

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

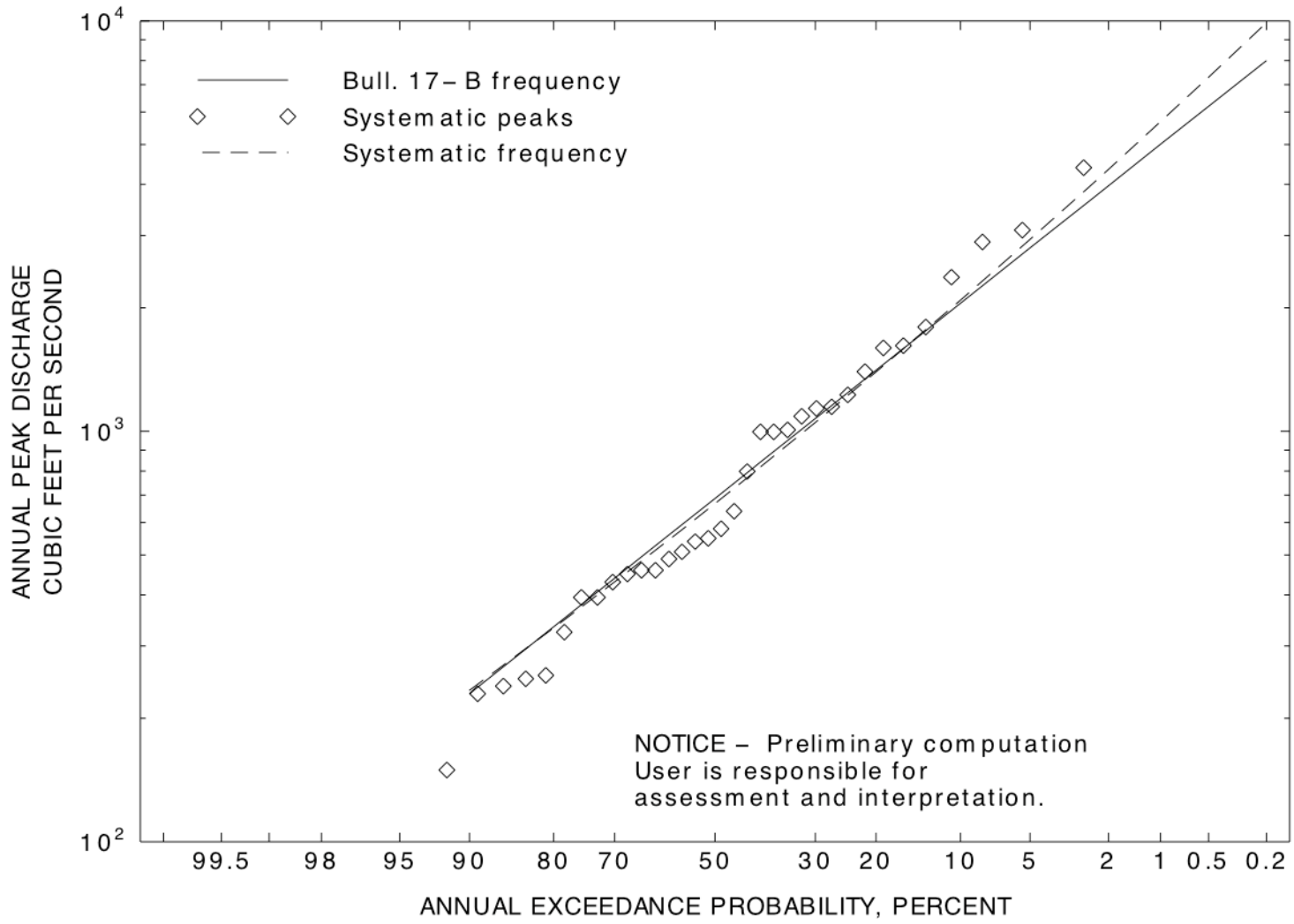
Station - 05407100 RICHLAND CREEK NEAR PLUGTOWN, WI  
 2002 MAR 13 09:03:11

