

JAN 1990
 RICHMOND, VA
 NAT'L WEA SER OFC NOAA
 BOX A-63, RICHMOND INTL AIRPORT

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

JAN 1990
 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 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	59	33	46	9	29	19	0	1	0.30	0.0	29.800	31	12.5	13.4	36	NW	22	31	204	35	5	5
02	49	23	36	-1	22	29	0	0	0.00	0.0	30.230	22	7.1	7.8	21	SW	15	22	579	100	0	0
03	56	27	42	5	27	23	0	0	0.00	0.0	30.150	20	5.1	5.8	15	SW	10	22	356	61	3	3
04	59	36	48	11	43	17	0	1	0.15	0.0	29.920	21	10.0	10.7	26	SW	21	21	0	0	10	8
05	57	44	51	14	42	14	0	0	T	0.0	29.950	08	2.3	7.6	17	N	12	24	272	47	10	9
06	51	33	42	5	41	23	0	1	0.26	0.0	29.900	32	2.0	5.0	16	NW	12	28	20	3	10	9
07	48	32	40	3	34	25	0	2	0.00	0.0	29.960	15	4.9	6.3	15	S	10	17	157	27	10	10
08	41	35	38	1	37	27	0	1	0.47	0.0	29.705	36	4.2	9.0	25	NW	16	33	0	0	10	9
09	50	31	41	4	37	24	0	2	0.00	0.0	29.780	19	8.9	9.2	25	S	18	20	139	24	9	7
10	56	38	47	10	32	18	0	1	0.00	0.0	29.640	27	11.8	13.6	36	NW	21	31	469	80	4	2
11	58	28	43	6	29	22	0	0	0.00	0.0	29.540	22	10.2	11.6	29	SW	20	20	353	60	8	6
12	51	35	43	6	18	22	0	0	0.00	0.0	29.500	29	13.1	13.8	36	NW	22	30	288	49	5	3
13	44	29	37	1	12	28	0	0	0.00	0.0	29.990	29	10.9	11.4	29	NW	16	30	589	100	0	1
14	49	20*	35*	-1	17	30	0	0	0.00	0.0	30.200	18	6.1	6.9	15	S	12	18	490	83	6	4
15	63	38	51	15	30	14	0	0	T	0.0	30.100	22	9.0	10.1	22	SW	15	27	384	65	4	4
16	66	33	50	14	37	15	0	1	0.00	0.0	30.170	20	4.0	5.1	16	S	10	18	420	71	7	3
17	72*	38	55	19	43	10	0	1	0.00	0.0	30.080	21	7.7	8.2	22	SW	15	22	347	58	2	1
18	69	54	62*	26	53	3	0	0	0.01	0.0	29.910	23	13.1	13.6	30	SW	20	24	192	32	8	5
19	57	40	49	13	27	16	0	0	0.00	0.0	30.165	05	6.2	9.1	21	NE	13	03	407	68	7	7
20	53	41	47	11	39	18	0	0	T	0.0	29.950	19	8.2	9.2	23	SW	13	20	20	3	10	10
21	68	44	56	20	45	9	0	1	0.04	0.0	29.610	24	9.8	13.8	32	SW	23	25	242	40	10	9
22	57	34	46	10	30	19	0	0	0.00	0.0	29.740	25	7.4	8.4	25	W	16	26	440	73	9	6
23	60	32	46	10	30	19	0	0	0.00	0.0	29.890	18	5.8	7.7	18	S	15	16	355	59	8	7
24	58	49	54	18	43	11	0	1	0.05	0.0	29.820	20	9.3	9.7	20	S	14	19	0	0	10	10
25	71	49	60	23	54	5	0	23	1.06	0.0	29.660	20	5.4	9.3	37	W	28	26	63	10	10	10
26	58	31	45	8	33	20	0	1	0.45	0.0	29.755	29	9.3	11.5	29	NW	17	28	193	32	9	7
27	54	26	40	3	26	25	0	0	0.00	0.0	30.140	21	7.9	8.6	21	SW	14	20	611	100	2	1
28	66	34	50	13	33	15	0	0	0.00	0.0	30.060	20	5.2	8.8	23	E	12	06	592	97	7	5
29	58	36	47	10	37	18	0	1	0.05	0.0	29.705	34	2.8	8.6	39	W	26	28	0	0	10	8
30	56	38	47	10	33	18	0	0	0.00	0.0	29.825	24	4.7	8.1	25	W	21	26	490	80	6	6
31	59	34	47	10	33	18	0	1	0.00	0.0	30.060	04	3.4	5.7	17	N	13	02	618	100	0	2
SUM	SUM	SUM	SUM	SUM	TOTAL	TOTAL		NUMBER OF DAYS	TOTAL	TOTAL	FOR THE MONTH:				TOTAL	%	SUM	SUM				
1773	1095				574	0			2.84	0.0	29.900	23	4.6	9.3	39	W	28	26	9290		209	177
AVG.	AVG.	AVG.	AVG.	AVG.	DEP.	DEP.		PRECIPITATION	DEP.						DATE: 29	DATE: 25			POSSIBLE MONTH	AVG.	AVG.	
57.2	35.3	46.3	9.7	33.6	-306	0		2.01 INCH.	10	-0.39								18439	50	6.7	5.7	
NUMBER OF DAYS						SEASON TO DATE	SNOW, ICE PELLETS ≥ 1.0 INCH	GREATEST IN 24 HOURS AND DATES				GREATEST DEPTH ON GROUND OF SNOW, ICE PELLETS OR ICE AND DATE										
MAXIMUM TEMP.		MINIMUM TEMP.		2300	0	THUNDERSTORMS	1	PRECIPITATION	SNOW, ICE PELLETS													
≥ 90°	≤ 32°	≤ 32°	≤ 0°	DEP.	DEP.	HEAVY FOG	3	1.10	25-26	0.0												
0	0	10	0	-86	0	CLEAR	6	PARTLY CLOUDY	9	CLOUDY	16											

