

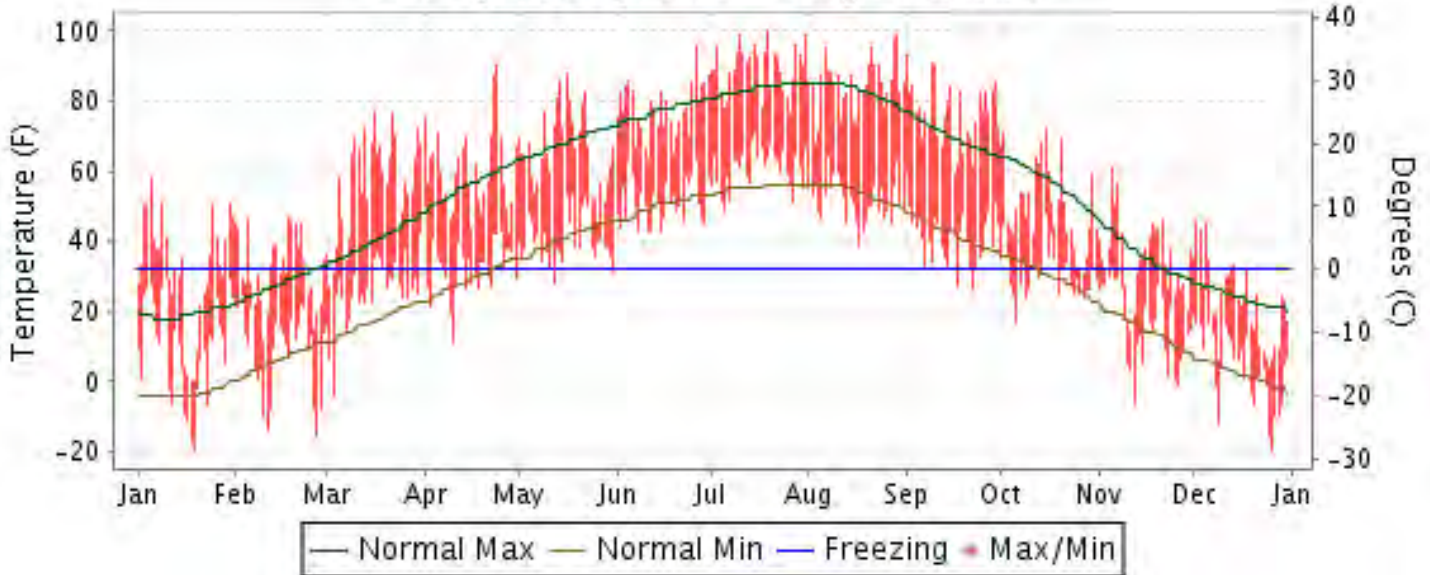


2012 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

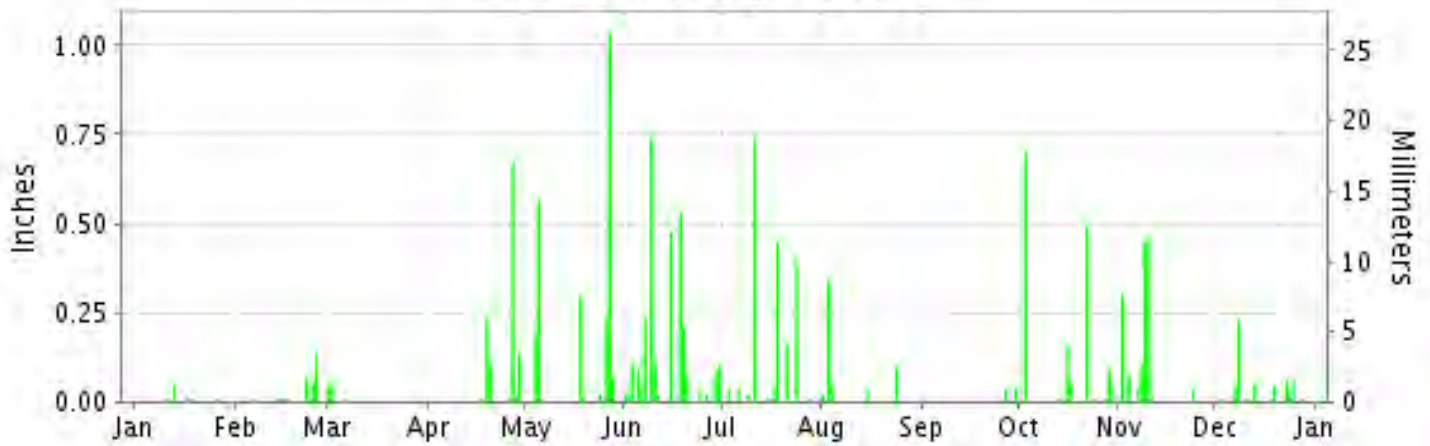
ISSN 0198-3857

WILLISTON, NORTH DAKOTA (KISN)

