

METEOROLOGICAL DATA FOR 1998

SAN JUAN, PR (SJU)

LATITUDE: 18° 26' 29" N LONGITUDE: 66° 00' 08" W ELEVATION (FT): GRND: 13 BARO: 69 TIME ZONE: ATLANTIC (UTC+ 4) WBAN: 11641

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	84.8	84.9	84.3	85.2	87.5	89.0	88.5	89.6	88.6	87.8	85.7	83.5	86.6	
	HIGHEST DAILY MAXIMUM	89	90	90	93	94	91	92	93	94	93	91	88	94	
	DATE OF OCCURRENCE	30+	24+	04	12	12	30+	13	29+	10	13	06+	14	SEP 10	
	MEAN DAILY MINIMUM	72.6	72.5	72.0	74.0	75.8	77.2	76.7	77.7	76.9	76.5	74.6	73.6	75.0	
	LOWEST DAILY MINIMUM	69	68	69	71	72	75	73	73	75	74	72	72	68	
	DATE OF OCCURRENCE	07	13	15+	16+	8 +	16+	03	25	28+	22+	29+	28+	FEB 13	
	AVERAGE DRY BULB	78.7	78.7	78.2	79.6	81.7	83.1	82.6	83.7	82.8	82.2	80.2	78.6	80.8	
	MEAN WET BULB	72.0	72.6	73.0	74.1	76.6	78.3	78.4	79.4	78.2	77.4	75.3	74.2	75.8	
	MEAN DEW POINT	68.9	69.9	70.8	71.8	74.8	76.6	76.9	78.3	76.7	75.6	73.3	72.0	73.8	
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	4	1	1	4	11	5	19	8	2	2	0	0	57
	MAXIMUM ≤ 32°	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIMUM ≤ 32°	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
H/C	HEATING DEGREE DAYS	0	0	0	0	0	0	0	0	0	0	0	0	0	
	COOLING DEGREE DAYS	430	391	415	446	523	550	555	589	538	541	462	428	5868	
RH	MEAN (PERCENT)	74	77	81	79	82	83	85	87	85	83	82	82	82	
	HOUR 02 LST	81	83	88	86	90	86	91	93	91	88	89	87	88	
	HOUR 08 LST	81	80	84	81	83	85	86	89	85	82	86	84	84	
	HOUR 14 LST	63	67	71	72	73	75	76	77	75	74	73	72	72	
	HOUR 20 LST	76	79	83	80	85	85	87	89	87	85	84	84	84	
S	PERCENT POSSIBLE SUNSHINE	90		61	57	61	73	68	65	67	63	67			
	NUMBER OF DAYS WITH:														
W/O	HEAVY FOG (VISBY ≤ 1/4 MI)	0	0	0	0	0	0	0	1	2	0	0	0	3	
	THUNDERSTORMS	4	2	3	0	3	5	4	8	7	11	8	2	57	
CLOUDINESS	SUNRISE-SUNSET: (OKTAS)														
	CEILOMETER (≤ 12,000 FT.)														
	SATELLITE (> 12,000 FT.)														
	MIDNIGHT-MIDNIGHT: (OKTAS)														
	CEILOMETER (≤ 12,000 FT.)														
	SATELLITE (> 12,000 FT.)														
NUMBER OF DAYS WITH:															
CLEAR															
PARTLY CLOUDY															
CLOUDY															
PR	MEAN STATION PRESS. (IN.)	29.92	29.91	29.92	29.90	29.90	29.96	29.96	29.89	29.87	29.88	29.89	29.93	29.91	
	MEAN SEA-LEVEL PRESS. (IN.)	29.98	29.97	29.98	29.96	29.97	30.03	30.02	29.95	29.93	29.94	29.96	30.00	29.97	
WINDS	RESULTANT SPEED (MPH)	2.3	2.9	2.2	2.8	2.4	0.4	1.6	3.1	1.1	2.1	2.4	3.8	2.1	
	RES. DIR. (TENS OF DEGS.)	04	08	09	07	07	09	09	10	10	10	10	10	09	
	MEAN SPEED (MPH)	6.5	7.4	7.4	8.4	6.9	8.0	8.3	7.4	7.2	6.5	7.2	9.3	7.5	
	PREVAIL. DIR. (TENS OF DEGS.)	09	10	09	06	06	06	05	05	06	05	06	06	06	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	24	24	24	24	24	32	25	34	79	23	30	28	79	
	DIR. (TENS OF DEGS.)	07	16	06	05	06	07	06	04	05	04	03	06	05	
	DATE OF OCCURRENCE	06+	04	25+	16+	24+	21	15	24	21	01	12	02	SEP 21	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	30	32	30	31	30	45	33	47	93	28	37	33	93	
DIR. (TENS OF DEGS.)	07	14	07	28	04	06	07	07	07	07	03	08	07		
DATE OF OCCURRENCE	03	07+	26+	12	17	21	15	24	21	01	12	02	SEP 21		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	7.29	3.72	3.48	4.14	3.67	3.25	7.18	7.80	10.47	6.82	6.74	7.99	72.55	
	GREATEST 24-HOUR (IN.)	4.06	2.58	1.09	2.67	1.35	0.95	2.18	3.48	4.87	1.97	1.17	1.01	4.87	
	DATE OF OCCURRENCE	06-07	04-05	14	16	14-15	06	12	24-25	21-22	22	12-13	28	SEP 21-22	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	12	8	16	13	16	12	23	18	20	16	23	26	203	
PRECIPITATION ≥ 0.10	7	6	9	8	10	10	11	12	14	11	16	19	133		
PRECIPITATION ≥ 1.00	2	1	1	1	1	0	2	2	1	3	0	1	15		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	GREATEST 24-HOUR (IN.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	DATE OF OCCURRENCE														
	MAXIMUM SNOW DEPTH (IN.)	0	0	0	0	0	0	0	0	0	0	0	0	0	
	DATE OF OCCURRENCE														
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0	0	0	0	0	0	0	0	0	0	0	0	0	0		

