

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

Station - 05367000 CHIPPEWA RIVER AT EAU CLAIRE, WI
 2002 JUL 10 11:20:57

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

Number of peaks in record	=	11
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	11
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	0.000
Standard error of generalized skew	=	0.550
Skew option	=	STATION SKEW
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
WCF198I-LOW OUTLIERS BELOW FLOOD BASE WERE DROPPED.	1	14986.2	
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.		81327.5	
*WCF151I-17B WEIGHTED SKEW REPLACED BY USER OPTION.	0.324	0.874	-1
**WCF233W-EXPECTED PROB OUT OF RANGE AT TAB PROB.	0.00005	0.00200	
WCF002J-CALCS COMPLETED. RETURN CODE = 2			

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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	4.5793	0.1933	-0.502
BULL.17B ESTIMATE	14986.2	0.9091	4.6034	0.1479	0.874

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	--	9798.0	--	--	--
0.9900	--	11480.0	--	--	--
0.9500	--	17230.0	--	--	--
0.9000	27100.0	21060.0	26300.0	19910.0	32620.0
0.8000	29990.0	26490.0	29470.0	23000.0	35700.0
0.5000	38210.0	39390.0	38210.0	31580.0	45530.0
0.2000	52190.0	55570.0	53970.0	43940.0	67320.0
0.1000	63300.0	65210.0	68130.0	52120.0	88680.0
0.0400	79630.0	76230.0	92670.0	62870.0	125000.0
0.0200	93590.0	83680.0	118700.0	71380.0	160000.0
0.0100	109200.0	90550.0	154400.0	80400.0	203000.0
0.0050	126800.0	96940.0	205700.0	90070.0	255900.0
0.0020	153500.0	104800.0	--	104000.0	344500.0
0.6667	33506.6	(1.50-year flood)			
0.4292	40442.8	(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
1944	32200.0	K	1950	39300.0	K
1945	42000.0	K	1951	63800.0	K
1946	48500.0	K	1952	39000.0	K
1947	33100.0	K	1953	34800.0	K
1948	14500.0	K	1954	80000.0	K
1949	27500.0	K			

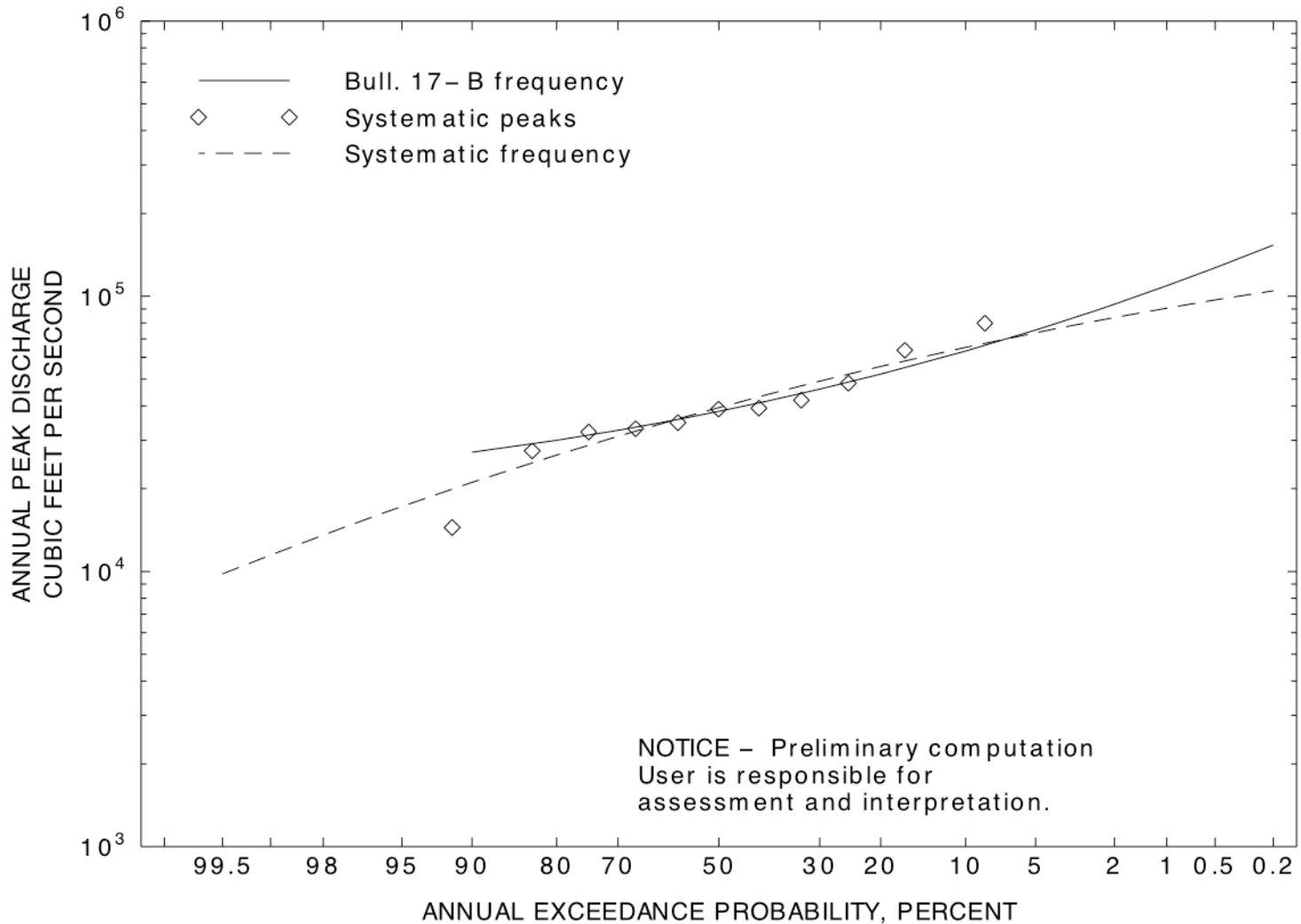
Explanation of peak discharge qualification codes

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
1954	80000.0	0.0833	0.0833
1951	63800.0	0.1667	0.1667
1946	48500.0	0.2500	0.2500
1945	42000.0	0.3333	0.3333
1950	39300.0	0.4167	0.4167
1952	39000.0	0.5000	0.5000
1953	34800.0	0.5833	0.5833
1947	33100.0	0.6667	0.6667
1944	32200.0	0.7500	0.7500
1949	27500.0	0.8333	0.8333
1948	14500.0	0.9167	0.9167



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