

Water-Data Report 2009

02246500 ST. JOHNS RIVER AT JACKSONVILLE, FL

St. Johns Basin
Lower St. Johns Subbasin

LOCATION.--Lat 30°19'20", long 81°39'56" referenced to North American Datum of 1927, in land grant 44, T.2 S., R.26 E., Duval County, FL, Hydrologic Unit 03080103, near center of channel under the Acosta Bridge at Jacksonville, 2.6 mi upstream from Arlington River, and 23.0 mi upstream from mouth.

DRAINAGE AREA.--8,850 mi², includes Paynes Prairie, a diked sinkhole area of about 650 mi², which is noncontributing except for pumpage.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--February 1954 to September 1970 (volume of flow), October 1970 to September 1971 (gage heights only), October 1971 to September 1974, October 1974 to September 1980 (gage heights only), October 1980 to September 1981, October 1981 to June 1987 (gage heights only), July 1987 to September 1993, October 1993 to July 1996 (gage heights only), August 1996 to current year.

REVISED RECORDS.--WDR FL-92-1A: Drainage area.

GAGE.--Water-stage recorder, acoustic velocity meter, and data-collection platform. Datum of gage is 9.99 ft below NGVD of 1929. Apr. 13, 1966 to Sept. 30, 1971, at site 0.6 mi downstream at same datum. October 1971 to September 1986, water-stage and deflection meter recorder at site 200 ft upstream at same datum. October 1986 to July 1996, water-stage recorder 0.3 mi downstream at same datum. July 24, 1984 to Mar. 13, 1996, auxiliary water-stage recorder about 5.4 mi downstream.

REMARKS.--Records fair. Discharge not published, Oct. 1-20, 2008, due to bad velocity or gage height record. Discharge represents the net of much larger upstream and downstream discharges. The stage record published is the maximum and minimum tide event for each calendar day.

