

2004

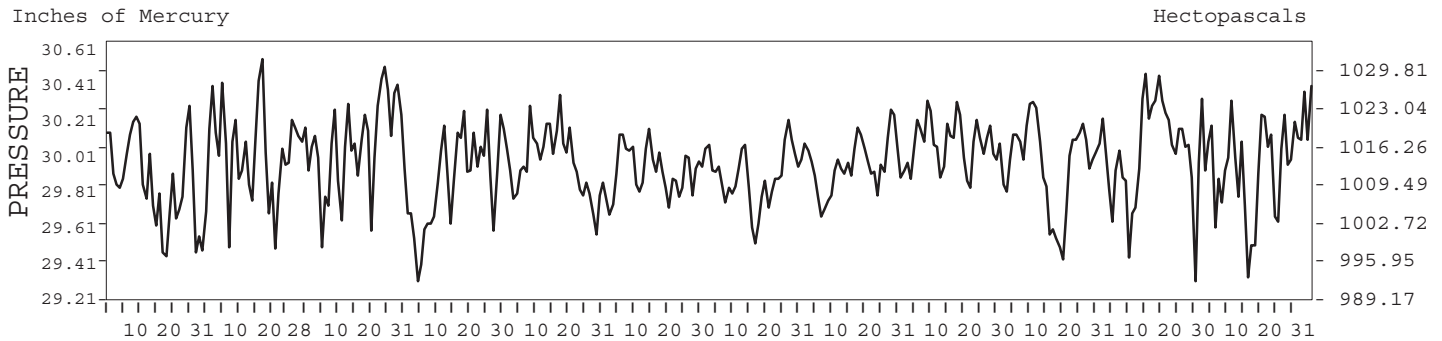
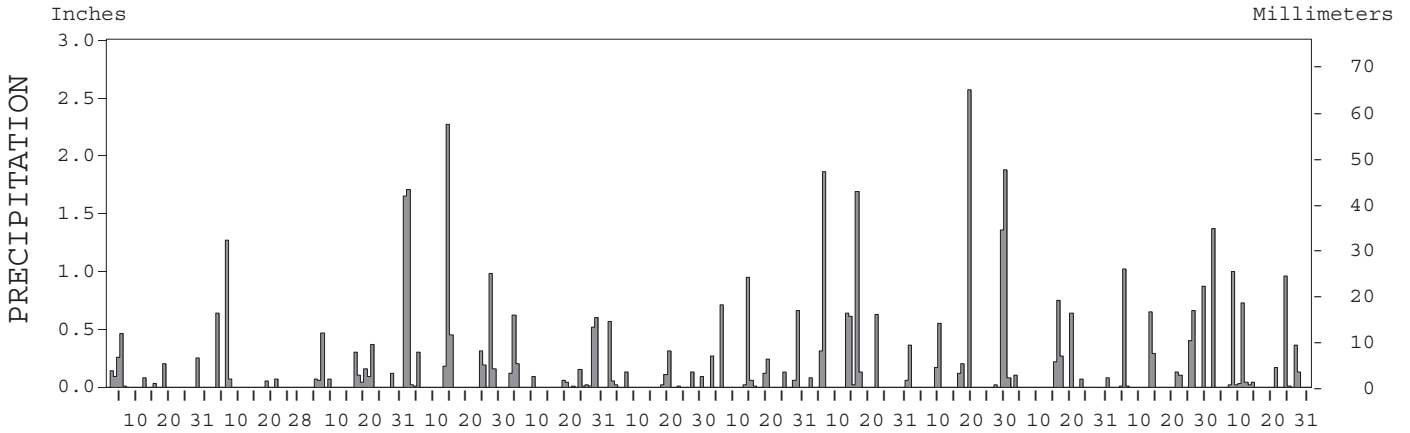
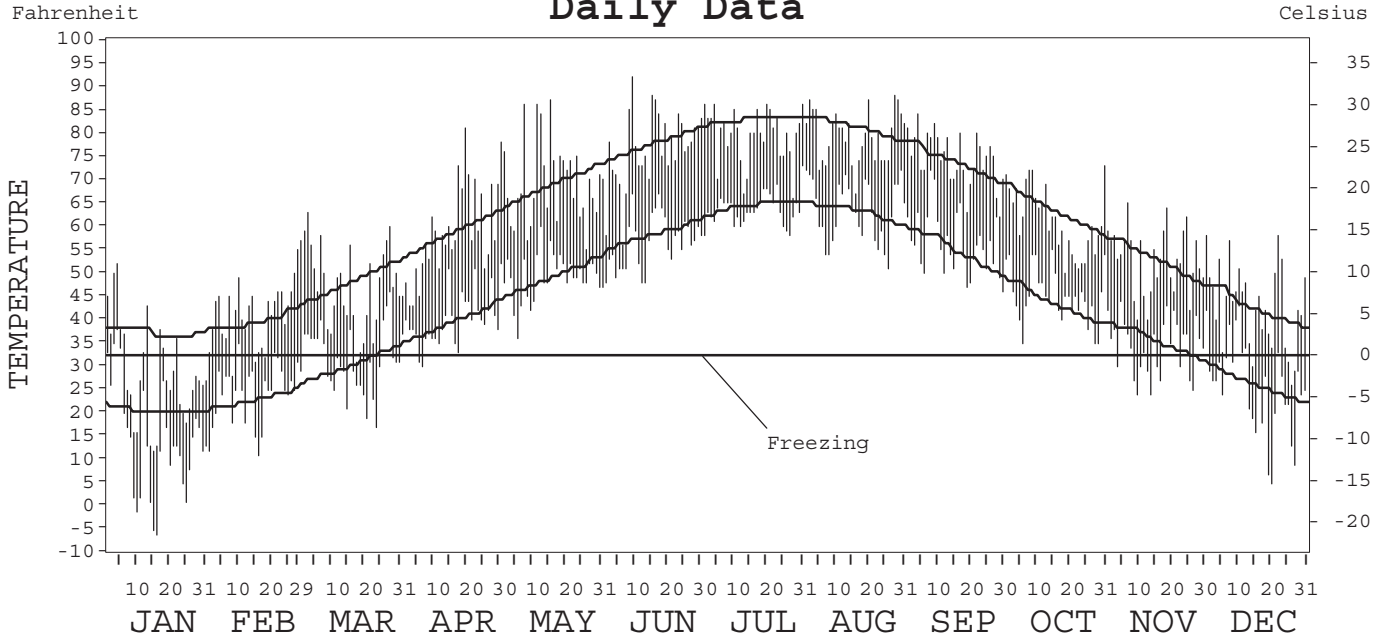
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-4594

