

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

Station - 04069700 NORTH BRANCH OCONTO RIVER NEAR WABENO, WI  
2002 MAR 13 09:02:31

I N P U T   D A T A   S U M M A R Y

Number of peaks in record	=	31
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	31
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.171
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.	635.0
WCF195I-NO LOW OUTLIERS WERE DETECTED BELOW CRITERION.	31.6

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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	2.1512	0.2528	0.493
BULL.17B ESTIMATE	0.0	1.0000	2.1512	0.2528	0.226

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	35.8	41.4	32.3	23.5	47.7
0.9900	40.3	45.3	37.1	27.3	52.8
0.9500	56.5	59.4	54.3	41.3	70.9
0.9000	68.2	69.7	66.5	51.9	83.8
0.8000	86.3	86.0	85.2	68.5	103.8
0.5000	138.6	135.1	138.6	116.1	165.1
0.2000	229.5	226.8	233.2	191.0	288.6
0.1000	302.5	306.0	312.5	245.7	400.1
0.0400	410.1	430.3	435.7	321.1	579.0
0.0200	501.8	542.9	547.6	382.3	742.4
0.0100	603.9	674.7	679.8	447.9	933.9
0.0050	717.6	829.1	837.3	518.6	1158.0
0.0020	887.9	1074.0	1094.0	620.8	1511.0
0.6667	108.4	( 1.50-year flood )			
0.4292	153.6	( 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
1970	70.0		1986	178.0	
1971	210.0		1987	114.0	
1972	150.0		1988	92.0	
1973	228.0		1989	125.0	
1974	97.0		1990	306.0	
1975	238.0		1991	196.0	
1976	118.0		1992	112.0	
1977	56.0		1993	200.0	
1978	63.0		1994	250.0	
1979	59.0		1995	88.0	
1980	150.0		1996	621.0	
1981	420.0		1997	250.0	
1982	100.0		1998	115.0	
1983	230.0		1999	72.0	
1984	116.0		2000	132.0	
1985	87.0				

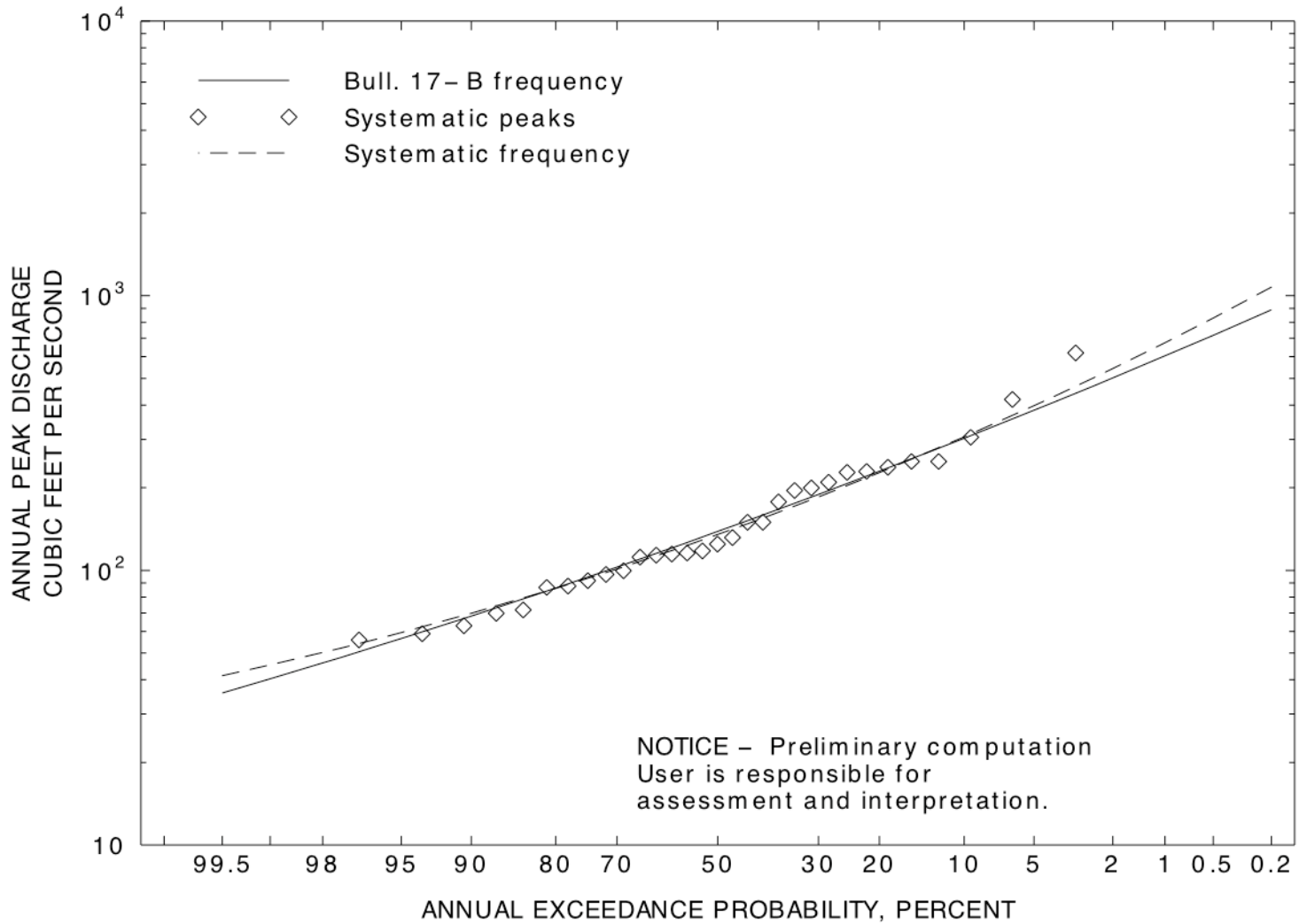
Explanation of peak discharge qualification codes

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
1996	621.0	0.0312	0.0312
1981	420.0	0.0625	0.0625
1990	306.0	0.0938	0.0938
1994	250.0	0.1250	0.1250
1997	250.0	0.1562	0.1562
1975	238.0	0.1875	0.1875
1983	230.0	0.2188	0.2188
1973	228.0	0.2500	0.2500
1971	210.0	0.2812	0.2812
1993	200.0	0.3125	0.3125
1991	196.0	0.3438	0.3438
1986	178.0	0.3750	0.3750
1972	150.0	0.4062	0.4062
1980	150.0	0.4375	0.4375
2000	132.0	0.4688	0.4688
1989	125.0	0.5000	0.5000
1976	118.0	0.5312	0.5312
1984	116.0	0.5625	0.5625
1998	115.0	0.5938	0.5938
1987	114.0	0.6250	0.6250
1992	112.0	0.6562	0.6562
1982	100.0	0.6875	0.6875
1974	97.0	0.7188	0.7188
1988	92.0	0.7500	0.7500
1995	88.0	0.7812	0.7812
1985	87.0	0.8125	0.8125
1999	72.0	0.8438	0.8438
1970	70.0	0.8750	0.8750
1978	63.0	0.9062	0.9062
1979	59.0	0.9375	0.9375
1977	56.0	0.9688	0.9688



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