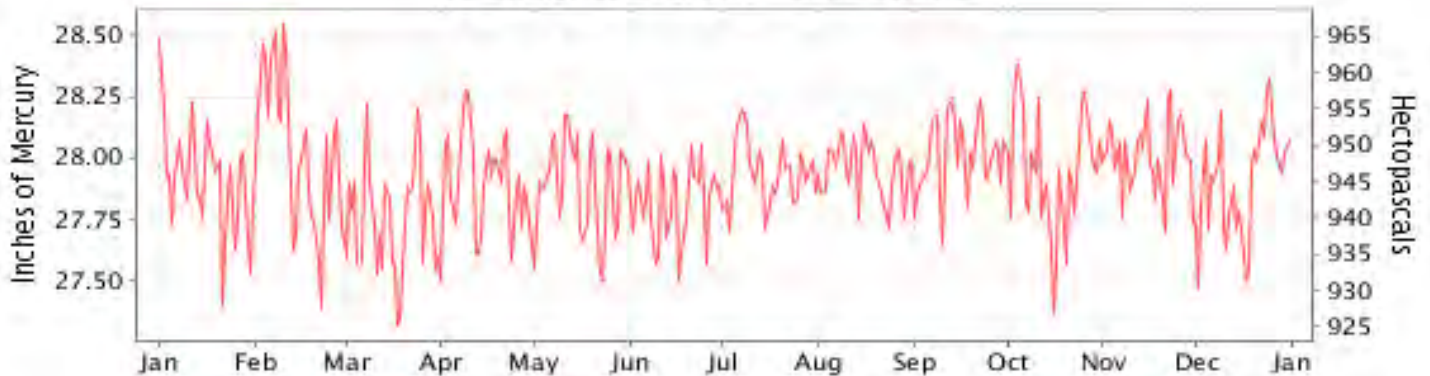
Daily Max/Min Temperature



Daily Precipitation



Daily Station Pressure



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AND INFORMATION SERVICE

NATIONAL
CLIMATIC DATA CENTER
ASHEVILLE, NORTH CAROLINA

Thomas R. Karl
DIRECTOR
NATIONAL CLIMATIC DATA CENTER

METEOROLOGICAL DATA FOR 2012

WILLISTON (KISN)

