

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

MAR 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 8	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 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	DIRECTION	MINUTES	PERCENT OF TOTAL POSSIBLE	SUNRISE TO SUNSET	MIDNIGHT TO MIDNIGHT
01	53	20	37	-6	18	28	0	1	0	0.00	0.0	29.920	23	3.7	5.7	17	SW	10	19	662	97	0	0
02	65	34	50	7	35	15	0	0	0	0.00	0.0	29.720	24	7.5	8.8	20	SW	13	28	517	75	10	8
03	59	46	53	9	48	12	0	1	0	0.53	0.0	29.745	16	1.6	5.6	16	NE	12	05	90	13	10	10
04	61	41	51	7	46	14	0	1	0	1.84	0.0	29.350	10	4.9	15.6	44	SW	26	05	0	0	9	8
05	53	40	47	3	40	18	0	1	0	0.02	0.0	29.480	24	6.8	9.2	28	NW	14	27	77	11	10	8
06	52	33	43	-2	30	22	0	0	0	0.00	0.0	29.760	28	6.7	8.8	23	W	16	26	535	77	3	3
07	62	28	45	0	31	20	0	1	0	0.00	0.0	29.810	18	7.1	7.5	21	S	16	17	600	86	2	3
08	62	41	52	7	36	13	0	0	0	0.01	0.0	29.600	25	11.4	13.5	41	NW	21	31	479	69	6	4
09	59	35	47	1	28	18	0	0	0	0.00	0.0	29.815	28	7.8	9.7	24	NW	20	30	602	86	3	2
10	61	30	46	0	32	19	0	0	0	T	T	29.710	09	3.9	7.2	22	N	16	14	371	53	9	7
11	54	33	44	-2	26	21	0	0	0	0.00	0.0	29.815	30	8.2	11.1	28	W	20	29	421	60	5	4
12	49	24	37	-10	24	28	0	1	0	0.06	T	30.030	10	4.3	6.4	16	SE	10	07	485	68	9	8
13	38	27	33	-14	34	32	0	1	4	1.99	2.8	28.970	03	12.7	16.8	51	SE	28	04	55	8	10	10
14	34	24	29	-18	7	36	0	0	9	0.02	0.0	29.640	28	17.1	17.7	39	SE	25	31	652	91	5	5
15	39	17*	28*	-20	7	37	0	0	0	0.00	0.0	30.380	22	4.2	7.0	18	NW	12	30	697	97	0	0
16	55	26	41	-7	28	24	0	0	0	0.01	0.0	30.380	17	11.3	11.8	28	S	21	19	517	72	9	7
17	57	39	48	0	47	17	0	1	0	0.72	0.0	30.005	01	2.7	10.8	35	N	23	01	0	0	10	10
18	40	24	32	-17	13	33	0	0	0	0.00	0.0	30.280	36	15.3	15.7	35	N	25	35	647	89	4	5
19	43	20	32	-17	16	33	0	0	0	0.00	0.0	30.480	04	6.2	8.7	17	S	13	11	612	84	3	3
20	52	27	40	-9	28	25	0	0	0	0.00	0.0	30.320	12	3.6	6.0	12	S	10	09	633	87	10	9
21	65	35	50	0	38	15	0	1	0	T	0.0	30.160	19	0.9	6.0	15	NW	9	32	579	79	5	5
22	67	34	51	1	39	14	0	1	0	T	0.0	30.210	10	5.6	6.7	16	E	14	09	433	59	8	7
23	62	43	53	3	48	12	0	1	8	0.20	0.0	30.130	11	9.4	10.3	21	E	15	11	305	41	10	10
24	68	51	60	9	55	5	0	1	0	0.23	0.0	29.900	02	2.8	7.4	25	SE	18	14	362	49	9	8
25	55	45	50	-1	45	15	0	1	0	T	0.0	30.030	02	7.5	8.5	16	NE	13	01	69	9	10	10
26	63	43	53	2	45	12	0	1	0	0.00	0.0	30.010	05	4.0	5.3	14	E	12	08	509	69	10	9
27	53	45	49	-3	48	16	0	1	3	1.02	0.0	29.760	04	10.5	11.3	25	NE	17	04	70	9	10	10
28	61	49	55	3	51	10	0	2	0	T	0.0	29.630	20	1.3	4.6	12	S	8	18	70	9	10	10
29	64	45	55	3	52	10	0	1	0	0.58	0.0	29.570	30	4.5	5.3	25	NW	16	29	118	16	9	9
30	71*	51	61*	8	51	4	0	1	0	0.01	0.0	29.610	33	7.3	9.2	22	N	16	34	315	42	9	7
31	67	48	58	5	50	7	0	1	0	T	0.0	29.660	11	9.3	10.4	22	E	16	09	414	55	9	8
SUM	SUM	SUM	SUM	SUM	SUM	TOTAL	TOTAL	NUMBER OF DAYS		TOTAL	TOTAL	FOR THE MONTH:				TOTAL	%	SUM	SUM				
1744	1098					585	0			7.24	3.5	29.870	34	0.8	9.3	51	SE	28	04	11896	FOR	226	207
AVG.	AVG.	AVG.	DEP.	AVG.	DEP.	DEP.	DEP.	PRECIPITATION		DEP.						DATE:13	DATE:13	POSSIBLE	MONTH	AVG.	AVG.		
56.3	35.4	45.9	-2.1	35.3	33	33	0	> .01 INCH.	14	3.63										22283	53	7.3	6.7
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.		3544		0		THUNDERSTORMS		1		PRECIPITATION		SNOW, ICE PELLETS									
≥ 90°		≤ 32°		≤ 32°		≤ 0°		HEAVY FOG		1		2.36		03-04		2.8		13					
0		0		11		0		CLEAR		6		PARTLY CLOUDY		5		CLOUDY		20					

