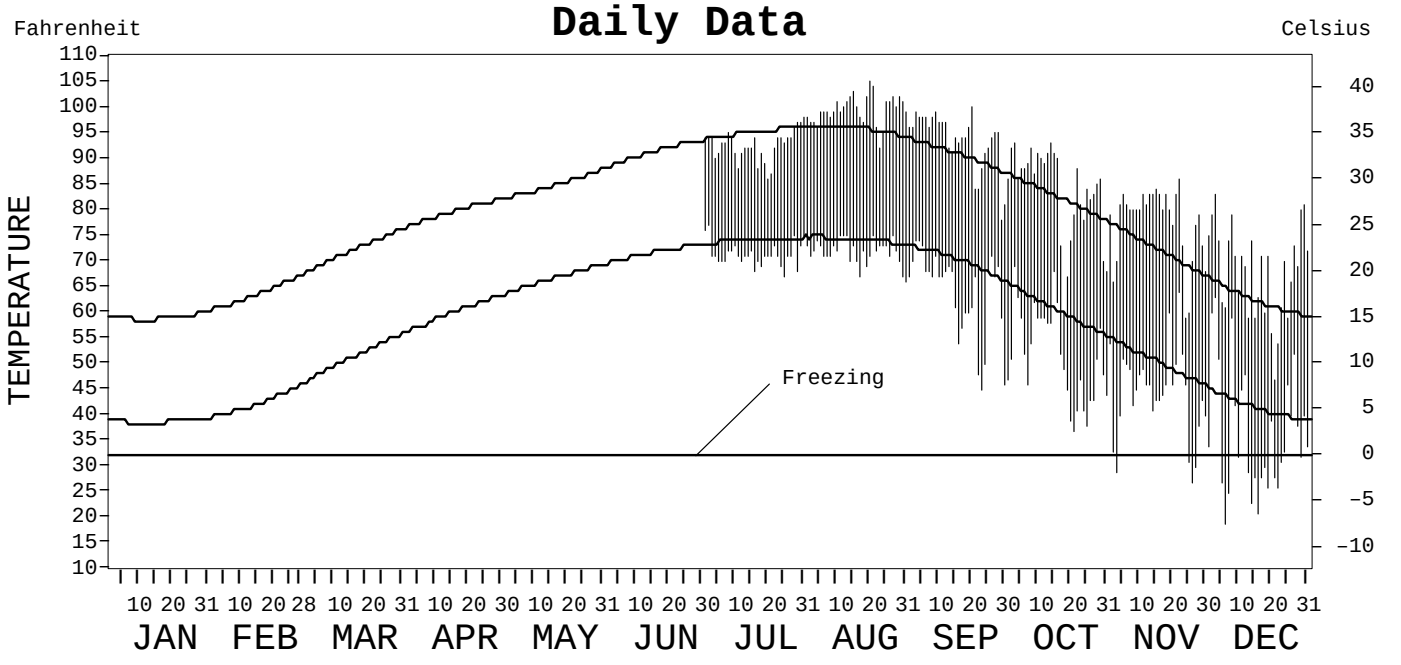
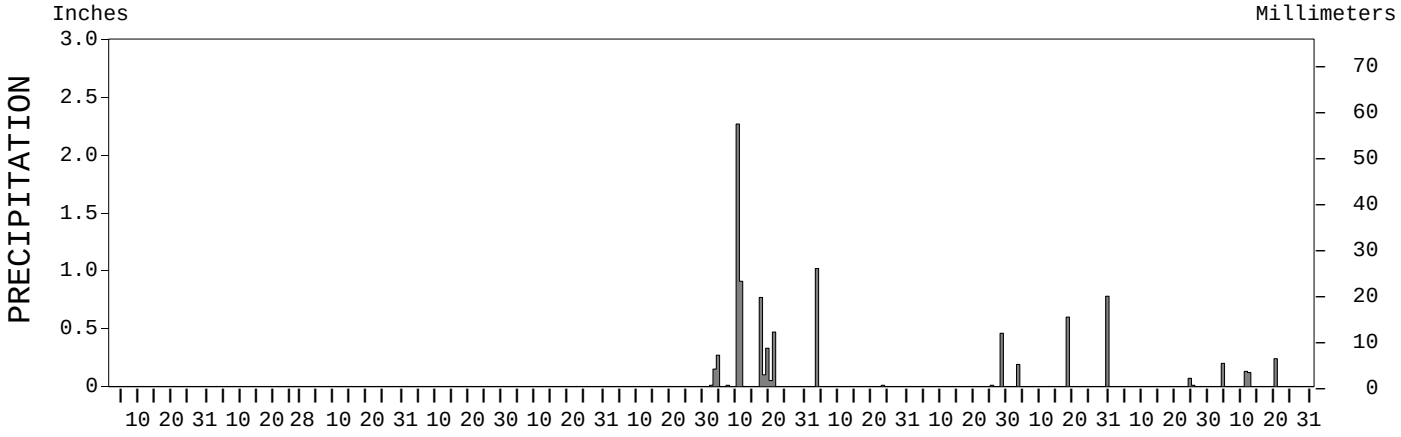
1999 LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA

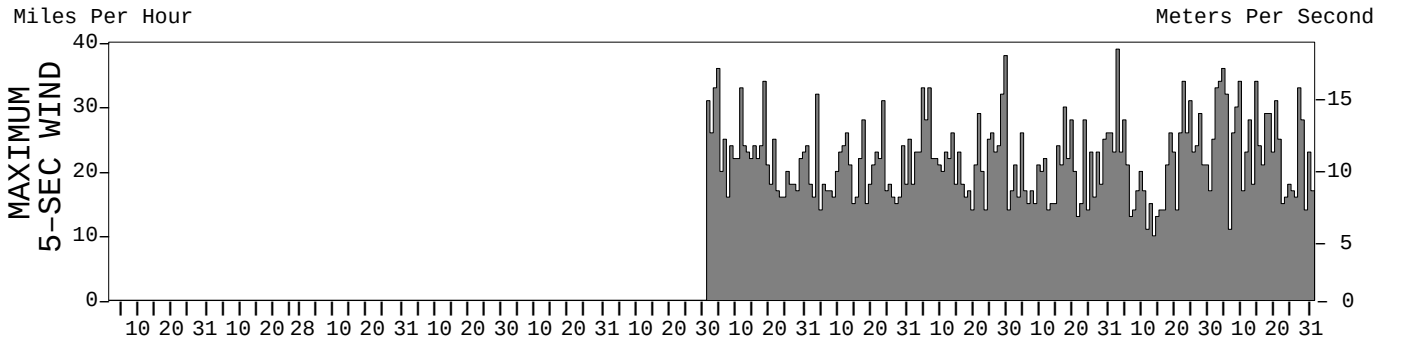
ISSN –

AUSTIN/BERGSTROM,
TEXAS (AUS)

Daily Data







I CERTIFY THAT THIS IS AN OFFICIAL PUBLICATION OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, AND IS COMPILED FROM RECORDS ON FILE AT THE NATIONAL CLIMATIC DATA CENTER.

Thomas R. Karl

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

METEOROLOGICAL DATA FOR 1999

AUSTIN/BERGSTROM, TX (AUS)

LATITUDE: 30° 10′ 46″ N LONGITUDE: 97° 40′ 50″ W ELEVATION (FT): GRND: 541 BARO: 541 TIME ZONE: CENTRAL (UTC + 6) WBAN: 13904

