

05270700 MISSISSIPPI RIVER AT ST. CLOUD, MN

LOCATION.--Lat 45°32'50", long 94°08'44", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T. 35 N., R. 31 W., Sherburne County, Hydrologic Unit 07010203, on left bank about 250 ft below the left downstream end of the City of St. Cloud hydropower dam and at mile 926.3 upstream from Ohio River.

DRAINAGE AREA.--13,320 mi² (approximately).

PERIOD OF RECORD.--October 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 958.49 ft above sea level (NGVD of 1929).

REMARKS.--Records good except those for estimated daily discharge, which are fair to poor. Flow partly regulated by power plants and reservoirs.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,780	6,010	4,030	3,690	2,740	e2,140	4,300	6,770	6,220	16,700	4,460	1,740
2	3,490	6,280	3,690	3,890	2,970	e2,120	4,200	6,650	6,230	15,000	4,550	1,690
3	3,160	5,970	3,230	3,890	e2,850	e2,120	4,630	6,390	5,700	15,300	4,420	1,890
4	4,180	5,870	e3,100	3,950	e2,800	e2,120	4,530	5,660	5,750	16,200	4,410	1,660
5	4,830	5,730	3,150	3,920	e2,750	e2,120	3,590	5,780	5,640	15,500	4,410	1,880
6	5,690	5,570	3,410	3,640	e2,650	e2,120	3,930	6,270	5,550	14,600	4,400	1,680
7	6,550	5,860	3,490	3,750	e2,580	e2,120	4,380	6,100	5,250	15,000	4,250	1,720
8	6,930	5,520	3,590	3,980	e2,570	e2,120	4,210	6,610	5,410	14,100	4,080	2,270
9	7,330	5,450	3,340	3,770	e2,570	e2,120	3,980	7,380	5,620	13,200	3,920	1,710
10	7,420	5,580	3,920	3,570	e2,570	e2,110	4,120	8,620	5,990	12,700	3,710	1,780
11	6,870	5,450	4,230	3,620	e2,560	e2,140	3,910	10,900	6,680	12,500	3,590	2,280
12	8,210	5,800	4,330	e3,400	e2,510	e2,190	3,850	11,000	6,690	12,900	2,950	2,420
13	7,420	5,460	4,320	e3,350	e2,490	e2,240	3,420	11,200	6,850	12,500	3,210	2,540
14	6,560	5,580	4,450	e3,400	e2,480	e2,340	3,730	11,400	6,540	12,700	3,320	2,340
15	7,400	5,240	4,360	e3,400	e2,450	e2,550	3,690	10,600	5,920	12,400	3,060	2,310
16	6,970	5,260	4,140	3,460	e2,440	e2,750	5,280	9,810	5,280	11,600	3,080	2,270
17	7,050	4,520	3,900	3,290	e2,430	e3,050	7,020	9,470	5,400	10,900	3,040	1,930
18	7,130	5,150	4,530	3,210	e2,400	e3,250	7,060	8,830	5,390	10,100	2,670	2,380
19	6,340	5,180	4,510	3,100	e2,380	e3,350	8,940	9,820	4,750	9,510	2,540	2,480
20	6,830	5,310	4,200	3,150	e2,360	e3,450	10,600	10,100	4,570	8,990	2,330	2,050
21	6,920	5,510	4,000	3,230	e2,340	3,580	12,300	10,200	4,170	8,420	2,420	2,060
22	6,580	5,310	3,910	e2,900	e2,320	3,590	12,100	10,800	4,260	8,020	2,150	2,420
23	6,460	5,090	3,620	e3,200	e2,300	3,750	12,700	10,700	6,900	7,490	1,870	2,240
24	6,520	4,510	3,710	e2,850	e2,270	4,110	12,100	9,990	10,300	6,870	2,000	2,200
25	6,440	4,330	4,070	e2,900	e2,240	4,620	11,200	9,600	14,300	6,340	2,070	2,150
26	6,050	3,980	4,020	e2,850	e2,210	5,060	10,400	9,140	16,600	6,430	2,020	1,950
27	6,050	3,690	3,730	e2,800	e2,200	5,180	9,580	8,330	18,100	5,890	1,970	2,130
28	6,070	3,430	4,030	2,660	e2,180	4,470	9,060	7,910	18,900	5,830	1,890	2,040
29	6,490	3,880	4,000	e2,650	---	4,390	8,220	7,530	19,600	5,150	1,770	2,060
30	6,330	3,880	3,950	e2,700	---	4,070	7,450	7,190	18,400	5,160	1,790	1,650
31	6,310	---	3,750	2,690	---	e3,980	---	6,600	---	4,900	1,960	---
TOTAL	194,360	154,400	120,710	102,830	69,610	95,320	204,480	267,350	246,960	332,900	94,310	61,920
MEAN	6,270	5,147	3,894	3,317	2,486	3,075	6,816	8,624	8,232	10,740	3,042	2,064
MAX	8,210	6,280	4,530	3,980	2,970	5,180	12,700	11,400	19,600	16,700	4,550	2,540
MIN	3,160	3,430	3,100	2,650	2,180	2,110	3,420	5,660	4,170	4,900	1,770	1,650
AC-FT	385,500	306,300	239,400	204,000	138,100	189,100	405,600	530,300	489,800	660,300	187,100	122,800
CFSM	0.47	0.39	0.29	0.25	0.19	0.23	0.51	0.65	0.62	0.81	0.23	0.15
IN.	0.54	0.43	0.34	0.29	0.19	0.27	0.57	0.75	0.69	0.93	0.26	0.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2003, BY WATER YEAR (WY)

