

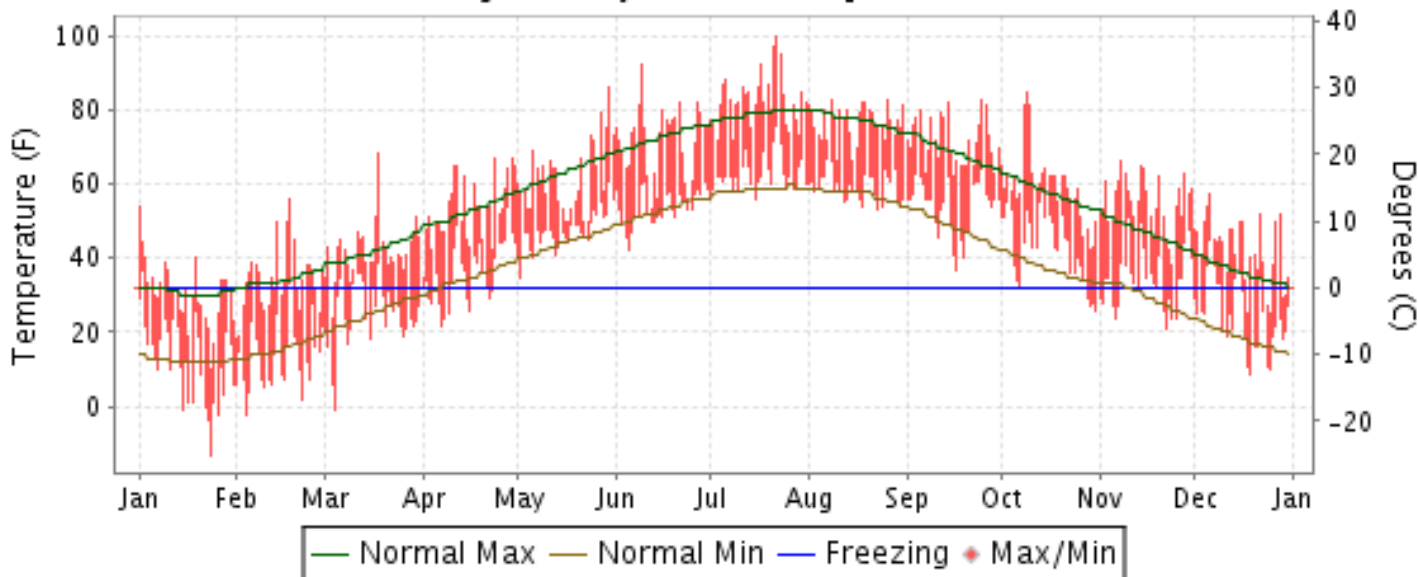


2011 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

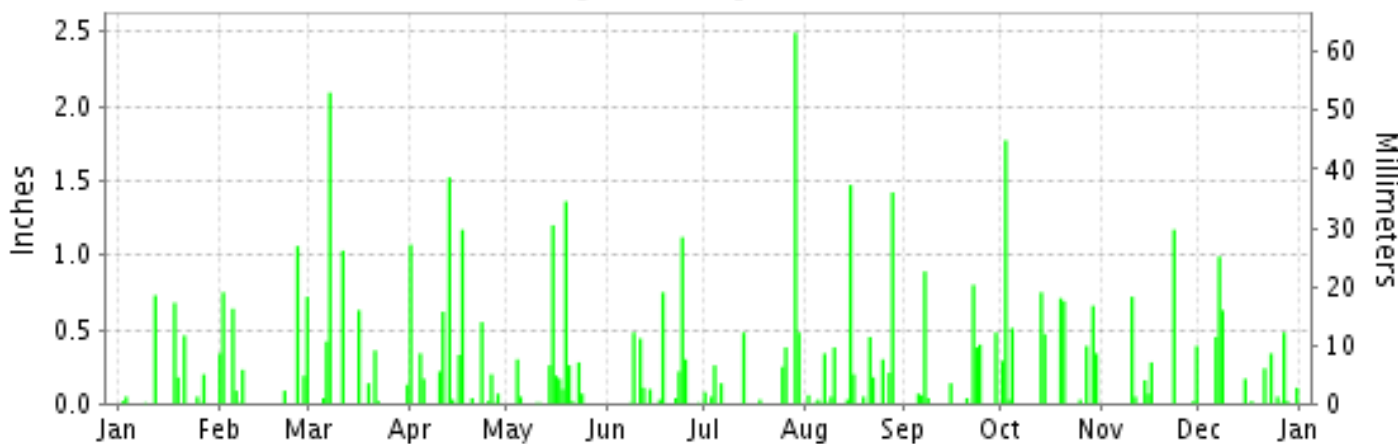
ISSN 0198-2370

PORTLAND, MAINE (KPWM)