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	=	0
Systematic peaks in analysis	=	36
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	=	75.0
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.	2	75.0
WCF195I-NO LOW OUTLIERS WERE DETECTED BELOW CRITERION.		84.7
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.		6349.1



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ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE		LOGARITHMIC		
	DISCHARGE	EXCEEDANCE PROBABILITY	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	75.0	0.9444	2.8366	0.3713	0.200
BULL.17B ESTIMATE	75.0	0.9444	2.8366	0.3713	-0.003

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
0.9000	229.5	234.1	221.1	158.2	304.7
0.8000	334.4	332.0	328.2	245.3	430.1
0.5000	686.8	667.2	686.8	540.8	872.3
0.2000	1410.0	1396.0	1436.0	1096.0	1922.0
0.1000	2053.0	2088.0	2129.0	1546.0	2977.0
0.0400	3063.0	3247.0	3274.0	2206.0	4797.0
0.0200	3967.0	4349.0	4356.0	2766.0	6552.0
0.0100	5005.0	5683.0	5668.0	3383.0	8687.0
0.0050	6191.0	7288.0	7257.0	4064.0	11260.0
0.0020	8011.0	9901.0	9882.0	5069.0	15430.0
0.6667	475.4	( 1.50-year flood )			
0.4292	799.8	( 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
1958	460.0		1976	240.0	
1959	1800.0		1977	255.0	
1960	1230.0		1978	2380.0	
1961	1600.0		1979	2900.0	
1962	1000.0		1980	1090.0	
1963	580.0		1981	550.0	
1964	540.0		1982	4400.0	
1965	1010.0		1983	3100.0	
1966	1150.0		1984	1400.0	
1967	1000.0		1985	1620.0	
1968	250.0		1986	510.0	
1969	325.0		1987	230.0	
1970	75.0	L	1988	75.0	L
1971	150.0		1989	1140.0	
1972	450.0		1990	395.0	
1973	490.0		1991	460.0	
1974	430.0		1992	395.0	
1975	800.0		1993	640.0	

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

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EMPIRICAL FREQUENCY CURVES -- WEIBULL PLOTTING POSITIONS

WATER YEAR	RANKED DISCHARGE	SYSTEMATIC RECORD	BULL.17B ESTIMATE
1982	4400.0	0.0270	0.0270
1983	3100.0	0.0541	0.0541
1979	2900.0	0.0811	0.0811
1978	2380.0	0.1081	0.1081
1959	1800.0	0.1351	0.1351
1985	1620.0	0.1622	0.1622
1961	1600.0	0.1892	0.1892
1984	1400.0	0.2162	0.2162
1960	1230.0	0.2432	0.2432
1966	1150.0	0.2703	0.2703
1989	1140.0	0.2973	0.2973
1980	1090.0	0.3243	0.3243
1965	1010.0	0.3514	0.3514
1962	1000.0	0.3784	0.3784
1967	1000.0	0.4054	0.4054
1975	800.0	0.4324	0.4324
1993	640.0	0.4595	0.4595
1963	580.0	0.4865	0.4865
1981	550.0	0.5135	0.5135
1964	540.0	0.5405	0.5405
1986	510.0	0.5676	0.5676
1973	490.0	0.5946	0.5946
1958	460.0	0.6216	0.6216
1991	460.0	0.6486	0.6486
1972	450.0	0.6757	0.6757
1974	430.0	0.7027	0.7027
1990	395.0	0.7297	0.7297
1992	395.0	0.7568	0.7568
1969	325.0	0.7838	0.7838
1977	255.0	0.8108	0.8108
1968	250.0	0.8378	0.8378
1976	240.0	0.8649	0.8649
1987	230.0	0.8919	0.8919
1971	150.0	0.9189	0.9189
1970	75.0	--	--
1988	75.0	--	--