

2005

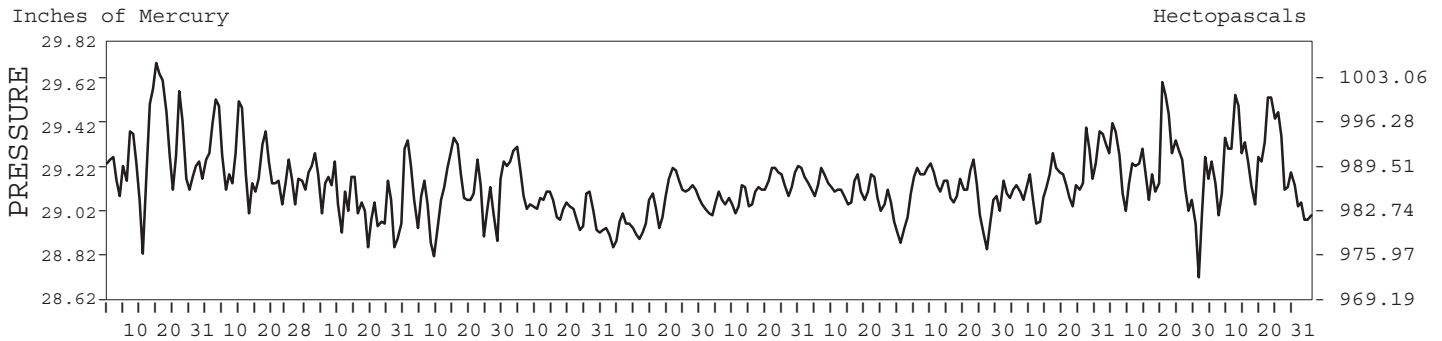
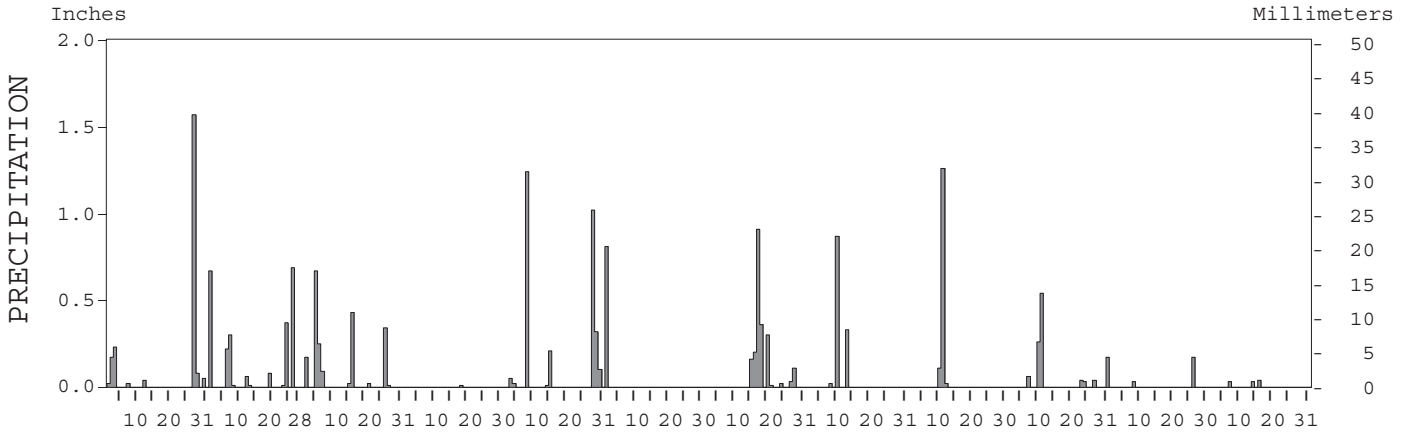
