

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

Station - 04072150 DUCK CREEK NEAR HOWARD, WI  
 2002 MAR 13 09:02:31

I N P U T   D A T A   S U M M A R Y

Number of peaks in record	=	12
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	12
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.282
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.		232.7
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.		7675.8
**WCF233W-EXPECTED PROB OUT OF RANGE AT TAB PROB.	0.00008	0.00200
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	3.1260	0.3557	-0.490
BULL.17B ESTIMATE	0.0	1.0000	3.1260	0.3557	-0.367

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	122.4	111.5	58.5	30.9	248.3
0.9900	160.0	149.0	92.5	46.1	305.6
0.9500	320.8	313.1	256.1	129.6	531.9
0.9000	455.4	452.4	398.6	215.3	712.3
0.8000	683.4	688.9	641.0	379.3	1020.0
0.5000	1405.0	1429.0	1405.0	933.5	2145.0
0.2000	2691.0	2696.0	2827.0	1799.0	4899.0
0.1000	3678.0	3624.0	4036.0	2374.0	7573.0
0.0400	5032.0	4841.0	5924.0	3090.0	11880.0
0.0200	6095.0	5757.0	7613.0	3614.0	15730.0
0.0100	7191.0	6668.0	9590.0	4129.0	20080.0
0.0050	8318.0	7572.0	11900.0	4636.0	24930.0
0.0020	9852.0	8755.0	--	5298.0	32080.0
0.6667	979.9	( 1.50-year flood )			
0.4292	1626.7	( 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
1989	1400.0		1995	505.0	
1990	4520.0		1996	1220.0	
1991	1630.0		1997	1100.0	
1992	1600.0		1998	2270.0	
1993	2330.0		1999	560.0	
1994	3580.0		2000	274.0	

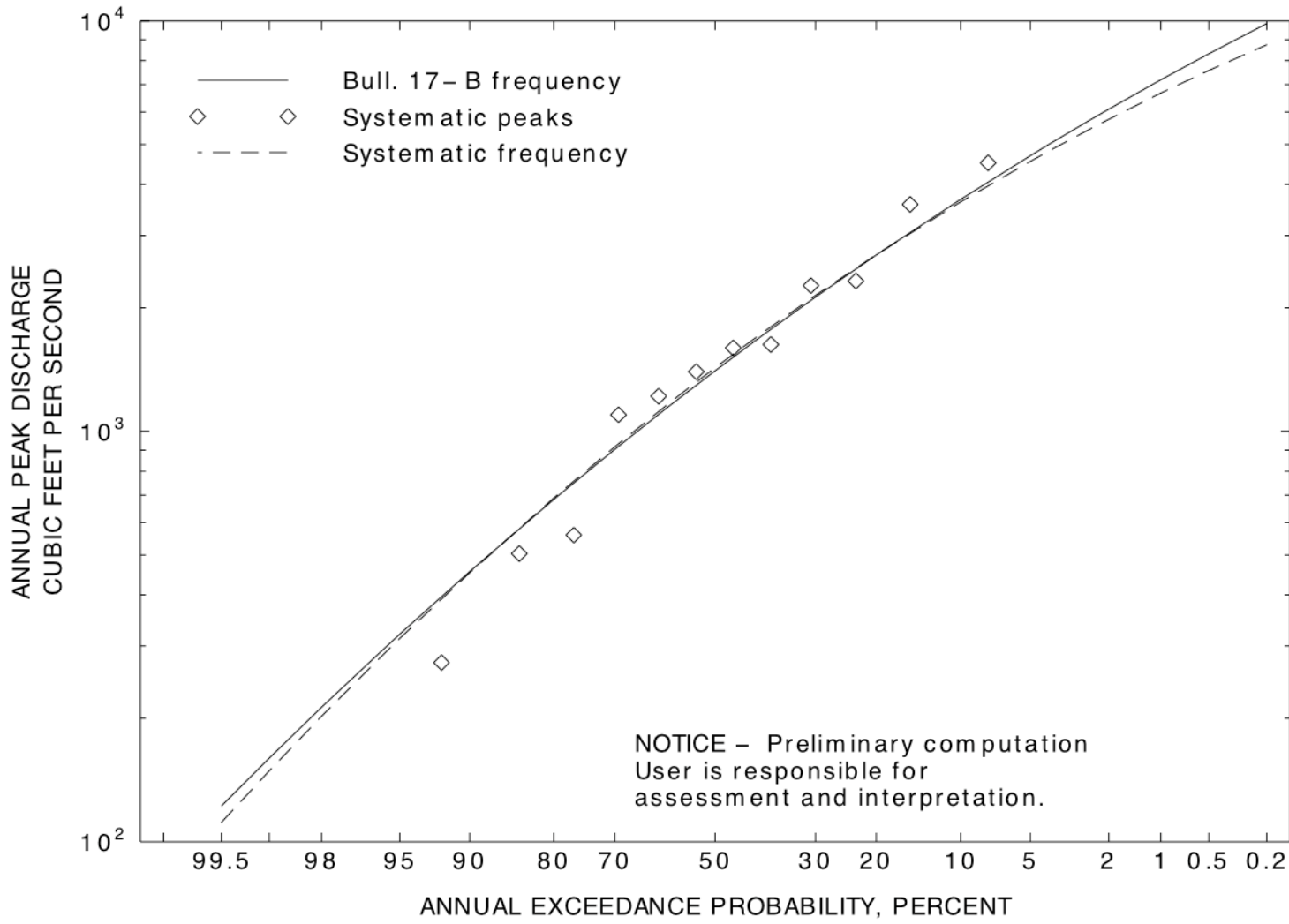
Explanation of peak discharge qualification codes

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
1990	4520.0	0.0769	0.0769
1994	3580.0	0.1538	0.1538
1993	2330.0	0.2308	0.2308
1998	2270.0	0.3077	0.3077
1991	1630.0	0.3846	0.3846
1992	1600.0	0.4615	0.4615
1989	1400.0	0.5385	0.5385
1996	1220.0	0.6154	0.6154
1997	1100.0	0.6923	0.6923
1999	560.0	0.7692	0.7692
1995	505.0	0.8462	0.8462
2000	274.0	0.9231	0.9231



NOTICE - Preliminary computation  
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ANNUAL EXCEEDANCE PROBABILITY, PERCENT  
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