02246500 ST. JOHNS RIVER AT JACKSONVILLE, FL—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	22,600	31,200	-11,400	21,300	32,200	12,100	8,040	23,200	15,300	17,500	2,370
2	---	15,900	15,600	24,600	5,420	-346	7,990	3,660	18,700	19,800	19,800	-8,660
3	---	7,040	15,200	16,300	4,350	-9,210	9,970	-471	18,300	12,600	18,500	6,720
4	---	12,600	8,420	11,400	17,100	412	7,340	2,140	24,100	-1,110	16,900	15,800
5	---	21,000	9,320	6,670	-3,050	10,500	5,160	-712	29,900	12,400	17,200	18,900
6	---	21,000	6,080	11,600	6,690	15,700	15,200	-299	26,800	22,000	19,100	15,900
7	---	22,000	6,970	23,100	8,860	6,290	11,500	2,960	19,600	20,300	14,500	15,600
8	---	16,600	3,870	14,100	14,100	3,290	8,170	7,150	24,000	8,470	11,100	26,000
9	---	22,400	6,840	-8,270	10,000	3,790	14,000	13,800	25,700	9,580	14,300	18,300
10	---	11,100	13,200	2,450	4,000	1,890	10,700	11,600	22,300	7,560	18,200	11,200
11	---	-4,570	23,200	14,600	11,500	2,810	17,700	5,360	22,300	16,000	22,800	9,340
12	---	6,940	16,900	-1,980	21,600	5,180	-9,310	-18,200	26,000	23,300	19,000	12,300
13	---	18,500	-9,110	6,050	10,400	-1,850	10,500	-1,730	29,400	26,100	11,600	13,800
14	---	30,300	4,070	18,000	9,300	6,490	40,900	16,500	18,500	21,700	9,600	7,150
15	---	34,700	17,900	20,200	512	22,400	9,610	18,900	10,300	13,300	10,500	13,200
16	---	22,300	14,700	1,460	-643	19,900	-16,600	12,300	8,740	17,500	11,600	15,700
17	---	18,300	12,400	8,350	8,450	-3,320	-11,200	13,700	-809	24,200	6,160	17,200
18	---	4,520	13,500	29,600	29,300	-6,590	9,480	-42,600	8,840	20,900	6,460	14,100
19	---	-1,640	12,800	11,300	21,100	15,000	17,000	-51,700	9,870	7,030	14,000	9,700
20	---	15,400	18,300	10,300	-6,390	-8,410	22,700	18,000	11,900	3,160	20,100	14,100
21	18,000	-2,970	17,300	-6,090	802	-17,000	6,500	54,200	11,500	2,600	23,900	15,400
22	7,200	-7,380	-7,080	10,400	11,200	749	14,600	59,000	801	6,220	27,900	14,700
23	-17,100	19,400	-4,900	16,500	-732	19,300	8,800	53,800	5,640	15,700	27,100	21,800
24	17,400	17,800	24,500	12,600	1,110	12,200	6,570	50,200	15,000	18,400	23,800	19,500
25	19,000	27,600	21,800	-2,610	9,750	6,830	7,230	41,800	21,500	18,700	19,300	23,100
26	20,600	14,500	14,800	2,810	13,800	16,800	6,660	42,700	23,700	19,000	19,800	19,500
27	25,300	16,000	12,200	9,500	13,700	18,000	8,950	45,100	31,000	18,700	13,400	19,400
28	17,200	25,700	15,800	19,000	18,800	21,000	13,400	42,500	18,100	17,100	10,400	23,800
29	29,500	23,700	16,000	8,910	---	25,300	11,200	38,800	9,250	18,300	15,100	20,300
30	14,200	27,100	5,230	9,520	---	15,900	6,660	30,200	12,000	20,200	24,200	4,880
31	14,700	---	18,800	15,300	---	8,040	---	22,100	---	19,300	18,700	---
Total	166,000	478,440	375,810	304,270	262,329	243,245	283,480	498,798	526,132	474,310	522,520	431,100
Mean	15,090	15,950	12,120	9,815	9,369	7,847	9,449	16,090	17,540	15,300	16,860	14,370
Max	29,500	34,700	31,200	29,600	29,300	32,200	40,900	59,000	31,000	26,100	27,900	26,000
Min	-17,100	-7,380	-9,110	-11,400	-6,390	-17,000	-16,600	-51,700	-809	-1,110	6,160	-8,660

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	11,820	10,090	9,451	8,225	8,476	7,436	6,726	4,307	8,128	9,402	9,914	9,928
Max	24,580	18,820	19,680	19,950	24,320	23,660	16,550	19,210	22,490	28,730	25,520	30,090
(WY)	(2005)	(2006)	(1998)	(1992)	(1998)	(1998)	(1992)	(1993)	(1993)	(1993)	(1974)	(2004)
Min	1,667	266	-3,481	-4,023	-1,814	-4,920	-2,431	-10,430	-8,294	1,030	-1,285	-1,208
(WY)	(1973)	(1974)	(1993)	(1974)	(1974)	(1974)	(2008)	(1973)	(1973)	(1997)	(2007)	(1981)

