

MAR 1989
 RICHMOND, VA
 NAT'L WEA SER OFC
 RICHMOND INTL AP, EXEC. TERMINAL

ISSN 0198-537X

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

MAR 1989
 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		WIND (M.P.H.)				SUNSHINE		SKY COVER (TENTHS)				
	MAXIMUM	MINIMUM	AVERAGE	DEPARTURE FROM NORMAL	AVERAGE DEW POINT	HEATING (SEASON BEGINS WITH JULY)	COOLING (SEASON BEGINS WITH JAN)	WATER EQUIVALENT (INCHES)			SNOW, ICE PELLETS (INCHES)	RESULTANT DIR.	RESULTANT SPEED	AVERAGE SPEED	PEAK GUST	FATEST 1-MIN	MINUTES	PERCENT OF TOTAL POSSIBLE	SUNRISE TO SUNSET	MIDNIGHT TO MIDNIGHT					
01	54	26	40	-2	28	25	0	1	0	0.00	0.0	29.980	27	5.6	7.6	25	W	14	29	499	73	7	5		
02	52	30	41	-2	21	24	0	0	0	0.00	0.0	30.040	10	5.9	7.7	18	E	12	12	593	87	6	7		
03	50	38	44	1	36	21	0	1	0	0.04	0.0	29.905	04	11.1	11.3	23	E	16	04	0	0	10	10		
04	43	40	42	-1	41	23	0	1	0	0.21	0.0	29.980	01	9.8	10.3	21	NE	15	35	0	0	10	10		
05	51	41	46	3	46	19	0	2	0	0.02	0.0	29.850	20	5.1	6.9	18	SW	14	21	0	0	10	10		
06	51	33	42	-2	40	23	0	23	0	1.36	0.0	29.760	04	11.2	11.6	32	NE	17	05	0	0	10	10		
07	34	24	29	-15	23	36	0	1	6	0.04	T	30.050	03	16.1	16.3	29	NE	20	02	0	0	10	10		
08	29	22*	26*	-18	21	39	0	1	6	0.01	T	30.280	02	17.0	17.2	29	NE	20	02	0	0	10	10		
09	41	28	35	-10	23	30	0	1	6	0.01	T	30.220	02	14.7	14.9	29	N	18	02	490	70	6	6		
10	49	27	38	-7	21	27	0	0	0	0.00	0.0	30.150	03	10.5	11.5	24	N	17	03	698	99	0	0		
11	54	25	40	-5	29	25	0	1	0	0.00	0.0	30.010	16	2.7	6.0	16	S	9	24	639	91	4	3		
12	65	34	50	4	36	15	0	0	0	0.00	0.0	29.790	01	6.2	11.2	31	NW	20	33	628	89	4	3		
13	44	33	39	-7	33	26	0	1	4	0.39	T	29.960	09	3.5	6.5	16	SE	12	10	150	21	10	10		
14	48	37	43	-3	42	22	0	1	0	T	0.0	29.795	10	0.9	6.4	16	S	13	19	0	0	10	10		
15	76	46	61	14	56	4	0	1	3	8	0	29.660	21	11.2	12.0	38	W	18	26	425	59	10	10		
16	63	42	53	6	41	12	0	0	0	0.04	0.0	30.030	08	3.2	8.2	22	N	16	03	569	79	5	5		
17	74	35	55	8	45	10	0	1	0	0.00	0.0	30.090	19	9.9	10.2	22	S	16	19	720	100	0	0		
18	82	51	67	19	57	0	2	3	5	0	0.41	0.0	29.800	22	11.5	14.5	67	W	41	27	521	72	5	5	
19	51	32	42	-6	25	23	0	0	0	0.00	0.0	30.120	01	12.0	12.9	31	N	21	02	725	100	0	1		
20	47	29	38	-11	34	27	0	1	4	0	0.15	T	30.100	18	4.1	6.0	20	S	14	18	350	48	10	8	
21	51	42	47	-2	41	18	0	1	3	0	0.15	0.0	29.790	36	5.5	11.6	25	N	18	02	0	0	10	10	
22	50	34	42	-7	23	23	0	0	0	0.00	0.0	30.160	03	10.1	11.0	23	N	18	02	559	76	5	8		
23	42	32	37	-13	35	28	0	1	0	0.63	0.0	30.210	04	11.9	12.2	25	NE	18	04	65	9	10	10		
24	47	39	43	-7	42	22	0	1	0	0.69	0.0	29.860	36	12.5	14.0	26	N	17	36	0	0	10	9		
25	67	34	51	1	44	14	0	0	0	0.00	0.0	29.900	20	2.2	5.1	14	S	10	19	688	93	4	3		
26	75	44	60	9	49	5	0	1	8	0	0.00	0.0	30.010	08	5.4	7.9	20	E	13	13	690	93	4	2	
27	80	44	62	11	53	3	0	2	8	0	0.00	0.0	30.060	19	6.6	8.1	23	S	17	18	596	80	6	4	
28	85	62	74	23	62	0	9	0	0	0.00	0.0	29.860	22	15.5	15.8	29	SW	20	22	687	92	3	4		
29	86*	62	74*	22	61	0	9	0	0	0.00	0.0	29.735	23	12.2	12.7	26	W	17	23	664	89	7	6		
30	75	62	69	17	62	0	4	3	0	0.55	0.0	29.605	20	12.6	13.1	33	S	18	22	450	60	10	8		
31	78	47	63	10	52	2	0	1	3	0	0.15	0.0	29.400	26	10.0	15.0	41	W	25	29	597	79	6	5	
	SUM	SUM				TOTAL	TOTAL	NUMBER OF DAYS		TOTAL	TOTAL	FOR THE MONTH:								TOTAL	%	SUM	SUM		
	1794	1175				546	24			5.00	T	29.940	02	1.7	10.8	67	W	41	27	12003	FOR	212	202		
	AVG.	AVG.	AVG.	DEP.	AVG.	DEP.	DEP.	PRECIPITATION		DEP.										DATE: 18	DATE: 18	POSSIBLE	MONTH	AVG.	AVG.
	57.9	37.9	47.9	0.7	39.3	-6	24	≥ .01 INCH.	17	1.43										22252	54	6.8	6.5		
	NUMBER OF DAYS		SEASON TO DATE		SNOW, ICE PELLETS		GREATEST IN 24 HOURS AND DATES		GREATEST DEPTH ON GROUND OF																
	MAXIMUM TEMP.	MINIMUM TEMP.	3558	27	THUNDERSTORMS	6	PRECIPITATION	SNOW, ICE PELLETS																	
	≥ 90°	≤ 32°	≤ 32°	≤ 0°	DEP.	DEP.	HEAVY FOG	3	1.36	06	trace	09+													
	0	1	10	0	-111	27	CLEAR	4	PARTLY CLOUDY	13	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. Walden
 DIRECTOR
 NATIONAL CLIMATIC DATA CENTER

