Water-Data Report 2013

02470629 MOBILE RIVER AT RIVER MILE 31.0 AT BUCKS, AL

Mobile Basin

LOCATION.--Lat 31°00′56″, long 88°01′15″ referenced to North American Datum of 1927, Mobile County, AL, Hydrologic Unit 03170008, on right bank, 0.3 mi east of U.S. Highway 43, 0.5 mi upstream of Barry Steam Plant, 10.0 mi downstream of the Old Fort Stoddard Boat Ramp in Mt. Vernon, and at river mile 31.0.

DRAINAGE AREA.--43,000 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 2003 to Current Year.

GAGE.--Water-stage and velocity recorder. Datum of gage is NGVD of 1929.

REMARKS.--Record considered fair.

Streamflow at this site is affected by astronomical tides. Daily mean discharge was computed using the Godin low-pass filter to remove tidal effects from instantaneous values.

By convention, the U.S. Geological Survey has established ebb (streamward)flows as postive flows, and flood (landward)flows as negative flows.

Astronomical tides cause significant cycles of approximately 24.84 hours at this site. Because a different portion of the 24.84 hours tidal cycle is averaged in successive daily (24-hour) computations, a systematic secondary oscillation, unrelated to basin hydrology and having a period of about 2 weeks many be apparent in daily data published prior to October 1, 2010.

EXTREMES FOR PERIOD OF RECORD.--Minimum discharge estimated from rating extension to be -30,400 ft^3/s, Aug. 29, 2005.

EXTREMES OUTSIDE PERIOD OF RECORD.--The peak discharge for the flood of March 1961, was estimated to be 538,000 ft^3/s based on a stage-discharge rating that was developed for station 02470630, 0.5 mi downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 64,800 ft^3/s, Jan. 21; minimum discharge, 3,360 ft^3/s, Oct. 30.

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DISCHARGE, TIDALLY FILTERED, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	9,860	4,860	---	57,000	50,700	---	55,200	36,900	20,200	12,200	19,600	9,800
2	15,800	6,540	---	56,300	52,900	---	52,300	41,200	17,300	11,100	---	9,230
3	---	7,710	---	54,900	54,800	---	49,200	45,400	15,200	13,000	---	9,890
4	---	8,360	6,140	53,900	56,100	---	46,100	48,000	16,400	12,800	---	14,700
5	---	7,020	6,370	53,800	56,000	51,800	43,400	49,100	17,000	17,700	---	20,100
6	---	---	6,330	53,800	54,300	52,300	41,500	---	16,600	23,900	---	20,300
7	---	---	7,440	52,600	51,800	50,900	40,900	---	20,800	28,500	---	14,700
8	10,900	---	8,240	50,100	49,400	48,100	40,400	---	26,000	33,300	---	10,500
9	7,480	---	---	46,700	47,200	43,800	38,700	---	28,900	36,100	---	8,370
10	8,110	---	---	42,700	44,500	39,400	36,100	54,300	31,100	37,600	---	7,140
11	9,140	---	---	38,400	45,000	36,600	33,400	54,500	31,600	38,800	---	7,950
12	8,760	---	---	34,900	50,100	36,600	34,200	54,000	31,500	40,600	---	8,740
13	7,120	---	---	33,300	56,400	40,000	38,100	---	30,600	43,500	---	8,120
14	7,010	6,940	18,500	35,700	61,900	43,900	43,400	---	28,600	45,600	---	7,190
15	8,020	8,370	15,000	40,400	63,400	45,900	47,900	---	23,800	45,100	---	6,320
16	---	8,670	12,500	46,500	56,600	46,600	51,800	---	---	42,600	---	6,550
17	---	9,850	15,100	52,600	47,500	45,900	54,600	41,800	---	39,600	31,100	7,540
18	---	---	23,700	57,800	43,300	44,400	55,900	37,400	---	36,200	29,700	7,400
19	---	---	30,400	61,700	41,100	42,700	55,400	35,400	---	32,600	28,600	5,540
20	---	---	---	63,900	40,000	40,300	54,100	---	23,400	28,800	27,600	5,430
21	---	---	---	64,700	41,100	37,400	52,700	---	23,900	23,900	27,100	8,550
22	---	---	---	64,200	45,200	34,100	51,700	---	23,800	20,200	26,200	11,100
23	---	---	---	62,300	51,200	---	50,600	---	23,300	20,800	25,000	12,000
24	---	---	---	59,900	54,500	---	49,400	45,200	21,800	25,000	24,300	15,200
25	---	---	---	58,600	56,600	---	47,400	44,400	18,100	30,100	23,500	16,100
26	---	5,300	---	58,400	58,400	---	44,200	41,800	13,700	34,300	21,300	15,800
27	---	9,310	---	58,400	57,900	---	40,700	---	10,700	36,800	18,200	14,600
28	8,190	10,400	---	57,200	---	---	37,900	---	10,300	37,200	15,000	11,000
29	5,050	7,940	50,800	54,000	---	---	35,800	---	12,800	35,200	13,000	9,140
30	3,460	---	54,800	50,000	---	56,400	34,800	24,100	14,800	30,500	11,600	8,080
31	3,790	---	56,700	49,000	---	56,800	---	22,600	---	24,100	10,100	---
Mean	---	---	---	52,380	---	---	45,260	---	---	30,250	---	10,570

