

AUG 1989  
 RICHMOND, VA  
 NAT'L WEATHER SVC  
 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

AUG 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 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	FATEST 1-MIN	MINUTES	PERCENT OF TOTAL POSSIBLE	SUNRISE TO SUNSET	MIDNIGHT TO MIDNIGHT																
01	84	69	77	-1	70	0	12	1	8	0	0.00	0.0	29.890	04	5.2	6.5	13	E	10	03	426	50	10	10													
02	84	65	75	-3	68	0	10	1	3	8	0	1.49	0.0	29.850	10	1.6	5.0	30	N	18	35	462	55	9	8												
03	89	64	77	-1	69	0	12	1	8	0	0.00	0.0	29.780	25	6.3	7.5	16	SW	13	25	717	85	7	5													
04	94*	70	82	4	74	0	17	1	8	0	0.00	0.0	29.665	25	6.9	8.7	23	NW	16	25	747	89	7	8													
05	93	75	84	6	72	0	19	1	8	0	0.00	0.0	29.580	29	5.0	6.9	21	NW	14	28	664	79	6	6													
06	92	75	84*	6	73	0	19	1	8	0	0.00	0.0	29.510	04	2.6	5.4	17	NE	13	04	647	77	5	6													
07	85	67	76	-2	67	0	11	1	8	0	0.00	0.0	29.530	36	10.8	11.2	26	N	21	36	557	65	9	9													
08	77	57*	67	-11	52	0	2	1	8	0	0.00	0.0	29.785	36	7.7	8.8	24	NW	16	36	672	81	4	4													
09	79	58	69	-9	53	0	4	1	8	0	0.00	0.0	30.000	04	6.6	7.4	15	NE	10	03	694	84	5	6													
10	66	58	62*	-16	60	3	0	1	8	0	1.55	0.0	30.020	03	10.3	11.1	24	N	17	02	0	0	10	10													
11	69	63	66	-12	64	0	1	1	8	0	0.01	0.0	29.930	01	10.0	10.4	16	N	14	03	0	0	10	10													
12	73	63	68	-9	65	0	3	1	8	0	0.01	0.0	29.910	01	5.7	6.9	15	N	12	01	80	10	10	10													
13	83	65	74	-3	68	0	9	2	8	0	0.00	0.0	29.910	09	1.5	3.3	10	SE	8	33	440	54	8	8													
14	83	67	75	-2	69	0	10	1	8	0	0.02	0.0	29.900	15	3.0	4.2	18	SE	12	17	177	22	10	10													
15	83	69	76	-1	70	0	11	1	8	0	0.00	0.0	29.800	07	1.7	2.2	8	SE	6	08	439	54	10	9													
16	86	68	77	0	71	0	12	23	8	0	0.07	0.0	29.740	17	1.9	5.8	18	E	12	07	642	79	7	7													
17	88	68	78	1	70	0	13	1	3	8	0	0.66	0.0	29.830	04	3.9	6.9	32	NE	16	04	603	74	9	9												
18	74	69	72	-5	68	0	7	1	8	0	0.96	0.0	29.930	02	9.1	9.8	22	NE	15	01	0	0	10	10													
19	81	68	75	-2	68	0	10	1	8	0	0.00	0.0	29.920	26	3.1	6.5	14	SW	10	22	300	37	10	9													
20	87	68	78	2	70	0	13	1	8	0	0.00	0.0	29.890	22	10.9	11.2	22	SW	16	23	615	76	8	6													
21	89	72	81	5	72	0	16	1	3	8	0	0.10	0.0	29.840	24	10.3	11.0	39	NW	15	24	463	58	10	9												
22	88	71	80	4	71	0	15	1	8	0	0.00	0.0	29.820	24	5.1	7.1	17	SW	12	30	695	87	8	9													
23	91	72	82	6	72	0	17	1	8	0	0.00	0.0	29.730	28	8.4	9.4	21	W	15	28	657	82	6	6													
24	83	72	78	2	68	0	13	8	8	0	0.00	0.0	29.765	04	7.2	8.0	16	NE	12	05	657	82	8	9													
25	77	68	73	-3	67	0	8	1	8	0	0.00	0.0	29.860	03	4.6	5.4	12	NE	8	05	246	31	10	10													
26	80	66	73	-3	65	0	8	1	8	0	0.00	0.0	29.860	18	4.9	5.7	14	SW	10	23	375	47	10	10													
27	82	66	74	-1	67	0	9	1	8	0	0.00	0.0	29.900	18	5.7	6.5	16	S	12	20	596	75	9	9													
28	87	67	77	2	70	0	12	1	8	0	0.00	0.0	29.925	19	6.0	6.7	22	S	12	20	642	81	7	7													
29	89	70	80	5	73	0	15	1	3	8	0	0.03	0.0	29.815	22	10.0	10.4	22	SW	18	23	603	77	6	6												
30	89	69	79	4	70	0	14	1	8	0	0.00	0.0	29.710	29	6.1	9.3	21	N	15	34	654	83	6	5													
31	85	62	74	-1	60	0	9	1	8	0	0.00	0.0	29.860	03	3.7	5.8	17	NE	10	05	782	100	0	0													
SUM		SUM		SUM		TOTAL		TOTAL		TOTAL		TOTAL		FOR THE MONTH:				TOTAL		%		SUM		SUM													
2590		2081		---		3		331		4.89		0.0		29.820		33		1.3		7.4		39		1		21		36		15252		FOR		244		240	
AVG.		AVG.		AVG.		DEP.		AVG.		DEP.		DEP.		PRECIPITATION		DEP.		DATE: 21		DATE: 7		POSSIBLE		MONTH		AVG.		AVG.									
83.5		67.1		75.3		-1.5		67.6		3		-35		PRECIPITATION		9						25250		60		7.9		7.7									
NUMBER OF DAYS						SEASON TO DATE		SNOW, ICE PELLETS		GREATEST IN 24 HOURS AND DATES				GREATEST DEPTH ON GROUND OF																							
MAXIMUM TEMP						MINIMUM TEMP		THUNDERSTORMS		PRECIPITATION		SNOW, ICE PELLETS		SNOW, ICE PELLETS OR ICE AND DATE																							
≥ 90°		≤ 32°		≤ 32°		DEP.		DEP.		HEAVY FOG		2		1.62		17-18		0.0		0																	
4		0		0		0		3		84		CLEAR		1		PARTLY CLOUDY		11		CLOUDY 19																	

