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No. 413.

JAMAICA

WEATHER REPORT

FOR THE MONTH OF

JANUARY, 1913.

The Bar-pressures at all the Stations except the Hill Gardens, are reduced to the standards of Kew, 32 gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standard only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

Stations.	Elevation.	Bar Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range.
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	30.029	29.986	77.3	80.0	81.7	70.1	11.6	84.0	3rd	61.0	4th	23.0
Kingston ..	24	29.999	29.939	70.0	82.9	86.5	68.6	17.9	90.1	6th	66.1	22nd	24.0
Kempshot ..	1,773	..	..	..	..	..	..	..	..	..	..	..	..
Negril Point Light House ..	33	30.009	29.955	72.4	82.1	84.6	69.3	15.3	87.8	1st	64.4	31st	23.4
Castleton Gardens ..	496	..	..	67.	80.5	85.3	55.6	29.7	90.	*6th	50.	*27th	40.
Hope Gardens† ..	668	30.023	29.922	68.2	84.	85.4	65.8	19.6	89.	6th	63.	23rd	16.
Stony Hill Reformatory ..	1,400	..	..	67.6	77.6	80.2	63.0	17.2	84.	12th	60.	24th	24.
Hill Gardens ..	4,900	25.330	25.264	61.4	63.	66.8	54.	12.8	71.	6th	51.	*28th	20.

Stations.	Elevation.	Dew Point and Humidity.				Rainfall.	Wind per diem.	Wind: (direction from and miles per hour.)				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
	ft.	°		°		in	miles		m.		m.	L.	M.	U.	L.	M.	U.
Morant Pt. Light House ..	8	71.7	83	71.6	75	2.81	..	NE	13.6	NE	14.0	1.5	2.4	2.4	1.0	1.9	2.3
Kingston ..	24	64.7	83	69.5	64	0.09	..	N	4.7	SE	12.4	1.0	0.9	1.0	1.6	1.5	1.1
Kempshot ..	1,773	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Negril Point Light House‡ ..	33	66.0	81	70.3	68	0.55	..	E	5.7	SE by S	12.2	2.1	7.1	1.2	1.6	4.6	0.6
Castleton Gardens ..	496	59.8	69	78.3	69	10.03	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens ..	668	62.5	67	84.2	57	0.59	..	..	..	..	..	..	..	..	..	..	..
Stony Hill Reformatory ..	1,400	65.1	91	74.6	90	0.61	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	58.2	60	89.7	90	7.99	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
‡ Negril Point Light House. Wind 11 p.m. E.N.E.

National Oceanic and Atmospheric Administration

Climate Database Modernization Program

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LASON
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March 28, 2002

RAINFALL FOR JANUARY, 1913.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month, according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	JANUARY, 1913.				
	Total Fall.	Greatest fall in 24 hours. Amount	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Manchioneal ...	5.66	2.47	29	10	5.94
Spring Valley .	...	...	..	...	...
Bath ...	6.17	1.00	30	19	6.26
Boston ...	2.30	1.20	29	3	9.50
Moore Town ...	12.75	...	...	...	18.55
Port Antonio ...	8.54	2.65	29	16	9.10
Fellowship ...	12.07	2.80	30	22	14.16
Windsor, Portland ...	...	...	...	...	...
Johnson River Bridge ...	2.08	0.88	29	23	3.59
Shrewsbury ...	14.32	1.76	29	25	..
Cedar Valley, St. Thos. ...	...	...	.	...	...
Hope Bay ...	10.45	1.45	29	27	...
Moy Hall, St. Thos. ...	3.47	2.60	16	8	3.46
Lennox ...	16.46	2.50	29	23	..
Hill Gardens ...	7.99	...	...	...	7.09
Buff Bay ...	13.28	2.24	29	18	10.22
Vinery ...	14.33	2.05	29	18	...
Windsor Castle, Port. ...	8.53	1.62	9	12	...
Greenvale, Portland ...	20.23	3.76	15	22	..
Mt. Holstein ...	17.76	7.90	15	19	14.03
Irish Town ..	1.69	0.65	17	2	...
Rose Hill ...	4.34	2.56	15	4	...
Hardware Gap ...	4.80	...	..	..	4.95
Stony Hill Reform. ...	1.61	1.17	15	6	3.30
Castleton Gardens ...	10.03	...	...	...	8.87
Lawrence Tavern ...	2.76	1.53	15	4	1.95
Carew Castle ...	2.51	1.16	15	6	2.60
Agualta Vale ...	8.51	1.40	23	16	...
Water Valley ...	9.02	1.57	9	17	7.90
Albany, Ry. Station ..	8.55	1.36	9	19	...
Platfield ...	5.02	1.15	15	12	...
Richmond, St. Mary ..	11.52	2.00	9	14	6.18
Hampstead, St. Mary ...	14.88	2.05	9	20	...
Kendal, St. Mary ...	9.20	1.85	10	12	...
Gayle ...	7.00	1.63	15	15	7.14
Rio Hoe ...	8.30	1.88	15	14	5.47
Unity Valley ...	7.14	1.50	16	14	4.69
Moneague ...	6.95	1.20	15	12	4.18
Claremont ...	9.61	1.70	3	12	6.12
Albion, St. Ann ...	7.69	1.67	15	18	8.15
Averham Park ...	9.68	2.00	15	14	6.88
Means ..	7.63	..	...	...	...

NORTHERN DIVISION.	JANUARY, 1913.				
	Total fall.	Greatest fall in 24 hours. Amount.	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Port Maria ...	6.72	1.38	22	18	6.72
Ocho Rios ...	5.31	1.20	16	18	5.42
Bogue, Ocho Rios ...	...	...	...	...	...
Arthurs Seat ...	...	...	...	..	...
Drax Hall ...	4.65	0.70	3	13	4.84
Liberty Hill ...	6.12	1.03	8	11	...
St. Ann's Bay ...	6.23	1.73	3	22	5.01
Seville ...	4.54	0.60	23	19	5.61
Richmond Estate ...	4.31	0.50	3	17	6.37
Llandovery ...	4.60	0.98	23	11	6.62
Southfield, St. Ann ...	...	...	...	...	...
Brown's Town ...	9.12	2.30	9	8	5.41
Hyde Park ...	...	...	...	...	...
Dry Harbour ...	1.95	0.70	9	8	4.69
Chewmagna, St. Ann ...	2.30	1.50	15	6	2.70
Home Castle ...	4.90	1.35	9	8	5.39
Richmond Pen ...	...	...	..	...	...
Mahogany Hall ...	...	...	...	...	...
Barnstaple ...	...	...	...	...	...
Brampton Bryan ...	3.98	1.06	9	12	4.12
Bryan Castle ...	2.95	1.30	9	7	4.66
Braco ...	2.13	1.20	9	6	4.17
Arcadia ...	5.07	1.75	8	12	4.38
Lancaster ...	1.88	0.75	8	6	4.59
Harmony Hall ...	2.56	0.95	6	9	3.97
Vale Royal ...	6.71	2.18	17	9	4.94
Colchis Pen ...	...	...	..	...	...
Swanswick ...	5.57	1.20	17	11	...
Hyde ...	...	...	...	...	...
Georgia ...	...	..	...	...	..
Long Pond ...	7.08	1.83	17	11	...
Hyde Hall ...	3.95	1.55	8	12	..
Steelfield ...	6.07	2.30	17	11	...
Etingdon ...	3.10	1.00	17	10	...
Oxford ...	.	...	...	...	...
Cambridge ...	...	..	...	...	...
Lottery ...	3.30	1.20	17	9	3.78
Falmouth ...	...	...	...	...	...
Florence Hall ...	1.82	0.28	9	8	...
Holland Pen ...	...	...	...	...	...
Orange Valley ...	...	...	...	...	:
Kent ...	1.71	0.60	17	8	...
Gales Valley ...	3.02	1.00	7	7	3.35
Canaan ...	...	...	...	...	...
Content ...	2.70	1.40	17	8	...
Bellfield ...	2.70	0.60	17	9	...
Hampden ...	..	...	...	...	...
Moor Park ...	3.12	0.60	20	8	...
Success ...	1.35	0.45	9	9	3.84
Guilsbro ...	...	...	...	...	...
Cinnamon Hill ...	1.57	0.44	9	9	3.51
Rose Hall ...	2.94	1.00	19	10	3.38
Running Gut ...	2.08	1.20	19	9	3.54
Spring ...	1.77	0.94	19	7	...
Montego Bay ...	2.03	0.53	11	8	2.92
Catherine Hall ...	1.75	0.56	11	5	3.51
King Gate ...	...	...	...	...	...
Round Hill ...	...	...	...	...	...
Sandy Bay ...	1.43	0.80	30	5	3.78
Haughton Court .	...	...	...	...	...
Lucea ...	3.47	0.96	30	11	3.07

CENTRAL SUB-DIVISION.	JANUARY, 1913. Total Fall.	Greatest fall in 24 hours. Amount.	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Rio Magno ...	7.76	1.38	10	15	...
Headworks, Rio Cobre ...	1.65	0.55	15	5	1.84
Linstead ...	1.40	0.50	16	5	2.15
Berkshire Hall ...	5.33	1.26	16	12	...
Point Hill ...	3.32	0.85	2	13	2.74
Brown's Hall ...	3.49	1.66	2	6	1.80
Worthy Park ...	1.77	0.61	14	7	2.04
Crofts Hill ...	...	...	...	...	...
Chapelton ...	1.20	0.44	21	5	2.24
Mears ...	...	...	...	...	...
Danks Works ...	1.79	0.51	15	7	1.89
Savoy House ...	1.76	0.86	21	10	2.29
Trout Hall ...	1.55	0.67	2	9	...
Cave Valley ..	2.50	0.45	15	...	2.26
Greenock ...	2.46	0.50	15	...	...
Means ...	3.29	...	...	...	...
WEST-CENTRAL DIVISION.					
Whitney ...	2.35	0.55	21	7	...
Mocho, Clarendon ...	2.00	0.80	18	4	...
Baillieston ...	1.05	0.20	7	12	2.79
Brokenhurst ...	1.46	0.40	15	5	3.12
Christiana ...	...	...	...	...	...
Chudleigh ...	1.10	0.21	23	7	...
Shooter's Hill ...	1.60	0.53	2	8	...
Spitzbergen ...	1.30	0.37	2	11	...
Kendal, Manchester ...	1.73	0.63	2	7	2.39
Marshalls Pen ...	2.09	0.83	15	5	2.85
Mandeville ...	1.68	0.65	1	8	3.04
Carlton, Mandeville ...	1.66	0.65	2	11	...
The Hill ...	1.19	0.68	15	5	...
Fairfield, Manchester ...	1.36	0.73	15	8	2.61
Ulster Spring ...	...	...	..	...	...
Albert Town ...	2.34	0.90	15	7	...
Low River ...	...	...	...	...	..
Troy ...	1.32	0.58	20	4	2.25
Windsor Pen, Trel. ...	3.52	1.42	2	9	3.13
Wallingford ...	2.06	0.65	21	7	...
Balaclava Police Station ...	2.27	1.73	21	6	1.71
Siloah ...	2.85	1.40	18	6	...
Santa Cruz ...	0.61	0.61	12	1	2.83
Appleton Estate ...	2.76	0.83	20	8	2.59
Maggotty ...	4.38	1.75	21	7	2.72
Butlers ...	3.05	0.90	21	9	...
Spring Vale ...	...	...	...	...	...
Y.S. ...	3.87	2.08	21	11	...
Springfield, St. Eliz. ...	3.85	1.00	21	6	...
Catadupa Rly. Station ...	1.93	0.57	14	6	...
Kempshot ...	2.35	0.40	30	11	3.98
Cambridge ...	2.47	1.37	3	7	...
Hazelymph ...	2.48	0.98	26	3	2.32
New Market ...	2.67	0.58	19	5	...
Kew Park ...	1.72	0.37	2	12	2.32
Montpelier ...	...	..	...	...	...
Knockalva ..	0.94	0.30	30	6	..
Ramble ...	1.75	0.39	26	6	...
Petersville ...	2.18	0.68	8	11	2.25
Darliston ...	4.41	0.98	18	12	2.93
Whithorn ...	2.19	0.60	23	11	1.97
Great Valley, Han. ...	...	...	...	...	...
Brownsville ...	...	...	...	...	...
Fort William ...	...	...	...	...	...
George's Plain ...	...	...	...	...	...
Fontabelle, Westm. ...	...	...	...	...	...
Belleisle ...	2.09	1.61	18	4	1.80
Morgan's Bridge ...	2.19	0.60	23	11	1.82
Glasgow Estate ...	...	...	...	..	...
King's Vale Police St. ...	1.40	0.80	26	6	3.26
Means ...	2.15	...	...	...	...

SOUTHERN DIVISION.	JANUARY, 1913. Total fall.	Greatest fall in 24 hours. Amount.	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Morant Point L. H. ...	2.81	1.11	30	15	4.30
East Prospect ...	3.53	1.20	29	20	...
Morant Bay ...	2.76	0.57	29	14	2.70
Easington ...	0.63	0.24	29	5	1.64
Bull Bay ...	...	...	...	...	...
Bellevue ...	1.55	0.71	15	7	..
Gordon Town ...	1.14	0.40	8	5	1.08
Hope Gardens ...	...	...	...	...	...
King's House Gardens ...	0.82	0.48	18	5	1.22
Halfway Tree ...	0.88	0.59	14	3	1.12
Lunatic Asylum ...	0.14	0.12	15	2	0.72
Kingston S. Camp Road ...	0.14	0.08	30	3	...
" Parade Gard. ...	...	...	...	...	...
" P. W. Office ...	0.09	0.04	15	3	1.02
Plumb Point L. H. ...	0.11	0.08	29	3	0.80
Ballast Ground ...	1.09	0.09	30	1	...
Quarantine Station ...	0.30	0.25	17	2	..
Spanish Town ...	0.25	0.25	15	1	1.52
Hog Hole Pen ...	0.85	0.54	21	2	1.71
Hartlands ...	0.00	...	...	...	...
Belmont ...	3.29	1.79	2	9	...
Old Harbour ...	2.65	2.20	15	3	2.07
May Pen ...	...	...	...	...	...
Hillside Estate ...	...	...	...	...	...
Amity Hall ...	...	...	...	..	...
Money Musk ...	...	...	...	...	...
Dunkley's, Vere ...	2.46	0.92	3	7	1.33
Dry River " ...	0.85	0.60	15	4	...
Caswell Hill " ...	...	...	...	...	...
Denbigh ...	0.00	...	..	...	1.59
Toll Gate ...	...	...	...	...	...
Woodleigh ...	0.00	...	...	...	...
New Yarmouth ...	1.25	0.65	3	3	1.20
Exeter, Vere ...	0.55	0.15	15	7	...
Rhymesbury ...	0.69	0.23	12	9	1.01
Milk River ...	...	..	...	...	...
Clarendon Pk. Ry. St. ...	2.03	0.85	15	6	...
Victoria Town ...	1.80	1.40	15	2	1.82
Stone's Hope ...	1.16	0.43	2	5	2.68
Newport, Manchester ...	1.69	0.93	15	5	2.66
Great Valley, Man. ...	1.49	0.59	15	6	2.49
Alligator Pond ...	0.89	0.55	15	2	1.41
Lititz ...	1.28	1.10	15	4	...
Long Hill ...	1.14	0.65	24	6	2.41
Bethlehem, St. Eliz. ...	1.30	0.35	15	7	2.52
Torrington ...	0.80	0.30	14	3	2.31
Pedro Plains ...	2.65	1.02	15	7	2.04
Black River ...	3.19	1.26	9	8	1.63
Font Hill ...	2.10	0.09	4	5	1.88
Mount Edgecombe ...	3.21	1.40	8	11	2.04
Bluefields ...	2.89	0.72	14	7	...
Sweet River ...	2.20	1.14	7	8	1.82
Windsor, Sav.-la-mar ...	2.84	0.63	2	10	1.83
Orchard, Sav.-la-mar ...	3.47	0.94	21	9	...
Sav.-la-mar ...	1.14	0.31	7	7	1.62
Retreat ...	2.84	1.92	2	7	1.57
White Hall ...	1.83	1.10	18	6	...
Negril Point L.H. ...	0.55	0.15	18	7	1.34
Negril Pol. Sta. ...	...	...	...	...	...
Means ...	1.47	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.

(Based upon the "Average" Stations only.)

—	January. 1913.	January. Average.
	In.	In.
North-Eastern Division ...	7.63	7.15
Northern ...	3.29	3.77
West-Central ...	2.15	2.85
Southern ...	1.47	1.81
The Island ...	3.65	3.89

The heaviest rainfall, 20.23 inches was recorded at Greenvale, Portland. Many places in the Southern Division had no rain. At Kingston 0.09 inch fell.

Rainfall at Grand Cayman. December, 1912.	Total Fall.	Greatest fall. Amount.	Greatest fall. Date.	No. of days on which 0.01 or more fell.
East End ...	3.35	2.50	31	9
Bodden Town ...	0.29	0.19	14	2
George Town ...	..	..	.	..

SHOCKS OF EARTHQUAKE IN JANUARY, 1913.

Date.	Mean time.	Intensity.	Notes: where felt, etc.
	hr. min.		
	No earthquakes	this	month.

CORRIGENDUM.

Weather Report No. 412, Dec. 1912 p. 4 Rainfall at Grand Cayman; for October read November. p. 2. Rainfall St. Ann's Bay; for 86.64 read 6.64.

p. 4, For "The heaviest rainfall 18.70 inches was recorded at Moore Town" read "The heaviest rainfall 22.02 inches was recorded at Mount Holstein.

The Weather Offic
Halfway Tree P.O.

MAXWELL HALL,
Govt. Meteorologist.

NEGRIL POINT LIGHT-HOUSE MEAN RESULTS FOR THE YEAR 1912. ELEVATION 33 FEET.

Month	Bar. 7 a.m.	Bar. 3 p.m.	Temperature. Mean	Temperature. 7 a.m.	Temperature. 3 p.m.	Temperature. Max.	Temperature. Min	Range.	Extremes for the month. Max.	Extremes for the month. Min.	Extremes for the month. Range.	Dewpoint and humidity. 7 a.m	Dewpoint and humidity. 3 p.m		Rain-fall.	Miles of Wind per diem.	Wind from and miles per hour. 7 a.m.		Wind 3 p.m.		Wind 11 p.m.		Clouds: In tenths. Lower. 7 a.m.	Lower. 3 p.m.	Middle. 7 a.m.	Middle. 3 p.m.	Upper. 7 a.m.	Upper. 3 p.m.	Weather conditions.
	Ins.	Ins.	°	°	°	°	°	°	°	°	°	°	°		Ins.			Mls.		Mls.		Mls.							
Jany. ..	29.985	29.935	76.2	71.9	81.6	84.6	68.6	16.0	88.4	65.0	23.4	66.0	82	68.6	65 2.53	251	NE	8.8	Var.	14.5	ENE	8.3	1.1	1.4	1.0	4.1	0.4	0.1	Fine 13, cloudy 5, overcast 6, rain on 7 days, norther on 31st brisk southeasterly winds on 29 and 30.
Feb. ..	.981	.935	74.5	70.9	79.7	82.2	67.3	14.9	86.7	60.8	25.9	64.2	80	67.0	65 2.18	284	NE by E	8.8	E NE	15.6	ENE	11.1	2.9	3.0	0.6	3.3	1.1	0.0	Fine 7, cloudy 10, overcast 3 and rain on 9 days.
March ..	29.987	.946	75.0	72.4	79.7	84.2	68.2	16.0	88.5	65.4	23.1	66.9	83	69.9	72 6.60	185	EbyN	6.8	SSE	10.3	E b N	6.0	1.6	5.5	1.5	3.2	0.2	0.0	Fine 2, cloudy 4, overcast 4, rain on 21 days. Hail on 20 at 1.49 p.m. L on 20 and 21, T or L on a few days.
April ..	30.004	.943	78.3	76.6	83.0	85.4	70.1	15.3	87 4	67.5	19.9	69.1	78	70.2	66 1.49	185	ENE	6.2	S	10.4	E	6.8	0.7	2.7	0.8	5.6	0.8	0.0	Fine 2, cloudy 14, overcast 8, rain on 6 days T L on 27, L on a few days.
May ..	29.958	.918	79.2	79.3	81.6	85.9	72.0	13.9	87.7	69.9	17.8	71.7	78	73.5	77 8.12	188	ENE	5.5	SE	9.7	E	5.7	0.1	7.4	1.7	2.1	2.3	0.0	Cloudy 3, overcast 11, rain on 17 days, T L on on 4, 17, and 31, T or L on many days.
June ..	.970	.937	80.6	79.5	83.9	87.4	73.4	14.0	90.5	69.9	20.9	70.8	74	73.1	70 1.84	248	EbN	7.9	SE byE	14.6	E	7.2	0.3	2.6	1.6	5.4	3.9	1.3	Fine 1, cloudy 2, overcast 16, rain on 11 days, T L on 19, 28, T or L on many days.
July ..	.973	.948	80.4	79.0	83.8	88.6	72.1	16.5	91.3	69.3	22.0	70.7	74	72.7	70 5.16	172	ENE	6.8	SE byE	10.2	ENE	6.6	0.6	4.4	0.6	4.3	4.2	0.3	Fine 1, cloudy 10, overcast 9, rain on 12 days, T L on 3, 15, 16, 18, 25 and 28 T or L on many days.
Aug. ..	.959	.926	80.0	78.1	83.4	88.2	72 2	16.0	90.7	69.6	21.1	70.6	78	72.8	70 4.46	182	ENE	7.4	ESE	9.2	ENE	6.6	0.5	4.2	0.3	4.4	4.7	0.5	Cloudy 6, overcast 9, rain on 16 days, T L 11, 17, 18, 21, 25, and 30, T or L on many days. Line squall on 5 from SE at 2 p.m. damage done to cultivation, wind greatest velocity 60 m per hour.
Sept. ..	.915	.876	80.0	77.9	83.5	88.2	72.5	15.7	91.3	68.6	22.7	72.0	82	72.9	71 7.14	167	ENE	6.4	NNE	10.0	ENE	5.3	1.1	4.4	0.7	5.0	4.1	0.0	Cloudy 5, overcast 10, rain 15 days. Frequent T L, T L during month.
Oct. ..	.871	.824	79.8	77.4	84.0	87.4	72.3	15.1	92.9	70.0	22.9	71.9	83	72.8	69 4.91	171	ENE	6.5	ESE	8.8	EN E	6.1	2.0	4.2	0.7	3.0	3.0	0.8	Fine 1, cloudy 10, overcast 7, rain on 13 days, T L on 10, 11, and 21, T or L on many days.
Nov. ..	.820	.800	78.6	76.9	81.6	84.7	73.3	11.4	88.6	70.8	17.8	72.5	86	73.7	77 28.29	311	NE	9.2	NE	13.8	NEbE	15.3	3.3	5.3	2.6	2.6	1.6	0.9	Cloudy 3, overcast 5, rain on 22 days. Bar. depression from 13 which terminated in a hurricane on 18, T L on 4, 8, 26, 27 T or L on many days.
Dec. ..	29.969	29.913	78.3	75.0	83.0	85.9	71.4	14.5	89.3	65.9	23.4	68.9	81	72.2	70 3.30	..	NEbE	5.5	Var.	10.8	ENE	..	1.0	1.3	0.9	4.0	0.6	0.4	Fine 12 days, cloudy 11, overcast 2, rain on 6 days.
Total ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.. 76.02	..	..	..	..	..	..	..	..	..	..	..	..	..	
Means ..	29.949	29.908	78.5	76.2	82.4	86.0	71.1	14.9	89.4	67.7	21.7	69.6	80	71.6	70 ..	213	ENE	7.2	ESE	11.5	ENE	7.7	1.3	3.9	1.2	3.9	2.2	0.4	

MAXWELL HALL, Govt. Meteorologist.

No. 414.

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JAMAICA

WEATHER REPORT

FOR THE MONTH OF

FEBRUARY, 1913.

The Bar-pressures at all the Stations except the Hill Gardens, are reduced to the standards of Kew, 32 gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standard only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

Stations.	Elevation.	Bar Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range.
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	30.029	29.992	75.0	79.4	81.6	71.4	10.2	82.5	*16th	64.	22nd	18.5
Kingston ..	24	30.005	29.958	69.5	81.8	86.0	67.2	18.8	89.3	6th	61.1	14th	28.2
Kempshot ..	1,773	..	..	..	..	..	..	..	..	..	..	..	..
Negril Point Light House ..	33	30.015	29.966	72.0	81.8	84.4	67.4	17.0	86.8	9th	62.2	6th	24.6
Castleton Gardens ..	496	..	..	63.	79.	87.	51.	26.	94.	24th	46.	13th	48.
Hope Gardens† ..	668	30.022	29.919	67.	82.	86.	66.	20.	88.	9th	64.	*1st	24.
Stony Hill Reformatory ..	1,400	..	..	66.3	78.2	81.8	61.8	26.0	89.	*29th	59.	*15th	30.
Hill Gardens ..	4,900	25.317	25.275	59.	62.	66.	52.	14.	70.	*27th	49.	*12th	21.

Stations.	Elevation.	Dew Point and Humidity.				Rainfall.	Wind per diem.	Wind: (direction from and miles per hour.)				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
	ft.	°		°		in	miles		m.		m.	L.	M.	U.	L.	M.	U.
Morant Pt. Light House ..	8	70.0	84	72.3	80	1.16	188	E	11.2	E	10.2	1.0	2.0	2.2	1.0	1.7	2.0
Kingston ..	24	63.3	81	68.8	65	0.06	..	N by E	4.5	SE	13.3	2.0	1.1	0.1	4.9	1.6	0.5
Kempshot ..	1,773	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Negril Point Light House‡ ..	33	66.0	81	71.9	72	0.60	..	E S E	6.5	S S E	12.8	1.4	0.5	0.4	3.6	2.7	0.7
Castleton Gardens ..	496	61.2	92	68.9	72	0.07	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens ..	668	59.8	78	65.3	56	0.49	..	..	..	..	..	..	..	..	..	..	..
Stony Hill Reformatory ..	1,400	62.9	88	71.3	79	0.34	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	55.2	86	58.3	86	0.94	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
‡ Negril Point Light House. Wind 11 p.m. E S E

RAINFALL FOR FEBRUARY, 1913.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month, according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	FEBRUARY, 1913.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount	Date.		
	In.	In.			In.
Manchioneal	2.94	1.28	20	6	6.10
Spring Valley	...	...	..	...	...
Bath	2.98	1.50	16	18	4.86
Boston	1.40	0.50	7	4	6.14
Moore Town	6.84	...	..	...	14.18
Port Antonio	1.47	1.00	17	3	6.19
Fellowship	3.76	1.07	17	14	11.70
Windsor, Portland	3.85	1.00	16	7	...
Johnson River Bridge	1.29	0.61	16	12	2.24
Shrewsbury	2.67	8.85	26	11	..
Cedar Valley, St. Thos.	1.29	0.40	23	7	2.76
Hope Bay	..	...	...	...	...
Moy Hall, St. Thos.	0.87	0.30	21	7	2.45
Lennox	2.65	1.50	26	6	..
Hill Gardens	...	...	...	...	...
Buff Bay	2.36	1.04	16	5	7.74
Vinery	2.77	1.08	26	5	...
Windsor Castle, Port.	2.70	2.44	16	5	...
Greenvale, Portland	2.16	0.73	26	10	..
Mt. Holstein	0.60	0.22	26	9	7.46
Irish Town	0.70	0.40	16	2	...
Rose Hill	0.80	0.80	23	1	...
Hardware Gap	0.80	...	..	...	3.45
Stony Hill Reform.	0.34	0.16	24	3	2.22
Castleton Gardens	...	...	...	...	...
Lawrence Tavern	0.40	0.40	22	1	2.36
Carew Castle	...	...	...	...	...
Agualta Vale	3.84	1.85	19	7	...
Water Valley	1.88	0.82	16	7	5.73
Albany, Ry. Station	..	...	...	.	...
Platfield	0.76	0.38	9	4	...
Richmond, St. Mary	1.42	0.56	26	8	5.31
Hampstead, St. Mary	1.97	1.00	5	7	...
Kendal, St. Mary	...	...	...	...	...
Gayle	1.25	0.45	9	5	5.41
Rio Hoe	8.88	0.45	25	5	4.05
Unity Valley	0.90	0.22	23	7	3.60
Moneague	0.68	0.25	8	4	4.08
Claremont	0.37	0.37	1	1	4.58
Albion, St. Ann	0.61	0.25	8	4	3.59
Averham Park	0.63	0.53	9	3	4.50
Means	1.56	..	...	...	...

NORTHERN DIVISION.	FEBRUARY, 1913.				
	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	In.	In.			In.
Port Maria	2.82	0.71	26	11	5.95
Ocho Rios	1.50	0.35	13	7	3.85
Bogue, Ocho Rios	...	...	...	...	...
Arthurs Seat	...	...	...	..	...
Drax Hall	1.45	0.50	2	6	4.47
Liberty Hill	1.71	0.68	8	4	...
St. Ann's Bay	3.51	2.27	8	7	4.88
Seville	1.15	0.50	2	4	4.29
Richmond Estate	...	...	...	...	...
Llandovery	2.11	0.61	10	6	4.57
Southfield, St. Ann	0.35	0.35	16	1	7.06
Brown's Town	...	...	...	...	...
Hyde Park	...	...	...	...	...
Dry Harbour	0.35	0.15	2	3	2.80
Chewmagna, St. Ann	0.45	0.40	23	2	3.21
Home Castle	0.90	0.40	10	4	3.16
Richmond Pen	...	...	...	...	...
Mahogany Hall	...	...	...	...	...
Barnstaple	0.48	0.48	10	1	...
Brampton Bryan	0.50	0.30	10	3	1.90
Bryan Castle	0.20	0.15	10	2	2.32
Braco	0.20	0.10	10	2	1.23
Arcadia	0.43	0.16	10	3	2.36
Lancaster	0.57	0.25	10	3	2.51
Harmony Hall	0.62	0.22	10	4	2.33
Vale Royal	0.43	0.16	10	3	2.72
Colchis Pen	0.60	0.35	10	2	1.74
Swanswick	0.60	0.33	10	3	...
Hyde	...	...	...	...	...
Georgia	0.74	0.20	10	4	2.56
Long Pond	0.30	0.15	10	3	2.74
Hyde Hall	0.40	0.20	10	5	2.52
Steelfield	0.20	0.10	21	3	2.31
Etingdon	0.10	0.10	10	1	2.17
Oxford	..	...	...	...	...
Cambridge	...	..	...	...	...
Lottery	0.35	0.20	2	2	2.01
Falmouth	...	...	...	...	...
Florence Hall	...	...	...	...	...
Holland Pen	0.30	0.30	19	1	2.05
Orange Valley	...	...	...	...	...
Kent	0.00	...	..	...	2.41
Gales Valley	0.35	0.35	10	1	2.05
Canaan	...	...	...	...	...
Content	0.00	...	...	...	2.26
Bellfield	0.00	...	...	...	...
Hampden	...	...	...	...	...
Moor Park	0.43	0.28	24	3	...
Success	0.30	0.30	20	1	2.32
Guilsbro	...	...	...	...	...
Cinnamon Hill	0.34	0.24	20	2	2.65
Rose Hall	1.00	0.65	20	3	2.37
Running Gut	0.69	0.47	20	3	2.34
Spring	0.50	0.50	20	1	...
Montego Bay	...	...	...	...	...
Catherine Hall	0.30	0.22	19	4	2.47
King Gate	...	...	...	...	...
Round Hill	...	...	...	...	...
Sandy Bay	...	...	...	...	..
Haughton Court	...	...	...	...	...
Lucea	1.15	0.42	18	6	2.16

CENTRAL SUB-DIVISION.	FEBRUARY, 1913. Total Fall.	Greatest fall in 24 hours. Amount.	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Rio Magno ...	0.65	0.35	8	4	...
Headworks, Rio Cobre ...	0.22	0.13	23	2	1.63
Linstead ...	0.40	0.20	2	3	1.96
Berkshire Hall ...	0.31	0.14	8	4	...
Point Hill ...	1.05	0.26	16	6	3.85
Brown's Hall ...	2.19	0.85	22	...	2.66
Worthy Park ...	0.34	0.19	8	2	2.05
Crofts Hill ...	...	...	...	...	...
Chapelton ...	0.27	0.10	16	3	1.80
Mears ...	...	...	...	...	...
Danks Works ...	1.43	1.19	22	4	1.85
Savoy House ...	1.73	1.45	22	3	1.74
Trout Hall ...	0.34	0.20	22	2	...
Cave Valley ...	0.80	0.30	16	...	2.20
Greenock ...	0.78	0.30	16	...	...
Means ...	0.77	...	...	...	...
WEST-CENTRAL DIVISION.					
Whitney ...	1.15	0.80	22	4	...
Mocho, Clarendon ...	0.50	0.42	22	2	...
Baillieston ...	0.99	0.40	16	5	2.99
Brokenhurst ...	1.10	0.30	23	5	2.67
Christiana ...	...	...	...	...	...
Chudleigh ...	1.55	0.74	16	6	...
Shooter's Hill ...	0.72	0.36	16	4	...
Spitzbergen ...	1.06	0.43	22	4	...
Kendal, Manchester ...	0.64	0.32	16	3	2.59
Marshalls Pen ...	0.81	0.50	24	2	...
Mandeville ...	0.48	0.28	23	5	2.87
Carlton, Mandeville ...	0.50	0.33	23	8	...
The Hill ...	0.56	0.27	22	3	...
Fairfield, Manchester ...	1.65	1.05	23	8	3.11
Ulster Spring ...	...	...	...	...	...
Albert Town ...	0.90	0.65	23	2	...
Low River ...	...	...	...	...	...
Troy ...	2.47	2.00	23	5	2.72
Windsor Pen, Trel. ...	0.29	0.16	9	3	2.36
Wallingford ...	1.25	0.76	17	5	...
Balaclava Police Station ...	0.74	0.60	17	2	2.29
Siloah ...	1.65	1.85	17	4	...
Santa Cruz ...	2.98	1.25	17	6	2.48
Appleton Estate ...	1.52	0.64	20	4	2.75
Maggotty ...	1.50	0.80	20	4	2.70
Butlers ...	1.85	0.68	19	5	...
Spring Vale ...	...	...	...	...	...
Y.S. ...	...	...	...	...	...
Springfield, St. Eliz. ...	1.07	0.86	23	2	...
Catadupa Rly. Station ...	0.93	0.83	18	2	...
Kempshot ...	0.65	0.30	19	5	3.00
Cambridge ...	...	...	...	...	...
Hazelymph ...	0.91	0.30	21	2	1.98
New Market ...	1.42	0.70	15	4	...
The Bog ...	0.68	0.34	16	4	...
Kew Park ...	0.58	0.29	18	4	2.72
Montpelier ...	...	...	...	...	...
Knockalva ...	...	...	...	...	...
Ramble ...	1.47	0.38	23	5	...
Petersville ...	2.38	1.50	21	5	2.91
Darliston ...	1.68	0.50	16	6	3.63
Whithorn ...	2.37	1.50	20	4	3.40
Great Valley, Han. ...	...	...	...	...	...
Brownsville ...	...	...	...	...	...
George's Plain ...	...	...	...	...	...
Fontabelle, Westm. ...	0.65	0.25	8	4	2.62
Belleisle ...	2.31	0.56	15	6	2.40
Morgan's Bridge ...	2.64	0.94	8	6	2.53
Glasgow Estate ...	...	...	...	...	...
King's Vale Police St. ...	0.52	0.30	16	5	2.73
Means ...	1.37	...	...	...	...