PROVIDENCE,
RHODE ISLAND (PVD)

Daily Data



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METEOROLOGICAL DATA FOR 2004

PROVIDENCE, RI (PVD)

LATITUDE: 41° 43' 19" N LONGITUDE: 71° 25' 57" W ELEVATION (FT): GRND: 50 BARO: 53 TIME ZONE: EASTERN (UTC + 5) WBAN: 14765

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	MEAN DAILY MAXIMUM	28.5	41.5	46.9	59.1	69.3	76.7	79.5	79.3	74.5	61.2	52.7	43.0	59.4
	HIGHEST DAILY MAXIMUM	52	57	63	81	87	92	86	88	84	73	65	58	92
	DATE OF OCCURRENCE	04	29	02	19	15	09	31+	28	04	31	07	23+	JUN 09
	MEAN DAILY MINIMUM	14.2	24.4	31.4	40.0	49.2	56.7	63.5	63.2	56.3	45.1	34.2	25.7	42.0
	LOWEST DAILY MINIMUM	-6	11	17	30	36	48	58	51	46	35	24	5	-6
	DATE OF OCCURRENCE	16	16	23	06	05	13+	27+	26	30	29+	14+	21	JAN 16
	AVERAGE DRY BULB	21.4	33.0	39.2	49.6	59.3	66.7	71.5	71.3	65.4	53.2	43.5	34.4	50.7
	MEAN WET BULB		27.7	35.1	43.4	54.1	60.0	66.2	66.5	60.8	49.2	39.9	31.4	
	MEAN DEW POINT		15.1	28.5	35.6	49.5	54.7	63.1	63.9	57.5	45.1	33.1	24.7	
	NUMBER OF DAYS WITH:													
MAXIMUM ≥ 90°	0	0	0	0	0	1	0	0	0	0	0	0	0	1
MAXIMUM ≤ 32°	20	3	1	0	0	0	0	0	0	0	0	4	28	
MINIMUM ≤ 32°	27	27	19	2	0	0	0	0	0	0	11	24	110	
MINIMUM ≤ 0°	3	0	0	0	0	0	0	0	0	0	0	0	0	3
H/C	HEATING DEGREE DAYS	1345	921	796	457	197	52	2	4	57	358	639	943	5771
	COOLING DEGREE DAYS	0	0	0	0	24	111	212	205	76	0	0	0	628
RH	MEAN (PERCENT)	55	51	69	65	75	69	77	80	78	76	67	68	69
	HOUR 01 LST	58	54	75	74	85	80	87	90	88	85	74	71	77
	HOUR 07 LST	62	62	79	73	81	75	82	87	85	85	76	75	77
	HOUR 13 LST	49	42	58	51	60	54	63	65	63	62	55	58	57
	HOUR 19 LST	53	49	69	63	73	65	76	80	80	78	66	69	68
S	PERCENT POSSIBLE SUNSHINE													
W/O	NUMBER OF DAYS WITH:													
	HEAVY FOG (VISBY ≤ 1/4 MI)	3	1	4	1	3	1	2	3	4	3	0	2	27
	THUNDERSTORMS	0	0	0	0	4	1	2	3	1	2	0	0	13
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.)	29.86	30.04	30.07	29.88	29.96	29.93	29.90	29.95	30.07	29.97	30.05	29.97	29.97
	MEAN SEA-LEVEL PRESS. (IN.)		30.10		29.94	30.03	30.00	29.96	30.01	30.14	30.03		30.04	
WINDS	RESULTANT SPEED (MPH)	8.0	6.0	2.1	2.3	2.2	2.7	1.3	2.5	1.2	3.2	3.0	4.0	2.4
	RES. DIR. (TENS OF DEGS.)	31	32	34	31	21	26	18	22	01	35	30	30	30
	MEAN SPEED (MPH)	10.5	9.3	10.5	10.5	8.7	8.6	8.1	8.0	7.8	8.6	8.4	9.1	9.0
	PREVAIL. DIR. (TENS OF DEGS.)	31	31	04	03	16	19	21	21	35	36	35	31	31
	MAXIMUM 2-MINUTE WIND:													
	SPEED (MPH)	35	31	38	31	31	22	24	31	30	25	38	36	38
	DIR. (TENS OF DEGS.)	30	16	26	21	01	25	21	26	01	25	29	28	29
	DATE OF OCCURRENCE	13	03	12	14	07	21+	16	21	29	17+	05	01	NOV 05
	MAXIMUM 5-SECOND WIND:													
	SPEED (MPH)	46	39	49	37	37	30	29	39	38	31	47	45	49
DIR. (TENS OF DEGS.)	29	33	26	21	01	30	20	26	01	25	29	20	26	
DATE OF OCCURRENCE	13	08	12	14+	07	19	31+	21	29	17+	05	01	MAR 12	
PRECIPITATION	WATER EQUIVALENT:													
	TOTAL (IN.)	1.52	2.10	3.50	6.58	2.45	1.44	3.23	6.39	6.95	2.13	4.14	4.90	45.33
	GREATEST 24-HOUR (IN.)	0.65	1.33	1.65	2.40	0.82	0.57	0.98	2.17	3.20	0.93	1.03	1.37	3.20
	DATE OF OCCURRENCE	04-05	06-07	31	12-13	03-04	01	13-14	04-05	28-29	15-16	04-05	01	SEP 28-29
	NUMBER OF DAYS WITH:													
	PRECIPITATION ≥ 0.01	9	5	12	11	13	10	11	11	9	7	10	14	122
PRECIPITATION ≥ 0.10	5	2	7	9	6	5	7	8	7	5	8	7	76	
PRECIPITATION ≥ 1.00	0	1	1	2	0	0	0	2	3	0	1	2	12	
SNOWFALL	SNOW, ICE PELLETS, HAIL:													
	TOTAL (IN.)	11.0	3.1	6.5	T	0.0	0.0	0.0	0.0	0.0	0.0	3.8	7.9	32.3
	GREATEST 24-HOUR (IN.)	3.9	1.6	3.0	T	0.0	0.0	0.0	0.0	0.0	0.0	3.1	5.1	5.1
	DATE OF OCCURRENCE	28	06	16	05							13	26	DEC 26
	MAXIMUM SNOW DEPTH (IN.)	3	1	3	0	0	0	0	0	0	0	3	6	6
	DATE OF OCCURRENCE	29	19+	18+								13	27	DEC 27
	NUMBER OF DAYS WITH:													
SNOWFALL ≥ 1.0	5	2	3	0	0	0	0	0	0	0	1	2	13	