* 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

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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

MAR 1993
RICHMOND, VA

13740

HOUR L.S.T.	SKY COVER (TENTHS)		VISI-BILITY	WEATHER	TEMPERATURE				WIND		SKY COVER (TENTHS)	VISI-BILITY		WEATHER	TEMPERATURE				WIND		SKY COVER (TENTHS)	VISI-BILITY		WEATHER	TEMPERATURE				WIND		
	CEILING IN HUNDREDS OF FEET	WHOLE MILES			AIR of	WET BULB of	DEW POINT of	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)		CEILING IN HUNDREDS OF FEET	WHOLE MILES		AIR of	WET BULB of	DEW POINT of	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)		CEILING IN HUNDREDS OF FEET	WHOLE MILES		AIR of	WET BULB of	DEW POINT of	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)	CEILING IN HUNDREDS OF FEET
MAR 1st																															
01	0	UNL	8		27	24	16	63	36	7	3	UNL	8		42	35	25	51	25	8	10	150	8			49	45	40	71	19	5
04	0	UNL	8		25	22	15	66	00	0	0	UNL	8		39	34	25	57	24	4	10	70	6		RF	49	48	46	90	23	7
07	1	UNL	6	F	21	20	17	85	00	0	10	UNL	7		43	37	27	53	28	9	10	65	5		LF	47	47	47	100	00	0
10	0	UNL	7		38	31	18	44	23	7	10	UNL	7		56	46	35	45	26	9	10	37	6		F	52	51	50	93	22	7
13	0	UNL	8		47	36	16	29	24	4	9	UNL	8		63	52	40	43	24	10	10	130	7			58	54	50	75	15	3
16	0	UNL	8		53	39	17	24	25	6	10	250	8		63	52	40	43	23	10	10	30	7		R	56	53	50	80	11	5
19	0	UNL	8		42	35	22	45	20	7	10	250	8		57	49	40	53	23	8	10	28	2		RF	51	51	51	100	14	5
22	0	UNL	8		39	33	23	53	21	8	10	250	8		49	45	40	71	18	6	10	2	1		RF	49	49	49	100	05	7
MAR 2nd																															
MAR 3rd																															
MAR 4th																															
MAR 5th																															
MAR 6th																															
MAR 7th																															
MAR 8th																															
MAR 9th																															
MAR 10th																															
MAR 11th																															
MAR 12th																															
MAR 13th																															
MAR 14th																															
MAR 15th																															
MAR 16th																															
MAR 17th																															
MAR 18th																															

