



# LOCAL CLIMATOLOGICAL DATA

U. S. DEPARTMENT OF COMMERCE - ALEXANDER B. TROWBRIDGE, Secretary

RICHMOND, VIRGINIA  
BYRD FIELD  
JANUARY 1968

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 1 2 3 4 5 6 7 8 9					Precipitation		Avg. station pressure (in.) Elev. 164 feet m.s.l.	Wind			Sunshine		Sky cover (Tenths)		Date				
	Maximum	Minimum	Average	Departure from normal	Average dew point	Degree days (Base 65°)	Fog	Thunderstorm	Sleet	Hail	Chance	Duststorm	Snow	Ice on ground at 07AM (in.)		Total (Water equivalent) (in.)	Snow, sleet (in.)	Resultant direction	Resultant speed (m.p.h.)	Average speed (m.p.h.)	Fastest mile Speed (m.p.h.)	Direction		Total (Hours and tenths)	Percent of possible	Sunrise to sunset	Midnight to midnight
1	37	20	29	-10	20	36	1							0	0	0	30.11	02	7.9	9.5	14	NF	4.0	42	9	7	1
2	33	17	25	-14	15	40								0	0	0	30.30	05	5.3	5.6	7	N	0.7	7	10	8	2
3	42	29	36	-3	33	29	1		6	8				0	0	0	30.04	20	4.1	5.0	7	SW	0.3	3	10	10	3
4	51	29	40	1	35	25	2							0	0	0	29.77	28	7.4	10.4	24	NW	0.6	7	9	7	4
5	32	16	24	-15	2	41								0	0	0	30.29	02	5.7	8.3	15	NW	9.7	100	0	0	5
6	34	17	26	-13	20	39	1		6	8				0	0	0	30.21	18	5.2	5.9	11	SW	0.0	0	10	5	6
7	36	14	25	-14	20	40	1		6					0	0	0	30.14	33	8.0	10.2	25	NW	5.8	60	5	5	7
8	29	8	19	-20	5	46								0	0	0	30.55	02	2.5	6.6	24	N	9.7	100	2	1	8
9	25	14	20	-19	13	45	1		6					0	0	0	30.39	18	2.4	4.3	8	SW	0.0	0	10	10	9
10	30	23	27	-12	22	38	1			8				1	0	0	30.22	03	6.4	6.9	12	NE	0.0	0	10	10	10
11	29	13	21	-18	10	44								0	0	0	30.31	03	11.0	11.5	17	NE	6.0	61	7	6	11
12	28	7*	18	-21	0	47								0	0	0	30.45	02	7.8	8.1	12	NE	4.8	49	10	7	12
13	46	21	34	-5	29	31	1		6					T	0	0	30.12	07	11.6	12.5	21	E	0.0	0	10	10	13
14	53	32	43	-4	37	22	1							T	0	0	29.53	21	6.7	11.9	22	SW	0.6	6	8	9	14
15	38	27	33	-6	22	32								T	0	0	29.44	24	13.5	14.0	21	W	8.8	89	4	4	15
16	42	20	31	-8	16	34								0	0	0	29.97	36	5.0	6.3	14	N	9.9	100	2	1	16
17	45	17	31	-8	19	34				8				0	0	0	30.25	17	3.1	3.5	7	SW	9.9	100	2	1	17
18	56	23	40	1	25	25				8				0	0	0	30.28	17	4.4	4.6	7	SW	9.9	100	0	0	18
19	62	24	43	4	26	22				8				0	0	0	30.13	23	3.5	4.9	13	NW	8.4	84	4	3	19
20	60	28	44	5	22	21								0	0	0	30.03	29	4.5	5.2	11	NW	8.9	89	3	4	20
21	65	28	47	8	30	18								0	0	0	29.86	30	3.1	6.5	14	NW	10.0	100	1	2	21
22	53	26	40	1	27	25				8				0	0	0	29.98	16	2.6	6.3	11	SE	10.0	100	1	2	22
23	61	34	48	9	36	17	1			8				0	0	0	29.71	22	4.5	8.8	19	N	0.0	0	10	10	23
24	34	22	28	-11	20	37	1			8				0	0	0	29.78	02	11.7	11.8	18	NE	0.0	0	10	10	24
25	30	17	24	-15	16	41								0	0	0	29.78	36	7.8	8.2	14	N	0.0	0	10	7	25
26	47	12	30	-9	14	35				8				1	0	0	30.04	32	4.0	5.2	11	NW	10.2	100	0	0	26
27	56	22	39	0	21	26	1			8				T	0	0	30.24	17	1.2	2.0	5	SE	5.9	58	5	5	27
28	59	30	45	6	27	20				8				0	0	0	30.21	18	5.1	5.5	9	S	3.2	31	10	9	28
29	66	33	50	11	30	15								0	0	0	30.19	10	3.8	5.5	10	S	6.8	66	8	7	29
30	70*	40	55	16	37	10								0	0	0	30.04	17	3.5	7.6	17	N	4.5	44	9	8	30
31	49	39	44	5	40	21	1							0	0	0	30.22	04	9.9	10.4	14	N	0.0	0	10	10	31
Sum	Sum	Sum	Sum	Sum	Sum	Sum	Total	Dep.	Temperature:				Total	Total	For the month:			Total	%	Sum	Sum						
1398	702						956	141	Number of days				2.53	2.3	30.08	01	1.4	7.5	25	NW	148.6	for	199	181			
Avg.	Avg.	Avg.	Dep.	Avg.	Season to date	Max.	Max.	Min.	Min.					Dep.					Date: 07	Possible	month	Avg.	Avg.				
45.1	22.6	33.9	-4.8	22	Total	Dep.	< 32°	> 90°	< 32°	< 0°					-0.93					307.3	48	6.4	5.8				
* Extreme for the month. May be the last of more than one occurrence.												Greatest in 24 hours and dates				Greatest depth on ground of snow, sleet or ice and date											
- Below zero temperatures or negative departure from normal.												Precipitation				Snow, Sleet											
T In columns 9, 10, and 11 and in the Hourly Precipitation table indicates an amount too small to measure.												1.70 13-14				1.2 24-25											
X Heavy fog — visibility 1/4 mile or less.												+ > 70° at Alaskan stations.				+ Also on an earlier date, or dates.											

