



MAY 2002

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

DULUTH, MN

INTERNATIONAL AIRPORT (DLH)

Lat: 46°50' N Long: 92°11' W Elev (Ground): 1426 Feet

Time Zone: CENTRAL WBAN: 14913 ISSN #:0198-2702

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						
																			SPEED	DIR	SPEED	DIR					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
01	54	25	40	-6	26	34	25	0	SN BR	0		T	T	28.28	29.81	2.6	34	7.3	28	01	22	36	01				
02	40	21	31*	-16	21	28	34	0	SN	0		T	T	28.24	29.78	13.0	31	13.6	33	30	29	31	02				
03	52	20*	36	-11	25	33	29	0		0		0.0	0.00	28.49	30.04	6.7	15	8.5	18	13	16	13	03				
04	52	32	42	-6	31	38	23	0	RA BR	0		0.0	0.27	28.50	30.04	4.5	29	10.5	28	21	21	26	04				
05	50	28	39	-9	31	36	26	0	RA PL	0		T	0.15	28.53	30.08	7.3	11	10.2	29	13	22	11	05				
06	46	38	42	-6	33	37	23	0	RA	0		0.0	0.01	28.43	29.97	12.1	09	13.0	35	10	29	10	06				
07	49	32	41	-8	28	35	24	0	RA SN BR	0		1.5	0.25	28.65	30.21	8.0	09	11.1	22	14	20	14	07				
08	36	32	34	-15	34	34	31	0	TSRA RA DZ SN FG+ BR	T		T	0.70	28.33	29.88	17.8	10	18.4	40	10	35	11	08				
09	43	34	39	-11	32	35	26	0	RA DZ SN PL FG+ BR	0		T	0.08	28.07	29.61	21.3	28	22.4	52*	29	44*	28	09				
10	58	32	45	-5	27	37	20	0		0		0.0	0.00	28.61	30.16	12.3	31	13.6	38	32	31	31	10				
11	49	35	42	-8	35	39	23	0	RA BR	0		0.0	0.32	28.71	30.26	7.6	11	8.8	23	09	18	09	11				
12	45	35	40	-11	37	39	25	0	RA BR	0		0.0	0.12	28.64	30.20	7.5	09	8.3	22	08	17	08	12				
13	52	34	43	-8	40	42	22	0	RA BR	0		0.0	0.09	28.54	30.08	6.6	32	10.0	24	34	20	35	13				
14	53	36	45	-6	30	38	20	0		0		0.0	0.00	28.55	30.10	5.5	10	10.2	28	33	21	36	14				
15	70	38	54	2	44	50	11	0	RA	0		0.0	0.01	28.20	29.71	8.5	25	15.2	36	23	30	23	15				
16	51	34	43	-9	29	37	22	0		0		0.0	0.00	28.53	30.07	11.5	02	12.1	28	35	23	35	16				
17	52	30	41	-11	26	34	24	0	RA	0		0.0	T	28.71	30.27	4.9	04	7.8	21	01	16	04	17				
18	52	28	40	-13	23	35	25	0		0		0.0	0.00	28.71	30.27	6.6	02	8.4	25	34	18	02	18				
19	46	28	37	-16	25	33	28	0		0		0.0	0.00	28.82	30.39	5.6	08	7.9	21	11	16	12	19				
20	60	27	44	-9	26	37	21	0		0		0.0	0.00	28.86	30.43	2.4	08	8.2	21	32	16	12	20				
21	67	33	50	-4	30	43	15	0		0		0.0	0.00	28.66	30.20	10.3	21	11.7	28	22	23	23	21				
22	73	47	60	6	45	52	5	0	RA	0		0.0	0.03	28.30	29.80	16.8	21	17.2	35	19	28	22	22				
23	64	38	51	-3	43	48	14	0	RA BR	0		0.0	T	28.25	29.75	11.8	29	17.0	35	28	30	28	23				
24	50	35	43	-11	27	36	22	0	RA DZ SN	0		0.0	T	28.63	30.18	3.8	08	8.5	23	02	17	13	24				
25	58	37	48	-7	37	42	17	0	TSRA RA	0		0.0	0.01	28.41	29.95	7.7	17	9.4	22	21	18	20	25				
26	71	46	59	4	37	49	6	0	RA	0		0.0	T	28.34	29.85	9.9	27	10.7	30	29	21	28	26				
27	73	46	60	4	40	50	5	0		0		0.0	0.00	28.48	29.99	4.8	14	8.1	20	11	16	14	27				
28	67	47	57	1	47	52	8	0	RA	0		0.0	T	28.43	29.94	7.5	13	7.8	17	13	16	13	28				
29	77	52	65	9	54	58	0	0	BR	0		0.0	0.00	28.32	29.82	6.2	12	7.4	21	10	18	12	29				
30	87*	52	70	14	50	59	0	5	RA MIFG BR	0		0.0	T	28.12	29.59	8.9	27	12.8	43	27	32	28	30				
31	83	57	70*	13	41	55	0	5		0		0.0	0.00	28.21	29.69	12.4	31	13.2	36	28	28	30	31				
57.4 35.8 46.6 ■■										< MONTHLY AVERAGES TOTALS->				1.5	2.04	28.47	30.00	0.3	10	11.3	<- MONTHLY AVERAGES						
-6.0 -4.4 -5.2 ■■										<-----DEPARTURE FROM NORMAL----->										- .91				SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3			
DEGREE DAYS									GREATEST 24-HR PRECIPITATION: 0.95				DATE :07-08				SEA LEVEL PRESSURE				DATE TIME						
MONTHLY TOTAL DEPARTURE									GREATEST 24-HR SNOWFALL: 1.5				DATE :07				MAXIMUM : 30.51				20 0655						
SEASON TO DATE TOTAL DEPARTURE									GREATEST SNOW DEPTH: T				DATE : 08				MINIMUM : 29.47				30 1755						
HEATING: 574 129 8663 -985									NUMBER OF DAYS WITH ➔		MAXIMUM TEMP ≥ 90: 0				MINIMUM TEMP ≤ 32 : 12				PRECIPITATION ≥ 0.01 INCH : 12								
COOLING: 10 3 10 3											MAXIMUM TEMP ≤ 32 : 0				MINIMUM TEMP ≤ 0 : 0				PRECIPITATION ≥ 0.10 INCH : 6								
											THUNDERSTORMS : 2				HEAVY FOG : 2				SNOWFALL ≥ 1.0 INCH : 1								

