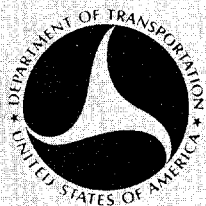


Report No. FHWA-RD-77-160

TRENT

RUNOFF ESTIMATES FOR SMALL RURAL WATERSHEDS AND DEVELOPMENT OF A SOUND DESIGN METHOD

Vol. III Appendix A



October 1977
Final Report

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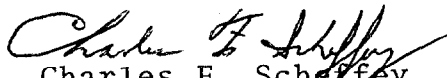
Prepared for
FEDERAL HIGHWAY ADMINISTRATION
Offices of Research & Development
Washington, D. C. 20590

FOREWORD

This report is composed of three volumes: Volume I is the Research Report; Volume II consists of recommendations for establishing design manuals and Appendices B, C, D, E, F, G, and H, which are the design aids required for establishing design manuals; Volume III consists of Appendix A, an accumulation of the data base used in the study. FHWA chose to arrange the report as described to facilitate distribution of the results. The methods reported herein and designated as the Federal Highway Administration Methods are designed to be applied to watersheds smaller than 50 square miles but may be used on areas up to 100 square miles in size.

This document is disseminated under the sponsorship of the Department of Transportation in the interest of information exchange. The United States Government assumes no liability for its contents or use thereof.

Sufficient copies of Volumes I and II will be distributed to provide a minimum of one copy to each FHWA Regional office, FHWA Division office and State Highway Agency. Volume III will be distributed only upon special request since it will be of interest primarily to individuals wishing to verify equations or develop new equations. Direct distribution is being made to the Division offices.


Charles F. Scheffey

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The United States Government does not endorse products or manufacturers. Trade or manufacturers' names appear herein only because they are considered essential to the object of this document.

1. Report No. FHWA-RD-77-160	2. Government Accession No.	3. Recipient's Catalog No.							
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		6. Performing Organization Code							
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16. Abstract Appendix A contains the annual flood frequency curves and the data for each State arranged alphabetically. The other volumes of this report are: <table border="0"> <tr> <td>FHWA-RD-77-158</td> <td>Subtitle</td> </tr> <tr> <td>77-159</td> <td>Vol I Research Report</td> </tr> <tr> <td></td> <td>Vol II Recommendations for Preparing Design Manuals and Appendices B, C, D, E, F, G, and H.</td> </tr> </table>				FHWA-RD-77-158	Subtitle	77-159	Vol I Research Report		Vol II Recommendations for Preparing Design Manuals and Appendices B, C, D, E, F, G, and H.
FHWA-RD-77-158	Subtitle								
77-159	Vol I Research Report								
	Vol II Recommendations for Preparing Design Manuals and Appendices B, C, D, E, F, G, and H.								
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19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 226	22. Price						

Appendix A

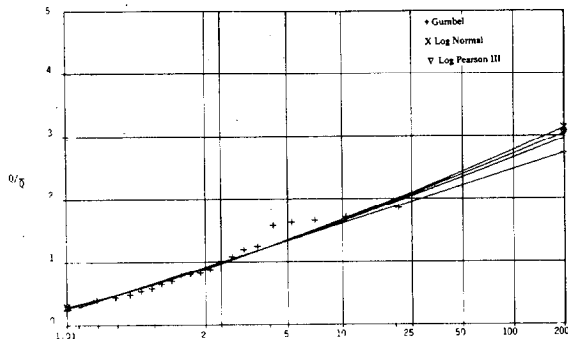
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Appendix A-56, Annual Flood Frequency Curve and Data for Wyoming . . .	221

APPENDIX A

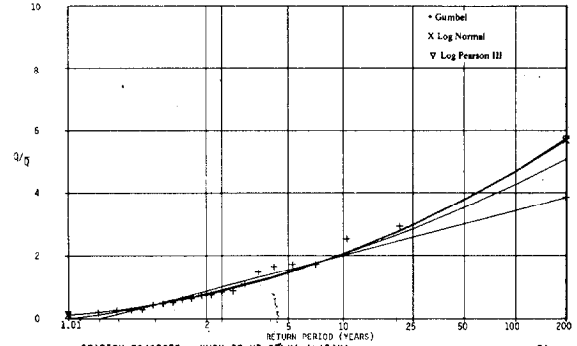
Annual Flood Peak Frequency Curve and Data for the Watersheds Plotted on Gumbel Paper with Fitted Distribution for Gumbel, Log Normal, Log Pearson III, and Rank Probability Distributions as Ratios to the Average of Record

The material assembled in Appendix A consists of the plotted results of the frequency analysis for all watersheds included in this study. The annual maximum flow data are plotted on Gumbel paper with the curves derived from the data for the Gumbel distribution, the Log Normal distribution, the Log Pearson III distribution and the mean of the three giving four curves in all. The arrangement of watersheds is alphabetically by states with the numbers of the watersheds in increasing magnitude.



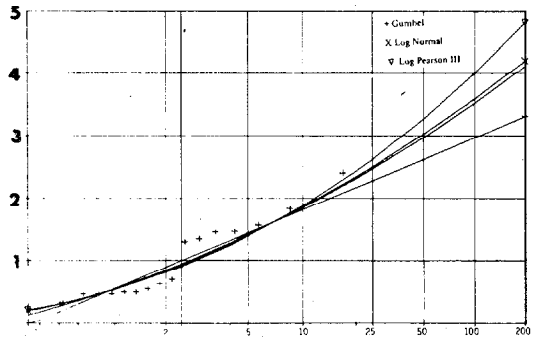
STATION #2414889 APRUCH CREEK NEAR WACKNEYVILLE, ALA. 1
 PEAK = 2140.0 CFS, AREA = 6.728 SQ MI, 28 OBS (1951-1970) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1176.379 STD = 551.442 SKEW = .502465
 LOG NORMAL & PIII MEAN = 3.823553 STD = .216882 SKEW = -.061326
 GUMBEL PARAMETERS: ALPHA = .002322 BETA = 928.258

PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	1047.28	.5272	1073.98	1086.02	1055.26	1065.38
2.33	1161.87	.5876	1180.08	1176.13	1156.80	1156.59
5.00	1594.95	1.3464	1654.20	1573.04	1586.11	1598.18
10.00	1944.96	1.6459	1955.00	1890.96	1900.29	1929.51
25.00	2406.15	2.0453	2208.79	2395.15	2465.66	2443.84
50.00	2761.20	2.3472	2284.39	2607.95	2806.97	2814.97
100.00	3125.97	2.6547	2522.19	2996.51	3265.83	3194.52
200.00	3492.27	2.9588	2841.89	3267.97	3564.53	3584.31



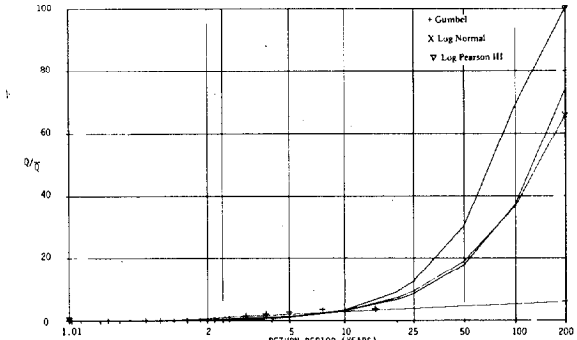
STATION #2428655 HUSH CR NR SELMA ALABAMA 1
 PEAK = 82108.0 CFS, AREA = 45.309 SQ MI, 28 OBS (1951-1970) 0 ZEROS
 STATISTICAL VALUES: MEAN = 7853.888 STD = 5824.016 SKEW = 1.224718
 LOG NORMAL & PIII MEAN = 3.755735 STD = .339479 SKEW = .814316
 GUMBEL PARAMETERS: ALPHA = .068211 BETA = 4911.921

PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	5088.84	.7848	5976.88	5978.42	5698.14	5887.55
2.33	6861.81	.9136	6258.81	7951.34	6551.34	6242.74
5.00	11243.87	1.4925	12098.88	11732.83	11982.89	10994.08
10.00	15304.89	2.0441	16598.88	15144.17	15518.29	15544.23
25.00	21442.87	2.8484	22298.88	18458.41	22397.31	22472.59
50.00	26598.38	3.6213	23848.88	22953.73	26389.71	26544.08
100.00	32115.30	4.2836	24498.88	26909.41	35123.67	31403.11
200.00	38254.77	5.0782	24785.88	28991.46	42647.35	43128.49



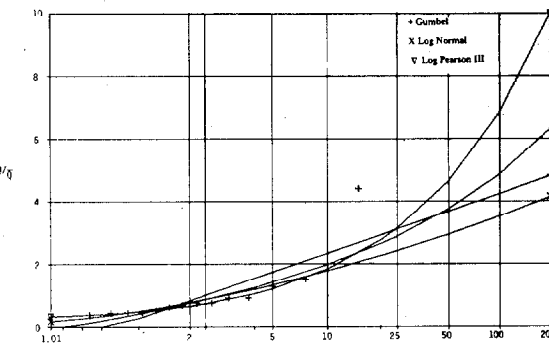
STATION #2457689 FIVEHILL CREEK AT KETONA, ALA. 1
 PEAK = 4578.0 CFS, AREA = 22.408 SQ MI, 16 OBS (1954-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 2067.758 STD = 1208.244 SKEW = .869884
 LOG NORMAL & PIII MEAN = 3.234054 STD = .273825 SKEW = .251499
 GUMBEL PARAMETERS: ALPHA = .002988 BETA = 1483.559

PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	1749.74	.5482	1385.83	1854.98	1717.77	1878.59
2.33	1957.27	.6485	1537.88	2071.83	1822.28	1877.72
5.00	2939.42	1.4215	3179.38	3003.87	2916.63	2894.87
10.00	3547.74	1.8574	4101.88	3744.88	3652.19	3945.88
25.00	5112.30	2.4723	5344.39	4725.12	5178.89	5433.77
50.00	6124.88	2.9775	5742.19	5435.28	6266.89	6785.77
100.00	7287.12	3.5241	6941.39	6145.60	7441.98	8273.95
200.00	8111.14	4.1151	8948.54	6850.52	8782.14	9986.87



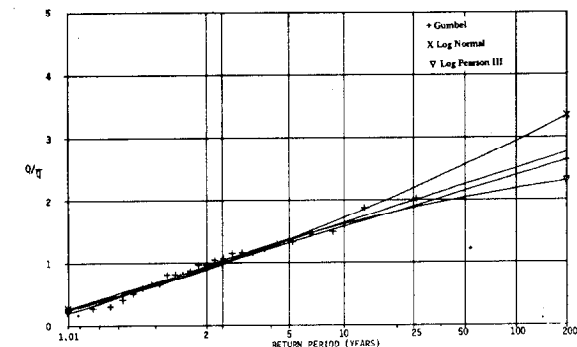
STATION #2459888 DAVIS CREEK BELOW ARBONANT, ALA. 1
 PEAK = 385908.0 CFS, AREA = 45.100 SQ MI, 14 OBS (1957-1978) 0 ZEROS
 STATISTICAL VALUES: MEAN = 182899.281 STD = 142832.488 SKEW = 1.894883
 LOG NORMAL & PIII MEAN = 4.161918 STD = 1.828676 SKEW = .378823
 GUMBEL PARAMETERS: ALPHA = .000888 BETA = 37824.671

PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	35877.83	.3484	4485.88	78891.87	15822.25	13139.31
2.33	46818.84	.4781	27587.82	182849.18	83185.85	26192.88
5.00	144857.37	1.3788	28088.88	285889.88	111779.78	185303.88
10.00	314088.88	3.8818	367688.88	288742.18	314087.31	348356.18
25.00	673898.88	8.5833	306888.88	394453.31	955531.25	1269882.88
50.00	1837528.88	17.8873	418288.88	472853.18	1837522.88	3883896.88
100.00	3788948.88	36.8848	418088.88	558743.37	3727184.38	7822981.88
200.00	7528997.88	73.8832	418388.88	628389.88	6784562.88	15288856.88



STATION #2469288 LAKE CREEK NEAR NORTHPORT, ALA. 1
 PEAK = 443.0 CFS, AREA = 3.238 SQ MI, 14 OBS (1956-1978) 0 ZEROS
 STATISTICAL VALUES: MEAN = 181.588 STD = 185.292 SKEW = 3.138192
 LOG NORMAL & PIII MEAN = 1.892883 STD = .284392 SKEW = 1.613071
 GUMBEL PARAMETERS: ALPHA = .012180 BETA = 54.132

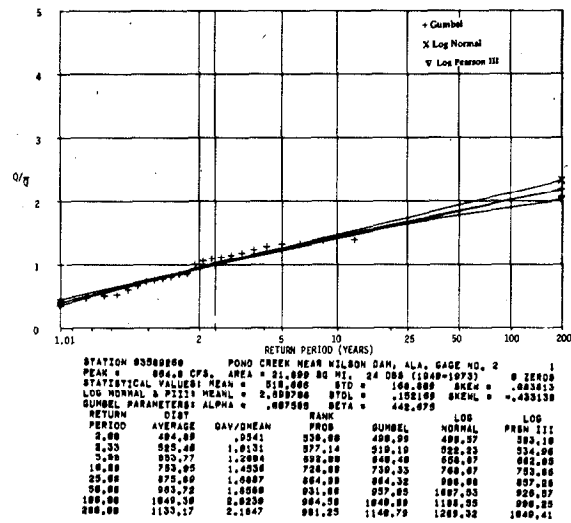
PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	76.35	.7522	72.68	84.24	78.12	86.68
2.33	87.89	.8889	77.68	181.83	87.81	74.38
5.00	145.19	1.9385	138.68	177.38	138.58	188.82
10.00	282.80	1.8938	308.58	239.04	186.54	188.86
25.00	393.04	2.8988	568.88	316.96	245.92	318.98
50.00	585.38	3.7871	754.58	374.78	288.87	475.48
100.00	495.38	4.4788	698.75	432.13	358.58	689.27
200.00	643.87	6.3357	728.87	489.29	421.88	1818.13



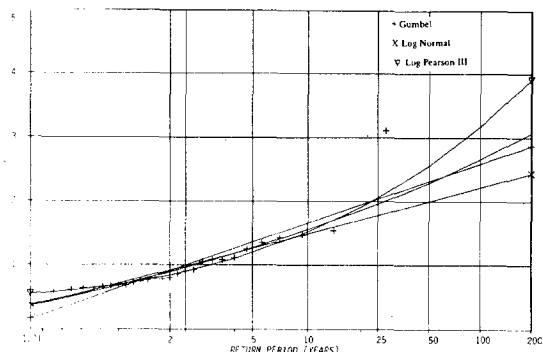
STATION #3598856 POND CREEK NEAR WILSON DAM, ALA. GAGE NO. 1
 PEAK = 838.0 CFS, AREA = 13.698 SQ MI, 25 OBS (1949-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 316.538 STD = 132.586 SKEW = .428442
 LOG NORMAL & PIII MEAN = 2.449585 STD = .228246 SKEW = -.798477
 GUMBEL PARAMETERS: ALPHA = .069176 BETA = 231.781

PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	291.41	.8861	368.88	291.74	281.31	388.98
2.33	317.20	1.0784	334.28	315.87	308.49	328.32
5.00	428.47	1.9517	417.19	415.34	433.43	436.64
10.00	517.48	1.6446	518.88	497.17	545.86	512.14
25.00	629.81	1.9959	634.15	688.56	698.84	592.82
50.00	789.89	2.5338	698.87	677.26	888.88	643.12
100.00	788.48	2.5888	676.83	733.48	927.87	816.82
200.00	859.38	2.7831	676.81	828.25	1953.84	724.85

Appendix A-01. Alabama 1-6. Flood frequency curves and data.