SOUTHERN DIVISION.	FEBRUARY, 1913. Total fall.	Greatest fall in 24 hours. Amount.	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Morant Point L. H. ...	1.17	0.52	17	11	2.74
East Prospect ...	1.54	0.40	16	17	...
Morant Bay ...	1.08	0.42	16	9	2.03
Easington ...	0.86	0.42	16	7	1.54
Bull Bay ...	0.05	00.5	16	1	0.53
Bellevue ...	2.18	0.74	22	9	..
Gordon Town ...	0.70	0.40	16	2	1.76
Hope Gardens ...	...	...	...	...	...
King's House Gardens ...	0.29	0.08	16	4	1.55
Halfway Tree ...	0.00	...	...	...	0.88
Lunatic Asylum ...	0.13	0.09	16	3	0.54
Kingston S. Camp Road ...	0.08	0.06	16	2	...
" Parade Gard. ...	...	...	...	...	...
" P. W. Office ...	0.06	...	...	...	0.67
Plumb Point L. H. ...	0.18	0.18	16	1	0.72
Ballast Ground ...	0.00	...	...	...	...
Quarantine Station ...	0.04	0.04	16	1	...
Spanish Town ...	0.14	0.10	16	2	1.34
Hog Hole Pen ...	0.22	0.22	16	1	1.82
Hartlands ...	0.10	0.10	16	1	...
Belmont ...	1.21	0.43	18	9	...
Old Harbour ...	1.30	0.70	16	3	1.81
May Pen ...	0.82	0.35	8	4	1.76
Hillside Estate ...	...	...	...	...	...
Amity Hall ...	...	...	...	..	...
Money Musk ...	..	...	..	...	...
Dunkley's, Vere ...	1.48	0.55	20	5	1.17
Dry River " ...	1.08	0.39	16	5	...
Caswell Hill " ...	...	...	..	...	...
Denbigh ...	0.63	0.63	25	1	1.40
Toll Gate ...	...	...	...	...	...
Woodleigh ...	0.70	0.70	25	1	...
New Yarmouth ...	1.56	0.95	20	5	1.02
Exeter, Vere ...	0.80	0.65	16	3	...
Rhymesbury ...	0.65	0.28	25	7	1.37
Milk River ...	0.48	0.16	20	4	1.64
Clarendon Pk. Ry. St. ...	..	..	...	...	...
Victoria Town ...	0.51	0.26	27	2	1.91
Stone's Hope ...	0.68	0.45	27	2	2.22
Newport, Manchester ...	0.96	0.34	16	5	2.94
Great Valley, Man. ...	0.90	0.34	26	4	2.48
Alligator Pond ...	0.20	0.20	26	1	1.20
Lititz ...	0.20	0.18	16	2	...
Long Hill ...	1.73	0.92	26	6	1.88
Bethlehem, St. Eliz. ...	1.74	0.60	22	8	2.55
Torrington ...	0.68	0.40	22	4	2.52
Pedro Plains ...	0.38	0.13	16	4	1.43
Black River ...	2.56	1.58	17	5	1.78
Font Hill ...	1.45	0.45	26	6	1.38
Mount Edgecombe ...	0.63	0.24	16	4	2.48
Bluefields ...	1.34	1.02	21	3	...
Sweet River ...	1.75	0.90	21	4	2.32
Windsor, Sav.-la-mar ...	1.27	0.36	24	6	2.34
Orchard, Sav.-la-mar ...	1.98	0.86	16	6	...
Sav.-la-mar ...	0.87	0.40	17	5	2.00
Retreat ...	1.42	0.81	16	4	2.36
White Hall ...	0.47	0.29	21	3	...
Negril Point L.H. ...	0.60	0.38	21	3	1.54
Negril Pol. Sta. ...	...	...	...	...	...
Means ...	0.84	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.

(Based upon the "Average" Stations only.)

—	February. 1913.	February. Average.
	In.	In.
North-Eastern Division ...	1.56	5.29
Northern ...	0.77	2.55
West-Central ...	1.37	2.76
Southern ...	0.84	1.67
The Island ...	1.14	3.07

The heaviest rainfall, 6.84 inches was recorded at Moore Town. Several places in the Northern and Southern Division had no rain.

Rainfall at Grand Cayman. January, 1913.	Total Fall.	Greatest fall. Amount.	Greatest fall. Date.	No. of days on which 0.01 or more fell.
East End ...	1.05	0.52	28	5
Bodden Town ...	1.87	1.00	1	7
George Town ...	..	..	.	..

SHOCKS OF EARTHQUAKE IN FEBRUARY, 1913.

Date.	Mean time.	Intensity.	Notes: where felt, etc.
	hr. min.		
	No earthquakes	this	month.

MAGNETIC VARIATION.—The variation of the compass at the Kempshot Observatory in February, was 2° 29′ E.

The Weather Office,
Halfway Tree P.O.

MAXWELL HALL,
Govt. Meteorologist.

METEOROLOGICAL OBSERVATIONS. MORANT POINT LIGHT-HOUSE. MEAN RESULTS FOR THE YEAR 1913. ELEVATION 8 FEET.

Month.	Bar. Pressure.		Temperature.					Extremes for the month.			Dewpoint and humidity.				Rain-fall.	Wind from and miles per hour				Clouds : In tenths.					
																				7 a.m.			3 p.m.		
	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Min.	Range.	7 a.m.		3 p.m.			7 a.m.		3 p.m.		Lower.	Middle.	Upper.	Lower.	Middle.	Upper.
	Ins.	Ins.	°	°	°	°	°	°	°	°	°		°		Ins.		Mls.		Mls.						
Jany	29.996	29.953	77.6	80.1	81.6	72.9	8.7	83.5	64.5	19.0	70.6	88	74.7	84	5.65	E	15.7	E	15.9	1.5	2.8	2.5	0.7	2.3	2.3
Feb.	29.980	29.951	75.2	79.5	82.4	71.1	11.3	86.0	64.0	22.0	71.0	87	71.6	73	4.20	SE	12.5	SE	12.3	2.3	2.0	2 0	2.0	1.9	2.0
March	30.022	30.15	77.3	80.3	82.3	69.9	12.4	83.5	63.0	20.5	73.0	87	73.3	78	2.13	SE	8.1	SE	8.0	4.0	3.0	2.0	3.0	3.0	2.0
April	30.021	29.967	77.8	81.6	83.8	69.5	14.1	85 6	61.0	24.6	73.3	86	73.8	78	2.53	SE	10.2	SE	7.6	4.9	2.9	2.4	3.8	2.9	2.4
May	29.937	29.886	80.3	83.5	84.8	77.4	9.4	86.0	68.0	18.0	75.5	80	76.0	78	0.62	SE	8.0	SE	12.7	4.2	2.6	1.9	4.5	3.0	2.4
June	29.988	29.977	81.0	83.4	85.1	77.1	8.0	86.2	74.1	12.1	74.2	79	75.4	77	1.20	SE	10.7	SE	12.0	5.0	2.4	2.2	4.3	2.7	2.3
July	29.999	29.976	81.3	34.4	86.3	76.2	10.1	87.5	68.5	19.0	76.8	86	77.8	81	1.20	SE	8·3	SE	9.5	4.4	3.4	3.3	3.5	3.4	3.9
Aug.	29.981	29.950	81.6	83.8	85.6	75.1	10 5	87.2	68.5	18.7	75.3	88	76.2	85	2.22	E	8.0	E	8.3	4.3	3.0	2.7	4.0	3.0	2.9
Sept.	29.942	29.912	82.9	84.5	86.7	73.6	13.1	88.6	63 0	25.6	72.3	73	75.9	76	2.14	E	9.9	E	10.0	5.2	2.4	2.3	4.9	2.4	1.8
Oct.	29.899	29.840	79.4	83.0	86.0	71.9	13.4	88.0	67.0	21.0	74.4	85	84.8	96	6.90	E	8.0	NE	9.0	5.2	2.1	1.6	5.5	2.3	1.8
Nov.	29.901	29.845	78.4	81.3	83.6	71 3	12.3	86.5	65.0	21.5	74.7	89	76.1	84	18.65	Vor.	13.7	Var.	14.5	4.5	2.1	1.5	4.6	2.0	2.0
Dec.	29.982	29.933	79.0	81.0	82.5	72.0	10.5	83.5	62.0	21.5	72.4	80	72.6	76	3.85	E	13.6	E	12.6	1.0	2.3	2.4	0.5	2.2	2.5
Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	51.29	..	..	..	..	..	..	..	..	..	..
Means	29.971	29.934	79.3	82.2	84.2	73.0	11.2	86.0	65.7	20.3	73.6	84	75.7	80	..	SE	10.5	SE	11.0	3.9	2.6	2.2	3.4	2.6	24

MAXWELL HALL, Govt. Meteorologist.

No. 415.

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WEATHER REPORT

FOR THE MONTH OF

MARCH, 1913.

The Bar-pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standard only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

Stations.	Elevation.	Bar Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range.
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	30.044	30.007	76.7	80.1	82.5	75.8	6.7	85.0	30th	67.0	28th	18.0
Kingston ..	24	30.017	29.958	72.8	82.7	86.5	69.3	17.2	90.2	2nd	66.1	3rd	24.1
Kempshot ..	1,773	..	..	..	..	..	..	..	..	..	..	..	..
Negril Point Light House ..	33	30.029	29.985	72.5	80.7	83.8	67.8	16.0	87.5	23rd	64.9	*21st	22.6
Castleton Gardens ..	496	..	..	64.7	82.2	87.6	62.9	24.7	94.	1st	58.	16th	36.
Hope Gardens† ..	668	30.026	29.965	69.4	83.	86.3	66.3	20.0	92.	2nd	64.	14th	28.
Stony Hill Reformatory ..	1,400	..	..	68.6	80.1	82.6	62.5	20.1	90.	1st	61.	*5th	29.
Hill Gardens ..	4,900	25.325	25.263	60.6	63.4	68.0	53.0	15.0	72.	4th	50.	19th	22.

Stations.	Elevation.	Dew Point and Humidity.				Rainfall.	Wind per diem.	Wind: (direction from and miles per hour.)				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
	ft.	°		°		in	miles		m.		m.	L.	M.	U.	L.	M.	U.
Morant Pt. Light House ..	8	72.5	81	72.4	77	1.70	..	ESE	16.4	ESE	16.5	1.2	2.5	2.3	0.4	1.8	2.1
Kingston ..	24	65.3	77	67.5	60	0.47	264	E	6.2	SE	19.8	2.4	1.1	0.3	3.1	1.9	0.1
Kempshot ..	1,773	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Negril Point Light House‡ ..	33	67.7	85	73.0	77	7.85	..	ESE	5.3	SSE	14.2	1.4	1.5	0.6	2.2	4.6	0.0
Castleton Gardens ..	496	63.2	93	70.3	67	2.38	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens ..	668	61.3	75	65.5	54	1.52	..	..	..	..	..	..	..	..	..	..	..
Stony Hill Reformatory ..	1,400	61.3	77	66.4	63	1.93	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	58.0	89	58.9	87	2.64	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m and 3 p m
‡ Negril Point Light House. Wind 11 p.m. E. by N.

RAINFALL FOR MARCH, 1913.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month, according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	MARCH, 1913.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	In.	In.			In.
Manchioneal ...	1.68	0.48	16	5	3.26
Ecclesdown ...	5.18	1.30	31	11	...
Spring Valley .	3.52	0.48	16	14	.
Bath ...	3.61	0.53	16	21	4.57
Moore Town ...	2.80	...	...	...	10.97
Port Antonio ...	2.53	1.31	3	4	4.90
Fellowship ...	4.85	0.80	31	19	8.09
Windsor, Portland ...	3.84	1.47	8	9	...
Johnson River Bridge ...	4.10	0.66	16	27	2.59
Shrewsbury ...	3.34	1.34	31	8	..
Cedar Valley, St. Thos. ...	3.36	1.04	18	12	3.30
Hope Bay ...	2.00	0.30	8	15	...
Moy Hall, St. Thos. ...	3.28	1.10	21	9	3.01
Lennox ...	2.50	0.50	24	10	..
Hill Gardens ...	2.64	...	...	...	5.19
Buff Bay ...	1.97	0.42	17	9	5.79
Vinery ...	4.10	1.05	29	6	...
Windsor Castle, Port. ...	3.96	0.82	31	8	...
Greenvale, Portland ...	6.17	1.10	31	8	..
Mt. Holstein ...	3.85	1.09	31	12	9.53
Irish Town ...	1.16	0.90	27	2	...
Rose Hill ...	3.53	2.47	29	4	...
Hardware Gap ...	0.95	0.95	27	1	4.50
Stony Hill Reform. ...	1.93	1.04	29	10	2.99
Castleton Gardens ...	2.58	...	...	...	4.93
Lawrence Tavern ...	2.81	1.43	30	6	2.69
Cedar Valley ..	6.53	2.54	31	9	...
Carew Gastle ...	1.51	0.97	28	5	...
Agualta Vale ...	2.87	1.50	30	10	...
Water Valley ...	0.83	0.50	17	4	5.69
Albany, Ry. Station ..	2.42	0.90	23	9	...
Platfield ...	1.98	1.36	23	7	...
Richmond, St. Mary ..	2.53	0.70	18	10	3.75
Hampstead, St. Mary ...	1.36	0.65	23	4	...
Gayle ...	2.22	1.15	27	7	4.70
Rio Hoe ...	2.56	1.22	31	10	3.64
Unity Valley ...	5.16	1.88	10	10	3.64
Moneague ...	3.63	1.36	31	6	3.03
Claremont ...	6.50	2.42	29	10	4.43
Albion, St. Ann ...	3.63	1.23	18	12	3.61
Averham Park ...	4.46	1.32	29	9	3.81
Means ..	3.13	..	...	...	...

NORTHERN DIVISION.	MARCH, 1913.				
	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	In.	In.			In.
Port Maria ...	3.22	0.54	3	12	3.19
Ocho Rios ...	1.12	0.30	30	8	3.54
Bogue, Ocho Rios ...	1.95	1.10	23	6	...
Arthurs Seat ...	..	...	...	..	...
Drax Hall ...	4.69	1.95	31	6	3.21
Liberty Hill ...	...	...	...	..	...
St. Ann's Bay ...	2.66	0.63	9	11	2.40
Seville ...	2.67	0.75	9	8	3.07
Richmond Estate ...	4.59	1.98	31	7	2.63
Llandovery ...	3.98	1.67	9	5	2.80
Southfield, St. Ann ...	1.98	0.54	29	8	3.65
Brown's Town ...	3.84	1.16	31	6	2.99
Hyde Park ...	...	...	...	...	...
Dry Harbour ...	1.73	...	...	5	1.56
Chewmagna, St. Ann ...	3.51	1.70	18	9	3.37
Home Castle ...	2.47	0.55	29	9	2.56
Richmond Pen ...	3.05	0.90	31	7	2.42
Mahogany Hall ...	...	...	...	...	...
Barnstaple ...	1.61	0.75	23	5	...
Brampton Bryan ...	2.52	0.86	30	9	1.88
Bryan Castle ...	3.75	1.28	30	9	1.88
Braco ...	3.30	1.65	30	6	1.62
Arcadia ...	3.56	2.12	30	8	1.84
Lancaster ...	3.68	1.55	30	7	1.92
Harmony Hall ...	3.92	2.35	30	8	1.74
Vale Royal ...	2.77	1.38	30	7	2.28
Colchis Pen ...	2.65	0.95	30	5	2.02
Swanswick ...	2.20	1.10	10	6	...
Hyde ...	...	...	...	...	...
Georgia ...	...	...	...	...	...
Long Pond ...	1.82	...	10	7	2.18
Hyde Hall ...	1.49	0.52	10	6	1.99
Steelfield ...	1.27	0.45	8	6	2.17
Etingdon ...	0.88	0.26	10	4	1.77
Oxford ...	..	...	...	...	...
Cambridge ...	...	..	...	...	...
Lottery ...	0.30	0.75	29	7	2.00
Falmouth ...	2.86	0.71	5	9	1.76
Florence Hall ...	1.90	0.53	30	6	...
Holland Pen ...	...	...	...	...	...
Dromilly ...	2.08	0.49	5	9	...
Kent ...	1.95	0.90	29	5	1.80
Gales Valley ...	2.20	0.90	29	5	2.35
Canaan ...	...	...	...	...	...
Content ...	2.45	1.75	29	4	2.17
Bellfield ...	...	...	...	...	...
Hampden ...	...	...	...	...	...
Moor Park ...	1.98	0.70	8	6	...
Success ...	1.57	1.00	7	5	1.92
Guilsbro ...	..	...	...	...	...
Cinnamon Hill ...	1.84	1.06	7	5	1.76
Rose Hall ...	2.72	1.60	7	6	1.59
Running Gut ...	2.30	0.63	7	6	1.59
Spring ...	1.17	0.50	7	4	...
Montego Bay ...	1.26	0.40	9	5	1.58
Catherine Hall ...	1.13	0.41	18	6	1.84
King Gate ...	...	...	...	...	...
Round Hill ...	...	...	...	...	...
Sandy Bay ...	...	...	...	...	..
Haughton Court .	...	...	...	...	...
Lucea ...	1.59	0.61	30	5	2.33

CENTRAL SUB-DIVISION.	MARCH, 1913. Total Fall.	Greatest fall in 24 hours. Amount.	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Rio Magno ...	2.85	1.35	23	9	...
Headworks, Rio Cobre ...	2.75	1.28	6	5	2.84
Linstead ...	1.55	0.32	27	7	3.06
Berkshire Hall ...	3.46	1.55	10	8	...
Point Hill ...	4.20	0.80	18	9	5.25
Brown's Hall ...	6.04	1.13	8	11	4.49
Worthy Park ...	1.79	0.47	24	10	2.84
Crofts Hill ...	...	...	...	...	...
Chapelton ...	1.88	0.78	26	5	2.70
Mears ...	...	...	...	...	...
Danks Works ...	2.15	0.64	26	9	3.26
Savoy House ...	1.60	0.30	26	12	4.07
Trout Hall ...	5.55	1.86	31	14	...
Cave Valley ...	1.30	0.40	17	...	2.90
Greenock ...	1.10	0.30	17	...	...
Means ...	2.58	...	...	...	...
WEST-CENTRAL DIVISION.					
Whitney ...	3.60	1.60	31	10	...
Mocho, Clarendon ...	2.30	0.60	26	5	...
Baillieston ...	4.76	1.80	31	6	4.54
Brokenhurst ...	2.55	0.70	28	11	2.70
Christiana ...	...	...	...	...	...
Chudleigh ...	2.83	0.68	26	10	...
Shooter's Hill ...	1.99	0.34	26	14	...
Spitzbergen ...	1.98	0.57	31	15	...
Kendal, Manchester ...	1.72	0.38	31	10	3.44
Marshalls Pen ...	1.63	0.50	26	5	3.85
Mandeville ...	2.42	0.52	31	15	4.28
Carlton, Mandeville ...	1.76	0.35	31	16	...
The Hill ...	1.82	0.46	28	12	...
Fairfield, Manchester ...	1.23	0.25	31	13	3.84
Ulster Spring ...	4.94	1.55	31	8	3.40
Albert Town ...	6.16	1.30	18	12	...
Low River ...	3.99	1.32	31	12	...
Troy ...	5.01	1.05	9	9	6.17
Windsor Pen, Trel. ...	2.49	0.60	29	11	3.07
Wallingford ...	4.84	1.78	6	9	...
Balaclava Police Station ...	5.57	1.87	6	9	4.74
Siloah ...	5.13	1.30	30	6	...
Santa Cruz ...	6.14	2.17	27	6	4.26
Appleton Estate ...	6.86	1.00	26	12	5.47
Maggotty ...	8.19	2.00	18	11	5.80
Butlers ...	9.96	1.45	27	13	...
Spring Vale ...	3.85	1.01	5	7	2.92
Y.S. ...	...	...	...	...	...
Garland ...	7.13	...	...	12	...
Mocho, Catadupa ...	5.87	1.75	5	10	...
Springfield, St. Eliz. ...	8.66	1.87	18	5	...
Catadupa Rly. Station ...	6.33	1.56	5	11	...
Kempshot ...	3.65	1.25	5	10	...
Cambridge ...	7.39	1.86	10	11	...
Hazelymph ...	5.61	1.07	13	11	3.64
New Market ...	8.49	1.84	18	12	...
The Bog ...	10.27	2.50	18	17	...
Kew Park ...	7.94	1.34	18	12	4.10
Montpelier ...	...	...	...	...	...
Knockalva ...	...	...	...	...	...
Ramble ...	9.37	2.26	18	14	...
Petersville ...	9.26	2.30	30	11	5.18
Darliston ...	12.28	3.46	29	15	6.54
Whithorn ...	9.15	2.00	27	17	5.87
Great Valley, Han. ...	4.93	2.88	18	6	3.79
Brownsville ...	...	...	...	...	...
George's Plain ...	...	...	...	...	...
Fontabelle, Westm. ...	11.15	3.52	18	14	3.94
Belleisle ...	12.90	3.15	19	15	3.38
Morgan's Bridge ...	14.29	3.53	18	16	4.75
Glasgow Estate ...	...	...	...	...	...
King's Vale Police St. ...	7.49	2.67	18	9	4.91
Means ...	6.35	...	...	...	...

SOUTHERN DIVISION.	MARCH, 1913. Total fall.	Greatest fall in 24 hours. Amount.	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Morant Point L. H. ...	1.70	0.24	18	21	2.11
East Prospect ...	1.75	0.40	17	19	...
Morant Bay ...	2.38	0.39	26	21	1.79
Easington ...	2.01	0.32	16	20	2.94
Bull Bay ...	0.25	0.19	20	2	0.34
Bellevue ...	...	...	...	...	...
Gordon Town ...	0.95	0.95	27	1	1.54
Hope Gardens ...	1.52	...	...	...	1.90
King's House Gardens ...	1.30	0.56	27	8	1.26
Halfway Tree ...	0.60	0.40	27	2	1.06
Lunatic Asylum ...	0.59	0.45	27	3	0.97
Kingston S. Camp Road ...	0.77	0.53	27	3	...
" Parade Gard. ...	...	...	...	...	...
" P. W. Office ...	0.47	0.27	27	3	1.05
Plumb Point L. H. ...	0.49	0.20	20	7	0.91
Ballast Ground ...	1.29	0.60	27	4	...
Quarantine Station ...	0.13	0.11	20	2	...
Spanish Town ...	...	...	...	...	...
Hog Hole Pen ...	...	...	...	...	...
Hartlands ...	1.31	0.83	7	2	...
Belmont ...	6.05	2.40	31	14	...
Old Harbour ...	3.30	1.32	6	4	2.20
May Pen ...	11.76	3.72	26	12	2.01
Hillside Estate ...	...	...	...	...	...
Amity Hall ...	1.71	0.93	6	3	...
Money Musk ...	...	...	...	...	...
Dunkley's, Vere ...	1.77	0.86	31	8	1.49
Dry River " ...	1.39	0.95	31	4	...
Caswell Hill " ...	...	...	...	...	...
Denbigh ...	7.35	2.25	26	5	2.06
Toll Gate ...	...	...	...	...	...
Woodleigh ...	8.50	3.30	26	4	...
New Yarmouth ...	0.92	0.64	31	2	1.26
Exeter, Vere ...	1.50	0.80	30	9	...
Rhymesbury ...	4.42	1.60	17	14	2.11
Milk River ...	2.20	1.00	17	6	1.66
Clarendon Pk. Ry. St. ...	2.02	1.12	31	8	...
Victoria Town ...	3.77	1.74	31	5	2.14
Stone's Hope ...	2.26	0.58	28	8	2.64
Newport, Manchester ...	1.42	0.27	29	11	3.03
Great Valley, Man. ...	2.65	0.49	7	12	2.23
Alligator Pond ...	1.50	0.49	7	5	1.73
Lititz ...	1.54	0.65	7	5	...
Long Hill ...	3.43	1.60	29	9	4.02
Bethlehem, St. Eliz. ...	2.97	1.20	31	10	4.25
Torrington ...	1.79	0.55	17	7	3.47
Pedro Plains ...	1.19	0.35	29	6	2.34
Black River ...	3.88	1.25	27	9	2.59
Font Hill ...	6.50	2.90	29	7	4.09
Mount Edgecombe ...	8.38	1.56	6	15	4.10
Bluefields ...	7.43	1.53	18	12	...
Sweet River ...	6.16	2.00	6	10	3.54
Windsor, Sav.-la-mar ...	8.26	2.35	3	13	2.90
Orchard, Sav.-la-mar ...	11.12	3.40	4	16	...
Sav.-la-mar ...	8.55	2.18	27	16	...
Retreat ...	9.43	4.40	18	7	3.28
White Hall ...	7.86	1.60	17	16	...
Negril Point L.H. ...	7.85	1.74	3	13	2.34
Negril Pol. Sta. ...	...	...	...	...	...
Means ...	3.10	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.

(Based upon the "Average" Stations only.)

—	March. 1913.	March. Average.
	In.	In.
North-Eastern Division ...	3.13	4.61
Northern ...	3.58	2.36
West-Central ...	6.35	4.18
Southern ...	3.10	2.22
The Island ...	3.79	3.34

The heaviest rainfall, 14.29 inches was recorded at Morgan's Bridge; and the smallest 0.13 inch at the Quarantine Station.

Rainfall at Grand Cayman. February, 1913.	Total Fall.	Greatest fall. Amount.	Greatest fall. Date.	No. of days on which 0.01 or more fell.
	In.	In.		
East End ...	0.13	0.07	19	2
Bodden Town ...	0.24	0.24	19	1
George Town ...	..	..	..	..

SHOCKS OF EARTHQUAKE IN MARCH, 1913.

Date.	Mean time.	Intensity.	Notes: where felt, etc.
	hr. min.		
24th	4 0 a.m.	II	Siloah: very slight shocks were recorded some hours before.

CORRIGENDA—W.R. No. 414 Feb., 1913, p. 2. Rainfall at Albion, St. Ann, for 8.88 in. read 0.88 in. P. 1, Wind per diem., for 118 miles at Morant Point L.H., read Kingston.

MAGNETIC VARIATION.—The variation of the compass at the Kempshot Observatory in March was 2° 27′ E.

The Weather Office,
Halfway Tree P.O.

MAXWELL HALL,
Govt. Meteorologist.

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JAMAICA

WEATHER REPORT

FOR THE MONTH OF

APRIL, 1913.

The Bar-pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

Stations.	Elevation.	Bar Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	29.973	29.943	76.0	79.3	81.6	72.2	9.4	83.5	13th	66.5	7th	17.0
Kingston ..	24	29.956	29.906	72.9	80.8	84.9	69.5	15.4	86.9	1st	66.4	23rd	20.5
Negril Point Light House ..	33	29.964	29.924	75.3	80.7	84.4	70.6	13.8	87.7	29th	66.9	8th	20.8
Castleton Gardens ..	496	..	..	67.5	79.0	84.1	..	..	95.	4th	..	..	..
Hope Gardens† ..	668	29.964	29.886	70.1	79.0	82.9	65.0	17.9	86.	1st	63.	*16th	23.
Stony Hill Reformatory ..	1,400	..	..	67.4	76.3	78.9	63.5	15.4	82.7	1st	59.6	21st	23.1
Hill Gardens ..	4,900	25.286	25.230	59.2	61.0	66.2	53.3	12.9	70.	5th	51.	*12th	19.

Stations.	Elevation.	Dew Point and Humidity.				Rainfall.	Wind per diem.	Wind: (direction from and miles per hour.)				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
	ft.	°		°		in.	miles		m.		m.	L.	M.	U.	L.	M.	U.
Morant Pt. Light House ..	8	70.9	86	71.4	77	9.03	230	Var.	11.5	Var.	12.0	2.0	2.2	2.5	1.1	2.2	2.3
Kingston ..	24	67.7	84	72.1	75	2.57	175	NNE	4.8	SE	12.1	1.8	1.2	1.4	4.7	1.3	0.9
Negril Point Light House‡ ..	33	71.1	87	74.4	81	2.57	243	E	8.6	E	9.8	1.5	1.1	2.0	2.7	4.5	0.0
Castleton Gardens ..	496	65.9	90	69.7	74	9.78	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens ..	668	64.1	84	68.2	69	7.71	..	..	..	..	..	..	..	..	..	..	..
Stony Hill Reformatory ..	1,400	64.7	91	70.5	82	7.50	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	58.2	92	58.8	93	5.62	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
‡ Negril Point Light House. Wind 11 p.m. E.N.E. 9.0.

RAINFALL FOR APRIL, 1913.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month, according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	APRIL, 1913.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount	Date.		
	In.	In.			In.
Manchioneal ...	13.64	3.23	2	11	6.32
Ecclesdown ...	21.15	7.15	22	22	...
Spring Valley .	15.97	3.25	21	16	.
Bath ...	12.55	2.22	22	23	5.65
Boston ...	10.45	1.50	9	10	5.68
Moore Town ...	14.06	...	...	...	9.77
Port Antonio ...	11.46	2.87	26	11	6.27
Fellowship ...	13.85	2.40	26	20	9.24
Windsor, Portland ...	...	...	...	...	...
Johnson River Bridge ...	8.07	2.97	20	20	4.38
Shrewsbury ...	20.55	4.41	25	18	..
Cedar Valley, St. Thos. ...	7.64	2.00	22	13	3.94
Hope Bay ...	14.10	4.65	2	19	...
Moy Hall, St. Thos. ...	11.35	5.37	23	14	3.71
Lennox ...	21.90	4.10	25	20	..
Hill Gardens ...	5.62	...	...	...	6.09
Buff Bay ...	16.20	2.50	28	16	5.73
Vinery ...	21.34	5.40	24	18	...
Windsor Castle, Port. ...	12.64	3.95	21	7	..
Greenvale, Portland ...	20.05	4.16	22	25	...
Mt. Holstein ...	13.05	5.64	22	24	6.00
Irish Town ...	9.66	3.31	22	10	...
Rose Hill ...	...	..	...	...	...
Hardware Gap ...	12.13	...	...	...	5.86
Stony Hill Reform. ...	7.50	1.40	22	18	5.24
Castleton Gardens ...	9.78	...	...	...	6.80
Lawrence Tavern ...	6.34	1.50	2	11	4.24
Cedar Valley ..	7.36	1.12	2	9	...
Carew Gastle ...	6.27	2.35	7	10	5.05
Agualta Vale ...	13.62	3.35	25	17	...
Water Valley ...	13.63	2.40	25	16	4.78
Albany, Ry. Station ..	14.17	2.10	7	18	...
Platfield ...	6.23	2.00	8	17	...
Richmond, St. Mary ..	9.97	1.85	21	18	4.54
Hampstead, St. Mary ...	16.67	2.12	16	19	...
Kendal, St. Mary ...	5.55	1.30	22	15	...
Gayle ...	...	...	...	...	...
Rio Hoe ...	9.89	1.50	27	18	4.38
Unity Valley ...	9.65	1.87	30	18	4.61
Moneague ...	8.27	1.57	27	15	4.04
Claremont ...	...	...	...	...	...
Albion, St. Ann ...	8.59	1.34	22	21	4.38
Averham Park ...	10.84	2.00	22	19	4.73
Means ..	10.45	..	...	...	

NORTHERN DIVISION.	APRIL, 1913.				
	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	In.	In.			
Port Maria ...	12.08	2.53	20	17	3.88
Ocho Rios ...	7.65	0.80	29	16	2.83
Bogue, Ocho Rios ...	13.31	2.00	2	18	...
Arthurs Seat ...	...	...	...	..	...
Drax Hall ...	12.25	1.70	2	21	3.21
Liberty Hill ...	12.48	1.84	19	21	...
St. Ann's Bay ...	13.00	1.68	27	23	3.06
Seville ...	11.98	1.59	25	23	2.79
Richmond Estate ...	9.71	2.00	25	23	3.38
Llandovery ...	8.12	1.20	25	19	3.39
Southfield, St. Ann ...	...	...	..	...	...
Brown's Town ...	6.93	1.40	18	10	3.28
Hyde Park ...	...	...	...	...	...
Dry Harbour ...	...	...	...	...	...
Chewmagna, St. Ann ...	7.59	2.55	18	13	2.87
Home Castle ...	5.47	1.20	22	14	3.23
Richmond Pen ...	...	...	...	...	...
Mahogany Hall ...	...	...	..	...	...
Barnstaple ...	4.37	1.40	19	10	...
Brampton Bryan ...	4.79	1.65	9	16	2.13
Bryan Castle ...	4.68	0.90	9	19	2.12
Braco ...	3.65	1.00	9	13	2.21
Arcadia ...	4.70	0.71	9	15	2.28
Lancaster ...	4.75	1.05	9	14	2.26
Harmony Hall ...	3.87	0.93	9	17	2.07
Vale Royal ...	3.61	0.70	21	13	2.84
Colchis Pen ...	2.70	0.85	19	11	3.08
Swanswick ...	4.29	0.85	22	11	...
Hyde ...	...	...	...	...	...
Georgia ...	...	...	...	...	...
Long Pond ...	3.42	0.76	22	13	1.58
Hyde Hall ...	4.42	1.65	28	12	2.51
Steelfield ...	3.23	0.79	9	13	2.41
Etingdon ...	4.25	0.95	28	14	1.72
Oxford ...	..	...	...	...	...
Cambridge ...	7.06	3.10	12	11	2.92
Lottery ...	5.40	2.20	28	12	2.30
Falmouth ...	...	...	...	...	...
Florence Hall ...	6.21	3.00	28	9	...
Holland Pen ...	...	...	...	...	...
Dromilly ...	8.03	2.26	12	2	...
Kent ...	5.60	0.85	10	11	2.39
Gales Valley ...	2.55	0.60	29	7	3.37
Canaan ...	...	...	...	...	...
Content ...	...	...	...	...	...
Bellfield ...	5.02	1.64	29	11	...
Hampden ...	...	...	...	...	...
Moor Park ...	4.00	0.83	29	8	...
Success ...	4.00	1.30	29	11	2.28
Guilsbro ...	...	..	...	...	...
Cinnamon Hill ...	4.85	1.13	29	11	1.85
Rose Hall ...	4.29	1.20	29	11	1.89
Running Gut ...	4.10	0.88	29	11	1.76
Spring ...	2.83	0.50	29	8	...
Montego Bay ...	2.52	0.77	6	9	3.71
Catherine Hall ...	2.37	0.67	7	9	4.16
King Gate ...	6.49	1.53	29	12	3.70
Round Hill ...	2.00	0.50	...	6	2.68
Sandy Bay ...	...	...	...	...	...
Haughton Court .	...	...	...	...	...
Lucea ...	6.97	2.60	...	9	4.07

CENTRAL SUB-DIVISION.	APRIL, 1913. Total Fall.	Greatest fall in 24 hours. Amount.	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Rio Magno ...	6.04	0.75	8	16	...
Headworks, Rio Cobre ...	6.29	1.30	16	14	3.62
Linstead ...	10.80	2.00	9	14	4.43
Berkshire Hall ...	3.99	0.50	8	18	...
Point Hill ...	10.32	2.07	9	16	6.07
Brown's Hall ...	7.52	0.97	12	16	4.17
Worthy Park ...	7.29	2.15	4	14	3.44
Crofts Hill ...	...	...	...	...	...
Chapelton ...	9.41	2.00	30	16	3.57
Danks Works ...	9.82	2.00	6	17	4.69
Savoy House ...	9.60	1.50	8	17	4.09
Trout Hall ...	9.50	1.98	30	18	...
Cave Valley ...	4.60	1.50	27	...	4.94
Greenock ...	4.92	1.40	27	...	...
Means ...	6.29	...	...	...	...
WEST-CENTRAL DIVISION.					
Whitney ...	11.10	2.25	6	15	...
Mocho, Clarendon ...	...	...	...	...	...
Baillieston ...	6.41	1.70	1	12	5.28
Brokenhurst ...	9.47	1.85	6	14	5.25
Christiana ...	...	...	...	...	...
Chudleigh ...	7.27	0.87	27	17	...
Shooter's Hill ...	6.63	2.18	9	19	...
Spitzbergen ...	5.94	0.87	27	20	...
Kendal, Manchester ...	5.84	1.38	9	17	7.44
Marshalls Pen ...	7.80	1.53	1	16	5.90
Mandeville ...	8.90	3.01	1	17	5.96
Carlton, Mandeville ...	7.04	2.65	1	18	...
The Hill ...	10.56	1.78	4	18	...
Fairfield, Manchester ...	7.79	1.97	6	22	5.46
Ulster Spring ...	...	...	...	...	...
Freeman's Hall ...	14.97	2.60	29	12	...
Albert Town ...	9.87	1.35	19	15	...
Low River ...	8.38	1.65	5	19	...
Troy ...	8.49	2.32	4	12	9.62
Windsor Pen, Trel. ...	9.91	2.20	12	18	6.10
Wallingford ...	9.15	2.05	7	20	...
Balaclava Police Station ...	8.60	2.00	28	14	9.66
Siloah ...	12.20	2.60	7	14	...
Santa Cruz ...	8.64	2.09	26	14	9.34
Appleton Estate ...	10.71	2.13	7	17	9.67
Maggotty ...	12.21	3.04	7	17	9.39
Butlers ...	17.23	2.40	10	18	...
Spring Vale ...	9.59	2.90	12	13	5.44
Y.S. ...	...	...	...	...	...
Garland ...	11.57	4.35	12	14	...
Mocho, Catadupa ...	8.56	1.10	19	18	...
Springfield, St. Eliz. ...	10.63	1.50	26	18	...
Catadupa Rly. Station ...	7.24	2.52	12	13	...
Kempshot ...	9.08	3.56	12	15	5.54
Cambridge ...	...	...	...	...	...
Hazelymph ...	7.72	3.40	12	11	6.04
New Market ...	11.24	2.00	3	15	...
The Bog ...	11.12	2.64	3	17	...
Kew Park ...	6.83	1.30	8	17	8.27
Montpelier ...	...	...	...	...	...
Knockalva ...	...	...	...	...	...
Ramble ...	10.42	3.25	11	15	...
Petersville ...	10.96	2.06	5	15	7.35
Darliston ...	12.33	2.34	4	14	11.40
Whithorn ...	6.70	1.30	3	15	7.98
Great Valley, Han. ...	...	...	...	...	...
Brownsville ...	...	...	...	...	...
Fort William ...	...	...	...	...	...
George's Plain ...	...	...	...	...	...
Fontabelle, Westm. ...	5.63	1.30	7	12	5.94
Belleisle ...	7.70	1.10	9	14	6.98
Morgan's Bridge ...	10.99	1.95	6	12	6.14
Glasgow Estate ...	...	...	...	...	...
King's Vale Police St. ...	5.37	1.36	...	10	5.90
Means ...	8.59	...	...	...	...