NORMALS, MEANS, AND EXTREMES

SAN JUAN, PR (SJU)

LATITUDE: 18° 26' 29" N LONGITUDE: 66° 00' 08" W ELEVATION (FT): GRND: 13 BARO: 69 TIME ZONE: ATLANTIC (UTC+ 4) WBAN: 11641

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	83.2	83.6	84.4	85.8	87.2	88.6	88.5	88.7	88.8	88.3	85.9	83.8	86.4
	MEAN DAILY MAXIMUM	43	83.2	83.6	84.6	85.8	87.1	88.5	88.4	88.8	88.8	88.4	85.9	84.0	86.4
	HIGHEST DAILY MAXIMUM	44	92	96	96	97	97	97	95	97	97	98	96	94	98
	YEAR OF OCCURRENCE		1983	1983	1983	1983	1980	1988	1981	1980	1981	1981	1981	1989	OCT 1981
	MEAN OF EXTREME MAXS.	43	87.2	88.0	89.8	91.2	92.1	92.7	91.8	92.2	92.6	92.7	90.1	87.7	90.7
	NORMAL DAILY MINIMUM	30	70.8	70.6	71.6	72.9	74.5	76.1	76.8	76.7	76.2	75.5	74.0	72.4	74.0
	MEAN DAILY MINIMUM	43	70.5	70.4	71.1	72.7	74.3	75.8	76.5	76.5	76.0	75.2	73.7	72.0	73.7
	LOWEST DAILY MINIMUM	44	61	62	60	64	66	69	69	70	69	67	66	63	60
	YEAR OF OCCURRENCE		1962	1968	1957	1968	1962	1957	1959	1956	1960	1959	1969	1964	MAR 1957
	MEAN OF EXTREME MINS.	43	66.0	66.2	66.9	68.9	71.1	72.9	73.2	73.5	73.2	72.3	70.1	68.2	70.2
	NORMAL DRY BULB	30	77.0	77.1	78.0	79.4	80.9	82.3	82.6	82.7	82.5	81.9	80.0	78.1	80.2
	MEAN DRY BULB	43	76.8	77.0	77.9	79.3	80.7	82.2	82.4	82.6	82.4	81.8	79.9	78.1	80.1
	MEAN WET BULB	15	71.3	70.8	71.0	72.8	69.9	70.8	71.7	77.1	76.6	76.0	74.6	72.6	72.9
	MEAN DEW POINT	15	68.6	67.9	67.8	69.7	67.4	68.4	69.4	74.8	74.3	73.8	72.3	70.0	70.4
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	30	0.4	0.9	1.9	3.6	6.2	9.4	8.8	10.3	11.1	9.2	1.9	0.6	64.3	
MAXIMUM ≤ 32°	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
MINIMUM ≤ 32°	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
MINIMUM ≤ 0°	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
H/C	NORMAL HEATING DEG. DAYS	30	0	0	0	0	0	0	0	0	0	0	0	0	0
	NORMAL COOLING DEG. DAYS	30	372	339	403	432	493	519	546	549	525	524	450	406	5558
RH	NORMAL (PERCENT)	30	74	72	71	71	75	76	76	76	76	77	76	75	75
	HOUR 02 LST	30	80	79	78	79	83	84	83	84	84	84	83	81	82
	HOUR 08 LST	30	80	79	76	74	76	77	78	79	79	80	80	80	78
	HOUR 14 LST	30	63	62	60	61	65	66	66	67	67	66	67	65	65
	HOUR 20 LST	30	75	73	72	73	76	77	78	78	78	79	77	76	76
S	PERCENT POSSIBLE SUNSHINE	43	69	71	76	72	64	64	69	68	62	64	60	61	67
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	43	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	THUNDERSTORMS	43	0.3	0.3	0.3	1.0	4.5	4.6	5.1	6.0	8.2	7.5	3.1	0.8	41.7
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	41	3.9	4.0	3.9	4.3	5.1	4.8	4.6	4.5	4.8	4.7	4.4	4.2	4.4
