

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

NOV 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. 177 FEET ABOVE M.S.L.	WIND (M.P.H.)					SUNSHINE		SKY COVER (TENTHS)				
	MAXIMUM	MINIMUM	AVERAGE	DEPARTURE FROM NORMAL	AVERAGE DEN POINT	HEATING (SEASON BEGINS WITH JUL)	COOLING (SEASON BEGINS WITH JAN)			WATER EQUIVALENT (INCHES)	SNOW, ICE PELLETS (INCHES)		RESULTANT DIR.	RESULTANT SPEED	AVERAGE SPEED	PEAK GUST	DIRECTION	FASTEST 1-MIN	MINUTES	PERCENT OF TOTAL POSSIBLE	SUNRISE TO SUNSET	MIDNIGHT TO MIDNIGHT		
01	70	43	57	4	46	8	0		0	0.00	0.0	29.830	24	1.5	5.6	12	S	9	23	501	79	5	5	
02	78*	51	65	12	51	0	0	8	0	0.00	0.0	29.800	22	5.8	10.0	23	SW	16	20	467	73	6	7	
03	57	40	49	-4	34	16	0	8	0	0.00	0.0	30.020	36	2.8	6.4	15	N	12	36	383	60	9	7	
04	47	31	39	-13	24	26	0	8	0	0.00	0.0	30.080	36	10.5	10.8	23	N	17	02	189	30	10	9	
05	45	25	35	-17	14	30	0		0	0.00	0.0	30.145	35	6.2	6.5	17	W	13	36	577	92	2	1	
06	56	22	39	-13	20	26	0	8	0	0.00	0.0	30.050	18	1.5	2.6	12	E	8	22	593	94	5	3	
07	58	29	44	-8	28	21	0	8	0	0.00	0.0	29.970	36	2.4	2.9	12	N	9	34	472	75	8	7	
08	45	34	40	-11	30	25	0	1	0	0.08	0.1	30.080	35	12.5	12.7	26	N	21	34	196	31	10	9	
09	43	36	40	-11	28	25	0		0	0.03	T	30.070	36	15.3	15.5	31	N	21	01	122	20	10	9	
10	44	37	41	-10	39	24	0	1	0	0.30	0.0	29.700	36	13.4	14.0	30	N	21	01	1	0	10	10	
11	50	38	44	-6	39	21	0	1	0	T	0.0	29.710	29	7.2	8.5	16	W	13	26	101	16	10	9	
12	59	31	45	-5	35	20	0	8	0	T	0.0	29.920	26	1.4	3.8	13	NW	8	34	459	75	9	8	
13	58	35	47	-3	35	18	0	8	0	T	0.0	29.920	26	3.0	7.2	18	W	13	02	538	87	1	3	
14	66	33	50	1	36	15	0	1	0	0.00	0.0	29.990	16	3.5	4.7	14	SE	9	16	548	90	3	3	
15	74	47	61	12	41	4	0		0	0.00	0.0	29.960	19	8.6	9.2	20	S	13	22	487	80	4	6	
16	76	51	64	15	45	1	0		0	T	0.0	29.890	28	5.1	8.4	21	W	17	35	427	70	8	7	
17	54	30	42	-6	30	23	0		0	0.00	0.0	30.185	36	6.2	6.7	18	N	15	02	575	95	1	0	
18	58	26	42	-6	31	23	0	8	0	0.00	0.0	30.150	19	4.5	5.3	15	SW	13	22	457	76	8	7	
19	73	48	61	13	47	4	0		0	T	0.0	30.110	19	7.9	8.4	23	SW	16	22	439	73	8	7	
20	76	53	65	17	56	0	0	1	0	0.00	0.0	30.020	19	10.9	11.3	26	SW	18	21	470	78	5	4	
21	74	62	68*	21	64	0	3		0	T	0.0	29.900	18	11.8	12.0	22	S	17	19	68	11	10	9	
22	70	59	65	18	62	0	0	1	0	0.26	0.0	29.770	18	11.4	12.6	26	SW	18	17	77	13	10	7	
23	74	48	61	14	52	4	0		0	0.00	0.0	29.800	18	5.7	7.2	16	SE	13	23	534	89	2	3	
24	63	40	52	6	42	13	0		0	0.00	0.0	29.670	24	9.5	12.0	25	W	17	26	514	86	1	3	
25	48	29	39	-7	23	26	0		0	0.00	0.0	29.955	29	7.0	9.3	22	W	16	30	590	99	0	0	
26	43	24	34*	-12	19	31	0		0	0.00	0.0	30.220	33	5.5	5.8	18	NW	14	31	590	99	0	0	
27	49	20*	35	-10	24	30	0	8	0	0.00	0.0	30.310	18	3.9	4.6	15	S	13	17	495	84	8	6	
28	66	29	48	3	31	17	0		0	0.00	0.0	30.185	19	7.9	8.4	17	S	13	19	555	94	7	5	
29	76	40	58	13	44	7	0		0	0.00	0.0	30.090	20	9.8	10.3	23	SW	14	20	501	85	7	6	
30	76	54	65	21	59	0	0	1	0	0.00	0.0	30.050	19	11.0	11.6	33	SW	23	21	491	84	6	8	
SUM	SUM				TOTAL	TOTAL		NUMBER OF DAYS		TOTAL	TOTAL		FOR THE MONTH:					TOTAL	%	SUM	SUM			
1826	1145				458	3				0.67	0.1	29.985	24	2.0	8.5	33	SW	23	21	12417		FOR	183	168
AVG.	AVG.	AVG.	DEP.	AVG.	DEP.	DEP.		PRECIPITATION		DEP.							DATE:30	DATE:30	POSSIBLE	MONTH	AVG.	AVG.		
60.9	38.2	49.6	0.7	37.6	-25	3		4		-2.62									18316	68	6.1	5.6		
NUMBER OF DAYS					SEASON TO DATE		SNOW, ICE PELLETS		GREATEST IN 24 HOURS AND DATES					GREATEST DEPTH ON GROUND OF										
					TOTAL		≥ 1.0 INCH							SNOW, ICE PELLETS OR ICE AND DATE										
MAXIMUM TEMP.		MINIMUM TEMP.		THUNDERSTORMS		PRECIPITATION		SNOW, ICE PELLETS																
≥ 90°		≤ 32°		DEP.		DEP.		HEAVY FOG																
0		0		-55		489		CLEAR 8		PARTLY CLOUDY 8					CLOUDY 14									

* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.
 T 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



NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE

NATIONAL CLIMATIC DATA CENTER ASHEVILLE NORTH CAROLINA

Kenneth D. Walden
 DIRECTOR NATIONAL CLIMATIC DATA CENTER

OBSERVATIONS AT 3-HOUR INTERVALS

NOV 1991
RICHMOND, VA

13740

HOUR	L. S. T.	SKY COVER (TENTHS)	VISI-BILITY				TEMPERATURE				WIND				SKY COVER (TENTHS)	L. S. T.	SKY COVER (TENTHS)	VISI-BILITY				TEMPERATURE				WIND																																													
			CEILING IN HUNDREDS OF FEET	WHOLE MILES	16THS MILE	WEATHER	AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)	AIR OF	WET BULB OF				DEW POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)	CEILING IN HUNDREDS OF FEET	WHOLE MILES	16THS MILE	WEATHER	AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)																																								
NOV 1st																								NOV 2nd																								NOV 3rd																							
01	0	UNL	10			48	46	43	83	35	3	10	55	10			61	55	49	65	16	9	2	UNL	7			51	43	34	52	35	8																																						
04	0	UNL	10			47	44	41	80	32	4	10	120	8			46	55	51	72	14	7	0	UNL	7			46	40	31	56	36	6																																						
07	0	UNL	7			44	43	41	89	35	5	9	120	7			60	57	55	84	18	8	2	UNL	7			40	36	30	68	36	6																																						
10	2	UNL	12			61	53	46	58	30	4	6	60	10			69	64	60	73	21	11	8	UNL	7			49	41	31	50	03	9																																						
13	7	UNL	12			69	57	47	46	00	0	5	UNL	8			76	63	54	47	22	13	9	UNL	7			57	45	31	37	26	4																																						
16	10	200	8			68	56	45	44	23	8	5	UNL	7			75	62	53	46	25	9	10	95	7			55	45	33	44	15	5																																						
19	10	200	8			59	54	49	70	15	5	6	UNL	6			66	56	47	51	30	9	10	200	7			50	44	37	61	12	3																																						
22	10	150	8			59	54	49	70	14	7	6	UNL	6			56	50	44	64	34	6	10	200	7			44	41	38	80	15	3																																						
NOV 4th																								NOV 5th																								NOV 6th																							
01	10	120	4			46	42	38	74	36	4	0	UNL	8			31	26	16	54	36	10	0	UNL	10			25	23	18	75	00	0																																						
04	8	70	5			43	37	28	56	01	9	0	UNL	8			28	24	15	58	35	8	0	UNL	8			24	22	18	78	00	0																																						
07	10	31	5			42	35	24	49	36	14	3	UNL	8			28	24	13	53	36	11	5	UNL	7			23	22	18	81	00	7																																						
10	10	40	7			41	34	21	45	02	15	3	UNL	8			36	28	12	37	01	10	8	UNL	6			45	35	17	33	22	7																																						
13	10	37	8			42	34	21	43	02	12	1	UNL	8			42	32	11	28	29	5	5	UNL	6			55	41	18	23	24	6																																						
16	10	37	8			40	33	22	49	34	9	0	UNL	10			44	33	10	25	33	7	8	UNL	7			54	41	21	28	15	6																																						
19	10	43	8			38	32	20	48	36	8	0	UNL	10			35	29	16	46	36	3	3	UNL	7			39	33	22	51	00	0																																						
22	4	UNL	8			32	29	23	69	34	5	0	UNL	10			27	24	18	69	00	0	2	UNL	7			36	32	24	62	00	0																																						
NOV 7th																								NOV 8th																								NOV 9th																							
01	1	UNL	7			31	30	27	85	00	0	8	150	7			42	37	29	60	36	8	10	55	7			37	35	31	79	35	10																																						
04	4	UNL	6			29	28	26	89	00	0	10	150	7			43	37	28	56	36	8	7	150	8			37	33	26	65	35	12																																						
07	9	250	5			33	32	30	89	00	3	7	150	7			42	37	30	63	36	12	9	95	8			36	32	24	62	35	12																																						
10	8	250	6			49	41	31	50	33	3	10	120	8			44	37	27	51	34	14	10	41	10			40	34	25	55	01	15																																						