MAY 2002
DULUTH, MN

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

DULUTH, MN

MAY 2002

DLH

WBAN # 14913

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			T	
02							T	T					02	T	T	T	T	T	T	T	T	T	T	T	02			T	
03													03												03			T	
04								T	T	0.03	0.11	0.05	04	0.07	0.01	0.04	0.01		0.01	0.04	T				04	0.14		0.00	
05													05	0.02	0.02										05				0.27
06													06				T	0.01							06				0.15
07													07												07			0.01	
08	0.06	0.08	0.12	0.09	0.11	0.05	0.03	0.03	0.02	0.01	T	T	08	T	T	0.01	0.02	0.05	0.16	0.11	T		T	0.01	08	0.01		0.25	
09	0.01	T	T	T	0.01	T			T	T	T	T	09	T	T	0.01	0.02	T	T	T	T			T	09	0.95		0.70	
10													10												10	0.05		0.08	
11													11												11			0.00	
12	0.01	0.01	0.02	0.01	0.01	0.01	0.01	T					12	T	0.03	0.01	0.02	0.03	0.04	0.03	0.05	0.08	0.02	0.03	0.02	12	0.36		0.32
13							T	0.05	T				13												13	0.08		0.12	
14													14				0.02				T	T			14	0.07		0.09	
15			T				0.01						15												15			0.00	
16													16												16			0.01	
17													17					T							17			T	
18													18												18			0.00	
19													19												19			0.00	
20													20												20			0.00	
21													21								0.02	T			21	0.02		0.00	
22													22												22				0.03
23													23										T	T	23				T
24	T	T					T	T					24												24			T	
25													25						0.01	T					25			0.01	
26													26												26			T	
27	T	T											27												27			0.00	
28													28		T	T						T	T		28			T	
29													29												29			0.00	
30		T											30												30			T	
31													31												31			0.00	

MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	.03	.06	.08	.10	.13	.18	.21	.23	.29	.31	.32	.33
Ending Date	08	08	08	08	08	08	08	08	08	08	08	08
Ending Time (Hour/Min)	1744	1742	1747	1750	1802	1817	1822	1846	1817	1832	1846	1846

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.

* = 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

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

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

WEATHER NOTATIONS

**DULUTH, MN
MAY 2002**

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).

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.

