

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

Station - 04081010 WAUPACA RIVER TRIBUTARY NEAR WAUPACA, WI  
 2002 MAR 13 09:02:35

I N P U T   D A T A   S U M M A R Y

Number of peaks in record	=	22
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	22
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.318
Standard error of generalized skew	=	0.550
Skew option	=	WEIGHTED
Gage base discharge	=	4.0
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. \*\*\*\*\*

WCF133I-SYSTEMATIC PEAKS BELOW GAGE BASE WERE NOTED.	1	4.0
WCF198I-LOW OUTLIERS BELOW FLOOD BASE WERE DROPPED.	1	6.3
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.		183.5

Station - 04081010 WAUPACA RIVER TRIBUTARY NEAR WAUPACA, WI  
 2002 MAR 13 09:02:35

ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE		LOGARITHMIC		
	DISCHARGE	EXCEEDANCE PROBABILITY	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	4.0	0.9545	1.5639	0.3495	-1.134
BULL.17B ESTIMATE	6.3	0.9091	1.5939	0.2896	-0.489

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
0.9500	--	7.9	--	--	--
0.9000	16.3	12.5	15.3	10.9	21.5
0.8000	22.9	20.2	22.2	16.6	29.3
0.5000	41.4	42.5	41.4	32.6	53.0
0.2000	69.5	72.4	70.9	54.2	96.3
0.1000	88.4	88.8	91.7	67.4	129.7
0.0400	112.0	105.1	119.1	82.9	174.8
0.0200	128.9	114.5	139.9	93.5	209.4
0.0100	145.3	122.0	161.2	103.5	244.4
0.0050	161.2	127.9	182.7	112.9	279.6
0.0020	181.5	134.0	211.6	124.7	326.1
0.6667	30.9	( 1.50-year flood )			
0.4292	46.7	( 2.33-year flood )			

Station - 04081010 WAUPACA RIVER TRIBUTARY NEAR WAUPACA, WI  
 2002 MAR 13 09:02:35

I N P U T   D A T A   L I S T I N G

WATER YEAR	DISCHARGE	CODES	WATER YEAR	DISCHARGE	CODES
1960	78.0		1971	50.0	
1961	45.0		1972	20.0	
1962	70.0		1973	106.0	
1963	45.0		1974	50.0	
1964	14.0		1975	45.0	
1965	40.0		1976	60.0	
1966	19.0		1977	4.0	L
1967	100.0		1978	17.0	
1968	5.0		1979	52.0	
1969	72.0		1980	16.0	
1970	60.0		1981	44.0	

