

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

Station - 05423000 WEST BRANCH ROCK RIVER NEAR WAUPUN, WI  
 2002 MAR 13 09:03:16

I N P U T   D A T A   S U M M A R Y

Number of peaks in record	=	33
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	33
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.371
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.	23.5
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.	3639.9

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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	2.4657	0.4207	-0.818
BULL.17B ESTIMATE	0.0	1.0000	2.4657	0.4207	-0.626

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	13.7	11.6	10.0	5.9	24.5
0.9900	19.9	17.6	15.7	9.3	33.6
0.9500	51.0	49.0	46.2	29.5	75.5
0.9000	80.6	80.0	75.9	51.2	113.1
0.8000	135.0	137.5	131.3	94.0	181.2
0.5000	323.1	333.0	323.1	244.2	431.2
0.2000	670.3	669.4	682.4	497.5	971.9
0.1000	930.7	900.9	960.7	671.8	1428.0
0.0400	1271.0	1180.0	1339.0	887.6	2074.0
0.0200	1525.0	1371.0	1629.0	1041.0	2583.0
0.0100	1772.0	1545.0	1924.0	1188.0	3101.0
0.0050	2014.0	1704.0	2217.0	1327.0	3623.0
0.0020	2322.0	1892.0	2606.0	1501.0	4312.0
0.6667	210.3	( 1.50-year flood )			
0.4292	383.9	( 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
1949	246.0		1966	850.0	
1950	949.0		1967	130.0	
1951	386.0		1968	77.0	
1952	602.0		1969	349.0	
1953	509.0		1970	27.0	
1954	80.0		1971	345.0	
1955	332.0		1972	165.0	
1956	600.0		1973	750.0	
1957	112.0		1974	640.0	
1958	37.0		1975	1140.0	
1959	730.0		1976	520.0	
1960	733.0		1977	77.0	
1961	210.0		1978	498.0	
1962	730.0		1979	594.0	
1963	350.0		1980	328.0	
1964	81.0		1981	236.0	
1965	240.0				

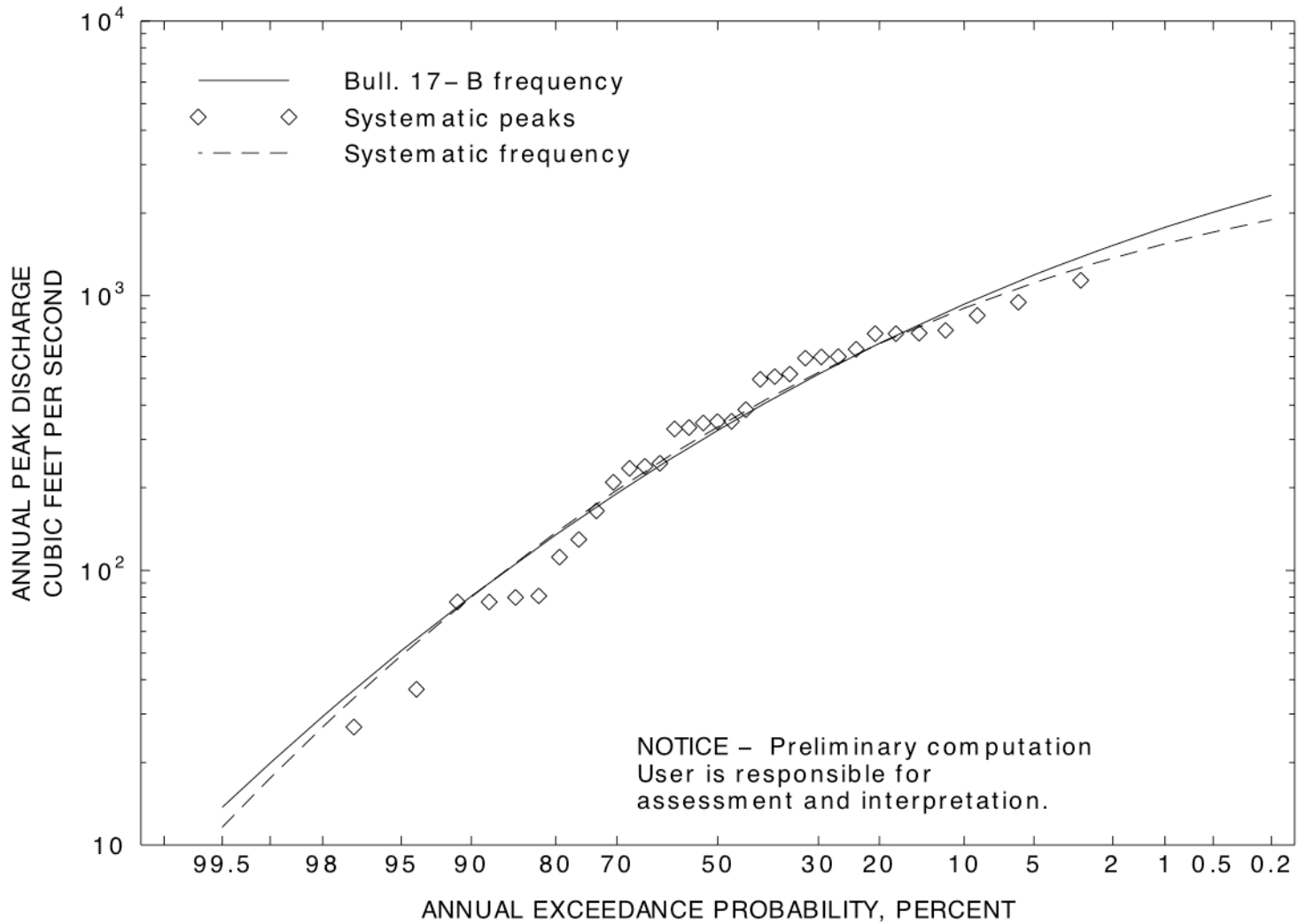
Explanation of peak discharge qualification codes

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
1975	1140.0	0.0294	0.0294
1950	949.0	0.0588	0.0588
1966	850.0	0.0882	0.0882
1973	750.0	0.1176	0.1176
1960	733.0	0.1471	0.1471
1959	730.0	0.1765	0.1765
1962	730.0	0.2059	0.2059
1974	640.0	0.2353	0.2353
1952	602.0	0.2647	0.2647
1956	600.0	0.2941	0.2941
1979	594.0	0.3235	0.3235
1976	520.0	0.3529	0.3529
1953	509.0	0.3824	0.3824
1978	498.0	0.4118	0.4118
1951	386.0	0.4412	0.4412
1963	350.0	0.4706	0.4706
1969	349.0	0.5000	0.5000
1971	345.0	0.5294	0.5294
1955	332.0	0.5588	0.5588
1980	328.0	0.5882	0.5882
1949	246.0	0.6176	0.6176
1965	240.0	0.6471	0.6471
1981	236.0	0.6765	0.6765
1961	210.0	0.7059	0.7059
1972	165.0	0.7353	0.7353
1967	130.0	0.7647	0.7647
1957	112.0	0.7941	0.7941
1964	81.0	0.8235	0.8235
1954	80.0	0.8529	0.8529
1968	77.0	0.8824	0.8824
1977	77.0	0.9118	0.9118
1958	37.0	0.9412	0.9412
1970	27.0	0.9706	0.9706



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