OBSERVATIONS AT 3-HOUR INTERVALS

MAR 1989
RICHMOND, VA

13740

HOUR L.S.T.	VISI-BILITY				TEMPERATURE				WIND			VISI-BILITY				TEMPERATURE				WIND																																																																																																															
	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	WHOLE MILES	16THS MILE	AIR °F	WET BULB °F	DEW POINT °F	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	WHOLE MILES	16THS MILE	WEATHER	AIR °F	WET BULB °F	DEW POINT °F	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	WHOLE MILES	16THS MILE	WEATHER	AIR °F	WET BULB °F	DEW POINT °F	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)																																																																																																			
MAR 1st																																	MAR 2nd																																	MAR 3rd																																																																	
01	2	UNL	3		F	29	29	29	100	00	0	7	UNL	7		34	28	17	50	04	7	10	29	7			38	35	30	73	03	5	MAR 4th																																	MAR 5th																																	MAR 6th																																
04	0	UNL	3		F	27	27	27	100	00	0	7	UNL	7		32	27	15	50	05	7	10	26	7			39	36	32	76	04	7	MAR 7th																																	MAR 8th																																	MAR 9th																																
07	9	UNL	0	8	F	33	33	33	100	25	9	1	UNL	7		30	25	15	54	08	6	10	29	7			41	38	33	73	05	8	MAR 10th																																	MAR 11th																																	MAR 12th																																
10	7	200	7			40	38	35	62	24	9	6	UNL	7		39	32	18	43	09	10	10	25	7			47	41	32	56	04	13	MAR 13th																																	MAR 14th																																	MAR 15th																																
13	8	200	8			50	40	26	39	29	12	8	UNL	7		47	37	22	37	15	8	10	20	8			49	44	37	64	04	13	MAR 16th																																	MAR 17th																																	MAR 18th																																
16	5	UNL	10			53	39	17	24	30	9	8	UNL	7		51	40	23	34	16	5	10	20	7	R		48	44	40	74	03	10	MAR 19th																																	MAR 20th																																	MAR 21st																																
19	6	UNL	7			45	38	28	52	23	7	8	UNL	7		44	38	28	54	12	9	10	19	7	R		44	42	40	86	02	11	MAR 22nd																																	MAR 23rd																																	MAR 24th																																
22	6	UNL	7			38	34	28	67	36	6	8	250	7		37	33	26	65	11	4	10	14	6	R		43	42	40	89	04	14	MAR 25th																																	MAR 26th																																	MAR 27th																																

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).