* 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. Haeber
 DIRECTOR NATIONAL CLIMATIC DATA CENTER

OBSERVATIONS AT 3-HOUR INTERVALS

JAN 1990
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	16THS MILE		AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)	SKY COVER (TENTHS)			CEILING IN HUNDREDS OF FEET	WHOLE MILES	16THS MILE	AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	WHOLE MILES	16THS MILE	AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %	DIRECTION
JAN 1st																																	
01	10	65	6		RF	57	56	55	93	24	9		0	UNL	10		32	28	20	61	26	6		0	UNL	10		29	27	22	75	21	7
04	10	70	6		RF	51	50	49	93	34	7		0	UNL	10		29	27	22	75	27	7		2	UNL	10		31	29	24	75	17	4
07	10	75	7			47	43	37	68	31	13		0	UNL	7		24	23	20	85	23	5		9	120	10		30	28	25	82	14	4
10	0	UNL	10			45	38	27	49	29	13		0	UNL	8		37	32	24	59	21	5		5	UNL	10		40	35	28	62	19	8
13	6	60	10			44	36	23	44	29	12		0	UNL	8		46	37	24	42	22	10		4	UNL	10		52	42	29	41	21	7
16	7	65	10			44	35	19	37	31	17		0	UNL	10		48	38	22	36	21	10		0	UNL	10		55	43	27	34	22	9
19	0	UNL	10			40	32	18	41	31	10		0	UNL	10		37	31	21	52	20	6		0	UNL	10		40	35	28	62	13	3
22	0	UNL	10			35	30		52	32	7		1	UNL	10		32	29	22	67	22	7		2	UNL	10		37	34	30	76	00	0
JAN 2nd																																	
JAN 3rd																																	
JAN 4th																																	
JAN 5th																																	
JAN 6th																																	
JAN 7th																																	
JAN 8th																																	
JAN 9th																																	
JAN 10th																																	
JAN 11th																																	
JAN 12th																																	
JAN 13th																																	
JAN 14th																																	
JAN 15th																																	
JAN 16th																																	
JAN 17th																																	
JAN 18th																																	

WEATHER CODES

- | | | | |
|--|--|---|---|
| <ul style="list-style-type: none"> * TORNAO 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 SM 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 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

