

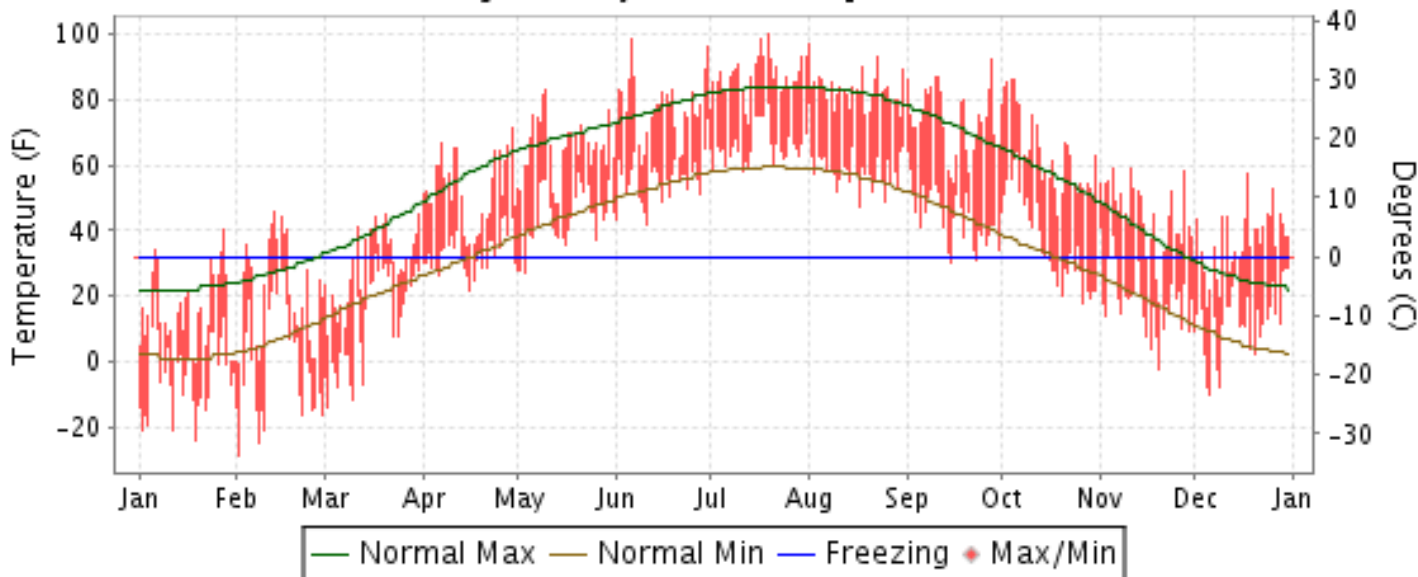


2011 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

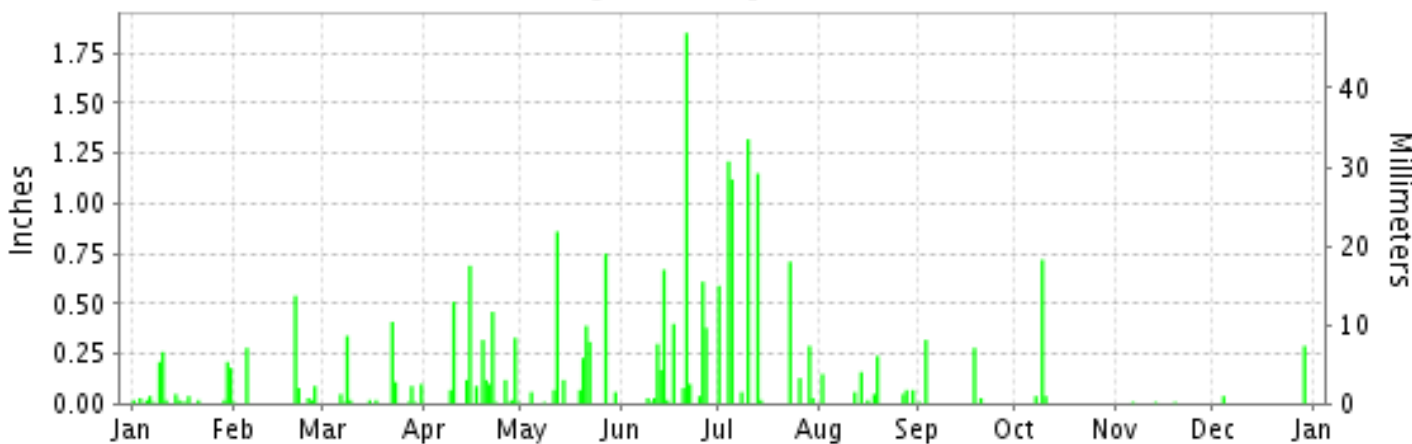
ISSN 0198-4683

ABERDEEN, SOUTH DAKOTA (KABR)

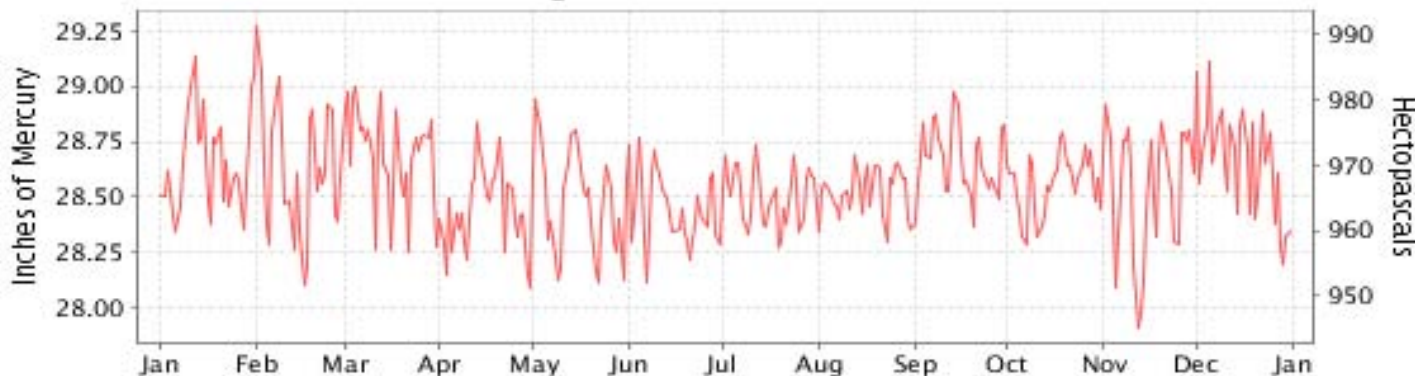
Daily Max/Min Temperature



Daily Precipitation



Daily Station Pressure



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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE

