

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

Station - 05427800 TOKEN CREEK NEAR MADISON, WI
2002 MAR 13 09:03:20

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

Number of peaks in record	=	32
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	32
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.394
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.	35.7
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.	1381.2

Station - 05427800 TOKEN CREEK NEAR MADISON, WI
 2002 MAR 13 09:03:20

ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE		LOGARITHMIC		
	DISCHARGE	EXCEEDANCE PROBABILITY	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	0.0	1.0000	2.3467	0.3063	-0.325
BULL.17B ESTIMATE	0.0	1.0000	2.3467	0.3063	-0.351

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	28.7	29.2	23.5	15.9	42.8
0.9900	36.0	36.5	31.0	21.1	51.9
0.9500	65.2	65.5	61.1	43.9	86.6
0.9000	88.0	88.1	84.5	63.0	112.9
0.8000	124.6	124.4	122.2	95.0	155.0
0.5000	231.5	230.8	231.5	188.1	286.2
0.2000	405.8	405.6	412.0	325.6	534.3
0.1000	532.0	533.4	547.3	417.0	735.1
0.0400	698.5	703.3	733.5	530.9	1020.0
0.0200	825.4	833.9	881.6	614.3	1250.0
0.0100	953.6	966.7	1038.0	696.2	1492.0
0.0050	1083.0	1102.0	1202.0	776.9	1745.0
0.0020	1256.0	1284.0	1433.0	882.1	2096.0
0.6667	169.8	(1.50-year flood)			
0.4292	262.7	(2.33-year flood)			

Station - 05427800 TOKEN CREEK NEAR MADISON, WI
2002 MAR 13 09:03:20

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

WATER YEAR	DISCHARGE	CODES	WATER YEAR	DISCHARGE	CODES
1961	235.0		1977	99.0	
1962	165.0		1978	135.0	
1963	155.0		1979	108.0	
1964	90.0		1980	188.0	
1965	363.0		1982	140.0	
1966	488.0		1983	85.0	
1967	464.0		1984	480.0	
1968	228.0		1985	560.0	
1969	230.0		1986	305.0	
1970	70.0		1987	160.0	
1971	45.0		1988	106.0	
1972	325.0		1989	300.0	
1973	570.0		1990	213.0	
1974	465.0		1991	370.0	
1975	575.0		1992	140.0	
1976	576.0		1993	400.0	

