

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

Station - 04073400 BIRD CREEK AT WAUTOMA, WI
 2002 MAR 13 09:02:31

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

Number of peaks in record	=	42
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	42
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.358
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.	27.7
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.	237.0

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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	1.9089	0.1725	0.145
BULL.17B ESTIMATE	0.0	1.0000	1.9089	0.1725	-0.008

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	29.1	30.8	27.3	22.6	34.9
0.9900	32.1	33.6	30.6	25.4	38.1
0.9500	42.2	42.9	41.2	35.1	48.4
0.9000	48.7	49.1	48.0	41.6	55.1
0.8000	58.1	57.9	57.6	50.9	64.7
0.5000	81.1	80.3	81.1	73.2	89.9
0.2000	113.3	112.9	114.1	101.6	129.2
0.1000	134.8	135.7	136.8	119.3	157.9
0.0400	162.4	165.7	166.7	140.8	196.2
0.0200	183.0	189.0	189.9	156.5	226.2
0.0100	203.8	213.0	214.0	172.0	257.2
0.0050	224.9	238.0	239.4	187.4	289.4
0.0020	253.4	272.7	275.1	207.8	334.0
0.6667	68.4	(1.50-year flood)			
0.4292	87.1	(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
1959	105.0		1980	70.0	
1960	110.0		1981	110.0	
1961	140.0		1982	60.0	
1962	52.0		1983	107.0	
1963	53.0		1984	103.0	
1964	50.0		1985	78.0	
1965	130.0		1986	140.0	
1966	75.0		1987	45.0	
1967	66.0		1988	45.0	
1968	75.0		1989	86.0	
1969	120.0		1990	87.0	
1970	40.0		1991	52.0	
1971	100.0		1992	85.0	
1972	57.0		1993	160.0	
1973	190.0		1994	98.0	
1974	115.0		1995	62.0	
1975	75.0		1996	141.0	
1976	48.0		1997	142.0	
1977	46.0		1998	83.0	
1978	68.0		1999	76.0	
1979	73.0		2000	62.0	

