

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

Station - 04084445 FOX RIVER AT APPLETON, WI
 2002 MAR 13 09:02:38

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

Number of peaks in record	=	15
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	15
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.322
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.	7503.8
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.	20652.4

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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	4.0951	0.0978	-0.308
BULL.17B ESTIMATE	0.0	1.0000	4.0951	0.0978	-0.316

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	6520.0	6530.0	5628.0	4765.0	7768.0
0.9900	7000.0	7009.0	6267.0	5270.0	8220.0
0.9500	8432.0	8435.0	8046.0	6839.0	9564.0
0.9000	9266.0	9267.0	9010.0	7781.0	10360.0
0.8000	10340.0	10340.0	10200.0	9000.0	11420.0
0.5000	12600.0	12590.0	12600.0	11400.0	13950.0
0.2000	15090.0	15090.0	15250.0	13650.0	17370.0
0.1000	16470.0	16480.0	16810.0	14760.0	19510.0
0.0400	18000.0	18010.0	18670.0	15930.0	22020.0
0.0200	19020.0	19040.0	19990.0	16670.0	23760.0
0.0100	19950.0	19970.0	21270.0	17330.0	25390.0
0.0050	20810.0	20840.0	22550.0	17930.0	26940.0
0.0020	21860.0	21900.0	24230.0	18660.0	28880.0
0.6667	11411.0	(1.50-year flood)			
0.4292	13115.0	(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
1986	16200.0		1994	11300.0	
1987	16300.0		1995	11400.0	
1988	7740.0		1996	14200.0	
1989	14400.0		1997	11100.0	
1990	14200.0		1998	13100.0	
1991	11900.0		1999	10600.0	
1992	11300.0		2000	9370.0	
1993	18000.0				

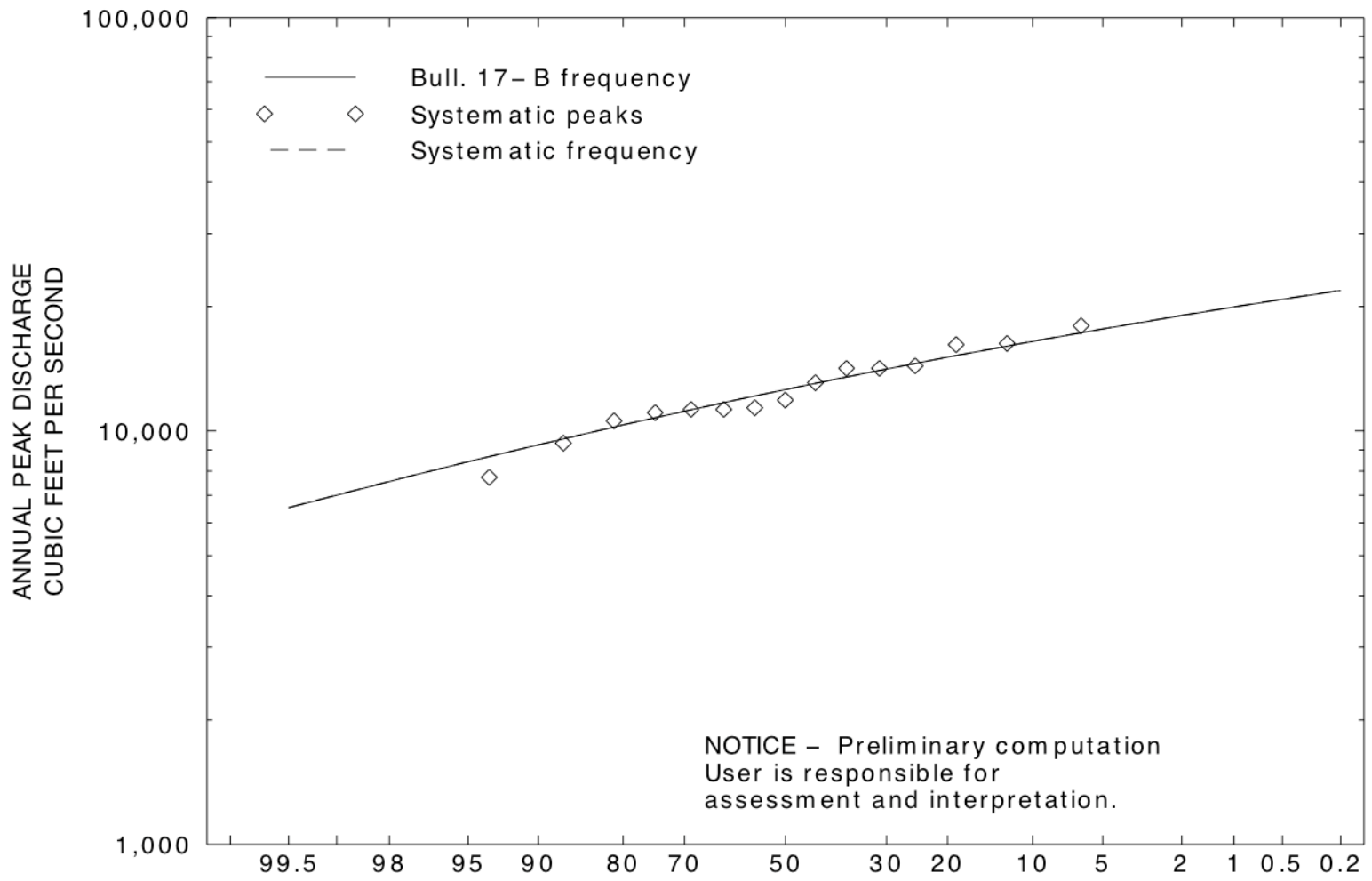
Explanation of peak discharge qualification codes

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
1993	18000.0	0.0625	0.0625
1987	16300.0	0.1250	0.1250
1986	16200.0	0.1875	0.1875
1989	14400.0	0.2500	0.2500
1990	14200.0	0.3125	0.3125
1996	14200.0	0.3750	0.3750
1998	13100.0	0.4375	0.4375
1991	11900.0	0.5000	0.5000
1995	11400.0	0.5625	0.5625
1992	11300.0	0.6250	0.6250
1994	11300.0	0.6875	0.6875
1997	11100.0	0.7500	0.7500
1999	10600.0	0.8125	0.8125
2000	9370.0	0.8750	0.8750
1988	7740.0	0.9375	0.9375



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