

2002

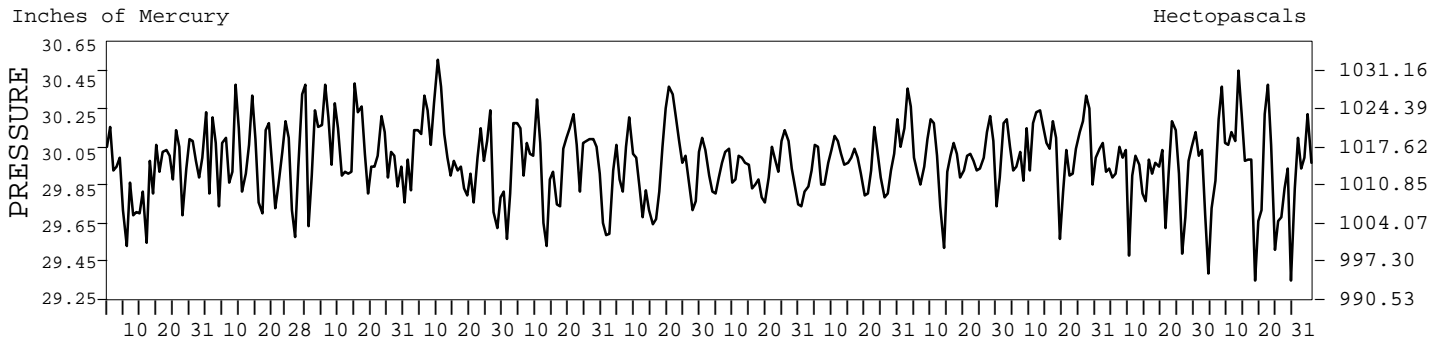
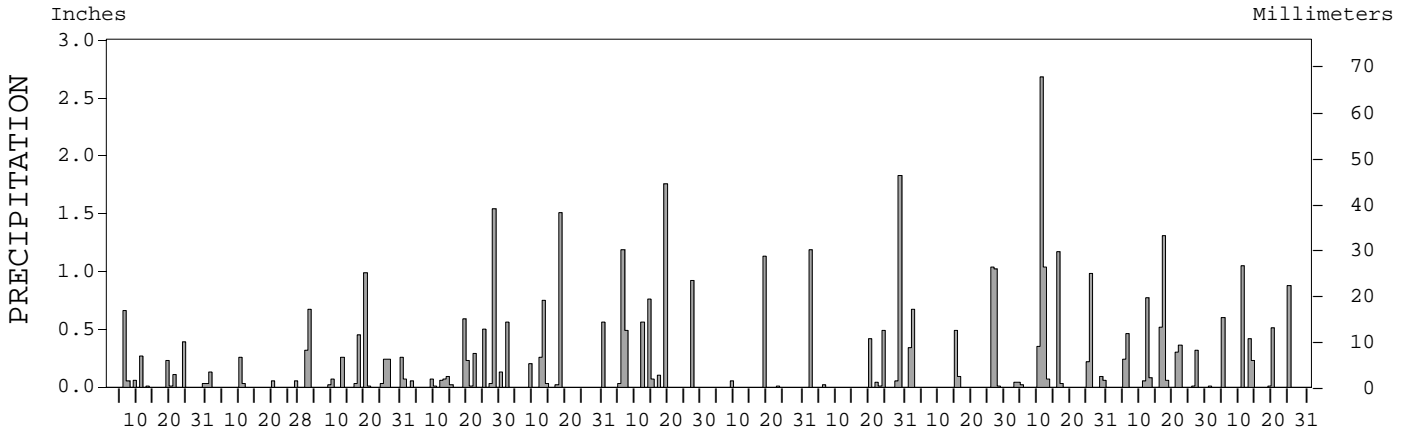
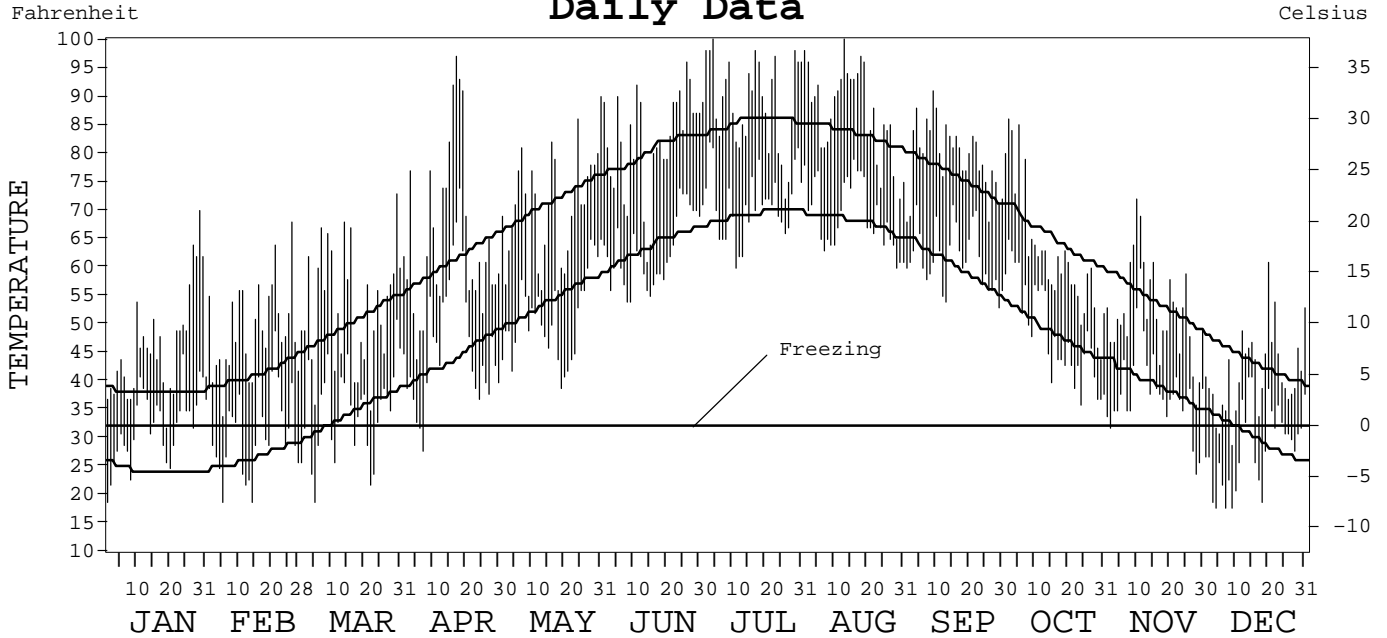
LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-3431