	MIDNIGHT-MIDNIGHT (OKTAS)	32	3.5	3.6	3.6	3.7	4.5	4.1	4.2	4.0	4.2	4.0	4.0	3.8	3.9
	MEAN NO. DAYS WITH:														
	CLEAR	41	9.0	7.5	9.4	7.5	3.7	4.4	5.2	5.5	4.0	4.7	5.4	6.7	73.0
PARTLY CLOUDY	41	18.0	16.3	17.2	16.4	15.5	15.8	17.2	17.4	16.6	17.0	17.6	18.2	203.2	
CLOUDY	41	4.0	4.4	4.4	6.1	11.8	9.8	8.6	8.1	9.4	9.4	6.9	6.1	89.0	
PR	MEAN STATION PRESSURE (IN)	26	29.97	29.97	29.95	29.92	29.92	29.96	29.98	29.94	29.90	29.87	29.89	29.94	29.93
	MEAN SEA-LEVEL PRES. (IN)	15	30.04	30.03	30.01	29.97	29.97	30.02	30.04	30.00	29.95	29.92	29.94	30.01	29.99
WINDS	MEAN SPEED (MPH)	30	7.8	8.2	8.6	8.5	8.0	8.7	9.4	8.5	7.4	6.5	7.3	7.6	8.0
	PREVAIL. DIR (TENS OF DEGS)	22	09	09	07	07	07	09	09	07	07	07	07	07	07
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	2	25	29	32	26	26	32	28	34	79	24	30	28	79
	DIR. (TENS OF DEGS)		07	06	07	07	07	07	07	04	05	27	03	06	05
	YEAR OF OCCURRENCE		1997	1997	1997	1997	1997	1998	1997	1998	1998	1997	1998	1998	SEP 1998
	MAXIMUM 5-SECOND:														
	SPEED (MPH)	2	32	38	36	31	30	45	37	47	93	30	37	33	93
DIR. (TENS OF DEGS)		08	07	06	28	07	06	07	07	07	27	03	08	07	
YEAR OF OCCURRENCE		1997	1997	1997	1998	1997	1998	1997	1998	1998	1997	1998	1998	SEP 1998	
PRECIPITATION	NORMAL (IN)	30	2.81	2.15	2.35	3.76	5.93	4.00	4.37	5.32	5.28	5.71	5.94	4.72	52.34
	MAXIMUM MONTHLY (IN)	44	7.60	6.69	5.41	10.37	14.99	10.96	9.35	11.76	15.15	15.06	15.96	16.81	16.81
	YEAR OF OCCURRENCE		1977	1982	1958	1988	1965	1965	1961	1955	1996	1970	1979	1981	DEC 1981
	MINIMUM MONTHLY (IN)	44	0.61	0.20	0.72	0.08	0.44	0.29	1.12	1.83	1.73	1.17	1.91	0.68	0.08
	YEAR OF OCCURRENCE		1978	1983	1970	1997	1972	1985	1974	1994	1987	1979	1980	1963	APR 1997
	MAXIMUM IN 24 HOURS (IN)	44	5.08	2.75	3.91	7.20	4.74	3.55	2.91	5.08	8.84	5.04	7.07	8.40	8.84
	YEAR OF OCCURRENCE		1969	1989	1969	1988	1986	1965	1993	1955	1989	1985	1979	1981	SEP 1989
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	17.3	13.0	12.6	12.1	16.1	14.9	18.8	18.6	16.7	17.5	17.6	18.7	193.9	
PRECIPITATION ≥ 1.00	30	0.2	0.2	0.4	0.8	1.7	0.8	1.0	1.0	1.2	1.2	1.3	1.2	11.0	
SNOWFALL	NORMAL (IN)	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	MAXIMUM MONTHLY (IN)	44	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	T
	YEAR OF OCCURRENCE										1989				SEP 1989
	MAXIMUM IN 24 HOURS (IN)	44	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	T
	YEAR OF OCCURRENCE										1989				SEP 1989
	MAXIMUM SNOW DEPTH (IN)	42	0	0	0	0	0	0	0	0	0	0	0	0	0
YEAR OF OCCURRENCE															
NORMAL NO. DAYS WITH:															
SNOWFALL ≥ 1.0	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

