



LOCAL CLIMATOLOGICAL DATA

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

RICHMOND, VIRGINIA
BYRD FIELD
SEPTEMBER 1971

Latitude 37° 30' N Longitude 77° 20' W Elevation (ground) 164 ft. Standard time used: EASTERN WBAN #13740

Date	Temperature °F							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 Tenths		Date		
	Maximum	Minimum	Average	Departure from normal	Average dew point	Degree days Base 65°				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	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
1	80	64	72	-2	67	0	7	1	8	0	0	0	30.02	08	6.0	6.3	10	E	3.0	23	9	8	1
2	79	62	71	-3	65	0	6	1	0	0	0	0	30.10	10	3.9	5.5	9	E	9.8	75	5	5	2
3	83	63	73	-1	65	0	8	1	0	0	0	0	30.06	15	3.0	4.2	10	SW	10.5	81	5	5	3
4	86	62	74	0	67	0	9	1	8	0	0	0	30.02	17	4.1	4.9	9	S	9.7	75	4	3	4
5	89	66	78	4	70	0	13	1 3	0	0	0	0	29.96	18	4.9	6.5	8	S	12.1	94	4	4	5
6	87	66	77	3	69	0	12	1	8	0	0	0	29.95	13	4.9	5.8	13	SE	8.5	67	3	4	6
7	86	62	74	1	67	0	9	2	0	0	0	0	29.94	13	3.0	3.5	10	SE	7.1	55	6	4	7
8	89*	67	78	5	70	0	13	2	8	0	T	0	29.88	13	2.9	3.9	9	SE	6.5	51	6	6	8
9	87	64	76	3	68	0	11	2	8	0	0	0	29.80	09	4.7	5.5	10	SE	10.8	85	7	6	9
10	85	65	75	2	71	0	10	1	8	0	T	0	29.75	06	5.7	6.2	12	NE	7.7	61	7	6	10
11	86	72	79*	2	73	0	14	1 3	0	0	0	0	29.64	16	4.6	5.9	17	SE	4.2	33	9	9	11
12	81	68	75	3	71	0	10	1 3	0	0	.88	0	29.56	14	3.3	6.5	10	E	0.0	0	10	10	12
13	77	60	69	-3	63	0	4	2	8	0	0	0	29.44	22	5.9	7.3	16	W	6.0	48	7	7	13
14	80	61	71	0	61	0	6	1	8	0	0	0	29.43	27	6.1	7.5	14	NW	5.1	41	8	6	14
15	83	59	71	0	63	0	6	1	8	0	0	0	29.68	23	3.3	4.5	8	SW	12.3	99	1	1	15
16	85	61	73	2	66	0	8	1	8	0	0	0	29.85	14	3.8	4.9	9	SW	9.2	74	6	6	16
17	86	68	77	7	66	0	12	1	8	0	0	0	29.90	30	1.5	5.9	13	W	9.8	79	6	7	17
18	80	68	74	4	67	0	9	2	8	0	0	0	29.95	36	4.8	5.3	9	N	2.3	18	9	9	18
19	82	66	74	4	69	0	9	2	8	0	0	0	29.96	09	5.0	6.8	13	SE	3.9	31	9	7	19
20	84	63	74	5	68	0	9	1	8	0	0	0	29.92	17	5.0	5.5	11	SW	6.8	56	6	4	20
21	74	62	68	-1	62	0	3	1	8	0	.33	0	30.01	36	4.4	7.3	17	NE	0.0	0	10	9	21
22	67	61	64	-4	58	1	0	0	8	0	.01	0	30.11	01	6.3	6.5	10	N	0.0	0	10	10	22
23	76	61	69	-1	62	0	4	0	8	0	0	0	30.07	30	3.0	5.2	8	S	1.1	9	10	10	23
24	76	52	64	-1	58	1	0	1	8	0	0	0	30.06	01	7.0	8.1	19	N	10.0	82	2	3	24
25	72	48*	60*	-7	48	5	0	0	8	0	0	0	30.12	04	4.3	5.8	12	NE	11.7	97	4	3	25
26	72	50	61	-6	55	4	0	1	8	0	T	0	29.98	12	2.7	3.5	8	E	3.0	25	8	7	26
27	79	60	70	3	62	0	5	1	8	0	0	0	30.00	07	2.2	4.0	8	E	4.5	37	7	7	27
28	80	57	69	3	61	0	4	1	8	0	0	0	30.06	06	3.8	5.2	10	NE	11.1	93	2	2	28
29	78	62	70	4	63	0	5	1	8	0	0	0	30.00	03	7.0	7.3	13	NE	5.6	47	9	7	29
30	71	64	68	3	65	0	3	1	0	0	.45	0	29.77	02	12.8	13.2	21	NE	0.0	0	10	10	30
Sum	Sum	Sum	Sum	Total	Total	Total	Total	Total	Total	Total	Total	Total	For the month:				Total	%	Sum	Sum			
2420	1864			11	209			2.35		0	29.90	08	1.6	5.9	21	NE	192.3		for	199	185		
Avg.	Avg.	Avg.	Dep.	Avg.	Dep.			Precipitation			Dep.					Date:	30	Possible month	Avg.	Avg.			
80.7	62.1	71.4	1.2	65	-25			5	-1.30								372.7	52	6.6	6.2			
Season to date											Snow, ice pellets		Greatest in 24 hours and dates		Greatest depth on ground of snow, ice pellets or ice and date								
Number of days											Snow, ice pellets ≥ 1.0 inch		Precipitation		Snow, ice pellets								
Maximum Temp. Minimum Temp.											Thunderstorms		Precipitation		Snow, ice pellets								
≥ 90° † ≥ 32° ≤ 32° ≤ 0°											Heavy fog X		5 1.56 11-12		0								
0 0 0 0											Clear 4		Partly cloudy 14		Cloudy 12								