PAGE 3

OBSERVATIONS AT 3-HOURLY INTERVALS

DULUTH, MN

MAY 2002

DLH

WBAN # 14913

HOUR (LST)			SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)		HOUR (LST)			SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)	
			OBSERVATION TIME (LST)	EFF CLD AMT <small>Okta</small>		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION				SEA LEVEL	OBSERVATION TIME (LST)		EFF CLD AMT <small>Okta</small>	VISIBILITY (MILES)	DRY BULB		DEW POINT	WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG
	SKY COVER	CEILING 100'S OF FT													SKY COVER	CEILING 100'S OF FT											
			SUNRISE: 0454			MAY 01	SUNSET: 1917									SUNRISE: 0445			MAY 07	SUNSET: 1925							
03	CLR	NC			10.00								03	OVC	012												
06	CLR	NC			10.00								06	BKN	042												
09	CLR	NC			10.00								09	FEW	NC												
12	CLR	NC			10.00								12	FEW	NC												
15	OVC	090			10.00								15	CLR	NC												
18	BKN	090			10.00								18	OVC	070												
21	OVC	075			7.00	-SN							21	OVC	042												
24	BKN	060			10.00								24	OVC	004												
			SUNRISE: 0452			MAY 02	SUNSET: 1919									SUNRISE: 0443			MAY 08	SUNSET: 1927							
03	CLR	NC			10.00								03	OVC	004												
06	OVC	070			10.00								06	OVC	002												
09	BKN	035			10.00	-SN							09	OVC	002												
12	OVC	047			10.00								12	OVC	001												
15	OVC	037			10.00								15	OVC	003												
18	BKN	044			10.00								18	OVC	003												
21	FEW	NC			10.00								21	VV	001												
24	CLR	NC			10.00								24	VV	001												
			SUNRISE: 0451			MAY 03	SUNSET: 1920									SUNRISE: 0442			MAY 09	SUNSET: 1928							
03	CLR	NC			10.00								03	OVC	001												
06	FEW	NC			10.00								06	OVC	032												
09	SCT	NC			10.00								09	OVC	029												
12	BKN	250			10.00								12	OVC	040												
15	SCT	NC			10.00								15	BKN	028												
18	FEW	NC			10.00								18	OVC	039												
21	SCT	NC			10.00								21	OVC	029												
24	CLR	NC			10.00								24	OVC	032												
			SUNRISE: 0449			MAY 04	SUNSET: 1921									SUNRISE: 0441			MAY 10	SUNSET: 1929							
03	CLR	NC			10.00								03	OVC	025												
06	BKN	060			10.00								06	SCT	NC												
09	OVC	060			10.00	-RA							09	SCT	NC												
12	OVC	009			5.00	-RA BR							12	SCT	NC												
15	CLR	NC			10.00								15	SCT	NC												
18	CLR	NC			10.00								18	SCT	NC												
21	CLR	NC			10.00								21	CLR	NC												
24	CLR	NC			10.00								24	CLR	NC												
			SUNRISE: 0448			MAY 05	SUNSET: 1923									SUNRISE: 0439			MAY 11	SUNSET: 1931							
03	CLR	NC			10.00								03	CLR	NC												
06	CLR	NC			10.00								06	CLR	NC												
09	CLR	NC			10.00								09	CLR	NC												
12	BKN	050			10.00								12	OVC	043												
15	OVC	065			8.00	-PLRA							15	OVC	035												
18	OVC	060			10.00	-RA							18	OVC	034												
21	OVC	040			10.00								21	OVC	005												
24	OVC	045			10.00								24	OVC	005												
			SUNRISE: 0446			MAY 06	SUNSET: 1924									SUNRISE: 0438			MAY 12	SUNSET: 1932							
03	OVC	041			10.00								03	OVC	007												
06	BKN	050			10.00								06	OVC	008												
09	BKN	050			10.00								09	OVC	010												
12	OVC	030			10.00								12	OVC	016												
15	OVC	034			10.00								15	OVC	022												
18	BKN	041			10.00								18	BKN	046												
21	OVC	031			10.00								21	SCT	NC												
24	OVC	033			10.00								24	SCT	NC												

