

LOCAL CLIMATOLOGICAL DATA Monthly Summary



R.E. BYRD INTERNATIONAL AP.

LATITUDE 37° 30' N LONGITUDE 77° 20' W ELEVATION (GROUND) 164 FEET TIME ZONE EASTERN 13740

AUG 1991
 RICHMOND, VA

DATE	TEMPERATURE °F						DEGREE DAYS BASE 65°F		WEATHER TYPES 1 FOG 2 HEAVY FOG 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 0700 INCHES	PRECIPITATION		AVERAGE STATION PRESSURE IN INCHES ELEV. FEET ABOVE M.S.L.	WIND (M.P.H.)				SUNSHINE		SKY COVER (TENTHS)				
	MAXIMUM	MINIMUM	AVERAGE	DEPARTURE FROM NORMAL	AVERAGE DEW POINT	HEATING (SEASON BEGINS WITH JUL)	COOLING (SEASON BEGINS WITH JAN)	WATER EQUIVALENT (INCHES)			SNOW, ICE PELLETS (INCHES)	RESULTANT DIR.		RESULTANT SPEED	PEAK GUST		FASTEST 1-MIN		MINUTES	PERCENT OF TOTAL POSSIBLE	SUNRISE TO SUNSET	MIDNIGHT TO MIDNIGHT		
															SPEED	DIRECTION	SPEED	DIRECTION						
01	88	68	78	0	71	0	13	1	8	0	0.00	0.0	29.860	20	4.3	5.5	13	S	9	23	505	60	8	7
02	94	72	83	5	72	0	18	1	8	0	0.00	0.0	29.820	21	9.0	9.4	17	S	15	22	745	88	4	5
03	95	72	84	6	74	0	19	2		0	0.00	0.0	29.730	18	4.5	5.4	15	S	9	14	679	81	4	4
04	93	72	83	5	72	0	18	1	8	0	0.00	0.0	29.690	27	6.3	7.9	22	N	14	22	586	70	8	6
05	89	67	78	0	62	0	13	1	8	0	0.00	0.0	29.860	35	5.3	7.1	18	N	12	28	740	88	1	1
06	87	66	77	-1	64	0	12			0	0.00	0.0	30.010	06	2.7	5.8	13	SE	9	07	525	63	10	9
07	81	69	75	-3	70	0	10	1	3	0	0.68	0.0	30.000	12	5.4	5.9	15	SE	12	14	447	54	9	9
08	89	69	79	1	71	0	14	1	8	0	T	0.0	29.880	13	3.8	5.3	14	SE	12	12	482	58	6	6
09	92	72	82	4	73	0	17	1	3	8	0.87	0.0	29.680	17	8.1	9.6	23	S	15	18	539	65	9	8
10	86	69	78	0	68	0	13	1	8	0	T	0.0	29.710	33	4.8	6.5	16	NW	13	34	687	83	6	6
11	88	65	77	-1	62	0	12	1		0	0.00	0.0	29.890	30	3.7	6.9	16	N	14	35	704	85	5	6
12	83	63	73	-4	66	0	8			0	T	0.0	29.925	05	1.9	4.9	12	NE	9	06	469	57	9	9
13	88	69	79	2	68	0	14	2		0	0.00	0.0	29.870	13	1.2	5.4	15	NW	9	11	529	64	8	8
14	86	68	77	0	69	0	12	1	8	0	0.04	0.0	29.830	21	3.9	5.3	16	SW	13	19	538	66	10	9
15	85	68	77	0	68	0	12	1	8	0	0.23	0.0	29.820	22	7.0	8.3	16	SW	14	21	631	77	7	7
16	90	67	79	2	67	0	14	1	8	0	0.00	0.0	29.900	15	2.2	3.8	13	SE	7	17	670	82	1	1
17	91	66	79	2	66	0	14	1	8	0	0.00	0.0	29.850	18	6.6	7.0	25	S	15	19	713	88	2	1
18	90	70	80	3	72	0	15	1	3	8	0.20	0.0	29.710	14	1.7	7.1	18	E	15	11	498	61	8	7
19	91	71	81	4	72	0	16	3	8	0	0.18	0.0	29.600	22	3.6	9.2	23	W	16	29	644	80	6	7
20	86	69	78	2	69	0	13	1	3	8	0.70	0.0	29.660	19	2.7	5.2	38	S	30	18	636	79	8	7
21	85	64	75	-1	63	0	10	1	8	0	0.00	0.0	29.820	28	2.9	5.2	18	W	9	25	718	89	4	4
22	87	63*	75	-1	63	0	10			0	0.00	0.0	29.910	03	4.2	4.9	13	N	10	02	650	81	8	8
23	89	67	78	2	66	0	13	1	8	0	0.00	0.0	29.980	16	3.6	4.6	12	S	9	16	677	85	9	8
24	87	68	78	2	69	0	13	1	8	0	0.00	0.0	30.080	05	5.1	6.5	17	NE	13	07	630	79	9	9
25	84	67	76	0	66	0	11	1	8	0	0.00	0.0	30.160	04	9.1	9.4	20	E	14	05	613	77	7	7
26	79	66	73*	-3	68	0	8	1	8	0	T	0.0	30.110	02	9.4	9.7	16	NE	14	03	463	58	10	9
27	90	71	81	6	69	0	16	2	8	0	0.01	0.0	30.045	11	5.2	6.5	16	E	10	08	627	79	7	7
28	92	68	80	5	69	0	15	1	8	0	0.00	0.0	30.030	19	4.3	5.5	14	SW	9	22	717	91	4	3
29	95	70	83	8	70	0	18	1		0	0.00	0.0	29.960	21	6.2	7.1	15	S	12	19	734	93	2	1
30	95	71	83	8	70	0	18			0	0.00	0.0	29.830	20	6.2	7.0	15	SW	13	18	707	90	3	2
31	96*	72	84*	9	70	0	19	3	8	0	0.41	0.0	29.740	26	2.5	7.7	37	N	17	36	675	86	4	5
SUM	SUM	SUM	SUM	SUM	SUM	TOTAL	TOTAL	NUMBER OF DAYS		TOTAL	TOTAL	FOR THE MONTH:				TOTAL	%	SUM	SUM					
2751	2119					0	428			3.32	0.0	29.870	18	1.2	6.6	38	S	30	18	19178	FOR	196	186	
AVG.	AVG.	AVG.	DEP.	AVG.	DEP.	DEP.	DEP.	PRECIPITATION		DEP.						DATE:20	DATE:20	POSSIBLE	MONTH	AVG.	AVG.			
88.7	68.4	78.6	1.8	68.2		0	62	≥ .01 INCH.		9	-1.69							25250	76	6.3	6.0			
NUMBER OF DAYS						SEASON TO DATE		SNOW, ICE PELLETS		GREATEST IN 24 HOURS AND DATES				GREATEST DEPTH ON GROUND OF										
						TOTAL	TOTAL	≥ 1.0 INCH.						SNOW, ICE PELLETS OR ICE AND DATE										
MAXIMUM TEMP.		MINIMUM TEMP.		DEP.		DEP.		HEAVY FOG		PRECIPITATION		SNOW, ICE PELLETS												
≥ 90°	≤ 32°	≤ 32°	≤ 0°	DEP.	DEP.	0	1555	THUNDERSTORMS		6		0.87		19-20+		0								
13	0	0	0	0	0	422		CLEAR		5		PARTLY CLOUDY		12		CLOUDY 14								

* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.
 † TRACE AMOUNT.
 + ALSO ON EARLIER DATE(S).
 HEAVY FOG: VISIBILITY 1/4 MILE OR LESS.
 BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA.

DATA IN COLS 6 AND 12-15 ARE BASED ON 21 OR MORE OBSERVATIONS AT HOURLY INTERVALS. RESULTANT WIND IS THE VECTOR SUM OF WIND SPEEDS AND DIRECTIONS DIVIDED BY THE NUMBER OF OBSERVATIONS. COLS 16 & 17: PEAK GUST - HIGHEST INSTANTANEOUS WIND SPEED. ONE OF TWO WIND SPEEDS IS GIVEN UNDER COLS 18 & 19: FASTEST MILE - HIGHEST RECORDED SPEED FOR WHICH A MILE OF WIND PASSES STATION (DIRECTION IN COMPASS POINTS). FASTEST OBSERVED ONE MINUTE WIND - HIGHEST ONE MINUTE SPEED (DIRECTION IN TENS OF DEGREES). ERRORS WILL BE CORRECTED IN SUBSEQUENT PUBLICATIONS.

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 DATA CENTER

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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE

NATIONAL CLIMATIC DATA CENTER ASHEVILLE NORTH CAROLINA

Kenneth D. Haden
 DIRECTOR
 NATIONAL CLIMATIC DATA CENTER

OBSERVATIONS AT 3-HOUR INTERVALS

AUG 1991
RICHMOND, VA 13740

HOUR L.S.T.	VISI-BILITY				TEMPERATURE				WIND		WEATHER	VISI-BILITY				TEMPERATURE				WIND																
	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	WHOLE MILES	16THS MILE	AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)		SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	WHOLE MILES	16THS MILE	AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	WHOLE MILES	16THS MILE	AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)					
AUG 19th												AUG 20th												AUG 21st												
01	10	5	8		75	74	73	94	33	8		10	120	6		72	71	70	94	17	6		0	UNL	4		F	F	67	66	66	97	20	3		
04	8	4	8		75	74	74	97	30	8		10	4	3		71	70	70	97	00	0		0	UNL	4		F	F	67	65	64	90	30	3		
07	8	7	7		75	73	72	90	28	7		10	12	2		73	71	70	90	22	6		0	UNL	6		F	F	67	65	64	90	34	4		
10	4	UNL	8		83	75	72	70	23	8		8	80	5		82	75	71	69	10	3		0	UNL	6		F	F	79	69	63	58	00	0		
13	4	UNL	8		89	75	69	52	26	9		8	100	7		86	73	67	53	24	4		5	UNL	7		H	H	83	69	61	48	28	5		
16	6	UNL	7		90	75	68	48	17	8		7	45	7		86	74	69	57	24	6		7	250	7		H	H	84	70	63	49	33	6		
19	7	250	6		81	76	74	79	14	7		4	UNL	8		73	70	68	84	11	4		7	UNL	8		H	H	79	68	62	56	20	4		
22	9	55	5		76	73	71	85	16	8		1	UNL	5		69	68	67	93	16	5		4	UNL	8		H	H	73	67	63	71	35	5		
AUG 22nd												AUG 23rd												AUG 24th												
01	8	250	7		69	65	62	79	36	6		8	120	7		70	68	67	90	13	3		7	UNL	5		H	H	71	67	65	81	14	3		
04	7	UNL	7		66	64	62	87	01	6		2	UNL	3		68	67	66	93	13	3		10	70	6		H	H	71	68	67	87	36	3		
