



# LOCAL CLIMATOLOGICAL DATA

U. S. DEPARTMENT OF COMMERCE - MAURICE H. STANS, Secretary  
 ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION  
 ENVIRONMENTAL DATA SERVICE

RICHMOND, VIRGINIA  
 BYRD FIELD  
 SEPTEMBER 1969

Latitude 37° 30' N Longitude 77° 20' W Elevation (ground) 164 ft. Standard time used: EASTERN		Temperature (°F)						Weather types shown by code				Precipitation		Avg. station pressure (in.)		Wind			Sunshine		Sky cover (Tenths)				
Date	Maximum	Minimum	Average	Departure from normal	Average dew point	Degree days (Base 65°)		1-9 on dates of occurrence				Snow, sleet, or ice on ground at 07AM (In.)	Water equivalent (In.)	Snow, sleet (In.)	Elev. feet m.s.l.	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	
						Heating	Cooling	Fog	Thunderstorm	Sleet	Hail								Glaze	Duststorm					Smoke, haze
1	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22			
1	89	64	77	3	68	0	12	1	3	8	0	0	0	0	0	30.02	17	5.1	5.8	9	S	11.2	86	3	3
2	87	67	77	3	70	0	12	1	3	8	0	0	1.92	0	29.93	19	6.2	6.8	22	S	3.9	30	9	9	
3	84	71	78	4	70	0	13	1	1	8	0	0	.11	0	29.93	18	4.1	4.2	10	S	4.3	33	10	9	
4	86	66	76	2	69	0	11	1	1	8	0	0	0	0	29.97	12	3.8	4.5	11	SE	8.5	66	7	7	
5	88	67	78	4	70	0	13	2	1	8	0	0	0	0	30.00	13	2.4	3.6	8	SE	5.0	39	7	6	
6	90	66	78	4	69	0	13	1	1	8	0	0	0	0	29.92	23	3.9	6.5	12	SW	8.8	68	5	5	
7	90*	68	79	6	70	0	14	1	1	8	0	0	0	0	29.80	23	3.9	5.3	10	SW	12.2	95	3	3	
8	86	70	78	3	71	0	13	1	3	8	0	0	.07	0	29.68	18	3.1	6.8	15	NW	3.3	26	8	8	
9	80	61	71	-2	60	0	6	1	1	8	0	0	0	0	29.67	35	6.1	8.2	14	N	10.5	82	1	2	
10	74	52	63	-10	53	2	0	0	0	8	0	0	0	0	29.91	02	5.8	6.0	12	N	8.8	70	6	4	
11	75	48	62	-8	51	3	0	0	0	8	0	0	0	0	29.99	36	3.3	3.5	8	N	9.6	76	4	3	
12	77	50	64	-8	52	1	0	1	1	8	0	0	0	0	30.02	06	1.5	3.6	9	SE	6.1	48	9	7	
13	80	50	65	-7	54	0	0	0	0	1	8	0	0	0	29.99	01	2.6	3.7	9	NE	11.6	93	1	0	
14	83	52	68	-3	59	0	0	3	1	8	0	0	0	0	30.05	09	1.3	2.5	6	SE	12.3	99	2	1	
15	83	54	69	-2	61	0	0	4	2	8	0	0	0	0	30.01	16	2.9	3.6	7	SE	12.1	97	4	4	
16	86	59	73	2	63	0	0	8	2	8	0	0	0	0	29.91	18	5.6	5.8	11	S	11.5	92	5	5	
17	86	66	76	6	70	0	11	2	1	8	0	0	.01	0	29.86	19	6.7	6.9	17	SW	1.5	12	10	8	
18	72	56	64	-6	62	1	0	1	0	8	0	0	.12	0	29.98	02	7.2	8.8	13	NE	0.0	0	10	9	
19	68	53	61	-9	55	4	0	0	0	8	0	0	T	0	30.18	05	6.8	7.5	13	NE	1.1	9	10	9	
20	62	59	61	-8	58	4	0	1	1	8	0	0	.89	0	30.16	04	8.2	8.5	12	NE	0.0	0	10	10	
21	66	54	60	-9	58	5	0	1	1	8	0	0	T	0	30.11	02	8.4	8.5	14	NE	0.0	0	10	8	
22	75	49	62	-6	54	3	0	1	1	8	0	0	0	0	30.02	02	5.3	5.9	9	NE	8.0	68	5	3	
23	76	45	61	-7	50	4	0	1	1	8	0	0	0	0	29.80	36	1.9	2.0	8	NE	11.7	97	4	3	
24	68	53	61	-7	61	4	0	1	1	8	0	0	.77	0	29.61	19	2.3	2.3	7	SW	0.0	0	10	9	
25	76	62	69	2	65	0	0	4	2	8	0	0	T	0	29.65	03	3.2	4.5	8	NE	1.5	13	8	7	
26	77	60	69	2	63	0	0	4	1	8	0	0	0	0	29.79	11	2.2	4.0	7	E	1.9	15	8	7	
27	80	59	70	3	64	0	0	5	1	8	0	0	0	0	29.84	20	3.3	4.0	9	SW	3.5	30	7	7	
28	76	56	66	0	56	0	0	1	1	8	0	0	0	0	29.86	01	5.5	8.8	17	N	9.9	83	2	3	
29	70	46	58	-8	47	0	0	0	0	8	0	0	0	0	29.98	02	5.4	5.9	11	N	11.9	100	1	1	
30	72	43*	58	-7	49	7	0	1	1	8	0	0	0	0	29.91	20	2.0	2.6	8	S	9.2	77	8	7	
Sum	Sum					Total	Total						Total	Total	For the month:				Total	%	Sum	Sum			
2362	1726					45	147	Number of days	3.89	0	29.92	06	.9	5.3	22	S	200.2	for	187	167					
Avg.	Avg.	Avg.	Dep.	Avg.	Dep.			Precipitation	7	0.24					Date:	02	Possible month	Avg.	Avg.						
78.7	57.5	68.1	-2.1	61	9			≥ .01 inch	7																
Season to date						Snow, sleet						Greatest in 24 hours and dates						Greatest depth on ground of snow, sleet or ice and date							
Number of days						Total						Precipitation						Snow, Sleet							
Maximum Temp.						Minimum Temp.						Thunderstorms						Heavy fog X							
≥ 32°						≥ 90° †						≥ 32°						≥ 0°							
0						2						0						0							

