

1999

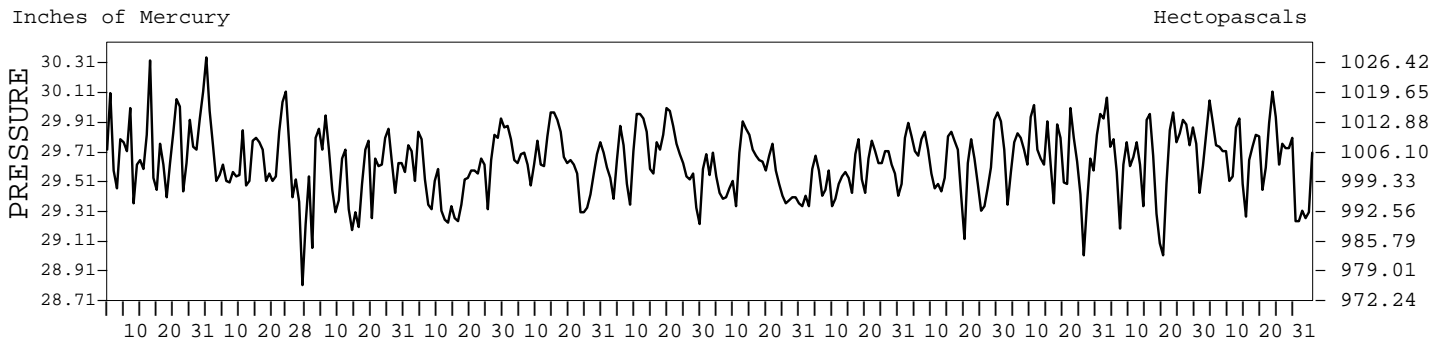
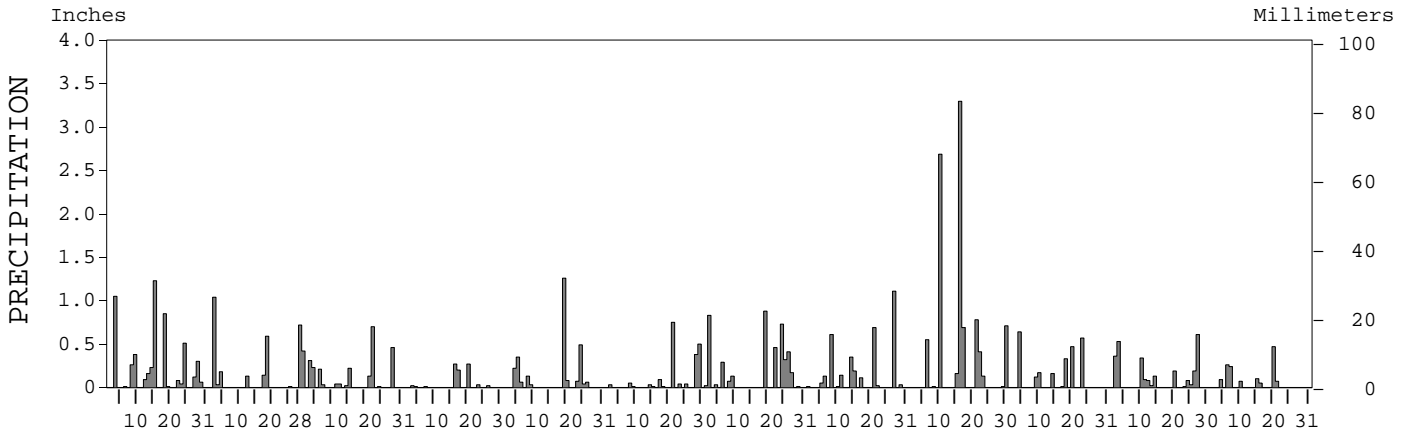
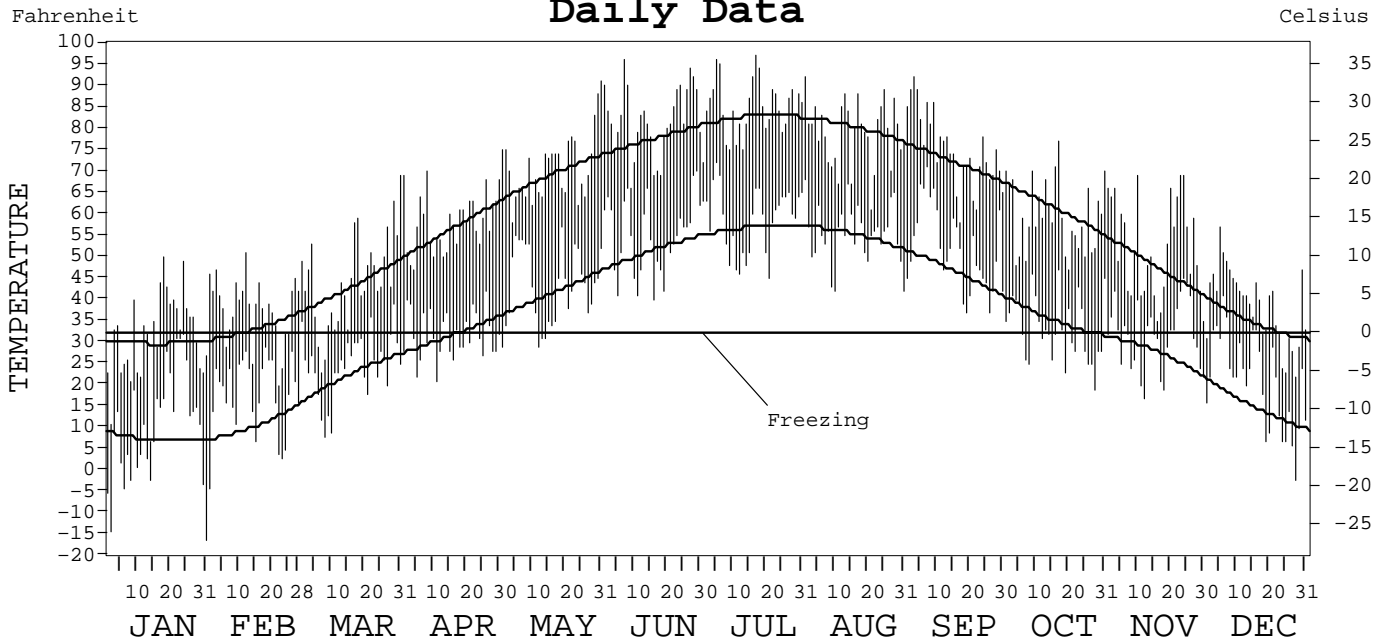
LOCAL CLIMATOLOGICAL DATA  
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-3369