NATIONAL CLIMATIC DATA CENTER ASHEVILLE, NORTH CAROLINA

Thomas R. Karl
DIRECTOR
NATIONAL CLIMATIC DATA CENTER

METEOROLOGICAL DATA FOR 2011

ABERDEEN (KABR)

LATITUDE: 45° 26'N LONGITUDE: -98° 24'W ELEVATION (FT): GRND: 1297 BARO: 1306 TIME ZONE: CENTRAL (UTC -6) WBAN: 14929

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	15.8	21.1	29.5	52.1	65.2	77.2	87.0	82.9	73.5	64.0	44.3	36.3	54.1	
	HIGHEST DAILY MAXIMUM	40	46	45	71	83	98	100	97	92	86	59	57	100	
	DATE OF OCCURRENCE	28	13	31+	29	10	06	19	01	28	05+	11+	18	JUL 19	
	MEAN DAILY MINIMUM	-4.1	0.1	12.7	33.1	44.2	55.7	66.0	58.7	44.6	36.7	18.7	12.5	31.6	
	LOWEST DAILY MINIMUM	-24	-29	-14	22	27	42	58	47	30	18	-2	-10	-29	
	DATE OF OCCURRENCE	19	02	02	16	03	11	11	17	15	27	20	06	FEB 02	
	AVERAGE DRY BULB	5.9	10.6	21.1	42.6	54.7	66.5	76.5	70.8	59.1	50.4	31.5	24.4	42.8	
	MEAN WET BULB	6.2	10.8	21.0	39.3	48.7	60.4	70.3	64.7	51.9	43.5	27.1	22.3	38.9	
	MEAN DEW POINT	2.5	7.1	18.1	34.9	42.3	56.0	67.3	61.1	46.1	36.4	19.8	16.5	34.0	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	0	2	10	3	1	0	0	0	0	16
MAXIMUM <= 32°	28	20	18	0	0	0	0	0	0	0	3	9	78		
MINIMUM <= 32°	31	28	30	15	3	0	0	0	2	15	28	31	183		
MINIMUM <= 0°	21	15	8	0	0	0	0	0	0	0	1	4	49		
H/C	HEATING DEGREE DAYS	1825	1517	1354	664	322	56	0	0	204	478	997	1251	8668	
	COOLING DEGREE DAYS	0	0	0	0	11	107	363	186	31	31	0	0	729	
RH	MEAN (PERCENT)	79	81	84	77	68	71	76	75	67	64	66	72	73	
	HOUR 00 LST	81	84	87	83	78	82	86	89	80	73	71	77	81	
	HOUR 06 LST	79	85	88	89	85	86	91	94	89	79	80	80	85	
	HOUR 12 LST	76	75	80	66	56	59	65	58	48	48	54	61	62	
	HOUR 18 LST	79	81	82	66	55	56	61	58	49	53	58	68	64	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	1	4	2	2	1	2	1	4	1	1	1	1	21	
	THUNDERSTORMS	0	0	0	0	3	6	8	3	2	1	0	0	23	
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.)	28.67	28.62	28.69	28.44	28.49	28.45	28.51	28.52	28.67	28.56	28.54	28.66	28.57	
	MEAN SEA-LEVEL PRESS. (IN.)	30.15	30.09	30.14	29.85	29.87	29.82	29.87	29.89	30.05	29.96	29.96	30.10	29.98	
WINDS	RESULTANT SPEED (MPH)	3.2	2.9	2.1	1.8	2.5	1.8	3.0	1.2	0.9	2.9	3.1	3.4	0.4	
	RES. DIR. (TENS OF DEGS.)	34	30	08	36	05	11	13	18	27	22	25	28	30	
	MEAN SPEED (MPH)	10.5	11.4	10.8	12.5	12.6	11.0	7.8	7.3	8.5	10.4	10.2	9.8	10.2	
	PREVAIL.DIR.(TENS OF DEGS.)	01	01	17	05	03	16	17	16	16	17	17	18	17	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	32	38	46	39	39	37	41	35	38	40	37	33	46	
	DIR. (TENS OF DEGS.)	33	29	30	24	16	16	30	36	30	16	18	32	30	
	DATE OF OCCURRENCE	28	13	11	30	09	02	04	23	20	06	04	31	MAR 11	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	39	49	59	49	51	47	54	43	52	55	46	43	59	
DIR. (TENS OF DEGS.)	32	29	30	24	16	16	30	35	30	15	18	32	30		
DATE OF OCCURRENCE	01	13	11	30	09	02	04	23	20	06	04	31	MAR 11		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	1.17	1.05	1.19	2.98	2.93	4.69	6.63	0.87	0.64	0.80	0.03	0.33	23.31	
	GREATEST 24-HOUR (IN.)	0.37	0.59	0.45	0.80	0.88	1.93	2.33	0.24	0.32	0.74	0.01	0.29	2.33	
	DATE OF OCCURRENCE	09-10	20-21	22-23	14-15	11-12	20-21	04-05	19	03	09-10	19+	29	JUL 04-05	
	NUMBER OF DAYS WITH:														
PRECIPITATION 0.01	17	7	12	15	11	14	11	9	4	3	3	2	108		
PRECIPITATION 0.10	4	2	4	9	6	8	8	3	2	1	0	1	48		
PRECIPITATION 1.00	0	0	0	0	0	1	4	0	0	0	0	0	5		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)	16.5	21.0	9.7	5.5	T	0.0	0.0	0.0	0.0	0.0	0.1	0.5	53.3	
	GREATEST 24-HOUR (IN.)	4.8	16.0	4.6	5.2	T	0.0	0.0	0.0	0.0	0.0	0.1	0.5	16.0	
	DATE OF OCCURRENCE	10	20	08	15	01						19	04	FEB 20	
	MAXIMUM SNOW DEPTH (IN.)	18	23	19	4	0	0	0	0	0	0	T	1	23	
	DATE OF OCCURRENCE	03+	21	09	16							21+	05	FEB 21	
NUMBER OF DAYS WITH:															
SNOWFALL >= 1.0	4	3	3	1	0	0	0	0	0	0	0	0	11		