MAXIMUM SHORT DURATION PRECIPITATION

TIME PERIOD (MINUTES)	5	10	15	20	30	45	60	80	100	120	150	180
PRECIPITATION (INCHES)	0.06	0.08	0.11	0.15	0.18	0.25	0.31	0.38	0.47	0.55	0.65	0.76
ENDED: DATE	04	04	04	04	04	04	04	04	04	04	04	04
ENDED: TIME	0704	1134	1134	1134	0704	0719	0716	0731	0702	0722	0743	0834

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

MAR 1993
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																																																			
		CEILING IN HUNDREDS OF FEET	WHOLE MILES	AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)		CEILING IN HUNDREDS OF FEET	WHOLE MILES	AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)		CEILING IN HUNDREDS OF FEET	WHOLE MILES	AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)																																																		
MAR 19th																										MAR 20th																										MAR 21st																									
01	0	UNL	12		24	20	7	48	02	7	6	120	8		29	27	24	82	03	4	10	100	8		35	34	33	92	15	4																																															
04	0	UNL	12		21	17	6	52	36	8	3	UNL	8		28	27	24	85	02	5	10	85	8		37	36	34	89	18	5																																															
07	0	UNL	12		21	18	8	57	36	8	7	UNL	8		29	28	25	85	03	4	7	48	5	F	36	36	36	100	16	4																																															
10	2	UNL	10		32	27	17	54	36	6	10	UNL	8		42	37	28	58	09	4	0	UNL	8		51	45	39	64	25	7																																															
13	3	UNL	12		39	32	18	43	36	5	10	UNL	8		46	38	27	48	21	6	4	UNL	8		61	51	41	48	30	8																																															
16	4	UNL	12		43	35	20	40	10	8	10	UNL	8		51	42	30	45	15	8	8	75	8		62	51	39	43	36	6																																															
19	9	UNL	12		35	30	22	59	10	8	10	UNL	8		44	39	31	60	13	4	6	70	8		55	48	40	57	06	6																																															
22	0	UNL	10		31	28	22	69	07	5	10	UNL	8		39	36	32	76	12	5	0	UNL	8		47	43	39	74	10	4																																															
MAR 22nd																										MAR 23rd																										MAR 24th																									
01	0	UNL	8		40	39	38	93	00	0	10	25	7	R	47	46	44	89	10	6	10	23	6	RF	58	57	56	93	22	3																																															
04	0	UNL	7		34	34	33	96	14	4	10	29	3	RF	45	45	44	96	07	5	10	85	6	RF	57	57	57	100	14	16																																															
07	5	UNL	5	F	37	37	36	96	04	3	10	8	1	RF	45	45	44	96	08	7	10	5	1	F	57	57	57	100	31	6																																															
10	7	65	8		53	47	41	64	13	6	10	9	2	F	48	47	46	93	10	7	10	8	2	F	56	55	54	93	34	5																																															
13	9	60	8		62	52	41	46	07	5	10	22	3	F	57	52	48	72	11	11	9	15	8		61	58	55	81	00	0																																															
16	10	60	8		65	54	43	45	18	7	10	95	6	H	59	54	49	70	10	10	5	UNL	8		67	60	55	66	36	5																																															
19	10	UNL	8		52	46	39	61	10	7	10	150	6	H	56	53	51	83	11	9	6	110	8		61	57	53	75	06	6																																															
22	10	55	8		49	44	38	66	10	9	10	33	7		61	58	55	81	14	11	4	UNL	8		55	54	53	93	02	8																																															
MAR 25th																										MAR 26th																										MAR 27th																									
01	10	15	8		52	51	50	93	06	8	3	UNL	7		46	45	44	93	00	0	10	8	7		49	48	46	90	08	7																																															
04	10	12	6	F	49	48	47	93	02	8	8	250	5	F	44	44	43	96	35	4	10	7	7		48	47	46	93	05	11																																															
