

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

DEC 1992
 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	FATEST 1-MIN	SPEED	DIRECTION	MINUTES	PERCENT OF TOTAL POSSIBLE	SUNRISE TO SUNSET
1	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
01	45	31	38	-6	32	27	0		0	0.01	0.0	29.730	30	4.0	6.3	17	NW	13	33	18	3	10	7
02	51	29	40	-3	31	25	0	1	0	T	0.0	29.680	22	5.7	8.4	21	W	15	23	376	64	6	5
03	50	33	42	-1	24	23	0		0	0.00	0.0	29.950	26	9.0	10.4	24	W	16	25	463	79	4	3
04	55	28	42	-1	26	23	0		0	T	0.0	29.930	19	8.9	10.1	28	S	17	19	217	37	8	9
05	50	29	40	-2	16	25	0		0	T	0.0	29.840	29	14.8	16.3	38	NW	26	30	361	62	3	4
06	45	23	34	-8	12	31	0		0	0.00	0.0	30.060	23	6.8	8.6	23	SW	17	22	391	67	4	5
07	51	31	41	-1	22	24	0		0	0.00	0.0	29.835	28	4.7	9.6	20	NW	16	23	457	79	1	2
08	40	26	33	-9	22	32	0	1	0	0.00	0.0	30.030	34	7.3	7.8	21	N	12	02	171	30	9	5
09	42	24	33	-8	21	32	0	1	0	0.00	0.0	30.180	02	5.1	7.2	16	NE	12	04	455	79	2	3
10	54	31	43	2	38	22	0	1	0	1.06	0.0	29.590	10	8.0	14.4	45	E	30	12	0	0	10	10
11	47	37	42	1	36	23	0	1	0	0.26	0.0	29.220	28	14.6	15.4	36	W	25	27	0	0	10	10
12	43	39	41	0	36	24	0		0	0.04	0.0	29.660	33	17.9	18.2	33	NW	22	33	0	0	10	10
13	45	40	43	3	33	22	0		0	T	0.0	30.020	35	14.4	14.7	26	N	20	33	74	13	10	10
14	42	35	39	-1	34	26	0		0	0.00	0.0	30.190	36	8.8	9.2	16	N	14	36	0	0	10	9
15	43	30	37	-3	33	28	0	1	0	0.00	0.0	30.120	18	1.9	5.5	13	SW	8	21	16	3	10	9
16	54	32	43	3	42	22	0	1	0	0.01	0.0	30.000	18	4.1	5.6	15	S	10	19	102	18	10	10
17	64	41	53	14	54	12	0		0	0.06	0.0	29.760	19	6.3	9.9	23	N	21	36	0	0	10	9
18	51	30	41	2	34	24	0	1	0	0.00	0.0	30.090	03	5.1	6.5	21	N	16	02	389	68	6	5
19	52	30	41	2	37	24	0	1	0	0.00	0.0	30.090	16	2.3	4.1	12	SE	9	12	176	31	9	9
20	55	42	49	10	46	16	0	1	0	0.38	0.0	29.840	24	4.4	9.6	20	SW	15	19	0	0	10	10
21	46	28	37	-2	24	28	0		0	0.00	0.0	30.120	10	3.0	6.9	14	NE	10	14	334	58	10	8
22	56	37	47	9	39	18	0		0	T	0.0	29.970	19	4.2	5.9	15	S	9	21	296	51	8	6
23	60	43	52	14	51	13	0	1	0	0.13	0.0	29.850	23	6.9	9.2	21	W	13	25	0	0	10	10
24	50	20	35	-3	18	30	0		0	T	0.0	30.100	31	9.0	12.2	39	NW	28	31	443	77	2	3
25	43	17*	30	-8	14	35	0		0	T	0.0	30.160	20	8.8	9.5	23	SW	17	18	382	66	8	6
26	47	28	38	0	18	27	0		0	0.00	0.0	30.170	30	6.8	9.1	23	NW	20	30	278	48	6	6
27	38	19	29*	-9	18	36	0		0	T	0.0	30.520	04	6.6	7.2	15	NE	12	07	360	63	9	7
28	38	32	35	-3	35	30	0	2	6	0.82	0.0	30.310	35	9.2	9.6	15	N	13	36	0	0	10	10
29	48	38	43	6	44	22	0	2		0.02	0.0	30.190	34	6.7	8.0	15	N	13	35	0	0	10	10
30	61	47	54	17	51	11	0	2		T	0.0	30.010	19	7.4	7.9	14	S	12	19	99	17	10	9
31	73*	48	61*	24	53	4	0	1		0.00	0.0	29.840	21	10.5	10.7	20	SW	14	22	390	68	10	7
SUM	SUM	SUM	SUM	SUM	SUM	TOTAL	TOTAL	NUMBER OF DAYS		TOTAL	TOTAL	FOR THE MONTH:								TOTAL	%	SUM	SUM
1539	998					739	0			2.79	0.0	29.970	29	2.9	9.5	45	E	30	12	6248	FOR	245	226
AVG.	AVG.	AVG.	DEP.	AVG.	DEP.	DEP.		PRECIPITATION		DEP.								DATE: 10	DATE: 10	POSSIBLE	MONTH	AVG.	AVG.
49.6	32.2	40.9	1.0	32.0	-39	0		> .01 INCH.	10	-0.60										17905	35	7.9	7.3
NUMBER OF DAYS						SEASON TO DATE	SNOW, ICE PELLETS	GREATEST IN 24 HOURS AND DATES						GREATEST DEPTH ON GROUND OF									
MAXIMUM TEMP.						TOTAL	TOTAL	PRECIPITATION						SNOW, ICE PELLETS									
≥ 90°						DEP.	DEP.	1.10						10-11									
0						0	0	0						0									
≤ 32°						DEP.	DEP.	HEAVY FOG						3									
0						0	0	CLEAR						4									
≤ 32°						DEP.	DEP.	PARTLY CLOUDY						5									
0						0	0	CLOUDY						22									