PRECIPITATION (inches) 1998 SAN JUAN, PR (SJU)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1969	7.49	3.97	2.89	2.42	5.79	4.04	7.49	6.89	4.86	6.99	6.70	2.28	61.81
1970	2.94	1.33	0.72	1.15	7.98	9.26	3.58	4.66	5.66	15.06	8.00	5.98	66.32
1971	2.18	3.67	1.78	2.93	3.87	1.24	1.69	5.18	2.19	4.61	2.31	3.93	35.58
1972	2.76	2.00	3.40	2.79	0.44	1.58	2.24	3.06	3.68	5.46	2.78	7.53	37.72
1973	2.27	0.92	4.66	8.48	0.48	4.71	2.44	7.00	3.13	3.29	3.01	4.16	44.55
1974	2.92	0.82	1.92	1.20	2.42	2.34	1.12	6.57	3.67	8.23	6.55	3.92	41.68
1975	2.69	0.71	1.13	1.01	1.04	2.64	3.35	4.08	9.29	6.60	10.90	7.82	51.26
1976	1.50	2.18	2.05	3.94	2.96	2.96	2.48	5.12	11.44	7.69	2.77	2.11	47.20
1977	7.60	1.02	1.73	0.96	4.04	1.49	4.64	4.42	4.71	5.94	12.44	3.82	52.81
1978	0.61	1.56	3.52	8.27	7.14	2.86	3.46	3.21	6.34	4.88	5.40	2.61	49.86
1979	1.29	1.80	2.25	4.28	12.13	5.76	6.61	9.38	10.11	1.17	15.96	3.81	74.55
1980	1.75	1.67	1.47	2.55	5.19	1.31	2.19	3.17	4.85	6.71	1.91	3.18	35.95
1981	2.55	2.72	4.39	2.89	11.02	5.48	7.04	3.32	2.98	9.32	4.94	16.81	73.46
1982	2.53	6.69	0.98	1.01	10.26	5.24	2.33	1.93	2.87	2.06	4.34	4.76	45.00
1983	0.69	0.20	1.47	8.54	3.85	1.91	6.53	5.15	2.75	4.06	3.25	3.50	41.90
1984	1.96	3.13	0.82	0.28	3.75	6.85	2.66	6.04	3.16	5.10	5.65	4.69	44.09
1985	2.80	2.40	1.84	1.02	5.95	0.29	2.85	4.33	5.44	11.10	4.54	2.80	45.36
1986	2.18	1.13	1.61	8.93	12.80	1.52	1.94	5.19	1.98	8.54	5.87	3.59	55.28
1987	2.16	1.20	5.17	8.88	12.17	7.07	3.26	2.48	1.73	2.70	7.49	7.69	62.00
1988	3.83	2.27	1.76	10.37	6.06	1.45	4.02	11.31	5.49	4.12	5.68	4.07	60.43
1989	2.96	6.05	3.39	2.63	4.88	2.97	5.54	7.88	14.83	2.09	4.95	2.50	60.67
1990	4.56	3.02	3.14	1.05	2.44	4.32	5.76	3.42	2.23	8.65	5.33	5.03	48.95
1991	2.57	2.26	1.99	1.76	3.23	2.77	3.30	1.94	5.00	1.84	6.16	2.71	35.53
1992	4.03	1.19	1.47	2.12	8.76	5.55	4.38	4.00	5.35	1.74	11.98	4.72	55.29
1993	2.35	0.51	0.78	6.55	4.48	5.46	7.34	3.01	4.36	2.78	4.34	3.00	44.96
1994	3.39	1.69	1.38	2.75	1.69	4.49	3.58	1.83	5.30	3.52	8.32	3.04	40.98
1995	3.69	3.57	1.29	2.98	9.47	4.66	4.93	5.15	7.17	6.11	3.09	3.84	55.95
1996	5.74	2.44	2.06	5.04	2.39	6.02	7.64	6.94	15.15	2.55	7.98	3.29	67.24
1997	4.01	4.58	1.83	0.08	3.38	0.98	4.75	6.86	3.56	6.82	6.82	1.02	72.55
1998	7.29	3.72	3.48	4.14	3.67	3.25	7.18	7.80	10.47	6.82	6.74	7.99	72.55
POR= 48 YRS	3.16	2.37	0.62	1.42	3.54	2.41	3.74	3.04	6.61	1.67	3.05	1.28	32.91