NORMALS, MEANS, AND EXTREMES

PROVIDENCE, RI (PVD)

LATITUDE: 41° 43' 19" N LONGITUDE: 71° 25' 57" W ELEVATION (FT): GRND: 50 BARO: 53 TIME ZONE: EASTERN (UTC + 5) WBAN: 14765

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	37.1	39.3	47.7	58.1	68.5	77.3	82.6	80.9	73.4	62.9	52.4	42.1	60.2
	MEAN DAILY MAXIMUM	57	36.9	38.8	46.4	57.7	67.8	76.9	80.8	80.7	73.4	63.5	52.5	41.4	59.7
	HIGHEST DAILY MAXIMUM	51	69	72	85	98	95	97	102	104	100	86	78	77	104
	YEAR OF OCCURRENCE		2002	1985	1998	1976	1996	1988	1991	1975	1983	1979	1993	1998	AUG 1975
	MEAN OF EXTREME MAXS.	57	56.0	56.2	66.6	78.6	85.7	91.1	92.1	91.5	86.9	79.3	69.5	60.4	76.2
	NORMAL DAILY MINIMUM	30	20.3	22.5	30.0	39.1	48.8	57.9	64.1	62.8	54.5	43.1	35.1	25.6	42.0
	MEAN DAILY MINIMUM	57	20.5	22.1	29.4	38.7	48.0	57.4	62.5	62.4	54.3	43.4	35.2	25.1	41.6
	LOWEST DAILY MINIMUM	51	-13	-7	1	14	29	41	0	40	33	20	6	-10	-13
	YEAR OF OCCURRENCE		1976	1979	1967	1954	1956	1980	1996	1965	1980	1976	1989	1980	JAN 1976
	MEAN OF EXTREME MINS.	57	2.4	4.6	14.1	27.2	36.6	46.2	52.7	50.6	39.6	29.6	20.9	7.7	27.7
	NORMAL DRY BULB	30	28.7	30.9	38.8	48.6	58.7	67.6	73.3	71.9	64.0	53.0	43.8	33.8	51.1
	MEAN DRY BULB	57	28.5	30.4	37.8	48.2	57.9	67.3	71.6	71.6	63.8	53.4	43.9	33.3	50.6
	MEAN WET BULB	17	26.5	28.6	34.1	42.8	52.4	61.4	63.4	63.0	59.2	49.1	40.1	31.1	46.0
	MEAN DEW POINT	17	18.7	20.2	26.3	35.1	46.5	56.8	59.7	62.5	55.5	43.7	33.8	24.0	40.2
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.1	0.7	2.0	4.0	2.7	0.7	0.0	0.0	0.0	10.2	
MAXIMUM ≤ 32°	30	10.4	7.3	1.3	*	0.0	0.0	0.0	0.0	0.0	0.0	0.2	5.1	24.3	
MINIMUM ≤ 32°	30	27.3	23.6	18.8	4.6	0.1	0.0	0.0	0.0	0.0	2.8	12.6	24.1	113.9	
MINIMUM ≤ 0°	30	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.7	
H/C	NORMAL HEATING DEG. DAYS	30	1125	965	817	494	221	44	3	9	101	377	637	961	5754
	NORMAL COOLING DEG. DAYS	30	0	0	0	3	25	122	265	223	71	5	0	0	714
RH	NORMAL (PERCENT)	30	65	63	63	63	68	71	72	73	74	71	69	67	68
	HOUR 01 LST	30	70	69	70	71	79	83	84	86	85	81	75	72	77
	HOUR 07 LST	30	72	71	72	70	74	76	77	81	83	81	78	74	76
	HOUR 13 LST	30	57	54	52	49	54	56	56	57	57	54	56	57	55
	HOUR 19 LST	30	65	62	62	61	65	68	68	72	75	72	69	67	67
S	PERCENT POSSIBLE SUNSHINE	42	56	58	58	57	58	61	63	62	62	61	50	52	58
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	52	2.1	2.2	2.2	2.1	2.1	2.5	1.9	1.5	1.7	2.6	2.1	2.1	25.1
	THUNDERSTORMS	52	0.2	0.3	0.8	1.3	2.6	3.6	4.2	3.5	1.8	1.0	0.9	0.2	20.4
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	42	5.0	5.0	5.3	5.3	5.4	5.1	5.0	4.8	4.6	4.3	5.0	4.9	5.0
	MIDNIGHT-MIDNIGHT (OKTAS)	31	4.6	4.5	4.7	4.8	5.0	4.9	4.9	4.6	4.5	4.2	4.8	4.7	4.7
	MEAN NO. DAYS WITH:														