CONCORD,  
NEW HAMPSHIRE (CON)

Daily Data



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*Thomas R. Karl*

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	NATIONAL ENVIRONMENTAL AND INFORMATION SERVICE	NATIONAL SATELLITE, DATA, AND INFORMATION SERVICE	NATIONAL CLIMATIC DATA CENTER ASHEVILLE, NORTH CAROLINA	DIRECTOR NATIONAL CLIMATIC DATA CENTER
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# METEOROLOGICAL DATA FOR 1999

## CONCORD, NH (CON)

LATITUDE: 43° 11' 43" N      LONGITUDE: 71° 30' 04" W      ELEVATION (FT): GRND: 341      BARO: 341      TIME ZONE: EASTERN (UTC + 5)      WBAN: 14745

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	31.2	37.7	44.4	58.0	71.0	81.9	84.7	78.9	74.9	59.4	52.3	38.4	59.4	
	HIGHEST DAILY MAXIMUM	50	51	69	70	91	96	97	92	92	77	69	57	97	
	DATE OF OCCURRENCE	18	12	31	08	31	07	17	01	03	17	24+	05	JUL 17	
	MEAN DAILY MINIMUM	10.2	17.8	24.6	31.7	43.0	54.8	58.7	55.4	51.9	33.2	31.5	20.9	36.1	
	LOWEST DAILY MINIMUM	-16	-4	8	21	29	40	45	42	37	19	17	-2	-16	
	DATE OF OCCURRENCE	31	01	08	11	12+	16	21	31+	26+	28	12	28	JAN 31	
	AVERAGE DRY BULB	20.7	27.8	34.5	44.9	57.0	68.4	71.7	67.2	63.4	46.3	41.9	29.7	47.8	
	MEAN WET BULB	19.7	24.4	29.9	38.3	50.6	61.1	65.3	61.5	58.9	42.2	38.4	26.9	43.1	
	MEAN DEW POINT	14.0	15.5	21.3	27.8	42.9	55.5	61.1	57.4	55.8	37.2	31.8	19.5	36.6	
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	1	6	5	1	1	0	0	0	0	14
	MAXIMUM ≤ 32°	15	6	3	0	0	0	0	0	0	0	0	9	33	
	MINIMUM ≤ 32°	31	28	28	18	4	0	0	0	0	16	16	25	166	
MINIMUM ≤ 0°	7	1	0	0	0	0	0	0	0	0	0	1	9		
H/C	HEATING DEGREE DAYS	1365	1037	940	598	249	51	10	38	116	571	687	1087	6749	
	COOLING DEGREE DAYS	0	0	0	0	9	157	228	112	76	0	0	0	582	
RH	MEAN (PERCENT)	74	63	61	54	64	67	72	74	80	74	69	67	68	
	HOUR 01 LST	78	72	70	69	82	86	88	90	93	89	78	71	80	
	HOUR 07 LST	81	73	72	66	73	79	82	86	92	89	81	77	79	
	HOUR 13 LST	64	48	49	34	45	44	52	53	59	51	53	54	50	
	HOUR 19 LST	74	62	58	47	56	60	66	71	80	72	67	66	65	
S	PERCENT POSSIBLE SUNSHINE	39	57		58	60	60	62	57	50					
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	6	2	1	3	0	4	5	4	8	9	6	6	54	
	THUNDERSTORMS	1	0	0	4	1	6	11	4	2	0	0	0	29	
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.)	29.76	29.65	29.53	29.53	29.67	29.67	29.55	29.58	29.63	29.70	29.66	29.65	29.63	
	MEAN SEA-LEVEL PRESS. (IN.)	30.15	30.04	29.91	29.91	30.04	30.04	29.92	29.95	30.00	30.08		30.03		
WINDS	RESULTANT SPEED (MPH)		4.3	5.9	3.9	1.0	1.2	0.7	1.4	0.6	1.9	2.9	3.8		
	RES. DIR. (TENS OF DEGS.)		33	32	33	30	24	34	32	25	29	29	31		
	MEAN SPEED (MPH)	5.4	6.7	9.8	7.2	5.6	5.7	4.7	4.3	5.1	5.4	7.0	6.4	6.1	
	PREVAIL. DIR. (TENS OF DEGS.)	33	33	33	34	33	17	31	34	16	33	32	32	33	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	30	32	38	34	25	30	43	24	36	34	30	39	43	
	DIR. (TENS OF DEGS.)	26	33	33	30	33	21	32	31	06	32	33	32	32	
	DATE OF OCCURRENCE	18+	05	16+	08	12	29	06	09	16	14	17+	11	JUL 06	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	40	40	51	45	32	41	52	31	44	45	40	52	52	
DIR. (TENS OF DEGS.)	28	30	34	30	33	18	32	30	32	32	32	32	32		
DATE OF OCCURRENCE	18	10	16	08	10	29	06	09	17	14	16	11	DEC 11		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	5.38	2.84	2.82	0.83	2.79	1.94	4.35	3.45	9.44	2.47	2.66	1.35	40.32	
	GREATEST 24-HOUR (IN.)	1.27	1.07	0.83	0.47	1.34	0.75	1.05	1.11	3.64	0.64	0.89	0.54	3.64	
	DATE OF OCCURRENCE	14-15	02-03	21-22	16-17	19-20	21	24-25	27	16-17	04	02-03	20-21	SEP 16-17	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	16	8	13	8	11	12	13	13	11	8	13	8	134	
PRECIPITATION ≥ 0.10	10	6	8	3	5	3	9	8	9	7	7	4	79		
PRECIPITATION ≥ 1.00	2	1	0	0	1	0	0	1	2	0	0	0	7		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	18.0	1.9	12.5	T	0.0	0.0	0.0	0.0	0.0	0.0	T	T	32.4	
	GREATEST 24-HOUR (IN.)	5.2	0.9	5.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T	T	5.2	
	DATE OF OCCURRENCE	28	18	15	17+							30+	27+	JAN 28	
	MAXIMUM SNOW DEPTH (IN.)	9	9	5	0	0	0	0	0	0	0	0	0	9	
	DATE OF OCCURRENCE	31+	01	16										FEB 01	
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0	7	0	4	0	0	0	0	0	0	0	0	0	11		