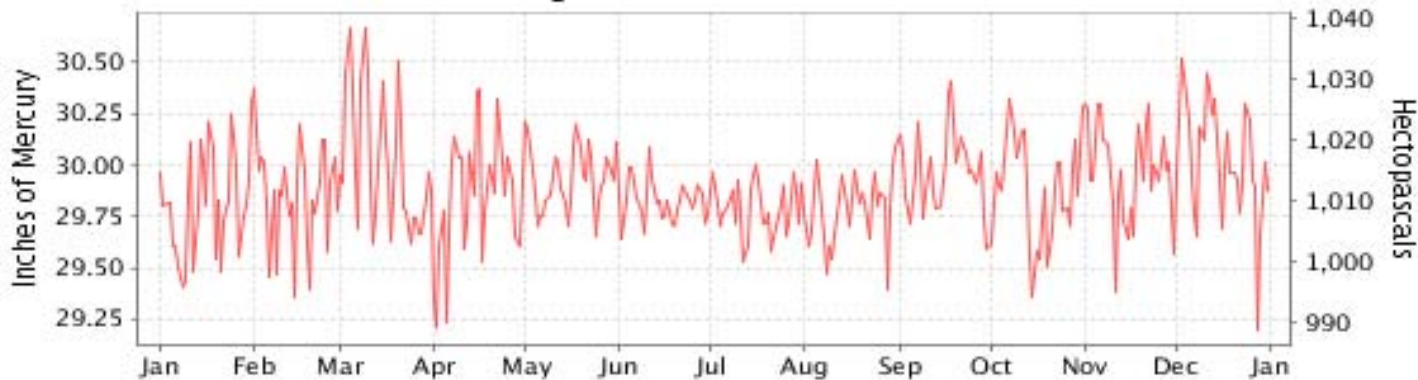
Daily Max/Min Temperature



Daily Precipitation



Daily Station Pressure



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ENVIRONMENTAL SATELLITE, DATA
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NATIONAL
CLIMATIC DATA CENTER
ASHEVILLE, NORTH CAROLINA

Thomas R. Karl
DIRECTOR
NATIONAL CLIMATIC DATA CENTER

METEOROLOGICAL DATA FOR 2011

PORTLAND (KPWM)

LATITUDE: 43° 38'N LONGITUDE: -70° 18'W ELEVATION (FT): GRND: 45 BARO: 72 TIME ZONE: EASTERN (UTC -5) WBAN: 14764

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	30.6	34.2	41.9	53.3	61.7	71.6	82.6	76.5	71.6	59.7	55.0	42.0	56.7	
	HIGHEST DAILY MAXIMUM	54	56	68	67	86	92	100	83	83	85	66	57	100	
	DATE OF OCCURRENCE	01	18	18	29+	30	09	22	26+	25	09	08	06	JUL 22	
	MEAN DAILY MINIMUM	12.3	13.0	24.8	36.2	47.4	53.8	62.8	59.4	54.0	43.1	34.3	24.6	38.8	
	LOWEST DAILY MINIMUM	-13	-2	-1	22	35	42	56	53	37	26	21	9	-13	
	DATE OF OCCURRENCE	24	04	04	07	02	05	15+	23	17	31	22	19	JAN 24	
	AVERAGE DRY BULB	21.5	23.6	33.4	44.8	54.6	62.7	72.7	68.0	62.8	51.4	44.7	33.3	47.8	
	MEAN WET BULB	19.7	21.3	30.1	40.8	50.9	57.5	65.7	63.9	59.1	47.4	40.7	31.0	44.0	
	MEAN DEW POINT	13.1	12.6	22.3	34.4	47.8	54.0	61.4	61.0	56.7	42.7	35.2	24.2	38.8	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	0	1	4	0	0	0	0	0	5	5
	MAXIMUM <= 32°	19	12	1	0	0	0	0	0	0	0	0	5	37	37
MINIMUM <= 32°	30	27	25	12	0	0	0	0	0	5	12	23	134	134	
MINIMUM <= 0°	5	1	1	0	0	0	0	0	0	0	0	0	7	7	
H/C	HEATING DEGREE DAYS	1341	1153	974	599	327	105	0	3	102	419	600	971	6594	
	COOLING DEGREE DAYS	0	0	0	0	11	43	247	103	45	5	0	0	454	
RH	MEAN (PERCENT)	69	63	65	70	82	77	70	80	82	74	72	69	73	
	HOUR 01 LST	75	65	72	80	87	89	86	91	92	83	81	75	81	
	HOUR 07 LST	76	70	69	69	82	72	70	80	84	79	78	75	75	
	HOUR 13 LST	58	55	55	58	73	65	55	66	67	61	55	58	61	
	HOUR 19 LST	70	62	64	73	84	80	73	82	86	75	75	69	74	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	3	3	4	3	8	7	2	2	5	1	2	1	41	
	THUNDERSTORMS	0	0	0	3	0	5	4	4	2	0	0	0	18	
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.)	29.82	29.85	30.02	29.85	29.94	29.83	29.79	29.79	29.97	29.89	29.98	30.03	29.90	
	MEAN SEA-LEVEL PRESS. (IN.)	29.90	29.92	30.09	29.92	30.01	29.90	29.86	29.86	30.04	29.96	30.05	30.10	29.97	
WINDS	RESULTANT SPEED (MPH)	5.0	4.9	2.2	1.6	2.4	0.2	5.0	2.5	1.1	3.8	3.1	2.9	2.0	
	RES. DIR. (TENS OF DEGS.)	32	30	29	26	07	15	23	20	22	28	24	27	28	
	MEAN SPEED (MPH)	6.6	8.0	8.6	8.7	7.4	6.9	8.6	7.2	6.2	8.6	7.1	7.0	7.6	
	PREVAIL.DIR.(TENS OF DEGS.)	33	31	19	18	02	19	19	17	16	27	22	21	19	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	32	37	37	36	26	32	28	40	25	30	28	33	40	
	DIR. (TENS OF DEGS.)	35	28	30	29	35	21	31	16	08	26	16	16	16	
	DATE OF OCCURRENCE	12	19	02	21	09	09	30	28	28	17	30	28	AUG 28	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	48	46	52	52	37	40	43	52	45	41	39	51	52	
DIR. (TENS OF DEGS.)	36	28	28	12	02	30	16	16	22	30	17	15	16		
DATE OF OCCURRENCE	12	19	02	17	10	18	31	28	15	05	30	28	AUG 28		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	2.39	4.12	4.86	6.36	4.28	3.61	4.64	5.20	3.30	6.64	2.86	3.51	51.77	
	GREATEST 24-HOUR (IN.)	0.73	1.06	2.51	1.55	1.43	1.18	2.97	1.63	0.89	1.79	1.17	1.58	2.97	
	DATE OF OCCURRENCE	12	25	06-07	13-14	14-15	24-25	29-30	27-28	07	02-03	23	07-08	JUL 29-30	
	NUMBER OF DAYS WITH:														
	PRECIPITATION 0.01	10	10	9	15	14	12	10	17	10	12	8	12	139	
PRECIPITATION 0.10	5	7	7	10	9	8	7	9	6	10	5	8	91		
PRECIPITATION 1.00	0	1	2	3	2	1	1	2	0	1	1	0	14		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)	29.1	27.0	3.4	6.0	0.0	T	0.0	0.0	0.0	5.2	1.0	2.5	74.2	
	GREATEST 24-HOUR (IN.)	13.0	9.5	2.3	6.0	0.0	T	0.0	0.0	0.0	2.7	1.0	1.1	13.0	
	DATE OF OCCURRENCE	12	25	21	01		18				29	23	23	JAN 12	
	MAXIMUM SNOW DEPTH (IN.)	18	23	21	5	0	0	0	0	0	4	1	1	23	
	DATE OF OCCURRENCE	21	28+	01	01						30	25+	23	FEB 28+	
	NUMBER OF DAYS WITH:														
SNOWFALL >= 1.0	4	8	1	1	0	0	0	0	0	2	1	1	18		

