

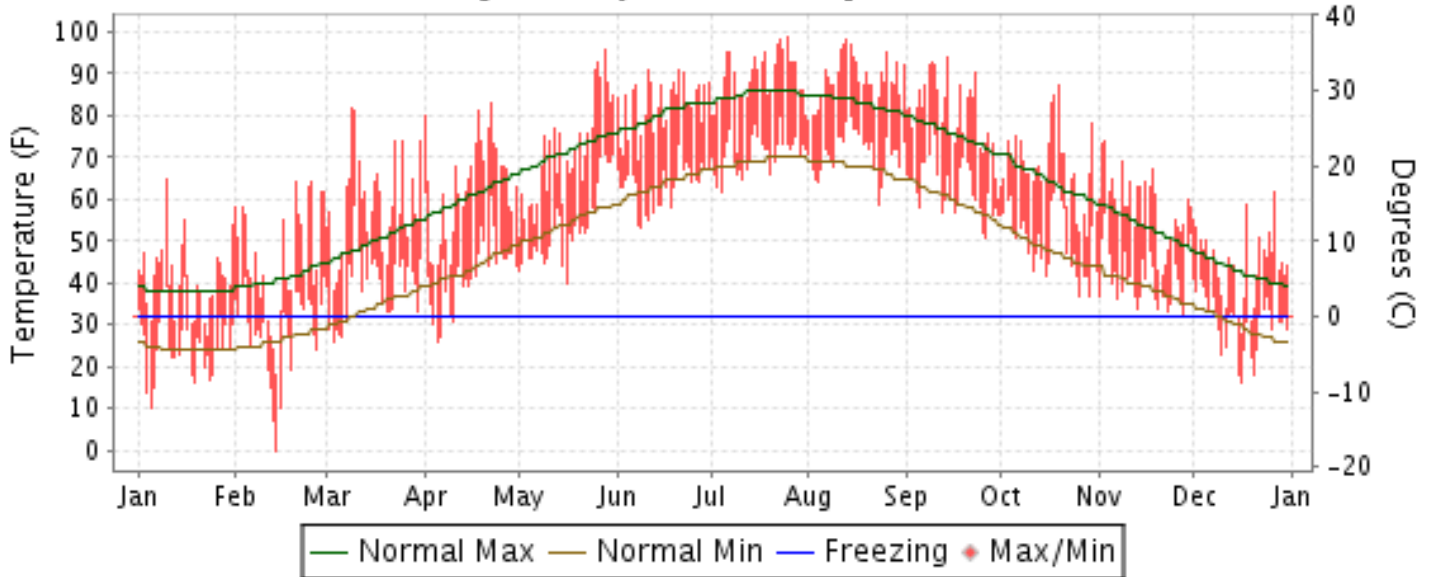


# 2016 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

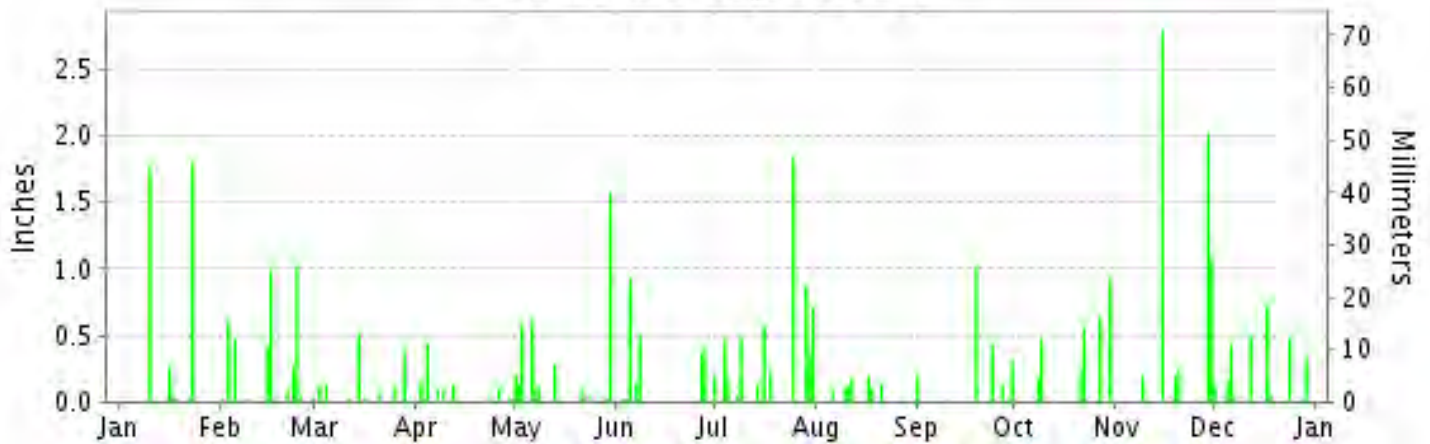
ISSN 0198-3431

## NEWARK, NEW JERSEY (KEWR)

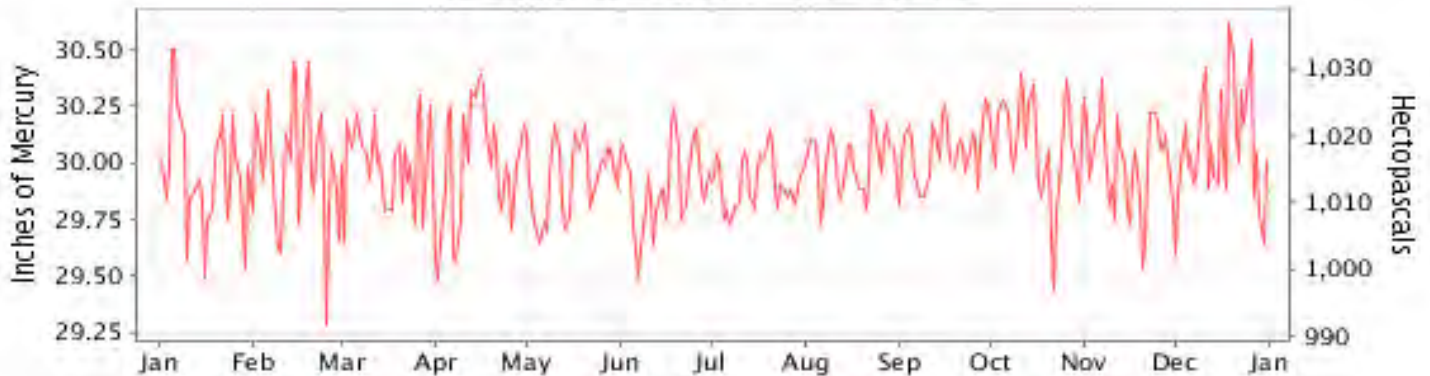
### Daily Max/Min Temperature



### Daily Precipitation



### Daily Station Pressure



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ENVIRONMENTAL INFORMATION (NCEI)  
ASHEVILLE, NORTH CAROLINA

*Margaret S. Goss*  
DIRECTOR  
NCEI

# METEOROLOGICAL DATA FOR 2016

## NEWARK (KEWR)

LATITUDE:  
40° 40'N

LONGITUDE:  
74° 10'W

ELEVATION (FT):  
GRND: 7 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	41.2	45.7	58.8	63.3	71.5	82.5	88.9	88.5	80.6	67.5	58.2	44.6	65.9	
	HIGHEST DAILY MAXIMUM	65	64	82	83	96	91	99	98	94	87	74	62	99	
	DATE OF OCCURRENCE	10	25+	09	22	28	21+	25	13	14	19	03	27	JUL 25	
	MEAN DAILY MINIMUM	25.3	28.5	39.4	43.0	53.6	63.3	71.0	71.2	63.1	50.3	41.1	30.8	48.4	
	LOWEST DAILY MINIMUM	10	0	26	26	40	53	62	59	51	37	32	16	0	
	DATE OF OCCURRENCE	05	14	03	05	16	09	04	23	26	29+	28	16	FEB 14	
	AVERAGE DRY BULB	33.3	37.1	49.1	53.1	62.6	72.9	79.9	79.9	71.8	58.9	49.7	37.7	57.2	
	MEAN WET BULB	29.0	32.7	41.5	44.6	54.9	62.4	69.9	70.4	63.7	53.0	43.5	33.1	49.9	
	MEAN DEW POINT	19.2	23.4	31.4	33.2	47.8	54.9	64.7	65.1	58.0	47.2	35.3	24.4	42.1	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	3	3	16	13	5	0	0	0	0	40
