

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

Station - 05436200 GILL CREEK NEAR BROOKLYN, WI
 2002 MAR 13 09:03:25

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

Number of peaks in record	=	40
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	40
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.400
Standard error of generalized skew	=	0.550
Skew option	=	WEIGHTED
Gage base discharge	=	25.0
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	25.0
WCF162I-SYSTEMATIC PEAKS EXCEEDED HIGH-OUTLIER CRITERION.	1	622.4
WCF195I-NO LOW OUTLIERS WERE DETECTED BELOW CRITERION.		20.3

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ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE		LOGARITHMIC		
	DISCHARGE	EXCEEDANCE PROBABILITY	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	25.0	0.9750	2.0414	0.2819	0.837
BULL.17B ESTIMATE	25.0	0.9750	2.0414	0.2819	0.344

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	40.4	45.0	39.2	30.1	50.5
0.9000	49.2	51.8	48.2	37.9	60.3
0.8000	63.2	63.1	62.5	50.6	75.8
0.5000	106.0	100.6	106.0	89.1	125.7
0.2000	187.4	182.0	190.0	156.3	233.3
0.1000	257.9	262.0	265.5	209.6	337.3
0.0400	368.6	403.5	389.5	288.1	514.4
0.0200	468.6	546.4	507.7	355.5	685.5
0.0100	585.2	729.7	652.7	431.2	895.6
0.0050	721.0	964.3	831.9	516.3	1153.0
0.0020	934.8	1377.0	1135.0	645.5	1579.0
0.6667	80.9	(1.50-year flood)			
0.4292	118.8	(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
1961	105.0		1981	230.0	
1962	120.0		1982	130.0	
1963	90.0		1983	65.0	
1964	62.0		1984	140.0	
1965	370.0		1985	150.0	
1966	130.0		1986	80.0	
1967	260.0		1987	105.0	
1968	80.0		1988	32.0	
1969	92.0		1989	140.0	
1970	45.0		1990	115.0	
1971	35.0		1991	75.0	
1972	90.0		1992	50.0	
1973	150.0		1993	285.0	
1974	110.0		1994	140.0	
1975	95.0		1995	25.0	L
1976	67.0		1996	150.0	
1977	70.0		1997	210.0	
1978	107.0		1998	110.0	
1979	92.0		1999	960.0	
1980	78.0		2000	204.0	

