



JULY 2003

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

CHICAGO, IL

OHARE INTERNATIONAL AIRPORT (ORD)
 Lat: 41°59' N Long: 87°54' W Elev (Ground): 655 Feet
 Time Zone: CENTRAL WBAN: 94846 ISSN #:0198-1854

JULY 2003
CHICAGO, IL

DATE	TEMPERATURE °F						DEG DAYS BASE 65°		WEATHER	SNOW/ICE ON GND(IN)		PRECIPITATION (INCHES)		PRESSURE (INCHES OF HG)		WIND SPEED = MPH DIR = TENS OF DEGREES								DATE																																	
	MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	HEATING	COOLING		0600 LST	1200 LST	2400 LST	2400 LST	AVERAGE STATION	AVERAGE SEA LEVEL	RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM																																						
																			5-SEC		2-MIN																																				
1	2	3	4	5	6	7	8	9	11	12	13	14	15	16	17	18	19	20	21	22	23	24																																			
01	86	59	73	1	53	62	0	8			0.0	0.00	29.33	30.04	5.0	09	5.9	25	08	16	10	01																																			
02	89	60	75	3	56	64	0	10			0.0	0.00	29.18	29.88	1.7	17	4.3	22	08	15	11	02																																			
03	93	64	79	7	65	71	0	14	RA	VCTS	0	T	29.09	29.80	7.2	22	7.6	29	26	21	26	03																																			
04	94*	73	84*	12	68	73	0	19	TS	TSRA	0	0.12	29.10	29.80	4.1	24	8.5	32	29	26	33	04																																			
05	88	68	78	6	66	70	0	13	TS	TSRA RA BR	0	0.54	29.18	29.89	2.7	19	6.9	47*	28	36	28	05																																			
06	88	68	78	6	69	71	0	13	TS	TSRA RA BR VCTS	0	0.69	29.15	29.85	2.1	16	5.8	37	03	30	03	06																																			
07	88	69	79	7	71	73	0	14	TSRA	RA BR SQ VCTS	0	0.14	29.15	29.85	6.2	25	6.7	41	32	32	30	07																																			
08	78	65	72	-1	65	67	0	7	TS	TSRA RA DZ	0	0.31	29.27	29.98	3.7	04	6.7	29	33	25	34	08																																			
09	74	63	69	-4	61	64	0	4	TSRA	RA BR	0	0.25	29.22	29.93	6.2	07	7.9	30	07	23	07	09																																			
10	82	64	73	0	64	66	0	8	RA	BR	0	0.06	29.00	29.71	11.1	26	12.5	31	29	25	28	10																																			
11	77	61	69	-4	57	61	0	4	RA		0	T	29.10	29.81	12.7	29	13.0	30	29	24	32	11																																			
12	81	61	71	-2	54	61	0	6			0	0.00	29.27	29.99	4.2	34	6.1	20	04	14	33	12																																			
13	83	57	70	-3	56	62	0	5	RA		0	0.06	29.36	30.08	1.6	17	3.8	20	08	16	34	13																																			
14	84	55	70	-3	59	65	0	5			0	0.00	29.32	30.03	7.3	18	7.4	20	17	17	17	14																																			
15	86	67	77	3	64	69	0	12	TS	TSRA RA BR	0	1.23	29.17	29.87	4.7	30	11.4	36	32	20	30	15																																			
16	84	59	72	-2	57	63	0	7			0	0.00	29.40	30.11	1.0	33	3.1	14	30	10	31	16																																			
17	86	64	75	1	65	68	0	10	TSRA	GR RA BR VCTS	0	T	0.13	29.38	30.09	3.3	21	8.2	38	09	29	09	17																																		
18	75	57	66	-8	53	60	0	1			0	0.00	29.37	30.09	10.6	03	11.2	26	05	18	06	18																																			
19	83	53	68	-6	53	60	0	3			0	0.00	29.35	30.07	1.6	22	3.0	15	19	10	27	19																																			
20	86	65	76	2	65	69	0	11	TS	TSRA BR VCTS	0	0.60	29.15	29.86	6.8	25	8.6	45	01	39*	02	20																																			
21	82	67	75	1	64	67	0	10	TS	TSRA BR	0	0.23	29.00	29.70	4.9	01	8.0	28	03	21	03	21																																			
22	74	61	68	-6	58	61	0	3			0	0.00	29.19	29.91	10.9	02	11.4	28	05	22	04	22																																			
23	75	59	67	-7	53	59	0	2			0	0.00	29.33	30.04	7.6	02	9.2	30	04	18	02	23																																			
24	80	54	67	-7	48	57	0	2			0	0.00	29.39	30.10	0.7	09	5.4	22	04	14	11	24																																			
25	83	59	71	-3	58	64	0	6			0	0.00	29.41	30.12	9.2	21	9.4	25	20	22	20	25																																			
26	83	71	77	3	63	68	0	12			0	0.00	29.32	30.03	12.9	22	13.1	32	21	24	21	26																																			
27	82	66	74	0	63	67	0	9	RA		0	T	29.27	29.98	2.6	36	9.6	26	06	22	04	27																																			
28	73	56	65*	-9	58	62	0	0	RA		0	0.12	29.30	30.01	4.2	05	4.9	22	04	13	04	28																																			
29	82	54	68	-6	51	59	0	3			0	0.00	29.30	30.01	2.0	07	2.6	22	06	14	11	29																																			
30	84	53*	69	-5	56	62	0	4			0	0.00	29.31	30.02	4.3	21	4.9	18	28	14	17	30																																			
31	86	63	75	1	63	67	0	10	TSRA	VCTS	0	0.02	29.25	29.96	5.0	20	5.1	17	23	13	19	31																																			
82.9										61.8		72.4		■ ■		59.9		64.9		0.0		7.6		< MONTHLY AVERAGES		TOTALS->		T		4.50		29.24		29.95		1.0		27		7.5		<- MONTHLY AVERAGES															
-.6										-1.4		-.9		■ ■		<-----DEPARTURE FROM NORMAL----->																				0.99		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3																			
DEGREE DAYS										GREATEST 24-HR PRECIPITATION: 1.23 DATE :15										SEA LEVEL PRESSURE										DATE		TIME																									
MONTHLY										GREATEST 24-HR SNOWFALL: T DATE :17										MAXIMUM										: 30.17		25 0956																									
TOTAL DEPARTURE										SEASON TO DATE										MINIMUM										: 29.61		21 0256																									
HEATING: 0 -6										TOTAL DEPARTURE										NUMBER OF DAYS WITH										MAXIMUM TEMP ≥ 90: 2		MINIMUM TEMP ≤ 32: 0		PRECIPITATION ≥ 0.01 INCH: 14																							
COOLING: 235 -44										346 -150										MAXIMUM TEMP ≤ 32: 0		MINIMUM TEMP ≤ 0: 0		PRECIPITATION ≥ 0.10 INCH: 11																																	
																				THUNDERSTORMS :11		HEAVY FOG : 0		SNOWFALL ≥ 1.0 INCH : 0																																	