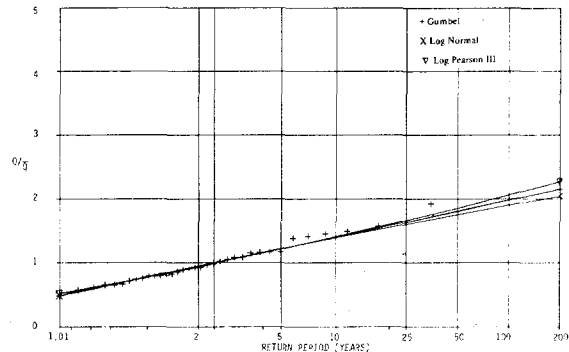


Appendix A-01. Alabama 7. Flood frequency curves and data.



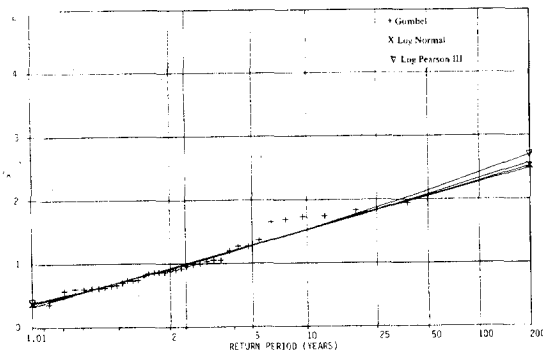
STATION 15120000 STANLEY CREEK NEAR KETCHIKAN ALASKA 2
 PEAK = 4120.0 CFS, AREA = 15,480 SQ MI, 27 OBS (1937-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1323.793 STD = 675.787 SKEW = 2.901865
 LOG NORMAL & PIII: MEAN = 3.086261 STL = 1.64555 SKEW = 1.593555
 GUMBEL PARAMETERS: ALPHA = .091391 BETA = 1024.499

RETURN PERIOD	AVERAGE	QAV/DMEAN	RANK	GUMBEL	NORMAL	PRSN III	LOG
2.00	1184.44	.8049	1740.00	1213.27	1219.71	1128.33	
2.33	1274.00	.9430	1199.00	1225.02	1385.01	1194.31	
5.00	1493.53	1.2703	1719.00	1609.44	1677.03	1593.52	
10.00	2069.70	1.5836	1968.00	2284.15	1981.71	2023.49	
25.00	2909.43	1.9530	2470.39	2702.88	2267.21	2728.81	
50.00	3644.44	2.2972	2935.10	3072.06	2654.41	3234.88	
100.00	4226.22	2.4561	3617.10	3440.17	2543.72	3833.80	
200.00	4775.53	2.6791	5938.79	3806.04	3233.94	4187.36	



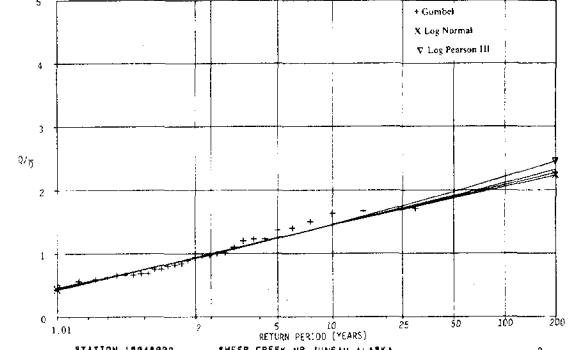
STATION 15020000 CASCADE CREEK NR PETERSBURG ALASKA 2
 PEAK = 3280.0 CFS, AREA = 23,300 SQ MI, 34 OBS (1919-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1701.911 STD = 581.834 SKEW = 1.048804
 LOG NORMAL & PIII: MEAN = 3.212953 STL = 1.27537 SKEW = 1.384626
 GUMBEL PARAMETERS: ALPHA = .002400 BETA = 1492.505

RETURN PERIOD	AVERAGE	QAV/DMEAN	RANK	GUMBEL	NORMAL	PRSN III	LOG
2.00	1614.44	.9486	1570.00	1614.75	1629.53	1599.11	
2.33	1789.50	1.2702	1559.00	1783.54	1717.39	1685.14	
5.00	2082.21	1.2234	2299.00	2085.31	2788.14	2073.25	
10.00	2351.60	1.4052	2319.00	2394.87	2779.34	2464.89	
25.00	2785.88	1.6357	3460.00	2790.52	3082.55	2984.31	
50.00	3077.29	1.8081	3460.00	3082.55	3082.55	3105.02	
100.00	3372.02	1.9413	3474.00	3372.02	3372.02	3365.66	
200.00	3649.46	2.1561	3775.00	3661.24	3476.37	3465.36	



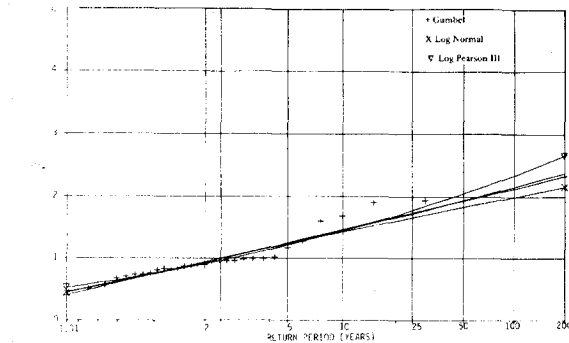
STATION 15140000 DODDIE CREEK NR JUNEAU ALASKA 2
 PEAK = 1780.0 CFS, AREA = 15,100 SQ MI, 37 OBS (1930-1987) 0 ZEROS
 STATISTICAL VALUES: MEAN = 916.108 STD = 372.357 SKEW = .941303
 LOG NORMAL & PIII: MEAN = 2.203461 STL = 1.68850 SKEW = 1.14912
 GUMBEL PARAMETERS: ALPHA = .003448 BETA = 748.547

RETURN PERIOD	AVERAGE	QAV/DMEAN	RANK	GUMBEL	NORMAL	PRSN III	LOG
2.00	840.25	.9259	808.00	859.48	850.07	839.09	
2.33	969.50	.9929	873.41	917.28	911.17	890.37	
5.00	1179.35	1.2673	1206.00	1184.54	1179.24	1174.06	
10.00	1403.75	1.5323	1592.00	1492.67	1399.22	1489.37	
25.00	1663.07	1.8480	1728.00	1678.28	1679.36	1721.55	
50.00	1915.35	2.0874	1894.00	1895.74	1889.28	1905.03	
100.00	2134.71	2.3392	1842.00	2085.74	2180.08	2217.84	
200.00	2361.09	2.5773	1861.00	2287.91	2313.51	2481.84	



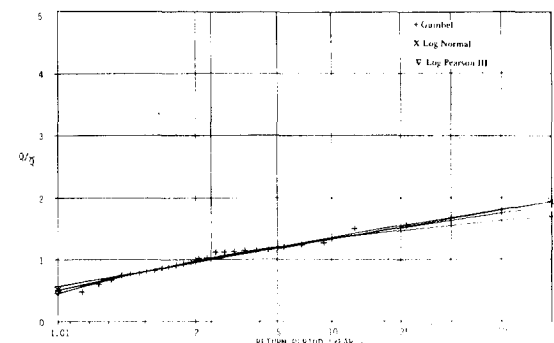
STATION 15040000 SHEEP CREEK NR JUNEAU ALASKA 2
 PEAK = 840.0 CFS, AREA = 4,370 SQ MI, 29 OBS (1918-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 489.931 STD = 169.054 SKEW = .727076
 LOG NORMAL & PIII: MEAN = 2.666261 STL = 1.43888 SKEW = .296076
 GUMBEL PARAMETERS: ALPHA = .007555 BETA = 415.618

RETURN PERIOD	AVERAGE	QAV/DMEAN	RANK	GUMBEL	NORMAL	PRSN III	LOG
2.00	469.67	.9400	450.00	482.11	483.72	456.10	
2.33	489.02	.9961	479.71	490.40	492.21	484.40	
5.00	512.39	1.2409	575.00	512.18	514.31	516.07	
10.00	713.72	1.4567	680.00	711.55	711.55	718.00	
25.00	843.87	1.7208	836.00	837.45	832.35	850.81	
50.00	940.34	1.9103	848.00	938.17	920.59	955.86	
100.00	1038.42	2.1105	854.00	1032.09	1008.83	1083.64	
200.00	1137.80	2.3223	857.00	1114.06	1096.07	1202.62	



STATION 15060000 GOLD CREEK AT JUNEAU ALASKA 2
 PEAK = 740.0 CFS, AREA = 6,750 SQ MI, 29 OBS (1917-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1362.551 STD = 492.783 SKEW = 1.480333
 LOG NORMAL & PIII: MEAN = 3.111257 STL = 1.38253 SKEW = .780882
 GUMBEL PARAMETERS: ALPHA = .002495 BETA = 1140.434

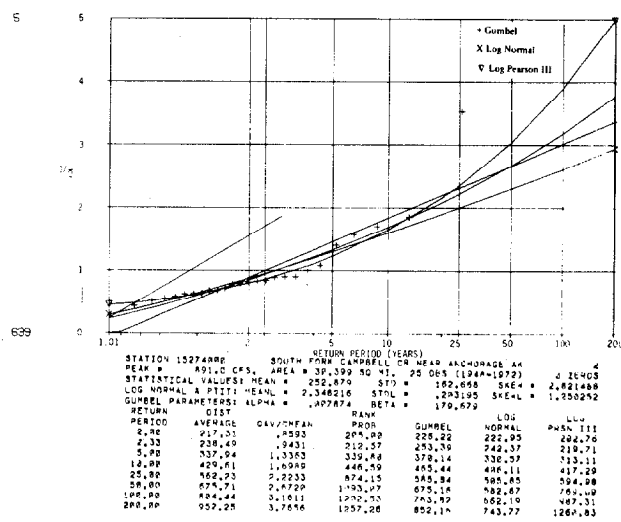
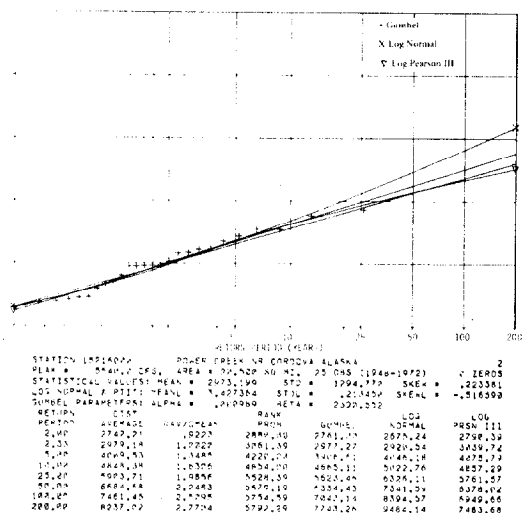
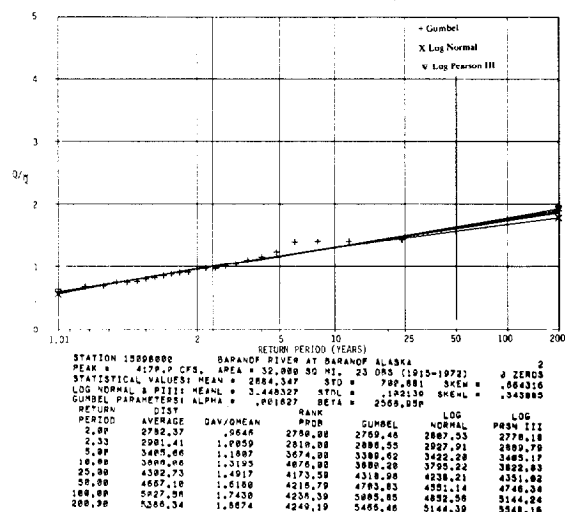
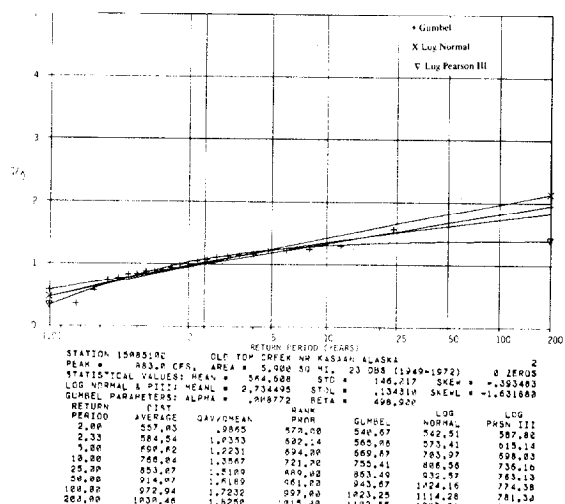
RETURN PERIOD	AVERAGE	QAV/DMEAN	RANK	GUMBEL	NORMAL	PRSN III	LOG
2.00	1277.44	.9341	1229.00	1291.80	1292.30	1244.72	
2.33	1399.77	.9390	1302.00	1354.10	1388.11	1318.00	
5.00	1491.44	1.2443	1589.00	1717.74	1692.34	1664.31	
10.00	1979.71	1.4522	2329.30	2086.38	1948.70	1981.05	
25.00	2304.73	1.7781	2640.00	2377.04	2259.52	2427.02	
50.00	2644.77	1.9417	2679.00	2641.61	2426.27	2796.43	
100.00	2643.05	2.1505	2695.00	2919.15	2724.36	3197.65	
200.00	3224.00	2.3582	2692.00	3177.72	2890.13	3534.43	



