

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

Station - 04087250 PIKE CREEK NEAR KENOSHA, WI
2002 MAR 13 09:02:45

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

Number of peaks in record	=	41
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	41
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.400
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.	16.3
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.	466.9

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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	1.9408	0.2706	-0.602
BULL.17B ESTIMATE	0.0	1.0000	1.9408	0.2706	-0.528

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	12.9	12.4	11.1	8.1	18.0
0.9900	16.2	15.7	14.4	10.6	21.8
0.9500	28.8	28.5	27.4	21.2	36.1
0.9000	38.2	38.1	37.1	29.6	46.6
0.8000	52.8	53.0	52.1	43.0	62.7
0.5000	92.2	92.8	92.2	78.4	108.7
0.2000	148.8	148.8	150.2	125.1	183.7
0.1000	185.6	184.3	188.9	153.4	236.9
0.0400	230.1	226.0	236.9	186.1	304.5
0.0200	261.4	254.7	271.5	208.4	354.1
0.0100	291.1	281.4	305.2	229.2	402.3
0.0050	319.3	306.2	337.8	248.6	449.2
0.0020	354.6	336.7	380.2	272.5	509.3
0.6667	70.0	(1.50-year flood)			
0.4292	103.0	(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
1960	170.0		1981	40.0	
1961	65.0		1982	120.0	
1962	85.0		1983	140.0	
1963	43.0		1984	65.0	
1964	20.0		1985	100.0	
1965	55.0		1986	170.0	
1966	210.0		1987	85.0	
1967	42.0		1988	90.0	
1968	40.0		1989	20.0	
1969	85.0		1990	100.0	
1970	75.0		1991	100.0	
1971	85.0		1992	60.0	
1972	110.0		1993	140.0	
1973	90.0		1994	100.0	
1974	95.0		1995	128.0	
1975	40.0		1996	174.0	
1976	180.0		1997	129.0	
1977	30.0		1998	121.0	
1978	220.0		1999	174.0	
1979	145.0		2000	235.0	
1980	50.0				