SOUTHERN DIVISION.	APRIL, 1913. Total fall.	Greatest fall in 24 hours. Amount.	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Morant Point L. H. ...	9.03	2.30	22	20	2.99
East Prospect ...	9.14	2.48	5	16	...
Morant Bay ...	6.76	2.26	20	17	2.55
Easington ...	5.43	2.07	20	11	1.73
Bull Bay ...	2.45	0.86	6	7	0.85
Bellevue ...	...	...	...	...	..
Gordon Town ...	8.24	3.00	22	12	3.32
Hope Gardens ...	7.71	...	...	...	2.84
King's House Gardens ...	6.91	1.36	21	21	2.48
Halfway Tree ...	5.26	1.20	7	11	1.63
Lunatic Asylum ...	2.99	0.70	20	9	1.07
Kingston S. Camp Road ...	3.53	1.12	20	11	...
" Parade Gard. ...	3.21	1.08	...	5	...
" P. W. Office ...	2.57	0.66	7	15	1.01
Plumb Point L. H. ...	2.49	0.85	14	11	0.99
Ballast Ground ...	...	...	..	...	...
Quarantine Station ...	2.22	1.00	20	7	...
Spanish Town ...	6.04	2.70	7	10	2.30
Hog Hole Pen ...	6.03	1.66	14	10	2.96
Hartlands ...	4.66	1.85	7	6	...
Belmont ...	6.73	1.50	7	17	...
Old Harbour ...	4.95	0.80	1	13	2.87
May Pen ...	6.21	1.76	26	15	2.92
Hillside Estate ...	...	...	...	...	...
Amity Hall ...	...	...	...	...	...
Money Musk ...	...	...	..	...	...
Dunkley's, Vere ...	3.27	0.63	6	9	2.16
Dry River " ...	2.40	0.76	7	9	...
Denbigh ...	...	...	...	...	...
Toll Gate ...	...	...	...	...	...
Woodleigh ...	...	...	...	...	...
New Yarmouth ...	2.65	1.00	7	7	2.31
Exeter, Vere ...	3.87	1.55	15	9	...
Rhymesbury ...	12.48	5.32	26	17	2.21
Milk River ...	7.70	2.50	26	8	2.25
Clarendon Pk. Ry. St. ...	6.20	1.15	7	11	...
Victoria Town ...	10.40	2.60	7	13	3.83
Stone's Hope ...	6.90	1.89	6	11	4.13
Newport, Manchester ...	9.21	2.53	6	19	4.96
Great Valley, Man. ...	9.80	2.12	6	16	4.05
Alligator Pond ...	5.30	1.84	6	11	3.20
Lititz ...	7.60	1.60	6	13	...
Long Hill ...	11.74	2.17	1	13	7.64
Bethlehem, St. Eliz. ...	10.87	3.90	8	18	6.30
Torrington ...	7.11	1.85	6	12	4.53
Pedro Plains ...	3.70	1.63	6	10	2.22
Black River ...	7.15	1.69	28	16	4.18
Font Hill ...	6.25	2.45	4	11	4.40
Mount Edgecombe ...	9.84	2.48	4	15	5.40
Bluefields ...	5.81	2.32	9	8	...
Sweet River ...	6.20	2.50	8	8	5.70
Windsor, Sav.-la-mar ...	5.00	1.40	5	14	4.99
Orchard, Sav.-la-mar ...	5.75	1.20	5	14	...
Sav.-la-mar ...	4.10	1.18	5	9	5.29
Retreat ...	6.01	1.90	25	11	5.07
White Hall ...	2.90	1.20	9	10	...
Negril Point L.H. ...	2.57	1.04	9	10	3.03
Negril Pol. Sta. ...	...	...	...	...	...
Means ...	6.42	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.

(Based upon the "Average" Stations only.)

—	April. 1913.	April. Average.
	In.	In.
North-Eastern Division ...	10.45	5.31
Northern ...	6.29	3.05
West-Central ...	8.59	7.13
Southern ...	6.42	3.24
The Island ...	7.94	4.68

The heaviest rainfall, 21.90 inches, was recorded at Lennox, near Hope Bay; and the smallest 2.00 was recorded at Round Hill in Hanover.

Rainfall at Grand Cayman. March, 1913.	Total Fall.	Greatest fall. Amount.	Greatest fall. Date.	No. of days on which 0.01 or more fell.
	In.	In.		
East End ...	0.99	0.35	26	7
Bodden Town ...	1.82	0.47	25	8
George Town ...	..	..	..	..

SHOCKS OF EARTHQUAKE IN APRIL, 1913.

Date.	Mean time. hr.	Mean time. min.	Intensity.	Notes: where felt, etc.
27th	2	27 p.m.	II	Mt. Holstein 0.007, NW and SE.
			I	Kingston 0.001, N & S. and Halfway Tree.

PLUMB POINT LIGHT HOUSE—

Average No. of Miles of wind per diem	200
Greatest on the 11th	455
Least on the 17th	94

The Weather Office,
Halfway Tree P.O.

MAXWELL HALL,
Govt. Meteorologist.

No. 417.

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JAMAICA

WEATHER REPORT

FOR THE MONTH OF

MAY, 1913.

The Bar-pressures at all the Stations except the Hill Gardens, are reduced to the standards of Kew, 32°, gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

Stations.	Elevation.	Bar Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	29.977	29.945	77.6	80.1	82.2	72.8	9.4	84.	22*	67.	8	17.
Kingston ..	24	29.950	29.907	74.5	83.7	86.1	70.4	15.7	88.3	22	65.8	6	22.5
Negril Point Light House ..	33	29.960	29.924	77.3	82.3	85.3	70.3	15.0	88.3	14	61.4	6	26.9
Castleton Gardens ..	496	..	..	68.8	79.2	84.2	66.1	22.1	89.	28	63.	28	26
Hope Gardens† ..	668	29.950	29.889	72.1	81.4	84.7	66.9	17.8	87.	14*	62.	5	25.
Stony Hill Reformatory ..	1,400	..	..	68.2	76.7	79.6	64.2	15.4	82.7	28	63.6	1*	19.1
Hill Gardens ..	4,900	25.285	25.245	62.0	62.8	67.4	55.0	22.4	70.	29*	52.	8	18.

Stations.	Elevation.	Dew Point and Humidity.				Rainfall.	Wind per diem.	Wind: (direction from and miles per hour.)				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
	ft.	°		°		in.	miles		m.		m.	L.	M.	U.	L	M.	U.
Morant Pt. Light House ..	8	71.5	82	68.9	71	4.50	309	ENE	9.9	ENE	12.6	1.5	2.6	2.4	1.3	2.2	2.5
Kingston ..	24	68.6	82	70.3	64	3.05	169	NNE	4.4	SE	12.1	2.4	0.9	1.7	4.2	2.0	1.7
Negril Point Light House‡ ..	33	68.1	73	71.8	71	3.82	194	ESE	7.6	SE	10.7	2.7	0.4	3.5	3.9	4.2	0.7
Castleton Gardens ..	496	67.0	93	70.8	76	12.06	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens ..	668	65.8	81	71.4	72	5.16	..	..	..	..	..	..	..	..	..	..	..
Stony Hill Reformatory ..	1,400	65.7	91	73.2	89	13.56	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	58.8	89	59.5	86	6.45	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
‡ Negril Point Light House. Wind 11 p.m. E.N.E. 6.1.

RAINFALL FOR MAY, 1913.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month, according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	MAY, 1913.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount	Date.		
	In.	In.			In.
Manchioneal ...	10.34	2.61	9	19	14.77
Ecclesdown ...	26.12	4.86	1	22	...
Spring Valley .	12.38	3.03	10	18	.
Bath ...	13.25	1.70	18	22	12.75
Boston ..	6.12	1.35	25	6	16.55
Moore Town ...	40.86	...	...	...	16.96
Port Antonio ...	13.90	2.10	3	20	16.66
Fellowship ...	30.72	8.55	15	23	20.85
Windsor, Portland ...	43.60	12.70	14	14	...
Johnson River Bridge ...	7.11	1.47	26	20	9.52
Shrewsbury ...	30.25	5.97	14	18	..
Cedar Valley, St. Thos. ...	6.40	1.60	25	14	9.33
Hope Bay ...	25.55	10.80	15	17	...
Moy Hall, St. Thos. ...	8.17	1.60	27	17	9.44
Lennox ...	28.35	7.60	14	18	..
Hill Gardens ...	6.45	...	...	...	10.71
Buff Bay ...	17.65	5.50	4	11	8.15
Vinery ...	15.55	4.60	15	11	...
Windsor Castle, Port. ...	14.63	6.75	3	9	..
Greenvale, Portland ...	14.06	3.81	3	10	...
Mt. Holstein ...	10.14	4.86	3	19	8.14
Irish Town ..	6.27	1.90	9	7	...
Rose Hill ...	...	..	...	...	...
Hardware Gap ...	10.00	...	...	...	12.57
Stony Hill Reform. ...	13.56	4.21	9	18	9.73
Castleton Gardens ...	12.06	...	...	...	12.04
Lawrence Tavern ...	11.55	2.75	11	12	9.12
Cedar Valley, St. Andrew	11.07	3.40	9	10	...
Carew Gastle ...	11.72	2.65	11	13	9.23
Agualta Vale ...	10.52	2.32	4	15	...
Water Valley ...	8.19	2.10	4	15	7.23
Albany, Ry. Station ..	8.61	1.98	4	13	...
Platfield ...	8.14	1.85	11	13	...
Richmond, St. Mary ..	8.43	3.00	3	12	7.54
Hampstead, St. Mary ...	14.70	3.07	5	21	...
Kendal, St. Mary ...	5.76	1.24	11	12	...
Gayle ...	7.79	2.00	3	16	8.37
Rio Hoe ...	5.96	1.27	3	13	8.48
Unity Valley ...	7.34	2.43	11	16	9.99
Moneague ...	5.13	1.85	11	12	8.26
Claremont ...	3.65	0.63	9	8	7.34
Albion, St. Ann ...	5.47	1.23	15	14	8.46
Averham Park ...	6.76	2.16	3	13	8.25
Means ...	11.10	...	...	...	

NORTHERN DIVISION.	MAY, 1913.				
	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	In.	In.			
Port Maria ...	11.44	2.93	14	19	6.61
Ocho Rios ...	9.35	4.35	4	12	5.20
Bogue, Ocho Rios ...	8.23	2.07	4	10	...
Arthurs Seat ...	...	...	...	..	...
Drax Hall ...	4.30	0.90	4	11	7.10
Liberty Hill ...	4.80	1.60	3	7	...
St. Ann's Bay ...	4.18	1.35	4	11	5.64
Seville ...	4.23	1.06	4	10	7.18
Richmond Estate ...	3.19	0.65	19	10	7.42
Llandovery ...	3.68	1.34	14	5	7.11
Southfield, St. Ann ...	...	...	..	...	...
Brown's Town ...	7.69	3.46	3	12	7.23
Hyde Park ...	...	...	...	...	...
Dry Harbour ...	...	...	...	...	...
Chewmagna, St. Ann ...	8.52	3.75	10	14	6.70
Home Castle ...	1.40	1.05	4	10	6.13
Richmond Pen ...	...	...	...	...	...
Mahogany Hall ...	...	...	..	...	...
Barnstaple ...	5.90	1.66	5	10	...
Brampton Bryan ...	4.14	0.95	19	8	5.72
Bryan Castle ...	4.34	1.70	19	9	5.49
Braco ...	3.20	1.30	19	9	4.90
Arcadia ...	6.63	2.55	19	10	4.98
Lancaster ...	3.66	1.47	19	9	5.40
Harmony Hall ...	3.43	1.20	19	11	4.88
Vale Royal ...	5.73	1.86	19	11	6.34
Colchis Pen ...	4.91	1.30	10	10	7.15
Swanswick ...	7.15	2.10	19	8	...
Hyde ...	...	...	...	...	...
Georgia ...	...	...	...	...	...
Long Pond ...	4.74	1.48	19	8	...
Hyde Hall ...	5.47	2.35	19	11	...
Steelfield ...	4.01	2.04	19	6	...
Etingdon ...	3.12	2.12	19	5	...
Oxford ...	.	...	...	...	...
Cambridge ...	...	...	...	...	...
Lottery ...	4.15	1.50	19	10	6.35
Falmouth ...	...	...	...	...	...
Florence Hall ...	2.02	0.75	19	6	...
Holland Pen ...	...	...	...	...	...
Dromilly ...	12.98	2.15	17	17	...
Kent ...	3.55	1.80	19	5	...
Gales Valley ...	4.91	1.00	23	9	8.39
Canaan ...	...	...	...	...	...
Content ...	3.50	1.70	19	5	...
Bellfield ...	...	...	...	...	...
Hampden ...	...	...	...	...	...
Moor Park ...	4.94	1.56	19	9	...
Success ...	1.15	0.50	27	6	4.57
Guilsbro ...	...	...	...	...	...
Cinnamon Hill ...	3.24	2.38	27	7	5.28
Rose Hall ...	3.60	2.25	27	7	4.84
Running Gut ...	4.76	3.58	27	7	7.60
Spring ...	5.70	4.13	27	7	...
Montego Bay ...	3.46	1.05	25	9	7.60
Catherine Hall ...	2.70	1.30	25	11	8.69
King Gate ...	...	...	...	...	...
Round Hill ...	3.25	0.75	...	7	...
Sandy Bay ...	...	...	...	...	...
Haughton Court .	7.07	2.16	24	11	...
Lucea ...	9.22	3.17	20	12	8.09
Westfield ...	...	...	...	...	...

CENTRAL SUB-DIVISION.	MAY, 1913. Total Fall.	Greatest fall in 24 hours. Amount.	Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Rio Magno ...	...	...	...	...	...
Headworks, Rio Cobre ...	6.77	1.80	9	9	7.71
Linstead ...	10.53	1.65	12	13	9.64
Berkshire Hall ...	11.51	1.85	18	14	...
Point Hill ...	10.20	3.13	11	12	12.80
Brown's Hall ...	10.22	3.12	11	12	8.76
Worthy Park ...	8.28	1.75	11	10	8.17
Crofts Hill ...	...	...	...	...	...
Chapelton ...	9.35	2.68	9	11	8.47
Danks Works ...	7.28	2.35	11	10	9.22
Savoy House ...	7.65	2.02	9	14	8.03
Trout Hall ...	8.10	1.86	11	16	...
Cave Valley ...	10.60	2.80	22	20	9.66
Greenock ...	10.84	2.94	22	20	...
Means ...	5.89	...	...	...	...
WEST-CENTRAL DIVISION.					
Whitney ...	10.77	3.90	9	5	...
Mocho, Clarendon ...	6.60	2.30	9	8	...
Bailliestou ...	5.75	0.93	18	14	10.41
Brokenhurst ...	...	...	...	...	...
Christiana ...	...	...	...	...	...
Chudleigh ...	10.63	1.80	26	20	...
Shooter's Hill ...	9.70	2.10	26	16	...
Spitzbergen ...	10.51	2.34	26	19	...
Kendal, Manchester ...	10.20	2.29	26	13	10.16
Marshalls Pen ...	11.74	3.15	26	16	10.01
Mandeville ...	11.93	3.76	26	15	11.17
Carlton, Mandeville ...	10.01	2.54	26	19	...
The Hill ...	11.08	1.97	26	15	...
Fairfield, Manchester ...	8.49	1.66	9	19	7.87
Ulster Spring ...	10.83	2.85	10	13	11.61
Freeman's Hall ...	13.36	3.20	10	17	...
Albert Town ...	13.65	2.35	10	18	...
Low River ...	7.51	2.30	10	13	...
Troy ...	10.24	1.33	11	14	17.69
Windsor Pen, Trel. ...	9.41	2.66	19	16	10.96
Wallingford ...	14.33	4.31	10	16	...
Balaclava Police Station ...	9.63	2.00	10	19	14.41
Siloah ...	14.87	3.50	10	14	...
Santa Cruz ...	8.62	2.25	12	12	12.81
Appleton Estate ...	10.44	2.18	10	20	13.02
Maggotty ...	12.99	2.10	10	19	14.85
Butlers ...	16.20	2.45	10	19	...
Spring Vale ...	11.08	2.10	29	14	...
Y.S. ...	...	...	...	...	...
Garland ...	7.43	1.00	21	16	...
Mocho, Catadupa ...	7.27	1.34	10	11	...
Springfield, St. Eliz. ...	9.35	1.33	13	11	...
Catadupa Rly. Station ...	11.38	1.90	22	17	...
Kempshot ...	7.74	1.45	20	14	10.37
Cambridge ...	...	...	...	...	...
Hazelymph ...	9.06	1.52	10	15	12.02
New Market ...	7.59	1.47	4	14	...
The Bog ...	10.57	2.47	18	13	...
Kew Park ...	9.53	1.98	17	18	12.91
Montpelier ...	...	...	...	...	...
Knockalva ...	10.51	2.73	20	15	...
Ramble ...	16.86	4.10	20	21	...
Petersville ...	4.69	0.93	19	16	12.19
Darliston ...	11.70	2.16	18	16	16.91
Whithorn ...	13.70	2.30	20	16	14.88
Water Works ...	8.90	1.45	20	12	...
Great Valley, Han.* ...	10.23	4.20	20	10	14.22
Brownsville ...	...	...	...	...	...
Prospect Park ...	12.84	1.62	19	20	...
Fort William ...	...	...	...	...	...
George's Plain ...	...	...	...	...	...
Fontabelle, Westm. ...	9.26	1.40	17	13	9.36
Belleisle ...	8.47	1.60	17	11	11.51
Morgan's Bridge ...	9.08	2.82	20	12	12.36
Glasgow Estate ...	...	...	...	...	...
King's Vale Police St. ...	15.17	4.48	20	13	9.76
Means ...	9.95	...	...	...	...

* Gauge overflowed on the 20th.

SOUTHERN DIVISION.	MAY, 1913. Total fall.	Greatest fall in 24 hours. Amount.	Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Morant Point L. H. ...	4.50	0.76	16	21	10.76
East Prospect ...	6.07	1.26	26	22	...
Morant Bay ...	6.22	1.16	9	22	...
Easington ...	2.90	0.68	9	14	6.33
Bull Bay ...	0.89	0.30	12	5	4.13
Bellevue ...	...	...	...	...	...
Gordon Town ...	4.20	1.75	9	7	8.23
Hope Gardens ...	5.16	...	...	...	6.38
King's House Gardens ...	7.45	2.55	9	13	7.32
Melrose ...	6.45	2.08	11	7	...
Halfway Tree ...	6.46	3.00	11	6	4.87
Lunatic Asylum ...	2.18	1.12	9	9	3.57
Kingston S. Camp Road ...	3.94	1.20	9	11	...
" Parade Gard. ...	1.64	0.85	...	4	...
" P. W. Office ...	3.05	1.48	9	9	4.63
Plumb Point L. H. ...	2.43	1.01	11	8	4.80
Quarantine Station ...	2.74	1.92	9	5	...
Spanish Town ...	6.53	3.41	9	10	5.77
Hog Hole Pen ...	5.55	2.80	9	6	6.79
Hartlands ...	6.03	3.82	9	7	...
Belmont, Guanaboa Vale	8.00	2.25	9	15	...
Old Harbour ...	2.33	1.28	10	4	5.78
May Pen ...	6.68	2.08	12	7	6.84
Hillside Estate ...	...	...	...	...	...
Amity Hall ...	...	...	...	...	...
Money Musk ...	...	...	...	...	...
Dunkley's, Vere ...	6.47	2.05	26	5	4.50
Dry River " ...	5.85	1.54	9	9	...
Denbigh ...	6.15	2.20	12	6	7.61
Toll Gate ...	...	...	...	...	...
Woodleigh ...	6.50	2.00	12	6	...
New Yarmouth ...	6.47	2.18	26	6	4.86
Exeter, Vere ...	6.49	1.85	9	12	...
Rhymesbury ...	7.09	2.47	26	10	5.89
Milk River ...	6.54	2.00	27	7	5.84
Clarendon Pk. Ry. St. ...	7.25	2.75	9	9	...
Victoria Town ...	6.08	2.26	26	6	9.18
Stone's Hope ...	6.94	1.81	9	9	9.30
Newport, Manchester ...	9.99	2.19	9	19	8.37
Great Valley, Man. ...	7.11	1.85	9	16	6.99
Alligator Pond ...	2.46	1.02	9	7	5.86
Southfield ...	3.44	0.91	18	8	...
Lititz ...	6.16	0.82	9	11	...
Long Hill ...	10.54	2.59	13	13	10.24
Bethlehem, St. Eliz. ...	9.17	2.62	1	13	7.64
Torrington ...	5.74	2.05	1	11	6.76
Pedro Plains ...	2.06	0.77	4	7	4.12
Black River ...	2.72	1.00	17	7	7.42
Font Hill ...	2.30	0.50	19	6	8.84
Mount Edgecombe ...	4.84	1.83	19	16	8.23
Bluefields ...	10.17	3.53	22	12	...
Sweet River ...	9.42	1.05	3	12	9.81
Windsor, Sav.-la-mar ...	6.21	1.17	19	16	9.46
Orchard, Sav.-la-mar ...	7.71	1.66	20	14	...
Sav.-la-mar ...	4.83	1.14	20	13	9.29
Retreat ...	5.47	1.85	16	9	9.09
White Hall ...	5.94	2.67	19	10	...
Negril Point L.H. ...	3.82	0.93	21	9	5.88
Means ...	5.32	...	...	...	...

NOTES.

Comparative Table of Rainfall.

(Based upon the "Average" Stations only.)

—	May. 1913.	May. Average.
	In.	In.
North-Eastern Division ...	11.10	10.82
Northern ...	5.89	7.07
West-Central ...	9.95	12.49
Southern ...	5.32	6.94
The Island ...	8.06	9.33

The heaviest rainfall, 43.60 inches, was recorded at Windsor, in the parish of Portland; and the smallest was 0.89 at Bull Bay. As these average rainfalls followed those of April, which were above the average, each division has had its proper share of rain for these two months.

Rainfall at Grand Cayman. April, 1913.	Total Fall.	Greatest fall. Amount.	Greatest fall. Date.	No. of days on which 0.01 or more fell.
	In.	In.		
East End ...	1.85	1.29	13	4
Bodden Town ...	2.42	1.30	14	7
George Town ...	..	..	..	..

Shocks of Earthquake in May, 1913.

Date.	Mean time.	Intensity.	Notes: where felt, etc.
	hr. min.		
	None recorded.		

Plumb Point Light House—

Average No. of Miles of wind per diem	198
Greatest on the 23nd	401
Least on the 1st, 4th and 11th	80

The Weather Office,
Halfway Tree P.O.

MAXWELL HALL,
Govt. Meteorologist.

No. 418.

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JAMAICA

WEATHER REPORT

FOR THE MONTH OF

JUNE, 1913.

The Bar-pressures at all the Stations except the Hill Gardens, are reduced to the standards of Kew, 32°, gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

Stations.	Elevation.	Bar Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range.
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	29.988	29.968	79.9	82.0	83.9	76.3	7.6	85.0	13*	73.0	25	20.0
Kingston ..	24	29.957	29.923	77.4	84.7	88.4	73.2	15.2	90.7	23	70.8	5	19.9
Negril Point Light House ..	33	29.957	29.941	78.5	83.2	86.0	72.5	13.5	88.4	27	69.8	7	18.6
Castleton Gardens ..	496	..	..	69.4	84.4	88.0	66.8	21.2	93.0	23	65.0	7*	28.0
Hope Gardens† ..	668	29.976	29.917	75.3	85.0	87.8	69.0	18.8	91.0	7	67.0	6*	24.0
Stony Hill Reformatory ..	1,400	..	..	70.7	81.5	83.6	65.2	18.4	88.7	23	63.6	1	25.1
Hill Gardens ..	4,900	25.302	25.279	63.1	64.3	68.7	56.7	12.0	72.0	27	55.0	5	17.0

Stations.	Elevation.	Dew Point and Humidity.				Rainfall.	Wind per diem.	Wind: (direction from and miles per hour.)				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
	ft.	°		°		in.	miles		m.		m.	L.	M.	U.	L.	M.	U.
Morant Pt. Light House ..	8	73.8	82	75.3	80	1.77	365	ESE	13	ESE	16	1.4	2.1	2.9	1.6	2.0	2.4
Kingston ..	24	69.2	76	71.0	64	0.48	274	E	6.6	SE	18	1.8	1.8	1.9	2.9	1.0	3.6
Negril Point Light House‡ ..	33	69.5	74	72.3	70	1.34	204	ESE	6.9	SE	11	5.3	0.7	1.8	6.7	3.1	0.0
Castleton Gardens ..	496	67.6	96	71.9	67	0.75	..	..	..	..	..	..	..	..	..	..	
Hope Gardens ..	668	65.8	73	75.4	72	0.95	..	..	..	..	..	..	..	..	..	..	..
Stony Hill Reformatory ..	1,400	66.7	87	70.6	69	0.63	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	60.0	89	61.9	93	2.31	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
‡ Negril Point Light House. Wind 11 p.m. E. 6.4
Morant Point Light house, Max. miles of Wind per diem 470 on 4th.

RAINFALL FOR JUNE, 1913.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month, according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	JUNE, 1913.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount	Date.		
	In.	In.			In.
Manchioneal ...	7.95	2.10	30	10	10.20
Ecclesdown ...	14.77	4.80	30	10	...
Spring Valley .	9.18	2.80	30	13	.
Bath ...	8.95	3.30	30	23	13.29
Boston ..	3.00	1.10	3	5	16.35
Moore Town ...	18.56	...	...	...	25.57
Port Antonio ...	13.08	2.90	23	19	17.96
Fellowship ...	15.36	4.32	30	22	22.43
Windsor, Portland ...	18.10	4.48	30	18	...
Johnson River Bridge ...	8.57	1.61	30	24	19.17
Shrewsbury ...	5.23	1.83	30	10	..
Cedar Valley, St. Thos. ...	6.03	2.10	30	6	19.90
Hope Bay ...	8.10	2.85	30	14	...
Moy Hall, St. Thos. ...	3.66	2.00	25	14	13.82
Lennox ...	7.88	3.15	30	10	..
Hill Gardens ...	2.31	...	...	...	8.11
Buff Bay ...	4.50	1.33	30	7	7.50
Vinery ...	2.96	0.93	30	7	...
Windsor Castle, Port. ...	4.32	1.67	30	3	..
Greenvale, Portland ...	0.36	0.21	17	2	...
Mt. Holstein ...	2.06	0.69	30	10	8.16
Irish Town ..	0.00	...	...	...	...
Rose Hill ...	...	...	...	...	...
Hardware Gap ...	2.50	...	...	...	7.86
Stony Hill Reform. ...	0.63	0.32	30	6	7.47
Castleton Gardens ...	0.75	...	...	...	9.93
Lawrence Tavern ...	2.27	0.60	30	6	7.48
Cedar Valley ...	0.51	0.51	30	1	...
Carew Castle ...	4.90	1.60	8	7	10.47
Agualta Vale ...	3.28	1.90	16	6	...
Water Valley ...	2.45	0.90	30	17	6.01
Albany, Ry. Station ..	3.08	0.98	16	7	...
Platfield ...	5.72	2.75	16	7	...
Richmond, St. Mary ..	1.93	0.65	16	6	5.93
Hampstead, St. Mary ...	3.02	1.26	16	4	...
Kendal, St. Mary ...	2.20	0.52	3	6	...
Lucky Hill ...	3.83	2.00	16	7	...
Rio Hoe ...	6.43	1.40	10	12	9.11
Unity Valley ...	5.78	1.35	15	15	8.56
Moneague ...	6.95	2.50	2	17	8.34
Claremont ...	...	...	...	...	...
Albion, St. Ann ...	3.36	...	15	15	6.97
Averham Park ...	4.81	0.87	16	11	6.31
Means ..	5.70	...	...	...	...

NORTHERN DIVISION.	JUNE, 1913.				
	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	In.	In.			
Port Maria ...	5.25	1.06	30	14	5.53
Ocho Rios ...	1.75	0.45	20	8	5.20
Bogue, Ocho Rios ...	3.35	1.05	16	7	...
Arthurs Seat ...	...	...	...	..	...
Drax Hall ...	2.40	0.50	24	9	5.16
Liberty Hill ...	...	...	...	...	...
St. Ann's Bay ...	...	...	...	...	...
Seville ...	4.06	1.75	10	13	4.90
Richmond Estate ...	3.56	2.00	10	10	5.04
Llandovery ...	3.10	1.90	10	7	4.53
Southfield, St. Ann ...	0.69	0.33	1	6	6.13
Runaway Bay ...	1.40	...	...	5	...
Brown's Town ...	1.22	0.32	15	5	4.74
Hyde Park ...	...	...	...	...	...
Dry Harbour ...	...	...	...	...	...
Chewmagna, St. Ann ...	0.92	0.25	19	7	7.92
Home Castle ...	1.40	0.35	16	6	4.48
Richmond Pen ...	...	...	...	...	...
Mahogany Hall ...	...	...	...	...	...
Barnstaple ...	4.58	2.20	16	9	...
Brampton Bryan ...	3.77	1.05	16	6	3.71
Bryan Castle ...	3.72	0.90	3	13	3.63
Braco ...	3.50	0.95	3	10	3.26
Arcadia ...	3.68	1.59	16	9	4.46
Lancaster ...	2.16	1.00	16	10	3.54
Harmony Hall ...	2.36	1.02	16	10	3.03
Vale Royal ...	3.91	1.40	16	7	4.69
Colchis Pen ...	2.68	1.40	16	6	5.11
Swanswick ...	4.58	2.20	16	9	...
Hyde ...	...	...	...	...	...
Georgia ...	...	...	...	...	...
Long Pond ...	2.20	1.38	16	4	5.11
Hyde Hall ...	3.02	1.79	16	7	5.24
Steelfield ...	2.07	1.55	16	3	4.40
Etingdon ...	1.27	1.02	16	3	4.54
Oxford ...	...	...	...	...	...
Cambridge, Trelawny ...	...	...	...	...	...
Lottery ...	2.10	1.05	16	6	4.14
Falmouth ...	...	...	...	...	...
Florence Hall ...	1.86	0.46	9	...	...
Holland Pen ...	...	...	...	..	...
Dromilly ...	...	...	...	...	...
Kent ...	1.70	0.45	15	5	3.73
Gales Valley ...	4.53	1.37	29	7	6.78
Canaan ...	...	...	...	...	...
Content ...	...	...	...	...	...
Bellfield ...	2.98	0.98	1	9	...
Hampden ...	...	...	...	...	...
Moor Park ...	3.47	1.25	9	10	...
Success ...	...	...	...	...	...
Guilsbro ...	...	...	...	...	...
Cinnamon Hill ...	...	...	...	...	...
Rose Hall ...	...	...	...	...	...
Running Gut ...	...	...	...	...	...
Spring ...	...	...	...	...	...
Montego Bay ...	5.18	2.25	7	13	7.19
Catherine Hall ...	...	...	...	...	...
King Gate ...	5.39	1.50	15	13	9.92
Round Hill ...	5.60	0.75	...	11	6.35
Sandy Bay ...	...	...	...	...	...
Haughton Court ...	8.37	1.54	15	14	...
Lucea ...	7.70	2.00	15	10	8.76
Westfield ...	...	...	...	...	...

CENTRAL SUB-DIVISION.	JUNE, 1913. Total Fall.	Greatest fall in 24 hours. Amount.	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Rio Magno ...	...	...	...	...	...
Headworks, Rio Cobre ...	0.60	0.60	30	1	6.16
Linstead ...	7.61	2.65	8	12	8.59
Berkshire Hall ...	5.54	2.25	29	18	...
Point Hill ...	3.34	0.71	30	9	11.26
Brown's Hall .	1.52	0.80	30	3	12.60
Carew Castle ...	...	...	...	...	...
Worthy Park ...	4.92	1.19	15	8	7.19
Crofts Hill ...	...	...	...	...	...
Chapelton ...	2.49	1.53	30	4	7.56
Danks Works ...	2.22	0.78	19	7	8.05
Savoy House ...	2.63	1.22	19	9	9.18
Trout Hall ...	1.83	0.73	19	5	...
Cave Valley ..	7.70	2.40	15	20	7.80
Greenock ...	8.05	2.55	15	20	...
Means ...	3.24	...	...	...	...
WEST-CENTRAL DIVISION.					
Whitney ...	2.60	1.05	19	6	...
Mocho, Clarendon ...	2.10	1.30	19	3	...
Baillieston ...	1.88	0.53	19	6	10.06
Brokenhurst ...	...	...	...	...	...
Christiana ...	...	...	...	...	...
Chudleigh ...	1.61	0.52	29	6	...
Shooter's Hill ...	2.20	0.78	19	11	...
Spitzbergen ...	1.51	0.43	19	8	...
Kendal, Manchester ...	2.02	0.77	20	5	10.21
Marshalls Pen ...	2.89	0.95	24	6	8.39
Mandeville ...	3.65	1.01	24	9	10.07
Carlton, Mandeville ...	2.51	0.66	30	6	...
The Hill ...	2.85	0.60	30	7	...
Fairfield, Manchester ...	1.57	0.49	28	9	9.08
Ulster Spring ...	0.40	0.40	15	1	...
Freeman's Hall ...	0.55	0.55	27	1	...
Albert Town ...	0.80	0.40	15	3	...
Low River ...	...	...	...	...	...
Troy ...	0.60	0.60	1	1	7.77
Windsor Pen, Trel. ...	2.41	1.10	15	9	9.45
Wallingford ...	0.0	...	..	..	..
Balaclava Police Station ...	0.0	...	...	...	4.98
Siloah ...	0.40	0.40	9	1	...
Appleton Estate ...	0.35	0.27	9	3	7.20
Maggotty ...	1.02	0.66	10	6	6.35
Butlers ...	9.35	2.45	6	11	...
Deeside ...	10.29	1.99	17	14	...
Spring Vale ...	16.49	4.50	16	12	11.31
Y.S. ...	...	...	...	...	...
Garland ...	7.58	2.68	6	10	...
Mocho, Catadupa ...	5.75	1.55	13	7	...
Springfield, St. Eliz. ...	2.13	1.05	8	6	...
Catadupa Rly. Station ...	10.71	3.40	16	15	...
Kempshot ...	4.20	1.35	29	13	9.29
Cambridge St. James ...	6.59	1.86	15	13	...
Hazelymph ...	6.29	2.05	15	15	9.74
New Market ...	3.24	2.11	8	5	...
The Bog ...	3.09	1.25	9	7	...
Kew Park ...	7.81	2.11	27	14	9.56
Montpelier ...	...	..	..	...	..
Knockalva ..	4.39	1.38	27	14	...
Ramble ...	6.71	1.23	15	13	...
Petersville ...	2.21	0.95	16	9	8.54
Darliston ...	7.08	2.56	15	10	10.38
Whithorn ...	...	...	...	...	...
Water Works ...	3.61	0.65	9	9	...
Great Valley, Han. ...	13.41	3.00	15	12	12.95
Brownsville ...	...	...	...	...	...
Prospect Park ...	5.41	1.33	15	15	...
Fort William ...	...	...	...	...	...
George's Plain ...	...	...	...	...	...
Fontabelle, Westm. ...	4.96	1.34	15	12	11.19
Belleisle ...	3.96	1.30	15	10	10.47
Morgan's Bridge ...	...	...	...	...	...
Glasgow Estate ...	...	...	...	..	..
King's Vale Police St. ...	13.10	2.04	26	14	11.37
Means ...	4.39	...	...	...	...

SOUTHERN DIVISION.	JUNE, 1913. Total fall.	Greatest fall in 24 hours. Amount.	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Morant Point L. H. ...	1.77	0.46	24	15	7.12
East Prospect ...	6.09	2.20	30	16	...
Morant Bay ...	3.19	0.70	30	14	10.19
Easington ...	2.78	0.73	30	16	10.28
Bull Bay ...	0.96	0.36	30	4	5.41
Bellevue ...	...	...	...	...	..
Gordon Town ...	1.18	0.66	30	3	5.88
Hope Gardens ...	0.95	...	...	...	5.55
King's House Gardens ...	..	...	...	...	...
Melrose ...	0.03	0.03	30	1	...
Halfway Tree ...	1.00	1.00	30	1	4.58
Lunatic Asylum ...	1.54	1.02	30	4	5.90
Parade Gardens ...	...	...	...	...	...
Kingston S. Camp Road ...	1.45	0.87	30	4	..
" P. W. Office ...	1.38	0.90	30	4	4.38
Plumb Point L. H. ...	1.60	1.31	30	4	4.65
Quarantine Station ...	1.27	1.03	30	3	...
Spanish Town ...	0.74	0.70	30	3	5.24
Hog Hole Pen ...	0.71	0.71	30	1	5.81
Hartlands ...	2.13	1.90	30	3	...
Belmont, Guanaboa Vale	0.42	0.16	8	6	...
Old Harbour ...	2.70	2.50	30	3	7.68
May Pen ...	1.73	1.19	30	6	7.66
Hillside Estate ...	...	...	...	...	...
Amity Hall ...	...	...	...	...	...
Money Musk ...	...	...	...	...	...
Dunkley's, Vere ...	3.32	1.51	30	6	11.05
Dry River " ...	3.16	1.50	30	9	...
Denbigh ...	1.30	0.80	30	2	6.01
Woodleigh ...	1.20	1.00	30	2	...
New Yarmouth ...	3.06	1.46	30	6	7.16
Exeter, Vere ...	2.93	1.88	30	8	...
Rhymesbury ...	1.96	1.07	30	8	10.58
Milk River ...	1.95	1.00	23	5	10.55
Clarendon Pk. Ry. St. ...	1.43	0.57	30	5	...
Victoria Town ...	2.44	0.88	30	5	8.63
Stone's Hope ...	2.17	0.97	23	6	10.18
Newport, Manchester ...	3.24	0.98	23	9	10.62
Great Valley, Man. ...	2.22	0.77	30	7	8.10
Alligator Pond ...	1.03	..	...	3	6.00
Southfield ...	...	..	...	...	...
Lititz ...	0.15	0.15	24	1	...
Long Hill ...	...	..	...	...	...
Torrington ...	0.80	0.80	30	1	...
Bethlehem, St. Eliz. ...	0.64	0.35	23	5	5.26
Santa Cruz ...	0.50	0.26	30	2	...
Pedro Plains ...	0.38	0.20	1	3	4.30
Black River ...	0.63	0.19	1	4	4.02
Font Hill ...	0.40	0.20	24	2	6.08
Mount Edgecombe ...	2.35	0.75	15	9	6.82
Bluefields ...	4.49	1.30	16	6	...
Sweet River ...	3.28	1.05	29	6	7.37
Windsor, Sav.-la-mar ...	4.34	0.81	7	16	6.72
Orchard ...	3.86	0.57	7	15	..
Sav.-la-mar ...	...	..	...	...	...
Retreat ...	6.27	3.12	5	8	7.95
White Hall ...	2.05	0.60	6	8	...
Negril Point L.H. ...	1.34	0.28	5	13	6.26
Means ...	1.89	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.

