



# LOCAL CLIMATOLOGICAL DATA

U. S. DEPARTMENT OF COMMERCE - MAURICE H. STANS, Secretary

RICHMOND, VIRGINIA  
BYRD FIELD  
FEBRUARY 1969

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION -- ENVIRONMENTAL DATA SERVICE

Latitude 37° 30' N Longitude 77° 20' W Elevation (ground) 164 ft. Standard time used: EASTERN

Date	Temperature (°F)							Weather types shown by code 1-9 on dates of occurrence 123 456 789 Fog Heavy Fog Thunderstorm X X X Mist Snow Glaze Duststorm Smoke, Haze Blowing Snow	Snow, Sleet, or Ice on ground at 07AM (In.)	Precipitation		Avg. station pressure (In.) Elev. feet m.s.l. 164	Wind			Sunshine		Sky cover (Tenths)		Date					
	Maximum	Minimum	Average	Departure from normal	Average dew point	Heating	Cooling			Water equivalent (In.)	Snow, sleet (In.)		Resultant direction	Resultant speed (m.p.h.)	Average speed (m.p.h.)	Fastest mile	Hours and tenths	Percent of possible	Sunrise to sunset		Midnight to midnight				
1	46	39	43	4	41	22	0	1	0	.40	0	29.83	33	6	5.0	9	SE	0.0	0	10	21	1			
2	43	39	41	2	41	24	0	1	0	.40	0	29.83	07	5.5	5.8	11	NE	0.0	0	10	10	2			
3	52	32	42	3	32	23	0	2	0	.02	0	29.62	31	8.8	10.6	34	NW	2.7	25	8	6	3			
4	44	28	36	-3	12	29	0	0	0	0	0	29.82	28	11.4	13.5	26	NW	10.4	100	0	0	4			
5	58*	32	45	6	19	20	0	0	0	0	0	29.74	26	9.5	12.4	25	NW	10.0	96	1	2	5			
6	50	26	38	-1	30	27	0	0	0	.04	0	29.75	12	1.9	4.0	9	SW	1.7	16	10	10	6			
7	40	33	37	-3	34	28	0	1	0	.01	0	29.79	03	5.2	6.6	13	NE	0.0	0	10	10	7			
8	43	34	39	-1	31	26	0	1	0	.54	0	29.86	12	4.0	6.5	11	SE	0.0	0	10	10	8			
9	43	31	37	-3	31	28	0	0	0	.67	0	29.44	33	13.5	15.0	27	NW	1.6	15	9	7	9			
10	44	22	33	-7	11	32	0	0	0	0	0	29.80	32	11.0	12.1	23	NW	10.5	99	1	2	10			
11	51	18	35	-5	21	30	0	0	0	0	0	29.66	19	5.1	5.6	16	SW	7.8	73	7	6	11			
12	48	29	39	-1	21	26	0	0	0	0	0	29.52	29	9.5	10.5	24	NW	9.2	86	4	3	12			
13	38	24	31	-9	10	34	0	0	0	0	0	29.87	31	10.0	11.1	20	NW	10.3	96	2	1	13			
14	37	18*	28	-12	9	37	0	0	0	0	0	30.14	34	7.9	8.2	24	N	10.8	100	2	1	14			
15	37	20	29	-11	10	36	0	0	0	0	0	30.10	02	6.8	7.5	12	N	7.7	71	9	7	15			
16	36	27	32	-8	16	33	0	0	0	0	0	29.82	04	9.0	9.4	15	NE	3.9	36	9	9	16			
17	41	29	35	-5	16	30	0	0	0	0	0	29.79	02	10.3	10.6	17	N	5.0	46	10	10	17			
18	38	31	35	-5	22	30	0	0	0	0	0	29.81	01	11.2	11.5	17	NE	0.0	0	10	10	18			
19	49	35	42	2	18	23	0	0	0	0	0	29.83	35	16.2	16.4	24	N	8.3	75	10	9	19			
20	37	30	34	-6	30	31	0	1	0	0	0	30.01	36	13.8	14.0	23	N	0.0	0	10	10	20			
21	40	34	37	-3	30	28	0	0	0	0	0	30.14	02	10.5	11.1	16	N	0.0	0	10	10	21			
22	40	34	37	-4	32	28	0	1	0	0	0	30.11	05	7.6	7.8	12	NE	0.0	0	10	10	22			
23	39	35	37	-4	37	28	0	1	0	1.87	0	29.85	02	9.9	10.8	15	NE	0.0	0	10	10	23			
24	51	35	43	2	36	22	0	1	0	0	0	29.80	36	8.1	8.2	17	N	4.0	36	9	9	24			
25	48	34	41	0	26	24	0	0	0	0	0	29.76	32	8.9	9.9	22	N	4.1	36	9	8	25			
26	44	31	38	-4	20	27	0	0	0	0	0	29.70	32	11.0	11.4	22	NW	6.5	58	9	6	26			
27	43	29	36	-6	22	29	0	0	0	0	0	29.85	35	9.4	9.9	18	N	7.5	67	6	6	27			
28	47	26	37	-5	24	28	0	0	0	0	0	29.96	05	4.5	6.6	12	E	8.2	73	5	6	28			
Sum	1227	835				783	0																		
Avg.	43.8	29.8	36.8	-3.1	24	80																			
Number of days		Total		Total		Total		Total		Total		Total		Total		Total		Total		Total		Total		Total	
Maximum Temp. $\geq 32^\circ$		Minimum Temp. $\leq 32^\circ$		31.68		0		Thunderstorms		0		Precipitation		Snow, Sleet		Greatest depth on ground of snow, sleet or ice and date		Greatest in 24 hours and dates		Greatest depth on ground of snow, sleet or ice and date		Precipitation		Snow, Sleet	
0		0		18		0		121		0		1.87		23		T		20+		T		20		T	