NEWARK,
NEW JERSEY (EWR)

Daily Data



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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE	NATIONAL CLIMATIC DATA CENTER ASHEVILLE, NORTH CAROLINA	DIRECTOR NATIONAL CLIMATIC DATA CENTER
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METEOROLOGICAL DATA FOR 2002

NEWARK, NJ (EWR)

LATITUDE: 40° 42' 57" N LONGITUDE: 74° 10' 10" W ELEVATION (FT): GRND: 25 BARO: 28 TIME ZONE: EASTERN (UTC + 5) WBAN: 14734

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	46.4	49.1	53.3	65.4	70.5	81.9	89.0	86.6	79.3	62.5	52.4	41.6	64.8	
	HIGHEST DAILY MAXIMUM	70	68	73	97	90	96	100	100	91	86	72	61	100	
	DATE OF OCCURRENCE	29	26	30	17	31	26	04	13	09	02	10	20	AUG 13	
	MEAN DAILY MINIMUM	32.4	31.4	34.9	46.5	51.3	62.8	71.1	69.2	61.6	48.6	38.3	28.7	48.1	
	LOWEST DAILY MINIMUM	19	19	19	28	39	54	60	60	53	36	24	18	18	
	DATE OF OCCURRENCE	01	14+	05	07	19	09+	11	29	29	24	28	09+	DEC 09+	
	AVERAGE DRY BULB	39.4	40.3	44.1	56.0	60.9	72.4	80.1	77.9	70.5	55.6	45.4	35.2	56.5	
	MEAN WET BULB	34.5	34.8	39.2	48.4	53.7	64.4	68.7	68.6	63.2	50.5	41.2	30.8	49.8	
	MEAN DEW POINT	25.8	25.4	30.8	39.4	46.6	58.9	62.3	63.0	58.0	44.7	34.5	22.4	42.6	
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	4	1	5	16	14	1	0	0	0	0	41
	MAXIMUM ≤ 32°	1	0	0	0	0	0	0	0	0	0	0	3	4	4
	MINIMUM ≤ 32°	15	16	11	2	0	0	0	0	0	0	4	22	70	70
MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
H/C	HEATING DEGREE DAYS	788	686	641	330	169	16	0	2	8	325	584	919	4468	
	COOLING DEGREE DAYS	0	0	0	68	49	247	472	408	180	38	0	0	1462	
RH	MEAN (PERCENT)	61	59	63	58	63	65	57	63	68	68	67	62	63	
	HOUR 01 LST	65	66	67	67	72	73	65	70	77	76	72	66	70	
	HOUR 07 LST	68	71	73	65	71	74	66	72	77	78	78	68	72	
	HOUR 13 LST	52	48	53	45	50	52	45	51	54	57	58	55	52	
	HOUR 19 LST	61	53	61	55	59	59	54	58	63	64	64	60	59	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	0	1	1	0	0	0	0	0	0	0	0	0	2	
	THUNDERSTORMS	0	0	1	3	4	7	4	5	2	0	1	0	27	
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.)	29.95	30.01	30.11	30.05	30.00	29.97	29.95	30.02	30.03	30.07	29.93	29.99	30.01	
	MEAN SEA-LEVEL PRESS. (IN.)	29.98	30.04	30.14	30.08	30.03	30.00	29.98	30.05	30.06	30.10	29.95	30.02	30.04	
WINDS	RESULTANT SPEED (MPH)	6.3	5.6	3.2	4.0	3.4	2.8	1.9	0.8	1.5	3.5	4.6	6.2	3.2	
	RES. DIR. (TENS OF DEGS.)	28	29	27	29	27	24	28	35	35	36	29	31	29	
	MEAN SPEED (MPH)	10.4	10.8	11.1	10.4	10.5	9.6	9.9	8.9	9.2	10.0	10.5	11.0	10.2	
	PREVAIL. DIR. (TENS OF DEGS.)	24	34	24	32	27	24	24	03	03	03	24	32	24	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	38	37	38	55	44	32	33	44	41	29	33	39	55	
	DIR. (TENS OF DEGS.)	28	33	28	29	30	22	33	35	33	36	32	28	29	
	DATE OF OCCURRENCE	13	11+	10	19	31	19	23+	02	11	16+	06	21	APR 19	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	48	47	47	76	56	37	41	49	53	36	44	44	76	
DIR. (TENS OF DEGS.)	27	32	33	27	31	32	29	36	32	36	31	28	27		
	DATE OF OCCURRENCE	13	02+	22+	19	31	27+	09	02	11	16	23	21	APR 19	
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	1.85	0.52	3.59	3.76	3.89	5.88	1.19	4.05	3.66	6.79	4.48	3.71	43.37	
	GREATEST 24-HOUR (IN.)	0.70	0.29	0.99	1.57	1.53	1.76	1.13	1.88	1.75	3.04	1.35	1.05	3.04	
	DATE OF OCCURRENCE	06-07	10-11	20	27-28	17-18	19	19	28-29	26-27	11-12	16-17	11	OCT 11-12	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	11	5	13	16	8	9	3	8	7	13	12	8	113	
PRECIPITATION ≥ 0.10	5	2	8	6	6	7	1	4	5	6	8	6	64		
PRECIPITATION ≥ 1.00	0	0	0	1	1	2	1	2	2	3	1	1	14		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	3.6	T	T	T	0.0	T	0.0	T	0.0	T	0.6	10.2	14.4	
	GREATEST 24-HOUR (IN.)	2.9	T	T	T	0.0	T	0.0	T	0.0	T	0.6	6.5	6.5	
	DATE OF OCCURRENCE	19-20	28+	26+	06+	0	19	0	02	0	30+	27	05	DEC 05	
	MAXIMUM SNOW DEPTH (IN.)	3	0	T	0	0	0	0	0	0	0	T	7	7	
	DATE OF OCCURRENCE	20		18								27	06	DEC 06	
	NUMBER OF DAYS WITH:														
SNOWFALL ≥ 1.0	1	0	0	0	0	0	0	0	0	0	0	2	3		

