

Local Climatological Data



MONTHLY SUMMARY

LATITUDE 37° 30' N LONGITUDE 77° 20' W ELEVATION (GROUND) 164 FT. STANDARD TIME USED: EASTERN WBAN #13740

DATE	TEMPERATURE °F						DEGREE DAYS BASE 65°		HEATHER TYPES ON DATES OF OCCURRENCE 1 FOG 2 HEAVY FOG 3 THUNDERSTORM 4 ICE PELLETS 5 HAIL 6 GLAZE 7 DUSTSTORM 8 SMOKE, HAZE 9 BLOWING SNOW	SNOW-ICE PELLETS OR ICE ON GROUND AT 07AM IN.	PRECIPITATION		AVG. STATION PRESSURE IN. 177 F.E.E.T. M.S.L.	WIND				SUNSHINE		SKY COVER TENTHS		
	MAXIMUM	MINIMUM	AVERAGE	DEPARTURE FROM NORMAL	AVERAGE DEW POINT	HEATING (SEASON BEGINS WITH JULY)	COOLING (SEASON BEGINS WITH JAN.)	WATER EQUIVALENT IN.			SNOW-ICE PELLETS IN.	RESULTANT DIR.		RESULTANT SPEED M.P.H.	AVERAGE SPEED M.P.H.	FASTEST MILE DIRECTION	MINUTES	PERCENT OF POSSIBLE	SUNRISE TO SUNSET	MIDNIGHT TO MIDNIGHT		
1	70	34	52	-1	36	13	0			0	0	0	29.98	06	1.5	5.8	14	E	757	100	2	3
2	76	50	63	10	54	2	0			0	0	0	29.81	18	10.7	11.5	21	SW	58	8	10	10
3	84	58	71	18	54	0	6		8	0	0	0	29.71	26	2.8	10.8	17	SW	293	38	10	10
4	58	45	52	-2	49	13	0	2		0	1.00	0	29.67	08	5.3	5.9	17	SE	0	0	10	10
5	70	46	58	4	47	7	0	1		0	.90	0	29.29	25	9.3	13.2	29	W	195	25	9	7
6	58	38	48	-7	27	17	0			0	0	0	29.86	27	13.2	15.1	29	W	570	74	4	3
7	58	25	42	-13	25	23	0			0	0	0	30.11	21	5.7	7.1	17	SW	637	83	4	2
8	68	37	53	-2	32	12	0			0	0	0	29.97	34	6.5	11.2	21	SE	770	100	6	4
9	56	29	43	-13	17	22	0			0	0	0	30.23	02	4.7	6.5	13	N	775	100	0	0
10	71	27	49	-7	32	16	0	1		0	0	0	30.18	20	1.9	4.6	8	S	562	72	6	4
11	80	43	67	11	45	0	2			0	0	0	30.14	22	2.9	4.3	6	NW	766	98	1	1
12	92	50	71	14	48	0	6			0	0	0	30.13	32	2.3	3.2	10	N	783	100	0	0
13	91	56	74	17	46	0	9			0	0	0	29.85	26	3.3	4.9	14	NW	644	82	3	2
14	80	54	72	14	50	0	7			0	0	0	29.80	32	4.3	7.5	17	NW	598	76	4	3
15	77	48	63	5	44	4	0			0	0	0	29.81	05	4.9	5.5	12	N	769	87	1	1
16	77	44	61	3	40	4	0			0	0	0	29.81	01	3.2	4.5	14	N	770	87	2	2
17	78	45	62	3	38	3	0			0	0	0	29.83	06	4.8	5.6	16	NE	719	80	3	3
18	82	47	65	6	44	0	0			0	0	0	29.87	19	4.8	4.8	12	SE	688	86	6	7
19	88	54	71	12	55	0	6			0	0	0	29.83	07	3.3	5.5	17	E	434	54	8	9
20	80	53	67	8	52	0	2			0	0	0	30.11	11	5.8	6.6	13	SE	619	77	7	7
21	85	52	69	9	59	0	4	1		0	0	0	30.17	18	1.5	3.0	8	SE	424	53	6	7
22	87	61	74	14	61	0	8			0	0	0	30.09	22	8.0	8.8	16	SW	602	75	8	7
23	84	65	75	15	60	0	10			0	0	0	29.81	21	9.0	9.4	17	SW	401	50	9	8
24	74	58	66	5	63	0	1	3		0	.25	0	29.56	19	5.8	8.2	13	S	11	1	10	10
25	71	53	62	1	50	3	0			0	0	0	29.51	02	3.4	5.9	14	N	517	64	5	6
26	66	44	55	-6	39	10	0			0	0	0	29.62	28	4.0	7.3	14	W	325	40	6	5
27	74	42	58	-3	37	7	0			0	0	0	29.75	26	5.7	7.2	17	NW	793	97	2	1
28	86	51	69	7	45	0	4			0	.14	0	29.67	25	10.7	14.1	23	SW	512	63	7	7
29	67	39	53	-9	37	12	0			0	.04	0	29.88	01	6.9	7.5	14	N	779	95	0	2
30	74	36	55	-7	42	10	0	1		0	0	0	30.08	17	2.0	3.9	11	SE	822	100	5	3

