



DECEMBER 2002

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

DUBUQUE, IA

MUNICIPAL AIRPORT (DBQ)

Lat: 42° 23' N Long: 90° 42' W Elev (Ground): 1069 Feet

Time Zone: CENTRAL WBAN: 94908 ISSN #:0198-2087

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	45	9	27	-1	12	23	38	0				0.0	0.00	28.71	29.91	10.2	22	10.6	35	22	30	22	01																						
02	35	13	24	-4	15	21	41	0	SN FG+ FZFG BR			1.0	0.06	28.86	30.05	10.5	03	10.6	26	04	23	04	02																						
03	23	9	16	-11	7	13	49	0				0.0	0.00	29.35	30.59	6.0	06	7.6	18	03	16	03	03																						
04	24	6	15*	-12	10	15	50	0				0.0	0.00	29.26	30.49	2.5	05	3.2	9	12	9	10	04																						
05	21	11	16	-10	9	14	49	0	SN BR			T	T	29.06	30.28	8.8	27	9.2	21	29	17	28	05																						
06	32	2*	17	-9	13	18	48	0	BR			0.0	0.00	28.89	30.10	10.6	21	11.0	24	22	20	21	06																						
07	38	17	28	2	23	27	37	0	BR			0.0	0.00	28.88	30.07	9.2	27	10.1	20	27	16	28	07																						
08	27	7	17	-8	5	16	48	0				0.0	0.00	29.26	30.48	6.6	35	7.8	23	02	18	36	08																						
09	33	5	19	-6	8	17	46	0				0.0	0.00	29.16	30.38	9.4	20	9.7	21	21	18	21	09																						
10	46	20	33	9	19	26	32	0				0.0	0.00	28.94	30.14	7.7	19	8.0	15	19	14	18	10																						
11	43	20	32	8	24	28	33	0	BR HZ			0.0	0.00	28.84	30.02	9.5	19	9.7	22	21	20	21	11																						
12	41	33	37	13	33	35	28	0	BR HZ			0.0	0.00	28.86	30.04	7.0	20	7.3	17	19	14	21	12																						
13	34	22	28	5	30	31	37	0	FG+ FZFG BR			0.0	0.00	28.78	29.97	6.5	02	6.6	17	02	14	03	13																						
14	43	30	37	14	28	32	28	0	FG+ FZFG BR HZ			0.0	0.00	28.74	29.92	7.4	22	9.1	21	22	18	20	14																						
15	43	30	37	14	28	33	28	0				0.0	0.00	28.71	29.88	4.1	04	8.5	24	06	20	06	15																						
16	35	22	29	7	19	25	36	0				0.0	0.00	28.85	30.04	14.2	09	14.8	29	09	24	09	16																						
17	37	28	33	11	28	30	32	0	RA FG+ BR UP HZ			T	0.05	28.70	29.88	14.2	10	14.4	31	10	24	11	17																						
18	52	36	44*	22	44	45	21	0	TSRA RA FG+ BR			0.0	0.61	28.38	29.53	10.7	17	14.2	38	15	30	16	18																						
19	39	31	35	14	29	33	30	0	SN			T	T	28.46	29.63	12.6	26	13.1	25	27	22	27	19																						
20	32	25	29	8	23	28	36	0	SN FG+ FZFG BR UP			0.1	0.01	28.38	29.55	19.6	27	19.7	36	27	30	27	20																						
21	30	20	25	4	20	25	40	0	SN			0.0	T	28.59	29.77	14.2	28	14.5	41*	28	32*	29	21																						
22	29	24	27	7	18	24	38	0				0.0	0.00	28.75	29.94	17.9	28	18.2	36	27	29	27	22																						
23	30	15	23	3	14	21	42	0				0.0	0.00	28.93	30.13	13.9	29	14.4	37	29	31	29	23																						
24	24	15	20	0	14	19	45	0				0.0	0.00	28.80	30.00	9.6	01	9.7	21	35	17	01	24																						
25	24	14	19	0	17	20	46	0	SN BR HZ			0.0	T	28.86	30.07	8.5	32	10.1	20	36	16	35	25																						
26	36	10	23	4	16	20	42	0	BR			0.0	0.00	29.05	30.26	7.1	22	7.5	16	23	14	24	26																						
27	35	19	27	8	25	27	38	0	BR HZ			0.0	0.00	28.96	30.16	11.0	21	11.3	22	24	20	24	27																						
28	41	24	33	14	25	29	32	0	BR HZ			0.0	0.00	28.77	29.95	5.0	21	7.3	21	18	18	19	28																						
29	44	28	36	18	28	32	29	0	HZ			0.0	0.00	28.69	29.87	12.2	13	12.9	28	14	22	14	29																						
30	53*	30	42	24	36	40	23	0	BR			0.0	0.00	28.51	29.67	7.7	25	15.1	26	33	23	26	30																						
31	35	19	27	9	16	23	38	0				0.0	0.00	28.86	30.05	6.5	33	8.1	21	32	17	32	31																						
35.6										19.2		27.4		■ ■		20.5		25.5		37.4		0.0		< MONTHLY AVERAGES		TOTALS->				1.1		0.73		28.83		30.03		3.2		25		10.8		<- MONTHLY AVERAGES	
5.9										4.0		4.9		■ ■		<-----DEPARTURE FROM NORMAL----->												-.96		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3															
DEGREE DAYS									GREATEST 24-HR PRECIPITATION: 0.66 DATE :17-18									SEA LEVEL PRESSURE									DATE TIME																		
MONTHLY									GREATEST 24-HR SNOWFALL: 1.0 DATE :02									MAXIMUM									30.65																		
TOTAL DEPARTURE									GREATEST SNOW DEPTH:									MINIMUM									29.41																		
HEATING: 1160 -147									NUMBER OF DAYS WITH ➡									MAXIMUM TEMP ≥ 90: 0									MINIMUM TEMP ≤ 32 : 29									PRECIPITATION ≥ 0.01 INCH : 4									
COOLING: 0 0																		MAXIMUM TEMP ≤ 32 : 11									MINIMUM TEMP ≤ 0 : 0									PRECIPITATION ≥ 0.10 INCH : 1									
SEASON TO DATE									TOTAL DEPARTURE									TOTAL DEPARTURE									767 111									SNOWFALL ≥ 1.0 INCH : 1									

