

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

Station - 05405000 BARABOO RIVER NEAR BARABOO, WI
 2002 MAR 13 09:03:11

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

Number of peaks in record	=	67
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	67
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.387
Standard error of generalized skew	=	0.550
Skew option	=	WEIGHTED
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
WCF195I-NO LOW OUTLIERS WERE DETECTED BELOW CRITERION.	607.2
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.	13230.1

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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	3.4525	0.2326	-0.406
BULL.17B ESTIMATE	0.0	1.0000	3.4525	0.2326	-0.401

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	584.0	582.6	543.6	437.7	729.3
0.9900	698.3	697.0	661.1	537.8	855.1
0.9500	1110.0	1109.0	1084.0	913.7	1297.0
0.9000	1400.0	1400.0	1380.0	1188.0	1603.0
0.8000	1831.0	1831.0	1818.0	1599.0	2058.0
0.5000	2937.0	2939.0	2937.0	2636.0	3278.0
0.2000	4481.0	4481.0	4504.0	3981.0	5140.0
0.1000	5480.0	5478.0	5534.0	4804.0	6425.0
0.0400	6696.0	6690.0	6810.0	5774.0	8051.0
0.0200	7565.0	7554.0	7735.0	6449.0	9245.0
0.0100	8400.0	8384.0	8639.0	7088.0	10420.0
0.0050	9207.0	9185.0	9527.0	7698.0	11570.0
0.0020	10240.0	10210.0	10690.0	8466.0	13070.0
0.6667	2320.1	(1.50-year flood)			
0.4292	3232.6	(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
1914	1030.0		1968	2180.0	
1915	1700.0		1969	1890.0	
1916	2500.0		1970	1650.0	
1917	7900.0		1971	2040.0	
1918	4170.0		1972	3350.0	
1919	4550.0		1973	4310.0	
1920	7360.0		1974	2720.0	
1921	2110.0		1975	3090.0	
1935	5100.0		1976	3270.0	
1943	3000.0		1977	1300.0	
1944	2210.0		1978	4600.0	
1945	3110.0		1979	3350.0	
1946	3880.0		1980	3360.0	
1947	3400.0		1981	2580.0	
1948	5340.0		1982	2120.0	
1949	1950.0		1983	1860.0	
1950	5760.0		1984	2230.0	
1951	3550.0		1985	3090.0	
1952	3800.0		1986	3110.0	
1953	2020.0		1987	1480.0	
1954	2150.0		1988	1220.0	
1955	1800.0		1989	2250.0	
1956	5340.0		1990	2810.0	
1957	808.0		1991	2120.0	
1958	940.0		1992	4470.0	
1959	5910.0		1993	6340.0	
1960	4220.0		1994	2240.0	
1961	5640.0		1995	1470.0	
1962	4150.0		1996	3130.0	
1963	3870.0		1997	1460.0	
1964	710.0		1998	3960.0	
1965	4500.0		1999	2270.0	
1966	5900.0		2000	5540.0	
1967	3220.0				

Explanation of peak discharge qualification codes

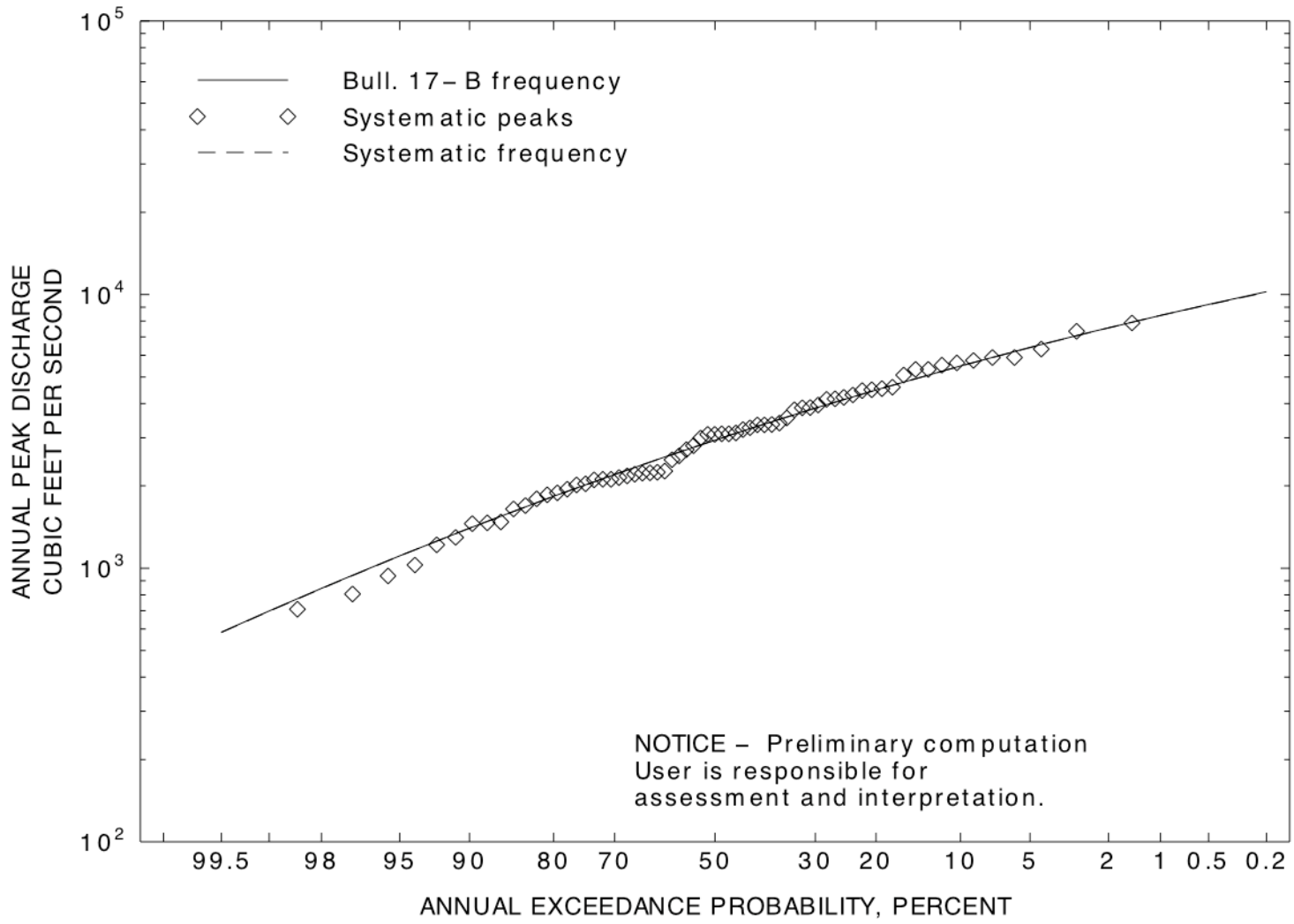
PEAKFQ CODE	WATSTORE CODE	DEFINITION
D	3	Dam failure, non-recurrent flow anomaly
G	8	Discharge greater than stated value
X	3+8	Both of the above
L	4	Discharge less than stated value
K	6 OR C	Known effect of regulation or urbanization
H	7	Historic peak