NORMALS, MEANS, AND EXTREMES ABERDEEN (KABR)

LATITUDE: 45° 26'N LONGITUDE: -98° 24'W ELEVATION (FT): GRND: 1297 BARO: 1306 TIME ZONE: CENTRAL (UTC -6) WBAN: 14929

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	21.4	28.5	40.2	57.4	70.2	78.7	84.7	83.5	73.0	59.2	38.8	25.7	55.1
	MEAN DAILY MAXIMUM	117	21.2	24.9	39.3	56.1	69.8	77.0	85.4	83.7	72.2	60.0	39.7	26.7	54.7
	HIGHEST DAILY MAXIMUM	50	60	62	82	98	96	108	110	112	103	96	78	62	112
	YEAR OF OCCURRENCE		1981	2000	1963	1992	2009	1988	1966	1965	1970	1963	1975	1969	AUG 1965
	MEAN OF EXTREME MAXS.	118	43.2	47.7	63.0	80.9	87.9	93.0	98.1	96.7	91.9	81.9	64.2	46.5	74.6
	NORMAL DAILY MINIMUM	30	0.6	8.8	21.2	33.4	45.6	54.8	59.7	57.4	46.5	34.4	19.7	6.3	32.4
	MEAN DAILY MINIMUM	117	0.3	4.9	18.5	31.7	43.8	53.0	58.9	56.3	45.3	33.9	19.3	7.1	31.1
	LOWEST DAILY MINIMUM	50	-42	-45	-32	-2	13	33	39	32	20	8	-27	-39	-45
	YEAR OF OCCURRENCE		2009	1994	1995	1975	2005	1964	1971	1987	1995	2006	1964	1967	FEB 1994
	MEAN OF EXTREME MINS.	118	-24.0	-17.9	-5.6	16.5	28.2	40.9	46.9	42.7	29.4	17.5	-0.5	-15.4	13.2
	NORMAL DRY BULB	30	11.0	18.7	30.7	45.4	57.9	66.8	72.2	70.5	59.8	46.8	29.3	16.0	43.8
	MEAN DRY BULB	117	10.8	14.9	28.9	43.9	56.8	65.1	72.2	70.0	58.8	47.0	29.5	16.9	42.9
	MEAN WET BULB	28	11.7	15.9	26.8	38.3	49.6	59.2	64.2	62.3	52.7	40.0	26.1	15.4	38.5
	MEAN DEW POINT	28	9.2	13.4	23.6	33.5	45.7	56.4	61.7	59.6	49.3	36.2	23.6	13.1	35.4
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	0.2	0.4	2.7	8.3	6.7	2.1	0.1	0.0	0.0	20.5
	MAXIMUM <= 32	30	23.0	15.9	8.4	0.6	0.0	0.0	0.0	0.0	0.0	0.3	9.7	20.3	78.2
MINIMUM <= 32	30	30.9	27.5	26.4	14.5	2.2	0.0	0.0	*	2.1	13.1	27.4	30.9	175.0	
MINIMUM <= 0	30	15.2	8.9	2.5	*	0.0	0.0	0.0	0.0	0.0	0.0	2.1	10.2	38.9	
H/C	NORMAL HEATING DEG. DAYS	30	1678	1312	1072	591	251	59	11	27	206	569	1066	1506	8348
	NORMAL COOLING DEG. DAYS	30	0	0	0	3	29	112	235	196	49	2	0	0	626
RH	NORMAL (PERCENT)	30	77	78	75	64	64	68					77	78	
	HOURLY 00 LST	30	78	81	82	77	76	80					82	81	
	HOURLY 06 LST	30	79	81	84	82	82	86					83	82	84
	HOURLY 12 LST	30	72	72	68	54	52	57					69	73	61
	HOURLY 18 LST	30	75	73	66	50	48	53					72	77	60
S	PERCENT POSSIBLE SUNSHINE	5	39	46	65	56	61	66	67	66	62	42	33	35	53
W/O	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	44	2.5	2.5	2.8	1.2	0.8	0.9	1.1	1.3	1.4	1.4	2.3	2.8	21.0
	THUNDERSTORMS	52	0.0	0.0	0.3	1.5	3.9	8.1	8.0	6.4	3.0	1.0	0.0	0.0	32.2
CLOUDINESS	MEAN: SUNRISE-SUNSET (OKTAS)				6.4			4.0							
	MIDNIGHT-MIDNIGHT (OKTAS)				6.4										
	MEAN NO. DAYS WITH: CLEAR	1	2.0	3.0	9.0		2.0	9.0	3.0	4.0	5.0	2.0		2.0	
	PARTLY CLOUDY	1	1.0	1.0	4.0			8.0	1.0	3.0		3.0	1.0	1.0	
	CLOUDY	2	2.5	3.0	11.0		13.0	3.0		3.0	2.0	9.0	4.0	12.0	
PR	MEAN STATION PRESSURE(IN)	28	28.66	28.67	28.62	28.55	28.53	28.52	28.56	28.59	28.59	28.60	28.61	28.65	28.60
	MEAN SEA-LEVEL PRES. (IN)	28	30.12	30.13	30.06	29.96	29.91	29.88	29.92	29.95	29.97	30.00	30.04	30.10	30.00
WINDS	MEAN SPEED (MPH)	28	10.5	10.8	11.6	12.4	12.3	10.5	9.2	9.3	10.3	10.7	10.6	10.4	10.7
	PREVAIL.DIR(TENS OF DEGS)	24	19	19	36	36	17	17	17	17	17	19	19	19	17
	MAXIMUM 2-MINUTE: SPEED (MPH)	17	45	47	48	55	43	47	63	44	43	49	46	46	63
	DIR. (TENS OF DEGS)		33	30	31	31	02	16	33	16	16	33	34	32	33
	YEAR OF OCCURRENCE		2000	2002	2004	2000	2008	2005	2008	2010	2006	1996	1997	2004	JUL 2008
	MAXIMUM 3-SECOND SPEED (MPH)	17	61	66	59	64	58	60	79	61	54	62	58	59	79
	DIR. (TENS OF DEGS)		35	33	30	30	28	32	34	15	26	30	32	31	34
	YEAR OF OCCURRENCE		1996	1996	2011	2000	2004	2008	2008	2010	2005	2010	2005	2004	JUL 2008
PRECIPITATION	NORMAL (IN)	30	0.48	0.48	1.34	1.83	2.69	3.49	2.92	2.42	1.81	1.63	0.75	0.38	20.22
	MAXIMUM MONTHLY (IN)	80	2.23	2.06	3.45	7.88	12.23	8.88	7.71	6.62	5.32	7.29	2.87	1.86	12.23
	YEAR OF OCCURRENCE		1937	1952	1977	1986	2007	1939	1972	1942	1996	1998	2000	1935	MAY 2007
	MINIMUM MONTHLY (IN)	80	0.01	0.00	0.04	0.13	0.28	0.37	0.30	0.06	0.05	0.00	T	T	0.00
	YEAR OF OCCURRENCE		1961	1932	1971	1988	1948	1974	1975	1947	1979	1952	1980	1986	OCT 1952
	MAXIMUM IN 24 HOURS (IN)	80	3.41	1.02	3.00	2.28	7.75	5.20	3.46	3.50	3.49	3.75	1.30	0.91	7.75
	YEAR OF OCCURRENCE		2008	1958	1937	1938	2007	1978	1983	1990	1988	2000	1977	1988	MAY 2007
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	6.0	6.6	7.4	8.2	9.9	10.4	9.7	8.1	6.4	6.0	7.0	6.3	92.0
	PRECIPITATION >= 1.00	30	0.0	0.0	0.2	0.2	0.4	0.8	0.6	0.5	0.5	0.5	*	0.0	3.7
SNOWFALL	NORMAL (IN)	30	7.3	6.4	8.0	2.7	0.*	0.0	0.0	0.0	0.*	0.8	7.6	5.8	38.6
	MAXIMUM MONTHLY (IN)	80	26.2	25.1	27.9	24.4	2.0	T	T	T	0.2	5.5	30.5	24.6	30.5
	YEAR OF OCCURRENCE		1937	1969	1975	1970	1943	1993	1994	1993	1995	1970	2000	2010	NOV 2000
	MAXIMUM IN 24 HOURS (IN)	80	10.8	16.0	13.0	15.0	2.0	T	T	T	0.2	5.0	12.6	9.1	16.0
	YEAR OF OCCURRENCE'		1997	2011	1937	1970	1943	1993	1994	1993	1995	1932	1993	1988	FEB 2011
	MAXIMUM SNOW DEPTH (IN)	62	30	25	24	15	7	0	0	0	T	3	17	21	30
	YEAR OF OCCURRENCE		1997	1969	1969	1975	2005				1965	2002	1996	1996	JAN 1997
	NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	2.1	2.0	2.1	0.9	0.0	0.0	0.0	0.0	0.0	0.3	2.2	1.8	11.4