	MAXIMUM <= 32°	6	4	0	0	0	0	0	0	0	0	0	0	3	13
MINIMUM <= 32°	27	17	6	5	0	0	0	0	0	0	1	18	74		
MINIMUM <= 0°	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
H/C	HEATING DEGREE DAYS	976	800	494	362	168	4	0	0	16	215	452	840	4327	
	COOLING DEGREE DAYS	0	0	5	13	100	250	470	472	228	32	1	0	1571	
RH	MEAN (PERCENT)	57	60	55	51	63	57	64	63	64	68	61	61	60	
	HOUR 01 LST	63	68	65	62	74	69	75	75	75	78	67	65	70	
	HOUR 07 LST	65	66	62	56	64	58	66	68	71	75	69	69	66	
	HOUR 13 LST	47	50	42	39	51	43	48	48	49	54	49	52	48	
	HOUR 19 LST	56	57	52	52	64	56	64	62	64	67	59	57	59	
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	0	0	0	0	0	0	1	0	0	0	0	1	2	
	THUNDERSTORMS	0	2	2	2	0	3	5	4	1	2	1	0	22	
PR	MEAN STATION PRESS. (IN.)	29.97	29.98	29.99	29.99	29.93	29.89	29.91	30.00	30.05	30.08	30.01	30.08	29.99	
	MEAN SEA-LEVEL PRESS. (IN.)	30.00	30.01	30.03	30.02	29.97	29.92	29.95	30.03	30.09	30.11	30.04	30.11	30.02	
WINDS	RESULTANT SPEED (MPH)	6.1	4.6	3.2	2.0	1.4	2.8	3.2	2.7	3.7	3.9	5.6	6.6	3.2	
	RES. DIR. (TENS OF DEGS.)	29	29	30	30	24	26	24	24	02	32	29	27	29	
	MEAN SPEED (MPH)	10.3	10.7	10.2	9.8	7.9	8.8	8.4	8.5	9.4	9.1	9.8	10.2	9.4	
	PREVAIL.DIR.(TENS OF DEGS.)	27	23	22	02	22	16	24	23	02	02	22	26	02	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	36	37	40	41	38	32	48	36	36	38	37	37	48	
