

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

Station - 04026700 TROUT BROOK TRIBUTARY NEAR MARENGO, WI
 2002 MAR 13 09:01:59

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

Number of peaks in record	=	22
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	22
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.154
Standard error of generalized skew	=	0.550
Skew option	=	WEIGHTED
Gage base discharge	=	50.0
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. *****

WCF133I-SYSTEMATIC PEAKS BELOW GAGE BASE WERE NOTED.	3	50.0
WCF195I-NO LOW OUTLIERS WERE DETECTED BELOW CRITERION.		38.6
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.		487.3

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ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE		LOGARITHMIC		
	DISCHARGE	EXCEEDANCE PROBABILITY	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	50.0	0.8636	2.0844	0.2620	-0.212
BULL.17B ESTIMATE	50.0	0.8636	2.0844	0.2620	-0.186

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
0.8000	73.5	73.6	71.8	54.9	91.9
0.5000	123.7	124.1	123.7	99.5	154.2
0.2000	202.7	202.8	206.9	162.1	272.2
0.1000	259.7	259.2	270.2	202.6	369.7
0.0400	335.7	333.8	360.0	253.2	512.0
0.0200	394.5	391.1	434.7	290.4	630.3
0.0100	454.9	449.6	516.9	327.4	758.1
0.0050	517.0	509.5	607.4	364.3	895.9
0.0020	602.1	590.8	742.3	413.3	1093.0
0.6667	95.1	(1.50-year flood)			
0.4292	137.8	(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
1960	192.0		1971	74.0	
1961	154.0		1972	160.0	
1962	48.0		1973	95.0	
1963	148.0		1974	195.0	
1964	295.0		1975	74.0	
1965	48.0		1976	144.0	
1966	80.0		1977	305.0	
1967	210.0		1978	120.0	
1968	255.0		1979	260.0	
1969	55.0		1980	74.0	
1970	80.0		1981	50.0	L

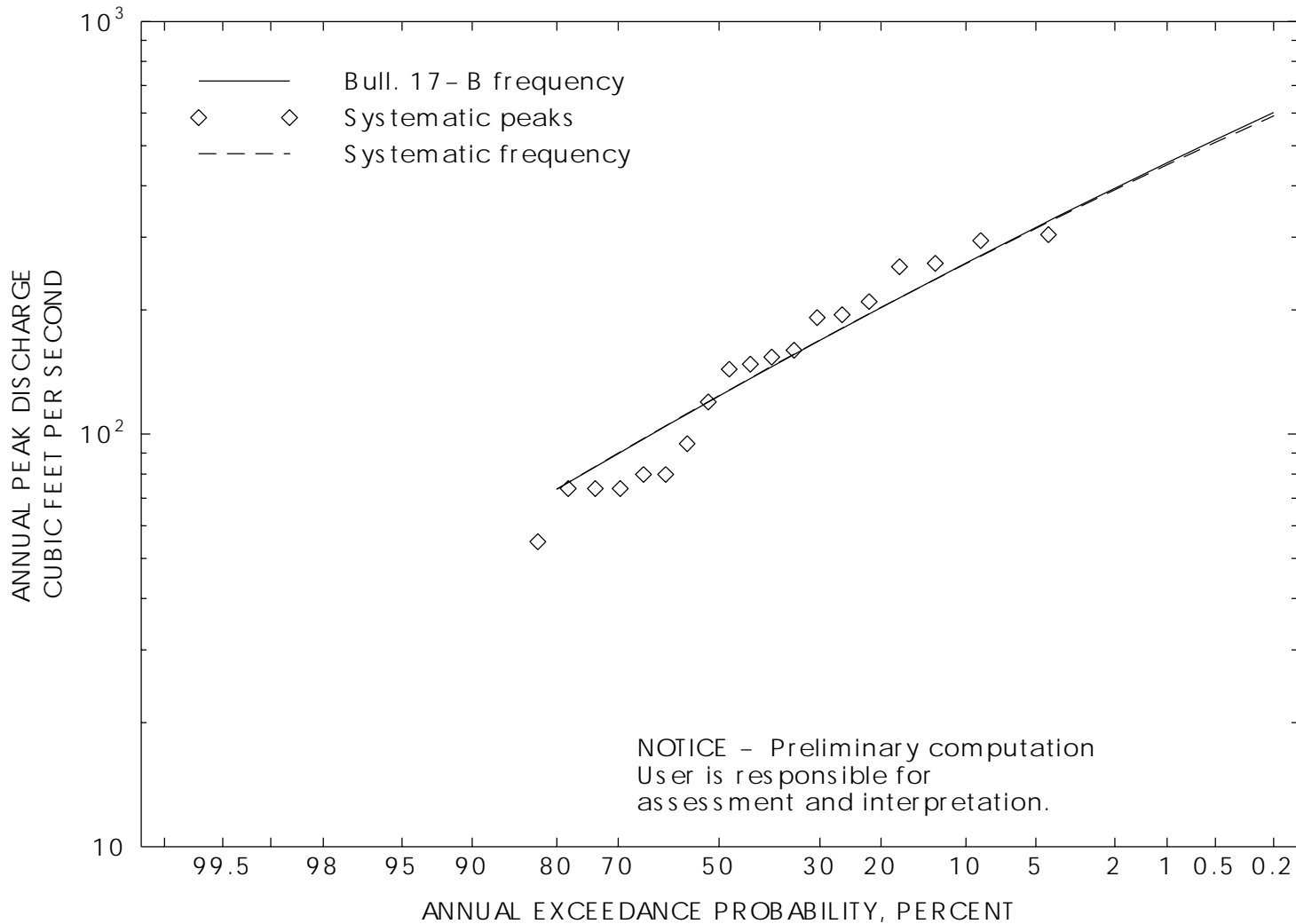
Explanation of peak discharge qualification codes

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
1977	305.0	0.0435	0.0435
1964	295.0	0.0870	0.0870
1979	260.0	0.1304	0.1304
1968	255.0	0.1739	0.1739
1967	210.0	0.2174	0.2174
1974	195.0	0.2609	0.2609
1960	192.0	0.3043	0.3043
1972	160.0	0.3478	0.3478
1961	154.0	0.3913	0.3913
1963	148.0	0.4348	0.4348
1976	144.0	0.4783	0.4783
1978	120.0	0.5217	0.5217
1973	95.0	0.5652	0.5652
1966	80.0	0.6087	0.6087
1970	80.0	0.6522	0.6522
1971	74.0	0.6957	0.6957
1975	74.0	0.7391	0.7391
1980	74.0	0.7826	0.7826
1969	55.0	0.8261	0.8261
1981	50.0	--	--
1962	48.0	--	--
1965	48.0	--	--



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