



# HOURLY PRECIPITATION DATA

**VIRGINIA** 

**JULY 2012** 

**VOLUME 62 NUMBER 7** 

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**Director** 

**National Climatic Data Center** 

Thom R. Karl

# **DAILY PRECIPITATION TOTALS**

	STATION	Г														DA	Y OI	F MC	NTI	I													
GAGE	STATION	TOTAL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
F F F F F N F F F F N N F F F F N N N F	VIRGINIA ALTAVISTA BEDFORD 4 NW BLACKSBURG NWSO BREMO BLUFF CAMP PICKETT CHATHAM DANVILLE REGIONAL AP GALAX WTP GATHRIGHT DAM JOHN H KERR DAM LYNCHBURG INTL AP MILLGAP NORFOLK INTL AP PAINTER 2W PIEDMONT RSCH STN PULASKI 2 E RICHMOND INTL AP ROANOKE INTL AP ROANOKE INTL AP ROCKY MT STAFFORDSVILLE 3 ENE TROUT DALE 3 SSE WAKEFIELD INW WALLOPS ISLAND NASA TEST WASHGTN DULLES INTL AP WASHINGTON REAGAN AP WILLIAMSBURG 2 N WILLIS WISE 3E WOOLWINE WYTHEVILLE 1 S	5.1 .0 P .0 P .0 P .0 P .2.57 4.1 .0 P .2.73 4.7 4.81 4.8 4.4 4.1 5.29 3.14 .0 P 2.2 6.2 .0 P 3.46 2.43 2.81 5.4 .0 P .0 P	PP mPP .2 PPP T.1 TPP.7 PPPP		T23 .029	T	.6 m 4	- m	m	.8	1.5		m04 - 4 1.08  T666	T T .1 .1 .1	.2 - m522 .1 - T T T	.1	m	.01		.02408 .06	.1 - m - T 7 7 T T 2 .4 .09 .20208 1.02 .421	.1 T .1 .14 .5 .5 .154 T214 .5719 1.4	.2	T .1 .1 .01 - T T			.4 m		.7		- m T - T		.4 - I - .39 .9 .52 .3 2.1 .74 .41 - .4 .1 .03

CT A TION						A	.M. H	OUR	ENDI	NG								P.	М. Н	OUR I	ENDI	NG				ے ا
STATION	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	TOTAL
ALTAVISTA	5 8 9 13 14 19 20 21 25 27		.1	.2	.1	.2 .1	.1 .1	.1	.1	.1		.2		.2		.6	.4	1.1					.6			.6 .8 1.5 .2 .1 .1 .1 .2 .4
BEDFORD 4 NW BLACKSBURG NWSO BREMO BLUFF CAMP PICKETT CHATHAM	31 1 31 1 31 1 31 1 31 1	- [ m m -	{   -   m   m   { -   -     -     -     -     -     -       -     -     -     -       -	- - - m m - -	m m	- - - m m - -	- - - m m - -	- - - m m - -	- - - - m m - -	- - - m m - -	.4 - - - m m - -	- - - m m - -	- - - m m - -	- - - m m - -	- - - - m m - - -	- -} -} m i] - -}	.4 P - P - m I P -									
DANVILLE REGIONAL AP	2 8 9 10 11 14 15 16 19 20 21 23	Т	.05	.02	.02	.01					Т	T .12	T	Т	.01 .11	T .04 T	T .01	T .04	.47 T T	T T .03 .02	T	T .02	.09 T T	.14 .01 T	.85 T	.19 1.08 .48 T .04 .20 .11 T T T .06
GALAX WTP	27 1 2 5 8 10 11 13 14 15 19 20	.2	.1	.1	.1	.1	.2		.1	.1			.3			.1	.01	.03	T .5	.3	.1				.2	.37 .2 .3 .4 .1 .6 .4 .5 .3 .2 .7
GATHRIGHT DAM	24 1 31	_	{ -	-	-	-	-	-	-	-	-	-	-	-	.1 - -	.1 - -	-	-	-	-	-	-	-	-	- - }	.2 P -
JOHN H KERR DAM	1 31	-	{ - -	-	-	-	-	-	-	-	-	-	-	- -	-	-	-	-	- -	-	-	-	-	-	- -}	P -
LYNCHBURG INTL AP	3																.02	1.32	T							1.34