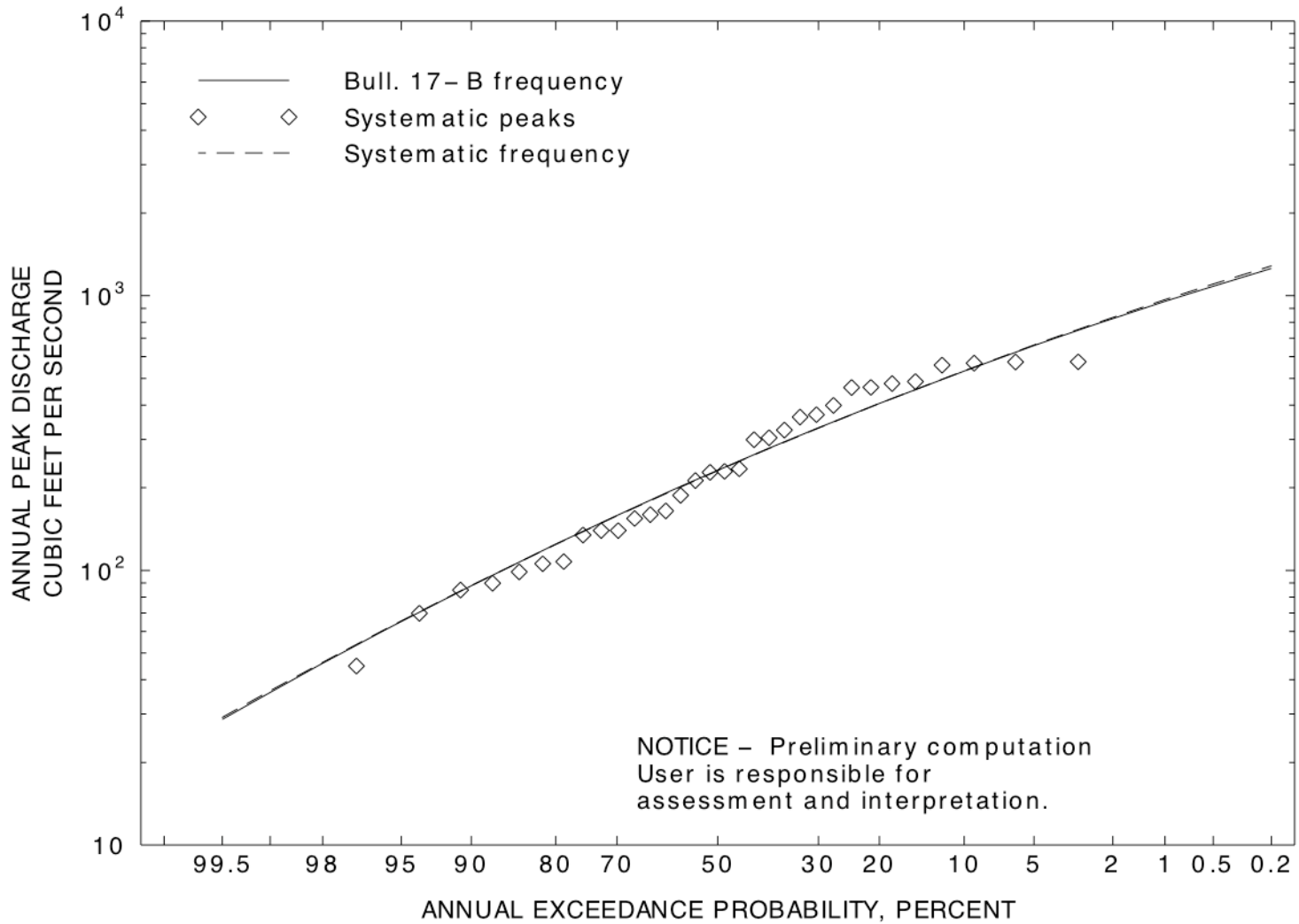
Explanation of peak discharge qualification codes

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

Station - 05427800 TOKEN CREEK NEAR MADISON, WI
2002 MAR 13 09:03:20

EMPIRICAL FREQUENCY CURVES -- WEIBULL PLOTTING POSITIONS

WATER YEAR	RANKED DISCHARGE	SYSTEMATIC RECORD	BULL.17B ESTIMATE
1976	576.0	0.0303	0.0303
1975	575.0	0.0606	0.0606
1973	570.0	0.0909	0.0909
1985	560.0	0.1212	0.1212
1966	488.0	0.1515	0.1515
1984	480.0	0.1818	0.1818
1974	465.0	0.2121	0.2121
1967	464.0	0.2424	0.2424
1993	400.0	0.2727	0.2727
1991	370.0	0.3030	0.3030
1965	363.0	0.3333	0.3333
1972	325.0	0.3636	0.3636
1986	305.0	0.3939	0.3939
1989	300.0	0.4242	0.4242
1961	235.0	0.4545	0.4545
1969	230.0	0.4848	0.4848
1968	228.0	0.5152	0.5152
1990	213.0	0.5455	0.5455
1980	188.0	0.5758	0.5758
1962	165.0	0.6061	0.6061
1987	160.0	0.6364	0.6364
1963	155.0	0.6667	0.6667
1982	140.0	0.6970	0.6970
1992	140.0	0.7273	0.7273
1978	135.0	0.7576	0.7576
1979	108.0	0.7879	0.7879
1988	106.0	0.8182	0.8182
1977	99.0	0.8485	0.8485
1964	90.0	0.8788	0.8788
1983	85.0	0.9091	0.9091
1970	70.0	0.9394	0.9394
1971	45.0	0.9697	0.9697



NOTICE - Preliminary computation
 User is responsible for
 assessment and interpretation.

Station - 05427800 TOKEN CREEK NEAR MADISON, WI
 2002 MAR 13 09:03:20