APRIL 1977
 RICHMOND, VIRGINIA

SUM	SUM	TOTAL		TOTAL		TOTAL		TOTAL		FOR THE MONTH		TOTAL		X		SUM	
2284	1384	176		66		2.33		0		29.90 25		1.6		7.3		28 W 16586	
AVG.	AVG.	AVG. DEP.	AVG. DEP.	NUMBER OF DAYS		PRECIPITATION		DEP.		DATE: 06+		DATE: 06+		MONTH		AVG. AVG.	
78.1	48.1	61.1	3.3	44	-50	56	>.01 INCH	5	-0.44					23701		70	5.1 4.8

* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.
 † TRACE AMOUNT
 + ALSO ON AN EARLIER DATE, OR DATES.
 HEAVY FOG - VISIBILITY 1/4 MILE OR LESS.
 FIGURES FOR WIND DIRECTIONS ARE TENS OF DEGREES CLOCKWISE FROM TRUE NORTH. 00 = CALM.
 DATA IN COLS. 6 AND 12-15 ARE BASED ON 7 OR

MORE OBSERVATIONS PER DAY AT 3-HOUR INTERVALS. FASTEST MILE WIND SPEEDS ARE FASTEST OBSERVED ONE-MINUTE VALUES WHEN DIRECTIONS ARE IN TENS OF DEGREES. THE / WITH THE DIRECTION INDICATES PEAK GUST SPEED.
 ANY ERRORS DETECTED WILL BE CORRECTED AND CHANGES IN SUMMARY DATA WILL BE ANNOTATED IN THE ANNUAL SUMMARY

SUMMARY BY HOURS

HOUR	LOCK TIME	SKY COVER TENTHS	AVERAGES				RESULTANT WIND		
			STATION PRESSURE IN.	TEMPERATURE AIR °F	WET BULB °F	DEW PT. °F	RELATIVE HUMIDITY %	WIND SPEED M.P.H.	DIRECTION
01	5	29.80	53	48	45	74	5.6	23	.7
04	5	29.80	51	48	45	81	5.2	23	1.3
07	5	29.84	53	48	46	78	7.0	28	1.0
10	4	29.84	66	55	45	50	8.7	24	2.7
13	6	29.80	73	57	43	38	9.9	27	4.5
16	6	29.85	74	57	42	36	9.8	25	2.8
19	5	29.88	65	54	44	49	6.9	18	1.5
22	4	29.90	57	51	45	65	5.6	11	.4

HOURLY PRECIPITATION (WATER EQUIVALENT IN INCHES)

DATE	A. M. HOUR ENDING AT												P. M. HOUR ENDING AT											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
1																								
2																								
3																								
4	.05	.03	.03	.04	.02	.01	.13	.17	.23	.28	.01	T												
5		.02	.01	T	.07	.19	.31	.11	.18	.01	T													
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24					.04	.01				.01						.05	T		.11	.03	T			
25																								
26																								
27																								
28																					.05	.09	T	T
29	.03	.01																						
30																								

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Daniel B. Mitchell
 DIRECTOR, NATIONAL CLIMATIC CENTER

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OBSERVATIONS AT 3-HOUR INTERVALS

