

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

Station - 05372000 BUFFALO RIVER NEAR TELL, 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	=	18
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	18
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.381
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.	536.5
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.	14904.9

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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	3.4515	0.3092	-0.133
BULL.17B ESTIMATE	0.0	1.0000	3.4515	0.3092	-0.252

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	382.1	413.7	267.7	163.1	632.8
0.9900	473.7	503.8	361.6	218.6	753.5
0.9500	835.1	854.2	743.0	468.9	1205.0
0.9000	1117.0	1125.0	1040.0	687.2	1545.0
0.8000	1570.0	1561.0	1516.0	1062.0	2095.0
0.5000	2914.0	2873.0	2914.0	2191.0	3896.0
0.2000	5185.0	5169.0	5338.0	3879.0	7695.0
0.1000	6892.0	6966.0	7285.0	5007.0	11070.0
0.0400	9224.0	9513.0	10180.0	6432.0	16230.0
0.0200	11060.0	11590.0	12660.0	7492.0	20680.0
0.0100	12970.0	13810.0	15470.0	8549.0	25600.0
0.0050	14950.0	16190.0	18660.0	9608.0	31010.0
0.0020	17670.0	19570.0	23510.0	11020.0	38920.0
0.6667	2134.0	( 1.50-year flood )			
0.4292	3309.3	( 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
1933	1970.0		1942	5750.0	
1934	8650.0		1943	2900.0	
1935	1440.0		1944	995.0	
1936	3270.0		1945	5750.0	
1937	1060.0		1946	1200.0	
1938	5430.0		1947	2720.0	
1939	5430.0		1948	5040.0	
1940	6200.0		1949	1080.0	
1941	1750.0		1950	2900.0	

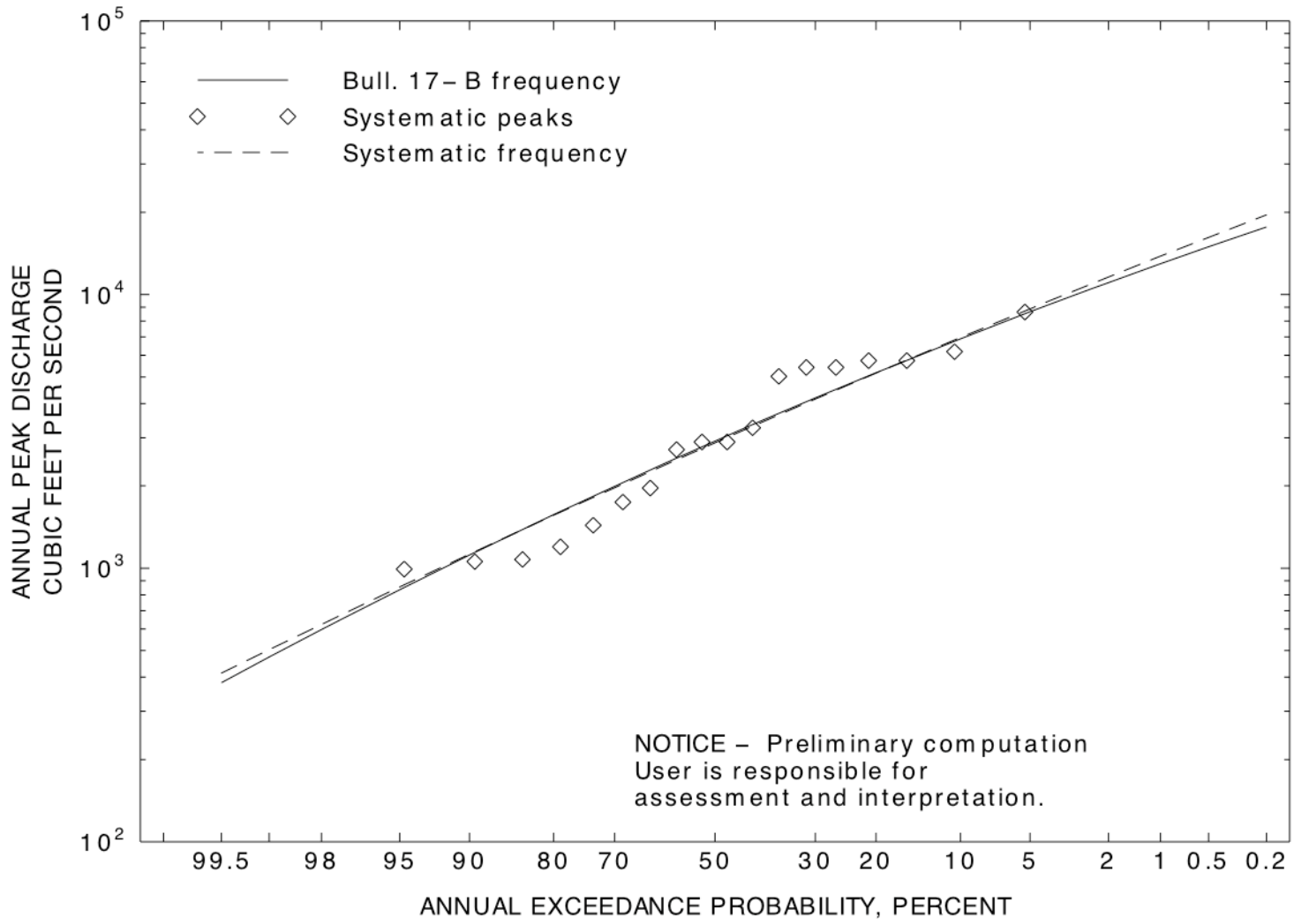
Explanation of peak discharge qualification codes

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
1934	8650.0	0.0526	0.0526
1940	6200.0	0.1053	0.1053
1942	5750.0	0.1579	0.1579
1945	5750.0	0.2105	0.2105
1938	5430.0	0.2632	0.2632
1939	5430.0	0.3158	0.3158
1948	5040.0	0.3684	0.3684
1936	3270.0	0.4211	0.4211
1943	2900.0	0.4737	0.4737
1950	2900.0	0.5263	0.5263
1947	2720.0	0.5789	0.5789
1933	1970.0	0.6316	0.6316
1941	1750.0	0.6842	0.6842
1935	1440.0	0.7368	0.7368
1946	1200.0	0.7895	0.7895
1949	1080.0	0.8421	0.8421
1937	1060.0	0.8947	0.8947
1944	995.0	0.9474	0.9474



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