NORMALS, MEANS, AND EXTREMES PORTLAND (KPWM)

LATITUDE: 43° 38'N **LONGITUDE:** -70° 18'W **ELEVATION (FT):** GRND: 45 BARO: 72 **TIME ZONE:** EASTERN (UTC -5) **WBAN: 14764**

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	30.9	34.1	42.2	52.8	63.3	72.8	78.8	77.3	68.9	57.9	47.1	36.4	55.2
	MEAN DAILY MAXIMUM	92	31.1	32.4	41.2	51.8	63.0	71.7	78.3	77.0	68.8	58.8	47.0	35.7	54.7
	HIGHEST DAILY MAXIMUM	71	67	64	88	92	94	98	100	103	95	88	74	71	103
	YEAR OF OCCURRENCE		2007	1957	1998	2009	1987	1991	2011	1975	1983	1963	2003	2001	AUG 1975
	MEAN OF EXTREME MAXS.	92	49.4	50.4	59.6	73.0	83.3	89.2	91.8	90.1	85.9	75.6	64.8	54.5	72.3
	NORMAL DAILY MINIMUM	30	12.5	15.6	25.2	34.7	44.2	52.9	58.6	57.2	48.5	37.4	29.5	18.7	36.3
	MEAN DAILY MINIMUM	92	13.2	14.4	24.4	33.7	43.7	52.2	58.7	57.4	49.2	39.3	30.4	18.9	36.3
	LOWEST DAILY MINIMUM	71	-26	-39	-21	8	23	33	40	33	23	15	3	-21	-39
	YEAR OF OCCURRENCE		1971	1943	1950	1954	1956	1944	1965	1965	1941	1976	1989	1963	FEB 1943
	MEAN OF EXTREME MINS.	92	-8.3	-6.0	4.2	22.1	30.9	40.8	48.2	45.1	34.1	24.0	15.3	-1.2	20.8
	NORMAL DRY BULB	30	21.7	24.8	33.7	43.7	53.8	62.9	68.7	67.2	58.7	47.7	38.3	27.6	45.7
	MEAN DRY BULB	92	22.2	23.4	32.8	42.8	53.3	62.1	68.5	67.3	59.0	49.1	38.7	27.3	45.5
	MEAN WET BULB	28	19.2	21.2	28.1	38.0	47.6	57.3	62.8	62.1	55.3	44.4	35.1	25.0	41.3
	MEAN DEW POINT	28	14.9	16.0	23.8	33.5	44.5	54.6	60.6	60.0	53.0	41.5	31.6	20.8	37.9
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	0.0	0.2	1.1	1.9	1.2	0.3	0.0	0.0	0.0	4.7
	MAXIMUM <= 32	30	16.7	12.4	4.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	1.2	10.4	45.1
MINIMUM <= 32	30	29.6	25.9	24.3	12.3	1.3	0.0	0.0	0.0	0.3	8.6	19.0	28.2	149.5	
MINIMUM <= 0	30	5.4	3.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	10.4	
H/C	NORMAL HEATING DEG. DAYS	30	1346	1141	985	649	361	116	19	37	199	523	790	1152	7318
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	7	51	144	120	24	1	0	0	347
RH	NORMAL (PERCENT)	30	68	65	66	67	72	73	74	76	76	74	71	69	71
	HOURLY 01 LST	30	72	70	73	76	83	86	87	88	87	83	77	75	80
	HOURLY 07 LST	30	75	73	74	72	76	78	80	83	86	84	80	77	78
	HOURLY 13 LST	30	59	55	56	55	59	61	60	60	61	58	59	59	59
	HOURLY 19 LST	30	66	64	66	66	70	72	73	76	78	75	71	69	71
S	PERCENT POSSIBLE SUNSHINE	55	56	60	56	55	54	60	63	64	63	57	48	53	57
W/O	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	48	1.9	2.4	3.5	2.6	4.0	5.0	5.5	5.1	4.3	3.6	2.8	2.2	42.9
	THUNDERSTORMS	64	0.1	0.0	0.3	0.5	1.9	3.7	4.2	3.2	1.3	0.5	0.3	0.1	16.1
CLOUDINESS	MEAN: SUNRISE-SUNSET (OKTAS)						5.6	6.4							
	MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH: CLEAR	1	4.0	2.0	7.0		7.0	6.0	1.0	9.0	3.0	8.0		5.0	
	PARTLY CLOUDY			1.0	3.0		4.0	5.0	1.0	1.0	2.0			4.0	
	CLOUDY	1	4.0	5.0	7.0		10.0	9.0	2.0	3.0	6.0	3.0		8.0	
PR	MEAN STATION PRESSURE(IN)	28	29.92	29.92	29.93	29.89	29.90	29.86	29.87	29.92	29.97	29.97	29.97	29.94	29.92
	MEAN SEA-LEVEL PRES. (IN)	28	29.99	29.98	30.00	29.96	29.97	29.93	29.94	29.99	30.04	30.03	30.04	30.00	29.99
WINDS	MEAN SPEED (MPH)	28	8.2	8.6	9.3	9.3	8.5	7.6	7.0	6.9	7.2	7.9	8.0	8.2	8.1
	PREVAIL.DIR(TENS OF DEGS)	34	36	33	33	19	19	19	19	19	19	28	36	28	19
	MAXIMUM 2-MINUTE: SPEED (MPH)	17	38	45	41	43	39	38	37	57	33	40	49	44	57
	DIR. (TENS OF DEGS)		28	00	11	07	07	33	29	28	29	09	36	03	28
	YEAR OF OCCURRENCE		2004	1995	1999	2007	2005	2006	2002	1998	1995	2010	2010	2002	AUG 1998
	MAXIMUM 3-SECOND SPEED (MPH)	17	54	67	54	59	51	46	47	61	45	55	72	54	72
	DIR. (TENS OF DEGS)		15	04	13	07	08	32	29	28	22	24	15	29	15
YEAR OF OCCURRENCE		2010	2010	2000	2007	2005	2006	2008	1998	2011	2006	1995	2006	NOV 1995	
PRECIPITATION	NORMAL (IN)	30	4.09	3.14	4.14	4.26	3.82	3.28	3.32	3.05	3.37	4.40	4.72	4.24	45.83
	MAXIMUM MONTHLY (IN)	71	11.92	8.06	11.24	9.90	12.34	9.18	8.60	15.22	10.84	16.83	13.50	9.69	16.83
	YEAR OF OCCURRENCE		1979	2008	2010	1973	2006	2006	2009	1991	2008	1996	1983	1969	OCT 1996
	MINIMUM MONTHLY (IN)	71	0.28	0.04	0.81	0.28	0.49	0.70	0.61	0.27	0.30	0.26	0.90	0.98	0.04
	YEAR OF OCCURRENCE		2004	1987	1965	1999	1965	1941	1965	1947	1948	1947	1976	1955	FEB 1987
	MAXIMUM IN 24 HOURS (IN)	71	3.56	4.24	3.47	5.26	4.66	5.58	3.01	7.83	7.49	13.32	5.25	3.82	13.32
	YEAR OF OCCURRENCE		1977	2010	1951	1973	1989	1967	2009	1991	1954	1996	2009	1969	OCT 1996
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	11.7	9.6	12.1	11.7	12.4	11.5	10.6	9.3	9.8	10.0	11.3	12.0	132.0
PRECIPITATION >= 1.00	30	0.9	0.9	1.0	0.9	0.8	0.7	0.7	0.6	0.9	1.2	1.4	1.2	11.2	
SNOWFALL	NORMAL (IN)	30	20.5	12.8	13.0	3.2	0.*	0.0	0.0	0.0	0.*	0.1	3.2	13.6	66.4
	MAXIMUM MONTHLY (IN)	70	62.4	61.2	49.0	15.9	7.0	T	T	0.0	T	5.2	20.5	54.8	62.4
	YEAR OF OCCURRENCE		1979	1969	1993	1982	1945	2011	2002		1992	2011	1997	1970	JAN 1979
	MAXIMUM IN 24 HOURS (IN)	70	27.1	21.5	18.6	15.9	7.0	T	T	0.0	T	3.6	11.1	22.8	27.1
	YEAR OF OCCURRENCE'		1979	1969	1993	1982	1945	2011	2002		1992	1969	1972	1970	JAN 1979
	MAXIMUM SNOW DEPTH (IN)	59	31	31	33	17	1	0	0	0	0	4	10	40	40
	YEAR OF OCCURRENCE		1979	1967	1967	1956	1966					2011	1972	1970	DEC 1970
NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	4.7	2.8	3.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.8	16.3	

