

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

Station - 05410000 KICKAPOO RIVER AT GAYS MILLS, WI
 2002 MAR 13 09:03:13

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

Number of peaks in record	=	36
Peaks not used in analysis	=	1
Systematic peaks in analysis	=	35
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.399
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. *****

**WCF109W-PEAKS WITH MINUS-FLAGGED DISCHARGES WERE BYPASSED.		1
**WCF113W-NUMBER OF SYSTEMATIC PEAKS HAS BEEN REDUCED TO NSYS =	=	35
WCF134I-NO SYSTEMATIC PEAKS WERE BELOW GAGE BASE.		0.0
WCF195I-NO LOW OUTLIERS WERE DETECTED BELOW CRITERION.		570.8
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.		15955.4
WCF002J-CALCS COMPLETED. RETURN CODE = 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	3.4797	0.2752	0.012
BULL.17B ESTIMATE	0.0	1.0000	3.4797	0.2752	-0.121

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	549.0	594.3	479.5	343.9	761.0
0.9900	653.3	695.0	588.3	425.5	883.5
0.9500	1042.0	1067.0	992.9	749.7	1325.0
0.9000	1329.0	1341.0	1290.0	1003.0	1646.0
0.8000	1778.0	1770.0	1751.0	1409.0	2147.0
0.5000	3057.0	3014.0	3057.0	2555.0	3661.0
0.2000	5161.0	5142.0	5232.0	4271.0	6521.0
0.1000	6739.0	6803.0	6920.0	5451.0	8905.0
0.0400	8909.0	9176.0	9339.0	6986.0	12430.0
0.0200	10640.0	11130.0	11360.0	8159.0	15400.0
0.0100	12450.0	13250.0	13570.0	9353.0	18650.0
0.0050	14360.0	15550.0	16010.0	10580.0	22200.0
0.0020	17040.0	18870.0	19630.0	12250.0	27370.0
0.6667	2321.6	(1.50-year flood)			
0.4292	3422.6	(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
1913	-99999.0		1931	874.0	
1914	1370.0		1932	4350.0	
1915	1910.0		1933	7470.0	
1916	3510.0		1934	5790.0	
1917	9800.0		1964	1220.0	
1918	3000.0		1965	6920.0	
1919	4710.0		1966	10600.0	
1920	3460.0		1967	3540.0	
1921	2520.0		1968	2420.0	
1922	2650.0		1969	1650.0	
1923	5510.0		1970	1130.0	
1924	3800.0		1971	1400.0	
1925	2620.0		1972	2540.0	
1926	2140.0		1973	5090.0	
1927	3220.0		1974	2420.0	
1928	5840.0		1975	2260.0	
1929	6020.0		1976	2370.0	
1930	2800.0		1977	1020.0	

