

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

Station - 04063688 SOUTH BRANCH POPPLE RIVER NEAR NEWALD, WI
 2002 MAR 13 09:02:14

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

Number of peaks in record	=	24
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	24
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.132
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.	28.4
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.	82.1

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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	1.6837	0.0934	-0.272
BULL.17B ESTIMATE	0.0	1.0000	1.6837	0.0934	-0.212

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	26.6	26.3	24.7	21.6	30.4
0.9900	28.3	28.1	26.7	23.4	32.0
0.9500	33.5	33.4	32.6	29.0	36.9
0.9000	36.5	36.4	35.9	32.3	39.8
0.8000	40.4	40.4	40.1	36.6	43.6
0.5000	48.6	48.7	48.6	45.2	52.4
0.2000	58.0	58.0	58.3	53.7	64.0
0.1000	63.3	63.1	64.1	58.1	71.2
0.0400	69.2	68.9	70.8	62.8	79.7
0.0200	73.2	72.7	75.5	66.0	85.7
0.0100	77.0	76.2	80.1	68.8	91.3
0.0050	80.5	79.5	84.7	71.4	96.7
0.0020	84.8	83.5	90.6	74.6	103.5
0.6667	44.3	(1.50-year flood)			
0.4292	50.5	(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
1970	40.0		1982	43.0	
1971	71.0		1983	52.0	
1972	48.0		1984	41.0	
1973	56.0		1985	44.0	
1974	35.0		1986	52.0	
1975	59.0		1987	33.0	
1976	48.0		1988	48.0	
1977	31.0		1989	56.0	
1978	54.0		1990	46.0	
1979	60.0		1991	54.0	
1980	68.0		1992	40.0	
1981	61.0		1993	44.0	

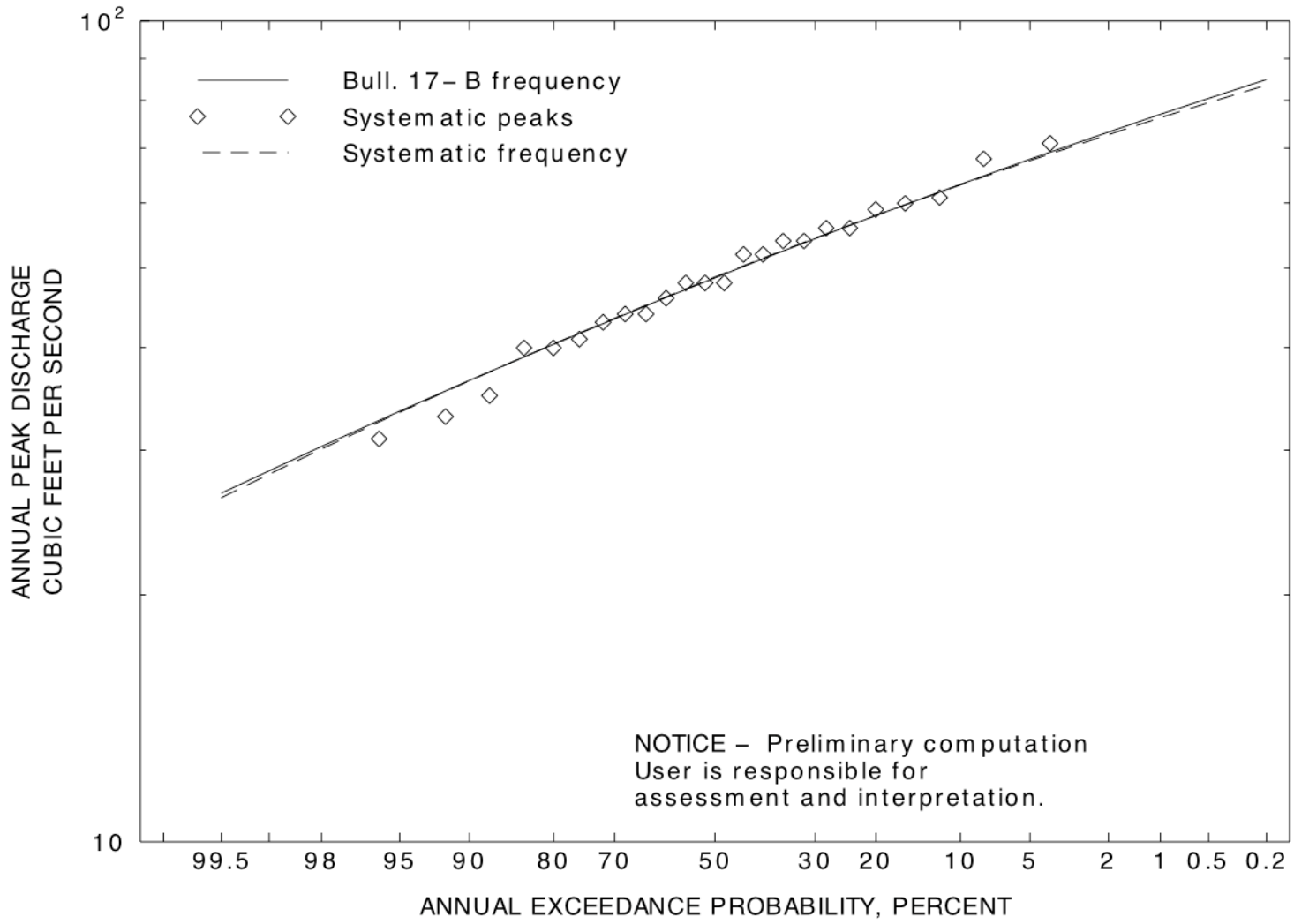
Explanation of peak discharge qualification codes

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
1971	71.0	0.0400	0.0400
1980	68.0	0.0800	0.0800
1981	61.0	0.1200	0.1200
1979	60.0	0.1600	0.1600
1975	59.0	0.2000	0.2000
1973	56.0	0.2400	0.2400
1989	56.0	0.2800	0.2800
1978	54.0	0.3200	0.3200
1991	54.0	0.3600	0.3600
1983	52.0	0.4000	0.4000
1986	52.0	0.4400	0.4400
1972	48.0	0.4800	0.4800
1976	48.0	0.5200	0.5200
1988	48.0	0.5600	0.5600
1990	46.0	0.6000	0.6000
1985	44.0	0.6400	0.6400
1993	44.0	0.6800	0.6800
1982	43.0	0.7200	0.7200
1984	41.0	0.7600	0.7600
1970	40.0	0.8000	0.8000
1992	40.0	0.8400	0.8400
1974	35.0	0.8800	0.8800
1987	33.0	0.9200	0.9200
1977	31.0	0.9600	0.9600



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