PRECIPITATION (inches) 2011 PORTLAND (KPWM)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	5.17	2.53	3.20	4.54	2.91	6.75	2.61	3.35	1.90	1.93	3.61	1.18	39.68
1983	4.59	3.94	9.75	6.82	5.98	1.35	4.31	2.58	1.35	3.38	13.50	8.78	66.33
1984	2.56	4.99	5.12	4.81	9.64	3.87	3.86	2.09	0.84	3.26	3.69	3.44	48.17
1985	1.03	1.54	3.15	1.25	2.03	2.74	3.30	3.18	2.97	4.07	6.36	2.39	34.01
1986	6.58	2.61	4.21	3.49	2.51	3.91	3.44	1.87	2.64	2.09	5.18	5.91	44.44
1987	5.21	0.04	4.29	6.33	2.62	5.01	1.79	2.48	4.64	2.54	3.82	2.01	40.78
1988	1.97	3.34	1.85	3.68	4.27	2.36	5.89	5.24	1.50	3.47	8.84	1.21	43.62
1989	1.15	2.37	2.14	2.94	8.74	4.49	2.50	1.73	4.48	4.81	3.97	2.23	41.55
1990	3.19	2.49	1.42	5.16	5.23	4.12	3.21	1.89	3.12	7.46	7.50	7.90	52.69
1991	2.91	1.85	6.19	6.71	3.77	1.47	2.35	15.22	5.44	2.83	4.34	4.06	57.14
1992	4.80	3.42	3.93	2.47	1.15	3.99	4.06	2.59	3.11	2.48	4.39	2.12	38.51
1993	2.80	3.84	6.26	5.69	1.14	2.89	2.73	1.21	4.10	3.74	4.05	5.40	43.85
1994	5.34	1.29	6.71	2.94	4.87	1.25	1.73	2.82	6.60	0.63	3.67	6.20	44.05
1995	4.92	3.55	2.14	2.36	3.31	2.60	3.14	0.47	2.40	4.78	7.27	4.35	41.29
1996	5.30	3.03	2.68	6.44	3.72	1.80	6.19	0.50	3.55	16.86	1.79	6.53	58.39
1997	4.59	2.59	4.05	5.21	2.41	0.76	2.01	4.15	2.68	1.37	5.22	2.57	37.61
1998	4.83	5.72	4.23	3.36	3.83	9.01	2.92	4.03	3.02	10.45	1.80	1.56	54.76
1999	5.97	3.87	4.52	0.28	4.98	0.95	1.62	1.53	8.80	3.89	2.25	2.00	40.66
2000	3.41	2.90	3.66	5.44	3.07	2.06	4.03	1.81	2.46	3.17	4.19	4.49	40.69
2001	1.33	2.58	8.01	1.26	1.14	5.37	2.05	1.28	4.14	1.72	2.20	2.03	33.11
2002	2.98	2.48	4.18	3.85	4.42	4.38	3.33	1.28	3.58	4.17	5.08	4.51	44.24
2003	1.14	3.51	3.65	3.20	3.12	2.15	1.50	2.10	4.68	5.60	3.06	4.54	38.25
2004	0.28	1.94	1.94	6.46	4.69	2.19	3.83	6.14	3.24	2.19	4.04	4.28	41.22
2005	3.33	3.34	4.81	8.72	6.40	5.12	2.83	2.37	2.13	14.38	7.67	5.30	66.40
2006	3.71	2.74	1.02	3.02	12.34	9.18	5.65	2.37	3.57	8.38	5.50	3.36	60.84
2007	2.86	0.96	3.01	8.97	2.32	3.33	4.62	3.23	3.22	6.37	4.21	3.79	46.89
2008	3.21	8.06	5.54	4.47	1.09	3.88	4.71	6.28	10.84	3.19	5.35	4.62	61.24
2009	2.35	2.79	2.66	4.63	4.52	8.56	8.60	5.15	1.38	4.99	7.74	5.24	58.61
2010	2.86	6.23	11.24	1.50	1.77	3.47	4.06	2.95	2.30	7.10	5.00	4.03	52.51
2011	2.39	4.12	4.86	6.36	4.28	3.61	4.64	5.20	3.30	6.64	2.86	3.51	51.77
POR= 92 YRS	3.85	3.63	4.11	4.04	3.53	3.39	3.11	2.90	3.40	3.89	4.48	4.13	44.46