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
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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.
† ≥ 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. 00 = 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	Local time	AVERAGES						Resultant wind	
		Sky cover tenths	Station pressure In.	Temperature			Relative humidity %	Wind speed m.p.h.	Direction
				Air °F	Wet bulb °F	Dew Pt. °F			
01	6	29.90	65	64	64	94	4.7	09	.8
04	6	29.89	65	64	63	95	4.2	01	.7
07	7	29.92	65	64	64	95	5.1	04	1.9
10	6	29.93	74	68	66	76	7.0	04	1.5
13	8	29.90	78	70	66	66	7.6	09	2.0
16	7	29.87	78	70	65	66	7.9	09	2.0
19	5	29.88	70	67	65	84	5.9	09	3.0
22	5	29.90	67	65	65	92	5.1	09	1.8

OBSERVATIONS AT 3-HOUR INTERVALS

HOUR	SKY COVER				WEATHER	TEMPERATURE				WIND				SKY COVER	TEMPERATURE				WIND											
	Fenn	Clouds	Whole Miles	Visibility		Air	Wet Bulb	Dew Pt.	Rel. Hum.	Dir	Speed	Force	Air		Wet Bulb	Dew Pt.	Rel. Hum.	Dir	Speed	Force										
01	10	10	9	2	DAY 01	69	68	67	93	09	6	3	UNL	10	64	62	61	90	05	2	8	250	12	DAY 03	64	63	62	93	00	0
04	10	13	2	8	PH	69	68	67	93	11	2	10	60	10	62	61	60	93	13	2	10	120	12	GF	65	64	63	93	00	0
07	10	23	2	8	PH	69	68	67	93	05	6	1	UNL	10	64	63	62	93	34	6	10	120	3	GF	66	65	65	97	33	0
10	10	25	2	8	H	73	69	67	82	06	6	1	UNL	12	74	67	63	69	12	6	7	120	8	GF	77	71	68	74	18	5
13	9	30	2	8	H	78	71	68	71	11	6	8	250	10	79	70	66	65	11	5	4	UNL	10	81	71	66	60	13	7	
16	8	28	2	8	H	77	71	68	74	09	7	7	UNL	8	78	70	65	64	12	7	3	UNL	10	82	71	65	56	18	4	
19	8	250	2	8	H	72	68	66	80	07	6	8	250	10	75	67	63	69	11	7	6	UNL	12	70	67	65	79	11	3	
22	9	250	10	10	H	66	64	63	90	09	4	3	UNL	12	63	63	63	100	11	4	0	UNL	12	67	66	66	97	13	5	

NOTES

UNL indicates an unlimited ceiling.

WEATHER COLUMN—

- T Tornado
- Q Thunderstorm
- S Squall
- R 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
- H 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 28801.

STATION: RICHMOND VA YEAR & MONTH: 71 09

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