OBSERVATIONS AT 3-HOUR INTERVALS

MAR 1989
RICHMOND, VA 13740

HOUR L.S.T.	MAR 19th										MAR 20th										MAR 21st									
	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	16THS MILE	WEATHER	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)		
01	8	55	8	47	43	38	71	02	16	3	UNL	10	32	30	25	75	00	0	10	3	1	8	F	42	42	42	100	24	6	
04	0	UNL	8	40	36	31	70	01	14	3	UNL	10	29	28	25	85	34	3	10	2	0	8	LF	43	43	43	100	21	7	
07	0	UNL	8	36	32	25	64	02	13	8	120	8	32	31	28	85	00	0	10	4	0	8	TRWF	45	45	45	100	19	7	
10	0	UNL	10	41	34	23	49	02	18	10	200	7	42	37	30	63	18	12	10	9	1	8	RLF	51	51	50	96	32	7	
13	0	UNL	10	44	36	24	45	35	15	10	37	7	46	40	31	56	18	10	10	37	7		49	47	44	83	36	14		
16	0	UNL	10	47	38	24	41	35	8	10	45	6	42	40	38	86	11	6	10	41	7		48	44	39	71	01	13		
19	2	UNL	10	42	35	23	47	06	5	10	36	3	41	41	41	100	21	4	10	55	7	R	46	41	35	66	02	9		
22	2	UNL	10	36	31	23	59	08	5	10	3	1	42	42	42	100	21	4	10	75	8		44	39	32	63	01	11		
MAR 22nd										MAR 23rd										MAR 24th										
01	10	85	8	41	35	26	55	02	14	10	UNL	10	33	31	27	79	05	4	10	7	5	8	RF	41	41	41	100	04	14	
04	10	70	8	39	34	25	57	02	10	10	UNL	8	32	31	29	89	02	7	10	5	3		43	43	43	100	04	14		
07	8	200	8	37	31	21	52	02	13	10	90	7	35	33	30	82	03	10	10	4	6		44	44	44	100	35	10		
10	8	UNL	10	38	32	21	50	04	9	10	33	6	38	35	31	76	05	14	10	3	2	8	LF	45	45	45	100	36	15	
13	2	UNL	10	46	37	23	40	03	13	10	36	6	41	40	38	89	05	13	10	5	1	8	LF	47	47	47	100	36	14	
16	4	UNL	10	49	39	22	35	36	10	10	13	2	42	42	41	96	05	13	10	8	6		44	44	43	96	34	14		
19	10	UNL	10	43	35	23	45	07	7	10	7	5	40	40	40	100	05	10	10	12	8		43	42	40	89	34	13		
22	10	250	10	37	32	24	59	05	4	10	7	5	40	40	40	100	06	11	4	UNL	10		40	39	38	93	33	6		
MAR 25th										MAR 26th										MAR 27th										
01	8	35	8	41	40	38	89	31	6	0	UNL	10	52	51	49	90	15	6	0	UNL	7		47	47	46	96	12	5		
04	2	UNL	8	37	37	36	96	30	4	0	UNL	7	47	47	47	100	07	4	0	UNL	6		45	45	45	100	03	3		
07	6	UNL	7	37	37	36	96	19	3	10	5		47	47	47	100	04	3	10	1	0	4	F	47	47	47	100	00	0	
10	7	UNL	8	52	47	41	66	00	0	0	UNL	6	64	57	52	65	02	10	8	7	1	8	F	54	53	52	93	28	4	
13	6	UNL	8	61	54	47	60	00	0	7	UNL	7	72	61	52	50	07	9	3	UNL	6		74	65	59	60	19	9		
16	1	UNL	10	66	58	51	59	18	6	8	UNL	7	73	61	53	50	01	7	4	UNL	7		79	68	61	54	18	15		
19	0	UNL	10	60	55	50	70	14	5	0	UNL	7	61	56	51	70	13	11	7	UNL	8		69	60	54	59	18	9		
22	0	UNL	10	53	51	49	86	11	5	0	UNL	7	52	49	45	77	14	7	7	250	8		63	59	55	75	19	9		
MAR 28th										MAR 29th										MAR 30th										
01	7	UNL	8	65	61	58	78	20	13	0	UNL	10	69	64	60	73	23	13	7	90	10		70	63	59	68	21	8		
04	8	UNL	8	63	61	59	87	22	13	3	UNL	10	66	62	60	81	23	13	4	UNL	10		65	60	56	73	20	11		
07	9	UNL	8	64	61	59	84	22	13	4	UNL	10	65	62	60	84	22	12	9	UNL	10		64	61	58	81	20	11		
10	0	UNL	10	74	67	62	66	24	15	8	UNL	10	76	68	64	67	23	15	10	80	10		71	66	63	76	20	13		
13	1	UNL	10	83	71	65	55	23	13	5	UNL	10	85	75	70	61	25	15	10	32	5		73	68	65	76	20	13		
16	2	UNL	10	83	72	66	57	22	16	7	250	10	85	71	63	48	23	15	9	55	7		68	67	66	93	18	10		
19	8	UNL	10	76	67	61	60	22	12	7	UNL	10	77	65	57	50	22	6	10	40	2	8	TRW	65	64	64	97	17	11	
22	0	UNL	10	71	64	60	68	21	13	6	75	10	75	66	60	60	22	9	2	UNL	7		64	63	63	97	21	12		
MAR 31st																														
01	2	UNL	7	63	62	62	97	22	13																					
04	2	UNL	8	61	60	60	97	21	5																					
07	3	UNL	3	62	61	61	97	21	9																					
10	6	35	7	72	66	62	71	20	14																					
13	7	45	7	75	66	60	60	23	17																					
16	4	UNL	7	71	58	48	44	28	18																					
19	5	UNL	10	60	49	36	41	31	20																					
22	5	UNL	10	50	42	32	50	34	16																					