## HOURLY PRECIPITATION (Water equivalent in inches)

Date	A. M. Hour ending at												P. M. Hour ending at												Date
	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																									1
2																									2
3																									3
4																									4
5																									5
6																									6
7																									7
8																									8
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22																									22
23																									23
24																									24
25																									25
26																									26
27																									27
28																									28

\* Extreme temperatures for the month. May be the last of more than one occurrence.  
 - Below zero temperature or negative departure from normal.  
 †  $\geq 70^\circ$  at Alaskan stations.  
 ‡ Also on an earlier date, or dates.  
 X Heavy fog restricts visibility to 1/4 mile or less.  
 T In the Hourly Precipitation table and in columns 9, 10, and 11 indicates an amount too small to measure.

The season for degree days begins with July for heating and with January for cooling.  
 Data in columns 6, 12, 13, 14, and 15 are based on 8 observations per day at 8-hour intervals.  
 Wind directions are those from which the wind blows. Resultant wind is the vector sum of wind directions and speeds divided by the number of observations. Figures for directions are tens of degrees from true North; i.e., 09 = East, 18 = South, 27 = West, 36 = North, and 00 = Calm. When directions are in tens of degrees in Col. 17, entries in Col. 16 are fastest observed 1-minute speeds. If the / appears in Col. 17, speeds are gusts.

Any errors detected will be corrected and changes in summary data will be annotated in the annual summary.

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I certify that this is an official publication of the Environmental Science Services Administration, and is compiled from records on file at the National Weather Records Center, Asheville, North Carolina 28801.

*William H. Haggard*

Director, National Weather Records Center

## SUMMARY BY HOURS

Hour (Local time)	Sky cover (in tenths)	Station pressure (in.)	Dry bulb (°F)	Wet bulb (°F)	Rel. hum. (%)	Dew point (°F)	Wind speed (m.p.h.)	Resultant wind	
								Direction	Speed (m.p.h.)
01	7	29.83	34	31	69	25	8.3	34	4.9
04	6	29.82	33	30	73	24	9.0	34	6.0
07	6	29.84	32	29	74	24	8.5	33	5.6
10	7	29.86	37	32	65	24	11.2	34	6.9
13	8	29.82	41	35	57	25	11.6	35	7.0
16	8	29.80	42	36	54	24	12.0	34	7.8
19	7	29.83	38	33	61	24	8.6	35	4.9
22	7	29.84	35	32	67	24	8.5	36	5.5