PRECIPITATION (inches) 2011 ABERDEEN (KABR)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982										5.14	0.59	0.09	
1983	0.16	0.26	2.65	0.69	1.66	3.47	6.46	2.21	1.55	0.81	0.60	0.55	21.07
1984	0.47	0.70	1.94	2.39	1.13	5.65	2.64	2.23	0.84	2.93	0.06	0.61	21.59
1985	0.23	0.08	1.82	0.63	3.41	1.76	2.38	2.71	2.71	0.87	1.60	0.57	18.77
1986	0.43	0.71	0.58	7.88	3.32	2.48	3.78	2.85	2.82	0.19	0.77	T	25.81
1987	0.09	1.12	1.91	0.41	2.01	0.77	2.13	1.87	1.33	0.20	0.79	0.09	12.72
1988	0.35	0.31	0.37	0.13	3.43	0.93	3.14	2.80	5.31	0.11	0.73	1.37	18.98
1989	0.52	0.37	1.46	3.42	1.20	2.05	2.00	3.83	2.23	0.58	0.74	0.15	18.55
1990	0.13	0.39	0.81	1.87	1.41	7.72	1.98	4.85	3.01	0.44	0.11	0.37	23.09
1991	0.11	0.70	0.77	3.70	7.36	4.76	1.32	2.28	0.57	1.06	0.32	0.13	23.08
1992	0.66	0.47	0.54	0.40	0.78	5.61	2.97	1.55	1.63	0.83	1.19	0.20	16.83
1993	0.61	0.49	0.42	1.51	3.11	6.20	7.37	4.42	1.21	0.35	1.88	0.56	28.13
1994	0.80	0.42	0.43	2.28	0.30	1.10	5.37	3.87	1.63	3.36	0.77	0.38	20.71
1995	0.62	0.50	2.34	2.26	5.98	1.34	3.51	2.36	1.50	3.16	0.20	0.47	24.24
1996	1.32	0.78	0.87	0.15	4.46	4.12	1.91	0.24	5.32	3.55	1.40	0.87	24.99
1997	1.34	0.88	0.79	2.01	1.72	2.65	1.41	3.75	0.82	3.37	0.46	0.18	19.38
1998	0.63	0.75	1.54	1.81	4.29	6.47	1.12	2.95	0.06	7.29	1.41	0.18	28.50
1999	0.62	0.21	0.92	1.76	2.97	5.23	2.80	3.19	4.27	0.15	T	0.15	22.27
2000	0.27	0.69	1.21	2.47	2.93	4.94	4.51	1.69	0.51	4.75	2.87	0.38	27.22
2001	0.28	1.01	0.30	3.43	2.67	3.31	4.81	0.79	2.61	1.96	1.39	0.06	22.62
2002	0.27	0.03	0.56	1.15	1.82	1.22	3.96	3.82	0.93	1.40	0.09	0.30	15.55
2003	0.24	0.45	0.57	2.01	4.33	6.94	1.98	1.59	1.26	0.88	0.70	0.33	21.28
2004	0.56	0.72	1.27	0.62	5.10	3.68	3.02	0.96	3.53	1.75	0.23	0.33	21.77
2005	0.41	0.63	0.16	0.35	2.64	6.21	0.80	2.90	1.19	0.95	1.35	1.11	18.70
2006	0.33	0.20	0.65	2.41	2.16	3.21	0.71	2.47	2.67	0.13	0.12	0.88	15.94
2007	0.09	1.16	1.88	3.42	12.23	2.43	0.79	2.19	1.64	1.48	0.02	0.90	28.23
2008	0.07	0.24	1.76	0.81	1.32	3.21	6.26	1.24	3.61	4.75	0.30	0.88	24.45
2009	0.68	0.87	1.41	1.76	0.47	3.87	2.47	2.82	4.41	4.33	0.22	0.96	24.27
2010	0.91	0.81	1.24	3.15	4.46	5.40	3.24	1.01	4.08	1.02	0.12	1.77	27.21
2011	1.17	1.05	1.19	2.98	2.93	4.69	6.63	0.87	0.64	0.80	0.03	0.33	23.31
POR= 117 YRS	0.71	0.70	1.30	2.29	2.97	3.73	2.90	2.48	1.89	1.51	0.81	0.60	21.89

