



# HOURLY PRECIPITATION DATA

## VIRGINIA

### NOVEMBER 2012

VOLUME 62 NUMBER 11

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hum R. Karl

Director National Climatic Data Center

noaa

National Oceanic and Atmospheric Administration National Environmental Satellite, Data and Information Service National Climatic Data Center Asheville, North Carolina

#### VIRGINIA

# **DAILY PRECIPITATION TOTALS**

	STATION															DA	Y OI	F MC	ONTI	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 F F F F N F T F F N F N F N F	VIRGINIA ALTAVISTA BEDFORD 4 NW BLACKSBURG NWSO CAMP PICKETT CHATHAM DANVILLE REGIONAL AP GALAX WTP GATHRIGHT DAM JOHN H KERR DAM LYNCHBURG INTL AP MILLGAP NORFOLK INTL AP PIEDMONT RSCH STN PULASKI 2 E RICHMOND INTL AP ROANOKE INTL AP	.4 I .47E .8 .0 P .3 .48 .6 .5 .8 .61 .0 P .30E 1.30E .27 .61	P T P T	- T - T	I I .10 .06 - .5 .09	.10 - T .1 T .05	-	- .19 -	- .23 - .03	-	-	-	- .1 -	.1 .2 .6 - .05 .4 .3 .13 - .6 .28	.1 .1 .1 .16 .2 .1 .3 .26 .34 .34 .1 .12 .13	-	- .1 - .09 - T	-	-	- .01	-	-	-	-	- T -	-	1	- .1 -	.2 .1 .14 .2 .06 - .07 - I .12 .06	- - m	-	-	
F F N N F F F F F	ROCKY MT STAFFORDSVILLE 3 ENE TROUT DALE 3 SSE WALLOPS ISLAND NASA TEST WASHGTN DULLES INTL AP WASHINGTON REAGAN AP WILLIAMSBURG 2 N WILLIS WISE 3E WOOLWINE WYTHEVILLE 1 S	.7 .6 .55E .56 1.12 .60 .4 .9 .0 P .8 .5	I T P	m -	.2 .2 m	.1 m .2 - .1 .1	_	-	.37 .02 .1	T .01 -	-	-	-	.2 .4 .2 .19 .01 .6 .4 .3	.2 .12 .87 .50 .1 .1 .1 .1	_	.1 -	Т	-	-	-	-	-	-	Τ	-	-	-	.07 .06 .06 .1 -	-	-	-	

### HOURLY PRECIPITATION

NOVEMBER 2012

STATION			A.M. HOUR ENDING P.M. HOUR ENDING   1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11 12													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
ALTAVISTA	3 4	m	[ m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m ]	I m
	12 13							.1			m			m		m		m						m	.1	.1
BEDFORD 4 NW	27 3		[ m	m	.1 m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	.1 m	.2 I
	4 12	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m .1	m .1	m ]	m .2
BLACKSBURG NWSO	13 4	.1			.1																					.1 .1
	12 13		.1										.1							.1	.2	.2				.6 .1
CAMP PICKETT	1 30	-	{ - -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- - }	P -
CHATHAM	4 25			.1																		.1				.1 .1
DANVILLE REGIONAL AP	27 2											Т			.1											.1 T
	3 4	.01	.01	Т			Т	.01	Т							_								Т	.10	.10 .03
	12 13		.01	.01	T	Т	.03	.03	.04	.04	Т	Т		.04	.01	T	02	0.4	T							.05 .16
GALAX WTP	27 12 13	.1		.1	.01		Т	.01	Т			Т		.01	.02	.03	.02	.04	Т	.1				.3		.14 .4 .2
GATHRIGHT DAM	13 11 12	.1		.1																		.2	.1		.1	.1
JOHN H KERR DAM	12 13 8			.1			.1															.2	.1			.1
	13 15				.1		.1					.1				.1				.1						.3
	26 27															.1			.1			.1				.1
LYNCHBURG INTL AP	1 3				Т					Т	Т											Т	.05	.01	Т	T .06
	4 12	Т	.03	.04	.03	Т											т				Т	Т	Т	.03	.10	.10 .13
	13 23	.19	.01	Т	Т		Т	.05	.01		Т						т									.26 T
MILLGAP	27 1		{ -	T -	Т -	.01 -	.02 -	.01 -	T -	Т -	-	.01 -	.01 -	Т -	-	Т -	-	-	-	-	-	-	-	-	-	.06 P
NORFOLK INTL AP	30 4	-	-	-	-	-	-	-	-	-	- T	- T	-	-	-	-	-	-	-	-	-	-	-	-	- }	- T
	6 7	.02	.04	.05		Т	Т	Т	.03	.03	Т			.01									.02 .04	.10 .02	.06	.19 .23
	8 13					Т			.03	.02	.06	.01	Т	Т	.02	Т		.01	.03	.06	.10	Т				T .34
	15 16	.01														т	01					Т	.05	.02	.02	.09 .01
	18 27															Т	.01	.01	.01	.01	.03		.01			.01 .07