NORMALS, MEANS, AND EXTREMES

NEWARK, NJ (EWR)

LATITUDE: 40° 42' 57" N LONGITUDE: 74° 10' 10" W ELEVATION (FT): GRND: 25 BARO: 28 TIME ZONE: EASTERN (UTC + 5) WBAN: 14734

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	38.1	41.1	50.1	60.8	71.4	80.2	85.2	83.2	75.7	64.7	53.7	43.0	62.3
	MEAN DAILY MAXIMUM	67	38.7	41.2	50.0	61.4	72.0	81.0	84.8	84.1	76.7	66.1	54.3	42.8	62.8
	HIGHEST DAILY MAXIMUM	61	74	76	89	97	99	102	105	105	105	92	85	76	105
	YEAR OF OCCURRENCE		1950	1949	1945	2002	1996	1994	1993	2001	1953	1949	1950	1998	AUG 2001
	MEAN OF EXTREME MAXS.	67	58.6	60.1	71.7	83.0	89.9	95.2	96.3	95.2	91.1	82.3	72.1	61.9	79.8
	NORMAL DAILY MINIMUM	30	24.4	26.6	34.2	43.7	54.1	63.5	69.1	67.7	59.9	48.2	39.1	29.8	46.7
	MEAN DAILY MINIMUM	67	24.4	25.9	33.2	42.8	52.8	62.3	67.1	66.6	58.8	47.9	38.7	28.7	45.8
	LOWEST DAILY MINIMUM	61	-8	-7	6	16	33	43	52	45	35	28	15	-1	-8
	YEAR OF OCCURRENCE		1985	1943	1943	1982	1947	1945	1952	1982	1947	1969	1955	1980	JAN 1985
	MEAN OF EXTREME MINS.	67	7.9	9.6	18.2	30.8	41.0	51.4	58.0	56.4	45.0	34.5	24.9	13.1	32.6
	NORMAL DRY BULB	30	30.6	33.0	42.1	52.3	62.8	72.6	77.8	76.4	68.8	57.5	47.3	36.0	54.8
	MEAN DRY BULB	67	31.6	33.6	41.6	52.1	62.4	71.7	76.0	75.4	67.8	57.1	46.5	35.7	54.3
	MEAN WET BULB	19	29.7	30.8	37.1	45.9	55.8	64.5	65.2	68.1	61.8	51.4	42.1	33.3	48.8
	MEAN DEW POINT	19	22.0	22.3	28.1	37.4	48.9	58.6	60.6	63.5	56.9	45.4	35.2	25.4	42.0
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.2	1.5	4.8	8.7	6.3	1.6	0.0	0.0	0.0	23.1	
MAXIMUM ≤ 32°	30	9.2	5.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.5	20.4	
MINIMUM ≤ 32°	30	23.8	21.1	12.6	1.5	0.0	0.0	0.0	0.0	0.0	0.6	5.8	19.9	85.3	
MINIMUM ≤ 0°	30	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8	
H/C	NORMAL HEATING DEG. DAYS	30	1030	869	697	375	126	13	1	6	42	269	543	872	4843
	NORMAL COOLING DEG. DAYS	30	0	0	2	10	70	236	394	347	142	18	1	0	1220
RH	NORMAL (PERCENT)	30	65	63	60	58	62	63	63	66	68	66	66	67	64
	HOUR 01 LST	30	70	68	66	65	71	72	73	75	77	75	72	71	71
	HOUR 07 LST	30	73	72	69	66	70	70	72	75	78	78	76	74	73
	HOUR 13 LST	30	58	55	50	47	50	51	51	53	54	52	56	58	53
	HOUR 19 LST	30	63	60	56	54	58	58	58	62	64	63	64	64	60
S	PERCENT POSSIBLE SUNSHINE														
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	62	2.1	1.7	1.4	1.1	1.6	1.1	0.4	0.5	0.8	1.9	1.7	1.7	16.0
	THUNDERSTORMS	62	0.3	0.3	1.1	1.6	3.6	4.9	5.8	4.5	2.4	1.1	0.5	0.2	26.3
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	50	5.2	5.0	5.0	5.1	5.2	5.0	4.9	4.7	4.5	4.3	5.0	5.1	4.9
	MIDNIGHT-MIDNIGHT (OKTAS)	51	4.8	4.7	4.9	4.8	5.0	4.9	4.7	4.5	4.4	4.2	4.9	4.9	4.7
	MEAN NO. DAYS WITH:														
