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Details

on 13th, then moved northwest over Mona Passage and entered northeastern Santo Domingo at Higuay and Sabana de la Mar, causing great damages there. In Puerto Rico, the strong southerly winds off shore grounded a British war frigate near Gueyama. The ship was lost but the crew saved. Destruction of property and crops reported in Puerto Rico (1), (2).

32 1780
Oct. 14
San Calixto
(The Great
Hurricane of
the West Indies)
H

One of the major and best known hurricanes of all time, of great size and intensity. A slow-moving hurricane that formed near Cape Verde Islands, moved westward, reached the Lesser Antilles on Oct. 10th, affected the Lesser Antilles (24,000 deaths, incomplete count), and passed close to the south coast of Puerto Rico Oct. 14th. Barbados, total ruin, where no trees and houses were left standing. The wind blew so strong that it stripped the bark off the trees. Meteorologists are of the opinion that this effect is produced on wind velocities of over 200 mph. An earthquake was felt during the passage of The Great Hurricane. The noise was so deafening that people could not hear their own voices. British Admiral Rodney wrote that the wind carried aloft 100 feet the heavy cannons of the ground fortifications. The day before the storm was calm at Barbados, with a fiery red sunset. The rain began the night of Oct. 9th. On Oct. 10th wind was from northwest at daybreak, increasing; strong by 10 a.m. At 4 p.m. the ships at the bay broke their moorings. At 6 p.m. the island was under the full impact of the storm; wind was from north-northwest at 10 p.m., and reached its peak by midnight. Became west at 1 a.m., diminishing, back to normal at 8 a.m. of 11th.

St. Vincent: A disaster, destroyed 584 of the 600 houses at the time at Kingstown. Grenada: 19 Dutch ships destroyed. St. Lucia: devastated on the night of Oct. 11th, 6000 deaths; Admiral Rodney's fleet anchored at Port Castries was totally destroyed. A great hurricane tide lifted one of his ships atop the city hospital, which collapsed under the weight. At Port Castries only 2 houses were left standing. The vortex estimated to have passed 50-60 miles east of St. Lucia at 7 a.m. Oct. 11th, moving northnorthwest towards Martinique. Martinique: 9000 deaths, plus 4,000 soldiers drowned at sea when a French fleet of 40 ships was sunk off Martinique. A storm surge of 25 feet inundated St. Pierre, destroying all houses. Winds reported from eastnortheast became very strong on the 11th, then violent. Winds shifted to the eastsoutheast, to the south, to the west. Dominica: Pounded by wind, rains, and by a storm surge that caused great damages at Roseau. The vortex was estimated about 60 miles southwest of Dominica at 7 a.m. Oct. 12, moving northwest. Guadeloupe: struck this

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island with decreased strength, but the storm surge (hurricane tide) did considerable damage to the south coast. Antigua: Winds began blowing in squalls from the eastnortheast, then from the east and southeast. St. Kitts: The center was about 90 miles southwest of St. Kitts at 7 a.m. Oct. 13th, moving northwest or westnorthwest. St. Bistatius: 4000-5000 deaths, huge sea surge. The hurricane then moved toward the direction of Puerto Rico. Puerto Rico: Vortex was about 70 miles south of Point Tuna at 7 a.m. Oct. 14th, and passed south of the south coast of the island, and much closer to the southwest coastline. Caused great damage at Cabo Rojo and Lajas. The center was over or in the vicinity of Mona Island at 7 a.m. Oct. 15th, recurving north towards Mona Passage. Santo Domingo: Entered the northeastern tip in the Cabo Engaño-Samaná area, great damages. The hurricane reached the Atlantic Oct. 15th, passed 160 miles east of Turks Island on 16th, recurving and 150 miles southeast of Bermuda Oct. 18th moving northeast, grounding 50 vessels at Bermuda. Puerto Rico was lucky to receive only the fringe of the Great Hurricane of the West Indies. (1), (2).

33 1785
Sept. 25
San Lupo
T/C

Passed over the island the night of Sept. 25; damages to agriculture. Governor Dabán made an inspection tour of this island, being the first recorded time a Governor visited the interior of the island on a disaster-relief inspection trip. The hurricane continued towards Santo Domingo, struck there the night of Sept. 26th and during Sept. 27th. Millás (2) reconstructs "San Lupo's" trajectory as proceeding from the Eastern Caribbean Sea, moved northwest to Puerto Rico, then westward towards Santo Domingo. (1), (2).