# NORMALS, MEANS, AND EXTREMES

## CONCORD, NH (CON)

LATITUDE: 43° 11' 43" N      LONGITUDE: 71° 30' 04" W      ELEVATION (FT): GRND: 341      BARO: 341      TIME ZONE: EASTERN (UTC + 5)      WBAN: 14745

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	29.8	33.0	42.8	56.3	68.9	77.3	82.4	79.8	71.6	60.7	47.1	34.2	57.0
	MEAN DAILY MAXIMUM	52	31.0	34.0	42.6	56.7	69.0	77.8	82.6	80.3	71.9	61.0	47.5	35.3	57.5
	HIGHEST DAILY MAXIMUM	58	68	67	89	95	97	98	102	101	98	90	80	73	102
	YEAR OF OCCURRENCE		1950	1997	1998	1976	1962	1995	1966	1975	1953	1963	1950	1998	JUL 1966
	MEAN OF EXTREME MAXS.	52	50.6	52.4	65.0	78.6	88.1	92.4	94.1	92.1	88.1	79.5	67.9	55.0	75.3
	NORMAL DAILY MINIMUM	30	7.4	10.4	22.1	31.5	41.4	51.2	56.5	54.7	46.0	34.9	27.0	14.4	33.1
	MEAN DAILY MINIMUM	52	9.7	11.9	22.1	32.0	41.9	51.7	56.8	54.8	46.4	35.6	27.7	15.8	33.9
	LOWEST DAILY MINIMUM	58	-33	-37	-16	8	21	30	35	29	21	10	-5	-22	-37
	YEAR OF OCCURRENCE		1984	1943	1967	1969	1966	1972	1965	1965	1947	1972	1989	1951	FEB 1943
	MEAN OF EXTREME MINS.	52	-13.9	-11.9	1.0	17.9	27.5	36.6	43.3	40.0	29.7	19.3	10.2	-7.0	16.1
	NORMAL DRY BULB	30	18.6	21.8	32.4	43.9	55.2	64.2	69.5	67.3	58.8	47.8	37.1	24.3	45.1
	MEAN DRY BULB	52	20.2	22.9	32.3	44.3	55.4	64.7	69.8	67.5	59.0	48.3	37.6	25.5	45.6
	MEAN WET BULB	16	19.9	21.7	29.3	39.3	50.1	58.8	64.0	62.4	54.6	41.3	34.4	24.6	41.7
	MEAN DEW POINT	16	13.3	13.7	20.7	31.0	43.3	53.6	59.7	58.4	50.8	36.5	28.5	18.5	35.7
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.2	0.9	2.2	4.6	2.5	0.7	*	0.0	0.0	11.1	
MAXIMUM ≤ 32°	30	17.8	13.1	4.1	0.2	0.0	0.0	0.0	0.0	0.0	*	1.5	13.6	50.3	
MINIMUM ≤ 32°	30	30.5	27.1	26.1	16.9	5.5	0.2	0.0	0.1	2.4	13.6	21.7	29.2	173.3	
MINIMUM ≤ 0°	30	9.6	6.9	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	5.2	23.0	
H/C	NORMAL HEATING DEG. DAYS	30	1438	1210	1011	633	312	70	13	39	196	533	837	1262	7554
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	8	46	153	111	10	0	0	0	328
RH	NORMAL (PERCENT)	30	68	66	65	62	65	71	72	74	76	73	73	72	70
	HOUR 01 LST	30	74	73	74	76	82	88	89	90	90	85	81	78	82
	HOUR 07 LST	30	74	75	76	75	76	82	84	88	90	87	83	79	81
	HOUR 13 LST	30	58	55	52	46	46	52	51	53	54	52	59	62	53
	HOUR 19 LST	30	66	62	59	54	56	63	64	70	75	72	72	70	65
S	PERCENT POSSIBLE SUNSHINE	58	52	55	53	52	54	57	63	60	56	53	43	47	54
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	59	2.5	1.9	2.9	1.9	3.1	3.6	4.9	6.4	8.6	6.1	3.5	2.7	48.1
	THUNDERSTORMS	59	0.0	0.1	0.2	0.9	2.4	4.5	5.4	3.7	1.8	0.6	0.1	0.0	19.7
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	55	5.0	5.0	5.1	5.3	5.4	5.0	4.9	4.6	4.7	4.6	5.3	5.0	5.0
	MIDNIGHT-MIDNIGHT (OKTAS)	32	4.7	4.6	4.7	4.9	5.0	4.7	4.6	4.4	4.6	4.4	5.0	4.8	4.7