CLEAR	42	9.5	8.0	8.4	7.3	6.5	6.6	6.7	8.4	9.4	11.0	8.3	8.3	98.4	
PARTLY CLOUDY	42	6.8	7.1	7.7	8.2	9.9	10.3	11.9	10.3	8.1	7.9	6.9	7.8	102.9	
CLOUDY	42	14.7	13.2	14.9	14.5	14.6	13.1	12.4	12.3	12.4	12.1	14.9	14.9	164.0	
PR	MEAN STATION PRESSURE (IN)	31	29.97	29.96	29.93	29.89	29.91	29.89	29.91	29.97	30.00	30.01	29.99	29.98	29.95
	MEAN SEA-LEVEL PRES. (IN)	17	30.06	30.04	30.02	29.98	29.97	30.01	29.99	30.02	30.07	30.08	30.06	30.05	30.03
WINDS	MEAN SPEED (MPH)	48	10.6	11.3	11.8	11.6	10.4	9.8	9.3	9.0	9.2	9.3	10.1	10.3	10.2
	PREVAIL. DIR (TENS OF DEGS)	32	29	31	30	16	16	18	22	21	22	36	31	30	30
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	9	41	41	46	40	38	38	39	35	39	40	38	41	46
	DIR. (TENS OF DEGS)		20	30	29	03	22	36	01	34	32	06	29	27	29
	YEAR OF OCCURRENCE		1996	1996	1997	1997	2000	1997	1996	2002	2002	1996	2004	2000	MAR 1997
MAXIMUM 5-SECOND:															
SPEED (MPH)	9	56	54	59	51	48	51	51	45	47	47	53	53	59	
DIR. (TENS OF DEGS)		21	20	28	03	24	36	01	31	32	28	20	26	28	
YEAR OF OCCURRENCE		1997	2000	1997	1997	2000	1997	1996	2002	2002	2003	1998	2000	MAR 1997	
PRECIPITATION	NORMAL (IN)	30	4.37	3.45	4.43	4.16	3.66	3.38	3.17	3.90	3.70	3.69	4.40	4.14	46.45
	MAXIMUM MONTHLY (IN)	51	11.66	7.20	8.84	12.74	8.38	11.08	8.08	11.12	7.92	11.89	11.01	10.75	12.74
	YEAR OF OCCURRENCE		1979	1984	1983	1983	1984	1982	1976	1955	1961	1962	1983	1969	APR 1983
	MINIMUM MONTHLY (IN)	51	0.50	0.39	0.56	1.48	0.71	0.17	0.39	0.71	0.77	0.40	0.41	0.58	0.17
	YEAR OF OCCURRENCE		1970	1987	1981	1966	1964	1999	2002	1984	1959	1994	2001	1955	JUN 1999
	MAXIMUM IN 24 HOURS (IN)	51	3.34	3.14	4.53	4.45	5.17	5.03	4.83	6.71	4.89	6.63	4.18	3.85	6.71
	YEAR OF OCCURRENCE		1962	1978	1968	1983	1984	1984	1976	1979	1961	1962	1983	1969	AUG 1979
NORMAL NO. DAYS WITH:															
PRECIPITATION ≥ 0.01	30	11.2	9.8	12.3	11.5	11.8	10.5	8.8	9.2	8.9	8.9	10.0	12.0	124.9	
PRECIPITATION ≥ 1.00	30	1.3	0.9	1.3	1.1	0.7	0.9	0.8	0.9	1.0	1.0	1.4	1.1	12.4	
SNOWFALL	NORMAL (IN)	30	10.6	9.0	5.2	0.7	0.3	0.0	0.0	0.0	0.1	1.4	5.6	32.9	
	MAXIMUM MONTHLY (IN)	50	37.2	30.9	31.6	7.6	7.0	0.0	0.0	0.0	0.0	2.5	8.0	20.4	37.2
	YEAR OF OCCURRENCE		1996	1962	1956	1982	1977				1979	1989	2003	JAN 1996	
	MAXIMUM IN 24 HOURS (IN)	50	20.8	27.6	16.9	7.6	7.0	0.0	0.0	0.0	0.0	2.5	8.0	11.9	27.6
	YEAR OF OCCURRENCE		1996	1978	1960	1982	1977				1979	1989	1981	FEB 1978	
	MAXIMUM SNOW DEPTH (IN)	55	19	30	20	10	2	0	0	0	0	1	7	13	30
	YEAR OF OCCURRENCE		1948	1961	1956	1970	1977				1979	1989	2003	FEB 1961	
NORMAL NO. DAYS WITH:															
SNOWFALL ≥ 1.0	30	3.0	2.6	1.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.7	9.3	

