

2004

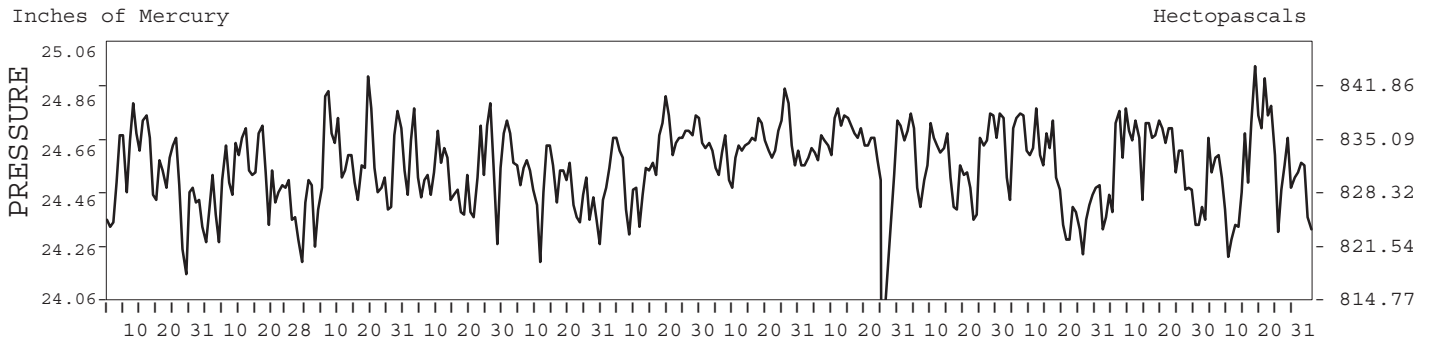
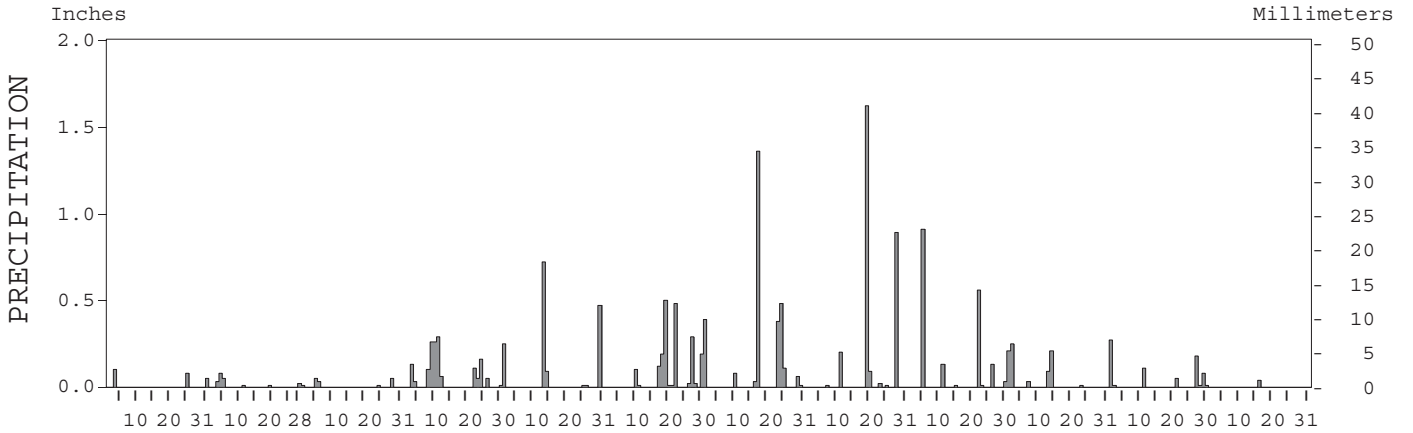
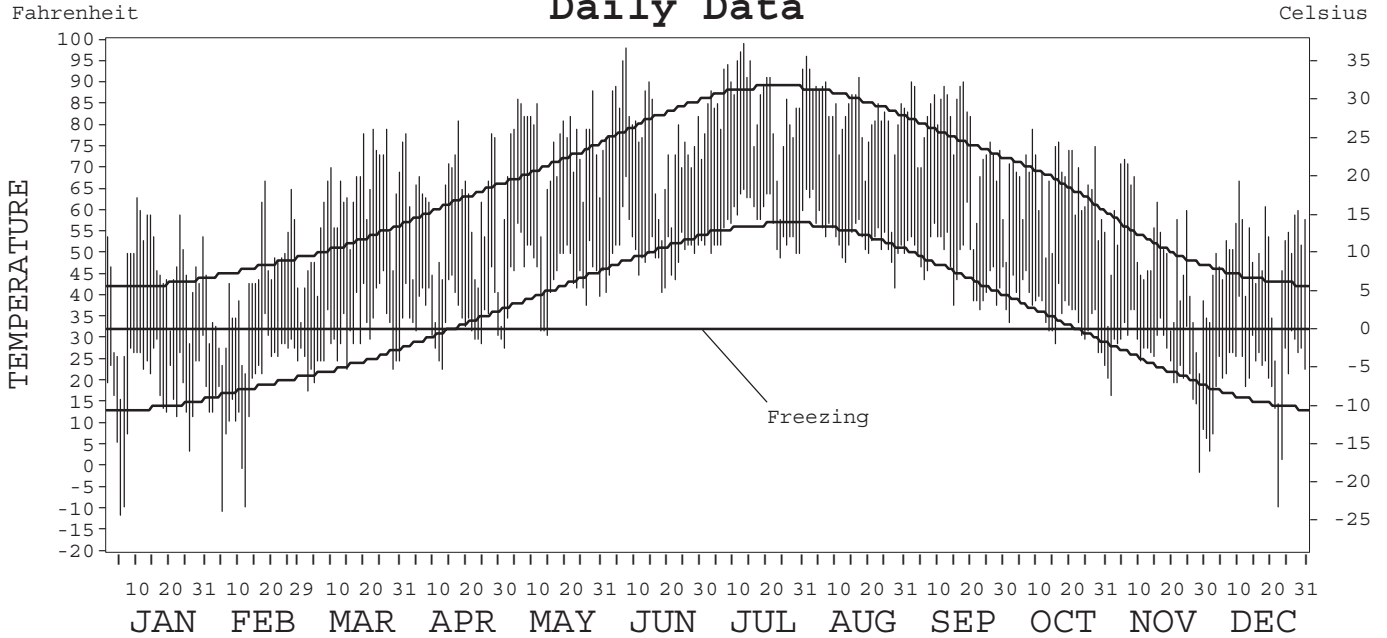
LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-7682