STATION						A	м. н	OUR I	ENDI	NG								P.	м. н	OUR I	ENDI	NG				ı
SIATION	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	TOTAL
	8 9 10								Т	.09	.01	Т	Т			.04	.02	.05	Т	Т	T .04	.02	Т	T		.02 .11 .14
	12 13 14 15	T T	T T					Т								T	.12			Т	T	.02 T	.06 T T	.13	.01	T .22 .12 .02 T
	19 20 21 23 24						T		T	T				Т	.01 T	T	Т	.02 T	Т			T		Т	Т	T T .03
	27 28 30														1	.01 T T	T .18 .03 T	.12	1					.01	20	.01 .30 .03 T
MILLGAP	31 2 13 14 15										.1				.1	.1	.5						.2	.01	.38	.39 .1 .1 .3 .5
	16 20 21 24							.2				.1	.1 .2			.1	.1	.6	.5							.1 .1 1.6
NORFOLK INTL AP	27 30 31 1								Т							.2					.4	.6 .3	.1 .1	.1		.2 .7 .9 T
	9 10 11 14	.04 T	T .19	T .66	.18	.04		Т	Т	T .01	T T	Т	T		.01 T	.77 .13	T .03	.02						.01	T	.78 .21 1.08 .05
	19 20 21 22					.03	.04				Т	Т	.01	.03		.03	.52	T T .01	.01 .03	.01 .04	.05	Т	.09	.02	.01	T .14 .79 T
	24 27 28 29	T T																.04	.04	.01 .80	.20		.04	.06	.05	.09 1.15 T T
PAINTER 2W	30 31 1 10								.1 .1			.02	.50	Т							T					T .52 .1 .2
	14 15 17							.1	.1	.1			.1			.7	1.6		.1					2		2.6 .1 .1
	19 20 21 22	.1							.1			.1			.1									.2	.2	.2 .5 .3 .1

STATION						A	.М. Н	OUR	ENDI	NG								P.	М. Н	OUR I	ENDI	NG				] <sub>1</sub>
STATION	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	TOTAL
PIEDMONT RSCH STN	24 26 29 31 14 15 20 21 22 24	.1	.4		.1		.1		.1	.1		.1		.1		.7			.1 .1 .2	.1		.1	.1			.1 .1 .3 .2 .3 .1 .6 .1
PULASKI 2 E	24 27 31 2 10 13 14 16 19 23	.2	.1	.2		.1	.4	.3	.3	.1						.1	.2	.1 .1 .2	.1 1.3 .1	.1	.1		.2	.5		2.1 .2 1.5 .2 .3 .3 .4
RICHMOND INTL AP	24 26 27 1 8 9 10 14 15	Т	.03	Т	T .96	.34	.03	Т	Т			Т	.50	.5	.01 .14	.1 .1 .2 T	T .51	T .22 .01	T .03	Т	.24	.22				.6 .1 .2 T T .46 1.36 .96
ROANOKE INTL AP	18 19 20 21 22 23 24 27 31	Т	T	.01	Т	.01					.01	Т		Т	Т	Т	.01	T .07 .04	.08 .04 .04	.02 .01 .02 .02	.09 T T	T T .01	.36 .02	.02 .18 .02	T	.02 .09 .54 .17 .01 .01 .14 .06 .74
	2 3 9 10 11 12 13 14 15 16 19 20 21	.01	.03	Т		T	T T T	.02 T T	.02	.07	T .02		T T	.02	T T	.01 T T	T .54 T .43	T .02	T T .18	.02 T .02	.01 .19	T T	Т	Т		.04 T .58 .13 T T T .21 .03 .43 .20 T .08

