

JUL 1987
 RICHMOND, VA
 NAT'L WEA SER OFC
 BOX A-63, RICHMOND INT'L 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

JUL 1987
 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	DIRECTION	FATEST 1-MIN	DIRECTION	MINUTES	PERCENT OF TOTAL POSSIBLE	SUNRISE TO SUNSET	MIDNIGHT TO MIDNIGHT
01	92	74	83	6	71	0	18	8	0	0.00	0.0	29.830	21	9.6	9.8	22	SW	15	21	783	89	6	6
02	90	72	81	4	73	0	16	3 8	0	0.34	0.0	29.790	20	11.9	12.3	45	SW	35	22	582	66	8	9
03	90	73	82	5	73	0	17	3	0	0.20	0.0	29.790	22	8.3	10.6	25	SW	16	20	702	80	9	9
04	87	70	79	2	73	0	14	1	0	T	0.0	29.760	22	9.3	9.7	23	SW	14	21	143	16	10	10
05	86	72	79	2	72	0	14	1 3 8	0	0.02	0.0	29.800	33	3.3	7.9	21	NW	15	31	554	63	8	8
06	86	71	79	2	71	0	14	1	0	0.00	0.0	29.880	12	7.0	7.9	17	E	12	11	521	59	9	8
07	89	71	80	3	74	0	15	1 8	0	0.00	0.0	29.840	12	4.4	6.9	14	SE	10	01	498	57	9	9
08	97	75	86	8	72	0	21	1	0	0.00	0.0	29.835	27	2.1	7.1	15	NE	10	24	813	93	3	4
09	95	74	85	7	73	0	20	8	0	0.00	0.0	29.830	14	0.4	5.7	13	NW	8	34	746	85	7	6
10	93	75	84	6	71	0	19	8	0	0.00	0.0	29.790	34	4.8	6.3	20	N	12	34	771	88	8	8
11	93	74	84	6	72	0	19	8	0	0.00	0.0	29.770	36	4.6	7.2	16	N	12	35	723	83	5	5
12	95	72	84	6	71	0	19	1 3 8	0	0.64	0.0	29.740	36	2.5	6.3	48	W	30	29	522	60	5	5
13	92	69	81	3	70	0	16	1 8	0	0.00	0.0	29.680	19	2.3	4.6	13	S	9	18	711	81	3	3
14	88	68	78	0	69	0	13	1 8	0	T	0.0	29.590	28	3.5	10.2	24	NW	16	24	665	76	6	5
15	80	61	71*	-7	53	0	6		0	0.00	0.0	29.790	03	6.0	8.1	23	N	15	02	600	69	6	5
16	84	63	74	-4	61	0	9		0	0.00	0.0	29.880	07	4.0	5.6	18	E	14	10	697	80	5	5
17	84	60*	72	-6	60	0	7	1 8	0	0.00	0.0	30.080	08	3.8	5.9	15	E	12	06	789	91	2	1
18	91	62	77	-1	62	0	12	8	0	0.00	0.0	30.010	22	5.6	7.1	15	S	12	24	782	90	2	1
19	93	66	80	2	65	0	15	8	0	0.00	0.0	29.945	31	2.4	6.5	16	NW	13	01	865	100	0	0
20	97	67	82	4	66	0	17	8	0	0.00	0.0	29.950	26	4.9	6.2	18	W	12	26	845	98	0	0
21	101*	71	86	8	68	0	21	8	0	0.00	0.0	29.910	30	5.9	7.7	17	W	14	27	820	95	0	0
22	97	76	87	9	68	0	22	8	0	0.00	0.0	29.885	01	7.4	9.0	23	N	15	01	827	96	1	1
23	98	71	85	7	70	0	20	1 8	0	0.00	0.0	29.870	09	3.2	6.1	18	NE	12	04	859	100	1	1
24	97	71	84	6	69	0	19	8	0	0.00	0.0	29.925	16	6.3	7.5	17	S	13	13	859	100	0	1
25	99	75	87	9	72	0	22	8	0	0.00	0.0	29.900	19	5.1	7.9	25	S	13	18	837	98	4	4
26	99	76	88*	9	69	0	23	3 8	0	T	0.0	29.760	26	5.7	8.6	30	NW	18	32	568	66	6	7
27	95	73	84	6	68	0	19	1 8	0	0.00	0.0	29.700	02	1.3	6.1	15	N	10	24	691	81	6	7
28	91	68	80	2	59	0	15	8	0	0.00	0.0	29.700	36	8.3	10.4	23	N	16	35	779	92	4	5
29	91	66	79	1	59	0	14	8	0	0.00	0.0	29.790	06	2.2	6.2	17	NE	10	36	768	90	7	5
30	95	66	81	3	63	0	16	8	0	0.00	0.0	29.815	20	9.7	9.9	25	SW	15	22	682	80	4	4
31	98	74	86	8	67	0	21	8	0	T	0.0	29.770	23	4.8	8.5	28	N	16	36	492	58	9	8
SUM	SUM	SUM	SUM	SUM	TOTAL	TOTAL	NUMBER OF DAYS	TOTAL	TOTAL	TOTAL	TOTAL	FOR THE MONTH:				TOTAL	%	SUM	SUM				
2863	2176				0	513		1.20	0.0	29.830	23	1.3	7.7	48	W	35	22	21494	FOR 153	150			
AVG.	AVG.	AVG.	DEP.	AVG.	DEP.	DEP.	PRECIPITATION	DEP.				DATE: 12	DATE: 2	POSSIBLE	MONTH	AVG.	AVG.						
92.4	70.2	81.3	3.5	67.9	0	116	≥ .01 INCH.	4	-3.94						26897	80	4.9	4.8					
NUMBER OF DAYS					SEASON TO DATE		SNOW, ICE PELLETS	GREATEST IN 24 HOURS AND DATES				GREATEST DEPTH ON GROUND OF											
							≥ 1.0 INCH					SNOW, ICE PELLETS OR ICE AND DATE											
MAXIMUM TEMP.		MINIMUM TEMP.				0	980	THUNDERSTORMS	5	PRECIPITATION	SNOW, ICE PELLETS												
≥ 90°	≤ 32°	≤ 32°	≤ 0°	DEP.	DEP.	HEAVY FOG	0	0.64	12	0.0													
23	0	0	0	0	213	CLEAR	10	PARTLY CLOUDY	13	CLOUDY	8												