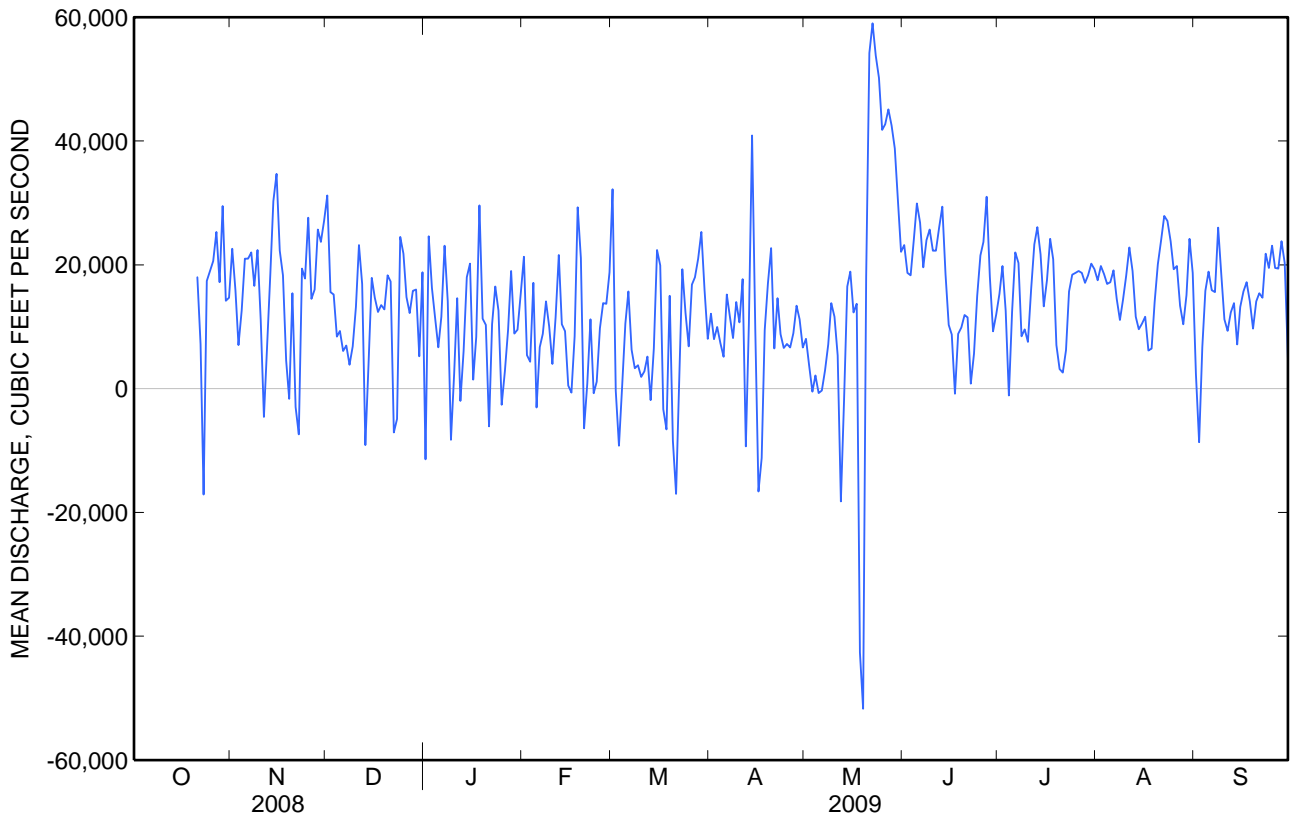
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SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 1972 - 2009	
Annual total	1,889,442		4,566,434			
Annual mean	6,538		13,240		8,603	
Highest annual mean					15,640	1992
Lowest annual mean					4,086	1973
Highest daily mean	93,400	Aug 23	59,000	May 22	120,000	Sep 27, 2004
Lowest daily mean	^a -61,300	Mar 30	-51,700	May 19	-69,200	Sep 5, 2004
Annual seven-day minimum	-13,300	Jul 11	-4,950	May 13	-23,600	May 19, 2002
Maximum peak stage			13.82	May 20	15.20	Sep 10, 1964
10 percent exceeds	22,300		24,500		25,900	
50 percent exceeds	7,040		14,100		9,000	
90 percent exceeds	-12,100		-540		-9,280	

