Water-Data Report 2013

13213100 SNAKE RIVER AT NYSSA, OR

Middle Snake-Boise Basin
Middle Snake-Payette Subbasin

LOCATION.--Lat 43°52′34″, long 116°58′57″ referenced to North American Datum of 1983, in NW ¼ SW ¼ NE ¼ sec.7, T.6 N., R.5 W., Canyon County, ID, Hydrologic Unit 17050115, Nyssa quad., on right bank 300 ft upstream from U.S. Highway 20-26 bridge at Nyssa, Oregon, 2.3 mi downstream from Boise River, and at mile 385.2.

DRAINAGE AREA.--58,700 mi^2, approximately.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--November 1974 to September 1986, February 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,170 ft above NGVD of 1929, from topographic map. Prior to 1989, station located on left bank in Oregon, at same datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Station equipment includes satellite telemetry and crest stage gage. Flow regulated by many reservoirs above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,900 ft^3/s Apr. 19, 1984, gage height, 13.34 ft; minimum, 4,110 ft^3/s June 7, 1992, gage height, 4.32 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 10,600 ft^3/s May 31; minimum daily discharge, 4,520 ft^3/s July 23.

13213100 SNAKE RIVER AT NYSSA, OR—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	9,360	8,840	8,140	8,470	8,310	7,970	6,640	5,600	9,830	4,940	6,520	5,930
2	9,140	8,920	8,930	8,220	8,430	7,780	5,640	6,130	9,720	4,760	6,770	6,360
3	9,060	8,450	9,800	8,490	8,140	7,880	5,310	e7,070	9,290	4,690	6,550	6,440
4	8,920	9,030	9,150	e7,800	8,340	7,750	6,630	e6,930	9,100	4,700	6,670	6,830
5	9,330	8,840	9,670	e8,390	7,890	7,820	6,310	e7,470	8,340	4,680	6,870	7,200
6	9,280	8,380	9,190	e7,740	8,220	8,040	5,450	e8,510	7,220	4,800	7,060	8,210
7	9,720	8,460	9,080	e7,950	8,120	8,010	6,280	9,050	6,230	4,980	6,590	8,260
8	9,520	9,020	9,700	7,940	8,390	7,500	6,620	8,820	5,790	5,320	6,650	8,220
9	9,050	8,770	9,470	7,690	8,050	7,780	6,000	8,560	5,180	5,260	6,630	8,150
10	9,650	8,680	8,950	8,150	7,460	7,690	6,440	8,690	4,860	5,090	6,740	8,320
11	9,520	8,490	8,970	7,720	7,720	7,710	6,250	8,600	5,130	5,030	7,030	7,530
12	9,550	9,140	8,800	7,710	8,490	7,910	6,100	8,170	4,750	4,980	6,910	7,810
13	9,910	8,880	8,700	e8,150	8,220	7,930	6,620	8,170	4,740	4,950	6,260	7,530
14	9,410	8,990	8,440	e8,080	7,910	8,130	6,250	8,380	5,010	5,170	5,450	8,020
15	9,240	8,980	8,730	e7,710	7,350	7,680	6,360	8,210	5,110	5,220	5,000	8,090
16	9,640	8,630	8,840	e7,860	8,170	7,790	6,550	9,430	5,020	5,620	5,370	8,190
17	9,040	8,930	8,700	e7,980	8,120	7,980	6,520	9,430	5,170	5,790	5,080	8,390
18	9,310	8,540	8,250	e7,750	7,670	7,840	6,670	10,100	4,980	5,560	5,150	8,010
19	9,240	8,700	8,510	e8,010	7,680	8,060	6,550	9,830	4,820	5,070	5,420	8,390
20	8,880	8,620	8,780	e8,020	7,980	8,260	6,740	9,920	5,160	4,700	5,430	8,180
21	8,910	8,600	8,600	e7,550	7,410	7,710	6,630	10,300	5,270	4,650	5,160	8,230
22	8,860	8,520	8,600	e7,610	7,920	7,660	6,890	10,400	5,300	4,590	5,210	8,460
23	8,730	8,570	7,990	e7,700	8,020	7,500	5,980	9,990	5,270	4,520	5,470	7,960
24	9,150	8,290	8,380	e7,800	7,950	7,980	6,900	9,390	5,420	4,550	5,850	8,530
25	9,010	9,140	8,320	e7,900	7,860	7,830	6,740	9,480	5,460	4,580	5,610	8,910
26	8,960	8,730	8,470	e7,880	8,200	7,210	6,450	9,610	6,020	5,210	6,430	8,870
27	9,150	8,550	8,730	8,210	7,530	7,140	5,620	9,890	5,940	6,670	6,040	8,980
28	9,140	8,150	8,000	7,990	7,760	6,880	5,680	10,200	5,800	6,230	5,930	9,450
29	8,930	8,690	8,590	8,560	---	6,800	5,560	10,200	5,510	7,090	6,050	9,770
30	8,800	8,740	8,570	8,050	---	6,800	5,280	10,500	5,140	6,430	6,330	10,000
31	8,960	---	8,030	8,000	---	6,730	---	10,600	---	6,680	5,680	---
Total	285,370	261,270	271,080	247,080	223,310	237,750	187,660	277,630	180,580	162,510	187,910	243,220
Mean	9,205	8,709	8,745	7,970	7,975	7,669	6,255	8,956	6,019	5,242	6,062	8,107
Max	9,910	9,140	9,800	8,560	8,490	8,260	6,900	10,600	9,830	7,090	7,060	10,000
Min	8,730	8,150	7,990	7,550	7,350	6,730	5,280	5,600	4,740	4,520	5,000	5,930
Ac-ft	566,000	518,200	537,700	490,100	442,900	471,600	372,200	550,700	358,200	322,300	372,700	482,400

