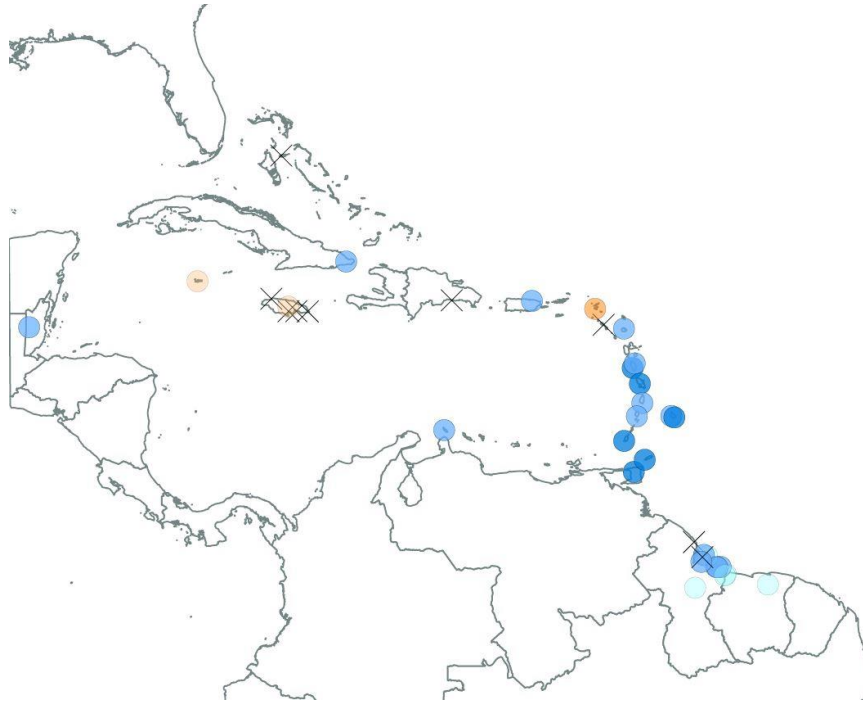
Wet day frequency shifts

Forecast for: December to February 2021-'22

Precipitation outlook



DJF 2021-'22
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).

FORECAST: At least the usual rainfall totals or wetter across the region south of Hispaniola, with an expected increase in wet days for most of the region (*medium confid.*).

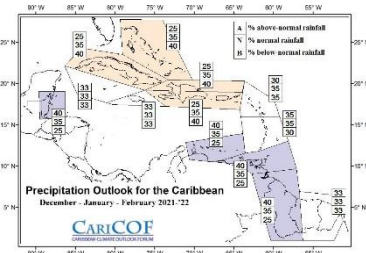
IMPLICATIONS:

- Outdoor activity disruptions and environmental conditions conducive to moisture related pests associated with frequent rainfall should decrease in frequency towards the end of February in the islands and in Belize a bit slower than usually for this season. By contrast a steep increase is expected until early February in the Guianas.
- Surface dryness should increase a bit slower than usual towards the end of February, resulting in a slower than usual increase of wildfire potential.