34 1788
Aug. 16
San Roque
H

A hurricane of great size. The center passed over the island of Martinique the night of Aug. 14th and during the 15th. Devastated Martinique, great loss of life, entire towns destroyed. A landslide buried 60 persons in northeastern Martinique. Damages at Dominica and Guadeloupe were minor, but Antigua, suffering from a prolonged drought, did not get any rainfall. Apparently, the vortex crossed over the northern half of Martinique at a slow motion of 12 mph moving northwest or west-northwest. It passed south of Puerto Rico on the 16th, but due to its great size affected the island with strong gales and rains, mostly southwestern Puerto Rico. It struck Santo Domingo the night of Aug. 16th and during the 17th, crossing Hispaniola from southeast to northwest. It is believed the hurricane continued towards the western Bahamas, (1 Spanish vessel lost), and reached the U. S. east coast Aug. 19th. (1), (2).

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35	1806 Sept. 11 San Vicente H	Struck the island of Dominica with great force (great damage), moved towards Puerto Rico. Passed a short distance off the south coast of the island. Great damage at Ponce. (1).
36	1807 Aug. 17-19 San Jacinto H	A slow-moving hurricane. Its effects lasted for 50 hours, rained for 4 days, and all rivers in Puerto Rico were in flood, destroyed the crops. Great loss of cattle, housing, and death toll. This hurricane appeared in the Windward Islands, and swept the Lesser Antilles north-northwest from St. Vincent to St. Bartholomew to the Virgin Islands, then moved west towards Puerto Rico. The vortex crossed the island, drifted towards Santo Domingo on the 19th, crossed Hispaniola and finally reached Cuba on Sept. 5, recurved and devastated the Bahamas, then moved into the open Atlantic waters. (1).
37	1813 July 23 San Liborio T/C	Passed July 22 on a northnorthwest course near or over Martinique, Dominica, and St. Kitts, then moved in a west course towards Puerto Rico. Crossed Puerto Rico from east to west. Worst hit towns were Yauco and San Germán. The storm was felt also at San Juan. (1).
38	1813 Aug. 21 Santa Juana T/C	Second cyclone of the year. It appeared near or over Dominica, and moved towards Puerto Rico, passing over or near the south coast on Aug. 21. Damages to agriculture. After reaching Mona Passage, recurved northward toward the Atlantic, and finally struck Galveston, S. C. on Aug. 27th. (1).
39	1814 July 23 San Liborio T/S	Trajectory unknown. Entered southeastern Puerto Rico, crossed the island E-W, towards Santo Domingo. Considered a "platanora". Was felt also at San Juan, but worst damages reported at Maunabo, Yauco, and San Germán. A 7-month drought prior to the cyclone in southwest Puerto Rico in combination with the storm destroyed the banana and coffee crops. At San Germán and Yauco an intestinal epidemic resulted from consumption of the root called "marunguey". (1).
40	1816 Sept. 18-20 San José de Cupertino H	A slow-moving hurricane. Appeared at Barbados Sept. 15th, moved northward towards Martinique, Dominica, Guadeloupe, and St. Kitts Sept. 16-17, and passed probably along the south coast of Puerto Rico Sept. 18. In Puerto Rico the rains lasted for 3 days, which produced damaging floods. The banana, rice, and tobacco crops were destroyed. The cyclone reached Mona Passage, recurved northward towards the Atlantic. (1).
41	1818 Sept. 22 San Mauricio T/C	Appeared at Barbados Sept. 21st, moved towards Dominica, Antigua, and St. Kitts on 22nd (west winds reported at St. Kitts, 1 death), reached southeastern Puerto Rico (Guayama) probably that night. (1).