PRECIPITATION (inches) 2004 PROVIDENCE, RI (PVD)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1975	6.78	3.29	3.07	2.99	2.06	4.73	3.51	2.19	6.15	4.66	6.29	5.11	50.83
1976	6.38	2.91	3.44	2.00	2.53	1.60	8.08	7.01	1.57	6.52	0.81	3.47	46.32
1977	3.90	2.87	5.62	3.35	3.43	3.92	2.04	2.12	5.60	6.90	3.24	5.85	48.84
1978	9.01	3.20	3.10	2.53	5.27	1.97	2.63	6.46	1.82	3.22	2.61	5.19	47.01
1979	11.66	4.08	2.21	5.12	7.62	1.44	1.65	10.09	4.08	3.94	4.49	1.81	58.19
1980	1.40	1.16	8.11	6.18	1.78	3.85	2.03	1.99	0.90	3.41	3.73	1.57	36.11
1981	0.77	4.79	0.56	4.10	1.92	2.31	3.75	2.65	2.58	3.38	3.20	6.36	36.37
1982	6.09	3.08	3.76	3.64	1.61	11.08	3.51	3.67	3.61	3.08	4.32	1.81	49.26
1983	4.32	4.81	8.84	12.74	4.67	1.91	2.14	2.71	2.16	4.50	11.01	7.71	67.52
1984	2.00	7.20	5.77	4.30	8.38	4.09	5.16	0.71	1.77	4.25	1.95	3.16	48.74
1985	1.18	1.57	3.08	1.65	4.76	4.70	2.88	8.57	1.69	1.78	7.14	1.42	40.42
1986	5.88	3.18	2.86	2.10	2.29	3.27	5.95	3.29	0.97	2.48	5.77	8.09	46.13
1987	4.73	0.39	5.62	6.91	1.80	2.00	1.20	2.58	7.47	2.28	3.40	2.29	40.67
1988	2.69	5.29	4.09	3.11	2.83	0.91	5.73	0.94	2.38	1.77	7.60	1.03	38.37
1989	1.17	2.69	4.13	5.30	6.07	5.84	5.59	6.14	4.75	8.37	4.35	1.66	56.06
1990	5.01	2.93	2.01	5.57	5.70	1.13	3.52	3.74	2.28	4.96	2.45	5.48	44.78
1991	3.44	2.31	6.61	4.80	3.30	0.93	2.76	5.98	5.09	2.65	4.65	3.17	45.69
1992	4.82	2.10	4.04	2.34	1.42	4.61	3.59	6.06	5.09	1.53	5.05	6.83	47.48
1993	2.42	5.06	6.99	5.02	1.12	1.40	2.18	1.23	4.08	3.55	3.35	5.76	42.16
1994	5.53	2.10	7.19	2.07	2.98	2.70	1.34	6.34	4.12	0.40	5.34	4.58	44.69
1995	3.67	3.14	2.03	3.34	2.83	2.89	1.17	1.80	4.06	6.37	4.76	2.18	38.24
1996	5.02	2.19	2.71	4.88	2.44	2.17	5.57	2.19	5.72	6.20	2.38	6.59	48.06
1997	4.27	1.89	4.68	3.25	2.68	2.23	0.96	6.32	0.99	1.80	6.06	2.84	37.97
1998	6.55	5.85	5.86	4.91	6.05	9.61	1.37	2.39	2.30	3.78	2.76	1.27	52.70
1999	6.70	5.45	3.33	1.54	4.25	0.17	0.82	3.25	7.00	4.51	2.85	2.39	42.26
2000	4.19	2.74	5.37	5.06	3.72	4.78	3.64	2.41	3.79	1.31	4.73	4.26	46.00
2001	2.40	1.96	8.78	2.04	3.96	6.72	1.92	4.50	4.40	0.64	0.41	2.46	40.19
2002	2.76	1.72	4.84	3.08	4.97	3.32	0.39	1.91	5.26	3.49	5.66	4.94	42.34
2003	2.04	3.75	5.18	4.35	3.13	5.51	3.62	5.61	3.38	5.51	1.76	6.43	50.27
2004	1.52	2.10	3.50	6.58	2.45	1.44	3.23	6.39	6.95	2.13	4.14	4.90	45.33
POR= 100 YRS	3.79	3.29	4.00	3.77	3.31	3.13	3.07	3.74	3.43	3.23	3.77	3.85	42.38

