

UPPER MISSISSIPPI RIVER MAIN STEM--Continued

05372995 SOUTH FORK ZUMBRO RIVER AT ROCHESTER, MN

LOCATION.--Lat 44°03'42", long 92°27'58", in NW¹/₄NE¹/₄ sec. 23, T.107 N., R.14 W., Olmsted County, Hydrologic Unit 07040004, on left bank 50 ft downstream from 37th Street bridge, 0.2 mi upstream from sewer plant, and 2.0 mi downstream from Silver Lake Dam.

DRAINAGE AREA.--303 mi².

PERIOD OF RECORD.--March 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 950.00 ft above sea level (NGVD of 1929).

REMARKS.--Record good. Slight regulation at times from Silver Lake.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 6, 1978, reached a stage of about 28.0 ft, on upstream side of bridge, discharge 30,500 ft³/s. This is the highest known stage since at least 1908.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 19	0700	2,160	7.61	Jun 21	0400	2,330	8.00
Jun 1	2200	2,710	8.82	Jul 9	2300	*2,970	*9.36
Jun 5	1600	1,590	6.59	Aug 26	0500	1,350	6.15

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	88	83	68	48	206	90	69	1720	299	204	197
2	126	82	85	72	48	184	89	68	2310	337	162	159
3	118	71	85	70	50	170	87	67	1140	372	150	162
4	116	58	84	69	51	162	85	64	993	310	148	143
5	111	79	79	60	49	152	84	64	1460	292	158	133
6	107	80	77	70	52	145	80	62	1190	327	156	126
7	107	81	82	61	52	142	80	60	797	285	145	119
8	115	86	80	67	48	151	80	69	646	256	178	113
9	109	89	79	66	55	169	77	61	533	1860	152	109
10	107	100	69	79	55	152	73	58	441	2570	135	104
11	104	85	74	72	50	139	78	79	393	1820	129	102
12	102	80	80	67	47	134	75	69	351	860	127	97
13	101	88	71	62	53	133	74	61	437	651	124	92
14	102	91	75	60	52	129	73	56	907	530	119	108
15	104	84	81	66	51	127	72	55	695	439	114	89
16	105	83	57	59	49	123	73	54	766	382	117	86
17	97	80	68	62	48	118	73	222	651	338	222	83
18	107	81	64	60	53	120	72	1010	518	299	160	79
19	103	83	64	51	51	117	87	1710	448	281	138	79
20	94	79	57	55	50	117	106	674	1390	263	124	78
21	94	79	58	55	57	114	93	462	2110	242	117	75
22	93	80	55	55	73	112	86	370	1080	227	149	85
23	88	133	50	54	137	110	81	303	765	213	135	79
24	87	107	52	52	456	114	76	263	628	203	126	77
25	89	99	55	53	501	113	74	224	566	196	118	75
26	87	93	60	50	563	108	73	202	504	187	441	72
27	87	88	60	48	356	105	72	211	434	180	230	72
28	86	85	58	47	262	103	76	205	410	174	176	69
29	89	83	63	47	224	99	72	188	371	171	163	68
30	103	78	69	48	---	96	70	188	332	167	152	63
31	90	---	69	48	---	93	---	186	---	163	143	---
TOTAL	3148	2573	2143	1853	3641	4057	2381	7434	24986	14894	4912	2993
MEAN	102	85.8	69.1	59.8	126	131	79.4	240	833	480	158	99.8
MAX	126	133	85	79	563	206	106	1710	2310	2570	441	197
MIN	86	58	50	47	47	93	70	54	332	163	114	63
AC-FT	6240	5100	4250	3680	7220	8050	4720	14750	49560	29540	9740	5940
CFSM	.34	.28	.23	.20	.41	.43	.26	.79	2.75	1.59	.52	.33

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	155	145	117	76.5	131	376	401	316	269	250	173	172
MAX	824	338	358	167	454	760	1211	691	1014	663	501	1075
(WY)	1987	1992	1992	1983	1984	1983	1993	1999	1993	1993	1990	1986
MIN	20.0	24.5	21.0	22.5	23.8	131	79.4	88.3	49.0	23.2	24.6	31.5
(WY)	1990	1990	1990	1990	1990	2000	2000	1989	1989	1988	1988	1988

SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1981 - 2000

ANNUAL TOTAL		93389		75015								
ANNUAL MEAN		256		205						216		
HIGHEST ANNUAL MEAN										431		1993
LOWEST ANNUAL MEAN										87.3		1989
HIGHEST DAILY MEAN				2670	May 18		2570	Jul 10		7710		Sep 21 1986
LOWEST DAILY MEAN				50	Dec 23		47	Jan 28,29	Feb 12	12		Sep 12 1988
ANNUAL SEVEN-DAY MINIMUM				55	Dec 20		48	Jan 27		14		Sep 8 1988
INSTANTANEOUS PEAK FLOW							2970	Jul 9		10000		Sep 21 1986
INSTANTANEOUS PEAK STAGE							9.36	Jul 9		20.77		Sep 21 1986
INSTANTANEOUS LOW FLOW							29 ^a	Nov 4		10 ^a		Oct 23 1981
ANNUAL RUNOFF (AC-FT)			185200				148800			156800		
ANNUAL RUNOFF (CFSM)			.84				.68			.71		
10 PERCENT EXCEEDS			558				441			473		
50 PERCENT EXCEEDS			161				94			123		
90 PERCENT EXCEEDS			69				55			47		

^a Due in part to regulation.