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

CHICAGO, IL

JULY 2003

ORD

WBAN # 94846

DATE	FOR HOUR (LST) ENDING AT												DATE	FOR HOUR (LST) ENDING AT												DATE	Sum if Different (See Note)	2400 LST	
	1	2	3	4	5	6	7	8	9	10	11	12		13	14	15	16	17	18	19	20	21	22	23	24			Water	Equiv.
01													01												01		0.00		
02													02												02		0.00		
03													03			T	T								03		T		
04													04												04		0.12		
05													05												05		0.54		
06													06												06		0.69		
07													07												07		0.14		
08													08												08		0.31		
09													09												09		0.25		
10													10												10		0.06		
11													11												11		T		
12													12												12		0.00		
13													13												13		0.06		
14													14												14		0.00		
15													15												15		1.23		
16													16												16		0.00		
17													17												17		0.13		
18													18												18		0.00		
19													19												19		0.00		
20													20												20		0.60		
21													21												21		0.23		
22													22												22		0.00		
23													23												23		0.00		
24													24												24		0.00		
25													25												25		0.00		
26													26												26		0.00		
27													27												27		T		
28													28												28		0.12		
29													29												29		0.00		
30													30												30		0.00		
31													31												31		0.02		

MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	.47	.74	.95	1.02	1.05	1.10	1.21	1.23	1.23	1.23	1.23	1.23
Ending Date	15	15	15	15	15	15	15	15	15	15	15	15
Ending Time (Hour/Min)	0333	0338	0343	0347	0357	0410	0422	0444	0444	0444	0444	0444

Date and time are not entered for TRACE amounts.