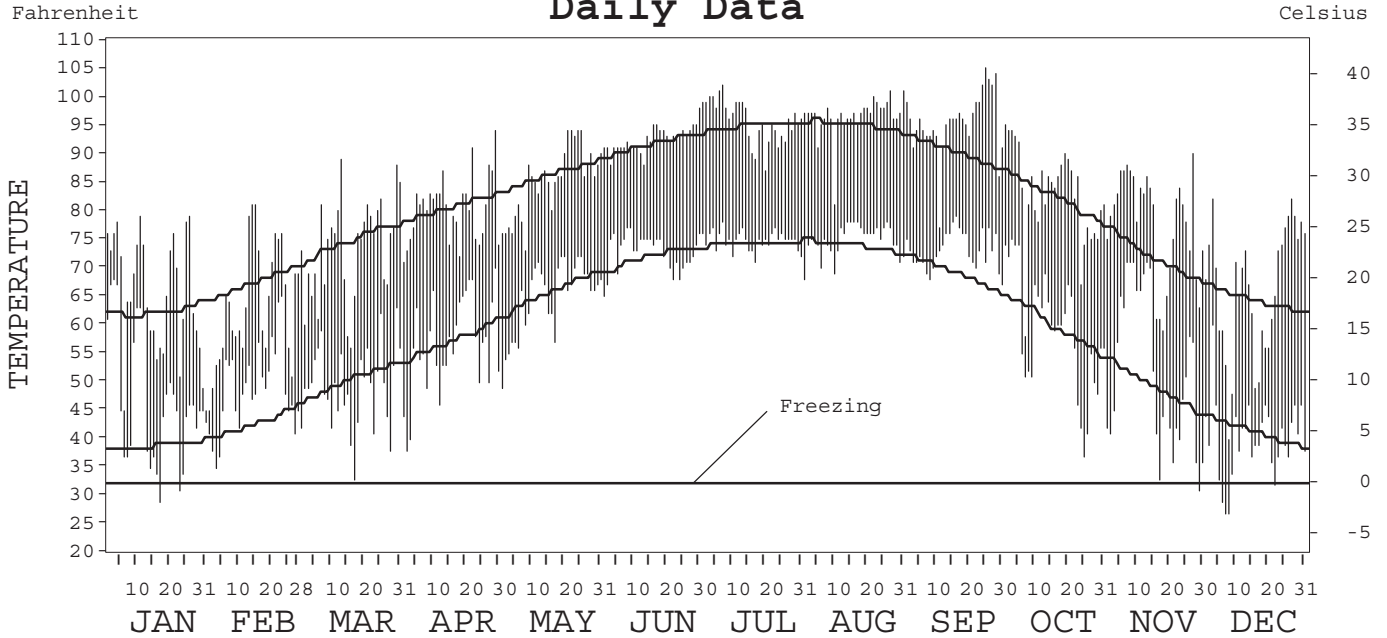
LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-5183