(Based upon the "Average" Stations only.)

—	June. 1913.	June. Average.
	In.	In.
North-Eastern Division ...	5.70	10.75
Northern ...	3.24	5.74
West-Central ...	4.39	9.48
Southern ...	1.89	6.93
The Island ...	3.80	8.22

The heaviest rainfall, 18.56 inches, was recorded at Moore Town in the parish of Portland; and no rain fell at Irish Town, Wallingford and Balaclava.

Rainfall at Grand Cayman. May, 1913.	Total Fall.	Greatest fall. Amount.	Greatest fall. Date.	No. of days on which 0.01 or more fell.
	In.	In.		
East End ...	1.76	0.49	21	7
Bodden Town ...	0.89	0.34	28	4
George Town ...	..	..	..	..
June, 1913.				
East End ...	...	....	...	...
Bodden Town ...	6.49	1.20	21	10
George Town ...	...	...	...	...

SHOCKS OF EARTHQUAKE IN JUNE, 1913.

Date.	Mean time.	Intensity.	Notes: where felt, etc.
	hr. min.		
	None recorded.		

PLUMB POINT LIGHT HOUSE—

Average No. of Miles of wind per diem	404
Greatest on the 28th	568
Least on the 1st	234

The Weather Office,
Halfway Tree P.O.

MAXWELL HALL,
Govt. Meteorologist.

No. 419.

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JAMAICA

WEATHER REPORT

FOR THE MONTH OF

JULY, 1913.

The Bar-pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32°, gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

Stations.	Elevation.	Bar Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range.
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	30.002	29.997	79.9	82.8	84.7	76.3	8.4	86.0	27	71.0	4	15.0
Kingston ..	24	29.990	29.951	76.4	84.9	89.7	72.3	17.4	92.9	24	68.1	4	24.8
Negril Point Light House ..	33	30.000	29.978	78.7	82.7	83.8	71.9	14.9	89.5	23	67.9	9	21.6
Castleton Gardens ..	496	..	..	68.6	84.8	89.7	66.4	23.3	93.	10*	63.	4*	30
Hope Gardens† ..	668	29.99	29.93	74.4	85.9	89.8	68.9	20.9	94.	11*	65.	3	29.
Stony Hill Indus. School ..	1.400	..	..	70.7	82.2	85.8	65.9	10.9	92.	12	64.	3	28.
Hill Gardens ..	4,900	25.326	25.310	64.	65.	71.	53.	18.	76.	12*	55.	19	21.

Stations	Elevation.	Dew Point and Humidity.				Rainfall.	Wind per diem.	Wind: (direction from and miles per hour.)				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
	ft.	°		°		in	miles		m.		m.	L.	M.	U.	L.	M.	U.
Morant Pt. Light House ..	8	71.7	76	75.0	77	3.46	316	E	9	E	14	1.2	2.2	2.6	0.2	2.1	2.5
Kingston ..	24	67.9	75	71.7	65	0.92	233	NNE	5	SE	19	1.3	0.8	2.1	2.6	0.8	3.6
Negril Point Light House‡ ..	33	70.8	77	74.1	75	4.55	179	E	8	ESE	9	1.9	1.0	1.7	4.2	5.3	0.0
Castleton Gardens ..	496	65.4	81	71.4	63	5.27	..	..	..	..	..	..	..	..	..	..	
Hope Gardens ..	668	64.9	70	67.9	55	0.69	..	..	..	..	..	..	..	..	..	..	..
Stony Hill Indus. School ..	1,400	67.6	89	68.6	63	3.35	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	58.4	80	61.4	86	6.23	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar read at 9 a.m. and 3 p.m.
‡ Negril Point Light House. Wind 11 p.m. E. by N. 6.9
Morant Point Light house, Max. miles of Wind per diem 424 on 22nd.

RAINFALL FOR JULY, 1913.

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The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	JULY, 1913.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount	Date.		
	In.	In.			In.
Manchioneal ...	3.37	0.62	16	12	6.46
Ecclesdown ...	18.14	6.50	4	14	...
Spring Valley .	5.13	1.14	19	8	.
Bath ...	5.28	1.00	19	19	9.66
Boston ...	1.75	1.00	19	3	7.34
Moore Town ...	10.50	...	...	...	20.23
Port Antonio ...	7.43	3.06	19	14	11.60
Fellowship ...	6.60	1.70	19	19	16.64
Windsor, Portland ...	9.46	2.28	4	15	...
Johnson River Bridge ...	3.08	0.68	19	16	7.71
Shrewsbury ...	3.48	0.80	15	10	..
Cedar Valley, St. Thos. ...	2.36	1.20	18	5	4.85
Hope Bay ...	5.60	1.65	19	17	...
Moy Hall, St. Thos. ...	5.10	1.71	19	9	5.53
Lennox ...	4.78	1.30	15	12	..
Hill Gardens ...	6.23	...	...	...	3.76
Buff Bay ...	3.41	1.24	23	7	7.37
Vinery ...	1.38	0.80	15	4	...
Windsor Castle, Port. ...	1.49	0.85	15	5	..
Greenvale, Portland ...	2.39	1.00	18	6	...
Mt. Holstein ...	3.88	1.99	18	9	3.35
Irish Town ..	3.28	1.44	16	6	...
Rose Hill ...	..	..	...	...	...
Hardware Gap ...	6.03	...	...	...	...
Stony Hill Ind. School ...	3.35	1.15	16	9	5.39
Castleton Gardens ...	5.27	...	...	...	6.16
Lawrence Tavern ...	8.55	3.50	18	7	...
Cedar Valley, Red Hills ...	3.62	1.41	27	7	...
Carew Castle ...	3.26	1.25	20	12	...
Agualta Vale ...	1.84	0.46	15	8	...
Water Valley ...	2.34	0.60	27	7	3.46
Albany, Ry. Station ..	2.38	0.59	27	9	...
Platfield ...	1.85	0.62	3	7	...
Richmond, St. Mary ..	1.06	0.34	18	5	3.68
Hampstead, St. Mary ...	1.28	0.47	26	7	...
Kendal, St. Mary ...	1.90	1.38	3	5	...
Lucky Hill ...	1.71	0.65	4	5	...
Rio Hoe ...	4.03	2.08	3	7	4.29
Unity Valley ...	4.85	1.11	2	8	5.92
Moneague ...	3.45	1.05	28	8	4.73
Claremont ...	2.35	0.58	3	7	3.43
Albion, St. Ann ...	4.23	1.32	3	11	4.24
Averham Park ...	1.81	0.50	28	7	3.38
Means ...	4.17	...	...	...	...

NORTHERN DIVISION.	JULY, 1913.				
	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	In.	In.			
Port Maria ...	2.63	0.87	3	9	4.19
Ocho Rios ...	1.68	0.45	29	9	2.34
Bogue, Ocho Rios ...	2.84	0.68	25	7	...
Drax Hall ...	1.77	0.45	19	11	2.96
Liberty Hill ...	...	...	...	...	...
St. Ann's Bay ...	3.26	1.10	1	10	2.96
Seville ...	3.12	1.14	19	11	2.31
Richmond Estate ...	1.86	0.75	19	8	2.24
Llandovery ...	0.85	0.85	19	1	2.03
Southfield, St. Ann ...	...	...	...	...	...
Runaway Bay ...	1.28	0.50	28	4	...
Brown's Town ...	...	...	...	...	...
Hyde Park ...	...	...	...	...	...
Dry Harbour ...	...	...	...	...	...
Chewmagna, St. Ann ...	5.75	1.50	26	9	3.07
Home Castle ...	2.15	1.05	29	4	2.16
Richmond Pen ...	...	...	..	...	...
Mahogany Hall ...	2.41	1.10	29	5	4.35
Barnstaple ...	3.35	1.20	28	6	...
Brampton Bryan ...	1.79	0.72	28	5	2.18
Bryan Castle ...	0.86	0.44	29	6	1.81
Braco ...	0.75	0.35	28	5	1.69
Arcadia ...	0.34	0.19	28	2	2.00
Lancaster ...	0.79	0.35	27	4	1.99
Harmony Hall ...	0.83	0.27	28	8	1.56
Vale Royal ...	0.71	0.37	28	3	2.87
Colchis Pen ...	1.28	0.60	16	4	1.28
Swanswick ...	2.65	1.00	29	7	...
Hyde ...	...	...	...	...	...
Georgia ...	...	...	...	...	...
Long Pond ...	2.71	1.07	23	8	3.05
Hyde Hall ...	4.02	1.55	28	9	2.90
Steelfield ...	1.76	1.08	23	4	2.89
Etingdon ...	1.85	0.63	17	5	1.63
Oxford ...	..	...	...	...	...
Cambridge, Trelawny ...	...	...	...	...	...
Lottery ...	2.20	0.95	23	6	2.33
Falmouth ...	2.34	2.07	28	3	1.64
Florence Hall ...	1.90	1.45	28	3	...
Holland Pen ...	...	...	...	..	...
Kent ...	...	...	...	...	...
Gales Valley ...	1.38	0.60	17	3	4.16
Canaan ...	...	...	...	...	...
Content ...	3.35	0.90	16	8	2.00
Bellfield ...	2.10	0.46	28	8	...
Hampden ...	...	...	...	...	...
Moor Park ...	3.05	0.75	3	6	...
Success ...	...	...	...	...	...
Guilsbro ...	...	...	...	...	...
Cinnamon Hill ...	...	...	...	...	...
Rose Hall ...	...	...	...	...	...
Running Gut ...	...	...	...	...	...
Spring ...	...	...	...	...	...
Montego Bay ...	5.66	2.45	28	6	...
Catherine Hall ...	...	...	...	...	...
King Gate ...	5.77	1.88	28	10	...
Round Hill ...	5.75	1.00	...	12	...
Sandy Bay ...	4.94	2.26	4	9	5.44
Haughton Court ...	6.26	1.65	4	9	...
Lucea ...	...	...	...	...	...
Westfield ...	...	...	...	...	...

CENTRAL SUB-DIVISION.	JULY, 1913. Total Fall.	Greatest fall in 24 hours. Amount.	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Rio Magno ...	...	...	...	...	...
Headworks, Rio Cobre ...	2.22	0.90	24	6	3.70
Linstead ...	5.70	0.15	31	10	5.93
Berkshire Hall ...	6.45	1.10	27	14	...
Point Hill ...	6.73	1.76	17	14	6.57
Brown's Hall ...	3.69	0.60	15	11	4.66
Worthy Park ...	4.07	0.80	19	12	4.34
Crofts Hill ...	...	...	...	...	...
Chapelton ...	1.67	0.55	17	5	3.65
Danks Works ...	4.03	1.52	17	12	3.48
Savoy House ...	3.80	1.06	17	12	3.15
Trout Hall ...	5.49	1.48	19	9	...
Cave Valley ...	...	...	...	...	...
Greenock ...	...	...	...	...	...
Means ...	2.63	...	...	...	...
WEST-CENTRAL DIVISION.					
Whitney ...	...	...	...	...	...
Mocho, Clarendon ...	4.70	0.70	1	8	...
Baillieston ...	6.35	1.80	18	11	4.49
Brokenhurst ...	1.97	0.80	27	5	6.00
Christiana ...	...	...	...	...	...
Chudleigh ...	5.60	2.55	17	17	...
Shooter's Hill ...	5.82	1.48	30	15	...
Spitzbergen ...	5.62	1.80	7	17	...
Kendal, Manchester ...	5.39	1.10	30	17	5.45
Marshalls Pen ...	...	...	...	...	...
Mandeville ...	2.65	0.45	2	13	5.91
Carlton, Mandeville ...	2.61	0.80	1	14	...
The Hill ...	2.15	0.47	13	9	...
Fairfield, Manchester ...	2.43	0.73	1	14	3.05
Ulster Spring ...	6.15	1.11	18	11	4.45
Freeman's Hall ...	5.96	1.50	18	9	...
Albert Town ...	5.51	1.46	19	12	...
Low River ...	6.49	3.07	16	9	...
Troy ...	6.21	1.50	30	8	7.11
Windsor Pen, Trel. ...	8.46	1.50	19	16	6.65
Wallingford ...	12.33	4.65	27	12	..
Balaclava Police Station ...	9.81	2.79	18	11	4.71
Siloah ...	10.90	3.10	17	10	...
Appleton Estate ...	5.09	1.90	17	14	7.24
Maggotty ...	9.96	2.50	26	16	8.15
Butlers ...	16.60	2.45	17	17	...
Deeside ...	8.23	1.80	16	13	...
Spring Vale ...	10.92	3.32	28	13	8.33
Y.S. ...	...	...	...	...	...
Garland ...	...	...	...	...	...
Mocho, Catadupa ...	10.71	2.15	19	22	...
Springfield, St. Eliz. ...	8.90	1.71	31	16	...
Catadupa Rly. Station ...	9.23	1.79	8	20	...
Kempshot ...	4.49	1.30	28	16	6.21
Cambridge St. James ...	11.79	3.10	16	20	...
Hazelymph ...	10.13	1.30	19	17	9.18
New Market, Police St. ...	6.94	2.43	28	12	...
The Bog ...	10.29	2.56	28	18	...
Kew Park ...	11.90	1.55	6	20	10.33
Montpelier ...	...	..	...	...	..
Knockalva ...	8.43	1.35	3	22	...
Ramble ...	12.67	1.50	16	21	...
Petersville ...	8.39	1.43	31	13	7.17
Darliston ...	13.13	1.68	31	24	11.87
Whithorn ...	17.96	2.60	26	24	10.73
Water Works ...	18.05	3.75	26	21	...
Great Valley, Han. ...	9.50	2.90	3	10	10.24
Brownsville ...	...	...	...	...	...
Prospect Park ...	14.10	1.94	3	23	...
Fort William ...	...	...	...	...	...
George's Plain ...	...	...	...	...	...
Fontabelle, Westm. ...	13.14	2.41	28	19	9.00
Belleisle ...	11.45	1.68	28	20	9.00
Morgan's Bridge ...	12.88	2.50	3	15	11.16
Glasgow Estate ...	...	...	...	..	..
King's Vale Police St. ...	...	...	...	...	...
Means ...	8.55	...	...	...	...

SOUTHERN DIVISION.	JULY, 1913. Total fall.	Greatest fall in 24 hours. Amount.	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Morant Point L. H. ...	3.46	1.78	1	13	3.23
East Prospect ...	3.45	0.75	30	19	...
Morant Bay ...	3.16	1.18	26	19	5.80
Easington ...	1.73	0.46	27	8	6.22
Bull Bay ...	...	...	...	...	...
Bellevue ...	...	..	...	...	..
Gordon Town ...	1.90	1.00	13	3	...
Hope Gardens ...	0.69	...	...	...	2.72
King's House Gardens ...	1.23	...	...	...	...
Melrose ...	1.70	1.40	28	2	...
Halfway Tree ...	0.28	0.28	31	1	1.85
Lunatic Asylum ...	0.76	0.35	18	4	1.51
Parade Gardens ...	1.17	0.60	19	4	...
Kingston S. Camp Road ...	1.18	0.61	18	5	..
" P. W. Office ...	0.92	0.51	18	4	1.81
Plumb Point L. H. ...	0.52	0.35	3	4	1.94
Quarantine Station ...	1.20	0.67	18	3	...
Spanish Town ...	1.07	0.89	27	2	2.48
Hog Hole Pen ...	2.06	2.06	28	1	2.67
Hartlands ...	0.42	0.22	3	2	...
Belmont, Guanaboa Vale	5.51	1.13	24	11	...
Old Harbour ...	0.85	0.65	26	2	2.57
May Pen ...	1.21	0.40	2	7	3.72
Hillside Estate ...	...	...	...	...	...
Amity Hall ...	...	...	...	...	...
Money Musk ...	...	...	...	...	...
Dunkley's, Vere ...	0.75	0.75	18	1	2.32
Dry River " ...	1.34	0.90	18	5	...
Denbigh ...	0.00	...	...	...	2.99
Woodleigh ...	0.00	...	...	...	...
New Yarmouth ...	1.86	1.13	18	4	2.42
Exeter, Vere ...	0.60	0.20	25	4	...
Rhymesbury ...	0.46	0.23	1	7	2.28
Milk River ...	2.40	1.20	2	3	2.58
Clarendon Pk. Ry. St. ...	1.43	0.35	2	7	...
Victoria Town ...	0.92	0.33	1	5	2.61
Stone's Hope ...	1.73	0.85	28	5	4.30
Newport, Manchester ...	2.00	0.68	3	6	...
Great Valley, Man. ...	1.52	0.79	28	6	3.27
Alligator Pond ...	2.55	1.20	18	3	2.43
Southfield ...	2.04	1.01	1	6	...
Lititz ...	0.96	0.44	28	4	...
Long Hill ...	...	..	...	...	...
Torrington ...	1.20	0.60	28	4	2.64
Bethlehem, St. Eliz. ...	1.94	0.56	27	11	3.04
Santa Cruz ...	4.09	2.47	16	9	5.27
Pedro Plains, Police St. ...	0.29	0.24	27	2	1.48
Black River ...	5.33	2.38	16	7	4.82
Font Hill ...	3.65	0.90	26	9	5.73
Mount Edgecombe ...	6.62	1.96	2	17	6.93
Bluefields ...	11.49	1.62	23	15	...
Sweet River ...	9.23	2.50	6	13	7.52
Windsor, Sav.-la-mar ...	6.62	1.02	14	17	6.91
Orchard ...	8.21	1.06	14	17	..
Sav.-la-mar ...	5.30	1.21	13	12	5.84
Retreat ...	4.42	1.54	3	7	7.65
White Hall ...	6.63	1.19	25	18	..
Negril Point L.H. ...	4.55	0.75	25	17	5.90
Means ...	2.57	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.

(Based upon the "Average" Stations only.)

—	July. 1913.	July. Average.
	In.	In.
North-Eastern Division ...	4.17	6.28
Northern ...	2.63	3.21
West-Central ...	8.55	7.85
Southern ...	2.57	3.59
The Island ...	4.48	5.23

The heaviest rainfall, 18.14 inches, was apparently recorded at Ecclesdown in the parish of Portland; but as that rainfall is far above that of the neighbouring places it will be better to give the preference to Water Works until inquiry can be made. No rain fell at Denbigh and Woodleigh.

Rainfall at Grand Cayman. June, 1913.	Total Fall.	Greatest fall. Amount.	Greatest fall. Date.	No. of days on which 0.01 or more fell.
	In.	In.		
East End ...	...	...	...	..
Bodden Town ...	6.49	1.20	21	10
George Town ...	..	..	..	..
July, 1913.				
East End ...	4.83	3.30	1	6
Bodden Town ...	...	...	...	...
George Town ...	...	...	...	...

SHOCKS OF EARTHQUAKE IN JULY, 1913.

Date.	Mean time. hr.	Mean time. min.	Intensity.	Notes: where felt, etc.
25	10	46 a.m.	III	Kingston, N 26° E., 0·063 inches. Duration 10 sec. Mt. Holstein, NW. and SE., 0·013. Prolonged: no sound.

The shock was felt throughout the eastern end of the Island, particularly at Morant Bay. The smoked glass plate of the seismograph at Mount Holstein showed that the centre was below that place, and this accounts for the small horizontal motion there. Mr. Brennan secnred a fine record from his seismograph at the P.W.O., Kingston; and the chief direction he noted passes through Mt. Holstein, or rather through the Blue Mountain Epicentre (B), whose record is attached to this Weather Report.

PLUMB POINT LIGHT HOUSE—

Average No. of Miles of wind per diem	310
Greatest on the 22nd	498
Least on the 17th	149

The Weather Office,
Halfway Tree P.O.

MAXWELL HALL,
Govt. Meteorologist.

THE BLUE MOUNTAIN EPICENTRE.

The "Fourth Report on Earthquakes in Jamaica" was published in 1909 as No. 365 of the Weather Reports; it was then shown that there were at least three epicentres which showed remarkable periodicity among the shocks; each centre had its own period, and any interval between two successive shocks from the same epicentre was found to be a multiple of its period. The epicentres then considered were (H), the Historic epicentre some 10 or 20 miles south-east of Kingston; (S), that near Siloah and Accompong at the northern boundary of the parish of St. Elizabeth; and (P) the epicentre among the Port Royal Mountains, about 10 miles east-north-east of Kingston.

The subject has received attention from time to time, and it is now found that almost all the shocks recorded in Jamaica proceed from as many as eight periodic earthquake epicentres. It will be convenient to consider each epicentre separately in these Reports; and we shall here consider (B), the Blue Mountain epicentre, about 8 miles south of Buff Bay and Orange Bay, and near Mount Holstein.

In the Fourth Report, p. 5, reference was made to the work of Professor Houzeau who lived at Gordon Town, and who recorded twelve shocks, felt there between the year 1870 and 1873: of these shocks nine belong to the (P) epicentre or series, and the remaining three belong to the (B) epicentre or series.

The record of these shocks which occurred before the commencement of the Weather Service is given in W. R. No. 337, pp. 12 and 13: the record of the shcoks between the commencement of the Weather Service in 1880 and the Great Eearthquake of 1907, Jan., 14, is given in W. R. No. 365, pp. 10 to 14: the after-shocks are given in W. R. No. 337, pp. 16 to 18; and the shocks subsequent to the after-shocks are given in W. R. No. 365, pp. 16 to 19, to the end of May, 1909, and they are continued in the current Weather Reports.

At first there was some difficulty in separating the different series; but the following method, combined with the notes as to locality of the shocks, renders the separation comparatively easy. Taking the first recorded shock as an epoch, the intervals between the following shocks and the epoch are compared with the corresponding intervals obtained by multiplying the period by the number of periods elapsed since the epoch. In this way it will be seen that as a rule the series runs on for some years with great accuracy, then a sudden change takes place; the period may slightly change: or the difference between the observed and computed intervals may become large; or both may occur. A new series is thus started with a new epoch; and so on continually.

THE BLUE MOUNTAIN EPICENTRE (B).

Date.	Interval Observed.	Period.	N.	Interval Computed.	Diff. O—C	Intensity.
	d.	d.		d.	d.	
1871—October, 27.9 ..	..	14.3	..	..	..	I
1871—December, 9.7 ..	42.8	"	3	42.9	—0.1	I
1872—January, 20.9 ..	85.0	"	6	85.8	—0.8	I.
1881—January, 7 8 ..	..	14.34	..	..	..	I.
1881—November, 4.6 ..	300.8	"	21	301.1	—0.3	I.
1882—December, 25.9 ..	717.1	"	50	717.0	+0.1	II.
1884—January, 14.4 ..	1101.6	"	77	1104.2	—2.6	I.
1884—January, 29.6 ..	1116 8	"	78	1118.5	—1.7	I.
1885—June, 16.3 ..	1620.5	"	113	1620.4	+0.1	I.
1886—April, 1.7 ..	1909.9	"	133	1907.2	+2.7	I.
1886—May, 12.6 ..	1950.8	"	136	1950.2	+0.6	III.
1890—April, 3.5 ..	3372.7	"	235	3369.9	+2.8	I.
1890—September, 19.7 ..	3541.9	"	247	3542.0	—0.1	II.
1891—January, 27.8 ..	3672.0	"	256	3671.0	+1.0	I.
1893—June, 3.6 ..	4529.8	"	316	4531.4	—1.6	II.
1894—September, 21.8 ..	5005.0	"	349	5004.7	+0.3	I.
1895—February, 12.7 ..	5148.9	"	359	5148.1	+0.8	I.
1895—September, 30.7 ..	5378.9	"	375	5377.5	+1.4	I.
1897—November, 10.4 ..	6150.6	"	429	6151.9	—1.3	I.
1898—January, 20.2 ..	6221.4	"	434	6223.6	—2.2	I.

EPICENTRE (B)—*continued.*

Date.	Interval Observed.	Period.	N.	Interval Computed	Diff. O—C	Intensity.
	d.	d.		d.	d.	
1907—February, 22.6	..	14.305	..	..	..	III.
1907—December, 5.1	285.5	"	20	286.1	—0.6	I.
1908—January, 16.3	327.7	"	23	329.0	—1.3	I.
" —April, 26.8	429.2	"	30	429.2	+0.0	I.
" —June, 22.7	486.1	"	34	486.4	—0.3	I.
" —August, 3.1	527.5	"	37	529.3	—1.8	I.
" —October, 15.0	600.4	"	42	600.8	—0.4	I.
1909—March, 7.3	743.7	"	52	743.9	—0.2	II.
1909—April, 18.8	786.2	14.305	55	786.8	—0.6	I.
" —July, 2.5	860.9	"	60	858.3	+2.6	III.
" —September, 8.8	929.2	"	65	929.8	—0.6	I.
" —November, 21.6	1003.0	"	70	1001.4	+1.6	I.
1910—January, 1.9	1044.3	"	73	1044.3	+0.0	I.
" —January, 16.0	1058.4	"	74	1058.6	—0.2	I.
" —February, 15.2	1088.6	"	76	1087.2	+1.4	I.
" —March, 14.0	1115.4	"	78	1115.8	—0.4	I.
" —July, 6.3	1229.7	"	86	1230.2	—0.5	I.
" —August, 3.8	1258.2	"	88	1258.8	—0.6	I.
" —August, 30.9	1258.3	"	90	1287.4	—2.1	I.
1910—August, 30.9	..	14.30	..	..	..	I.
" —October, 25.7	55.8	"	4	57.2	—1.4	I.
" —November, 12.5	73.6	"	5	71.5	+2.1	I.
" —December, 8.5	99.6	"	7	100.1	—0.5	I.
1911—March, 2.4	..	14.30	..	..	..	I.
" —April, 12.7	41.3	"	3	42.9	—1.6	I.
" —June, 12.0	101.6	"	7	100.1	+1.5	I.
" —July, 8.6	128.2	"	9	128.7	—0.5	I.
" —November, 2.9	245.5	"	17	243.1	+2.4	II.
1911—November, 2.9	..	14.34	..	..	..	II.
" —December, 13.4	40.5	"	3	43.0	—2.5	I.
1912—April, 23.4	172.5	"	12	172.1	+0.4	I.
" —September, 26.9	329.0	"	23	329.8	—0.8	I.
" —October, 25.1	357.2	"	25	358.5	—1.3	I.
" —November, 9	372.1	"	26	372.8	—0.7	I.
" —December, 23.1	416.2	"	29	415.9	+0.3	II.
1913—July, 25.4	630.5	"	44	631.0	—0.5	III.

The first break in the above series is due to want of records between Prof. Houzeau's time and the commencement of the Weather Service; then there is a long run of 18 years with a period of 14.34 days, when suddenly the whole series appearently stops. The great earthquake 1907, January, 14, did not immediately affect it; but it recommenced 1907, February, 22, with a shock of No. III. intensity; and its new period was 14.305 days. This period was maintained for three and a half years; but irregularities occurred in August, 1910, March, 1911, and November, 1911, which have been indicated by breaks in the above table. Since November, 2, 1911, the series has been regularly continued, the period having reverted to the former value of 14.34 days.

Now this is not the only Epicentre which behaves in this remarkable manner; with the exception of the grand Annotto Bay series, which has been perfectly regular, since 1880, and the curious binary series at Moneague, they all show the pecularities noted in the Blue Mt. series. For instance, the Port Royal Mt. series follows the former so closely that the latter also stops for some years before the Great Earthquake, no shocks being recorded between November, 1900 and June, 1906.

It therefore becomes necessary to make a careful study of each series in order to finally compare them. Moreover, it will be found that there are a few "sporadic" shocks remaining on the General Register which cannot be attributed to any Epicentre; it is most important to arrive at this final list.

From a scientific point of view, I consider that the subject of Jamaica earthquakes is distinctly hopeful; predisposing causes have to be ascertained, and then if the time for any centre has arrived a shock from that centre may be expected. The whole earth was disturbed before and after the great earthquake of 1907, but with reference to the series considered in the present notice and the last shock, it is impossible to overlook the shocks in the Island of St. Thomas, and the neighbouring Islands, on July, 24th, and the shock in Nicaragua the same day, although the latter were due to volcanic action; if this was the predisposing cause affecting (B) whose time was almost due, the shock occurred within 12 hours of its "computed" time.

In the absence of very delicate instruments recorded near these epicentres, we cannot do better than trust to the information supplied to the Weather Service by numerous correspondents, for whom the Earthquake Scale adopted in Jamaica seems very convenient; it has been so connected with the actual movement of the ground that it could easily be compared with other scales if they were also referred to the movement of the ground; but this does not seem to have been effected as yet.

JAMAICA EARTHQUAKE SCALE.

	Horizontal motion. In.
I. Light shock	0.003
II. Well marked shock	0.010
III. Shock sufficient to make houses rock	0.032
IV. Shock sufficient to crack wall of houses	0.100
V. Shock sufficient to throw down a few houses	0.316
VI. Shock sufficient to throw down almost all houses	1.000

MAXWELL HALL,
Govt. Met.

No. 421.

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JAMAICA

WEATHER REPORT

FOR THE MONTH OF

AUGUST, 1913.

The Bar-pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32°, gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

Stations.	Elevation.	Bar Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range.
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	29.970	29.941	80.1	81.8	85.0	75.8	9.2	86.5	15	69.0	17	17.5
Kingston ..	24	29.949	29.905	76.8	84.9	89.8	73.2	16.6	93.2	26	70.8	19	22.4
Negril Point Light House ..	33	29.957	29.926	78.3	84.1	86.7	72.2	14.5	89.3	13	68.6	25	20.7
Castleton Gardens ..	496	..	..	68.8	84.1	89.6	67.1	22.5	94.	1*	63.	23	31
Hope Gardens† ..	668	29.952	29.880	74.6	85.6	89.7	69.9	19.8	96.	20	67.	22	29.
Stony Hill Indus. School ..	1,400	..	..	71.1	81.3	84.9	66.2	18.7	90.	26	64.	20*	26.
Hill Gardens ..	4,900	25.297	25.273	64.4	66.9	71.3	53.3	18.0	77.	14	56.	11*	21.

Stations.	Elevation.	Dew Point and Humidity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
	ft.	°		°		in	miles		m.		m.	L.	M.	U.	L.	M.	U.
Morant Pt. Light House ..	8	75.3	86	77.0	85	9.92	230	ESE	10	ESE	11	1.5	2.3	2.3	1.1	2.1	2.1
Kingston ..	24	69.5	78	72.7	67	1.08	219	NE	4	SE	17	0.6	1.3	2.2	2.3	1.4	2.8
Negril Point Light House‡ ..	33	70.9	78	75.1	75	6.10	192	ESE	7	SE	10	0.5	1.0	3.2	3.0	5.1	0.3
Castleton Gardens ..	496	67.0	93	72.9	70	9.77	..	..	..	..	..	..	..	..	..	..	
Hope Gardens ..	668	66.1	74	69.1	57	2.06	..	..	..	..	..	..	..	..	..	..	..
Stony Hill Indus. School ..	1,400	66.7	86	69.8	68	3.16	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	57.8	80	61.4	81	5.24	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
‡ Negril Point Light House. Wind 11 p.m. ENE 6.2

RAINFALL FOR AUGUST, 1913.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month, according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	AUGUST, 1913.				
	Total Fall.	Greatest fall in 24 hours. Amount	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Manchioneal ...	13.84	3.82	29	11	7.17
Ecclesdown ...	15.55	6.24	19	10	....
Spring Valley .	16.18	4.30	18	10	..
Bath ...	13.20	3.75	8	16	10.01
Boston ..	8.85	2.50	10	6	8.15
Moore Town ...	13.50	...	...	...	15.54
Port Antonio ...	18.88	8.80	19	16	10.76
Fellowship ...	9.46	3.22	19	16	14.28
Windsor, Portland ...	15.20	7.06	19	12	...
Johnson River Bridge ...	14.81	4.85	18	18	10.02
Shrewsbury ...	4.94	1.25	10	9	..
Cedar Valley, St. Thos. ...	10.22	2.60	18	12	9.76
Hope Bay ...	8.25	2.70	19	13	...
Moy Hall, St. Thos. ...	9.80	3.25	11	10	7.96
Lennox ...	5.40	1.75	4	8	..
Hill Gardens ...	5.24	...	...	...	7.92
Buff Bay ...	2.89	1.02	10	5	5.70
Vinery ...	2.31	1.05	4	5	...
Windsor Castle, Port. ...	3.70	2.00	9	4	..
Greenvale, Portland ...	2.07	1.31	16	5	...
Mt. Holstein ...	5.36	1.68	22	11	6.69
Irish Town ...	3.09	2.10	10	2	...
Rose Hill ...	...	..	...	...	..
Hardware Gap ...	4.50	...	...	...	6.73
Stony Hill Ind. School ...	3.16	1.10	10	10	9.44
Castleton Gardens ...	9.77	...	...	...	10.03
Lawrence Tavern ...	9.94	2.15	3	10	8.58
Cedar Valley, Red Hills ...	4.54	1.25	21	11	...
Carew Castle ..	6.72	2.00	22	10	10.50
Agualta Vale ..	1.24	0.45	4	5	...
Water Valley ..	1.26	0.75	10	6	4.40
Albany, Ry. Station ..	2.31	0.76	4	5	...
Platfield ...	2.85	0.78	4	7	...
Richmond, St. Mary ..	5.15	3.08	4	7	4.97
Hampstead, St. Mary ...	1.84	0.62	10	4	...
Kendal, St. Mary ...	2.28	0.68	10	8	...
Lucky Hill ...	2.18	1.37	10	5	...
Rio Hoe ...	1.54	0.70	10	5	6.27
Unity Valley ...	4.62	1.95	10	10	6.49
Moneague ...	2.80	1.65	10	6	6.03
Claremont ...	1.32	0.58	10	4	5.53
Albion, St. Ann ...	3.52	1.13	4	9	6.10
Averham Park ...	2.84	1.80	18	4	4.86
Means ...	6.43	...	...	...	...

NORTHERN DIVISION.	AUGUST, 1913.				
	Total fall.	Greatest fall in 24 hours. Amount.	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			
Port Maria ...	3.16	0.87	10	8	4.72
Ocho Rios ...	1.50	0.45	17	6	2.72
Bogue, Ocho Rios ...	2.53	1.14	4	5	...
Drax Hall ...	1.42	0.52	23	6	3.59
Liberty Hill ...	...	...	...	...	...
St. Ann's Bay ...	2.12	0.61	4	7	2.65
Seville ...	1.65	0.60	4	6	3.55
Richmond Estate ...	1.33	0.90	10	4	3.36
Llandovery ...	0.82	0.64	9	2	2.86
Runaway Bay ...	1.50	1.20	10	3	...
Brown's Town ...	2.09	1.00	18	3	3.98
Alexandria ...	2.15	0.70	10	5	...
Dry Harbour ...	...	...	...	...	...
Chewmagna, St. Ann ...	1.71	0.60	10	6	5.24
Home Castle ...	2.10	1.45	17	2	3.61
Richmond Pen ...	...	...	...	...	...
Mahogany Hall ...	3.20	1.25	22	3	5.85
Barnstaple ...	..	...	...	...	...
Brampton Bryan ...	...	...	...	...	...
Bryan Castle ...	...	...	...	...	...
Braco ...	...	...	...	...	...
Arcadia ...	1.52	0.90	10	3	3.54
Lancaster ...	1.26	1.26	3	1	3.21
Harmony Hall ...	1.32	1.12	10	3	2.57
Vale Royal ...	2.33	1.13	10	4	4.54
Colchis Pen ...	1.79	0.62	9	5	5.32
Swanswick ...	..	...	...	..	...
Georgia ...	...	...	...	...	...
Long Pond ...	...	...	...	...	...
Hyde Hall ...	...	...	...	..	...
Steelfield ...	...	...	..	...	...
Etingdon ...	...	...	..	...	...
Oxford ...	.	..	...	...	...
Cambridge, Trelawny ...	...	...	...	...	...
Lottery ...	1.55	0.90	10	4	3.56
Falmouth ...	0.82	0.60	10	4	...
Florence Hall ...	1.01	0.85	10	2	...
Kent ...	...	...	...	...	...
Gales Valley ...	3.09	2.00	18	4	5.27
Canaan ...	...	...	...	...	...
Content ...	...	...	...	...	...
Bellfield ...	1.78	0.92	10	5	...
Hampden ...	..	...	...	...	...
Moor Park ...	5.59	1.73	10	7	...
Success ...	...	...	...	...	...
Guilsbro ...	...	...	...	...	...
Cinnamon Hill ...	...	...	...	...	...
Rose Hall ...	...	...	...	...	...
Running Gut ...	...	...	...	...	...
Spring ...	...	...	...	...	...
Montego Bay ...	3.49	0.82	10	7	5.63
Catherine Hall ...	...	...	...	...	...
Retirement ...	3.57	0.97	11	11	...
King Gate ...	5.10	1.50	22	10	5.82
Round Hill ...	...	...	...	...	...
Sandy Bay ...	...	..	...	...	...
Blue Hole ...	7.59	2.00	22	9	...
Haughton Court ...	5.48	1.45	10	12	...
Lucea ...	5.44	1.37	18	10	6.86
Westfield ...	...	...	...	...	...

