

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

Station - 04064800 LITTLE POPPLE RIVER NEAR AURORA, WI
 2002 MAR 13 09:02:28

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	=	-0.125
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.	150.7
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.	808.5

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 2002 MAR 13 09:02:28

ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE		LOGARITHMIC		
	DISCHARGE	EXCEEDANCE PROBABILITY	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	0.0	1.0000	2.5429	0.1479	-0.415
BULL.17B ESTIMATE	0.0	1.0000	2.5429	0.1479	-0.285

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	132.6	127.3	117.0	94.7	164.5
0.9900	147.3	142.8	133.9	108.5	179.5
0.9500	194.2	192.1	186.3	154.6	226.8
0.9000	223.6	222.9	218.0	184.4	256.3
0.8000	263.6	264.4	260.3	225.5	297.4
0.5000	354.7	357.3	354.7	315.6	399.5
0.2000	466.6	467.0	471.3	413.2	546.3
0.1000	533.7	530.4	544.0	466.6	643.7
0.0400	611.9	601.9	632.8	525.8	763.7
0.0200	666.0	649.8	697.2	565.5	850.4
0.0100	717.1	694.0	761.1	602.1	934.6
0.0050	765.8	735.1	824.8	636.3	1017.0
0.0020	827.3	785.5	909.6	678.8	1123.0
0.6667	305.6	(1.50-year flood)			
0.4292	377.0	(2.33-year flood)			

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2002 MAR 13 09:02:28

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	595.0		1982	330.0	
1971	345.0		1983	360.0	
1972	375.0		1984	305.0	
1973	435.0		1985	285.0	
1974	220.0		1986	530.0	
1975	490.0		1987	260.0	
1976	485.0		1988	200.0	
1977	190.0		1989	515.0	
1978	185.0		1990	310.0	
1979	455.0		1991	480.0	
1980	340.0		1992	286.0	
1981	480.0		1993	375.0	

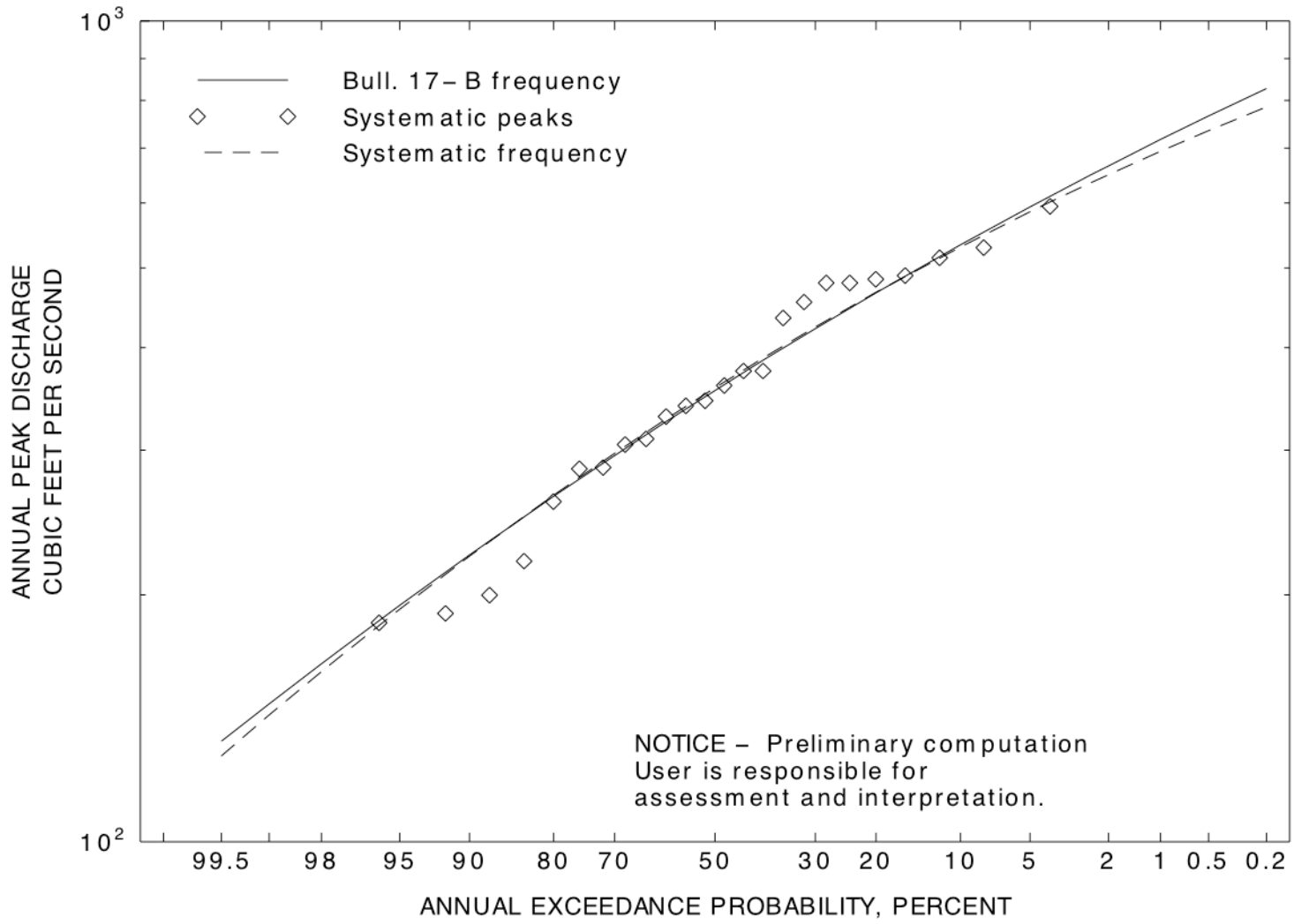
Explanation of peak discharge qualification codes

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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2002 MAR 13 09:02:28

EMPIRICAL FREQUENCY CURVES -- WEIBULL PLOTTING POSITIONS

WATER YEAR	RANKED DISCHARGE	SYSTEMATIC RECORD	BULL.17B ESTIMATE
1970	595.0	0.0400	0.0400
1986	530.0	0.0800	0.0800
1989	515.0	0.1200	0.1200
1975	490.0	0.1600	0.1600
1976	485.0	0.2000	0.2000
1981	480.0	0.2400	0.2400
1991	480.0	0.2800	0.2800
1979	455.0	0.3200	0.3200
1973	435.0	0.3600	0.3600
1972	375.0	0.4000	0.4000
1993	375.0	0.4400	0.4400
1983	360.0	0.4800	0.4800
1971	345.0	0.5200	0.5200
1980	340.0	0.5600	0.5600
1982	330.0	0.6000	0.6000
1990	310.0	0.6400	0.6400
1984	305.0	0.6800	0.6800
1992	286.0	0.7200	0.7200
1985	285.0	0.7600	0.7600
1987	260.0	0.8000	0.8000
1974	220.0	0.8400	0.8400
1988	200.0	0.8800	0.8800
1977	190.0	0.9200	0.9200
1978	185.0	0.9600	0.9600



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