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STATION						A	.М. Н	OUR I	ENDI	NG								P	.М. Н	OUR 1	ENDI	NG				l
STATION	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	TOTAL
	23 24 27 30 31											.08 T	T T	.09 .03	T .09	.69 .03	.02 T T	T T	Т		Т	Т		.17	.24	.19 .03 .69 .12 .41
ROCKY MT	1 31	-	{ - -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- -}	P -
STAFFORDSVILLE 3 ENE	1 2 13	.1	.1							.1															.7	.7 .2 .1
	14 20 24 27 31	.1								.1			.1	.2	.1	.1			.1			.3	.1			.1 .2 .3 .2 .4
TROUT DALE 3 SSE	2 5 8	.1		.1				.1							.1	.1						.5	.1			.2 .2 .1
	10 11 12 14 15 18	.1		.1	.4	.4	.2	.2	.1		.1	.1		.1		.1 .2 .1	.1 .2 .2	.1 .1 .1 .1	.1 .1	.1 .2	.1 .1	.1		.1		1.5 .6 .1 .9 .5
	19 24 25 31		.1		.1			.1						.7	.1 .1		.1	.1		.1						.2 1.1 .3 .1
WAKEFIELD INW	1 31	_	{ - -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- -}	P -
WALLOPS ISLAND NASA TEST	2 9				.01	.06	.36	.05	T								.49	T								T .97
	10 14 15	Т	T	.06	.02		T	Т		T	Т	.10				T	.05	.04	.01 T	.01	.01					.08 .20 .02
	18 19 20 21 22	.05	T		Т	.07	.05	.04		Т	Т	Т						T				.07	.01	.06 T	.08 .08	.08 .08 .14 .21 T
	24 27 28 29 31				Т	.97	.04	.04	Т			Т							.09		.05 T	.02 T	Т	.47	Т	.09 .07 .47 T 1.05
WASHGTN DULLES INTL AP	2 3 8	Т	T		1	.91	.04	.04	1			1				Т	Т	Т	Т		.06	.17				1.05 T .23 T
	9 13 14	.02	.08	.10	.01 T .06	.04	.01 T	.01	.01 T	T T									_	Т	Т	Т				.24 T .10

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VIRGINIA	_				1.				1				. 4 🗷 .		T 4						J	IULY	201	.4		
STATION						A	.М. Н	OUR	ENDI	NG								P.	м. н	OUR I	ENDI	٧G				] <sub>u</sub>
STATION	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	TOTAL
	15 16 18 19 20 21 22 23	.01	Т	T T	.02	.01	Т		Т	.01 T	Т	T .01	T T	T .01	T T	.03	.01	T .06 T T	T	T T	.42 .01	.77 .02 T	.09	T .16 .12	.06 .01 .01	.06 .01 .06 1.02 .57 .13 T
WASHINGTON REAGAN AP	23 24 26 27 31 3 4			ı					T			Т	Т	T				T	Т	Т		.02	T T T	Т	.01	T T T .01 .02 T
	8 9 10 13 14 15	Т	.03	.03	.15 T T	T .04	.03 T	.02	Т								Т	.01	T .03 .02	T	.56	.04	Т	.10	.59 T	.69 .26 .60 T .08
	16 19 20 21 23	.01 T T	Т	T	Т	Т	.01	Т		Т	.07	T T	T T	.10 T	T T T	T T	.01	.01	.04		.01 T	T .07 .01	.29 .01 T	.06	.07 T	.02 .42 .19 .21 T
WILLIAMSBURG 2 N	24 26 28 31 9 10							.4					Т			.03	Т		T .5	.03 T	.24 T .1	.1	.3	T .1		T T .27 .03 1.1 .4
	14 20 21 24 27 29	.4	.3												.4		.1	.5 .3	.1	.1		.8	.2	.2	.1	.4 1.4 .7 .6 .1
WILLIS WISE 3E WOOLWINE	1 31 1 31 1	-	.5 { - - { - - { -	- - - -	- - - -	- - - -	-	- - -	- - -	-	- - - -	- - - -	- - - -	- - - -	- - -	- - - -	- - -	- - -	- - - -	- - -	- - - -	- - - -	- - - -	- - - -	- -} - -}	P - P
WYTHEVILLE 1 S	31 1 2 3 10	.2	.6	-	-	.1	.2	.3	.1	.1	-	.1	-	-	-	-	-	.7	.2	-	-	-	-	.1q	- } .6q	P .2 .9 1.6
	11 12 13 19		.0			.1	.2	.5				.1		.2	.3	.1				.4 .1	.1					.6 .1 .4 .1