MEAN	5,745	5,967	4,772	4,065	3,900	6,168	13,580	11,820	8,436	8,639	4,892	4,662
MAX	15,680	9,675	7,434	5,616	5,796	10,600	29,710	22,020	20,310	16,830	9,687	9,763
(WY)	(1996)	(1996)	(1997)	(1997)	(1997)	(1995)	(2001)	(2001)	(2001)	(1993)	(1999)	(1999)
MIN	3,106	2,953	2,310	1,927	1,815	3,075	6,134	5,653	3,743	3,930	1,535	2,064
(WY)	(1993)	(1989)	(1991)	(1991)	(1990)	(2003)	(2000)	(1998)	(1992)	(1989)	(1989)	(2003)

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SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1988 - 2003	
ANNUAL TOTAL	2,373,770		1,945,150		6,881	
ANNUAL MEAN	6,503		5,329		4,615	
HIGHEST ANNUAL MEAN					9,947 2001	
LOWEST ANNUAL MEAN					4,615 1990	
HIGHEST DAILY MEAN	21,100	Jul 12	19,600	Jun 29	45,100	Apr 9, 1997
LOWEST DAILY MEAN	2,610	Jun 18	1,650	Sep 30	1,010	Aug 24, 1989
ANNUAL SEVEN-DAY MINIMUM	3,170	Jun 13	1,750	Sep 1	1,250	Aug 13, 1989
MAXIMUM PEAK FLOW			a20,900	Jun 29	46,900	Apr 8, 1997
MAXIMUM PEAK STAGE			a7.88	Jun 29	11.44	Apr 8, 1997
INSTANTANEOUS LOW FLOW			b576	Apr 17	b484	Oct 18, 1992
ANNUAL RUNOFF (AC-FT)	4,708,000		3,858,000		4,985,000	
ANNUAL RUNOFF (CFSM)	0.49		0.40		0.52	
ANNUAL RUNOFF (INCHES)	6.63		5.43		7.02	
10 PERCENT EXCEEDS	11,500		10,500		12,700	
50 PERCENT EXCEEDS	5,560		4,200		5,520	
90 PERCENT EXCEEDS	3,480		2,140		2,740	

- a Due in part to regulation.
- b Due to regulation.
- c Estimated.