LATITUDE: 48° 10'N LONGITUDE: 103° 38'W ELEVATION (FT): GRND: 1902 BARO: 1902 TIME ZONE: CENTRAL (UTC -6) WBAN: 94014

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	32.0	32.0	56.4	60.0	66.5	77.3	89.1	84.5	76.3	50.3	35.0	22.5	56.8	
	HIGHEST DAILY MAXIMUM	58	47	77	90	88	96	100	99	93	72	61	46	100	
	DATE OF OCCURRENCE	05	18	16	24	16	26	19	29	01	15	05	02	JUL 19	
	MEAN DAILY MINIMUM	9.7	8.9	25.9	32.6	40.5	51.3	60.9	51.8	41.0	30.7	15.9	4.3	31.1	
	LOWEST DAILY MINIMUM	-19	-16	-4	11	28	43	49	39	26	17	-6	-20	-20	
	DATE OF OCCURRENCE	19	27	03	10	12	15+	05	17	22	06	12	26	DEC 26	
	AVERAGE DRY BULB	20.9	20.5	41.2	46.3	53.5	64.3	75.0	68.2	58.7	40.5	25.5	13.4	44.0	
	MEAN WET BULB	18.8	19.1	34.9	39.7	46.6	56.8	64.5	57.2	47.5	36.4	24.0	13.4	38.2	
	MEAN DEW POINT	13.2	14.8	26.1	30.7	39.3	51.2	57.9	48.3	34.7	31.1	21.5	11.0	31.7	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	1	0	1	16	7	3	0	0	0	28	
	MAXIMUM <= 32°	14	15	2	0	0	0	0	0	0	3	12	25	71	
	MINIMUM <= 32°	31	29	24	14	2	0	0	0	4	20	29	31	184	
MINIMUM <= 0°	8	6	1	0	0	0	0	0	0	0	3	10	28		
H/C	HEATING DEGREE DAYS	1360	1282	730	553	358	71	1	24	203	752	1180	1594	8108	
	COOLING DEGREE DAYS	0	0	0	1	9	57	318	127	20	0	0	0	532	
RH	MEAN (PERCENT)	72	78	61	60	64	65	60	54	45	72	86	86	67	
	HOUR 00 LST	76	85	70	71	75	77	74	63	53	80	88	87	75	
	HOUR 06 LST	80	89	79	81	86	85	84	81	70	87	91	89	84	
	HOUR 12 LST	65	72	47	47	52	52	44	42	31	63	81	84	57	
	HOUR 18 LST	67	65	43	42	47	49	38	29	26	61	85	85	53	
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	1	1	0	1	1	2	1	0	0	1	6	6	20	
	THUNDERSTORMS	0	0	0	0	2	5	0	0	0	0	0	0	7	
PR	MEAN STATION PRESS. (IN.)	27.91	28.02	27.75	27.90	27.89	27.82	27.94	27.96	28.01	27.95	28.01	27.90	27.92	
	MEAN SEA-LEVEL PRESS. (IN.)	30.01	30.13	29.79	29.93	29.90	29.81	29.92	29.94	30.02	30.00	30.10	30.01	29.96	
WINDS	RESULTANT SPEED (MPH)	5.4	2.0	2.1	0.6	3.0	1.7	1.6	0.6	2.9	4.8	1.1	0.7	1.9	
	RES. DIR. (TENS OF DEGS.)	28	31	27	02	29	29	06	30	31	31	30	35	31	
	MEAN SPEED (MPH)	8.8	6.0	8.7	10.8	9.6	9.6	7.7	7.0	7.3	9.6	7.4	5.6	8.2	
	PREVAIL.DIR.(TENS OF DEGS.)	30	21	21	12	28	28	12	34	27	30	22	01	30	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	36	30	40	36	39	46	35	30	31	45	38	29	46	
	DIR. (TENS OF DEGS.)	31	12	26	31	31	36	28	30	31	31	33	32	36	
	DATE OF OCCURRENCE	27	25	13	08	22	18	03	24	04	17	05	10	JUN 18	
	MAXIMUM 3-SECOND WIND:														
SPEED (MPH)	46	40	48	46	48	64	46	39	39	58	52	33	64		
DIR. (TENS OF DEGS.)	31	13	26	32	24	23	13	33	31	31	32	33	23		
DATE OF OCCURRENCE	27	25	13	08	06	26	24	15	04	17	05	10	JUN 26		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.10	0.30	0.10	1.20	2.46	2.92	1.89	0.54	0.08	1.55	1.49	0.57	13.20	
	GREATEST 24-HOUR (IN.)	0.05	0.14	0.07	0.68	1.08	0.74	0.74	0.39	0.04	0.70	0.90	0.23	1.08	
	DATE OF OCCURRENCE	13	26	01-02	27-28	26-27	09	11	03-04	30+	03	09-10	08	MAY 26-27	
	NUMBER OF DAYS WITH:														
	PRECIPITATION 0.01	5	7	3	7	9	17	10	5	2	9	8	12	94	
PRECIPITATION 0.10	0	1	0	4	5	8	4	2	0	3	4	1	32		
PRECIPITATION 1.00	0	0	0	0	1	0	0	0	0	0	0	0	1		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)														
	GREATEST 24-HOUR (IN.)														
	DATE OF OCCURRENCE														
	MAXIMUM SNOW DEPTH (IN.)														
DATE OF OCCURRENCE															
NUMBER OF DAYS WITH:															
SNOWFALL >= 1.0															

