

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

Station - 04084500 FOX R AT RAPIDE CROCHE DAM NEAR WRIGHTSTOWN, WI  
 2002 JUL 10 11:20:40

I N P U T   D A T A   S U M M A R Y

Number of peaks in record	=	83
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	83
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	3736.1		
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.		36492.1		
*WCF151I-17B WEIGHTED SKEW REPLACED BY USER OPTION.	-0.591	-0.819	-1	

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 2002 JUL 10 11:20:40

ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE		LOGARITHMIC		
	DISCHARGE	EXCEEDANCE PROBABILITY	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	0.0	1.0000	4.0817	0.1725	-1.037
BULL.17B ESTIMATE	3736.1	0.9880	4.0860	0.1624	-0.819

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	--	2982.0	--	--	--
0.9900	--	3600.0	--	--	--
0.9500	6119.0	5714.0	6021.0	5403.0	6771.0
0.9000	7394.0	7088.0	7323.0	6672.0	8058.0
0.8000	9113.0	8950.0	9074.0	8389.0	9805.0
0.5000	12820.0	12910.0	12820.0	11980.0	13740.0
0.2000	16790.0	16920.0	16830.0	15580.0	18290.0
0.1000	18830.0	18830.0	18910.0	17360.0	20730.0
0.0400	20890.0	20640.0	21030.0	19120.0	23250.0
0.0200	22140.0	21650.0	22320.0	20160.0	24800.0
0.0100	23190.0	22450.0	23410.0	21040.0	26120.0
0.0050	24080.0	23090.0	24330.0	21780.0	27240.0
0.0020	25070.0	23750.0	25380.0	22590.0	28510.0
0.6667	10860.4	( 1.50-year flood )			
0.4292	13697.9	( 2.33-year flood )			

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 2002 JUL 10 11:20:40

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

WATER YEAR	DISCHARGE	CODES	WATER YEAR	DISCHARGE	CODES
1918	16300.0	K	1960	23600.0	K
1919	13100.0	K	1961	9950.0	K
1920	16600.0	K	1962	15400.0	K
1921	14200.0	K	1963	9470.0	K
1922	20100.0	K	1964	4070.0	K
1923	13700.0	K	1965	12400.0	K
1924	15500.0	K	1966	14200.0	K
1925	8340.0	K	1967	15400.0	K
1926	9060.0	K	1968	12500.0	K
1927	13300.0	K	1969	16200.0	K
1928	15100.0	K	1970	12200.0	K
1929	20600.0	K	1971	10800.0	K
1930	6600.0	K	1972	13200.0	K
1931	3100.0	K	1973	17000.0	K
1932	9900.0	K	1974	12400.0	K
1933	8900.0	K	1975	14500.0	K
1934	6650.0	K	1976	14200.0	
1935	11100.0	K	1977	5900.0	K
1936	6290.0	K	1978	10000.0	K
1937	13500.0	K	1979	18400.0	
1938	11500.0	K	1980	9820.0	
1939	18200.0	K	1981	11400.0	
1940	17500.0	K	1982	12900.0	
1941	16600.0	K	1983	12800.0	
1942	19800.0	K	1984	10200.0	K
1943	21300.0	K	1985	15700.0	K
1944	10800.0	K	1986	15400.0	K
1945	15800.0	K	1987	16000.0	
1946	21300.0	K	1988	8310.0	K
1947	11000.0	K	1989	15800.0	
1948	10300.0	K	1990	15500.0	
1949	6360.0	K	1991	10800.0	K
1950	10900.0	K	1992	12600.0	K
1951	20400.0	K	1993	18700.0	K
1952	24000.0	K	1994	11600.0	K
1953	12000.0	K	1995	10100.0	K
1954	5530.0	K	1996	14600.0	K
1955	12800.0	K	1997	11900.0	K
1956	10900.0	K	1998	15000.0	K
1957	5830.0	K	1999	11800.0	K
1958	4220.0	K	2000	9880.0	K
1959	11600.0	K			