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	42	1819 Sept. 21-22 San Mateo H	Severe hurricane. Appeared early Sept. 20th near Barbados and St. Lucia, and swept the Lesser Antilles Martinique, Dominica, Guadeloupe, Antigua, St. Kitts, St. Martin, and the Virgin Islands. Was most destructive at the Virgin Islands, especially St. Thomas (winds westnorthwest and southwest, 101 vessels lost). Reached Puerto Rico the night of Sept. 21st and lasted till noon of 22nd. Then reached the Bahamas. A severe hurricane in Puerto Rico, sunk all ships at San Juan harbor, damaged houses, sugar mills, and crops. A ruinous hurricane. (1).
	43	1824 Sept. 9-10 San Pedro H	Appeared at Guadeloupe Sept. 7th, moved westnorthwest, moved through the Leeward Islands, then south of St. Kitts (sunk many vessels there), then west on the 8th. Passed close to the south coast of Puerto Rico on the early morning hours of Sept. 9th, and closer to the southwestern tip of the island, then moved northward through Mona Passage close to Santo Domingo. It was not felt at Aguadilla nor Moca. After reaching the Atlantic, moved towards the U. S. coastline, and struck the State of Georgia. Rough seas reported Sept. 8th in north coast of the island. Puerto Rican pirate Roberto Cofresi's boat was caught in the hurricane at Mona Passage, carried off and grounded in Santo Domingo. The cyclone was felt mostly in the southern towns of Juana Diaz, Ponce, Peñuelas, Yauco, San Germán, Lajas, and Cabo Rojo. Apparently, the winds were restricted to southern Puerto Rico, and were more severe at Cabo Rojo. Foodstuffs were sold at "scandalous prices" --black market, is the modern name for it. (1).
	44	1825 July 26-27 Santa Ana H	Severe hurricane, of small diameter. One of the great hurricanes of Puerto Rico (374 deaths, 1210 injured). Appeared July 25th between St. Lucia and Martinique (no damages reported), moved northnorthwest and devastated Guadeloupe (lowest barometer 27.10 inches) and St. Kitts (destroyed Basseterre, all shipping at harbor sunk). Then moved northwestward towards Puerto Rico. The eye entered southeast Puerto Rico at 11 p.m. July 26th between Humacao and Yabucoa, crossed the island southeast-north, left between Arecibo and Vega Baja about 8:30 a.m. of July 27th. Several towns were practically destroyed, Humacao (141 deaths), Yabucoa (52 deaths, 347 injured), Patillas, Gurabo, Caguas. All towns in eastern, central, and northern Puerto Rico from Fajardo to Aguadilla received hurricane winds, but not the south or west of the island. This track is very similar to that of Hurricane Betsy of 1956. At San Juan, the San Antonio (now Esteves) bridge collapsed, incommunicating San Juan from the rest of the island. Great damages to bananas, sugar cane, coffee, rice, corn,

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		<p>coconut plantations, cattle. Great floods. 465 houses damaged; total damages estimated in 1/2 million pesos. Meteorological data: High temperatures observed 2 days before the storm. Winds at San Juan July 26th were gusty at daybreak; east to northeast in the afternoon, increasing; strong northeast at 11 p.m.; at 2 a.m., northnorthwest; 3 a.m., southwest; about 4 a.m., south; then changed to southsoutheast, southeast, and died at 8 a.m., followed by heavy rainfall. (1).</p>
45	<p>1827 Aug. 17 San Jacinto T/S</p>	<p>The date this storm passed over the Lesser Antilles is in question. Entered northeastern Puerto Rico near Naguabo, crossed the island, and left near Toa Baja. Affected the entire island; damaged banana crop, and ruined 1/4 of the crops; 16 vessels lost. This cyclone does not compare in intensity with "Santa Ana" of 1825.</p>
46	<p>1835 Aug. 13 San Hipólito (The Antigua- Texas Hurricane) H</p>	<p>Appeared Aug. 11th near 16N 56W, moving westnorthwest. Passed over Antigua on 12th (barometer decreased 1 inch in 1-1/2 hours), and St. Kitts. The eye entered Yabucoa 8-9 a.m. of Aug. 13th, crossed the island diagonally to Vega Baja during 6-7 hours. Was felt in eastern and northern Puerto Rico. Passed along northern coast of Santo Domingo on 13th, crossed Cuba on the 14th east-west, leaving south of Havana. Crossed the Gulf of Mexico Aug. 15, 16, 17, and entered the Texas coast between Corpus Christi and Galveston. In Puerto Rico, a drought had preceded the hurricane. Vega Baja suffered a malaria-like epidemic due to the stagnant waters. Damages were minor at San Juan, and in island locations were confined mostly to crops and housing. At San Juan, winds were east during the morning hours of Aug. 13, increasing at 10 a.m., but maintained direction east to northeast until 3 p.m., then decreased. Copious rains continued until midnight.</p>
47	<p>1837 Aug. 2-3 Nuestra Señora de Los Angeles (The Antigua Hurricane) H</p>	<p>One of Puerto Rico great hurricanes, and first tropical cyclone for which barometer records are available in Puerto Rico. Appeared July 31st near 16N 55W, moving westnorthwest and passed between Antigua and Barbuda Aug. 2nd, and on this trajectory struck St. Thomas and the Virgin Islands, Culobra and Vieques, in the afternoon. The eye entered Kumacao 5-6 p.m. and left the island near Vega Baja-Dorado area 10-12 hours later on Aug. 3. Most damages were in northeast portion of the island. 3 earthquakes felt. The hurricane moved northwestward and passed over Turks Island on 4th, Eleuthera and Nassau on the Bahamas on 5th, entered U. S. mainland south of Titusville, Florida on 6th, and moved northwestward towards Pensacola and Mobile on 7th. Deaths, 11 at San Juan, 1 at Ponce, but it appears the Spanish authorities withhold damage and casualty figures. The hurricane was felt in the entire island. San Juan</p>