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	11,500	11,640	12,010	12,930	13,690	15,620	18,470	17,740	14,790	8,445	8,290	10,050
Max	21,360	24,660	24,320	30,290	38,580	40,010	43,970	49,060	41,100	16,480	12,620	17,110
(WY)	(1985)	(1985)	(1984)	(1984)	(1997)	(1986)	(1984)	(1984)	(1984)	(1983)	(1997)	(1997)
Min	7,970	7,973	7,824	7,527	7,658	7,438	6,033	5,367	5,223	5,242	5,075	6,664
(WY)	(2004)	(2004)	(2008)	(2008)	(2005)	(2005)	(1992)	(1992)	(1992)	(2013)	(1992)	(1992)

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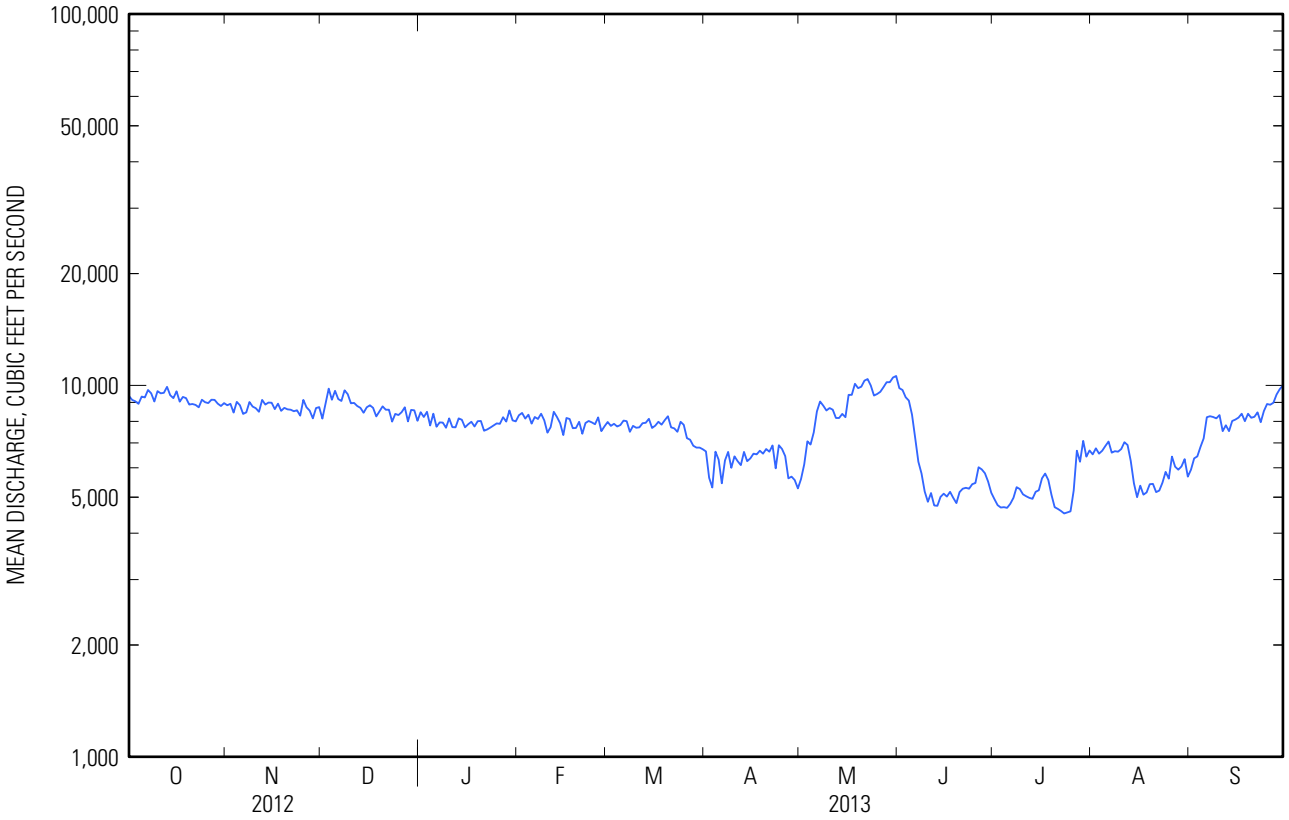
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1975 - 2013	
Annual total	4,017,570		2,765,370			
Annual mean	10,980		7,576		12,830	
Highest annual mean					26,260	1984
Lowest annual mean					7,365	1992
Highest daily mean	25,800	Apr 8	10,600	May 31	57,400	Apr 20, 1984
Lowest daily mean	5,240	Aug 1	4,520	Jul 23	4,240	Jun 7, 1992
Annual seven-day minimum	5,350	Jul 29	4,670	Jul 19	4,520	Jun 6, 1992
Annual runoff (ac-ft)	7,969,000		5,485,000		9,295,000	
10 percent exceeds	17,300		9,300		23,500	
50 percent exceeds	9,220		7,960		9,790	
90 percent exceeds	7,220		5,200		6,930	



13213100 SNAKE RIVER AT NYSSA, OR—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1989 to September 1990, October 1992 to September 1993, April 1996 to September 1997, June to September 1998, April to September 2000, August 2004 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: April to September 1989, August 2004 to current year.
