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

Station - 04087200 OAK CREEK NEAR 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	=	43
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	43
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. 47.8
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE. 1970.0

Station - 04087200 OAK CREEK NEAR SOUTH MILWAUKEE, WI
2002 MAR 13 09:02:42

ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE		LOGARITHMIC		
	DISCHARGE	EXCEEDANCE PROBABILITY	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	0.0	1.0000	2.4871	0.2979	-0.172
BULL.17B ESTIMATE	0.0	1.0000	2.4871	0.2979	-0.241

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	44.9	47.0	39.5	28.3	62.7
0.9900	55.2	57.1	49.9	36.2	74.9
0.9500	95.0	96.2	90.8	69.1	120.7
0.9000	125.5	126.0	122.0	95.7	155.0
0.8000	174.0	173.5	171.7	139.2	209.4
0.5000	315.6	313.1	315.6	265.1	376.3
0.2000	550.4	549.6	556.7	456.9	689.5
0.1000	725.1	729.5	741.1	588.9	945.4
0.0400	962.0	978.6	999.2	759.2	1315.0
0.0200	1148.0	1178.0	1209.0	887.7	1620.0
0.0100	1340.0	1388.0	1433.0	1017.0	1946.0
0.0050	1538.0	1608.0	1672.0	1148.0	2295.0
0.0020	1811.0	1917.0	2017.0	1324.0	2790.0
0.6667	233.8	(1.50-year flood)			
0.4292	356.7	(2.33-year flood)			

Station - 04087200 OAK CREEK NEAR SOUTH MILWAUKEE, WI
2002 MAR 13 09:02:42

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

WATER YEAR	DISCHARGE	CODES	WATER YEAR	DISCHARGE	CODES
1958	57.0		1980	240.0	
1959	170.0		1981	265.0	
1960	1100.0		1982	390.0	
1961	85.0		1983	570.0	
1962	185.0		1984	270.0	
1963	75.0		1985	225.0	
1964	130.0		1986	410.0	
1965	165.0		1987	280.0	
1966	235.0		1988	380.0	
1967	165.0		1989	295.0	
1968	255.0		1990	520.0	
1969	630.0		1991	315.0	
1970	180.0		1992	370.0	
1971	210.0		1993	660.0	
1972	740.0		1994	350.0	
1973	260.0		1995	340.0	
1974	255.0		1996	440.0	
1975	195.0		1997	560.0	
1976	580.0		1998	300.0	
1977	145.0		1999	910.0	
1978	600.0		2000	1360.0	
1979	600.0				

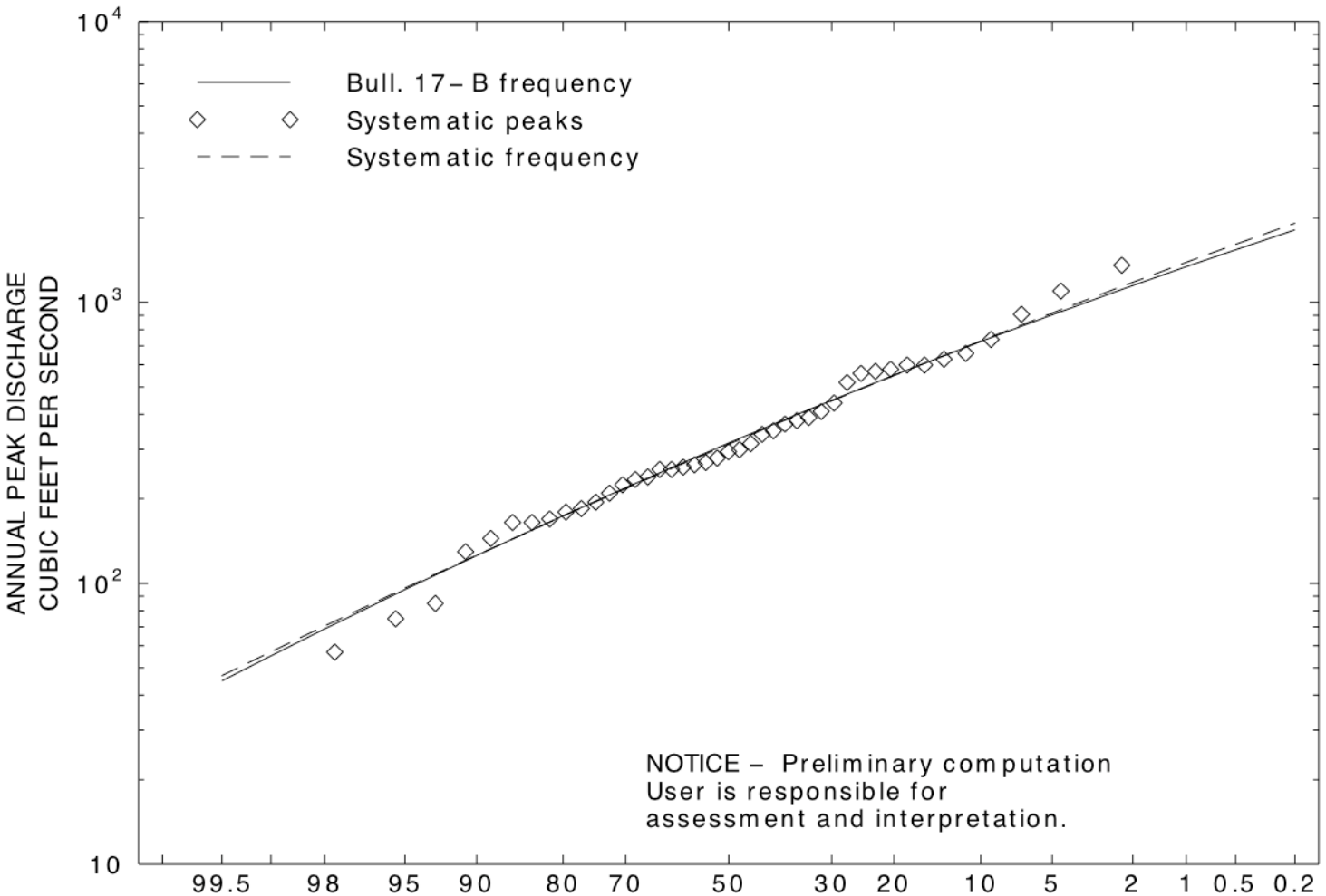
Explanation of peak discharge qualification codes

