



# LOCAL CLIMATOLOGICAL DATA

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
ENVIRONMENTAL DATA SERVICE

RICHMOND, VIRGINIA  
BYRD FIELD  
JANUARY 1971

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°		Weather types on dates of occurrence 1 Fog 2 Heavy fog x 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. Elev. 177 feet m.s.l.	Wind				Sunshine		Sky cover Tenth		Date		
	Maximum	Minimum	Average	Departure from normal	Average dew point	Heating	Cooling	Water equivalent In.			Snow, ice pellets 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	40	23	32	-7	26	33	0	1	6	3	.27	2.2	29.53	32	8.8	9.5	20	NW	4.4	45	7	7	1	
2	38	15	27	-12	22	38	0	1	8	0	0	0	29.96	16	1.2	5	SW	4.9	51	7	3	2		
3	48	21	35	-4	26	30	0	1	8	1	0	0	30.09	07	2.5	3.9	8	SE	3.8	39	7	5	3	
4	59	36	48	9	38	17	0	2		0	.04	0	29.86	05	9.5	2	17	SW	0.0	0	10	10	4	
5	66*	36	51*	12	47	14	0	1		0	.43	0	29.74	15	.9	11.7	21	NW	0.2	2	10	10	5	
6	43	31	37	-2	22	28	0	0		0	0	0	30.09	02	6.0	6.6	12	N	2.4	24	8	8	6	
7	37	28	33	-6	16	32	0	0		0	0	0	30.15	01	5.7	6.5	9	NW	2.6	27	7	8	7	
8	28	22	25	-14	8	40	0	0		0	0	0	30.21	04	6.7	7.5	12	NE	0.6	6	10	10	8	
9	30	23	27	-12	29	38	0	0		0	.33	.3	29.95	01	4.9	5.9	9	N	0.0	0	10	10	9	
10	33	29	31	-8	29	34	0	1	4	6	8	0	29.91	21	6.2	6.5	11	SW	0.0	0	10	10	10	
11	38	31	35	-4	31	30	0	2			0	0	29.94	19	3.1	5.2	11	SW	3.1	32	7	9	11	
12	51	31	41	3	33	24	0	2			0	0	30.01	03	3.3	6.9	15	N	7.1	73	9	9	12	
13	37	31	34	-3	26	31	0	1	6	8	0	.08	30.19	05	7.3	7.9	12	NE	0.0	0	10	10	13	
14	57	31	44	9	41	21	0	2	6	8	0	.20	29.88	21	6.8	7.6	15	SW	1.0	10	9	8	14	
15	45	31	38	-1	35	27	0	2			.14	0	29.82	36	8.5	9.4	21	NE	0.0	0	10	8	15	
16	35	24	30	-9	11	35	0	0			0	0	30.01	31	7.0	10.1	17	N	8.2	83	2	3	16	
17	34	25	30	-9	22	35	0	0			.01	.2	29.75	08	3.5	6.5	13	NE	1.5	15	9	10	17	
18	32	20	26	-13	16	39	0	1	8	8	.01	.2	29.68	36	6.8	8.3	14	NE	7.6	77	6	5	18	
19	29	18	24	-15	6	41	0	0			0	0	29.80	34	8.7	9.2	13	N	7.1	72	7	6	19	
20	36	10	23	-16	7	42	0	0			0	0	29.99	30	7.4	8.5	15	NW	9.8	98	1	1	20	
21	50	14	32	-7	13	33	0	0			0	0	29.94	20	9.3	9.6	23	SW	6.2	62	6	5	21	
22	50	39	45	6	28	20	0	1			.05	0	29.81	21	5.8	8.1	14	SW	0.0	0	10	10	22	
23	56	27	42	3	33	23	0	1			.04	0	29.71	26	5.7	9.5	18	NW	5.1	51	6	6	23	
24	42	22	32	-7	27	33	0	1	8	0	.11	0	29.95	04	3.1	5.2	12	NW	0.1	1	10	8	24	
25	43	34	39	0	36	26	0	1			0	0	29.85	06	1.2	6.6	11	SE	0.0	0	10	10	25	
26	60	29	45	6	25	20	0	2			0	0	29.37	25	13.1	16.8	43	NW	7.3	72	4	5	26	
27	29	17	23	-16	7	42	0	0			0	0	29.63	28	18.1	18.4	32	NW	10.2	100	2	1	27	
28	32	10	21*	-18	3	44	0	0			0	0	29.80	25	9.2	10.4	23	W	5.0	49	7	3	28	
29	45	8*	27*	-12	8	38	0	0			0	0	29.80	20	7.8	9.1	18	SW	4.1	40	8	6	29	
30	62	38	50	11	41	15	0	0			.08	0	29.32	23	14.2	16.4	32	SW	0.5	5	10	9	30	
31	38	18	28	-11	23	37	0	1			.05	.4	29.57	01	6.1	8.5	14	NE	0.3	3	10	7	31	
Sum	Sum					Total	Total				Total	Total	For the month:					Total	%	Sum	Sum			
1223	772					960	0		Number of days		1.84	3.3	29.85	29	2.3	8.5	43	NW	103.1		239	220		
Avg.	Avg.	Avg.	Dep.	Avg.	Dep.	Dep.	Dep.		Precipitation		Dep.							Date: 26	Possible month	Avg.	Avg.			
42.7	24.9	33.8	-4.9	23	14.5				≥ .01 inch	14	-1.62								307.3	34	7.7	7.1		
						Season to date	Season to date		Snow, ice pellets															
						Total	Total		≥ 1.0 inch	1														
						Maximum Temp.	Minimum Temp.		Thunderstorms	0														
						≥ 90° †	≤ 32° †	≤ 32° †	≤ 0° †	Dep.	Dep.	Heavy fog X	6	1.01	31-	1	2.9	31-	1					
						0	6	26	0	-4.7														
									Clear	3	Partly cloudy	11	Cloudy	17										