CENTRAL SUB-DIVISION.	AUGUST, 1913. Total Fall.	Greatest fall in 24 hours. Amount.	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Rio Magno ...	...	...	...	...	...
Headworks, Rio Cobre ...	2.38	0.44	7	11	5.75
Linstead ...	9.25	1.60	7	12	8.22
Berkshire Hall ...	2.93	0.87	5	7	...
Point Hill ...	8.43	2.71	11	13	12.37
Brown's Hall .	4.90	1.60	8	12	8.16
Worthy Park ...	2.96	1.14	22	7	5.49
Chapelton ...	3.92	0.68	28	10	6.81
Danks Works ...	4.10	1.10	21	13	5.84
Savoy House ...	4.84	0.92	21	14	6.04
Trout Hall ...	6.66	2.87	7	16	...
Cave Valley ...	7.10	1.90	22	...	7.25
Greenock ...	6.82	1.82	22	...	...
Means ...	3.46	...	...	...	...
WEST-CENTRAL DIVISION.					
Whitney ...	...	...	...	...	...
Mocho, Clarendon ...	1.20	1.00	28	2	...
Baillieston ...	5.18	1.22	31	11	6.45
Brokenhurst ...	4.60	1.80	18	9	7.12
Christiana ...	...	...	...	...	...
Chudleigh ...	7.86	2.42	31	14	...
Shooter's Hill ...	7.71	2.20	31	11	...
Spitzbergen ...	8.64	2.41	10	16	...
Kendal, Manchester ...	6.80	2.00	31	8	6.80
Marshalls Pen ...	...	...	...	...	...
Mandeville ...	7.26	1.80	31	16	8.03
Carlton, Mandeville ...	6.95	2.16	31	14	...
The Hill ...	7.71	1.95	31	12	...
Fairfield, Manchester ...	6.61	1.54	31	17	5.37
Ulster Spring ...	5.42	1.51	18	10	6.91
Freeman's Hall ...	7.02	2.50	18	12	...
Albert Town ...	7.32	1.52	18	11	...
Low River ...	4.35	0.87	31	12	...
Troy ...	5.82	1.38	9	9	10.07
Windsor Pen, Trel. ...	7.88	3.45	18	10	8.42
Wallingford ...	12.16	2.26	9	20	..
Balaclava Police Station ...	10.34	1.56	9	17	7.02
Siloah ...	11.55	1.70	10	12	...
Appleton Estate ...	11.30	1.70	10	18	10.88
Maggotty ...	10.08	1.62	18	21	10.65
Butlers ...	10.52	1.95	7	14	...
Deeside ...	7.28	1.90	9	7	...
Spring Vale ...	10.49	2.42	18	10	11.61
Garland ...	...	...	...	...	...
Mocho, Catadupa ...	7.53	1.46	18	9	...
Springfield, St. Elizabeth	9.75	2.63	10	15	...
Catadupa Rly. Station ...	6.45	0.90	10	16	...
Kempshot ...	4.30	0.97	18	11	8.61
Cambridge, St. James ...	4.09	0.70	10	14	...
Hazelymph ...	6.23	1.66	8	12	10.91
New Market, Police St. ...	8.96	1.10	10	17	...
The Bog, New Market ...	8.98	1.70	30	12	...
Kew Park ...	9.87	2.30	22	16	11.65
Montpelier ...	...	..	...	...	..
Knockalva ..	7.13	1.45	29	13	...
Ramble ...	10.06	2.20	29	13	...
Petersville ...	10.48	2.10	28	18	10.56
Darliston ...	8.66	1.44	10	17	14.62
Whithorn ...	8.20	1.50	30	16	11.74
Water Works ...	6.63	1.25	10	15	...
Great Valley, Han. ...	7.35	1.85	29	8	11.79
Prospect Park ...	7.81	1.95	9	16	...
Fontabelle, Westm. ...	6.19	1.14	10	14	11.23
Belleisle ...	6.94	1.30	10	17	10.47
Morgan's Bridge ...	4.70	1.46	9	14	11.70
King's Vale Police St. ...	10.81	1.90	8	17	10.76
Means ...	7.57	...	...	...	...

SOUTHERN DIVISION.	AUGUST, 1913. Total fall.	Greatest fall in 24 hours. Amount.	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Morant Point L. H. ...	9.92	4.42	30	19	5.31
Pleasant Hill	10.46	2.58	30	13	...
East Prospect ...	10.87	3.45	29	16	...
Morant Bay ...	9.20	1.85	29	16	5.68
Easington ...	8.28	3.82	18	14	6.17
Bull Bay ...	0.00	...	...	...	2.82
Gordon Town ...	...	...	...	...	...
Hope Gardens ...	2.06	...	...	...	5.29
King's House Gardens ...	...	...	...	...	...
Halfway Tree ...	1.53	0.75	2	3	3.54
Lunatic Asylum ...	1.27	0.36	18	8	2.59
Parade Gardens ...	1.11	0.35	18	8	...
Kingston S. Camp Road ...	1.38	0.47	18	8	..
" P. W. Office ...	1.08	0.25	10	11	3.88
Plumb Point L. H. ...	1.40	0.56	18	9	3.50
Clifton Pen ...	4.43	1.11	18	9	...
Quarantine Station ...	1.10	0.60	17	8	...
Spanish Town ...	1.52	0.47	21	8	4.04
Hog Hole Pen ...	1.17	0.44	21	7	4.53
Hartlands ...	0.72	0.40	18	3	...
Belmont, Guanaboa Vale	4.62	1.29	15	15	...
Old Harbour ...	5.90	2.00	16	6	4.66
May Pen ...	2.81	0.77	31	9	4.79
Dunkley's, Vere ...	2.89	1.30	31	8	4.25
Dry River " ...	2.11	0.85	31	5	...
Denbigh ...	0.72	0.72	31	1	4.92
Woodleigh ...	0.80	0.80	31	1	...
New Yarmouth ...	2.67	1.54	31	5	3.86
Exeter, Vere ...	2.10	1.20	31	8	...
Rhymesbury ...	4.38	2.22	31	9	4.52
Milk River ...	3.82	1.12	30	7	5.26
Clarendon Pk. Ry. St. ...	7.57	2.69	18	10	...
Victoria Town ...	5.22	2.17	17	6	4.05
Stone's Hope ...	6.89	3.16	18	7	5.99
Newport, Manchester ...	8.37	2.68	18	10	5.39
Great Valley, Man. ...	2.80	0.84	10	9	4.49
Alligator Pond ...	0.87	0.47	18	3	3.08
Southfield, St. Elizabeth ...	3.73	1.25	10	9	...
Lititz ...	1.64	0.78	2	6	...
Long Hill ...	...	..	...	...	...
Torrington ...	3.34	1.10	16	8	4.55
Bethlehem, St. Eliz. ...	3.97	1.32	3	10	4.99
Santa Cruz ...	7.27	2.41	3	11	8.62
Pedro Plains Police St. ...	1.44	0.35	10	6	2.53
Mountainside ...	3.66	1.34	15	11	...
Black River ...	5.24	1.94	28	9	5.35
Font Hill ...	3.90	1.00	28	7	6.06
Mount Edgecombe ...	8.52	2.16	28	17	8.19
Bluefields ...	6.37	1.00	10	16	...
Sweet River ...	8.97	2.00	26	10	8.75
Windsor, Sav.-la-mar ...	7.88	2.10	4	12	7.38
Orchard ...	6.70	1.55	4	13	...
Sav.-la-mar ...	8.08	1.75	29	12	7.49
Retreat ...	8.91	1.78	7	16	8.70
White Hall ...	5.96	0.96	22	16	..
Negril Point L.H. ...	6.10	0.98	9	17	6.76
Means ...	4.52	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.

(Based upon the "Average" Stations only.)

—	AUGUST. 1913.	AUGUST. Average.
	In.	In.
North-Eastern Division ...	6.43	7.71
Northern ...	3.46	4.83
West-Central ...	7.57	9.88
Southern ...	4.52	5.14
The Island ...	5.50	6.89

The heaviest rainfall, 18.88 inches, was recorded at Port Antonio. No rain fell at Bull Bay.

Rainfall at Grand Cayman. July, 1913.	Total Fall.	Greatest fall. Amount.	Greatest fall. Date.	No. of days on which 0.01 or more fell.
	In.	In.		
East End ...	...	...	...	..
Bodden Town ...	2.30	1.62	1	5
George Town ...	..	..	..	..
August, 1913.				
East End ...	3.70	0.90	8	12
Bodden Town ...	1.00	0.50	19	2
George Town ...	...	...	...	...

SHOCKS OF EARTHQUAKE IN AUGUST, 1913.

Date.	Mean time.	Intensity.	Notes: where felt, etc.
	hr. min.		
13	10 3 p.m.	II	Kingston, NNW and SSE 0.009
	"	II	Morant Bay, Seaforth.
16	...	II	Mt. Holstein, NW and SE 0.007. (Recorded on the Seismometer only).
20	9 10 p.m.	I	Kingston, 0.002.

PLUMB POINT LIGHT HOUSE—

Average No. of Miles of wind per diem	268
Greatest on the 5th	511
Least on the 16th	105

The Weather Office,
Halfway Tree P.O.

MAXWELL HALL,
Govt. Meteorologist.

THE PORT ROYAL MOUNTAIN EPICENTRE.

There have been more shocks recorded from this Epicentre than from any other in Jamaica; as stated in Weather Report No. 419, page 5, the first nine were recorded by Prof. Houzeau at Gordon Town; and subsequently the Weather Service was greatly assisted by Dr. Manners who lived at The Abbey in the district of St. David; the last record he sent up was 1895 October 7; but the shocks continued until 1900, November 6; when a strange gap in the record occurs lasting until 1906, June 22, which reminds us of a similar gap which occurred about that time in the (B) series as detailed in Weather Report No. 419; but in the (P) series the period remained unchanged, and indeed the run from 1893 to 1913 on the period of 12.91 days is remarkable.

The following details are given in exactly the same form as for the (B) series; the day, commencing at midnight, is divided into tenths instead of hours for the more easy management of the length of the observed intervals, and the rest is a matter of easy arithmetic; two or three rather large differences between the observed and computed intervals have been admitted, pending a final study of "sporadic" shocks, or the residuals left after thus carefully working out the shocks from our eight periodic epicentres.

It may be as well to reprint from time to time the Jamaica Earthquake scale, and also to ask from my rainfall contributors and others any information they can give me about any earthquake shocks they may feel, for it is entirely to such information supplied during some 30 or 40 years that we have been able to arrive at these most remarkable results.

Earthquake Scale.	Horizontal Motion.
	In.
I. Light shock	0.003
II. Well-marked shock	0.010
III. Shock sufficient to make houses rock	0.032
IV. Shock sufficient to crack walls of houses	0.100
V. Shock sufficient to throw down a few houses	0.316
VI. Shock sufficient to throw down almost all houses	1.000

THE PORT ROYAL MOUNTAIN EPICENTRE. (P).

Date.	Interval Observed.	Period.	N.	Interval Computed.	Diff. O—C	Intensity.
	d.	d.		d.	d.	
1870—Feb. 3.3	..	12.80	..	..	..	I
1871—Aug. 20.9	563.6	"	44	563.2	+0.4	I
" Nov. 5.9	640.6	"	50	640.0	+0.6	I
" Dec. 3.4	668.1	"	52	665.6	+2.5	I
1872—Aug. 1.8	910.5	"	71	908.8	+1.7	I
1873—Mar. 3.4	1124.1	"	88	1126.4	—2.3	I
" June 30.0	1241.7	"	97	1241.6	+0.1	II
" Aug. 20.7	1294.4	"	101	1292.8	+1.6	I
" Sept. 26.1	1330.8	"	104	1331.2	—0.4	I
1880—Feb. 17.5	..	12.60	..	..	..	I
" Oct. 15.3	240.8	"	19	239.4	+1.4	I
1881—April 21.3	428.8	"	34	428.4	+0.4	I
" July 4.6	503.1	"	40	504.0	—0.9	I
" Aug. 12.2	541.7	"	43	541.8	—0.1	II
" Dec. 27.0	778.5	"	54	680.4	—1.9	III
1882—Feb 3.1	716.6	"	57	718.2	—1.6	I
" Mar. 15.9	757.4	"	60	756.0	+1.4	I
" Oct. 15.3	970.8	"	77	970.2	+0.6	I
" Dec. 27.3	1043.8	"	83	1045.8	—2.0	I
1883—April 8.5	1146.0	"	91	1146.6	—0.6	I
" Oct. 15.5	1336.0	"	106	1335.6	+0.4	I
" Nov. 21.3	1372.8	"	109	1373.4	—0.6	I

EPICENTRE (P).—*continued.*

Date.	Interval Observed.	Period.	N.	Interval Computed.	Diff. O—C.	Intensity.
	d.	d.		d.	d.	
1884—Jan. 25.7	1438.2	12.60	114	1436.4	+1.8	I
" Aug. 1.3	1626.8	"	129	1625.4	+1.4	II
" Nov. 19.5	1737.0	"	138	1738.8	—1.8	I
1885—Feb. 28.1	1837.6	"	146	1839.6	—2.0	II
1886—Jan. 21.5	2165.0	"	172	2167.2	—2.2	I
" May 1.3	2264.8	"	180	2266.0	—1.2	III
" May 14.5	2278.0	"	181	2280.6	—2.6	III
1887—Nov. 11.6	2824.1	"	224	2822.4	+1.7	I
" Nov. 21.0	2833.5	"	225	2835.0	—1.5	I
1889—May 15.8	3375.3	"	268	3376.8	—1.5	II
" June 21.8	3412.3	"	271	3414.6	—2.3	III
" Sept. 7.2	3489.7	"	277	3490.2	—0.5	I
1890—May 22.1	..	12.77	..	..	..	I
" Sept. 13.0	113.9	"	9	114.9	—1.0	III
1891—Jan. 7.2	230.1	"	18	229.9	+0.2	I
" Dec. 17.3	574.2	"	45	574.6	—0.4	I
" Dec. 31.6	588.5	"	46	587.4	+1.1	I
1892—April 11.2	690.1	"	54	689.6	+0.5	I
" Nov. 27.6	920.5	"	72	919.4	+1.1	II
1893—Aug. 22.0	1187.9	"	93	1187.6	+0.3	II
1893—Aug. 22.0	..	12.91	..	..	..	II
1894—Aug. 19.0	362.0	"	28	361.5	+0.5	I
1895—April 22.1	608.1	"	47	606.8	+1.3	I
" May 29.9	645.9	"	50	645.5	+0.4	I
" Oct. 7.9	776.9	"	60	774.6	+2.3	I
1896—July 29.9	1072.9	"	83	1071.5	+1.4	I
1897—Dec. 14.3	1575.3	"	122	1575.0	+0.3	I
1898—Jan. 23.0	1615.0	"	125	1613.8	+1.2	I
" May 30.2	1742.2	"	135	1742.8	—0.6	I
1900—Nov. 6.6	2632.6	"	204	2633.6	—1.0	I
1906—June 22.6	4686.6	"	363	4686.3	+0.3	II
1907—July 28.2	5087.2	"	394	5086.5	+0.7	I
" Aug. 22.7	5112.7	"	396	5112.4	+0.3	II
" Nov. 23.6	5205.6	"	403	5202.7	+2.9	I
" Dec. 4.9	5216.9	"	404	5215.6	+1.3	I
1908—Feb. 7.5	5281.5	"	409	5280.2	+1.3	IV
" Mar. 2.6	5305.6	"	411	5306.0	—0.4	II
" Mar. 29.0	5332.0	"	413	5331.8	+0.2	I
" June 27.7	5422.7	"	420	5422.2	+0.5	I
" Oct. 7.1	5524.1	"	428	5525.5	—1.4	I
" Nov. 3.5	5551.5	"	430	5551.3	+0.2	I
" Dec. 24.1	5602.1	"	434	5602.9	—0.8	I
1909—Feb. 2.4	5642.4	"	437	5641.6	+0.8	I
" Mar. 2.2	5670.2	"	439	5667.5	+2.7	I
" June 23.6	5783.6	"	448	5783.7	—0.1	I
" July 7.9	5797.9	"	449	5796.6	+1.3	I
" Aug. 2.8	5823.8	"	451	5822.4	+1.4	I
" Aug. 29.7	5850.7	"	453	5848.2	+2.5	I
" Sept. 8.8	5860.8	"	454	5861.1	—0.3	I
" Oct. 6.8	5888.8	"	456	5887.0	+1.8	I
1910—Feb. 1.3	6006.3	"	465	6003.2	+3.1	I
" Aug. 25.0	6211.0	"	481	6209.7	+1.3	I
" Nov. 20.4	6298.4	"	488	6300.1	—1.7	I
1911—Mar. 17.3	6415.3	"	497	6416.3	—1.0	I
" April 11.0	6440.0	"	499	6442.1	—2.1	II
" June 5.1	6495.1	"	503	6493.7	+1.4	I
" June 19.3	6509.3	"	504	6506.6	+2.7	I
" July 13.7	6533.7	"	506	6532.5	+1.2	I
1912—May 18.1	6843.1	"	530	6842.3	+0.8	I
1913—Aug. 13.9	7295.9	"	565	7294.2	+1.7	II
" Sept. 18.0	7331.0	"	568	7332.9	—1.9	I

The last shock occurred while this Weather Report was passing through the press.

M. H.

No. 422.

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JAMAICA

WEATHER REPORT

FOR THE MONTH OF

SEPTEMBER, 1913.

The Bar-pressures at all the Stations except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

Stations	Elevation.	Bar Pressure.		Temperature					Extreme Temperature				
		7 a.m.	3 p.m.	7 a.m.	3 p.m	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range.
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	29.927	29.887	80.2	82.8	85.0	75.5	9.5	87.0	23	70.5	30	16.5
Kingston ..	24	29.908	29.859	75.9	83.6	89.3	73.1	16.2	93.5	21	69.4	12	24.1
Negril Point Light House ..	33	29.909	29.871	78.5	83.9	86.7	73.3	13.4	89.3	18	71.3	13	18.0
Castleton Gardens ..	496	..	..	69.3	82.5	89.0	67.0	22.0	94	3	65	13*	29
Hope Gardens† ..	668	29.994	29.839	73.4	82.4	88	69	19	92	7	66	11	26
Stony Hill Indus. School ..	1,400	..	..	70.9	79.3	82.9	65.8	17.1	90	7	63	11*	27
Hill Gardens ..	4,900	25.269	25.247	64.1	65.2	67	57	10	71	2*	55	30	16

Stations	Elevation.	Dew Point and Humidity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
	ft.	°		°		in	miles		m.		m.	L.	M.	U.	L.	M.	U.
Morant Pt. Light House ..	8	74.5	82	75.4	77	11.52	253	Var.	7	Var.	9	1.2	2.5	2.6	1.0	2.0	2.8
Kingston ..	24	70.1	82	73.6	72	3.57	185	N	4	SE	15	2.5	0.3	3.0	4.4	0.9	2.9
Negril Point Light House‡ ..	33	71.5	78	74.2	73	3.31	204	E	7	SE	12	1.6	1.3	3.6	2.8	5.7	0.6
Castleton Gardens ..	496	67.5	97	74.5	74	8.15	..	..	..	..	..	..	..	..	..	..	
Hope Gardens ..	668	67.2	79	72.5	72	4.64	..	..	..	..	..	..	..	..	..	..	..
Stony Hill Indus. School ..	1,400	67.9	90	72.1	78	5.80	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	60.1	87	63.1	93	6.38	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
‡ Negril Point Light House. Wind 11 p.m. E 6.2

RAINFALL FOR SEPTEMBER, 1913.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	SEPTEMBER, 1913.				
	Total Fall.	Greatest fall in 24 hours. Amount	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Manchioneal ...	16.25	2.84	10	18	10.88
Ecclesdown ...	28.78	5.20	27	21	.
Spring Valley	16.24	3.18	10	14	.
Bath ...	15.25	3.10	10	16	12.03
Boston ..	9.60	2.80	10	15	11.04
Moore Town ...	22.10	...	...	...	14.21
Port Antonio ...	15.55	4.83	26	14	10.43
Fellowship ...	20.74	3.30	10	18	12.93
Windsor, Portland ...	18.58	3.30	10	12	...
Johnson River Bridge ...	14.32	5.07	26	14	11.48
Shrewsbury ...	9.52	2.62	29	11	..
Cedar Valley, St. Thos. ...	8.00	2.15	27	9	13.40
Hope Bay ...	7.75	2.45	10	13	...
Moy Hall, St. Thos. ...	6.72	3.00	29	9	10.92
Lennox ...	9.40	2.75	10	12	..
Hill Gardens ...	6.38	...	...	...	9.84
Buff Bay ...	4.53	1.66	10	8	4.94
Vinery ...	5.37	2.38	12	9	...
Windsor Castle, Port. ...	11.52	1.40	9	8	..
Greenvale, Portland ...	9.55	4.41	25	9	...
Mt. Holstein ...	5.73	1.75	8	16	9.02
Irish Town ..	6.62	1.41	4	10	...
Rose Hill ...	7.00	1.85	3	10	...
Hardware Gap ...	8.60	...	...	...	9.02
Stony Hill Ind. School ...	5.80	2.25	4	16	9.82
Castleton Gardens ...	8.15	...	...	...	11.21
Lawrence Tavern ...	7.53	2.25	4	11	9.53
Cedar Valley, Red Hills ...	6.96	1.30	9	14	...
Carew Castle ...	3.75	0.77	7	7	...
Agualta Vale ...	5.04	1.96	10	13	...
Water Valley ...	5.54	1.32	23	12	5.32
Albany, Ry. Station ..	5.85	1.11	24	10	...
Platfield ...	4.02	0.76	14	11	...
Richmond, St. Mary ..	2.42	0.65	25	7	5.59
Hampstead, St. Mary ...	5.64	1.09	23	15	...
Kendal, St. Mary ...	3.60	1.09	25	9	...
Lucky Hill ...	2.84	0.81	30	10	...
Rio Hoe ...	3.54	2.46	15	10	6.18
Unity Valley ...	0.90	0.40	8	5	8.20
Moneague ...	2.35	1.00	15	7	7.14
Claremont ...	2.29	0.70	4	7	5.31
Albion, St. Ann ...	4.19	1.86	4	12	6.98
Averham Park ...	4.89	1.67	25	11	4.83
Means ...	8.39	...	..	...	8.68

NORTHERN DIVISION.	SEPTEMBER, 1913.				
	Total fall.	Greatest fall in 24 hours. Amount.	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Port Maria ...	9.07	1.75	10	13	3.88
Ocho Rios ...	2.72	0.81	23	8	...
Bogue, Ocho Rios ...	...	...	...	...	...
Drax Hall ...	1.80	0.45	29	9	3.98
Liberty Hill ...	...	...	...	...	...
St. Ann's Bay ...	2.05	0.57	29	13	3.31
Seville ...	2.65	1.18	29	14	3.60
Richmond Estate ...	3.72	0.91	6	10	3.85
Llandovery ...	2.77	0.97	18	4	3.72
Runaway Bay ...	1.20	0.30	18	6	...
Brown's Town ...	0.96	0.68	8	3	5.30
Alexandria ...	1.85	1.60	4	2	...
Chewmagna, St. Ann ...	3.31	1.30	4	11	7.41
Home Castle ...	2.12	0.55	8	6	4.56
Richmond Pen ...	...	...	..	...	...
Mahogany Hall ...	4.07	2.42	8	4	6.97
Barnstaple ...	1.89	1.15	8	5	...
Brampton Bryan ...	..	...	...	...	...
Bryan Castle ...	...	...	...	...	...
Braco ...	...	...	...	...	...
Arcadia ...	3.30	1.06	15	9	4.02
Lancaster ...	2.46	0.51	29	10	3.89
Harmony Hall ...	2.38	0.48	24	9	3.64
Vale Royal ...	3.10	1.06	15	10	4.64
Colchis Pen ...	2.31	0.65	8	9	5.23
Swanswick ...	2.62	0.60	24	9	...
Georgia ...	3.18	0.90	15	9	3.92
Long Pond ...	2.83	0.93	24	8	3.91
Hyde Hall ...	3.59	1.40	24	10	5.20
Steelfield ...	2.80	0.90	24	6	4.25
Etingdon ...	2.93	0.65	24	10	3.13
Oxford ...	...	...	..	...	...
Cambridge, Trelawny ...	.	...	...	...	...
Lottery ...	3.30	1.10	24	10	4.38
Falmouth ...	...	...	...	...	...
Florence Hall ...	2.01	0.30	25	12	...
Kent ...	4.40	1.00	29	8	4.30
Gales Valley ...	5.48	1.80	5	9	7.00
Canaan ...	...	...	...	...	...
Content ...	4.05	0.55	25	9	4.88
Bellfield ...	3.64	1.05	24	11	...
Hampden ...	...	...	...	...	...
Moor Park ...	5.05	2.47	24	8	...
Success ...	...	...	...	...	...
Guilsbro ...	...	...	...	...	...
Cinnamon Hill ...	...	...	...	...	...
Rose Hall ...	...	...	...	...	...
Running Gut ...	...	...	...	...	...
Spring ...	...	...	...	...	...
Montego Bay ...	7.89	1.73	15	18	6.91
Catherine Hall ...	...	...	...	...	...
Retirement ...	9.55	1.83	24	21	...
King Gate ...	5.97	1.86	25	9	7.04
Round Hill ...	5.90	1.50	25	16	...
Sandy Bay ...	...	...	...	...	...
Blue Hole ...	18.08	3.51	24	16	...
Haughton Court ...	7.19	1.57	26	15	...
Lucea ...	7.98	1.34	24	15	7.68
Westfield ...	...	...	...	...	...

Central Sub-Division.	September, 1913. Total Fall.	Greatest fall in 24 hours. Amount.	Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Rio Magno ...	...	...	...	...	...
Headworks, Rio Cobre ...	8.14	3.07	23	10	6.54
Linstead ...	3.44	1.00	28	8	8.01
Berkshire Hall ...	4.63	0.95	17	13	..
Point Hill ...	9.11	2.43	27	14	11.54
Brown's Hall .	5.60	1.15	27	15	10.95
Worthy Park ...	3.62	1.09	8	7	7.56
Chapelton ...	5.93	0.95	8	15	7.91
Danks Works ...	6.79	1.16	23	14	9.37
Savoy House ...	6.94	1.28	9	13	9.35
Trout Hall ...	5.83	1.52	8	12	...
Cave Valley ..	6.32	2.00	4	17	7.61
Greenock ...	6.10	1.80	4	17	...
Means ...	4.54	...	...	...	5.70
West-Central Division.					
Whitney ...	7.58	1.20	16	14	...
Mocho, Clarendon ...	5.20	1.30	29	9	...
Baillieston ...	6.75	2.13	3	13	9.70
Brokenhurst ...	7.35	1.50	9	13	9.33
Christiana ...	5.57	1.26	3	20	...
Chudleigh ...	6.79	1.75	3	17	...
Shooter's Hill ...	5.57	0.83	16	18	...
Spitzbergen ...	9.14	3.60	3	18	...
Kendal, Manchester ...	4.92	0.88	16	14	9.53
Marshalls Pen ...	5.38	1.75	2	15	8.79
Mandeville ...	7.59	1.10	28	17	10.04
Carlton, Mandeville ...	5.71	1.16	28	15	...
The Hill ...	5.64	1.98	10	9	...
Fairfield, Manchester ...	7.35	1.36	10	17	7.80
Ulster Spring ...	5.51	1.36	8	14	8.44
Freeman's Hall ...	6.15	2.70	8	10	...
Albert Town ...	6.21	1.11	4	12	...
Low River ...	8.23	3.38	2	8	...
Troy ...	5.81	1.10	20	11	13.77
Windsor Pen, Trel. ...	9.51	1.66	5	16	9.06
Wallingford ...	14.51	3.00	4	17	..
Balaclava Police Station ...	13.38	2.71	4	15	...
Siloah ...	16.41	3.18	4	16	...
Appleton Estate ...	7.93	1.88	4	14	11.50
Maggotty ...	10.24	2.14	4	13	11.84
Butlers ...	12.85	2.30	4	17	...
Deeside ...	11.02	2.42	6	18	...
Spring Vale ...	13.17	2.54	10	18	10.61
Garland ...	...	...	...	...	...
Mocho, Catadupa ...	9.03	2.15	16	10	...
Springfield, St. Elizabeth	11.38	3.02	4	17	...
Catadupa Rly. Station ...	...	...	...	...	...
Kempshot ...	9.40	2.14	8	13	9.64
Cambridge, St. James ...	9.56	2.30	4	19	...
Hazelymph ...	9.54	2.40	4	16	10.39
New Market, Police St. ...	10.00	2.10	4	16	...
The Bog, New Market ...	10.69	1.74	28	19	...
Kew Park ...	10.39	1.99	7	19	12.06
Montpelier ...	...	..	...	...	..
Knockalva ..	9.79	2.48	7	22	...
Ramble ...	13.83	3.50	4	21	...
Petersville ...	9.30	1.94	5	20	9.83
Darliston ...	16.20	2.84	19	18	13.79
Whithorn ...	12.67	1.35	4	21	12.06
Water Works ...	11.48	2.20	16	17	...
Great Valley, Han. ...	13.23	2.25	11	17	12.27
Prospect Park ...	11.01	3.65	9	17	...
Fontabelle, Westm. ...	7.14	1.09	5	17	10.90
Belleisle ...	9.29	1.84	16	13	10.70
Morgan's Bridge ...	12.46	2.73	4	13	12.18
King's Vale Police St. ...	8.29	1.27	14	15	11.44
Means ...	9.11	...	...	...	10.78

Southern Division.	September, 1913. Total fall.	Greatest fall in 24 hours. Amount.	Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Morant Point L. H. ...	11.52	2.30	22	21	7.31
Pleasant Hill ...	11.48	1.77	29	14	...
East Prospect ...	13.06	2.10	10	15	...
Morant Bay ...	9.35	3.24	26	15	8.41
Easington ...	7.50	2.00	27	10	8.73
Bull Bay ...	5.00	1.43	16	7	4.70
Gordon Town ...	4.74	1.09	23	10	8.57
Hope Gardens ...	4.64	...	...	...	7.04
King's House Gardens ...	2.19	0.60	14	6	5.03
Halfway Tree ...	3.21	1.25	16	4	5.09
Lunatic Asylum ...	3.75	1.87	23	10	4.72
Parade Gardens ...	3.75	1.55	23	9	...
Kingston S. Camp Road ...	5.35	1.83	23	10	..
" P. W. Office ..	3.57	1.14	24	11	4.18
Plumb Point L. H. ...	3.28	1.02	27	8	3.81
Clifton Pen ...	2.30	0.84	23	6	...
Quarantine Station ...	2.19	0.61	10	6	...
Spanish Town ...	3.73	2.10	23	7	5.30
Hog Hole Pen ...	5.79	2.44	23	6	6.33
Hartlands ...	3.17	0.98	23	7	...
Belmont, Guanaboa Vale	5.34	1.29	27	14	...
Old Harbour ...	6.99	1.66	29	9	6.45
May Pen ...	4.38	1.37	29	14	7.89
Dunkley's, Vere ...	6.50	1.76	23	7	6.52
Dry River " ...	5.98	2.30	23	7	...
Denbigh ...	2.80	1.50	29	4	5.99
Woodleigh ...	3.00	2.00	29	4	...
New Yarmouth ...	5.88	1.85	23	8	5.73
Exeter, Vere ...	6.51	1.85	14	9	...
Rhymesbury ...	5.61	1.32	10	12	5.96
Milk River ...	3.60	1.50	26	6	6.33
Clarendon Pk. Ry. St. ...	5.80	2.45	29	15	...
Victoria Town ...	7.19	2.06	10	8	...
Stone's Hope ...	6.67	1.85	29	9	8.30
Newport, Manchester ...	7.80	2.04	10	16	...
Great Valley, Man. ...	5.67	2.10	10	11	6.63
Alligator Pond ...	3.16	1.49	10	4	...
Southfield, St. Elizabeth ...	5.12	1.62	29	9	...
Lititz ...	2.55	1.13	10	11	...
Long Hill ...	6.12	1.58	16	11	8.52
Torrington ...	4.75	1.85	8	7	6.42
Bethlehem, St. Eliz. ...	9.09	1.81	29	12	6.78
Santa Cruz ...	5.80	2.17	7	10	...
Pedro Plains Police St. ...	2.08	0.74	10	8	4.90
Mountainside ...	...	...	...	...	...
Black River ...	4.47	1.58	9	13	5.75
Font Hill ...	3.60	0.70	29	12	7.11
Mount Edgecombe ...	7.33	1.41	4	20	8.39
Bluefields ...	7.24	1.09	19	19	...
Sweet River ...	13.15	2.30	28	15	7.83
Windsor, Sav.-la-mar ...	7.35	2.14	14	17	7.26
Orchard ...	8.91	1.95	16	19	...
Sav.-la-mar ...	7.78	2.35	16	15	6.96
Retreat ...	5.23	1.28	20	9	8.28
White Hall ...	4.97	2.02	28	10	..
Negril Point L.H. ...	3.31	1.13	28	10	7.51
Means ...	5.55	...	...	...	6.49

NOTES.

COMPARATIVE TABLE OF RAINFALL.

(Based upon the "Average" Stations only.)

—	SEPTEMBER. 1913.	SEPTEMBER. Average.
	In.	In.
North-Eastern Division ...	8.39	8.68
Northern ...	4.54	5.70
West-Central ...	9.11	10.78
Southern ...	5.55	6.49
The Island ...	6.90	7.91

The rainfall was therefore about the average.

The heaviest rainfall, 28.78 inches, was recorded at Ecclesdown: and less than an inch fell at Unity Valley and Brown's Town.

ERRATA. W. R. No. 421.
Mocho, Clarendon. Instead of the figures given for rainfall, read 5.30, 1.20, 11,11.

Rainfall at Grand Cayman, August, 1913.	Total Fall.	Greatest fall. Amount.	Greatest fall. Date.	No. of days on which 0.01 or more fell.
	In.	In.		
East End ...	3.70	0.90	2	12
Bodden Town ...	1.00	0.50	19	2
George Town ...	..	..	..	..
September, 1913.				
East End ...	...	...	...	...
Bodden Town ...	8.95	2.50	28	13
George Town ...	...	...	...	...

SHOCKS OF EARTHQUAKE IN SEPTEMBER, 1913.

Date.	Mean time.	Intensity.	Notes: where felt, etc.
	hr. min.		
18	1 10 a.m.	II	Mt. Holstein, NW and SE 0.007. Sharp and noisy.
24	Night between 24th and 25th	I	Mt. Holstein; N and S 0.005
25	2 10 p.m.	I	Lititz.

PLUMB POINT LIGHT HOUSE—

Average No. of Miles of wind per diem	226
Greatest on the 25th and 26th	355
Least on the 28th	99

The Weather Office,
Halfway Tree P.O.

MAXWELL HALL,
Govt. Meteorologist.

THE ANNOTTO BAY EPICENTRE.

In Weather Report No. 419, page 7, while discussing the Blue Mountain Series (B) reference was made to this series which has been regular since 1880, but it will here be shown that it has been apparently regular since 1812, thus forming a marked contrast to the other series.

The Epicentre is apparently about 8 miles to the N. E. of Annotto Bay, and therefore below the sea; the shocks are few and far between, and the difference between the observed and computed times is about a day, as in the case of the other series, which is remarkable as the period is 30.498 days, and much longer than any of the other periods; we would have been prepared to admit differences proportional to the periods, but this does not seem to be necessary.

As stated in that Report there was some difficulty in separating the (B) and (P) series; but when accounts are given of shocks chiefly felt between Port Maria and Port Antonio we may be pretty sure that they belong to this series; and for these details we must refer to the volumes containing the original monthly Reports.

The following details are given in exactly the same form as for the (B) and (P) series; the day, commencing at midnight, is divided into tenths instead of hours for the more easy management of the length of the observed intervals; and the following is the Jamaica Earthquake scale:—

	Horizontal Motion.
	In.
I. Light shock	0.003
II. Well-marked shock	0.010
III. Shock sufficient to make houses rock	0.032
IV. Shock sufficient to crack walls of houses	0.100
V. Shock sufficient to throw down a few houses	0.316
VI. Shock sufficient to throw down almost all houses	1.000

THE ANNOTTO BAY EPICENTRE. (A).