\* 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

AUG 1989  
RICHMOND, VA

13740

HOUR	L.S.T.	SKY COVER (TENTHS)	VISI-BILITY			TEMPERATURE				WIND			SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	VISI-BILITY			TEMPERATURE				WIND													
			CEILING IN HUNDREDS OF FEET	WHOLE MILES	16THS MILE	WEATHER	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)									
AUG 1st																																			
01	10	20	6			71	70	69	93	03	9	AUG 2nd																							
04	10	30	6			70	69	69	97	01	6	AUG 3rd																							
07	10	5	8			71	70	69	93	01	7	AUG 4th																							
10	10	25	3			74	71	69	85	34	4	AUG 5th																							
13	10	32	3			80	73	70	72	03	7	AUG 6th																							
16	10	UNL	5			83	75	71	67	05	8	AUG 7th																							
19	10	200	6			77	73	71	82	10	6	AUG 8th																							
22	10	200	6			72	71	70	94	12	3	AUG 9th																							
AUG 10th																																			
01	9	UNL	5			74	72	71	90	16	3	AUG 11th																							
04	10	250	5			70	69	69	97	20	6	AUG 12th																							
07	9	UNL	1	8		74	73	72	94	36	5	AUG 13th																							
10	6	UNL	2			87	76	71	59	28	5	AUG 14th																							
13	8	UNL	2			93	81	77	60	22	8	AUG 15th																							
16	9	UNL	3			93	83	79	64	25	12	AUG 16th																							
19	8	UNL	3			87	79	76	70	24	11	AUG 17th																							
22	8	UNL	3			84	78	75	75	25	10	AUG 18th																							
AUG 13th																																			
01	10	90	7			66	61	58	76	02	6	AUG 14th																							
04	10	65	7			63	62	61	93	06	6	AUG 15th																							
07	10	49	2			61	60	59	93	05	9	AUG 16th																							
10	10	39	1			59	58	57	93	06	12	AUG 17th																							
13	10	25	2			61	59	58	90	04	11	AUG 18th																							
16	10	23	1			63	62	62	97	02	12	AUG 19th																							
19	10	5	1			62	61	61	97	01	10	AUG 20th																							
22	10	7	1	8	LF	63	62	61	93	01	11	AUG 21st																							
AUG 13th																																			
01	8	45	2			67	67	67	100	02	3	AUG 14th																							
04	10	16	0	2	F	66	66	66	100	34	3	AUG 15th																							
07	9	17	1			68	67	67	97	33	7	AUG 16th																							
10	10	70	2	8	F	75	70	68	79	00	0	AUG 17th																							
13	10	31	6			80	71	67	65	00	0	AUG 18th																							
16	8	45	7			80	73	69	69	14	5	AUG 19th																							
19	4	UNL	7			76	71	69	79	11	4	AUG 20th																							
22	6	UNL	6			72	70	69	90	14	5	AUG 21st																							
AUG 16th																																			
01	2	UNL	5			73	72	72	97	22	3	AUG 17th																							
04	10	4	0	8	F	70	70	70	100	00	0	AUG 18th																							
07	4	UNL	2	8	F	73	72	71	94	33	6	AUG 19th																							
10	5	UNL	6			83	75	71	67	27	9	AUG 20th																							
13	8	35	7			83	75	72	70	09	6	AUG 21st																							
16	10	43	7			82	75	72	72	16	8	AUG 22nd																							
19	10	40	6			77	74	72	85	07	10	AUG 23rd																							
22	10	250	6			72	71	70	94	20	4	AUG 24th																							

