

DEC 1993
 RICHMOND, VA
 NOAA-NATIONAL WEATHER SERVICE
 RIC INTL APT/EXECUTIVE TERMINAL

ISSN 0198-537X

INQUIRIES/COMMENTS CALL
 (704) 271-4800

R.E. BYRD INTERNATIONAL AP.

LOCAL CLIMATOLOGICAL DATA

Monthly Summary



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

DEC 1993
 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 DEW POINT	HEATING (SEASON BEGINS WITH JULI)	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			
1	2	3	4	5	6	7A	7B	6	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
01	50	29	40	-5	31	25	0	1	0	0.00	0.0	30.510	02	8.0	8.7	15	NE	13	06	306	52	6	7		
02	56	37	47	3	38	18	0	0	0	0.00	0.0	30.290	34	3.3	4.5	13	N	9	36	498	85	8	7		
03	62	38	50	6	42	15	0	1	8	0.00	0.0	30.080	17	2.7	6.1	13	W	8	10	542	93	9	8		
04	64	49	57*	14	51	8	0	1	0	0.18	0.0	29.770	15	8.7	9.0	23	SE	18	15	0	0	10	10		
05	66*	41	54	11	50	11	0	1	0	0.57	0.0	29.320	29	6.2	14.8	39	NW	25	31	50	9	10	7		
06	58	30	44	1	36	21	0	1	0	0.00	0.0	29.735	21	3.1	6.3	20	NW	13	20	581	100	0	1		
07	53	35	44	2	33	21	0	0	0	0.00	0.0	30.010	32	1.3	4.8	15	N	9	34	572	99	7	3		
08	56	34	45	3	35	20	0	0	0	0.00	0.0	29.990	25	1.0	5.1	13	NW	9	35	512	88	4	4		
09	56	30	43	1	34	22	0	1	8	0.00	0.0	30.030	16	4.2	5.5	15	S	10	17	554	96	7	4		
10	57	39	48	7	44	17	0	1	0	0.18	0.0	29.690	19	11.7	11.9	26	S	16	19	2	0	10	8		
11	52	28	40	-1	26	25	0	1	0	0.03	0.0	29.500	32	14.3	15.0	37	NW	23	32	395	68	10	8		
12	41	24	33	-8	10	32	0	0	0	0.00	0.0	29.790	33	13.2	13.4	35	NW	22	34	577	100	0	0		
13	54	29	42	1	16	23	0	0	0	0.00	0.0	29.900	33	8.5	9.2	21	N	16	35	527	91	4	4		
14	49	33	41	1	27	24	0	0	0	0.00	0.0	29.680	36	4.5	5.7	14	NE	9	02	438	76	10	8		
15	47	40	44	4	41	21	0	1	0	0.70	0.0	29.350	36	12.4	12.9	25	N	18	34	0	0	10	10		
16	51	38	45	5	42	20	0	1	0	0.02	0.0	29.690	34	12.5	12.7	25	N	17	33	0	0	10	8		
17	49	30	40	0	29	25	0	0	0	0.00	0.0	30.100	36	3.8	6.0	13	N	9	01	0	0	4	4		
18	51	31	41	2	38	24	0	1	0	0.18	0.0	29.920	19	8.1	8.8	17	SW	14	24	0	0	9	9		
19	52	31	42	3	33	23	0	1	0	0.00	0.0	29.825	27	6.8	8.0	21	W	14	28	0	0	0	2		
20	46	27	37	-2	33	28	0	1	8	0.89	0.0	29.840	10	1.5	4.5	13	N	12	03	0	0	9	7		
21	50	32	41	2	30	24	0	1	0	0.38	0.0	29.460	27	11.7	13.5	32	W	23	27	0	0	5	5		
22	42	26	34	-4	23	31	0	0	0	0.00	0.0	29.770	22	6.8	8.0	14	W	14	25	245	43	10	7		
23	42	32	37	-1	30	28	0	1	0	0.09	0.9	29.830	30	3.7	6.6	17	NW	13	36	190	33	7	7		
24	39	26	33	-5	28	32	0	1	0	0.00	0.0	29.900	20	3.9	6.3	16	SW	13	19	25	4	10	9		
25	37	22	30	-8	27	35	0	1	0	0.01	0.1	29.560	21	6.8	7.7	22	W	16	25	30	5	9	6		
26	37	24	31	-7	10	34	0	0	0	0.00	0.0	29.850	24	10.3	12.7	31	W	21	22	375	65	4	4		
27	40	26	33	-4	22	32	0	0	0	0.00	0.0	30.140	05	6.7	7.4	15	NE	12	07	462	80	9	9		
28	30	24	27	-10	25	38	0	1	4 6	0.40	2.0	30.180	01	9.2	9.3	14	N	14	36	0	0	10	10		
29	27	23	25	-12	23	40	0	1	4 6	0.14	2.1	29.890	32	6.2	8.8	16	W	13	26	0	0	10	10		
30	29	16	23*	-14	11	42	0	1	4	0.00	0.0	30.010	29	6.3	8.3	23	NW	14	31	507	88	1	2		
31	41	8*	25	-12	16	40	0	0	3	0.00	0.0	30.175	19	6.4	7.2	18	SW	15	20	523	91	0	2		
SUM	SUM					TOTAL	TOTAL			TOTAL	TOTAL									TOTAL	%	SUM	SUM		
1484	932					799	0			3.77	5.1	29.860	30	2.6	8.7	39	NW	25	31			212	190		
AVG.	AVG.	AVG.	DEP.	AVG.	DEP.	DEP.	DEP.			DEP.										DATE: 5	DATE: 5	POSSIBLE	MONTH	AVG.	AVG.
47.9	30.1	39.0	-1.1	30.1	27	0	0			0.51												6.8	6.1		
NUMBER OF DAYS						SEASON TO DATE		SNOW, ICE PELLETS		GREATEST IN 24 HOURS AND DATES				GREATEST DEPTH ON GROUND OF											
						TOTAL	TOTAL	≥ .01 INCH.		PRECIPITATION		SNOW, ICE PELLETS		SNOW, ICE PELLETS OR ICE AND DATE											
						1474	1705	THUNDERSTORMS		0		PRECIPITATION		28-29		4				29					
						DEP.	DEP.	HEAVY FOG		0		1.27		20-21		4.0									
						0	3	-16		357		CLEAR 5		PARTLY CLOUDY 9		CLOUDY 17									