	CLEAR	54	7.7	7.3	8.0	7.2	6.3	6.7	6.5	7.7	9.5	10.8	7.5	7.9	93.1
PARTLY CLOUDY	54	7.7	7.6	8.4	8.9	10.6	10.9	12.2	11.7	8.9	8.4	8.2	8.0	111.5	
CLOUDY	54	15.7	13.4	14.6	14.0	14.1	12.4	12.3	11.6	11.6	11.8	14.3	15.1	160.9	
PR	MEAN STATION PRESSURE (IN)	29	30.01	30.02	30.00	29.91	29.99	29.91	30.00	30.00	30.00	30.10	30.08	30.09	30.01
	MEAN SEA-LEVEL PRES. (IN)	19	30.07	30.08	30.03	29.98	29.99	29.96	30.00	30.02	30.06	30.10	30.08	30.09	30.04
WINDS	MEAN SPEED (MPH)	49	11.0	11.3	11.9	11.3	10.0	9.6	9.0	8.8	9.1	9.5	10.2	10.6	10.2
	PREVAIL. DIR (TENS OF DEGS)	32	25	31	31	32	23	23	24	23	23	23	24	25	23
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	6	44	44	45	55	44	34	47	44	44	34	40	48	55
	DIR. (TENS OF DEGS)		28	27	30	29	30	30	31	35	03	32	33	27	29
	YEAR OF OCCURRENCE		1999	1997	1997	2002	2002	1998	1997	2002	1999	1999	1997	2000	APR 2002
	MAXIMUM 5-SECOND:														
SPEED (MPH)	6	54	56	59	76	56	58	59	53	55	47	53	62	76	
DIR. (TENS OF DEGS)		28	28	30	27	31	32	32	30	35	32	16	27	27	
YEAR OF OCCURRENCE		2000	1997	1997	2002	2002	2000	1997	1997	1998	1999	1999	2000	APR 2002	
PRECIPITATION	NORMAL (IN)	30	3.98	2.96	4.21	3.92	4.46	3.40	4.68	4.02	4.01	3.16	3.88	3.57	46.25
	MAXIMUM MONTHLY (IN)	61	10.10	4.94	11.14	11.14	10.22	6.40	9.98	11.84	10.28	8.20	11.53	9.47	11.84
	YEAR OF OCCURRENCE		1979	1979	1983	1983	1984	1975	1988	1955	1944	1943	1977	1983	AUG 1955
	MINIMUM MONTHLY (IN)	61	0.45	0.52	1.10	0.90	0.52	0.07	0.89	0.36	0.95	0.21	0.51	0.27	0.07
	YEAR OF OCCURRENCE		1981	2002	1981	1963	1964	1949	1966	1995	1951	1963	1976	1955	JUN 1949
	MAXIMUM IN 24 HOURS (IN)	49	3.59	2.45	2.83	3.73	4.22	2.97	4.64	7.84	6.41	4.04	7.22	2.77	7.84
	YEAR OF OCCURRENCE		1979	1961	1991	1984	1979	1992	1997	1971	1999	1996	1977	1983	AUG 1971
	NORMAL NO. DAYS WITH:														
	PRECIPITATION ≥ 0.01	30	10.8	9.7	11.3	11.1	11.8	10.3	9.8	9.2	8.1	7.8	10.5	10.9	121.3
PRECIPITATION ≥ 1.00	30	0.7	0.7	1.0	1.0	0.9	0.9	1.2	1.0	1.0	0.9	0.8	0.8	10.9	
SNOWFALL	NORMAL (IN)	30	8.9	8.4	4.3	0.8	0.*	0.0	0.0	0.0	0.*	0.6	2.9	25.9	
	MAXIMUM MONTHLY (IN)	61	31.6	33.4	26.0	13.8	T	T	0.0	T	T	0.3	5.7	29.1	33.4
	YEAR OF OCCURRENCE		1996	1994	1956	1982	1995	2001		2002	1998	1952	1989	1947	FEB 1994
	MAXIMUM IN 24 HOURS (IN)	61	27.4	20.0	17.6	12.8	T	T	0.0	T	T	0.3	5.7	26.0	27.4
	YEAR OF OCCURRENCE		1996	1961	1956	1982	1995	2001		2002	1998	1952	1989	1947	JAN 1996
	MAXIMUM SNOW DEPTH (IN)	16	17	25	18	11	0	0	0	0	0	0	9	22	25
	YEAR OF OCCURRENCE		1978	1961	1956	1982							1938	1947	FEB 1961
	NORMAL NO. DAYS WITH:														
SNOWFALL ≥ 1.0	30	2.4	1.9	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.8	6.6	