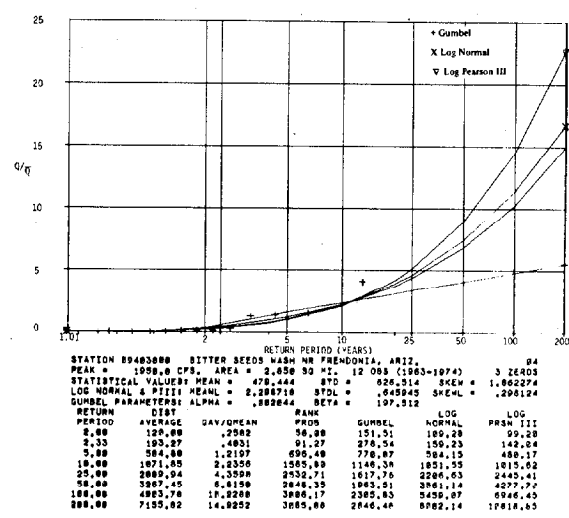
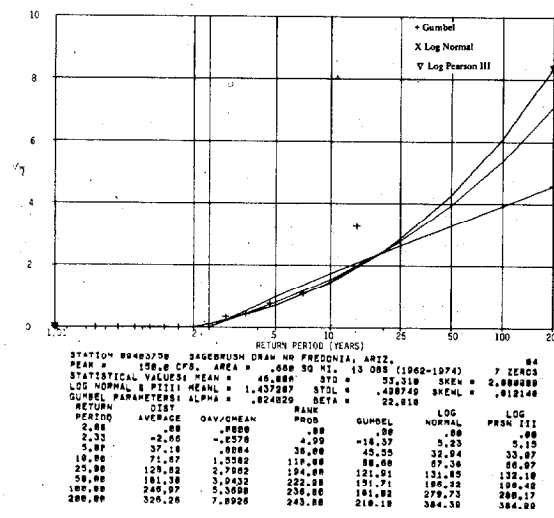
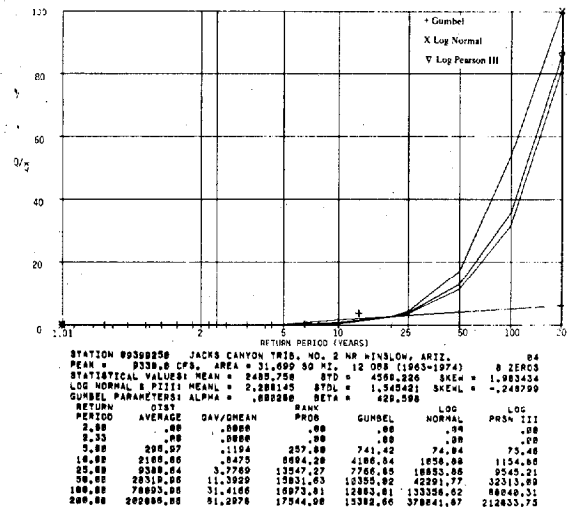
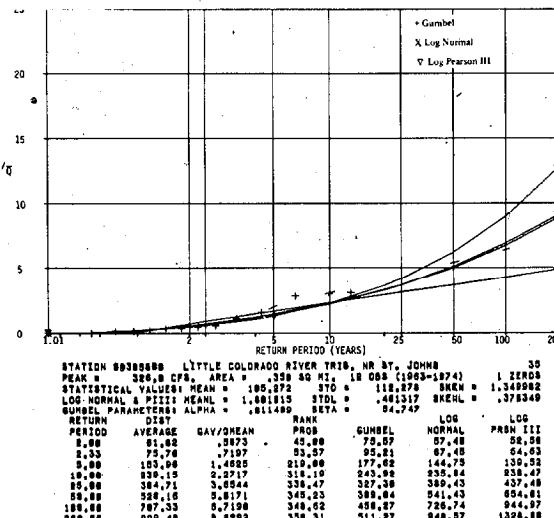
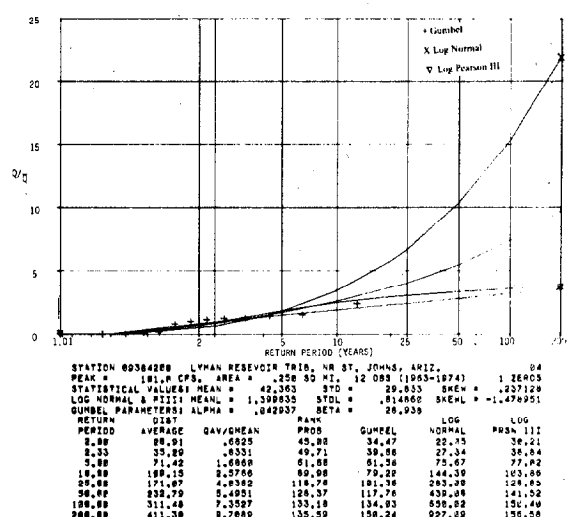
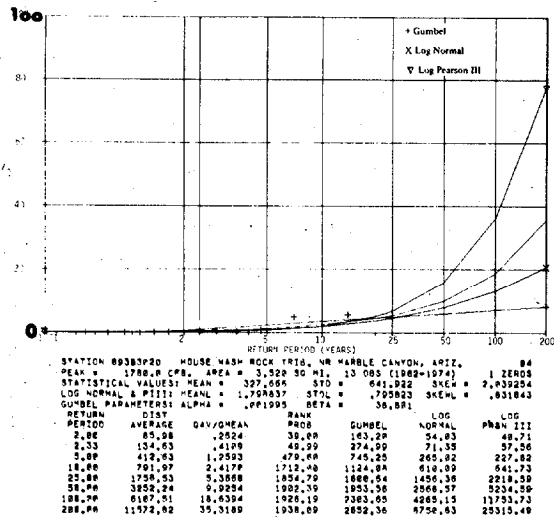
STATION 15060000 BELLEVUE CREEK NR JUNEAU ALASKA 2
 PEAK = 740.0 CFS, AREA = 2,914 SQ MI, 26 OBS (1932-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 437.151 STD = 112.024 SKEW = 1.27772
 LOG NORMAL & PIII: MEAN = 2.475039 STL = 1.11777 SKEW = 1.269463
 GUMBEL PARAMETERS: ALPHA = .011372 BETA = 388.457

RETURN PERIOD	AVERAGE	QAV/DMEAN	RANK	GUMBEL	NORMAL	PRSN III	LOG
2.00	424.58	.9714	433.40	416.00	422.07	424.74	
2.33	444.59	1.0777	486.56	437.50	443.56	453.55	
5.00	527.44	1.2866	508.00	518.37	516.37	531.14	
10.00	590.87	1.3493	586.40	584.33	584.33	587.74	
25.00	665.03	1.5187	679.00	667.71	673.46	684.52	
50.00	718.22	1.7393	674.00	717.00	717.00	731.47	
100.00	768.44	1.9432	700.00	760.94	760.94	776.19	
200.00	815.00	2.1444	772.00	802.11	789.15	793.56	

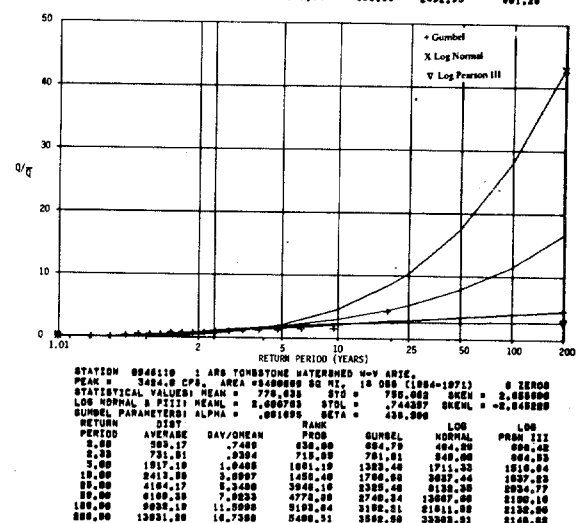
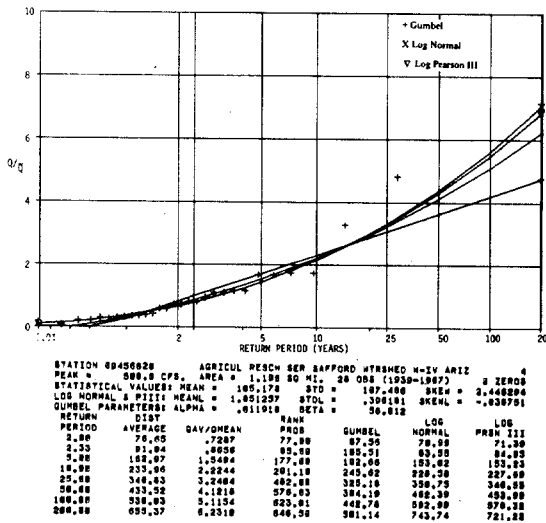
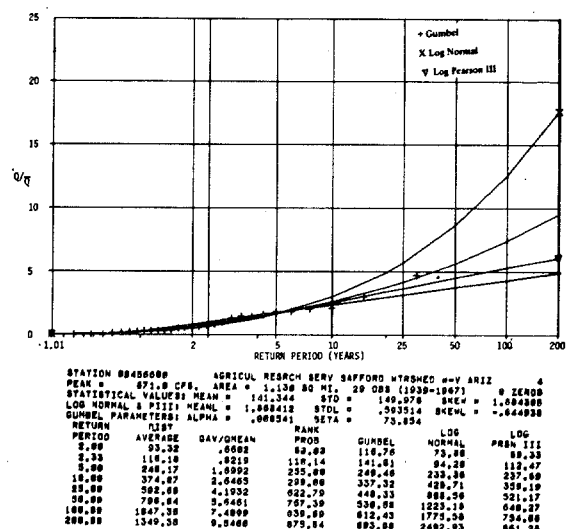
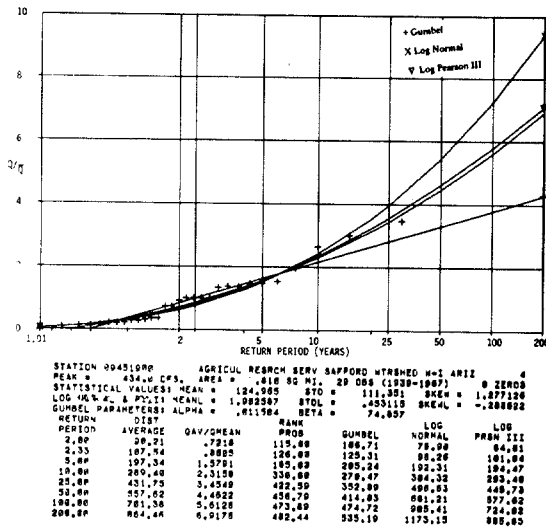
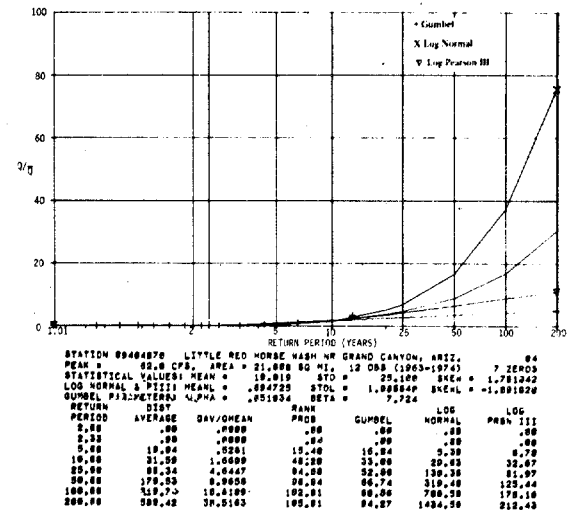
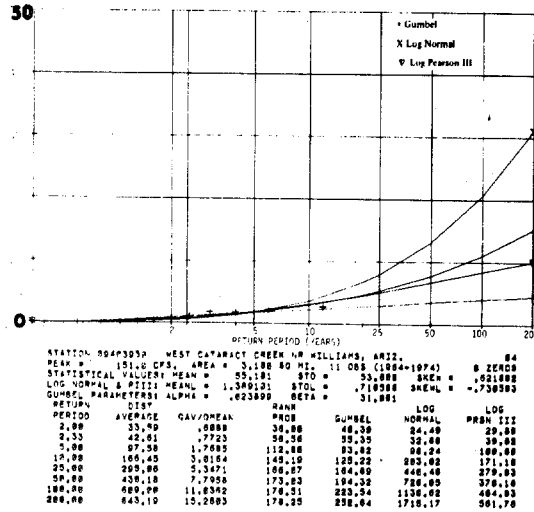
Appendix A-02. Alaska 1-6. Flood frequency curves and data.



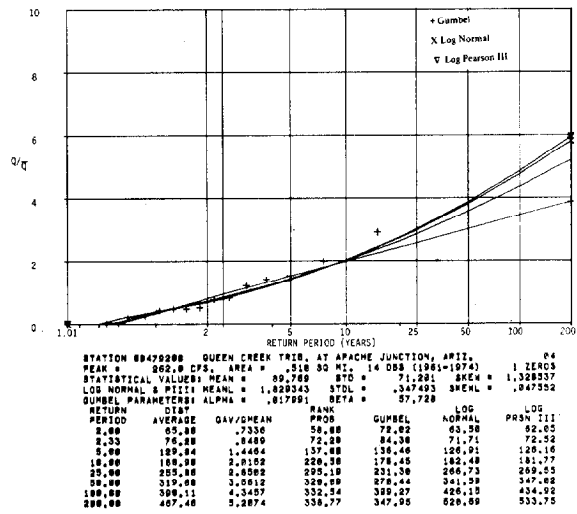
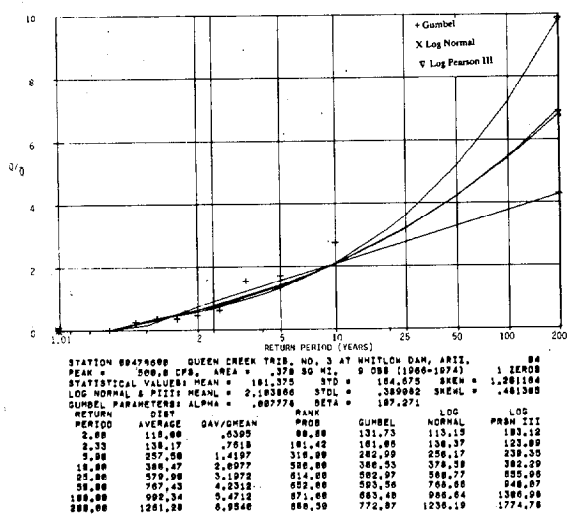
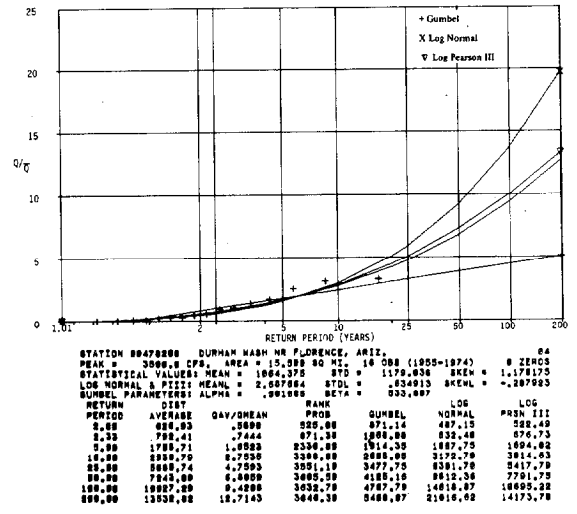
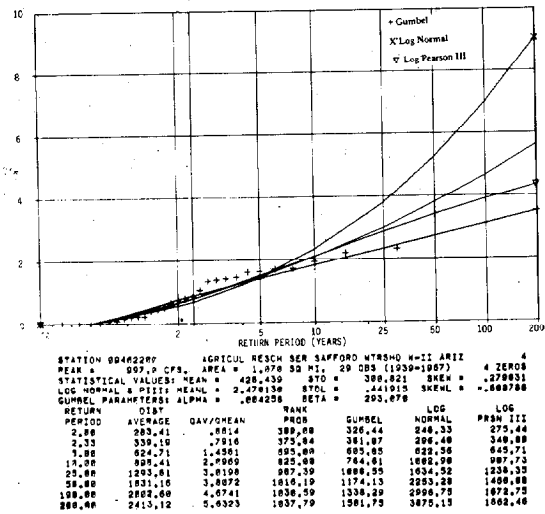
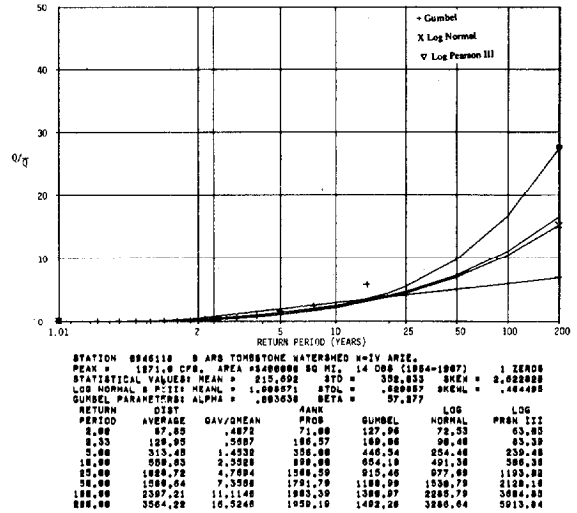
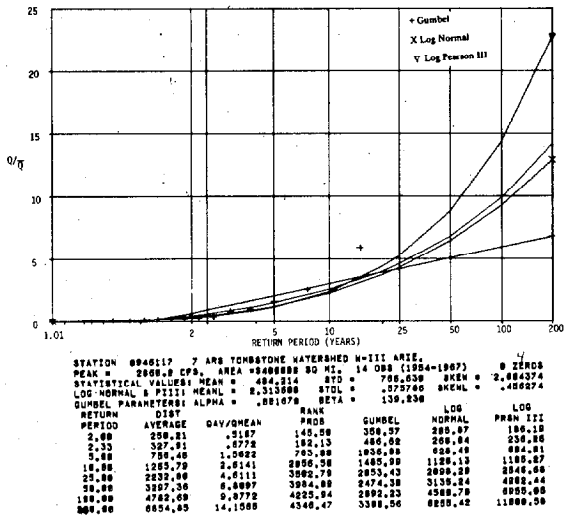
Appendix A-02. Alaska 7-10. Flood frequency curves and data.



