U. S. GEOLOGICAL SURVEY
ANNUAL PEAK FLOW FREQUENCY ANALYSIS
Following Bulletin 17-B Guidelines
Program peakfq
(Version 4.1, February, 2002)

Station - 04061000 BRULE RIVER NR FLORENCE, WI
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I N P U T D A T A S U M M A R Y

Number of peaks in record	=	51
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	51
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.105
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.		471.7
WCF162I-SYSTEMATIC PEAKS EXCEEDED HIGH-OUTLIER CRITERION.	1	4527.5

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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	3.1648	0.1770	0.248
BULL.17B ESTIMATE	0.0	1.0000	3.1648	0.1770	0.149

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	541.6	562.4	517.5	434.4	639.0
0.9900	592.3	610.2	571.1	482.5	691.4
0.9500	760.9	770.3	747.4	645.9	864.5
0.9000	872.9	877.3	863.0	756.3	979.0
0.8000	1034.0	1033.0	1028.0	916.2	1146.0
0.5000	1447.0	1437.0	1447.0	1315.0	1591.0
0.2000	2052.0	2047.0	2066.0	1854.0	2316.0
0.1000	2479.0	2487.0	2511.0	2207.0	2866.0
0.0400	3044.0	3084.0	3119.0	2657.0	3633.0
0.0200	3485.0	3559.0	3608.0	2997.0	4253.0
0.0100	3942.0	4059.0	4129.0	3341.0	4915.0
0.0050	4419.0	4588.0	4691.0	3694.0	5622.0
0.0020	5084.0	5340.0	5505.0	4176.0	6633.0
0.6667	1216.7	(1.50-year flood)			
0.4292	1555.0	(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	2050.0		1969	1680.0	
1915	1150.0		1970	1740.0	
1945	1260.0		1971	1960.0	
1946	2480.0		1972	2320.0	
1947	1270.0		1973	1660.0	
1948	712.0		1974	1020.0	
1949	811.0		1975	2340.0	
1950	2290.0		1976	1260.0	
1951	2290.0		1977	850.0	
1952	2110.0		1978	829.0	
1953	4700.0		1979	2470.0	
1954	2510.0		1980	1430.0	
1955	1490.0		1981	2090.0	
1956	1150.0		1982	1360.0	
1957	881.0		1983	1650.0	
1958	1360.0		1984	1160.0	
1959	1580.0		1985	1370.0	
1960	2470.0		1986	2260.0	
1961	1200.0		1987	953.0	
1962	1190.0		1988	1100.0	
1963	978.0		1989	717.0	
1964	1060.0		1990	700.0	
1965	2320.0		1991	1490.0	
1966	1070.0		1992	1410.0	
1967	2010.0		1993	1200.0	
1968	1640.0				