	MEAN NO. DAYS WITH:														
	CLEAR	55	9.0	7.5	7.7	7.0	6.1	6.1	6.5	8.1	8.4	9.0	6.2	7.7	89.3
PARTLY CLOUDY	55	7.1	7.6	8.0	8.1	9.9	11.6	12.2	11.1	8.9	8.7	7.5	7.7	108.4	
CLOUDY	55	14.9	13.2	15.3	14.9	15.0	12.2	11.7	11.3	12.2	12.7	15.8	15.1	164.3	
PR	MEAN STATION PRESSURE (IN)	27	29.61	29.60	29.60	29.60	29.60	29.59	29.60	29.70	29.69	29.70	29.69	29.59	29.63
	MEAN SEA-LEVEL PRES. (IN)	16	30.04	30.01	30.00	29.95	29.97	29.94	29.96	30.02	30.07	30.09	30.06	30.03	30.01
WINDS	MEAN SPEED (MPH)	35	7.0	7.5	8.0	7.7	6.8	6.4	5.7	5.2	5.4	5.9	6.5	6.7	6.6
	PREVAIL. DIR (TENS OF DEGS)	19	31	31	31	31	31	32	31	32	32	31	31	31	31
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	3	32	32	39	34	32	31	43	26	36	37	36	39	43
	DIR. (TENS OF DEGS)		30	33	30	30	33	35	32	26	06	31	34	32	32
	YEAR OF OCCURRENCE		1997	1999	1997	1999	1998	1997	1999	1997	1999	1998	1997	1999	JUL 1999
	MAXIMUM 5-SECOND:														
SPEED (MPH)	3	47	43	51	45	43	46	52	33	44	49	44	52	52	
DIR. (TENS OF DEGS)		29	34	34	30	30	35	32	24	32	29	34	32	32	
YEAR OF OCCURRENCE		1997	1997	1999	1999	1997	1997	1999	1997	1999	1998	1997	1999	DEC 1999	
PRECIPITATION	NORMAL (IN)	30	2.51	2.53	2.72	2.91	3.14	3.15	3.23	3.32	2.81	3.23	3.66	3.16	36.37
	MAXIMUM MONTHLY (IN)	58	8.09	7.77	7.81	6.11	9.52	10.10	6.53	7.26	9.44	8.78	7.36	7.52	10.10
	YEAR OF OCCURRENCE		1979	1981	1953	1996	1984	1944	1988	1991	1999	1962	1983	1973	JUN 1944
	MINIMUM MONTHLY (IN)	58	0.40	0.03	0.86	0.83	0.60	0.64	0.96	0.06	0.41	0.59	0.75	0.58	0.03
	YEAR OF OCCURRENCE		1970	1987	1981	1999	1965	1979	1955	1996	1948	1947	1976	1943	FEB 1987
	MAXIMUM IN 24 HOURS (IN)	58	2.12	2.26	2.27	2.40	2.59	4.47	2.54	3.97	4.12	4.87	2.89	3.31	4.87
	YEAR OF OCCURRENCE		1979	1981	1974	1996	1984	1944	1971	1991	1960	1996	1947	1969	OCT 1996
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	10.0	9.0	10.6	11.2	11.7	11.0	10.1	10.5	8.6	8.7	11.6	11.2	124.2	
PRECIPITATION ≥ 1.00	30	0.4	0.5	0.5	0.5	0.5	0.5	1.0	0.8	0.8	1.0	0.8	0.8	8.1	
SNOWFALL	NORMAL (IN)	30	17.7	15.6	10.0	2.6	0.*	0.0	0.0	0.0	0.1	4.5	14.6	65.1	
	MAXIMUM MONTHLY (IN)	58	45.4	49.8	38.3	15.3	5.0	T	0.0	0.0	T	2.1	18.4	38.1	49.8
	YEAR OF OCCURRENCE		1987	1969	1956	1982	1945	1993			1992	1969	1971	1956	FEB 1969
	MAXIMUM IN 24 HOURS (IN)	58	19.0	14.2	16.8	13.9	5.0	T	0.0	0.0	T	2.1	9.5	14.6	19.0
	YEAR OF OCCURRENCE		1944	1972	1993	1982	1945	1993			1992	1969	1961	1946	JAN 1944
	MAXIMUM SNOW DEPTH (IN)	51	25	37	34	17	1	0	0	0	0	2	10	26	37
	YEAR OF OCCURRENCE		1952	1969	1969	1956	1966					1969	1971	1970	FEB 1969
	NORMAL NO. DAYS WITH:														
SNOWFALL ≥ 1.0	30	4.5	3.7	2.9	0.6	0.*	0.0	0.0	0.0	0.0	0.1	1.4	4.5	17.7	