PRECIPITATION (inches) 2012 WILLISTON (KISN)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1983	0.35	0.07	1.07	0.03	1.98	0.87	2.12	0.87	0.51	0.30	0.78	0.57	9.52
1984	0.81	0.12	0.90	1.48	0.47	1.87	0.93	0.65	2.24	0.49	0.33	0.27	10.56
1985	0.13	0.24	1.07	1.53	1.08	1.12	1.40	1.96	1.08	1.86	0.58	0.64	12.69
1986	0.35	0.62	0.83	2.57	3.39	2.19	5.70	1.06	3.11	0.78	1.15	0.09	21.84
1987	0.32	0.19	1.70	0.29	2.02	0.71	4.97	0.47	0.65	0.11	0.18	0.07	11.68
1988	0.75	0.28	0.63	0.15	1.39	3.46	0.52	0.39	1.49	0.28	0.51	0.79	10.64
1989	1.00	0.39	0.53	1.44	1.68	1.48	0.87	1.01	0.54	1.75	0.44	0.41	11.54
1990	0.36	0.04	0.44	0.61	2.08	1.77	1.32	1.73	0.31	0.10	0.14	0.40	9.30
1991	0.18	0.37	0.44	1.60	2.60	6.16	1.04	1.46	2.74	0.38	0.46	0.18	17.61
1992	0.48	0.10	0.56	2.28	1.44	1.92	1.04	2.18	0.76	0.52	0.77	0.44	12.49
1993	0.23	0.23	0.88	0.41	0.81	3.76	6.28	4.66	0.28	0.09	0.95	0.38	18.96
1994	0.96	0.89	0.22	1.37	2.70	3.94	0.31	1.78	0.69	1.73	0.25	1.04	15.88
1995	0.91	0.21	1.11	0.87	2.11	1.36	3.49	2.49	0.54	0.39	0.79	0.67	14.94
1996	0.79	0.18	0.75	0.54	1.08	2.01	3.37	.52	2.07	.82	1.27	1.29	14.69
1997	0.18	0.21	0.94	0.27	0.19	0.46	6.62	1.72	0.15	0.61	0.40	0.02	11.77
1998	0.36	1.75	0.28	0.10	1.03	3.01	1.74	3.41	0.89	3.24	1.27	0.74	17.82
1999	1.83	0.46	0.40	0.32	3.29	1.89	3.90	1.04	1.57	0.18	0.01	0.30	15.19
2000	0.38	0.46	0.60	1.65	2.54	2.84	3.66	0.93	1.60	0.76	3.31	0.52	19.25
2001	0.30	0.10	0.02	2.35	0.81	4.54	4.30	0.03	0.30	0.29	0.12	0.66	13.82
2002	0.70	0.55	0.85	0.88	1.21	3.83	2.65	1.95	0.49	1.15	0.26	0.62	15.14
2003	0.58	0.37	1.84	1.64	2.29	2.37	1.94	0.92	0.78	0.69	0.56	0.58	14.56
2004	1.25	0.24	0.29	0.42	3.20	1.83	2.37	0.88	1.02	0.99	0.12	0.50	13.11
2005	0.47	0.01	0.48	0.01	3.26	4.64	1.65	0.66	0.08	1.40	0.85	0.23	13.74
2006	0.27	0.17	1.27	3.18	1.53	1.05	0.22	1.41	1.32	0.84	0.23	0.32	11.81
2007	0.12	0.84	0.62	0.40	4.65	3.32	1.95	0.58	0.62	1.07	0.19	0.10	14.46
2008	0.19	0.27	0.45	0.27	1.06	1.93	1.05	1.27	1.64	1.89	1.57	2.50	14.09
2009	0.90	1.40	0.06	1.04	0.68	2.08	3.31	2.30	0.37	1.17	0.02	0.48	13.81
2010	1.09	0.30	0.35	0.97	3.94	2.70	3.91	2.20	1.41	1.26	1.20	1.95	21.28
2011	1.30	0.55	0.98	2.99	5.28	1.86	2.34	1.65	0.86	0.85	0.39	0.18	19.23
2012	0.10	0.30	0.10	1.20	2.46	2.92	1.89	0.54	0.08	1.55	1.49	0.57	13.20
POR= 51 YRS	0.58	0.42	0.67	1.19	2.10	2.52	2.36	1.41	1.13	0.88	0.58	0.61	14.45