* 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

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NATIONAL CLIMATIC DATA CENTER ASHEVILLE NORTH CAROLINA

Kenneth D. Wadsworth
 DIRECTOR
 NATIONAL CLIMATIC DATA CENTER

OBSERVATIONS AT 3-HOUR INTERVALS

JUL 1987
RICHMOND, VA 13740

HOUR 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	WEATHER	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	WEATHER	AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)										
JUL 1st																																	
01	0	UNL	7		H	76	72	70	82	20	7	8	250	7		H	77	74	72	85	21	9	10	120	12		H	75	74	73	94	23	6
04	8	55	6		H	74	72	71	90	19	7	10	11	7		H	76	75	74	94	21	9	8	250	10		H	73	72	72	97	20	6
07	10	7	6		H	74	74	73	91	21	9	10	40	4		H	72	71	71	97	22	10	8	250	8		H	76	74	73	91	21	11
10	7	80	5		H	83	77	74	74	22	7	7	250	10		H	82	76	74	77	21	12	9	15	8		H	82	76	74	77	23	12
13	7	40	5		H	89	75	69	52	24	7	8	150	10		H	89	78	74	61	20	14	8	20	8		H	87	77	73	63	22	11
16	4	UNL	6		H	90	76	70	52	21	8	9	250	10		H	74	73	72	94	19	9	9	80	10		H	82	76	73	74	22	10
19	2	UNL	6		H	86	76	71	61	21	6	10	120	15		H	76	75	74	94	19	6	10	38	10		H	74	71	70	87	01	4
22	7	250	7		H	80	74	71	74	20	12	5	UNL	15		H	74	73	73	97	20	12	10	85	7		H	74	73	73	97	18	9
JUL 2nd																																	
01	0	UNL	7		H	77	74	72	85	21	9	10	120	12		H	77	74	72	85	21	9	10	120	12		H	75	74	73	94	23	6
04	8	55	6		H	74	72	71	90	19	7	10	11	7		H	76	75	74	94	21	9	8	250	10		H	73	72	72	97	20	6
07	10	7	6		H	74	74	73	91	21	9	10	40	4		H	72	71	71	97	22	10	8	250	8		H	76	74	73	91	21	11
10	7	80	5		H	83	77	74	74	22	7	7	250	10		H	82	76	74	77	21	12	9	15	8		H	82	76	74	77	23	12
13	7	40	5		H	89	75	69	52	24	7	8	150	10		H	89	78	74	61	20	14	8	20	8		H	87	77	73	63	22	11
16	4	UNL	6		H	90	76	70	52	21	8	9	250	10		H	74	73	72	94	19	9	9	80	10		H	82	76	73	74	22	10
19	2	UNL	6		H	86	76	71	61	21	6	10	120	15		H	76	75	74	94	19	6	10	38	10		H	74	71	70	87	01	4
22	7	250	7		H	80	74	71	74	20	12	5	UNL	15		H	74	73	73	97	20	12	10	85	7		H	74	73	73	97	18	9
JUL 3rd																																	
01	10	120	12		F	73	72	71	94	14	4	7	45	5		F	73	72	71	94	14	4	7	45	5		F	73	72	71	94	14	4
04	7	UNL	8		F	71	70	70	97	21	7	10	16	6		F	73	73	73	100	18	5	10	38	4		F	72	71	71	97	07	5
07	10	8	8		F	74	73	72	94	22	10	9	50	5		F	74	73	73	97	28	5	10	3	1		F	72	71	71	97	11	6
10	10	16	8		F	81	76	74	79	22	10	8	17	7		F	82	75	72	72	34	8	10	12	2		FH	80	74	71	74	16	7
13	10	20	8		H	84	76	73	70	25	12	8	20	4		H	84	76	73	70	31	13	10	UNL	5		H	83	75	71	67	12	8
16	9	80	10		H	84	76	73	70	25	10	8	UNL	4		H	85	75	70	61	35	10	8	28	6		H	83	76	73	72	10	9
19	10	90	7		H	77	75	74	91	21	4	8	UNL	6		H	82	73	69	65	06	5	8	250	6		H	79	72	69	72	11	10
22	10	300	7		H	76	75	74	94	21	7	3	UNL	6		H	74	73	72	94	07	3	6	UNL	6		H	73	70	69	87	14	8
