

U. S. GEOLOGICAL SURVEY
 ANNUAL PEAK FLOW FREQUENCY ANALYSIS
 Following Bulletin 17-B Guidelines
 Program peakfq
 (Version 4.0, December, 2000)

Station - 05406000 WISCONSIN RIVER AT PRAIRIE DU SAC, WI
 2002 JUL 10 11:21:15

I N P U T D A T A S U M M A R Y

Number of peaks in record	=	86
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	86
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	0.000
Standard error of generalized skew	=	0.550
Skew option	=	STATION SKEW
Gage base discharge	=	0.0
User supplied high outlier threshold	=	--
User supplied low outlier criterion	=	--
Plotting position parameter	=	0.00

***** NOTICE -- Preliminary machine computations. *****
 ***** User responsible for assessment and interpretation. *****

WCF134I-NO SYSTEMATIC PEAKS WERE BELOW GAGE BASE.		0.0	
WCF198I-LOW OUTLIERS BELOW FLOOD BASE WERE DROPPED.	1	9083.9	
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.		125900.1	
*WCF151I-17B WEIGHTED SKEW REPLACED BY USER OPTION.	-0.541	-0.731	-1

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ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE		LOGARITHMIC		
	DISCHARGE	EXCEEDANCE PROBABILITY	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	0.0	1.0000	4.5434	0.1973	-0.912
BULL.17B ESTIMATE	9083.9	0.9884	4.5479	0.1872	-0.731

ANNUAL FREQUENCY CURVE -- DISCHARGES AT SELECTED EXCEEDANCE PROBABILITIES

ANNUAL EXCEEDANCE PROBABILITY	BULL.17B ESTIMATE	SYSTEMATIC RECORD	'EXPECTED PROBABILITY' ESTIMATE	95-PCT CONFIDENCE LIMITS FOR BULL. 17B ESTIMATES	
				LOWER	UPPER
0.9950	--	7418.0	--	--	--
0.9900	--	9086.0	--	--	--
0.9500	16080.0	15010.0	15800.0	13980.0	18020.0
0.9000	19870.0	19020.0	19660.0	17690.0	21900.0
0.8000	25150.0	24660.0	25030.0	22890.0	27330.0
0.5000	37200.0	37410.0	37200.0	34460.0	40230.0
0.2000	51090.0	51510.0	51230.0	46950.0	56260.0
0.1000	58680.0	58790.0	58970.0	53480.0	65440.0
0.0400	66720.0	66080.0	67250.0	60250.0	75420.0
0.0200	71770.0	70410.0	72480.0	64440.0	81800.0
0.0100	76170.0	73990.0	77060.0	68050.0	87400.0
0.0050	80020.0	76990.0	81100.0	71190.0	92360.0
0.0020	84450.0	80240.0	85790.0	74770.0	98110.0
0.6667	30719.7	(1.50-year flood)			
0.4292	40153.7	(2.33-year flood)			

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I N P U T D A T A L I S T I N G

WATER YEAR	DISCHARGE	CODES	WATER YEAR	DISCHARGE	CODES
1915	20400.0		1958	12600.0	
1916	51600.0		1959	36900.0	
1917	24200.0		1960	76500.0	
1918	40400.0		1961	35300.0	
1919	38000.0		1962	33400.0	
1920	50300.0		1963	26100.0	
1921	33100.0		1964	15700.0	
1922	65200.0		1965	57300.0	
1923	44700.0		1966	32800.0	
1924	33600.0		1967	53100.0	
1925	24200.0		1968	43400.0	
1926	45100.0		1969	53300.0	
1927	36000.0		1970	26600.0	
1928	56400.0		1971	40100.0	
1929	50300.0		1972	52900.0	
1930	41600.0		1973	76600.0	
1931	7920.0		1974	24200.0	
1932	27300.0		1975	37400.0	
1933	21900.0		1976	46700.0	
1934	21200.0		1977	11200.0	
1935	43400.0		1978	32600.0	
1936	29100.0		1979	46100.0	
1937	29100.0		1980	49300.0	
1938	81800.0		1981	29400.0	
1939	35400.0		1982	45400.0	
1940	55800.0		1983	53500.0	
1941	43600.0		1984	40700.0	
1942	55100.0		1985	32300.0	
1943	58700.0		1986	49700.0	
1944	27200.0	K	1987	58300.0	
1945	37500.0	K	1988	13100.0	
1946	45600.0	K	1989	24600.0	
1947	27000.0	K	1990	44300.0	
1948	26500.0	K	1991	37800.0	
1949	13000.0	K	1992	34500.0	
1950	31200.0	K	1993	62900.0	
1951	61500.0	K	1994	32000.0	
1952	40300.0	K	1995	25100.0	
1953	26100.0	K	1996	46700.0	
1954	29600.0		1997	41100.0	
1955	29300.0		1998	40600.0	
1956	33600.0		1999	22900.0	
1957	10700.0		2000	29200.0	