WBAN : 11641

AVERAGE TEMPERATURE (°F) 1998 SAN JUAN, PR (SJU)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1969	75.4	75.0	77.8	79.6	80.7	82.0	80.9	81.1	81.2	80.9	78.7	77.1	79.2
1970	76.5	76.2	77.9	80.0	80.6	81.6	82.4	82.3	82.2	81.9	80.2	78.2	80.0
1971	77.6	77.4	78.9	79.7	81.3	83.0	82.9	83.2	83.9	81.9	80.6	78.8	80.8
1972	77.7	77.8	78.7	80.1	81.7	83.8	83.9	83.4	82.9	82.6	81.1	79.2	81.1
1973	78.9	78.3	78.6	80.0	82.9	83.2	83.4	83.2	82.7	83.5	80.7	77.9	81.1
1974	77.3	78.0	78.5	79.6	81.4	83.4	83.7	83.2	82.9	82.5	80.0	78.3	80.7
1975	76.9	77.2	78.4	79.6	81.0	82.9	83.0	82.7	82.1	81.6	79.8	77.5	80.2
1976	76.3	76.6	76.8	78.5	80.5	81.7	83.1	83.5	83.3	82.5	80.9	78.3	80.2
1977	77.0	77.6	78.3	80.2	80.9	81.9	80.6	81.0	81.1	81.9	80.3	79.3	80.0
1978	78.3	79.2	79.8	80.1	80.8	82.3	83.1	83.2	83.9	82.7	81.8	79.6	81.2
1979	78.5	78.7	77.8	79.4	81.3	83.8	83.5	83.0	81.8	83.0	80.6	78.7	80.8
1980	78.2	78.6	79.2	80.8	83.8	85.1	85.2	85.1	84.5	84.4	82.2	80.7	82.3
1981	79.8	79.4	80.9	80.3	83.4	84.2	85.0	83.8	84.3	83.3	81.6	78.7	82.1
1982	78.5	77.8	78.0	80.4	81.0	82.9	83.3	84.6	84.6	83.8	80.2	78.0	81.1
1983	78.5	79.9	82.2	81.8	83.2	85.4	84.2	84.0	84.3	83.6	81.4	79.9	82.4
1984	78.1	77.8	80.2	81.8	81.1	82.4	82.6	82.6	82.2	81.3	78.7	77.3	80.5
1985	76.1	77.3	76.7	78.3	80.4	83.0	83.5	83.4	81.7	79.6	79.0	76.8	79.7
1986	75.5	76.0	77.4	79.0	79.1	81.6	82.0	82.2	82.5	81.4	79.1	77.7	79.5
1987	76.7	77.4	78.0	81.2	81.6	81.7	82.7	83.7	83.8	83.3	80.6	79.7	80.9
1988	76.9	76.6	77.8	80.4	82.4	84.3	83.6	82.8	82.2	81.6	79.8	76.9	80.4
1989	76.2	76.0	76.1	78.8	80.3	81.2	81.8	82.3	82.3	81.7	80.0	79.2	79.7
1990	77.1	76.4	76.5	79.1	81.8	82.4	82.6	82.9	83.4	82.1	80.7	77.5	80.2
1991	77.0	77.8	78.6	79.2	81.0	83.2	83.1	83.9	83.3	82.4	79.9	77.0	80.5
1992	77.1	78.2	78.9	80.8	81.3	83.4	82.4	82.7	82.3	84.0	80.8	79.3	80.9
1993	77.3	78.5	79.3	80.3	82.1	83.3	82.8	84.2	83.0	82.7	80.9	78.9	81.1
1994	77.9	78.0	79.3	79.7	82.8	82.8	82.9	83.8	83.3	82.8	81.1	79.7	81.2
1995	78.0	78.7	77.2	80.6	81.5	83.3	84.2	84.5	84.9	82.3	80.9	80.0	81.3
1996	78.2	77.9	79.1	79.1	80.3	81.3	81.6	81.8	81.8	81.6	78.8	76.7	79.9
1997	76.2	76.0	76.6	80.3	81.5	83.4	83.1	83.1	83.2	82.4	80.9	80.1	80.6
1998	78.7	78.7	78.2	79.6	81.7	83.1	82.6	83.7	82.8	82.2	80.2	78.6	80.8
POR= 48 YRS	76.6	76.8	77.6	79.0	80.6	82.0	82.2	82.5	82.2	81.6	79.7	77.9	79.9