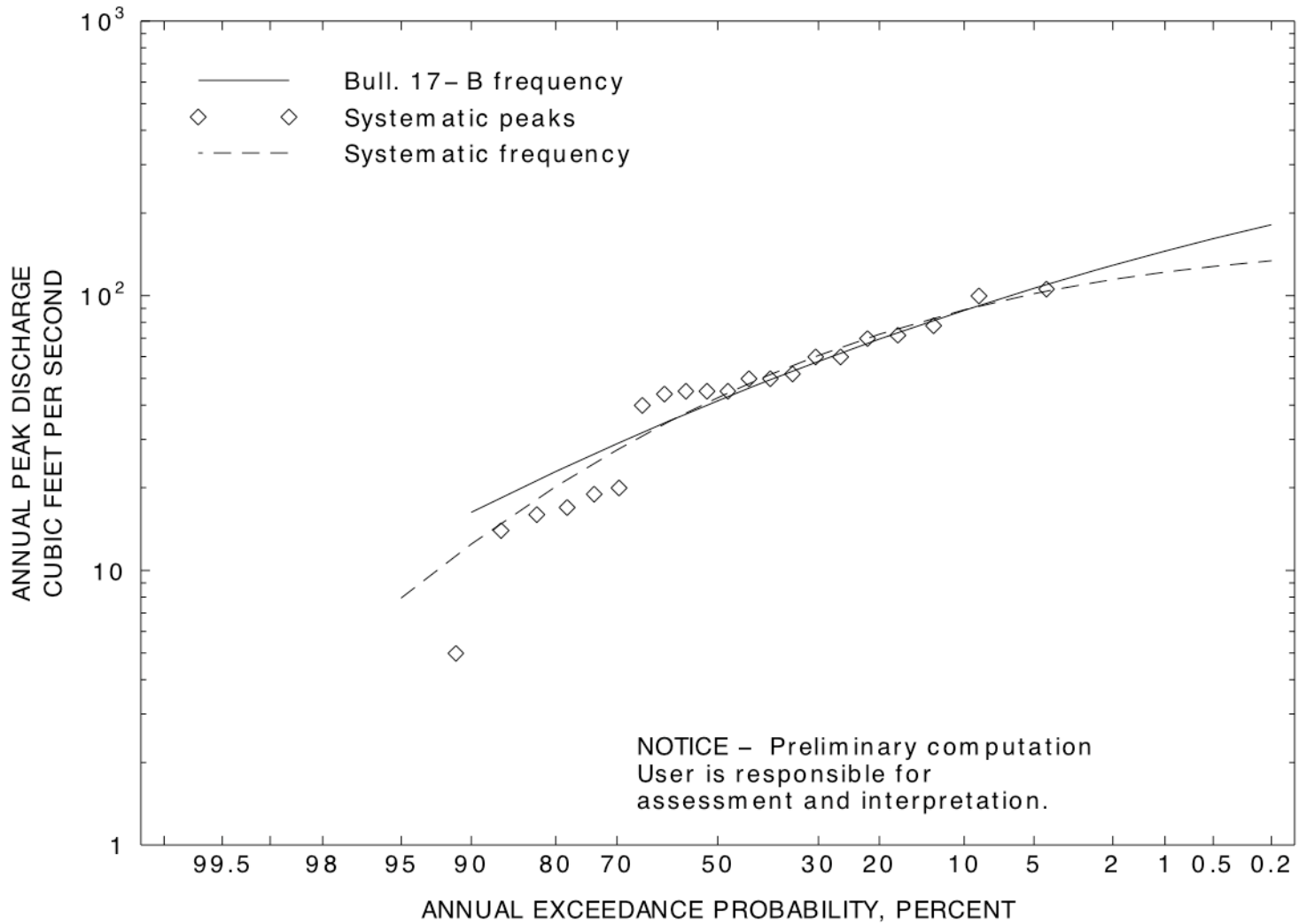
Explanation of peak discharge qualification codes

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

Station - 04081010 WAUPACA RIVER TRIBUTARY NEAR WAUPACA, WI  
2002 MAR 13 09:02:35

EMPIRICAL FREQUENCY CURVES -- WEIBULL PLOTTING POSITIONS

WATER YEAR	RANKED DISCHARGE	SYSTEMATIC RECORD	BULL.17B ESTIMATE
1973	106.0	0.0435	0.0435
1967	100.0	0.0870	0.0870
1960	78.0	0.1304	0.1304
1969	72.0	0.1739	0.1739
1962	70.0	0.2174	0.2174
1970	60.0	0.2609	0.2609
1976	60.0	0.3043	0.3043
1979	52.0	0.3478	0.3478
1971	50.0	0.3913	0.3913
1974	50.0	0.4348	0.4348
1961	45.0	0.4783	0.4783
1963	45.0	0.5217	0.5217
1975	45.0	0.5652	0.5652
1981	44.0	0.6087	0.6087
1965	40.0	0.6522	0.6522
1972	20.0	0.6957	0.6957
1966	19.0	0.7391	0.7391
1978	17.0	0.7826	0.7826
1980	16.0	0.8261	0.8261
1964	14.0	0.8696	0.8696
1968	5.0	0.9130	0.9130
1977	4.0	--	--



NOTICE - Preliminary computation  
 User is responsible for  
 assessment and interpretation.

Station - 04081010 WAUPACA RIVER TRIBUTARY NEAR WAUPACA, WI  
 2002 MAR 13 09:02:35