Explanation of peak discharge qualification codes

PEAKFQ WATSTORE  
 CODE CODE DEFINITION

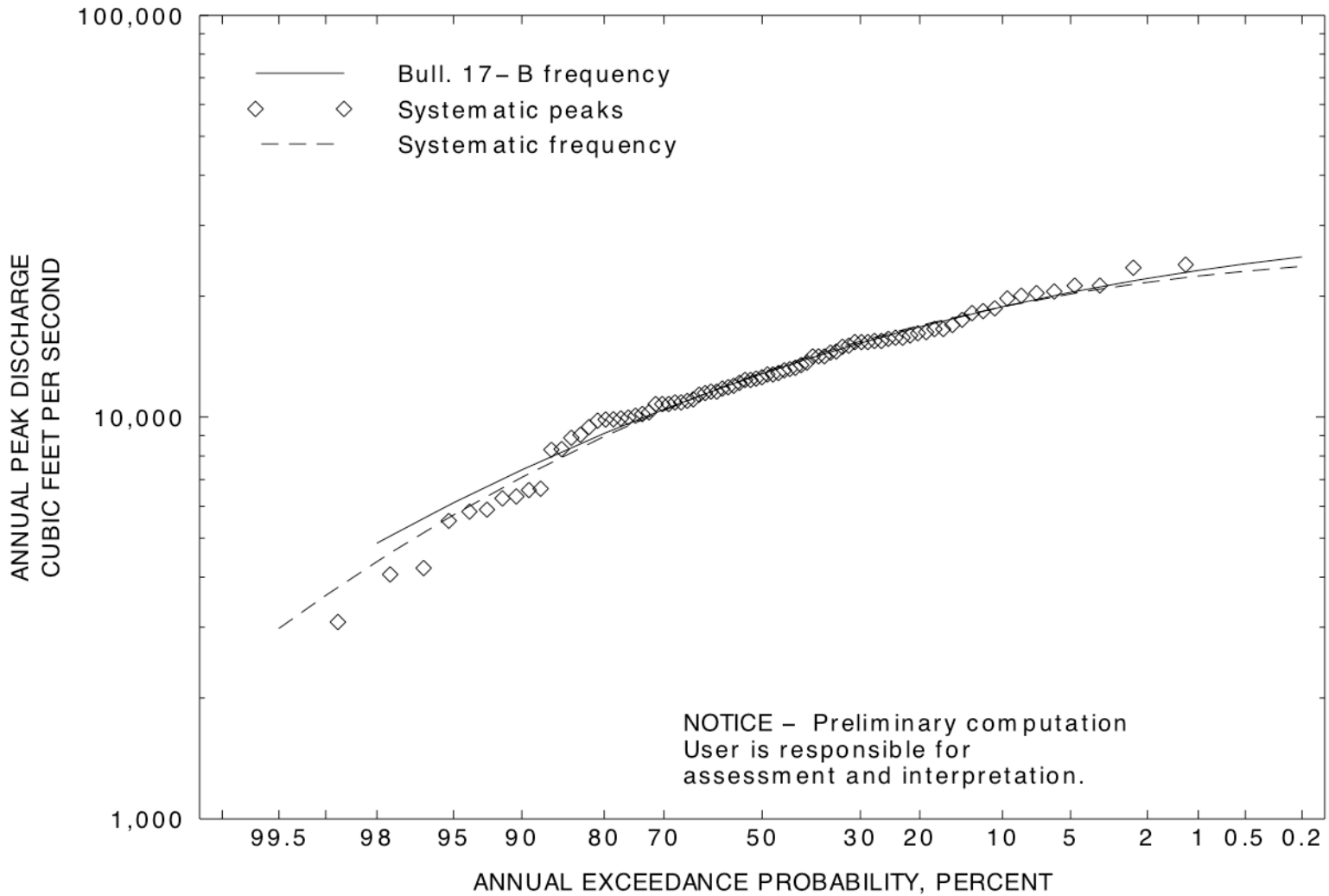
D	3	Dam failure, non-recurrent flow anomaly
G	8	Discharge greater than stated value
X	3+8	Both of the above
L	4	Discharge less than stated value
K	6 OR C	Known effect of regulation or urbanization
H	7	Historic peak

