

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

Station - 04027200 PEARL CREEK AT GRANDVIEW, WI
 2002 MAR 13 09:02:14

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	=	-0.168
Standard error of generalized skew	=	0.550
Skew option	=	WEIGHTED
Gage base discharge	=	60.0
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. *****

WCF133I-SYSTEMATIC PEAKS BELOW GAGE BASE WERE NOTED.	1	60.0
WCF162I-SYSTEMATIC PEAKS EXCEEDED HIGH-OUTLIER CRITERION.	1	851.7
WCF195I-NO LOW OUTLIERS WERE DETECTED BELOW CRITERION.		43.0

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ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE		LOGARITHMIC		
	DISCHARGE	EXCEEDANCE PROBABILITY	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	60.0	0.9756	2.2760	0.2418	1.889
BULL.17B ESTIMATE	60.0	0.9756	2.2760	0.2418	0.596

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
0.9500	83.8	108.9	81.9	65.9	100.7
0.9000	96.7	113.0	95.3	77.9	114.6
0.8000	117.1	121.6	116.2	97.0	136.8
0.5000	178.7	160.4	178.7	154.1	206.4
0.2000	294.7	267.9	298.5	252.9	354.2
0.1000	395.5	391.8	406.3	331.5	496.9
0.0400	555.3	644.5	585.0	448.3	741.7
0.0200	701.3	937.0	757.7	549.9	980.5
0.0100	873.8	1360.0	972.3	665.5	1277.0
0.0050	1077.0	1973.0	1242.0	797.3	1645.0
0.0020	1404.0	3223.0	1705.0	1001.0	2266.0
0.6667	142.8	(1.50-year flood)			
0.4292	196.6	(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	278.0		1981	155.0	
1961	165.0		1982	105.0	
1962	250.0		1983	165.0	
1963	85.0		1984	385.0	
1964	270.0		1985	208.0	
1965	190.0		1986	320.0	
1966	180.0		1987	120.0	
1967	260.0		1988	115.0	
1968	100.0		1989	170.0	
1969	170.0		1990	180.0	
1970	120.0		1991	83.0	
1971	240.0		1992	1920.0	
1972	540.0		1993	133.0	
1973	210.0		1994	168.0	
1974	120.0		1995	145.0	
1975	105.0		1996	177.0	
1976	180.0		1997	192.0	
1977	235.0		1998	204.0	
1978	155.0		1999	406.0	
1979	185.0		2000	223.0	
1980	60.0	L			