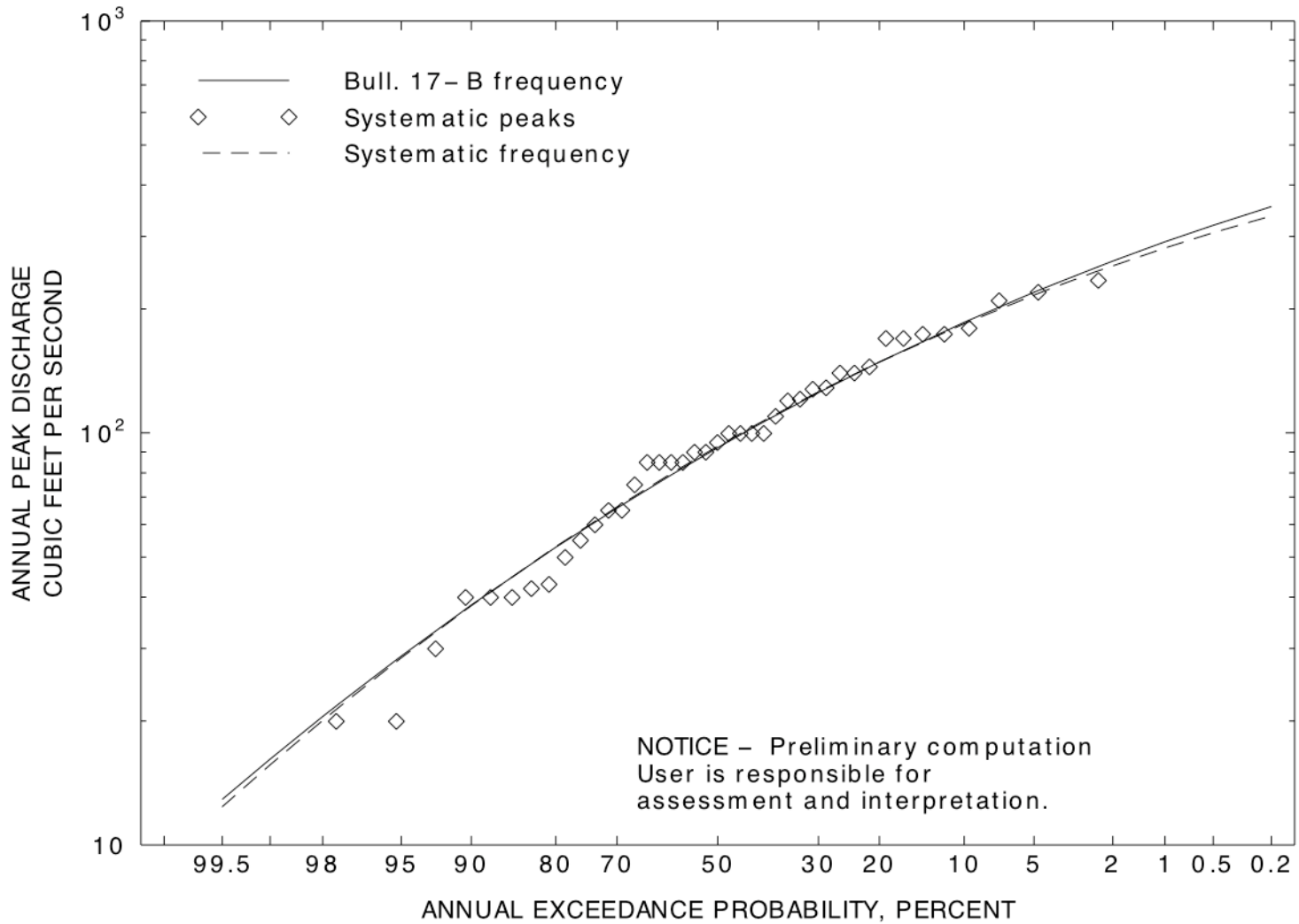
Explanation of peak discharge qualification codes

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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EMPIRICAL FREQUENCY CURVES -- WEIBULL PLOTTING POSITIONS

WATER YEAR	RANKED DISCHARGE	SYSTEMATIC RECORD	BULL.17B ESTIMATE
2000	235.0	0.0238	0.0238
1978	220.0	0.0476	0.0476
1966	210.0	0.0714	0.0714
1976	180.0	0.0952	0.0952
1996	174.0	0.1190	0.1190
1999	174.0	0.1429	0.1429
1960	170.0	0.1667	0.1667
1986	170.0	0.1905	0.1905
1979	145.0	0.2143	0.2143
1983	140.0	0.2381	0.2381
1993	140.0	0.2619	0.2619
1997	129.0	0.2857	0.2857
1995	128.0	0.3095	0.3095
1998	121.0	0.3333	0.3333
1982	120.0	0.3571	0.3571
1972	110.0	0.3810	0.3810
1985	100.0	0.4048	0.4048
1990	100.0	0.4286	0.4286
1991	100.0	0.4524	0.4524
1994	100.0	0.4762	0.4762
1974	95.0	0.5000	0.5000
1973	90.0	0.5238	0.5238
1988	90.0	0.5476	0.5476
1962	85.0	0.5714	0.5714
1969	85.0	0.5952	0.5952
1971	85.0	0.6190	0.6190
1987	85.0	0.6429	0.6429
1970	75.0	0.6667	0.6667
1961	65.0	0.6905	0.6905
1984	65.0	0.7143	0.7143
1992	60.0	0.7381	0.7381
1965	55.0	0.7619	0.7619
1980	50.0	0.7857	0.7857
1963	43.0	0.8095	0.8095
1967	42.0	0.8333	0.8333
1968	40.0	0.8571	0.8571
1975	40.0	0.8810	0.8810
1981	40.0	0.9048	0.9048
1977	30.0	0.9286	0.9286
1964	20.0	0.9524	0.9524
1989	20.0	0.9762	0.9762



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