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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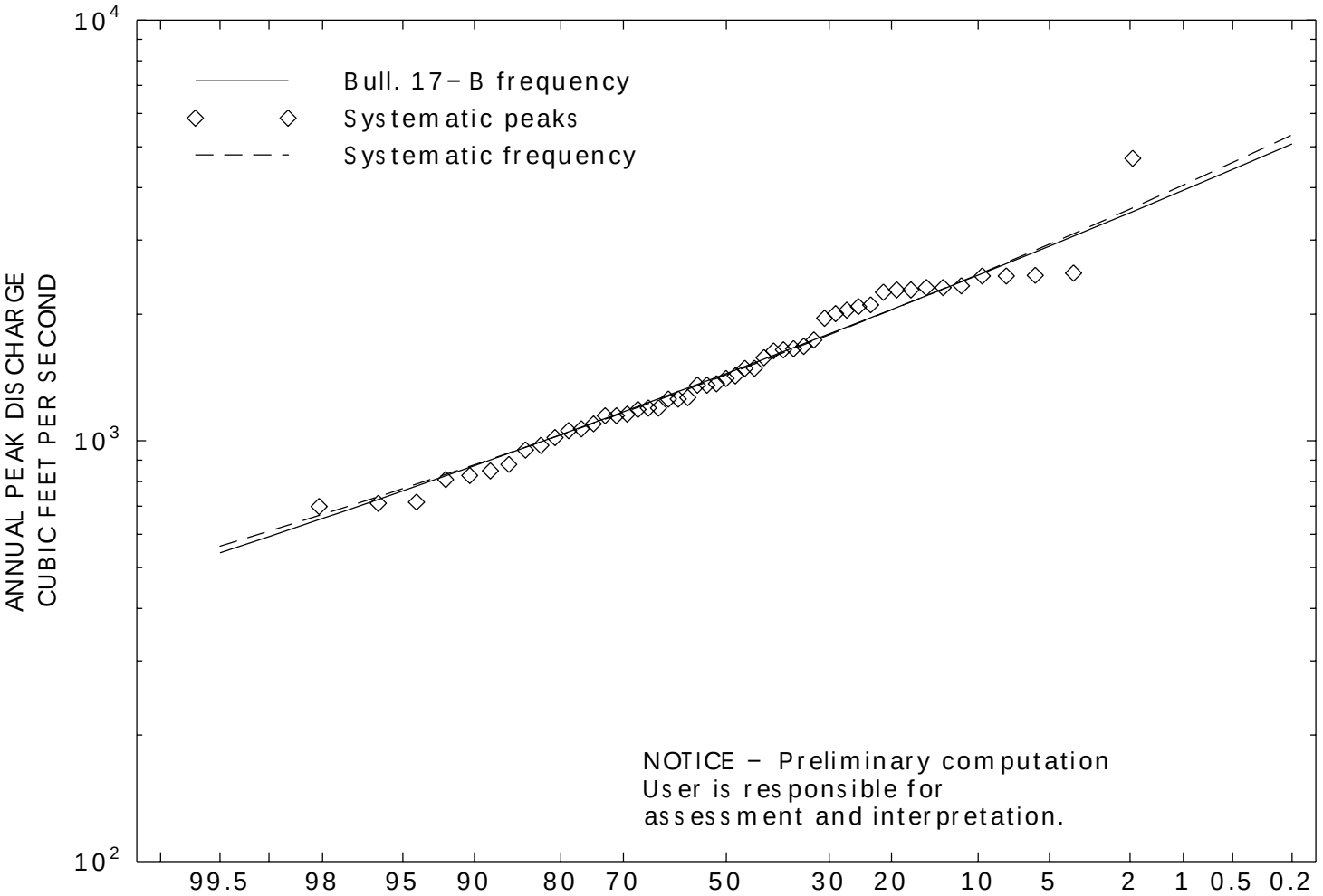
EMPIRICAL FREQUENCY CURVES -- WEIBULL PLOTTING POSITIONS

WATER YEAR	RANKED DISCHARGE	SYSTEMATIC RECORD	BULL.17B ESTIMATE
1953	4700.0	0.0192	0.0192
1954	2510.0	0.0385	0.0385
1946	2480.0	0.0577	0.0577
1960	2470.0	0.0769	0.0769
1979	2470.0	0.0962	0.0962
1975	2340.0	0.1154	0.1154
1965	2320.0	0.1346	0.1346
1972	2320.0	0.1538	0.1538
1950	2290.0	0.1731	0.1731
1951	2290.0	0.1923	0.1923
1986	2260.0	0.2115	0.2115
1952	2110.0	0.2308	0.2308
1981	2090.0	0.2500	0.2500
1914	2050.0	0.2692	0.2692
1967	2010.0	0.2885	0.2885
1971	1960.0	0.3077	0.3077
1970	1740.0	0.3269	0.3269
1969	1680.0	0.3462	0.3462
1973	1660.0	0.3654	0.3654
1983	1650.0	0.3846	0.3846
1968	1640.0	0.4038	0.4038
1959	1580.0	0.4231	0.4231
1955	1490.0	0.4423	0.4423
1991	1490.0	0.4615	0.4615
1980	1430.0	0.4808	0.4808
1992	1410.0	0.5000	0.5000
1985	1370.0	0.5192	0.5192
1958	1360.0	0.5385	0.5385
1982	1360.0	0.5577	0.5577
1947	1270.0	0.5769	0.5769
1945	1260.0	0.5962	0.5962
1976	1260.0	0.6154	0.6154
1961	1200.0	0.6346	0.6346
1993	1200.0	0.6538	0.6538
1962	1190.0	0.6731	0.6731
1984	1160.0	0.6923	0.6923
1915	1150.0	0.7115	0.7115
1956	1150.0	0.7308	0.7308
1988	1100.0	0.7500	0.7500
1966	1070.0	0.7692	0.7692
1964	1060.0	0.7885	0.7885
1974	1020.0	0.8077	0.8077
1963	978.0	0.8269	0.8269
1987	953.0	0.8462	0.8462
1957	881.0	0.8654	0.8654
1977	850.0	0.8846	0.8846
1978	829.0	0.9038	0.9038
1949	811.0	0.9231	0.9231

1989	717.0	0.9423	0.9423
1948	712.0	0.9615	0.9615
1990	700.0	0.9808	0.9808



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