	DIR. (TENS OF DEGS.)	26	28	27	31	27	30	24	25	32	33	26	30	24	
	DATE OF OCCURRENCE	10	13	28	03	15	12	18	17	14	30	20	18	JUL 18	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	45	51	58	55	48	45	66	46	50	53	46	46	66	
DIR. (TENS OF DEGS.)	29	16	27	31	27	30	24	25	32	34	28	29	24		
DATE OF OCCURRENCE	11	24	28	03	15	05	18	12	14	30	21	15	JUL 18		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	4.01	4.04	1.38	1.12	3.85	2.40	6.08	0.93	2.17	3.00	6.52	2.91	38.41	
	GREATEST 24-HOUR (IN.)	1.83	1.37	0.52	0.44	1.60	0.95	1.84	0.28	1.03	0.92	2.79	0.71	2.79	
	DATE OF OCCURRENCE	22-23	15-16	14	04	29-30	04-05	25	11-12	19	30	15	17	NOV 15	
	NUMBER OF DAYS WITH:														
PRECIPITATION 0.01	10	14	8	10	14	8	13	9	8	7	7	11	119		
PRECIPITATION 0.10	3	6	5	4	8	5	11	6	5	6	6	7	72		
PRECIPITATION 1.00	2	1	0	0	1	0	1	0	1	0	3	0	9		
SNOWFALL	SNOW,ICE PELLETS,HAIL	25.7	5.2	1.6	T	0.0	0.0	0.0	0.0	0.0	0.0	T	3.4	35.9	
	TOTAL (IN.)	24.0	2.8	1.4	T	0.0	0.0	0.0	0.0	0.0	0.0	T	3.0	24.0	
	GREATEST 24-HOUR (IN.)	23	05	04	04							22+	17	JAN 23	
	DATE OF OCCURRENCE	20	4	1	0	0	0	0	0	0	0	0	2	20	
	MAXIMUM SNOW DEPTH (IN.)	24	01	04									17	JAN 24	
	DATE OF OCCURRENCE														
NUMBER OF DAYS WITH:															
SNOWFALL >= 1.0	1	2	1	0	0	0	0	0	0	0	0	1	5		