SAN ANTONIO,
TEXAS (SAT)

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 2005

SAN ANTONIO, TX (SAT)

LATITUDE: 29° 31' 58" N LONGITUDE: 98° 27' 49" W ELEVATION (FT): GRND: 818 BARO: 821 TIME ZONE: CENTRAL (UTC + 6) WBAN: 12921

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	65.0	63.8	73.5	80.3	85.2	92.4	95.7	96.5	95.4	82.9	77.7	66.1	81.2	
	HIGHEST DAILY MAXIMUM	79	81	89	94	94	98	102	101	105	95	90	82	105	
	DATE OF OCCURRENCE	26+	15+	13	29	25+	30	07	31+	25	01	27	27+	SEP 25	
	MEAN DAILY MINIMUM	46.8	48.8	49.2	56.4	64.8	72.7	74.8	74.9	73.1	58.9	52.1	39.9	59.4	
	LOWEST DAILY MINIMUM	29	35	33	38	49	65	71	68	67	37	31	27	27	
	DATE OF OCCURRENCE	17	03	17	02	01	01	17	01	30	25	29	08+	DEC 08+	
	AVERAGE DRY BULB	55.9	56.3	61.4	68.4	75.0	82.6	85.3	85.7	84.3	70.9	64.9	53.0	70.3	
	MEAN WET BULB	50.4	52.2	54.7	59.3	67.7	73.8	75.7	75.5	73.6	63.0				
	MEAN DEW POINT	45.1	48.4	48.6	51.9	64.0	69.9	72.0	71.4	69.0	57.9				
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	2	8	28	29	30	28	6	1	0	0	132
	MAXIMUM ≤ 32°	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIMUM ≤ 32°	2	0	0	0	0	0	0	0	0	0	1	4	7	7
MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
H/C	HEATING DEGREE DAYS	312	248	146	28	2	0	0	0	0	40	132	372	1280	
	COOLING DEGREE DAYS	37	13	41	136	317	534	637	649	585	231	135	6	3321	
RH	MEAN (PERCENT)	72	78	67	61	72	69	71	67	66	69	60	55	67	
	HOUR 00 LST	78	81	73	69	83	80	81	80	79	81	73	63	77	
	HOUR 06 LST	84	88	85	79	90	92	93	91	89	90	78	68	86	
	HOUR 12 LST	66	72	59	50	61	57	55	52	50	54	48	44	56	
	HOUR 18 LST	60	68	51	45	54	49	54	45	47	53	44	44	51	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	2	5	2	0	0	0	0	0	0	0	1	1	11	
	THUNDERSTORMS	2	2	4	2	7	3	8	5	2	3	1	0	39	
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.)	29.31	29.25	29.08	29.12	29.08	29.04	29.12	29.10	29.13	29.18	29.22	29.25	29.16	
	MEAN SEA-LEVEL PRESS. (IN.)	30.14	30.09	29.91	29.94	29.90	29.84	29.93		29.94	30.00				
WINDS	RESULTANT SPEED (MPH)	2.0	2.8	0.9	2.8	1.5	2.1	0.3	3.0	1.7	2.7	1.8	1.8	0.7	
	RES. DIR. (TENS OF DEGS.)	09	05	30	13	22	30	04	02	13	05	19	01	06	
	MEAN SPEED (MPH)	8.3	7.1	8.5	10.0	8.9	9.5	7.7	8.4	7.7	7.2	7.7	7.4	8.2	
	PREVAIL. DIR. (TENS OF DEGS.)	02	02	31	15	14	14	16	16	15	10	18	32	14	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	28	28	29	29	30	29	35	29	24	32	30	26	35	
	DIR. (TENS OF DEGS.)	33	33	34	34	31	18	15	20	13	31	02	34	15	
	DATE OF OCCURRENCE	13	24	26	01	15	04+	18	13	14	31	15	24	JUL 18	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	36	33	33	38	35	39	38	40	31	44	40	32	44	
DIR. (TENS OF DEGS.)	33	34	33	02	32	34	12	21	02	29	02	33	29		
DATE OF OCCURRENCE	13	24	26+	30	15	01	24	13	23	31	15	14	OCT 31		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	2.18	2.42	2.00	0.01	2.97	0.81	2.10	1.22	1.39	1.14	0.20	0.10	16.54	
	GREATEST 24-HOUR (IN.)	1.65	0.69	0.87	0.01	1.34	0.81	0.91	0.87	1.37	0.54	0.17	0.04	1.65	
	DATE OF OCCURRENCE	27-28	26	05-06	18	28-29	01	17	10	10-11	11	26	16	JAN 27-28	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	8	10	9	1	8	1	9	3	3	7	2	3	64	
PRECIPITATION ≥ 0.10	3	5	5	0	5	1	6	2	2	3	1	0	33		
PRECIPITATION ≥ 1.00	1	0	0	0	2	0	0	0	1	0	0	0	4		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T	
	GREATEST 24-HOUR (IN.)	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T	
	DATE OF OCCURRENCE						01							JUN 01	
	MAXIMUM SNOW DEPTH (IN.)	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NUMBER OF DAYS WITH:														
SNOWFALL ≥ 1.0	0	0	0	0	0	0	0	0	0	0	0	0	0		