HEATING DEGREE DAYS (base 65°F) 1998 SAN JUAN, PR (SJU)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1983-84	0	0	0	0	0	0	0	0	0	0	0	0	0
1984-85	0	0	0	0	0	0	0	0	0	0	0	0	0
1985-86	0	0	0	0	0	0	0	0	0	0	0	0	0
1986-87	0	0	0	0	0	0	0	0	0	0	0	0	0
1987-88	0	0	0	0	0	0	0	0	0	0	0	0	0
1988-89	0	0	0	0	0	0	0	0	0	0	0	0	0
1989-90	0	0	0	0	0	0	0	0	0	0	0	0	0
1990-91	0	0	0	0	0	0	0	0	0	0	0	0	0
1991-92	0	0	0	0	0	0	0	0	0	0	0	0	0
1992-93	0	0	0	0	0	0	0	0	0	0	0	0	0
1993-94	0	0	0	0	0	0	0	0	0	0	0	0	0
1994-95	0	0	0	0	0	0	0	0	0	0	0	0	0
1995-96	0	0	0	0	0	0	0	0	0	0	0	0	0
1996-97	0	0	0	0	0	0	0	0	0	0	0	0	0
1997-98	0	0	0	0	0	0	0	0	0	0	0	0	0
1998-	0	0	0	0	0	0	0	0	0	0	0	0	0