WBAN : 14764

AVERAGE TEMPERATURE (°F) 2011 PORTLAND (KPWM)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	15.0	23.3	32.1	42.0	54.6	58.3	69.2	64.4	59.2	48.1	41.3	32.0	45.0
1983	25.2	26.2	35.8	44.4	52.0	63.8	69.7	67.6	63.0	47.9	40.2	26.1	46.8
1984	19.8	32.0	28.2	43.3	53.0	63.9	69.6	69.1	57.8	49.6	39.2	31.2	46.4
1985	16.2	26.4	34.8	44.1	53.7	61.7	69.8	66.6	60.7	50.8	39.9	24.6	45.8
1986	25.0	23.4	34.6	46.5	53.6	60.9	66.3	66.2	57.4	47.9	36.3	29.6	45.6
1987	21.6	23.0	34.0	44.9	54.6	63.8	68.0	66.2	59.6	47.1	38.1	30.2	45.9
1988	21.6	25.7	34.2	43.5	54.7	63.8	71.1	71.1	59.4	46.5	41.0	26.0	46.6
1989	26.8	24.0	31.6	41.1	55.6	63.9	69.4	68.0	60.5	49.8	37.3	14.1	45.2
1990	30.2	25.7	34.7	44.6	51.8	62.4	70.3	69.8	59.8	52.4	41.8	33.7	48.1
1991	23.4	29.8	37.0	45.9	58.1	65.5	70.1	69.9	58.2	50.8	40.4	26.4	48.0
1992	23.9	25.9	30.9	41.4	51.9	63.4	65.8	66.8	58.9	47.3	37.6	28.9	45.2
1993	23.4	16.8	29.8	43.3	54.8	64.5	69.8	69.5	59.6	46.2	39.0	29.9	45.6
1994	14.0	19.6	33.5	44.5	52.3	66.0	72.4	66.4	58.4	49.5	41.5	31.5	45.8
1995	27.1	21.2	34.8	41.2	52.1	64.1	70.0	67.4	56.4	52.4	35.7	24.5	45.6
1996	21.4	23.9	29.8	42.9	52.5	63.0	66.4	67.4	59.8	46.8	35.1	34.5	45.3
1997	23.4	28.7	30.4	41.8	51.1	63.3	69.0	67.3	58.7	47.0	36.2	29.5	45.5
1998	27.1	31.3	36.7	45.8	56.8	60.7	69.5	69.5	61.2	49.2	39.4	32.5	48.3
1999	22.3	29.0	35.6	44.9	54.5	66.3	71.3	67.7	63.3	46.6	42.0	31.9	48.0
2000	21.5	26.4	37.8	43.3	53.2	63.7	67.1	67.3	59.9	48.9	40.4	24.6	46.2
2001	20.6	24.3	30.6	43.3	54.9	67.2	66.5	69.4	61.0	50.2	41.4	34.8	47.0
2002	30.4	28.8	34.9	44.4	52.5	61.4	69.5	70.1	63.1	47.0	37.0	27.4	47.2
2003	16.3	20.3	31.6	40.9	52.2	62.9	69.3	68.8	61.4	48.0	40.8	29.6	45.2
2004	15.0	25.9	34.9	44.5	54.2	60.5	66.9	67.8	60.9	49.7	38.9	28.0	45.6
2005	19.4	25.5	30.1	45.0	49.3	64.7	69.4	70.2	63.6	50.1	40.7	27.8	46.3
2006	30.2	25.8	34.5	45.7	54.6	65.0	72.0	67.0	60.3	49.0	43.8	34.5	48.5
2007	25.9	19.2	32.2	41.8	56.0	63.6	68.0	67.9	61.6	53.7	37.6	25.4	46.1
2008	26.6	25.9	31.9	44.8	54.2	64.5	70.7	66.2	60.4	48.8	39.3	28.6	46.8
2009	17.5	25.9	33.0	46.7	55.1	61.0	66.2	69.7	59.1	46.9	43.0	29.3	46.1
2010	25.0	30.8	39.9	48.8	57.9	64.6	72.3	69.3	63.4	49.4	40.0	29.2	49.2
2011	21.5	23.6	33.4	44.8	54.6	62.7	72.7	68.0	62.8	51.4	44.7	33.3	47.8
POR= 92 YRS	22.2	23.4	32.8	42.8	53.3	62.1	68.5	67.3	59.0	49.1	38.7	27.3	45.5