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VIRGINIA

# **HOURLY PRECIPITATION**

STATION						A.I	М. Н	OUR 1	ENDI	NG								P.N	И. НС	OUR E			201			l
STATION	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	TOTAL
	24 28 31												.2	.4	.1	.1	.1									.7 .2 .3
	31														.3											.3

# MONTHLY PRECIPITATION MAXIMA

GT L TY O.Y.				MAXIM	A FOR M	FASURM	ENT			MAXIMUM
STATION	_				ATOKW					
	N	INUTES	1		Γ	HOUI	RS			ACCUMULATION
	15	30	45	1	2	3	6	12	24	
ALTAVISTA BEDFORD 4 NW BLACKSBURG NWSO BREMO BLUFF CAMP PICKETT CHATHAM	.7 09/1615	1.1 09/1630+	1.5 09/1630	1.5 09/1645+	1.5 09/1745+	1.5 09/1845+	1.5 09/2145+	1.5 10/0345+	2.1 09/2100+	
DANVILLE REGIONAL AP GALAX WTP GATHRIGHT DAM JOHN H KERR DAM	.3 19/1900+	.4 19/1645+	.5 13/1800	.85 08/2400 .5 13/1815+	.99 08/2400 .5 13/1915+	1.08 08/2400 .7 19/1915+	1.08 09/0300+ .7 19/2215+	1.08 09/0900+ .7 20/0415+	1.55 09/2100+ .8 14/1715+	
LYNCHBURG INTL AP MILLGAP NORFOLK INTL AP PAINTER 2W	.3 30/2100+	.6 30/2100+ 1.6 14/1545	.8 21/1715 1.6 14/1600+	1.32 03/1700 1.0 21/1730 .80 27/1900 1.9 14/1545	1.34 03/1700 1.1 21/1830+ 1.00 27/2000 2.3 14/1630+	1.34 03/1800+ 1.2 21/1800+ 1.03 11/0400 2.4 14/1730+	1.34 03/2100+ 1.2 21/2100+ 1.15 27/2400 2.4 14/2030+	1.34 04/0300+ 1.6 21/1815+ 1.15 28/0600+ 2.6 14/1915+	1.34 04/1500+ 1.6 22/0615+ 1.25 11/1300+ 2.7 15/0715+	
PIEDMONT RSCH STN PULASKI 2 E RICHMOND INTL AP ROANOKE INTL AP ROCKY MT	1.0 31/1800 .3 24/1230+	1.3 31/1800 .4 24/1245+	1.4 31/1815 .5 24/1245	1.4 31/1830+ .5 24/1300+ .96 10/0400 .69 27/1500	1.4 31/1930+ .7 10/0730+ 1.30 10/0500 .69 27/1600+	1.4 31/2030+ 1.0 10/0800+ 1.33 10/0600 .69 27/1700+	2.1 31/2330+ 1.3 10/0830+ 1.36 10/0700+ .69 27/2000+	2.1 31/2400+ 1.5 10/1300+ 1.82 10/0700+ .69 28/0200+	2.1 31/2400+ 1.5 11/0100+ 1.82 10/1900+ .71 10/1500+	
STAFFORDSVILLE 3 ENE TROUT DALE 3 SSE WAKEFIELD INW WALLOPS ISLAND NASA TEST WASHGTN DULLES INTL AP WASHINGTON REAGAN AP	.5 01/2315 .3 24/1230	.6 01/2330 .5 24/1245	.6 01/2345+ .6 24/1300+	.7 01/2400 .7 24/1300 .97 31/0500 .77 19/2100 .59 08/2400	.8 02/0100+ .8 24/1400+ 1.01 31/0600 .86 19/2200 .69 08/2400	.9 02/0200+ 1.1 10/0615+ 1.05 31/0700 1.02 19/2300 .69 09/0100+	.9 02/0500+ 1.4 10/0845+ 1.05 31/1000+ 1.02 20/0200+ .90 09/0400	.9 02/1100+ 1.4 10/1515+ 1.05 31/1600+ 1.02 20/0800+ .95 09/1000+	.9 02/2300+ 1.6 11/0245+ 1.05 31/2400+ 1.44 20/2000 .95 09/2200+	
WILLIAMSBURG 2 N WILLIS WISE 3E WOOLWINE	.5 09/1730	.6 20/2100	.7 20/2115+	.8 20/2115+	1.0 20/2215+	1.2 20/2300+	1.3 21/0200+	1.4 21/0345+	1.9 21/2000+	
WYTHEVILLE 1 S	.6 03/1700	.7 03/1715+	.8 03/1730+	.9 03/1730	.9 03/1830+	.9 03/1930+	1.2 10/0730+	1.6 10/1245+	1.6 11/0045+	

