

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

Station - 04074700 HUNTING RIVER NEAR ELCHO, WI
2002 MAR 13 09:02:33

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	=	-0.183
Standard error of generalized skew	=	0.550
Skew option	=	WEIGHTED
Gage base discharge	=	40.0
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	40.0
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.		226.1
WCF195I-NO LOW OUTLIERS WERE DETECTED BELOW CRITERION.		30.1

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ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE		LOGARITHMIC		
	DISCHARGE	EXCEEDANCE PROBABILITY	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	40.0	0.9722	1.9100	0.1692	0.637
BULL.17B ESTIMATE	40.0	0.9722	1.9100	0.1692	0.315

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	44.4	46.3	43.5	36.8	51.1
0.9000	50.1	51.0	49.4	42.4	56.9
0.8000	58.3	58.2	57.9	50.6	65.4
0.5000	79.6	78.0	79.6	71.4	88.7
0.2000	112.0	110.8	113.1	99.9	128.8
0.1000	135.4	136.5	138.1	118.9	160.8
0.0400	167.4	173.7	173.6	143.4	207.1
0.0200	192.9	205.2	203.4	162.3	245.9
0.0100	220.0	240.1	236.4	181.7	288.4
0.0050	248.7	279.0	273.3	201.9	335.2
0.0020	289.8	337.4	329.2	230.0	404.3
0.6667	67.7	(1.50-year flood)			
0.4292	85.3	(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	50.0		1976	80.0	
1959	200.0		1977	57.0	
1960	120.0		1978	153.0	
1961	80.0		1979	152.0	
1962	110.0		1980	92.0	
1963	57.0		1981	75.0	
1964	50.0		1982	70.0	
1965	66.0		1983	65.0	
1966	74.0		1984	75.0	
1967	78.0		1985	69.0	
1968	100.0		1986	100.0	
1969	77.0		1987	155.0	
1970	47.0		1988	62.0	
1971	70.0		1989	40.0	L
1972	72.0		1990	47.0	
1973	105.0		1991	73.0	
1974	63.0		1992	62.0	
1975	160.0		1993	150.0	

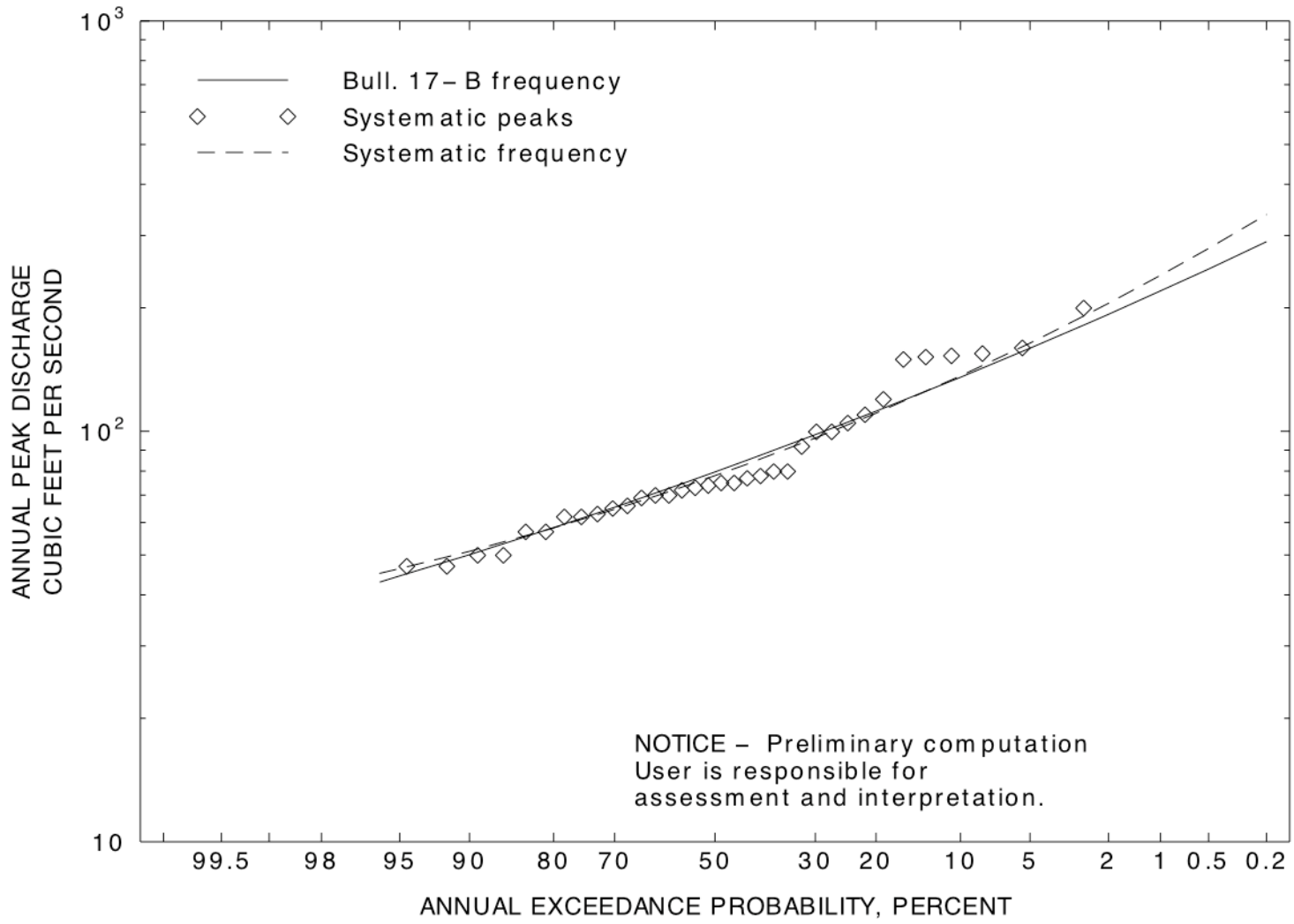
Explanation of peak discharge qualification codes

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
1959	200.0	0.0270	0.0270
1975	160.0	0.0541	0.0541
1987	155.0	0.0811	0.0811
1978	153.0	0.1081	0.1081
1979	152.0	0.1351	0.1351
1993	150.0	0.1622	0.1622
1960	120.0	0.1892	0.1892
1962	110.0	0.2162	0.2162
1973	105.0	0.2432	0.2432
1968	100.0	0.2703	0.2703
1986	100.0	0.2973	0.2973
1980	92.0	0.3243	0.3243
1961	80.0	0.3514	0.3514
1976	80.0	0.3784	0.3784
1967	78.0	0.4054	0.4054
1969	77.0	0.4324	0.4324
1981	75.0	0.4595	0.4595
1984	75.0	0.4865	0.4865
1966	74.0	0.5135	0.5135
1991	73.0	0.5405	0.5405
1972	72.0	0.5676	0.5676
1971	70.0	0.5946	0.5946
1982	70.0	0.6216	0.6216
1985	69.0	0.6486	0.6486
1965	66.0	0.6757	0.6757
1983	65.0	0.7027	0.7027
1974	63.0	0.7297	0.7297
1988	62.0	0.7568	0.7568
1992	62.0	0.7838	0.7838
1963	57.0	0.8108	0.8108
1977	57.0	0.8378	0.8378
1958	50.0	0.8649	0.8649
1964	50.0	0.8919	0.8919
1970	47.0	0.9189	0.9189
1990	47.0	0.9459	0.9459
1989	40.0	--	--



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