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		<p>observations made by Captain of the Port on Aug. 2:</p> <p>4 p.m. Bar. falling, wind N, persistent drizzle</p> <p>6 p.m. Hurricane conditions began</p> <p>8 p.m. Bar. 29.60</p> <p>9 p.m. Bar. 29.50, wind WNW, strong</p> <p>10 p.m. Bar. 29.40, very strong wind</p> <p>11 p.m. Bar. 29.30, wind S, violent & howling</p> <p>12:30 a.m. Bar. 28.00, wind S, violent & howling, turbulent sea (all vessels in harbor sunk)</p> <p>1 a.m. Bar. 28.60 rising, wind SW</p> <p>1:30 a.m. Bar. 29.17, wind S, diminishing</p> <p>4 a.m. Bar. 29.50, steady S wind, diminishing</p> <p>5 a.m. Wind and sea calmed down considerably.</p>
48	<p>1851 Aug. 18 San Agapito (The Apalachicola Hurricane) H</p>	<p>Appeared Aug. 15th near 13N 15W moving northwest, and on the 17th entered the Leeward Islands between Antigua and St. Kitts; passed on the 18th to the south of St. Croix, and at sunset was close to the south coast of Puerto Rico, crossed the southwest portion of the island. Was felt in the entire island. Reports of floods in northern Puerto Rico. San Agapito must have been of considerable size. Crossed Mona Passage the night of Aug. 18th, and Santo Domingo from southeast to northwest, the Windward Passage on 19th, and Cuba from east to west on 20-21; recurved on the Gulf of Mexico on 22nd, and entered the U. S. coastline at Apalachicola, Florida, on 22nd; battered the eastern United States coast from Florida to North Carolina 23-25, recurved to the Atlantic, and reached Newfoundland on 27th, dissipating on 28-29th.</p>
49	<p>1852 Sept. 5 San Lorenzo T/C</p>	<p>Trajectory unknown, but is believed the storm arrived from the Windward Islands, crossed the Caribbean Sea, and passed close to southern Puerto Rico, then crossed the southwest portion of the island, and entered Mona Passage. Worst damages from Guayanilla to Mayaguez. Many deaths due to the floods, which destroyed most crops and damaged roads in southern Puerto Rico.</p>
50	<p>1867 Oct. 29 San Narciso H</p>	<p>One of the great hurricane of Puerto Rico. A small but intense and erratic hurricane. Struck the island at night. Center passed over Sombrero Island in the northern Leewards Oct. 29, 6 a.m., but was not felt at Anogada just 28 miles to the north. The eye passed over St. Thomas between 1:30-2:00 p.m., with central calm of 30 minutes, bar. 28.50, wind 74 mph. 80 vessels sunk, 600 drowned. The vortex of San Narciso entered northeastern Puerto Rico near Fajardo 5-6 p.m., was over Caguas at 8 p.m. (winds at Caguas N, central calm 10-12 min., then winds shifted to NW). The center could not be determined after it passed over Caguas, as apparently the mountains made the cyclone lose its symmetry. Its diameter over the island was estimated at 34 miles, and its forward speed 13.5 mph. Earthquakes felt at Humacao,</p>