HOUR	SKY COVER %	CEILING HNDSD OF F. MILES	VISI- BILITY MILES	WEATHER	TEMPERATURE				WIND		SKY COVER %	CEILING HNDSD OF F. MILES	VISI- BILITY MILES	WEATHER	TEMPERATURE				WIND		SKY COVER %	CEILING HNDSD OF F. MILES	VISI- BILITY MILES	WEATHER	TEMPERATURE				WIND		
					AIR °F	WET BULB °F	DEW PT. °F	REL. HUM. %	DIR	SPEED KNOTS					AIR °F	WET BULB °F	DEW PT. °F	REL. HUM. %	DIR	SPEED KNOTS					AIR °F	WET BULB °F	DEW PT. °F	REL. HUM. %	DIR	SPEED KNOTS	AIR °F
DAY 01																															
01	0	UNL	15		47	41	32	56	03	4	10	90	10		53	46	38	57	16	9	10	90	10		53	46	38	57	16	9	
04	0	UNL	15		48	36	33	62	13	0	10	50	10		52	48	43	66	13	7	10	40	35	6	72	66	62	71	23	11	
07	0	UNL	10		40	38	36	66	00	0	10	35	7	R	62	58	55	78	17	11	10	150	8	76	66	60	58	27	10		
10	0	UNL	12		66	51	35	32	36	5	10	16	8		71	65	61	71	20	15	10	150	8	83	63	49	31	33	6		
13	2	UNL	12		70	52	34	27	01	3	10	20	7		76	67	62	62	19	15	10	150	10	77	61	49	37	04	13		
16	7	UNL	12		61	50	38	43	10	1	10	20	6	H	62	66	63	73	19	8	10	150	10	68	55	44	42	07	6		
19	4	UNL	12		51	48	40	66	12	9	10	30	6		73	67	63	71	19	10	10	100	12	65	53	41	42	05	6		
22	0	UNL	10																												
DAY 02																															
01	10	4	5	RF	56	54	52	87	35	3	10	1	0	RF	49	49	49	100	02	7	0	UNL	15		45	38	29	54	28	10	
04	10	4	6	RF	47	46	45	93	09	0	10	20	1	RF	54	54	54	100	33	3	0	UNL	15		40	36	29	55	24	9	
07	10	4	4	RF	47	46	45	93	09	0	10	20	3	RF	53	53	53	100	14	12	0	UNL	15		42	37	30	63	25	12	
10	10	6	4	RF	47	47	47	100	09	6	10	10	10	RF	63	61	60	90	21	3	3	UNL	15		50	40	26	38	25	18	
13	10	6	8		49	48	48	96	08	6	10	25	12		68	62	58	40	25	14	4	UNL	15		54	42	25	33	25	14	
16	10	4	6	F	50	49	48	83	04	9	0	UNL	12		67	65	61	37	27	17	3	UNL	15		56	45	25	32	28	15	
19	10	1	1	F	51	51	51	100	00	0	0	UNL	15		57	55	51	37	27	19	4	UNL	15		49	40	27	43	31	17	
22	10	0	0	F	50	50	50	100	00	0	0	UNL	15		50	40	27	41	27	15	2	UNL	15		41	35	25	53	33	10	
DAY 03																															
01	0	UNL	15		36	31	23	59	33	5	3	UNL	15		52	45	38	59	19	10	0	UNL	15		36	30	20	52	04	6	
04	0	UNL	15		30	28	25	82	00	0	0	40	12		51	47	43	74	22	5	0	UNL	15		32	27	17	54	03	9	
07	1	UNL	12		31	30	27	85	00	0	0	UNL	8		57	51	45	64	33	7	0	UNL	15		33	28	16	50	02	10	
10	4	UNL	12		45	36	20	37	17	6	6	250	10		63	50	37	38	33	14	0	UNL	15		42	32	12	29	05	3	
13	5	UNL	12		56	42	23	28	21	8	6	250	10		66	48	27	23	34	10	0	UNL	15		50	36	10	20	32	7	
16	8	UNL	12		54	42	25	33	21	14	4	UNL	12		63	46	25	24	01	13	0	UNL	15		55	39	10	16	31	6	
19	0	UNL	10		53	42	28	38	21	10	0	UNL	12		61	38	18	27	04	6	0	UNL	15		45	37	26	47	11	4	
22	0	UNL	12		47	41	32	56	19	6	0	UNL	12		40	33	21	47	36	6	0	UNL	15		36	31	22	57	00	0	
DAY 04																															
01	10	4	5	RF	56	54	52	87	35	3	10	1	0	RF	49	49	49	100	02	7	0	UNL	15		45	38	29	54	28	10	