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	MEAN DAILY MAXIMUM							92.5	99.5	93.5	83.7	77.5	68.0	
	HIGHEST DAILY MAXIMUM							98	105	100	93	86	83	
	DATE OF OCCURRENCE							31	20	20	14+	22	03	
	MEAN DAILY MINIMUM							71.3	71.8	63.8	51.6	44.2	36.4	
	LOWEST DAILY MINIMUM							67	66	45	37	27	19	
	DATE OF OCCURRENCE							25	31	23	21	26	06	
	AVERAGE DRY BULB							81.9	85.7	78.7	67.7	60.9	52.2	
	MEAN WET BULB							74.9	74.8	68.1	59.5	53.9	45.7	
	MEAN DEW POINT							72.5	69.9	62.0	54.3	48.2	37.5	
	NUMBER OF DAYS WITH:													
	MAXIMUM ≥ 90°							26	31	25	9	0	0	
	MAXIMUM ≤ 32°							0	0	0	0	0	0	
	MINIMUM ≤ 32°							0	0	0	0	4	15	
	MINIMUM ≤ 0°							0	0	0	0	0	0	
H/C	HEATING DEGREE DAYS							0	0	1	65	138	405	
	COOLING DEGREE DAYS							534	645	419	156	23	17	
RH	MEAN (PERCENT)							78	64	62	69	70	62	
	HOUR 00 LST							93	79	76	86	87	71	
	HOUR 06 LST							98	93	89	93	92	79	
	HOUR 12 LST							59	44	43	47	47	47	
	HOUR 18 LST							62	38	38	48	51	49	
S	PERCENT POSSIBLE SUNSHINE							68	85	90	85	84	72	
W/O	NUMBER OF DAYS WITH:													
	HEAVY FOG(VISBY ≤ 1/4 MI)							3	0	0	0	7	1	
	THUNDERSTORMS							12	1	2	1	0	1	
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.)							29.44	29.36	29.38	29.50	29.59	29.56	
	MEAN SEA-LEVEL PRESS. (IN.)							29.99	29.91	29.93	30.06	30.16	30.14	
WINDS	RESULTANT SPEED (MPH)							2.6	2.3	1.4	0.8	0.5	1.7	
	RES. DIR. (TENS OF DEGS.)							15	15	13	36	20	28	
	MEAN SPEED (MPH)							6.5	5.5	7.0	6.1	6.4	8.1	
	PREVAIL.DIR.(TENS OF DEGS.)							18	20	18	18	18	33	
	MAXIMUM 2-MINUTE WIND:													
	SPEED (MPH)							28	29	31	25	32	29	
	DIR. (TENS OF DEGS.)							17	05	01	35	02	17	
	DATE OF OCCURRENCE							04	03	29	17	02	04	
	MAXIMUM 5-SECOND WIND:													
	SPEED (MPH)							36	32	38	30	39	36	
	DIR. (TENS OF DEGS.)							17	05	01	31	01	19	
	DATE OF OCCURRENCE							04	03	29	17	02	04	
PRECIPITATION	WATER EQUIVALENT:													
	TOTAL (IN.)							5.34	1.03	0.47	1.57	0.08	0.69	
	GREATEST 24-HOUR (IN.)							3.18	1.02	0.46	0.78	0.08	0.24	
	DATE OF OCCURRENCE							10-11	03	28	30	24-25	20	
	NUMBER OF DAYS WITH:													
	PRECIPITATION ≥ 0.01							11	2	2	3	2	4	
	PRECIPITATION ≥ 0.10							8	1	1	3	0	4	
	PRECIPITATION ≥ 1.00							1	1	0	0	0	0	
SNOWFALL	SNOW,ICE PELLETS,HAIL:													
	TOTAL (IN.)							0.0						
	GREATEST 24-HOUR (IN.)							0.0						
	DATE OF OCCURRENCE													
	MAXIMUM SNOW DEPTH (IN.)							0	0	0	0	0	0	
	DATE OF OCCURRENCE													
	NUMBER OF DAYS WITH:													
	SNOWFALL ≥ 1.0							0						

NORMALS, MEANS, AND EXTREMES

AUSTIN/BERGSTROM, TX (AUS)

LATITUDE: 30° 10′ 46″ N LONGITUDE: 97° 40′ 50″ W ELEVATION (FT): GRND: 541 BARO: 541 TIME ZONE: CENTRAL (UTC + 6) WBAN: 13904

