



LOCAL CLIMATOLOGICAL DATA

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

RICHMOND, VIRGINIA
BYRD FIELD
JULY 1972

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 Water equivalent In.	Snow, ice pellets In.	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	Heating	Cooling	Resultant direction						Resultant speed m.p.h.	Average speed m.p.h.	Speed m.p.h.	Direction	Hours and tenths	Percent of possible	Sunrise to sunset	
1	89	65	77	-1	65	0	12	1	8	0	0	29.68	24	5.5	6.3	13	10.7	73	3	3	1
2	92	67	80	2	69	0	15	1	8	0	0	29.79	20	4.6	4.8	12	12.5	85	4	4	2
3	91	71	81	3	70	0	16	1	8	0	0	29.78	24	6.8	7.6	23	11.2	76	4	4	3
4	83	70	77	-1	63	0	12	1	8	0	0	29.92	03	6.8	8.1	14	11.9	81	4	4	4
5	70	62	66*	-12	64	0	1	1	8	2.14	0	29.84	05	7.5	10.1	17	0.0	0	10	10	5
6	74	61	68	-10	60	0	3	1	8	0	0	29.97	06	4.8	6.6	11	7.9	54	8	8	6
7	77	57	67	-11	59	0	2	2	8	0	0	30.03	04	1.9	4.5	9	8.7	59	6	7	7
8	82	55*	69	-9	59	0	4	4	8	0	0	30.05	18	3.4	4.5	11	14.2	97	2	2	8
9	86	60	73	-5	64	0	8	8	8	0	0	30.05	18	5.3	5.8	10	10.5	72	9	6	9
10	86	63	75	-3	63	0	10	10	8	0	0	30.08	17	4.8	5.3	11	10.4	71	3	3	10
11	87	62	75	-4	68	0	10	2	8	0	0	30.09	14	5.6	5.8	10	7.9	54	8	8	11
12	76	72	74	-5	72	0	9	1	8	1.64	0	29.97	10	6.9	7.8	14	0.8	5	10	10	12
13	86	72	79	0	73	0	14	1	8	.11	0	29.77	23	2.1	5.2	9	7.1	49	8	7	13
14	91	70	81	2	72	0	16	1	8	0	0	29.80	19	5.1	5.8	14	14.4	99	2	2	14
15	90	70	80	1	70	0	15	1	8	0	0	29.85	20	9.4	9.5	17	13.9	96	2	2	15
16	90	73	82	3	72	0	17	3	8	.01	0	29.88	22	8.1	8.3	20	12.1	84	4	5	16
17	90	72	81	2	72	0	16	1	8	0	0	29.94	21	5.0	5.6	10	9.3	64	8	7	17
18	91	71	81	2	74	0	16	1	8	0	0	29.99	20	3.8	4.2	13	10.7	74	9	4	18
19	90	73	82	4	74	0	17	1	8	0	0	30.01	21	5.1	5.3	7	9.7	68	6	5	19
20	94	72	83	5	75	0	18	1	8	0	0	29.99	29	3.3	3.5	9	12.1	84	4	4	20
21	94	76	85	7	76	0	20	1	8	0	0	29.94	33	2.4	3.3	10	12.4	86	4	5	21
22	94	77	86*	8	74	0	21	1	8	0	0	29.86	35	4.7	6.3	10	12.7	89	3	3	22
23	95*	73	84	6	75	0	19	1	8	0	0	29.77	25	1.8	4.2	8	8.2	57	6	5	23
24	94	71	83	5	72	0	18	1	8	0	0	29.70	30	5.6	5.6	11	14.3	100	4	3	24
25	91	75	83	5	73	0	18	1	8	0	0	29.66	36	.6	4.5	14	8.5	60	7	6	25
26	88	69	79	1	66	0	14	1	8	0	0	29.80	03	4.1	5.2	11	13.7	96	4	4	26
27	82	72	77	-1	72	0	12	1	8	0	0	29.79	36	2.5	5.0	9	2.1	14	9	9	27
28	81	71	76	-2	71	0	11	1	8	.07	0	29.77	04	5.5	6.0	9	3.6	25	10	10	28
29	72	63	68	-10	66	0	3	1	8	1.15	0	29.78	04	6.5	6.8	12	0.0	0	10	10	29
30	70	63	67	-11	65	0	2	1	3	.56	0	29.87	03	3.9	4.3	8	0.0	0	10	10	30
31	86	67	77	-1	69	0	12	1	3	.08	0	29.96	23	3.9	6.2	26	6.7	48	9	9	31
Sum	2662	2115					Total	Total				Total	Total	5.80	Total	26	Total	%	Sum	Sum	
Avg.	85.9	68.2	77.1	-1.0	69	0								0.19		31		Possible	Avg.	Avg.	
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												≥ 1.0 inch		Precipitation		Snow, ice pellets					
Maximum Temp. Minimum Temp.												Thunderstorms		Precipitation		Snow, ice pellets					
≤ 80° F ≥ 32°												Heavy fog X		2.14		5					
0 0												Clear 6		Partly cloudy 13		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	T	T	.01	.36	.42	.39	.39	.12	.09	.10	.15	.08	T	T	.01	.02	T	T	T			T	T		5		
6																										6	
7																										7	
8																										8	
9																										9	
10																										10	
11																										11	
12		T	T	T	.13	.01	.03	.25	.09	.19	.04	.02	T	T	.34	.13	.28	.05	T	T	.01	.02	.02	.03	12		
13	.04	.05	.01	T	.01	T	.03	.25	.09	.19	.04	.02	T	T	.34	.13	.28	.05	T	T	.01	.02	.02	.03	13		
14																										14	
15																										15	
16																										16	
17																										17	
18																										18	
19																										19	
20																										20	
21																										21	
22																										22	
23																										23	
24																										24	
25																										25	
26																										26	
27																										27	
28	.02	T																								28	
29	.15	.21	.01	T	T	T	T	.01	T	.01	.02	T	.19	.18	.49	.04	T	.03	T	T	T	.05	.01	.01	.03	29	
30	.15	.21	.01	T	T	T	T	.01	T	.01	.02	T	.19	.18	.49	.04	T	.03	T	T	T	.05	.01	.01	.03	30	
31	.07	.01																								.13	31