Explanation of peak discharge qualification codes

PEAKFQ WATSTORE

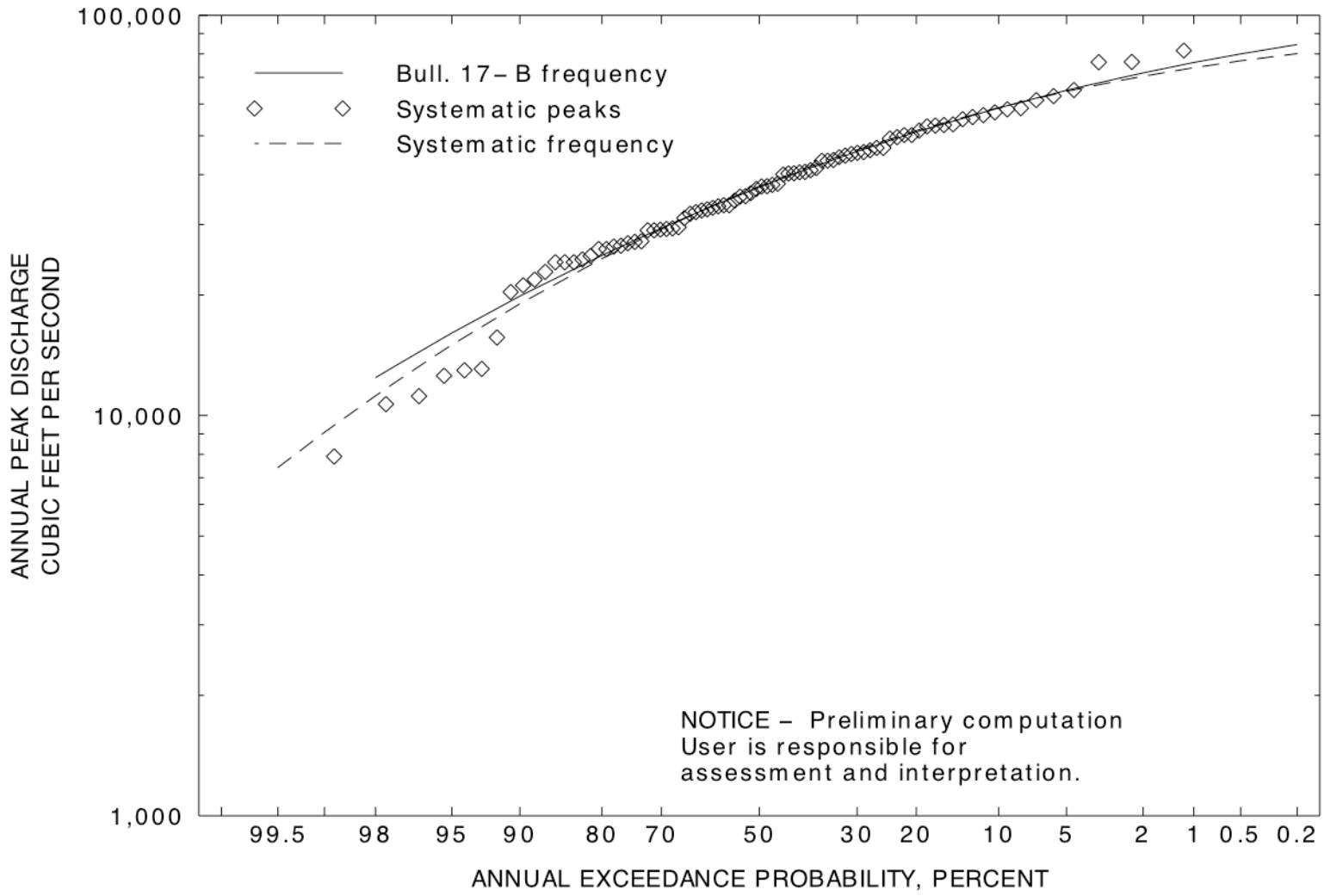
CODE	CODE	DEFINITION
D	3	Dam failure, non-recurrent flow anomaly
G	8	Discharge greater than stated value
X	3+8	Both of the above
L	4	Discharge less than stated value
K	6 OR C	Known effect of regulation or urbanization
H	7	Historic peak

