

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

Station - 05402500 YELLOW RIVER AT SPRAGUE, WI
 2002 MAR 13 09:03:09

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	=	-0.367
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	677.7
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.		11102.8

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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	3.4957	0.3004	-1.139
BULL.17B ESTIMATE	677.7	0.9286	3.5250	0.2446	-0.521

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	--	258.0	--	--	--
0.9900	--	364.0	--	--	--
0.9500	--	841.2	--	--	--
0.9000	1589.0	1239.0	1464.0	1002.0	2120.0
0.8000	2127.0	1876.0	2046.0	1482.0	2747.0
0.5000	3517.0	3561.0	3517.0	2721.0	4597.0
0.2000	5427.0	5623.0	5574.0	4193.0	7858.0
0.1000	6632.0	6696.0	6965.0	5014.0	10280.0
0.0400	8060.0	7736.0	8760.0	5921.0	13450.0
0.0200	9051.0	8322.0	10100.0	6521.0	15830.0
0.0100	9981.0	8781.0	11450.0	7066.0	18170.0
0.0050	10860.0	9143.0	12830.0	7567.0	20480.0
0.0020	11950.0	9508.0	14640.0	8174.0	23480.0
0.6667	2741.7	(1.50-year flood)			
0.4292	3889.0	(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
1927	3740.0		1934	1420.0	
1928	7060.0		1935	4080.0	
1929	4800.0		1936	5160.0	
1930	4800.0		1937	2420.0	
1931	602.0		1938	5920.0	
1932	5540.0		1939	3060.0	
1933	1450.0		1940	2260.0	

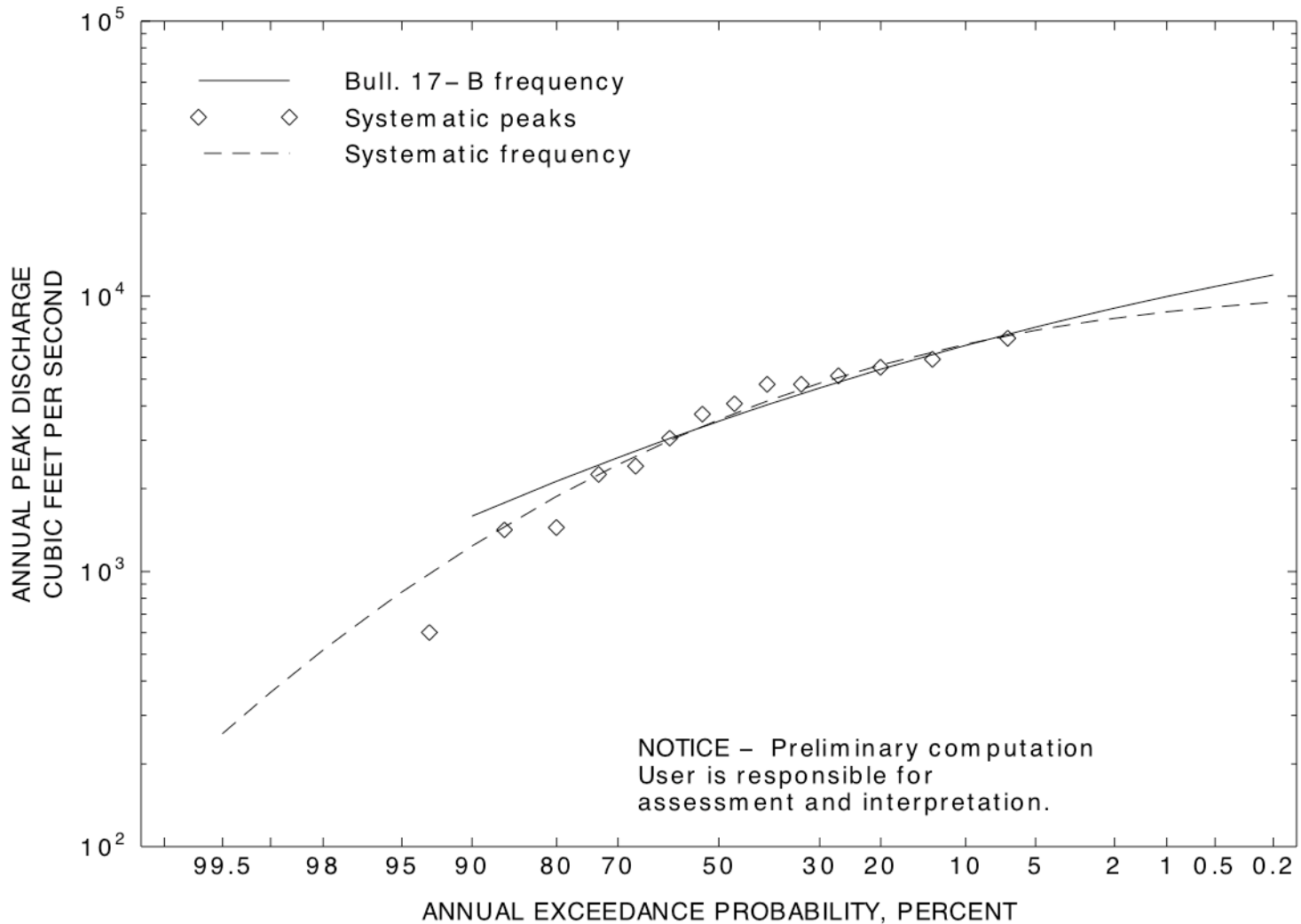
Explanation of peak discharge qualification codes

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
1928	7060.0	0.0667	0.0667
1938	5920.0	0.1333	0.1333
1932	5540.0	0.2000	0.2000
1936	5160.0	0.2667	0.2667
1929	4800.0	0.3333	0.3333
1930	4800.0	0.4000	0.4000
1935	4080.0	0.4667	0.4667
1927	3740.0	0.5333	0.5333
1939	3060.0	0.6000	0.6000
1937	2420.0	0.6667	0.6667
1940	2260.0	0.7333	0.7333
1933	1450.0	0.8000	0.8000
1934	1420.0	0.8667	0.8667
1931	602.0	0.9333	0.9333



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