# NORMALS, MEANS, AND EXTREMES NEWARK (KEWR)

**LATITUDE:** 40° 40'N      **LONGITUDE:** 74° 10'W      **ELEVATION (FT):** GRND: 7 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	38.8	42.3	50.7	62.0	72.1	81.5	86.0	84.1	76.7	65.3	54.6	43.5	63.1
	MEAN DAILY MAXIMUM	81	38.8	41.2	50.2	61.7	72.3	81.1	86.2	84.3	77.0	66.1	54.5	43.2	63.1
	HIGHEST DAILY MAXIMUM	75	74	76	89	97	99	102	108	105	105	92	85	76	108
	YEAR OF OCCURRENCE		1950	1949	1945	2002	1996	2011	2011	2001	1953	1949	1950	1998	JUL 2011
	MEAN OF EXTREME MAXS.	81	58.8	59.9	71.8	83.5	90.0	95.3	97.7	95.1	91.1	82.3	72.0	62.2	80.0
	NORMAL DAILY MINIMUM	30	24.5	26.9	33.6	43.7	53.3	63.3	68.7	67.5	59.7	48.0	39.0	29.6	46.5
	MEAN DAILY MINIMUM	81	24.5	25.9	33.4	43.1	53.2	62.6	68.3	66.9	59.4	48.2	38.8	29.2	46.1
	LOWEST DAILY MINIMUM	75	-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.	81	8.0	9.9	18.3	31.1	41.5	51.5	59.4	56.8	45.7	34.8	25.1	13.9	33.0
	NORMAL DRY BULB	30	31.6	34.6	42.1	52.8	62.7	72.4	77.4	75.8	68.2	56.6	46.8	36.5	54.8
	MEAN DRY BULB	81	31.7	33.6	41.8	52.4	62.7	72.0	77.2	75.6	68.2	57.2	46.7	36.2	54.6
	MEAN WET BULB	33	25.7	26.9	33.2	42.2	53.1	62.1	66.8	66.0	60.1	49.4	39.6	31.2	46.4
	MEAN DEW POINT	33	23.7	24.4	31.0	40.0	51.2	60.4	65.5	64.9	58.6	47.5	37.5	28.5	44.4
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	0.2	1.2	4.6	8.5	5.2	1.1	0.0	0.0	0.0	20.8
	MAXIMUM <= 32	30	7.8	3.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	3.1	15.4
	MINIMUM <= 32	30	23.3	20.5	12.4	1.4	0.0	0.0	0.0	0.0	0.0	0.2	5.3	18.7	81.8
MINIMUM <= 0	30	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	
H/C	NORMAL HEATING DEG. DAYS	30	1034	851	709	376	135	17	0	1	44	276	547	882	4872
	NORMAL COOLING DEG. DAYS	30	0	0	1	11	64	239	383	336	140	17	1	0	1192
RH	NORMAL (PERCENT)	30	66	63	60	58	64	64	64	67	69	68	66	66	65
	HOURLY 01 LST	30	71	69	67	66	73	73	74	77	78	77	72	71	72
	HOURLY 07 LST	30	74	72	70	66	71	71	72	76	79	79	76	74	73
	HOURLY 13 LST	30	59	54	51	48	52	51	51	53	55	53	55	58	53
	HOURLY 19 LST	30	64	60	57	55	59	59	59	63	65	64	63	63	61
S	PERCENT POSSIBLE SUNSHINE														
W/O	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	53	1.6	1.2	1.1	0.7	1.0	0.6	0.2	0.2	0.4	1.0	1.2	1.2	10.4
	THUNDERSTORMS	81	0.3	0.3	1.0	1.7	3.7	5.0	6.0	4.6	2.2	1.1	0.5	0.3	26.7
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)	33	30.00	30.02	30.01	29.94	29.96	29.92	29.93	29.98	30.03	30.00	30.06	30.05	29.99
	MEAN SEA-LEVEL PRES. (IN)	33	30.06	30.05	30.03	29.98	29.99	29.95	29.97	30.01	30.06	30.06	30.09	30.08	30.03
WINDS	MEAN SPEED (MPH)	33	10.7	11.0	11.2	10.6	9.5	9.3	8.7	8.4	8.8	9.4	9.9	10.4	9.8
	PREVAIL.DIR.(TENS OF DEGS)	46	26	32	32	33	24	25	24	24	02	02	02	26	26
	MAXIMUM 2-MINUTE: SPEED (MPH)	20	45	49	53	55	49	48	48	46	44	52	46	48	55
	DIR. (TENS OF DEGS)		27	27	26	29	28	35	24	26	03	12	28	27	29
	YEAR OF OCCURRENCE		2013	2009	2008	2002	2007	2005	2016	2012	2004	2012	2003	2000	APR 2002
	MAXIMUM 3-SECOND SPEED (MPH)	20	59	60	64	76	56	62	66	61	55	78	58	62	78
	DIR. (TENS OF DEGS)		23	27	27	27	27	34	24	26	35	09	26	27	09
YEAR OF OCCURRENCE		2013	2009	2008	2002	2007	2005	2016	2011	1998	2012	2003	2000	OCT 2012	
PRECIPITATION	NORMAL (IN)	30	3.54	2.88	4.18	4.20	4.09	4.02	4.76	3.70	3.82	3.60	3.65	3.81	46.25
	MAXIMUM MONTHLY (IN)	75	10.10	5.82	11.14	11.85	10.22	10.50	9.98	18.79	10.28	13.22	11.53	9.47	18.79
	YEAR OF OCCURRENCE		1979	2008	1983	2007	1984	2003	1988	2011	1944	2005	1977	1983	AUG 2011
	MINIMUM MONTHLY (IN)	75	0.45	0.52	0.79	0.90	0.52	0.07	0.89	0.36	.45	0.21	0.51	0.27	0.07
	YEAR OF OCCURRENCE		1981	2002	2006	1963	1964	1949	1966	1995	2005	1963	1976	1955	JUN 1949
	MAXIMUM IN 24 HOURS (IN)	75	3.59	2.45	3.99	6.25	4.22	3.72	4.64	8.92	6.41	4.24	7.22	2.84	8.92
	YEAR OF OCCURRENCE		1979	1961	2010	2007	1979	2013	1997	2011	1999	2005	1977	2008	AUG 2011
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	10.4	9.8	11.0	11.5	11.3	11.0	10.1	9.7	8.6	8.7	9.5	10.6	122.2
	PRECIPITATION >= 1.00	30	0.9	0.7	0.9	1.1	1.1	1.2	1.5	1.0	0.9	1.1	1.0	1.1	12.5
SNOWFALL	NORMAL (IN)	30	7.9	9.3	4.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.4	5.4	28.5
	MAXIMUM MONTHLY (IN)	75	37.4	33.4	26.0	13.8	T	T	T	T	T	5.2	6.6	29.1	37.4
	YEAR OF OCCURRENCE		2011	1994	1956	1982	2015	2011	2009	2010	2011	2011	2012	1947	JAN 2011
	MAXIMUM IN 24 HOURS (IN)	75	27.4	20.0	17.6	12.8	T	T	T	T	T	5.2	5.7	26.0	27.4
	YEAR OF OCCURRENCE'		1996	1961	1956	1982	2015	2011	2009	2010	2011	2011	2012	1947	JAN 1996
	MAXIMUM SNOW DEPTH (IN)	30	22	25	18	11	0	0	0	0	0	3	9	24	25
	YEAR OF OCCURRENCE		2011	1961	1956	1982						2011	1938	2010	FEB 1961
NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	2.2	1.9	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1	6.8	