SPECIFIC CONDUCTANCE: August to September 1989, October 2008 to September 2010 (discontinued).
pH: May to September 1989, October 2008 to September 2010 (discontinued).
TURBIDITY: October 2008 to September 2010 (discontinued).
CHLOROPHYLL: October 2008 to September 2010 (discontinued).
DISSOLVED OXYGEN: August to September 1989, October 2008 to September 2010 (discontinued).

INSTRUMENTATION.--Temperature recorder with electronic thermistor located in galvanized pipe on right bank at gage.

REMARKS.--Records good. Records represent water temperature at thermistor within 0.2 °C. Water temperature data is representational of a point in the river and not necessarily representational of mean temperature of the river cross section at that point.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 29.4 °C July 1, 2013; minimum, 0.0 °C Jan. 17, 2007, Dec. 10, 11, 2010, Jan. 4, 5, 13, 14, 16, 2013.
SPECIFIC CONDUCTANCE: Maximum, 560 microSiemens/cm Nov. 11, 2008; minimum, 340 µS/cm June 15, 2010.
pH: Maximum, 9.82 units May 29, 1989; minimum, 7.8 units June 8, 9, 2009.
TURBIDITY: Maximum, 438 FNU June 8, 2009; minimum, 2.7 FNU Oct. 19, 20, 2010.
CHLOROPHYLL: Maximum, 155 µg/L Nov. 6, 2008; minimum, 0.1 µg/L July 1, 2010.
DISSOLVED OXYGEN: Maximum, 16.0 mg/L Mar. 20, 2009; minimum, 6.0 mg/L July 27, 2010.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 29.4 °C July 1; minimum 0.0 °C Jan. 4, 5, 13, 14 and 16.