OBSERVATIONS AT 3-HOUR INTERVALS

HOUR	SKY COVER (Tenths)	CEILING (Feet)	WIND (Mph)	WEATHER	DRY BULB (°F)	WET BULB (°F)	REL. HUM. (%)	DEW PT. (°F)	WIND			WEATHER	DRY BULB (°F)	WET BULB (°F)	REL. HUM. (%)	DEW PT. (°F)	WIND			WEATHER	DRY BULB (°F)	WET BULB (°F)	REL. HUM. (%)	DEW PT. (°F)	WIND						
									DIR.	SPEED (Knots)	DIR.						SPEED (Knots)	DIR.	SPEED (Knots)						DIR.	SPEED (Knots)	DIR.	SPEED (Knots)			
01	10	30	12		43	39	71	34	10	5	10	60	10	4	10	3	0	12	LF	39	39	100	39	35	5						
04	0	UNL	15		40	40	96	39	05	6	10	8	5	10	1	0	6	LF	39	39	100	39	34	3							
07	10	3	2		39	39	100	39	17	4	10	4	2	10	1	0	4	FF	39	39	100	39	16	3							
10	10	4	1		41	41	100	41	31	4	10	8	1	10	2	0	12	FF	40	40	100	40	26	6							
13	10	5	1		44	44	100	44	29	4	10	8	1	10	100	4	BD	44	43	96	43	27	9								
16	10	5	1		42	44	100	44	26	3	10	9	1	10	40	10		47	38	42	25	32	23								
19	10	4	2		44	44	100	44	22	3	10	7	2	10	0	UNL	15		39	31	43	17	31	15							
22	10	100	2		41	41	100	41	02	4	10	3	0	12	RF			39	39	100	39	08	5								
DAY 02																															
01	1	UNL	15		32	27	52	16	26	9	0	UNL	15		41	33	43	20	26	12	10	CIR	12		31	28	69	22	13	4	
04	2	UNL	15		31	26	47	13	31	12	0	UNL	15		38	32	48	20	23	14	10	CIR	12		30	28	78	24	12	4	
07	0	UNL	15		28	25	43	09	29	12	0	UNL	15		36	30	52	20	23	10	8	CIR	12		28	27	89	25	12	3	
10	0	UNL	15		32	25	38	10	28	13	0	UNL	15		39	31	47	17	23	15	10	CIR	12		41	37	70	32	11	3	
13	0	UNL	15		40	31	32	12	31	16	0	UNL	15		55	40	20	13	27	14	10	100	3		49	42	52	32	14	4	
16	0	UNL	15		43	32	24	08	27	12	2	UNL	15		58	42	22	19	29	12	10	100	5		48	40	50	30	18	3	
19	0	UNL	15		37	29	37	13	22	8	6	UNL	15		39	33	55	24	12	6	10	60	7		44	39	65	33	34	3	
22	0	UNL	15		38	31	43	17	22	12	8	CIR	15		39	29	59	20	13	3	6	10	40	5		43	41	86	39	34	3
DAY 03																															
01	10	30	8		40	40	96	39	06	5	10	16	7		34	33	85	30	25	2	10	4	2		37	37	100	37	11	5	
04	10	5	4		39	40	96	39	35	6	10	15	7		34	32	82	29	09	0	10	3	5		38	38	100	38	33	10	
07	10	5	2		39	39	96	38	35	6	10	16	7		34	32	82	29	09	3	10	3	1		36	36	100	36	35	11	
10	10	7	1		36	36	96	35	02	9	10	45	7		38	34	70	29	17	7	10	5	2		36	36	96	35	33	12	
13	10	12	2		37	35	82	32	05	6	10	45	5		41	37	70	32	14	7	10	20	7		39	36	76	32	32	18	
16	10	18	2		36	34	79	30	04	9	10	30	4		42	38	71	33	14	7	5	UNL	7		42	37	60	29	34	20	
19	10	14	3		35	33	82	30	18	2	10	60	8		40	37	76	33	11	9	5	UNL	10		37	32	57	23	32	13	
22	10	50	7		34	33	85	30	09	4	10	12	3		37	37	96	36	03	10	2	UNL	10		33	28	54	18	33	15	
DAY 04																															
01	0	UNL	15		30	24	44	10	31	12	0	UNL	15		23	22	85	19	23	2	0	UNL	12		42	36	58	28	27	6	
04	0	UNL	15		27	22	46	08	33	13	0	UNL	15		19	19	88	18	16	4	6	UNL	12		37	34	70	28	26	10	
07	0	UNL	15		25	21	48	08	33	10	0	UNL	15		21	20	88	18	00	0	2	UNL	12		36	32	64	23	27	6	