DECEMBER 2002
DUBUQUE, IA

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

DUBUQUE, IA

DECEMBER 2002

DBQ

WBAN # 94908

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									0.01	0.02	0.01	T	01												01	0.04	0.00	
02													02												02		0.06	
03													03												03		0.00	
04			T	T	T	T	T						04												04		0.00	
05													05												05		T	
06													06												06	0.00		
07													07												07	0.00		
08													08												08	0.00		
09													09												09	0.00		
10													10												10	0.00		
11													11												11	0.00		
12													12												12	0.00		
13													13												13	0.00		
14													14												14	0.00		
15													15												15	0.00		
16													16												16	0.00		
17													17					T				0.05	T		17	0.05		
18	0.03	0.05	0.02	T					0.07	0.01	0.14	0.12	18	0.17										T		18	0.61	
19													19											T		19	T	
20	T									T	T	T	20	T	T	T	T		0.01	T		T	T	T	20	0.01		
21	T	T											21												21	T		
22													22												22	0.00		
23													23												23	0.00		
24													24												24	0.00		
25										T	T		25												25	T		
26													26												26	0.00		
27													27												27	0.00		
28													28												28	0.00		
29													29												29	0.00		
30													30												30	0.00		
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)	.07	.10	.11	.13	.14	.19	.25	.29	.29	.33	.43	.43
Ending Date	18	18	18	18	18	18	18	18	18	18	18	18
Ending Time (Hour/Min)	1032	1033	1034	1034	1034	1233	1236	1241	1241	1227	1241	1241

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

**DUBUQUE, IA
DECEMBER 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.

DATE	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR-SS		MN-MN		MINIMUM	MAXIMUM	
			CEILOMETER	SATELLITE	CEILOMETER	SATELLITE			
01							10.00	10.00	
02							.25	10.00	
03							10.00	10.00	
04							7.00	10.00	
05							5.00	10.00	
06							6.00	10.00	
07							6.00	10.00	
08							10.00	10.00	
09							10.00	10.00	
10							9.00	10.00	
11							4.00	10.00	
12							3.00	8.00	
13							<.25	4.00	
14							.25	10.00	
15							10.00	10.00	
16							10.00	10.00	
17							.25	10.00	
18							.25	10.00	
19							8.00	10.00	
20							.25	10.00	
21							8.00	10.00	
22							9.00	10.00	
23							10.00	10.00	
24							10.00	10.00	
25							3.00	10.00	
26							5.00	10.00	
27							1.50	10.00	
28							1.50	8.00	
29							4.00	9.00	
30							5.00	10.00	
31							10.00	10.00	
MONTHLY AVGS							5.79	9.65	
<p align="center">SUNSHINE (MINUTES)</p> <p>Total: Possible:</p> <p align="center">Percent Possible:</p>									
<p align="center">NUMBER OF DAYS WITH:</p> <p align="center">SKY CONDITION</p> <p align="center">CLR PTLY CLDY CLOUDY MISSING</p> <p align="center">31</p> <p align="center">MINIMUM VISIBILITY (MILES)</p> <p align="center"><=0.25 <=3.0 >=7.0</p> <p align="center">5 10 14</p>									