WBAN : 94014

AVERAGE TEMPERATURE (°F) 2012 WILLISTON (KISN)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1983	20.0	25.0	30.0	41.2	51.1	63.7	74.9	78.0	56.3	47.2	30.3	-4.5	42.8
1984	15.2	30.9	28.3	47.4	54.5	63.4	73.0	73.7	50.2	41.0	27.2	5.5	42.5
1985	7.0	13.2	32.4	47.0	58.9	58.8	71.2	64.6	51.2	42.8	13.2	11.2	39.3
1986	22.2	13.3	39.8	41.9	55.8	66.8	67.3	66.8	52.0	45.0	22.6	22.1	43.0
1987	20.7	29.2	32.1	51.6	59.8	68.7	70.0	63.7	59.5	42.3	34.2	22.9	46.2
1988	7.6	15.1	33.2	45.3	61.6	77.3	72.9	69.3	55.7	44.2	27.7	17.1	43.9
1989	12.9	2.2	23.2	43.7	56.3	63.2	75.7	70.2	58.0	45.1	29.3	10.5	40.9
1990	22.9	20.5	34.9	43.2	54.5	65.5	69.9	71.4	61.9	44.6	30.3	9.1	44.1
1991	7.7	29.1	32.6	47.0	57.4	66.4	70.5	73.6	57.3	40.8	25.2	23.3	44.2
1992	22.7	28.2	36.2	43.2	55.6	63.4	64.0	63.9	55.4	44.0	27.6	9.9	42.8
1993	5.7	9.6	33.4	43.9	56.1	58.8	62.3	63.9	52.3	42.1	24.9	20.5	39.5
1994	2.2	3.2	34.2	43.4	56.7	62.4	67.7	68.2	61.1	46.6	29.0	15.7	40.9
1995	9.4	19.9	28.3	38.7	52.1	66.0	68.5	70.2	55.8	43.8	24.9	11.8	40.8
1996	-1	19.5	18.8	39.0	49.6	65.0	68.4	71.6	55.2	42.1	15.5	5.3	37.5
1997	1.4	17.3	24.0	38.7	52.3	69.5	68.7	68.7	61.2	44.8	26.0	25.3	41.5
1998	8.7	30.8	20.2	46.6	55.7	59.4	71.7	73.0	63.1	45.7	29.7	16.6	43.4
1999	7.4	22.4	32.5	43.6	52.9	62.3	68.1	69.5	53.1	43.5	37.4	26.1	43.2
2000	11.7	21.2	35.8	42.6	55.6	60.0	72.1	69.5	57.9	46.0	17.2	5.4	41.3
2001	17.5	5.7	30.3	42.9	54.2	61.1	71.1	70.8	59.0	42.3	35.3	14.4	42.1
2002	16.6	24.9	13.9	37.5	48.8	63.8	73.5	65.4	56.9	32.4	29.4	19.5	40.2
2003	9.7	7.4	21.6	46.1	52.5	61.2	72.3	74.7	56.1	47.8	15.0	17.2	40.1
2004	4.2	14.6	32.4	43.5	49.6	57.1	68.3	63.8	58.8	42.7	32.8	21.1	40.7
2005	5.2	23.2	33.2	47.5	51.9	64.8	71.1	67.4	59.2	44.5	32.5	17.7	43.2
2006	26.6	18.3	28.9	48.4	55.3	64.7	74.8	70.4	56.5	38.5	27.9	19.2	44.1
2007	15.7	10.2	35.8	41.2	55.1	64.6	75.9	68.1	57.8	45.8	29.3	13.8	42.8
2008	10.9	12.4	30.2	41.5	54.1	61.3	71.4	70.0	56.1	43.6	31.6	5.3	40.7
2009	7.8	10.0	20.6	41.4	51.9	60.8	65.9	65.3	64.3	38.0	35.6	5.8	39.0
2010	11.5	10.1	32.9	45.4	51.3	63.2	69.5	68.9	55.5	47.3	26.0	9.3	40.9
2011	9.1	9.9	19.6	39.5	51.7	61.9	71.6	70.2	59.7	48.8	29.0	25.0	41.3
2012	20.9	20.5	41.2	46.3	53.5	64.3	75.0	68.2	58.7	40.5	25.5	13.4	44.0
POR= 51 YRS	9.8	16.4	28.5	43.2	54.4	63.9	70.5	68.8	57.2	44.3	27.5	14.8	41.6

HEATING DEGREE DAYS (base 65°F) 2012 WILLISTON (KISN)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1983-84	1	1	300	544	1031	2158	1538	983	1131	520	343	92	8642
1984-85	0	25	444	741	1128	1845	1793	1446	1001	535	210	201	9369
1985-86	21	73	415	683	1553	1664	1321	1446	775	685	303	35	8974
1986-87	14	48	386	612	1266	1324	1369	997	1012	402	190	33	7653
1987-88	31	88	183	698	920	1301	1781	1444	980	585	175	8	8194
1988-89	1	35	279	637	1114	1479	1613	1757	1292	640	275	115	9237
1989-90	0	35	225	609	1065	1690	1294	1241	927	649	333	88	8156
1990-91	19	7	166	626	1034	1728	1775	999	997	533	253	20	8157
1991-92	5	8	262	744	1188	1289	1306	1058	887	649	313	112	7821
1992-93	75	111	296	644	1116	1704	1838	1551	973	630	277	203	9418
1993-94	100	87	377	704	1197	1376	1945	1727	945	638	257	103	9456
1994-95	19	63	138	563	1072	1524	1719	1259	1136	784	396	101	8774
1995-96	24	16	290	648	1197	1644	2023	1315	1427	776	470	84	9914
1996-97	23	6	293	702	1480	1844	1961	1330	1266	781	396	20	10102
1997-98	34	37	130	630	1167	1223	1740	953	1381	546	290	180	8311
1998-99	9	0	161	591	1051	1490	1778	1188	1001	635	371	118	8393
1999-00	27	17	352	661	817	1198	1645	1264	898	668	289	166	8002
2000-01	15	34	231	580	1425	1841	1467	1652	1067	661	339	157	9469
2001-02	12	15	211	698	883	1561	1491	1115	1581	821	510	114	9012
2002-03	0	67	265	1003	1064	1404	1706	1607	1336	561	396	153	9562
2003-04	6	13	308	527	1495	1473	1878	1455	1002	638	469	245	9509
2004-05	50	86	214	685	960	1354	1850	1166	978	518	398	76	8335
2005-06	13	42	216	636	970	1458	1185	1302	1110	475	323	53	7783
2006-07	4	12	258	817	1105	1411	1519	1527	896	708	307	77	8641
2007-08	4	45	248	589	1063	1581	1668	1516	1071	701	335	132	8953
2008-09	4	32	266	658	994	1842	1769	1534	1369	704	402	171	9745
2009-10	45	66	91	832	876	1829	1653	1528	989	581	427	108	9025
2010-11	4	31	283	542	1165	1722	1726	1534	1402	758	403	120	9690
2011-12	0	9	177	507	1072	1234	1360	1282	730	553	358	71	7353
2012-	1	24	203	752	1180	1594							