#### REFERENCE NOTES

Hourly Precipitation Data (HPD) are obtained from recording rain gages. The rain gage may be located at a National Weather Service, Federal Aviation Administration, or Cooperative Observer Station. HPD time resolution is 15 minutes or 1 hour. Published data are displayed at an hourly resolution. Precipitation values in this bulletin are in inches. Times are local standard.

#### Standard rain gage types:

Weighing gage : reported in inches to tenths Tipping bucket : reported in inches to hundredths Т Weighing gage : reported in inches to hundredths TT

Not specified

HPD maxima cover 9 time periods from 15 minutes to 24 hours and do not necessarily end on whole hours. Stations that report hourly data only will not have maxima computed for periods less than 1 hour. If any data are missing, no maxima are computed. MAXIMUM ACCUMULATION is the largest accumulated precipitation amount from times with unknown data distribution during a month. Clock mechanisms sometimes stick or stop; some of the special symbols in the HPD section are used when such "signatures" are found in the data.

Information contained in the station name:

- Rain gage equipped with a wind shield.
- Inactive station. Symbol found by station name in the Station Index.
- Experimental rain gage or unusual measurement procedure which may have some effect on HPD. Common types are:
  - rain gage with a heated orifice
  - \$2 rain gage with an automatic siphon
  - rain gage with a remote orifice and funnel \$3
- 8 SW or other numbers and letters following the name, indicate the distance in miles, and the direction, from the nearest post office.

#### Special symbols in the HPD:

- Begin accumulation sometime within the hour period or day period.
- End accumulation during the day or hour. Will follow the distribution amount.
- Temporal distribution unknown. First HPD value that follows is the total accumulated amount.
- Estimated monthly total by spatial modelling.
- Incomplete hourly total. One (1) or more 15 minute periods are missing.
- Incomplete daily or incomplete monthly total. One (1) or more periods т are missing.
- Daily or monthly total excludes highly suspect data value(s).
- Hourly total excludes one (1) or more questionable 15 minute periods.

