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

Station - 04079000 WOLF RIVER AT NEW LONDON, 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	=	76
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	76
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.306
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. 1932.1
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE. 22277.2

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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	3.8169	0.1817	-0.279
BULL.17B ESTIMATE	0.0	1.0000	3.8169	0.1817	-0.285

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	1997.0	2002.0	1909.0	1630.0	2342.0
0.9900	2273.0	2277.0	2195.0	1889.0	2630.0
0.9500	3192.0	3194.0	3143.0	2775.0	3576.0
0.9000	3795.0	3796.0	3759.0	3368.0	4191.0
0.8000	4646.0	4645.0	4625.0	4208.0	5065.0
0.5000	6692.0	6689.0	6692.0	6182.0	7250.0
0.2000	9372.0	9371.0	9407.0	8592.0	10360.0
0.1000	11050.0	11060.0	11140.0	10030.0	12420.0
0.0400	13080.0	13090.0	13240.0	11710.0	14990.0
0.0200	14510.0	14530.0	14760.0	12870.0	16850.0
0.0100	15890.0	15920.0	16240.0	13970.0	18670.0
0.0050	17230.0	17270.0	17700.0	15030.0	20460.0
0.0020	18950.0	19000.0	19600.0	16370.0	22800.0
0.6667	5571.2	(1.50-year flood)			
0.4292	7212.3	(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
1896	3420.0		1963	7700.0	
1897	4390.0		1964	3450.0	
1898	2865.0		1965	9990.0	
1899	5430.0		1966	5190.0	
1900	2750.0		1967	10200.0	
1901	6230.0		1968	6170.0	
1902	3050.0		1969	10100.0	
1903	5100.0		1970	8060.0	
1904	5160.0		1971	9990.0	
1905	6470.0		1972	10300.0	
1906	7250.0		1973	14100.0	
1907	5100.0		1974	7110.0	
1937	5100.0		1975	7780.0	
1938	11500.0		1976	11200.0	
1939	11100.0		1977	3460.0	
1940	4880.0		1978	5120.0	
1941	7140.0		1979	11400.0	
1942	7940.0		1980	6420.0	
1943	11700.0		1981	5880.0	
1944	6080.0		1982	7340.0	
1945	7600.0		1983	6200.0	
1946	10300.0		1984	5080.0	
1947	5970.0		1985	7500.0	
1948	5460.0		1986	10200.0	
1949	4020.0		1987	6350.0	
1950	7000.0		1988	4350.0	
1951	10500.0		1989	5600.0	
1952	15200.0		1990	7670.0	
1953	10400.0		1991	6910.0	
1954	3980.0		1992	7120.0	
1955	5830.0		1993	9890.0	
1956	7470.0		1994	8070.0	
1957	3320.0		1995	3650.0	
1958	3210.0		1996	10100.0	
1959	7840.0		1997	7450.0	
1960	13300.0		1998	8180.0	
1961	7430.0		1999	2960.0	
1962	8490.0		2000	3240.0	

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

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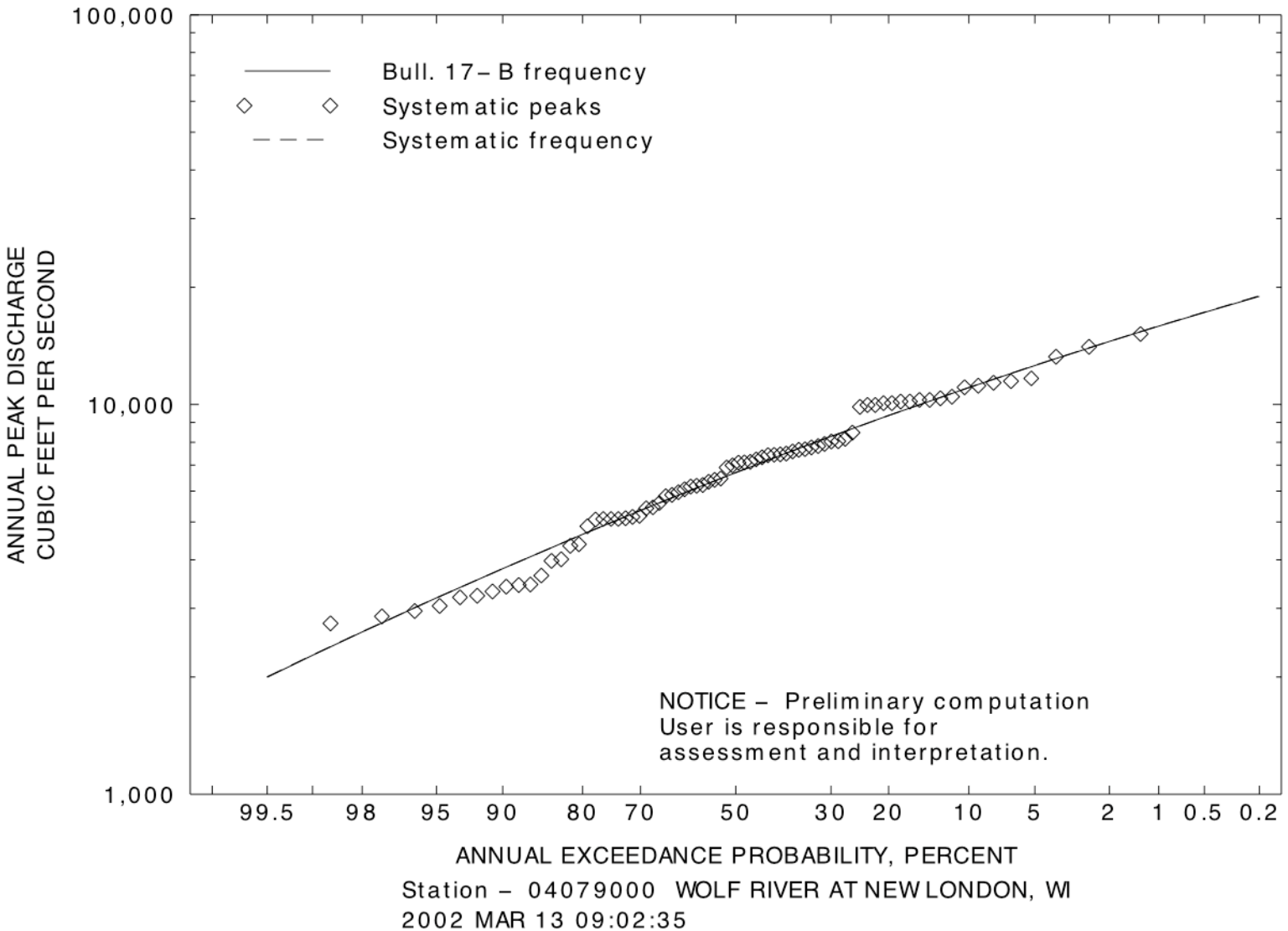
EMPIRICAL FREQUENCY CURVES -- WEIBULL PLOTTING POSITIONS