JUL 4th																																	
01	10	120	8		H	73	72	71	94	21	9	10	40	8		H	75	73	72	90	18	6	7	45	5		F	73	72	71	94	14	4
04	7	UNL	8		H	71	70	70	97	21	7	10	16	6		F	73	73	73	100	18	5	10	38	4		F	72	71	71	97	07	5
07	10	8	8		H	74	73	72	94	22	10	9	50	5		F	74	73	73	97	28	5	10	3	1		F	72	71	71	97	11	6
10	10	16	8		H	81	76	74	79	22	10	8	17	7		F	82	75	72	72	34	8	10	12	2		FH	80	74	71	74	16	7
13	10	20	8		H	84	76	73	70	25	12	8	20	4		H	84	76	73	70	31	13	10	UNL	5		H	83	75	71	67	12	8
16	9	80	10		H	84	76	73	70	25	10	8	UNL	4		H	85	75	70	61	35	10	8	28	6		H	83	76	73	72	10	9
19	10	90	7		H	77	75	74	91	21	4	8	UNL	6		H	82	73	69	65	06	5	8	250	6		H	79	72	69	72	11	10
22	10	300	7		H	76	75	74	94	21	7	3	UNL	6		H	74	73	72	94	07	3	6	UNL	6		H	73	70	69	87	14	8
JUL 5th																																	
01	10	120	8		H	73	72	71	94	21	9	10	40	8		H	75	73	72	90	18	6	7	45	5		F	73	72	71	94	14	4
04	7	UNL	8		H	71	70	70	97	21	7	10	16	6		F	73	73	73	100	18	5	10	38	4		F	72	71	71	97	07	5
07	10	8	8		H	74	73	72	94	22	10	9	50	5		F	74	73	73	97	28	5	10	3	1		F	72	71	71	97	11	6
10	10	16	8		H	81	76	74	79	22	10	8	17	7		F	82	75	72	72	34	8	10	12	2		FH	80	74	71	74	16	7
13	10	20	8		H	84	76	73	70	25	12	8	20	4		H	84	76	73	70	31	13	10	UNL	5		H	83	75	71	67	12	8
16	9	80	10		H	84	76	73	70	25	10	8	UNL	4		H	85	75	70	61	35	10	8	28	6		H	83	76	73	72	10	9
19	10	90	7		H	77	75	74	91	21	4	8	UNL	6		H	82	73	69	65	06	5	8	250	6		H	79	72	69	72	11	10
22	10	300	7		H	76	75	74	94	21	7	3	UNL	6		H	74	73	72	94	07	3	6	UNL	6		H	73	70	69	87	14	8
JUL 6th																																	
01	10	120	8		H	73	72	71	94	21	9	10	40	8		H	75	73	72	90	18	6	7	45	5		F	73	72	71	94	14	4
04	7	UNL	8		H	71	70	70	97	21	7	10	16	6		F	73	73	73	100	18	5	10	38	4		F	72	71	71	97	07	5
07	10	8	8		H	74	73	72	94	22	10	9	50	5		F	74	73	73	97	28	5	10	3	1		F	72	71	71	97	11	6
10	10	16	8		H	81	76	74	79	22	10	8	17	7		F	82	75	72	72	34	8	10	12	2		FH	80	74	71	74	16	7
13	10	20	8		H	84	76	73	70	25	12	8	20	4		H	84	76	73	70	31	13	10	UNL	5		H	83	75	71	67	12	8
16	9	80	10		H	84	76	73	70	25	10	8	UNL	4		H	85	75	70	61	35	10	8	28	6		H	83	76	73	72	10	9
19	10	90	7		H	77	75	74	91	21	4	8	UNL	6		H	82	73	69	65	06	5	8	250	6		H	79	72	69	72	11	10
22	10	300	7		H	76	75	74	94	21	7	3	UNL	6		H	74	73	72	94	07	3	6	UNL	6		H	73	70	69	87	14	8
JUL 7th																																	
01	8	55	5		FH	71	70	69	93	12	7	5	UNL	2		FH	76	75	75	97	17	4	0	UNL	7		H	76	74	73	91	16	4
04	10	5	3		FH	73	72	71	94	15	5	7	UNL	5		FH	75	74	74	97	18	4	0	UNL	7		H	75	74	74	97	18	5
07	10	5	2		FH	75	74	73	94	17	6	2	UNL	2		H	81	76	73	77	32	6	8	UNL	5		H	81	76	74	79	30	3
10	10	12	2		FH	80	75	73	79	01	5	0	UNL	10		H	90	75	68	48	35	9	2	UNL	6		H	90	76	70	52	05	5
13	10																																