07	10	7	3	LF	46	46	45	96	02	10	10	20	4	F	45	44	43	93	01	5	10	5	2		47	47	46	96	04	12																																															
10	10	9	6	F	48	47	45	89	35	10	10	200	7		53	49	44	72	00	0	10	5	2	RF	48	47	46	93	04	12																																															
13	10	18	7		51	48	44	77	03	6	10	UNL	8		60	52	45	58	00	0	10	9	10		52	51	49	90	06	14																																															
16	10	23	7		54	50	45	72	33	7	10	UNL	8		62	53	44	52	02	9	10	4	2	LF	51	51	50	96	04	11																																															
19	10	21	8		53	49	45	74	34	5	10	200	8		58	52	46	65	08	10	10	20	1	RF	50	50	50	100	31	8																																															
22	10	20	8		51	48	45	80	07	3	10	200	8		50	48	46	86	11	6	10	3	6	RF	50	50	50	100	01	7																																															
MAR 28th																										MAR 29th																										MAR 30th																									
01	10	1	0	8 LF	50	50	50	100	01	6	10	33	7		52	52	52	100	00	0	10	27	2	8 RF	54	54	54	100	29	6																																															
04	10	1	0	8 LF	50	50	50	100	33	4	1	UNL	6	F	49	49	49	100	00	0	10	30	7		55	53	52	90	29	9																																															
07	10	2	0	4 LF	51	51	51	100	28	4	10	60	4	F	47	47	47	100	12	3	10	25	6	F	55	53	52	90	29	7																																															
10	10	7	6	F	54	53	52	93	22	6	7	85	8		60	56	52	75	32	7	10	29	7		60	56	53	78	34	10																																															
13	10	13	7		57	54	52	84	18	3	10	31	8		63	56	50	63	31	8	9	55	8		67	58	51	57	33	12																																															
16	10	45	8		60	55	51	72	18	3	10	10	1	8 RW	57	56	56	97	33	8	6	60	10		70	58	49	47	34	11																																															
19	10	55	8		56	54	52	87	18	3	10	60	5	RF	56	55	55	97	30	5	3	UNL	10		63	55	49	61	02	4																																															
22	10	60	7		54	54	53	96	00	0	10	24	5	RF	55	55	54	97	28	6	4	UNL	8		56	52	49	78	15	3																																															
MAR 31st																																																																													
01	1	UNL	8		54	53	52	93	07	6																																																																			
04	2	UNL	6	F	51	51	50	96	07	7																																																																			
07	10	UNL	6	F	51	50	48	90	18	5																																																																			
10	8	UNL	10		60	55	50	70	13	9																																																																			
13	10	UNL	10		66	58	51	59	13	10																																																																			
16	10	200	8		63	56	51	65	09	14																																																																			
19	10	65	8		54	52	50	86	11	13																																																																			
22	10	65	7	R	54	52	50	86	11	13																																																																			

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	6	29.890	41	39	35	82	7.3	07	0.2
04	5	29.870	39	37	33	83	8.4	02	0.5
07	7	29.900	39	37	34	83	7.8	34	1.5
10	7	29.870	47	42	35	66	11.5	34	1.8
13	8	29.810	52	45	36	57	11.4	33	1.5
16	7	29.760	54	46	37	57	10.9	20	1.3
19	7	29.840	48	43	36	65	9.3	36	1.7
22	6	29.910	45	41	37	75	8.2	05	1.9

WEATHER CODES

- * TORNADO
- T THUNDERSTORM
- Q SQUALL
- R RAIN
- RW RAIN SHOWERS
- ZR FREEZING RAIN
- L DRIZZLE
- ZL 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).