* 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

noaa

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 1993
RICHMOND, VA 13740

HOUR L.S.T.	VISI-BILITY			WEATHER	TEMPERATURE				WIND		VISI-BILITY	WEATHER	TEMPERATURE				WIND																																							
	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	WHOLE MILES		AIR OF	WET BULB OF	DEN POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)			SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	WHOLE MILES	AIR OF	WET BULB OF	DEN POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)																																			
DEC 19th																			DEC 20th																			DEC 21st																		
01	10	11	4	F	47	46	45	93	21	7	7	1	UNL	7	33	32	30	89	02	4	10	19	2	RF	38	38	38	100	33	10																										
04	6	90	4	F	44	44	43	96	25	7	7	0	UNL	7	29	28	27	92	00	0	10	4	2	RF	39	39	39	100	32	7																										
07	0	UNL	7	F	41	39	36	83	28	9	9	0	UNL	7	27	27	26	96	00	0	10	7	3	LF	38	38	37	96	28	8																										
10	0	UNL	8		47	40	31	54	27	11	10	UNL	5	H	38	36	33	82	15	4	10	75	8		40	39	38	93	25	14																										
13	1	UNL	12		51	41	28	41	28	12	10	180	7		44	40	35	71	18	7	5	UNL	10		49	42	32	52	25	18																										
16	0	UNL	12		52	42	28	40	26	8	10	180	7		45	40	34	66	13	4	0	UNL	12		45	36	20	37	28	17																										
19	0	UNL	12		38	35	31	76	17	4	10	23	7	R	42	40	37	83	00	0	0	UNL	10		38	31	18	44	27	11																										
22	5	UNL	12		33	32	30	89	00	0	10	39	5	RSF	38	38	38	100	02	6	0	UNL	10		34	29	20	57	24	10																										
DEC 22nd																			DEC 23rd																			DEC 24th																		
01	0	UNL	10		32	29	22	67	24	8	10	85	7		36	33	28	73	15	4	10	65	7		35	33	29	79	36	6																										
04	0	UNL	10		31	28	22	69	23	8	10	50	7		36	33	29	76	16	4	5	UNL	8		31	30	27	85	02	4																										
07	7	UNL	10		27	25	22	81	18	4	10	35	2	SF	34	34	33	96	16	3	10	47	7		28	27	25	89	00	0																										
10	10	UNL	7		35	31	23	62	24	8	10	7	1	SF	35	35	34	96	32	7	10	55	7		33	31	28	82	19	4																										
13	10	180	7		41	34	21	45	28	9	8	14	7		38	36	33	82	33	11	10	65	7		39	35	30	70	18	11																										
16	10	200	7		41	34	22	47	20	5	2	UNL	8		41	36	27	58	30	7	10	55	8		38	34	28	67	19	11																										
19	10	110	7		37	33	27	67	18	6	0	UNL	10		36	33	28	73	26	7	10	250	7		34	32	29	82	19	8																										
22	10	110	7		37	33	27	67	17	4	9	70	7		36	33	29	76	28	7	10	180	7		34	32	29	82	28	6																										
DEC 25th																			DEC 26th																			DEC 27th																		
01	7	UNL	7		30	29	27	89	00	0	0	UNL	7		35	30	22	59	28	14	0	UNL	10		27	24	18	69	11	4																										
04	0	UNL	7		27	26	24	89	26	4	0	UNL	12		30	23	5	34	28	13	8	UNL	10		29	26	19	66	05	6																										
07	7	150	5	F	24	24	23	96	21	4	0	UNL	15		24	19	3	40	27	10	10	UNL	10		27	25	20	75	06	6																										
10	10	70	8		31	29	26	82	21	6	0	UNL	15		29	22	4	34	21	16	10	UNL	8		31	27	20	64	07	10																										