07	10	UNL	7		69	65	62	79	03	6		4	UNL	2		71	69	68	90	14	3		10	UNL	5		FH	FH	71	69	68	90	36	3		
10	10	UNL	7		79	67	60	52	01	6		10	UNL	5		84	72	66	55	17	4		10	250	6		H	H	82	73	69	65	03	8		
13	8	250	7		84	70	63	49	02	5		9	250	6		88	73	65	47	18	6		10	250	6		H	H	86	73	67	53	01	6		
16	7	250	8		84	70	62	48	16	5		9	UNL	7		87	72	64	46	16	8		9	40	7		H	H	81	74	71	72	10	10		
19	8	95	7		77	70	66	69	02	4		10	UNL	7		78	71	67	69	14	6		7	300	7		H	H	78	73	71	79	10	6		
22	5	UNL	7		74	70	67	79	00	0		10	UNL	5		73	69	67	82	00	0		10	UNL	6		H	H	73	70	69	87	04	5		
AUG 25th												AUG 26th												AUG 27th												
01	7	UNL	5		70	69	68	93	01	4		7	30	4		66	64	63	90	36	6		3	UNL	6		FH	FH	71	70	70	97	04	6		
04	6	UNL	4		69	68	67	93	03	7		4	UNL	4		67	65	64	90	02	9		10	1	0	12	FH	FH	72	71	71	97	06	3		
07	8	3	1		70	69	69	97	03	8		10	16	5		70	68	66	87	01	10		9	2	1	8	FH	FH	73	72	72	97	08	4		
10	10	15	3		77	71	68	74	04	11		10	8	5		73	70	68	84	04	9		10	21	5		H	H	83	75	72	70	14	8		
13	7	250	4		82	72	67	61	05	12		10	15	6		78	73	70	77	01	10		7	250	10		H	H	87	72	65	48	13	6		
16	5	UNL	6		83	71	65	55	06	10		10	8	6		78	74	72	82	03	12		5	UNL	10		H	H	87	74	67	52	08	9		
19	3	UNL	5		75	69	65	71	04	7		10	55	6		77	73	71	82	05	7		6	95	10		H	H	79	71	67	67	13	5		
22	3	UNL	5		69	66	64	84	03	7		10	24	6		73	71	70	90	03	5		3	UNL	8		H	H	74	71	69	85	13	4		
AUG 28th												AUG 29th												AUG 30th												
01	0	UNL	8		71	69	68	90	17	4		0	UNL	6		73	71	70	90	15	3		0	UNL	10				77	72	69	76	22	6		
04	0	UNL	4		68	67	66	93	17	3		0	UNL	5		71	70	69	93	19	4		0	UNL	10				76	71	68	76	23	6		
07	8	1	1		72	71	70	94	24	4		0	UNL	8		76	73	71	85	24	5		2	UNL	8				75	71	69	82	17	4		
10	7	120	7		85	77	73	67	22	8		0	UNL	8		87	76	71	59	21	6		3	UNL	7				88	77	72	59	25	5		
13	5	UNL	7		89	75	68	50	25	6		6	43	8		92	76	69	47	24	7		5	UNL	7				93	76	68	44	23	7		
16	3	UNL	8		91	74	66	44	21	7		4	UNL	15		94	76	67	41	23	8		4	UNL	8				94	76	68	43	18	11		
19	4	UNL	10		80	73	69	69	15	6		2	UNL	15		83	75	71	67	17	8		1	UNL	8				82	75	71	69	18	7		
22	2	UNL	8		75	72	70	85	13	5		0	UNL	15		77	73	71	82	18	4		0	UNL	7				80	74	71	74	20	8		
AUG 31st																																				
01	3	UNL	7		78	72	69	74	20	8																										
04	4	UNL	7		76	71	68	76	21	7																										
07	1	UNL	7		76	71	68	76	21	7																										
10	0	UNL	6		87	76	71	59	27	5																										
13	9	90	4		95	77	69	43	29	6																										
16	9	45	4		87	74	67	52	07	12																										
19	6	300	4		83	74	70	65	02	3																										
22	10	150	4		80	75	72	77	01	6																										