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Luquillo and Peñuelas. 66 towns out of 67 in Puerto Rico at the time were affected, mostly Naguabo, Fajardo, Humacao, Ponce, Juana Díaz, Manatí, San Germán, Cabo Rojo; 211 deaths, 14 vessels and 16 bridges lost. Deaths were due mostly to drowning by floods and by landslides. Great damages to crops, housing, roads. Total damages estimated at 12.9 million escudos. San Juan observations:
 5:45 p.m. Bar. 29.60, winds NW
 7:15 p.m. hurricane conditions
 8:52 p.m. strong NW gale for 15 min.
 9:00 p.m. Winds shifted to W and later to SW
 9:30 p.m. Bar. rising, winds E
 11:30 p.m. Fresh E winds
 Lowest barometer at San Juan 29.60, at Arroyo 29.40.
 Daily barometer readings first published at the Gaceta Oficial in 1868, the year after San Narciso.

51 1871
 Aug. 21
 Santa Juana
 T/S

First tropical cyclone for which a warning was received by cable (inaugurated 1870); first time the island was warned by telegraph (installed 1869-1870), and first hurricane for which rainfall records are available. This Atlantic hurricane appeared August 17 southwest of Cape Verde Islands and on August 20 was east of the Leewards moving northwest. The center passed over Antigua, St. Eustatius and St. Kitts on Aug. 21 (lowest pressure 28.50 at 8:40 a.m., and the central calm lasted 22 minutes). The vortex passed over St. Thomas (lowest bar. 28.40 at 5:00 p.m., central calm of 30 min., 27 deaths). Continued on its northwest track and passed about 30 miles northeast of Fajardo at 10 p.m. It was felt in northeastern Puerto Rico including San Juan. The storm passed east of the Bahamas and reached Jacksonville, Florida, on Aug. 24, and dissipated inland. San Juan observations, August 21st:
 5:30 p.m. Bar. 29.89, wind NE
 6:30 p.m. Bar. 29.83, wind NE
 7:30 p.m. Bar. 29.74, wind NE, rain
 9:00 p.m. Bar. 29.58, strong NNW gusts, then NW
 9:30 p.m. Bar. 29.56, wind N
 10:00 p.m. Bar. 29.53, wind N
 10:30 p.m. Bar. 29.59 rising, NNW winds
 12 Midnight Bar. 29.76 rain ceased
 Total rainfall at San Juan 1.18 inches
 3 vessels lost (2 at Arecibo, 1 at Aguadilla). (1) (3)

52 1876
 Sept. 13
 San Felipe
 H

One of the great hurricanes of Puerto Rico, but did less damage than "Santa Ana" of 1825 and "San Narciso" of 1867. Its small diameter of 185 miles at Puerto Rico was computed by Father Benito Viñes, who made a research of this cyclone. It appeared east of the Windward Islands, and its vortex passed over Antigua and St. Kitts (8:30 p.m.) Sept. 12, moved westnorthwest and passed between St. Thomas and St. Croix (nearer St. Croix) during the early morning hours of the 13th. The vortex entered Humacao-Yabucca area at 7:00 a.m., both towns experienced the

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central calm. Crossed the island east-west at 18 mph, left via Mayaguez 11:30 a.m. (central calm). Crossed Mona Passage into Santo Domingo at 15 mph; crossed that island east-west the same day; reached Cuba near Guantánamo the night of the 14th. Passed over northeastern Cuba on 14th; left the north coast at Sagua la Grande (central calm) at midnight 15th towards the Florida Straights and Key Salt (Bahamas, winds 88 mph); entered the U. S. mainland at Cape Fear, N. C. on 17th at 8:00 a.m.; then moved northward to New England states, and dissipated in the North Atlantic waters. Storm duration in Puerto Rico, 10 hours; 19 deaths reported, but historians suspected the Spanish Government withheld actual damage and death toll data. A local welfare board (Junta Local de Beneficiencia) was designated at each town to collect donations for the storm victims, and it is reported these local boards did a magnificent job. There was a complaint, however, that municipal authorities exaggerated the damages.