WBAN : 11641

COOLING DEGREE DAYS (base 65°F) 1998 SAN JUAN, PR (SJU)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1969	328	287	401	447	496	517	501	506	493	500	417	382	5275
1970	362	321	409	460	490	506	548	540	523	528	461	416	5564
1971	398	353	438	445	511	545	562	573	577	531	473	438	5844
1972	400	376	431	458	525	569	592	578	543	554	490	446	5962
1973	438	379	428	458	562	553	578	570	539	579	475	406	5965
1974	390	368	424	442	511	558	586	575	544	549	455	418	5820
1975	375	346	420	446	501	543	565	556	521	519	450	395	5637
1976	357	342	375	413	485	506	566	579	557	548	485	419	5632
1977	382	360	419	463	499	514	491	502	487	532	469	452	5570
1978	420	404	464	462	499	526	566	570	575	555	513	459	6013
1979	426	393	404	436	512	571	582	564	511	569	477	432	5877
1980	414	402	446	479	590	610	633	628	591	608	522	494	6417
1981	467	407	499	468	578	584	626	587	588	574	505	429	6312
1982	423	364	412	470	504	543	573	615	593	590	466	405	5958
1983	426	424	541	509	573	621	604	593	583	582	502	468	6426
1984	415	377	479	508	503	528	553	553	522	517	417	389	5761
1985	352	349	368	403	483	547	579	577	508	459	429	371	5425
1986	329	315	390	428	444	501	535	538	534	517	429	401	5361
1987	366	354	407	490	521	508	556	588	571	575	477	464	5877
1988	377	341	403	470	547	587	581	558	523	522	453	375	5737
1989	354	313	353	421	482	495	529	543	525	526	456	443	5440
1990	383	325	362	430	526	526	551	561	559	539	478	392	5632
1991	379	363	428	430	503	551	571	593	558	547	455	380	5758
1992	383	393	435	479	512	556	547	555	524	596	482	454	5916
1993	391	383	450	469	535	557	561	603	550	557	483	440	5979
1994	404	370	449	448	559	541	563	592	556	562	493	461	5998
1995	412	389	387	475	518	557	602	611	603	545	486	472	6057
1996	414	381	444	430	480	495	519	529	510	524	421	372	5519
1997	353	316	369	467	518	561	569	567	555	545	485	473	5778
1998	430	391	415	446	523	550	555	589	538	541	462	428	5868

SNOWFALL (inches) 1998 SAN JUAN, PR (SJU)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1971-72	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1972-73	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1973-74	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1974-75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1975-76	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1976-77	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1977-78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1978-79	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1979-80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1980-81	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1981-82	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1982-83	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1983-84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1984-85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1985-86	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1986-87	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1988-89	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1989-90	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T
1990-91	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1991-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1992-93	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1993-94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1994-95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1995-96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1996-97	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1997-98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1998-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
POR= 42 YRS	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T

WBAN : 11641

REFERENCE NOTES:

<p>PAGE 1: THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).</p> <p>PAGE 2 AND 3: H/C INDICATES HEATING AND COOLING DEGREE DAYS. RH INDICATES RELATIVE HUMIDITY W/O INDICATES WEATHER AND OBSTRUCTIONS S INDICATES SUNSHINE. PR INDICATES PRESSURE. CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL: T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE. + INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES. BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA. NORMALS ARE 30-YEAR AVERAGES (1961 - 1990). ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM. PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH. POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING. WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED. 0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05. CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET. THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD.</p>	<p>GENERAL CONTINUED: CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS. WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED. WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH. RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION. AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2. SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL. A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65° F. DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR. DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY. WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY.</p> <p>ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTHS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.</p>
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1998
SAN JUAN,
PUERTO RICO (SJU)

San Juan, located on the north coast of the island of Puerto Rico, is surrounded by the waters of the Atlantic Ocean and San Juan Bay. Local custom assigns the name San Juan to the old city which lies right on the coast, but the modern metropolitan area extends inland about 12 miles. These inland sections have a temperature and rainfall regime significantly different from the coastal area. Isla Verde Airport, where weather observations are made, lies on the coast about 7 miles east of old San Juan. The surrounding terrain is level with a gradual upslope inland. Mountain ranges, with peak elevations of 4,000 feet, extend east and west through the central portion of Puerto Rico, and are located 15 to 20 miles east and south of San Juan. These mountain ranges have a decided influence on the rainfall of the San Juan metropolitan area, and on the entire island in general.

The climate is tropical maritime, characteristic of all tropical islands. The predominant easterly trade winds, modified by local effects such as the land and sea breeze and the particular island topography, are a primary feature of the climate of San Juan and have a significant influence on the temperature and rainfall. During daylight hours the wind blows almost constantly off the ocean. Usually, after sunset the wind shifts to the south or southeast, off land. This daily wind variation is a contributing factor to the delightful climate of the city. The annual temperature range is small with about a 5-6 degree difference between the temperatures of the warmest and coldest months. The inland sectors have warmer afternoons and cooler nights. In the interior mountain and valley regions even greater daily and annual ranges of temperature occur. The highest temperatures recorded in Puerto Rico have exceeded 105 degrees and the lowest have been near 40. Sea water temperatures range from 78 degrees in March to about 83 degrees in September.