DENVER, COLORADO (DEN)

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.

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 2004

DENVER, CO (DEN)

LATITUDE: 39° 49' 58" N LONGITUDE: 104° 39' 27" W ELEVATION (FT): GRND: 5379 BARO: 5382 TIME ZONE: MOUNTAIN (UTC + 7) WBAN: 03017

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	45.5	41.9	62.0	59.6	73.9	76.9	85.0	82.4	77.6	65.6	49.0	48.3	64.0	
	HIGHEST DAILY MAXIMUM	63	67	79	81	88	98	99	96	90	79	72	67	99	
	DATE OF OCCURRENCE	10	18	26+	17	28	07	13	01	18+	09	06	11	JUL 13	
	MEAN DAILY MINIMUM	18.2	18.8	30.7	35.4	44.7	50.5	56.6	54.0	47.7	36.1	25.3	21.4	36.6	
	LOWEST DAILY MINIMUM	-11	-10	18	23	28	41	49	42	37	24	-1	-9	-11	
	DATE OF OCCURRENCE	05	05	02	12	01	18+	24	28	23	31	29	23	JAN 05	
	AVERAGE DRY BULB	31.9	30.4	46.4	47.5	59.3	63.7	70.8	68.2	62.7	50.9	37.2	34.9	50.3	
	MEAN WET BULB	25.5	26.1	36.0	39.4	48.0	52.9	58.3		50.6	42.0	31.4	27.7		
	MEAN DEW POINT	15.1	18.1	21.8	30.1	36.9	44.5	49.8		40.3	32.4	24.0	17.4		
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	0	3	11	4	2	0	0	0	0	20
	MAXIMUM ≤ 32°	6	6	0	0	0	0	0	0	0	0	3	2	17	
	MINIMUM ≤ 32°	31	28	19	11	4	0	0	0	0	9	25	30	157	
MINIMUM ≤ 0°	2	3	0	0	0	0	0	0	0	0	1	1	7		
H/C	HEATING DEGREE DAYS	1022	998	569	519	192	99	17	31	131	431	830	926	5765	
	COOLING DEGREE DAYS	0	0	0	0	23	67	204	138	67	0	0	0	499	
RH	MEAN (PERCENT)	55	64	44	60	50	59	55	56	51	56	66	55	56	
	HOUR 05 LST	64	75	60	76	70	75	76	78	67	73	74	64	71	
	HOUR 11 LST	45	50	33	50	37	46	38	39	36	39	55	41	42	
	HOUR 17 LST	51	56	28	45	35	47	42	41	39	40	62	55	45	
	HOUR 23 LST	62	73	50	70	56	70	67	69	60	68	73	64	65	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	4	2	0	4	2	5	1	0	0	1	3	0	22	
	THUNDERSTORMS	0	0	1	2	3	12	14	11	9	3	0	0	55	
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.)	24.55	24.52	24.61	24.57	24.52	24.64	24.68		24.62	24.54	24.64	24.58		
	MEAN SEA-LEVEL PRESS. (IN.)	30.01	29.99	29.98	29.93	29.79	29.91	29.91		29.88	29.87	30.09	30.04		
WINDS	RESULTANT SPEED (MPH)	3.3	3.0	1.9	1.1	1.9	0.4	1.7		3.3	2.9	1.7	4.4		
	RES. DIR. (TENS OF DEGS.)	21	19	22	24	22	22	19		21	22	21	22		
	MEAN SPEED (MPH)	9.2	9.6	10.5	10.8	10.8	10.0	9.6	9.8	10.3	9.6	9.4	10.1	10.0	
	PREVAIL. DIR. (TENS OF DEGS.)	23	21	22	21	21	23	23	23	23	23	21	21	23	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	29	32	32	43	40	36	48	36	36	36	32	47	48	
	DIR. (TENS OF DEGS.)	02	36	31	28	13	34	28	01	19	27	36	28	28	
	DATE OF OCCURRENCE	25	29+	23	18	10	14	07	10	19+	29	01	20	JUL 07	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	35	41	43	53	48	45	61	41	43	43	39	59	61	
DIR. (TENS OF DEGS.)	01	01	33	02	01	34	31	01	18	27	01	29	31		
DATE OF OCCURRENCE	25	29	16	11	11	14	07	10	03	29	01	20	JUL 07		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.23	0.21	0.14	1.76	1.30	2.33	2.51	2.84	1.99	0.86	0.45	0.04	14.66	
	GREATEST 24-HOUR (IN.)	0.10	0.09	0.08	0.43	0.81	0.62	1.36	1.71	0.91	0.30	0.18	0.04	1.71	
	DATE OF OCCURRENCE	03	04-05	04-05	08-09	12-13	17-18	16	18-19	04	12-13	26	15	AUG 18-19	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	3	7	4	13	5	13	8	7	8	6	7	1	82	
PRECIPITATION ≥ 0.10	1	0	0	8	2	8	4	3	5	3	2	0	36		
PRECIPITATION ≥ 1.00	0	0	0	0	0	0	1	1	0	0	0	0	2		
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															

NORMALS, MEANS, AND EXTREMES

DENVER, CO (DEN)

LATITUDE: 39° 49' 58" N LONGITUDE: 104° 39' 27" W ELEVATION (FT): GRND: 5379 BARO: 5382 TIME ZONE: MOUNTAIN (UTC + 7) WBAN: 03017

