



# LOCAL CLIMATOLOGICAL DATA

U.S. DEPARTMENT OF COMMERCE  
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ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION  
ENVIRONMENTAL DATA SERVICE

RICHMOND, VIRGINIA  
BYRD FIELD  
OCTOBER 1969

Latitude 37° 30' N		Longitude 77° 20' W		Elevation (ground) 164 ft.		Standard time used: EASTERN																	
Date	Temperature (°F)					Weather types shown by code		Snow, Sleet, or Ice on ground at 07AM		Precipitation		Avg. station pressure (In.) Elev. feet m.s.l.		Wind			Sunshine		Sky cover (Tenths)		Date		
	Maximum	Minimum	Average	Departure from normal	Average dew point	Degree days (Base 65°)		Snow, Sleet, or Ice on ground at 07AM		Water equivalent (In.)	Snow, sleet (In.)	Resultant direction	Resultant speed (m.p.h.)	Average speed (m.p.h.)	Speed (m.p.h.)	Direction	Hours and tenths	Percent of possible	Surprise to sunrise	Midnight to midnight			
	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
1	77	50	64	-1	57	1	0	1	8	0	0	29.90	09	4.3	5.0	12	SE	4.1	35	7	8	1	
2	74	66	70	6	70	0	0	1	8	0	1.54	0	29.73	14	8.8	9.4	17	SE	0.0	0	10	2	
3	83*	63	73	9	67	0	0	8	1	8	0	29.74	32	4.1	7.3	14	N	4.6	39	6	6	3	
4	76	58	67	4	59	0	0	2	1	0	0	29.89	01	7.8	8.3	14	N	10.7	91	2	1	4	
5	66	54	60	-3	54	5	0	0	0	0	0	30.10	05	6.4	6.6	13	E	0.1	1	10	8	5	
6	70	55	63	1	54	2	0	0	0	0	0	30.06	35	6	3.2	6	NE	1.2	10	10	9	6	
7	79	55	67	5	61	0	0	2	1	8	0	29.98	18	6.2	6.5	17	S	0.6	5	10	9	7	
8	68	60	64	3	65	1	0	2	2	8	0	29.91	19	2.8	3.7	7	S	0.6	5	10	10	8	
9	77	50	64	3	55	1	0	2	2	8	0	30.00	05	4.3	5.0	8	NE	8.5	74	2	3	9	
10	75	45	60	-1	51	5	0	1	8	0	0	29.97	07	3.3	4.2	9	NE	11.2	97	0	0	10	
11	76	51	64	4	57	1	0	2	2	8	0	29.94	36	3.9	4.9	7	N	5.3	46	5	4	11	
12	80	53	67	7	58	0	0	2	2	8	0	29.92	02	6.8	7.2	12	N	7.6	67	4	3	12	
13	79	58	69	9	65	0	0	1	1	8	0	29.83	03	4.5	5.5	8	NE	0.1	0	10	10	13	
14	78	58	68	9	61	0	0	3	3	8	0	29.71	36	5.2	6.3	17	N	0.0	0	10	10	14	
15	65	44	55	-4	40	10	0	0	0	0	0	29.93	02	9.5	9.8	18	N	8.6	76	1	2	15	
16	73	45	58	-1	49	7	0	0	0	0	0	29.83	23	3.5	5.5	12	SW	5.0	44	6	4	16	
17	71	38	55	-3	44	10	0	1	8	0	0	29.80	32	4.6	5.3	17	NW	8.8	79	5	4	17	
18	65	33	49	-9	36	16	0	1	8	0	0	30.13	21	2.0	3.7	9	SW	11.2	100	0	0	18	
19	76	39	58	0	45	7	0	0	0	0	0	30.09	20	5.1	6.0	11	SW	11.1	100	0	2	19	
20	80	50	65	8	62	0	0	1	8	0	T	29.83	22	9.2	9.5	19	SW	4.6	42	5	4	20	
21	75	47	61	4	51	4	0	0	0	0	0	29.62	28	7.3	9.2	20	NW	10.1	92	2	3	21	
22	73	43	58	1	37	7	0	0	0	0	0	29.65	31	6.4	9.6	18	NW	9.3	84	2	2	22	
23	52	33	43	-13	23	22	0	0	0	0	0	30.19	01	9.6	9.8	18	NE	10.4	95	4	2	23	
24	54	27*	41	-15	25	24	0	0	0	0	0	30.41	05	1.6	5.0	7	NE	10.9	100	1	2	24	
25	61	31	46	-9	37	19	0	1	8	0	T	30.21	20	2.6	4.3	10	SW	0.3	2	9	8	25	
26	60	51	56	1	53	9	0	2	8	0	.04	30.05	18	3.5	3.9	7	S	0.0	0	10	9	26	
27	72	49	61	6	51	4	0	2	8	0	.05	29.91	35	2.7	5.2	17	NE	0.5	5	10	10	27	
28	57	37	47	-7	33	18	0	0	0	0	T	30.11	02	10.5	10.6	18	N	9.6	89	1	3	28	
29	56	32	44	-10	31	21	0	0	0	0	0	30.32	04	6.1	6.6	11	NE	10.7	100	2	2	29	
30	63	31	47	-7	36	18	0	0	0	0	0	30.27	04	5.7	6.8	10	E	10.7	100	0	2	30	
31	71	40	56	2	48	9	0	1	8	0	0	30.15	07	6.7	7.5	15	SE	5.7	54	7	6	31	
Sum	2182	1444				221	26	Number of days		1.88	0	For the month:		1.9	6.5	20	NW	182.1		161	154		
Avg.	70.4	46.6	58.5	-0.2	50			Precipitation		Dep.	-1.12	Date:		21	Possible month			348.0	52	5.2	5.0		
Season to date						Total		Snow, sleet		Greatest in 24 hours and dates		Greatest depth on ground of snow, sleet or ice and date											
Number of days						Total		≥ 1.0 inch		Precipitation		Snow, Sleet											
Maximum Temp.						266		Thunderstorms		0													
≥ 32°						0		Heavy fog		X		7		1.54		2		0					
≤ 90° †						4																	
< 32°						0																	
≤ 0°						16																	

### 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					T	.10	.10	.01	.01	T	T	.12	.33	.02	.18	.62	.05	T		T	T				2
3																									3
4																									4
5																									5
6																									6
7																									7
8					T	.01		T	.02	.03	.02	.03	.03	.03	.04	.03	.01								8
9																									9
10																									10
11																									11
12																									12
13							T	T									T	T	T	T					13
14																									14
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24																									24
25																	T	T							25
26																									26
27			.03	.02				T	.02	.01		T	.01												27
28					T																				28
29																									29
30																									30
31																									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 ¼ 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.

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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	5	29.97	52	51	90	49	5.4	02	1.2		
04	6	29.96	51	50	91	49	5.4	36	1.9		
07	6	29.99	51	50	91	49	5.6	35	2.5		
10	5	30.01	62	56	69	50	7.9	01	2.4		
13	5	29.97	68	58	55	50	8.2	02	2.3		
16	4	29.94	68	58	54	49	8.5	04	1.5		
19	4	29.97	58	54	79						