* Extreme temperatures for the month. May be the last of more than one occurrence.
- Below zero temperature or negative departure from normal.
‡ W/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.

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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	Sky cover	Station pressure	AVERAGES				Resultant wind		
			Temperature			Wind speed	Direction		
			Air °F	Wet bulb °F	Dew Pt. °F				
01	5	29.87	71	69	68	89	4.8	12	.4
04	5	29.87	70	68	67	92	4.5	32	.5
07	6	29.90	72	69	68	88	5.8	27	.2
10	5	29.91	79	73	69	73	6.7	20	.2
13	6	29.89	84	74	70	64	7.5	25	1.3
16	6	29.86	84	74	69	63	7.3	22	1.5
19	6	29.87	79	73	70	75	5.9	17	1.8
22	6	29.89	74	71	69	86	4.5	17	1.7

OBSERVATIONS AT 3-HOUR INTERVALS

HOUR	SKY COVER	CEILING Hk. of ft.	VISI- BILITY	WEATHER	TEMPERATURE			WIND			VISI- BILITY	WEATHER	TEMPERATURE			WIND			VISI- BILITY	WEATHER	TEMPERATURE			WIND													
					AIR	WET BULB	DEW PT.	REL. HUM.	DIR.	SPEED Knots			AIR	WET BULB	DEW PT.	REL. HUM.	DIR.	SPEED Knots			AIR	WET BULB	DEW PT.	REL. HUM.	DIR.	SPEED Knots	AIR	WET BULB	DEW PT.	REL. HUM.	DIR.	SPEED Knots					
DAY 01																																					
01	5	UNL	5	H	66	63	62	87	25	4	0	UNL	7	DAY 02	71	68	67	87	20	4	9	100	7	DAY 03	73	71	70	90	20	3							
04	0	UNL	4	H	66	65	64	93	27	4	0	UNL	7	0	UNL	7	67	66	65	93	19	4	7	100	7	0	UNL	7	73	70	69	87	20	6			
07	0	UNL	4	H	69	65	63	81	27	5	7	UNL	5	H	75	71	69	82	00	0	8	UNL	5	H	75	70	68	79	23	5							
10	0	UNL	4	H	80	70	64	58	28	7	0	UNL	6	H	86	74	69	37	00	0	0	UNL	6	H	85	76	72	65	22	8							
13	1	UNL	6	H	86	71	64	48	28	8	5	UNL	7	0	UNL	7	90	76	70	32	21	7	0	250	8	6	250	8	91	78	72	54	24	12			
16	3	UNL	6	H	87	72	65	48	27	8	6	UNL	7	0	UNL	7	91	75	68	47	22	8	4	UNL	7	8	4	UNL	7	85	76	72	65	23	6		
19	7	UNL	6	H	69	78	65	87	20	5	7	UNL	7	0	UNL	7	74	71	69	19	5	2	UNL	12	0	UNL	12	0	UNL	12	77	71	68	74	28	7	
22	4	UNL	6	H	72	69	68	87	19	3	9	250	7	0	UNL	7	76	73	71	85	19	5	1	UNL	12	0	UNL	12	0	UNL	12	77	71	68	74	28	7
DAY 04																																					
01	5	UNL	10	H	74	69	67	79	35	6	10	35	7	DAY 05	70	66	64	81	11	6	10	7	4	DAY 06	62	61	61	97	01	6							
04	0	UNL	8	H	71	66	63	76	36	9	10	35	4	0	UNL	8	68	67	67	97	11	11	10	6	3	F	F	62	61	61	97	01	7				