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	43.2	47.2	53.7	60.9	70.5	82.1	88.0	86.0	77.4	66.0	51.5	44.1	64.2
	MEAN DAILY MAXIMUM	9	44.3	45.6	53.9	60.1	70.5	80.3	89.0	86.5	77.3	64.6	51.4	44.3	64.0
	HIGHEST DAILY MAXIMUM	9	72	72	79	84	94	98	101	100	97	87	78	72	101
	YEAR OF OCCURRENCE		1997	2002	2004	2002	2003	2004	2003	2002	1995	1997	1999	1998	JUL 2003
	MEAN OF EXTREME MAXS.	9	65.3	66.7	74.4	79.1	88.4	93.9	99.2	96.4	91.8	83.0	71.5	63.1	81.1
	NORMAL DAILY MINIMUM	30	15.2	19.1	25.4	34.2	43.8	53.0	58.7	57.4	47.3	35.9	23.5	16.4	35.8
	MEAN DAILY MINIMUM	9	18.3	20.0	25.7	33.2	43.1	51.4	59.6	57.8	48.7	36.1	25.5	19.1	36.5
	LOWEST DAILY MINIMUM	9	-14	-16	-4	6	22	34	44	42	25	3	-3	-19	-19
	YEAR OF OCCURRENCE		1997	1996	2002	1997	2002	1998	1997	2004	1996	1997	2003	1998	DEC 1998
	MEAN OF EXTREME MINS.	9	-1.8	-9	7.5	18.0	29.1	40.3	50.9	48.5	33.0	20.0	3.0	0.4	20.7
	NORMAL DRY BULB	30	29.2	33.2	39.6	47.6	57.2	67.6	73.4	71.7	62.4	51.0	37.5	30.3	50.1
	MEAN DRY BULB	9	31.4	32.8	39.8	46.6	56.9	65.9	74.3	72.1	63.0	50.4	38.4	31.7	50.3
	MEAN WET BULB	9	25.4	26.5	29.1	34.3	42.3	48.3	59.2	58.6	50.6	40.2	31.2	25.8	39.3
	MEAN DEW POINT	9	15.1	15.5	20.7	27.3	38.2	44.3	49.1	49.6	40.5	28.5	21.1	15.5	30.5
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	0	0.0	0.0	0.0	*	0.5	7.3	15.0	9.4	2.9	0.0	0.0	0.0	35.1	
MAXIMUM ≤ 32°	0	6.2	4.3	2.0	0.5	0.0	0.0	0.0	0.0	*	0.4	2.7	5.3	21.4	
MINIMUM ≤ 32°	0	29.6	25.8	23.1	11.0	1.1	0.0	0.0	0.0	1.1	8.2	23.9	28.8	152.6	
MINIMUM ≤ 0°	0	3.2	1.5	0.2	*	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.5	7.6	
H/C	NORMAL HEATING DEG. DAYS	30	1111	892	788	524	267	60	1	9	136	436	826	1078	6128
	NORMAL COOLING DEG. DAYS	30	0	0	0	2	23	136	261	217	57	0	0	0	696
RH	NORMAL (PERCENT)														
	HOUR 05 LST														
	HOUR 11 LST														
	HOUR 17 LST														
	HOUR 23 LST														
S	PERCENT POSSIBLE SUNSHINE														
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	9	2.6	2.5	3.4	3.1	2.5	1.4	1.3	1.0	1.0	2.0	2.4	1.0	24.2
	THUNDERSTORMS	9	0.0	0.3	0.7	2.7	6.4	11.5	12.7	11.1	5.4	0.8	0.0	0.0	51.6
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	1		5.0	5.3	7.2	5.6	2.5		2.5				2.5	
	MIDNIGHT-MIDNIGHT (OKTAS)	1			5.3	7.2	6.4	3.0		2.0					
	MEAN NO. DAYS WITH:														