WBAN : 14929

AVERAGE TEMPERATURE (°F) 2011 ABERDEEN (KABR)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982										46.6	27.7	25.0	
1983	23.1	28.0	33.3	41.5	53.6	65.2	75.2	76.5	60.8	47.3	32.2	-0.6	44.7
1984	15.7	30.3	27.9	47.0	54.4	65.6	71.3	72.7	55.4	48.6	32.5	13.0	44.5
1985	8.5	16.3	36.0	50.3	61.2	61.3	72.6	67.3	56.5	45.3	16.4	7.8	41.6
1986	17.3	12.1	35.8	44.1	57.6	68.0	72.5	66.2	56.7	47.3	26.3	24.2	44.0
1987	22.7	30.5	33.3	51.5	62.3	69.3	75.7	67.8	61.1	43.3	35.1	24.5	48.1
1988	9.9	14.6	33.0	45.4	63.5	75.0	76.4	72.9	59.2	44.4	29.1	18.8	45.2
1989	15.6	5.0	22.9	45.1	57.4	64.7	75.3	72.0	59.8	46.8	28.6	9.3	41.9
1990	25.3	21.3	35.8	44.0	54.9	66.2	69.7	70.9	63.6	45.8	34.7	12.2	45.4
1991	11.3	27.8	33.8	48.3	60.8	70.8	72.2	72.7	60.3	44.8	24.9	24.1	46.0
1992	21.6	28.8	36.2	44.1	59.5	63.7	64.3	64.3	58.5	46.2	29.6	14.7	44.3
1993	9.7	12.0	31.1	44.7	57.6	63.0	68.6	70.2	56.1	45.6	27.9	18.3	42.1
1994	0.4	7.5	33.5	46.4	63.5	70.3	69.3	65.7	61.5	49.5	32.8	16.5	43.1
1995	11.7	15.4	26.6	38.9	53.8	68.1	70.7	71.6	57.6	44.8	26.2	16.7	41.8
1996	4.1	17.5	21.3	40.7	53.5	66.9	67.8	70.1	58.6	45.2	17.3	6.0	39.1
1997	3.5	14.5	23.9	39.0	53.2	68.1	71.1	68.5	61.8	48.0	25.0	25.7	41.9
1998	13.8	28.2	25.1	48.0	60.0	62.9	72.9	71.3	64.3	48.3	33.3	22.8	45.9
1999	8.8	28.8	35.3	45.8	57.8	66.1	72.4	69.6	56.1	45.4	38.7	24.6	45.8
2000	13.7	26.3	36.9	43.6	58.1	65.3	71.1	69.6	59.4	48.9	22.5	3.1	43.2
2001	15.7	4.2	23.0	44.6	59.1	66.9	74.2	71.4	60.9	45.3	39.5	19.4	43.7
2002	19.5	27.5	21.6	42.4	51.3	70.8	74.8	67.9	61.0	37.7	30.5	22.5	44.0
2003	15.1	12.5	28.4	46.2	54.7	65.0	71.5	71.9	58.3	48.9	25.6	23.2	43.4
2004	9.4	18.1	36.0	45.8	54.3	61.9	68.9	63.4	62.2	47.2	34.4	22.9	43.7
2005	11.4	22.2	31.1	48.1	54.5	69.0	72.7	68.2	63.7	47.5	33.1	17.5	44.9
2006	27.2	19.9	32.8	49.6	57.5	67.7	75.4	70.9	56.3	42.0	29.8	24.9	46.2
2007	11.6	8.2	34.6	41.3	60.4	68.9	73.9	68.4	60.4	49.1	31.1	11.4	43.3
2008	7.3	12.1	28.5	41.9	54.4	64.2	72.3	70.0	59.7	46.0	32.0	8.8	41.4
2009	6.3	15.3	26.7	42.8	56.1	63.3	67.4	65.9	62.7	40.2	38.2	11.0	41.3
2010	9.0	10.6	34.8	51.0	56.2	67.2	72.6	73.4	57.9	49.3	30.5	13.0	43.8
2011	5.9	10.6	21.1	42.6	54.7	66.5	76.5	70.8	59.1	50.4	31.5	24.4	42.8
POR= 117 YRS	10.8	14.9	28.9	43.9	56.8	65.1	72.2	70.0	58.8	47.0	29.5	16.9	42.9

