

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

Station - 05358000 FLAMBEAU RIVER NEAR BUTTERNUT, WI  
 2002 JUL 10 11:20:48

I N P U T   D A T A   S U M M A R Y

Number of peaks in record	=	12	
Peaks not used in analysis	=	0	
Systematic peaks in analysis	=	12	
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	
WCF195I-NO LOW OUTLIERS WERE DETECTED BELOW CRITERION.	391.8	
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.	5242.2	
*WCF151I-17B WEIGHTED SKEW REPLACED BY USER OPTION.	0.078	0.184 -1
**WCF233W-EXPECTED PROB OUT OF RANGE AT TAB PROB.	0.00008	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	3.1563	0.2639	0.184
BULL.17B ESTIMATE	0.0	1.0000	3.1563	0.2639	0.184

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	332.6	332.6	239.0	140.0	524.6
0.9900	378.5	378.5	292.3	169.7	581.0
0.9500	544.9	544.9	482.3	290.2	780.2
0.9000	666.2	666.2	617.3	387.5	924.1
0.8000	855.3	855.3	822.3	549.0	1153.0
0.5000	1407.0	1407.0	1407.0	1031.0	1910.0
0.2000	2375.0	2375.0	2484.0	1764.0	3686.0
0.1000	3157.0	3157.0	3459.0	2268.0	5484.0
0.0400	4311.0	4311.0	5134.0	2939.0	8614.0
0.0200	5296.0	5296.0	6846.0	3468.0	11670.0
0.0100	6392.0	6392.0	9122.0	4023.0	15450.0
0.0050	7613.0	7613.0	12210.0	4611.0	20080.0
0.0020	9439.0	9439.0	--	5446.0	27770.0
0.6667	1087.5	( 1.50-year flood )			
0.4292	1566.4	( 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
1927	2160.0	K	1933	762.0	K
1928	1830.0	K	1934	808.0	K
1929	2580.0	K	1935	2510.0	K
1930	808.0	K	1936	3370.0	K
1931	808.0	K	1937	855.0	K
1932	855.0	K	1938	2960.0	K

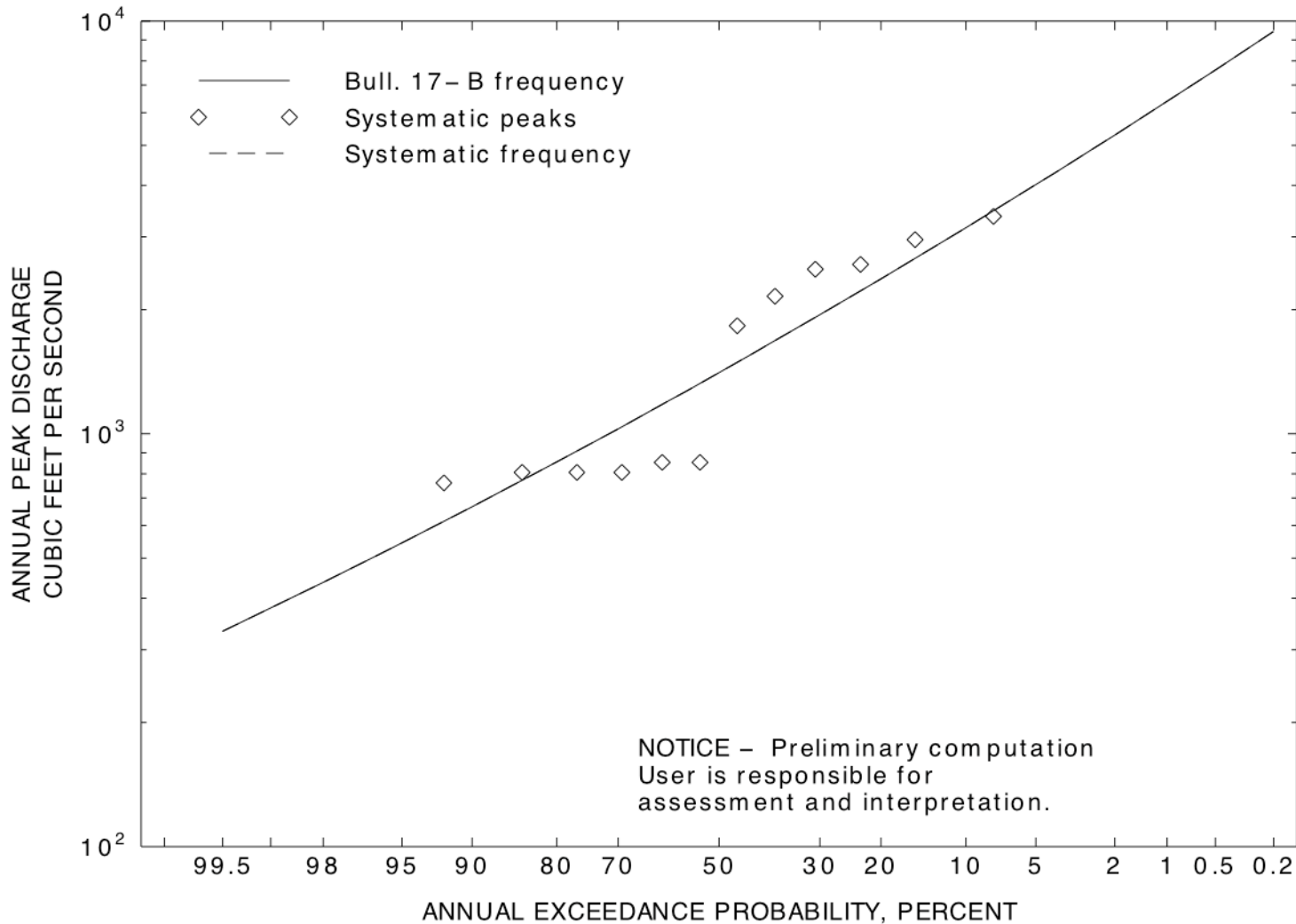
Explanation of peak discharge qualification codes

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
1936	3370.0	0.0769	0.0769
1938	2960.0	0.1538	0.1538
1929	2580.0	0.2308	0.2308
1935	2510.0	0.3077	0.3077
1927	2160.0	0.3846	0.3846
1928	1830.0	0.4615	0.4615
1932	855.0	0.5385	0.5385
1937	855.0	0.6154	0.6154
1930	808.0	0.6923	0.6923
1931	808.0	0.7692	0.7692
1934	808.0	0.8462	0.8462
1933	762.0	0.9231	0.9231



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