WBAN : 94014

COOLING DEGREE DAYS (base 65°F) 2012 WILLISTON (KISN)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1983	0	0	0	0	8	68	314	413	45	0	0	0	848
1984	0	0	0	0	21	54	251	304	8	0	0	0	638
1985	0	0	0	0	26	21	218	68	6	0	0	0	339
1986	0	0	0	0	27	96	94	110	0	0	0	0	327
1987	0	0	0	6	37	150	192	53	22	0	0	0	460
1988	0	0	0	0	75	383	253	175	4	0	0	0	890
1989	0	0	0	5	9	68	338	202	22	0	0	0	644
1990	0	0	0	4	17	110	175	211	75	0	0	0	592
1991	0	0	0	0	25	68	182	282	40	0	0	0	597
1992	0	0	0	3	29	71	50	87	13	2	0	0	255
1993	0	0	0	0	8	28	22	58	2	0	0	0	118
1994	0	0	0	0	5	31	110	169	27	0	0	0	342
1995	0	0	0	0	3	137	137	183	22	0	0	0	482
1996	0	0	0	0	0	89	137	215	7	0	0	0	448
1997	0	0	0	0	9	164	157	157	22	10	0	0	519
1998	0	0	0	0	6	20	223	257	108	0	0	0	614
1999	0	0	0	0	3	40	129	162	0	0	0	0	334
2000	0	0	0	0	3	24	240	181	28	0	0	0	476
2001	0	0	0	5	11	48	207	203	38	0	0	0	512
2002	0	0	0	0	15	84	269	83	29	0	0	0	480
2003	0	0	0	0	16	46	241	322	46	0	0	0	671
2004	0	0	0	0	0	16	164	57	34	0	0	0	271
2005	0	0	0	1	1	76	207	122	50	7	0	0	464
2006	0	0	0	0	26	52	313	185	9	0	0	0	585
2007	0	0	0	0	8	71	353	147	37	0	0	0	616
2008	0	0	0	0	3	30	211	192	6	1	0	0	443
2009	0	0	0	0	2	53	80	83	78	0	0	0	296
2010	0	0	0	0	11	62	152	158	5	0	0	0	388
2011	0	0	0	0	0	32	207	177	26	10	0	0	452
2012	0	0	0	1	9	57	318	127	20	0	0	0	532