HEATING DEGREE DAYS (base 65°F) 2011 ABERDEEN (KABR)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83				562	1111	1232	1291	1032	976	697	351	89	
1983-84	4	0	198	540	975	2030	1522	1001	1147	533	332	44	8326
1984-85	12	15	312	514	967	1608	1747	1361	891	444	158	145	8174
1985-86	2	42	292	608	1453	1770	1473	1477	897	622	245	32	8913
1986-87	0	59	246	540	1152	1258	1303	961	978	409	134	31	7071
1987-88	4	60	140	666	892	1247	1707	1461	983	584	120	0	7864
1988-89	3	30	193	631	1069	1426	1527	1682	1298	597	244	81	8781
1989-90	0	5	203	561	1085	1724	1222	1221	900	639	308	68	7936
1990-91	7	12	155	586	901	1633	1661	1035	961	491	205	6	7653
1991-92	5	2	206	619	1195	1264	1338	1041	884	631	224	97	7506
1992-93	61	97	206	582	1054	1556	1713	1481	1043	602	240	110	8745
1993-94	17	18	277	599	1109	1441	2002	1609	967	560	147	15	8761
1994-95	15	65	165	475	958	1496	1645	1385	1184	773	341	57	8559
1995-96	11	3	260	620	1154	1493	1890	1372	1348	723	369	59	9302
1996-97	12	5	241	606	1423	1827	1899	1408	1267	772	360	10	9830
1997-98	26	37	135	531	1196	1213	1585	1025	1228	503	182	114	7775
1998-99	1	0	107	511	947	1299	1734	1008	914	569	222	55	7367
1999-00	2	8	264	600	781	1244	1583	1116	866	636	227	76	7403
2000-01	28	19	210	491	1270	1914	1520	1697	1296	613	198	66	9322
2001-02	7	9	172	602	761	1407	1403	1045	1338	671	448	32	7895
2002-03	5	43	207	841	1028	1308	1539	1463	1130	565	319	70	8518
2003-04	0	24	244	502	1175	1288	1721	1353	892	570	337	115	8221
2004-05	37	99	157	544	911	1299	1652	1192	1044	502	331	26	7794
2005-06	11	30	125	540	952	1466	1166	1258	989	455	259	28	7279
2006-07	0	2	277	715	1052	1236	1648	1584	933	702	168	32	8349
2007-08	1	25	212	496	1009	1655	1782	1527	1124	689	324	69	8913
2008-09	4	15	187	584	983	1734	1813	1385	1183	662	280	129	8959
2009-10	21	52	99	760	796	1667	1732	1518	932	415	301	27	8320
2010-11	0	7	207	482	1028	1606	1825	1517	1354	664	322	56	9068
2011-	0	0	204	478	997	1251							

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COOLING DEGREE DAYS (base 65°F) 2011 ABERDEEN (KABR)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1982										0	0	0	
1983	0	0	0	0	3	100	329	363	79	0	0	0	874
1984	0	0	0	0	12	70	210	259	31	15	0	0	597
1985	0	0	0	9	48	41	244	121	46	0	0	0	509
1986	0	0	0	1	22	126	240	105	6	0	0	0	500
1987	0	0	0	11	57	166	341	153	30	0	0	0	758
1988	0	0	0	3	81	308	362	279	28	0	0	0	1061
1989	0	0	0	5	14	77	326	228	54	2	0	0	706
1990	0	0	0	16	3	108	159	204	120	0	0	0	610
1991	0	0	0	0	82	187	238	244	72	3	0	0	826
1992	0	0	0	11	59	65	47	85	17	5	0	0	289
1993	0	0	0	0	19	54	137	187	16	2	0	0	415
1994	0	0	0	6	108	180	153	96	69	0	0	0	612
1995	0	0	0	0	0	161	197	212	49	3	0	0	622
1996	0	0	0	0	18	122	106	173	55	1	0	0	475
1997	0	0	0	0	1	108	224	149	46	12	0	0	540
1998	0	0	0	0	30	58	258	203	96	0	0	0	645
1999	0	0	0	0	9	98	238	160	2	0	0	0	507
2000	0	0	0	0	21	92	225	168	48	0	0	0	554
2001	0	0	0	8	21	129	300	214	55	0	0	0	727
2002	0	0	0	0	27	213	317	137	94	0	0	0	788
2003	0	0	0	8	5	79	209	243	51	6	0	0	601
2004	0	0	0	0	13	29	164	57	78	0	0	0	341
2005	0	0	0	3	14	151	258	135	94	4	0	0	659
2006	0	0	0	0	36	115	330	193	20	10	0	0	704
2007	0	0	0	0	33	155	284	138	81	7	0	0	698
2008	0	0	0	0	2	50	238	176	33	0	0	0	499
2009	0	0	0	2	14	83	103	88	37	0	0	0	327
2010	0	0	0	2	36	102	243	276	0	2	0	0	661
2011	0	0	0	0	11	107	363	186	31	31	0	0	729