OBSERVATIONS AT 3-HOURLY INTERVALS

DUBUQUE, IA

DECEMBER 2002

DBQ

WBAN # 94908

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	SEA LEVEL
SUNRISE: 0712 DEC 01						SUNSET: 1631						SUNRISE: 0718 DEC 07						SUNSET: 1630											
03	SCT	NC			10.00	10	2	8	69	6	21	28.93	30.15	03	CLR	NC			9.00		28	23	26	81	8	24	28.78	29.97	
06	OVC	095			10.00	16	3	13	56	12	22	28.89	30.10	06	CLR	NC			8.00		21	19	20	92	6	23	28.82	30.01	
09	OVC	100			10.00	21	6	17	52	17	21	28.79	29.99	09	CLR	NC			10.00		27	24	26	89	8	27	28.88	30.07	
12	SCT	NC			10.00	36	14	29	40	23	21	28.62	29.81	12	CLR	NC			10.00		35	25	31	67	12	28	28.88	30.06	
15	CLR	NC			10.00	45	18	35	34	20	24	28.56	29.74	15	CLR	NC			10.00		38	26	33	62	13	28	28.88	30.07	
18	CLR	NC			10.00	36	19	30	50	5	19	28.58	29.77	18	CLR	NC			10.00		31	24	28	76	10	27	28.91	30.11	
21	OVC	060			10.00	37	22	31	54	3	29	28.61	29.79	21	CLR	NC			10.00		28	22	26	78	13	32	28.95	30.15	
24	OVC	060			10.00	35	22	30	59	0	00	28.60	29.77	24	CLR	NC			10.00		25	20	23	81	10	30	29.01	30.21	
SUNRISE: 0713 DEC 02						SUNSET: 1631						SUNRISE: 0719 DEC 08						SUNSET: 1630											
03	OVC	060			10.00	32	22	28	66	7	04	28.59	29.76	03	CLR	NC			10.00		24	9	20	52	9	30	29.08	30.27	
06	BKN	085			10.00	30	19	26	64	14	04	28.62	29.80	06	CLR	NC			10.00		20	8	17	60	12	33	29.17	30.37	
09	OVC	006			0.25	26	24	25	92	15	04	28.73	29.91	09	CLR	NC			10.00		21	8	18	57	14	35	29.25	30.47	
12	OVC	023			10.00	26	19	24	75	15	03	28.81	30.00	12	CLR	NC			10.00		24	1	18	37	13	02	29.30	30.52	
15	OVC	027			10.00	25	14	22	63	17	03	28.92	30.11	15	CLR	NC			10.00		25	1	19	35	9	02	29.33	30.55	
18	CLR	NC			10.00	18	6	15	60	8	03	29.03	30.24	18	CLR	NC			10.00		14	3	12	61	0	00	29.37	30.60	
21	CLR	NC			10.00	14	4	12	64	7	36	29.15	30.37	21	CLR	NC			10.00		12	1	10	61	3	11	29.37	30.60	
24	OVC	040			10.00	15	5	13	64	10	03	29.20	30.42	24	CLR	NC			10.00		11	1	9	64	0	00	29.34	30.57	
SUNRISE: 0714 DEC 03						SUNSET: 1631						SUNRISE: 0720 DEC 09						SUNSET: 1630											
03	OVC	046			10.00	15	6	13	67	14	03	29.27	30.49	03	CLR	NC			10.00		9	1	7	70	5	19	29.31	30.54	
06	OVC	047			10.00	13	6	11	74	12	03	29.33	30.57	06	CLR	NC			10.00		6	0	5	76	5	19	29.27	30.51	
09	OVC	043			10.00	14	7	12	73	9	05	29.40	30.64	09	CLR	NC			10.00		15	8	13	74	12	20	29.26	30.50	
12	CLR	NC			10.00	20	8	17	60	5	15	29.40	30.63	12	CLR	NC			10.00		28	9	23	45	16	20	29.16	30.38	
15	CLR	NC			10.00	22	9	18	57	5	11	29.35	30.58	15	CLR	NC			10.00		33	11	26	40	13	22	29.08	30.29	
18	CLR	NC			10.00	16	7	14	67	6	04	29.37	30.61	18	CLR	NC			10.00		27	13	23	55	10	21	29.05	30.27	
21	CLR	NC			10.00	13	5	11	70	3	13	29.37	30.60	21	CLR	NC			10.00		23	13	20	65	10	19	29.03	30.24	
24	CLR	NC			10.00	13	5	11	70	8	11	29.36	30.59	24	CLR	NC			10.00		23	13	20	65	8	22	29.00	30.21	
SUNRISE: 0715 DEC 04						SUNSET: 1631						SUNRISE: 0721 DEC 10						SUNSET: 1630											
03	FEW	NC			10.00	14	5	12	67	0	00	29.33	30.56	03	CLR	NC			10.00		22	13	19	68	8	19	28.99	30.19	
06	CLR	NC			10.00	9	6	8	88	3	07	29.31	30.54	06	CLR	NC			10.00		20	14	18	78	7	19	28.98	30.19	
09	OVC	095			10.00	17	9	15	70	5	10	29.32	30.55	09	CLR	NC			10.00		26	18	23	71	8	20	28.99	30.19	
12	OVC	060			10.00	21	14	19	74	0	00	29.28	30.51	12	CLR	NC			10.00		40	24	34	53	8	20	28.95	30.15	
15	BKN	070			10.00	24	12	21	60	0	00	29.23	30.46	15	CLR	NC			10.00		45	25	37	46	12	19	28.91	30.09	
18	OVC	100			10.00	22	13	19	68	0	00	29.21	30.43	18	CLR	NC			10.00		31	22	28	69	8	16	28.89	30.09	
21	BKN	110			9.00	18	13	17	81	0	00	29.18	30.40	21	CLR	NC			9.00		27	21	25	78	6	19	28.90	30.09	
24	OVC	027			7.00	10	7	9	87	0	00	29.15	30.37	24	CLR	NC			9.00		25	18	23	75	7	19	28.87	30.05	
SUNRISE: 0716 DEC 05						SUNSET: 1630						SUNRISE: 0722 DEC 11						SUNSET: 1630											
03	OVC	021			6.00	18	15	17	88	0	00	29.13	30.35	03	CLR	NC			9.00		24	18	22	77	6	19	28.86	30.04	
06	OVC	017			6.00	20	14	18	78	12	29	29.11	30.32	06	CLR	NC			8.00		21	17	20	85	6	20	28.84	30.03	
09	CLR	NC			10.00	14	7	12	73	10	28	29.12	30.34	09	CLR	NC			8.00		28	21	26	75	8	18	28.86	30.05	
12	CLR	NC			10.00	16	7	14	67	14	28	29.08	30.31	12	CLR	NC			9.00		40	25	34	55	13	20	28.83	30.01	
15	CLR	NC			10.00	20	9	17	62	15	27	29.02	30.23	15	CLR	NC			9.00		42	24	35	49	16	20	28.80	29.98	
18	CLR	NC			10.00	15	6	13	67	6	24	29.00	30.22	18	BKN	011			5.00	BR	31	29	30	92	10	22	28.85	30.04	
21	CLR	NC			10.00	14	6	12	71	13	27	29.00	30.23	21	CLR	NC			4.00	BR	30	27	29	88	10	17	28.83	30.02	
24	CLR	NC			9.00	11	6	10	81	5	26	29.00	30.22	24	OVC	024			5.00	BR	35	31	33	85	13	19	28.83	30.01	
SUNRISE: 0717 DEC 06						SUNSET: 1630						SUNRISE: 0723 DEC 12						SUNSET: 1630											
03	CLR	NC			8.00	6	3	5	87	5	21	29.00	30.22	03	OVC	022			5.00	BR	35	31	33	85	8	22	28.85	30.02	
06	CLR	NC			7.00	2	-2	1	83	3	20	29.00	30.23	06	OVC	026			8.00		35	32	34	89	8	17	28.84	30.03	
09	CLR	NC			6.00	10	8	10	92	6	21	28.99	30.22	09	OVC	024			4.00	HZ	37	32	35	82	8	19	28.87	30.06	
12	CLR	NC			10.00	24	15	21	68	15	21	28.92	30.14	12	OVC	024			5.00	HZ	39	34	37	82	9	20	28.87	30.04	
15	CLR	NC			10.00	31	17	26	56	17	21	28.83	30.03	15	OVC	026			4.00	HZ	41	36	39	82	9	21	28.82	30.00	
18	CLR	NC			10.00	30	19	26	64	15	20	28.78	29.99	18	OVC	030			4.00	BR	38	35	37	89	5	17	28.87	30.05	
21	CLR	NC			10.00	31	22	28	69	16	21	28.75	29.95	21	OVC	032			4.00	BR	35	33	34	93	5	17	28.86	30.04	
24	CLR	NC			8.00	30	24	28	79	14	23	28.75	29.94	24	BKN	030			4.00	BR	34	33	34	97	0	00	28.87	30.05	

