

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

Station - 04087030 MENOMONEE RIVER AT MENOMONEE FALLS, WI  
 2002 MAR 13 09:02:42

I N P U T   D A T A   S U M M A R Y

Number of peaks in record	=	24
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	24
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.392
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
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.	1942.4
WCF195I-NO LOW OUTLIERS WERE DETECTED BELOW CRITERION.	181.4

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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	2.7735	0.2087	0.453
BULL.17B ESTIMATE	0.0	1.0000	2.7735	0.2087	0.073

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	178.0	211.1	156.2	116.0	234.7
0.9900	199.2	228.2	179.9	134.2	258.0
0.9500	272.1	287.9	259.2	199.6	336.4
0.9000	321.9	329.8	312.3	246.4	389.7
0.8000	395.5	393.4	389.4	316.8	469.4
0.5000	590.2	572.5	590.2	499.5	696.7
0.2000	887.9	877.0	902.6	748.4	1108.0
0.1000	1103.0	1120.0	1139.0	910.4	1444.0
0.0400	1393.0	1477.0	1480.0	1116.0	1936.0
0.0200	1623.0	1782.0	1768.0	1270.0	2351.0
0.0100	1863.0	2124.0	2090.0	1426.0	2807.0
0.0050	2115.0	2507.0	2455.0	1586.0	3307.0
0.0020	2470.0	3086.0	3016.0	1804.0	4042.0
0.6667	480.5	( 1.50-year flood )			
0.4292	642.8	( 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
1975	527.0		1989	413.0	
1976	381.0		1990	324.0	
1977	428.0		1991	451.0	
1980	412.0		1992	307.0	
1981	1010.0		1993	846.0	
1982	430.0		1994	996.0	
1983	572.0		1995	544.0	
1984	727.0		1996	1100.0	
1985	450.0		1997	1500.0	
1986	1440.0		1998	454.0	
1987	296.0		1999	900.0	
1988	570.0		2000	916.0	

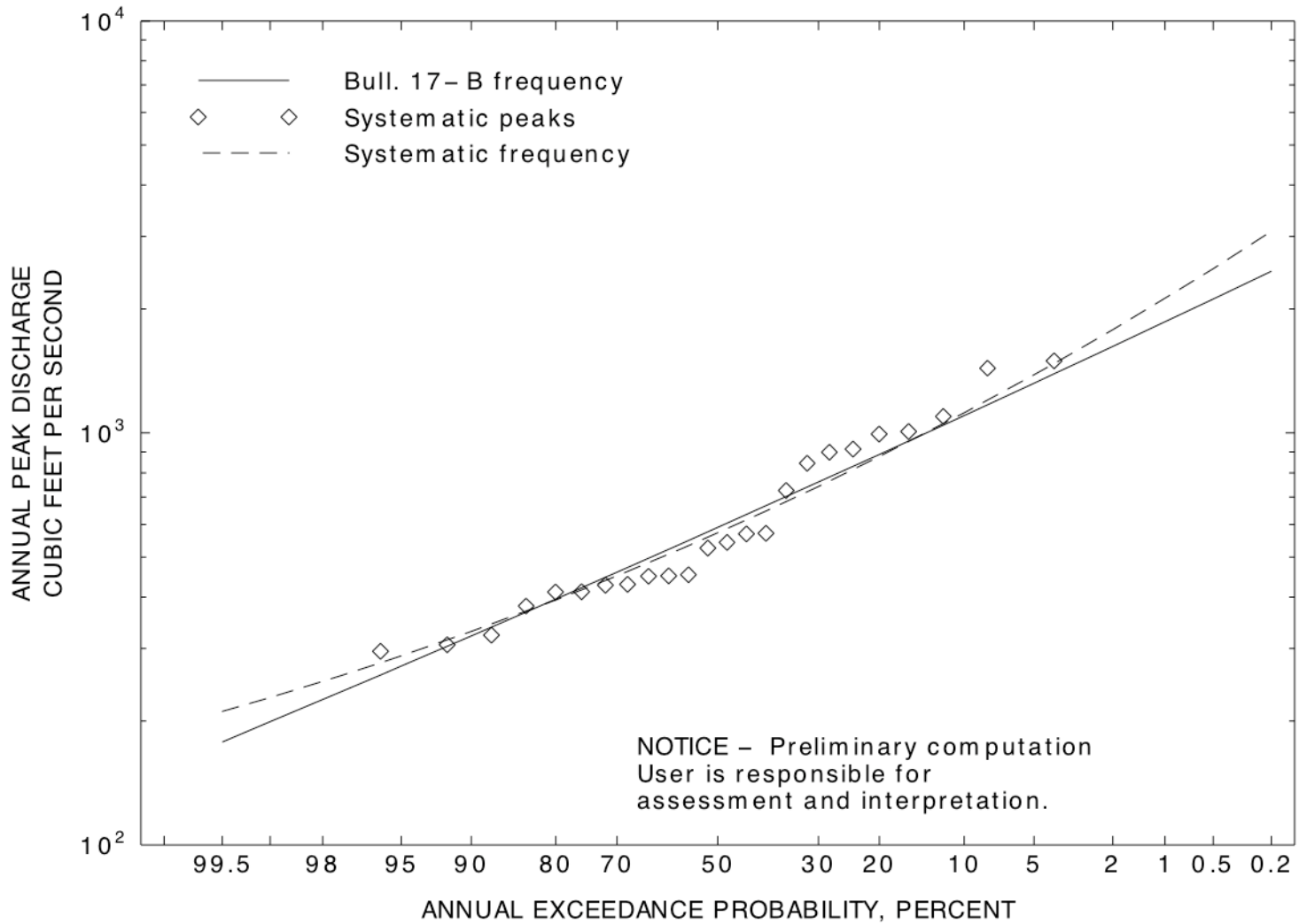
Explanation of peak discharge qualification codes

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
1997	1500.0	0.0400	0.0400
1986	1440.0	0.0800	0.0800
1996	1100.0	0.1200	0.1200
1981	1010.0	0.1600	0.1600
1994	996.0	0.2000	0.2000
2000	916.0	0.2400	0.2400
1999	900.0	0.2800	0.2800
1993	846.0	0.3200	0.3200
1984	727.0	0.3600	0.3600
1983	572.0	0.4000	0.4000
1988	570.0	0.4400	0.4400
1995	544.0	0.4800	0.4800
1975	527.0	0.5200	0.5200
1998	454.0	0.5600	0.5600
1991	451.0	0.6000	0.6000
1985	450.0	0.6400	0.6400
1982	430.0	0.6800	0.6800
1977	428.0	0.7200	0.7200
1989	413.0	0.7600	0.7600
1980	412.0	0.8000	0.8000
1976	381.0	0.8400	0.8400
1990	324.0	0.8800	0.8800
1992	307.0	0.9200	0.9200
1987	296.0	0.9600	0.9600



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