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2011 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	5,208	8,548	13,430	37,180	34,420	44,910	36,480	15,750	7,724	30,250	8,589	13,470

SUMMARY STATISTICS

	Water Years 2011 - 2013	
Highest daily mean	66,000	Mar 13, 2011
Lowest daily mean	-1,140	Aug 28, 2012
Annual seven-day minimum	2,380	Aug 28, 2011

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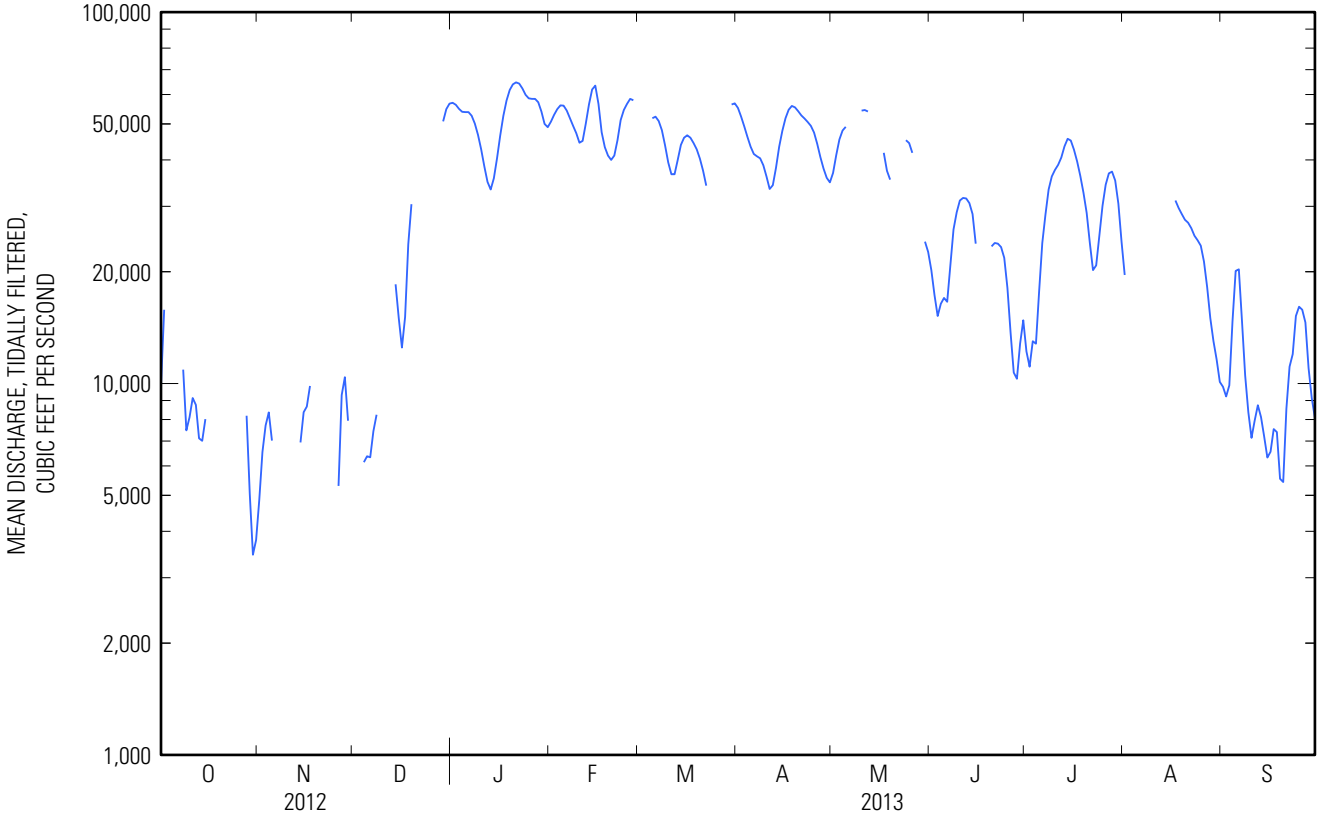