OBSERVATIONS AT 3-HOURLY INTERVALS

DUBUQUE, IA

DECEMBER 2002

DBQ

WBAN # 94908

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)			
	SKY COVER	CEILING 100'S OF FT	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	SKY COVER	CEILING 100'S OF FT	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
SUNRISE: 0724 DEC 13 SUNSET: 1631						SUNRISE: 0728 DEC 19 SUNSET: 1632																							
03	BKN	032			1.50 BR	31	30	31	96	0	00	28.85	30.03	03	OVC	021			10.00	37	34	36	89	9	24	28.51	29.67		
06	VV	001			<.25 FZFG	29	28	29	96	3	02	28.80	29.98	06	BKN	026			10.00	34	31	33	89	9	23	28.52	29.68		
09	VV	001			<.25 FZFG	30	30	30	100	7	03	28.80	29.98	09	CLR	NC			8.00	33	30	32	89	12	22	28.53	29.70		
12	VV	001			<.25 FG	33	31	32	92	6	03	28.76	29.94	12	FEW	NC			10.00	39	29	35	67	18	26	28.49	29.65		
15	VV	001			<.25 FG	32	30	31	92	8	02	28.72	29.90	15	OVC	041			10.00	37	29	34	73	12	26	28.42	29.59		
18	VV	001			0.25 FG	32	31	32	96	10	01	28.75	29.93	18	OVC	034			10.00	34	27	31	76	12	27	28.43	29.59		
21	VV	001			0.25 FG	32	30	31	92	9	02	28.77	29.96	21	OVC	050			10.00	33	26	30	75	16	28	28.40	29.57		
24	OVC	005			4.00 BR	32	29	31	88	9	02	28.78	29.96	24	OVC	021			8.00 -SN	32	26	30	79	18	27	28.35	29.52		
SUNRISE: 0724 DEC 14 SUNSET: 1631						SUNRISE: 0728 DEC 20 SUNSET: 1633																							
03	OVC	005			4.00 BR	32	28	30	85	3	36	28.79	29.97	03	OVC	025			10.00	31	24	28	76	17	27	28.35	29.51		
06	OVC	003			2.00 BR	30	27	29	88	3	24	28.79	29.97	06	OVC	039			10.00	31	22	28	69	20	27	28.33	29.49		
09	VV	001			0.25 FZFG	30	28	29	92	8	24	28.82	30.01	09	OVC	050			10.00	31	21	27	67	24	27	28.34	29.51		
12	FEW	NC			5.00 HZ	36	31	34	82	12	20	28.79	29.97	12	OVC	028			10.00	32	21	28	64	25	27	28.33	29.50		
15	CLR	NC			10.00	43	28	37	56	15	20	28.67	29.85	15	OVC	037			5.00 -SN	30	24	28	79	24	28	28.38	29.55		
18	CLR	NC			10.00	33	27	31	78	12	20	28.69	29.88	18	OVC	026			2.50 -SN BR	29	26	28	89	17	27	28.43	29.60		
21	CLR	NC			10.00	35	27	32	72	13	23	28.66	29.85	21	SCT	NC			10.00	26	21	24	81	17	28	28.47	29.64		
24	CLR	NC			10.00	33	27	31	78	5	18	28.66	29.83	24	OVC	023			8.00 -SN	29	23	27	78	17	27	28.48	29.66		
SUNRISE: 0725 DEC 15 SUNSET: 1631						SUNRISE: 0729 DEC 21 SUNSET: 1633																							
03	CLR	NC			10.00	36	28	33	73	7	21	28.65	29.82	03	OVC	029			10.00	29	20	26	69	24	28	28.52	29.69		
06	CLR	NC			10.00	33	27	31	78	7	24	28.64	29.83	06	OVC	027			10.00	28	20	25	72	20	29	28.56	29.74		
09	CLR	NC			10.00	38	29	34	70	5	35	28.68	29.85	09	OVC	029			10.00	27	18	24	69	23	28	28.62	29.81		
12	CLR	NC			10.00	40	30	36	68	9	03	28.68	29.86	12	OVC	024			10.00	28	20	25	72	18	28	28.63	29.82		
15	CLR	NC			10.00	42	30	37	62	8	06	28.69	29.86	15	BKN	022			10.00	30	21	27	69	15	25	28.61	29.80		
18	CLR	NC			10.00	39	30	35	70	13	04	28.74	29.92	18	CLR	NC			10.00	25	19	23	78	7	31	28.61	29.79		