JAN 1990
RICHMOND, VA 13740

HOOR L.S.T.	VISI-BILITY				TEMPERATURE				WIND			SKY COVER (TENTHS)	VISI-BILITY				TEMPERATURE				WIND																																																																				
	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	WHOLE MILES	16THS MILE	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)																																																										
JAN 19th																														JAN 20th																														JAN 21st																													
01	3	UNL	7		53	51	50	90	01	7	10	45	7		43	37	27	53	10	4	10	11	3		RF	RF	52	51	49	90	22	13																																																									
04	3	UNL	7		47	42	36	66	03	10	10	36	7		42	37	30	63	13	5	10	13	3		RF	RF	55	54	53	93	21	14																																																									
07	3	UNL	7		42	37	30	63	02	9	10	17	7		42	38	31	65	17	8	10	11	7		RF	RF	58	56	55	90	19	17																																																									
10	8	UNL	8		47	38	25	42	04	11	10	10	6	H	43	41	38	83	20	9	10	17	7		H	61	57	53	75	23	16																																																										
13	6	UNL	10		50	38	18	28	03	11	10	9	6	H	48	45	42	80	18	8	8	250	8		H	65	58	53	65	25	20																																																										
16	10	140	10		49	38	20	32	05	7	10	110	7		51	48	44	77	20	10	10	UNL	10		H	66	51	34	31	25	12																																																										
19	10	65	10		47	37	22	37	09	5	10	20	7		50	48	46	86	21	7	10	250	10		H	56	46	33	42	35	8																																																										
22	10	55	10		44	35	21	40	13	7	10	19	7		52	50	48	86	21	10	8	UNL	10		H	48	42	33	56	05	6																																																										
JAN 22nd										JAN 23rd										JAN 24th																																																																					
01	0	UNL	10		39	38	36	89	14	5	0	UNL	10		43	37	27	53	26	7	10	200	8			50	43	34	54	19	10																																																										
04	2	UNL	10		36	35	34	93	00	0	0	UNL	10		38	34	27	65	27	5	10	110	8			50	45	38	64	20	9																																																										
07	4	UNL	7		35	33	31	85	27	6	2	UNL	7		34	32	28	79	00	0	10	100	8			50	46	41	71	21	9																																																										
10	10	UNL	7		47	40	30	52	25	8	10	UNL	7		46	40	31	56	13	5	10	120	8			54	48	41	62	20	11																																																										
13	10	UNL	7		54	44	30	40	25	12	8	UNL	7		58	45	29	33	20	12	10	120	8			57	50	42	58	19	12																																																										
16	10	UNL	7		56	43	26	32	26	14	9	250	7		57	45	30	36	17	10	10	75	7		R	54	49	43	67	20	7																																																										
19	7	UNL	8		48	39	27	44	23	10	10	250	7		51	43	32	48	14	9	10	80	8		R	50	49	48	93	18	7																																																										
22	3	UNL	10		47	39	27	46	24	8	10	200	8		50	43	34	54	16	13	10	70	6		RF	50	50	49	96	30	4																																																										
JAN 25th										JAN 26th										JAN 27th																																																																					
01	10	70	1	RF	49	49	48	96	02	3	10	65	7	R	58	57	56	93	21	11	0	UNL	10			35	30	21	57	26	9																																																										
04	10	45	1	RF	49	49	49	100	11	3	10	27	1	R	49	48	46	90	31	14	0	UNL	10			29	27	24	82	00	0																																																										
07	10	3	1	RF	50	50	49	96	12	5	10	33	2	R	42	41	40	93	33	12	0	UNL	10			27	26	23	85	19	4																																																										
10	10	2	0	LF	51	51	51	100	34	3	10	16	6	RF	39	38	36	89	33	4	0	UNL	10			41	35	26	55	25	5																																																										
13	10	3	0	LF	55	55	54	97	25	5	9	48	7		44	39	33	65	28	13	3	UNL	10			51	41	28	41	18	10																																																										
16	8	55	5	H	69	65	63	81	19	5	8	65	7		45	37	24	44	28	12	3	UNL	10			53	42	28	38	20	12																																																										
19	10	35	5	RF	60	59	58	93	25	13	0	UNL	10		41	33	18	40	28	8	0	UNL	10			45	38	27	49	18	11																																																										
22	10	60	7	R	59	57	56	90	17	11	0	UNL	10		34	30	22	62	25	7	0	UNL	10			40	35	27	60	20	8																																																										
JAN 28th										JAN 29th										JAN 30th																																																																					
01	0	UNL	10		36	32	25	64	20	8	3	UNL	10		41	37	30	65	02	5	0	UNL	10			47	43	39	74	27	16																																																										
04	0	UNL	10		36	32	26	67	20	8	2	UNL	10		38	34	28	67	02	5	0	UNL	10			43	40	35	74	26	11																																																										
07	0	UNL	10		34	31	26	73	20	7	9	60	10		38	35	30	73	35	5	0	UNL	10			39	36	32	76	28	7																																																										
10	6	UNL	10		49	41	30	48	24	7	9	40	10		42	39	34	73	03	7	3	UNL	10			47	40	31	54	02	8																																																										
13	9	UNL	10		62	49	35	37	22	7	10	35	8		44	42	39	83	33	4	10	UNL	10			53	43	31	43	26	8																																																										
16	10	UNL	10		64	52	40	42	21	3	10	16	7		46	43	40	80	03	3	10	UNL	10			54	44	30	40	17	5																																																										
19	8	UNL	10		53	46	39	59	19	3	10	40	6	F	48	47	46	93	14	7	10	UNL	10			48	41	32	54	21	5																																																										
22	6	UNL	10		48	42	35	61	07	10	8	55	7	R	46	45	44	93	29	10	10	250	10			43	40	36	76	18	5																																																										
JAN 31st																																																																																									
01	10	250	10		44	41	36	74	09	4																																																																															
04	7	250	10		40	38	36	86	00	0																																																																															
07	0	UNL	8		34	33	32	92	34	4																																																																															
10	0	UNL	8		48	42	35	61	36	10																																																																															
13	0	UNL	10		55	44	30	39	02	7																																																																															
16	0	UNL	10		58	45	29	33	11	5																																																																															
19	0	UNL	10		47	41	32	56	06	4																																																																															
22	0	UNL	10		40	38	34	79	13	4																																																																															