PRECIPITATION (inches) 1999 CONCORD, NH (CON)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	0.40	4.27	2.78	3.38	3.04	2.26	2.33	3.06	3.40	3.64	3.03	3.08	34.67
1971	1.63	3.87	2.28	2.19	3.36	1.67	5.14	2.79	1.91	2.69	2.91	2.36	32.80
1972	1.44	2.60	4.16	2.71	4.20	3.54	5.40	2.12	2.55	2.23	6.57	4.55	42.07
1973	2.44	1.91	2.58	4.55	4.20	4.86	1.05	6.88	1.77	2.46	1.82	7.52	42.04
1974	2.80	2.32	3.98	2.58	3.74	1.82	1.41	2.20	4.74	1.64	3.20	4.02	34.45
1975	4.12	2.36	3.12	2.47	1.22	3.87	3.71	3.94	5.15	4.29	4.91	3.12	42.28
1976	3.40	2.36	2.02	2.43	3.90	2.74	3.20	2.66	2.73	4.05	0.75	2.27	32.51
1977	2.16	2.02	4.51	4.04	2.44	3.47	1.26	3.51	5.64	5.52	3.07	4.00	41.64
1978	6.32	0.67	2.16	2.06	2.67	3.18	1.08	2.87	0.46	2.72	1.77	2.91	28.87
1979	8.09	2.29	2.85	3.10	4.86	0.64	3.45	4.20	3.15	3.79	2.92	1.93	41.27
1980	0.43	0.78	3.37	3.72	0.86	2.83	2.35	3.99	2.19	2.63	3.12	0.79	27.06
1981	0.48	7.77	0.86	3.12	3.21	2.81	5.54	3.25	4.61	6.51	3.51	4.17	45.84
1982	3.98	2.88	2.47	3.08	1.91	7.84	2.83	2.54	1.85	1.52	2.93	0.91	34.74
1983	3.92	2.17	7.07	5.88	5.19	2.52	2.07	2.07	1.21	3.28	7.36	5.35	48.09
1984	1.89	5.06	2.92	3.74	9.52	2.83	4.44	0.97	1.08	4.42	2.67	2.70	42.24
1985	0.95	1.99	2.86	1.02	2.05	3.05	2.83	2.51	3.78	3.62	4.58	1.65	30.89
1986	4.78	2.23	3.58	1.85	1.44	4.95	4.77	3.72	2.27	1.71	4.48	4.50	40.28
1987	3.00	0.03	3.47	4.71	1.08	5.77	3.77	2.84	3.94	4.14	2.50	1.55	36.80
1988	1.97	2.24	1.32	2.75	3.35	0.80	6.53	5.44	1.56	1.23	5.06	1.05	33.30
1989	0.74	2.05	2.18	3.40	5.11	4.25	3.62	3.55	4.22	4.86	3.34	0.91	38.23
1990	2.82	2.63	1.64	3.00	5.09	2.51	1.79	7.19	2.31	4.93	3.25	4.12	41.28
1991	1.85	1.42	3.01	2.61	2.51	1.72	1.80	7.26	5.52	3.32	4.84	3.62	39.48
1992	1.97	1.30	2.77	1.78	2.39	3.28	3.50	2.13	2.48	2.41	3.54	2.23	29.78
1993	1.51	1.63	3.04	3.77	0.97	1.95	2.10	1.97	4.01	3.58	3.72	3.36	31.61
1994	3.48	0.80	5.03	2.38	4.33	1.94	4.02	2.85	3.55	0.91	2.67	4.19	36.15
1995	3.39	2.03	2.46	1.64	3.56	1.36	4.01	2.42	2.70	7.31	5.58	1.95	38.41
1996	4.87	2.58	1.55	6.11	4.81	3.09	5.17	0.06	3.05	8.11	2.06	5.84	47.30
1997	3.29	2.20	4.04	3.66	2.29	0.70	3.80	3.67	1.68	1.44	5.63	1.95	34.35
1998	3.62	2.85	3.70	2.21	3.97	7.95	1.90	1.41	1.63	3.58	2.20	0.92	35.94
1999	5.38	2.84	2.82	0.83	2.79	1.94	4.35	3.45	9.44	2.47	2.66	1.35	40.32
POR= 145 YRS	2.92	2.57	3.07	2.99	3.17	3.27	3.51	3.37	3.32	3.21	3.39	2.99	37.78