VIRGINIA

### HOURLY PRECIPITATION

VIRGINIA

STATION						A	.M. H	OUR	ENDI	NG								P.	M. HO	OUR I	ENDI	NG				1
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	1		{ -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- `	Р
PULASKI 2 E	30 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- .1	.3	-	- } .1	5
	4 12	.1																.1		.1	.1	.1	.2			.1 .6
	13 27	.1	[ m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	.1 I
RICHMOND INTL AP	28 1	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m T	m	m	m ]	m T
	4 7			Т	.02	.01	Т				Т				Т								Т	Т		T .03
	8 13		Т	Т	Т	T .01	.04	.03	Т	.01	.01	.01	.01		Т	Т										T .12
	15 27					Т	.01	т	Т			Т		т	Т		.04	.07	Т			Т	Т	Т	Т	T .12
ROANOKE INTL AP	2 3										Т											Т	.05	.03	.01	T .09
	4 12	Т	.04	.01	Т						т	Т	Т	т				Т		.01	Т	.04	.22	Т	.01	.05 .28
	13 27	Т	.02 T	.10 .01	.01 .02	T .02	T .01																			.13 .06
ROCKY MT	3 4		.1																					.2		.2 .1
	12 13			.1				.1																.1	.1	.2 .2
STAFFORDSVILLE 3 ENE	3 12																				.1	.1	.1 .1		.1 .1	.2 .4
TROUT DALE 3 SSE	1 4	m	[ m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m	m m ]	I m
WALLOPS ISLAND NASA TEST	12 7	Т	.02	.02	.10	.12	.06	.02	.01						Т	Т	т	.02	т	.1 T		.1		Т		.2 .37
	8 13		T T	T T	Т			т		Т	.04	.03	Т	т	.01	Т	т	Т	.02	Т	.02	Т				T .12
	16 23						Т	Т	Т														т	Т		T T
WASHGTN DULLES INTL AP	27 1							Т	Т	Т				Т			т	.02	.04 T	.01						.07 T
	12 13	.30	.11	.06	.04	.06	.10	.12	.06	.02	т										Т			Т	.19	.19 .87
WASHINGTON REAGAN AP	27 1			Т	.02	.02	Т	.01		Т	.01 T	T T	T T	T T	Т	Т		Т	Т							.06 T
	7 8	.01	Т	Т					Т									Т					Т	.02	Т	.02 .01
	12 13	.08	.17	.02	.01		.04	.03	.05	.06	.03	.01											.01		Т	.01
WILLIAMSBURG 2 N	27 7			T .1	Т	Т		Т	Т	.01	Т	.03	.01	Т	.01	Т	Т									.06
	13 15								.1															.1		.1
WILLIS	27 4	.2																.1								.1

### HOURLY PRECIPITATION

VIRGINIA

STATION						А	.M. H	OUR	ENDI	NG								Р	.M. H	OUR	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
	12 13		.1																	.1		.1	.1	.2	.1	.6 .1
WISE 3E WOOLWINE	1 30 3	-	{ - -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- - .1	- - } .1	P - .2
WOOLWINE	4 12			.1																	.1	.1		.1	.1	.2 .1 .4
WYTHEVILLE 1 S	13 4 12	.1		.1																		.2	.1			.1 .1 .3
	12	.1																				.2	.1			.1

