

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

Station - 05433000 EAST BR PECATONICA RIVER NEAR BLANCHARDVILLE, WI
 2002 MAR 15 14:49:57

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

Number of peaks in record	=	59
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	58
Historic peaks in analysis	=	1
Years of historic record	=	85
Generalized skew	=	-0.400
Standard error of generalized skew	=	0.550
Skew option	=	WEIGHTED
Gage base discharge	=	0.0
User supplied high outlier threshold	=	11700.0
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.	255.1
*WCF161I-USER HIGH OUTLIER CRITERION REPLACES 17B.	11700.0 17348.7
WCF165I-HIGH OUTLIERS AND HISTORIC PEAKS ABOVE HHBASE.	0 1 11700.0

Station - 05433000 EAST BR PECATONICA RIVER NEAR BLANCHARDVILLE, WI
 2002 MAR 15 14:49:57

ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE		LOGARITHMIC		
	DISCHARGE	EXCEEDANCE PROBABILITY	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	0.0	1.0000	3.3230	0.3245	-0.074
BULL.17B ESTIMATE	0.0	1.0000	3.3318	0.3316	-0.077

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	284.1	291.6	259.1	188.7	387.8
0.9900	347.9	355.4	323.7	238.8	464.0
0.9500	601.3	606.2	581.4	449.0	757.0
0.9000	801.9	803.1	785.2	623.2	983.5
0.8000	1132.0	1125.0	1121.0	917.3	1355.0
0.5000	2168.0	2123.0	2168.0	1835.0	2563.0
0.2000	4093.0	3955.0	4134.0	3419.0	5056.0
0.1000	5675.0	5447.0	5787.0	4632.0	7290.0
0.0400	8007.0	7633.0	8291.0	6333.0	10790.0
0.0200	9979.0	9473.0	10470.0	7717.0	13900.0
0.0100	12150.0	11490.0	12940.0	9195.0	17450.0
0.0050	14520.0	13690.0	15730.0	10770.0	21470.0
0.0020	18000.0	16900.0	19980.0	13030.0	27570.0
0.6667	1557.9	(1.50-year flood)			
0.4292	2484.4	(2.33-year flood)			

Station - 05433000 EAST BR PECATONICA RIVER NEAR BLANCHARDVILLE, WI
 2002 MAR 15 14:49:57

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

WATER YEAR	DISCHARGE	CODES	WATER YEAR	DISCHARGE	CODES
-1948	11700.0	H	1970	409.0	
1940	965.0		1971	1020.0	
1941	1310.0		1972	1380.0	
1942	2550.0		1973	2380.0	
1943	5450.0		1974	2920.0	
1944	5440.0		1975	3320.0	
1945	1690.0		1976	2500.0	
1946	6500.0		1977	1750.0	
1947	2980.0		1978	2110.0	
1949	4260.0		1979	1310.0	
1950	7150.0		1980	2010.0	
1951	1070.0		1981	2510.0	
1952	3250.0		1982	1890.0	
1953	8750.0		1983	1190.0	
1954	3300.0		1984	2320.0	
1955	1830.0		1985	1800.0	
1956	1070.0		1986	1450.0	
1957	2820.0		1988	610.0	
1958	1700.0		1989	1400.0	
1959	9680.0		1990	2540.0	
1960	6960.0		1991	970.0	
1961	2900.0		1992	681.0	
1962	1040.0		1993	5650.0	
1963	3600.0		1994	1900.0	
1964	744.0		1995	394.0	
1965	5800.0		1996	2970.0	
1966	4500.0		1997	1100.0	
1967	4810.0		1998	1660.0	
1968	587.0		2000	1840.0	
1969	2260.0				