Mayaguez observations, Sept. 13th:

6:00-7:00 a.m., rain squalls, fresh NE winds, then N, gusty, barometer falling. Lowest barometer reading 11:30 a.m., 29.94 inches by SS "Marsella" on Mayaguez harbor.

San Juan observations:

11th 4:00 p.m., bar. 29.83, wind E 12 mph
 12th 10:00 a.m., bar. 29.98, wind E 9 mph
 1:00 p.m., bar. 29.92, wind NE 12 mph
 4:00 p.m., bar. 29.85, wind NE 10 mph
 10:00 p.m., rain began
 13th 4:00 a.m., bar. 29.75, wind NE 25 mph, hurricane conditions
 7:00 a.m., bar. 29.50, wind N 52 mph
 8:00 a.m., bar. 29.28, wind NE 59 mph
 8:30 a.m., bar. 29.20, lowest reading, E wind
 9:00 a.m., bar. 29.32, wind ESE 45 mph
 10:00 a.m., bar. 29.51, wind SE anemometer damaged
 11:00 a.m., bar. 29.61, wind SSE
 1:00 p.m., hurricane conditions ceased
 3:00 p.m., bar. 29.78, wind ESE
 7:00 p.m., sky cleared, rain ceased

Rainfall at San Juan, 24-hour period ended 3:00 p.m. of 13th, 4.71 inches. Temperatures during the hurricane, 75-79°F. Sea was very noisy at San Juan. (1), (3).

53 1878,
 Nov. 28
 San Rufo
 T/S

Our only November cyclone. Occurred at the close of the hurricane season. Appeared Nov. 25 east of the Lesser Antilles near 13N 51W, crossed the Northern Leewards, moved on a rate westsouthwest track some 30 miles off the south coast of Puerto Rico at daytime, and dissipated Nov. 30 to the south of Hispaniola. Was felt in eastern portion of Puerto Rico at daybreak, with gusty S winds and heavy rains, and also at some southern and western locations in the afternoon. At

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Aguadilla, rough seas caused 3 deaths at sea. San Juan observations: Nov. 28th: 10 a.m., wind NW 20 mph; lowest bar. at 4:00 p.m., 29.64. (1), (3).

54 1888,
Sept. 1-2
San Gil
H

An intense erratic and wet hurricane. Passed Aug. 31 north of Virgin Islands and about 100-140 miles north of Puerto Rico Sept. 1st, moving westnorthwest. Affected Turks Island Sept. 2 (21 deaths), recurved westsouthwest toward north and southwest Cuba Sept. 4-5 (660 deaths), and hit Havana. Crossed over Yucatán on Sept. 6 and over Veracruz the night of Sept. 7-8, and dissipated over Mexico. Puerto Rico was affected by the hurricane rains, especially the night of Sept. 1-2, which produced tremendous flooding and over 100 deaths. The Portugués River at Ponce flooded Ponce, drowned 30 persons and destroyed the principal bridge. Great damages to crops and cattle. The effects of San Gil in Puerto Rico were similar to Hurricane Donna of 1960. (1), (3).

55 1889,
Sept. 3-4
San Martín
T/S

Appeared east of Windward Islands near 11.5N 54W Sept. 1 and on a northwest track passed north of St. Kitts the night of Sept. 2 (bar. 29.50) and near St. Thomas on Sept. 3, and then about 90 miles northeast of Fajardo, Puerto Rico the night of Sept. 3-4. Moved north and then recurved towards the North Carolina coast Sept. 12 and dissipated. In Puerto Rico, San Martín was considered a "platanera" rain storm. Ponce, Mayaguez, and Humacao (bar. 29.30 9:30 p.m. Sept. 3) experienced only light rains and some light gusts. At San Juan lowest barometer 29.43 at 8:30 p.m., northwest winds 48 mph, then changed to west. The first gusts were felt at San Juan 3:00-4:00 p.m. Sept. 3, and by 9:00 a.m. Sept. 4 the storm had passed. San Juan observations:
Sept. 3 3:00 to 4:00 p.m., bar. 29.52, continued drizzle
8:30 p.m., bar. 29.43, wind northwest 49 mph, then west.
4 Midnight, bar. 29.48, wind southwest 44 mph
9:00 a.m., bar. 29.77, wind southwest 13 mph
(1)