* 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. Walden
 DIRECTOR NATIONAL CLIMATIC DATA CENTER

OBSERVATIONS AT 3-HOUR INTERVALS

DEC 1992
RICHMOND, VA
13740

HOUR	L. S. T.	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	VISI-BILITY		TEMPERATURE				WIND			SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	VISI-BILITY		TEMPERATURE				WIND											
				WHOLE MILES	16THS MILE	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)	AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)							
DEC 1st																																
01	10	100	7			40	36	31	70	14	3	0	UNL	6	F	32	32	31	96	25	3	0	UNL	10			38	34	28	67	25	12
04	10	100	7			38	36	32	79	16	3	6	UNL	2	F	30	30	29	96	00	0	0	UNL	10			36	32	26	67	24	9
07	10	70	7		RW	40	37	32	73	11	4	10	250	5	F	32	32	31	96	17	4	0	UNL	10			36	31	23	59	24	10
10	9	43	7		R	44	39	32	63	34	6	5	UNL	8	F	42	38	31	65	17	10	5	UNL	10			44	36	24	45	27	11
13	10	15	8		RW	43	38	32	65	33	11	1	UNL	10	F	51	42	30	45	17	11	5	UNL	15			49	39	24	38	27	13
16	10	29	7		R	42	38	32	68	30	8	1	UNL	10	F	45	40	33	63	24	10	3	UNL	12			49	38	21	33	29	10
19	0	UNL	7			39	36	31	73	29	5	7	UNL	8		40	38	34	79	27	7	8	150	10			45	37	24	44	24	6
22	0	UNL	7			37	36	34	89	28	2	2	UNL	8		40	37	33	76	25	10	0	UNL	10			36	32	26	67	31	6
DEC 2nd																																
DEC 3rd																																
DEC 4th																																
DEC 5th																																
DEC 6th																																
DEC 7th																																
DEC 8th																																
DEC 9th																																
DEC 10th																																
DEC 11th																																
DEC 12th																																
DEC 13th																																
DEC 14th																																
DEC 15th																																
DEC 16th																																
DEC 17th																																
DEC 18th																																

MAXIMUM SHORT DURATION PRECIPITATION

TIME PERIOD (MINUTES)	5	10	15	20	30	45	60	80	100	120	150	180
PRECIPITATION (INCHES)	0.03	0.05	0.06	0.08	0.09	0.12	0.17	0.22	0.25	0.30	0.30	0.33
ENDED: DATE	28	28	28	28	28	10	10	10	10	10	10	10
ENDED: TIME	1419	1419	1419	1419	1430	1701	1559	1634	1655	1659	1659	1232

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.