**PRECIPITATION (inches) 2016 NEWARK (KEWR)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
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
2003	2.94	3.90	3.98	2.42	3.45	10.50	2.59	8.21	5.57	3.72	3.94	5.11	56.33
2004	1.89	2.44	3.07	4.85	4.60	2.95	8.39	3.70	8.01	0.89	4.21	3.37	48.37
2005	3.93	2.81	4.16	3.42	1.21	2.99	4.05	0.51	0.45	13.22	3.74	3.65	44.14
2006	4.82	2.36	0.79	4.05	3.35	5.99	6.71	2.82	3.38	6.75	6.95	2.19	50.16
2007	3.50	1.43	3.93	11.85	1.87	5.24	6.71	7.32	1.81	3.70	2.35	4.78	54.49
2008	2.30	5.82	3.61	2.70	3.95	5.63	3.14	2.80	7.14	2.79	3.07	5.88	48.83
2009	2.86	0.58	1.61	4.61	4.08	7.96	6.60	4.14	1.73	5.43	1.20	7.13	47.93
2010	1.66	5.48	10.08	2.90	3.48	2.37	1.93	2.44	3.58	3.84	1.83	3.88	43.47
2011	4.40	3.49	5.84	5.86	4.78	2.74	2.04	18.79	8.13	5.80	3.53	4.51	69.91
2012	2.89	1.33	1.05	3.45	4.32	5.02	2.27	2.56	3.13	3.65	1.62	5.06	36.35
2013	2.49	3.85	3.00	1.47	5.44	8.74	3.74	4.57	1.54	0.51	2.97	4.62	42.94
2014	2.78	4.94	3.65	7.95	4.03	4.41	5.10	1.76	1.52	4.15	4.13	4.91	49.33
2015	4.42	2.06	4.63	1.67	4.83	5.90	2.69	1.40	2.33	3.35	1.30	4.40	38.98
2016	4.01	4.04	1.38	1.12	3.85	2.40	6.08	0.93	2.17	3.00	6.52	2.91	38.41
POR= 81 YRS	3.43	2.96	3.99	3.77	3.90	3.67	4.23	4.14	3.71	3.27	3.59	3.60	44.26

