

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

Station - 04085281 EAST TWIN RIVER AT MISHICOT, WI  
 2002 MAR 13 09:02:38

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	=	-0.328
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.	235.7
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.	5623.7

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ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE		LOGARITHMIC		
	DISCHARGE	EXCEEDANCE PROBABILITY	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	0.0	1.0000	3.0612	0.2814	0.011
BULL.17B ESTIMATE	0.0	1.0000	3.0612	0.2814	-0.130

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	200.5	218.4	160.7	106.7	299.4
0.9900	239.8	256.3	202.3	134.7	347.5
0.9500	387.4	397.4	358.8	249.6	521.2
0.9000	497.6	502.2	474.6	342.3	647.9
0.8000	670.3	667.1	654.7	493.7	847.8
0.5000	1167.0	1150.0	1167.0	928.9	1470.0
0.2000	1993.0	1985.0	2037.0	1575.0	2711.0
0.1000	2616.0	2643.0	2727.0	2013.0	3786.0
0.0400	3475.0	3588.0	3745.0	2577.0	5417.0
0.0200	4162.0	4373.0	4618.0	3005.0	6822.0
0.0100	4885.0	5225.0	5604.0	3439.0	8384.0
0.0050	5645.0	6151.0	6720.0	3882.0	10110.0
0.0020	6712.0	7496.0	8434.0	4482.0	12670.0
0.6667	881.1	( 1.50-year flood )			
0.4292	1310.6	( 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
1973	3090.0		1986	2370.0	
1974	1060.0		1987	474.0	
1975	1980.0		1988	603.0	
1976	1420.0		1989	1400.0	
1977	411.0		1990	3380.0	
1978	925.0		1991	590.0	
1979	3210.0		1992	872.0	
1980	1660.0		1993	1440.0	
1982	951.0		1994	755.0	
1983	772.0		1995	363.0	
1984	1010.0		1996	2130.0	
1985	1330.0				

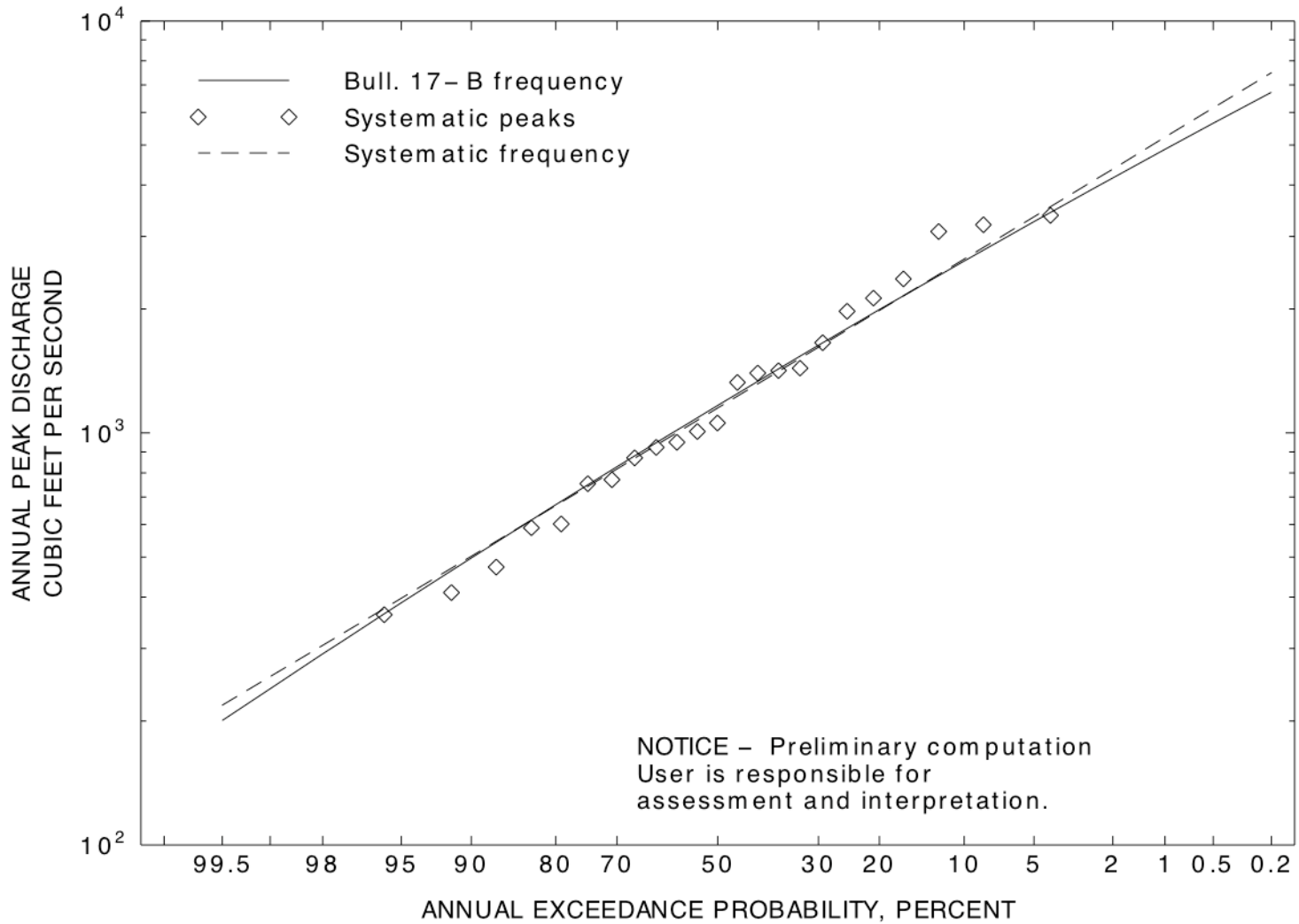
Explanation of peak discharge qualification codes

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
1990	3380.0	0.0417	0.0417
1979	3210.0	0.0833	0.0833
1973	3090.0	0.1250	0.1250
1986	2370.0	0.1667	0.1667
1996	2130.0	0.2083	0.2083
1975	1980.0	0.2500	0.2500
1980	1660.0	0.2917	0.2917
1993	1440.0	0.3333	0.3333
1976	1420.0	0.3750	0.3750
1989	1400.0	0.4167	0.4167
1985	1330.0	0.4583	0.4583
1974	1060.0	0.5000	0.5000
1984	1010.0	0.5417	0.5417
1982	951.0	0.5833	0.5833
1978	925.0	0.6250	0.6250
1992	872.0	0.6667	0.6667
1983	772.0	0.7083	0.7083
1994	755.0	0.7500	0.7500
1988	603.0	0.7917	0.7917
1991	590.0	0.8333	0.8333
1987	474.0	0.8750	0.8750
1977	411.0	0.9167	0.9167
1995	363.0	0.9583	0.9583



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