Date.	Interval Observed.	Period.	N.	Interval Computed.	Diff. O—C	Intensity.
	d.	d.		d.	d.	
1880—Dec. 31.0	..	30.498	..	..	..	IV
1881—Sept. 2.8	245.8	"	8	244.0	+1.8	I
1882—Mar. 2.2	426.2	"	14	427.0	—0.8	I
1886—June 3.8	1980.8	"	65	1982.4	—1.6	IV
1886—Nov. 3.8	2133.8	"	70	2134.9	—1.1	I
1892—Aug. 9.9	4239.9	"	139	4239.2	+0.7	III
1900—Nov. 14.6	7257.6	"	238	7258.5	—0.9	I
1907—Jan. 20.5	9515.5	"	312	9515.4	+0.1	I

In the year 1812 there was a great earthquake, of VI intensity apparently, from this epicentre; the following note will be found in the Introduction, Vol. II of the Jamaica Meteorological Observations.

Nov. 11. About 10 minutes before 6 in the morning there was a great earthquake, which was felt all over the island but chiefly at the eastern end. Three shocks succeeded each other rapidly; there were tremblings, concussions, undulations, and sound. Great damage was done to the houses in Kingston. At Annotto Bay the anchorage ground sank; the 'Experiment" lost her anchor and 90 fathoms of cable which were swallowed up. There had been a slight shock previously at 2.30 a.m. that morning. (*Jam. Mag.* 1812, p. 364).

Now the interval between 1812 Nov. 11.2 and 1880 Dec 31.0 is 24886.8 days; and 816 periods of 30.498 days amount to 24886.4 days; so that apparently from 1812 Nov. 11.2 to 1907 Jan. 20.5 there has been no change in the period, which we can now write to four places of decimals, 30.4985 days.

The sinking of the anchorage ground at Annotto Bay reminds us of the sinking of the ground at Port Royal and at the eastern end of Kingston Ha bour during the two great historical earthquakes of 1692 and 1907; but the anchorage ground at Annotto Bay did more than sink; a large chasm must have opened, for the anchor and cable of the "Experiment" ran out with such force that unless a certain bulk-head (to which the end of the cable was attached) had given way the ship would probably have foundered. This again reminds us of the convulsions of the bed of the sea at the Historical Epicentre in 1907 which dragged the telegraph cable a mile out of its position, broke it, and then dragged the ends a mile apart.

THE HISTORIC EPICENTRE.

This is situated about 10 miles south of Bull Bay and the mouth of the Hope River, and is therefore below the sea; it is 40 miles south of the Epicentre (A); and indeed these four Epicentres A, B, P, and H, are nearly on a line north and south; and it was along this line that the great earthquake of 1907 was chiefly felt, so that the area of maximum intensity was not an oval as first suggested but a narrow band. (W. R. No. 365, p. 21).

The after-shocks of that great earthquake showed periodicity by coming to a maximum every 21 days; but this peculiarity (which has been noticed elsewhere) was found to continue long after those shocks had ceased.

THE HISTORIC EPICENTRE. (H).

Date.	Interval observed.	Period.	N.	Interval computed.	Diff. O—C	Intensity.
	d.	d.				
1880—July 16.9	..	21.23	..	..	..	III
1883—July 26.2	1104.3	..	52	1104.0	+0.3	I
1884—Jan. 14.5	1276.6	"	60	1273.8	+2.8	III
" Feb. 24.4	1317.5	"	62	1316.3	+1.2	II
1885—Aug. 30.8	1870.9	"	88	1868.3	+2.6	III
1886—Jan. 1.9	1995.0	"	94	1995.7	—0.7	II
" Jan. 23.0	2016.1	"	95	2016.9	—0.8	I
" Apr. 18.2	2101.3	"	99	2101.8	—0.5	II
1888—Feb. 26.9	2781.0	"	131	2781.2	—0.2	III
" Mar. 18.2	2801.3	"	132	2802.4	—1.1	I
" July 2.2	2907.3	"	137	2908.6	—1.3	I
1890—Oct. 30.8	3757.9	"	177	3757.7	+0.2	II
1891—Feb. 16.6	3866.7	"	182	3863.9	+2.8	I
" Oct. 27.1	4119.2	"	194	4118.6	+0.6	III
1892 Sept. 29.6	4457.7	"	210	4458.3	—0.6	I
1897—Apr. 8.2	..	21.11	..	..	..	I
1899—July 11.6	824.4	"	39	823.3	+1.1	I
1900—July 23.1	1200.9	"	57	1203.3	—2.4	II
1906—Nov. 14.0	3505.8	"	166	3504.3	+1.5	III
1907—Jan. 14.6	3567.4	"	169	3567.6	—0.2	VI
" Feb. 3.0	3586.8	"	170	3588.7	—1.9	III
" Feb. 26.9	3610.7	"	171	3609.8	+0.9	I
" Mar. 19.3	3631.1	"	172	3630.9	+0.2	I
" Apr. 9.1	3651.9	"	173	3652.0	—0.1	III
" May 1.8	3674.6	"	174	3673.1	+1.5	I
" June 13.1	3716.9	"	176	3715.4	+1.5	III
" July 23.3	3757.1	"	178	3757.5	—0.4	I
1908—Jan. 28.2	3946.0	"	187	3947.5	—1.5	I
" May 14.4	4053.2	"	192	4053.1	+0.1	II
" Aug. 7.4	4138.2	"	196	4137.5	+0.7	II
" Aug. 30.2	4161.0	"	197	4158.7	+2.3	I
" Nov. 21.0	4243.8	"	201	4243.1	+0.7	I
1909—Jan. 2.4	4286.2	"	203	4285.3	+0.9	I
" Jan. 21.5	4305.3	"	204	4306.4	—1.1	I
" Mar. 6.1	4348.9	"	206	4348.6	+0.3	I
" Mar. 29.2	4372.0	"	207	4369.7	+2.3	I
" May 29.2	4433.0	"	210	4433.1	—0.1	I
1910—July 24.9	4854.7	"	230	4855.3	—0.6	I
1911—July 20.9	5215.7	"	247	5214.2	+1.5	I
1912—Mar. 28.0	5466.8	"	259	5467.5	—0.7	I
" Sept. 14.0	5636.8	"	267	5636.4	+0.4	I

The break in this series requires attention: the interval between 1892 Sept 29.6 and 1897 Apr. 8.2 is 1651.6 days; and if we divide this interval by 78 we get 21.17 as the period, which is exactly the mean of the two periods 21.23 and 21.11. Hence it would appear that between the two epochs the "period" was regularly diminishing.

Between 1907 Jan. 14 and the end of July only the more prominent of the After-shocks have been given.

It was the light shock of 1909 Jan. 2, felt over the whole eastern part of the Island, which continued as it were the After-shocks and led to these investigations.

M. H.

No. 423.

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WEATHER REPORT

FOR THE MONTH OF

OCTOBER, 1913.

The Bar-pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

Stations.	Elevation.	Bar Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range.
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	29.938	29.889	78.4	83.3	84.4	74.5	9.9	86.0	5	67.5	25	19.0
Kingston ..	24	29.921	29.865	75.2	83.6	89.8	72.5	17.3	92.9	20	69.5	30	23.4
Negril Point Light House ..	33	29.926	29.876	77.5	84.2	86.4	72.3	14.1	88.5	11	69.0	27	19.5
Castleton Gardens ..	496	..	..	69.3	81.5	89.2	66.0	23.2	93	3*	63	13*	30
Hope Gardens† ..	668	29.933	29.855	72.6	83.0	87.8	68.8	19.0	92	19	67	24	25
Stony Hill Indus. School ..	1,400	..	..	70.4	78.8	82.4	65.4	17.0	87	3	63	13	24
Hill Gardens ..	4,900	25.280	25.238	64.3	65.2	69.3	56.3	13.0	72	10*	54	7	18

Stations.	Elevation.	Dew Point and Humidity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
	ft.	°		°		in.	miles		m.		m.	L.	M.	U.	L.	M.	U.
Morant Pt. Light House ..	8	74.0	87	75.5	78	6.74	239	E	7	E	9	1.2	1.8	2.5	0.5	1.5	2.4
Kingston ..	24	67.8	78	73.3	71	1.41	161	N	4	SE	11	1.3	1.1	1.6	3.5	1.1	2.4
Negril Point Light House‡ ..	33	71.9	82	76.3	77	5.58	186	E	8	SE	10	1.3	1.7	2.9	2.1	5.1	0.3
Castleton Gardens ..	496	66.9	93	63.1	52	6.01	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens ..	668	66.2	79	72.3	70	4.14	..	..	..	..	..	..	..	..	..	..	..
Stony Hill Indus. School ..	1,400	67.1	86	73.3	83	8.18	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	58.2	81	63.1	93	8.26	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
‡ Negril Point Light House. Wind 1½ p.m. NE 6.6

RAINFALL FOR OCTOBER, 1913.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	OCTOBER, 1913.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount	Date.		
	In.	In.			In.
Manchioneal ...	7.96	1.94	15	11	18.91
Ecclesdown ...	11.29	2.44	15	15	..
Spring Valley, Portland .	12.03	2.01	15	16	.
Bath ...	8.32	1.95	12	16	18.37
Boston ..	7.90	3.30	15	5	13.11
Moore Town ...	19.44	...	...	...	21.93
Port Antonio ...	19.06	11.04	29	15	15.16
Fellowship ...	13.62	4.85	29	16	18.37
Windsor, Portland ...	12.90	5.54	29	12	...
Johnson River Bridge ...	4.60	2.91	29	12	13.85
Shrewsbury ...	12.67	4.00	16	13	..
Cedar Valley, St. Thos. ...	8.36	4.60	29	6	15.05
Hope Bay ...	13.25	5.45	16	14	...
Moy Hall, St. Thos. ...	6.86	5.00	30	9	19.97
Lennox ...	11.85	3.75	15	12	...
Hill Gardens ...	8.26	...	...	...	18.20
Buff Bay ...	5.82	2.10	15	8	11.76
Vinery ...	5.11	1.98	7	10	...
Windsor Castle, Port. ...	7.71	3.45	16	9	..
Greenvale, Portland ...	13.51	4.45	19	13	...
Mt. Holstein ...	6.91	1.03	12	19	12.72
Irish Town ..	5.76	1.40	16	7	...
Rose Hill ...	9.78	2.65	6	13	...
Hardware Gap ...	9.10	...	...	...	...
Stony Hill Ind. School ...	8.18	1.60	6	14	14.38
Castleton Gardens ...	6.01	...	...	...	15.48
Lawrence Tavern ...	7.68	1.35	12	10	...
Cedar Valley, Red Hills ..	7.45	1.30	6	12	...
Carew Castle ...	4.69	1.62	31	7	13.03
Agualta Vale ...	2.55	0.82	7	7	...
Water Valley ...	0.70	0.20	16	7	7.93
Albany, Ry. Station ..	0.94	0.64	29	4	...
Platfield ...	3.10	0.73	18	11	...
Richmond, St. Mary ..	1.55	0.61	8	8	9.83
Hampstead, St. Mary ...	5.66	1.88	7	11	...
Troja ...	2.16	0.48	28	7	...
Lucky Hill ...	3.24	0.90	28	8	...
Rio Hoe ...	3.31	0.80	30	12	9.64
Unity Valley ...	5.25	1.86	12	12	9.50
Moneague ...	3.99	1.25	12	8	9.94
Clarrmont ...	2.98	1.15	16	8	8.41
Albion, St. Ann ...	5.84	3.46	31	16	9.02
Averham Park ...	4.41	2.67	16	10	9.35
Means ...	7.14	...	..	...	...

NORTHERN DIVISION.	OCTOBER, 1913.				
	Total fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
	In.	In.			In.
Port Maria ...	4.40	1.78	15	10	8.86
Ocho Rios ...	2.03	1.78	16	3	4.84
Bogue, Ocho Rios ...	3.02	1.65	16	7	...
Drax Hall ...	2.45	0.90	16	10	7.58
St. Ann's Bay ...	3.22	1.55	16	9	7.22
Seville ...	3.49	1.76	16	10	7.09
Richmond Estate ...	3.73	1.72	16	6	...
Llandovery ...	2.53	1.13	16	5	7.48
Runaway Bay ...	2.30	0.60	28	7	...
Brown's Town ...	9.13	2.40	2	14	8.98
Alexandria ...	3.28	0.95	12	7	...
Chewmagna, St. Ann ...	5.19	1.40	20	10	8.35
Home Castle ...	4.55	2.20	7	11	7.14
Richmond Pen ...	6.80	1.45	7	9	7.78
Mahogany Hall ...	6.85	1.67	8	11	8.56
Barnstaple ...	7.01	1.79	7	11	...
Brampton Bryan ...	4.81	1.91	7	12	...
Bryan Castle ...	2.86	1.08	7	7	...
Braco ...	3.60	1.75	7	6	...
Arcadia ...	4.06	1.40	7	8	6.24
Lancaster ...	3.68	1.50	20	6	5.96
Harmony Hall ...	3.69	2.20	20	6	5.42
Vale Royal ...	5.25	1.38	6	10	6.69
Colchis Pen ...	5.71	1.35	7	12	...
Swanswick ...	6.35	1.70	6	14	...
Georgia ...	3.47	1.05	20	7	6.23
Long Pond ...	6.57	2.75	6	12	5.95
Hyde Hall ...	6.45	1.74	12	10	...
Steelfield ...	6.34	1.80	6	9	6.00
Etingdon ...	3.64	1.35	20	9	2.35
Oxford ...	...	...	...	...	...
Cambridge, Trelawny ...	...	...	...	...	...
Lottery ...	6.70	2.05	20	12	6.34
Falmouth ...	2.16	0.60	4	8	5.77
Florence Hall ...	4.30	3.00	20	8	...
Kent ...	10.07	4.03	20	12	6.48
Gales Valley ...	13.09	5.20	20	11	7.29
Canaan ...	...	...	...	...	...
Content ...	8.75	4.80	20	7	6.49
Bellfield ...	9.98	5.13	20	9	...
Hampden ...	...	...	...	...	...
Moor Park ...	6.34	2.47	8	9	...
Guilsbro ...	4.80	1.00	4	6	...
Rose Hall ...	8.30	2.50	6	6	6.11
Montego Bay ...	6.36	1.76	20	11	7.97
Catherine Hall ...	9.13	1.50	5	13	8.04
Retirement ...	5.85	1.19	12	17	...
King Gate ...	...	...	...	...	...
Round Hill ...	4.10	0.75	27	12	...
Blue Hole ...	7.12	3.74	20	10	...
Haughton Court ...	5.34	1.46	1	12	...
Lucea ...	6.01	1.50	20	11	8.52
Green Island ...	7.63	3.31	21	11	...
CENTRAL SUB-DIVISION.					
Rio Magno ...	...	...	...	...	...
Headworks, Rio Cobre ...	3.64	0.80	10	8	9.79
Linstead ...	5.59	1.30	26	12	10.32
Berkshire Hall ...	3.32	0.71	28	10	...
Point Hill ...	8.15	1.63	6	11	16.83
Brown's Hall .	9.50	1.60	16	11	11.62
Worthy Park ...	4.87	1.52	6	8	10.41
Chapelton ...	5.37	1.27	31	12	11.81
Danks Works ...	6.19	1.36	6	10	12.41
Savoy House ...	6.19	1.96	6	8	9.96
Trout Hall ...	6.51	2.06	29	10	...
Cave Valley ..	5.20	2.00	28	15	...
Greenock ...	4.86	1.80	...	...	...
Means ...	5.83	...	...	...	...

West-Central Division.	October, 1913. Total Fall.	Greatest fall in 24 hours. Amount.	Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Whitney ...	8.75	2.50	16	5	...
Mocho, Clarendon ...	5.13	1.85	16	5	...
Baillieston ...	5.53	1.50	29	11	10.70
Brokenhurst ...	10.26	6.11	29	11	14.94
Christiana ...	6.65	1.44	13	16	...
Chudleigh ...	7.69	2.52	6	13	...
Shooter's Hill ...	11.70	3.49	29	12	...
Spitzbergen ...	10.07	3.30	29	11	...
Kendal, Manchester ...	11.19	3.88	29	9	14.96
Marshalls Pen ...	11.10	2.75	29	14	12.81
Mandeville ...	9.53	4.45	29	10	16.56
Carlton, Mandeville ...	10.75	5.00	29	14	...
The Hill ...	10.16	3.00	12	10	...
Fairfield, Manchester ...	9.76	3.36	6	8	10.60
Ulster Spring ...	8.78	2.60	7	11	...
Freeman's Hall ...	8.02	1.32	7	10	...
Albert Town ...	8.63	2.14	7	12	...
Lowe River ...	8.01	2.00	12	12	...
Troy ...	7.23	1.20	21	10	16.50
Windsor Pen, Trel. ...	12.95	3.20	20	22	9.49
Wallingford ...	5.62	1.47	18	12	..
Balaclava Police Station ...	6.34	1.15	16	13	13.38
Siloah ...	15.30	3.55	18	15	...
Appleton Estate ...	11.67	3.21	16	17	14.01
Maggotty ...	10.54	2.40	21	15	15.30
Butlers ...	13.95	2.80	8	17	...
Deeside ..	11.63	1.99	9	13	...
Spring Vale ...	...	...	...	...	...
Garland ...	...	...	...	...	...
Mocho, Catadupa ...	15.75	2.95	12	15	...
Springfield, St. Elizabeth	11.04	1.83	4	20	...
Catadupa Rly. Station ...	12.08	1.77	12	18	...
Kempshot ...	7.64	1.20	20	17	9.60
Cambridge, St. James ...	18.87	4.05	19	15	...
Hazelymph ...	18.19	4.47	19	16	10.66
New Market, Police St. ...	12.31	2.24	4	16	...
The Bog, New Market ...	10.15	2.34	12	14	...
Kew Park ...	9.78	2.09	11	18	11.68
Montpelier ...	...	..	...	...	..
Knockalva ..	13.21	2.05	20	14	...
Ramble ...	15.86	3.00	20	20	...
Petersville ...	15.13	4.50	16	16	11.33
Darliston ...	12.52	1.42	6	24	15.71
Whithorn ...	11.18	2.00	21	22	11.93
Water Works ...	7.30	1.30	21	18	...
Great Valley, Han. ...	7.93	1.00	2	10	...
Prospect Park ...	11.17	3.21	21	12	...
Fontabelle, Westm. ...	12.64	3.50	21	16	10.44
Belleisle ...	8.62	2.70	21	14	9.53
Morgan's Bridge ...	10.60	3.65	21	16	12.94
King's Vale Police St. ...	9.64	3.94	21	13	10.25
Means ...	10.57	...	...	...	...

Southern Division.	October, 1913. Total fall.	Greatest fall in 24 hours. Amount.	Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Morant Point L. H. ...	6.74	1.68	16	25	11.7
Pleasant Hill ...	5.53	1.03	29	13	...
East Prospect ...	4.39	2.20	29	16	...
Morant Bay ...	3.86	1.88	29	9	14.22
Easington ...	4.81	3.30	29	8	14.22
Bull Bay ...	3.25	3.10	29	2	...
Gordon Town ...	6.69	1.00	6	11	...
Hope Gardens ...	4.14	...	...	...	10.70
King's House Gardens ...	4.18	...	...	...	11.08
Halfway Tree ...	3.27	0.95	5	5	...
Lunatic Asylum ...	3.18	1.12	29	8	7.93
Parade Gardens ...	2.03	1.05	29	5	...
Kingston S. Camp Road ...	2.54	1.01	29	8	..
" P. W. Office ...	1.41	0.41	29	7	8.15
Plumb Point L. H. ...	1.23	0.84	29	8	7.67
Clifton Pen ...	1.93	0.85	4	4	...
Quarantine Station ...	1.10	0.94	29	3	...
Spanish Town ...	1.83	0.87	29	8	9.59
Hog Hole Pen ...	1.85	0.81	29	4	10.09
Hartlands ...	1.32	0.52	17	5	...
Belmont, Guanaboa Vale	7.72	1.25	14	17	...
Old Harbour ...	1.73	0.70	17	7	11.07
May Pen ...	4.41	2.80	11	6	11.57
Dunkley's, Vere ...	3.22	2.13	29	5	7.01
Dry River " ...	3.61	1.86	29	5	...
Denbigh ...	3.50	1.25	14	4	10.11
Toll Gate ...	6.64	3.10	29	9	...
Woodleigh ...	3.25	1.10	28	4	...
New Yarmouth ...	3.62	2.29	29	5	9.20
Exeter, Vere ...	3.15	2.55	29	5	...
Rhymesbury ...	3.16	2.50	29	8	8.49
Milk River ...	5.40	4.80	29	3	7.56
Clarendon Pk. Ry. St. ...	7.57	2.30	16	11	...
Victoria Town ...	4.69	4.09	29	2	11.55
Stone's Hope ...	5.12	2.53	29	10	13.35
Newport, Manchester ...	9.42	3.56	29	11	13.26
Great Valley, Man. ...	4.41	2.26	29	10	11.37
Alligator Pond ...	2.01	1.66	29	2	8.77
Southfield, St. Elizabeth ...	4.98	3.69	29	5	...
Lititz ...	3.04	1.30	29	10	...
Long Hill ...	8.45	3.02	12	14	13.00
Torrington ...	5.41	3.00	17	6	11.26
Bethlehem, St. Eliz. ...	6.70	3.05	17	11	...
Santa Cruz ...	10.32	1.97	12	14	12.01
Pedro Plains Police St. ...	3.11	1.17	17	8	6.60
Black River ...	4.13	2.30	12	14	8.74
Font Hill ...	6.40	1.60	11	10	9.95
Mount Edgecombe ...	10.22	2.46	16	14	10.05
Bluefields ...	8.78	1.72	20	12	...
Sweet River ...	5.15	1.50	29	10	10.06
Windsor, Sav.-la-mar ...	3.12	0.72	28	11	8.40
Orchard ...	3.44	1.02	28	10	...
Sav.-la-mar ...	2.88	0.68	29	8	8.99
Retreat ...	6.11	1.63	29	10	10.96
White Hall ...	7.04	2.37	21	12	..
Negril Point L.H. ...	5.58	1.08	21	15	8.37
Means ...	4.54	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.

(Based upon the "Average" Stations only.)

—	OCTOBER. 1913. In.	OCTOBER. Average. In.
North-Eastern Division ...	7.14	13.22
Northern ...	5.83	7.46
West-Central ...	10.57	12.02
Southern ...	4.54	10.28
The Island ...	7.02	10.74

Port Antonio and Moore Town had over 19 inches: Cambridge and Hazelymph had over 18 inches: but Albany Railway Station and Water Valley had less than 1 inch; and the country between Kingston and Old Harbour had less than 2.

The rainfall was therefore unevenly distributed, and below the average.

Rainfall at Grand Cayman, September, 1913.	Total Fall.	Greatest fall. Amount.	Greatest fall. Date.	No. of days on which 0.01 or more fell.
	In.	In.		
East End ...	7.06	2.90	25	5
Bodden Town ...	8.95	2.50	28	13
George Town ...	..	..	..	..
October, 1913.				
East End ...	...	...	...	...
Bodden Town ...	1.74	0.70	29	4
George Town ...	...	...	...	...

SHOCKS OF EARTHQUAKE IN OCTOBER, 1913.

Date.	Mean time. hr.	min.	Intensity.	Notes: where felt, etc.
26	3	50 a.m.	II	Fontabelle, Westmoreland Sound rather loud.
			...	
			...	

PLUMB POINT LIGHT HOUSE—

Average No. of Miles of wind per diem	169
Greatest on the 28th	398
Least on the 15th	72

The Weather Office,
Halfway Tree P.O.

MAXWELL HALL,
Govt. Meteorologist.

THE MONEAGUE EPICENTRES.

There are two epicentres near this village which are to be distinguished chiefly by their slightly different periods; the records of their shocks come for the most part from Unity Valley and Albion: the intensity of the shocks is small, either I or II; and they are somewhat deeply situated.

There is this peculiarity, however, to be noticed, that some of the shocks grouped as (M. east) have been felt in St. Mary and as far as Kingston 31 miles to the S.E. of Moneague, and that some of the shocks grouped as (M. west) have been felt in Clarendon and as far as Windsor Pen 36 miles to the WNW of Moneague; so that (M. east) may be nearer Guy's Hill, and (M. west) may be nearer the Dry Harbour Mountains; but they cannot be marked on the map with the same accuracy as the other epicentres for want of fairly constant recording at other places besides Unity Valley and Albion.

THE MONEAGUE EPICENTRE (M. east).

Date.	Interval Observed.	Period.	N.	Interval Computed.	Diff. O—C.	Intensity.
	d.	d.		d.	d.	
1899 Jan. 21.4	..	13.462	..	..	..	II.
1902 July 11.2	1265.8	"	94	1265.4	+0.4	I.
" Nov. 10.0	1387.6	"	103	1386.6	+1.0	I.
1903 Aug. 3.1	1653.7	"	123	1655.8	−2.1	I.
" Aug. 16.4	1667.0	"	124	1669.3	−2.3	I.
1907 Aug. 8.7	3120.3	"	232	3123.2	−2.9	I.
" Oct. 3.7	3176.3	"	236	3177.0	−0.7	II.
" Nov. 29.0	3232.6	"	240	3230.9	+1.7	II.
" Dec. 11.2	3244.8	"	241	3244.3	+0.5	I.
" Dec. 25. 9	3259.5	"	242	3257.8	+1.7	II.
1908 Jan. 19.9	3284.5	"	244	3284.7	−0.2	I.
" Feb. 2.1	3297.7	"	245	3298.2	−0.5	I.
" Mar. 29.1	3353.7	"	249	3352.0	+1.7	I.
" Apr. 11.0	3366.6	"	250	3365.6	+1.1	I.
1909 Jan. 2.6	3633.2	"	270	3634.7	−1.5	I.
" Jan. 30.3	3660.9	"	272	3661.7	−0.8	I.
" Sept. 30.4	3904.0	"	290	3904.0	0.0	I.
1911 June 12.0	4523.6	"	336	4523.2	+0.4	I.
1912 Jan. 10.7	4736.3	"	352	4738.6	−2.3	II.
" Mar. 8.0	4793.6	"	356	4792.4	+1.2	II.
1913 Sept. 24.3	5358.9	"	398	5357.9	+1.0	I.

THE MONEAGUE EPICENTRE (M. west.)

Date.	Interval. Observed.	Period.	N.	Interval. Computed.	Diff. O—C.	Intensity.
	d.	d.		d.	d.	
1889 Mar. 6.8	..	13.303	..	..	..	II.
1894 Feb. 4.9	1796.1	"	135	1795.9	+0.2	I.
1895 Feb. 11.7	2167.9	"	163	2168.4	−0.5	I.
1896 Feb. 18.1	2539.3	"	191	2540.9	−1.6	II.
1898 Nov. 25.9	3551.1	"	267	3551.9	−0.8	I.
1901 Oct. 13.6	4602.8	"	346	4602.8	0.0	I.
1903 Sept. 19.1	5308.3	"	399	5307.9	+0.4	I.
1906 Apr. 13.9	6346.1	"	477	6345.5	+0.6	I.
" Nov. 25.1	6571.3	"	494	6571.7	−0.4	I.
1907 Dec. 2.1	6943.3	"	522	6944.2	−0.9	II.
" Dec. 28.2	6969.4	"	524	6970.8	−1.4	I.
1908 Jan. 11.6	6983.8	"	525	6984.1	−0.3	II.
" Feb. 6.5	7009.7	"	527	7010.7	−1.0	II.
" June 5.5	7129.7	"	536	7130.4	−0.3	I.
1909 Jan. 31.8	7369.0	"	554	7369.9	−0.9	I.
1911 Jan. 22.5	8089.7	"	608	8088.3	+1.4	I.
1912 Nov. 4.2	8741.4	"	657	8740.1	+1.3	I.

THE SILOAH EPICENTRE.

As remarked in Weather Report No. 365 there is not much trouble in picking out the shocks from this epicentre; when we find that a shock was felt between Windsor Pen in Trelawny, and Potsdam in St. Elizabeth, or between Windsor Pen and Petersville in Westmoreland, or between Unity Valley and Mount Edgecombe in Westmoreland, we may be pretty sure that they came from this epicentre. Their intensity is considerable, sometimes III. and once IV.

The average length of the period is almost exactly 15 days, and this connects the shock felt in the west end of the Island 1872, Dec. 7th, 8 p.m., with this series; for the interval between this date and 1884 Sept. 6th, 9.57 p.m., is 4291.1 days, and this interval is also equal to 286 periods of 15.004 days each. The matter is interesting to me as it was the first shock I had ever felt, having arrived in Jamaica a few months previously. I was then at Content near Miles Town: there was a good deal of sound, and the house trembled for 8 or 10 seconds.

THE SILOAH EPICENTRE (S.).

Date.	Interval. Observed.	Period.	N.	Interval. Computed.	Diff. O—C.	Intensity.
	d.	d.		d.	d.	
1884 Sept. 6.9	..	14.984	..	..	..	II.
" Nov. 20.9	75.0	"	5	74.9	+0.1	I.
1885 Oct. 2.4	390.5	"	26	389.6	+0.9	III.
" Dec. 14.8	463.9	"	31	464.5	−0.6	I.
1886 Apr. 15.7	585.8	"	39	584.4	+1.4	I.
" May 28.6	628.7	"	42	629.3	−0.6	II.
" July 12.1	673.2	"	45	674.3	−1.1	I.
" Nov. 10.7	794.8	"	53	794.2	+0.6	I.
1888 Feb. 3.2	1244.3	"	83	1243.7	+0.6	II.
" Apr. 16.1	1317.2	"	88	1318.6	−1.4	I.
1890 Feb. 22.1	1994.2	"	133	1992.9	+1.3	II.
1893 Dec. 17.2	3388.3	"	226	3386.4	+1.9	II.
1894 Oct. 25.1	3700.2	"	247	3701.0	−0.8	I.
1895 Oct. 3.1	4043.2	"	270	4045.7	−2.5	I.
1896 Feb. 16.5	4179.6	"	279	4180.5	−0.9	II.
1897 Apr. 12.9	4601.0	"	307	4600.1	+0.9	II.
1899 June 14.2	5393.3	"	360	5394.2	−0.9	II.
1899 June 14.2	..	14.92	..	..	..	II.
1902 Feb. 23.6	984.4	"	66	984.7	−0.3	II.
" Sept. 20.8	1193.6	"	80	1193.6	0.0	II.
1903 Aug. 2.1	1508.9	"	101	1506.9	+2.0	I.
" Aug. 13.4	1520.2	"	102	1521.8	−1.6	I.
" Sept. 14.1	1551.9	"	104	1551.7	+0.2	II.
1905 Jan. 27.6	..	15.06	..	..	..	II.
1906 June 22.1	510.5	"	34	512.0	−1.5	II.
1907 Nov. 20.0	1026.4	"	68	1024.1	+2.3	II.
1908 Jan. 2.3	1069.7	"	71	1069.3	+0.4	IV.
" Jan. 17.7	1085.1	"	72	1084.3	+0.8	II.
" Apr. 17.4	1175.8	"	78	1174.7	+1.1	I.
" Apr. 30.5	1188.9	"	79	1189.7	−0.8	I.
" June 28.1	1247.5	"	83	1249.9	−2.4	I.
" Aug. 1.2	1281.6	"	85	1280.1	+1.5	I.
" Aug. 31.9	1312.3	"	87	1310.2	+2.1	I.
" Sept. 29.0	1340.4	"	89	1340.3	+0.1	I.
1909 Feb. 11.0	1475.4	"	98	1475.9	−0.5	III.
" Feb. 27.2	1491.6	"	99	1490.9	+0.7	I.
" June 26.9	1611.3	"	107	1611.4	−0.1	I.
1909 Aug. 17.9	..	15.06	..	..	..	I.
" Oct. 31.2	74.3	"	5	75.3	−1.0	III.
" Dec. 16.6	120.7	"	8	120.5	+0.2	I.
" Dec. 29.8	133.9	"	9	135.5	−1.6	II.
1910 Aug. 12.1	359.2	"	24	361.4	−2.2	III.
1911 Jan. 26.6	526.7	"	35	527.1	−0.4	I.
" June 26.9	678.0	"	45	677.7	+0.3	I.
" Sept. 22.6	765.7	"	51	768.1	−2.4	I.
1912 Mar. 8.0	933.1	"	62	933.7	−0.6	I.
1912 May 16.1	..	14.9	..	..	..	III.
" Nov. 27.1	195.0	"	13	193.7	+1.3	I.
1913 Mar. 24.2	312.1	"	21	312.9	−0.8	I.

THE DARLISTON EPICENTRE.

About 20 miles further west we come to this epicentre having the shortest period of them all, namely 10.8 days; the average difference between the observed and computed intervals is 0.8 day. But the average difference for (A) having the longest period of them all, namely, 30.5 days, is 1.0 day; so that there is no connection between the length of the period and the difference O—C.

THE DARLISTON EPICENTRE (D.).

Date.	Interval Observed.	Period.	N.	Interval Computed.	Diff. O—C.	Intensity.
	d.	d.		d.	d.	
1881 Oct. 14.9	..	10.975	..	..	..	II.
" Dec. 8.8	54.9	"	5	54.9	0.0	I.
1882 Jan. 22.2	99.3	"	9	98.8	+0.5	II.
" Sept. 20.7	340.8	"	31	340.2	+0.6	I.
1886 Feb. 9.7	1579.8	"	144	1580.4	−0.6	III.
1889 Nov. 23.6	2962.7	"	270	2963.2	−0.5	II.
1894 July 22.8	4664.9	"	425	4664.4	+0.5	I.
" Nov. 19.7	4784.8	"	436	4785.1	−0.3	II.
1895 July 9.2	5016.3	"	457	5015.6	+0.7	I.
" Sept. 21.0	5090.1	"	464	5092.4	−2.3	I.
1896 Jan. 2.8	..	10.84	..	..	..	I.
" Dec. 24.9	357.1	"	33	357.7	−0.6	I.
1898 July 10.9	920.1	"	85	921.4	−1.3	II.
1900 June 7.3	1616.5	"	149	1615.2	+1.3	I.
" Sept. 11.5	1712.7	"	158	1712.7	0.0	I.
1902 Nov. 13.2	2505.4	"	231	2504.0	+1.4	I.
" Nov. 22.1	2514.3	"	232	2514.9	−0.6	I.
1903 Feb. 5.6	2589.8	"	239	2590.8	−1.0	I.
1906 June 26.6	3826.8	"	353	3826.5	+0.3	I.
" Nov. 24.1	3977.3	"	367	3978.3	−1.0	I.
1907 Dec. 31.6	4379.8	"	404	4379.4	+0.4	I.
1908 Jan. 21.4	4400.6	"	406	4401.0	−0.4	I.
" Mar. 3.7	4442.9	"	410	4444.4	−1.5	II.
" Mar. 24.9	4464.1	"	412	4466.1	−2.0	I.
1908 May 26.8	..	10.82	..	..	..	I.
1909 Jan. 7.6	225.8	"	21	227.2	−1.4	II.
" Jan. 31.5	249.7	"	23	248.9	+0.8	II.
" Mar. 16.3	293.5	"	27	292.1	+1.4	I.
" May 19.3	357.5	"	33	357.1	+0.4	II.
" Nov. 28.9	551.1	"	51	551.8	−0.7	I.
1912 May 15.2	1449.4	"	134	1449.9	−0.5	I.
1913 Sept. 25.6	1947.8	"	180	1947.6	+0.2	I.
" Oct. 26.2	1978.4	"	183	1980.1	−1.7	II.

THE CASCADE EPICENTRE.

This is the last of the epicentres; it is about 6 miles SE of Lucea; and the record of the shocks between 1907 and 1909 was greatly assisted by a seismometer established at Great Valley.

The details in this report are given in exactly the same form as in the last three reports; the day, commencing at midnight, is divided into tenths instead of hours for the more easy management of the length of the observed intervals; and in this connection the following table may be found useful.

DECIMALS OF A DAY.

	hr.	min.		hr.	min.	Decimal.
From	10	48 p.m.	to	1	12 a.m.	0.0
"	1	12 a.m.	"	3	36 "	0.1
"	3	36 "	"	6	0 "	0.2
"	6	0 "	"	8	24 "	0.3
"	8	24 "	"	10	48 "	0.4
"	10	48 "	"	1	12 p.m.	0.5
"	1	12 p.m.	"	3	36 "	0.6
"	3	36 "	"	6	0 "	0.7
"	6	0 "	"	8	24 "	0.8
"	8	24 "	"	10	48 "	0.9
"	10	48 "	"	1	12 a.m.	1.0

The following is the Jamaica Earthquake scale:—

	Horizontal Motion.
	In.
I. Light shock	0.003
II. Well-marked shock	0.010
III. Shock sufficient to make houses rock	0.032
IV. Shock sufficient to crack walls of houses	0.100
V. Shock sufficient to throw down a few houses	0.316
VI. Shock sufficient to throw down almost all houses	1.000

THE CASCADE EPICENTRE (C.).