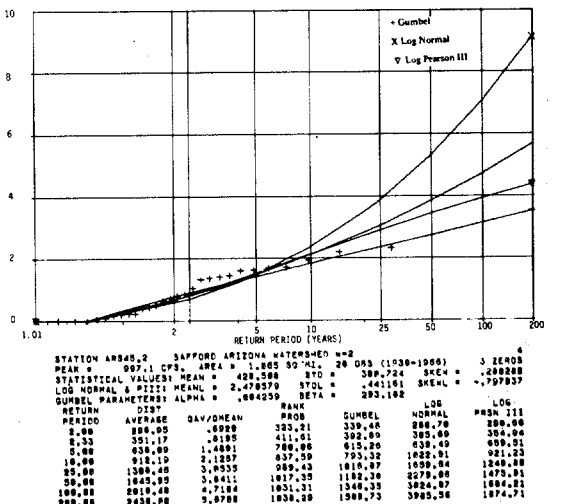
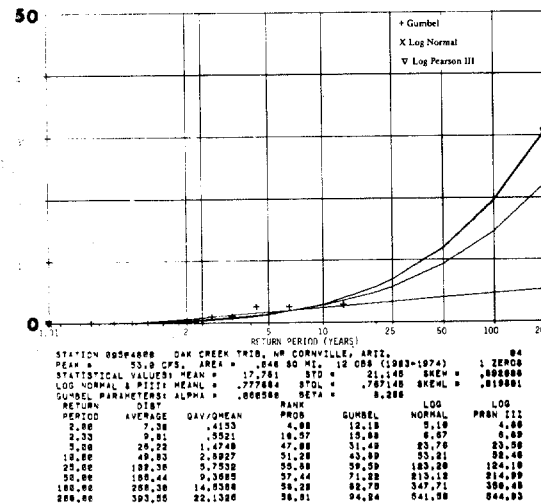
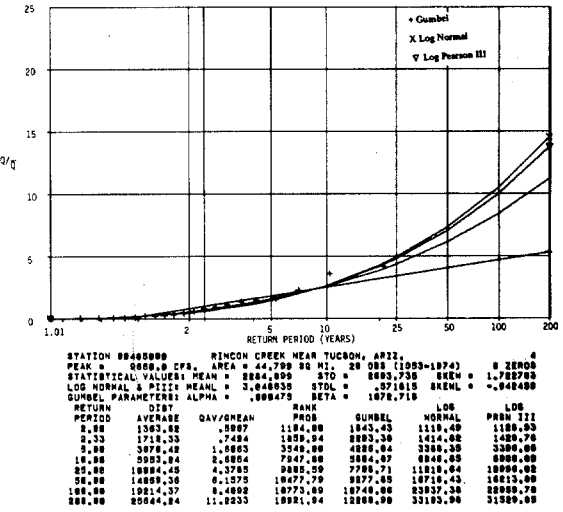
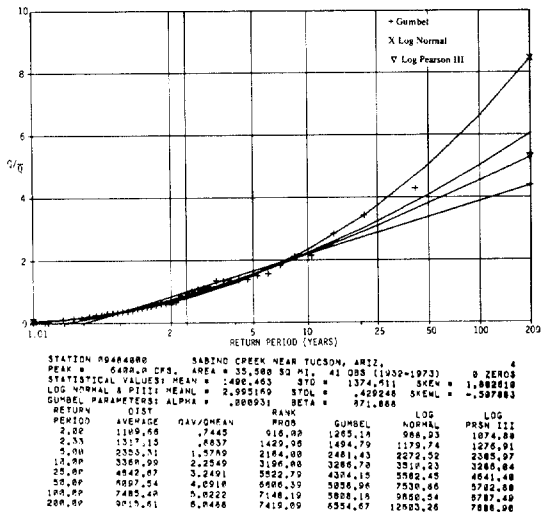
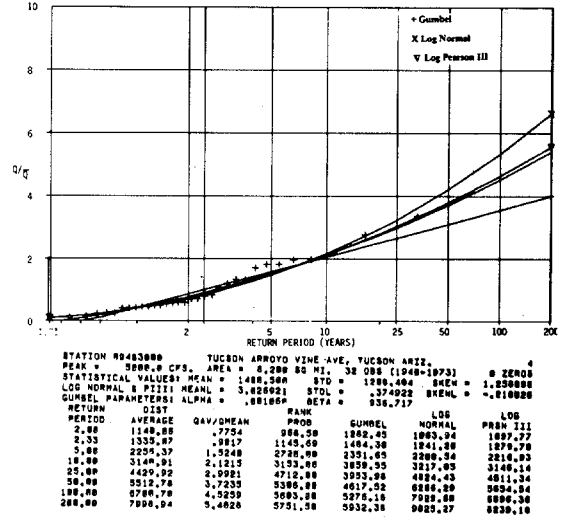
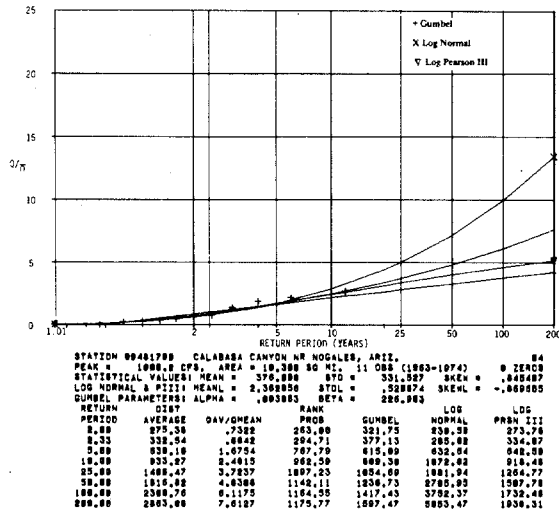
Appendix A-04. Arizona 1-6. Flood frequency curves and data.



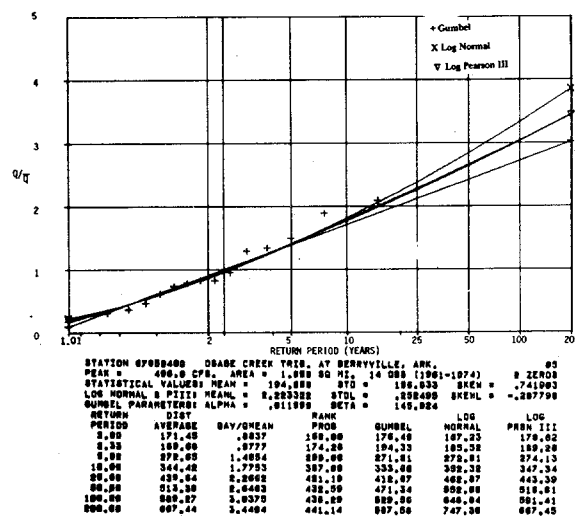
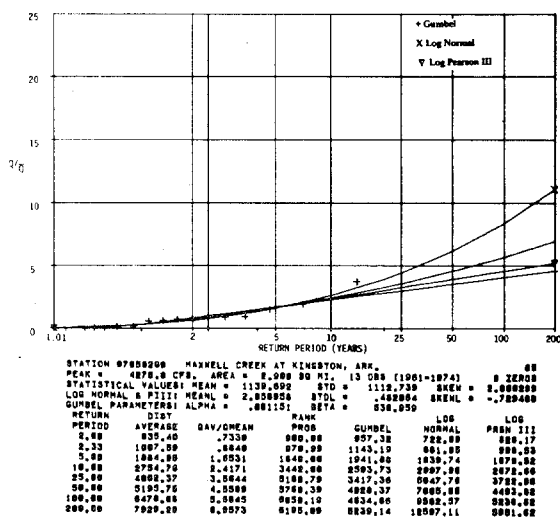
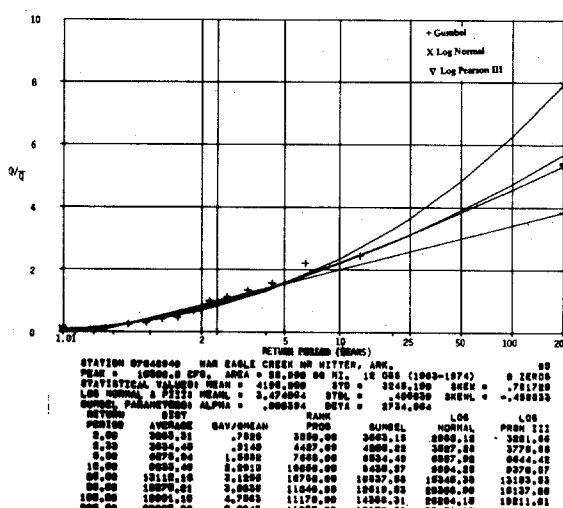
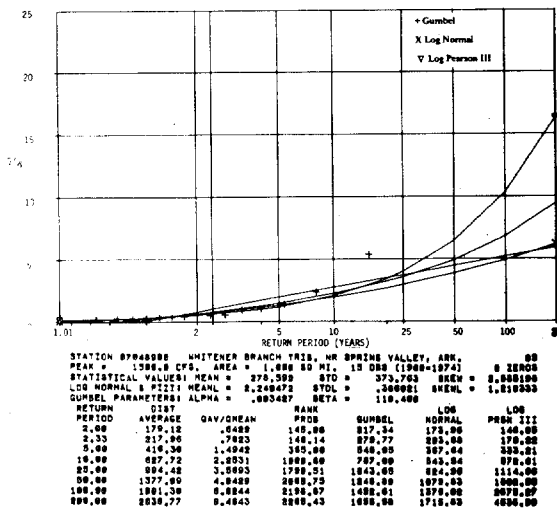
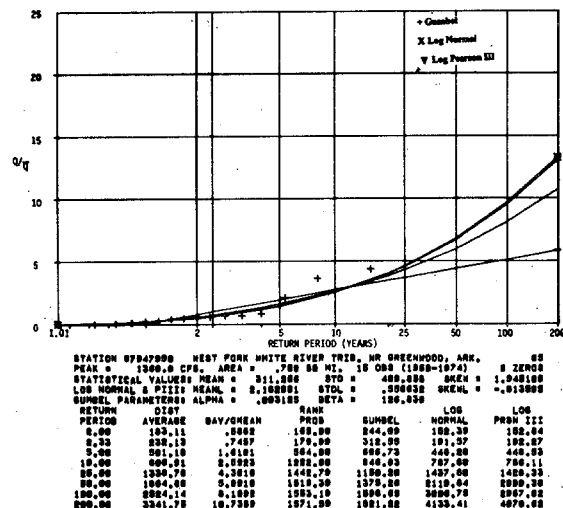
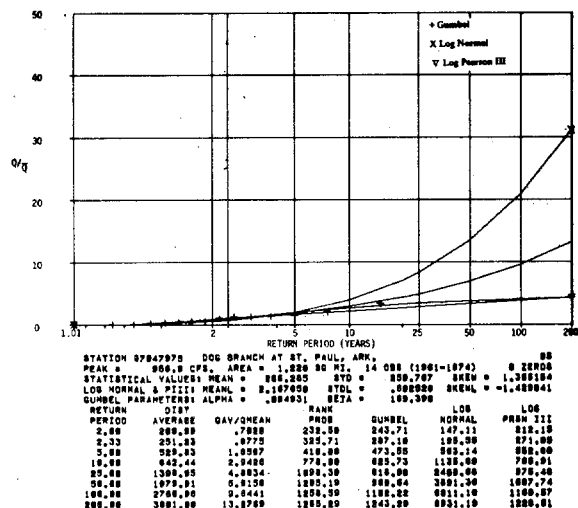
Appendix A-04. Arizona 7-12. Flood frequency curves and data.



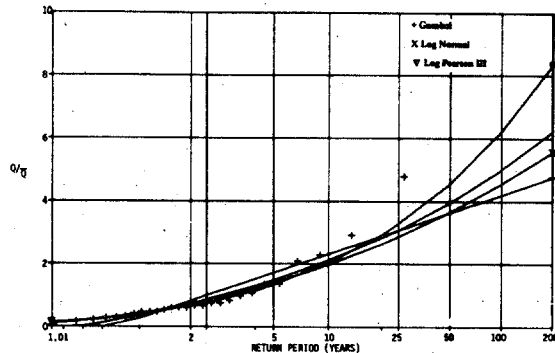
Appendix A-04. Arizona 13-18. Flood frequency curves and data.



Appendix A-04. Arizona 19-24. Flood frequency curves and data.

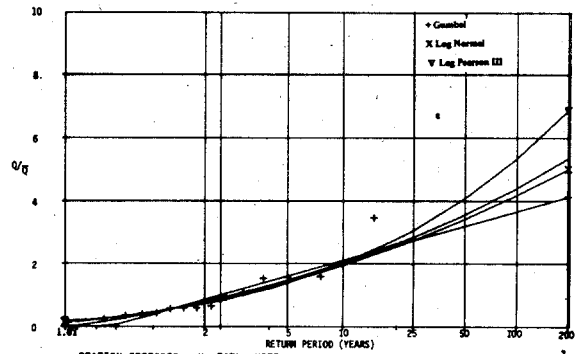


Appendix A-05. Arkansas 1-6. Flood frequency curves and data.