WBAN : 14734

**AVERAGE TEMPERATURE (°F) 2016 NEWARK (KEWR)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
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
2003	27.5	29.4	43.1	49.9	59.0	69.3	77.3	77.6	68.6	55.1	49.7	36.6	53.6
2004	24.2	34.7	43.8	54.0	66.3	72.2	75.0	74.6	69.6	55.6	47.5	36.5	54.5
2005	30.0	35.6	38.5	54.4	59.1	74.7	78.3	80.4	73.5	57.8	48.7	33.8	55.4
2006	39.7	35.2	43.2	55.7	63.8	72.6	79.5	77.3	66.7	55.8	51.3	43.0	57.0
2007	37.1	27.9	42.0	50.1	65.1	72.8	75.9	75.3	70.1	63.5	44.9	36.5	55.1
2008	35.7	35.7	43.0	54.7	60.5	75.3	78.7	74.1	69.5	55.4	45.4	37.4	55.5
2009	27.9	36.7	42.2	54.5	63.3	68.9	74.3	77.3	66.9	55.6	50.8	35.6	54.5
2010	32.4	33.2	48.2	57.9	66.2	76.2	82.3	77.7	71.6	58.3	47.3	32.9	57.0
2011	29.5	36.4	43.6	55.5	65.6	74.5	82.7	76.9	71.3	58.2	51.0	42.6	57.3
2012	37.0	40.6	51.3	55.3	66.4	72.4	80.8	77.6	69.5	58.8	43.3	41.1	57.8
2013	35.4	34.1	40.3	53.2	63.3	73.3	80.9	74.7	67.2	59.6	44.4	36.9	55.3
2014	27.1	29.9	37.8	52.3	64.1	72.8	77.0	74.5	69.8	59.3	43.9	40.1	54.1
2015	28.5	22.6	37.7	54.1	68.2	72.0	79.0	78.7	73.4	57.2	52.0	49.8	56.1
2016	33.3	37.1	49.1	53.1	62.6	72.9	79.9	79.9	71.8	58.9	49.7	37.7	57.2
POR= 81 YRS	31.7	33.6	41.8	52.4	62.7	72.0	77.2	75.6	68.2	57.2	46.7	36.2	54.6

**HEATING DEGREE DAYS (base 65°F) 2016 NEWARK (KEWR)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
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
2002-03	0	2	8	325	584	919	1155	989	672	456	188	37	5335
2003-04	0	0	14	306	456	875	1254	870	650	332	66	10	4833
2004-05	0	0	14	286	521	874	1078	817	813	322	194	13	4932
2005-06	0	0	9	245	481	959	779	828	667	281	98	11	4358
2006-07	0	0	38	293	403	676	858	1031	705	449	95	5	4553
2007-08	0	8	21	128	598	879	901	842	679	310	165	0	4531
2008-09	0	0	21	303	578	847	1142	785	700	352	101	20	4849
2009-10	0	0	37	292	421	905	1003	882	512	237	86	2	4377
2010-11	0	0	3	209	523	988	1094	796	659	305	74	0	4651
2011-12	0	0	19	227	413	688	861	702	421	307	55	14	3707
2012-13	0	0	20	207	647	735	912	859	759	351	141	8	4639
2013-14	0	0	47	210	613	862	1166	977	834	383	74	0	5166
2014-15	0	0	19	189	624	765	1123	1183	839	324	48	29	5143
2015-16	0	0	3	241	388	465	976	800	494	362	168	4	3901
2016-	0	0	16	215	452	840							