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EMPIRICAL FREQUENCY CURVES -- WEIBULL PLOTTING POSITIONS

WATER YEAR	RANKED DISCHARGE	SYSTEMATIC RECORD	BULL.17B ESTIMATE
1917	7900.0	0.0147	0.0147
1920	7360.0	0.0294	0.0294
1993	6340.0	0.0441	0.0441
1959	5910.0	0.0588	0.0588
1966	5900.0	0.0735	0.0735
1950	5760.0	0.0882	0.0882
1961	5640.0	0.1029	0.1029
2000	5540.0	0.1176	0.1176
1948	5340.0	0.1324	0.1324
1956	5340.0	0.1471	0.1471
1935	5100.0	0.1618	0.1618
1978	4600.0	0.1765	0.1765
1919	4550.0	0.1912	0.1912
1965	4500.0	0.2059	0.2059
1992	4470.0	0.2206	0.2206
1973	4310.0	0.2353	0.2353
1960	4220.0	0.2500	0.2500
1918	4170.0	0.2647	0.2647
1962	4150.0	0.2794	0.2794
1998	3960.0	0.2941	0.2941
1946	3880.0	0.3088	0.3088
1963	3870.0	0.3235	0.3235
1952	3800.0	0.3382	0.3382
1951	3550.0	0.3529	0.3529
1947	3400.0	0.3676	0.3676
1980	3360.0	0.3824	0.3824
1972	3350.0	0.3971	0.3971
1979	3350.0	0.4118	0.4118
1976	3270.0	0.4265	0.4265
1967	3220.0	0.4412	0.4412
1996	3130.0	0.4559	0.4559
1945	3110.0	0.4706	0.4706
1986	3110.0	0.4853	0.4853
1975	3090.0	0.5000	0.5000
1985	3090.0	0.5147	0.5147
1943	3000.0	0.5294	0.5294
1990	2810.0	0.5441	0.5441
1974	2720.0	0.5588	0.5588
1981	2580.0	0.5735	0.5735
1916	2500.0	0.5882	0.5882
1999	2270.0	0.6029	0.6029
1989	2250.0	0.6176	0.6176
1994	2240.0	0.6324	0.6324
1984	2230.0	0.6471	0.6471
1944	2210.0	0.6618	0.6618
1968	2180.0	0.6765	0.6765
1954	2150.0	0.6912	0.6912
1982	2120.0	0.7059	0.7059

1991	2120.0	0.7206	0.7206
1921	2110.0	0.7353	0.7353
1971	2040.0	0.7500	0.7500
1953	2020.0	0.7647	0.7647
1949	1950.0	0.7794	0.7794
1969	1890.0	0.7941	0.7941
1983	1860.0	0.8088	0.8088
1955	1800.0	0.8235	0.8235
1915	1700.0	0.8382	0.8382
1970	1650.0	0.8529	0.8529
1987	1480.0	0.8676	0.8676
1995	1470.0	0.8824	0.8824
1997	1460.0	0.8971	0.8971
1977	1300.0	0.9118	0.9118
1988	1220.0	0.9265	0.9265
1914	1030.0	0.9412	0.9412
1958	940.0	0.9559	0.9559
1957	808.0	0.9706	0.9706
1964	710.0	0.9853	0.9853



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