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AVERAGE TEMPERATURE (°F) 1999 CONCORD, NH (CON)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	11.0	22.6	30.7	45.8	57.3	63.1	70.9	68.7	60.6	51.0	39.3	20.3	45.1
1971	12.5	23.3	30.4	42.1	54.1	65.5	68.3	67.0	61.1	51.9	32.4	26.6	44.6
1972	22.0	21.2	27.9	40.2	56.8	62.8	69.3	64.1	57.5	42.3	31.2	23.4	43.2
1973	21.0	20.2	35.5	45.0	52.9	66.9	70.3	72.3	58.8	48.2	36.1	28.9	46.3
1974	21.4	21.1	31.8	45.8	51.1	62.8	67.5	67.0	58.9	42.5	35.9	26.7	44.4
1975	21.6	21.5	30.1	40.4	61.3	65.0	72.9	66.5	56.1	47.6	39.9	21.9	45.4
1976	10.9	24.7	31.9	46.7	53.6	68.9	66.8	65.3	57.2	45.0	31.7	16.1	43.2
1977	10.6	20.5	36.7	45.1	58.3	62.9	69.0	68.0	58.5	47.0	39.4	21.0	44.8
1978	17.5	13.5	28.0	40.6	57.5	65.2	69.7	69.6	55.9	46.7	35.3	22.7	43.5
1979	23.3	15.1	37.6	44.2	56.3	63.8	71.2	67.5	59.8	47.4	42.2	29.4	46.5
1980	22.4	19.1	31.8	44.4	55.6	62.8	70.6	68.4	58.2	45.1	34.8	19.2	44.4
1981	12.5	30.8	34.2	47.1	57.5	66.1	69.9	66.6	58.7	45.2	37.8	25.4	46.0
1982	10.9	20.8	30.2	41.6	57.3	60.9	69.5	65.4	60.2	47.6	41.7	32.4	44.9
1983	23.1	26.1	35.9	45.2	53.1	65.1	70.1	69.3	62.3	48.2	39.4	23.4	46.8
1984	16.0	30.5	28.2	44.6	52.9	65.9	68.7	69.3	57.8	50.4	38.3	30.3	46.1
1985	15.9	25.8	35.7	45.2	56.1	62.2	70.3	66.7	60.5	49.2	38.5	22.0	45.7
1986	23.0	21.3	35.5	48.2	57.5	61.3	67.3	66.1	57.3	47.4	34.1	29.0	45.7
1987	20.0	22.0	34.5	46.8	56.7	64.4	70.6	65.1	58.7	45.8	36.9	28.1	45.8
1988	18.5	23.5	33.4	43.9	57.3	62.9	72.6	70.5	57.8	44.9	39.1	23.2	45.6
1989	25.7	22.6	31.8	41.4	58.3	65.0	69.5	67.7	60.8	49.1	35.8	11.9	45.0
1990	28.6	24.6	34.7	45.6	52.8	65.3	70.8	69.8	59.7	51.8	40.1	30.9	47.9
1991	20.2	28.3	36.0	47.6	60.2	65.6	69.2	69.9	57.7	50.8	39.7	25.5	47.6
1992	23.3	26.0	30.2	42.5	55.0	64.0	66.0	67.1	59.7	44.9	35.6	26.5	45.1
1993	23.5	15.7	30.5	45.7	56.9	64.9	71.4	70.0	58.8	45.3	36.4	26.8	45.5
1994	11.3	16.7	31.9	45.8	54.4	67.9	73.4	66.4	58.2	49.3	41.5	30.6	45.6
1995	28.1	20.7	36.0	41.5	55.1	66.1	73.0	69.4	56.9	52.0	34.2	22.9	46.3
1996	21.2	23.4	29.6	43.9	53.7	65.2	68.4	69.3	60.6	46.3	33.4	31.3	45.5
1997	21.8	28.3	29.8	42.3	51.6	65.9	69.1	68.1	59.8	46.8	36.2	28.0	45.6
1998	27.3	30.9	36.8	46.3	59.2	64.3	69.8	69.6	61.2	49.4	39.0	31.1	48.7
1999	20.7	27.8	34.5	44.9	57.0	68.4	71.7	67.2	63.4	46.3	41.9	29.7	47.8
POR= 129 YRS	21.1	22.9	32.1	44.4	56.1	64.8	70.0	67.3	59.6	48.8	37.5	25.4	45.8

HEATING DEGREE DAYS (base 65°F) 1999 CONCORD, NH (CON)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	4	25	181	431	760	1379	1622	1165	1064	682	332	73	7718
1971-72	26	49	165	396	970	1185	1327	1267	1142	736	262	112	7637
1972-73	27	82	223	695	1007	1284	1357	1250	905	596	370	78	7874
1973-74	15	9	244	518	860	1112	1345	1223	1025	573	432	99	7455
1974-75	34	26	213	694	865	1182	1339	1218	1075	730	152	98	7626
1975-76	10	78	260	532	747	1330	1672	1162	1019	565	356	60	7791
1976-77	37	84	234	615	992	1506	1683	1242	870	594	259	119	8235
1977-78	37	58	222	551	760	1360	1466	1435	1138	725	270	72	8094
1978-79	45	34	275	563	882	1304	1284	1392	841	617	280	99	7616
1979-80	33	64	199	546	675	1098	1317	1324	1022	610	290	123	7301
1980-81	13	33	245	611	899	1417	1626	953	951	530	267	40	7585
1981-82	12	43	192	608	810	1222	1674	1233	1072	695	246	136	7943
1982-83	25	66	169	535	692	1007	1291	1086	895	588	364	82	6800
1983-84	14	33	167	521	760	1283	1516	993	1135	607	382	85	7496
1984-85	19	27	238	446	792	1072	1514	1092	901	588	286	106	7081
1985-86	9	38	166	485	785	1326	1295	1216	907	499	267	140	7133
1986-87	41	67	251	538	919	1109	1390	1199	939	542	296	77	7368
1987-88	18	89	201	589	837	1138	1436	1194	971	626	254	137	7490
1988-89	19	60	219	622	769	1289	1211	1182	1022	703	219	80	7395
1989-90	6	53	169	484	865	1639	1121	1121	933	585	369	67	7412
1990-91	22	15	183	409	737	1049	1381	1024	893	517	186	58	6474
1991-92	19	7	238	438	754	1216	1286	1123	1070	669	319	90	7229
1992-93	52	33	203	617	875	1190	1277	1372	1062	574	248	85	7588
1993-94	6	15	229	600	851	1177	1661	1345	1021	568	338	50	7861
1994-95	1	54	210	479	699	1059	1137	1235	893	697	309	46	6819
1995-96	6	17	257	397	918	1298	1352	1198	1093	625	358	54	7573
1996-97	10	6	171	572	943	1038	1334	1023	1086	675	409	83	7350
1997-98	16	18	178	560	858	1138	1161	950	870	554	186	91	6580
1998-99	5	15	144	475	773	1044	1365	1037	940	598	249	51	6696
1999-	10	38	116	571	687	1087							