OBSERVATIONS AT 3-HOUR INTERVALS

DEC 1992
RICHMOND, VA

13740

HOUR L.S.T.	SKY COVER (TENTHS)		VISI-BILITY		TEMPERATURE				WIND		SKY COVER (TENTHS)	VISI-BILITY		TEMPERATURE				WIND		SKY COVER (TENTHS)	VISI-BILITY		TEMPERATURE				WIND														
	HUNDREDS OF FEET	WHOLE MILES	16THS MILE	WEATHER	AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)		HUNDREDS OF FEET	WHOLE MILES	16THS MILE	WEATHER	AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %		DIRECTION	SPEED (KNOTS)	HUNDREDS OF FEET	WHOLE MILES	16THS MILE	WEATHER	AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)									
DEC 19th														DEC 20th														DEC 21st													
01	3	UNL	8			32	32	31	96	00	0	10	80	8		45	44	43	93	17	8	0	UNL	12			39	33	23	53	36	9									
04	5	UNL	6		F	32	32	31	96	06	3	10	90	8		47	46	44	89	18	10	0	UNL	12			33	29	20	59	36	5									
07	10	130	6		F	34	34	34	100	36	4	10	95	5	RF	48	48	48	100	18	8	9	UNL	15			32	28	20	61	06	5									
10	8	UNL	7			45	42	38	77	12	8	10	20	1	RF	51	51	51	100	22	9	10	150	12			37	32	23	57	07	7									
13	10	39	10			51	45	39	64	19	4	10	11	6	RF	53	53	53	100	26	10	9	UNL	12			45	36	21	39	14	6									
16	10	31	9			50	45	38	64	00	0	10	180	6	F	54	53	52	93	26	5	10	130	10			42	36	25	51	14	5									
19	10	24	8			48	45	42	80	18	3	10	150	7		53	50	47	80	32	9	10	130	10			40	35	27	60	13	7									
22	8	UNL	8			43	42	40	89	17	6	10	200	8		46	41	35	66	36	10	10	130	10			36	34	31	82	17	6									
DEC 22nd														DEC 23rd														DEC 24th													
01	0	UNL	10			37	35	33	86	18	7	10	130	5	RF	44	44	44	100	14	7	10	130	8			50	46	41	71	28	7									
04	9	130	10			41	39	36	83	20	8	10	130	3	RF	46	46	46	100	18	9	6	UNL	8			44	41	37	77	27	7									
07	7	250	15			39	38	36	89	20	6	10	4	3	RF	49	49	49	100	20	10	4	UNL	12			42	38	33	71	25	7									
10	9	150	10			46	42	38	74	22	6	10	4	3	F	53	53	53	100	25	6	7	60	12			41	37	32	70	33	17									
13	10	180	10			53	47	41	64	31	3	10	11	6	F	59	57	56	90	25	9	2	UNL	15			37	30	14	39	34	18									
16	3	UNL	10			56	49	42	60	19	4	10	85	7	R	59	57	55	87	23	6	0	UNL	15			33	25	2	27	32	14									
19	0	UNL	10			40	40	40	100	12	4	10	130	8		55	54	53	93	26	7	0	UNL	15			25	20	4	40	01	8									
22	2	UNL	8			41	41	40	96	13	5	10	130	8		52	50	48	86	27	5	0	UNL	15			23	18	3	42	10	7									
DEC 25th														DEC 26th														DEC 27th													
01	0	UNL	15			20	17	8	60	12	3	10	75	10		42	35	24	49	25	9	0	UNL	12			27	22	8	45	02	8									
04	0	UNL	12			20	18	11	68	20	5	10	120	10		41	36	28	60	26	7	0	UNL	12			24	20	9	53	04	4									
07	2	UNL	12			18	16	12	77	19	5	10	150	12		40	35	28	62	29	9	1	UNL	12			19	17	12	74	01	5									
10	9	UNL	10			30	25	15	54	18	14	10	150	10		41	33	20	43	30	6	10	UNL	8			30	26	16	56	06	8									
13	9	130	12			41	32	12	30	19	11	1	UNL	10		46	35	14	27	30	17	10	UNL	8			36	31	20	52	06	9									
16	10	130	12			43	32	9	25	20	9	8	UNL	10		45	34	11	25	30	9	10	48	10			37	33	25	62	06	7									
19	10	130	12			42	33	17	36	20	10	4	UNL	10		35	27	10	35	31	4	10	55	8			34	31	25	70	04	7									
22	10	55	10			42	36	25	51	23	9	0	UNL	10		29	23	9	43	06	5	10	17	8			34	31	26	73	02	6									
DEC 28th														DEC 29th														DEC 30th													
01	10	12	7		RL	32	31	30	92	35	9	10	1	0	8	LF	39	39	39	100	35	9	10	0	0	4	LF	47	47	47	100	24	4								
04	10	9	6		R	32	32	32	100	01	10	10	1	0	8	LF	40	40	40	100	34	8	10	0	0	2	F	47	47	47	100	22	6								
07	10	3	2		RF	33	33	33	100	36	11	10	1	0	4	LF	41	41	41	100	34	10	10	0	0	0	4	F	47	47	47	100	18	6							
10	10	3	2		RF	35	35	35	100	36	7	10	3	1	12	F	43	43	43	100	01	9	10	2	0	8	F	49	49	49	100	18	6								
13	10	3	2		RF	36	36	36	100	33	8	10	2	0	8	LF	47	47	47	100	34	7	10	4	5	F	53	53	53	100	17	7									
16	10	4	2		RLF	36	36	36	100	33	9	10	3	0	8	LF	48	48	48	100	34	8	10	250	7		F	59	56	54	84	16	7								
19	10	3	2		LF	37	37	37	100	36	8	9	2	1	F	47	47	47	100	33	5	10	UNL	6		F	52	52	52	100	17	7									
22	10	1	0	4	LF	37	37	37	100	35	9	10	0	0	4	LF	47	47	47	100	20	5	0	UNL	5		F	52	52	52	100	18	7								
DEC 31st														DEC 31st (cont.)																											
01	0	UNL	5		F	52	52	52	100	21	8																														
04	0	UNL	7			50	50	50	100	20	8																														
07	6	UNL	6		F	48	48	48	100	20	8																														
10	10	UNL	7			56	54	52	87	22	9																														
13	10	UNL	7			69	60	54	59	23	12																														
16	10	250	8			70	62	56	61	21	11																														
19	10	250	8			61	58	55	81	20	9																														
22	5	UNL	8			61	57	54	78	24	10																														