- Ouestionable 15 minute data. Seen in Maxima tables.
- Time of occurrence is suspect. Amount is included in daily total.
- Trace amounts are included only for Federally funded meteorological observing sites.
- Value greater than 9.99 refer to Hourly Precipitation Section for daily total.
- Probable melting frozen precipitation included in total.
- Begin missing period during the hour (inclusive) or day.
- End missing period during the hour (inclusive) or day.
- Begin delete period during the hour (inclusive) or day.
- End delete period during the hour (inclusive) or day.
- Data missing for part or all of the period. m
- Data deleted for part or all of the period.
- Duplicate maxima for same time period; latest is shown.
- NOTE: Missing (m) flag in the MONTHLY PRECIPITATION TOTALS page represents missing and/or deleted data for part or all of period.
- NOTE: Only the first and last rows of long groups of missing (m), deleted (-), and accumulated (\*) data are shown.
- NOTE: The special symbols in the HPD appear as a suffix to type "F" values, or directly below type "T" and type "U" gage values.
- NOTE: TIPPING BUCKET precipitation gages become increasingly inaccurate with increasing rainfall intensities. TIPPING BUCKET gages also may NOT correctly report the amount or time distribution during frozen or freezing precipitation events (i.e. snow, hail, sleet, or freezing rain).
- NOTE: Users of data from this publication may notice that daily totals may differ from those listed in the CLIMATOLOGICAL DATA (CD) publication. There are two primary reasons for the differences. The first is because the precipitation values are measured by two different gage types. The second reason is that the totals may be measured at different times. Most manual measurements are made at or near 8 AM or 5 PM local time while the daily totals from the hourly precipitation gages are computed on a midnight (calendar day) basis.

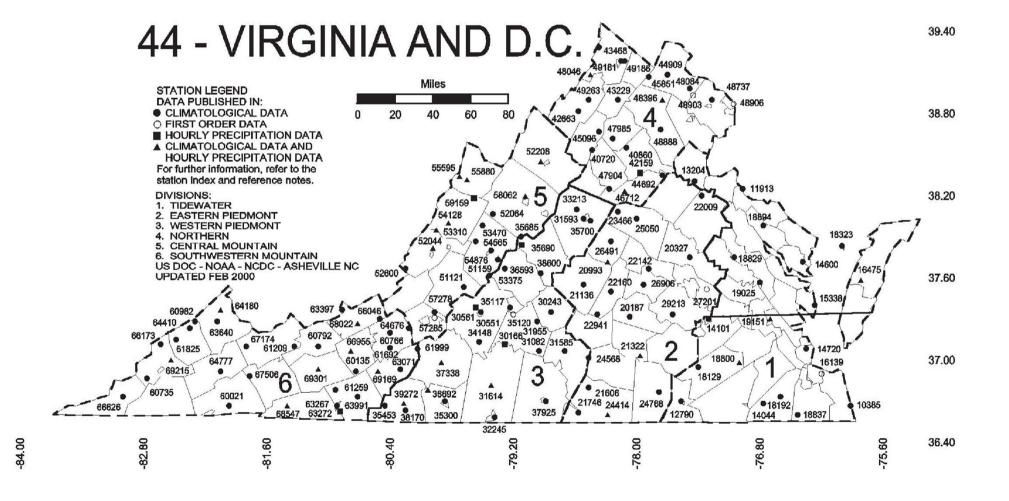
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The data presented are also available in digital form from our web page at http://www.ncdc.noaa.gov in PDF files and ASCII text format.

