

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

Station - 04085700 SHEBOYGAN RIVER TRIBUTARY NR PLYMOUTH, WI
 2002 MAR 13 09:02:40

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

Number of peaks in record	=	21
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	21
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.362
Standard error of generalized skew	=	0.550
Skew option	=	WEIGHTED
Gage base discharge	=	58.0
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	58.0
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.		421.4
WCF195I-NO LOW OUTLIERS WERE DETECTED BELOW CRITERION.		38.0

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ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE		LOGARITHMIC		
	DISCHARGE	EXCEEDANCE PROBABILITY	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	58.0	0.8571	2.0516	0.2464	0.289
BULL.17B ESTIMATE	58.0	0.8571	2.0516	0.2464	-0.012

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	69.9	69.4	68.8	52.6	86.6
0.5000	112.8	109.6	112.8	91.3	139.2
0.2000	181.6	179.8	185.6	146.5	241.3
0.1000	232.9	236.6	243.0	183.2	328.9
0.0400	303.4	321.0	327.9	230.2	461.6
0.0200	359.8	393.5	401.7	265.9	576.3
0.0100	419.5	474.8	486.0	302.2	704.6
0.0050	482.6	566.1	583.2	339.4	847.5
0.0020	571.9	704.0	736.0	390.3	1061.0
0.6667	88.3	(1.50-year flood)			
0.4292	124.7	(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
1959	80.0		1970	58.0	L
1960	180.0		1971	200.0	
1961	230.0		1972	150.0	
1962	100.0		1973	150.0	
1963	75.0		1975	410.0	
1964	80.0		1976	95.0	
1965	120.0		1977	130.0	
1966	185.0		1978	200.0	
1967	60.0		1979	60.0	
1968	58.0	L	1980	95.0	
1969	58.0	L			

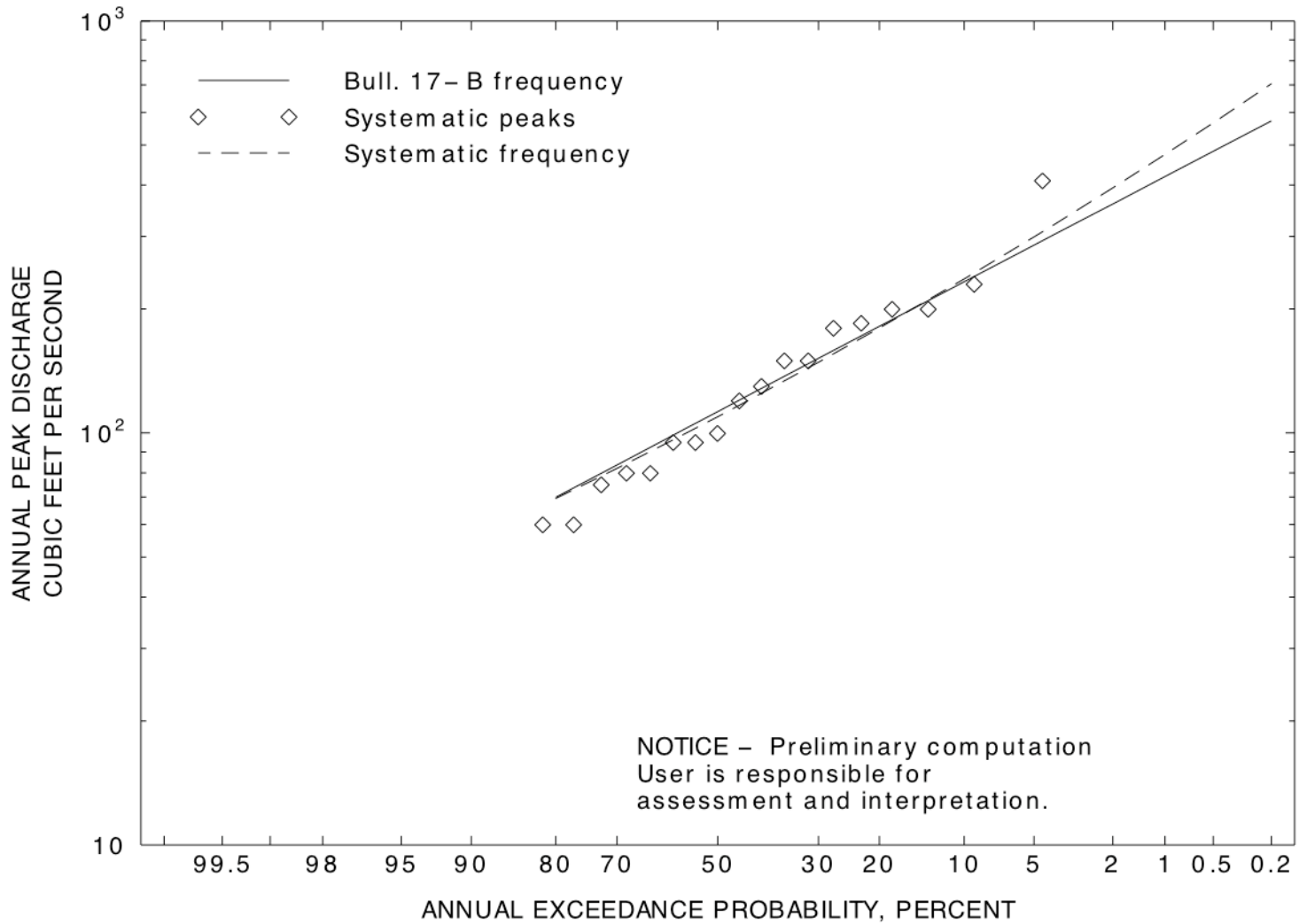
Explanation of peak discharge qualification codes

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
1975	410.0	0.0455	0.0455
1961	230.0	0.0909	0.0909
1971	200.0	0.1364	0.1364
1978	200.0	0.1818	0.1818
1966	185.0	0.2273	0.2273
1960	180.0	0.2727	0.2727
1972	150.0	0.3182	0.3182
1973	150.0	0.3636	0.3636
1977	130.0	0.4091	0.4091
1965	120.0	0.4545	0.4545
1962	100.0	0.5000	0.5000
1976	95.0	0.5455	0.5455
1980	95.0	0.5909	0.5909
1959	80.0	0.6364	0.6364
1964	80.0	0.6818	0.6818
1963	75.0	0.7273	0.7273
1967	60.0	0.7727	0.7727
1979	60.0	0.8182	0.8182
1968	58.0	--	--
1969	58.0	--	--
1970	58.0	--	--



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