PRECIPITATION (inches) 2002 NEWARK, NJ (EWR)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1973	3.65	3.39	3.63	5.77	3.56	4.03	3.63	3.36	3.39	3.35	1.29	7.24	46.29
1974	2.84	1.44	4.11	2.37	3.49	3.60	1.31	7.17	5.76	1.85	0.80	4.02	38.76
1975	3.99	2.56	2.94	2.29	3.27	6.40	8.02	4.36	9.00	3.24	3.67	2.91	52.65
1976	5.04	2.52	2.33	2.50	4.12	1.54	3.91	2.98	2.50	5.07	0.51	2.17	35.19
1977	1.55	2.77	5.67	3.16	1.31	3.89	1.51	4.29	3.99	3.53	11.53	4.77	47.97
1978	7.76	2.26	4.58	2.60	7.97	2.05	4.99	7.30	4.23	1.64	2.66	5.37	53.41
1979	10.10	4.94	3.65	3.66	7.78	2.73	3.39	4.38	5.72	4.58	3.09	2.08	56.10
1980	1.66	1.28	9.13	7.28	2.61	3.27	2.78	0.92	1.87	3.37	3.71	0.63	38.51
1981	0.45	4.81	1.10	3.15	3.88	2.61	4.51	0.57	3.42	3.47	1.75	5.32	35.04
1982	6.77	2.36	2.82	6.20	2.96	5.28	2.86	2.78	2.39	1.68	3.16	1.32	40.58
1983	4.37	3.03	11.14	11.14	4.22	2.81	1.59	3.46	2.93	5.80	5.54	9.47	65.50
1984	2.78	4.57	6.96	6.36	10.22	4.77	8.65	1.74	2.46	3.93	2.88	3.69	59.01
1985	1.22	2.58	1.59	1.17	4.23	4.29	4.52	2.58	4.19	1.29	8.32	1.31	37.29
1986	4.44	3.88	1.95	5.88	1.41	1.71	6.62	4.16	1.96	1.93	6.78	5.23	45.95
1987	6.21	1.30	3.81	5.06	2.55	4.13	4.66	5.26	3.87	3.37	2.94	2.37	45.53
1988	3.74	4.15	2.13	1.97	5.86	1.06	9.98	1.82	1.66	2.45	7.71	0.98	43.51
1989	1.98	2.70	4.42	3.25	8.80	5.41	5.23	7.03	6.45	5.40	2.57	0.75	53.99
1990	4.72	1.71	2.81	3.98	6.87	3.68	4.98	7.71	2.72	5.11	2.82	5.19	52.30
1991	3.72	1.81	5.49	3.91	4.80	2.95	5.21	5.63	3.24	1.29	2.04	3.67	43.76
1992	1.27	1.37	3.48	1.35	3.46	4.67	4.79	3.37	2.60	0.73	5.02	4.63	36.74
1993	2.75	2.87	7.22	4.59	1.77	1.21	2.15	2.84	6.29	3.98	1.95	4.89	42.51
1994	6.09	4.77	6.90	2.98	3.64	3.58	3.57	5.01	2.26	1.04	4.36	3.12	47.32
1995	3.29	3.36	1.30	2.24	3.27	1.64	5.98	0.36	3.64	4.77	5.79	2.03	37.67
1996	5.24	2.34	4.40	5.63	2.59	5.06	8.27	2.39	6.05	6.92	2.31	6.87	58.07
1997	3.50	2.18	5.19	3.08	3.12	2.42	7.05	2.89	2.20	2.02	4.54	4.16	42.35
1998	4.93	4.77	4.14	6.17	6.52	5.98	1.34	3.20	2.72	1.81	0.86	1.03	43.47
1999	6.87	3.10	3.63	1.90	4.19	0.41	1.01	5.51	9.38	2.90	2.90	2.95	44.75
2000	3.39	1.60	3.43	3.57	5.66	3.42	6.30	4.73	4.58	0.54	2.71	3.42	43.35
2001	2.57	1.79	6.69	1.71	2.88	3.97	2.29	1.97	4.29	0.46	0.81	2.01	31.44
2002	1.85	0.52	3.59	3.76	3.89	5.88	1.19	4.05	3.66	6.79	4.48	3.71	43.37
POR= 71 YRS	3.45	2.86	4.09	3.65	3.89	3.36	3.99	4.05	3.81	3.01	3.52	3.32	43.00