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EMPIRICAL FREQUENCY CURVES -- WEIBULL PLOTTING POSITIONS

WATER YEAR	RANKED DISCHARGE	SYSTEMATIC RECORD	BULL.17B ESTIMATE
1938	81800.0	0.0115	0.0115
1973	76600.0	0.0230	0.0230
1960	76500.0	0.0345	0.0345
1922	65200.0	0.0460	0.0460
1993	62900.0	0.0575	0.0575
1951	61500.0	0.0690	0.0690
1943	58700.0	0.0805	0.0805
1987	58300.0	0.0920	0.0920
1965	57300.0	0.1034	0.1034
1928	56400.0	0.1149	0.1149
1940	55800.0	0.1264	0.1264
1942	55100.0	0.1379	0.1379
1983	53500.0	0.1494	0.1494
1969	53300.0	0.1609	0.1609
1967	53100.0	0.1724	0.1724
1972	52900.0	0.1839	0.1839
1916	51600.0	0.1954	0.1954
1920	50300.0	0.2069	0.2069
1929	50300.0	0.2184	0.2184
1986	49700.0	0.2299	0.2299
1980	49300.0	0.2414	0.2414
1976	46700.0	0.2529	0.2529
1996	46700.0	0.2644	0.2644
1979	46100.0	0.2759	0.2759
1946	45600.0	0.2874	0.2874
1982	45400.0	0.2989	0.2989
1926	45100.0	0.3103	0.3103
1923	44700.0	0.3218	0.3218
1990	44300.0	0.3333	0.3333
1941	43600.0	0.3448	0.3448
1935	43400.0	0.3563	0.3563
1968	43400.0	0.3678	0.3678
1930	41600.0	0.3793	0.3793
1997	41100.0	0.3908	0.3908
1984	40700.0	0.4023	0.4023
1998	40600.0	0.4138	0.4138
1918	40400.0	0.4253	0.4253
1952	40300.0	0.4368	0.4368
1971	40100.0	0.4483	0.4483
1919	38000.0	0.4598	0.4598
1991	37800.0	0.4713	0.4713
1945	37500.0	0.4828	0.4828
1975	37400.0	0.4943	0.4943
1959	36900.0	0.5057	0.5057
1927	36000.0	0.5172	0.5172
1939	35400.0	0.5287	0.5287
1961	35300.0	0.5402	0.5402
1992	34500.0	0.5517	0.5517

1924	33600.0	0.5632	0.5632
1956	33600.0	0.5747	0.5747
1962	33400.0	0.5862	0.5862
1921	33100.0	0.5977	0.5977
1966	32800.0	0.6092	0.6092
1978	32600.0	0.6207	0.6207
1985	32300.0	0.6322	0.6322
1994	32000.0	0.6437	0.6437
1950	31200.0	0.6552	0.6552
1954	29600.0	0.6667	0.6667
1981	29400.0	0.6782	0.6782
1955	29300.0	0.6897	0.6897
2000	29200.0	0.7011	0.7011
1936	29100.0	0.7126	0.7126
1937	29100.0	0.7241	0.7241
1932	27300.0	0.7356	0.7356
1944	27200.0	0.7471	0.7471
1947	27000.0	0.7586	0.7586
1970	26600.0	0.7701	0.7701
1948	26500.0	0.7816	0.7816
1953	26100.0	0.7931	0.7931
1963	26100.0	0.8046	0.8046
1995	25100.0	0.8161	0.8161
1989	24600.0	0.8276	0.8276
1917	24200.0	0.8391	0.8391
1925	24200.0	0.8506	0.8506
1974	24200.0	0.8621	0.8621
1999	22900.0	0.8736	0.8736
1933	21900.0	0.8851	0.8851
1934	21200.0	0.8966	0.8966
1915	20400.0	0.9080	0.9080
1964	15700.0	0.9195	0.9195
1988	13100.0	0.9310	0.9310
1949	13000.0	0.9425	0.9425
1958	12600.0	0.9540	0.9540
1977	11200.0	0.9655	0.9655
1957	10700.0	0.9770	0.9770
1931	7920.0	0.9885	0.9885



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