07	0	UNL	3	H	72	66	63	73	02	10	10	3	1	RF	65	64	64	97	09	12	10	7	3	F	F	62	61	60	93	01	6						
10	6	UNL	3	H	77	68	63	62	04	10	10	4	1	RF	66	64	64	97	04	10	3	4	0	F	F	67	62	59	76	10	6						
13	4	UNL	3	H	81	68	61	51	34	5	10	10	10	F	64	63	62	93	11	10	9	70	10	7	10	10	7	72	64	59	64	07	6				
16	3	UNL	10	H	83	67	58	43	06	5	10	6	1	RF	64	63	63	97	01	7	7	70	12	7	70	12	7	74	65	60	62	08	5				
19	4	UNL	10	H	76	67	62	62	05	7	10	10	3	F	64	64	64	100	02	8	4	UNL	7	0	UNL	7	0	UNL	7	70	64	60	71	08	4		
22	10	100	7	H	72	67	64	76	09	5	10	10	4	LF	63	62	61	93	01	6	8	250	12	0	UNL	12	0	UNL	12	62	61	60	93	14	4		
DAY 07																																					
01	7	UNL	10	H	60	59	59	97	00	0	2	UNL	7	DAY 08	59	57	56	90	00	0	0	UNL	12	0	DAY 09	63	60	58	84	13	4						
04	7	250	10	H	58	57	57	96	34	0	0	UNL	7	0	UNL	10	55	55	55	100	00	0	0	UNL	10	0	UNL	10	60	59	58	93	00	0			
07	10	70	7	H	61	60	60	97	36	5	0	UNL	7	0	UNL	7	64	60	57	78	26	3	9	70	6	H	65	64	63	93	19	6					
10	8	250	10	H	70	63	58	60	01	5	0	UNL	8	0	UNL	8	73	65	59	58	19	7	10	120	5	H	77	71	68	74	18	6					
13	9	UNL	10	H	77	64	60	50	14	3	6	4	5	H	78	67	61	56	15	6	10	250	3	H	82	71	65	56	20	6							
16	4	UNL	7	H	76	64	57	52	03	5	6	5	0	H	81	69	62	53	22	5	9	100	3	H	85	72	65	51	19	8							
19	7	80	7	H	70	64	60	71	12	6	0	UNL	7	0	UNL	7	75	69	65	71	19	5	8	UNL	3	H	76	71	68	76	15	4					
22	9	80	12	H	64	60	57	78	19	3	2	UNL	12	0	UNL	12	66	62	60	81	12	5	2	UNL	7	0	UNL	7	70	67	63	84	16	6			
DAY 10																																					
01	0	UNL	5	H	66	62	60	81	19	5	2	UNL	7	DAY 11	65	64	63	93	15	5	10	100	8	DAY 12	73	72	71	93	09	5							
04	0	UNL	7	H	63	61	60	90	00	0	3	UNL	4	GF	62	61	61	97	15	3	10	25	3	RF	72	71	71	97	04	4							
07	3	UNL	5	H	67	64	62	84	18	4	10	2	0	2	F	67	67	67	100	14	3	10	5	3	RF	73	72	72	97	06	7						
10	1	UNL	5	H	78	69	64	62	20	8	7	250	10	0	UNL	7	80	74	72	77	17	4	10	12	3	RF	73	72	72	97	11	5					
13	9	UNL	6	H	84	72	66	59	17	6	10	250	10	0	UNL	7	86	76	72	63	15	8	10	12	7	RF	76	74	73	90	13	8					
16	7	UNL	6	H	81	72	66	59	17	5	10	120	12	0	UNL	7	82	74	71	62	13	8	10	8	1	RF	73	72	71	93	00	8					
19	8	UNL	7	H	75	69	66	74	14	5	10	250	12	0	UNL	7	77	73	71	82	15	4	10	5	0	RF	73	72	71	93	10	8					