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	58.9	63.4	71.9	79.4	84.7	91.1	95.0	95.5	90.5	82.1	71.8	62.0	78.9
	MEAN DAILY MAXIMUM								92.5	99.5	93.5	83.7	77.5	68.0	
	HIGHEST DAILY MAXIMUM								98	105	100	93	86	83	
	YEAR OF OCCURRENCE								1999	1999	1999	1999	1999	1999	
	MEAN OF EXTREME MAXS.	0							98.0	105.0	100.0	93.0	86.0	83.0	
	NORMAL DAILY MINIMUM	30	38.6	42.1	51.1	59.8	66.5	71.5	73.9	73.9	69.8	60.0	49.9	41.2	58.2
	MEAN DAILY MINIMUM	0							71.3	71.8	63.8	51.6	44.2	36.4	
	LOWEST DAILY MINIMUM	0													
	YEAR OF OCCURRENCE														
	MEAN OF EXTREME MINS.	0							67.0	66.0	45.0	37.0	27.0	19.0	
	NORMAL DRY BULB	30	48.8	52.8	61.5	69.6	75.6	81.3	84.5	84.8	80.2	71.1	60.9	51.6	68.6
	MEAN DRY BULB								81.9	85.7	78.7	67.7	60.9	52.2	
	MEAN WET BULB	0							74.9	74.8	68.1	59.5	53.9	45.7	
	MEAN DEW POINT	0							72.5	69.9	62.0	54.3	48.2	37.5	
	NORMAL NO. DAYS WITH:														
	MAXIMUM ≥ 90°	30	*	0.1	0.6	1.7	6.7	20.8	27.8	28.2	17.0	3.7	0.0	0.0	106.6
	MAXIMUM ≤ 32°	30	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.1
	MINIMUM ≤ 32°	30	8.7	4.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	5.8	20.9
	MINIMUM ≤ 0°	30	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
H/C	NORMAL HEATING DEG. DAYS	30	514	353	175	28	0	0	0	0	0	17	175	426	1688
	NORMAL COOLING DEG. DAYS	30	12	11	66	166	329	489	605	614	456	206	52	10	3016
RH	NORMAL (PERCENT)	30	67	66	64	66	71	70	65	64	68	67	69	68	67
	HOUR 00 LST	30	72	72	71	74	81	80	75	73	78	75	76	73	75
	HOUR 06 LST	30	78	80	80	82	88	89	88	86	86	84	82	80	84
	HOUR 12 LST	30	60	59	56	57	60	56	51	50	55	55	58	59	56
	HOUR 18 LST	30	57	52	49	52	57	53	47	46	54	54	58	58	53
S	PERCENT POSSIBLE SUNSHINE								68	85	90	85	84	72	
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG(VISBY≤1/4 MI)								3.0	0.0	0.0	0.0	7.0	1.0	
	THUNDERSTORMS								12.0	1.0	2.0	1.0	0.0	1.0	
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)														
	MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH:														
	CLEAR														
	PARTLY CLOUDY														
	CLOUDY														
PR	MEAN STATION PRESSURE(IN)								29.44	29.36	29.38	29.50	29.59	29.56	
	MEAN SEA-LEVEL PRES. (IN)								29.99	29.91	29.93	30.06	30.16	30.14	
WINDS	MEAN SPEED (MPH)								6.5	5.5	7.0	6.1	6.4	8.1	
	PREVAIL.DIR(TENS OF DEGS)														
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)								28	29	31	25	32	29	
	DIR. (TENS OF DEGS)								17	05	01	35	02	17	
	YEAR OF OCCURRENCE								1999	1999	1999	1999	1999	1999	
	MAXIMUM 5-SECOND:														
	SPEED (MPH)								36	32	38	30	39	36	
	DIR. (TENS OF DEGS)								17	05	01	31	01	19	
	YEAR OF OCCURRENCE								1999	1999	1999	1999	1999	1999	
PRECIPITATION	NORMAL (IN)	30	1.71	2.17	1.87	2.56	4.78	3.72	2.04	2.05	3.30	3.43	2.37	1.88	31.88
	MAXIMUM MONTHLY (IN)	0							5.34	1.03	0.47	1.57	0.08	0.69	5.34
	YEAR OF OCCURRENCE								1999	1999	1999	1999	1999	1999	JUL 1999
	MINIMUM MONTHLY (IN)	0													0.00
	YEAR OF OCCURRENCE														DEC
	MAXIMUM IN 24 HOURS (IN)	0							3.18	1.02	0.46	0.78	0.08	0.24	3.18
	YEAR OF OCCURRENCE								1999	1999	1999	1999	1999	1999	JUL 1999
	NORMAL NO. DAYS WITH:														
	PRECIPITATION ≥ 0.01	30	7.3	6.8	7.3	6.9	9.3	6.8	4.9	5.2	7.7	6.7	7.2	7.4	83.5
	PRECIPITATION ≥ 1.00	30	0.3	0.4	0.4	0.8	1.4	1.2	0.5	0.6	1.1	1.0	0.6	0.4	8.7
SNOWFALL	NORMAL (IN)	30	0.4	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	T	1.1
	MAXIMUM MONTHLY (IN)														
	YEAR OF OCCURRENCE														
	MAXIMUM IN 24 HOURS (IN)														
	YEAR OF OCCURRENCE														
	MAXIMUM SNOW DEPTH (IN)														
	YEAR OF OCCURRENCE													0	
	NORMAL NO. DAYS WITH:														
	SNOWFALL ≥ 1.0	30	0.1	0.2	0.*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4

