

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

Station - 05437200 EAST FORK RACCOON CREEK TRIB NR BELOIT, WI
 2002 MAR 13 09:03:25

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

Number of peaks in record	=	36
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	36
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.400
Standard error of generalized skew	=	0.550
Skew option	=	WEIGHTED
Gage base discharge	=	10.0
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.	1	10.0
WCF195I-NO LOW OUTLIERS WERE DETECTED BELOW CRITERION.		11.4
WCF162I-SYSTEMATIC PEAKS EXCEEDED HIGH-OUTLIER CRITERION.	1	1860.7

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ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE		LOGARITHMIC		
	DISCHARGE	EXCEEDANCE PROBABILITY	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	10.0	0.9722	2.1464	0.4281	0.297
BULL.17B ESTIMATE	10.0	0.9722	2.1464	0.4281	0.052

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
0.9500	28.1	30.2	26.3	17.2	40.4
0.9000	39.8	41.0	38.2	26.0	55.2
0.8000	61.0	60.4	59.7	42.6	81.5
0.5000	138.9	133.4	138.9	105.4	182.9
0.2000	320.3	315.6	327.4	239.7	457.6
0.1000	498.2	509.2	520.4	359.1	765.7
0.0400	801.0	866.7	867.2	547.4	1349.0
0.0200	1091.0	1237.0	1220.0	716.9	1957.0
0.0100	1442.0	1717.0	1675.0	912.9	2747.0
0.0050	1863.0	2335.0	2259.0	1139.0	3756.0
0.0020	2547.0	3418.0	3289.0	1488.0	5505.0
0.6667	91.0	(1.50-year flood)			
0.4292	165.5	(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
1958	35.0		1976	155.0	
1959	400.0		1977	154.0	
1960	250.0		1978	690.0	
1961	130.0		1979	130.0	
1962	90.0		1980	85.0	
1963	110.0		1981	20.0	
1964	52.0		1982	565.0	
1965	225.0		1983	145.0	
1966	120.0		1984	135.0	
1967	85.0		1985	130.0	
1968	25.0		1986	160.0	
1969	29.0		1987	60.0	
1970	10.0	L	1988	115.0	
1971	140.0		1989	180.0	
1972	160.0		1990	200.0	
1973	350.0		1991	255.0	
1974	540.0		1992	75.0	
1975	325.0		1993	2300.0	