22	4	UNL	6	H	68	65	64	87	11	4	10	100	12	0	UNL	7	73	71	70	90	13	5	10	5	5	RF	73	72	71	93	12	9					
DAY 13																																					
01	10	10	4	H	74	73	73	97	14	6	0	UNL	7	DAY 14	71	70	70	97	19	4	4	UNL	5	DAY 15	73	70	69	87	18	5							
04	10	4	1	H	74	73	73	97	17	4	0	UNL	6	H	71	70	70	97	00	0	0	UNL	5	H	72	70	69	90	20	6							
07	10	5	2	H	74	73	73	97	23	4	0	UNL	5	H	75	75	75	97	22	4	3	UNL	4	H	73	71	69	84	20	8							
10	10	12	1	H	74	73	73	97	17	5	0	UNL	6	H	86	77	74	68	22	3	0	UNL	4	H	84	76	72	67	22	9							
13	8	25	8	H	81	75	73	77	32	5	4	UNL	6	H	80	78	73	57	25	5	3	UNL	7	H	89	76	71	55	20	11							
16	4	30	8	H	83	76	73	72	32	6	8	4	5	H	88	78	74	63	17	4	1	UNL	7	H	90	77	72	56	20	11							
19	4	UNL	10	H	81	75	73	77	20	4	3	UNL	4	H	80	74	71	74	18	8	3	UNL	7	H	83	75	71	67	21	10							
22	1	UNL	12	H	73	72	72	97	00	0	2	UNL	4	H	75	71	69	82	17	6	1	UNL	12	0	UNL	12	0	UNL	12	78	72	69	74	21	6		
DAY 16																																					
01	3	UNL	10	H	75	72	70	85	19	6	8	250	10	DAY 17	73	71	70	90	20	5	0	UNL	7	DAY 18	74	72	71	90	00	0							
04	3	UNL	5	H	75	72	71	87	20	5	6	120	7	0	UNL	5	73	70	69	87	22	5	0	UNL	5	GF	73	72	71	93	00	0					
07	6	UNL	5	H	76	73	71	85	20	7	9	100	6	H	74	71	70	87	21	4	4	UNL	5	GF	76	74	73	90	20	5							
10	1	UNL	7	H	85	77	74	70	22	7	7	100	6	H	82	76	74	77	19	4	4	UNL	5	H	85	78	76	75	19	5							
13	4	UNL	7	H	89	78	73	59	23	9	9	30	7	H	89	79	75	63	23	5	6	40	5	H	89	79	75	63	18	5							
16	4	UNL	7	H	90	78	73	57	23	9	8	250	7	H	89	78	73	59	23	6	6	40	6	H	90	79	75	61	18	6							
19	10	40	7	T	82	79	69	65	22	10	8	300	7	H	84	77	74	72	23	5	8	250	3	H	82	77	75	79	18	3							
22	10	150	10	H	76	74	73	90	23	5	7	300	7	H	75	72	71	87	14	5	6	UNL	8	H	78	74	73	85	25	3							
DAY 19																																					
01	2	UNL	5	H	74	73	73	97	20	6	0	UNL	7	DAY 20	74	73	73	97	00	0	10	300	5	DAY 21	79	77	76	91	00	0							
04	10	3	2	F	73	72	72	97	22	5	0	UNL	7	0	UNL	7	73	72	72	97	00	0	10	300	5	H	81	79	78	97	00	0					
07	10	4	2	F	74	73	72	94	21	5	0	UNL	4	GF	78	75	74	88	27	5	7	UNL	2	H	76	73	73	91	00	0							
10	10	9	2	F	78	75	75	88	21	5	1	UNL	3	H	88	79	75	65	31	6	0	UNL	9	H	90	80	77	66	23	2							
13	4	30	2	H	89	80	76																														