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**COOLING DEGREE DAYS (base 65°F) 2016 NEWARK (KEWR)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
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
2003	0	0	0	9	7	173	388	398	129	4	4	0	1112
2004	0	0	0	8	115	229	316	303	160	1	0	0	1132
2005	0	0	0	10	20	305	420	485	269	26	0	0	1535
2006	0	0	0	11	67	245	456	388	96	16	0	0	1279
2007	0	0	0	8	109	243	348	333	180	89	0	0	1310
2008	0	0	0	8	32	316	434	288	165	12	0	0	1255
2009	0	0	0	44	56	142	293	386	100	6	0	0	1027
2010	0	0	0	29	132	345	545	400	208	12	0	0	1671
2011	0	0	0	26	103	291	552	377	214	22	0	0	1585
2012	0	0	5	23	105	242	496	400	160	19	0	0	1450
2013	0	0	0	3	97	265	499	307	119	47	0	0	1337
2014	0	0	0	8	54	242	381	300	169	21	0	0	1175
2015	0	0	0	3	157	249	441	432	260	8	5	0	1555
2016	0	0	5	13	100	250	470	472	228	32	1	0	1571

**SNOWFALL (inches) 2016 NEWARK (KEWR)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
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					T	T	3.4	4.4	7.1	1.4	0.0	0.0	
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
2002-03	0.0	T	0.0	T	0.6	10.2	4.7	29.9	3.3	4.4	0.0	0.0	53.1
2003-04	0.0	0.0	0.0	0.0	T	21.0	16.9	0.4	9.5	0.0	T	0.0	47.8
2004-05	0.0	0.0	0.0	0.0	T	1.6	15.4	18.6	7.8	0.0	0.0	0.0	43.4
2005-06	0.0	0.0	0.0	0.0	T	11.0	2.9	21.5	1.2	1.3	0.0	0.0	37.9
2006-07	T	0.0	0.0	0.0	0.0	T	3.9	5.5	7.1	T	0.0	T	16.5
2007-08	0.0	0.0	0.0	0.0	0.4	3.9	T	10.3	0.0	0.0	0.0	T	14.6
2008-09	T	T	T	T	T	8.3	8.9	2.9	7.0	T	0.0	0.0	27.1
2009-10	T	0.0	0.0	0.0	0.0	13.3	1.7	32.9	T	0.0	0.0	0.0	47.9
2010-11	0.0	T	0.0	0.0	T	24.5	37.4	4.1	2.2	T	0.0	T	68.2
2011-12	0.0	0.0	T	5.2	0.0	0.0	3.3	0.3	0.0	0.0	0.0	0.0	8.8
2012-13	0.0	0.0	0.0	0.0	6.6	1.9	1.4	10.8	8.8	0.0	0.0	0.0	29.5
2013-	0.0	0.0	0.0	0.0	T	9.4							
2013-14	0.0	0.0	0.0	0.0	T	9.4	20.8	30.3	0.2	0.4	0.0	0.0	61.1
2014-15	0.0	0.0	0.0	T	1.4	0.3	14.9	13.5	16.3	T	T	0.0	46.4
2015-16	0.0	0.0	0.0	0.0	0.0	0.3	25.7	5.2	1.6	T	0.0	0.0	32.8
2016-	0.0	0.0	0.0	0.0	T	3.4							
POR= 81 YRS	T	T	T	0.1	0.7	5.3	8.2	8.7	4.8	0.6	T	T	28.4

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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. 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 CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS.</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</p>	<p>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 EIGHTHS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER. STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED STATION HISTORY INFORMATION GO TO "Historical Observing Metadata Repository", URL IS: <a href="http://www.ncdc.noaa.gov/homr/">http://www.ncdc.noaa.gov/homr/</a> SNOWFALL STOPPED MONTH &amp; YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.</p> <p><b>NOTE:</b> The "Period of Record:(POR)" for all "averages" is based on "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.</p>
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# 2016 NEWARK NEW JERSEY (KEWR)