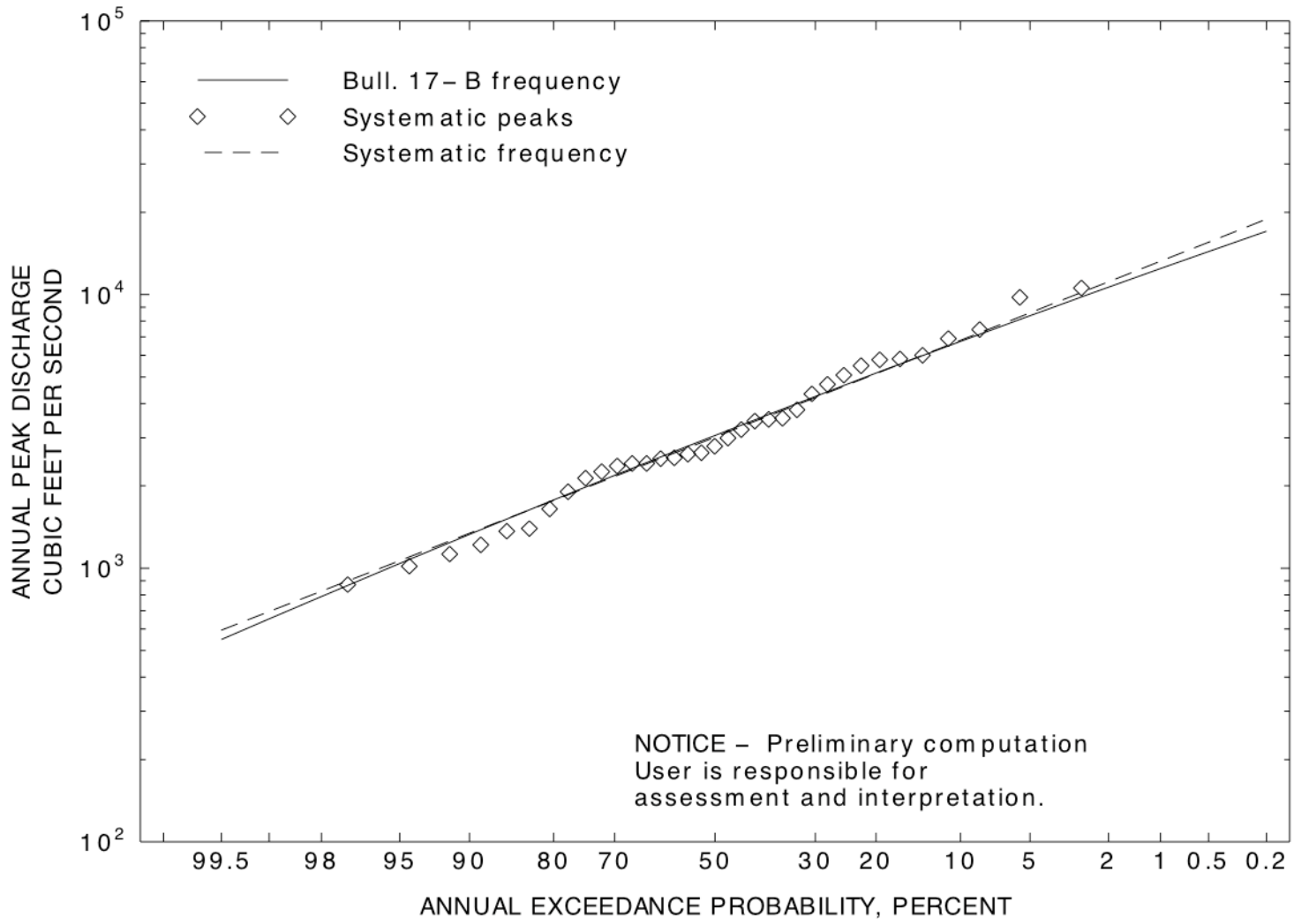
Explanation of peak discharge qualification codes

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
1966	10600.0	0.0278	0.0278
1917	9800.0	0.0556	0.0556
1933	7470.0	0.0833	0.0833
1965	6920.0	0.1111	0.1111
1929	6020.0	0.1389	0.1389
1928	5840.0	0.1667	0.1667
1934	5790.0	0.1944	0.1944
1923	5510.0	0.2222	0.2222
1973	5090.0	0.2500	0.2500
1919	4710.0	0.2778	0.2778
1932	4350.0	0.3056	0.3056
1924	3800.0	0.3333	0.3333
1967	3540.0	0.3611	0.3611
1916	3510.0	0.3889	0.3889
1920	3460.0	0.4167	0.4167
1927	3220.0	0.4444	0.4444
1918	3000.0	0.4722	0.4722
1930	2800.0	0.5000	0.5000
1922	2650.0	0.5278	0.5278
1925	2620.0	0.5556	0.5556
1972	2540.0	0.5833	0.5833
1921	2520.0	0.6111	0.6111
1968	2420.0	0.6389	0.6389
1974	2420.0	0.6667	0.6667
1976	2370.0	0.6944	0.6944
1975	2260.0	0.7222	0.7222
1926	2140.0	0.7500	0.7500
1915	1910.0	0.7778	0.7778
1969	1650.0	0.8056	0.8056
1971	1400.0	0.8333	0.8333
1914	1370.0	0.8611	0.8611
1964	1220.0	0.8889	0.8889
1970	1130.0	0.9167	0.9167
1977	1020.0	0.9444	0.9444
1931	874.0	0.9722	0.9722
1913	-99999.0	--	--



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