Date.	Interval Observed.	Period.	N.	Interval Computed.	Diff. O—C.	Intensity.
	d.	d.		d.	d.	
1882 May 5.0	..	15.19	..	..	..	II.
1883 Feb. 1.9	272.9	"	18	273.4	−0.5	I.
1886 Jan. 16.3	1352.3	"	89	1351.9	+0.4	I.
" Nov. 15.1	1655.1	"	109	1655.7	−0.6	I.
1887 Apr. 18.1	1809.1	"	119	1807.6	+1.5	I
1888 Apr. 14.5	2171.5	"	143	2172.2	−0.7	III
1891 Apr. 27.3	3279.3	"	216	3281.0	−1.7	II.
1891 Apr. 27.3	..	15.24	..	..	..	II.
1894 Aug. 31.1	1221.8	"	80	1219.2	+2.6	II.
1895 Apr. 14.2	1447.9	"	95	1447.8	+0.1	II.
" Apr. 29.5	1463.2	"	96	1463.0	+0.2	I.
1896 Jan. 28.9	1737.6	"	114	1737.4	+0.2	III.
" Feb. 12.9	1752.6	"	115	1752.6	0.0	I.
1898 Dec. 14.4	2788.1	"	183	2788.9	−0.8	II.
1898 Dec. 14.4	..	15.142	..	..	..	II.
1901 Jan. 11.5	758.1	"	50	757.1	+1.0	I.
1902 Sept. 21.8	1376.4	"	91	1377.9	−1.5	I.
1907 Aug. 28.9	3178.5	"	210	3179.8	−1.3	I.
" Sept. 29.1	3209.7	"	212	3210.1	−0.4	I.
" Dec. 13.7	3285.3	"	217	3285.8	−0.5	I.
1908 Jan. 14.0	3316.6	"	219	3316.1	+0.5	I.
1908 Jan. 14.0	..	15.60	..	..	..	I.
" Mar. 31.9	77.9	"	5	78.0	−0.1	I.
" June 2.2	140.2	"	9	140.4	−0.2	I.
" Aug. 3.6	202.6	"	13	202.8	−0.2	II.
" Oct. 19.6	279.6	"	18	280.8	−1.2	I.
1909 Jan. 23.4	375.4	"	24	374.4	+1.0	I.
" July 31.0	564.0	"	36	561.6	+2.4	I.
1911 Mar. 24.6	1165.6	"	76	1164.0	+1.6	II.

M. H.

No. 424.

JAMAICA

WEATHER REPORT

FOR THE MONTH OF

NOVEMBER, 1913.

The Bar-pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

Stations.	Elevation.	Bar Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range.
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	29.938	29.893	78.7	81.6	83.3	74.2	9.1	85.5	7	66.0	10	19.5
Kingston ..	24	29.919	29.863	72.8	83.3	88.1	71.2	16.9	90.2	4	68.2	30	22.0
Negril Point Light House ..	33	29.935	29.890	76.1	82.6	85.5	71.6	13.9	88.5	19	68.2	22	20.3
Castleton Gardens ..	496	..	..	72.0	78.3	83.6	66.6	17.0	90	1*	61	30	29
Hope Gardens† ..	668	29.937	29.849	70.6	82.6	86.0	67.6	18.4	91	18*	65	29*	26
Stony Hill Indus. School ..	1,400	..	..	70.2	77.6	80.1	65.4	14.7	87	19	63	12*	24
Hill Gardens ..	4,900	25.289	25.216	..	..	67.4	55.5	11.9	71	19*	53	30	18

Stations.	Elevation.	Dew Point and Humidity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
	ft.	°		°		in.	miles		m.		m.	L.	M.	U.	L.	M.	U.
Morant Pt. Light House ..	8	73.3	84	74.3	78	6.13	322	ENE	11	ENE	14	1.5	2.4	2.6	1.5	1.9	2.5
Kingston ..	24	69.3	89	72.3	70	1.68	136	N	4	SE	9	1.4	1.3	3.1	4.0	1.8	1.9
Negril Point Light House‡ ..	33	69.0	78	72.3	71	2.05	233	E	10	ESE	11	2.0	2.0	2.5	2.3	4.8	1.6
Castleton Gardens ..	496	66.0	81	71.2	79	32.12	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens ..	668	64.5	75	65.4	55	5.46	..	..	..	..	..	..	..	..	..	..	..
Stony Hill Indus. School ..	1,400	67.9	91	70.7	79	7.64	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	60.0	89	60.4	89	25.78	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
‡ Negril Point Light House. Wind 11 p.m. NE 9.4

RAINFALL FOR NOVEMBER, 1913.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	NOVEMBER, 1913.				
	Total Fall.	Greatest fall in 24 hours. Amount	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Manchioneal ...	...	...	...	...	...
Ecclesdown ...	20.69	2.12	3	26	...
Spring Valley, Portland .	13.06	2.44	2	15	...
Bath ...	5.95	2.25	2	23	12.95
Boston ...	2.90	1.00	3	4	13.51
Moore Town ...	22.30	...	...	...	34.15
Port Antonio ...	7.86	1.92	2	18	16.39
Fellowship ...	18.36	2.65	16	24	27.19
Windsor, Portland ...	...	...	...	...	...
Johnson River Bridge ...	6.34	1.26	13	16	6.70
Shrewsbury ...	...	...	...	...	...
Cedar Valley, St. Thos. ...	7.70	1.73	13	11	13.09
Hope Bay ...	7.85	1.45	10	22	...
Moy Hall, St. Thos. ...	14.91	2.50	12	14	13.14
Lennox ...	10.70	2.10	10	9	...
Hill Gardens ...	25.78	...	...	...	14.71
Buff Bay ...	9.55	1.80	11	14	16.12
Vinery ...	...	...	...	...	...
Windsor Castle, Port. ...	...	...	...	...	...
Greenvale, Portland ...	44.33	5.90	14	25	...
Mt. Holstein ...	35.46	6.02	13	29	26.11
Irish Town ...	8.24	1.67	12	10	...
Rose Hill ...	21.86	6.28	12	13	...
Hardwar Gap ...	21.28	...	...	10	...
Stony Hill Ind. School ...	7.64	2.45	13	15	7.14
Castleton Gardens ...	32.12	...	...	...	14.42
Lawrence Tavern ...	14.47	4.00	14	13	...
Cedar Valley, Red Hills ...	5.40	1.50	9	11	...
Carew Castle ...	12.21	3.41	13	12	9.36
Agualta Vale ...	9.04	2.15	6	20	...
Water Valley ...	8.26	1.68	6	19	10.01
Albany, Ry. Station ...	11.13	2.25	10	19	...
Platfield ...	14.29	3.40	14	25	...
Richmond, St. Mary ...	12.61	3.30	11	19	11.65
Hampstead, St. Mary ...	20.40	4.55	11	24	...
Troja ...	18.42	3.60	14	18	...
Lucky Hill ...	13.55	2.80	10	18	...
Rio Hoe ...	13.57	4.38	11	24	9.40
Unity Valley ...	13.73	3.55	11	25	9.01
Moneague ...	14.43	3.40	11	24	9.90
Claremont ...	17.30	3.04	11	18	10.46
Albion, St. Ann ...	18.05	4.49	11	22	9.74
Averham Park ...	18.31	3.10	10	19	11.85
Means ...	15.35	...	...	...	...

NORTHERN DIVISION.	NOVEMBER, 1913.				
	Total fall.	Greatest fall in 24 hours. Amount.	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Port Maria ...	12.12	6.38	10	14	10.69
Ocho Rios ...	13.78	6.87	10	14	7.73
Bogue, Ocho Rios ...	16.65	8.12	10	18	...
Drax Hall ...	12.40	5.00	10	15	10.04
St. Ann's Bay ...	11.74	6.02	10	19	9.00
Seville ...	12.93	6.82	10	18	9.80
Richmond Estate ...	10.56	3.50	10	16	9.42
Llandovery ...	13.96	6.40	10	16	9.16
Runaway Bay ...	8.20	2.35	10	12	...
Brown's Town ...	16.95	5.22	10	13	10.58
Alexandria ...	8.20	2.35	11	10	...
Chewmagna, St. Ann ...	8.85	2.45	11	15	6.91
Home Castle ...	21.42	7.70	10	16	7.35
Richmond Pen ...	15.25	3.15	11	10	5.99
Mahogany Hall ...	21.58	11.00	10	12	7.14
Barnstaple ...	18.36	6.00	10	13	...
Brampton Bryan ...	12.48	4.14	10	12	5.72
Bryan Castle ...	8.03	3.15	10	15	6.40
Braco ...	7.95	3.40	10	12	5.88
Arcadia ...	10.58	3.67	10	13	6.47
Lancaster ...	8.30	3.50	10	6	...
Harmony Hall ...	9.35	4.46	10	10	...
Vale Royal ...	12.40	3.48	10	14	7.30
Colchis Pen ...	10.77	3.77	10	15	5.81
Swanswick ...	8.73	2.31	10	14	...
Georgia ...	7.83	2.03	11	15	5.84
Long Pond ...	8.69	2.23	11	13	5.52
Hyde Hall ...	8.60	2.03	10	11	5.14
Steelfield ...	8.54	2.30	11	11	5.90
Etingdon ...	6.54	1.75	10	18	5.37
Oxford ...	...	...	...	...	...
Cambridge, Trelawny ...	...	...	...	...	...
Lottery ...	7.90	2.35	10	13	5.38
Falmouth ...	...	...	...	...	...
Florence Hall ...	6.30	3.00	11	11	...
Kent ...	...	...	...	...	...
Gales Valley ...	11.39	2.90	10	10	4.84
Canaan ...	11.76	3.35	10	16	5.03
Content ...	13.45	4.25	11	13	...
Bellfield ...	...	...	...	...	...
Hampden ...	...	...	...	...	...
Moor Park ...	11.06	3.00	11	10	...
Guilsbro ...	11.40	3.50	12	17	5.78
Rose Hall ...	14.05	5.00	11	8	...
Montego Bay ...	...	...	...	...	...
Catherine Hall ...	11.48	6.20	11	9	4.58
Retirement ...	14.37	5.90	11	22	...
King Gate ...	...	...	...	...	...
Round Hill ...	...	...	...	...	...
Blue Hole ...	7.72	2.72	14	5	...
Haughton Court ...	4.50	1.50	14	8	...
Lucea ...	6.76	1.43	14	11	5.71
Green Island Police St. ...	5.44	2.51	4	9	...
CENTRAL SUB-DIVISION.					
Headworks, Rio Cobre ...	2.92	0.65	18	9	4.74
Linstead ...	8.70	2.55	10	12	5.02
Berkshire Hall ...	9.87	2.53	14	19	...
Point Hill ...	13.36	2.56	14	1[illegible]	10.16
Brown's Hall ...	6.83	1.86	10	1[illegible]	8.13
Worthy Park ...	4.38	1.60	10	9	4.18
Chapelton ...	5.19	2.04	24	13	4.49
Danks Works ...	2.31	0.70	4	12	4.99
Savoy House ...	2.55	0.78	4	14	5.62
Trout Hall ...	2.79	1.30	24	7	...
Cave Valley ...	...	...	...	...	...
Greenock ...	...	...	...	...	...
Means ...	10.29	...	...	...	...

WEST-CENTRAL DIVISION.	NOVEMBER, 1913. Total Fall.	Greatest fall in 24 hours. Amount.	Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Whitney ...	...	...	...	...	...
Mocho, Clarendon ...	1.96	1.02	3	4	..
Baillieston ...	1.61	0.60	12	6	5.25
Brokenhurst ...	5.00	2.80	24	7	6.21
Christiana ...	4.14	1.16	24	16	6.82
Chudleigh ...	4.90	1.84	7	14	...
Shooter's Hill ...	4.39	1.77	7	12	...
Spitzbergen ...	3.90	1.30	7	14	...
Kendal, Manchester ...	2.97	1.00	5	7	5.99
Marshalls Pen ...		...	...	...	...
Mandeville ...	2.84	0.61	7	13	6.29
Carlton, Mandeville ...	2.91	0.76	24	15	..
The Hill ...	3.58	1.48	21	9	...
Fairfield, Manchester ...	3.66	1.64	7	13	6.46
Ulster Spring ...	9.12	2.10	10	11	6.19
Freeman's Hall ...	7.23	2.73	9	9	...
Albert Town ...	7.17	2.10	10	10	...
Lowe River ...	9.79	1.50	9	10	...
Troy ...	3.40	0.75	10	8	6.46
Windsor Pen, Trel. ...	11.98	3.80	10	15	6.03
Wallingford ...	3.05	1.12	6	12	...
Balaclava Police Station ...	3.53	1.55	7	11	5.91
Siloah ...	6.07	2.30	5	9	...
Appleton Estate ...	7.20	2.67	7	14	6.04
Maggotty ...	6.33	2.30	7	11	6.80
Butlers ...	9.65	2.80	7	13	...
Deeside ..	14.78	2.02	11	16	...
Spring Vale ...	13.62	3.40	10	12	6.08
Garland ...	...	...	...	...	...
Mocho, Catadupa ...	...	...	...	...	...
Springfield, St. Elizabeth	2.91	1.70	7	9	...
Catadupa Rly. Station ...	5.39	2.40	8	9	...
Kempshot ...	12.95	4.50	10	17	6.18
Cambridge, St. James ...	7.42	2.10	2	14	...
Hazelymph ...	...	...	...	...	...
New Market, Police St. ...	4.18	1.85	7	9	...
The Bog, New Market ...	6.40	1.76	3	11	...
Kew Park ...	4.82	1.00	10	11	5.52
Montpelier ...	...	...	...	...	..
Knockalva	8.32	2.72	10	9	...
Ramble ...	9.21	3.50	10	10	...
Petersville ...	6.80	2.55	3	7	6.49
Darliston ...	4.42	2.30	7	12	7.48
Whithorn ...	8.86	1.30	6	13	6.92
Water Works ...	8.00	2.20	6	11	...
Great Valley, Han. ...	9.01	2.30	11	11	...
Prospect Park ...	5.58	2.02	3	8	...
Fontabelle, Westm. ...	1.68	0.41	12	8	...
Belleisle ...	1.33	0.45	1	7	3.36
Morgan's Bridge ...	1.51	0.50	3	5	5.30
King's Vale Police St. ...	3.98	1.17	4	10	5.46
Means ...	5.71	...	...	...	...

SOUTHERN DIVISION.	NOVEMBER, 1913. Total fall.	Greatest fall in 24 hours. Amount.	Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Morant Point L. H. ...	6.13	1.35	3	17	6.90
Pleasant Hill ...	8.71	3.73	1	11	...
East Prospect ...	6.52	1.40	1	18	..
Morant Bay ...	3.37	0.68	2	12	6.44
Easington ...	2.70	0.77	13	9	5.35
Bull Bay ...	1.28	0.56	12	4	...
Gordon Town ...	7.83	1.40	12	13	...
Hope Gardens ...	5.46	...	...	...	6.35
King's House Gardens ...	4.51	...	...	...	3.31
Halfway Tree ...	3.85	2.00	8	3	...
Lunatic Asylum ...	2.31	0.92	9	8	3.57
Parade Gardens ...	1.76	0.73	9	8	...
Kingston S. Camp Road ...	2.55	1.35	9	7	..
" P. W. Office ..	1.68	0.82	9	6	3.00
Plumb Point L. H. ...	0.93	0.25	20	8	3.32
Clifton Pen ...	1.67	0.52	12	6	...
Quarantine Station ...	0.61	0.32	12	4	...
Spanish Town ...	3.50	2.20	21	4	3.56
Hog Hole Pen ...	2.99	0.88	9	7	4.34
Hartlands ...	1.04	0.75	9	3	...
Belmont, Guanaboa Vale	4.37	1.10	24	13	...
Old Harbour ...	2.63	0.75	20	6	3.60
May Pen ...	2.69	1.18	10	4	4.51
Dunkley's, Vere ..	1.95	0.90	14	6	3.92
Dry River " ...	2.09	0.90	14	9	...
Denbigh ...	...	...	...	...	...
Toll Gate ...	1.52	0.47	17	6	...
Woodleigh ...	...	...	...	...	...
New Yarmouth ..	1.64	0.73	14	6	2.66
Exeter, Vere ...	1.07	0.36	9	6	...
Rhymesbury ...	2.46	0.88	14	10	3.58
Milk River ...	...	...	...	..	...
Clarendon Pk. Ry. St. ...	2.96	0.71	20	11	..
Victoria Town ...	1.72	0.54	1	5	4.53
Hog Hole, S. Manch. ...	2.67	0.70	14	7	...
Stone's Hope ...	3.93	0.87	24	8	5.01
Newport, Manchester ...	2.89	1.57	24	8	6.29
Great Valley, Man. ...	2.00	0.85	14	10	4.24
Alligator Pond ...	2.26	0.77	14	4	2.97
Southfield, St. Elizabeth ...	2.25	0.56	14	10	...
Lititz ...	2.87	1.70	24	7	...
Long Hill ...	3.41	1.21	17	9	5.86
Torrington ...	4.05	1.03	20	6	6.99
Bethlehem, St. Eliz. ...	5.81	1.37	18	8	7.32
Santa Cruz ...	2.25	1.08	20	5	5.89
Pedro Plains Police St. ...	1.96	0.60	17	10	4.01
Black River ...	1.45	0.37	24	9	4.53
Font Hill ...	4.55	1.45	3	7	5.32
Mount Edgecombe ...	5.07	2.27	3	14	5.00
Bluefields ...	4.57	2.25	2	6	...
Sweet River ...	7.16	1.42	7	11	3.80
Windsor, Sav.-la-mar ...	2.64	0.88	2	9	3.04
Orchard ...	2.29	0.68	2	9	...
Sav.-la-mar ...	5.18	1.95	1	6	3.10
Retreat ...	3.71	0.95	21	9	4.79
White Hall ...	2.71	1.84	2	3	..
Negril Point L.H. ...	2.05	0.47	14	13	3.21
Means ...	3.24	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.

(Based upon the "Average" Stations only.)

—	NOVEMBER. 1913.	NOVEMBER. Average.
	In.	In.
North-Eastern Division ...	15.35	13.54
Northern " ...	10.29	5.91
West-Central " ...	5.71	5.74
Southern " ...	3.24	4.50
The Island ...	8.65	7.44

The rains fell all along the north side of the Island; as usual they were heaviest in the N.E. division; but they were very irregular; Greenvale had 44 inches, Mt. Holstein had 35 inches, and Castleton had 32 inches, while other places had only 6 or 7 inches. They were therefore "winter" rains and the rainfall depended chiefly on elevation and exposure to the N.E. winds.

Rainfall at Grand Cayman, October, 1913.	Total Fall.	Greatest fall. Amount.	Greatest fall. Date.	No. of days on which 0.01 or more fell.
	In.	In.		
East End ...	..	..	..	..
Bodden Town ...	1.74	0.70	29	4
George Town ...	..	..	..	..
November, 1913.				
East End ...	...	...	...	...
Bodden Town ...	2.28	1.09	3	7
George Town ...	...	...	...	...

SHOCKS OF EARTHQUAKE IN NOVEMBER, 1913.

Date.	Mean time.	Intensity.	Notes: where felt, etc.
	hr. min.		
21	11 52 a.m.	II	Porus.
"	11 54 "	III	Porus; Mandeville.
		...	

PLUMB POINT LIGHT HOUSE—

Average No. of Miles of wind per diem	122
Greatest on the 5th	225
Least on the 18th	56

The Weather Office,
Halfway Tree P.O.

MAXWELL HALL,
Govt. Meteorologist.

RESULTS OBTAINED BY GROUPING THE SHOCKS UNDER THEIR RESPECTIVE EPICENTRES.

In the last three Weather Reports most of the shocks recorded in the registers were grouped under their respective Epicentres; a table of residual shocks was then drawn up, which was carefully revised, with the result that there are several *addenda* and *corrigenda* to the groups already formed.

Moreover, the question of bracketing together two or more shocks in the original registers cannot be easily disposed of; when the intervals between the shocks at the same place or in the same locality are small, the shocks should of course be bracketed together for our present purpose; but it will be found that a certain principle leads us from intervals of 12 hours to intervals of 24 hours, and even of 36 hours; so it becomes necessary to draw up a list of the shocks which have been so bracketed together.

Under these circumstances it will be better to proceed assuming that the bracketing in the original registers has been made according to the list given below in Table III, and that the *addenda* and *corrigenda* to the last three Weather Reports have been made according to the lists at the end of the present article.

We thus get Table I from the corrected groups:—

TABLE I.

Epicentre.	Number of Shocks.							Total activity.	Activity of each shock.	Period.	Period / activity.	Average O—C
	I	II	III	IV	V	VI	Total.					
										d.		d.
B ..	49	7	4	1	..	..	61	87	1.4	14.3	10.2	1.1
P ..	69	15	5	1	..	..	90	127	1.4	12.8	9.2	1.2
A ..	5	..	1	2	..	..	8	25	3.1	30.5	9.8	1.0
H ..	25	8	9	..	..	1	43	109	2.5	21.2	8.5	1.0
ME ..	15	6	..	..	..	..	21	27	1.3	13.5	10.4	1.2
Mw ..	12	5	..	..	..	..	17	22	1.3	13.3	10.2	0.8
S ..	26	16	5	1	..	..	48	86	1.8	15.0	8.3	1.1
D ..	22	10	1	..	..	..	33	46	1.4	10.9	7.8	0.8
C ..	17	7	2	..	..	..	26	39	1.5	15.3	10.2	0.8
ums ..	240	74	27	5	0	1	347	Means	1.7	16.2	9.4	1.0

In combining shocks of different intensity so as to obtain the total "activity," we have to consider the average range of shocks of I, II, &c. intensity. Thus a II shock will be felt at twice the distance of a I shock; a III shock will be felt at twice the distance of a II shock; and so on, always doubling (W. R. No. 337, p. 19).

Now it was shown that the great Earthquake of 1907 made the ratio rather larger than 2 (W. R. No. 365, p. 21); but it will be found that the last column but one in the above table suggests that it should be rather less; we shall therefore adopt 2 to be the ratio as before.

The total activity being thus found, the average activity, or intensity, of each shock is found by merely dividing the total by the number of shocks.

In the last column but one, where the period in days has been divided by the average intensity of each shock, closer agreement can be made by slightly reducing the factor for activity, as already stated; but the agreement is close enough to show that for each group the length of the period and average intensity of each shock, increase or decrease together; and at present we can only hope for such general results.

(B) and (P) are apparently "twins" as well as (ME) and Mw); they are very near each other, and have nearly the same period, the same sort of shocks, and the same intensity of each shock.

The average difference O—C has of course been taken without regard to sign, and is nearly the same for all the epicentres; this renders their comparison with other varying functions unnecessary.

When the groups were formed, if any shock made the difference O—C larger than 3, that shock was rejected*, unless indeed it was found to be an epoch or starting point of a new series. The following table gives a list of all these residuals, which cannot be referred to any epicentre without exceeding that limit.

Let us take the second as an example: it was a well-marked shock at Annotto Bay; if we attempt to connect it with the (A) series, O—C will be 11 days; if we attempt to connect it with the (B) series, O—C will be 6 days; moreover in the latter case it should have been more generally felt.

For about 30 years before the great Earthquake of 1907 there were only 10 of these shocks scattered all over the Island; since the Earthquake of 1907 these shocks have been much more frequent, especially at Mt. Holstein on the Blue Mountain range. If we were to put aside the 17 shocks at this place, as marking an unsettled condition of a particular locality, we have 28 of these shocks among a total of 338†, scattered all over the Island. There are therefore 8 per cent. of the shocks which are apparently unconnected with the period of any epicentre under fairly settled conditions.

TABLE II.

Shocks unconnected with the period of any Epicentre.

Date.	Intensity.	Where felt.	Date.	Intensity.	Where felt.
1886—Feb. 20	I	Kingston, &c.	1908—Apr. 19	I	Kings Valley
1887—Nov. 16	II	Annotto Bay	" Apr. 30	I	Mt. Holstein
1889—Mar. 27	II	Morant Point	" May 2	I	"
1890—Nov. 11	I	Shortwood	" Aug. 25	I	"
1891—May 20	I	Bethel Town	" Oct. 12	I	"
1893—Feb. 19	I	Kingston	" Oct. 26	I	"
1894—Mar. 20	I	Windsor Pen	" Nov. 6	II	"
1895—Oct. 2	I	Abbey	" Dec. 21	I	"
1904—Nov. 25	I	Middle of Island	1909—May 23	I	Kings Valley
1906—Nov. 17	I	Kings Valley	" June 26	I	Kingston
1907—Oct. 13	I	Mt. Holstein	1910—Feb. 19	I	Mt. Holstein
" Nov. 23	I	Chapelton	" June 1	I	"
" Nov. 25	I	"	" Dec. 12	I	"
" Dec. 4	I	Grange Hill	1911—Mar. 8	I	"
" Dec. 7	I	Kingston	" Mar. 25	I	Halfway Tree
" Dec. 9	I	"	" Apr. 16	I	Mt. Holstein
1908—Feb. 4	II	Negril	" Oct. 6	I	Kingston
" Feb. 12	II	Halfway Tree	1912—Jan. 6	I	Richmond
" Feb. 24	II	Mt. Holstein	" Mar. 24	I	Yallahs
" Mar. 5	I	Moy Hall	" Mar. 28	I	Siloah
" Mar. 19	I	Mt. Holstein	" Nov. 6	I	Kingston
" Mar. 21	I	Negril	1913—Apr. 27	II	Mt. Holstein
" Apr. 19	I	Mt. Holstein			

These facts go to prove that shocks may occur apart from the forces which work more or less regularly below the epicentres in Jamaica.

We have now to consider the shocks which occurred in the same locality, with small intervals of time between them, so that they should be bracketed together for our present purpose as a single shock occurring at the mean of the times within the bracket. The following table requires no explanation. It will be noticed that as many as 7 out of the 54 bracketed shocks are enlisted in Table II; so that two or more shocks about the same time does not give greater accuracy to O—C, but rather the opposite.

* (P) 1910 Feb. 1 is 3.1, due to some slight change after the groups were formed.
† 347 minus 9 included from among the after-shocks.

TABLE III.

Shocks bracketed together.

Epicentre.	Date.			Interval.	Intensity.	Notes: where felt, &c.
				d.		
B	1881	Jan.	7.8	0.6	I	Kingston and east of Island.
		"	8.4		I	Kingston.
P ..	1881	Aug.	12.2	1.6	II	"
		"	13.8		I	"
P ..	1882	Dec.	27.1	0.5	I	Abbey.
		"	27.6		I	Kingston.
P	1886	Jan.	21.0	0.5	I	Halberstadt.
		"	21.5		I	Abbey.
B ..	1886	May	12.5	0.1	III	Halberstadt.
		"	12.6		II	"
C ..	1886	Nov.	15.1	0.0	I	Potsdam.
		"	15.1		I	"
P	1889	Sept	7.2	0.2	I	Abbey.
		"	7.4		I	Kingston.
B	1891	Jan.	27.3	1.0	I	"
		"	28.3		I	Abbey.
H	1891	Feb.	16.1	1.0	I	Kingston.
		"	17.1		I	Abbey.
H	1892	Sept.	29.2	0.5	I	"
		"	29.7	0.1	I	Kingston.
		"	29.8		I	Abbey.
B ..	1893	June	2.8	1.6	I	Kingston, &c.
		"	4.4		II	"
C	1895	Apr.	28.8	1.4	I	West end: strongest at Round Hill.
		"	30.2		I	Whole Island: strongest at Potsdam.
?	1895	Oct.	1.0	0.1	I	Abbey.
		"	1.1	0.5	I	"
		"	1.6	1.4	I	"
		"	3.0		I	Yallah's Bay.
P	1900	Nov.	6.4	0.5	I	Castleton.
		"	6.9		I	" Kingston.

TABLE III, *continued.*

Shocks bracketed together.

Epicentre.	Date.			Interval.	Intensity.	Notes: where felt, &c.
				d.		
S ..	1902	Feb.	23.3	0.6	II	Cinnamon Hill; west end of Island.
		"	23.9		I	"
C ..	1902	Sept.	21.8	0.0	I	Brownsville.
		"	21.8		I	Windsor Pen.
P ..	1906	June	22.6	0.0	II	Kingston.
		"	22.6		II	"
Mw ..	1907	Dec.	2.0	0.2	I	Browns Town.
		"	2.2		II	Chapelton: Browns Town.
P ..	1907	Dec.	4.9	0.0	I	Kingston harbour.
		"	4.9		I	"
?	1907	Dec.	9.6	0.5	I	Mt. Holstein.
		"	10.1		I	Kingston, "early."
D ..	1907	Dec.	31.4	0.3	I	Kings Valley.
		"	31.7		I	Brownsville.
Mw ..	1908	Jan.	10.6	1.0	I	Chapelton.
		"	11.6	1.1	II	Unity Valley.
		"	12.7		I	Chapelton.
P ..	1908	Jan.	22.0	0.9	I	Mt. Holstein.
		"	22.9		I	Kingston.
ME ..	1908	Feb.	1.9	0.2	I	Kingston, Savoy.
		"	2.1		I	Savoy, "early"
? ..	1908	Feb.	12.0	0.1	II	Halfway Tree.
		"	12.1		I	"
? ..	1908	Feb.	23.8	0.7	I	Mt. Holstein.
		"	24.5		II	"
D ..	1908	Mar.	3.7	0.0		Kings Valley: sound.
		"	3.7		II	"
? ..	1908	Mar.	19.1	0.9	I	Mt. Holstein.
		"	20.0		I	"
S ..	1908	Apr.	30.5	0.0	I	Siloah.
		"	30.5		I	"

TABLE III, *continued.*

Shocks bracketed together.

Epicentre.	Date.			Interval.	Intensity.	Notes: where felt &c.
				d.		
P ..	1908	Sept.	14.2	0.1	I	Moy Hall: Mt. Holstein: Pt. Antonio.
		"	14.3		II	Mt. Holstein: Port Antonio.
S ..	1908	Sept.	28.9	0.3	I	Crooked River.
		"	29.2		II	Albion.
ME ..	1909	Jan.	2.5	0.1	I	Savoy
		"	2.6		I	"
D ..	1909	Jan.	30.6	0.9	I	Kings Valley.
		"	31.5	0.4	II	Brownsville, Great Valley.
		"	31.9	0.4	I	Grange Hill.
		Feb.	1.3		I	Great Valley.
Mw	1909	Jan.	31.5	0.7	I	Unity Valley.
		Feb.	1.2		III	Clarendon: Mandeville.
B	1909	Mar.	7.1	0.3	II	Halfway Tree: Mt. Holstein.
		"	7.4		I	Mt. Holstein.
D ..	1909	Mar.	16.0	0.6	I	Great Valley-: "night."
		"	16.6		I	"
C ..	1909	July	31.0	0.0	I	Negril.
		"	31.0		I	Great Valley, "about midnight."
P ..	1909	Aug.	29.7	0.8	I	Mt. Holstein.
		"	30.5		I	Gordon Town.
S ..	1909	Oct.	31.2	0.5	III	Siloah, &c.
		"	31.7		I	"
H ..	1910	July	24.9	1.3	I	Halfway Tree.
		"	26.2		I	Mt. Holstein
S ..	1910	Aug.	12.0	0.1	I	Black River.
		"	12.1		III	Siloah: Blac River, &c.
B ..	1910	Dec.	8.0	1.0	I	Kingston: Mt. Holstein.
		"	9.0		I	" "
C ..	1911	Mar.	24.1	1.0	I	Siloah.
		"	25.1		II	Great Valley.
P ..	1911	Apr.	10.9	0.2	II	Mt. Holstein.
		"	11.1		?	"

TABLE II *continued.*

Shock bracketed together

Epicentre.	Date.			Interval.	Intensity.	Notes: where felt &c
				d.		
B ..	1911	July	7.0	1.6	I	Mt. Holstein
		"	8.6	0.1	I	"
		"	8.7		I	"
P ..	1911	July	13.7	1.4	I	"
		"	15.1		I	"
B ..	1911	Dec.	13.2	0.5	I	Kingston: Mt. Holstein.
		"	13.7		I	" "
? ..	1912	Jan.	6.3	0.1	I	Hampstead: Richmond.
		"	6.4		I	" "
ME ..	1912	Jan.	10.7	0.0	II	Highgate.
		"	10.7		I	Richmond: Port Maria.
H	1912	Mar.	28.0	0.0	I	Mt. Holstein.
		"	28.0		I	Kingston.
? ..	1912	Mar.	28.0	0.0	I	Siloah.
		"	28.0		I	Mt. Edgecombe.
S ..	1912	May	16.1	0.0	I	Lititz, &c.
		"	16.1		III	Siloah, &c.
H ..	1912	Sept.	14.0	0.0	I	Kingston.
		"	14.0		II	Port Antonio: Mt. Holstein.
B ..	1912	Dec.	23.1	0.0	I	Kingston.
		"	23.1		II	Mt. Holstein.

The following table shows how often the intervals of a day 0.0, 0.1, &c., occur.

Interval.	No.	
d.		
0.0	13	26
0.1	9	
0.2	4	
0.3	3	3
0.4	2	13
0.5	8	
0.6	3	
0.7	2	3
0.8	1	

(*continued*).

Interval.					No.	
d.						
0.9	..	..	..	..	3	
1.0	..	..	..	..	5	9
1.1	..	..	..	..	1	
1.2	..	..	..	..	0	1
1.3	..	..	..	..	1	
1.4	..	..	..	..	3	
1.5	..	..	..	..	0	6
1.6	..	..	..	..	3	
					61	

Omitting the 26 very small intervals for which no reason can be assigned, we notice that the rest are chiefly grouped about the intervals of 12 hrs., 24 hrs, and 36 hrs. Indeed there are 28 of these intervals as against the 7 remaining intervals. So that unless shocks in the same locality succeed each other within 4 or 5 hours, they seem to fall under some semi-diurnal influence.*

But if we glance through the registers we see that shocks occur at nearly the same times but at *different* epicentres, and it makes no difference whether the epicentres are close together or far apart. How far does this principle affect these shocks? The following table was drawn up to answer this question.

TABLE IV.

Shocks at nearly the same times but at different epicentres.

Epicentre.	Date.		Interval.	Intensity.	Notes: where felt, &c.
B ..	1882—Dec.	25.9	1.4	II	Abbey.
P ..	" "	27.3		I	"
B ..	1884—Jan.	14.4	0.2	I	Kingston.
H ..	" "	14.6		III	Whole Island.
P ..	1886—Jan.	21.5	1.5	I	Halberstadt.
H	" "	23.0		I	"
Mw	1895—Feb.	11.7	1.0	I	Albion
B ..	" "	12.7		I	Shortwood.
? ..	1895—Oct.	1.7	1.4	I	Abbey.
S	" "	3.1		I	Albion.
S	1896—Feb.	16.5	1.6	II	Whole Island.
Mw	" "	18.1		II	Moneague.
S ..	1902—Sept.	20.8	1.0	II	West of Island.
C	" "	21.8		I	Brownsville.
S ..	1903—Aug.	2.1	1.0	I	Little River.
ME ..	" "	3.1		I	Unity Valley.
S ..	1906—June	22.1	0.5	II	" to Windsor Pen.
P	" "	22.6		II	Kingston.

* It may be here noticed that the tides of the Caribbean Sea are very small, so that oceanic tides can have no effect.

TABLE IV, *continued.*

Shocks at nearly the same times but at different epicentres.

Epicentre.	Date.		Interval.	Intensity.	Notes: where felt, &c.
D ..	1906—Nov.	24.1	1.0	I	Bluefields.
ME	" "	25.1		I	Windsor Pen.
? ..	1907—Dec.	4.6	0.3	I	Grange Hill.
P ..	" "	4.9	0.5	I	Kingston harbour.
B ..	" "	5.1		I	Mt. Holstein.
? ..	1907—Dec.	9.8	1.4	I	"
MW ..	" "	11.2		I	Chapelton.
C ..	1907—Dec.	13.7	1.5	I	Kings Valley.
P ..	" "	15.2		I	Kingston.
B ..	1908—Jan.	16.3	1.5	I	Mt. Holstein.
S ..	" "	17.8		II	Fontabelle.
ME ..	1908—Jan.	19.9	1.5	I	Chapelton.
D ..	" "	21.4	1.0	I	Negril.
P ..	" "	22.4		I	Kingston.
MW	1908—Feb.	6.5	1.0	II	Denbigh, Danks, &c.
P ..	" "	7.5		IV	Golden Grove, Bath, &c.
P ..	1908—Mar.	2.6	1.1	II	Mt. Holstein, &c.
D ..	" "	3.7	1.4	II	Kings Valley.
?	" "	5.1		I	Moy Hall.
P ..	1908—Mar.	29.0	0.1	I	Kingston, &c.
MW	" "	29.1		I	Chapelton.
? ..	1908—Apr.	30.4	0.1	I	Mt. Holstein.
S ..	" "	30.5		I	Siloah.
P ..	1908—June	27.7	0.4	I	Kingston.
S ..	" "	28.1		I	Windsor Pen.
B ..	1908—Aug.	3.1	0.5	I	Mt. Holstein.
C	" "	3.6		II	Great Valley.
H	1908—Aug.	30.2	1.7	I	Kingston.
S	" "	31.9		I	Siloah.
H ..	1909—Jan.	2.4	0.2	I	East end of Island.
ME ..	" "	2.6		I	Savoy.
ME ..	1909—Jan.	30.3	1.3	I	Unity Valley.
D ..	" "	31.6	1.5	II	Grange Hill, &c.
MW	" "	31.8		I	Unity Valley; Clarendon, &c.

TABLE IV. *continued*

Shocks at nea ly the same times but at different epicentres.