## WEATHER CODES

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

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

AUG 1989  
RICHMOND, VA 13740

HOUR L.S.T.	SKY COVER (TENTHS)			VISI-BILITY	WEATHER	TEMPERATURE			WIND			SKY COVER (TENTHS)	VISI-BILITY			WEATHER	TEMPERATURE			WIND		
	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		AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)
AUG 19th																						
01	10	7	5	F	70	68	67	90	32	5	4	UNL	7			69	68	68	97	21	6	
04	10	4	5	F	69	68	67	93	33	6	6	100	2			68	67	67	97	19	6	
07	10	7	5	F	70	68	67	90	33	7	10	5	1	8	F	72	71	70	94	21	11	
10	10	17	5	F	75	70	68	79	33	7	10	16	1	8	F	76	73	71	85	23	11	
13	10	25	7		77	71	67	71	23	6	4	UNL	2	8	H	85	75	71	63	24	13	
16	10	36	7		78	71	67	69	25	8	8	250	3			86	74	68	55	23	12	
19	9	250	7		76	72	70	82	20	5	4	UNL	3			79	73	70	74	21	9	
22	8	UNL	7		71	70	69	93	17	4	3	UNL	3			77	73	71	82	21	12	
AUG 20th																						
AUG 21st																						
AUG 22nd																						
AUG 23rd																						
AUG 24th																						
AUG 25th																						
AUG 26th																						
AUG 27th																						
AUG 28th																						
AUG 29th																						
AUG 30th																						
AUG 31st																						

SUMMARY BY HOURS

HOUR L.S.T.	SKY COVER (TENTHS)	AVERAGES						RESULTANT WIND	
		STATION PRESSURE (INCHES)	TEMPERATURE			WIND SPEED (MPH)	DIRECTION	SPEED (MPH)	
			AIR TEMP of	WET BULB of	DEW POINT of				
01	8	29.820	71	69	68	89	6.3	33	1.4
04	8	29.810	70	68	67	91	5.6	32	1.3
07	8	29.835	71	69	67	89	7.3	33	2.9
10	8	29.850	77	71	67	73	8.0	33	2.3
13	8	29.830	81	72	68	65	8.9	34	1.6
16	9	29.790	81	72	68	67	9.8	28	1.5
19	8	29.800	76	71	68	78	7.9	05	0.4
22	7	29.830	73	70	68	87	6.3	26	1.0

HOURLY PRECIPITATION (WATER EQUIVALENT IN INCHES)

AUG 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				T	T	1.40	0.06	0.03	T						T	T	T							02	
03																								03	
04																								04	
05				T																				05	
06																								06	
07																								07	
08																								08	
09																								09	
10		T	T	0.01	0.01	0.13	0.08	0.05	0.02	0.23	0.09	0.08	0.01	0.14	0.25	0.16	0.15	0.08	0.04	0.02	T	T	T	10	
11	T	T	T	T	T	T	T	T		T	T	T	T	T	T	T	T	0.01	T					11	
12		T	T	T	T	T				T	T	T	T	T										12	
13																								13	
14							T	T		T	T				T	0.02								14	
15									T	T	T													15	
16												0.04	T			0.01	T	T	0.02					16	
17																	0.03	0.16	0.32	0.09	0.04	0.01	0.01	17	
18	0.01	T	0.02	0.53	0.05	0.05	0.19	0.11	T	T	T	T												18	
19																								19	
20																								20	
21															0.05	0.05	T	T	T	T				21	
22																								22	
23																								23	
24																								24	
25								T	T															25	
26																								26	
27		T																						27	
28																								28	
29																		T	0.02	0.01				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)	0.39	0.74	1.08	1.21	1.29	1.34	1.40	1.40	1.40	1.46	1.46	1.49
ENDED: DATE	02	02	02	02	02	02	02	02	02	02	02	02
ENDED: TIME	0534	0539	0541	0545	0553	0601	0559	0559	0559	0659	0659	0759

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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