PRECIPITATION (inches) 2005 SAN ANTONIO, TX (SAT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1976	0.56	0.13	1.20	5.67	5.80	1.61	5.39	2.09	3.79	8.48	2.46	1.95	39.13
1977	3.10	0.91	0.88	8.80	1.62	2.26	0.10	0.06	2.11	3.47	6.01	0.32	29.64
1978	0.68	1.76	1.71	3.62	2.45	3.96	1.43	4.97	8.86	0.55	4.91	1.09	35.99
1979	4.07	1.38	3.55	5.34	1.98	5.59	7.38	2.09	0.86	0.11	1.43	2.86	36.64
1980	0.72	0.74	0.98	1.67	6.42	0.52	0.26	2.64	5.05	1.09	3.53	0.61	24.23
1981	2.06	0.96	1.96	2.21	6.43	8.71	0.25	2.41	1.36	8.61	0.72	0.69	36.37
1982	0.72	1.28	0.69	1.23	6.42	1.37	0.14	0.55	0.87	2.84	4.54	2.31	22.96
1983	1.48	1.54	3.89	0.18	4.37	1.27	2.43	2.00	3.86	1.64	3.06	0.39	26.11
1984	1.87	0.54	1.91	0.11	3.76	1.40	T	3.04	1.06	5.94	2.91	3.41	25.95
1985	2.68	1.91	2.85	3.27	2.47	8.20	5.80	0.45	4.80	3.91	5.00	0.09	41.43
1986	0.76	2.52	0.35	0.60	6.29	11.95	0.05	1.86	2.83	6.58	1.83	7.11	42.73
1987	1.13	4.78	1.10	1.48	12.85	7.69	1.21	0.33	2.24	0.44	2.53	2.18	37.96
1988	0.39	0.92	0.86	1.23	0.41	5.50	5.58	1.98	0.83	0.62	0.02	0.67	19.01
1989	2.96	0.29	1.24	2.55	0.33	3.96	0.69	0.48	1.54	5.81	1.93	0.36	22.14
1990	1.17	2.68	5.17	4.52	3.28	1.18	8.29	1.30	3.70	3.71	3.11	0.20	38.31
1991	5.08	2.34	1.06	4.91	5.30	2.28	2.23	2.84	1.42	0.87	0.47	13.96	42.76
1992	5.64	6.37	6.12	3.03	8.15	5.67	1.28	2.56	1.12	0.92	3.47	2.16	46.49
1993	1.31	3.72	1.56	1.81	12.47	6.43	T	0.01	0.52	3.07	0.66	0.44	32.00
1994	1.55	0.64	5.06	2.21	7.01	1.66	0.50	2.54	5.52	9.75	0.71	3.28	40.43
1995	0.28	1.19	1.58	1.07	5.36	4.81	0.71	2.03	4.49	0.23	0.82	0.09	22.66
1996	T	0.70	0.30	0.89	1.26	2.12	1.31	2.86	3.66	0.36	2.79	1.56	17.81
1997	0.44	2.44	2.24	5.72	3.91	7.30	T	0.62	1.86	4.08	1.76	3.55	33.92
1998	3.21	3.37	2.85	0.05	0.34	0.81	0.21	7.78	1.57	18.07	3.40	0.39	42.05
1999	0.04	0.01	3.48	0.91	2.78	3.37	1.80	2.11	0.05	1.29	0.05	0.52	16.41
2000	1.40	2.20	0.91	1.22	3.59	7.61	0.34	0.16	2.65	5.62	8.58	1.57	35.85
2001	2.85	0.70	2.77	2.29	2.48	3.39	0.50	7.83	4.05	2.06	4.37	3.43	36.72
2002	0.37	0.42	1.19	3.82	2.26	1.48	16.92	0.54	7.02	7.64	2.08	2.53	46.27
2003	0.99	2.15	0.77	0.17	0.12	2.90	8.12	1.65	9.21	1.94	0.32	0.11	28.45
2004	2.31	1.73	2.35	5.02	1.80	9.47	0.61	1.10	1.92	9.47	9.46	0.08	45.32
2005	2.18	2.42	2.00	0.01	2.97	0.81	2.10	1.22	1.39	1.14	0.20	0.10	16.54
POR= 121 YRS	1.67	1.74	1.79	2.82	3.61	3.20	2.14	2.37	3.18	2.85	2.09	1.76	29.22