Note : The sum of the hourly totals is given when it differs from the daily total. NWS does not edit ASOS hourly values but may edit daily and monthly totals. Hourly, daily, and monthly totals are printed as reported by the ASOS site.

REFERENCE NOTES & SUPPLEMENTAL SUMMARIES

* = Extreme for the month (last occurrence if more than one)
 T = Trace precipitation amount
 + = also occurs on earlier date
 FG+ = Heavy fog, visibility .25 miles or less
 BLANK entries denote missing or unreported data

Resultant wind is the vector sum of the wind speeds and directions divided by the number of observations.

Wind direction is recorded in tens of degrees (2 digits) clockwise from true north. '00' = calm, 'VR' = variable.

Precipitation is for the 24-hour period ending at the time indicated in the column heading.

Water Equivalent of snow on the ground is reported only when the depth is 2 or more inches.

NORMALS ARE FOR THE YEARS 1971–2000

WEATHER NOTATIONS

QUALIFIER	WEATHER PHENOMENA		
	PRECIPITATION	OBSCURATION	OTHER
BC Patches	DZ Drizzle	BR Mist	DS Duststorm
BL Blowing	GR Hail	DU Widespread Dust	FC Funnel Cloud
DR Low Drifting	GS Small Hail and/or Snow Pellets	FG Fog	+FC Tornado Waterspout
FZ Freezing	IC Ice Crystals	FU Smoke	PO Well-Developed Dust/Sand Whirls
MI Shallow	PL Ice Pellets	HZ Haze	
PR Partial	RA Rain	PY Spray	SQ Squalls
SH Shower(s)	SG Snow Grains	SA Sand	SS Sandstorm
TS Thunderstorm	SN Snow	VA Volcanic Ash	GL Glaze
VC In the Vicinity	UP Unknown Precipitation		

Intensity (as indicated on pages 4 to 6):
 '+ ' = Heavy ' ' = Moderate '- ' = Light

CHICAGO, IL JULY 2003

Ceilometer (30-second) data are used to derive cloudiness at or below 12,000 feet. This cloudiness is the mean cloud cover detected during sunrise to sunset (SR–SS), or midnight to midnight (MN–MN).

Satellite data are used to derive cloudiness above 12,000 feet. Effective Cloud Amount is based on the cloud cover and the transparency of the clouds within the satellite field of view (approx. 31x31 miles).

Sky Condition is based on the sum (not to exceed 8) of the sunrise to sunset cloud cover below and above 12,000 feet. Both ceilometer and satellite data must be present to compute Sky Condition. Clear = 0–2 oktas, Partly Cloudy = 3–6 oktas, Cloudy = 7–8 oktas.

A Heating (Cooling) Degree Day is the difference between the average daily temperature and 65 degrees F. The HDD season begins July 1, the CDD season begins January 1.

Dew Point is the temperature to which the air must be cooled to achieve 100% relative humidity. Wet Bulb is the temperature the air would have if cooled to saturation at constant pressure by evaporation of water into it.

Snow Depth, Snowfall, and Sunshine data may come from nearby sites that the National Weather Service deems Climatologically representative of this site.

ADDITIONAL NOTES:

ERRATA – Jun LCD – Please change day 10 min temp to 54 was 55.