WBAN : 14765

AVERAGE TEMPERATURE (°F) 2004 PROVIDENCE, RI (PVD)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1975	34.1	30.4	35.5	44.5	61.4	66.0	74.3	71.4	61.0	55.3	48.0	32.1	51.2
1976	23.5	35.5	39.0	52.6	58.0	70.0	70.0	70.0	61.6	48.7	37.9	25.4	49.4
1977	20.9	29.8	43.6	50.6	61.2	66.7	74.3	73.0	64.1	52.9	45.9	31.6	51.2
1978	25.1	22.1	33.8	46.7	57.8	68.0	71.7	71.3	59.5	51.5	42.3	33.4	48.6
1979	30.0	19.7	40.4	46.8	60.3	65.1	73.5	70.2	64.0	53.0	48.3	37.3	50.7
1980	29.7	26.8	37.1	49.5	60.3	64.5	74.8	73.4	64.9	49.8	41.0	28.5	50.0
1981	20.3	37.4	38.7	51.4	58.5	69.4	75.6	70.0	62.4	49.1	43.0	31.1	50.6
1982	21.5	31.5	38.8	47.8	58.9	63.9	73.6	69.2	64.1	53.2	47.5	38.6	50.7
1983	31.4	32.9	40.4	49.9	56.9	70.2	76.6	74.3	69.6	55.3	46.0	32.5	53.0
1984	26.4	37.1	33.8	47.6	57.4	69.1	71.5	73.5	62.1	56.3	43.6	37.9	51.4
1985	22.5	32.1	40.8	51.0	60.2	64.8	73.0	71.1	65.2	54.6	45.9	30.4	51.0
1986	31.1	29.0	39.9	49.4	59.4	66.4	71.0	69.3	62.3	53.0	41.6	35.4	50.7
1987	29.0	28.6	39.8	48.4	59.3	68.4	72.2	69.6	64.3	51.4	43.0	35.1	50.8
1988	26.8	31.8	39.4	47.0	58.0	66.9	74.3	75.3	63.0	48.9	45.2	32.4	50.8
1989	33.8	29.9	37.5	46.2	59.3	68.7	72.3	72.1	65.3	54.1	42.5	21.8	50.3
1990	36.3	34.3	40.1	48.1	56.0	67.7	73.0	73.5	63.7	58.6	46.5	39.5	53.1
1991	29.6	35.1	41.3	51.8	63.9	69.3	74.2	73.6	63.1	56.1	45.4	36.3	53.3
1992	31.4	33.0	36.6	46.5	57.6	67.3	70.3	70.1	64.0	51.7	43.0	34.2	50.5
1993	31.4	26.3	35.8	49.6	61.8	69.3	74.5	73.8	65.1	51.5	44.0	33.7	51.4
1994	22.7	25.8	38.8	51.4	56.5	69.4	76.2	69.9	63.0	54.2	48.5	38.4	51.2
1995	36.0	29.4	41.2	48.4	57.3	68.3	75.8	73.5	62.8	57.0	40.7	29.8	51.7
1996	28.7	29.6	35.0	48.3	57.4	68.1	75.8	71.0	64.1	52.1	40.0	38.6	50.8
1997	29.3	36.5	37.8	47.1	55.4	68.1	73.7	70.6	64.0	51.8	41.0	34.2	50.8
1998	35.1	37.0	41.2	49.8	61.1	66.0	73.5	73.3	66.3	54.1	43.5	38.5	53.3
1999	30.2	34.8	39.9	50.0	59.8	70.5	76.6	72.0	66.5	52.4	47.4	36.8	53.1
2000	27.7	34.0	43.5	47.3	58.5	67.8	70.5	70.2	63.4	53.4	43.4	28.9	50.7
2001	29.0	31.9	36.3	49.1	60.1	70.5	69.9	74.3	64.9	54.2	47.6	39.3	52.3
2002	35.2	35.6	40.2	51.0	56.6	66.3	75.6	75.3	67.8	52.9	42.9	33.0	52.7
2003	25.1	26.2	38.3	45.4	55.2	65.3	73.5	74.9	66.3	51.8	46.6	36.1	50.4
2004	21.4	33.0	39.2	49.6	59.3	66.7	71.5	71.3	65.4	53.2	43.5	34.4	50.7
POR= 100 YRS	29.1	29.9	37.9	47.8	58.1	67.1	72.1	71.1	63.8	53.7	43.5	33.0	50.6

HEATING DEGREE DAYS (base 65°F) 2004 PROVIDENCE, RI (PVD)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1975-76	0	13	132	298	506	1013	1283	850	798	403	223	39	5558
1976-77	2	23	124	501	806	1219	1361	983	653	434	176	51	6333
1977-78	0	6	103	368	568	1030	1231	1192	964	542	238	26	6268
1978-79	8	8	180	412	673	970	1075	1261	755	540	162	52	6096
1979-80	11	25	94	380	496	849	1088	1104	857	459	158	93	5614
1980-81	0	1	120	465	715	1125	1379	769	808	405	228	13	6028
1981-82	0	20	119	486	651	1044	1343	932	802	510	190	91	6188
1982-83	1	26	78	363	518	809	1038	892	755	449	254	13	5196
1983-84	0	4	62	323	563	1001	1190	802	961	513	236	36	5691
1984-85	1	0	125	270	637	832	1309	914	743	417	177	63	5488
1985-86	0	6	78	321	567	1065	1045	999	772	460	216	57	5586
1986-87	14	25	113	380	697	911	1111	1014	772	494	228	23	5782
1987-88	2	25	70	414	653	921	1177	954	787	532	238	67	5840
1988-89	8	10	89	491	587	1003	960	975	847	557	181	22	5730
1989-90	2	9	89	332	668	1329	882	854	761	511	275	24	5736
1990-91	6	0	107	242	549	781	1090	829	726	400	121	29	4880
1991-92	1	0	125	275	581	884	1034	919	876	549	246	27	5517
1992-93	11	4	100	404	652	951	1036	1077	901	455	118	32	5741
1993-94	1	0	102	413	623	966	1307	1092	805	401	263	17	5990
1994-95	0	5	85	326	487	815	892	990	731	493	244	22	5090
1995-96	0	0	111	245	721	1082	1116	1018	921	494	265	18	5991
1996-97	0	4	83	389	743	814	1098	794	836	529	289	77	5656
1997-98	3	2	83	410	713	948	919	776	738	451	149	61	5253
1998-99	0	0	45	329	636	816	1072	837	773	441	172	14	5135
1999-00	1	5	43	384	519	866	1148	892	659	524	219	59	5319
2000-01	2	7	120	355	642	1115	1111	922	883	473	193	15	5838
2001-02	3	0	72	334	515	790	918	819	762	424	268	69	4974
2002-03	0	2	23	392	659	984	1231	1080	818	580	297	77	6143
2003-04	0	1	31	403	549	893	1345	921	796	457	197	52	5645
2004-	2	4	57	358	639	943							