SNOWFALL (inches) 2011 ABERDEEN (KABR)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83				0.0	0.0	0.0	0.9	2.2	7.9	2.3	0.0	0.0	
1983-84	0.0	0.0	0.0	T	5.5	5.2	2.0	3.8	17.3	0.1	0.0	0.0	33.9
1984-85	0.0	0.0	T	1.0	0.2	5.6	3.7	1.0	18.4	0.1	0.0	0.0	30.0
1985-86	0.0	0.0	0.0	T	22.4	9.6	4.0	10.5	1.9	9.2	0.0	0.0	57.6
1986-87	0.0	0.0	0.0	0.0	3.4	0.1	1.1	10.5	5.7	T	0.0	0.0	20.8
1987-88	0.0	0.0	0.0	T	5.6	0.9	4.4	4.2	2.5	1.0	0.0	0.0	18.6
1988-89					5.0	16.4	5.1	5.8	13.1	1.6	T	0.0	
1989-90	T	T	0.0	0.1	6.4	1.5	0.8	9.2	4.8	4.7	T	T	27.5
1990-91	0.0	0.0	0.0	1.0	T	7.0	2.2	13.0	5.1	5.5	0.0	0.0	33.8
1991-92	0.0	0.0	0.0	0.4	4.0	0.3	7.9	2.4	0.8	1.1	0.0	0.0	16.9
1992-93	T	0.0	T	3.6	9.3	2.7	10.5	7.1	2.5	3.2	0.0	T	38.9
1993-94	0.0	T	0.0	T	30.1	9.7	16.0	9.1	5.8	6.1	0.0	0.0	76.8
1994-95	T	0.0	0.0	0.0	7.6	6.6	5.8	8.0	22.3	0.0	0.0	0.0	50.3
1995-96	0.0	0.0	0.2	3.5	2.4	5.3	17.7	6.0	9.0	0.4	T	0.0	44.5
1996-97	0.0	0.0	0.0	0.0	20.3	13.9	19.2	9.2	8.5	4.6	0.0	T	75.7
1997-98	0.0	0.0	0.0	0.2	7.7	3.9	11.0	6.4	4.5	0.0	0.0	0.0	33.7
1998-99	0.0	0.0	0.0	0.0	7.6	2.7	10.0	2.7	1.9	1.8	0.0	T	26.7
1999-00	0.0	T	0.0	0.2	0.0	2.2	4.8	7.3	4.5	3.9	0.0	0.0	22.9
2000-01	T	0.0	0.0	0.0	30.5	8.9	4.3	21.0	2.3	7.7	0.0	T	74.7
2001-02	0.0	0.0	0.0	0.1	10.5	1.4	2.5	0.6	9.3	1.9	0.4	0.0	26.7
2002-03	0.0	T	0.0	4.8	1.1	2.9	4.8	5.0	4.2	1.0	0.0	0.0	23.8
2003-04	0.0	0.0	0.0	1.6	9.9	3.8	10.5	3.6	4.1	0.1	0.0	0.0	33.6
2004-05	0.0	0.0	0.0	0.0	T	1.5	4.5	5.6	1.7	T	T	0.0	13.3
2005-06	0.0	0.0	0.0	T	4.0	13.2	1.4	3.5	4.7	0.3	0.0	0.0	27.1
2006-07	0.0	0.0	0.0	0.2	T	7.3	1.2	19.1	4.7	10.5	0.0	0.0	43.0
2007-08	0.0	0.0	0.0	0.0	0.2	11.6	1.2	4.4	13.0	8.2	0.0	0.0	38.6
2008-09	0.0	0.0	0.0	0.0	2.7	16.9	10.5	10.2	16.0	T	0.0	0.0	56.3
2009-10	0.0	0.0	0.0	1.6	T	14.1	10.2	11.9	T	0.0	0.0	0.0	37.8
2010-11	0.0	0.0	0.0	0.3	1.7	24.6	16.5	21.0	9.7	5.5	T	0.0	79.3
2011-	0.0	0.0	0.0	0.0	0.1	0.5							
POR= 85 YRS	T	T	T	1.0	5.3	6.3	7.2	7.4	7.9	4.3	0.3	T	39.7

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REFERENCE NOTES :

<p>PAGE 1: THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).</p> <p>PAGE 2 AND 3: H/C INDICATES HEATING AND COOLING DEGREE DAYS. RH INDICATES RELATIVE HUMIDITY W/O INDICATES WEATHER AND OBSTRUCTIONS S INDICATES SUNSHINE. PR INDICATES PRESSURE. CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL: T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE. + INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES. BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA. NORMALS ARE 30-YEAR AVERAGES (1971 - 2000). ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM. PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH. POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING. WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED. 0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05. CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET. THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD. 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 ABERDEEN SOUTH DAKOTA (KABR)

Aberdeen is located in the northeast quarter of South Dakota, approximately 200 miles south of the geographical center of the North American continent. The surrounding area, extensively cultivated, is the bed of glacial Lake Dakota, which is by far the largest flat area in South Dakota. The lake bed slopes gently to the south. The elevation of Aberdeen at the northern end of the lake bed is 1,300 feet. The elevation at the southern end, some 30 miles distant is 1,280 feet. Low hills rim the area on the east and west. These hills effect ceilings, visibility, and precipitation, which are a hazard to private aircraft operating in the area during periods of marginal weather. Principal drainage for the area is through the southward flowing, meandering James River with its associated meandering rivers and creeks.

Located near the center of the North American land mass, the climate is continental with distinct seasons. Frequent and rapid weather changes occur during all seasons of the year as migratory storms sweep through the area. The winters are cold and dry. Sub-zero minimum temperatures may set in as early as late November, although temperatures of zero and below are generally not recorded until mid-December. Lowest temperatures of the winter generally occur in the period from mid-January to mid-February. During the coldest periods the days are generally sunny with light winds, and these conditions partially moderate the discomfort experienced at such low temperatures. Some days of the winter will be extremely unpleasant with temperatures near or below zero and brisk winds. Heavy snowfalls rarely occur during the first two-thirds of the winter season, with heaviest snowfalls developing during late February and early March as temperatures moderate.

Blizzards are infrequent, many winters will pass without a single occurrence of this type of weather phenomenon. However, difficult driving conditions occur several times during most winters during periods of weather termed ground blizzards.