OBSERVATIONS AT 3-HOURLY INTERVALS

DULUTH, MN

MAY 2002

DLH

WBAN # 14913

HOUR (LST)			SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES,HG)		HOUR (LST)			SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES,HG)		
			OBSERVATION TIME (LST)	EFF CLD AMT <small>Okta</small>		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION				SEA LEVEL	OBSERVATION TIME (LST)		EFF CLD AMT <small>Okta</small>	VISIBILITY (MILES)	DRY BULB		DEW POINT	WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION
	SKY COVER	CEILING 100'S OF FT													SKY COVER	CEILING 100'S OF FT												
			SUNRISE: 0437 MAY 13 SUNSET: 1933													SUNRISE: 0430 MAY 19 SUNSET: 1941												
03	SCT	NC			10.00	35	33	34	93	3	21	28.57	30.13	03	FEW	NC					34	22	30	61	5	02	28.73	30.29
06	OVC	043			10.00	38	34	36	86	8	23	28.55	30.11	06	CLR	NC					37	26	33	65	7	02	28.78	30.34
09	OVC	036			7.00	43	42	43	97	8	25	28.52	30.06	09	BKN	050					41	23	34	49	8	03	28.81	30.37
12	OVC	032			10.00	50	44	47	80	7	33	28.50	30.03	12	BKN	060					44	28	37	53	13	11	28.82	30.38
15	BKN	025			10.00	50	42	46	74	10	36	28.50	30.04	15	BKN	060					42	27	36	55	13	11	28.83	30.40
18	BKN	050			10.00	48	43	46	83	14	36	28.52	30.07	18	FEW	NC					39	25	34	57	14	11	28.85	30.42
21	OVC	019			10.00	45	41	43	86	12	34	28.55	30.10	21	CLR	NC					32	24	29	73	5	06	28.90	30.47
24	OVC	011			10.00	41	38	40	89	17	35	28.55	30.10	24	CLR	NC					29	24	27	82	0	00	28.89	30.47
			SUNRISE: 0435 MAY 14 SUNSET: 1934													SUNRISE: 0429 MAY 20 SUNSET: 1942												
03	OVC	013			10.00	38	34	36	86	13	36	28.58	30.13	03	CLR	NC					28	24	27	85	7	29	28.90	30.48
06	OVC	013			10.00	37	32	35	82	10	04	28.62	30.17	06	CLR	NC					33	28	31	82	6	32	28.93	30.50
09	FEW	NC			10.00	43	34	39	71	5	16	28.63	30.18	09	CLR	NC					49	28	40	45	12	30	28.92	30.49
12	CLR	NC			10.00	48	30	40	50	13	13	28.61	30.15	12	FEW	NC					56	27	43	33	8	02	28.87	30.43
15	CLR	NC			10.00	52	20	39	28	10	14	28.56	30.10	15	FEW	NC					56	28	44	34	15	12	28.83	30.39
18	CLR	NC			10.00	50	29	41	44	12	12	28.50	30.03	18	FEW	NC					54	25	42	33	8	12	28.81	30.37
21	CLR	NC			10.00	41	27	35	57	8	13	28.47	30.01	21	CLR	NC					42	25	35	51	7	13	28.80	30.36
24	FEW	NC			10.00	39	28	35	65	8	13	28.40	29.94	24	CLR	NC					39	27	34	62	9	13	28.80	30.35
			SUNRISE: 0434 MAY 15 SUNSET: 1936													SUNRISE: 0428 MAY 21 SUNSET: 1943												
03	BKN	110			10.00	42	34	39	73	7	16	28.33	29.86	03	CLR	NC					36	25	32	64	5	13	28.79	30.35
06	BKN	100			10.00	45	37	41	74	10	19	28.27	29.80	06	CLR	NC					40	27	35	60	3	17	28.78	30.34
09	FEW	NC			10.00	57	47	52	69	24	22	28.16	29.68	09	CLR	NC					56	32	45	40	13	24	28.76	30.31
12	BKN	042			10.00	66	50	57	56	24	24	28.10	29.61	12	CLR	NC					63	31	48	30	15	20	28.69	30.22
15	SCT	NC			10.00	69	51	59	53	18	26	28.09	29.59	15	CLR	NC					66	31	49	27	15	23	28.60	30.14