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COOLING DEGREE DAYS (base 65°F) 2004 PROVIDENCE, RI (PVD)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1975	0	0	0	0	55	100	300	218	16	4	1	0	694
1976	0	0	0	40	13	196	163	183	33	3	0	0	631
1977	0	0	0	5	68	108	295	260	85	0	0	0	821
1978	0	0	0	0	25	126	224	211	24	0	0	0	610
1979	0	0	0	0	26	59	279	190	74	12	0	0	640
1980	0	0	0	0	21	84	312	272	122	0	0	0	811
1981	0	0	0	2	33	152	335	183	47	0	0	0	752
1982	0	0	0	0	11	64	276	165	59	3	2	0	580
1983	0	0	0	1	8	177	367	298	206	30	0	0	1087
1984	0	0	0	0	6	164	206	272	47	7	0	0	702
1985	0	0	0	5	34	65	256	203	90	5	0	0	658
1986	0	0	0	0	51	105	207	164	38	14	0	0	579
1987	0	0	0	0	57	130	231	177	53	0	0	0	648
1988	0	0	0	0	26	131	302	336	37	2	0	0	834
1989	0	0	0	0	10	141	237	237	103	0	0	0	728
1990	0	0	0	8	1	114	262	272	74	49	2	0	782
1991	0	0	0	12	96	166	295	276	73	8	0	0	926
1992	0	0	0	0	27	103	183	169	75	1	0	0	558
1993	0	0	0	0	26	167	303	281	110	1	1	0	889
1994	0	0	0	0	7	155	352	163	30	0	0	0	707
1995	0	0	0	0	12	128	344	272	53	4	0	0	813
1996	0	0	0	3	36	117	200	200	65	0	0	0	715
1997	0	0	0	0	0	177	281	184	63	10	0	0	769
1998	0	0	8	0	36	96	270	266	93	0	0	0	894
1999	0	0	0	0	18	185	366	229	96	0	0	0	604
2000	0	0	0	0	27	147	179	173	77	1	0	0	777
2001	0	0	0	1	48	190	161	293	74	10	0	0	946
2002	0	0	0	14	16	118	335	327	112	24	0	0	749
2003	0	0	0	0	0	91	272	310	76	0	0	0	628
2004	0	0	0	0	24	111	212	205	76	0	0	0	

SNOWFALL (inches) 2004 PROVIDENCE, RI (PVD)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1975-76	0.0	0.0	0.0	T	1.2	7.5	15.6	3.7	9.5	0.0	0.0	0.0	37.5
1976-77	0.0	0.0	0.0	0.0	T	9.8	14.0	11.4	4.4	T	7.0	0.0	46.6
1977-78	0.0	0.0	0.0	0.0	1.3	3.9	20.5	28.6	15.9	T	0.0	0.0	70.2
1978-79	0.0	0.0	0.0	0.0	2.3	2.4	6.0	5.5	T	1.1	0.0	0.0	17.3
1979-80	0.0	0.0	0.0	2.5	0.0	T	0.6	3.8	5.3	0.0	0.0	0.0	12.2
1980-81	0.0	0.0	0.0	0.0	4.1	3.6	12.9	0.6	0.3	0.0	0.0	0.0	21.5
1981-82	0.0	0.0	0.0	T	T	16.4	13.4	4.3	5.7	7.6	0.0	0.0	47.4
1982-83	0.0	0.0	0.0	0.0	0.0	7.3	3.8	21.3	T	T	0.0	0.0	32.4
1983-84	0.0	0.0	0.0	0.0	T	4.5	17.9	T	13.7	T	0.0	0.0	36.1
1984-85	0.0	0.0	0.0	0.0	T	2.0	9.8	10.0	0.6	T	0.0	0.0	22.4
1985-86	0.0	0.0	0.0	0.0	1.8	2.6	0.7	13.0	0.5	T	T	0.0	18.6
1986-87	0.0	0.0	0.0	0.0	4.4	8.0	21.5	4.7	1.6	1.1	0.0	0.0	41.3
1987-88	0.0	0.0	0.0	0.0	8.0	7.8	13.5	6.7	2.7	T	0.0	0.0	38.7
1988-89	0.0	0.0	0.0	0.0	T	1.2	0.2	7.3	1.9	0.3	0.0	0.0	10.9
1989-90	0.0	0.0	0.0	0.0	8.0	15.8	10.8	10.5	9.3	1.8	0.0	0.0	56.2
1990-91	0.0	0.0	0.0	0.0	T	6.9	6.4	6.0	5.3	0.0	0.0	0.0	24.6
1991-92	0.0	0.0	0.0	0.0	T	4.8	2.4	4.9	8.2	2.0	0.0	0.0	22.3
1992-93	0.0	0.0	0.0	T	T	3.6	5.4	12.7	17.8	0.2	0.0	0.0	39.7
1993-94	0.0	0.0	0.0	0.0	T	10.1	18.0	25.8	9.6	0.0	T	0.0	63.5
1994-95	0.0	0.0	0.0	0.0	0.7	0.3	3.0	8.4	T	0.1	0.0	0.0	12.5
1995-96	0.0	0.0	0.0	0.0	4.0		37.2						
1996-97													
1997-98					0.2		1.6	0.1	0.3	T			
1998-99							6.5	12.8	12.2	T			
1999-00							6.9	6.8	2.6				
2000-01							9.7	10.8	10.3	T	0.0	0.0	
2001-02	0.0	0.0	0.0	0.0	0.0	1.5	5.6	0.6	2.5	T	0.0	0.0	10.2
2002-03	0.0	0.0	0.0	0.0	5.8	12.0	3.9	24.7	7.8	2.1	0.0	0.0	56.3
2003-04	0.0	0.0	0.0	T	0.0	20.4	11.0	3.1	6.5	T	0.0	0.0	41.0
2004-	0.0	0.0	0.0	0.0	3.8	7.9							
POR= 46 YRS	0.0	0.0	0.0	0.1	1.3	7.1	9.4	9.7	7.2	0.7	0.2	0.0	35.7