Epicentre.	Date.		Interval.	Intensity.	Notes: where felt, &c.
H ..	1909—Feb.	10.1	0.9	I	Halfway Tree .
S ..	" "	11.0		III	Siloah, &c.
H ..	1909—Mar.	6.1	1.1	I	Kingston, &c.
B ..	" "	7.2		II	Halfway Tree, &c.
S ..	1909—June	26.9	0.0	I	Siloah.
? ..	" "	26.9		I	Kingston.
P ..	1909—Sept.	8.8	0.5	I	Mt. Holstein.
B ..	" "	9.3		I	"
C ..	1911—Mar.	24.6	1.2	II	Great Valley; Siloah.
? ..	" "	25.8		I	Halfway Tree.
P ..	1911—Apr.	11.0	1.7	II	Mt. Holstein.
B ..	" "	12.7		?	"
S ..	1912—Mar.	8.0	0.0	I	Siloah; Montego Bay, &c.
ME ..	" "	8.0		II	Glengoffe.
H ..	1912—Mar.	28.0	0.0	I	Kingston.
?	" "	28.0		I	Mt. Edgecombe.
D ..	1912—May	15.2	0.9	I	Windsor Pen; S.W. of Island.
S ..	" "	16.1		III	Siloah, &c.

Th: following table shows how often the intervals of a day 0.0, 0.1, &c., occur.

Interval.	No.	
d.		
0.0	3	7
0.1	2	
0.2	2	
0.3	1	1
0.4	1	4
0.5	4	
0.6	0	
0.7	0	0
0.8	0	
0.9	2	10
1.0	6	
1.1	2	

(*continued.*)

Interval.	No.	
d.		
1.2	1	2
1.3	1	
1.4	4	10
1.5	5	
1.6	1	
1.7	2	2
	37	

So that the tendency of these shocks to follow after 24 hrs. and 36 hrs. is more strongly marke than among the bracketed shocks.

And among the 33 pairs, or groups of three, there are as many as 6 in Table II, which is even a large proportion than before.

The semi-diurnal influence is not therefore restricted to any epicentre or place which may hav given off a shock; but another shock often follows the first at any other epicentre or place, and generall at intervals of 12, 24, and 36 hours.

If this influence is due to lunar tides in the crust of the earth, it is strange that the influence is no continually to be found among our shocks; what small amount of work has been done in this respec tends to show that the Moon has no effect on our shocks, generally speaking.

It had not been my intention to advance any theory, but simply to state facts and results; however it would seem necessary to have something to work upon in order to guide further investigation.

In several respects the facts we have deduced respecting Earthquakes in Jamaica remind us o the action of Geysers; they are regular in their action for a considerable time, and then change thei period; and the larger and greater the usual explosive action of a Geyser, the longer its period; at leas this is the case with the Great Geyser and the Strokr in Iceland according to the graphic description given by Commander Chas. S. Forbes, R.N.*

The theory of the Geysers is well known and need not be referred to here beyond saying that natural pipe containing highly heated water extends from below to the surface of the ground, and tha a small decrease of pressure in the pipe above a certain point, or a small increase of pressure below tha point, may so raise the water at that point as to produce explosive action of steam.

Now Professor T. J. J. See has advanced a theory that the cause of world shaking earthquakes, &c. is the secular leakage of the ocean bottoms, which gives rise to the development of steam beneath th earth's crust.† And the theory here advanced as to the Jamaica earthquakes lies between this an the superficial Geysers; and in consequence the next thing we have to do is to find out to what extent if any, the rainfall over Jamaica affects our shocks; no doubt water percolates downwards until it meet very high temperatures with theoretical results, and the variation of the supply, or pressure, ma affect the shocks.

In comparing the Rainfall with earthquake activity month by month, great care and discriminatio are necessary; the epicentres (B), (P), and (ME) are in the NE rainfall division, and their shocks mus be compared with the rainfall over that division for the duration of their continuance, namely, fro 1870 to 1913; the epicentres (S), (D) and (C) are in the West-central division, from 1880 to 1913; (Mw) is in the sub-central division, from 1890 to 1912; and of course the epicentres (A) and (H) must be omitte from this discussion. We shall however use the rainfall tables from 1870 to 1909 published elsewhere,‡ as the rainfall during the last three or four years cannot affect the general results at which we may arrive.

We must now form tables showing the activity of each of the seven epicentres for each month durin the whole period of observations; we must then add together (B), (P), and (ME) and take their mea to compare with the NE rainfall; we must add together (S), (D), and (C) and take their mean to com pare with the WC division; and even then we must group the months to show Seasons, and thus ge the following table:—

* Iceland. John Murray, London, 1860.
† American Phil. Soc. Phil. Vol. XLVI. No. 186.
‡ A special table had to be made for the Central Sub-division, which as a rule is attached to the Northern division.

Monthly Rainfall and Earthquakes

Months grouped into Seasons.		North-eastern Division.		West-central Division.		Central Sub-Division.	
		Total Rainfall.	Activity. Mean of B.P.Me.	Total Rainfall.	Activity. Mean of S.D.C.	Total Rainfall.	Activity. Mw.
		In.		In.		In.	
December, January, February	Winter ..	21	23	9	20	6	13
March, April, May	Spring ..	20	17	23	12	15	3
June, July, August	Summer ..	21	22	27	10	18	1
September, October, November	Autumn ..	32	22	28	14	23	5

In the North-eastern division the rainfall is the same during Winter, Spring and Summer; and the earthquake activity is nearly the same. In the West-central division the rainfall is small during Winter, and the activity large; and this principle is fully confirmed in the Central sub-division.

A diminution of the rainfall therefore produces shocks; and we have now to see how far droughts increase earthquake activity.

In the following table the activity of (B), (P) and (Me) was compared with the annual rainfall over the NE division; then the activity of (S), (D) and (C) was compared with the annual rainfall over the WC division; and lastly the activity of (Mw) was compared with the rainfall over the N division, of which the Sub-central division is a part; but (Mw) does not commence before 1889 and Me does not commence before 1899, and while the e is no very great difference between the rainfall over the NE and WC divisions, the rainfall over the N division is much smaller; consequently it is not easy to say what combination should be adopted. The following General Results are, however, quite sufficient for our purpose.

Annual Rainfall and Earthquakes.

General Results.

Year.	Rainfall.	Earthquake Activity.	Year.	Rainfall.	Earthquake Activity.
	in.		1896 ..	82	12
1879 ..	106	..	1897 ..	89	4
1880 ..	70	2	1898 ..	88	8
1881 ..	83	13	1899 ..	100	4
1882 ..	72	15	1900 ..	83	3
1883 ..	75	4	1901 ..	93	2
1884 ..	71	9	1902 ..	88	9
1885 ..	72	8	1903 ..	81	8
1886 ..	108	25	1904 ..	102	0
1887 ..	80	3	1905 ..	97	2
1888 ..	84	7	1906 ..	98	8
1889 ..	84	12	1907 ..	61	33
1890 ..	78	10	1908 ..	86	60
1891 ..	100	6	1909 ..	101	49
1892 ..	87	3	1910 ..	100	18
1893 ..	101	6	1911 ..	75	22
1894 ..	88	9	1912 ..	92	19
1895 ..	85	12	1913 ..	..	13

In the year 1880 there was a drought, and it will be noticed that the earthquake activity was large the following year and the year after. Then the years 1882-5 were unusually dry, and in 1886 the earthquake activity was very large; this was checked the following year by the large rainfall in 1886. The rainfall in 1888 does not account for the increased activity in 1889, which was due to the Epicentre (P). Nor yet does the rainfall in 1901 account for the increased action in 1902, which was due to the Epicentre (S)

In 1907 the Great Earthquake at (H) no doubt increased the activity all over the Island, but the remarkable increase in 1908 is certainly due to the terrible drought in 1907, as is shown by all the seven epicentres on *land*; the Annotto Bay epicentre (A), which is *below the sea* as well as (H), hardly showed any sympathetic effect. This increase was continued over 1909, but was greatly reduced the following year by the rains of 1909.

Now it has been shown in "The Rainfall of Jamaica" that the Rainfall Minima occur about two years after the Maxima and Minima of the Solar Cycle, so that we must now draw up a table to show this connection with the rainfall over the restricted areas and the corresponding earthquake activity.

Solar Cycle	Jamaica droughts.	Earthquake Maxima.	Notes.
1879 Min.	.. ..	.. ..	
.. .. ..	1880	.. ..	Drought well marked.
.. .. ..	.. ..	1881	
.. .. ..	1882	1882	
.. .. ..	1883	.. ..	Long continued drought
1884 Max.	1884		
.. .. ..	1885	.. ..	
.. .. ..	.. ..	1886	
1889 Min.	.. ..	1889	Due to (P)
.. .. ..	1890	1890	Drought not well marked.
1893 Max.	.. ..	.. ..	
.. .. ..	1895	1895	
.. .. ..	1896	1896	Drought not well marked
1902 Min.	.. ..	1092	Due to (S)
.. .. ..	1903	1903	
1906 Max.	.. ..	.. ..	
.. .. ..	1907	.. ..	Great drought; great Earthquake Jan. 14.
.. .. ..	.. ..	1908	Activity 60
1911 } Min.	1911	1911	Great drought, broken
1912 }	1912	1912	by hurricanes Nov., 1912.

And while these droughts occur about a year after the Solar Max. and Min., the Earthquake Max. occur about half a year after the droughts, or a year and a half after the Solar Max. and Min.

Now this connection between Earthquake Max. and the Solar Max. and Min. has been noticed before. In "Earthquakes" by the late Prof. Milne, p. 265, we read, "M. A. Poey, who examined a catalogue of the earthquakes of Mexico and the Antilles, extending from 1634 to 1870, shows by a table that earthquakes have come in groups, first at the maxima and then at the minima period of sun-spots."

These results, if not as practically useful as might be wished, at least open out wide fields for investigation; they show what may be done without instrumental means; and clearly there is an interesting future for the study of this particular class of earthquakes.

MAXWELL HALL,
Government Meteorologist.

Dec. 9th, 1913.

CORRECTIONS TO THE GENERAL REGISTERS.

The shock of 1887 Sept. 23 should be omitted for our present purpose: it was due to a great earthquake in Hayti.

The after-shocks between 1907 Jan. 14th and July 5th were so numerous that only a few can be picked out with certainty; these have been included, and the rest omitted.

The eight shocks between 1908 Jan. 2nd 1 p.m. and Jan. 8th 11,3 a.m. should also be omitted; they were clearly after-shocks following No. IV of Jan. 2nd 8,9 a.m. which shook the whole Island.

The shock recorded on the seismometer at Great Valley 1909 May, must be omitted as no date can be assigned within the required limits.

And finally the shocks between 1909 July 3 and July 15 were after-shocks following the No. IV of 1909 July 2, and should be omitted, excepting indeed (P) July 7, which was true to time.

Corrigenda.

(B). 1881 Jan.	For	7.8	read	8.1

Reduce all the observed intervals 0.3 as far as 1898; and correct O-C.

(B). 1909 July 2.5	For	III	read	IV.
(P). 1881 Aug.	"	12.2	"	13.0
	"	541.7	"	542.5
	"	—0.1	"	+0.7
(P). 1889 Sept.	"	7.2	"	7.3
	"	3489.7	"	3489.8
	"	—0.5	"	—0.4
(P). 1909 Aug.	"	29.7	"	30.1
	"	5850.7	"	5851.1
	"	+2.5	"	+2.9
(P). 1911 July	"	13.7	"	14.4
	"	6533.7	"	6534.4
	"	+1.2	"	+1.9
(H). 1910 July	"	24.9	"	25.6
	"	4854.7	"	4855.4
	"	—0.6	"	+0.1

Addenda.

Epicentre.	Date.	Interval Observed.	Period.	N.	Interval Computed	Diff. O–C	Intensity.
		d.	d.		d.	d.	
B ..	1889 Sept. 15.0 ..	3171.9	14.34	221	3169.1	+2.8	I
"	1907 March 22.8 ..	28.2	14.305	2	28.6	—0.4	III
"	" Dec. 22.8 ..	303.2	"	21	300.4	+2.8	I
"	1911 Feb. 16.0 ..	14.4	14.30	1	14.3	+0.1	I
"	1913 Aug. 20.9 ..	657.0	14.34	46	659.6	—2.6	I
P	1882 July 27.6 ..	922.1	12.60	73	919.8	+2.3	II
"	" Sept. 7.2 ..	932.7	"	74	932.4	+0.3	II
"	1907 Dec. 15.1 ..	5227.1	12.91	405	5228.5	—1.4	I
"	1908 Jan. 22.5 ..	5255.5	"	407	5254.4	+1.1	I
"	" June 17.2 ..	5433.2	"	421	5435.1	—1.9	I
"	" Sept. 14.3 .	5501.3	"	426	5499.7	+1.6	II
"	1910 Mar. 19.8	6053.8	"	469	6054.8	—1.0	I
"	1911 Mar. 28.9 .	6426.9	"	498	6428.2	—1.3	I
H	1909 Feb. 10.1 .	4324.9	21.11	205	4327.5	—2.6	I
"	1913 Aug. 16 .	5972.8	"	283	5974.2	—1.4	II

M. H.

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WEATHER REPORT

FOR THE MONTH OF

DECEMBER, 1913.

The Bar-pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32° gravity at Lat. 45°, and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus: the Middle clouds, cumulus; and the Upper clouds, cirro-stratus.

METEOROLOGICAL RESULTS.

Stations.	Elevation.	Bar Pressure.		Temperature.					Extreme Temperature.				
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range	Max.	Date.	Min.	Date.	Range
	ft.	in.	in.	°	°	°	°	°	°		°		°
Morant Pt. Light House ..	8	29.979	29.935	76.1	80.1	81.6	72.3	9.3	83.0	6	65.0	5	18.0
Kingston ..	24	29.951	29.905	70.7	81.6	87.0	69.2	17.8	89.3	5*	67.6	2*	21.7
Negril Point Light House ..	33	29.967	29.921	73.0	81.6	84.2	69.6	14.6	86.6	27	62.6	4	24.0
Castleton Gardens ..	496	..	..	66.2	80.8	84.9	62.1	22.8	90	22	59	22	31
Hope Gardens† ..	668	29.973	29.878	68.1	81.9	85.0	65.5	19.5	89	28	63	2	26
Stony Hill Indus. School ..	1,400	..	..	66.5	77.1	79.3	63.0	16.3	87	24	60	4	27
Hill Gardens ..	4,900	25.285	25.244	60.8	62.8	66.6	53.4	13.2	71	9	51	6	20

Stations.	Elevation.	Dew Point and Humidity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
	ft.	°		°		in.	miles		m.		m.	L.	M.	U.	L.	M.	U.
Morant Pt. Light House ..	8	70.5	83	70.0	72	4.50	205	NE	8	NE	11	1.0	2.0	2.2	0.6	1.7	2.3
Kingston ..	24	65.4	82	69.6	67	0.17	161	N	5	SE	11	0.7	1.2	1.4	2.5	1.5	1.7
Negril Point Light House‡ ..	33	66.5	80	69.7	67	1.16	211	E	10	N	11	1.1	0.7	1.1	2.0	3.9	0.3
Castleton Gardens ..	496	64.2	93	70.3	69	3.41	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens ..	668	63.1	84	70.5	69	2.32	..	..	..	..	..	..	..	..	..	..	..
Stony Hill Indus. School ..	1,400	64.6	93	73.9	90	5.29	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens ..	4,900	54.2	78	59.3	87	3.82	..	..	..	..	..	..	..	..	..	..	..

* and on other days. † Hope Gardens. Bar. read at 9 a.m. and 3 p.m.
‡ Negril Point Light House. Wind 11 p.m. ENE 8.1

RAINFALL FOR DECEMBER, 1913.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1909." In obtaining the mean Rainfall for the month only those Stations are considered for which the average Rainfall has been also given in the last column, so that the results of these two columns are comparable for each division. These results are reproduced in the comparative table at the end of this Rainfall Return, so as to arrive at the mean for the whole Island, embracing the four divisions.

The Northern division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which form the Central sub-division; the Southern division comprises the southern shores from Holland Bay to South Negril; The North-Eastern and West-Central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

NORTH-EASTERN DIVISION.	DECEMBER, 1913.				
	Total Fall.	Greatest fall in 24 hours. Amount	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Manchioneal ...	6.46	2.20	9	11	8.02
Ecclesdown ...	12.46	4.00	9	17	..
Spring Valley, Portland .	8.69	3.09	9	15	.
Bath ...	8.26	4.00	9	18	8.80
Boston ...	6.95	2.40	10	17	9.92
Moore Town ...	19.65	...	...	...	25.39
Port Antonio ...	11.04	3.78	10	18	13.78
Fellowship ...	18.64	4.65	9	15	19.92
Windsor, Portland ...	...	...	...	...	...
Johnson River Bridge ...	5.03	2.74	9	12	5.53
Shrewsbury ...	15.06	8.43	9	9	...
Cedar Valley, St. Thos. ...	3.55	1.35	9	6	5.52
Hope Bay ...	10.30	2.65	10	15	...
Moy Hall, St. Thos. ...	5.18	1.60	9	12	5.94
Lennox ...	17.80	5.75	9	13	..
Hill Gardens ...	3.82	...	...	...	10.73
Buff Bay ...	10.21	5.02	9	10	...
Vinery ...	12.49	6.40	9	10	...
Windsor Castle, Port. ...	9.86	4.37	9	7	...
Greenvale, Portland ...	14.82	5.20	9	12	...
Mt. Holstein ...	9.12	2.20	9	15	17.04
Irish Town ...	3.42	1.12	11	6	...
Rose Hill ...	3.71	1.21	11	4	...
Hardwar Gap ...	1.50	...	...	...	6.86
Stony Hill Ind. School ...	5.29	1.95	11	9	4.16
Castleton Gardens ...	3.41	...	...	...	12.92
Lawrence Tavern ...	1.81	0.90	10	3	4.48
Cedar Valley, Red Hills ...	4.78	1.85	11	6	...
Carew Castle ...	1.49	1.00	11	4	4.40
Agualta Vale ...	8.36	3.30	9	12	...
Water Valley ...	6.31	2.00	9	10	6.83
Albany, Ry. Station ..	7.49	2.19	13	12	...
Flatfield ...	3.02	1.38	9	11	...
Richmond, St. Mary ...	5.96	3.04	9	9	9.50
Hampstead, St. Mary ...	13.45	2.92	13	15	...
Troja ...	6.16	2.55	9	8	...
Lucky Hill ...	...	...	...	...	...
Rio Hoe ...	4.92	1.98	9	8	9.10
Unity Valley ...	3.85	1.22	9	11	7.66
Moneague ...	4.25	2.20	9	9	7.60
Clarremont ...	2.64	1.12	13	5	8.49
Albion, St. Ann ...	4.20	1.29	13	12	8.19
Averham Park ...	4.24	1.50	13	7	10.41
Means ...	6.14	...	...	...	...

NORTHERN DIVISION.	DECEMBER, 1913.				
	Total fall.	Greatest fall in 24 hours. Amount.	Greatest fall in 24 hours. Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Port Maria ...	6.09	1.52	9	11	8.06
Ocho Rios ...	2.42	1.00	13	7	5.74
Bogue, Ocho Rios ...	3.09	0.88	4	8	...
Drax Hall ...	3.00	1.00	14	18	8.47
St. Ann's Bay ...	3.23	0.71	12	11	7.07
Seville ...	3.69	0.65	14	10	7.77
Richmond Estate ...	2.62	0.90	12	10	8.55
Llandovery ...	2.87	0.75	1	8	8.17
Runaway Bay ...	2.80	0.70	4	7	...
Brown's Town ...	...	...	...	...	...
Alexandria ...	3.15	1.30	11	4	...
Chewmagna, St. Ann ...	2.52	1.65	11	5	3.38
Home Castle ...	2.45	0.50	1	10	7.63
Richmond Pen ...	2.40	0.95	11	4	4.86
Mahogany Hall ...	0.65	0.27	1	4	6.74
Barnstaple ...	1.89	0.70	29	4	...
Brampton Bryan ...	1.68	0.55	4	9	5.78
Bryan Castle ...	1.62	0.60	4	10	6.54
Braco ...	0.90	0.25	6	5	5.80
Arcadia ...	1.21	0.41	4	7	6.78
Lancaster ...	1.21	0.37	26	6	6.54
Harmony Hall ...	1.88	0.77	12	6	6.15
Vale Royal ...	1.21	0.35	27	5	7.88
Colchis Pen ...	0.62	0.25	27	6	...
Swanswick ...	1.71	0.60	27	7	...
Georgia ...	1.20	0.30	27	7	...
Long Pond ...	1.19	0.35	4	7	4.37
Hyde Hall ...	1.35	0.40	4	7	..
Steelfield ...	2.03	0.50	28	6	6.36
Etingdon ...	1.13	0.50	9	4	4.71
Lottery ...	1.55	0.60	9	5	5.54
Falmouth ...	...	...	...	...	...
Florence Hall ...	1.32	0.75	11	6	...
Kent ...	3.01	0.90	12	12	...
Gales Valley ...	2.10	0.70	27	8	4.93
Canaan ...	2.52	0.32	7	14	5.03
Content ...	1.97	0.62	11	8	5.22
Bellfield ...	2.35	0.73	4	9	...
Hampden ...	...	...	..	...	...
Moor Park ...	2.05	0.45	11	8	...
Guilsbro ...	2.38	0.90	4	13	...
Rose Hall ...	...	...	...	...	...
Montego Bay ...	...	...	..	...	...
Catherine Hall ...	2.56	1.77	25	4	5.61
Retirement ...	3.43	2.11	25	11	...
King Gate ...	...	...	...	...	...
Round Hill ...	2.70	1.00	5	6	3.33
Blue Hole ...	2.34	1.00	6	3	...
Haughton Court ...	2.66	1.77	25	3	...
Lucea ...	2.83	1.03	6	5	3.95
Green Island, Police St. ...	1.03	0.78	11	4	...
CENTRAL SUB-DIVISION.					
Headworks, Rio Cobre ...	1.04	0.60	11	3	2.05
Linstead ...	2.25	1.20	4	6	3.70
Berkshire Hall ...	2.82	0.99	9	9	...
Point Hill ...	3.72	1.15	2	8	5.92
Brown's Hall ..	2.29	0.80	10	6	3.01
Worthy Park ...	1.14	0.44	9	4	2.68
Croft Hill ...	1.96	0.92	9	3	...
Chapelton ...	2.50	0.87	16	7	2.47
Danks Works ...	3.08	0.48	31	10	2.57
Savoy House ...	2.53	0.75	31	11	2.81
Crooked River ...	2.36	1.07	31	7	...
Trout Hall ...	1.38	0.58	5	9	...
Cave Valley ...	3.50	...	...	..	2.61
Greenock ...	3.70	...	...	..	...
Means ...	2.28	...	...	...	..

West-Central Division.	December, 1913. Total Fall.	Greatest fall in 24 hours. Amount.	Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Whitney ...	...	...	...	...	...
Mocho, Clarendon ...	1.35	0.59	10	6	...
Baillieston ...	...	...	...	...	...
Brokenhurst ...	...	..	...	...	...
Christiana ...	0.95	0.28	5	11	3.68
Chudleigh ...	1.73	0.37	10	10	...
Shooter's Hill ...	3.24	0.95	5	11	...
Spitzbergen ...	3.61	1.30	10	11	...
Kendal, Manchester ...	3.53	1.34	5	7	2.92
Marshalls Pen ...	5.38	1.77	10	9	3.65
Mandeville ...	3.36	0.71	12	13	3.62
Carlton, Mandeville ...	3.11	1.10	5	9	...
The Hill ...	2.25	0.80	31	6	...
Fairfield, Manchester ...	3.95	1.57	12	16	2.94
Ulster Spring ...	1.95	0.70	11	7	4.26
Freeman's Hall ...	2.60	1.00	11	4	..
Albert Town ...	2.10	0.89	5	5	...
Lowe River ...	2.00	1.05	5	3	...
Troy ...	2.10	1.00	11	3	3.58
Windsor Pen, Trel. ...	1.08	0.36	20	8	4.51
Wallingford ...	4.58	1.08	15	14	...
Balaclava Police Station ...	5.23	1.50	31	9	2.42
Siloah ...	4.85	2.25	12	7	...
Appleton Estate ...	4.18	2.61	12	10	3.04
Maggotty ...	3.40	2.00	12	9	2.98
Butlers ...	9.70	1.80	12	12	...
Deeside ..	0.70	0.34	2	4	...
Spring Vale ...	2.69	1.00	5	5	6.27
Garland ...	...	...	...	...	...
Mocho, Catadupa ...	...	...	...	...	...
Springfield, St. Elizabeth	3.14	0.66	31	9	...
Chesterfield, St. James ...	2.72	0.96	18	6	...
Catadupa Rly. Station ...	...	..	..	...	...
Kempshot ...	1.88	1.12	8	13	5.40
Cambridge, St. James ...	1.72	0.55	25	6	...
Ducketts ...	2.79	0.90	10	6	...
Hazelymph ...	...	..	..	...	...
New Market, Police St. ...	2.07	0.85	26	6	...
The Bog, New Market ...	2.22	1.37	13	6	...
Kew Park ...	2.19	1.26	5	6	2.67
Montpelier ...	..	..	...	...	..
Knockalva ..	2.10	1.14	5	4	...
Ramble ...	2.39	1.00	5	6	...
Petersville ...	1.23	0.40	28	6	2.72
Darliston ...	3.45	1.34	12	7	3.47
Whithorn ...	3.00	1.90	11	7	2.94
Water Works ...	2.69	1.26	12	5	...
Great Valley, Han. ...	2.30	1.30	6	2	5.13
Prospect Park ...	1.14	0.44	6	5	...
Fontabelle, Westm. ...	2.23	0.95	12	6	3.19
Belleisle ...	2.79	0.15	12	7	2.78
Morgan's Bridge ...	1.86	0.70	12	3	3.28
King's Vale Police St. ...	1.24	0.32	21	6	3.33
Means ...	2.77	...	...	...	...

Southern Division.	December, 1913. Total fall.	Greatest fall in 24 hours. Amount.	Date.	Days on which 0.01 or more fell.	Average.
	In.	In.			In.
Morant Point L. H. ...	4.50	1.83	10	16	6.41
Pleasant Hill ...	4.87	1.05	9	9	...
East Prospect ...	5.88	1.53	12	17	...
Morant Bay ...	2.37	1.00	7	9	4.52
Easington ...	2.19	0.78	9	7	3.31
Bull Bay ...	0.63	0.23	2	4	1.75
Bellevue ...	2.37	0.75	10	12	..
Gordon Town ...	3.87	2.21	11	3	3.37
Hope Gardens ...	2.32	...	...	...	2.83
King's House Gardens ...	1.89	...	...	...	1.90
Halfway Tree ...	1.56	1.30	11	2	2.12
Lunatic Asylum ...	0.13	0.07	7	4	2.03
Parade Gardens ...	0.34	0.14	11	3	...
Kingston S. Camp Road ...	0.21	0.09	9	3	..
" P. W. Office ...	0.17	0.06	10	5	1.78
Plumb Point L. H. ...	0.14	0.06	10	4	1.60
Clifton Pen ...	0.19	0.11	13	2	...
Quarantine Station ...	0.18	0.18	13	1	...
Spanish Town ...	1.87	0.95	10	6	2.08
Hog Hole Pen ...	1.80	0.71	12	4	2.83
Hartlands ...	2.88	2.00	10	3	...
Belmont, Guanaboa Vale	3.87	1.60	11	9	...
Old Harbour ...	1.13	0.93	10	3	2.71
May Pen ...	1.29	0.55	..	4	2.40
Dunkley's, Vere ...	0.35	0.20	10	2	1.91
Dry River " ...	1.15	0.86	10	5	...
Denbigh ...	1.50	1.50	10	1	2.12
Toll Gate ...	3.11	1.06	10	5	...
Woodleigh ...	2.20	1.60	10	2	...
New Yarmouth ...	0.83	0.37	10	4	1.97
Exeter, Vere ...	0.75	0.20	7	7	...
Rhymesbury ...	1.41	0.85	10	9	2.23
Milk River ...	3.40	1.90	31	2	2.48
Clarendon Pk. Ry. St. ...	..	...	...	..	..
Victoria Town ...	3.71	1.41	10	4	3.03
Hog Hole, S. Manch. ...	3.34	1.35	11	7	...
Stone's Hope ...	2.89	1.16	26	5	2.85
Newport, Manchester ...	3.18	0.87	26	8	4.11
Great Valley, Man. ...	3.72	1.21	26	10	2.77
Alligator Pond ...	2.94	1.24	26	5	2.70
Southfield, St. Elizabeth ...	2.93	0.97	5	9	...
Lititz ...	3.54	1.00	26	10	...
Long Hill ...	4.04	1.32	10	11	3.15
Torrington ...	7.30	2.55	14	11	2.72
Bethlehem, St. Eliz. ...	6.64	2.12	12	13	2.44
Santa Cruz ...	4.13	1.21	12	9	2.77
Pedro Plains Police St. ...	3.07	1.15	14	11	1.28
Black River ...	2.58	0.82	15	7	2.27
Font Hill ...	1.80	1.40	15	3	2.08
Mount Edgecombe ...	1.55	0.69	14	7	2.44
Bluefields ...	...	...	...	...	...
Sweet River ...	4.60	2.80	11	8	2.46
Windsor, Sav.-la-mar ...	2.92	1.10	11	6	2.48
Orchard ...	2.65	0.98	12	6	...
Sav.-la-mar ...	2.60	1.20	12	3	2.36
Retreat ...	1.48	0.70	14	4	...
White Hall ...	...	...	..	..	...
Negril Point L.H. ...	1.16	0.43	30	7	2.12
Means ...	2.49	...	...	...	...

NOTES.

COMPARATIVE TABLE OF RAINFALL.

(Based upon the "Average" Stations only.)

—	DECEMBER. 1913.	DECEMBER. Average.
	In.	In.
North-Eastern Division ...	6.14	10.28
Northern " ...	2.28	5.45
West-Central " ...	2.77	3.60
Southern " ...	2.49	2.61
The Island ...	3.42	5.48

The winter rains which fell in November were not continued in December so that the rainfall was below the average. On the 9th heavy rains fell between Fellowship and Greenvale in Portland and damaged the roads; the stone bridge at Spring Garden was carried away; and the Spanish River over flowed its banks. More than 19 inches fell at Moore Town during the month, but at Kingston and its neighbourhood the rainfall was hardly two-tenths of an inch.

Rainfall at Grand Cayman, November, 1913.	Total Fall.	Greatest fall. Amount.	Greatest fall. Date.	No. of days on which 0.01 or more fell.
	In.	In.		
East End ...	..	..	..	..
Bodden Town ...	..	...	..	..
George Town ...	..	..	..	..

SHOCKS OF EARTHQUAKE IN DECEMBER, 1913.

Date.	Mean time.	Intensity.	Notes: where felt, etc.
	hr. min.		
29	1 2 a.m.	I	Kingston 0.002 Halfway Tree, N 72° E, 0.002
30	6 40 p.m.	I	Windsor Pen, Trelawny.
		...	

THE ISLAND RAINFALL, 1913.

Month.	N.E.	N.	W.C.	S.	The Island.
	in.	in.	in.	in.	in.
January ..	7.63	3.29	2.15	1.47	3.64
February ..	1.56	0.77	1.37	0.84	1.14
March ..	3.13	2.58	6.35	3.10	3.79
April ..	10.45	6.29	8.59	6.42	7.94
May ..	11.10	5.89	9.95	5.32	8.06
June ..	5.70	3.24	4.39	1.89	3.80
July ..	4.17	2.63	8.55	2.57	4.48
August ..	6.43	3.46	7.57	4.52	5.50
September ..	8.39	4.54	9.11	5.55	6.90
October ..	7.14	5.83	10.57	4.54	7.02
November ..	15.35	10.29	5.71	3.24	8.65
December ..	6.14	2.28	2.77	2.49	3.42
Total .	87.19	51.09	77.08	41.95	64.34

PLUMB POINT LIGHT HOUSE—

Average No. of Miles of wind per diem	132
Greatest on the 24th	462
Least on the 1st	55

The Weather Office,
Halfway Tree P.O.

MAXWELL HALL,
Govt. Meteorologist.

METEOROLOGICAL OBSERVATIONS, KINGSTON, JAMAICA. MEAN RESULTS FOR THE YEAR 1913.

Month.	Bar Pressure.		Temperature.						Extremes for the month.			Dewpoint and humidity.		Rainfall.	Miles of Wind per diem.	Wind from and miles per hour.						Clouds in tenths.						Weather Conditions.
																						Lower.		Middle.		Upper.		
	7 a.m.	3 p.m.	Mean.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Min.	Range.	7 a.m.	3 p.m.			7 a.m.		3 p.m.		11 p.m.		7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 p.m.	11 p.m.	
	Ins.	Ins.	°	°	°	°	°	°	°	°	°	°	°	Ins.	Mls.		mls.		mls.		mls.							
January ..	29.999	29.939	76.5	70.0	82.9	86.5	68.6	17.9	90.1	66.1	24.0	64.7	83	69.5	64	0.09	169.3	N	4.7	SE	12.4	NNE	5.4	1.0	1.6	0.9	1.5	1.0	1.1	Rainfall very deficient. Distant lightning and thunder early part of the month. Sea breeze continued late on night of 23rd. Fine on ten days.
February ..	30.005	29.958	75.6	69.5	81.8	86.0	67.2	18.8	89.3	61.1	28.2	63.3	81	68.8	65	0.06	187.8	N by E	4.5	SE	13.3	NE	5.2	2.0	4.9	1.1	1.6	0.1	0.3	Rainfall very deficient. Generally fine. Sea breeze (SE) continued overnight 27th and 28th.
March ..	30.017	29.958	77.3	72.8	82.7	86.5	69.3	17.2	90.2	66.1	24.1	65.3	77	67.5	60	0.47	264.2	E	6.2	SE	19.8	ESE	5.7	2.4	3.1	1.1	1.9	0.3	0.1	Rainfall about one-half the average. Sea breeze continued late on ten nights. Thunderstorm latter part of month.
April ..	29.956	29.906	76.5	72.9	80.8	84.9	69.5	15.4	86.9	66.4	20.5	67.7	84	72.1	75	2.57	175.1	NNE	4.8	SE	12.1	NNW	4.6	1.8	4.7	1.2	1.3	1.4	0.9	Rainfall about 2½ times the average. Humidity also in excess. Distant lightning on 6th. Norther on 15th and 16th.
May ..	29.950	29.907	78.2	74.5	83.7	86.1	70.4	15.7	88.3	65.8	22.5	68.6	82	70.3	64	3.05	168.6	NNE	4.4	SE	12.1	NNE	4.4	2.4	4.2	0.9	2.0	1.7	1.7	Rainfall below the average. Rainy from 9th to 17th and towards end of month. Distant thunder on 11th and 26th. Fine on nine days.
June ..	29.957	29.923	80.4	77.4	84.7	88.4	73.2	15.2	90.7	70.8	19.9	69.2	76	71.0	64	0.48	273.5	E	6.6	SE	17.9	ESE	7.1	1.8	2.9	1.8	1.0	1.9	3.6	Rainfall very deficient, generally cloudy. Distant lightning on many occasions. 36 mile ESE squall on 30th.
July ..	29.990	29.951	80.3	76.4	81.9	89.7	72.3	17.4	92.9	68.1	24.8	67.9	75	71.7	65	1.82	232.6	NNE	4.8	SE	18.9	NE	4.3	1.3	2.6	0.8	0.8	2.1	3.6	Thunderstorms on six occasions. Frequent distant lightning. Fine on ten days.
August ..	29.949	29.905	80.7	76.8	84.9	89.8	73.2	16.6	93.2	70.8	22.4	69.5	78	72.7	67	1.08	218.6	NE by N	4.3	SE	17.1	E by N	4.5	0.6	2.3	1.3	1.4	2.2	2.8	Frequent lightning. Squally on several days. Rainfall very deficient.
September ..	29.908	29.859	80.0	75.9	83.6	89.3	73.1	16.2	93.5	69.4	21.1	70.1	82	73.6	72	3.57	185.1	N	4.3	SE	15.3	NNE	3.9	2.5	4.4	0.3	0.9	3.0	2.9	Rainfall a little below the average. Frequent thunderstorms. Squally on several days. Few fine days.
October ..	29.921	29.865	79.8	75.2	83.6	89.8	72.5	17.3	92.9	69.5	23.4	67.8	78	73.3	71	1.41	161.4	N by E	4.5	SE	11.3	NNW	4.2	1.3	3.5	1.1	1.1	1.6	2.4	Rainfall very deficient. Distant thunderstorms on several days. Squally on 29th and 30th. Fine on 16 days.
November ..	29.919	29.863	78.4	72.8	83.3	88.1	71.2	16.8	90.2	68.2	22.0	69.3	80	72.3	70	1.68	136.2	N	4.1	SE	8.9	N	4.8	1.4	4.0	1.3	1.8	3.1	1.9	Rainfall about one-half the average. Thunderstorms on six occasions. Fine on nine days.
December ..	29.951	29.905	76.6	70.7	81.6	87.0	69.2	17.8	89.3	67.6	21.7	65.4	82	69.6	67	0.17	160.6	N	5.0	SE	11.3	N by E	4.8	0.7	2.5	1.2	1.5	1.4	1.7	Rainfall very deficient. Fresh "norther" on 1th. SE squall 8 p.m. 28th. Fine on 21 days.
Total ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	16.45														
Means ..	29.960	29.912	78.4	73.7	83.2	87.7	70.8	16.9	90.6	67.5	23.1	67.4	81	71.0	67		194.4	NNE	4.8	SE	14.2	NE	4.9	1.6	3.4	1.1	1.4	1.6	1.9	Rainfall about one-half the average.