

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

Station - 05340300 TRADE RIVER NEAR FREDRIC, WI
 2002 MAR 13 09:02:47

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

Number of peaks in record	=	43
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	43
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.323
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
WCF162I-SYSTEMATIC PEAKS EXCEEDED HIGH-OUTLIER CRITERION.	1	788.8
WCF195I-NO LOW OUTLIERS WERE DETECTED BELOW CRITERION.		20.5

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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	2.1043	0.2925	1.041
BULL.17B ESTIMATE	0.0	1.0000	2.1043	0.2925	0.447

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	29.7	42.4	27.9	20.6	39.0
0.9900	33.2	44.5	31.5	23.4	42.9
0.9500	46.0	52.9	44.7	34.5	57.4
0.9000	55.7	59.8	54.7	43.1	68.3
0.8000	71.4	71.7	70.7	57.2	85.8
0.5000	120.9	113.3	120.9	101.7	143.4
0.2000	219.8	211.1	222.9	183.3	273.3
0.1000	309.3	313.7	318.5	251.1	404.2
0.0400	455.5	506.6	481.7	354.7	636.7
0.0200	592.4	713.0	643.0	446.8	870.0
0.0100	756.8	991.4	846.8	553.2	1166.0
0.0050	954.0	1366.0	1106.0	676.1	1540.0
0.0020	1275.0	2063.0	1559.0	868.4	2183.0
0.6667	91.7	(1.50-year flood)			
0.4292	136.0	(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
1958	45.0		1980	112.0	
1959	123.0		1981	360.0	
1960	750.0		1982	100.0	
1961	110.0		1983	95.0	
1962	78.0		1984	1050.0	
1963	50.0		1985	200.0	
1964	45.0		1986	220.0	
1965	124.0		1987	60.0	
1966	130.0		1988	60.0	
1967	223.0		1989	165.0	
1968	330.0		1990	100.0	
1969	85.0		1991	325.0	
1970	135.0		1992	140.0	
1971	130.0		1993	47.0	
1972	210.0		1994	140.0	
1973	90.0		1995	80.0	
1974	135.0		1996	230.0	
1975	120.0		1997	98.0	
1976	110.0		1998	124.0	
1977	145.0		1999	56.3	
1978	120.0		2000	95.5	
1979	97.0				