Wet spells frequency shifts

Forecast for: December to February 2021-'22

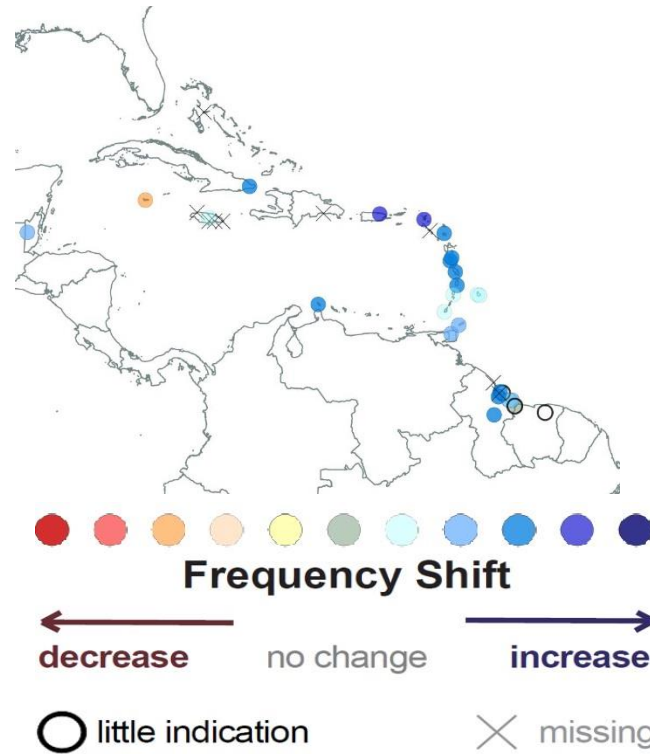
Precipitation outlook



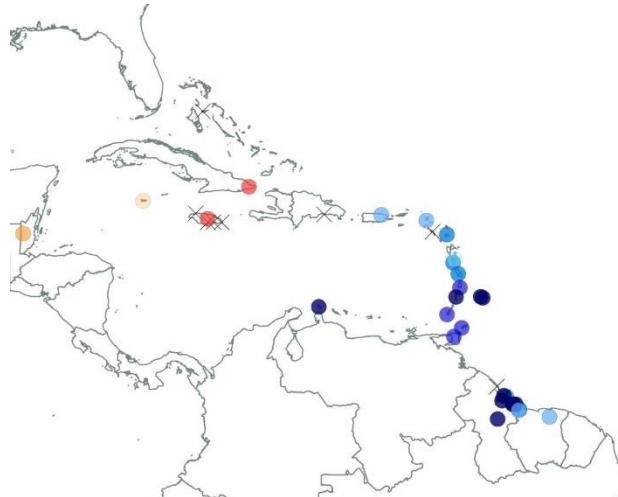
Wet days outlook



DJF 2021-'22 frequency of 7-day wet spells



DJF 2021-'22 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).

FORECAST: At least the usual rainfall totals or wetter across the region south of Hispaniola, with an expected increase in wet days (*medium confid.*), wet spells, and very wet spells (*medium to high confid.*) for most of the region except for Cayman Is, which may expect fewer (*low confid.*).

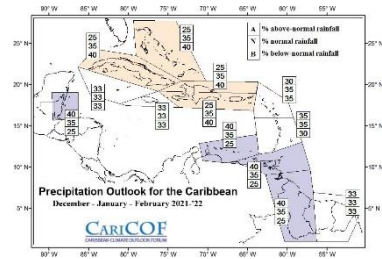
IMPLICATIONS:

- Slower depletion of large water reservoirs and slower decrease in soil moisture than usual associated with a slower than usual decrease in the frequency of wet spells in the Caribbean Islands and in Belize.
- The chance of successive very wet spells translates to flood potential decreasing from moderate to high in December down to marginal to limited in January and February in the islands and Belize.
- Flood potential should be particularly high in the Guianas until early-February.

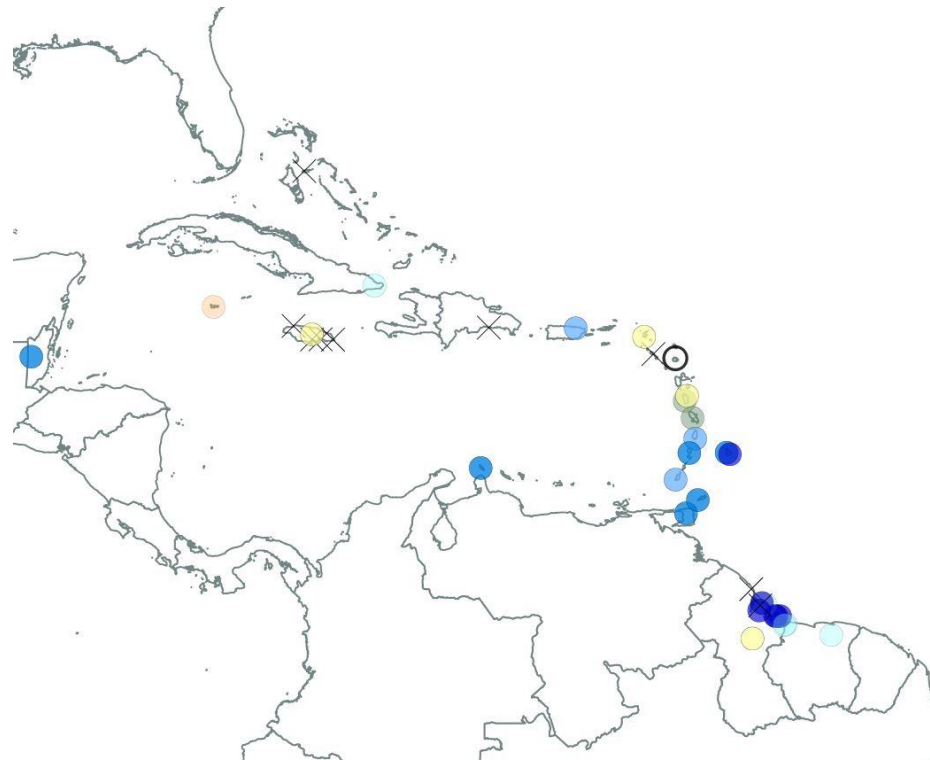
Extreme wet spells frequency shifts

Forecast for: December to February 2021-'22

Precipitation outlook



DJF 2021-'22 frequency of *extreme (top 1%) 3-day wet spells*



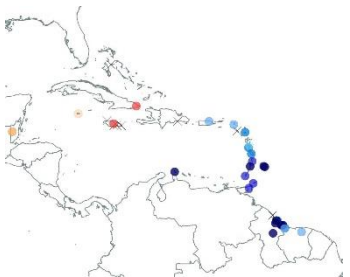
Wet days outlook



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).