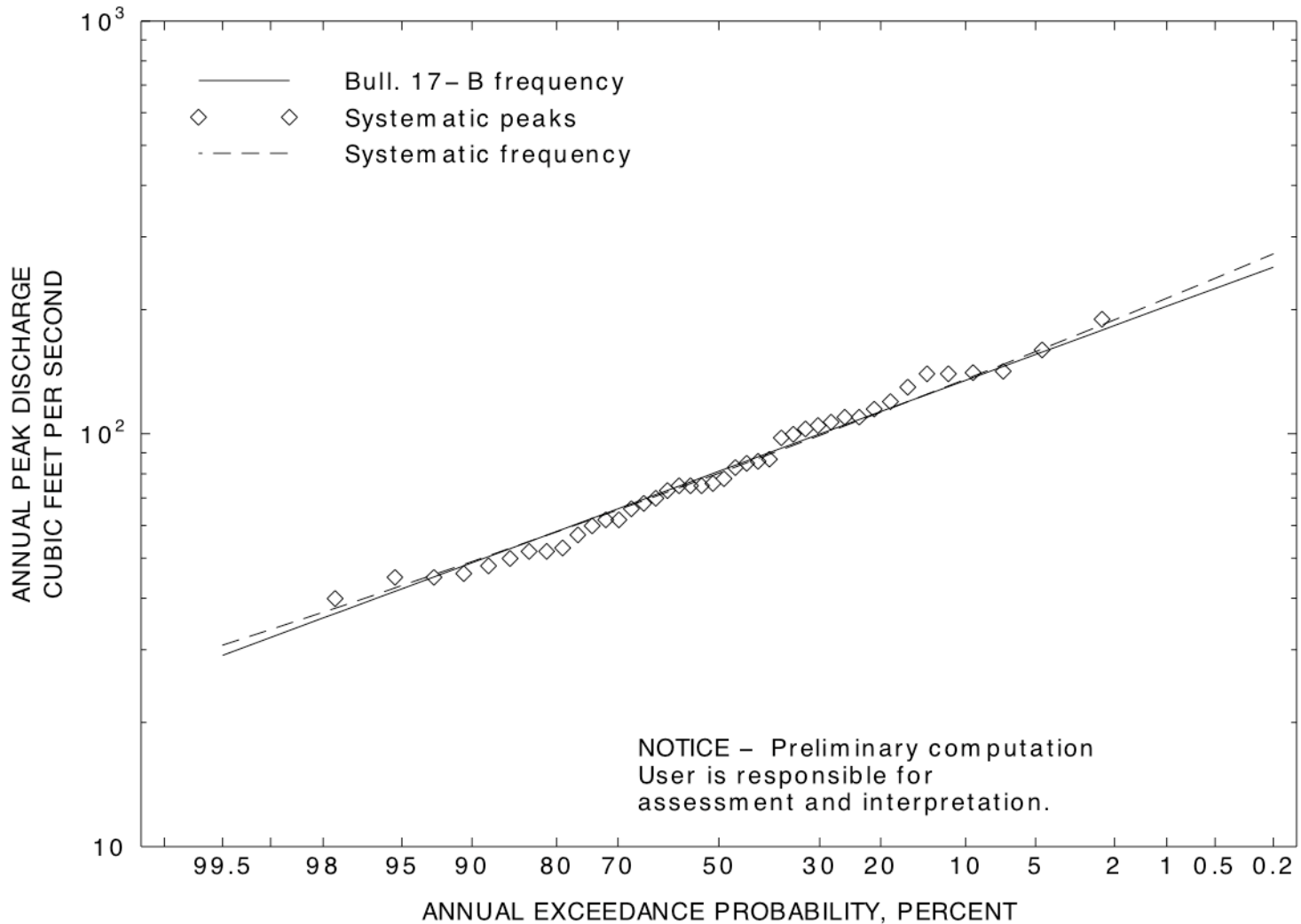
Explanation of peak discharge qualification codes

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

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EMPIRICAL FREQUENCY CURVES -- WEIBULL PLOTTING POSITIONS

WATER YEAR	RANKED DISCHARGE	SYSTEMATIC RECORD	BULL.17B ESTIMATE
1973	190.0	0.0233	0.0233
1993	160.0	0.0465	0.0465
1997	142.0	0.0698	0.0698
1996	141.0	0.0930	0.0930
1961	140.0	0.1163	0.1163
1986	140.0	0.1395	0.1395
1965	130.0	0.1628	0.1628
1969	120.0	0.1860	0.1860
1974	115.0	0.2093	0.2093
1960	110.0	0.2326	0.2326
1981	110.0	0.2558	0.2558
1983	107.0	0.2791	0.2791
1959	105.0	0.3023	0.3023
1984	103.0	0.3256	0.3256
1971	100.0	0.3488	0.3488
1994	98.0	0.3721	0.3721
1990	87.0	0.3953	0.3953
1989	86.0	0.4186	0.4186
1992	85.0	0.4419	0.4419
1998	83.0	0.4651	0.4651
1985	78.0	0.4884	0.4884
1999	76.0	0.5116	0.5116
1966	75.0	0.5349	0.5349
1968	75.0	0.5581	0.5581
1975	75.0	0.5814	0.5814
1979	73.0	0.6047	0.6047
1980	70.0	0.6279	0.6279
1978	68.0	0.6512	0.6512
1967	66.0	0.6744	0.6744
1995	62.0	0.6977	0.6977
2000	62.0	0.7209	0.7209
1982	60.0	0.7442	0.7442
1972	57.0	0.7674	0.7674
1963	53.0	0.7907	0.7907
1962	52.0	0.8140	0.8140
1991	52.0	0.8372	0.8372
1964	50.0	0.8605	0.8605
1976	48.0	0.8837	0.8837
1977	46.0	0.9070	0.9070
1987	45.0	0.9302	0.9302
1988	45.0	0.9535	0.9535
1970	40.0	0.9767	0.9767



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