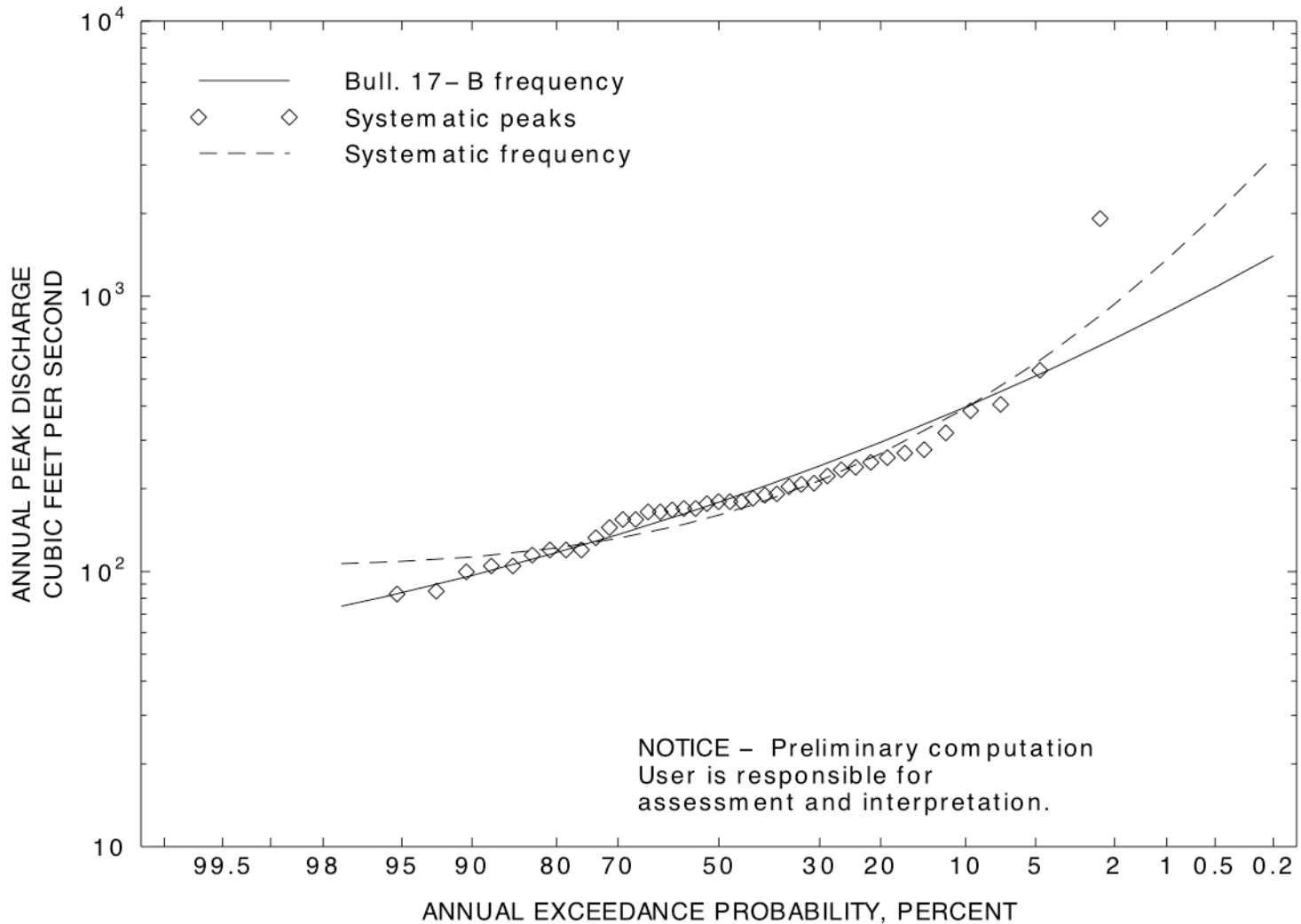
Explanation of peak discharge qualification codes

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
1992	1920.0	0.0238	0.0238
1972	540.0	0.0476	0.0476
1999	406.0	0.0714	0.0714
1984	385.0	0.0952	0.0952
1986	320.0	0.1190	0.1190
1960	278.0	0.1429	0.1429
1964	270.0	0.1667	0.1667
1967	260.0	0.1905	0.1905
1962	250.0	0.2143	0.2143
1971	240.0	0.2381	0.2381
1977	235.0	0.2619	0.2619
2000	223.0	0.2857	0.2857
1973	210.0	0.3095	0.3095
1985	208.0	0.3333	0.3333
1998	204.0	0.3571	0.3571
1997	192.0	0.3810	0.3810
1965	190.0	0.4048	0.4048
1979	185.0	0.4286	0.4286
1966	180.0	0.4524	0.4524
1976	180.0	0.4762	0.4762
1990	180.0	0.5000	0.5000
1996	177.0	0.5238	0.5238
1969	170.0	0.5476	0.5476
1989	170.0	0.5714	0.5714
1994	168.0	0.5952	0.5952
1961	165.0	0.6190	0.6190
1983	165.0	0.6429	0.6429
1978	155.0	0.6667	0.6667
1981	155.0	0.6905	0.6905
1995	145.0	0.7143	0.7143
1993	133.0	0.7381	0.7381
1970	120.0	0.7619	0.7619
1974	120.0	0.7857	0.7857
1987	120.0	0.8095	0.8095
1988	115.0	0.8333	0.8333
1975	105.0	0.8571	0.8571
1982	105.0	0.8810	0.8810
1968	100.0	0.9048	0.9048
1963	85.0	0.9286	0.9286
1991	83.0	0.9524	0.9524
1980	60.0	--	--



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