WBAN : 14734

AVERAGE TEMPERATURE (°F) 2002 NEWARK, NJ (EWR)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1973	35.5	33.3	48.6	54.2	60.4	74.6	78.7	79.6	71.0	60.3	48.8	39.4	57.0
1974	35.4	31.9	43.4	56.5	62.7	70.1	77.1	76.5	66.6	53.9	47.5	38.9	55.0
1975	36.9	35.1	39.7	47.3	65.8	71.6	76.9	75.1	64.3	59.1	51.7	35.4	54.9
1976	26.8	39.3	44.0	55.2	61.1	73.6	74.9	74.4	66.5	52.6	39.9	29.1	53.1
1977	20.9	32.8	46.8	53.7	65.4	70.3	78.2	75.1	68.0	54.5	47.1	33.3	53.8
1978	27.2	25.5	38.5	51.0	60.5	71.6	75.1	76.7	66.1	57.5	48.8	38.1	53.1
1979	32.5	23.5	46.2	52.0	64.5	69.4	77.0	76.6	69.1	56.5	51.8	40.2	54.9
1980	34.0	30.8	38.9	52.6	65.9	70.2	78.9	78.6	70.8	55.0	42.9	30.4	54.1
1981	24.1	37.6	40.2	55.3	64.0	74.6	79.3	75.1	67.2	53.1	46.0	34.6	54.3
1982	24.2	36.2	41.8	50.6	63.2	67.9	78.4	72.5	66.7	56.9	48.8	42.8	54.2
1983	35.0	35.9	44.7	52.2	60.8	73.5	79.6	77.6	70.6	57.8	47.8	34.2	55.8
1984	27.8	40.8	36.5	52.7	62.2	75.0	76.6	77.3	65.4	62.3	45.3	40.8	55.2
1985	24.9	33.5	44.5	57.0	67.1	69.4	76.3	75.6	70.2	58.5	49.5	33.3	55.0
1986	33.0	31.1	44.2	53.4	66.7	72.7	76.9	74.2	68.6	58.0	45.0	38.1	55.2
1987	31.5	33.0	45.0	53.9	63.9	74.5	79.4	75.3	68.7	53.7	47.6	38.4	55.4
1988	28.7	34.4	43.9	51.1	63.4	73.0	80.5	79.8	68.0	52.6	48.9	35.5	55.0
1989	37.0	34.2	42.4	52.5	63.2	74.3	77.2	76.3	69.9	59.1	45.0	25.6	54.7
1990	40.4	39.8	44.9	53.3	61.1	73.4	77.8	76.6	68.6	62.4	50.0	42.3	57.6
1991	33.6	38.6	44.4	54.8	68.9	74.2	77.9	77.7	68.0	58.3	47.6	38.8	56.9
1992	35.2	36.0	39.3	50.2	61.7	72.6	76.9	75.1	69.6	55.7	47.8	38.8	54.9
1993	37.6	31.0	40.2	54.3	67.0	75.8	82.6	79.2	69.2	56.4	47.8	37.2	56.5
1994	25.4	30.4	41.6	57.4	63.7	77.8	81.9	75.7	69.7	58.7	52.0	41.4	56.3
1995	37.5	30.8	45.5	52.6	62.7	73.1	79.6	78.5	68.6	61.0	42.9	31.7	55.4
1996	29.7	33.6	38.8	53.1	61.6	72.9	73.9	74.0	68.0	55.5	41.9	40.2	53.6
1997	31.1	39.4	41.8	50.9	59.2	70.9	76.8	73.6	66.9	56.5	43.7	37.6	54.0
1998	40.1	40.8	45.2	53.9	64.9	70.1	77.6	77.0	70.4	57.6	47.6	41.9	57.3
1999	33.5	37.8	42.9	53.4	63.3	74.2	80.9	76.2	69.3	55.5	50.1	39.4	56.4
2000	31.5	37.4	47.8	51.4	64.2	72.4	73.7	73.3	66.4	57.0	45.2	30.7	54.3
2001	32.2	35.7	40.0	53.4	64.0	73.9	74.1	79.1	67.4	57.8	51.9	43.6	56.1
2002	39.4	40.3	44.1	56.0	60.9	72.4	80.1	77.9	70.5	55.6	45.4	35.2	56.5
POR= 72 YRS	31.8	33.4	41.3	51.8	62.4	71.6	75.8	75.2	67.8	56.9	46.4	35.7	54.2

HEATING DEGREE DAYS (base 65°F) 2002 NEWARK, NJ (EWR)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1973-74	0	0	18	166	479	787	909	921	661	273	127	12	4353
1974-75	0	0	62	341	521	802	864	832	775	524	84	6	4811
1975-76	0	1	59	195	400	913	1177	738	645	338	141	17	4624
1976-77	0	4	56	381	745	1107	1361	895	563	352	89	24	5577
1977-78	0	0	50	319	527	975	1168	1099	814	411	190	13	5566
1978-79	6	0	66	239	481	830	1001	1155	577	386	68	11	4820
1979-80	2	4	28	289	393	763	953	987	802	366	62	24	4673
1980-81	0	0	28	314	654	1066	1261	762	764	290	96	0	5235
1981-82	0	0	52	360	563	934	1258	802	712	433	85	42	5241
1982-83	0	13	36	267	493	679	923	810	622	395	162	5	4405
1983-84	0	0	52	249	510	949	1144	696	874	366	128	9	4977
1984-85	0	0	83	114	584	745	1235	877	641	268	62	15	4624
1985-86	0	0	21	212	462	971	985	942	642	341	89	7	4672
1986-87	0	11	22	240	594	826	1030	893	616	331	140	3	4706
1987-88	0	1	25	342	518	818	1117	880	647	410	120	28	4906
1988-89	1	0	18	386	476	906	859	853	698	366	132	6	4701
1989-90	0	0	37	190	594	1215	756	699	622	369	122	2	4606
1990-91	1	1	50	163	446	697	967	734	630	330	63	4	4086
1991-92	0	0	55	227	513	804	917	834	790	441	148	4	4733
1992-93	0	0	38	295	510	807	842	946	765	318	42	4	4567
1993-94	0	0	48	263	513	853	1219	964	718	242	104	0	4924
1994-95	0	0	7	195	387	724	848	952	596	371	112	0	4192
1995-96	0	0	32	163	657	1026	1091	906	809	369	176	7	5236
1996-97	0	0	46	291	685	763	1043	714	713	418	179	43	4895
1997-98	1	0	51	294	635	842	765	672	633	327	94	22	4336
1998-99	0	0	19	227	516	711	970	754	674	345	92	2	4310
1999-00	0	2	22	290	439	786	1031	793	521	399	106	22	4411
2000-01	0	0	80	251	586	1056	1010	813	768	353	106	7	5030
2001-02	0	0	53	241	389	658	788	686	641	330	169	16	3971
2002-	0	2	8	325	584	919							