WBAN : 12921

AVERAGE TEMPERATURE (°F) 2005 SAN ANTONIO, TX (SAT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1976	49.6	61.2	63.8	68.9	71.3	79.8	79.8	81.6	77.5	61.1	52.1	49.9	66.4
1977	44.1	52.8	61.8	66.9	74.8	81.5	84.9	84.7	82.3	71.2	61.4	53.4	68.3
1978	43.4	46.4	59.6	68.9	77.1	82.7	86.1	83.1	78.5	69.3	62.4	51.7	67.4
1979	43.7	52.4	63.3	69.7	73.9	80.9	84.7	83.1	78.7	74.7	58.2	55.4	68.2
1980	52.6	53.7	61.5	67.6	76.1	85.1	88.1	85.3	83.7	70.7	58.3	55.0	69.8
1981	50.8	53.7	60.7	72.9	75.3	81.5	84.2	84.7	78.9	71.9	62.4	53.0	69.2
1982	50.8	49.7	63.1	66.9	74.5	81.6	85.5	86.0	80.1	69.3	59.4	52.4	68.3
1983	48.9	52.1	58.7	65.2	73.6	79.2	82.9	84.5	78.5	70.9	62.5	43.0	66.7
1984	46.7	54.1	64.2	69.7	77.1	82.8	85.0	84.7	77.6	71.2	58.8	59.6	69.3
1985	44.2	50.5	64.1	69.4	76.7	80.2	82.2	85.5	79.4	71.7	64.4	49.9	68.2
1986	53.4	58.0	62.9	72.6	74.6	81.5	85.8	85.7	83.7	69.7	59.4	51.6	69.9
1987	50.7	55.9	57.8	66.1	75.8	80.5	83.8	86.0	79.2	71.2	60.6	54.2	68.5
1988	47.6	54.3	61.3	69.1	76.1	81.2	84.6	86.4	80.7	73.2	65.1	56.0	69.6
1989	56.2	51.6	61.9	70.4	81.7	83.3	86.6	86.0	79.1	71.3	61.8	43.4	69.4
1990	56.4	58.9	61.5	69.7	79.3	87.5	83.4	85.3	80.0	69.3	63.0	51.9	70.5
1991	48.9	56.6	64.0	72.4	77.7	82.8	84.5	85.8	77.8	73.3	57.4	55.5	69.7
1992	50.8	59.1	63.3	69.0	73.7	82.5	84.7	82.2	81.7	73.4	57.3	56.3	69.5
1993	51.2	55.5	61.5	67.3	73.9	81.6	86.1	87.3	81.5	70.7	56.3	55.1	69.0
1994	52.3	56.2	63.9	69.8	76.0	84.5	87.9	86.1	78.4	72.7	64.8	57.0	70.8
1995	53.5	57.4	61.9	69.8	78.6	79.3	84.3	85.5	80.1	69.8	59.5	55.6	69.6
1996	51.0	57.9	57.6	69.5	81.9	84.1	87.3	84.4	78.4	71.1	61.3	54.5	69.9
1997	49.2	53.1	63.3	63.9	74.0	79.8	85.1	86.1	82.2	70.2	57.4	50.2	67.9
1998	56.4	55.3	59.8	66.7	79.8	86.3	88.1	83.6	80.5	71.4	62.4	52.7	70.3
1999	54.6	61.8	62.7	71.2	76.2	81.9	82.9	86.1	80.3	69.6	63.1	54.0	70.4
2000	55.2	62.6	67.0	70.7	78.6	81.0	85.9	86.3	81.0	71.1	56.9	46.4	70.2
2001	49.2	57.5	56.6	70.8	76.3	82.6	85.4	85.6	76.9	67.9	62.9	53.8	68.8
2002	54.0	50.8	60.3	73.2	76.8	83.4	82.5	85.3	78.7	70.7	57.8	53.8	68.9
2003	49.8	53.1	60.6	71.6	80.4	81.7	82.0	83.7	76.7	70.6	63.1	53.9	68.9
2004	54.5	52.7	66.0	67.2	76.2	80.9	82.9	83.4	80.5	76.9	61.1	53.2	69.6
2005	55.9	56.3	61.4	68.4	75.0	82.6	85.3	85.7	84.3	70.9	64.9	53.0	70.3
POR= 121 YRS	51.6	55.4	62.1	69.3	75.5	81.6	84.0	84.2	79.4	71.0	60.4	53.5	69.0