### 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																			.01	1.87	.04	T			3
4																									4
5																									5
6																									6
7																									7
8																									8
9																			.04	.01		.01	.01		9
10																									10
11																									11
12																									12
13																									13
14																									14
15																									15
16																									16
17																								.01	17
18	.09	.02	.01		T	T																			18
19	T	.04	.07	.05	.06	.09	.09	.12	.08	.05	.03	.02	.06	.03	.06	.03	.01	T	T	T	T	T	T	T	19
20	T																								20
21	T																								21
22																									22
23																									23
24						T	T				.04	.04	.06	.01	.07	.06	.03	.02	.01	.10	.26	.04	.02	.01	24
25	T					T	T																		25
26																									26
27																									27
28																									28
29																									29
30																									30

\* 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 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.

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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 L. Haggard*

Director, National Weather Records Center

### SUMMARY BY HOURS

Hour (Local time)	AVERAGES										Resultant wind	
	Sky cover (in tenths)	Station pressure (in.)	Dry bulb (°F)	Wet bulb (°F)	Rel. hum. (%)	Dew point (°F)	Wind speed (m.p.h.)	Direction	Speed (m.p.h.)	Direction		
01	4	29.92	62	61	94	60	4.0	11	.5			
04	4	29.91	60	59	96	59	3.5	02	2.6			
07	6	29.94	61	60	94	60	4.6	01	2.1			
10	6	29.96	72	66	73	63	6.9	03	2.4			
13	7	29.92	76	67	62	62	7.5	08	.7			
16	7	29.89	76	67	62	61	7.7	13	1.1			