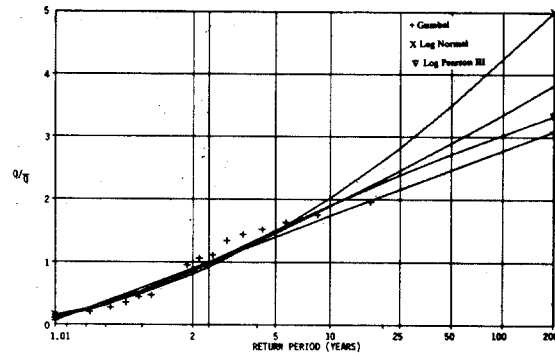
STATION 07200000 COVE CREEK NEAR LEE CREEK, ARK. 0 22000
 PEAK = 33000.0 CFS, AREA = 25.000 SQ MI, 10 OBS (1900-1973)
 STATISTICAL VALUES: MEAN = 7012.307 STD = 7102.013 SKEW = 2.900100
 LOG NORMAL & PIII: MEAN = 3.007000 STD = 3.070000 SKEW = .930100
 GUMBEL PARAMETERS: ALPHA = .000170 BETA = 3700.401

RETURN PERIOD	AVERAGE	DAY/OVERNIGHT	PROB	GUMBEL	LOG NORMAL	LOG PIII
2.00	8150.70	.7348	4000.00	5030.27	4000.00	4000.00
2.33	8644.07	.0010	4000.00	7004.00	5030.27	5030.27
5.00	10400.30	1.0000	8000.00	12100.91	9707.00	9707.00
10.00	14000.30	2.1001	17000.00	10307.03	13000.00	14370.00
20.00	21000.30	3.0900	32000.00	8173.10	20010.22	23107.10
50.00	27000.30	3.0700	30000.00	8000.00	20700.00	32114.00
100.00	30000.30	3.0000	43100.00	8937.13	20047.31	43007.07
200.00	40000.40	3.0000	40000.00	33471.00	30001.04	50001.76



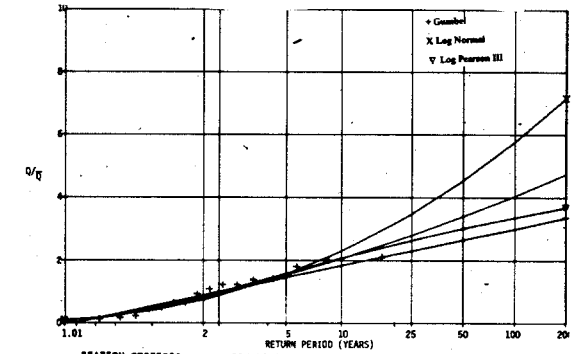
STATION 07200000 FORK WHITE OAK CREEK TRIS. NR WATKINS, ARK. 0 22000
 PEAK = 700.0 CFS, AREA = .070 SQ MI, 14 OBS (1901-1974)
 STATISTICAL VALUES: MEAN = 300.071 STD = 170.000 SKEW = 2.000000
 LOG NORMAL & PIII: MEAN = 2.007014 STD = .310000 SKEW = .400000
 GUMBEL PARAMETERS: ALPHA = .000177 BETA = 100.001

RETURN PERIOD	AVERAGE	DAY/OVERNIGHT	PROB	GUMBEL	LOG NORMAL	LOG PIII
2.00	100.00	.7000	100.00	100.00	100.00	100.00
2.33	100.00	.0000	100.00	100.00	100.00	100.00
5.00	300.00	1.0000	300.00	300.00	300.00	300.00
10.00	400.00	2.0000	400.00	400.00	400.00	400.00
20.00	500.00	3.0000	500.00	500.00	500.00	500.00
50.00	600.00	3.0000	600.00	600.00	600.00	600.00
100.00	700.00	3.0000	700.00	700.00	700.00	700.00
200.00	1000.00	3.0000	1000.00	1000.00	1000.00	1000.00



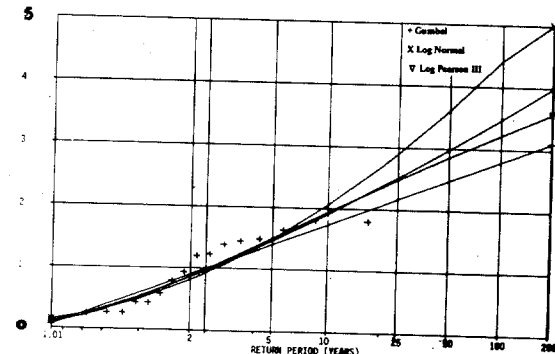
STATION 07200000 SIX MILE CR SUBWATERSHED NO. 6, ARK. 0 22000
 PEAK = 1000.0 CFS, AREA = 4.000 SQ MI, 10 OBS (1900-1970)
 STATISTICAL VALUES: MEAN = 800.373 STD = 800.373 SKEW = -1.000000
 LOG NORMAL & PIII: MEAN = 3.000000 STD = .307030 SKEW = -.037040
 GUMBEL PARAMETERS: ALPHA = .000000 BETA = 731.047

RETURN PERIOD	AVERAGE	DAY/OVERNIGHT	PROB	GUMBEL	LOG NORMAL	LOG PIII
2.00	800.00	.0000	800.00	800.00	800.00	800.00
2.33	800.00	.0000	800.00	800.00	800.00	800.00
5.00	1000.00	1.0000	1000.00	1000.00	1000.00	1000.00
10.00	1200.00	2.0000	1200.00	1200.00	1200.00	1200.00
20.00	1400.00	3.0000	1400.00	1400.00	1400.00	1400.00
50.00	1600.00	3.0000	1600.00	1600.00	1600.00	1600.00
100.00	1800.00	3.0000	1800.00	1800.00	1800.00	1800.00
200.00	2000.00	3.0000	2000.00	2000.00	2000.00	2000.00



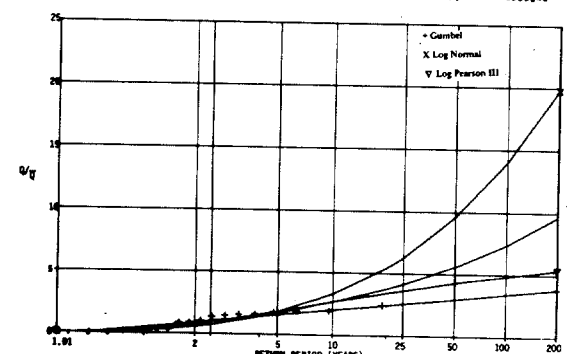
STATION 07200000 SIX MILE CREEK AT CHICKENVILLE, ARK. 0 22000
 PEAK = 2010.0 CFS, AREA = 24.000 SQ MI, 10 OBS (1900-1970)
 STATISTICAL VALUES: MEAN = 1331.337 STD = 886.237 SKEW = 0.000000
 LOG NORMAL & PIII: MEAN = 3.000000 STD = .307030 SKEW = -.037040
 GUMBEL PARAMETERS: ALPHA = .001000 BETA = 840.100

RETURN PERIOD	AVERAGE	DAY/OVERNIGHT	PROB	GUMBEL	LOG NORMAL	LOG PIII
2.00	1000.00	.0000	1000.00	1000.00	1000.00	1000.00
2.33	1000.00	.0000	1000.00	1000.00	1000.00	1000.00
5.00	2000.00	1.0000	2000.00	2000.00	2000.00	2000.00
10.00	2700.00	2.0000	2700.00	2700.00	2700.00	2700.00
20.00	3300.00	3.0000	3300.00	3300.00	3300.00	3300.00
50.00	4000.00	3.0000	4000.00	4000.00	4000.00	4000.00
100.00	4500.00	3.0000	4500.00	4500.00	4500.00	4500.00
200.00	5000.00	3.0000	5000.00	5000.00	5000.00	5000.00



STATION 07200000 SIX MILE CREEK NEAR SHANNAH, ARK. 0 22000
 PEAK = 4000.0 CFS, AREA = 30.000 SQ MI, 10 OBS (1900-1970)
 STATISTICAL VALUES: MEAN = 2010.070 STD = 1400.070 SKEW = -.000000
 LOG NORMAL & PIII: MEAN = 3.000000 STD = .307030 SKEW = -.037040
 GUMBEL PARAMETERS: ALPHA = .000000 BETA = 1000.000

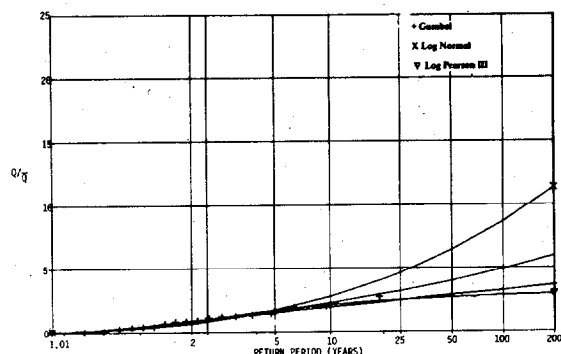
RETURN PERIOD	AVERAGE	DAY/OVERNIGHT	PROB	GUMBEL	LOG NORMAL	LOG PIII
2.00	2000.00	.0000	2000.00	2000.00	2000.00	2000.00
2.33	2000.00	.0000	2000.00	2000.00	2000.00	2000.00
5.00	4000.00	1.0000	4000.00	4000.00	4000.00	4000.00
10.00	4000.00	2.0000	4000.00	4000.00	4000.00	4000.00
20.00	4000.00	3.0000	4000.00	4000.00	4000.00	4000.00
50.00	4000.00	3.0000	4000.00	4000.00	4000.00	4000.00
100.00	4000.00	3.0000	4000.00	4000.00	4000.00	4000.00
200.00	4000.00	3.0000	4000.00	4000.00	4000.00	4000.00



STATION 07200000 SIX MILE CR SUBWATERSHED NO. 6, ARK. 0 22000
 PEAK = 1070.0 CFS, AREA = 2.700 SQ MI, 10 OBS (1900-1970)
 STATISTICAL VALUES: MEAN = 400.000 STD = 340.330 SKEW = .100110
 LOG NORMAL & PIII: MEAN = 2.000000 STD = .300000 SKEW = -.100000
 GUMBEL PARAMETERS: ALPHA = .000000 BETA = 300.000

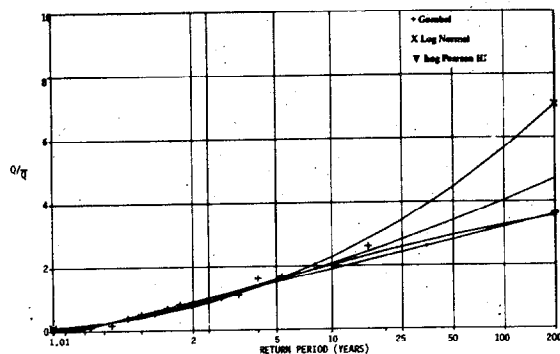
RETURN PERIOD	AVERAGE	DAY/OVERNIGHT	PROB	GUMBEL	LOG NORMAL	LOG PIII
2.00	310.00	.7171	400.00	300.00	300.00	300.00
2.33	300.00	.0000	400.00	400.00	400.00	400.00
5.00	700.00	1.0000	700.00	700.00	700.00	700.00
10.00	1000.00	2.0000	1000.00	1000.00	1000.00	1000.00
20.00	1200.00	3.0000	1200.00	1200.00	1200.00	1200.00
50.00	1500.00	3.0000	1500.00	1500.00	1500.00	1500.00
100.00	1800.00	3.0000	1800.00	1800.00	1800.00	1800.00
200.00	2000.00	3.0000	2000.00	2000.00	2000.00	2000.00

Appendix A-05. Arkansas 7-12. Flood frequency curves and data.



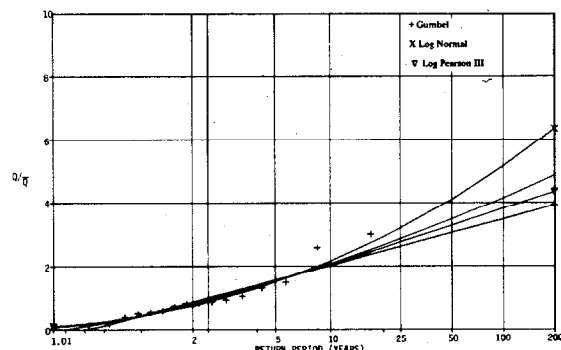
STATION 87254588 SIX MILE CR SUBWATERSHED NO. 2 NR CAULKSVILLE S
 PEAK = 2478.8 CFS, AREA = 9.614 SQ MI, 19 DBS (1958-1978) 8 IER08
 STATISTICAL VALUES: MEAN = 981.111 STD = 642.911 SKEW = 1.834382
 LOG NORMAL & PIII: MEAN = 2.789252 STD = .473477 SKEW = -1.438178
 GUMBEL PARAMETERS: ALPHA = .881992 BETA = 611.688

RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PRISM III
2.00	737.59	.8165	880.58	795.74	619.79	787.24
2.33	806.14	.9011	981.83	883.13	752.95	842.34
5.00	1485.49	1.6491	1372.88	1364.59	1551.75	1531.14
10.00	2052.79	2.2788	1558.88	1741.22	2086.73	1918.42
25.00	2882.60	3.1992	2633.19	2217.88	4181.74	2248.88
50.00	3663.07	3.9884	2891.59	2576.11	5816.88	2481.18
100.00	4431.97	4.9178	3028.79	2888.52	7832.34	2541.85
200.00	5387.01	5.9791	3089.39	3209.88	10207.27	2828.88



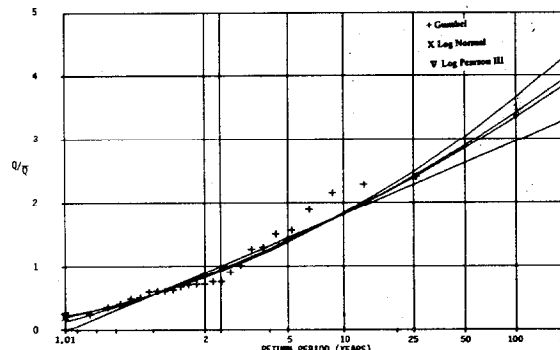
STATION 87288199 SIX MILE CR SUBWATERSHED NO. 23 NR BRANCH, ARK S
 PEAK = 8389.8 CFS, AREA = 4.488 SQ MI, 13 DBS (1958-1978) 8 IER08
 STATISTICAL VALUES: MEAN = 987.286 STD = 677.718 SKEW = 1.466661
 LOG NORMAL & PIII: MEAN = 2.862487 STD = .378595 SKEW = -.854613
 GUMBEL PARAMETERS: ALPHA = .881888 BETA = 662.294

RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PRISM III
2.00	802.86	.8298	880.88	856.19	788.81	823.17
2.33	924.16	.9554	911.78	989.49	896.57	938.31
5.00	1489.97	1.5496	1088.89	1455.84	1511.78	1528.28
10.00	2017.88	2.0855	1172.88	1852.83	2213.88	1984.53
25.00	2739.68	2.8219	2739.79	2354.48	3389.82	2596.38
50.00	3382.81	3.4137	2914.39	2728.82	4384.74	2894.68
100.00	3912.39	4.0447	3087.19	3096.88	5478.34	3189.84
200.00	4589.16	4.7198	3093.58	3484.84	6784.48	3437.84



STATION 87253589 HURRICANE CREEK NEAR BRANCH, ARK. S
 PEAK = 2648.8 CFS, AREA = 17.199 SQ MI, 18 DBS (1958-1978) 8 IER08
 STATISTICAL VALUES: MEAN = 948.588 STD = 751.332 SKEW = 1.899283
 LOG NORMAL & PIII: MEAN = 2.858845 STD = .388194 SKEW = -.448888
 GUMBEL PARAMETERS: ALPHA = .881784 BETA = 680.488

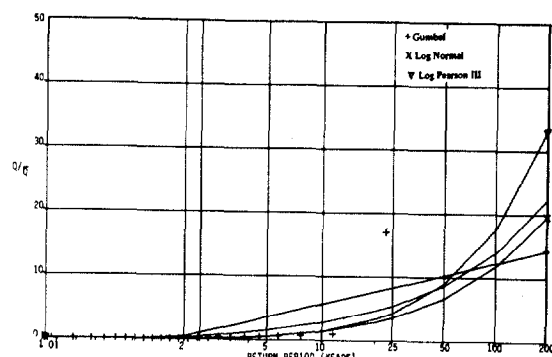
RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PRISM III
2.00	783.65	.8078	799.88	823.30	789.46	786.89
2.33	882.81	.9327	814.89	948.88	822.89	876.88
5.00	1485.96	1.5346	1345.88	1488.14	1480.12	1445.48
10.00	1978.95	2.0888	2574.88	1988.28	2894.82	1948.84
25.00	2719.88	2.8832	2901.59	2444.48	3831.88	2614.89
50.00	3382.81	3.4983	3098.79	2888.86	5027.88	3118.85
100.00	3912.39	4.1507	3133.39	3388.47	6886.83	3618.81
200.00	4612.19	4.8728	3187.89	3714.48	8984.87	4118.81



STATION 87266589 SOUTH FORK JUCHINTA R AT MOUNT IDA, ARK. S
 PEAK = 8090.8 CFS, AREA = 84.800 SQ MI, 28 DBS (1958-1974) 8 IER08
 STATISTICAL VALUES: MEAN = 8322.388 STD = 8811.981 SKEW = 1.888823
 LOG NORMAL & PIII: MEAN = 3.246183 STD = .384383 SKEW = -.164894
 GUMBEL PARAMETERS: ALPHA = .889828 BETA = 8777.177

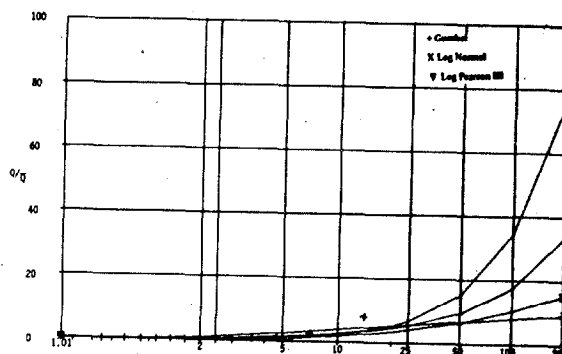
RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PRISM III
2.00	7198.88	.8542	8978.88	7488.81	8083.88	8078.83
2.33	7928.34	.9824	8389.88	8389.81	7777.19	7683.84
5.00	11739.26	1.4185	10888.88	12879.88	11988.48	11888.11
10.00	15171.88	1.8222	10848.88	18188.82	19188.87	18888.86
25.00	18917.88	2.3932	19988.88	18888.82	28888.19	28887.88
50.00	22744.81	3.0538	28888.88	21881.74	40888.87	38887.88
100.00	27918.78	3.3488	29748.88	24882.36	58888.84	36878.11
200.00	36181.48	3.8844	29672.88	27882.48	88888.13	38888.88

Appendix A-05. Arkansas 13-16. Flood frequency curves and data.