SNOWFALL (inches) 2012 WILLISTON (KISN)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1981-82	0.0	0.0	0.0	0.3	4.6	5.7	24.3	8.2	17.0	9.8	0.5	0.0	70.4
1982-83	0.0	0.0	T	T	0.8	13.4	1.7	1.6	9.2	0.1	15.5	0.0	42.3
1983-84	0.0	0.0	1.0	T	6.0	9.2	7.2	0.5	7.9	13.5	0.3	0.0	45.6
1984-85	0.0	0.0	4.0	4.5	3.5	6.5	1.8	3.1	11.4	1.5	0.0	0.0	36.3
1985-86	0.0	0.0	0.1	14.2	11.3	9.2	3.6	8.7	4.4	17.6	T	0.0	69.1
1986-87	0.0	0.0	0.0	T	13.4	1.2	4.2	1.8	14.2	0.4	0.0	0.0	35.2
1987-88	0.0	0.0	0.0	0.2	T	1.2	8.9	3.4	3.7	T	0.0	0.0	17.4
1988-89	0.0	0.0	0.0	T	4.2	13.3	22.8	6.2	1.8	1.3	0.0	T	49.6
1989-90	T	0.0	T	2.2	4.6	5.5	6.0	0.8	4.3	2.4	2.1	T	27.9
1990-91	T	T	0.0	T	1.6	8.7	4.4	5.2	7.2	1.8	2.7	T	31.6
1991-92	T	T	T	5.3	3.3	2.7	6.3	2.2	0.9	3.5	0.0	0.0	24.2
1992-93	0.0	T	0.0	3.8	8.5	10.7	7.3	4.1	2.6	T	0.0	0.0	37.0
1993-94	T	T	T	0.4	16.4	5.2	21.6	21.7	2.4	4.5	0.0	T	72.2
1994-95	0.0	0.0	0.0	T	3.6	14.0	16.1	2.6	9.0	1.9	0.1	0.0	47.3
1995-96	T	0.0	T	0.2	8.2	15.6	18.0	3.7	16.5	1.3	T	0.0	63.5
1996-97	0.0	0.0	0.0	5.8	15.6	19.8	3.2	2.6	12.3	0.5	T	0.0	59.8
1997-98	0.0	0.0	0.0	0.3	4.7	0.1	7.1	20.3	4.8	0.2	0.1	T	37.6
1998-99	0.0	T	0.0	T	15.3	11.3	28.3	4.7	4.2	4.2	4.2	0.0	72.2
1999-00	T	0.0	0.0	0.1	0.1	3.6	8.1	5.7	6.2	11.3	0.2	0.0	35.3
2000-01	0.0	0.0	T	0.4	21.2	7.5	4.8	1.7	0.4	9.1	0.0	0.0	45.1
2001-02	0.0	0.0	0.0	1.7	0.6	6.8	4.8	6.6	15.1	2.8	11.2	0.0	49.6
2002-03	0.0	0.0	0.0	7.5	2.8	6.6	7.3	8.9	7.7	13.5	T	0.0	54.3
2003-04	0.0	0.0	0.0	7.0	9.7	12.3	25.4	3.3	2.7	2.8	1.0	0.0	64.2
2004-05	0.0	0.0	0.0	0.2	0.3	13.0	14.8	0.2	6.6	T	0.5	0.0	35.6
2005-06	0.0	0.0	0.0	5.3	4.9	3.2	3.3	2.9	4.0	2.3	T	0.0	25.9
2006-07	0.0	0.0	0.0	5.2	3.7	5.3	2.1	12.7	2.5	2.5	T	T	34.0
2007-08	0.0	0.0	0.0	0.0	1.0	2.1	4.0	4.2	3.6	T	T	T	14.9
2008-09	0.0	0.0	0.0	8.4	0.2	32.0	10.8	16.7	1.1	0.8	T	T	70.0
2009-10	T	0.0	0.0	1.5	T	8.7	15.5	4.2	1.0	T	0.4	0.0	31.3
2010-	0.0	T	0.0	4.1	15.1	35.3							
POR= 50 YRS	T	T	0.2	2.0	5.3	8.6	8.5	5.5	6.2	4.2	0.8	T	41.3

WBAN : 94014

REFERENCE NOTES :

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).

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).

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.

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 EIGHTHS(OKTAS) FOR REPORTING THE

AMOUNT OF SKY COVER.

STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED

SATION HISTORY INFORMATION GO TO "Historical Observing Metadata

Repository", URL IS:

<http://www.ncdc.noaa.gov/homr/>

SNOWFALL STOPPED MONTH & YEAR INDICATED ABOVE. NO FURTHER

YEARS INCLUDED UNLESS RESTARTED.

NOTE:

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.

The 2012 Annual Publications were reproduced on 6/05/13 to correct two problems that occurred when the Publications were first produced on 02/28/13.

- 1) A small number of stations did not correctly show number of days with thunderstorms and heavy fog.
- 2) Climate Normals in the Annual Publications were based on a first edition of the 1981-2010 Normals release. With the release of Service Pack 1 (SP1) new normals for 83 stations are available and now included. Additional information on SP1 is available at:
<http://www1.ncdc.noaa.gov/pub/data/normals/1981-2010/status.txt>.

2012 WILLISTON NORTH DAKOTA (KISN)

Williston lies in a flat valley at the junction of the Missouri River and Little Muddy Creek. The surrounding country is rolling. Hills to the east are highest, ranging from 250 to 300 feet in height at a distance of 5 to 7 miles. Across the Missouri River to the south, the bluffs are about 225 feet high at 4 miles distance.

Great extremes of temperatures are encountered, winters being cold, while summer days are usually warm. In winter, temperatures below zero are common and lows of -50 degrees have been recorded. When temperatures are lowest, however, the air is generally dry, with little or no wind and the weather is fine and invigorating. At the other extreme, temperatures above 100 degrees have been reached in all months from May to September. The low humidity that generally prevails on the hottest summer days keeps them from becoming oppressive.