13	7	44	7	S	36	33	28	73	21	11	2	UNL	15		35	27	7	31	22	16	10	UNL	8		37	32	23	57	06	5																										
16	8	10	6	SW	36	34	32	85	21	9	10	65	15		36	28	10	34	22	15	10	UNL	8		37	33	26	65	06	6																										
19	1	UNL	7		30	29	28	92	18	8	10	60	10		35	28	12	39	21	5	10	250	7		32	30	25	75	06	6																										
22	7	120	7		36	33	28	73	23	11	7	65	10		33	30	24	70	13	6	10	250	7		30	28	23	75	01	8																										
DEC 28th																			DEC 29th																			DEC 30th																		
01	10	9	7		29	26	20	69	36	6	10	60	0	12	SF	24	23	22	92	36	7	0	UNL	3	F	26	25	24	92	29	7																									
04	10	9	7		29	27	22	75	02	6	10	45	1	8	SF	23	23	22	96	36	8	0	UNL	7		26	24	20	78	29	8																									
07	10	8	4	ZRF	29	28	27	92	02	8	10	44	2		23	22	21	92	36	8	0	UNL	8		22	20	14	71	26	7																										
10	10	7	2	ZRIPF	29	29	28	96	01	9	10	9	3	ZRIPF	24	23	22	92	34	7	0	UNL	10		26	22	10	51	31	12																										
13	10	7	2	ZRIPF	28	28	27	96	01	7	10	7	3	SGF	24	24	23	96	32	7	0	UNL	10		28	22	6	39	32	11																										
16	10	5	0	SF	27	27	26	96	02	9	10	4	1	8	F	25	25	24	96	31	5	0	UNL	10		29	22	3	33	30	7																									
19	10	40	0	SF	25	25	24	96	01	9	10	4	1		26	26	25	96	25	8	1	UNL	10		18	16	9	68	14	6																										
22	10	55	0	SF	24	23	22	92	01	10	10	5	1	F	26	25	24	92	25	10	8	130	8		17	15	9	71	15	4																										
DEC 31st																																																								
01	10	UNL	8		18	16	11	74	15	3																																														
04	5	UNL	8		9	9	7	92	00	0																																														
07	7	UNL	8		13	12	10	88	19	5																																														
10	0	UNL	7		27	23	13	56	20	13																																														
13	0	UNL	10		36	30	20	52	21	10																																														
16	0	UNL	10		40	33	20	45	22	10																																														
19	0	UNL	8		26	24	19	75	18	7																																														
22	0	UNL	8		27	26	23	85	16	4																																														

SUMMARY BY HOURS

HOUR L.S.T.	SKY COVER (TENTHS)	STATION PRESSURE (INCHES)	AVERAGES				RESULTANT WIND		
			TEMPERATURE			REL HUMIDITY %	WIND SPEED (MPH)	DIRECTION	SPEED (MPH)
			AIR TEMP OF	WET BULB OF	DEN POINT OF				
01	5	29.860	37	35	31	81	7.4	30	2.6
04	6	29.860	35	33	30	82	7.6	30	2.5
07	6	29.870	34	32	29	83	7.5	33	1.9
10	7	29.900	40	37	30	70	11.1	30	3.7
13	7	29.850	45	39	30	59	11.1	29	5.0
16	7	29.840	45	39	30	58	10.1	28	3.4
19	6	29.865	39	36	30	73	8.0	25	0.8
22	6	29.870	38	35	31	78	8.2	28	1.3

WEATHER CODES

- * TORNADO
- T THUNDERSTORM
- Q SQUALL
- R RAIN
- RW RAIN SHOWERS
- ZR FREEZING RAIN
- L DRIZZLE
- ZR FREEZING DRIZZLE
- S SNOW
- SW SNOW SHOWERS
- SG SNOW GRAINS
- SP SNOW PELLETS
- IC ICE CRYSTALS
- IP ICE PELLETS
- IPW ICE PELLET SHOWERS
- A HAIL
- F FOG
- IF ICE FOG
- GF GROUND FOG
- BD BLOWING DUST
- 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 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).