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COOLING DEGREE DAYS (base 65°F) 2002 NEWARK, NJ (EWR)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1973	0	0	0	20	26	296	432	459	205	28	0	0	1466
1974	0	0	0	28	64	172	381	361	115	1	3	0	1125
1975	0	0	0	0	117	211	375	321	46	20	10	0	1100
1976	0	0	0	50	30	281	317	305	110	6	0	0	1099
1977	0	0	6	18	111	191	414	321	146	1	0	0	1208
1978	0	0	0	0	59	217	325	367	105	15	0	0	1088
1979	0	0	0	2	59	147	381	372	158	34	3	0	1156
1980	0	0	0	0	97	187	435	427	209	10	0	0	1365
1981	0	0	0	6	75	293	446	319	124	0	0	0	1263
1982	0	0	0	6	39	136	421	249	95	24	12	0	982
1983	0	0	0	19	39	268	458	396	226	36	0	0	1442
1984	0	0	0	2	47	316	365	388	102	36	0	0	1256
1985	0	0	11	36	134	152	357	335	183	19	3	0	1230
1986	0	0	2	2	149	243	380	303	136	30	0	0	1245
1987	0	0	0	6	116	293	453	327	143	0	1	0	1339
1988	0	0	0	0	75	274	488	465	115	10	0	0	1427
1989	0	0	3	1	81	294	385	360	194	16	0	0	1334
1990	0	0	7	23	11	262	403	365	165	89	2	0	1327
1991	0	0	0	28	190	288	406	399	151	28	0	0	1490
1992	0	0	0	4	52	242	373	323	185	15	0	0	1194
1993	0	0	0	5	113	340	553	450	182	9	4	0	1656
1994	0	0	0	23	74	389	530	338	155	5	4	0	1518
1995	0	0	0	3	49	247	460	425	147	44	0	0	1375
1996	0	0	0	21	77	252	282	288	144	2	2	0	1068
1997	0	0	0	0	6	229	375	278	115	37	0	0	1040
1998	0	0	29	0	95	182	398	377	188	4	0	0	1273
1999	0	0	0	2	47	283	499	360	158	3	0	0	1352
2000	0	0	0	0	89	251	278	265	129	11	0	0	1023
2001	0	0	0	11	84	282	291	442	131	27	1	0	1269
2002	0	0	0	68	49	247	472	408	180	38	0	0	1462

SNOWFALL (inches) 2002 NEWARK, NJ (EWR)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1973-74	0.0	0.0	0.0	0.0	0.0	2.1	6.8	8.1	3.1	0.3	0.0	0.0	20.4
1974-75	0.0	0.0	0.0	0.0	T	1.2	1.4	12.7	1.1	T	0.0	0.0	16.4
1975-76	0.0	0.0	0.0	0.0	T	2.4	7.2	6.1	4.2	T	0.0	0.0	19.9
1976-77	0.0	0.0	0.0	0.0	T	6.7	10.8	5.8	1.7	T	T	0.0	25.0
1977-78	0.0	0.0	0.0	0.0	1.5	0.2	27.4	25.3	10.5	T	0.0	0.0	64.9
1978-79	0.0	0.0	0.0	0.0	2.6	T	9.4	26.1	T	T	0.0	0.0	38.1
1979-80	0.0	0.0	0.0	T	0.0	3.7	2.5	1.8	6.3	T	0.0	0.0	14.3
1980-81	0.0	0.0	0.0	0.0	0.4	3.1	6.9	T	9.1	0.0	0.0	0.0	19.5
1981-82	0.0	0.0	0.0	0.0	T	3.4	12.3	0.5	0.8	13.8	0.0	0.0	30.8
1982-83	0.0	0.0	0.0	0.0	T	2.9	2.3	21.5	0.2	4.1	0.0	0.0	31.0
1983-84	0.0	0.0	0.0	0.0	1.2	2.4	13.7	0.3	11.3	T	0.0	0.0	28.9
1984-85	0.0	0.0	0.0	0.0	T	6.8	8.9	7.4	0.1	T	0.0	0.0	23.2
1985-86	0.0	0.0	0.0	0.0	0.6	4.6	2.8	13.9	T	0.1	0.0	0.0	22.0
1986-87	0.0	0.0	0.0	0.0	T	2.3	21.4	6.5	2.4	0.0	0.0	0.0	32.6
1987-88	0.0	0.0	0.0	0.0	1.5	2.3	15.4	2.7	0.9	T	0.0	0.0	32.6
1988-89	0.0	0.0	0.0	0.0	0.0	0.1	4.1	0.6	2.7	0.0	0.0	0.0	7.5
1989-90	0.0	0.0	0.0	0.0	5.7	0.5	2.4	2.8	2.5	0.6	0.0	0.0	14.5
1990-91	0.0	0.0	0.0	0.0	T	7.6	8.5	5.2	0.2	0.0	0.0	0.0	21.5
1991-92	0.0	0.0	0.0	0.0	T	0.5	1.0	1.0	11.4	T	0.0	0.0	13.9
1992-93	0.0	0.0	0.0	0.0	T	0.5	0.8	10.7	16.8	0.0	0.0	0.0	28.8
1993-94	0.0	0.0	0.0	0.0	T	3.9	18.5	33.4	8.7	0.0	T	0.0	64.5
1994-95	0.0	0.0	0.0	0.0	T	T	0.1	10.2	T	0.0	T	0.0	10.3
1995-96	0.0	0.0	0.0	0.0	3.0	12.8	31.6	18.4	11.9	0.7	0.0	0.0	78.4
1996-97	0.0	0.0	0.0	0.0	T	T	3.4	4.4	7.1	1.4	0.0	0.0	19.5
1997-98	0.0	0.0	0.0	0.0	0.2	1.4	2.2	T	3.1	T	0.0	0.0	6.9
1998-99	0.0	0.0	T	0.0	0.0	1.2	4.1	2.0	5.5	0.0	0.0	0.0	12.8
1999-00	0.0	0.0	0.0	0.0	T	T	12.2	5.3	T	0.9	0.0	0.0	18.4
2000-01	0.0	0.0	0.0	0.0	0.0	14.9	6.1	11.1	7.2	0.0	T	T	39.3
2001-02	0.0	0.0	0.0	0.0	0.0	0.0	3.6	T	T	T	0.0	T	3.6
2002-	0.0	T	0.0	T	0.6	10.2							
POR= 60 YRS	0.0	0.0	0.0	0.0	0.6	5.4	7.6	8.1	4.7	0.7	T	0.0	27.1