10	0	UNL	15		33	24	38	10	33	12	3	UNL	6		37	31	48	19	17	10	0	UNL	10		44	36	42	22	28	8	
13	1	UNL	15		40	31	30	11	33	16	10	UNL	7		47	36	31	18	20	7	8	40	12		48	37	32	19	27	12	
16	4	UNL	15		44	33	25	10	30	12	10	CIR	10		51	39	29	20	19	7	5	UNL	12		43	35	43	22	30	11	
19	6	UNL	15		35	28	38	12	32	6	10	100	10		44	37	47	25	15	3	0	UNL	15		37	29	39	14	32	11	
22	2	UNL	15		24	22	75	17	15	3	10	40	10		48	40	50	30	23	6	0	UNL	15		31	25	43	11	33	9	
DAY 05																															
01	0	UNL	15		28	24	53	13	29	9	0	UNL	15		22	19	57	09	32	2	0	UNL	15		24	21	58	11	36	9	
04	0	UNL	15		25	22	58	12	26	5	0	UNL	15		20	18	65	10	34	3	0	UNL	12		20	18	65	10	31	7	
07	0	UNL	15		25	22	58	12	27	7	0	UNL	12		19	17	62	08	36	5	3	UNL	12		21	18	57	08	36	7	
10	0	UNL	15		32	26	42	11	30	12	4	UNL	15		27	22	47	09	34	12	8	UNL	12		26	22	48	09	32	8	
13	2	UNL	15		36	28	34	10	33	10	2	UNL	15		33	26	38	10	36	13	10	UNL	15		33	27	35	10	05	7	
16	4	UNL	15		37	28	31	09	31	13	2	UNL	15		37	28	31	09	32	11	10	CIR	15		37	28	30	08	07	4	
19	19	UNL	15		31	24	38	08	32	11	0	UNL	15		38	26	47	10	35	4	10	120	15		32	26	42	11	04	5	
22	0	UNL	15		25	21	48	08	35	10	0	UNL	15		24	21	55	10	35	5	10	120	15		31	25	43	11	35	5	
DAY 06																															
01	10	120	15		29	24	49	12	06	5	10	50	15		30	26	61	18	36	9	10	120	15		33	28	54	18	02	11	
04	10	100	15		28	24	56	14	05	7	10	50	15		31	27	56	17	01	9	7	CIR	15		32	27	54	17	01	9	
07	10	100	15		28	24	56	14	05	7	10	50	15		30	25	54	15	02	13	10	40	15		33	28	54	18	36	9	
10	8	CIR	15		33	28	52	17	02	10	10	80	12		32	27	49	15	01	12	10	25	8		33	29	61	21	36	13	
13	10	100	12		36	30	48	18	04	9	10	CIR	15		37	29	33	10	02	11	10	25	7		36	32	62	24	02	11	
16	10	100	12		36	29	44	16	06	10	9	CIR	15		41	33	38	17	04	9	10	30	8		36	33	76	29	02	11	
19	10	UNL	15		31	27	54	17	02	6	8	CIR	12		33	28	50	16	03	5	10	30	10		38	33	62	26	01	9	
22	8	CIR	15		32	27	59	18	02	11	10	CIR	12		32	27	56	18	35	6	10	CIR	10		36	31	57	22	33	7	
DAY 07																															
01	10	UNL	15		36	30	46	17	33	10	10	CIR	12		37	31	50	20	35	15	10	40	10		37	35	82	32	35	12	
04	10	120	15		37	29	46	12	35	12	10	18	4		32	31	89	29	35	15	8	40	12		36	34	79	30	01	12	
07	10	CIR	15		36	29	42	13	36	15	10	60	7		31	30	85	27	36	10	10	30	12		35	33	79	29	03	11	
10	10	CIR	12		39	32	43	19	35	18	10	20	3		35	33	82	30	01	14	10	30	5		36	35	76	29	02	10	
13	10	UNL	15		47	37	34	20	34	15	10	14	3		35	34	92	33	35	13	10	20	7		39	35	70	30	03	9	
16	10	CIR	15		44	36	36	20	34	18	10	15	3		37	36	89	34	36	12	10	25	7		39	35	70	30	04	8	
19	9	CIR	12		41	34	45	21	35	12	10	15	3		36	35	89	33	36	8	10	30	10		37	34	70	28	05	7	
22	9	CIR	12		38	32	48	20	35	14	10	25	6		37	35	82	32	01	10	10	30	12		37	34	73	29	01	7	
DAY 08																															
01	10	25	12		37	34	76	30	07	6	10	8	3		36	36	96	35	05</												