

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

Station - 05424000 EAST BRANCH ROCK RIVER NEAR MAYVILLE, WI
2002 MAR 13 09:03:16

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

Number of peaks in record	=	23
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	23
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.377
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.	153.5
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.	6895.6

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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	3.0123	0.3375	-0.153
BULL.17B ESTIMATE	0.0	1.0000	3.0123	0.3375	-0.249

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	116.0	124.3	86.7	53.0	190.5
0.9900	146.6	154.7	117.4	71.9	231.3
0.9500	271.9	277.3	246.6	159.4	389.4
0.9000	373.1	375.5	351.5	237.7	512.6
0.8000	540.9	538.4	525.3	375.3	716.6
0.5000	1062.0	1049.0	1062.0	808.4	1402.0
0.2000	1994.0	1989.0	2044.0	1503.0	2885.0
0.1000	2722.0	2748.0	2852.0	1991.0	4228.0
0.0400	3744.0	3847.0	4066.0	2628.0	6318.0
0.0200	4568.0	4759.0	5115.0	3115.0	8144.0
0.0100	5437.0	5747.0	6302.0	3609.0	10190.0
0.0050	6351.0	6812.0	7641.0	4111.0	12460.0
0.0020	7631.0	8345.0	9680.0	4791.0	15810.0
0.6667	756.3	(1.50-year flood)			
0.4292	1220.9	(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
1950	2160.0		1962	2540.0	
1951	1530.0		1963	958.0	
1952	2080.0		1964	241.0	
1953	700.0		1965	2180.0	
1954	773.0		1966	1330.0	
1955	1600.0		1967	622.0	
1956	1010.0		1968	630.0	
1957	405.0		1969	1470.0	
1958	296.0		1970	426.0	
1959	3400.0		1999	3600.0	
1960	1880.0		2000	471.0	
1961	590.0				

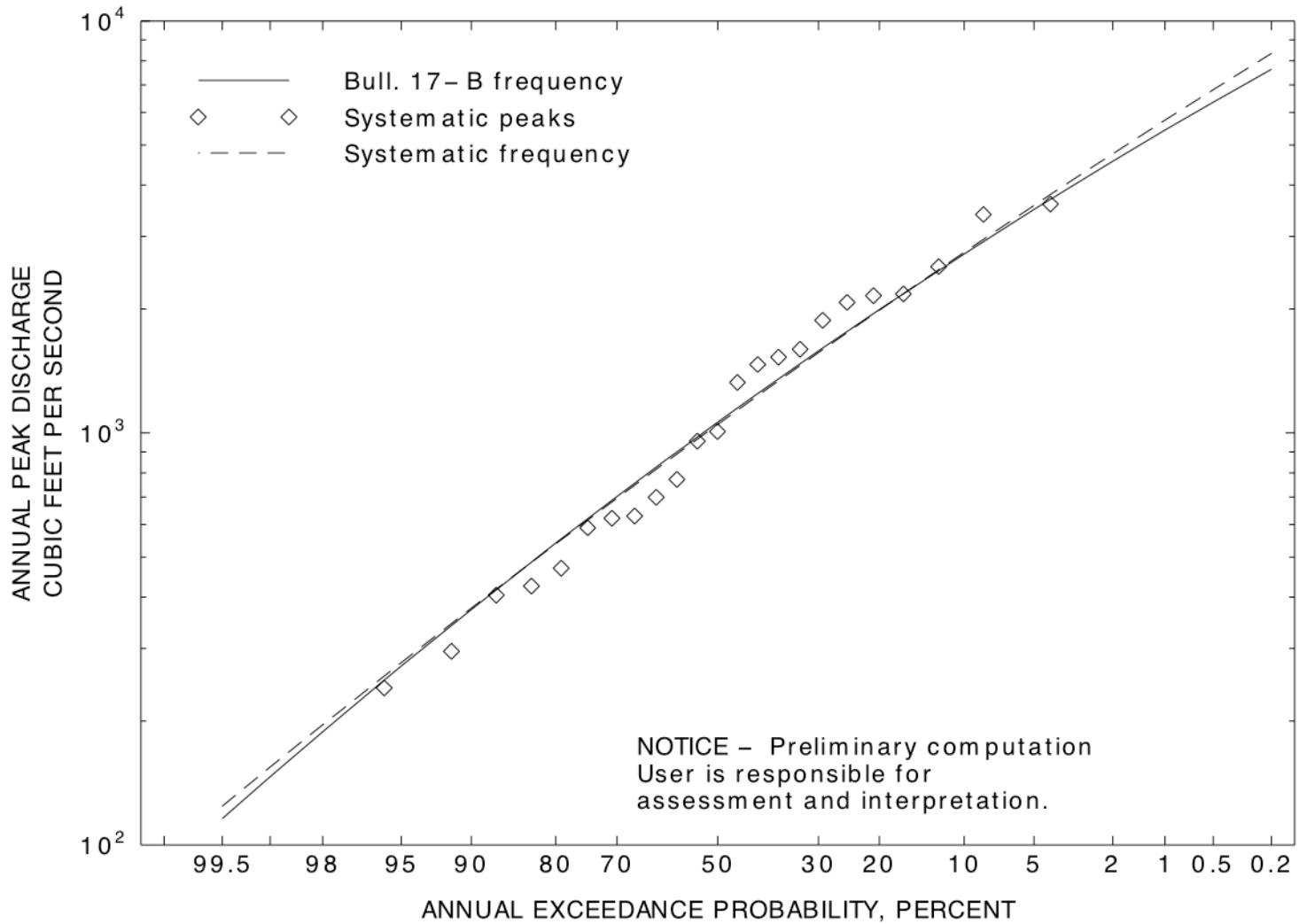
Explanation of peak discharge qualification codes

PEAKFQ	WATSTORE	
CODE	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
1999	3600.0	0.0417	0.0417
1959	3400.0	0.0833	0.0833
1962	2540.0	0.1250	0.1250
1965	2180.0	0.1667	0.1667
1950	2160.0	0.2083	0.2083
1952	2080.0	0.2500	0.2500
1960	1880.0	0.2917	0.2917
1955	1600.0	0.3333	0.3333
1951	1530.0	0.3750	0.3750
1969	1470.0	0.4167	0.4167
1966	1330.0	0.4583	0.4583
1956	1010.0	0.5000	0.5000
1963	958.0	0.5417	0.5417
1954	773.0	0.5833	0.5833
1953	700.0	0.6250	0.6250
1968	630.0	0.6667	0.6667
1967	622.0	0.7083	0.7083
1961	590.0	0.7500	0.7500
2000	471.0	0.7917	0.7917
1970	426.0	0.8333	0.8333
1957	405.0	0.8750	0.8750
1958	296.0	0.9167	0.9167
1964	241.0	0.9583	0.9583



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