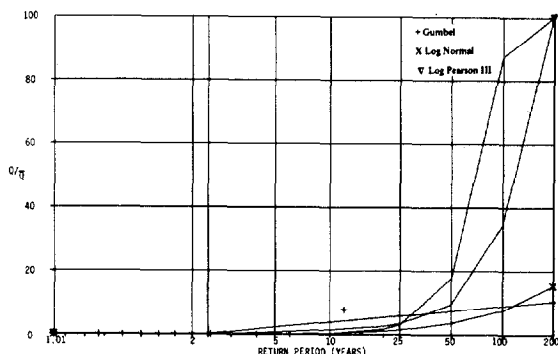
STATION 10255810 HORNED PULP CREEK NEAR SEARGEY SPRINGS, CALIF. 00
 PEAK = 2000.0 CFS, AREA = 31.000 SQ MI, 22 OBS (1961-1973) 3 ZEROS
 STATISTICAL VALUES: MEAN = 114.020 STD = 422.034 SKEW = 4.030200
 LOG NORMAL & PIII: MEAN = 1.00000 STD = 0.00000 SKEW = 0.271077
 GUMBEL PARAMETERS: ALPHA = 0.003035 BETA = -73.007

RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	23.00	0.2017	8.50	47.00	12.04	10.00
5.00	30.00	0.2519	14.14	110.10	17.33	15.00
10.00	35.00	0.2896	18.80	141.07	20.00	18.00
20.00	40.00	0.3198	23.98	164.21	21.73	20.00
50.00	48.00	0.3600	30.00	210.15	23.00	22.00
100.00	50.00	0.3740	34.49	229.19	23.00	22.00
200.00	50.00	0.3740	34.49	229.19	23.00	22.00



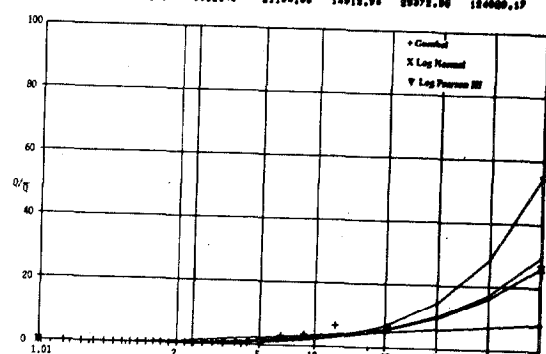
STATION 10255890 SNOW CREEK NEAR WHITE WATER, CALIF. 00
 PEAK = 10000.0 CFS, AREA = 10.000 SQ MI, 15 OBS (1961-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1007.070 STD = 3000.100 SKEW = 3.000000
 LOG NORMAL & PIII: MEAN = 0.00000 STD = 0.00000 SKEW = 1.000000
 GUMBEL PARAMETERS: ALPHA = 0.000000 BETA = 0.000000

RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	800.00	0.2000	8.50	1007.07	800.00	800.00
5.00	800.00	0.2000	14.14	1007.07	800.00	800.00
10.00	800.00	0.2000	18.80	1007.07	800.00	800.00
20.00	800.00	0.2000	23.98	1007.07	800.00	800.00
50.00	800.00	0.2000	30.00	1007.07	800.00	800.00
100.00	800.00	0.2000	34.49	1007.07	800.00	800.00
200.00	800.00	0.2000	34.49	1007.07	800.00	800.00



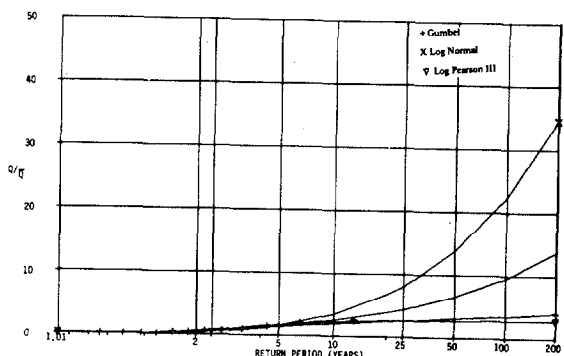
STATION 10255890 LONG CREEK NEAR DESERT HOT SPRINGS, CALIF. 00
 PEAK = 9000.0 CFS, AREA = 10.000 SQ MI, 11 OBS (1961-1973) 3 ZEROS
 STATISTICAL VALUES: MEAN = 1174.274 STD = 3671.100 SKEW = 0.000000
 LOG NORMAL & PIII: MEAN = 1.00000 STD = 0.00000 SKEW = 0.000000
 GUMBEL PARAMETERS: ALPHA = 0.000000 BETA = -207.700

RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	200.00	0.2000	8.50	1174.27	200.00	200.00
5.00	300.00	0.3000	14.14	1174.27	300.00	300.00
10.00	400.00	0.4000	18.80	1174.27	400.00	400.00
20.00	500.00	0.5000	23.98	1174.27	500.00	500.00
50.00	700.00	0.7000	30.00	1174.27	700.00	700.00
100.00	800.00	0.8000	34.49	1174.27	800.00	800.00
200.00	900.00	0.9000	34.49	1174.27	900.00	900.00



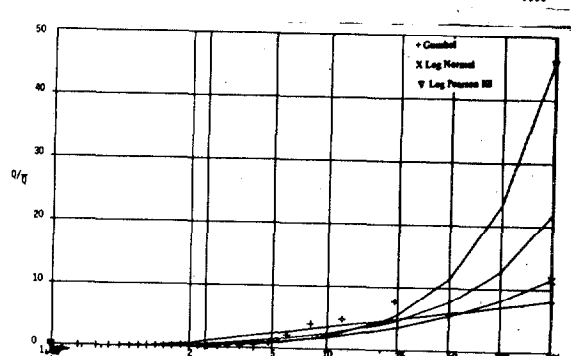
STATION 10255890 TANQUITZ CREEK NEAR PALM SPRINGS, CALIF. 00
 PEAK = 2000.0 CFS, AREA = 10.000 SQ MI, 20 OBS (1961-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 404.700 STD = 841.000 SKEW = 0.000000
 LOG NORMAL & PIII: MEAN = 1.00000 STD = 0.00000 SKEW = 0.000000
 GUMBEL PARAMETERS: ALPHA = 0.000000 BETA = 0.000000

RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	151.00	0.2000	8.50	404.70	151.00	151.00
5.00	210.00	0.3000	14.14	404.70	210.00	210.00
10.00	270.00	0.4000	18.80	404.70	270.00	270.00
20.00	330.00	0.5000	23.98	404.70	330.00	330.00
50.00	400.00	0.7000	30.00	404.70	400.00	400.00
100.00	450.00	0.8000	34.49	404.70	450.00	450.00
200.00	500.00	0.9000	34.49	404.70	500.00	500.00



STATION 10255890 PALM CANYON TRAIL, N. ANZA, CALIF. 00
 PEAK = 30.0 CFS, AREA = 0.700 SQ MI, 10 OBS (1961-1973) 3 ZEROS
 STATISTICAL VALUES: MEAN = 11.000 STD = 0.437 SKEW = 0.000000
 LOG NORMAL & PIII: MEAN = 0.00000 STD = 0.00000 SKEW = 0.000000
 GUMBEL PARAMETERS: ALPHA = 0.000000 BETA = 0.000000

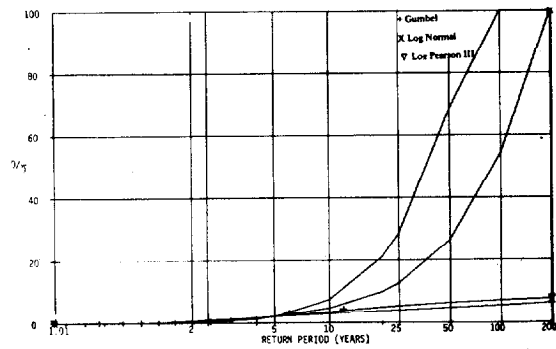
RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	0.00	0.2000	8.50	11.00	0.00	0.00
5.00	0.00	0.3000	14.14	11.00	0.00	0.00
10.00	0.00	0.4000	18.80	11.00	0.00	0.00
20.00	0.00	0.5000	23.98	11.00	0.00	0.00
50.00	0.00	0.7000	30.00	11.00	0.00	0.00
100.00	0.00	0.8000	34.49	11.00	0.00	0.00
200.00	0.00	0.9000	34.49	11.00	0.00	0.00



STATION 10255890 ANDREAS CREEK NEAR PALM SPRINGS, CALIF. 00
 PEAK = 1000.0 CFS, AREA = 0.610 SQ MI, 20 OBS (1961-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 254.043 STD = 487.417 SKEW = 0.000000
 LOG NORMAL & PIII: MEAN = 1.00000 STD = 0.00000 SKEW = 0.000000
 GUMBEL PARAMETERS: ALPHA = 0.000000 BETA = 0.000000

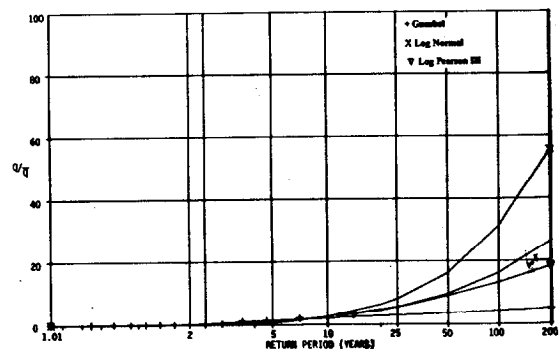
RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	104.74	0.2000	8.50	254.04	104.74	104.74
5.00	140.00	0.3000	14.14	254.04	140.00	140.00
10.00	170.00	0.4000	18.80	254.04	170.00	170.00
20.00	200.00	0.5000	23.98	254.04	200.00	200.00
50.00	250.00	0.7000	30.00	254.04	250.00	250.00
100.00	280.00	0.8000	34.49	254.04	280.00	280.00
200.00	300.00	0.9000	34.49	254.04	300.00	300.00

Appendix A-06. California 1-6. Flood frequency curves and data. .



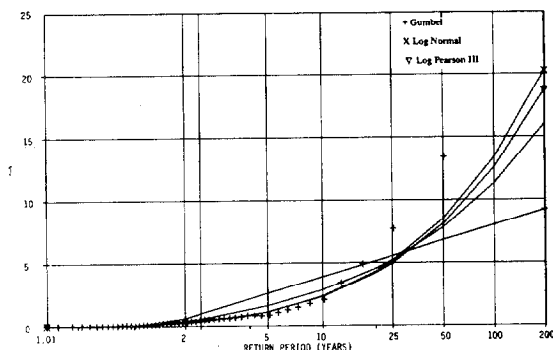
STATION 10050000 DEER CREEK NR PALM DESERT, CALIF. 00
 PEAK = 1300.0 CFS. AREA = 30,590 SQ MI. 11 000 (1944-1984) 0 20000
 STATISTICAL VALUES: MEAN = 383.550 STD = 438.076 SKEW = 1.792271
 LOG NORMAL & PIII MEAN = 1.790830 STD = 1.840108 SKEW = 1.493008
 GUMBEL PARAMETERS: ALPHA = .002510 BETA = 185.076

RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	LOG PRIN III
2.00	134.30	.4224	107.00	231.00	87.37	170.01
2.33	100.00	.4334	107.00	204.00	86.00	150.00
5.00	620.30	2.0032	700.00	600.00	603.00	610.00
10.00	1000.00	4.0411	1030.00	877.00	807.00	1070.00
25.00	3040.00	12.0700	1401.10	1880.00	2700.10	1810.00
50.00	6000.70	20.7300	1930.00	1440.00	2070.00	1930.00
100.00	10430.00	34.1870	1070.70	1000.00	4040.17	3171.70
200.00	20200.70	100.5030	1001.30	1001.00	9000.40	2044.00



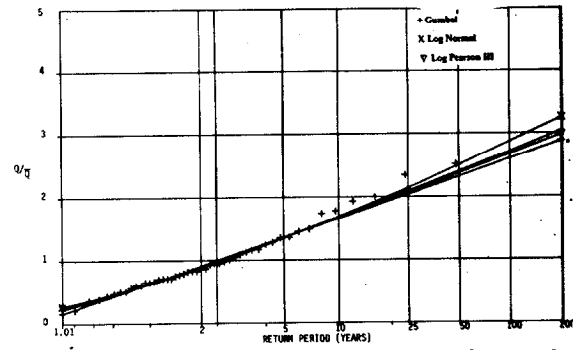
STATION 10000000 COTTONWOOD WASH NR COTTONWOOD SPRINGS, CALIF. 00
 PEAK = 34.0 CFS. AREA = .710 SQ MI. 12 000 (1901-1973) 0 20000
 STATISTICAL VALUES: MEAN = 10.000 STD = 10.000 SKEW = 1.130704
 LOG NORMAL & PIII MEAN = .688400 STD = .688400 SKEW = -.630000
 GUMBEL PARAMETERS: ALPHA = .104070 BETA = 0.000

RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	LOG PRIN III
2.00	1.00	.0337	1.00	1.00	.40	.07
2.33	1.00	.0370	1.00	1.00	.40	.07
5.00	10.00	1.0000	10.00	10.00	10.00	10.00
10.00	20.00	2.0000	20.00	20.00	20.00	20.00
25.00	30.00	3.0000	30.00	30.00	30.00	30.00
50.00	101.00	0.0000	40.00	40.00	37.00	170.00
100.00	170.00	10.0000	40.00	40.00	40.00	100.00
200.00	270.00	20.0000	40.00	40.00	40.00	100.00