DATE	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR–SS		MN–MN		MINIMUM	MAXIMUM	
			CEILOMETER	SATELLITE	CEILOMETER	SATELLITE			
01							7.00	10.00	
02							8.00	10.00	
03							9.00	10.00	
04							5.00	10.00	
05							1.75	10.00	
06							4.00	10.00	
07							5.00	10.00	
08							6.00	10.00	
09							4.00	10.00	
10							4.00	10.00	
11							10.00	10.00	
12							10.00	10.00	
13							10.00	10.00	
14							10.00	10.00	
15							.75	10.00	
16							10.00	10.00	
17							1.00	10.00	
18							10.00	10.00	
19							10.00	10.00	
20							1.75	10.00	
21							4.00	10.00	
22							10.00	10.00	
23							10.00	10.00	
24							10.00	10.00	
25							10.00	10.00	
26							10.00	10.00	
27							10.00	10.00	
28							10.00	10.00	
29							10.00	10.00	
30							10.00	10.00	
31							7.00	10.00	
MONTHLY AVGS							8.13	10.00	
SUNSHINE (MINUTES)									
Total: Possible: Percent Possible:									
NUMBER OF DAYS WITH:									
SKY CONDITION									
CLR PTLY CLDY CLOUDY MISSING									
31									
MINIMUM VISIBILITY (MILES)									
<=0.25 <=3.0 >=7.0									
0 1 24									