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2002 JUL 10 11:20:40

EMPIRICAL FREQUENCY CURVES -- WEIBULL PLOTTING POSITIONS

WATER YEAR	RANKED DISCHARGE	SYSTEMATIC RECORD	BULL.17B ESTIMATE
1952	24000.0	0.0119	0.0119
1960	23600.0	0.0238	0.0238
1943	21300.0	0.0357	0.0357
1946	21300.0	0.0476	0.0476
1929	20600.0	0.0595	0.0595
1951	20400.0	0.0714	0.0714
1922	20100.0	0.0833	0.0833
1942	19800.0	0.0952	0.0952
1993	18700.0	0.1071	0.1071
1979	18400.0	0.1190	0.1190
1939	18200.0	0.1310	0.1310
1940	17500.0	0.1429	0.1429
1973	17000.0	0.1548	0.1548
1920	16600.0	0.1667	0.1667
1941	16600.0	0.1786	0.1786
1918	16300.0	0.1905	0.1905
1969	16200.0	0.2024	0.2024
1987	16000.0	0.2143	0.2143
1945	15800.0	0.2262	0.2262
1989	15800.0	0.2381	0.2381
1985	15700.0	0.2500	0.2500
1924	15500.0	0.2619	0.2619
1990	15500.0	0.2738	0.2738
1962	15400.0	0.2857	0.2857
1967	15400.0	0.2976	0.2976
1986	15400.0	0.3095	0.3095
1928	15100.0	0.3214	0.3214
1998	15000.0	0.3333	0.3333
1996	14600.0	0.3452	0.3452
1975	14500.0	0.3571	0.3571
1921	14200.0	0.3690	0.3690
1966	14200.0	0.3810	0.3810
1976	14200.0	0.3929	0.3929
1923	13700.0	0.4048	0.4048
1937	13500.0	0.4167	0.4167
1927	13300.0	0.4286	0.4286
1972	13200.0	0.4405	0.4405
1919	13100.0	0.4524	0.4524
1982	12900.0	0.4643	0.4643
1955	12800.0	0.4762	0.4762
1983	12800.0	0.4881	0.4881
1992	12600.0	0.5000	0.5000
1968	12500.0	0.5119	0.5119
1965	12400.0	0.5238	0.5238
1974	12400.0	0.5357	0.5357
1970	12200.0	0.5476	0.5476
1953	12000.0	0.5595	0.5595
1997	11900.0	0.5714	0.5714

1999	11800.0	0.5833	0.5833
1959	11600.0	0.5952	0.5952
1994	11600.0	0.6071	0.6071
1938	11500.0	0.6190	0.6190
1981	11400.0	0.6310	0.6310
1935	11100.0	0.6429	0.6429
1947	11000.0	0.6548	0.6548
1950	10900.0	0.6667	0.6667
1956	10900.0	0.6786	0.6786
1944	10800.0	0.6905	0.6905
1971	10800.0	0.7024	0.7024
1991	10800.0	0.7143	0.7143
1948	10300.0	0.7262	0.7262
1984	10200.0	0.7381	0.7381
1995	10100.0	0.7500	0.7500
1978	10000.0	0.7619	0.7619
1961	9950.0	0.7738	0.7738
1932	9900.0	0.7857	0.7857
2000	9880.0	0.7976	0.7976
1980	9820.0	0.8095	0.8095
1963	9470.0	0.8214	0.8214
1926	9060.0	0.8333	0.8333
1933	8900.0	0.8452	0.8452
1925	8340.0	0.8571	0.8571
1988	8310.0	0.8690	0.8690
1934	6650.0	0.8810	0.8810
1930	6600.0	0.8929	0.8929
1949	6360.0	0.9048	0.9048
1936	6290.0	0.9167	0.9167
1977	5900.0	0.9286	0.9286
1957	5830.0	0.9405	0.9405
1954	5530.0	0.9524	0.9524
1958	4220.0	0.9643	0.9643
1964	4070.0	0.9762	0.9762
1931	3100.0	0.9881	0.9881



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 2002 JUL 10 11:20:40