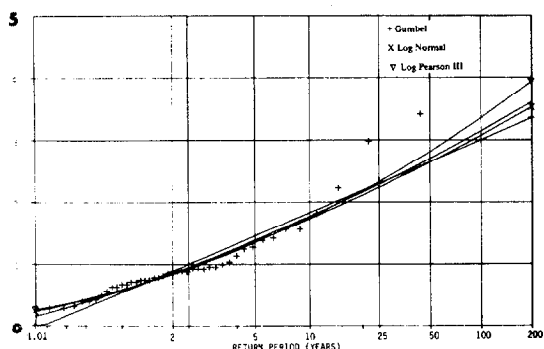
STATION 10263500 BIG ROCK CREEK NEAR VALERMO, CALIF. 0
 PEAK = 8300.0 CFS. AREA = 22,000 SQ MI. 50 000 (1920-1970) 0 20000
 STATISTICAL VALUES: MEAN = 617.250 STD = 1301.000 SKEW = 4.333000
 LOG NORMAL & PIII MEAN = 2.241230 STD = .726355 SKEW = -.851866
 GUMBEL PARAMETERS: ALPHA = .000520 BETA = 4.634

RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	LOG PRIN III
2.00	247.27	.4000	210.30	300.77	174.27	170.70
2.33	304.30	.3900	202.30	321.61	234.32	137.00
5.00	1000.00	1.4331	520.70	1613.55	704.00	700.00
10.00	1770.00	2.0782	1070.00	2423.13	1400.00	1440.10
25.00	3737.00	5.0452	4001.20	3400.00	3101.00	3000.00
50.00	4820.00	7.1100	8220.10	4204.00	3250.00	3017.30
100.00	6002.00	11.1070	10004.00	4200.10	3200.00	3000.00
200.00	6003.00	14.0440	10037.20	5700.64	12470.00	11524.00



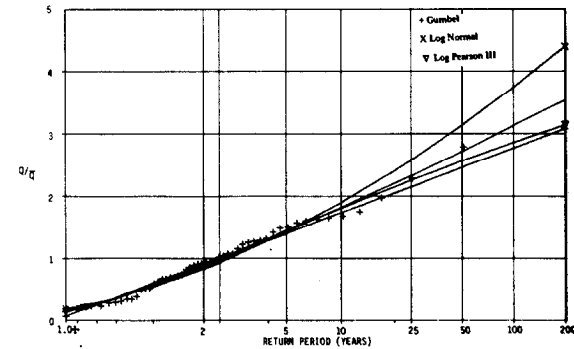
STATION 10000000 CONVICT CREEK NEAR HANNUOTH LAKES, CALIF. 0
 PEAK = 200.0 CFS. AREA = 10,000 SQ MI. 47 000 (1920-1970) 0 20000
 STATISTICAL VALUES: MEAN = 110.300 STD = 2.00000 SKEW = 1.170000
 LOG NORMAL & PIII MEAN = 2.000000 STD = .110700 SKEW = -.100000
 GUMBEL PARAMETERS: ALPHA = .001710 BETA = 0.001

RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	LOG PRIN III
2.00	103.07	.0000	100.00	100.71	100.10	100.77
2.33	113.00	.0000	110.00	110.00	110.00	110.00
5.00	137.10	1.3010	150.00	137.01	150.00	137.00
10.00	103.70	1.0700	200.00	100.00	100.00	100.00
25.00	241.17	2.0000	271.00	230.10	247.00	230.00
50.00	277.00	2.0000	200.00	200.00	200.00	200.00
100.00	315.70	2.7100	300.00	300.71	311.00	300.10
200.00	350.00	3.0410	300.00	300.71	370.00	344.10



STATION 10200700 SILVER CANYON CREEK NEAR LAMO, CALIF. 0
 PEAK = 0.0 CFS. AREA = 22,000 SQ MI. 43 000 (1930-1970) 0 20000
 STATISTICAL VALUES: MEAN = 2.010 STD = 1.700 SKEW = 2.170000
 LOG NORMAL & PIII MEAN = .352421 STD = .230470 SKEW = .014000
 GUMBEL PARAMETERS: ALPHA = .713052 BETA = 2.000

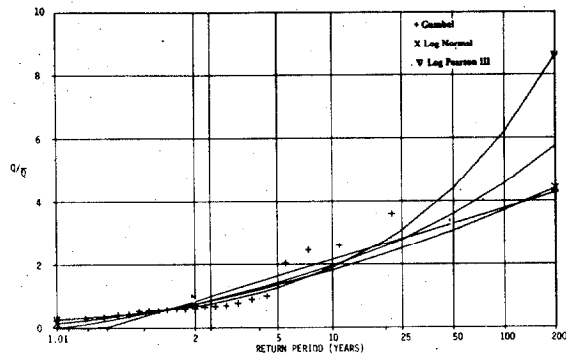
RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	LOG PRIN III
2.00	2.43	.0044	2.50	2.31	2.41	2.30
2.33	2.40	.0000	2.51	2.01	2.00	2.01
5.00	3.01	1.3010	3.00	4.10	3.00	3.00
10.00	4.00	1.7732	4.00	5.10	4.00	4.00
25.00	6.40	2.0000	6.00	6.40	6.00	6.00
50.00	7.01	2.7070	7.00	7.00	7.00	7.00
100.00	7.00	3.1000	7.00	7.00	7.00	7.00
200.00	10.14	3.0000	10.10	9.40	9.01	11.00



STATION 10001000 INDEPENDENCE CREEK AT PINON CP NR INDEPENDENCE 0
 PEAK = 100.0 CFS. AREA = 10,100 SQ MI. 30 000 (1900-1970) 0 20000
 STATISTICAL VALUES: MEAN = 36.000 STD = 36.000 SKEW = .000000
 LOG NORMAL & PIII MEAN = 1.700000 STD = .070000 SKEW = -.350000
 GUMBEL PARAMETERS: ALPHA = .037450 BETA = 44.000

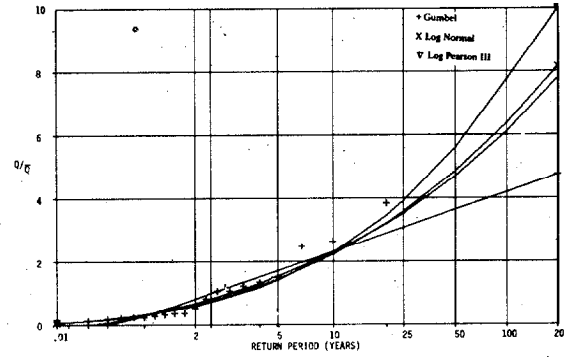
RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	LOG PRIN III
2.00	30.00	.0700	30.00	30.00	30.00	30.00
2.33	30.00	.0771	30.00	30.00	30.00	30.00
5.00	30.00	1.4300	30.00	30.00	30.00	30.00
10.00	110.00	1.0000	101.00	101.00	101.00	101.00
25.00	141.00	2.3300	137.00	137.00	137.00	137.00
50.00	104.75	2.7000	100.00	100.00	100.00	100.00
100.00	100.00	3.1000	100.00	100.00	100.00	100.00
200.00	210.00	3.5000	100.00	100.00	200.00	100.00

Appendix A-06. California 7-12. Flood frequency curves and data.



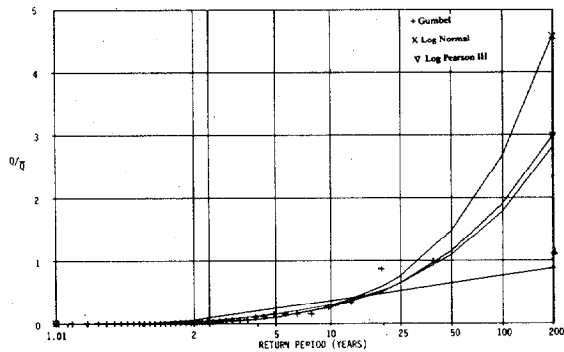
STATION 1834586 SILVER CREEK NEAR MARKLEVILLE, CALIF. 6
 PEAK = 2588.0 CFS. AREA = 28.000 SQ MI. 21 OBS (1947-1997) 0 ZEROS
 STATISTICAL VALUES: MEAN = 613.333 STD = 547.410 SKEN = 1.923193
 LOG NORMAL & PIII: MEAN = 2.872934 STD = .244184 SKENL = 1.088182
 GUMBEL PARAMETERS: ALPHA = .082348 BETA = 388.556

RETURN PERIOD	AVERAGE	DAY/OVERNIGHT	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	473.51	.7895	399.00	525.61	474.10	424.73
2.33	341.08	.8896	419.56	617.93	535.13	473.46
3.00	278.59	1.4276	1904.00	1090.37	838.85	785.88
10.00	1212.10	1.5698	1584.00	1356.65	1129.75	1175.88
25.00	1734.64	2.8100	2294.39	1735.84	1852.61	1915.48
50.00	2213.39	3.8866	2597.19	2036.42	1986.19	2715.29
100.00	2818.48	4.5872	2783.59	2354.79	2282.89	3063.52
200.00	3541.03	5.7556	2771.79	2832.87	2712.85	3279.88



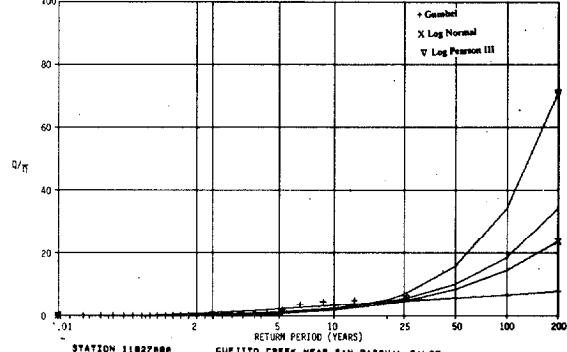
STATION 1834588 SAGEMEN CREEK NEAR TRUCKEE, CALIF. 6
 PEAK = 798.0 CFS. AREA = 19.500 SQ MI. 19 OBS (1924-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 198.736 STD = 282.387 SKEN = 1.613833
 LOG NORMAL & PIII: MEAN = 2.897839 STD = .431647 SKENL = .27101
 GUMBEL PARAMETERS: ALPHA = .088332 BETA = 187.662

RETURN PERIOD	AVERAGE	DAY/OVERNIGHT	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	138.86	.8888	184.00	188.90	182.85	119.78
2.33	104.85	.8254	185.13	199.37	149.39	143.21
3.00	396.14	1.5484	381.00	344.64	289.29	284.60
10.00	456.73	2.2881	381.00	483.20	447.79	458.19
25.00	782.41	3.5343	812.39	813.00	713.99	788.84
50.00	933.37	4.6985	987.19	784.13	984.81	1111.18
100.00	1212.79	6.1925	954.39	834.44	1088.19	1888.98
200.00	1549.80	7.7985	978.29	944.35	1019.31	2888.98



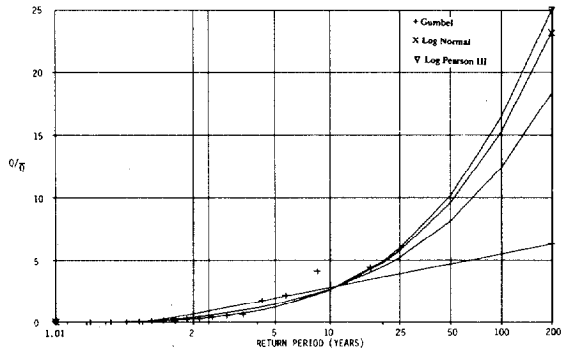
STATION 1181888 SWEETWATER RIVER NEAR DISCAMO, CALIF. 6
 PEAK = 1188.0 CFS. AREA = 45.500 SQ MI. 38 OBS (1909-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1188.000 STD = 2416.788 SKEN = 3.418124
 LOG NORMAL & PIII: MEAN = 2.888378 STD = .048488 SKENL = .218864
 GUMBEL PARAMETERS: ALPHA = .088330 BETA = 48.156

RETURN PERIOD	AVERAGE	DAY/OVERNIGHT	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	308.45	.3367	985.00	733.61	196.85	211.08
2.33	278.92	.5184	424.00	1137.20	809.55	518.01
3.00	1773.71	1.3788	1784.00	1871.03	1813.43	1335.76
10.00	3478.98	3.8725	3690.00	4287.08	3145.83	2975.83
25.00	7383.85	6.3386	10435.00	8076.48	8898.48	7388.82
50.00	12398.75	10.3716	11492.00	7725.38	10749.88	13837.51
100.00	20158.13	17.8387	12811.29	8788.75	38828.79	21884.87
200.00	31824.83	28.1787	12278.04	10635.18	61736.53	35893.41



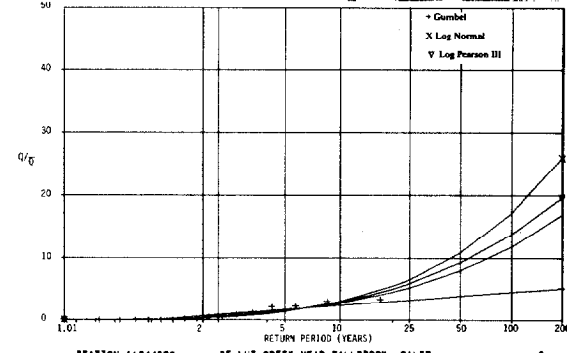
STATION 11827888 GUEJITO CREEK NEAR SAN PABUAL, CALIF. 6
 PEAK = 2928.0 CFS. AREA = 22.500 SQ MI. 25 OBS (1947-1978) 0 ZEROS
 STATISTICAL VALUES: MEAN = 438.439 STD = 838.815 SKEN = 2.888461
 LOG NORMAL & PIII: MEAN = 1.874414 STD = .838334 SKENL = 1.018808
 GUMBEL PARAMETERS: ALPHA = .081388 BETA = 82.332

RETURN PERIOD	AVERAGE	DAY/OVERNIGHT	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	146.18	.3328	38.00	382.10	74.00	81.87
2.33	211.43	.4811	47.88	442.87	108.44	88.77
3.00	388.45	1.3398	734.20	1843.57	376.84	348.73
10.00	1121.80	2.5538	2168.00	1534.40	973.92	987.87
25.00	2478.44	5.8218	2003.19	2154.77	2149.13	2187.48
50.00	4484.98	10.2859	3241.39	2514.85	3848.84	4998.88
100.00	8198.64	18.6576	3815.79	3871.99	6478.44	10845.79
200.00	15857.02	34.2654	3582.40	3588.77	10427.71	31818.88



STATION 11833888 N FORK SAN LUIS RIVER NEAR WARNER SPGS, CALIF. 6
 PEAK = 4288.0 CFS. AREA = 85.000 SQ MI. 19 OBS (1914-1973) 1 ZERO
 STATISTICAL VALUES: MEAN = 949.799 STD = 1398.511 SKEN = 1.710828
 LOG NORMAL & PIII: MEAN = 2.488827 STD = .728774 SKENL = .879585
 GUMBEL PARAMETERS: ALPHA = .088917 BETA = 521.380