## HOURLY PRECIPITATION (Liquid 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		T				T	.03	T		T							T	T	.01	T	.01	.04	.04	.06	3			
4		.04	T	.01				T																	4			
5																									5			
6																	.01	.03	.02	.03	.03	.03	.04	.04	.02	T	T	6
7																												7
8																												8
9																												9
10																	.01	T	.01	.01	.02	.03	.03	.01	T	T	T	10
11																												11
12																												12
13																												13
14																												14
15																												15
16																												16
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26																												26
27																												27
28																												28
29																												29
30																												30
31																												31

Data in columns 6, 12, 13, 14, and 15 are based on 8 observations per day at 3-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 if published.

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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 J. Haggard*  
Director, National Weather Records Center

Hour (Local time)	AVERAGES BY HOURS											Resultant wind	
	Sky cover (in tenths)	Station press. (in.)	Dry bulb (°F)	Wet bulb (°F)	Rel. hum. %	Dew point (°F)	Wind speed (m.p.h.)	Direction	Speed (m.p.h.)				
01	5	30.07	30	27	74	22	6.8	03	1.8				
04	5	30.07	28	27	78	22	6.4	03	1.8				
07	6	30.09	28	26	79	22	6.2	01	.9				
10</													

OBSERVATIONS AT 3-HOUR INTERVALS

HOUR	SKY COVER (%)	CEILING (ft.)	WIND (knots)	WEATHER	DRY BULB (°F)	WET BULB (°F)	REL. HUM. (%)	DPT. (°F)	WIND DIR.	WIND SPEED (knots)	SKY COVER (%)	CEILING (ft.)	WIND (knots)	WEATHER	DRY BULB (°F)	WET BULB (°F)	REL. HUM. (%)	DPT. (°F)	WIND DIR.	WIND SPEED (knots)	SKY COVER (%)	CEILING (ft.)	WIND (knots)	WEATHER	DRY BULB (°F)	WET BULB (°F)	REL. HUM. (%)	DPT. (°F)	WIND DIR.	WIND SPEED (knots)
01	0	UNL	0	DAY 01	37	32	89	34	27	6	2	UNL	12	DAY 02	19	17	68	10	04	8	10	25	8	DAY 03	29	28	82	24	05	2
04	0	UNL	0	DAY 01	33	32	92	31	36	5	0	UNL	12	DAY 02	19	17	71	11	03	7	10	20	8	DAY 03	30	28	82	25	23	2
07	0	UNL	0	DAY 01	32	32	96	31	36	5	0	UNL	12	DAY 02	19	17	77	13	01	6	10	20	8	DAY 03	30	30	96	29	18	6
10	0	UNL	0	DAY 01	33	32	97	23	05	12	10	40	10	DAY 02	23	21	65	13	00	3	10	4	1	DAY 03	33	32	92	31	19	5
13	0	UNL	0	DAY 01	35	32	90	18	02	13	10	45	12	DAY 02	28	25	61	16	05	5	10	6	2	DAY 03	37	36	92	35	26	4