^a Estimated

Note.--Negative figures indicate reverse flow



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GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Day	High-high	Low-low	High-high	Low-low	High-high	Low-low	High-high	Low-low	High-high	Low-low	High-high	Low-low
	October		November		December		January		February		March	
1	13.09	11.42	12.26	10.60	11.13	9.53	11.10	9.33	11.06	9.10	10.97	8.49
2	12.66	11.13	12.27	10.70	11.01	9.15	11.21	9.46	10.88	9.27	10.47	8.56
3	12.64	11.14	12.37	10.92	11.07	9.49	10.92	9.28	11.01	9.32	10.86	9.29
4	12.45	10.95	12.54	11.22	11.25	9.65	10.90	9.24	11.00	8.85	11.13	9.52
5	12.34	10.87	12.43	11.14	11.24	9.74	10.91	9.25	10.84	9.26	11.13	9.47
6	12.56	11.17	12.39	10.96	11.45	9.87	10.99	9.01	11.12	9.21	11.05	9.49
7	12.58	11.35	12.23	10.73	11.31	9.64	11.07	9.11	11.01	9.04	10.83	9.07
8	12.71	11.24	12.20	10.67	11.42	9.88	10.61	8.52	10.90	8.76	10.81	8.86
9	12.54	11.09	12.11	10.49	11.65	9.75	10.66	8.12	10.86	8.51	10.90	8.85
10	12.49	10.94	12.09	10.28	11.57	9.64	10.93	8.53	11.11	8.78	11.11	8.84
11	12.70	10.98	12.28	10.27	11.62	9.37	10.97	8.61	11.15	9.08	11.23	9.16
12	12.83	11.17	12.55	10.62	10.89	8.64	10.93	8.23	10.77	8.74	11.12	9.28
13	13.00	11.28	12.57	10.59	11.36	8.63	11.26	9.08	10.76	8.88	11.35	9.65
14	13.02	11.21	12.42	10.29	11.64	9.38	11.26	9.30	10.89	9.04	11.49	9.94
15	12.78	10.96	12.11	9.96	11.65	9.65	11.07	9.11	10.88	9.31	11.51	9.79
16	12.69	10.78	11.62	9.50	11.53	9.65	10.78	8.93	11.03	9.53	11.35	9.50
17	12.50	10.60	11.73	9.65	11.52	9.70	10.96	9.44	11.10	9.73	11.19	9.83
18	12.31	10.44	11.59	9.68	11.40	9.73	10.95	9.00	11.13	9.27	11.37	10.19
19	12.60	10.76	12.08	10.32	11.32	9.62	10.61	9.15	10.77	9.02	11.42	10.03
20	12.77	11.02	12.00	10.36	11.20	9.40	10.46	9.14	10.65	8.72	11.23	9.97
21	12.62	11.02	11.98	10.21	11.11	9.45	10.66	8.82	10.82	9.16	11.56	10.47
22	12.59	10.99	12.21	10.88	11.00	9.07	10.89	9.28	10.90	9.10	11.64	10.35
23	13.04	11.62	12.25	10.69	11.26	9.41	10.78	9.14	10.81	8.78	11.66	10.33
24	13.25	11.90	12.16	10.58	11.43	9.75	10.68	8.92	10.95	9.13	11.56	10.08
25	12.94	11.33	11.90	10.07	11.04	9.29	10.87	8.81	11.12	9.40	11.68	10.03
26	12.79	11.23	11.72	9.89	10.80	8.97	11.15	9.36	11.02	9.31	11.63	9.90
27	12.74	10.99	11.79	9.95	10.92	9.05	11.14	9.46	11.06	9.24	11.64	9.69
28	12.36	10.58	11.76	9.95	10.90	9.07	11.16	9.52	11.00	9.06	11.63	9.67
29	12.38	10.60	11.59	9.84	10.83	8.95	11.15	9.38	---	---	11.35	9.44
30	12.27	10.39	11.80	9.94	10.82	8.92	11.06	9.39	---	---	11.20	9.36
31	12.35	10.74	---	---	10.88	8.91	10.95	9.38	---	---	11.24	9.60
Max	13.25	11.90	12.57	11.22	11.65	9.88	11.26	9.52	11.15	9.73	11.68	10.47
Min	12.27	10.39	11.59	9.50	10.80	8.63	10.46	8.12	10.65	8.51	10.47	8.49