	CLEAR	1	3.0	10.0	9.0	6.0	10.0	12.0	2.0	7.0	6.0	9.0		13.0	
PARTLY CLOUDY	1	4.0	2.0	6.0	4.0	5.5	9.0	2.0	9.0	6.0			1.0		
CLOUDY	1	3.0	6.0	10.0	13.0	5.5	5.0	1.0	3.0	5.0	2.0		2.0		
PR	MEAN STATION PRESSURE (IN)	9	24.55	24.56	24.55	24.53	24.56	24.61	24.69	24.70	24.65	24.60	24.59	24.56	24.60
	MEAN SEA-LEVEL PRES. (IN)	9	30.01	30.00	29.94	29.87	29.83	29.84	29.88	29.92	29.92	29.95	30.02	30.03	29.93
WINDS	MEAN SPEED (MPH)	9	9.6	10.0	10.5	11.5	10.5	10.3	9.7	9.5	9.5	9.7	9.3	9.8	10.0
	PREVAIL. DIR (TENS OF DEGS)	8	21	21	21	21	21	16	21	22	22	21	21	21	21
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	9	41	47	53	53	49	49	54	49	41	46	45	47	54
	DIR. (TENS OF DEGS)		31	34	28	33	22	30	13	28	36	29	27	28	13
	YEAR OF OCCURRENCE		2002	2002	1995	2001	2002	1999	1999	2001	2003	2001	2000	2004	JUL 1999
	MAXIMUM 5-SECOND:														
SPEED (MPH)	9	49	58	56	60	58	63	64	61	51	54	54	59	64	
DIR. (TENS OF DEGS)		31	33	32	33	18	29	13	29	23	29	28	29	13	
YEAR OF OCCURRENCE		2002	2002	1997	2001	2002	1999	1999	2001	2002	2001	2000	2004	JUL 1999	
PRECIPITATION	NORMAL (IN)	30	0.51	0.49	1.28	1.93	2.32	1.56	2.16	1.82	1.14	0.99	0.98	0.63	15.81
	MAXIMUM MONTHLY (IN)	9	0.78	0.64	3.05	5.86	4.67	3.95	5.92	3.52	2.34	1.87	0.72	0.50	5.92
	YEAR OF OCCURRENCE		2001	2001	2003	1999	1995	2003	1998	1997	1996	1997	2001	1997	JUL 1998
	MINIMUM MONTHLY (IN)	9	0.03	0.09	0.14	0.23	0.94	0.73	0.54	0.56	0.26	0.08	0.05	0.04	0.03
	YEAR OF OCCURRENCE		2003	1996	2004	2002	2002	1998	2003	1996	2003	2001	2003	2004	JAN 2003
	MAXIMUM IN 24 HOURS (IN)	9	0.51	0.30	1.64	2.06	2.00	2.43	3.06	1.71	1.22	1.12	0.47	0.19	3.06
	YEAR OF OCCURRENCE		2001	2001	2003	1999	2000	2003	1997	2004	1996	1997	1999	1997	JUL 1997
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	5.8	5.6	8.1	8.8	11.4	8.6	9.3	9.3	7.0	5.1	6.3	5.7	91.0	
PRECIPITATION ≥ 1.00	30	0.0	0.0	0.2	0.2	0.4	0.2	0.6	0.4	0.2	0.1	0.0	0.1	2.4	
SNOWFALL	NORMAL (IN)	30	7.7	6.3	11.6	8.8	1.3	0.*	0.0	0.0	1.9	3.9	10.6	8.9	61.0
	MAXIMUM MONTHLY (IN)														
	YEAR OF OCCURRENCE														
	MAXIMUM IN 24 HOURS (IN)														
	YEAR OF OCCURRENCE														
	MAXIMUM SNOW DEPTH (IN)														
YEAR OF OCCURRENCE															
NORMAL NO. DAYS WITH:															
SNOWFALL ≥ 1.0	30	2.3	2.2	3.3	2.7	0.3	0.0	0.0	0.0	0.5	1.2	3.1	2.8	18.4	