16	0	UNL	0	DAY 01	35	32	89	08	36	10	10	40	12	DAY 02	31	27	59	18	07	6	10	80	5	DAY 03	42	40	86	38	20	6
19	0	UNL	0	DAY 01	34	32	87	07	02	7	10	80	12	DAY 02	30	26	54	19	07	4	10	80	4	DAY 03	40	40	96	39	18	4
22	0	UNL	0	DAY 01	22	14	60	10	02	8	10	80	12	DAY 02	30	26	54	19	07	4	10	80	4	DAY 03	42	42	96	41	19	7
01	10	0	0	DAY 04	44	43	96	43	19	5	0	UNL	15	DAY 05	27	27	44	08	33	9	0	UNL	10	DAY 06	19	17	71	11	18	4
04	10	0	0	DAY 04	44	44	100	44	18	4	0	UNL	15	DAY 05	27	27	40	01	03	10	0	UNL	10	DAY 06	21	19	71	13	21	3
07	10	0	0	DAY 04	44	44	98	44	19	4	0	UNL	15	DAY 05	17	14	45	01	03	8	10	110	10	DAY 06	25	22	66	15	18	5
10	10	0	0	DAY 04	48	40	80	47	19	4	0	UNL	15	DAY 05	21	16	37	04	03	6	10	10	10	DAY 06	30	26	56	16	19	9
13	10	0	0	DAY 04	30	24	39	08	29	12	0	UNL	15	DAY 05	28	21	26	03	34	10	10	25	10	DAY 06	33	29	59	20	21	7
16	8	CIR	12	DAY 04	48	40	50	30	27	16	0	UNL	15	DAY 05	31	23	21	05	01	6	10	20	4	DAY 06	30	29	92	28	13	5
19	0	UNL	15	DAY 04	38	31	44	18	31	10	0	UNL	15	DAY 05	20	18	65	10	13	4	10	7	3	DAY 06	32	31	92	30	15	5
22	0	UNL	15	DAY 04	32	23	33	06	32	15	0	UNL	15	DAY 05	19	17	71	11	13	4	10	4	1	DAY 06	32	31	92	30	13	3
01	10	2	1	DAY 07	33	33	96	32	18	5	0	UNL	15	DAY 08	13	12	0	08	19	4	5	UNL	15	DAY 09	16	14	67	07	05	4
04	10	80	5	DAY 07	34	34	64	33	26	6	0	UNL	15	DAY 08	09	09	01	07	13	4	10	100	15	DAY 09	17	15	62	06	05	3
07	10	100	10	DAY 07	35	34	62	33	33	7	0	UNL	15	DAY 08	10	10	68	07	14	3	10	50	17	DAY 09	18	15	57	05	14	2
10	10	100	10	DAY 07	34	30	67	24	34	11	0	UNL	15	DAY 08	19	16	49	07	34	10	10	60	12	DAY 09	20	17	54	06	00	0
13	3	UNL	15	DAY 07	32	27	52	16	33	15	3	UNL	15	DAY 08	25	20	37	02	28	6	10	6	0	DAY 09	21	20	84	17	19	5
16	1	UNL	15	DAY 07	30	24	39	08	29	12	1	UNL	15	DAY 08	21	16	30	00	34	10	10	11	2	DAY 09	23	22	86	20	21	7
19	0	UNL	15	DAY 07	23	14	50	07	33	7	1	UNL	15	DAY 08	20	17	60	08	05	4	10	6	1	DAY 09	24	24	92	22	19	6
22	0	UNL	15	DAY 07	20	17	50	04	02	5	0	UNL	15	DAY 08	15	13	64	05	05	4	10	5	2	DAY 09	24	24	96	23	22	4
01	10	50	5	DAY 10	24	24	62	24	32	3	6	70	7	DAY 11	25	22	66	15	05	10	0	UNL	15	DAY 12	13	10	45	03	03	8
04	10	80	5	DAY 10	23	23	62	23	01	5	10	80	7	DAY 11	23	21	68	14	04	10	0	UNL	15	DAY 12	09	07	50	04	36	6
07	10	100	10	DAY 10	23	23	94	23	04	5	10	80	7	DAY 11	22	20	65	12	02	12	0	UNL	15	DAY 12	06	06	46	06	01	6
10	10	100	10	DAY 10	24	25	65	22	05	5	10	90	7	DAY 11	22	19	62	11	36	10	10	UNL	15	DAY 12	17	14	45	01	04	7
13	10	100	10	DAY 10	26	27	78	23	04	9	7	CIR	12	DAY 11	25	21	63	10	02	13	10	CIR	15	DAY 12	26	21	37	03	01	7