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TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		October			November			December			January	
1	18.6	16.7	17.7	12.5	11.3	11.8	8.3	7.7	8.0	1.7	0.9	1.2
2	18.3	16.5	17.5	12.0	10.8	11.4	8.9	8.3	8.6	1.4	0.6	0.9
3	17.4	14.8	15.8	11.6	10.8	11.2	8.3	7.7	8.1	0.8	0.1	0.5
4	15.2	13.6	14.5	11.7	10.7	11.2	8.0	7.6	7.8	0.3	0.0	0.1
5	14.4	12.8	13.7	11.6	10.4	11.0	8.9	7.9	8.3	0.3	0.0	0.1
6	13.9	12.2	13.2	11.4	10.3	10.8	8.3	7.6	8.0	0.5	0.1	0.2
7	13.6	11.8	12.8	10.8	10.1	10.4	7.6	6.8	7.1	0.2	0.1	0.1
8	13.8	11.8	12.8	10.5	9.6	10.0	6.9	6.3	6.6	0.8	0.2	0.5
9	14.2	12.1	13.1	9.8	9.0	9.4	6.5	6.1	6.4	1.6	0.6	1.0
10	14.6	12.7	13.6	9.0	7.9	8.4	6.6	6.0	6.3	2.2	1.1	1.7
11	14.8	12.9	13.9	7.9	6.7	7.2	6.3	5.8	6.0	2.3	1.5	2.0
12	15.0	13.2	14.1	6.8	6.6	6.7	6.9	6.0	6.4	1.5	0.3	0.7
13	15.5	14.3	14.8	7.2	6.6	6.9	6.5	5.9	6.2	0.3	0.0	0.1
14	15.5	13.9	14.8	8.2	7.1	7.7	6.8	6.1	6.4	0.2	0.0	0.1
15	15.9	14.5	15.2	9.1	8.1	8.5	6.6	6.2	6.4	0.3	0.1	0.1
16	16.0	14.7	15.3	9.3	8.4	8.9	6.3	5.7	6.0	0.3	0.0	0.1
17	14.7	13.0	13.8	9.2	8.8	9.0	6.3	5.5	5.8	0.3	0.1	0.2
18	13.7	12.3	13.1	9.2	8.6	8.9	5.5	4.5	4.9	0.3	0.2	0.2
19	13.1	12.3	12.6	9.3	8.7	9.0	4.5	3.6	4.0	0.3	0.1	0.2
20	13.1	11.9	12.5	9.3	8.9	9.1	3.8	2.7	3.2	0.3	0.1	0.2
21	12.7	11.2	12.0	9.4	8.7	9.2	2.7	2.2	2.4	0.3	0.2	0.2
22	12.1	10.8	11.4	8.7	7.7	8.2	3.1	2.5	2.8	0.3	0.2	0.2
23	11.0	10.3	10.7	7.8	7.1	7.5	3.4	3.0	3.1	0.3	0.2	0.2
24	10.7	9.8	10.1	7.7	7.3	7.5	4.3	3.3	3.7	0.3	0.2	0.3
25	10.6	9.4	9.9	8.0	7.3	7.6	3.8	3.1	3.4	0.5	0.2	0.4
26	9.9	9.2	9.5	7.3	6.4	6.8	3.5	3.0	3.2	1.9	0.4	1.1
27	9.4	8.8	9.1	6.5	5.7	6.2	4.2	3.3	3.6	3.5	1.9	2.6
28	10.0	9.1	9.5	6.1	5.8	6.0	3.7	2.8	3.2	3.7	2.9	3.3
29	10.8	9.9	10.3	6.5	5.6	6.0	3.0	2.3	2.7	4.6	3.5	3.9
30	12.2	10.6	11.3	7.8	6.5	7.2	3.1	2.4	2.7	5.6	4.1	4.7
31	12.0	11.5	11.8	---	---	---	2.6	1.7	2.2	5.7	4.5	5.0
Month	18.6	8.8	12.9	12.5	5.6	8.7	8.9	1.7	5.3	5.7	0.0	1.0