18	FEW	NC			10.00	70	52	60	53	13	28	28.09	29.59	18	CLR	NC					64	32	49	30	16	23	28.54	30.07
21	FEW	NC			10.00	58	48	53	70	14	01	28.19	29.68	21	CLR	NC					56	30	44	37	9	20	28.53	30.05
24	OVC	012			10.00	47	43	45	86	13	35	28.30	29.81	24	CLR	NC					52	31	43	45	15	21	28.51	30.03
			SUNRISE: 0433 MAY 16 SUNSET: 1937													SUNRISE: 0427 MAY 22 SUNSET: 1944												
03	BKN	070			10.00	42	35	39	76	12	36	28.37	29.88	03	CLR	NC					49	33	42	55	13	22	28.50	30.01
06	SCT	NC			10.00	36	30	34	79	17	36	28.43	29.95	06	CLR	NC					49	35	43	59	13	21	28.46	29.97
09	BKN	022			10.00	38	28	34	68	14	36	28.49	30.02	09	OVC	049					57	40	49	53	17	20	28.40	29.91
12	FEW	NC			10.00	44	28	37	53	12	01	28.53	30.07	12	FEW	NC					66	47	56	50	22	20	28.26	29.77
15	FEW	NC			10.00	50	29	41	44	15	02	28.55	30.09	15	BKN	050					70	50	59	49	18	22	28.21	29.70
18	SCT	NC			10.00	48	26	39	42	13	36	28.60	30.15	18	BKN	070					69	52	59	55	23	21	28.17	29.66
21	BKN	250			10.00	40	26	34	58	7	06	28.67	30.22	21	OVC	041					64	56	59	75	12	22	28.17	29.66
24	CLR	NC			10.00	34	26	31	73	9	03	28.70	30.26	24	BKN	120					64	54	58	70	16	22	28.12	29.60
			SUNRISE: 0432 MAY 17 SUNSET: 1938													SUNRISE: 0426 MAY 23 SUNSET: 1945												
03	CLR	NC			10.00	32	25	29	75	6	03	28.73	30.28	03	SCT	NC					60	56	58	86	16	23	28.09	29.57
06	CLR	NC			10.00	34	26	31	73	7	35	28.73	30.29	06	FEW	NC					60	56	58	86	16	24	28.07	29.55
09	CLR	NC			10.00	40	25	34	55	10	03	28.77	30.33	09	SCT	NC					61	43	52	52	22	28	28.10	29.59
12	FEW	NC			10.00	49	27	40	43	13	01	28.72	30.27	12	OVC	040					58	42	50	56	24	30	28.16	29.65
15	BKN	070			10.00	49	25	39	39	9	03	28.68	30.24	15	OVC	024					51	39	45	64	14	34	28.28	29.79
18	OVC	070			10.00	44	26	37	49	9	12	28.68	30.24	18	BKN	033					46	33	40	61	15	34	28.40	29.92
21	BKN	080			10.00	36	29	33	76	3	21	28.70	30.26	21	BKN	035					42	32	38	68	10	36	28.50	30.03
24	FEW	NC			10.00	31	26	29	82	3	VR	28.70	30.26	24	OVC	036					38	33	36	83	9	02	28.56	30.10
			SUNRISE: 0431 MAY 18 SUNSET: 1939													SUNRISE: 0425 MAY 24 SUNSET: 1946												
03	FEW	NC			10.00	29	27	28	92	7	08	28.71	30.27	03	OVC	024					36	27	32	70	9	36	28.60	30.14
06	FEW	NC			10.00	32	30	31	92	3	09	28.75	30.32	06	OVC	024					36	28	33	73	7	04	28.64	30.19
09	FEW	NC			10.00	43	27	37	53	7	04	28.75	30.32	09	OVC	035					41	28	36	60	3	VR	28.67	30.22
12	SCT	NC			10.00	49	21	38	33	15	35	28.72	30.28	12	SCT	NC					47	26	38	44	5	VR	28.66	30.21
15	SCT	NC			10.00	51	19	39	28	14	36	28.68	30.23	15	SCT	NC					49	28	40	45	7	16	28.66	30.21
18	SCT	NC			10.00	49	18	37	29	12	36	28.67	30.23	18	FEW	NC					50	25	40	38	8	10	28.60	30.15
21	BKN	085			10.00	43	21	35	42	6	04	28.69	30.24	21	CLR	NC					42	25	35	51	7	11	28.59	30.14
24	BKN	090			10.00	40	23	33	51	7	03	28.72	30.27	24	FEW	NC					39	28	35	65	8	11	28.57	30.11