13	8	UNL	7			57	44	25	29	01	5	10	120	10			44	37	25	47	34	18	10	45	10			43	37	27	53	36	9																																						
16	9	250	8			55	43	26	33	06	3	10	11	2			36	35	34	93	34	12	10	27	7			42	36	27	55	36	17																																						
19	10	UNL	7			41	36	29	62	00	0	10	7	3			35	34	33	92	35	9	10	25	8			40	37	32	73	01	12																																						
22	8	UNL	7			42	37	29	60	34	4	10	31	3			35	34	33	92	34	10	10	23	8			40	36	31	70	01	15																																						
NOV 10th																								NOV 11th																								NOV 12th																							
01	10	21	6			37	35	33	86	02	14	10	3	1			43	43	42	96	33	9	10	41	12			41	39	37	86	36	6																																						
04	10	7	2			38	37	35	89	36	18	10	3	1			43	42	41	93	31	10	0	UNL	12			33	32	31	92	23	5																																						
07	10	4	2			39	38	37	93	36	12	10	8	6			43	42	41	93	30	8	5	UNL	12			36	35	33	89	29	3																																						
10	10	4	1			39	38	37	93	36	15	10	31	7			45	43	41	86	25	9	10	UNL	6			48	43	36	63	26	7																																						
13	10	4	1			41	41	40	96	34	9	10	37	8			48	44	40	74	24	10	10	UNL	7			56	46	35	45	26	5																																						
16	10	3	1			42	42	41	96	36	12	10	55	10			50	45	39	66	26	10	10	200	7			55	46	35	47	22	3																																						
19	10	4	1			43	42	41	93	34	9	6	60	15			47	42	35	63	32	6	10	150	7			49	44	38	66	11	3																																						
22	10	4	1			43	42	41	93	31	8	4	UNL	15			42	39	34	73	31	4	10	120	7			48	43	37	66	05	4																																						
NOV 13th																								NOV 14th																								NOV 15th																							
01	10	37	7			45	41	37	74	36	11	0	UNL	10			43	40	35	74	23	5	10	150	8			50	45	39	66	16	6																																						
04	10	41	7			42	40	38	86	35	5	0	UNL	10			34	33	32	92	20	3	10	150	8			50	45	40	69	19	6																																						
07	0	UNL	5			36	36	35	96	22	3	3	UNL	5			33	33	32	96	00	0	9	150	7			48	44	40	74	16	4																																						
10	0	UNL	7			49	44	38	66	24	7	5	UNL	6			53	46	37	55	24	3	4	UNL	7			62	52	42	48	17	10																																						
13	0	UNL	8			54	45	34	47	32	6	3	UNL	8			64	50	36	36	16	8	0	UNL	8			73	57	44	36	18	11																																						
16	1	UNL	10			56	46	34	44	19	7	3	UNL	10			64	52	39	40	17	7	1	UNL	8			73	58	46	38	19	10																																						
19	0	UNL	10			42	39	35	76	18	7	4	UNL	10			50	44	37	61	13	5	1	UNL	8			65	50	34	32	19	8																																						
22	0	UNL	10			42	39	35	76	20	6	6	150	10			46	42	38	74	11	4	10	150	8			65	50	35	33	20	10																																						
NOV 16th																								NOV 17th																								NOV 18th																							
01	7	150	8			60	49	37	43	24	6	0	UNL	10			48	41	32	54	01	8	3	UNL	10			30	28	25	82	00	0																																						
04	7	150	8			59	48	37	44	22	6	0	UNL	10			42	38	32	68	35	9	2	UNL	8			29	28	27	92	00	0																																						
07	8	120	8			56	49	41	57	19	5	0	UNL	10			37	34	30	76	33	6	4	UNL	8			29	28	25	85	32	3																																						
10	7	120	8			66	54	43	43	26	6	0	UNL	12			47	40	31	54	02	12	5	UNL	7			49	42	34	56	21	5																																						
13	9	130	10			74	61	51	45	28	13	0	UNL	12			52	42	29	41	35	7	10	UNL	12			57	46	34	42	21	7																																						
16	10	130	10			73	60	50	45	31	9	2	UNL	15			53	42	27	37	02	4	10	250	12			57	46	33	40	19	7																																						
19	10	UNL	10			61	55	50	67	34	7	0	UNL	15			40	35	27	60	00	0	10	250	12			49	42	33	54	19	7																																						
22	8	UNL	10			57	53	49	75	36	11	0	UNL	15			35	32	27	73	36	3	7	150	12			48	42	34	59	18	5																																						

