

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

Station - 04086150 MILWAUKEE RIVER AT KEWASKUM, WI
2002 MAR 13 09:02:40

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

Number of peaks in record	=	14
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	14
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.375
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
WCF198I-LOW OUTLIERS BELOW FLOOD BASE WERE DROPPED.	1	179.6
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.		3104.0

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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	2.9238	0.3025	-0.540
BULL.17B ESTIMATE	179.6	0.9286	2.9527	0.2472	-0.049

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	--	98.3	--	--	--
0.9900	--	126.7	--	--	--
0.9500	--	242.2	--	--	--
0.9000	431.1	333.3	402.8	272.5	575.3
0.8000	556.2	478.9	537.6	383.8	721.4
0.5000	901.0	893.1	901.0	692.0	1174.0
0.2000	1450.0	1524.0	1498.0	1118.0	2103.0
0.1000	1854.0	1949.0	1978.0	1391.0	2927.0
0.0400	2406.0	2474.0	2710.0	1733.0	4203.0
0.0200	2844.0	2849.0	3369.0	1987.0	5322.0
0.0100	3303.0	3208.0	4149.0	2242.0	6587.0
0.0050	3785.0	3553.0	5083.0	2500.0	8009.0
0.0020	4462.0	3988.0	6626.0	2848.0	10150.0
0.6667	704.6	(1.50-year flood)			
0.4292	997.3	(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
1968	340.0		1975	3040.0	
1969	615.0		1976	738.0	
1970	170.0		1977	802.0	
1971	736.0		1978	1280.0	
1972	1060.0		1979	1890.0	
1973	1100.0		1980	820.0	
1974	1200.0		1981	656.0	

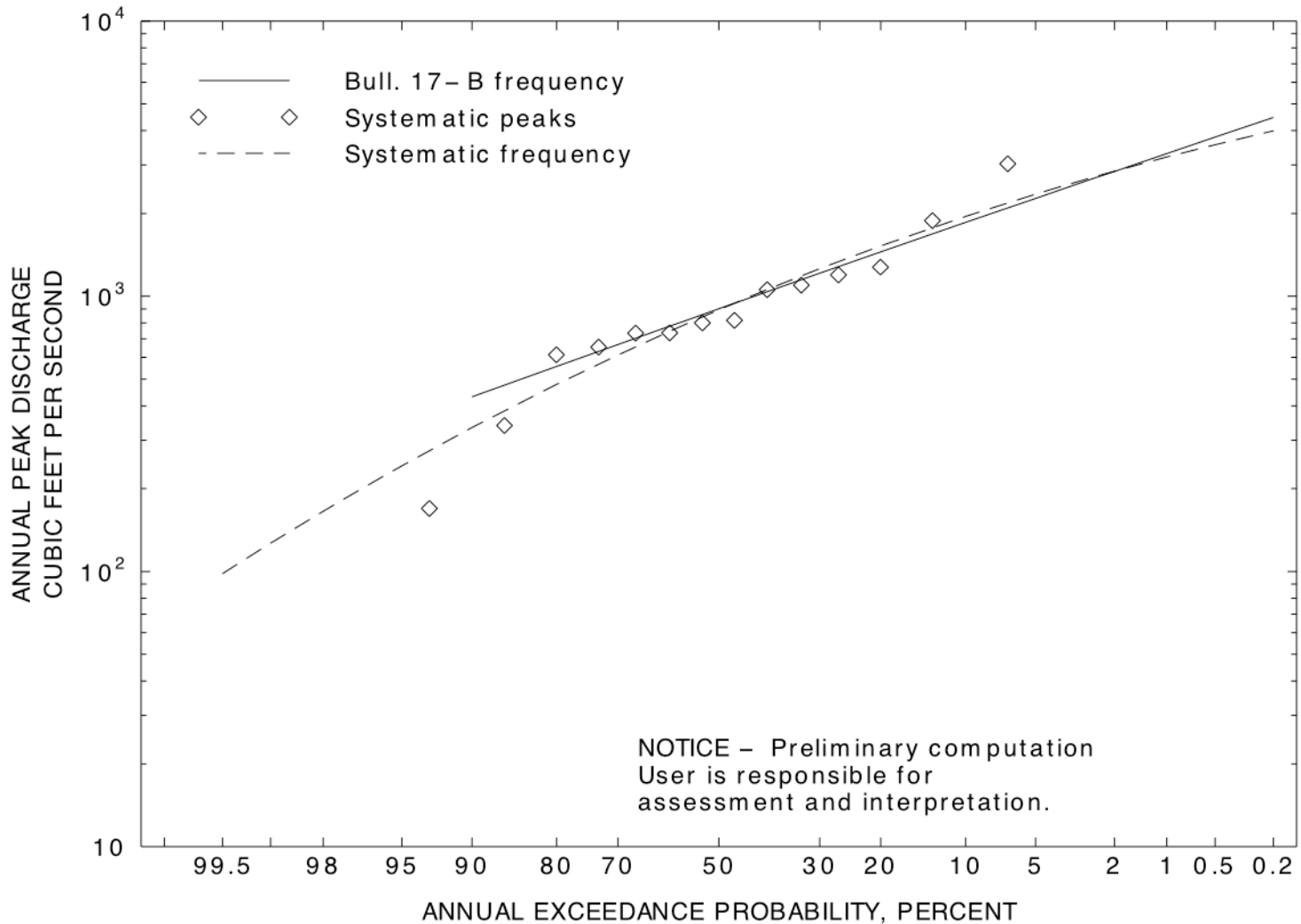
Explanation of peak discharge qualification codes

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
1975	3040.0	0.0667	0.0667
1979	1890.0	0.1333	0.1333
1978	1280.0	0.2000	0.2000
1974	1200.0	0.2667	0.2667
1973	1100.0	0.3333	0.3333
1972	1060.0	0.4000	0.4000
1980	820.0	0.4667	0.4667
1977	802.0	0.5333	0.5333
1976	738.0	0.6000	0.6000
1971	736.0	0.6667	0.6667
1981	656.0	0.7333	0.7333
1969	615.0	0.8000	0.8000
1968	340.0	0.8667	0.8667
1970	170.0	0.9333	0.9333



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