Explanation of peak discharge qualification codes

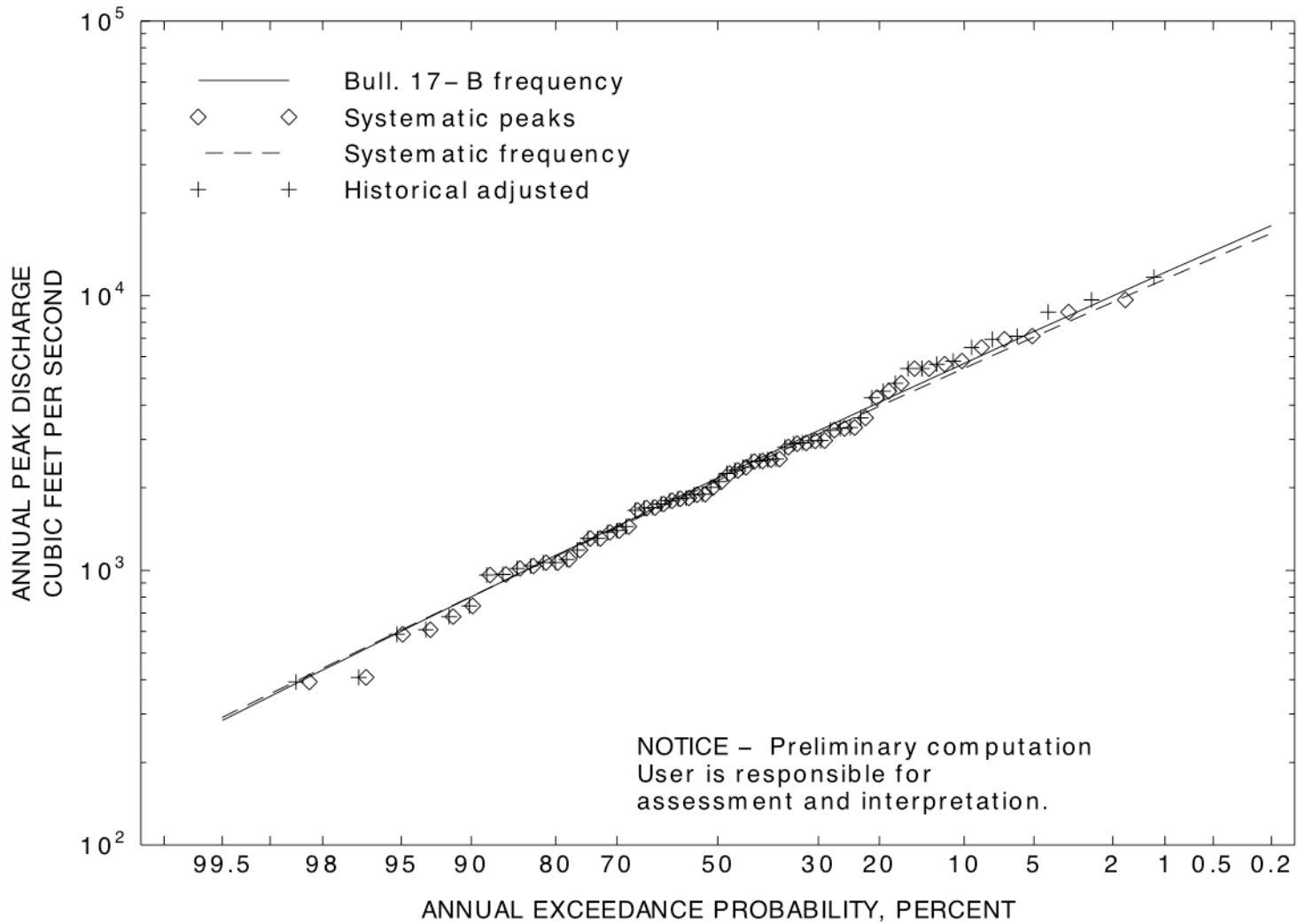
PEAKFQ	WATSTORE	DEFINITION
CODE	CODE	
D	3	Dam failure, non-recurrent flow anomaly
G	8	Discharge greater than stated value
X	3+8	Both of the above
L	4	Discharge less than stated value
K	6 OR C	Known effect of regulation or urbanization
H	7	Historic peak

Station - 05433000 EAST BR PECATONICA RIVER NEAR BLANCHARDVILLE, WI
2002 MAR 15 14:49:57

EMPIRICAL FREQUENCY CURVES -- WEIBULL PLOTTING POSITIONS

WATER YEAR	RANKED DISCHARGE	SYSTEMATIC RECORD	BULL.17B ESTIMATE
-1948	11700.0	--	0.0116
1959	9680.0	0.0169	0.0259
1953	8750.0	0.0339	0.0427
1950	7150.0	0.0508	0.0595
1960	6960.0	0.0678	0.0764
1946	6500.0	0.0847	0.0932
1965	5800.0	0.1017	0.1101
1993	5650.0	0.1186	0.1269
1943	5450.0	0.1356	0.1437
1944	5440.0	0.1525	0.1606
1967	4810.0	0.1695	0.1774
1966	4500.0	0.1864	0.1943
1949	4260.0	0.2034	0.2111
1963	3600.0	0.2203	0.2279
1975	3320.0	0.2373	0.2448
1954	3300.0	0.2542	0.2616
1952	3250.0	0.2712	0.2785
1947	2980.0	0.2881	0.2953
1996	2970.0	0.3051	0.3121
1974	2920.0	0.3220	0.3290
1961	2900.0	0.3390	0.3458
1957	2820.0	0.3559	0.3627
1942	2550.0	0.3729	0.3795
1990	2540.0	0.3898	0.3964
1981	2510.0	0.4068	0.4132
1976	2500.0	0.4237	0.4300
1973	2380.0	0.4407	0.4469
1984	2320.0	0.4576	0.4637
1969	2260.0	0.4746	0.4806
1978	2110.0	0.4915	0.4974
1980	2010.0	0.5085	0.5142
1994	1900.0	0.5254	0.5311
1982	1890.0	0.5424	0.5479
2000	1840.0	0.5593	0.5648
1955	1830.0	0.5763	0.5816
1985	1800.0	0.5932	0.5984
1977	1750.0	0.6102	0.6153
1958	1700.0	0.6271	0.6321
1945	1690.0	0.6441	0.6490
1998	1660.0	0.6610	0.6658
1986	1450.0	0.6780	0.6826
1989	1400.0	0.6949	0.6995
1972	1380.0	0.7119	0.7163
1941	1310.0	0.7288	0.7332
1979	1310.0	0.7458	0.7500
1983	1190.0	0.7627	0.7668
1997	1100.0	0.7797	0.7837
1951	1070.0	0.7966	0.8005

1956	1070.0	0.8136	0.8174
1962	1040.0	0.8305	0.8342
1971	1020.0	0.8475	0.8510
1991	970.0	0.8644	0.8679
1940	965.0	0.8814	0.8847
1964	744.0	0.8983	0.9016
1992	681.0	0.9153	0.9184
1988	610.0	0.9322	0.9352
1968	587.0	0.9492	0.9521
1970	409.0	0.9661	0.9689
1995	394.0	0.9831	0.9858



Station - 05433000 EAST BR PECATONICA RIVER NEAR BLANCHARDVILLE, WI
 2002 MAR 15 14:49:57