PRECIPITATION (inches) 2004 DENVER, CO (DEN)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1995			0.28	2.44	4.67	3.07	2.31	1.04	2.28	0.72	0.31	0.06	
1996	0.29	0.09	0.77	0.33	2.40	1.77	1.01	0.56	2.34	0.39	0.38	0.06	10.39
1997	0.26	0.54	0.26	1.30	1.57	2.57	5.60	3.52	0.97	1.87	0.61	0.50	19.57
1998	0.05	0.23	0.86	2.47	1.73	0.73	5.92	1.19	0.73	1.20	0.40	0.42	15.93
1999	0.38	0.15	0.19	5.86	2.37	2.52	3.84	3.37	1.20	0.31	0.47	0.29	20.95
2000	0.24	0.23	1.96	0.71	3.09	0.79	1.42	3.06	1.52	0.52	0.61	0.27	14.42
2001	0.78	0.64	1.10	1.20	3.80	1.53	4.76	0.71	1.00	0.08	0.72	0.14	16.46
2002	0.48	0.32	0.53	0.23	0.94	1.45	1.39	0.78	0.58	0.49	0.24	0.05	7.48
2003	0.03	0.47	3.05	2.22	1.91	3.95	0.54	1.24	0.26	0.08	0.05	0.12	13.92
2004	0.23	0.21	0.14	1.76	1.30	2.33	2.51	2.84	1.99	0.86	0.45	0.04	14.66
POR= 9 YRS	0.31	0.33	0.97	1.93	2.27	2.04	3.08	1.96	1.20	0.73	0.44	0.23	15.49