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COOLING DEGREE DAYS (base 65°F) 1999 CONCORD, NH (CON)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	0	0	0	1	27	58	196	145	56	6	0	0	489
1971	0	0	0	0	0	95	135	118	55	0	0	0	403
1972	0	0	0	0	17	52	167	60	5	0	0	0	301
1973	0	0	0	3	2	145	184	242	67	2	0	0	645
1974	0	0	0	3	9	40	118	92	40	0	0	0	302
1975	0	0	0	0	48	108	263	134	0	0	0	0	553
1976	0	0	0	18	9	184	100	99	8	1	0	0	419
1977	0	0	0	5	57	64	168	156	38	0	0	0	488
1978	0	0	0	0	46	83	198	186	8	0	0	0	521
1979	0	0	0	1	15	69	232	150	46	6	0	0	519
1980	0	0	0	0	5	64	193	145	51	0	0	0	458
1981	0	0	0	0	38	80	172	101	11	0	0	0	402
1982	0	0	0	0	11	17	171	87	31	0	0	0	317
1983	0	0	0	0	2	93	179	172	93	5	0	0	544
1984	0	0	0	0	15	117	139	165	28	0	0	0	464
1985	0	0	0	0	16	27	184	93	36	1	0	0	357
1986	0	0	0	0	44	37	118	109	23	0	0	0	331
1987	0	0	0	1	45	64	198	96	21	0	0	0	425
1988	0	0	0	0	19	81	262	238	7	4	0	0	611
1989	0	0	0	0	17	87	153	141	50	0	0	0	448
1990	0	0	0	10	0	80	210	170	30	8	0	0	508
1991	0	0	0	2	44	84	157	166	29	4	0	0	486
1992	0	0	0	2	15	66	90	105	52	0	0	0	330
1993	0	0	0	0	7	90	212	176	49	0	0	0	534
1994	0	0	0	0	18	143	269	104	11	0	0	0	545
1995	0	0	0	0	9	84	264	159	22	0	0	0	538
1996	0	0	0	2	15	65	122	149	48	0	0	0	401
1997	0	0	0	0	2	113	149	119	28	3	0	0	414
1998	0	0	5	0	13	80	157	165	36	0	0	0	456
1999	0	0	0	0	9	157	228	112	76	0	0	0	582

SNOWFALL (inches) 1999 CONCORD, NH (CON)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	0.0	0.0	0.0	0.0	T	30.1	15.6	19.8	24.0	6.3	0.0	0.0	95.8
1971-72	0.0	0.0	0.0	0.0	18.4	17.4	10.8	29.8	13.6	10.0	0.0	0.0	100.0
1972-73	0.0	0.0	0.0	0.0	12.9	23.2	13.1	5.6	0.1	3.4	0.0	0.0	58.3
1973-74	0.0	0.0	0.0	0.0	T	6.6	15.4	7.0	6.5	3.9	0.0	0.0	39.4
1974-75	0.0	0.0	0.0	0.0	2.9	18.3	19.5	17.1	4.7	5.5	0.0	0.0	68.0
1975-76	0.0	0.0	0.0	0.0	2.2	25.1	14.7	8.4	24.3	T	0.0	0.0	74.7
1976-77	0.0	0.0	0.0	T	3.1	11.6	37.1	11.7	22.3	0.5	T	0.0	86.3
1977-78	0.0	0.0	0.0	0.0	1.5	20.2	37.1	13.5	11.5	0.4	T	0.0	84.2
1978-79	0.0	0.0	0.0	0.0	10.5	16.2	42.3	4.5	0.2	5.1	0.0	0.0	78.8
1979-80	0.0	0.0	0.0	1.3	T	2.1	3.1	11.9	8.6	T	0.0	0.0	27.0
1980-81	0.0	0.0	0.0	T	9.4	9.8	9.2	20.9	5.4	T	0.0	0.0	54.7
1981-82	0.0	0.0	0.0	0.0	T	33.0	26.2	9.0	6.5	15.3	0.0	0.0	90.0
1982-83	0.0	0.0	0.0	0.0	1.3	3.6	9.0	20.8	4.0	T	T	0.0	38.7
1983-84	0.0	0.0	0.0	0.0	T	17.5	20.4	12.7	25.0	T	T	0.0	75.6
1984-85	0.0	0.0	0.0	0.0	T	16.5	11.6	11.0	12.4	1.0	0.0	0.0	52.5
1985-86	0.0	0.0	0.0	0.0	8.3	11.2	15.1	11.5	4.4	T	T	0.0	50.5
1986-87	0.0	0.0	0.0	0.0	14.4	7.7	45.4	0.6	7.0	9.4	0.0	0.0	84.5
1987-88	0.0	0.0	0.0	0.0	5.8	12.0	19.3	23.7	4.6	0.1	0.0	0.0	65.5
1988-89	0.0	0.0	0.0	T	0.5	5.0	5.6	7.0	10.2	0.8	T	0.0	29.1
1989-90	0.0	0.0	0.0	0.0	4.7	12.0	23.1	22.0	1.3	T	0.0	0.0	63.1
1990-91	0.0	0.0	0.0	0.0	0.6	8.8	11.2	6.8	6.0	0.2	0.0	0.0	33.6
1991-92	0.0	0.0	0.0	0.0	1.3	13.5	3.8	5.3	6.8	4.5	0.0	0.0	35.2
1992-93	0.0	0.0	T	T	1.1	10.9	19.7	24.0	35.8	6.6	0.0	T	98.1
1993-94	0.0	0.0	0.0	T	0.2	10.0	36.8	14.4	23.6	T	0.0	0.0	85.0
1994-95	0.0	0.0	0.0	0.0	4.3	3.2	8.1	18.2	0.7	T	0.0	0.0	34.5
1995-96	0.0	0.0	0.0	0.0	7.0	28.0	27.3	15.6		14.3	T	0.0	
1996-97	0.0	0.0	0.0	0.0	2.2	20.0	14.3	14.1	22.7	3.4	0.0	0.0	76.7
1997-98	0.0	0.0	0.0	0.0	12.4	17.3	16.3	3.3	9.6	0.0	0.0	0.0	58.9
1998-99	0.0	0.0	0.0	0.0	0.6	5.5	18.0	1.9	12.5	T	0.0	0.0	38.5
1999-	0.0	0.0	0.0	0.0	T	T							
POR= 57 YRS	0.0	0.0	T	0.1	3.9	13.4	17.7	14.0	11.0	2.5	0.1	T	62.7