13213100 SNAKE RIVER AT NYSSA, OR—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		February			March			April			May	
1	5.1	4.4	4.7	7.0	6.1	6.5	16.0	12.6	14.2	15.2	11.0	13.0
2	4.6	4.0	4.2	8.3	6.2	7.2	16.8	13.0	14.7	16.3	12.1	14.0
3	4.7	4.1	4.4	9.4	7.8	8.3	16.8	13.5	15.1	17.0	13.3	15.0
4	5.1	4.7	4.9	8.8	6.5	7.6	15.3	13.8	14.6	17.6	13.5	15.4
5	5.1	4.7	4.9	7.4	6.3	6.9	15.8	12.8	14.0	18.4	14.7	16.5
6	5.2	4.6	4.9	7.7	6.2	6.8	14.7	13.2	13.8	19.3	16.0	17.5
7	5.9	4.5	5.1	8.0	5.7	6.9	14.1	12.2	13.1	19.3	16.6	18.0
8	6.2	4.9	5.5	9.0	6.3	7.5	13.1	10.3	11.5	20.4	17.1	18.6
9	5.0	3.7	4.5	8.9	6.3	7.6	12.5	8.7	10.6	20.7	17.6	19.1
10	5.7	3.9	4.7	8.9	6.6	7.8	12.5	9.9	11.2	21.3	17.7	19.5
11	5.7	3.9	4.7	10.0	7.9	8.9	13.1	9.7	11.4	21.8	18.7	20.2
12	5.7	4.2	5.0	10.8	8.5	9.6	13.6	10.0	11.8	22.7	19.3	20.8
13	6.6	5.2	5.9	11.2	9.5	10.3	13.9	11.3	12.6	22.7	19.7	21.1
14	7.3	5.5	6.4	10.7	9.6	10.2	12.5	9.7	11.1	21.5	18.5	20.1
15	8.3	6.0	7.1	12.5	9.7	10.8	12.3	9.4	10.9	20.9	18.3	19.6
16	8.0	6.3	7.2	12.1	10.0	11.0	12.1	9.3	10.4	19.5	17.9	18.6
17	7.8	6.3	7.1	10.7	8.5	9.7	11.3	7.6	9.4	18.2	16.9	17.5
18	6.7	5.6	6.1	11.1	8.5	9.7	12.4	8.3	10.2	18.5	16.4	17.4
19	5.9	5.0	5.4	10.2	8.2	9.3	12.6	11.1	11.7	17.6	15.9	16.8
20	6.1	4.3	5.2	10.5	9.1	9.7	13.8	10.6	12.1	18.9	15.5	17.1
21	5.9	4.3	5.2	10.3	8.4	9.4	15.2	11.7	13.3	18.3	17.0	17.7
22	5.8	4.8	5.4	9.6	7.8	8.7	14.4	11.5	12.9	17.0	14.7	15.7
23	6.4	5.0	5.7	9.3	6.9	8.0	14.0	10.6	12.4	16.9	14.2	15.6
24	6.9	4.7	5.7	9.3	6.5	7.9	14.6	10.7	12.6	18.2	15.0	16.4
25	6.7	5.3	5.9	9.9	7.5	8.5	15.7	11.8	13.7	19.1	15.8	17.4
26	6.9	5.0	6.0	11.1	8.1	9.3	17.6	13.1	15.1	19.0	17.1	18.0
27	7.3	5.1	6.1	12.4	9.2	10.6	18.2	14.6	16.4	17.7	16.3	17.0
28	6.5	5.8	6.2	13.4	10.4	11.7	18.8	15.4	16.9	17.3	15.8	16.5
29	---	---	---	14.5	11.4	12.8	17.2	14.7	16.2	17.6	15.7	16.6
30	---	---	---	15.3	11.7	13.4	15.2	12.1	13.7	17.8	15.7	16.6
31	---	---	---	15.3	12.0	13.6	---	---	---	18.7	15.4	17.0
Month	8.3	3.7	5.5	15.3	5.7	9.2	18.8	7.6	12.9	22.7	11.0	17.4