HEATING DEGREE DAYS (base 65°F) 2011 PORTLAND (KPWM)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	20	78	185	519	704	1015	1225	1080	895	612	393	101	6827
1983-84	8	38	139	527	738	1198	1397	949	1132	642	368	110	7246
1984-85	11	13	223	469	767	1043	1506	1076	930	620	347	115	7120
1985-86	4	32	157	433	747	1245	1236	1161	935	548	354	138	6990
1986-87	47	52	242	523	855	1092	1336	1172	955	597	343	77	7291
1987-88	20	58	171	548	798	1070	1339	1130	950	641	323	112	7160
1988-89	13	32	180	569	713	1201	1174	1141	1028	708	286	91	7136
1989-90	6	25	167	464	824	1573	1071	1093	935	607	402	107	7274
1990-91	12	24	170	388	690	964	1283	979	861	568	236	76	6251
1991-92	11	16	228	433	730	1191	1267	1127	1051	700	414	84	7252
1992-93	47	30	208	543	814	1112	1280	1344	1084	645	311	81	7499
1993-94	15	5	192	575	774	1080	1577	1266	968	609	389	61	7511
1994-95	1	35	201	472	697	1028	1167	1216	929	706	391	85	6928
1995-96	9	35	265	380	873	1248	1343	1181	1083	659	384	90	7550
1996-97	23	17	179	556	889	940	1284	1011	1065	689	424	135	7212
1997-98	11	21	192	554	857	1093	1164	938	872	569	264	143	6678
1998-99	3	9	124	482	761	1002	1314	1002	903	599	322	61	6582
1999-00	6	23	105	563	686	1020	1341	1113	838	645	361	112	6813
2000-01	11	18	184	491	729	1247	1371	1134	1060	643	330	57	7275
2001-02	32	15	140	456	702	928	1066	1006	927	609	380	149	6410
2002-03	23	21	103	563	830	1158	1501	1246	1028	717	391	114	7695
2003-04	9	22	110	521	719	1088	1541	1128	930	609	329	159	7165
2004-05	15	20	131	470	776	1140	1410	1099	1074	596	477	100	7308
2005-06	17	8	85	454	723	1146	1069	1089	937	575	324	64	6491
2006-07	0	43	149	491	630	940	1206	1276	1012	689	295	101	6832
2007-08	17	38	147	348	814	1219	1183	1126	1015	598	331	60	6896
2008-09	0	23	162	495	764	1121	1464	1087	986	544	315	120	7081
2009-10	41	27	183	557	651	1101	1234	952	773	478	235	78	6310
2010-11	9	9	112	481	737	1103	1341	1153	974	599	327	105	6950
2011-	0	3	102	419	600	971							

WBAN : 14764

COOLING DEGREE DAYS (base 65°F) 2011 PORTLAND (KPWM)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1982	0	0	0	0	6	4	158	66	17	0	0	0	251
1983	0	0	0	0	0	73	161	125	84	3	0	0	446
1984	0	0	0	0	0	84	162	147	12	0	0	0	405
1985	0	0	0	0	5	25	161	92	35	1	0	0	319
1986	0	0	0	0	8	23	93	96	19	0	0	0	239
1987	0	0	0	0	28	47	121	103	17	0	0	0	316
1988	0	0	0	0	11	85	209	227	17	2	0	0	551
1989	0	0	0	0	2	67	151	126	38	0	0	0	384
1990	0	0	0	0	0	34	181	179	19	7	0	0	420
1991	0	0	0	0	29	96	178	176	31	0	0	0	510
1992	0	0	0	0	13	43	76	93	30	0	0	0	255
1993	0	0	0	0	1	72	170	150	37	0	0	0	430
1994	0	0	0	0	1	101	237	89	10	0	0	0	438
1995	0	0	0	0	3	67	174	118	14	0	0	0	376
1996	0	0	0	0	5	38	75	99	29	0	0	0	246
1997	0	0	0	0	0	90	145	100	8	2	0	0	345
1998	0	0	2	0	15	21	152	154	17	0	0	0	361
1999	0	0	0	0	4	109	208	116	59	0	0	0	496
2000	0	0	0	0	1	76	81	97	37	1	0	0	293
2001	0	0	0	0	23	127	85	161	25	3	0	0	424
2002	0	0	0	0	0	49	169	183	55	14	0	0	470
2003	0	0	0	0	0	56	149	148	9	0	0	0	362
2004	0	0	0	0	1	31	80	114	16	0	0	0	242
2005	0	0	0	0	0	97	159	174	52	2	0	0	484
2006	0	0	0	0	9	73	224	110	16	0	0	0	432
2007	0	0	0	0	22	66	119	133	53	4	0	0	397
2008	0	0	0	0	4	48	183	67	29	0	0	0	331
2009	0	0	0	4	15	7	86	178	14	0	0	0	304
2010	0	0	0	0	22	73	240	152	72	0	0	0	559
2011	0	0	0	0	11	43	247	103	45	5	0	0	454