16	10	100	10	DAY 10	30	27	72	22	05	7	1	UNL	12	DAY 11	27	22	43	07	04	12	10	140	12	DAY 12	26	20	35	02	02	10
19	10	60	5	DAY 10	27	24	66	17	04	9	0	UNL	15	DAY 11	19	16	52	04	02	6	10	14	10	DAY 12	22	18	44	04	05	5
22	10	60	5	DAY 10	27	24	66	17	04	9	0	UNL	15	DAY 11	16	14	59	04	36	7	10	CIR	10	DAY 12	20	17	57	07	04	7
01	10	90	10	DAY 13	22	20	65	12	06	9	10	6	4	DAY 14	48	47	96	47	08	11	10	25	10	DAY 15	31	28	69	22	22	13
04	10	35	5	DAY 13	25	23	75	15	02	8	10	7	5	DAY 14	53	52	96	52	12	11	9	80	8	DAY 15	30	28	75	23	23	12
07	10	38	5	DAY 13	27	26	85	23	03	7	10	5	7	DAY 14	47	47	100	47	25	6	0	UNL	10	DAY 15	26	24	75	21	23	13
10	10	30	5	DAY 13	33	32	62	31	06	10	10	5	7	DAY 14	39	38	53	37	26	12	4	UNL	8	DAY 15	32	28	61	20	23	13
13	10	25	7	DAY 13	38	37	49	35	08	10	10	18	12	DAY 14	39	37	79	33	21	12	7	CIR	10	DAY 15	36	32	50	21	25	15
16	10	14	7	DAY 13	39	37	86	35	08	14	4	UNL	12	DAY 14	38	34	67	28	22	8	5	UNL	10	DAY 15	38	32	50	21	26	15
19	10	7	7	DAY 13	40	40	96	39	09	16	0	UNL	12	DAY 14	34	31	76	27	22	9	2	UNL	10	DAY 15	36	31	57	22	26	9
22	10	4	7	DAY 13	43	43	96	42	08	13	10	27	12	DAY 14	34	30	64	23	23	12	2	UNL	15	DAY 15	35	31	62	23	26	7
01	4	UNL	15	DAY 16	34	29	57	20	33	9	0	UNL	15	DAY 17	21	20	88	18	00	1	UNL	8	DAY 18	26	25	85	22	15	4	
04	0	UNL	15	DAY 16	27	23	75	20	36	4	0	UNL	15	DAY 17	20	20	82	18	00	0	UNL	7	DAY 18	25	24	85	21	16	3	
07	0	UNL	15	DAY 16	20	20	96	16	23	2	1	UNL	12	DAY 17	18	18	96	17	00	0	UNL	7	DAY 18	24	23	88	21	18	3	
10	1	UNL	10	DAY 16	33	25	50	14	35	6	3	UNL	8	DAY 17	31	27	56	17	17	4	0	UNL	6	KH	37	33	45	29	6	
13	1	UNL	10	DAY 16	36	31	36	14	35	6	2	UNL	8	DAY 17	39	32	45	19	11	7	0	UNL	5	KH	50	40	41	27	18	6
16	4	UNL	12	DAY 16	40	31	32	12	04	5	0	UNL	5	DAY 17	44	35	35	18	15	4	0	UNL	6	K	56	44	33	27	19	4
19	1	UNL	15	DAY 16	30	25	47	12	06	4	0	UNL	10	DAY 17	30	27	66	20	16	6	0	UNL	7	K	37	33	67	27	14	3
22	0	UNL	15	DAY 16	24	23	63	15	04	4	0	UNL	12	DAY 17	28	26	75	21	15	5	0	UNL	7	DAY 18	28	27	89	25	15	3
01	0	UNL	7	DAY 19	27	26	88	24	00	4	3	UNL	12	DAY 20	34	31	73	26	33	4	2	UNL	10	DAY 21	35	30	54	20	22	3
04	0	UNL	7	DAY 19	30	29	92	23	18	4	5	UNL	10	DAY 20	30	29	85	26	29	2	3	UNL	8	DAY 21	30	27	69	21	21	3
07	0	UNL	7	DAY 19	47	26	88	24	21	3	1	UNL	7	DAY 20	33	30	75	26	28	5	0	UNL	8	DAY 21	29	27	78	23	18	3
10	7	UNL	10	DAY 19	41	36	60	28	22	6	0	UNL	7	DAY 20	49	39	39	25	30	7	0	UNL	8	DAY 21	49	44	66	38	25	7
13	0	UNL	10	DAY 19	58	40	43	27	19	3	1	UNL	7	DAY 20	5															