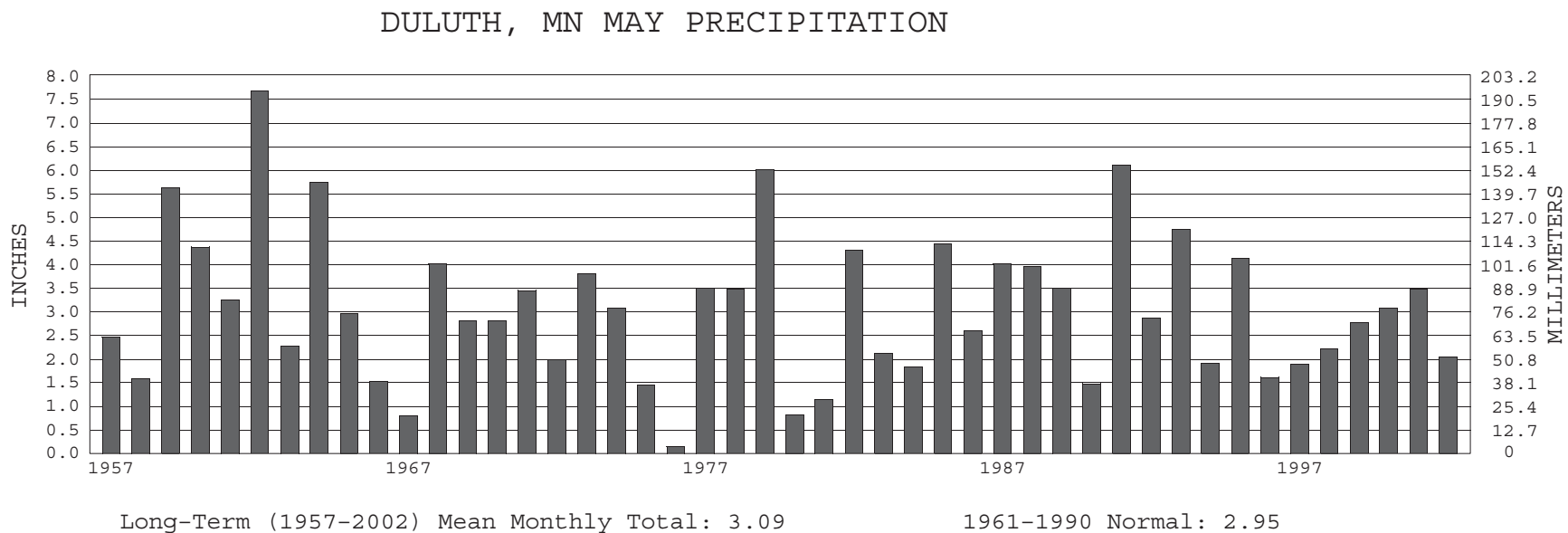
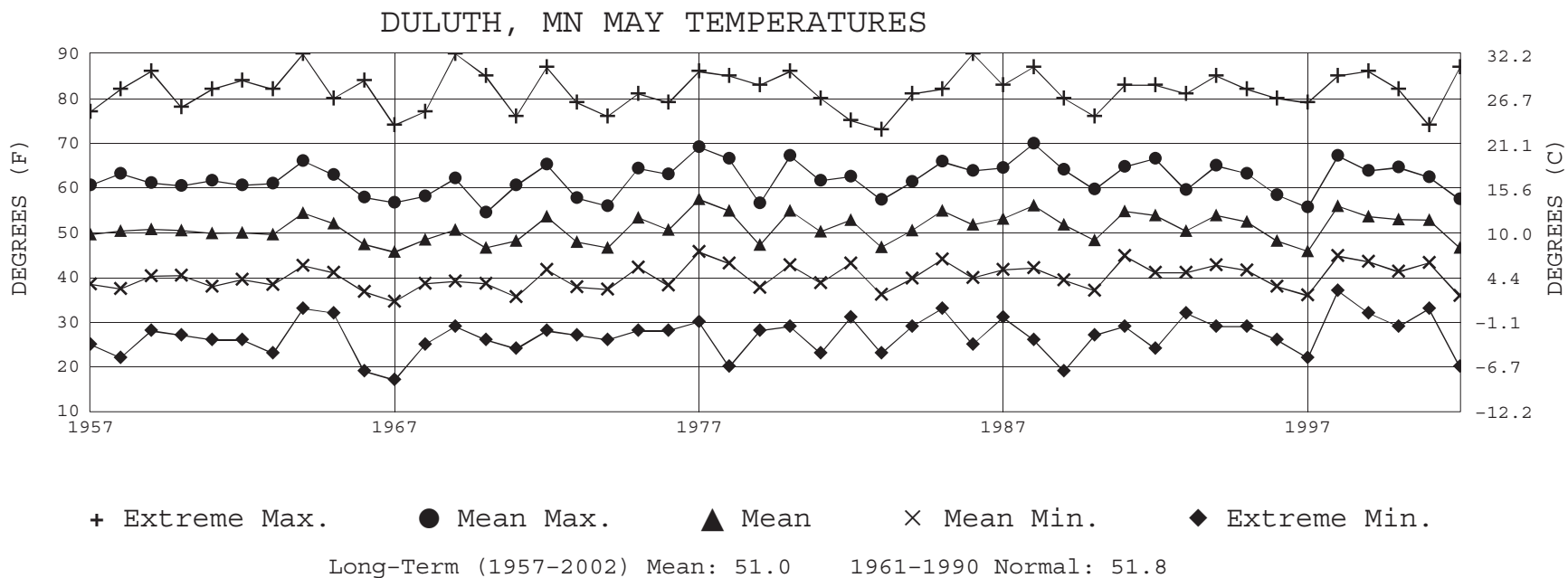
DULUTH, MN