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 History

NEWARK, NJ

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
NEWARK AP	1929-03-14	1931-01-01	40° 42'	-74° 10'	11	2.5 MI SSE	COOP
NEWARK AP	1948-01-01	1972-12-01	40° 42'	-74° 10'	7		AIRWAYS, COOP
NEWARK AP	1931-01-01	1931-04-14	40° 42'	-74° 10'	11		AIRWAYS, COOP
NEWARK INTL AP	1973-01-01	1981-12-31	40° 42'	-74° 10'	7		COOP, WXSVC
NEWARK AP	1941-12-10	1948-01-01	40° 42'	-74° 10'	11	1800 FT WNW	AIRWAYS, COOP
NEWARK LIBERTY INTL AP	2016-06-15	Present	40° 40'	-74° 10'	7		ASOS, COOP
NEWARK	1929-01-01	1938-12-31	40° 42'	-74° 10'	29.9		UPPERAIR, BALLOON
NEWARK AP	1931-04-14	1941-12-10	40° 42'	-74° 10'	11	1800 FT ESE	AIRWAYS, COOP
NEWARK INTL AP	1972-12-01	1973-01-01	40° 42'	-74° 10'	7		AIRWAYS, COOP
NEWARK INTL AP	1996-07-01	2016-06-15	40° 40'	-74° 10'	7		ASOS, COOP
NEWARK INTL AP	1981-12-31	1991-11-14	40° 42'	-74° 10'	7		COOP
NEWARK INTL AP	1991-11-14	1996-07-01	40° 42'	-74° 10'	10		COOP

# Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
PRECIP	1991-11-14	1995-06-27	HOURLY	2400			
TEMP	2009-07-08	2016-06-15	DAILY	2400	HYGR		
TEMP	1929-03-14	1970-10-01	DAILY	2400			
PRECIP	1996-07-01	2009-07-08	HOURLY	2400	TB	RCRD	
PRECIP	1996-07-01	2009-07-08	DAILY	2400	TB	RCRD	
WIND	1996-07-01	2009-07-08	HOURLY	UNKN	ANEMCUP		
WIND	2009-07-08	2016-06-15	HOURLY	UNKN	ANEMSONIC		
SNOWDPTH	2016-06-15	Present	DAILY	2400	SNOWBOARD		
TEMP	1995-06-27	1996-07-01	DAILY	2400	HYGR		
SNOWFALLEQ	2016-06-15	Present	DAILY	2400	AWPAG	RCRD;HTD	
SNOWDPTH	2016-06-15	Present	DAILY	2400	SNOWSTICK		
PRECIP	2009-07-08	2016-06-15	HOURLY	2400	TB	RCRD	
PRECIP	2016-06-15	Present	DAILY	2400	FPCPNX		
SNOWFALL	2016-06-15	Present	DAILY	2400	SNOWBOARD		
WIND	2016-06-15	Present	HOURLY	UNKN	ANEMSONIC		
TEMP	2016-06-15	Present	DAILY	2400	HYGR		
SNOWFALL	2016-06-15	Present	DAILY	2400	SNOWSTICK		
PRECIP	1970-10-01	1991-11-14	DAILY	2400	UNIV	RCRD	
TEMP	1991-11-14	1995-06-27	DAILY	2400	HYGR		
PRECIP	1995-06-27	1996-07-01	DAILY	2400	UNIV	RCRD	
PRECIP	2009-07-08	2016-06-15	DAILY	2400	TB	RCRD	
PRECIP	2016-06-15	Present	HOURLY	2400	AWPAG	RCRD;HTD	
PRECIP	1929-03-14	1970-10-01	DAILY	2400	UNIV	RCRD	
PRECIP	1970-10-01	1991-11-14	HOURLY	2400			
TEMP	1970-10-01	1991-11-14	DAILY	2400			
PRECIP	1991-11-14	1995-06-27	DAILY	2400	UNIV	RCRD	
PRECIP	1995-06-27	1996-07-01	HOURLY	2400	UNIV	RCRD	
TEMP	1996-07-01	2009-07-08	DAILY	2400	HYGR		

\* 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>

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151 Patton Avenue

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