21	CLR	NC			10.00	35	28	32	76	9	07	28.80	29.98	21	CLR	NC			10.00	22	18	21	85	5	24	28.61	29.80		
24	CLR	NC			10.00	30	22	27	72	20	06	28.85	30.03	24	OVC	020			10.00	26	19	24	75	12	31	28.60	29.78		
SUNRISE: 0726 DEC 16 SUNSET: 1631						SUNRISE: 0729 DEC 22 SUNSET: 1634																							
03	CLR	NC			10.00	25	15	22	66	17	07	28.86	30.04	03	OVC	022			10.00	26	18	23	71	14	29	28.61	29.80		
06	CLR	NC			10.00	23	17	21	78	14	07	28.86	30.04	06	OVC	026			10.00	25	16	22	69	24	29	28.66	29.85		
09	CLR	NC			10.00	26	18	23	71	13	08	28.90	30.08	09	OVC	021			10.00	25	18	23	75	17	29	28.72	29.92		
12	CLR	NC			10.00	31	21	27	67	13	11	28.87	30.06	12	OVC	023			10.00	27	17	24	66	20	28	28.75	29.94		
15	BKN	040			10.00	35	19	29	52	13	10	28.83	30.01	15	SCT	NC			10.00	28	16	24	61	21	28	28.78	29.98		
18	BKN	085			10.00	30	20	27	66	13	09	28.85	30.04	18	OVC	035			10.00	27	18	24	69	13	25	28.83	30.03		
21	OVC	033			10.00	30	21	27	69	17	11	28.86	30.05	21	OVC	031			10.00	27	18	24	69	17	27	28.85	30.04		
24	OVC	023			10.00	30	19	26	64	12	11	28.84	30.02	24	OVC	025			10.00	26	17	23	69	17	28	28.86	30.05		
SUNRISE: 0726 DEC 17 SUNSET: 1632						SUNRISE: 0730 DEC 23 SUNSET: 1634																							
03	OVC	017			9.00	30	22	27	72	14	12	28.84	30.03	03	OVC	021			10.00	25	17	22	72	14	28	28.89	30.08		
06	OVC	007			4.00 BR	28	25	27	88	13	10	28.83	30.01	06	CLR	NC			10.00	23	17	21	78	18	27	28.92	30.12		
09	OVC	009			4.00 BR	29	25	28	85	15	10	28.80	29.99	09	CLR	NC			10.00	22	16	20	78	16	29	28.96	30.17		
12	OVC	007			3.00 BR	31	27	29	85	15	10	28.72	29.90	12	CLR	NC			10.00	28	13	23	53	14	31	28.93	30.13		
15	OVC	009			3.00 BR	32	29	31	88	17	09	28.64	29.82	15	CLR	NC			10.00	29	13	24	51	20	27	28.94	30.15		
18	OVC	005			2.00 BR	32	31	32	96	14	10	28.61	29.79	18	CLR	NC			10.00	25	12	21	58	9	28	28.94	30.15		
21	OVC	001			0.75 BR	33	33	33	100	14	09	28.57	29.74	21	CLR	NC			10.00	22	12	19	66	6	31	28.95	30.16		
24	VV	001			0.25 FG	37	37	37	100	17	12	28.48	29.65	24	CLR	NC			10.00	19	11	17	71	5	36	28.93	30.14		
SUNRISE: 0727 DEC 18 SUNSET: 1632						SUNRISE: 0730 DEC 24 SUNSET: 1635																							
03	OVC	003			5.00 -RA BR	41	41	41	100	17	12	28.41	29.57	03	CLR	NC			10.00	18	11	16	74	8	01	28.89	30.09		
06	OVC	001			2.50 BR	48	48	48	100	18	14	28.35	29.51	06	CLR	NC			10.00	19	12	17	74	8	01	28.89	30.09		
09	OVC	015			5.00 TSRA BR	50	49	49	96	20	16	28.36	29.52	09	CLR	NC			10.00	19	13	17	77	5	36	28.90	30.10		
12	OVC	007			2.00 +RA BR	51	50	51	96	12	19	28.34	29.50	12	CLR	NC			10.00	22	14	20	71	10	03	28.79	29.99		
15	CLR	NC			10.00	52	48	50	86	21	18	28.27	29.41	15	CLR	NC			10.00	24	14	21	65	12	36	28.73	29.93		
18	OVC	026			10.00	47	44	46	90	9	23	28.35	29.50	18	CLR	NC			10.00	24	15	21	68	13	02	28.70	29.90		
21	CLR	NC			3.00 BR	37	36	37	96	7	26	28.43	29.58	21	CLR	NC			10.00	21	15	19	78	9	35	28.70	29.91		
24	OVC	024			4.00 BR	39	37	38	93	9	22	28.48	29.63	24	OVC	029			10.00	20	15	19	81	15	36	28.69	29.89		