MAY 2002

DLH

WBAN # 14913

HOUR (LST)	SKY COVER		CEILING 100'S OFFT	SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES,HG)		HOUR (LST)	SKY COVER		CEILING 100'S OFFT	SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES,HG)	
				OBSERVATION TIME (LST)	EFF CLD AMT <i>Oktas</i>		DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL					OBSERVATION TIME (LST)	EFF CLD AMT <i>Oktas</i>		DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
MAY 25																													
SUNRISE: 0424															SUNSET: 1947														
03	BKN	100			10.00	-TSRA	38	28	34	68	6	12	28.52	30.06	03	CLR	NC			10.00	-TSRA	60	47	53	62	10	32	28.17	29.65
06	BKN	080			10.00		38	30	35	73	9	13	28.50	30.04	06	CLR	NC			10.00		60	47	53	62	10	32	28.23	29.70
09	FEW	NC			10.00		48	37	43	66	12	20	28.46	29.99	09	CLR	NC			10.00		73	45	57	37	14	30	28.25	29.72
12	BKN	055			10.00		52	39	46	61	16	17	28.40	29.93	12	FEW	NC			10.00		81	39	58	22	23	28	28.21	29.69
15	BKN	095			10.00		56	40	48	55	13	21	28.37	29.90	15	CLR	NC			10.00		82	34	57	18	22	31	28.21	29.68
18	BKN	060			6.00		52	46	49	80	0	00	28.33	29.86	18	CLR	NC			10.00		78	38	57	24	13	33	28.22	29.70
21	SCT	NC			10.00		42	39	41	89	9	15	28.33	29.86	21	FEW	NC			10.00		68	36	52	31	5	32	28.24	29.72
24	BKN	100			10.00	46	42	44	86	7	22	28.30	29.83	24	CLR	NC			10.00	65	38	51	37	9	24	28.21	29.69		
MAY 26																													
SUNRISE: 0423															SUNSET: 1948														
03	BKN	080			10.00	-TSRA	48	44	46	86	9	23	28.30	29.82	03	CLR	NC			10.00	-TSRA	60	47	53	62	10	32	28.17	29.65
06	BKN	095			10.00		50	44	47	80	8	26	28.32	29.84	06	CLR	NC			10.00		60	47	53	62	10	32	28.23	29.70
09	BKN	100			10.00		58	37	48	46	13	29	28.34	29.87	09	CLR	NC			10.00		73	45	57	37	14	30	28.25	29.72
12	SCT	NC			10.00		66	29	49	25	16	31	28.34	29.85	12	FEW	NC			10.00		81	39	58	22	23	28	28.21	29.69
15	CLR	NC			10.00		70	27	50	20	22	28	28.32	29.83	15	CLR	NC			10.00		82	34	57	18	22	31	28.21	29.68
18	CLR	NC			10.00		69	31	51	24	10	28	28.31	29.82	18	CLR	NC			10.00		78	38	57	24	13	33	28.22	29.70
21	SCT	NC			10.00		60	39	50	46	9	23	28.37	29.88	21	FEW	NC			10.00		68	36	52	31	5	32	28.24	29.72
24	FEW	NC			10.00	54	44	49	69	9	25	28.40	29.91	24	CLR	NC			10.00	65	38	51	37	9	24	28.21	29.69		
MAY 27																													
SUNRISE: 0422															SUNSET: 1949														
03	CLR	NC			10.00	-TSRA	48	42	45	80	7	28	28.42	29.93	03	CLR	NC			10.00	-TSRA	60	47	53	62	10	32	28.17	29.65
06	SCT	NC			10.00		52	45	48	77	5	29	28.47	29.98	06	CLR	NC			10.00		60	47	53	62	10	32	28.23	29.70
09	CLR	NC			10.00		64	41	52	43	0	00	28.50	30.00	09	CLR	NC			10.00		73	45	57	37	14	30	28.25	29.72
12	FEW	NC			10.00		71	42	56	35	14	12	28.49	29.99	12	FEW	NC			10.00		81	39	58	22	23	28	28.21	29.69
15	FEW	NC			10.00		72	39	55	30	13	13	28.48	29.99	15	FEW	NC			10.00		82	34	57	18	22	31	28.21	29.68
18	FEW	NC			10.00		67	39	53	36	13	11	28.48	29.99	18	FEW	NC			10.00		78	38	57	24	13	33	28.22	29.70
21	FEW	NC			10.00		56	35	46	46	12	11	28.50	30.02	21	FEW	NC			10.00		68	36	52	31	5	32	28.24	29.72
24	FEW	NC			10.00	52	34	44	50	9	12	28.52	30.03	24	CLR	NC			10.00	65	38	51	37	9	24	28.21	29.69		
MAY 28																													
SUNRISE: 0421															SUNSET: 1951														
03	FEW	NC			10.00	-RA	48	34	42	58	7	11	28.50	30.02	03	FEW	NC			10.00	-RA	60	47	53	62	10	32	28.17	29.65
06	FEW	NC			10.00		53	39	46	59	10	11	28.48	29.99	06	FEW	NC			10.00		60	47	53	62	10	32	28.23	29.70
09	FEW	NC			10.00		61	49	54	65	10	15	28.48	29.99	09	FEW	NC			10.00		73	45	57	37	14	30	28.25	29.72