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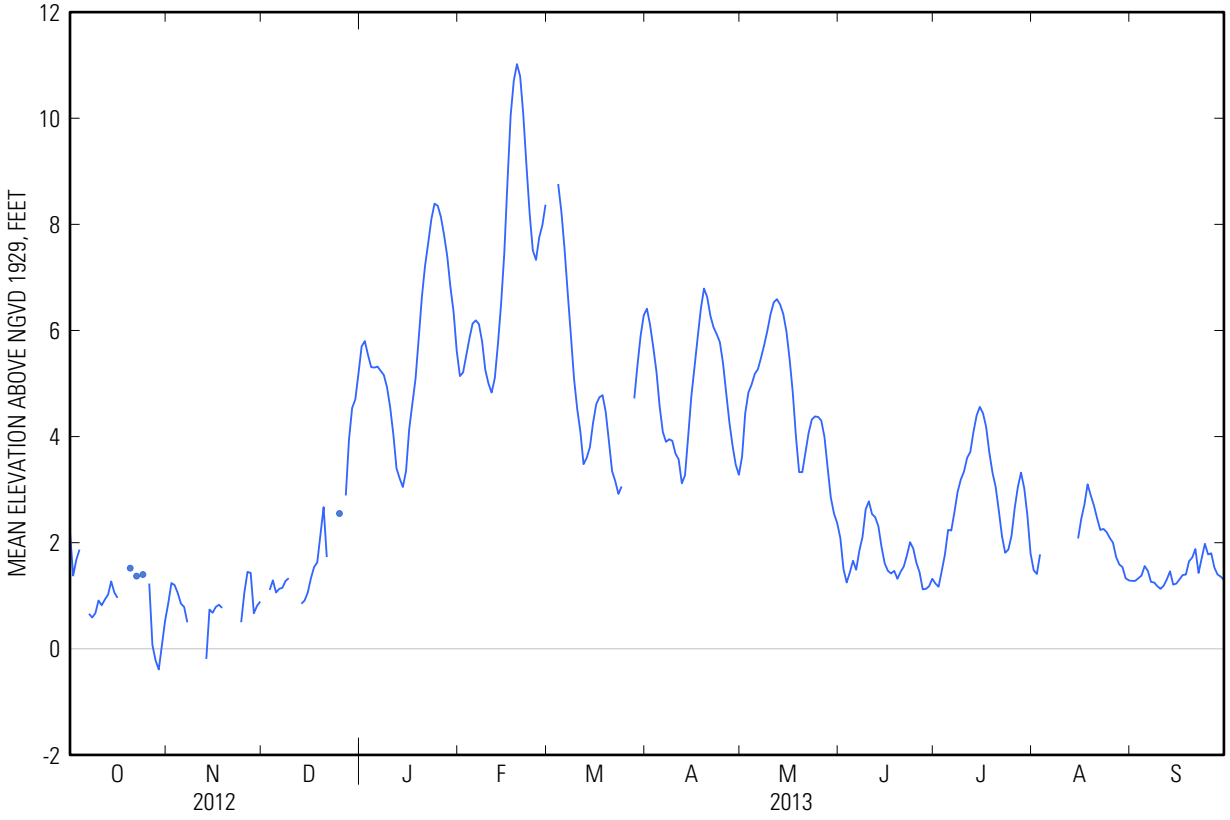
ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2.20	0.86	---	5.70	5.14	---	6.41	3.62	2.09	1.23	1.48	1.28
2	1.38	1.24	---	5.80	5.21	---	6.10	4.44	1.50	1.17	1.41	1.28
3	1.68	1.20	1.11	5.54	5.53	---	5.68	4.83	1.25	1.47	1.78	1.33
4	1.87	1.05	1.29	5.31	5.85	8.76	5.22	4.98	1.44	1.78	---	1.38
5	---	0.85	1.06	5.30	6.13	8.24	4.57	5.18	1.66	2.24	---	1.56
6	---	0.79	1.13	5.32	6.19	7.54	4.09	5.27	1.49	2.23	---	1.47
7	0.66	0.50	1.15	5.24	6.12	6.71	3.90	5.49	1.85	2.58	---	1.26
8	0.59	---	1.28	5.16	5.79	5.91	3.95	5.73	2.11	2.96	---	1.25
9	0.67	---	1.33	4.93	5.26	5.09	3.92	6.00	2.63	3.19	---	1.18
10	0.91	---	---	4.55	5.00	4.52	3.68	6.31	2.78	3.34	---	1.13
11	0.82	---	---	4.04	4.83	4.09	3.57	6.53	2.54	3.60	---	1.19
12	0.93	---	---	3.40	5.10	3.48	3.12	6.59	2.48	3.71	---	1.31
13	1.02	-0.19	0.85	3.21	5.75	3.60	3.27	6.49	2.31	4.09	---	1.46
14	1.27	0.74	0.91	3.05	6.51	3.80	4.00	6.31	1.92	4.40	---	1.21
15	1.06	0.68	1.06	3.35	7.46	4.26	4.76	5.98	1.61	4.56	2.08	1.23
16	0.96	0.79	1.33	4.14	8.80	4.61	5.31	5.46	1.47	4.44	2.45	1.31