OBSERVATIONS AT 3-HOURLY INTERVALS

DUBUQUE, IA

DECEMBER 2002

DBQ

WBAN # 94908

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)			
	SKY COVER	CEILING 100'S OF FT	OBSERVATION TIME (LST)	EFF CLD AMT Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION		SEA LEVEL	SKY COVER	CEILING 100'S OF FT	OBSERVATION TIME (LST)		EFF CLD AMT Oktas	VISIBILITY (MILES)	DRY BULB		DEW POINT	WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
03	OVC	017			SUNRISE: 0730	DEC 25		SUNSET: 1636						03	CLR	NC			SUNRISE: 0732	DEC 31		SUNSET: 1640							
06	OVC	024					21	16	20	81	12	36	28.73	29.93	06	CLR	NC				27	17	24	66	9	32	28.83	30.00	
09	OVC	018					21	16	20	81	13	33	28.76	29.96	09	CLR	NC				20	17	19	89	6	25	28.85	30.05	
12	OVC	014				HZ	21	15	19	78	9	35	28.84	30.04	12	CLR	NC				25	18	23	75	9	33	28.88	30.07	
15	OVC	012					22	17	20	82	10	30	28.86	30.06	15	CLR	NC				31	15	26	52	10	34	28.85	30.04	
18	OVC	012					23	18	21	81	8	31	28.89	30.09	18	CLR	NC				35	14	28	42	5	31	28.86	30.05	
21	OVC	009					23	19	22	85	10	29	28.93	30.14	21	CLR	NC				25	14	22	63	7	32	28.91	30.10	
24	CLR	NC					22	18	21	85	9	29	28.99	30.20	24	CLR	NC				24	13	21	62	8	01	28.87	30.06	
							14	12	13	92	7	21	29.00	30.22		CLR	NC				22	13	19	68	8	03	28.87	30.06	
03	CLR	NC					13	11	12	92	8	23	29.04	30.26															
06	CLR	NC					12	10	12	92	5	22	29.03	30.24															
09	CLR	NC					15	13	14	91	8	21	29.08	30.29															
12	CLR	NC					30	20	27	66	12	23	29.07	30.28															
15	CLR	NC					36	20	30	52	12	24	29.05	30.26															
18	CLR	NC					25	18	23	75	6	19	29.06	30.27															
21	CLR	NC					26	20	24	78	8	19	29.04	30.26															
24	CLR	NC					26	20	24	78	8	19	29.02	30.22															
03	BKN	110					23	20	22	88	8	20	29.02	30.22															
06	CLR	NC					21	19	20	92	7	19	29.00	30.21															
09	CLR	NC					24	22	23	91	9	19	29.00	30.21															
12	OVC	007					32	28	30	85	13	22	28.97	30.17															
15	OVC	015					34	27	31	76	15	24	28.92	30.12															
18	OVC	011					31	27	29	85	15	21	28.92	30.12															
21	OVC	009					30	27	29	88	13	22	28.91	30.10															
24	OVC	009					30	28	29	92	14	22	28.87	30.06															
03	OVC	007					30	28	29	92	12	19	28.81	29.99															
06	SCT	NC					28	26	27	92	9	18	28.77	29.96															
09	OVC	004					28	26	27	92	16	18	28.70	29.88															
12	CLR	NC					36	25	32	64	9	27	28.68	29.86															
15	CLR	NC					40	26	34	58	8	30	28.71	29.89															
18	CLR	NC					32	25	29	75	3	21	28.77	29.96															
21	CLR	NC					27	22	25	81	0	00	28.83	30.02															
24	CLR	NC					29	23	27	78	5	11	28.83	30.01															
03	CLR	NC					29	24	27	82	5	16	28.84	30.02															
06	CLR	NC					31	25	29	79	8	09	28.83	30.01															
09	CLR	NC					31	25	29	79	10	12	28.83	30.02															
12	CLR	NC					40	29	35	65	17	12	28.73	29.91															
15	CLR	NC					43	30	38	60	17	12	28.65	29.83															
18	CLR	NC					37	29	34	73	21	13	28.56	29.73															
21	CLR	NC					35	31	33	85	18	14	28.52	29.69															
24	BKN	050					40	34	37	79	18	16	28.45	29.61															
03	BKN	055					44	39	42	83	14	17	28.41	29.57															
06	OVC	047					48	45	46	89	18	17	28.36	29.52															
09	OVC	007					49	47	48	93	14	20	28.39	29.54															
12	BKN	043					53	48	50	83	15	25	28.39	29.54															
15	CLR	NC					45	36	41	71	14	29	28.50	29.65															
18	CLR	NC					34	27	31	76	13	30	28.65	29.83															
21	CLR	NC					33	20	28	59	12	31	28.73	29.90															
24	CLR	NC					30	18	26	61	14	31	28.78	29.95															

3-HOURLY OBSERVATION NOTES

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 Visibilty = 8/8.

Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.

NC = No ceiling detected.

& = Original observation contained additional weather elements.

See page 3 for additional notes.

SUMMARY BY HOUR

HOUR (LST)	AVERAGES										RESULTANT WIND (MPH)	
	CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (INCHES,HG)		VISIBILITY (MILES)	WIND SPEED (MPH)	SPEED	DIRECTION
							STATION	SEA LEVEL				
01			26	20	24	78	28.83	30.02	8.39	10	3	25
02			25	19	23	78	28.83	30.03	8.32	9	2	26
03			25	19	23	78	28.84	30.03	8.34	9	2	24
04			25	19	23	80	28.83	30.02	8.06	10	3	25
05			24	19	23	80	28.83	30.03	7.85	10	3	27
06			24	19	22	81	28.84	30.03	7.89	10	3	25
07			24	19	22	82	28.84	30.04	7.91	11	3	23
08			24	19	22	81	28.85	30.05	7.51	11	3	24
09			26	20	24	80	28.86	30.05	7.31	12	3	24
10			28	21	26	76	28.86	30.06	7.45	12	3	23
11			30	22	27	73	28.85	30.05	7.58	13	4	25
12			32	22	29	68	28.83	30.02	8.20	13	5	25
13			33	22	29	65	28.81	30.00	8.78	14	6	24
14			34	22	30	63	28.81	29.99	8.65	13	5	25
15			34	22	30	62	28.81	30.00	8.71	13	5	25
16			33	22	29	65	28.81	30.00	8.63	11	4	26
17			31	21	27	69	28.82	30.01	8.80	11	3	24
18			29	21	26	74	28.83	30.02	8.51	10	3	24
19			28	21	26	76	28.84	30.03	8.31	10	3	25
20			28	21	25	76	28.84	30.03	8.49	10	2	26
21			27	20	25	76	28.84	30.03	8.29	10	3	25
22			26	20	24	78	28.83	30.03	8.20	9	2	26
23			26	19	24	77	28.84	30.03	8.09	9	2	24
24			26	20	24	78	28.83	30.02	8.07	10	2	24

3-HOURLY OBSERVATION NOTES

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.

Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.