WATER YEAR	RANKED DISCHARGE	SYSTEMATIC RECORD	BULL.17B ESTIMATE
1952	15200.0	0.0130	0.0130
1973	14100.0	0.0260	0.0260
1960	13300.0	0.0390	0.0390
1943	11700.0	0.0519	0.0519
1938	11500.0	0.0649	0.0649
1979	11400.0	0.0779	0.0779
1976	11200.0	0.0909	0.0909
1939	11100.0	0.1039	0.1039
1951	10500.0	0.1169	0.1169
1953	10400.0	0.1299	0.1299
1946	10300.0	0.1429	0.1429
1972	10300.0	0.1558	0.1558
1967	10200.0	0.1688	0.1688
1986	10200.0	0.1818	0.1818
1969	10100.0	0.1948	0.1948
1996	10100.0	0.2078	0.2078
1965	9990.0	0.2208	0.2208
1971	9990.0	0.2338	0.2338
1993	9890.0	0.2468	0.2468
1962	8490.0	0.2597	0.2597
1998	8180.0	0.2727	0.2727
1994	8070.0	0.2857	0.2857
1970	8060.0	0.2987	0.2987
1942	7940.0	0.3117	0.3117
1959	7840.0	0.3247	0.3247
1975	7780.0	0.3377	0.3377
1963	7700.0	0.3506	0.3506
1990	7670.0	0.3636	0.3636
1945	7600.0	0.3766	0.3766
1985	7500.0	0.3896	0.3896
1956	7470.0	0.4026	0.4026
1997	7450.0	0.4156	0.4156
1961	7430.0	0.4286	0.4286
1982	7340.0	0.4416	0.4416
1906	7250.0	0.4545	0.4545
1941	7140.0	0.4675	0.4675
1992	7120.0	0.4805	0.4805
1974	7110.0	0.4935	0.4935
1950	7000.0	0.5065	0.5065
1991	6910.0	0.5195	0.5195
1905	6470.0	0.5325	0.5325
1980	6420.0	0.5455	0.5455
1987	6350.0	0.5584	0.5584
1901	6230.0	0.5714	0.5714
1983	6200.0	0.5844	0.5844
1968	6170.0	0.5974	0.5974
1944	6080.0	0.6104	0.6104
1947	5970.0	0.6234	0.6234

1981	5880.0	0.6364	0.6364
1955	5830.0	0.6494	0.6494
1989	5600.0	0.6623	0.6623
1948	5460.0	0.6753	0.6753
1899	5430.0	0.6883	0.6883
1966	5190.0	0.7013	0.7013
1904	5160.0	0.7143	0.7143
1978	5120.0	0.7273	0.7273
1903	5100.0	0.7403	0.7403
1907	5100.0	0.7532	0.7532
1937	5100.0	0.7662	0.7662
1984	5080.0	0.7792	0.7792
1940	4880.0	0.7922	0.7922
1897	4390.0	0.8052	0.8052
1988	4350.0	0.8182	0.8182
1949	4020.0	0.8312	0.8312
1954	3980.0	0.8442	0.8442
1995	3650.0	0.8571	0.8571
1977	3460.0	0.8701	0.8701
1964	3450.0	0.8831	0.8831
1896	3420.0	0.8961	0.8961
1957	3320.0	0.9091	0.9091
2000	3240.0	0.9221	0.9221
1958	3210.0	0.9351	0.9351
1902	3050.0	0.9481	0.9481
1999	2960.0	0.9610	0.9610
1898	2865.0	0.9740	0.9740
1900	2750.0	0.9870	0.9870


100,000
10,000
1,000
Bull. 17–B frequency
Systematic peaks
Systematic frequency
NOTICE – Preliminary computation
User is responsible for
assessment and interpretation.
ANNUAL PEAK DISCHARGE
CUBIC FEET PER SECOND
99.5
98
95
90
80
70
50
30
20
10
5
2
1
0.5
0.2
ANNUAL EXCEEDANCE PROBABILITY, PERCENT
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