13213100 SNAKE RIVER AT NYSSA, OR—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		June			July			August			September	
1	20.1	16.7	18.4	29.4	25.7	27.5	24.7	22.2	23.2	24.4	22.3	23.4
2	20.3	18.0	19.1	28.8	25.9	27.4	24.7	21.4	23.0	23.8	22.7	23.2
3	20.6	17.2	18.9	28.9	25.9	27.3	24.6	21.6	23.1	23.4	22.4	22.9
4	21.4	18.3	19.8	27.4	25.1	26.4	24.9	21.9	23.4	24.1	21.8	22.9
5	22.5	18.8	20.6	26.9	23.7	25.4	25.5	22.3	23.9	23.7	22.3	23.1
6	23.8	19.9	21.6	26.4	22.7	24.6	25.3	22.6	24.0	23.0	21.3	22.3
7	24.6	21.0	22.6	27.0	23.2	25.1	25.4	22.9	24.1	22.6	20.6	21.7
8	24.3	20.2	22.3	27.4	23.8	25.5	25.0	22.4	23.7	22.5	20.4	21.4
9	25.4	21.2	23.2	27.4	23.6	25.5	25.0	22.0	23.6	22.2	20.2	21.2
10	24.7	21.2	23.0	28.2	24.3	26.2	25.4	22.5	23.9	22.5	20.2	21.4
11	23.9	21.0	22.3	26.9	24.6	25.5	25.4	23.0	24.1	22.7	20.3	21.5
12	23.0	19.2	21.0	26.4	22.8	24.6	25.0	22.9	23.9	22.8	21.2	22.0
13	21.1	18.2	19.9	25.2	22.0	23.7	25.0	22.1	23.6	22.3	21.2	21.7
14	21.6	17.1	19.3	26.0	22.1	24.0	25.5	22.3	23.9	23.2	20.8	22.0
15	22.8	18.1	20.4	26.8	23.1	24.9	26.0	22.6	24.3	23.2	21.5	22.4
16	24.1	19.3	21.6	26.6	23.5	25.1	25.8	23.2	24.5	22.7	21.0	21.9
17	25.0	20.5	22.7	27.2	24.0	25.6	26.0	23.2	24.6	21.9	20.2	20.9
18	24.8	21.3	23.0	27.3	23.7	25.5	26.1	23.0	24.5	20.2	18.8	19.5
19	22.7	18.5	20.3	28.0	24.3	26.1	26.1	23.4	24.8	19.6	17.4	18.6
20	21.2	17.0	19.1	27.6	24.6	26.2	25.6	23.0	24.4	19.1	17.1	18.2
21	20.1	17.9	19.0	27.7	24.3	26.0	24.3	22.6	23.5	18.3	17.2	17.7
22	21.7	17.2	19.3	27.4	24.3	26.0	24.1	22.2	23.1	17.9	16.3	17.1
23	22.4	19.1	20.6	27.1	23.9	25.7	24.7	21.8	23.2	18.0	16.2	17.1
24	21.4	20.1	20.7	26.5	24.5	25.5	24.0	22.0	23.1	17.5	16.6	17.0
25	20.1	18.8	19.4	26.7	23.6	25.1	24.2	21.8	23.0	16.6	15.2	15.8
26	21.8	18.4	19.9	26.6	24.0	25.3	24.0	21.8	22.9	15.3	14.5	14.9
27	24.9	20.2	22.3	26.5	24.0	25.3	24.2	21.6	22.9	14.7	13.4	14.2
28	26.7	22.5	24.5	25.9	23.0	24.5	24.8	22.3	23.5	15.4	14.3	14.8
29	27.9	24.0	25.7	25.0	22.6	23.9	25.1	22.6	23.8	15.3	14.4	14.8
30	28.7	24.6	26.5	25.7	22.6	24.1	24.9	22.3	23.6	15.7	14.3	14.8
31	---	---	---	24.9	22.8	23.8	25.1	22.2	23.7	---	---	---
Month	28.7	16.7	21.2	29.4	22.0	25.4	26.1	21.4	23.7	24.4	13.4	19.7

	Max	Min	Mean
Year	29.4	0.0	13.6