12	FEW	NC			10.00		65	51	57	61	10	15	28.44	29.94	12	FEW	NC			10.00		81	39	58	22	23	28	28.21	29.69
15	BKN	100			10.00		63	56	59	78	10	14	28.39	29.91	15	BKN	100			10.00		82	34	57	18	22	31	28.21	29.68
18	SCT	NC			10.00		61	52	56	72	7	14	28.37	29.88	18	SCT	NC			10.00		78	38	57	24	13	33	28.22	29.70
21	OVC	095			10.00		58	52	55	81	0	00	28.38	29.89	21	OVC	095			10.00		68	36	52	31	5	32	28.24	29.72
24	OVC	100			10.00	57	53	55	87	5	15	28.35	29.85	24	OVC	100			10.00	65	38	51	37	9	24	28.21	29.69		
MAY 29																													
SUNRISE: 0421															SUNSET: 1952														
03	FEW	NC			9.00	BR	54	51	52	90	3	12	28.33	29.84	03	FEW	NC			9.00	BR	60	47	53	62	10	32	28.17	29.65
06	FEW	NC			8.00		56	51	53	84	0	00	28.36	29.87	06	FEW	NC			8.00		60	47	53	62	10	32	28.23	29.70
09	CLR	NC			10.00		70	56	62	61	0	00	28.36	29.86	09	CLR	NC			10.00		73	45	57	37	14	30	28.25	29.72
12	FEW	NC			10.00		74	56	63	54	10	13	28.34	29.84	12	FEW	NC			10.00		81	39	58	22	23	28	28.21	29.69
15	FEW	NC			10.00		75	56	63	52	12	13	28.32	29.81	15	FEW	NC			10.00		82	34	57	18	22	31	28.21	29.68
18	FEW	NC			10.00		68	56	61	66	10	12	28.28	29.78	18	FEW	NC			10.00		78	38	57	24	13	33	28.22	29.70
21	BKN	110			9.00		63	55	58	76	9	35	28.32	29.81	21	BKN	110			9.00		68	36	52	31	5	32	28.24	29.72
24	SCT	NC			5.00	54	51	52	90	7	14	28.26	29.75	24	SCT	NC			5.00	65	38	51	37	9	24	28.21	29.69		
MAY 30																													
SUNRISE: 0420															SUNSET: 1953														
03	BKN	110			4.00	BR MIFG	54	53	53	97	5	09	28.23	29.71	03	BKN	110			4.00	BR MIFG	60	47	53	62	10	32	28.17	29.65
06	SCT	NC			3.00		54	52	53	93	5	14	28.22	29.71	06	SCT	NC			3.00		60	47	53	62	10	32	28.23	29.70
09	SCT	NC			10.00		72	58	63	61	13	25	28.16	29.64	09	SCT	NC			10.00		73	45	57	37	14	30	28.25	29.72
12	FEW	NC			10.00		86	53	66	32	20	26	28.08	29.56	12	FEW	NC			10.00		81	39	58	22	23	28	28.21	29.69
15	BKN	085			10.00		86	49	64	28	25	28	28.02	29.49	15	BKN	085			10.00		82	34	57	18	22	31	28.21	29.68
18	FEW	NC			10.00		83	44	61	26	18	29	28.00	29.47	18	FEW	NC			10.00		78	38	57	24	13	33	28.22	29.70
21	FEW	NC			10.00		75	42	57	31	13	34	28.05	29.52	21	FEW	NC			10.00		68	36	52	31	5	32	28.24	29.72
24	FEW	NC			10.00	60	50	55	70	7	30	28.12	29.59	24	FEW	NC			10.00	65	38	51	37	9	24	28.21	29.69		





MAY 2002

DULUTH, MN

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.

DIRECTOR

NCDC now offers an annual online subscription for the **Edited Local Climatological Data Publication**. When you purchase this subscription service, you will have **immediate online access** to all previous publications back to July 1996 and all publications thereafter until the expiration of the subscription. Your subscription is valid for one year after purchase. **The total cost is \$29 for online delivery (including back issues) compared to \$34 for offline delivery.** To order this and other subscriptions online with your credit card, go to:
www.ncdc.noaa.gov and choose subscriptions.

We welcome your questions or comments, please contact us at
Toll Free Number (866) 742–3322 (voice)
Fax Number : (304) 726–4409
TDD : 828–271–4010
or Email : ncdc.info@noaa.gov
Local Climatological Data is available at www.ncdc.noaa.gov

For address correction, please return a photocopy of this page to Subscription Services indicating changes

NCDC Subscription Services Center
310 State Route 956 Building 300
Rocket Center, WV 26726

OFFICIAL BUSINESS. PENALTY FOR PRIVATE USE \$300

FIRST CLASS
POSTAGE AND FEES PAID
NOAA
PERMIT G-19