



LOCAL CLIMATOLOGICAL DATA

U. S. DEPARTMENT OF COMMERCE - MAURICE H. STANS, Secretary

RICHMOND, VIRGINIA

BYRD FIELD
JULY 1969

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 123 456 789 Fog X Fog Thunderstorm Sleet Hail Glaze Duststorm Smoke, haze Snowing Blowing (In.)	Snow, Sleet, or Ice on ground at 07AM (In.)	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	Heating	Cooling			Water equivalent (In.)	Snow, sleet (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	97*	73	85	7	72	0	20	1 3	8	0	.23	0	29.89	24	4.9	7.6	24	N	8.9	60	6	6	1
2	87	69	78	0	68	0	13	1	8	0	0	0	29.89	13	2.3	4.9	8	SE	6.1	41	7	7	2
3	87	67	77	-1	69	0	12	1 3	8	0	2.07	0	29.78	17	2.7	4.9	23	NE	5.8	39	8	8	3
4	86	66	76	-2	67	0	11	1	8	0	0	0	29.87	17	2.6	5.6	23	S	12.3	83	3	3	4
5	93	73	83	5	73	0	18	1	8	0	0	0	29.80	22	7.8	9.4	14	SW	3.2	22	9	8	5
6	93	71	82	4	72	0	17	1 3	5	8	1.77	0	29.84	07	3.6	6.0	27	NW	8.3	56	7	7	6
7	86	68	77	-1	71	0	12	2	8	0	.02	0	29.87	02	3.0	4.9	11	N	6.9	47	9	9	7
8	75	66	71	-7	67	0	6	1	8	0	.04	0	29.93	02	7.9	8.3	15	N	0.0	0	10	9	8
9	77	66	72	-6	64	0	7	1	8	0	T	0	29.95	08	3.4	5.3	9	SE	3.7	25	9	9	9
10	74	65	70	-8	67	0	5	1	8	0	.18	0	29.86	15	5.1	5.5	11	SE	0.0	0	10	10	10
11	84	72	78	-1	72	0	13	1	8	0	0	0	29.74	03	2.6	5.2	8	NE	3.9	26	10	10	11
12	89	68	79	0	71	0	14	1 3	8	0	.28	0	29.59	31	3.7	6.8	26	NE	6.8	46	7	8	12
13	86	66	76	-3	65	0	11	1	8	0	0	0	29.64	34	6.5	7.2	11	N	14.2	97	2	2	13
14	86	67	77	-2	65	0	12	1	8	0	0	0	29.82	01	5.9	7.6	11	N	13.7	94	3	2	14
15	90	64*	77	-2	66	0	12	1	8	0	0	0	29.95	25	1.9	5.3	7	N	13.3	92	6	5	15
16	90	67	79	0	68	0	14	1	8	0	0	0	30.01	20	6.2	7.1	10	S	13.5	93	2	2	16
17	94	68	81	2	70	0	16	1	8	0	0	0	29.96	21	6.0	6.3	9	SW	13.6	94	2	2	17
18	96	73	85	6	72	0	20	1	8	0	0	0	29.90	22	5.3	5.8	9	SW	11.3	78	7	7	18
19	96	73	85	7	73	0	20	1 3	8	0	0	0	29.88	21	.6	4.6	12	NE	9.2	63	7	6	19
20	94	71	83	5	73	0	18	1 3	8	0	1.40	0	29.83	20	2.8	4.8	31	SW	7.8	54	7	6	20
21	90	71	81	3	72	0	16	1 3	8	0	.93	0	29.83	19	1.8	6.2	15	SW	3.3	23	9	8	21
22	88	71	80	2	73	0	15	1 3	8	0	4.90	0	29.82	14	2.8	5.9	18	N	6.4	45	8	9	22
23	86	72	79	1	73	0	14	1 3	8	0	.93	0	29.72	13	.7	6.5	11	NE	2.8	20	10	10	23
24	76	69	73	-5	68	0	8	1	8	0	.01	0	29.73	03	4.2	5.8	9	NE	0.0	0	10	10	24
25	83	70	77	-1	70	0	12	1	8	0	0	0	29.71	15	4.9	5.5	9	S	4.5	31	8	8	25
26	89	69	79	1	71	0	14	1	8	0	0	0	29.69	17	3.6	5.3	7	SE	9.9	70	7	6	26
27	89	71	80	2	73	0	15	1 3	8	0	.35	0	29.67	17	6.9	7.2	17	SW	3.9	28	8	6	27
28	89	71	80	2	74	0	15	1 3	8	0	.76	0	29.63	20	5.9	8.5	20	NW	3.2	23	9	10	28
29	81	71	76	-2	71	0	11	1	8	0	T	0	29.71	19	3.2	3.9	4	S	0.3	2	10	9	29
30	86	69	78	0	70	0	13	1	8	0	.03	0	29.81	25	1.4	3.6	7	NW	8.4	59	6	6	30
31	88	68	78	0	69	0	13	1	8	0	0	0	29.88	15	2.1	4.0	7	SE	10.0	71	4	4	31