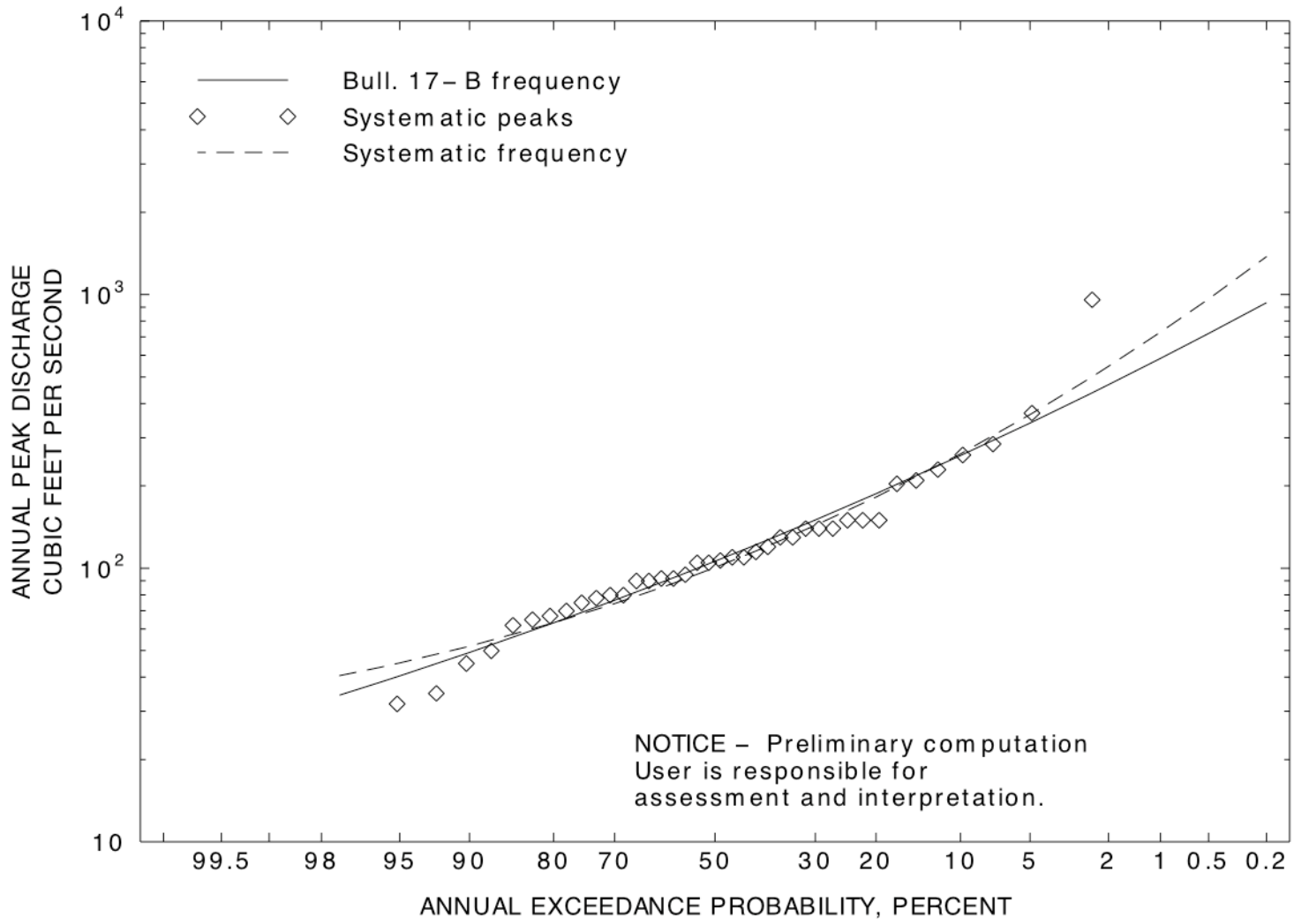
Explanation of peak discharge qualification codes

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
1999	960.0	0.0244	0.0244
1965	370.0	0.0488	0.0488
1993	285.0	0.0732	0.0732
1967	260.0	0.0976	0.0976
1981	230.0	0.1220	0.1220
1997	210.0	0.1463	0.1463
2000	204.0	0.1707	0.1707
1973	150.0	0.1951	0.1951
1985	150.0	0.2195	0.2195
1996	150.0	0.2439	0.2439
1984	140.0	0.2683	0.2683
1989	140.0	0.2927	0.2927
1994	140.0	0.3171	0.3171
1966	130.0	0.3415	0.3415
1982	130.0	0.3659	0.3659
1962	120.0	0.3902	0.3902
1990	115.0	0.4146	0.4146
1974	110.0	0.4390	0.4390
1998	110.0	0.4634	0.4634
1978	107.0	0.4878	0.4878
1961	105.0	0.5122	0.5122
1987	105.0	0.5366	0.5366
1975	95.0	0.5610	0.5610
1969	92.0	0.5854	0.5854
1979	92.0	0.6098	0.6098
1963	90.0	0.6341	0.6341
1972	90.0	0.6585	0.6585
1968	80.0	0.6829	0.6829
1986	80.0	0.7073	0.7073
1980	78.0	0.7317	0.7317
1991	75.0	0.7561	0.7561
1977	70.0	0.7805	0.7805
1976	67.0	0.8049	0.8049
1983	65.0	0.8293	0.8293
1964	62.0	0.8537	0.8537
1992	50.0	0.8780	0.8780
1970	45.0	0.9024	0.9024
1971	35.0	0.9268	0.9268
1988	32.0	0.9512	0.9512
1995	25.0	--	--



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