SUMMARY BY HOURS

HOOR 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	DEW POINT OF				
01	4	29.880	42	39	34	75	8.5	23	5.1
04	4	29.890	40	38	33	78	7.4	24	3.3
07	5	29.910	39	37	33	79	7.7	23	2.8
10	7	29.950	46	41	34	65	9.8	25	4.0
13	7	29.890	52	45	35	54	11.7	24	6.0
16	7	29.870	54	45	34	50	11.6	24	6.8
19	6	29.890	47	42	34	62	8.9	22	4.3
22	5	29.910	44	40	34	69	8.7	23	4.6

HOURLY PRECIPITATION (WATER EQUIVALENT IN INCHES)

JAN 1990
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	0.06	0.06	0.13	0.04	0.01	T																		01									
02																									02								
03																									03								
04									0.02	0.03	0.04														04								
05																							T		05								
06	T	T	0.03	0.04	0.06	0.02	0.05	0.03	0.03	T	T														06								
07																									07								
08			T	T			0.01	0.03	0.08	0.02	0.01	0.09									0.06	0.08	0.02	0.01	0.04	0.02	T	T			08		
09																																09	
10																																10	
11																																11	
12																																12	
13																																13	
14																																14	
15						T	T	T																								15	
16																																16	
17																																17	
18				T								0.01																				18	
19																																19	
20								T																								20	
21	0.02	0.01	T	0.01	T	T																										21	
22																																22	
23																																23	
24						T	T																									24	
25	0.06	0.03	0.10	0.08	0.03	0.05	0.03	0.02	T	T	T	0.01																				25	
26	0.01	0.03	0.03	0.03	0.05	0.03	0.10	0.07	0.01	0.04	T	0.05																				26	
27																																27	
28																																	28
29																																	29
30																																	30
31																																	31

MAXIMUM SHORT DURATION PRECIPITATION

TIME PERIOD (MINUTES)	5	10	15	20	30	45	60	80	100	120	150	180
PRECIPITATION (INCHES)	0.11	0.15	0.17	0.20	0.28	0.34	0.40	0.44	0.49	0.52	0.57	0.62
ENDED: DATE	25	25	25	25	25	25	25	25	25	25	25	25
ENDED: TIME	1815	1815	1819	1830	1834	1853	1857	1910	1926	1952	2015	2041

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 BODOSKY

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