### 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	.01	.04	.03	.03	.04	.06	.06	T																	1	
2																									2	
3																									3	
4									.01	T															4	
5	.03	.14	.08	.06	T	T	T		.09	.02	T	T											.01	.01	T	5
6																										6
7																										7
8																										8
9	.01	.05	.05	.07	.05	.05	.05	T	T																	9
10																										10
11																										11
12																										12
13																										13
14	.02	.02	.05	.06	.03	T	.01	T		T	.01	T	T										.02	.01	.01	14
15								T		.03	.09	.02	T													15
16								T																		16
17								T		T	T	.01	T	T	T									T	T	17
18	.01	T																								18
19																										19
20																										20
21																										21
22																							.02	.03	T	22
23	T			.02	.02	T	T																			23
24																										24
25																										25
26																										26
27																										27
28																										28
29																										29
30																										30
31					.01	.02	.02	T	T																	31

\* Extreme temperatures for the month. May be the last of more than one occurrence.  
- Below zero temperature or negative departure from normal.  
† ≤ 70° 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 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.

Subscription Price: Local Climatological Data \$1.00 per year including annual summary if published. Single copy: 10 cents for monthly summary; 15 cents for annual summary. Checks or money orders should be made payable and remittances and correspondence should be sent to the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.

I certify that this is an official publication of the National Oceanic and Atmospheric Administration, and is compiled from records on file at the National Climatic Center, Asheville, North Carolina 28801.

*William H. Haggard*  
Director, National Climatic Center

### SUMMARY BY HOURS

Hour time	Station pressure In.	Temperature				Relative humidity %		Resultant wind	
		Air °F	Wet bulb °F	Dew Pt. °F	Relative humidity %	Wind speed m.p.h.	Direction	Speed m.p.h.	
01	29.83	32	29	23	73	7.6	25	1.5	
04	29.83	31	29	22	74	7.6	27	2.3	
07	29.85	29	28	23	79	8.3	29	2	

OBSERVATIONS AT 3-HOUR INTERVALS

Table with columns for HOUR, SKY COVER, CEILING, WIND, TEMPERATURE (AIR, WET BULB, DEW PT), REL HUM, DIR, and WEATHER. It is organized into 31 days (DAY 01 to DAY 31) and includes a 'WIND COLUMNS' section at the bottom.

NOTES

CEILING COLUMN—

UNL indicates an unlimited ceiling.

WEATHER COLUMN—

- List of weather symbols and their meanings: Tornado, Thunderstorm, Squall, Rain, RW, Rain showers, ZR, Freezing rain, L, Drizzle, ZL, Freezing drizzle, S, Snow, SP, Snow pellets, IC, Ice crystals, SW, Snow showers, SG, Snow grains, IP, Ice pellets, A, Hail, F, Fog, IF, Ice fog, GF, Ground fog, BD, Blowing dust, BN, Blowing sand, BS, Blowing snow, BY, Blowing spray, K, Smoke, H, Haze, D, Dust.

WIND COLUMNS—

Directions are those from which the wind blows, indicated in tens of degrees from true North; i. e., 09 for East, 18 for South, 27 for West. Entry of 00 in the direction column indicates calm.

Speed is expressed in knots; multiply by 1.15 to convert to miles per hour.

ADDITIONAL DATA

Other observational data contained in records on file can be furnished at cost via microfilm, microfiche, or paper copies of the original records. Inquiries as to availability and costs should be addressed to: Director, National Climatic Center, Federal Building, Asheville, North Carolina 28601.

STATION: RICHMOND VA

YEAR & MONTH: 71 01