Spring is a very short and transitional period, but marked by very rapid weather changes. Cool to quite cold nights prevail into mid-May, although afternoon temperatures may be quite warm, as high as the mid-80s. Frost is rarely experienced after the end of May. Precipitation increases markedly during the spring, with 42 percent of the total annual precipitation normally being recorded in the three month period from April through June.

Summers are pleasant with a maximum of sunshine, warm days, and generally cool and comfortable nights. Temperatures of 100 degrees or above may occur several times during the summer season, but low humidities, brisk winds during the heat of the day, and rapid cooling during the evening hours, which generally occur during the periods of elevated temperatures, markedly moderate the physical discomfort normally experienced at these high temperatures. In June and August, thunderstorms are more likely to occur during the early evening and nighttime hours. During July, thunderstorms are approximately equally distributed throughout the 24 hours of the day. Hail is most likely in late May and early June.

Autumn is most pleasant with mild days, cool nights, ample sunshine, and declining occurrences and amounts of precipitation. The first frost may be expected by late September, although it may occur as early as late August. By mid-October, the temperatures during the night will be near or below freezing. The growing season is about 132 days.

Station History

ABERDEEN, SD

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
ABERDEEN MUNICIPAL AP	1964-01-01	1971-01-01	45° 27'	-98° 25'	1296		AIRWAYS, COOP, USHCN
ABERDEEN REGIONAL AP	1982-08-09	1993-01-01	45° 27'	-98° 25'	1296	.5 MI E	AIRWAYS, COOP, USHCN, WXSVC
ABERDEEN REGIONAL AP	1994-11-01	2005-01-03	45° 26'	-98° 24'	1297		ASOS, COOP, USHCN, WXSVC
ABERDEEN REGIONAL AP	1934-08-01	1942-10-31	45° 27'	-98° 25'			AIRWAYS
ABERDEEN MUNICIPAL AP	1948-01-01	1950-01-01	45° 27'	-98° 25'	1299		AIRWAYS, COOP, USHCN
ABERDEEN MUNICIPAL AP	1971-01-01	1980-01-01	45° 27'	-98° 25'	1296		COOP, USHCN, WXSVC
ABERDEEN REGIONAL AP	1980-01-01	1981-01-13	45° 27'	-98° 25'	1296		COOP, USHCN, WXSVC
ABERDEEN REGIONAL AP	1981-01-13	1981-10-17	45° 27'	-98° 25'	1296		AIRWAYS, COOP, USHCN, WXSVC
ABERDEEN MUNICIPAL AP	1950-01-01	1964-01-01	45° 27'	-98° 25'	1312		AIRWAYS, COOP, USHCN
ABERDEEN REGIONAL AP	1981-10-17	1982-08-09	45° 27'	-98° 25'	1296		AIRWAYS, WXSVC
ABERDEEN REGIONAL AP	1945-01-01	1948-01-01	45° 27'	-98° 25'			AIRWAYS
ABERDEEN REGIONAL AP	1993-01-01	1994-11-01	45° 26'	-98° 24'	1297		AIRWAYS, COOP, USHCN, WXSVC
ABERDEEN REGIONAL AP	2005-01-03	Present	45° 26'	-98° 24'	1297		ASOS, COOP, USHCN, WXSVC

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
TEMP	1995-07-01	1997-02-01	DAILY	2400			
TEMP	2000-02-01	2003-11-06	DAILY	2400			
TEMPATOBS	2000-02-01	2003-11-06	TWICE DAILY - AM/PM	0800	FRONTIER		
TEMPATOBS	2003-11-06	2005-01-03	TWICE DAILY - AM/PM	1700	FRONTIER		
PRECIP	2003-11-06	2005-01-03	DAILY	2400	AHTB	RCRD;HTD	
TEMPATOBS	2005-01-03	Present	TWICE DAILY - AM/PM	0800	FRONTIER		
TEMP	1982-08-09	1992-05-11	DAILY	2400	HYGR		
PRECIP	1995-07-01	1997-02-01	DAILY	2400	UNIV	RCRD	
PRECIP	1997-02-01	2000-02-01	DAILY	2400	TB	RCRD	
PRECIP	2003-11-06	2005-01-03	HOURLY	2400	TB	RCRD	
TEMPATOBS	2005-01-03	Present	TWICE DAILY - AM/PM	1700	FRONTIER		
PRECIP	2005-01-03	Present	DAILY	2400	PCPNX		
PRECIP	2003-11-06	2005-01-03	HOURLY	2400	AHTB	RCRD;HTD	
PRECIP	2005-01-03	Present	HOURLY	2400	AWPAG	RCRD;HTD	
PRECIP	1982-08-09	1992-05-11	DAILY	2400	UNIV	RCRD	
PRECIP	1982-08-09	1992-05-11	HOURLY	2400			
TEMP	1992-05-11	1995-07-01	DAILY	2400			
PRECIP	1995-07-01	1997-02-01	HOURLY	2400	UNIV	RCRD	
TEMP	1997-02-01	2000-02-01	DAILY	2400			
TEMP	2003-11-06	2005-01-03	DAILY	2400	ATEMP		
PRECIP	1955-01-01	1981-10-17	HOURLY	2400			
PRECIP	1992-05-11	1995-07-01	HOURLY	2400			
PRECIP	1992-05-11	1995-07-01	DAILY	2400	UNIV	RCRD	
PRECIP	1997-02-01	2000-02-01	HOURLY	2400	TB	RCRD	
TEMPATOBS	2000-02-01	2003-11-06	TWICE DAILY - AM/PM	1700	FRONTIER		
PRECIP	2000-02-01	2003-11-06	HOURLY	2400	TB	RCRD	
TEMP	2005-01-03	Present	DAILY	2400	ATEMP		
PRECIP	2000-02-01	2003-11-06	DAILY	2400	TB	RCRD	
TEMPATOBS	2003-11-06	2005-01-03	TWICE DAILY - AM/PM	0800	FRONTIER		

* 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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NOAA/National Climatic Data Center

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