WBAN : 03017

AVERAGE TEMPERATURE (°F) 2004 DENVER, CO (DEN)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1995			39.3	42.9	50.0	62.2	70.9	75.3	61.7	48.5	41.8	33.0	
1996	27.0	33.9	36.0	48.0	58.1	68.2	73.4	71.6	60.8	50.9	37.2	33.0	49.8
1997	27.9	30.0	42.1	40.5	56.6	67.8	73.1	69.7	64.3	49.7	34.8	27.9	48.7
1998	32.7	33.9	36.9	44.8	59.1	63.0	74.3	71.7	68.0	50.2	42.1	28.9	50.5
1999	33.7	38.6	43.7	42.6	54.8	64.2	73.9	71.2	59.2	52.5	47.3	33.8	51.3
2000	33.0	39.2	40.4	49.8	59.2	67.0	76.7	74.5	63.6	50.5	28.9	28.3	50.9
2001	30.0	28.3	39.8	49.6	57.1	69.4	76.7	73.5	66.8	51.5	40.9	31.7	51.3
2002	29.3	33.6	33.8	50.0	56.1	71.1	76.3	71.5	63.6	44.0	37.5	33.6	50.0
2003	36.9	27.6	39.9	50.4	57.5	62.1	76.9	73.7	59.3	55.1	36.2	32.5	50.7
2004	31.9	30.4	46.4	47.5	59.3	63.7	70.8	68.2	62.7	50.9	37.2	34.9	50.3
POR= 9 YRS	31.4	32.8	40.1	46.7	57.2	65.9	74.6	71.9	63.2	50.5	38.3	31.7	50.4

HEATING DEGREE DAYS (base 65°F) 2004 DENVER, CO (DEN)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1994-95									788	655	457	132	
1995-96	26	2	188	505	686	981	1166	894	893	230	29	0	5600
1996-97	0	4	192	444	824	985	1142	975	704	728	264	35	6297
1997-98	2	11	92	475	895	1142	996	865	865	597	186	137	6263
1998-99	1	1	46	453	680	1113	962	731	654	666	311	85	5703
1999-00	1	3	194	383	528	962	984	744	754	446	215	61	5275
2000-01	0	5	149	447	1074	1131	1079	1021	775	455	256	46	6438
2001-02	0	4	65	416	717	1026	1098	870	961	448	302	26	5933
2002-03	0	5	118	643	816	966	865	1041	770	430	260	107	6021
2003-04	0	10	192	312	858	1001	1022	998	569	519	192	99	5772
2004-	17	31	131	431	830	926							