PRECIPITATION (inches) 1999 AUSTIN/BERGSTROM, TX (AUS)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1999							5.34	1.03	0.47	1.57	0.08	0.69	
POR= YRS							5.34	1.03	0.47	1.57	0.08	0.69	

WBAN : 13904

AVERAGE TEMPERATURE (°F) 1999 AUSTIN/BERGSTROM, TX (AUS)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1999							81.9	85.7	78.7	67.7	60.9	52.2	
POR= YRS							81.9	85.7	78.7	67.7	60.9	52.2	

HEATING DEGREE DAYS (base 65°F) 1999 AUSTIN/BERGSTROM, TX (AUS)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1998-99													
1999-	0	0	1	65	138	405							

WBAN : 13904

COOLING DEGREE DAYS (base 65°F) 1999 AUSTIN/BERGSTROM, TX (AUS)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1999							534	645	419	156	23	17	

SNOWFALL (inches) 1999 AUSTIN/BERGSTROM, TX (AUS)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1998–99													
1999–	0.0												
POR= YRS	0.0												

WBAN : 13904

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.
NORMALS ARE 30–YEAR AVERAGES (1961 – 1990).
ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM.
PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH.
POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING.
WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED.
0.* OR * INDICATES THE VALUE OR MEAN–DAYS–WITH IS BETWEEN 0.00 AND 0.05.
CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON–ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME–AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET.
THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD.

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.

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.

1999
AUSTIN/BERGSTROM, TEXAS (AUS)

Austin, capital of Texas, is located on the Colorado River where the stream crosses the Balcones escarpment separating the Texas Hill Country from the Blackland Prairies to the east. Elevations within the city vary from 400 feet to nearly 1,000 feet above sea level. Native trees include cedar, oak, walnut, mesquite, and pecan.

The climate of Austin is humid subtropical with hot summers. Winters are mild, with below freezing temperatures occurring on an average of about 25 days each year. Rather strong northerly winds, accompanied by sharp drops in temperature, frequently occur during the winter months in connection with cold fronts, but cold spells are usually of short duration, seldom lasting more than two days. Daytime temperatures in summer are hot, but summer nights are usually pleasant.

Precipitation is fairly evenly distributed throughout the year, with heaviest amounts occurring in late spring. A secondary rainfall peak occurs in September, primarily because of tropical cyclones that migrate out of the Gulf of Mexico. Precipitation from April through September usually results from thunderstorms, with fairly large amounts of rain falling within short periods of time. While thunderstorms and heavy rains may occur in all months of the year, most of the winter precipitation consists of light rain. Snow is insignificant as a source of moisture, and usually melts as rapidly as it falls. The city may experience several seasons in succession with no measurable snowfall.

Prevailing winds are southerly, however in winter, northerly winds are about as frequent as those from the south. Destructive winds and damaging hailstorms are infrequent. On rare occasions dissipating tropical storms produce strong winds and heavy rains in the area. Blowing dust occurs occasionally in spring, but visibility rarely drops substantially, and then only for a few hours.

The average length of the warm season (freeze–free period) is 273 days. The average occurrence of the last temperature of 32 degrees in spring is early March and the average occurrence of the first temperature of 32 degrees is late November.

STATION LOCATION

AUSTIN-BERGSTROM, TEXAS

LOCATION	OCCUPIED FROM	OCCUPIED TO	AIRLINE DISTANCES AND DIRECTIONS FROM PREVIOUS LOCATION	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE SEA LEVEL GROUND TEMPERATURE SITE	ELEVATION ABOVE GROUND WIND INSTRUMENTS	EXTREME THERMOMETERS	PSYCHROMETER	SUNSHINE SWITCH	TIPPING BUCKET RAIN GAGE	WEIGHING RAIN GAGE	8 INCH RAIN GAGE	HYGROTHERMOMETER	AUTOMATIC OBSERVING EQUIPMENT *	REMARKS
Austin-Bergstrom Int'l Airport	10/02/97	Present	NA	30°11'	97°41'	541									S	ASOS Commissioned 10/02/97

* Type
M = AMOS
T = AUTOB
S = ASOS
W = AWOS

SUBSCRIPTION:
Price and ordering information available through: National Climatic Data Center, Federal Building, Asheville, North Carolina 28801.

INQUIRIES/COMMENTS CALL: (828) 271-4800

National Climatic Data Center
151 Patton Avenue, Rm 120
Asheville NC 28801-5001

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