

UPPER MISSISSIPPI RIVER MAIN STEM--Continued

05227500 MISSISSIPPI RIVER AT AITKIN, MN

LOCATION.--Lat 46°32'26", long 93°42'26", in SW¹/₄NW¹/₄ sec. 24, T.47 N., R.27 W., Aitkin County, Hydrologic Unit 07010104, on right bank upstream side of highway bridge at north edge of Aitkin, 1 mi downstream from Ripple River and at mile 1,055.9 upstream from Ohio River.

DRAINAGE AREA.--6,140 mi² (approximately).

PERIOD OF RECORD.--March 1945 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,182.41 ft above sea level (NGVD of 1929, levels by U.S. Army Corps of Engineers). Mar. 1, 1945 to Mar. 14, 1961, nonrecording gage, and Mar. 15, 1961 to Sept. 30, 1967, water-stage recorder at same site at datum 3.0 ft higher. Diversion channel: Non-recording gage and crest-stage gage. Datum of gage is 1,182.02 ft above sea level (NGVD of 1929). Apr. 9, 1955 to Apr. 10, 1956, nonrecording gage at site 4 mi downstream at different datum. Apr. 11, 1956 to Sept. 30, 1967, non-recording gage at same site at datum 3.0 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Winnibigoshish Lake, Leech Lake, Pokegama Lake, and Sandy Lake. Water diverted at medium and high stages into Aitkin diversion channel 6.5 mi above station, bypasses station and returns to river 15.5 mi below station. Diversion began Apr. 2, 1955. These records include flow in diversion channel.

EXTREMES FOR CURRENT YEAR.--Main channel: maximum discharge, 7200 ft³/s, Apr. 28; gage height, 17.74 ft. Diversion channel: maximum discharge, 7090 ft³/s, Apr. 28, gage height, 18.39 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1730	3380	e4450	e3000	e2880	e2570	e3100	13700	9210	5260	2970	2080
2	1830	3610	e4300	e3000	e2850	e2580	e3150	13500	9090	4970	2990	1980
3	1920	3960	e4050	e3000	e2840	e2590	e3350	13100	8930	4810	3050	1940
4	1970	4320	e3800	e3000	e2830	e2600	e3550	12700	8710	4630	3100	1910
5	1990	4600	e3500	e3000	e2820	e2600	e3800	12300	8430	4450	3110	1860
6	1990	4900	e3300	e3000	e2810	e2600	e4500	11900	8130	4290	3090	1840
7	1980	5280	e3200	e3000	e2800	e2600	e6000	11600	7840	4170	3060	1800
8	1970	5730	e3100	e3000	e2790	e2600	e7200	11400	7570	4010	3020	1720
9	1960	6070	e3050	e3000	e2780	e2600	e8000	11200	7310	3830	3000	1670
10	1950	6250	e2900	e2990	e2780	e2600	e9500	11000	7040	3700	2990	1690
11	1920	6380	e2900	e2990	e2770	e2620	e10000	10800	6790	3570	2980	1700
12	1910	6480	e2950	e2980	e2760	e2620	e10400	10600	6570	3480	3010	1710
13	1940	6590	e3000	e2980	e2750	e2630	11000	10300	6400	3380	3040	1760
14	1980	6630	e3100	e2970	e2730	e2640	11400	10100	6940	3270	3040	1850
15	2050	6610	e3150	e2970	e2710	e2650	11700	9760	7640	3240	2990	1860
16	2230	6580	e3200	e2960	e2680	e2670	12000	9500	8090	3240	2900	1810
17	2420	6490	e3250	e2960	e2670	e2680	12300	9190	8240	3240	2800	1780
18	2500	6360	e3250	e2950	e2660	e2690	12400	8850	8330	3250	2860	1750
19	2530	6220	e3250	e2950	e2650	e2700	12500	8520	8430	3280	2930	1750
20	2560	6040	e3250	e2950	e2650	e2700	12600	8230	8470	3350	2930	1730
21	2570	5590	e3200	e2950	e2640	e2730	12700	8230	8480	3390	2910	1650
22	2520	5030	e3200	e2940	e2630	e2770	12800	8370	8330	3370	2870	1600
23	2480	e4700	e3150	e2940	e2610	e2790	13300	8760	8070	3340	2750	1650
24	2460	e4600	e3150	e2940	e2600	e2810	13800	9020	7770	3240	2620	1730
25	2450	e4550	e3100	e2930	e2590	e2850	14000	9150	7460	3110	2430	1780
26	2460	e4600	e3100	e2930	e2580	e2880	14100	9380	7140	3020	2290	1830
27	2500	e4700	e3050	e2930	e2570	e2900	14200	9570	6830	2950	2210	1840
28	2560	e4700	e3050	e2930	e2570	e2950	14200	9660	6500	2970	2160	1830
29	2720	e4650	e3050	e2930	---	e3000	14100	9600	6130	2930	2150	1820
30	2940	e4550	e3000	e2910	---	e3050	13900	9490	5710	2930	2170	1790
31	3150	---	e3000	e2900	---	e3070	---	9340	---	2940	2140	---
TOTAL	70140	160150	101000	91880	76000	84340	305550	318820	230580	111610	86560	53710
MEAN	2263	5338	3258	2964	2714	2721	10180	10280	7686	3600	2792	1790
MAX	3150	6630	4450	3000	2880	3070	14200	13700	9210	5260	3110	2080
MIN	1730	3380	2900	2900	2570	2570	3100	8230	5710	2930	2140	1600
AC-FT	139100	317700	200300	182200	150700	167300	606100	632400	457400	221400	171700	106500
CFSM	.37	.87	.53	.48	.44	.44	1.66	1.68	1.25	.59	.45	.29
IN.	.42	.97	.61	.56	.46	.51	1.85	1.93	1.40	.68	.52	.33

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2707	2841	2316	1995	1905	2270	5253	5328	3723	3121	2373	2246
MAX	6534	6756	4498	3525	3196	5415	10830	15510	8072	8201	8270	6689
(WY)	1966	1972	1997	1966	1966	1945	1966	1950	1965	1993	1953	1986
MIN	313	328	324	345	398	638	1074	669	540	346	273	321
(WY)	1977	1977	1977	1977	1977	1977	1977	1958	1988	1961	1961	1976

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1945 - 2001
ANNUAL TOTAL	1005200	1690340	
ANNUAL MEAN	2746	4631	3000
HIGHEST ANNUAL MEAN			4985
LOWEST ANNUAL MEAN			796
HIGHEST DAILY MEAN	6630	Nov 14	14200
LOWEST DAILY MEAN	1050	Aug 13	1600
ANNUAL SEVEN-DAY MINIMUM	1160	Aug 9	1690
MAXIMUM PEAK FLOW			14200
MAXIMUM PEAK STAGE			17.74
INSTANTANEOUS LOW FLOW			1580
ANNUAL RUNOFF (AC-FT)	1994000	3353000	2173000
ANNUAL RUNOFF (CFM)	.45	.75	.49
ANNUAL RUNOFF (INCHES)	6.09	10.24	6.64
10 PERCENT EXCEEDS	4390	9620	5960
50 PERCENT EXCEEDS	2520	3020	2390
90 PERCENT EXCEEDS	1670	1970	988

a Present datum.
e Estimated.

