

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

Station - 05379400 TREMPEALEAU RIVER AT ARCADIA, WI
 2002 MAR 13 09:02:57

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

Number of peaks in record	=	10
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	10
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.382
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. 995.8
 WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE. 17503.2
 **WCF233W-EXPECTED PROB OUT OF RANGE AT TAB PROB. 0.00003 0.00200
 WCF002J-CALCS COMPLETED. RETURN CODE = 2

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 2002 MAR 13 09:02:57

ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE		LOGARITHMIC		
	DISCHARGE	EXCEEDANCE PROBABILITY	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	0.0	1.0000	3.6206	0.3057	0.258
BULL.17B ESTIMATE	0.0	1.0000	3.6206	0.3057	-0.138

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	621.6	807.4	318.1	170.6	1154.0
0.9900	755.9	928.4	457.8	232.8	1341.0
0.9500	1277.0	1384.0	1032.0	529.0	2025.0
0.9000	1677.0	1731.0	1477.0	802.7	2537.0
0.8000	2321.0	2292.0	2180.0	1295.0	3378.0
0.5000	4243.0	4051.0	4243.0	2860.0	6331.0
0.2000	7582.0	7471.0	8024.0	5205.0	13640.0
0.1000	10180.0	10470.0	11380.0	6749.0	21040.0
0.0400	13840.0	15210.0	16990.0	8701.0	33630.0
0.0200	16810.0	19490.0	22510.0	10170.0	45540.0
0.0100	19980.0	24500.0	29590.0	11640.0	59730.0
0.0050	23360.0	30330.0	38780.0	13130.0	76430.0
0.0020	28150.0	39490.0	--	15150.0	102800.0
0.6667	3124.8	(1.50-year flood)			
0.4292	4811.4	(2.33-year flood)			

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2002 MAR 13 09:02:57

I N P U T D A T A L I S T I N G

WATER YEAR	DISCHARGE	CODES	WATER YEAR	DISCHARGE	CODES
1968	8140.0		1973	5580.0	
1969	2920.0		1974	3520.0	
1970	3290.0		1975	15900.0	
1971	2200.0		1976	5310.0	
1972	4510.0		1977	1250.0	

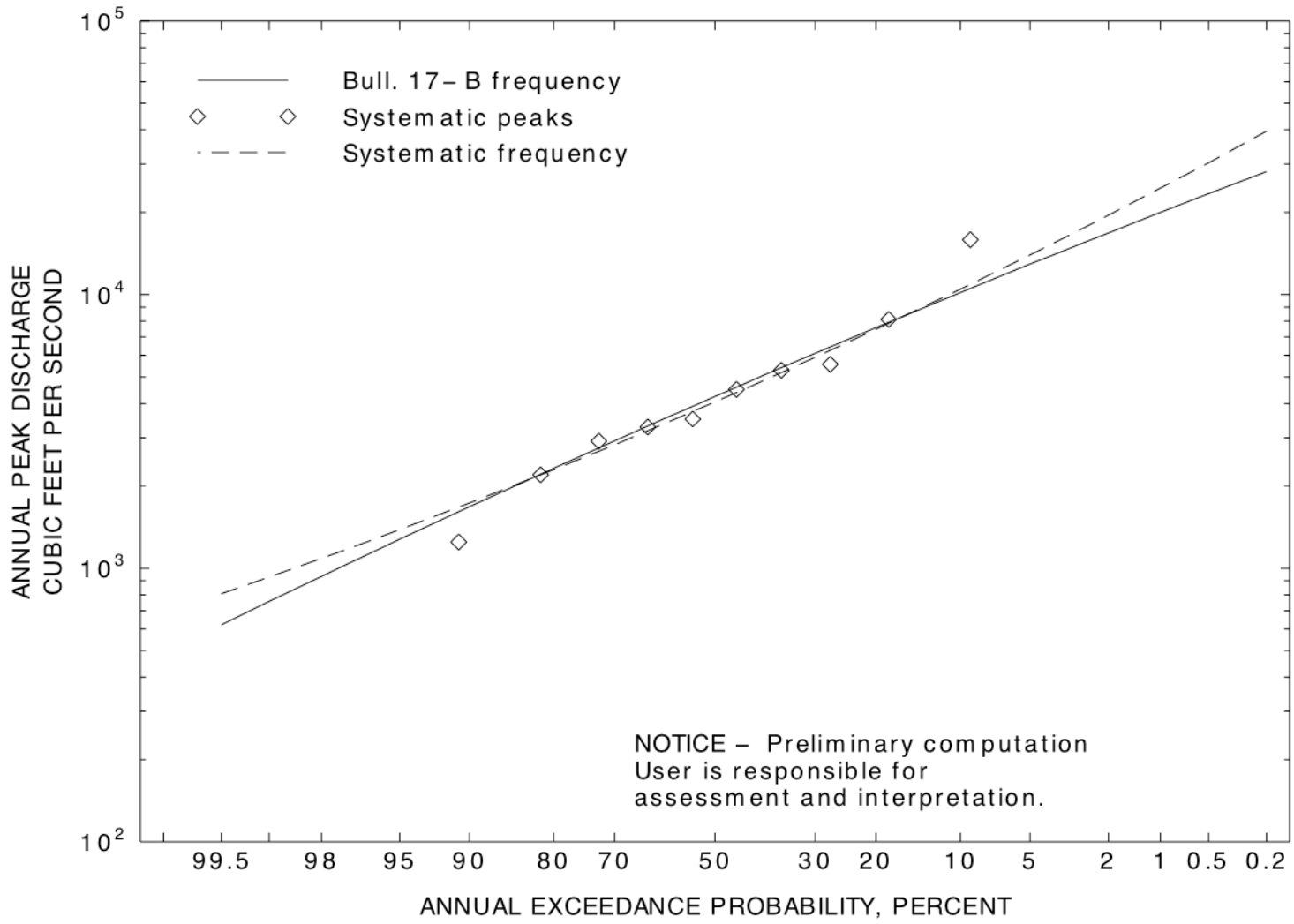
Explanation of peak discharge qualification codes

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
1975	15900.0	0.0909	0.0909
1968	8140.0	0.1818	0.1818
1973	5580.0	0.2727	0.2727
1976	5310.0	0.3636	0.3636
1972	4510.0	0.4545	0.4545
1974	3520.0	0.5455	0.5455
1970	3290.0	0.6364	0.6364
1969	2920.0	0.7273	0.7273
1971	2200.0	0.8182	0.8182
1977	1250.0	0.9091	0.9091



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