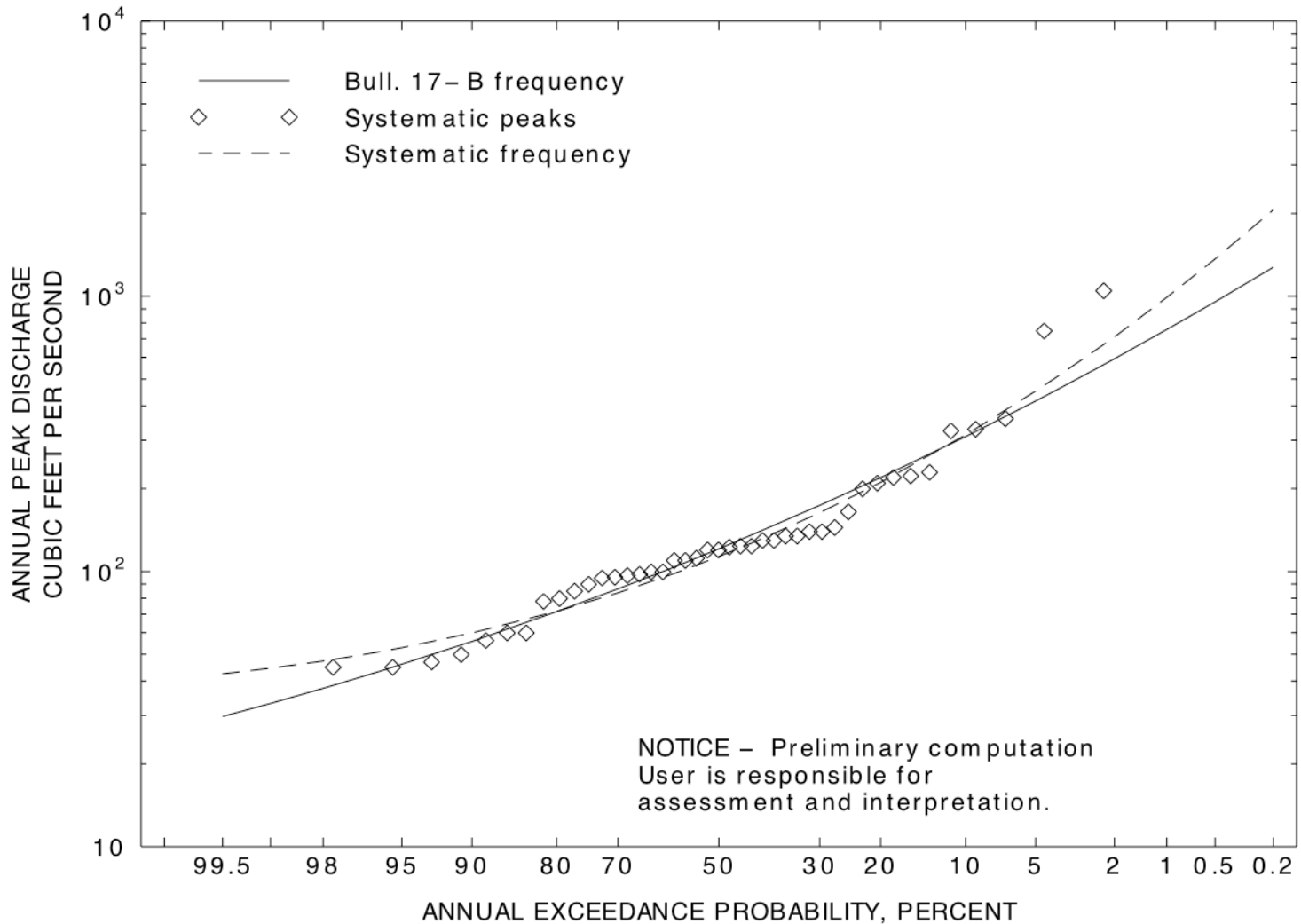
Explanation of peak discharge qualification codes

PEAKFQ	WATSTORE	DEFINITION
CODE	CODE	
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
1984	1050.0	0.0227	0.0227
1960	750.0	0.0455	0.0455
1981	360.0	0.0682	0.0682
1968	330.0	0.0909	0.0909
1991	325.0	0.1136	0.1136
1996	230.0	0.1364	0.1364
1967	223.0	0.1591	0.1591
1986	220.0	0.1818	0.1818
1972	210.0	0.2045	0.2045
1985	200.0	0.2273	0.2273
1989	165.0	0.2500	0.2500
1977	145.0	0.2727	0.2727
1992	140.0	0.2955	0.2955
1994	140.0	0.3182	0.3182
1970	135.0	0.3409	0.3409
1974	135.0	0.3636	0.3636
1966	130.0	0.3864	0.3864
1971	130.0	0.4091	0.4091
1965	124.0	0.4318	0.4318
1998	124.0	0.4545	0.4545
1959	123.0	0.4773	0.4773
1975	120.0	0.5000	0.5000
1978	120.0	0.5227	0.5227
1980	112.0	0.5455	0.5455
1961	110.0	0.5682	0.5682
1976	110.0	0.5909	0.5909
1982	100.0	0.6136	0.6136
1990	100.0	0.6364	0.6364
1997	98.0	0.6591	0.6591
1979	97.0	0.6818	0.6818
2000	95.5	0.7045	0.7045
1983	95.0	0.7273	0.7273
1973	90.0	0.7500	0.7500
1969	85.0	0.7727	0.7727
1995	80.0	0.7955	0.7955
1962	78.0	0.8182	0.8182
1987	60.0	0.8409	0.8409
1988	60.0	0.8636	0.8636
1999	56.3	0.8864	0.8864
1963	50.0	0.9091	0.9091
1993	47.0	0.9318	0.9318
1958	45.0	0.9545	0.9545
1964	45.0	0.9773	0.9773



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