Sum		Sum		Total		Total		Number of days		Total		Total		For the month:			Total		% Sum		Sum		
2705		2145		0		417		13.90		0		29.81		19 1.1 6.0 31 SW			215.2		for 220 213				
Avg.		Avg.		Avg.		Avg.		Dep.		Dep.		Dep.		Date: 20			Possible month		Avg.		Avg.		
87.3		69.2		78.3		0.2		0		0		8.29					448.3		48		7.1 6.9		
Season to date		Season to date		Snow, sleet		Snow, sleet		Greatest in 24 hours and dates		Greatest depth on ground of snow, sleet or ice and date		Greatest depth on ground of snow, sleet or ice and date		Greatest depth on ground of snow, sleet or ice and date		Greatest depth on ground of snow, sleet or ice and date		Greatest depth on ground of snow, sleet or ice and date		Greatest depth on ground of snow, sleet or ice and date			
Maximum Temp.		Minimum Temp.		Total		Total		Precipitation		Snow, Sleet		Precipitation		Snow, Sleet		Precipitation		Snow, Sleet		Precipitation			
≥ 32°		≥ 90°		≥ 32°		≥ 90°		Dep.		Dep.		Heavy fog X		X		5.73		22-23		0			
0		10		0		0		0		0		0		0		0		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																	.19	.02	.02	T	T				1	
2																			.84	1.23					2	
3																									3	
4																									4	
5																									5	
6																									6	
7																		.02	.12	1.53	.06	.05	.01		7	
8																									8	
9						.01	T	T	.01	.02	T	T	T	T	T										9	
10				.07	.03	.03	.02	T	T														T	.01	.02	10
11																										11
12																			.08	.20	T					12
13																										13
14																										14
15																										15
16																										16
17																										17
18																										18
19																										19
20																	.10	T	1.13	.10	.03	.04	.01	.02	20	
21																	.86	.01		T	.02	.03	.01	.02	21	
22																			.03	T	.01	.44	.06	.04	.88	22
23	.28	.32	.03	T	T	T	T	T								.19	.01								23	
24	T	.01	T	.02																					24	
25																									25	
26																									26	
27																									27	
28																	.05	.23	T	.02	.10				28	
29																	.59	.04	.01	T	.05	T	.01	.01	29	
30	T	.01	T	.02																					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.

X Also on an earlier date, or dates.

T Heavy fog restricts visibility to 1/4 mile or less.

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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William J. Fitzgerald

Director, National Weather Records Center

SUMMARY BY HOURS

Hour (Local time)	AVERAGES										Resultant wind	
	Stn. press. (In. tenths)	Dry bulb (°F)	Wet bulb (°F)	Rel. hum. (%)	Dew point (°F)	Wind speed (m.p.h.)	Direction	Speed (m.p.h.)				
01	6	29.81	72	70								