WEATHER CODES

* TORNAO	SW SNOW SHOWERS	GF GROUND FOG
T THUNDERSTORM	SG SNOW GRAINS	BD BLOWING DUST
Q SQUALL	SP SNOW PELLETS	BN BLOWING SAND
R RAIN	IC ICE CRYSTALS	BS BLOWING SNOW
RW RAIN SHOWERS	IP ICE PELLETS	BY BLOWING SPRAY
ZR FREEZING RAIN	IPW ICE PELLET SHOWERS	K SMOKE
L DRIZZLE	A HAIL	H HAZE
ZL FREEZING DRIZZLE	F FOG	D DUST
S SNOW	IF ICE FOG	

CEILING: UNL INDICATES UNLIMITED
WIND DIRECTION: 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. AN ENTRY OF 00 INDICATES CALM.
SPEED: THE OBSERVED AVERAGE ONE-MINUTE VALUE, EXPRESSED IN KNOTS (MPH=KNOTS X 1.15).

SUMMARY BY HOURS

HOUR L.S.T.	AVERAGES								RESULTANT WIND	
	SKY COVER (TENTHS)	STATION PRESSURE (INCHES)	TEMPERATURE			REL HUMIDITY %	WIND SPEED (MPH)	DIRECTION	SPEED (MPH)	
			AIR TEMP OF	WET BULB OF	DEW POINT OF					
01	6	29.970	38	35	31	78	8.5	29	2.8	
04	6	29.955	37	35	31	81	7.9	28	2.6	
07	7	29.970	37	35	32	83	9.0	30	2.9	
10	8	30.010	42	39	33	71	10.6	30	2.5	
13	8	29.940	47	42	33	63	13.0	30	3.2	
16	8	29.940	47	41	33	63	10.6	28	3.6	
19	8	29.970	43	39	33	72	8.9	30	2.2	
22	7	29.980	40	37	32	76	8.6	28	2.5	