HEATING DEGREE DAYS (base 65°F) 2005 SAN ANTONIO, TX (SAT)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1976-77	0	0	0	160	382	461	643	336	144	32	0	0	2158
1977-78	0	0	0	19	138	360	667	521	192	27	4	0	1928
1978-79	0	0	0	12	152	413	657	356	109	20	4	0	1723
1979-80	0	0	0	15	243	306	386	333	163	42	0	0	1488
1980-81	0	0	0	62	245	331	437	332	157	10	0	0	1574
1981-82	0	0	2	52	112	368	445	430	171	77	2	0	1659
1982-83	0	0	0	49	237	404	490	356	208	99	1	0	1844
1983-84	0	0	5	20	154	681	563	315	120	21	2	0	1881
1984-85	0	0	9	28	228	203	635	406	109	26	0	0	1644
1985-86	0	0	10	9	112	467	354	232	106	8	1	0	1299
1986-87	0	0	0	14	204	413	443	254	233	98	0	0	1659
1987-88	0	0	0	1	194	339	538	323	179	38	0	0	1612
1988-89	0	0	0	0	122	291	292	392	187	55	0	0	1339
1989-90	0	0	0	42	165	663	283	190	154	32	0	0	1529
1990-91	0	0	0	50	142	422	494	240	96	7	0	0	1451
1991-92	0	0	5	30	271	306	435	188	91	31	5	0	1362
1992-93	0	0	0	0	260	287	421	269	147	42	0	0	1426
1993-94	0	0	0	85	287	323	391	273	130	28	10	0	1527
1994-95	0	0	0	19	99	267	359	215	180	29	0	0	1168
1995-96	0	0	9	12	187	324	435	280	277	63	0	0	1587
1996-97	0	0	0	27	165	325	498	338	108	84	0	0	1545
1997-98	0	0	0	44	251	449	269	270	214	30	0	0	1527
1998-99	0	0	0	22	120	404	328	137	109	32	0	0	1152
1999-00	0	0	0	56	98	346	300	135	79	29	0	0	1043
2000-01	0	0	2	76	269	570	484	234	255	15	0	0	1905
2001-02	0	0	0	38	133	367	357	389	202	14	1	0	1501
2002-03	0	0	0	24	217	353	465	339	160	20	0	0	1578
2003-04	0	0	0	16	154	345	336	356	38	43	2	0	1290
2004-05	0	0	0	2	135	368	312	248	146	28	2	0	1241
2005-	0	0	0	40	132	372							