17	---	0.83	1.54	4.62	10.05	4.74	5.87	4.83	1.42	4.18	2.72	1.39
18	---	0.77	1.63	5.09	10.71	4.78	6.41	4.00	1.47	3.70	3.10	1.40
19	---	---	2.15	5.85	11.02	4.46	6.79	3.33	1.32	3.32	2.89	1.65
20	1.52	---	2.67	6.63	10.79	3.91	6.63	3.33	1.45	3.05	2.70	1.72
21	---	---	1.73	7.22	10.06	3.35	6.28	3.70	1.55	2.60	2.46	1.88
22	1.37	---	---	7.65	9.10	3.16	6.06	4.07	1.76	2.12	2.24	1.43
23	---	---	---	8.10	8.20	2.92	5.93	4.32	2.01	1.81	2.26	1.71
24	1.40	0.50	---	8.39	7.51	3.06	5.78	4.38	1.89	1.87	2.20	1.98
25	---	1.06	2.55	8.35	7.33	---	5.38	4.37	1.62	2.13	2.09	1.78
26	1.23	1.45	---	8.14	7.75	---	4.82	4.30	1.44	2.65	2.00	1.80
27	0.07	1.43	2.89	7.80	7.98	---	4.27	3.99	1.12	3.05	1.73	1.53
28	-0.22	0.67	3.94	7.40	8.37	4.72	3.83	3.41	1.13	3.32	1.59	1.40
29	-0.39	0.81	4.54	6.82	---	5.34	3.47	2.85	1.18	3.03	1.54	1.36
30	0.07	0.89	4.70	6.35	---	5.90	3.28	2.55	1.32	2.52	1.33	1.30
31	0.53	---	5.19	5.61	---	6.29	---	2.37	---	1.80	1.29	---
Mean	---	---	---	5.74	7.27	---	4.88	4.68	1.73	2.84	---	1.44
Max	---	---	---	8.39	11.02	---	6.79	6.59	2.78	4.56	---	1.98
Min	---	---	---	3.05	4.83	---	3.12	2.37	1.12	1.17	---	1.13

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