SNOWFALL (inches) 2011 PORTLAND (KPWM)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	0.0	0.0	0.0	0.0	0.6	5.7	12.4	24.5	2.1	T	0.0	0.0	45.3
1983-84	0.0	0.0	0.0	0.0	T	12.6	28.3	3.3	26.4	T	0.0	0.0	70.6
1984-85	0.0	0.0	0.0	0.0	T	17.0	12.1	7.2	13.1	2.4	0.0	0.0	51.8
1985-86	0.0	0.0	0.0	0.0	3.1	11.2	18.6	12.0	6.4	T	0.0	0.0	51.3
1986-87	0.0	0.0	0.0	0.0	5.2	4.0	50.7	0.8	14.3	3.4	0.0	0.0	78.4
1987-88	0.0	0.0	T	0.0	5.4	9.1	19.8	20.8	3.0	4.2	0.0	0.0	62.3
1988-89	0.0	0.0	0.0	T	T	3.5	4.0	13.8	8.9	0.7	0.0	0.0	30.9
1989-90	0.0	0.0	0.0	0.0	5.0	15.6	20.4	25.6	3.2	T	0.0	0.0	69.8
1990-91	0.0	0.0	T	0.0	0.2	6.8	13.4	6.3	5.7	T	0.0	0.0	32.4
1991-92	0.0	0.0	0.0	0.0	T	22.5	2.4	10.3	13.4	10.0	0.0	0.0	58.6
1992-93	0.0	0.0	T	T	2.8	2.1	17.1	33.5	49.0	11.1	0.0	0.0	115.6
1993-94	0.0	0.0	0.0	0.2	T	12.3	39.3	12.2	12.2	T	0.0	0.0	76.2
1994-95	0.0	0.0	0.0	0.0	2.5	2.0	15.7	17.3	1.1	T	0.0	0.0	38.6
1995-96	0.0	0.0	0.0	0.0	2.0	37.3	37.1	13.1	25.0	8.5	0.0	0.0	123.0
1996-97	0.0	0.0	0.0	0.0	2.9	1.4	15.9	6.2	15.5	1.4	0.0	0.0	43.3
1997-98	0.0	0.0	0.0	0.0	20.5	6.3	17.1	0.9	9.7	0.0	0.0	0.0	54.5
1998-99	0.0	0.0	0.0	0.0	T	11.7	19.2	5.1	17.5	0.0	0.0	0.0	53.5
1999-00	0.0	0.0	0.0	0.0	T	T	14.9	14.6	11.6	T	0.0	0.0	41.1
2000-01	0.0	0.0	0.0	T	T	18.8	15.5	24.2	40.5	0.3	0.0	0.0	99.3
2001-02	0.0	0.0	0.0	T	T	5.0	15.8	1.1	10.4	0.3	0.0	0.0	32.6
2002-03	T	0.0	0.0	0.0	4.1	17.4	18.7	16.8	2.4	4.5	0.0	0.0	63.9
2003-04	0.0	0.0	0.0	T	T	24.0	2.8	12.3	6.1	1.5	0.0	0.0	46.7
2004-05	0.0	0.0	0.0	0.0	T	8.8	37.3	23.5	32.5	T	0.0	0.0	102.1
2005-06	0.0	0.0	0.0	0.0	2.3	20.4	13.5	9.5	1.0	0.5	0.0	0.0	47.2
2006-07	0.0	0.0	0.0	0.0	0.0	4.6	6.8	14.3	14.1	15.1	0.0	0.0	54.9
2007-08	0.0	0.0	0.0	0.0	T	38.8	19.1	32.8	12.3	T	0.0	0.0	103.0
2008-09	0.0	0.0	0.0	T	T	27.2	28.0	15.3	10.6	0.0	0.0	0.0	81.1
2009-10	0.0	0.0	0.0	T	T	13.8	20.0	3.2	0.1	T	0.0	0.0	37.1
2010-11	0.0	0.0	0.0	0.0	0.1	13.1	29.1	27.0	3.4	6.0	0.0	T	78.7
2011-	0.0	0.0	0.0	5.2	1.0	2.5							
POR= 74 YRS	T	0.0	T	0.2	3.1	14.1	19.9	17.3	12.2	3.2	0.1	T	70.1

WBAN : 14764

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. 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.</p>	<p>GENERAL CONTINUED: 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. 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. STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED HISTORY GO TO "MULTI-NETWORK MEDADATA SYSTEM", URL IS: https://mi3.ncdc.noaa.gov/mi3qry/login.cfm SNOWFALL STOPPED MONTH & YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.</p> <p>NOTE: The "Period of Record:(POR) for all "averages" is based on the "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.</p>
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2011 PORTLAND MAINE (KPWM)

The Portland City Airport is located 2 3/4 miles west of the site of the former city office. The surrounding country is mostly open, rolling and sloping generally toward the Fore River, a body of brackish water about 1,000 feet wide at a distance of about 1/2 mile from the station and forming one boundary (north through east) of the field. The airport is about 5 1/2 miles west-northwest of the open ocean. A slight rise reaching an elevation of 100 feet, lying northwest of the field, cuts down the wind slightly from that direction. The older portion of the city is situated on a hill rising abruptly from sea level to 170 feet, 1 1/2 miles east of the airport and on the opposite side of the Fore River. A line of low hills southeast of the airport, near the ocean, which reach a maximum height of 160 feet, shuts off sight of the ocean from the airport. Sebago Lake with an area of 44 square miles is situated about 15 miles to the northwest and 45 miles farther are the White Mountains, averaging 3,000 to 5,000 feet in height.