Although rainfall in San Juan is nearly 60 inches, the geographical distribution of rainfall over the island shows the heaviest rainfall, of about 180 inches per year, in the Luquillo Range, only 23 miles distant from San Juan. The driest area, with annual rainfall of 30 to 35 inches, is located in the southwest corner of the island. Rain showers occur mostly in the afternoon and at night. The nocturnal showers, usually light, are a characteristic feature of the San Juan rainfall pattern. Rainfall is generally of the brief showery type except for the continuous rains occurring with the passage of tropical disturbances, or when the trailing edge of a cold front out of the United States reaches Puerto Rico. This normally occurs from about November to April.

Puerto Rico is in the tropical hurricane region of the eastern Caribbean. The hurricane season begins June 1 and ends November 30. Only a few hurricanes have passed close enough to San Juan to produce hurricane force winds or damage.

Mild temperatures, refreshing sea breezes in the daytime, plenty of sunshine, and adequate rainfall make the climate of San Juan most enjoyable for tourists and residents alike.

STATION LOCATION

SAN JUAN, PUERTO RICO

LOCATION	OCCUPIED FROM	OCCUPIED TO	AIRLINE DISTANCES AND DIRECTIONS FROM PREVIOUS LOCATION	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE										AUTOMATED	* Type	REMARKS
						SEA LEVEL	GROUND											
							WIND	TEMP	EXH	REF	OR	MO	OR	MO	OR			
<u>CITY</u>																		
#5 Allen (later Fortaleza) in two story building 50 yards ESE of Governor's Palace in San Juan	10/30/98	9/19/99		18° 28'	66° 07'	62	56	48	48	#73	40		40			#	- Estimated from photos and other data.	
#5 Allen (later Fortaleza)	9/20/99	12/31/12		18° 28'	66° 07'	62	90	48	48	73	40		40				Wind instrument supports moved from roof to top of tower 9/19/99.	
WBO, Stop 4, Ponce de Leon Avenue, Puerta de Tierra, San Juan, on WB Reservation	1/01/13	6/06/38	1.1 mi. E	18° 28'	66° 06'	47	54	A9	A9	50	4		4			A	- 8 ft. to 4/25/13. Evaporation added 6/1/16.	
WBO, Stop 4, Ponce de Leon Avenue	6/07/38	11/07/49		18° 28'	66° 06'	47	54	10	10	50	3		3					
WBO, Stop 4, Ponce de Leon Avenue	11/08/49	5/30/54		18° 28'	66° 06'	47		6				3	3				Psychrometer, tipping bucket rain gage, sunshine recorder and wind equipment moved to WEAS.	
WBTC on WB Reservation, Stop 4, Ponce de Leon Avenue, Puerta de Tierra, San Juan	5/31/54	Present		18° 28'	66° 06'	47		6				3	3				WBO and WBAS consolidated at Airport 5/31/54. Climatological activities continued at WB Reservation, Stop 4, Ponce de Leon Avenue. Data summarized and published through 1964.	
<u>AIRPORT</u>																		
Administration Building	3/?/40	11/07/49		18° 27'	66° 06'	15	52	30	30				%26			%	- 4-inch rain gage.	
Naval Air Station																		
Isla Grande Airport																		
Terminal Building	11/08/49	5/23/55	0.3 mi. W	18° 27'	66° 06'	9	a73	54	54	65	53					a	- 69 ft. to 12/15/50.	
Administration Building	5/24/55	Present	6.5 mi. E	18° 26'	66° 00'	c13	e20 j20	f88	g88	88 i87	h88 m69	NA	NA	b4 k9	NA	b	- Telepsychrometer (7') 5/24/55-12/6/63. Hygro. comm. 1700' NNE of tele. site 12/6/63.	
Isla Verde Airport																c	- 15 ft. to 12/6/63.	
																e	- 35 ft. to 4/7/61.	
																f	- 7 ft. to 12/15/64.	
																g	- Added as standby equipment 12/6/63.	
																h	- 4 ft. to 11/10/69.	
																i	- Minor move 1/21/78.	
																j	- Minor move 10/07/83.	
																k	- Minor move & type change 10/07/83.	
																m	- Lowered 06/15/88.	
																S	ASOS Commissioned 05/01/96	

SUBSCRIPTION: Price and ordering information available through: National Climatic Data Center, Federal Building, Asheville, North Carolina 28801.
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