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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 EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.</p>
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2002
NEWARK,
NEW JERSEY (EWR)

Terrain in vicinity of the station is flat and rather marshy. To the northwest are ridges oriented roughly in a south-southwest to north-northeast direction. They rise to an elevation of about 200 feet at 4.5 to 5 miles and to 500 to 600 feet at 7 to 8 miles. All winds between west-northwest and north-northwest are downslope and therefore are subject to some adiabatic temperature increase. This effect is evident in the rapid improvement which normally occurs with shift of wind to westerly, following a coastal storm or frontal passage. The drying effect of the downslope winds accounts for the relatively few local thunderstorms occurring at the station, compared to areas to the west. Easterly winds, particularly southeasterly, moderate the temperature because of the influence of the Atlantic Ocean.

Temperature falls of 5 to 15 degrees, depending on the season, are not uncommon when the wind backs from southwesterly to southeasterly. Periods of very hot weather, lasting as long as a week, are associated with a west-southwest air flow which has a long trajectory over land. Extremes of cold are related to rapidly moving outbreaks of cold air traveling southeastward from the

Hudson Bay region. Temperatures of zero or below occur in one winter out of four, but are much more common several miles to the west of the station. Average dates of the last occurrence in spring and the first occurrence in autumn of temperatures as low as 32 degrees are in mid-April and the end of October or early November. Areas to the west of the station experience a growing season at least a month shorter than that at the airport.

A considerable amount of precipitation is realized from the Northeasters of the Atlantic coast. These storms, more typical of the fall and winter, generally last for a period of two days and commonly produce between 1 and 2 inches of precipitation. Storms producing 4 inches or more of snow occur from two to five times a winter. Snowstorms producing 8 inches or more have occurred in about one-half the winters. As many as three such storms have been experienced in one winter. The frequency and intensity of snow storms and the duration of snow cover increase dramatically within a few miles to the west of the station.

STATION LOCATION

NEWARK, NEW JERSEY

LOCATION	Occupied From	Occupied To	Airline Distances and Directions from previous Location	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE										AUTOMATIC OBSERVING EQUIPMENT * REMARKS
						SEA LEVEL GROUND TEMPERATURE	GROUND								HYGRO THERMOMETER	
							WIND INSTRUMENT	EXTREME THERMOMETERS	PSYCHROMETER	SUNSHINE SWITCH	TIPPING GAUGE BUCKET	WEIGHING RAIN GAGE	8 INCH RAIN GAGE			
*NOTE: <u>AIRPORT</u> Airmail & Express Bldg. (Administration Bldg. prior to July 1953) Newark Airport Newark International Airport eff. 1972.	12/10/41	07/01/96	1800 ft. WNW	40°42'	74°10'	c7	a20 f20	6 e	s5 g32 i6 j32			5 32	3 2	d6 b4 h6	Weighing gage installed 12/1/43. Rain gages moved to roof exposure 6/25/53. Telepsychrometer installed 3/4/54. Hygrothermometer commissioned 7/9/61 at thermometer site. a. 50 ft. to 6/30/65. b. Relocated 5600 ft. south on field site 6/1/65. c. 11 ft. to 6/1/65. d. Telepsychrometer replaced by hygrothermometer 7/9/61. e. Removed in 1966. f. Standby equipment. g. Minor adjustment 11/1968. h. Moved to roof 7/1984. i. Minor adjustment & type change 6/1985. j. Moved to field 12/1985. k. Moved to roof 4/1987.	
International Airport	07/01/96	Present	NA	40°43'	74°10'	k25								S	ASOS Commissioned 07/01/96 k. Ground elevation.	

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* NOTES: For earlier station history see previous editions.