As a rule, Portland has very pleasant summers and falls, cold winters with frequent thaws, and disagreeable springs. Very few summer nights are too warm and humid for comfortable sleeping. Autumn has the greatest number of sunny days and the least cloudiness. Winters are quite severe, but begin late and then extend deeply into the normal springtime.

Heavy seasonal snowfalls, over 100 inches, normally occur about each 10 years. True blizzards are very rare. The White Mountains, to the northwest, keep considerable snow from reaching the Portland area and also moderate the temperature. Normal monthly precipitation is remarkably uniform throughout the year.

Winds are generally quite light with the highest velocities being confined mostly to March and November. Even in these months the occasional northeasterly gales have usually lost much of their severity before reaching the coast of Maine.

Temperatures well below zero are recorded frequently each winter. Cold waves sometimes come in on strong winds, but extremely low temperatures are generally accompanied by light winds.

The average freeze-free season at the airport station is 139 days. Mid-May is the average occurrence of the last freeze in spring, and the average occurrence of the first freeze in fall is late September. The freeze-free period is longer in the city proper, but may be even shorter at susceptible places further inland.

Daily maximum temperatures at the present airport site agree closely with those near the former intown office, but minimum temperatures on clear, quiet mornings range as much as 15 degrees lower at the airport.

Station History

PORTLAND, ME

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
PORTLAND INTL JETPORT	1973-01-01	1981-12-31	43° 39'	-70° 19'	79		COOP, USHCN, WXSVC
PORTLAND INTL JETPORT	1982-01-01	1988-09-01	43° 39'	-70° 19'	57		COOP, USHCN
PORTLAND INTL JETPORT	1988-09-01	1991-07-03	43° 39'	-70° 19'	45	.3 MI SE	COOP, USHCN
PORTLAND INTL JETPORT	1994-08-01	2008-02-21	43° 38'	-70° 18'	45		ASOS, COOP, USHCN
PORTLAND CITY AP	1948-01-01	1949-01-01	43° 39'	-70° 19'	69		AIRWAYS, COOP, USHCN
PORTLAND INTL JETPORT	1969-09-01	1973-01-01	43° 39'	-70° 19'	79		AIRWAYS, COOP, USHCN
PORTLAND CITY AP	1931-08-01	1948-01-01	43° 39'	-70° 19'			AIRWAYS
PORTLAND MUNICIPAL AP	1968-10-01	1969-09-01	43° 39'	-70° 19'	79		AIRWAYS, COOP, USHCN
PORTLAND INTL JETPORT	1981-12-31	1982-01-01	43° 39'	-70° 19'	79		COOP, USHCN
PORTLAND CITY AP	1949-01-01	1968-10-01	43° 39'	-70° 19'	79		AIRWAYS, COOP, USHCN
PORTLAND INTL JETPORT	1991-07-03	1994-08-01	43° 39'	-70° 18'	45		COOP, USHCN
PORTLAND INTL JETPORT	2008-02-21	Present	43° 38'	-70° 18'	45		ASOS, COOP, USHCN

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
TEMP	1978-11-01	1988-09-01	DAILY	2400			
PRECIP	1988-09-01	1995-07-01	DAILY	2400	UNIV	RCRD	
TEMP	2009-02-19	Present	DAILY	2400	ATEMP		
TEMP	2008-02-21	2009-02-19	DAILY	2400	ATEMP		
WIND	2008-02-21	2009-02-19	DAILY	2400	REMOTE		
PRECIP	1978-11-01	1988-09-01	HOURLY	2400			
PRECIP	2008-02-21	2009-02-19	DAILY	2400	PCPNX		
TEMP	1931-08-01	1978-11-01	DAILY	2400			
PRECIP	1995-07-01	2008-02-21	DAILY	2400	UNIV	RCRD	
PRECIP	2009-02-19	Present	HOURLY	2400	AWPAG	RCRD;HTD	
PRECIP	1931-08-01	1978-11-01	DAILY	2400	UNIV	RCRD	
PRECIP	1988-09-01	1995-07-01	HOURLY	2400			
DEWPNTTEMP	2008-02-21	2009-02-19	DAILY	2400	ATEMP		
WIND	2009-02-19	Present	DAILY	2400	REMOTE_RT		
TEMP	1988-09-01	1995-07-01	DAILY	2400	HYGR		
PRECIP	2008-02-21	2009-02-19	DAILY	2400	UNIV	RCRD	
PRECIP	2009-02-19	Present	DAILY	2400	PCPNX		
DEWPNTTEMP	2009-02-19	Present	DAILY	2400	ATEMP		
PRECIP	1978-11-01	1988-09-01	DAILY	2400	UNIV	RCRD	
TEMP	1995-07-01	2008-02-21	DAILY	2400	HYGR		
PRECIP	1995-07-01	2008-02-21	HOURLY	2400	UNIV	RCRD	
PRECIP	2008-02-21	2009-02-19	HOURLY	2400	UNIV	RCRD	

* For explanation of codes and abbreviations see Station Metadata link below.

Other Station Information can be found at:

ASOS Implementation by NWS: <http://www.nws.noaa.gov/ops2/Surface/asosimplementation.htm>

Station Metadata website: <http://www.ncdc.noaa.gov/homr>

INQUIRES/COMMENTS CALL: (828) 271-4800, option 2

Fax Number : (828) 271-4876

TDD : (828) 271-4010

Email : ncdc.info@noaa.gov

NOAA/National Climatic Data Center

Attn: User Engagement & Services Branch

151 Patton Avenue

Asheville, NC 28801-5001

Visit our Web Site for other weather data: www.ncdc.noaa.gov