OBSERVATIONS AT 3-HOURLY INTERVALS

CHICAGO, IL

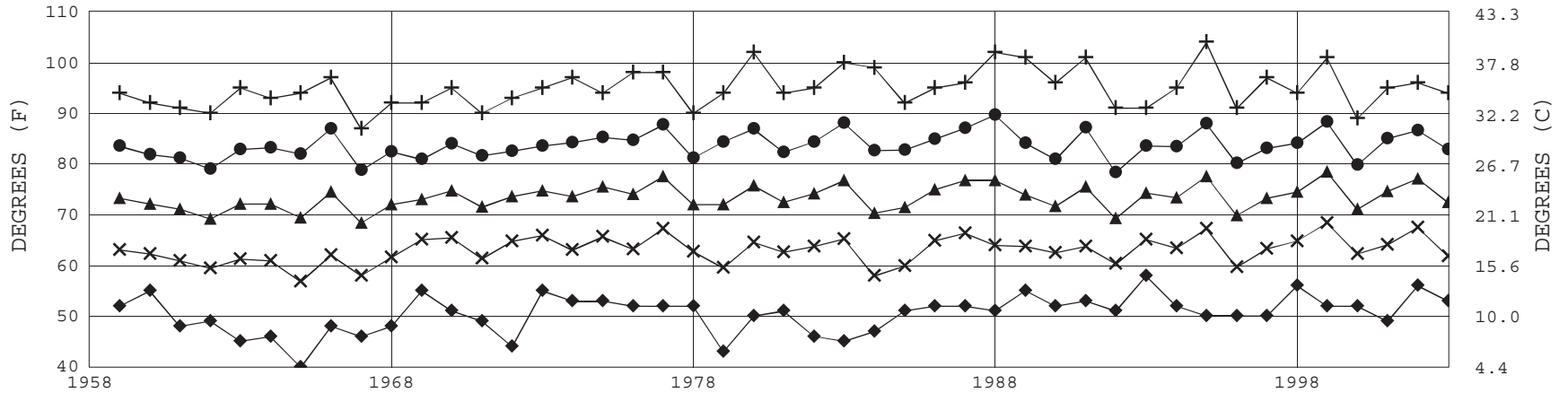
JULY 2003

ORD

WBAN # 94846

HOUR (LST)	SKY COVER		CEILING 100'S OF FT	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER		CEILING 100'S OF FT	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)	
	SKY COVER	CEILING		OBSERVATION TIME (LST)	EFF CLD AMT Okta			DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL		SKY COVER	CEILING		OBSERVATION TIME (LST)	EFF CLD AMT Okta			DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
SUNRISE: 0438 JUL 25								SUNSET: 1919								SUNRISE: 0444 JUL 31								SUNSET: 1913							
03	CLR	NC				10.00		61	54	57	78	5	22	29.38	30.10	03	SCT	NC				10.00		67	63	64	87	0	00	29.28	29.99
06	FEW	NC				10.00		65	56	60	73	6	20	29.42	30.14	06	CLR	NC				7.00		68	63	65	84	0	00	29.28	29.99
09	FEW	NC				10.00		76	58	65	54	10	20	29.45	30.16	09	FEW	NC				10.00		78	64	69	62	7	21	29.29	29.99
12	BKN	250				10.00		81	57	66	44	14	21	29.42	30.14	12	SCT	NC				10.00		83	61	69	48	8	20	29.26	29.96
15	BKN	250				10.00		80	58	66	47	15	21	29.37	30.09	15	SCT	NC				10.00		84	63	70	49	7	21	29.23	29.93
18	BKN	250				10.00		78	58	66	50	14	21	29.36	30.08	18	SCT	NC				10.00		81	64	70	57	7	21	29.21	29.92
21	OVC	200				10.00		75	60	66	60	9	19	29.39	30.11	21	OVC	110				10.00		76	67	70	74	8	19	29.27	29.97
24	OVC	180				10.00		73	62	66	69	7	19	29.39	30.11	24	BKN	250				10.00		67	61	63	81	6	22	29.21	29.92
SUNRISE: 0439 JUL 26								SUNSET: 1918								3-HOURLY OBSERVATION NOTES															
03	BKN	250				10.00		71	61	65	71	10	21	29.37	30.09	Sky Cover is the amount of the sky obscured. CLR or SKC = 0, FEW = 1/8-2/8, SCT = 3/8-4/8, BKN = 5/8-7/8, OVC = 8/8, VV = Vertical Visibility = 8/8.															
06	BKN	250				10.00		72	60	65	66	14	22	29.36	30.08	Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.															
09	OVC	200				10.00		76	62	67	62	13	23	29.37	30.09	NC= No ceiling detected.															
12	OVC	200				10.00		81	63	69	54	15	21	29.31	30.02	& = Original observation contained additional weather elements.															
15	BKN	250				10.00		83	64	71	53	14	20	29.29	29.99	See page 3 for additional notes.															
18	BKN	200				10.00		81	65	70	58	15	21	29.26	29.96																
21	SCT	NC				10.00		79	66	70	65	12	23	29.27	29.97																
24	SCT	NC				10.00		77	66	70	69	15	22	29.25	29.95																
SUNRISE: 0440 JUL 27								SUNSET: 1917																							
03	SCT	NC				10.00		75	67	70	76	10	23	29.21	29.92																
06	SCT	NC				10.00		75	67	70	76	9	25	29.23	29.94																
09	OVC	020				10.00		80	71	74	74	6	30	29.24	29.94																
12	OVC	023				10.00		77	63	68	62	18	04	29.27	29.97																
15	OVC	100				10.00		71	59	64	66	13	05	29.23	29.94																
18	SCT	NC				10.00		73	59	64	62	6	05	29.29	30.00																
21	BKN	070				10.00		69	58	62	68	7	VR	29.34	30.05																
24	SCT	NC				10.00		66	57	61	73	6	03	29.32	30.03																
SUNRISE: 0441 JUL 28								SUNSET: 1916																							
03	OVC	060				10.00		66	60	62	81	6	04	29.28	29.99																
06	OVC	050				10.00	-RA	65	61	63	87	6	04	29.32	30.03																
09	OVC	046				10.00		66	59	62	78	0	00	29.34	30.05																
12	BKN	065				10.00		70	62	65	76	5	05	29.31	30.02																
15	BKN	070				10.00		71	60	64	68	9	04	29.29	30.00																
18	SCT	NC				10.00		71	55	62	57	7	04	29.27	29.99																
21	FEW	NC				10.00		62	50	55	65	0	00	29.30	30.01																
24	CLR	NC				10.00		58	56	57	93	0	00	29.30	30.02																
SUNRISE: 0442 JUL 29								SUNSET: 1915																							
03	CLR	NC				10.00		55	54	54	96	0	00	29.29	30.01																
06	CLR	NC				10.00		61	54	57	78	0	00	29.30	30.01																
09	FEW	NC				10.00		73	52	61	48	0	00	29.33	30.04																
12	FEW	NC				10.00		79	50	62	36	5	34	29.32	30.03																
15	FEW	NC				10.00		82	48	62	31	7	06	29.29	30.00																
18	CLR	NC				10.00		79	47	61	32	8	08	29.26	29.97																
21	CLR	NC				10.00		70	51	59	51	3	14	29.30	30.01																
24	CLR	NC				10.00		59	54	56	83	0	00	29.33	30.03																
SUNRISE: 0443 JUL 30								SUNSET: 1914																							
03	CLR	NC				10.00		59	54	56	83	0	00	29.31	30.02																
06	SCT	NC				10.00		62	56	59	81	0	00	29.33	30.04																
09	BKN	250				10.00		75	56	64	52	6	21	29.33	30.04																
12	BKN	250				10.00		80	58	66	47	9	18	29.33	30.03																
15	BKN	250				10.00		83	55	66	38	10	17	29.29	30.00																
18	SCT	NC				10.00		79	51	63	38	8	23	29.27	29.98																
21	SCT	NC				10.00		68	58	62	70	0	00	29.29	30.00																
24	BKN	120				10.00		71	62	65	73	3	19	29.29	30.00																