FORECAST: At least the usual rainfall totals or wetter across the region south of Hispaniola, with an expected increase in wet days (*medium confid.*), wet spells, and very wet spells (*medium to high confid.*) for most of the region except for Cayman Is. , which may expect fewer (*low confid.*). An increase in extreme wet spells is forecasted for much of the southeast part of the region (*med. to high confid.*).

IMPLICATIONS:

- In view of the high chance of extreme wet spells in the Caribbean islands and in Belize until December, the potential for flash floods and associated hazards is expected to be moderate to high until then but decrease to marginal by February.
- In the coastal Guianas, flash flood potential is expected to be particularly high until early-February.

December to February 2021 - '22

	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)	23-40	23-43	1.3-2.6	1.4-3.9	0.4-1.5	0.3-1.7	0-0	0-0	light blue an increase, grey none are expected
Aruba (Beatrix)	14-35	12-47	2.6-6.5	2.4-7.9	0.2-3.4	1.5-5.4	0-1	0-1.1	
Barbados (CIMH)	21-44	22-45	0.9-2.4	0.8-2.8	0-1.3	0.4-1.8	0-0	0-0.3	
Barbados (GAIA)	22-40	23-42	0.9-3	0.8-3.5	0-1.3	0.7-1.9	0-0	0-0.5	
Belize (C. Farm)	21-41	19-41	1.3-3.7	1.2-4.2	0.4-1.7	0.1-1.7	0-1	0-0.5	
Cayman	11-22	10-22	0.4-2.2	0.2-2.3	0-0.9	0-1.1	0-0	0-0	
Cuba (Punta Maisi)	13-22	11-24	1.7-3.9	1.7-4.7	0.5-2.1	0.2-1.8	0-0	0-0	
Dom. Republic (Las Americas)	15-23	13-24	0.9-1.9	0.7-2.9	0-1.3	0-1.4	0-0.1	0-0.3	
Dominica (Canefield)	36-53	35-57	0.8-3.7	0.4-3.9	0-1.2	0-1.7	0-0	0-0	
Dominica (Douglas Charles)	49-63	48-68	0.9-2.8	0.8-3.5	0-1.4	0.1-1.4	0-0	0-0	
Grenada (MBIA)	21-38	18-45	0.9-3.5	0.6-3.6	0-1.9	0.1-2.4	0-1	0-0.8	
Guyana_73	15-35	17-35	0.9-5.1	1.2-4.3	0.4-3.9	1-4	0-2	0-1.9	
Guyana (Albion)	26-51	28-57	1.3-6.1	1.6-7.2	0.4-3.5	1.5-5.9	0-1.9	0-2.8	
Guyana (Blairmont)	33-53	30-64	1.1-5.6	1.3-6.8	0.5-3.2	1.4-5.7	0-2	0-2.9	
Guyana (Charity)									
Guyana (Enmore)	29-51	32-54	1.3-4.8	1.7-4.7	0.4-3.9	1.2-4.8	0-1	0-1.3	
Guyana (Georgetown)	34-60	35-64	0.9-5.6	1.1-7.6	0-4.5	1.4-7.4	0-2	0-3.4	
Guyana (Greatfall)									
Guyana (New Amsterdam)	32-55	31-59	1.1-5.2	1.3-5.8	0.7-3.9	1.5-5.9	0-2	0-2.5	
Guyana (Skeldon)	27-46	30-52	1.3-4.7	1.3-4.2	0.4-2.6	0.9-2.9	0-2	0-1.6	
Guyana (Timehri)	40-64	38-68	1.3-5.1	1.7-6.1	0.4-3	1.2-5.2	0-1	0-1.9	
Guyana_Wales									brown is a decrease in frequency,
Jamaica (Worthy Park)	17-25	14-26	0.4-2.6	0.4-2.7	0-1.7	0-1.3	0-0	0-0	
Martinique (FDF Desaix)	45-59	43-64	0.9-3	1-3.5	0-1.3	0.1-1.4	0-0	0-0	
Puerto Rico (San Juan)	32-46	30-50	1.3-3.6	1.6-4.3	0.4-1.5	0.4-1.8	0-1	0-1	
St. Lucia (Hewanorra)	31-46	30-47	0.9-2.6	1.1-3.1	0-1.3	0.3-1.6	0-0	0-0	
St. Maarten (TNCM)	30-47	29-50	1.7-4.5	1.8-5.9	0-2.2	0.3-2.5	0-1	0-1.2	
St. Vincent (ET Joshua)	43-61	40-63	0.9-3	0.8-3.3	0.2-1.7	0.7-2.4	0-0	0-0	
Suriname (Zanderij)	43-54	41-58	1.7-3.9	1.7-3.8	0.4-2.1	0.9-2.6	0-1	0-1.2	
Tobago (ANR Robinson)	27-40	24-45	0-2.4	0.7-4	0-1.3	0.2-1.8	0-1	0-0.7	
Trinidad (Piarco)	23-37	27-45	0.9-3.5	0.3-2.9	0-2.1	4.7-5.6	0-1	0-2.5	



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