PEAKFQ CODE	WATSTORE 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 - 04087200 OAK CREEK NEAR SOUTH MILWAUKEE, WI
2002 MAR 13 09:02:42

EMPIRICAL FREQUENCY CURVES -- WEIBULL PLOTTING POSITIONS

WATER YEAR	RANKED DISCHARGE	SYSTEMATIC RECORD	BULL.17B ESTIMATE
2000	1360.0	0.0227	0.0227
1960	1100.0	0.0455	0.0455
1999	910.0	0.0682	0.0682
1972	740.0	0.0909	0.0909
1993	660.0	0.1136	0.1136
1969	630.0	0.1364	0.1364
1978	600.0	0.1591	0.1591
1979	600.0	0.1818	0.1818
1976	580.0	0.2045	0.2045
1983	570.0	0.2273	0.2273
1997	560.0	0.2500	0.2500
1990	520.0	0.2727	0.2727
1996	440.0	0.2955	0.2955
1986	410.0	0.3182	0.3182
1982	390.0	0.3409	0.3409
1988	380.0	0.3636	0.3636
1992	370.0	0.3864	0.3864
1994	350.0	0.4091	0.4091
1995	340.0	0.4318	0.4318
1991	315.0	0.4545	0.4545
1998	300.0	0.4773	0.4773
1989	295.0	0.5000	0.5000
1987	280.0	0.5227	0.5227
1984	270.0	0.5455	0.5455
1981	265.0	0.5682	0.5682
1973	260.0	0.5909	0.5909
1968	255.0	0.6136	0.6136
1974	255.0	0.6364	0.6364
1980	240.0	0.6591	0.6591
1966	235.0	0.6818	0.6818
1985	225.0	0.7045	0.7045
1971	210.0	0.7273	0.7273
1975	195.0	0.7500	0.7500
1962	185.0	0.7727	0.7727
1970	180.0	0.7955	0.7955
1959	170.0	0.8182	0.8182
1965	165.0	0.8409	0.8409
1967	165.0	0.8636	0.8636
1977	145.0	0.8864	0.8864
1964	130.0	0.9091	0.9091
1961	85.0	0.9318	0.9318
1963	75.0	0.9545	0.9545
1958	57.0	0.9773	0.9773


Bull. 17–B frequency
Systematic peaks
Systematic frequency
NOTICE – Preliminary computation
User is responsible for
assessment and interpretation.
ANNUAL PEAK DISCHARGE
CUBIC FEET PER SECOND
10^4
10^3
10^2
10
99.5 98 95 90 80 70 50 30 20 10 5 2 1 0.5 0.2
ANNUAL EXCEEDANCE PROBABILITY, PERCENT
Station – 04087200 OAK CREEK NEAR SOUTH MILWAUKEE, WI
2002 MAR 13 09:02:42