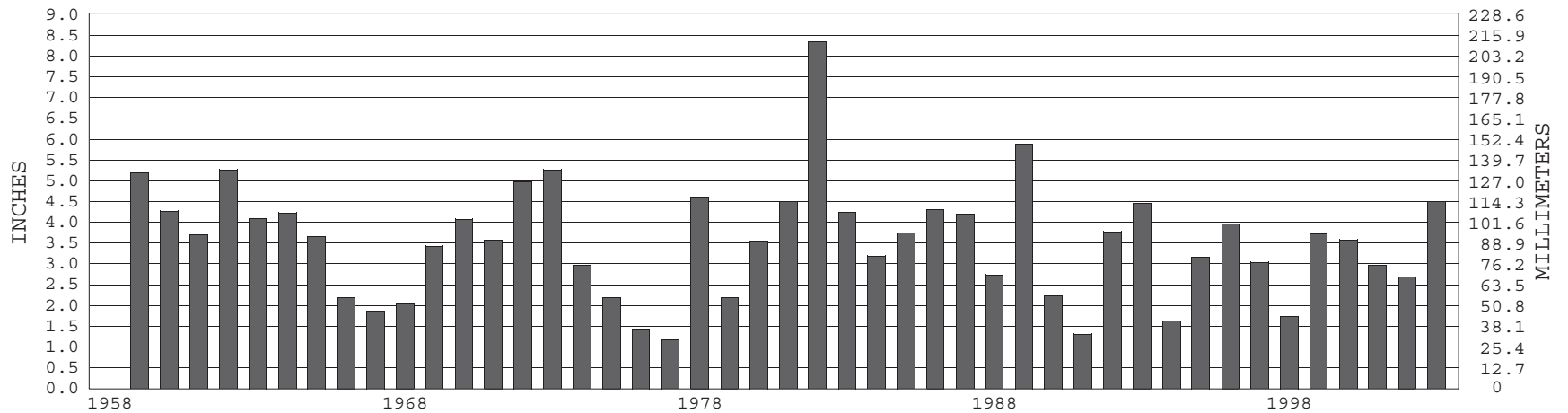
CHICAGO, IL JULY TEMPERATURES



+ Extreme Max. ● Mean Max. ▲ Mean × Mean Min. ◆ Extreme Min.

Long-Term (1958-2003) Mean: 71.8 1961-1990 Normal: 73.3

CHICAGO, IL JULY PRECIPITATION



Long-Term (1958-2003) Mean Monthly Total: 3.47

1961-1990 Normal: 3.51



JULY 2003
CHICAGO, IL

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

I certify that this is an official publication of the National Oceanic and Atmospheric Administration (NOAA). It is compiled using information from weather observing sites operated by NOAA – National Weather Service / Department Of Transportation – Federal Aviation Administration and received at the National Climatic Data Center (NCDC), Asheville, North Carolina 28801.

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