56 1891,
Aug. 19-20
San Magín
H

Small but intense hurricane. Appeared Aug. 18th 13N 57W, and crossed Martinique that day (700 deaths). The eye passed over St. Pierre, and the hurricane battered the island from 6:00 p.m. to 10:00 p.m.; then passed near Dominica, and some distance to the northeast of Puerto Rico, (the National Weather Service publication (3) on storm track places San Magín as crossing Puerto Rico from Guayama to Arecibo) beginning around midnight of Sept. 19th, moving northwest, reached the Bahamas on the 23rd, entered South Florida near the Miami area on the 24th, and reached the Gulf of Mexico on the 25th and dissipated. The cyclone produced a

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		<p>lightning display in Puerto Rico, followed by heavy rains (rains lasted 20 hours in Adjuntas, beginning at 10:00 p.m.) and great floods. The Rio Grande de Loiza had a tremendous flood, inundating Gurabo and Carolina, which was under 6 to 8 feet of water. Great floods at Humacao, Adjuntas, Ponce, and San Germán. 8 deaths, but total death toll was not tabulated.</p> <p>Observational data: San Juan, Aug. 19th, overcast, <u>southeast winds 7 mph</u>, rain, gusty winds, rough seas. Evening, heavy rain, thunder, lightning. Midnight, copious rainfall, storm conditions. Humacao, Aug. 19th, afternoon, heavy rain, preceded by gusty <u>southeast winds</u>. Rained all night. The Humacao river in flood by 3:00 a.m. At San Juan a red storm flag was displayed at La Marina. (1), (3).</p>
57	1893 Aug. 16-17 San Roque H	<p>Appeared Aug. 13 near 9N 50W moving northwestward. Affected Guadeloupe on the 15th and St. Croix in the afternoon of August 16th; crossed Puerto Rico southeast to northwest at 12 mph, from Patillas-Maunabo area 7:00-8:00 p.m. on 16th, to Quebradillas-Isabela area 3:00 a.m. on the 17th. The hurricano moved northwestward and followed a northnortheast track to New Foundland and the North Atlantic waters. The vortex remained over Puerto Rico for 7 hours. Lowest barometer reading at San Juan <u>29.17</u> at 8:00 p.m. Anemometer failed at 8:30 p.m. after recording 55 mph. Rainfall 2.36 inches; 4 deaths. Adjuntas reported high southerly winds, copious rains, loss of coffee crop. Storm display flags used at the time at San Juan were ^ared flag; blue and yellow; and black, in order of importance. A black flag indicated immediate hurricane condition.</p> <p>San Juan observations on Aug. 16th: 4:00 p.m. bar. 29.59, wind northeast 48 mph 4:30 p.m. bar. 29.57, wind northeast 50 mph 6:00 p.m. bar. 29.52, wind northeast 41 mph 8:00 p.m. bar. 29.40, wind north 36 mph 8:45 p.m. bar. <u>29.17</u>, wind north 49 mph 9:15 p.m. bar. 29.33, wind east 49 mph (1), (3).</p>
58	1896 Aug. 31-Sept. 1 San Ramón H	<p>Appeared east of Guadeloupe on Aug. 30 and crossed the island the same day, and on a westnorthwest track passed some distance south of Puerto Rico and possibly over Puerto Rico, from Ponce to Mayaguez, the night of Aug. 31-Sept. 1, Mona Passage, and very close to the north coast of Santo Domingo on the 2nd, over the Bahamas Sept. 4-5, and then moved northward into the Maine coastline on the 11th. This hurricane passed south of the island between 8 p.m. and the early morning hours, causing great floods of the Rio Piedras, Rio Grande de Loiza, Bayamón, Tortugués and Jacaguas rivers.</p>