The climate of Williston and vicinity is continental, semi-arid, characterized by marked season changes. Winter is the relatively dry season, with only about 1/2 inch of monthly precipitation occurring from November to February. There is considerably less than the average amount of snowfall for similar locations in the United States. Ice crystals, which rarely yield more than a trace of precipitation, are common in the cold months. Although snow has been observed every month except July and August, there is usually very little from April to November. Accumulated winter snow remains unmelted on the ground until about March. Summer precipitation is variable from year to year. The amount of rain occurring during the growing period is the most important element of climate for agricultural interests in the vicinity of Williston. Generally, considerably more precipitation occurs in the spring and summer months than in winter, but even so, the rainfall is just adequate for successful farming operations in normal years. A series of dry years, in addition to causing failure of crops, may result in erosion of the fertile topsoil by winds.

The growing season averages 131 days. It has ranged from 94 to 172 days during the period of record.

Clear and partly cloudy skies, nearly equally distributed, occur about 70 percent of the time. Heavy fog occurs on the average about ten times a year. Because of the northern latitude of Williston, it enjoys long hours of daylight in the spring and summer. Relatively little cloudiness occurs then, so that the duration of sunshine averages about two-thirds of the possible amount. These conditions are conducive to rapid growth of vegetation, making successful agricultural pursuits possible in spite of the relatively short growing season.

Summer storms are generally in the form of thunderstorms or rain showers, occasionally accompanied by hail and squally winds. Tornadoes are rare in this area. In the winter, cold waves and occasionally blizzard conditions occur. Cold waves result when extremely cold air advances southward from northwestern Canada. In blizzard conditions the advancing cold wave is accompanied by winds of gale force and the air is filled with fine, wind-driven snow. In extreme instances in the country, it becomes impossible for persons to ascertain their bearings or to remain alive many hours without shelter in such storms.

Station History

WILLISTON, ND

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
WILLISTON SLOULIN FIELD INTL AP	1996-04-01	2005-07-05	48° 10'	-103° 38'	1902		ASOS, COOP, WXSVC
WILLISTON MUNICIPAL AP SLOULIN FIELD	1962-01-19	1964-07-01	48° 10'	-103° 37'	1900		AIRWAYS, COOP
WILLISTON SLOULIN FIELD INTL AP	1973-01-01	1988-02-08	48° 10'	-103° 37'	1900		COOP, WXSVC
WILLISTON MUNICIPAL AP SLOULIN FIELD	1954-09-15	1962-01-19	48° 10'	-103° 37'	1895		AIRWAYS
WILLISTON SLOULIN FIELD INTL AP	1988-02-08	1996-04-01	48° 10'	-103° 37'	1899		COOP, WXSVC
WILLISTON SLOULIN FIELD INTL AP	2005-07-05	Present	48° 10'	-103° 38'	1902		ASOS, COOP, WXSVC
WILLISTON SLOULIN FIELD INTL AP	1964-07-01	1973-01-01	48° 10'	-103° 37'	1900		AIRWAYS, COOP

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
TEMP	1982-01-01	1988-02-08	DAILY	2400	TEMPX		
PRECIP	1988-02-08	1995-07-01	DAILY	2400	SRG		
PRECIP	1996-04-01	2005-07-05	HOURLY	2400	TB	RCRD	
TEMP	2010-10-01	Present	DAILY	2400	HYGR		
PRECIP	1982-01-01	1988-02-08	HOURLY	2400			
TEMP	2005-07-05	2010-10-01	DAILY	2400	HYGR		
PRECIP	1988-02-08	1995-07-01	HOURLY	2400			
PRECIP	1996-04-01	2005-07-05	DAILY	2400			
TEMP	1962-01-19	1982-01-01	DAILY	2400	TEMPX		
TEMP	1995-07-01	1996-04-01	DAILY	2400	HYGR		
PRECIP	1982-01-01	1988-02-08	DAILY	2400	UNIV	RCRD	
PRECIP	2010-10-01	Present	HOURLY	2400	TB	SHLD;RCRD	
PRECIP	2010-10-01	Present	DAILY	2400	PCPN1		
PRECIP	1962-01-19	1982-01-01	DAILY	2400	UNIV	RCRD	
TEMP	1996-04-01	2005-07-05	DAILY	2400	HYGR		
PRECIP	1995-07-01	1996-04-01	DAILY	2400	SRG		
PRECIP	1995-07-01	1996-04-01	HOURLY	2400	UNIV	RCRD	
PRECIP	2005-07-05	2010-10-01	HOURLY	2400	TB	RCRD	
TEMP	1988-02-08	1995-07-01	DAILY	2400	HYGR		
PRECIP	2005-07-05	2010-10-01	DAILY	2400	PCPN1		

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

Other Station Information can be found at:

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

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

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

Fax Number : (828) 271-4876

TDD : (828) 271-4010

Email : ncdc.orders@noaa.gov

NOAA/National Climatic Data Center

Attn: User Engagement & Services Branch

151 Patton Avenue

Asheville, NC 28801-5001

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