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	29.950	43	41	39	85	9.5	04	1.7
04	6	29.930	42	40	38	88	9.1	03	2.8
07	7	29.960	41	40	37	87	9.8	02	2.4
10	7	29.980	49	44	39	72	12.7	36	2.6
13	7	29.945	54	48	41	64	13.4	32	1.9
16	7	29.900	55	48	41	63	12.6	34	1.5
19	7	29.920	50	45	40	73	10.8	07	1.5
22	6	29.950	46	43	39	80	9.5	05	1.6

HOURLY PRECIPITATION (WATER EQUIVALENT IN INCHES)

MAR 1989
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	0.02	0.03	0.03	0.04	0.03	0.02	0.03	T	0.01	T	T	T	T	T	T	0.01	0.02	T	T	0.01	T	T	T	04		
05	T	0.01	0.01	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	05		
06			0.02	0.18	T	0.02	0.01	0.01	0.01	0.05	0.05	T	0.02	T	T	T	0.15	0.23	0.05	0.14	0.16	0.25	0.01	06		
07			0.01	0.01	T	T	T	T	T	T	T	T	T	T	T	T	0.01	T	T	T	T	T	T	07		
08	T																							08		
09				T	T	0.01	T	T	T															09		
10																								10		
11																								11		
12																								12		
13																								13		
14	T	T	T	T			T	T																14		
15																								15		
16		0.01	T	0.01	0.01	0.01																		16		
17																								17		
18																								18		
19																								19		
20																								20		
21		T	T	T	T	T	0.10	T	0.01	0.01	0.01	0.01	0.02	T										21		
22																								22		
23																								23		
24	0.07	0.05	0.10	0.09	0.15	0.10	0.08	T	0.01	0.03	0.01	T	T	T	0.03	0.03	0.04	0.04	0.04	0.05	0.03	0.06	0.10	0.18	0.03	24
25																									25	
26																									26	
27																									27	
28																									28	
29																									29	
30																									30	
31														T	0.03	0.08	T	T	0.02	0.02	0.26	0.14	T		31	
																									31	

MAXIMUM SHORT DURATION PRECIPITATION

TIME PERIOD (MINUTES)	5	10	15	20	30	45	60	80	100	120	150	180
PRECIPITATION (INCHES)	0.21	0.32	0.36	0.39	0.40	0.40	0.41	0.42	0.42	0.47	0.55	0.56
ENDED: DATE	18	18	18	18	18	18	18	18	18	06	06	06
ENDED: TIME	1626	1626	1632	1636	1638	1638	1703	1730	1730	2138	2155	2155

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:
DON GRISINGER

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