VIRGINIA

## **MONTHLY PRECIPITATION MAXIMA**

STATION					MAXIMUM					
	Ν	IINUTES	-			HOUI	RS			ACCUMULATION
	15	30	45	1	2	3	6	12	24	
ALTAVISTA BEDFORD 4 NW BLACKSBURG NWSO	.1 13/0115+	.2 12/2100+	.2 12/2115+	.3 12/1945	.4 12/2115+	.5 12/2145+	.5 13/0115+	.6 13/0645+	.7 13/1115+	
CAMP PICKETT CHATHAM DANVILLE REGIONAL AP	.1 27/1345+	.1 27/1400+	.1 27/1415+	.1 27/1430+ .10 03/2400	.1 27/1530+ .11 04/0100	.1 27/1630+ .12 04/0200	.1 27/1930+ .14 13/1100+	.1 28/0130+ .16 13/1300+	.1 28/1330+ .21 13/1200+	
GALAX WTP GATHRIGHT DAM JOHN H KERR DAM LYNCHBURG INTL AP	.2 12/2230 .1 13/0215+ .1 27/1730+	.3 12/2230 .2 12/2045 .1 27/1745+	.3 12/2245+ .2 12/2100+ .1 27/1800+	.3 12/2300+ .2 12/2115+ .1 27/1815+ .19 13/0100	.3 12/2400+ .3 12/2215+ .1 27/1915+ .29 13/0100	.4 13/0100+ .3 12/2315+ .1 27/2015+ .32 13/0100	.5 13/0400+ .4 13/0215 .2 27/2015+ .33 13/0400+	.6 13/0615+ .4 13/0815+ .3 13/1530+ .39 13/1000+	.6 13/1815+ .4 13/2015+ .3 27/2030+ .39 13/2200+	
MILLGAP NORFOLK INTL AP PIEDMONT RSCH STN PULASKI 2 E				.10 13/2000+	.16 13/2000+	.19 13/2000	.29 07/0300	.35 07/0900	.37 07/2200	
RICHMOND INTL AP ROANOKE INTL AP ROCKY MT STAFFORDSVILLE 3 ENE	.1 13/0615+ .1 12/2400+	.1 13/0630+ .1 13/0015+	.1 13/0645+ .2 12/2115	.07 27/1700 .22 12/2200 .2 03/2300 .2 12/2130+	.11 27/1700 .26 12/2200 .2 13/0015+ .2 12/2230+	.11 27/1800+ .26 12/2300+ .2 13/0230+ .3 12/2200+	.11 27/2100+ .35 13/0300 .3 13/0415+ .4 13/0100+	.12 27/1700+ .41 13/0600+ .4 13/1015+ .4 13/0700+	.12 28/0500+ .41 13/1800+ .4 13/2215+ .4 13/1900+	
TROUT DALE 3 SSE WALLOPS ISLAND NASA TEST WASHGTN DULLES INTL AP WASHINGTON REAGAN AP WILLIAMSBURG 2 N	.1 27/1645+	.1 27/1700+	.1 27/1715+	.12 07/0500 .30 13/0100 .17 13/0200 .1 27/1730+	.22 07/0500 .49 13/0100 .25 13/0200 .1 27/1830+	.28 07/0600 .60 13/0200 .27 13/0300 .1 27/1930+	.34 07/0700 .76 13/0500 .32 13/0600 .1 27/2230+	.35 07/1300+ 1.06 13/1100+ .50 13/1200+ .1 28/0430+	.37 08/0100+ 1.06 13/2300+ .51 13/2100+ .1 28/1630+	
WILLIS WISE 3E WOOLWINE WYTHEVILLE I S	.1 13/0200+ .2 12/2330 .1 13/0015+	.1 13/0215+ .2 12/2345+ .2 12/2100	.2 12/2300+ .2 12/2400+ .2 12/2130+	.2 12/2345+ .2 13/0015+ .3 12/2130	.4 12/2345 .2 13/0115+ .3 12/2230+	.4 13/0045+ .3 13/0215+ .3 12/2330+	.6 13/0230+ .4 13/0230+ .4 13/0230+	.7 13/0645+ .5 13/0700+ .4 13/0830+	.7 13/1845+ .5 13/1900+ .4 13/2030+	

#### **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:

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

N 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:
  - \$1 rain gage with a heated orifice
  - \$2 rain gage with an automatic siphon
  - \$3 rain gage with a remote orifice and funnel
- 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:

- **a** Begin accumulation sometime within the hour period or day period.
- A 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.
- E Estimated monthly total by spatial modelling.
- i Incomplete hourly total. One (1) or more 15 minute periods are missing.
- I Incomplete daily or incomplete monthly total. One (1) or more periods are missing.
- **P** Daily or monthly total excludes highly suspect data value(s).
- **q** Hourly total excludes one (1) or more questionable 15 minute periods.

- **Q** Questionable 15 minute data. Seen in Maxima tables.
- **R** Time of occurrence is suspect. Amount is included in daily total.
- T Trace amounts are included only for Federally funded meteorological observing sites.
- X Value greater than 9.99 refer to Hourly Precipitation Section for daily total.
- **Z** 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.
- m Data missing for part or all of the period.
- 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.