WBAN : 12921

COOLING DEGREE DAYS (base 65°F) 2005 SAN ANTONIO, TX (SAT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1976	3	62	113	136	202	451	467	521	383	45	0	0	2383
1977	0	3	52	98	311	502	620	618	525	218	38	5	2990
1978	3	7	30	152	384	537	660	567	410	154	79	11	2994
1979	3	13	65	166	285	482	619	570	418	322	42	13	2998
1980	11	14	61	127	355	614	725	635	567	245	51	26	3431
1981	3	24	30	255	324	502	603	619	424	273	41	3	3101
1982	11	5	117	142	304	504	645	659	459	191	72	19	3128
1983	0	0	21	111	276	435	560	611	417	207	84	8	2730
1984	0	8	101	169	383	541	625	618	394	230	46	44	3159
1985	0	8	85	165	368	462	539	641	450	223	101	5	3047
1986	2	45	49	244	304	500	652	646	568	166	40	4	3220
1987	4	5	17	135	340	471	589	658	434	199	67	12	2931
1988	6	19	71	166	352	492	617	671	480	264	131	20	3289
1989	24	23	99	222	524	557	678	656	429	244	75	0	3531
1990	22	26	53	177	450	681	578	635	459	192	91	23	3387
1991	0	10	70	234	402	541	612	654	396	295	49	20	3283
1992	0	23	47	158	281	531	618	542	508	267	34	24	3033
1993	1	7	45	117	283	503	660	698	503	267	31	22	3137
1994	8	34	102	183	357	593	715	659	410	261	97	27	3446
1995	7	9	90	177	429	436	603	644	467	167	28	40	3097
1996	9	79	57	203	530	578	700	610	411	220	60	8	3465
1997	12	11	61	60	286	449	628	660	522	212	27	0	2928
1998	11	3	56	84	467	645	724	582	470	227	49	32	3350
1999	12	56	45	225	352	512	561	664	467	206	46	11	3157
2000	7	73	147	207	428	487	654	668	487	270	33	0	3461
2001	1	30	1	195	357	530	640	642	362	135	76	26	2995
2002	24	0	64	268	375	559	550	634	416	206	11	11	3118
2003	0	12	29	224	482	510	533	588	357	197	101	7	3040
2004	19	2	74	116	353	483	563	576	472	378	26	7	3069
2005	37	13	41	136	317	534	637	649	585	231	135	6	3321

SNOWFALL (inches) 2005 SAN ANTONIO, TX (SAT)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1976-77	0.0	0.0	0.0	0.0	T	T	0.0	0.0	0.0	0.0	0.0	0.0	T
1977-78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	T
1978-79	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	T
1979-80	0.0	0.0	0.0	0.0	T	0.0	0.0	T	0.0	0.0	0.0	0.0	T
1980-81	0.0	0.0	0.0	0.0	T	0.0	T	0.0	0.0	0.0	0.0	0.0	T
1981-82	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.5
1982-83	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1983-84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1984-85	0.0	0.0	0.0	0.0	0.0	0.0	15.9	T	0.0	0.0	0.0	0.0	15.9
1985-86	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	T
1986-87	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	1.3
1987-88	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
1988-89	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	T	T
1989-90	0.0	0.0	0.0	0.0	0.0	T	0.0	T	T	T	0.0	0.0	T
1990-91	0.0	0.0	0.0	0.0	0.0	T	0.0	T	0.0	T	T	0.0	T
1991-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T	0.0	0.0	0.0	T
1992-93	0.0	0.0	0.0	0.0	T	0.0	T	0.0	0.0	T	T	0.0	T
1993-94	0.0	0.0	0.0	T	0.0	0.0	T	T	T	0.0	0.0	0.0	T
1994-95	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	T
1995-96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T
1996-97													
1997-98													
1998-99													
1999-00							0.0	T	0.0	T	0.0	0.0	
2000-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2001-02	0.0	0.0	0.0	T	0.0	0.0	0.0	T	T	T	0.0	0.0	T
2002-03	0.0	0.0	0.0	0.0	T	T	0.0	0.2	0.0	0.0	0.0	0.0	0.2
2003-04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.7
2004-05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T
2005-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T
POR= 59 YRS	0.0	0.0	0.0	T	0.0	0.0	0.5	0.2	T	T	T	T	0.7

WBAN : 12921

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.</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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2005
SAN ANTONIO,
TEXAS (SAT)

The city of San Antonio is located in the south-central portion of Texas on the Balcones escarpment. Northwest of the city, the terrain slopes upward to the Edwards Plateau and to the southeast it slopes downward to the Gulf Coastal Plains. Soils are blackland clay and silty loam on the Plains and thin limestone soils on the Edwards Plateau.