02246500 ST. JOHNS RIVER AT JACKSONVILLE, FL—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Day	High-high	Low-low	High-high	Low-low	High-high	Low-low	High-high	Low-low	High-high	Low-low	High-high	Low-low
	April		May		June		July		August		September	
1	11.58	10.01	11.26	9.46	12.12	10.29	12.05	10.10	11.35	9.22	12.25	10.33
2	11.60	10.05	11.05	9.27	12.13	10.24	11.75	9.93	11.05	9.28	12.67	10.90
3	11.97	9.88	10.97	9.24	12.08	10.20	11.62	9.74	11.20	9.19	12.78	11.21
4	11.49	9.87	10.89	9.12	12.14	10.17	12.03	10.12	11.24	9.35	12.75	11.22
5	11.60	9.94	10.98	9.12	11.94	10.05	11.96	10.19	11.32	9.51	12.68	11.15
6	11.70	9.65	11.10	9.15	11.98	10.06	11.73	9.96	11.34	9.56	12.75	11.12
7	11.05	8.89	11.03	9.13	12.14	10.22	11.72	9.71	11.44	9.60	12.82	11.23
8	11.22	9.02	11.10	9.11	12.20	10.33	12.02	10.23	11.56	9.75	12.72	11.08
9	11.09	8.96	10.93	9.03	12.14	10.32	12.16	10.45	11.50	9.85	12.61	10.97
10	11.21	9.24	10.94	8.94	11.90	10.39	12.10	10.67	11.52	9.77	12.76	11.13
11	11.04	8.97	11.05	9.23	12.16	10.47	12.30	10.84	11.42	9.61	12.85	11.30
12	11.16	9.31	11.09	9.67	12.10	10.32	12.28	10.67	11.23	9.44	12.93	11.29
13	11.56	9.88	11.51	10.11	11.89	10.19	12.04	10.33	11.40	9.63	12.87	11.29
14	11.48	10.36	11.59	10.16	11.65	9.97	11.94	10.07	11.88	9.65	13.07	11.39
15	10.86	9.47	11.47	9.95	11.74	10.17	11.87	10.13	11.89	10.00	13.06	11.36
16	11.14	9.76	11.35	9.97	11.97	10.32	11.82	10.03	12.11	10.24	13.03	11.26
17	11.58	10.44	11.37	9.89	12.25	10.46	11.52	9.64	12.23	10.26	12.98	11.18
18	11.64	10.31	11.69	9.93	12.35	10.57	11.31	9.18	12.35	10.40	13.05	11.22
19	11.55	10.03	12.85	11.31	12.32	10.49	11.35	9.15	12.37	10.36	13.12	11.31
20	11.36	9.83	13.82	12.09	12.26	10.24	11.69	9.41	12.32	10.33	13.15	11.40
21	11.26	9.42	13.67	12.31	12.31	10.11	11.83	9.58	12.30	10.22	13.11	11.42
22	11.00	9.16	13.39	11.77	12.61	10.39	11.91	9.76	12.25	10.39	13.00	11.43
23	11.09	9.07	13.05	11.38	12.74	10.69	11.85	9.79	12.17	10.29	12.98	11.39
24	11.22	9.13	12.67	10.95	12.58	10.83	11.63	9.74	12.13	10.27	12.77	11.22
25	11.24	9.19	12.59	10.72	12.71	10.61	11.73	9.69	12.14	10.35	12.60	11.19
26	11.27	9.20	12.40	10.65	12.49	10.52	11.60	9.64	11.97	10.32	12.48	11.00
27	11.12	9.26	12.58	10.67	12.23	10.28	11.41	9.49	12.02	10.36	12.33	11.04
28	11.24	9.14	12.49	10.62	11.89	9.93	11.37	9.44	12.07	10.62	12.27	10.86
29	11.15	9.26	12.42	10.53	12.12	10.18	11.23	9.42	12.14	10.63	12.04	10.43
30	11.16	9.40	12.21	10.48	11.94	10.12	11.10	9.29	11.96	10.32	12.32	10.64
31	---	---	12.14	10.44	---	---	11.02	9.21	11.78	10.16	---	---
Max	11.97	10.44	13.82	12.31	12.74	10.83	12.30	10.84	12.37	10.63	13.15	11.43
Min	10.86	8.89	10.89	8.94	11.65	9.93	11.02	9.15	11.05	9.19	12.04	10.33

	High-high	Low-low
Year		
Maximum	13.82	12.31
Year		
Minimum	10.46	8.12