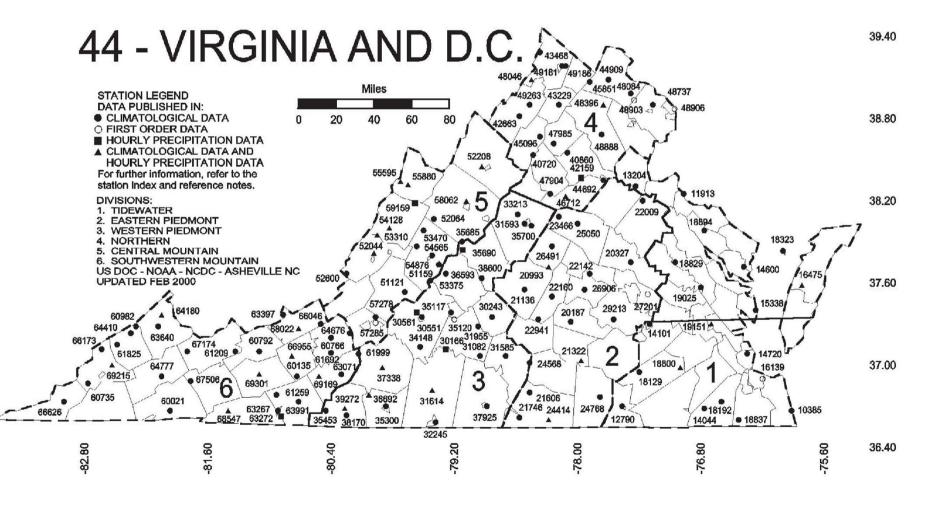
#### **STATION INDEX**

#### VIRGINIA

Station   Solution   Solution	r							
BEDFORD 4 NW   0561   BEDFORD   37 23   79 34   1228   17     BLACKSBURG NWSO   0766   MONTGOMERY   37 12   80 25   2100   8     CAMP PICKETT   1322   NOTTOWAY   12   37 12   80 25   2100   8     CHATHAM   1614   PITTSYLVANIA   7   36 49   79 25   651   88     DANVILLE REGIONAL AP   2250   PITTSYLVANIA   36 34   79 20   571   9     GALAX WTP   3310   ALLEGHANY   9   37 57   79 57   1770   32     JOHN H KERR DAM   4414   MECKLENBURG   15   36 36   78 18   250   63     LYNCHBURG INTL AP   5120   CAMPBELL   9   37 19   79 12   940   140     MILLGAP   5955   HIGHLAND   9   38 18   79 43   2421   36     NORFOLK INTL AP   6139   NORFOLK (CIT   5   36 54   76 12   30   66     PULASKI 2 E	Station	Index No.	County	Drainage	Latitude	Longitude	Elevation Ft.	Years Of
PAGE 8	BEDFORD 4 NW BLACKSBURG NWSO CAMP PICKETT CHATHAM DANVILLE REGIONAL AP GALAX WTP GATHRIGHT DAM JOHN H KERR DAM LYNCHBURG INTL AP MILLGAP NORFOLK INTL AP PIEDMONT RSCH STN PULASKI 2 E RICHMOND INTL AP ROANOKE INTL AP ROANOKE INTL AP ROCKY MT STAFFORDSVILLE 3 ENE TROUT DALE 3 SSE WALLOPS ISLAND NASA TEST WASHGTN DULLES INTL AP WASHINGTON REAGAN AP WILLIAMSBURG 2 N WILLIS WISE 3E WOOLWINE	0561 0766 1322 1614 2250 3272 3310 4414 5120 5595 6139 6712 6955 7201 7285 7338 8022 8547 8849 8903 8906 9151 9215 9272	BEDFORD MONTGOMERY NOTTOWAY PITTSYLVANIA CARROLL ALLEGHANY MECKLENBURG CAMPBELL HIGHLAND NORFOLK (CIT ORANGE PULASKI HENRICO ROANOKE FRANKLIN GILES GRAYSON ACCOMACK LOUDOUN ARLINGTON YORK FLOYD WISE PATRICK WYTHE	12 7 11 9 15 9 5 17 11 9 15 11 11 13 9 11 6 7	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} 1228\\ 2100\\ 330\\ 651\\ 571\\ 2360\\ 1770\\ 250\\ 940\\ 2421\\ 30\\ 520\\ 1850\\ 164\\ 1175\\ 1315\\ 1950\\ 2839\\ 46\\ 290\\ 10\\ 70\\ 2810\\ 2549\\ 1500\\ \end{array}$	$\begin{array}{c} 17\\ 8\\ 59\\ 8\\ 9\\ 32\\ 630\\ 1\\ 366\\ 77\\ 9\\ 376\\ 131\\ 666\\ 71\\ 131\\ 666\\ 71\\ 131\\ 666\\ 71\\ 151\\ 615\\ 51\end{array}$

40.00

40.60



-84.00

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