04	10	4	6	RF	47	46	45	93	09	0	10	20	1	RF	54	54	54	100	33	3	0	UNL	15		40	36	29	55	24	9	
07	10	4	4	RF	47	46	45	93	09	0	10	20	3	RF	53	53	53	100	14	12	0	UNL	15		42	37	30	63	25	12	
10	10	6	4	RF	47	47	47	100	09	6	10	10	10	RF	63	61	60	90	21	3	3	UNL	15		50	40	26	38	25	18	
13	10	6	8		49	48	48	96	08	6	10	25	12		68	62	58	40	25	14	4	UNL	15		54	42	25	33	25	14	
16	10	4	6	F	50	49	48	83	04	9	0	UNL	12		67	65	61	37	27	17	3	UNL	15		56	45	25	32	28	15	
19	10	1	1	F	51	51	51	100	00	0	0	UNL	15		57	55	51	37	27	19	4	UNL	15		49	40	27	43	31	17	
22	10	0	0	F	50	50	50	100	00	0	0	UNL	15		50	40	27	41	27	15	2	UNL	15		41	35	25	53	33	10	
DAY 05																															
01	0	UNL	15		36	31	23	59	33	5	3	UNL	15		52	45	38	59	19	10	0	UNL	15		36	30	20	52	04	6	
04	0	UNL	15		30	28	25	82	00	0	0	40	12		51	47	43	74	22	5	0	UNL	15		32	27	17	54	03	9	
07	1	UNL	12		31	30	27	85	00	0	0	UNL	8		57	51	45	64	33	7	0	UNL	15		33	28	16	50	02	10	
10	4	UNL	12		45	36	20	37	17	6	6	250	10		63	50	37	38	33	14	0	UNL	15		42	32	12	29	05	3	
13	5	UNL	12		56	42	23	28	21	8	6	250	10		66	48	27	23	34	10	0	UNL	15		50	36	10	20	32	7	
16	8	UNL	12		54	42	25	33	21	14	4	UNL	12		63	46	25	24	01	13	0	UNL	15		55	39	10	16	31	6	
19	0	UNL	10		53	42	28	38	21	10	0	UNL	12		61	38	18	27	04	6	0	UNL	15		45	37	26	47	11	4	
22	0	UNL	12		47	41	32	56	19	6	0	UNL	12		40	33	21	47	36	6	0	UNL	15		36	31	22	57	00	0	
DAY 06																															
01	0	UNL	15		31	30	28	89	12	3	0	UNL	10		45	43	41	86	15	5	0	UNL	10		59	54	49	70	18	3	
04	0	UNL	15		30	29	27	88	13	3	0	UNL	8		46	43	40	80	18	3	0	UNL	10		55	51	48	77	00	0	
07	3	UNL	8	F	33	32	31	92	00	0	0	UNL	6		49	47	45	86	18	3	0	UNL	8		57	55	53	87	00	0	
10	6	UNL	7		55	45	33	43	21	6	0	UNL	10		76	61	49	59	27	4	0	UNL	10		64	66	54	66	31	4	
13	9	UNL	10		65	48	28	24	24	5	2	UNL	10		89	64	47	24	27	6	6	0	UNL	10		89	64	46	23	32	8
16	10	250	10		70	50	27	20	29	9	2	UNL	10		89	63	44	21	25	5	0	UNL	10		81	64	44	20	34	7	
19	5	UNL	10		60	48	36	44	09	3	0	UNL	10		76	60	48	37	17	4	0	UNL	10		75	60	40	40	00	0	
22	3	UNL	10		50	45	40	69	17	5	0	UNL	10		64	56	49	58	00	0	0	UNL	10		66	57	49	54	00	0	
DAY 07																															
01	0	UNL	15		36	31	23	59	33	5	3	UNL	15		52	45	38	59	19	10	0	UNL	15		36	30	20	52	04	6	
04	0	UNL	15		30	28	25	82	00	0	0	40	12		51	47	43	74	22	5	0	UNL	15		32	27	17	54	03	9	
07	1	UNL	12		31	30	27	85	00	0	0	UNL	8		57	51	45	64	33	7	0	UNL	15		33	28	16	50	02	10	
10	4	UNL	12		45	36	20	37	17	6	6	250	10		63	50	37	38	33	14	0	UNL	15		42	32	12	29	05	3	
13	5	UNL	12		56	42	23	28	21	8	6	250	10		66	48	27	23	34	10	0	UNL	15		50	36	10	20	32	7	
16	8	UNL	12		54	42	25	33	21	14	4	UNL	12		63	46	25	24	01	13	0	UNL	15		55	39	10	16	31	6	
19	0	UNL	10		53	42	28	38	21	10	0	UNL	12		61	38	18	27	04	6	0	UNL	15		45	37	26	47	11		