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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 (1971 - 2000). 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 EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.</p>
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2004
PROVIDENCE,
RHODE ISLAND (PVD)

The proximity to Narragansett Bay and the Atlantic Ocean plays an important part in determining the climate for Providence and vicinity. In winter, the temperatures are modified considerably, and many major snowstorms change to rain before reaching the area. In summer, many days that could be uncomfortably warm are cooled by refreshing sea breezes. At other times of the year, sea fog may be advected in over land by onshore winds. In fact, most cases of dense fog are produced this way, but the number of such days is few, averaging two or three days per month. In early fall, severe coastal storms of tropical origin sometimes bring destructive winds to this area. Even at other times of the year, it is usually coastal storms which produce the severest weather.

The temperature for the entire year averages around 50 degrees with 70 degree temperatures common from near the end of May to the latter part of September. During this period, there may be several days reaching 90 degrees or more. Temperatures of 100 degrees and more are rare.

Freezing temperatures occur on the average about 125 days per year. They become a common daily occurrence in the latter part of November, and become less frequent near the end of March. The average date for the last freeze in spring is mid-April, while the average date for the first freeze in fall is late October, making the growing season about 195 days in length. Sub-zero weather in winter seldom occurs, averaging less than one day for December and one or two days each for January and February.

Measurable precipitation occurs on about one day out of every three, and is fairly evenly distributed throughout the year. There is usually no definite dry season, but occasionally droughts do occur.

Thunderstorms are responsible for much of the rainfall from May through August. They usually produce heavy, and sometimes even excessive amounts of rainfall. However, since their duration is relatively short, damage is ordinarily light. The thunderstorms of summer are frequently accompanied by extremely gusty winds, which may result in some damage to property.

The first measurable snowfall of winter usually comes toward the end of November, and the last in spring is about the middle of March. Winters with over 50 inches of snow are not common. The area normally receives less than 25 inches. The month of greatest snowfall is usually February, but January and March are close seconds. It is unusual for the ground to remain well covered with snow for any long period of time.

STATION LOCATION

PROVIDENCE, RHODE ISLAND

LOCATION	Occupied From	Occupied To	Airline Distances and Directions from previous Location	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE										AUTOMATED OBSERVING EQUIPMENT *	* TYPE	REMARKS
						GROUND												
						SEA LEVEL	GROUND	WIND INSTRUMENT	EXTREME THERMOMETERS	PSYCHROMETER	SUNSHINE SWITCH	TIPPING GAUGE	RAINING GAUGE	8 INCH RAIN GAGE	HYGROMETER			
*NOTE:																		
<u>AIRPORT</u>																		
Administration Building	6/16/32	11/12/39		41°44'	71°26'	55	52		5									Airway Station to 9/27/37 then First-Order Weather Bureau Airport Station. All locations at the T.F. Green Airport, Hills-grove, Rhode Island.
Hangar Building No. 1	11/12/39	5/20/53	660 ft. W	41°44'	71°26'	55	60	46	46		44		44					
Old Administration Bldg	5/20/53	9/25/59	660 ft. W	41°44'	71°26'	55	39	7	5	30		4	3					
Old Administration Bldg T.F. Green State Airport <input checked="" type="checkbox"/>	9/25/59	09/01/95	NA	41°44'	71°26'	a51	20	7 d7	6 d6	30	NA b3 d3	4 c6 d6	3 d3	#4 e4	NA			Wind equipment relocated to field site approximately 2200 feet south of Weather Bureau office. a. 55 feet until 11/1/63. # - Commissioned 11/1/63. b. Commissioned 6/1980. c. Minor move 5/1981. d. Moved 118' W 6/1983. e. Type change 5/1985.
<input checked="" type="checkbox"/> Name effective in December 1967																		
Theo Francis Green State Airport	09/01/95	Present	NA	41°43'	71°26'	f50									S			ASOS Commissioned 09/01/95 f. Ground elevation.

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* NOTES: For earlier station history see previous edition.