WEATHER CODES

- | | | | |
|---|--|---|---|
| <ul style="list-style-type: none"> * TORNADO T THUNDERSTORM Q SQUALL R RAIN RW RAIN SHOWERS ZR FREEZING RAIN L DRIZZLE | <ul style="list-style-type: none"> ZL FREEZING DRIZZLE S SNOW SW SNOW SHOWERS SG SNOW GRAINS SP SNOW PELLETS IC ICE CRYSTALS IP ICE PELLETS | <ul style="list-style-type: none"> IPW ICE PELLET SHOWERS A HAIL F FOG IF ICE FOG GF GROUND FOG BD BLOWING DUST | <ul style="list-style-type: none"> BN BLOWING SAND BS BLOWING SNOW BY BLOWING SPRAY K SMOKE H HAZE D DUST |
|---|--|---|---|

CEILING: UNL INDICATES UNLIMITED
 WIND DIRECTION: DIRECTIONS ARE THOSE FROM WHICH

HOURLY PRECIPITATION (WATER EQUIVALENT IN INCHES)

NOV 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																								07	
08																								08	
09	T	T	T	T	0.01	0.05	0.06	0.04	0.06	0.02	T	T	T	T	0.01	0.02	0.01	0.02	0.02	0.02	T	T	T	09	
10	0.01	T	T	T											T	0.01	T	T	T	T	T	T	0.01	10	
11	T	T	T	T	T	T	T	T																11	
12																						T	T	12	
13	T																							13	
14																								14	
15																								15	
16		T	T	T	T	T	T																	16	
17																								17	
18																								18	
19			T												T	T								19	
20																								20	
21																								21	
22	T	T						0.03	0.04	0.07	0.06	0.01	T	0.05	T	T								22	
23																								23	
24																								24	
25																								25	
26																								26	
27																								27	
28																								28	
29																								29	
30																								30	

MAXIMUM SHORT DURATION PRECIPITATION

TIME PERIOD (MINUTES)	5	10	15	20	30	45	60	80	100	120	150	180
PRECIPITATION (INCHES)	0.05	0.05	0.05	0.05	0.08	0.11	0.11	0.14	0.16	0.17	0.18	0.20
ENDED: DATE	10	10	10	10	10	10	10	10	10	10	10	10
ENDED: TIME	0805	0805	0805	0805	0712	0727	0705	0803	0805	0826	0902	0826

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 BOOSKY

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