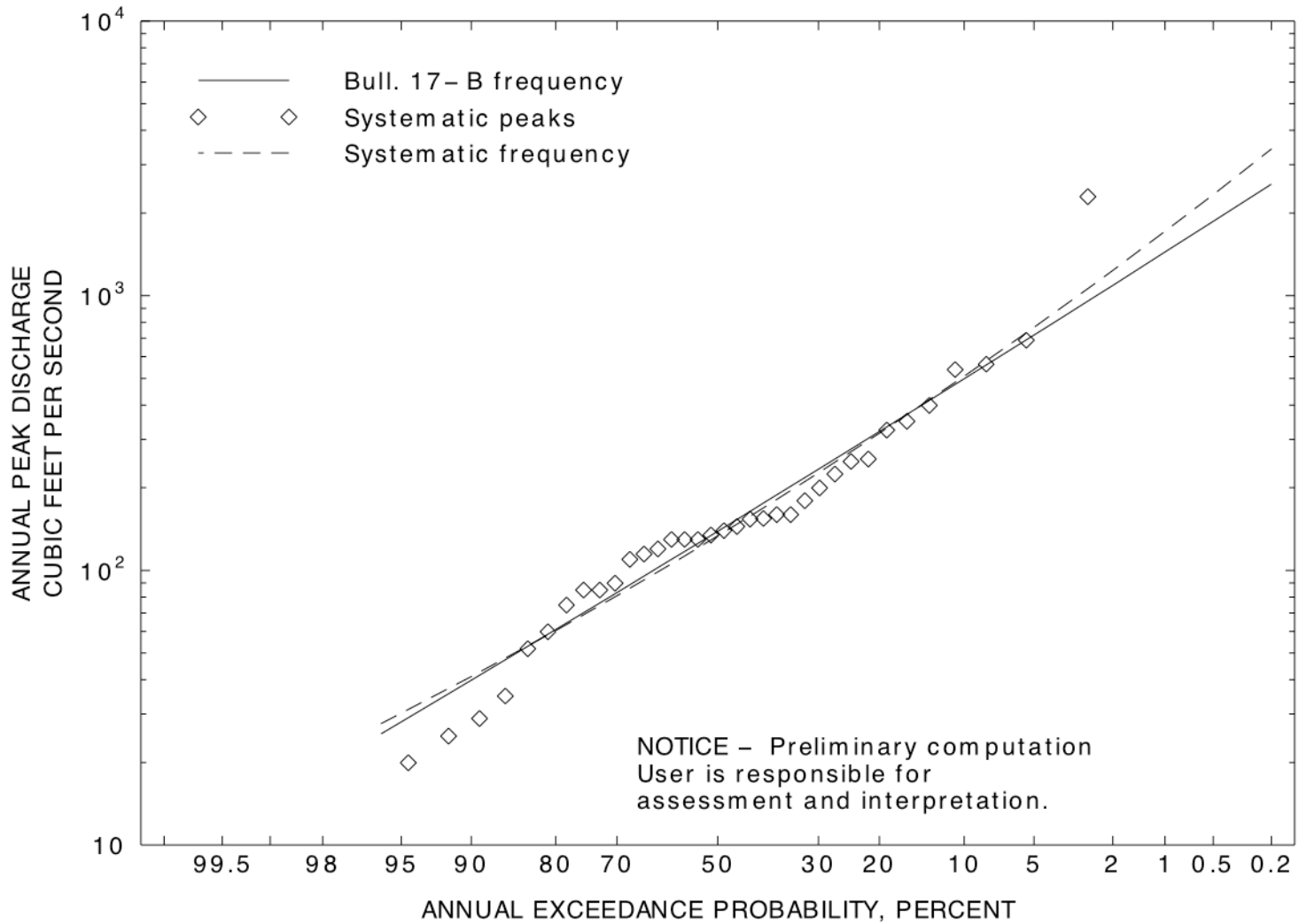
Explanation of peak discharge qualification codes

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
1993	2300.0	0.0270	0.0270
1978	690.0	0.0541	0.0541
1982	565.0	0.0811	0.0811
1974	540.0	0.1081	0.1081
1959	400.0	0.1351	0.1351
1973	350.0	0.1622	0.1622
1975	325.0	0.1892	0.1892
1991	255.0	0.2162	0.2162
1960	250.0	0.2432	0.2432
1965	225.0	0.2703	0.2703
1990	200.0	0.2973	0.2973
1989	180.0	0.3243	0.3243
1972	160.0	0.3514	0.3514
1986	160.0	0.3784	0.3784
1976	155.0	0.4054	0.4054
1977	154.0	0.4324	0.4324
1983	145.0	0.4595	0.4595
1971	140.0	0.4865	0.4865
1984	135.0	0.5135	0.5135
1961	130.0	0.5405	0.5405
1979	130.0	0.5676	0.5676
1985	130.0	0.5946	0.5946
1966	120.0	0.6216	0.6216
1988	115.0	0.6486	0.6486
1963	110.0	0.6757	0.6757
1962	90.0	0.7027	0.7027
1967	85.0	0.7297	0.7297
1980	85.0	0.7568	0.7568
1992	75.0	0.7838	0.7838
1987	60.0	0.8108	0.8108
1964	52.0	0.8378	0.8378
1958	35.0	0.8649	0.8649
1969	29.0	0.8919	0.8919
1968	25.0	0.9189	0.9189
1981	20.0	0.9459	0.9459
1970	10.0	--	--



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