The location of San Antonio on the edge of the Gulf Coastal Plains is influenced by a modified subtropical climate, predominantly continental during the winter months and marine during the summer months. Temperatures range from 50 degrees in January to the middle 80s in July and August. While the summer is hot, with daily temperatures above 90 degrees over 80 percent of the time, extremely high temperatures are rare. Mild weather prevails during much of the winter months, with below-freezing temperatures occurring on an average of about 20 days each year.

San Antonio is situated between a semi-arid area to the west and the coastal area of heavy precipitation to the east. The normal annual rainfall of nearly 28 inches is sufficient for the production of most crops. Precipitation is fairly well distributed throughout the year with the heaviest amounts occurring during May and September. The precipitation from April through September usually occurs from thunderstorms. Large amounts of precipitation may fall during short periods of time. Most of the winter precipitation occurs as light rain or drizzle. Thunderstorms and heavy rains have occurred in all months of the year. Hail of damaging intensity seldom occurs but light hail is frequent with the springtime thunderstorms. Measurable snow occurs only once in three or four years. Snowfall of 2 to 4 inches occurs about every ten years.

Northerly winds prevail during most of the winter, and strong northerly winds occasionally occur during storms called northers. Southeasterly winds from the Gulf of Mexico also occur frequently during winter and are predominant in summer.

Since San Antonio is located only 140 miles from the Gulf of Mexico, tropical storms occasionally affect the city with strong winds and heavy rains. One of the fastest winds recorded, 74 mph, occurred as a tropical storm moved inland east of the city in August 1942.

Relative humidity is above 80 percent during the early morning hours most of the year, dropping to near 50 percent in the late afternoon.

San Antonio has about 50 percent of the possible amount of sunshine during the winter months and more than 70 percent during the summer months. Skies are clear to partly cloudy more than 60 percent of the time and cloudy less than 40 percent. Air carried over San Antonio by southeasterly winds is lifted orographically, causing low stratus clouds to develop frequently during the later part of the night. These clouds usually dissipate around noon, and clear skies prevail a high percentage of the time during the afternoon.

The first occurrence of 32 degrees Fahrenheit is in late November and the average last occurrence is in early March.

STATION LOCATION

SAN ANTONIO, TEXAS

LOCATION	Occupied From	Occupied To	Airline Distances and Directions from previous Location	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE										AUTOMATIC OBSERVING EQUIPMENT *	* TYPE M = AMOS T = AUTOB S = ASOS W = AWOS REMARKS
						SEA LEVEL		GROUND									
						GROUND TEMPERATURE	SITE	WIND INSTRUMENT	EX-TREME THERMOMETERS	PSYCHROMETER	SUNSHINE SWITCH	TRAINING GAUGE	WEIGHING GAUGE	8 INCH RAIN GAUGE	HYGROMETER		
*NOTE:																	
<u>AIRPORT</u>																	
Feeder Lines Terminal Building, San Antonio International Airport	8/15/53	5/24/72	1200' NW	29°32'	98°28'	c788	a23	5	5		4		3	b4	a. 33 ft. to 9/1/61. b. Telepsychrometer (4') 10/17/48 - removed 1/20/69. Hygro. comm. 1000' NE of thermometer site 4/1/64. c. 792 ft. to 4/1/64.		
North Crown Building 830 N.E. Loop 410 International Airport	5/24/72	06/01/95	1.1 mi. SE	29°32'	98°28'	788	23 g23			80	74	f74	74	d4 h5	d. Same site as prior to 5/24/72. f. Added 9/1/76. g. Minor adjustment 5/1/86. h. Minor move & type change 5/1/86.		
International Airport	06/01/95	Present	NA	29°32'	98°28'	1818								S	ASOS Commissioned 06/01/95 i. Ground elevation.		

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* NOTES: For earlier station history see previous editions.