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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 (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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1999  
CONCORD,  
NEW HAMPSHIRE (CON)

Concord, the Capital of New Hampshire, is situated near the geographical center of New England at an altitude of approximately 300 feet above sea level on the Merrimack River. Its surroundings are hilly with many lakes and ponds. The countryside is generously wooded, mostly on land reclaimed from fields which were formerly cleared for farming. From the coast about 50 miles to the southeast, the terrain slopes gently upward to the city. West of the city, the land rises some 2,000 feet higher in only half that distance. Mount Washington, at an elevation of 6,288 feet is in the White Mountains 75 miles north of town.

Northwesterly winds are prevalent. They bring cold, dry air during the winter and pleasantly cool, dry air in the summer. Stronger southerly winds occur during July and August, and easterly winds usually accompany summer and winter storms. Winter breezes are somewhat lighter, and winds are frequently calm during the night and early morning hours. Low temperatures, as a rule, do not interrupt normal out-of-doors activity because winds are calm or light, producing a low wind chill factor.

Very hot summer weather is infrequent. During any month, temperatures considerably above the average maxima and much below the normal minima are observed.

The average amount of precipitation for the warmer half of the year differs little from that for the colder half. Precipitation occurrences average approximately one day of three for the year, with a somewhat higher frequency for the April-May period, offsetting the lower frequency of August-October. The more significant rains and heavier snowfalls are associated with easterly winds, especially northeasterly winds. The first snowfall of an inch or more is likely to come between the middle of November and the middle of December. The snow cover normally lasts from mid-December until the last week of March, but bare ground is not rare in the winter, nor is a snowscape rare earlier or later in the season. Rain, sleet, or freezing rain may also occur.

Agriculture is neither intensive nor large-scale in the vicinity of the station. Potatoes and other frost-resistant vegetables, hardy fruits such as apples, forage for the dairy industry, and maple sugar are the principal crops.

Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is September 22 and the average last occurrence in the spring is May 23. Freezing temperatures have occurred as late as June and as early as August.

# STATION LOCATION

CONCORD, NEW HAMPSHIRE

LOCATION	OCCUPIED FROM	OCCUPIED TO	AIRLINE DISTANCES AND DIRECTIONS FROM PREVIOUS LOCATION	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE										AUTOMATED STATION * * Type	REMARKS	
						SEA LEVEL	GROUND											H
							G	W	E	P	S	T	R	8	H			
<u>COOPERATIVE</u>																		
Number and identity of observers unknown	1/1828	9/30/56	NA															
Hon. Wm. L. Foster Winter & State Streets	10/1/56	8/13/97	Unknown	43°13'	71°33'	#280										# - Approximate.		
Prof. Wm. W. Flint St. Paul's School	8/14/97	10/31/02	2.5 mi. WSW	43°12'	71°35'	#350										# - Approximate.		
<u>CITY</u>																		
Smith Block, 28 North Main Street	11/1/02	7/31/33	0.3 mi. SE	43°12'	71°32'	272	80	71	70		62		62			First order station. Exposures fair.		
Patriot Building 4 Park Street	8/1/33	12/23/37	0.25 mi. NNW	43°12'	71°32'	276							55			Second order station.		
First National Bank Bldg., 18 N. Main St.	12/23/37	5/1/41	0.25 mi. SSE	43°12'	71°32'	270	72	63	62		56		56			First order station re-opened. Moved 1.5 mi. E to airport 5/1/41.		
<u>AIRPORT</u>																		
NE Airlines, Inc., Old Hangar	10/27/33	2/28/39	NA	43°12'	71°31'	339										On call station. No instruments.		
1st Floor, Admn. Bldg., Municipal Airport	3/1/39	11/19/42	Unknown	43°12'	71°31'	339	37	5	5	NA	NA	NA	3	NA	NA	Instrument Installations. CAA observations until 11/19/42.		
2nd Floor, Admn. Bldg., Municipal Airport	5/1/41	8/8/62	No change	43°12'	71°31'	339	47 a20	5	5	Unk	3	4	3	NA	NA	Instrument Installations. WB observations began 11/20/42. a - Moved to field 8/6/62.		
1st Floor, Admn. Bldg., Municipal Airport	8/8/62	03/01/96	No change	43°12'	71°30'	339 d342	20	5 e	5 f	Unk d14	b3	b4	b3	NA c4	NA	b - Minor move 8/8/62. c - Commissioned 1600' E of thermometer site 3/15/65. d - Effective 3/15/65. e - Removed 3/16/66. f - Removed 1976.		
Concord Municipal	03/01/96	Present	NA	43°12'	71°30'	341									S	ASOS Commissioned 03/01/96		

SUBSCRIPTION: Price and ordering information available through: National Climatic Data Center, Federal Building, Asheville, North Carolina 28801.  
INQUIRIES/COMMENTS CALL: (828) 271-4800

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