OBSERVATIONS AT 3-HOUR INTERVALS

JUL 1987
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)									
JUL 19th																															
01	0	UNL	6	H	70	66	64	81	24	6	0	UNL	5	H	72	69	67	84	00	0	0	0	UNL	5	H	81	71	66	60	27	9
04	0	UNL	5	H	66	64	62	87	18	5	0	UNL	5	H	69	67	65	87	00	0	0	0	UNL	5	H	76	70	67	74	27	3
07	0	UNL	5	H	73	68	65	76	27	6	0	UNL	3	H	75	72	70	85	00	0	0	0	UNL	3	H	79	72	68	69	30	6
10	0	UNL	5	H	87	71	63	45	01	11	0	UNL	4	H	89	75	68	50	32	8	8	0	UNL	3	H	93	76	69	46	34	10
13	0	UNL	5	H	91	73	64	41	22	5	2	UNL	5	H	94	74	65	39	26	7	7	0	UNL	5	H	99	78	70	39	36	11
16	0	UNL	5	H	92	73	63	38	23	10	0	UNL	5	H	96	73	62	33	26	8	8	0	UNL	6	H	101	75	62	28	28	10
19	0	UNL	5	H	88	73	65	47	35	6	0	UNL	5	H	92	73	64	40	25	7	7	2	UNL	6	H	95	75	66	39	26	8
22	0	UNL	5	H	75	70	68	79	05	3	0	UNL	5	H	84	72	65	53	24	8	1	1	UNL	5	H	87	75	70	57	28	6
JUL 20th																															
JUL 21st																															
JUL 22nd																															
JUL 23rd																															
JUL 24th																															
JUL 25th																															
JUL 26th																															
JUL 27th																															
JUL 28th																															
JUL 29th																															
JUL 30th																															
JUL 31st																															

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	DEW POINT OF				
01	4	29.830	74	70	68	83	6.4	21	3.3
04	5	29.820	72	69	68	88	5.5	21	2.1
07	5	29.850	75	71	69	80	7.5	27	2.0
10	4	29.860	85	74	68	58	9.4	32	2.3
13	5	29.830	90	74	66	48	8.9	31	2.4
16	6	29.800	89	74	66	49	9.7	22	1.7
19	6	29.800	83	73	68	62	6.8	13	1.7
22	5	29.825	77	72	69	78	6.2	19	3.4

HOURLY PRECIPITATION (WATER EQUIVALENT IN INCHES)

JUL 1987
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	
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02						0.06	0.02	T																02	
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MAXIMUM SHORT DURATION PRECIPITATION

TIME PERIOD (MINUTES)	5	10	15	20	30	45	60	80	100	120	150	180
PRECIPITATION (INCHES)	0.17	0.33	0.46	0.51	0.54	0.57	0.64	0.64	0.64	0.64	0.64	0.64
ENDED: DATE	12	12	12	12	12	12	12	12	12	12	12	12
ENDED: TIME	1613	1613	1619	1623	1632	1638	1659	1659	1659	1659	1659	1659

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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