WBAN : 03017

COOLING DEGREE DAYS (base 65°F) 2004 DENVER, CO (DEN)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1995			0	0	0	55	212	327	98	0	0	0	
1996	0	0	0	3	26	133	269	215	71	13	0	0	730
1997	0	0	0	0	11	126	260	160	77	8	0	0	642
1998	0	0	0	0	13	88	296	215	143	0	0	0	755
1999	0	0	0	0	2	69	283	203	30	2	0	0	589
2000	0	0	0	0	43	127	368	305	115	5	0	0	963
2001	0	0	0	0	18	184	373	274	125	5	0	0	979
2002	0	0	0	7	34	218	355	214	84	0	0	0	912
2003	0	0	0	0	36	28	376	289	29	13	0	0	771
2004	0	0	0	0	23	67	204	138	67	0	0	0	499

SNOWFALL (inches) 2004 DENVER, CO (DEN)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
POR=													

WBAN : 03017

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 (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.

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.

2004
DENVER,
COLORADO (DEN)

Denver enjoys the invigorating climate that prevails over much of the central Rocky Mountain region, without the extremely cold mornings of the high elevations during winter, or the hot afternoons of summer at lower altitudes. Extremely warm or cold weather in Denver is usually of short duration.

Situated a long distance from any moisture source, and separated from the Pacific Ocean by several high mountain barriers, Denver enjoys low relative humidity, light precipitation, and abundant sunshine.

Air masses from four different sources influence Denver weather. These include arctic air from Canada and Alaska, warm, moist air from the Gulf of Mexico, warm, dry air from Mexico and the southwestern deserts, and Pacific air modified by its passage over mountains to the west.

In winter, the high altitude and mountains to the west combine to moderate temperatures in Denver. Invasions of cold air from the north, intensified by the high altitude, can be abrupt and severe. However, many of the cold air masses that spread southward out of Canada never reach the altitude of Denver, but move off over the lower plains to the east. Surges of air from the west are moderated in their descent down the east face of the Rockies, and reach Denver in the form of chinook winds that often raise temperatures into the 60s, even in midwinter.

In spring, polar air often collides with warm, moist air from the Gulf of Mexico and these collisions result in frequent, rapid and drastic weather changes. Spring is the cloudiest, windiest, and wettest season in the city. Much of the precipitation falls as snow, especially in March and early April. Stormy periods are interspersed with stretches of mild, sunny weather that quickly melt previous snow cover.

Summer precipitation falls mainly from scattered thunderstorms during the afternoon and evening. Mornings are usually clear and sunny, with clouds forming during early afternoon to cut off the sunshine at what would otherwise be the hottest part of the day. Severe thunderstorms, with large hail and heavy rain occasionally occur in the city, but these conditions are more common on the plains to the east.

Autumn is the most pleasant season. Few thunderstorms occur and invasions of cold air are infrequent. As a result, there is more sunshine and less severe weather than at any other time of the year.

Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is October 8 and the average last occurrence in the spring is May 3.

STATION LOCATION

DENVER, COLORADO

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
						GROUND											
						SEA LEVEL	GROUND	WIND INSTRUMENT	EXTREME THERMOMETERS	PSYCHROMETER	SUNSHINE SWITCH	TIPPING BUCKET	WINDHOLE	8 INCH RAIN GAGE	HYGROMETER		
<u>AIRPORT</u> Denver Int'l Airport	03/01/95	Present	NA	39°50'	104°39'	5379								S	a. Hourly and summary of the day observations began at the new Denver International Airport 03/01/95. ASOS Commissioned 03/01/95 b. Ground Elevation		

For Hard Copy Subscription:

Price and ordering information: NCDC Subscribing Service Center, 310 State Route 956, Building 300, Rocket Center, WV 26726.

INQUIRIES/COMMENTS CALL: Toll Free (866) 742-3322

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

Non-Subscription Request:

NCDC Customer Services;

Phone: 828-271-4800

Fax: 828-271-4876

Email: ncdc.orders@noaa.gov

OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE \$300

CHANGE SERVICE REQUESTED

FIRST CLASS
POSTAGE & FEES PAID
 United States Department of Commerce
 NOAA Permit No. G - 19