UPPER MISSISSIPPI RIVER MAIN STEM

05331000 MISSISSIPPI RIVER AT ST. PAUL, MN

LOCATION.--LAT 44 *56* '40", long 9305'20", inSE *1* / *4* NE *1* / *4* sec. 6, T. 28 N., R. 22 W., Ramsey County, Hydrologic Unit 07010206, on left bank in St. Paul, 300 ft upstream from Robert Street Bridge, 6 mi downstream from Minnesota River, and at mile 839.3 upstream from Ohio River.

DRAINAGE AREA.--36,800 mi *2* , approximately.
PERIOD OF RECORD.--Water year 1867-69, 1872-92 (annual maximums), March 1892 to current year (prior to 1901, fragmentary during some winters). Records prior to March 1892, published in the 19th Annual Report, Part 4, have been found to be unreliable and should not be used. Monthly discharge only for some periods, published in WSP 1308. Gage-height records (winter records incomplete) collected at same site since 1866 are contained in reports of U.S. Weather Bureau, War Department and MIssissippi River Commission.
REVISED RECORDS.--WSP 285: 1892-96. WSP 715: Drainage area. WSP 875: 1938. WSP 895: 1939. WSP 1308: 1867(M). WSP 1508: 1897, 1898(M). 1903(M), 1917-18(M). 1928(M), 1929. WRD MN-74: 1973.
GAGE.--Water-stage recorder. Datum of gage is 683.62 ft above mean sea level. Prior to Mar. 18, 1925, nonrecording gage at several sites within 300 ft of present site at present datum. Since September 1938, auxiliary water-stage recorder 5.6 mi downstream.
REMARKS.--Records fair except those for estimated days, which are fair to poor. Slight regulation except during extreme floods by reservoirs on headquarters and by power plants. Beginning July 20, 1939, sewage from Minnespolis and St. Paul, which formerly entered above station, was diverted to a sewage-disposal plant, thence to river below station. Figures do not include this diversion.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	
1	8860	10400	10100	6960	e7030	26700	32700	23700	17700	39800	11000	5
2	8440	9920	10200	6770	e6900	26800	35600	22500	17300	39400	10600	6
3	8300	9910	10300	6880	e6910	26800	39100	21600	16600	38800	9970	6
4	8320	11100	10600	7460	e6700	27300	43700	20600	16800	37000	9980	6
5	8020	10400	10300	6460	e6820	27600	48200	19600	16400	34800	10500	5

6	7870	10400	9870	7080	e6870	26500	51200	18400	16000	32500	8980	5
7	7720	10300	9470	6960	e6710	26000	53000	17100	16100	29900	7330	5
8	7880	10100	9570	6790	e6770	26000	53800	16000	15500	27800	8620	5
9	7310	10200	9730	7320	e6820	24300	53900	17000	15100	26700	8740	5
10	8150	10600	9540	7460	e6810	23100	53200	16800	14700	24700	8130	4
11	7430	10600	9660	6890	e6860	19800	52300	16100	13600	23300	7940	4
12	7050	10600	9890	5740	e6700	18000	51300	15700	13100	22100	7600	4
13	7520	10600	9200	e6320	e6570	16700	49600	15800	13000	20700	7530	4
14	8200	10600	9080	e6400	e6800	15400	48000	15600	14300	19000	7010	4
15	9100	10200	9370	e6540	e6490	15200	45800	15300	14900	18100	6870	4
16	9690	10200	9820	e6870	e6620	16100	44100	14800	15300	18800	6460	4
17	10400	9230	9710	e7070	e7010	16500	42600	16500	16000	18600	6230	4
18	11000	8530	9520	e7150	e7300	16300	41100	18600	17000	18200	5980	4
19	11300	8730	9370	e7070	e7760	15600	39700	20600	16600	17700	5680	3
20	11500	8360	9490	e6940	e8620	15300	38600	22600	18000	17900	5650	4
21	12600	8720	9420	e7010	e9480	14500	37100	22500	20200	17800	5570	4
22	10900	9230	8470	e7120	e12300	13800	36100	21700	22600	17300	5950	4
23	11000	9540	8650	e7120	e14200	13500	35300	19800	24400	16900	6360	4
24	11700	8930	8960	e7020	e16600	13900	33400	19200	27200	16400	5970	3
25	11400	8410	8890	e6970	e19200	13400	32000	18000	28600	15400	6340	4
26	11100	8520	7910	e6970	e21600	13000	30400	17800	29500	14900	6450	4
27	11200	8670	8040	e6970	e23900	13100	28900	17600	35900	14100	6410	4
28	10800	9610	7810	e6970	e25700	13600	27500	18100	37300	13300	6020	3
29	10600	9580	7690	e6860	---	17100	26000	18200	39000	12700	6090	4
30	8860	10300	7610	e6940	---	22900	24500	17900	39700	11900	6060	3
31	10100	---	8460	e6910	---	28700	---	17300	---	10900	5610	-
TOTAL	294320	292490	286700	213990	282050	603500	1228700	573000	618400	687400	227630	1
MEAN	9494	9750	9248	6903	10070	19470	40960	18480	20610	22170	7343	4
MAX	12600	11100	10600	7460	25700	28700	53900	23700	39700	39800	11000	6

MIN	7050	8360	7610	5740	6490	13000	24500	14800	13000	10900	5570	3
AC-FT	583800	580200	568700	424400	559400	1197000	2437000	1137000	1227000	1363000	451500	2
CFSM	.26	.26	.25	.19	.27	.53	1.11	.50	.56	.60	.20	.
IN.	.30	.30	.29	.22	.29	.61	1.24	.58	.63	.69	.23	.

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1892 - 1998, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	8576	7824	5650	4583	4544	11190	26060	20790	18100	14420	8902	8060
MAX	38210	27660	16080	11500	14700	43240	91610	66470	57170	73590	42550	34380
(WY)	1987	1972	1983	1983	1966	1983	1969	1986	1993	1993	1993	1986
MIN	1289	1348	1277	1097	1300	1757	3421	3085	1980	1272	864	1143
(WY)	1937	1937	1935	1935	1895	1940	1895	1934	1934	1934	1934	1934

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1892 - 1998		
ANNUAL TOTAL	8354490		5449180				
ANNUAL MEAN	22890		14930		11630		
HIGHEST ANNUAL MEAN					29580		1986
LOWEST ANNUAL MEAN					1935		1934
HIGHEST DAILY MEAN	133000	Apr 12	53900	Apr 9	171000	Apr 16	1965
LOWEST DAILY MEAN	6670	Jan 13	3760	Sep 28	632	Aug 26	1934
ANNUAL SEVEN-DAY MINIMUM	7380	Jan 10	4020	Sep 24	741	Aug 26	1934
INSTANTANEOUS PEAK FLOW			54400	Apr 9	171000	Apr 16	1965
INSTANTANEOUS PEAK STAGE			11.06	Apr 9	26.01	Apr 16	1965
ANNUAL RUNOFF	16570000		10810000		8425000		

(AC-FT)							
ANNUAL RUNOFF (CFSM)	.62		.41		.32		
ANNUAL RUNOFF (INCHES)	8.45		5.51		4.29		
10 PERCENT EXCEEDS	46800		30100		27400		
50 PERCENT EXCEEDS	11100		10400		7140		
90 PERCENT EXCEEDS	8220		6020		2700