### **STATION INDEX**

JULY 2012 **VIRGINIA** 

Station	Index No.	County	Drainage	Latitude	Longitude	Elevation Ft.	Years Of
ALTAVISTA BEDFORD 4 NW BLACKSBURG NWSO BREMO BLUFF CAMP PICKETT CHATHAM DANVILLE REGIONAL AP GALAX WTP GATHRIGHT DAM JOHN H KERR DAM LYNCHBURG INTL AP MILLGAP NORFOLK INTL AP PAINTER 2W PIEDMONT RSCH STN PULASKI 2 E RICHMOND INTL AP ROANOKE INTL AP ROANOKE INTL AP ROCKY MT STAFFORDSVILLE 3 ENE TROUT DALE 3 SSE WAKEFIELD 1NW WALLOPS ISLAND NASA TEST WASHGTN DULLES INTL AP WASHINGTON REAGAN AP WILLIAMSBURG 2 N WILLIS WISE 3E WOOLWINE WYTHEVILLE 1 S	0166 0566 0769 1321 16257 3341 4515 5533 4515 5566 4715 1627 7738 888 899 1627 1627 1738 888 899 1638 888 899 999 999 9999	CAMPBELL BEDFORD MONTGOMERY FLUVANNA NOTTOWAY PITTSYLVANIA PITTSYLVANIA CARROLL ALLEGHANY MECKLENBURG CAMPBELL HIGHLAND NORFOLK (CIT ACCOMACK ORANGE PULASKI HENRICO ROANOKE FRANKLIN GILES GRAYSON SUSSEX ACCOMACK LOUDOUN ARLINGTON YORK FLOYD WISE PATRICK WYTHE	15 917 195995571195511114 13916711	37 37 37 37 37 36 36 37 36 37 38 37 37 38 37 38 37 38 37 38 37 38 37 38 37 38 38 37 38 38 37 38 38 38 38 38 38 38 38 38 38 38 38 38	79 17 79 34 80 25 78 17 79 25 79 20 80 57 79 25 79 43 79 43 79 78 47 79 58 79 480 47 77 79 58 81 200 82 81 77 76 42 80 82 81 81 06	529 1228 2100 225 330 6571 23670 2421 300 2421 300 2421 300 2430 2430 2450 2811 2910 2819 2910 2819 2910 2910 2910 2910 2910 2910 2910 29	66 17 86 25 88 93 363 140 666 561 77 437 769 157 618 138
		1.102.11					



### These and other publications are available from the National Climatic Data Center

### **Hourly Precipitation Data**

This publication contains hourly precipitation amounts obtained from recording rain gages located at National Weather Service, Federal Aviation Administration, and cooperative observer stations. Published data are displayed in inches and tenths or inches and hundredths at local standard time. HPD includes maximum precipitation for nine (9) time periods from 15 minutes to 24 hours, for selected stations.

### **Climatological Data**

Monthly editions contain station daily maximum and minimum temperatures and precipitation. Some Stations provide daily snowfall, snow depth, evaporation, and soil temperature data. Each edition also contains monthly summaries for heating and cooling degree days (65 degree F base). The July issue contains a recap of monthly heating degree days and snow data for the preceding July through June.

The Annual issue contains monthly and annual averages of temperature, precipitation, temperature extremes, freeze data, soil temperatures, evaporation, and a recap of monthly cooling degree days.

#### **Storm Data**

Monthly issues contain a chronological listing, by states, of occurrences of storms and unusual weather phenomena. Reports contain information on storm paths, deaths, injuries, and property damage. An "Outstanding storms of the month" section highlights severe weather events with photographs, illustrations, and narratives. The December issue includes annual tornado, lightning, flash flood, and tropical cyclone summaries.

### **Monthly Climatic Data for the World**

This publication contains monthly means for temperature, pressure, precipitation, vapor pressure, and sunshine for approximately 2,000 surface data collection stations worldwide and monthly mean upper air temperatures, dew point depressions, and wind velocities for approximately 500 observing sites.

### **Local Climatological Data**

LCD publications summmarize temperature, relative humidity, precipitation, cloudiness, wind speed and direction observations for several hundred cities in the U.S. and its territories. Each monthly publication also contains 3 hourly weather observations for that month and a hourly summary of precipitation. Annual LCD publications contain a summary of the past calendar year as well as historical averages and extremes.

For Information Call:

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