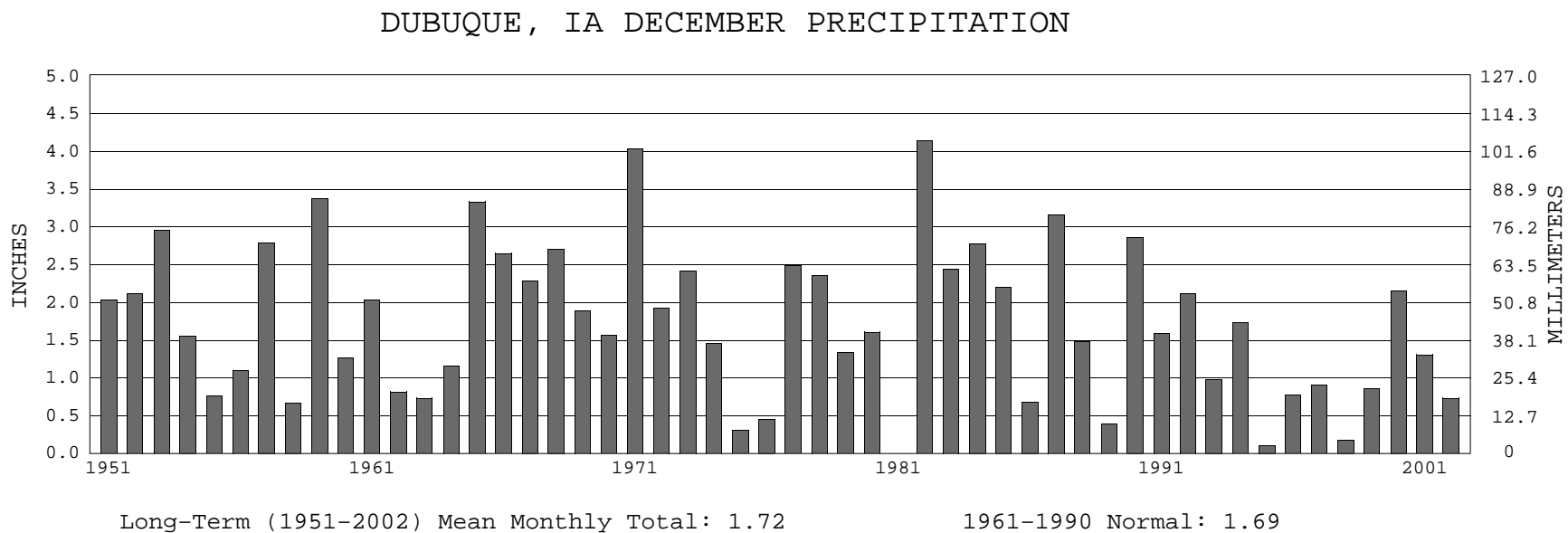
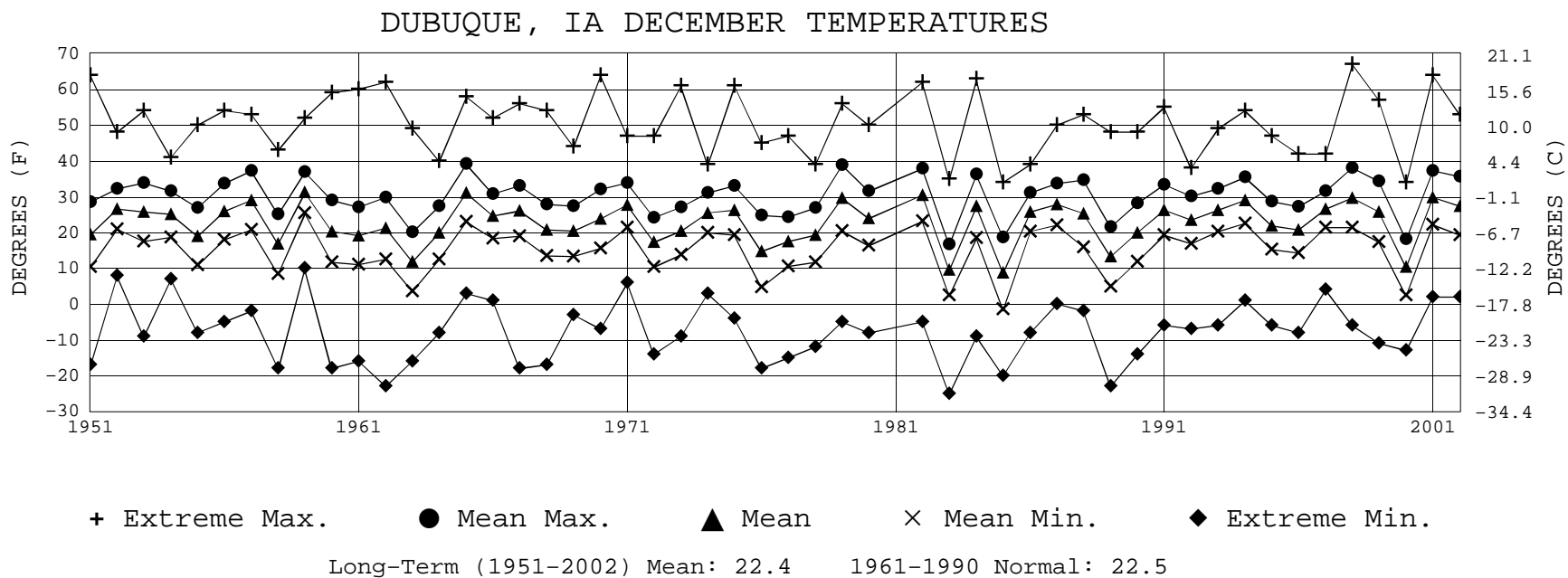
NC= No ceiling detected.

& = Original observation contained additional weather elements.

See page 3 for additional notes.

SUMMARY BY HOUR

HOUR (LST)	AVERAGES										RESULTANT	
	CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (INCHES, HG)		VISIBILITY (MILES)	WIND SPEED (MPH)	WIND (MPH)	
							STATION	SEA LEVEL			SPEED	DIRECTION
01			26	20	24	78	28.83	30.02	8.39	10	3	25
02			25	19	23	78	28.83	30.03	8.32	9	2	26
03			25	19	23	78	28.84	30.03	8.34	9	2	24
04			25	19	23	80	28.83	30.02	8.06	10	3	25
05			24	19	23	80	28.83	30.03	7.85	10	3	27
06			24	19	22	81	28.84	30.03	7.89	10	3	25
07			24	19	22	82	28.84	30.04	7.91	11	3	23
08			24	19	22	81	28.85	30.05	7.51	11	3	24
09			26	20	24	80	28.86	30.05	7.31	12	3	24
10			28	21	26	76	28.86	30.06	7.45	12	3	23
11			30	22	27	73	28.85	30.05	7.58	13	4	25
12			32	22	29	68	28.83	30.02	8.20	13	5	25
13			33	22	29	65	28.81	30.00	8.78	14	6	24
14			34	22	30	63	28.81	29.99	8.65	13	5	25
15			34	22	30	62	28.81	30.00	8.71	13	5	25
16			33	22	29	65	28.81	30.00	8.63	11	4	26
17			31	21	27	69	28.82	30.01	8.80	11	3	24
18			29	21	26	74	28.83	30.02	8.51	10	3	24
19			28	21	26	76	28.84	30.03	8.31	10	3	25
20			28	21	25	76	28.84	30.03	8.49	10	2	26
21			27	20	25	76	28.84	30.03	8.29	10	3	25
22			26	20	24	78	28.83	30.03	8.20	9	2	26
23			26	19	24	77	28.84	30.03	8.09	9	2	24
24			26	20	24	78	28.83	30.02	8.07	10	2	24





DECEMBER 2002

DUBUQUE, IA

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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