SUMMARY BY HOURS

HOUR L.S.T.	SKY COVER (TENTHS)	AVERAGES						RESULTANT WIND	
		STATION PRESSURE (INCHES)	TEMPERATURE			REL HUMIDITY %	WIND SPEED (MPH)	DIRECTION	SPEED (MPH)
			AIR TEMP OF	WET BULB OF	DEW POINT OF				
01	5	29.870	72	69	68	89	5.0	20	1.6
04	5	29.860	71	69	68	91	4.9	26	0.7
07	6	29.890	72	70	68	87	6.0	33	0.8
10	6	29.900	82	73	68	65	7.7	26	0.9
13	7	29.880	87	74	68	54	7.6	23	2.5
16	6	29.840	86	74	68	55	9.4	17	2.7
19	6	29.850	79	72	69	71	6.5	15	2.8
22	5	29.875	74	71	69	84	5.2	16	2.4

HOURLY PRECIPITATION (WATER EQUIVALENT IN INCHES)

AUG 1991
RICHMOND, VA

13740

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	
01																								01	
02																									02
03																									03
04																									04
05																									05
06																									06
07			T	0.21	0.31	0.10	0.03	0.03	T																07
08										T	T														08
09				T	0.80	0.04	T	T	0.03										T						09
10					T																				10
11																									11
12														T	T										12
13																									13
14																									14
15	0.01	T	T	T	0.01	0.13	0.08	T									T	T	0.01	0.02	0.01	T	T		15
16																									16
17																									17
18															0.18	0.02	T								18
19		T	0.01																						19
20	0.01																					0.05	0.03	0.09	20
21																									21
22																									22
23																									23
24																									24
25																									25
26																									26
27	0.01					T	T																		27
28																									28
29																									29
30																									30
31																						T		0.41	31

MAXIMUM SHORT DURATION PRECIPITATION

TIME PERIOD (MINUTES)	5	10	15	20	30	45	60	80	100	120	150	180
PRECIPITATION (INCHES)	0.28	0.55	0.64	0.66	0.67	0.76	0.80	0.83	0.84	0.84	0.84	0.84
ENDED: DATE	20	20	20	20	20	09	09	09	09	09	09	09
ENDED: TIME	1651	1651	1654	1656	1657	0509	0523	0537	0559	0559	0559	0559

THE PRECIPITATION AMOUNTS FOR THE INDICATED TIME INTERVALS MAY OCCUR AT ANY TIME DURING THE MONTH. THE TIME INDICATED IS THE ENDING TIME OF THE INTERVAL. DATE AND TIME ARE NOT ENTERED FOR TRACE AMOUNTS.

VALIDATED BY:
MATTHEW BODOSKY
DON GRISINGER

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