

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

Station - 04087204 OAK CREEK AT SOUTH MILWAUKEE, WI
 2002 MAR 13 09:02:42

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

Number of peaks in record	=	37
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	37
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
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.	1497.1
WCF195I-NO LOW OUTLIERS WERE DETECTED BELOW CRITERION.	250.2

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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	2.7868	0.1466	0.481
BULL.17B ESTIMATE	0.0	1.0000	2.7868	0.1466	0.157

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	269.7	298.7	255.9	216.1	315.7
0.9900	290.3	314.9	278.4	236.2	336.4
0.9500	356.8	369.2	349.5	302.8	403.1
0.9000	399.6	405.6	394.4	346.2	446.0
0.8000	459.7	458.4	456.6	407.4	507.1
0.5000	606.7	595.8	606.7	552.6	665.6
0.2000	810.8	804.5	816.9	735.1	914.1
0.1000	948.3	956.2	962.8	848.6	1097.0
0.0400	1125.0	1164.0	1157.0	987.7	1344.0
0.0200	1259.0	1331.0	1311.0	1090.0	1539.0
0.0100	1395.0	1508.0	1473.0	1191.0	1743.0
0.0050	1534.0	1698.0	1646.0	1293.0	1957.0
0.0020	1725.0	1971.0	1894.0	1429.0	2257.0
0.6667	525.7	(1.50-year flood)			
0.4292	644.1	(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
1964	398.0		1983	670.0	
1965	480.0		1984	450.0	
1966	526.0		1985	403.0	
1967	612.0		1986	1140.0	
1968	606.0		1987	457.0	
1969	704.0		1988	568.0	
1970	399.0		1989	422.0	
1971	441.0		1990	817.0	
1972	916.0		1991	451.0	
1973	774.0		1992	508.0	
1974	839.0		1993	887.0	
1975	581.0		1994	600.0	
1976	935.0		1995	438.0	
1977	378.0		1996	573.0	
1978	1020.0		1997	1110.0	
1979	660.0		1998	542.0	
1980	541.0		1999	1060.0	
1981	472.0		2000	1120.0	
1982	492.0				

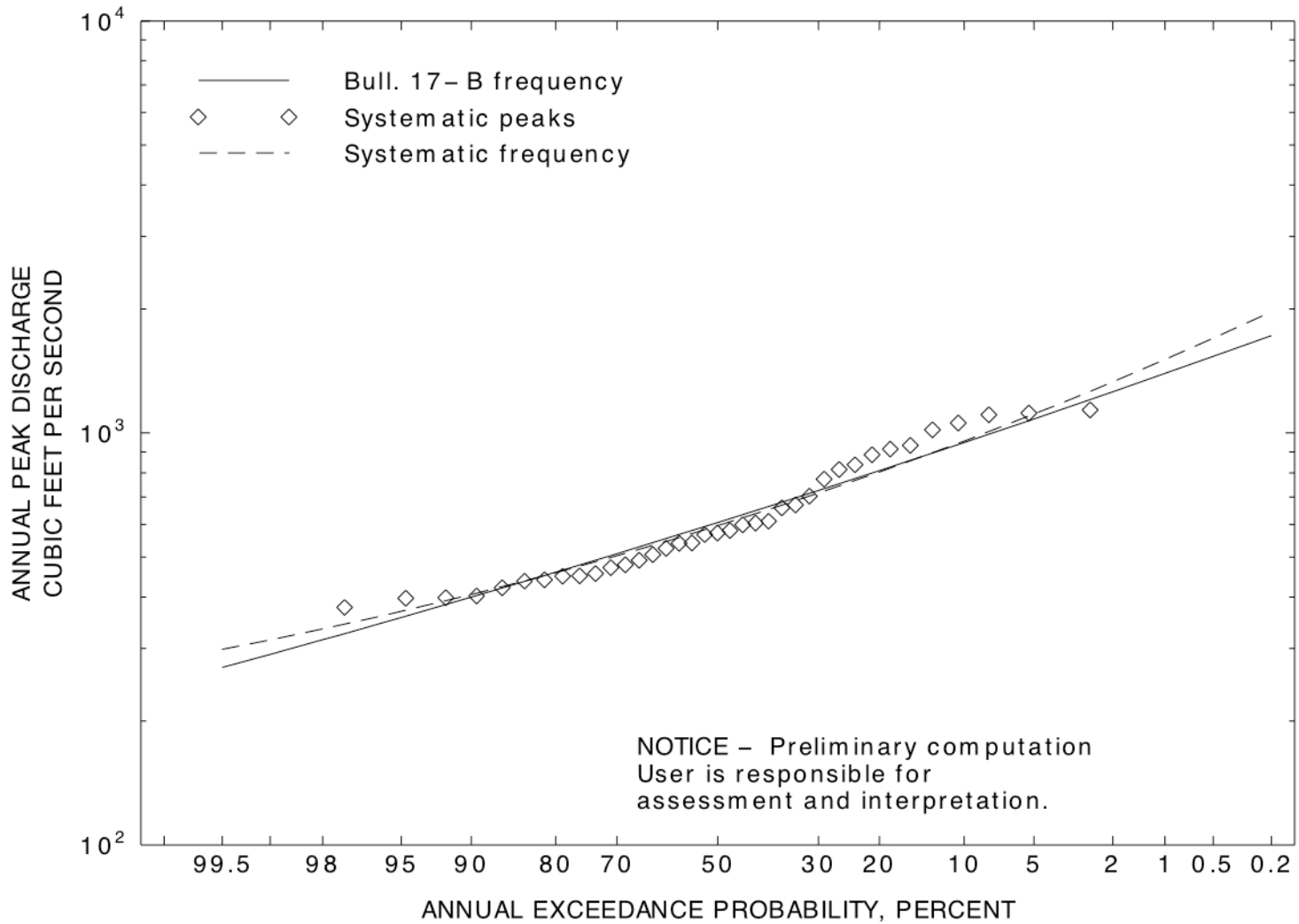
Explanation of peak discharge qualification codes

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
1986	1140.0	0.0263	0.0263
2000	1120.0	0.0526	0.0526
1997	1110.0	0.0789	0.0789
1999	1060.0	0.1053	0.1053
1978	1020.0	0.1316	0.1316
1976	935.0	0.1579	0.1579
1972	916.0	0.1842	0.1842
1993	887.0	0.2105	0.2105
1974	839.0	0.2368	0.2368
1990	817.0	0.2632	0.2632
1973	774.0	0.2895	0.2895
1969	704.0	0.3158	0.3158
1983	670.0	0.3421	0.3421
1979	660.0	0.3684	0.3684
1967	612.0	0.3947	0.3947
1968	606.0	0.4211	0.4211
1994	600.0	0.4474	0.4474
1975	581.0	0.4737	0.4737
1996	573.0	0.5000	0.5000
1988	568.0	0.5263	0.5263
1998	542.0	0.5526	0.5526
1980	541.0	0.5789	0.5789
1966	526.0	0.6053	0.6053
1992	508.0	0.6316	0.6316
1982	492.0	0.6579	0.6579
1965	480.0	0.6842	0.6842
1981	472.0	0.7105	0.7105
1987	457.0	0.7368	0.7368
1991	451.0	0.7632	0.7632
1984	450.0	0.7895	0.7895
1971	441.0	0.8158	0.8158
1995	438.0	0.8421	0.8421
1989	422.0	0.8684	0.8684
1985	403.0	0.8947	0.8947
1970	399.0	0.9211	0.9211
1964	398.0	0.9474	0.9474
1977	378.0	0.9737	0.9737



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