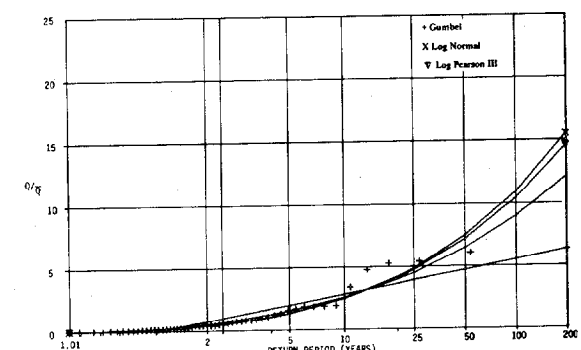
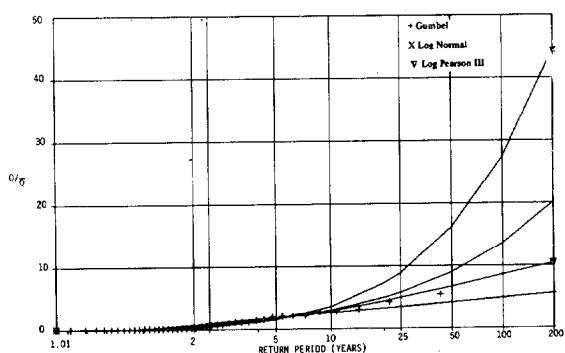
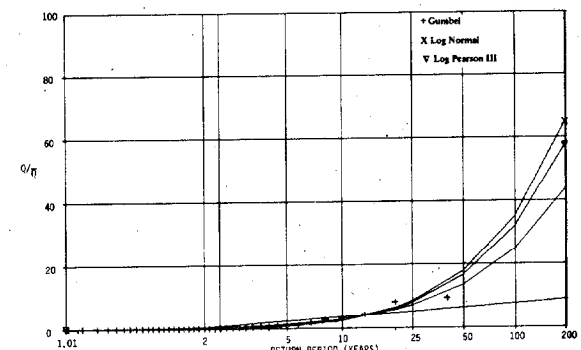
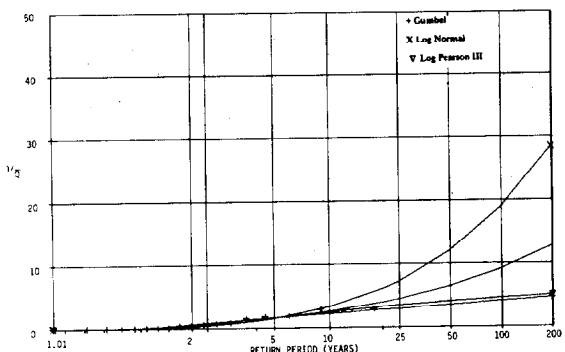
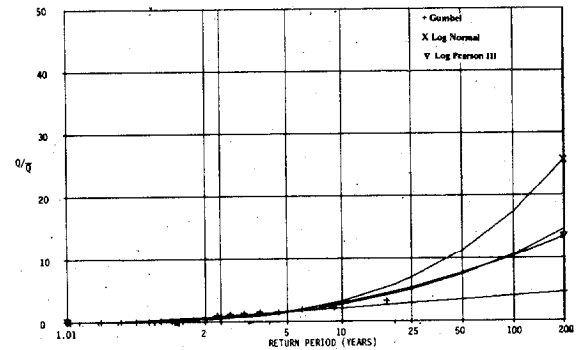
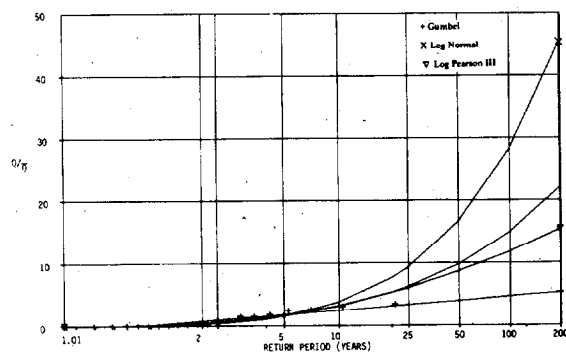
RETURN PERIOD	AVERAGE	DAY/OVERNIGHT	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	383.31	.4858	835.00	617.48	276.48	282.36
2.33	388.75	.5353	343.33	858.39	356.43	362.22
3.00	1387.60	1.4788	1912.00	1877.38	1184.09	1148.08
10.00	2558.78	2.6856	3990.00	2788.32	2478.09	2472.35
25.00	4958.48	5.2284	4288.00	3736.46	3472.75	3888.08
50.00	7777.91	6.1885	4388.00	4884.85	8181.43	8888.64
100.00	11881.73	12.4254	4448.00	5885.59	14838.11	15888.48
200.00	17411.44	18.5510	4474.58	6885.19	28889.99	3118.28



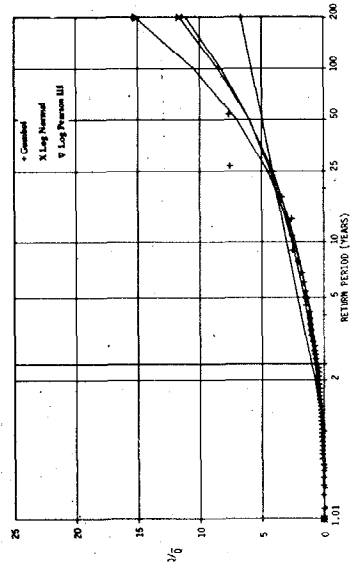
STATION 11844888 DE LUZ CREEK NEAR FALLBROOK, CALIF. 6
 PEAK = 2888.0 CFS. AREA = 47.500 SQ MI. 18 OBS (1958-1967) 1 ZERO
 STATISTICAL VALUES: MEAN = 848.998 STD = 988.898 SKEN = 1.888818
 LOG NORMAL & PIII: MEAN = 2.514517 STD = .718587 SKENL = .177588
 GUMBEL PARAMETERS: ALPHA = .081381 BETA = 418.748

RETURN PERIOD	AVERAGE	DAY/OVERNIGHT	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	482.78	.4756	385.00	818.19	893.98	898.03
2.33	283.75	.6184	357.85	782.88	377.25	448.13
3.00	1318.85	1.5478	1878.00	1498.49	1813.54	1828.14
10.00	3358.65	2.7638	2848.00	2881.55	2885.82	2488.78
25.00	4488.66	5.2747	2878.30	3788.56	3577.83	3841.78
50.00	8827.48	8.8625	2848.19	3313.23	8888.73	7888.84
100.00	18848.55	11.8877	2888.59	3841.88	14888.73	17881.88
200.00	14341.88	16.8358	3881.29	4388.88	28888.28	18888.88

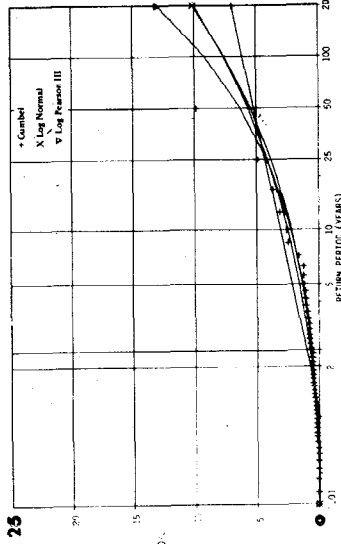
Appendix A-06. California 13-18. Flood frequency curves and data.



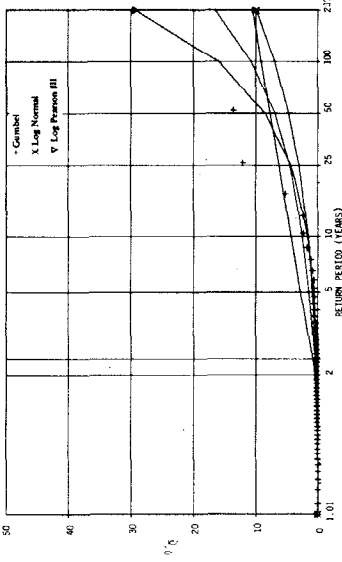
Appendix A-06. California 19-24. Flood frequency curves and data.

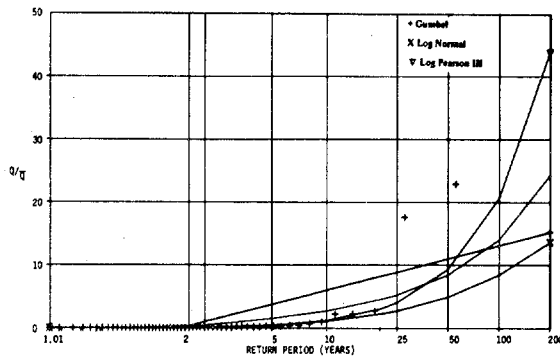


STATION 1168699 CITY CREEK NEAR HIGHLAND, CALIF.
 LOG NORMAL: PEAK = 5189.6 CFS, AREA = 3.326 SQ MI, 23 OBS (1928-1972)
 STATISTICAL VALUES: MEAN = 551.488, STD = 235.721, SECM = 4.07287
 LOG NORMAL: MEAN = 551.488, STD = 235.721, SECM = 4.07287
 GUMBEL PARAMETERS: ALPHA = 1.689348, BETA = 1.168189
 RETURN: 2.33, 5.0, 10, 25, 50, 100, 200
 LOG: 0.368, 0.699, 1.030, 1.361, 1.692, 2.023, 2.354, 2.685, 3.016, 3.347, 3.678, 4.009, 4.340, 4.671, 5.002, 5.333, 5.664, 5.995, 6.326, 6.657, 6.988, 7.319, 7.650, 7.981, 8.312, 8.643, 8.974, 9.305, 9.636, 9.967, 10.298, 10.629, 10.960, 11.291, 11.622, 11.953, 12.284, 12.615, 12.946, 13.277, 13.608, 13.939, 14.270, 14.601, 14.932, 15.263, 15.594, 15.925, 16.256, 16.587, 16.918, 17.249, 17.580, 17.911, 18.242, 18.573, 18.904, 19.235, 19.566, 19.897, 20.228, 20.559, 20.890, 21.221, 21.552, 21.883, 22.214, 22.545, 22.876, 23.207, 23.538, 23.869, 24.200, 24.531, 24.862, 25.193, 25.524, 25.855, 26.186, 26.517, 26.848, 27.179, 27.510, 27.841, 28.172, 28.503, 28.834, 29.165, 29.496, 29.827, 30.158, 30.489, 30.820, 31.151, 31.482, 31.813, 32.144, 32.475, 32.806, 33.137, 33.468, 33.799, 34.130, 34.461, 34.792, 35.123, 35.454, 35.785, 36.116, 36.447, 36.778, 37.109, 37.440, 37.771, 38.102, 38.433, 38.764, 39.095, 39.426, 39.757, 40.088, 40.419, 40.750, 41.081, 41.412, 41.743, 42.074, 42.405, 42.736, 43.067, 43.398, 43.729, 44.060, 44.391, 44.722, 45.053, 45.384, 45.715, 46.046, 46.377, 46.708, 47.039, 47.370, 47.701, 48.032, 48.363, 48.694, 49.025, 49.356, 49.687, 50.018, 50.349, 50.680, 51.011, 51.342, 51.673, 52.004, 52.335, 52.666, 52.997, 53.328, 53.659, 53.990, 54.321, 54.652, 54.983, 55.314, 55.645, 55.976, 56.307, 56.638, 56.969, 57.300, 57.631, 57.962, 58.293, 58.624, 58.955, 59.286, 59.617, 59.948, 60.279, 60.610, 60.941, 61.272, 61.603, 61.934, 62.265, 62.596, 62.927, 63.258, 63.589, 63.920, 64.251, 64.582, 64.913, 65.244, 65.575, 65.906, 66.237, 66.568, 66.899, 67.230, 67.561, 67.892, 68.223, 68.554, 68.885, 69.216, 69.547, 69.878, 70.209, 70.540, 70.871, 71.202, 71.533, 71.864, 72.195, 72.526, 72.857, 73.188, 73.519, 73.850, 74.181, 74.512, 74.843, 75.174, 75.505, 75.836, 76.167, 76.498, 76.829, 77.160, 77.491, 77.822, 78.153, 78.484, 78.815, 79.146, 79.477, 79.808, 80.139, 80.470, 80.801, 81.132, 81.463, 81.794, 82.125, 82.456, 82.787, 83.118, 83.449, 83.780, 84.111, 84.442, 84.773, 85.104, 85.435, 85.766, 86.097, 86.428, 86.759, 87.090, 87.421, 87.752, 88.083, 88.414, 88.745, 89.076, 89.407, 89.738, 90.069, 90.400, 90.731, 91.062, 91.393, 91.724, 92.055, 92.386, 92.717, 93.048, 93.379, 93.710, 94.041, 94.372, 94.703, 95.034, 95.365, 95.696, 96.027, 96.358, 96.689, 97.020, 97.351, 97.682, 98.013, 98.344, 98.675, 99.006, 99.337, 99.668, 100.000.



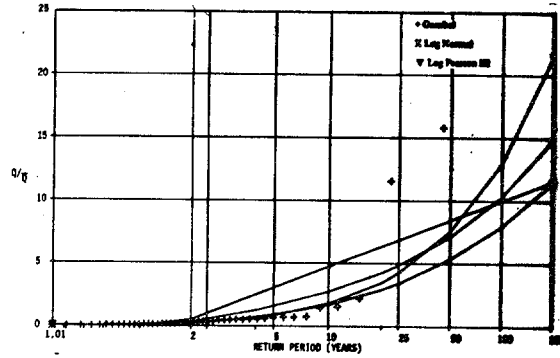
STATION 1168699 CITY CREEK NEAR HIGHLAND, CALIF.
 LOG NORMAL: PEAK = 5189.6 CFS, AREA = 3.326 SQ MI, 23 OBS (1928-1972)
 STATISTICAL VALUES: MEAN = 551.488, STD = 235.721, SECM = 4.07287
 LOG NORMAL: MEAN = 551.488, STD = 235.721, SECM = 4.07287
 GUMBEL PARAMETERS: ALPHA = 1.689348, BETA = 1.168189
 RETURN: 2.33, 5.0, 10, 25, 50, 100, 200
 LOG: 0.368, 0.699, 1.030, 1.361, 1.692, 2.023, 2.354, 2.685, 3.016, 3.347, 3.678, 4.009, 4.340, 4.671, 5.002, 5.333, 5.664, 5.995, 6.326, 6.657, 6.988, 7.319, 7.650, 7.981, 8.312, 8.643, 8.974, 9.305, 9.636, 9.967, 10.298, 10.629, 10.960, 11.291, 11.622, 11.953, 12.284, 12.615, 12.946, 13.277, 13.608, 13.939, 14.270, 14.601, 14.932, 15.263, 15.594, 15.925, 16.256, 16.587, 16.918, 17.249, 17.580, 17.911, 18.242, 18.573, 18.904, 19.235, 19.566, 19.897, 20.228, 20.559, 20.890, 21.221, 21.552, 21.883, 22.214, 22.545, 22.876, 23.207, 23.538, 23.869, 24.200, 24.531, 24.862, 25.193, 25.524, 25.855, 26.186, 26.517, 26.848, 27.179, 27.510, 27.841, 28.172, 28.503, 28.834, 29.165, 29.496, 29.827, 30.158, 30.489, 30.820, 31.151, 31.482, 31.813, 32.144, 32.475, 32.806, 33.137, 33.468, 33.799, 34.130, 34.461, 34.792, 35.123, 35.454, 35.785, 36.116, 36.447, 36.778, 37.109, 37.440, 37.771, 38.102, 38.433, 38.764, 39.095, 39.426, 39.757, 40.088, 40.419, 40.750, 41.081, 41.412, 41.743, 42.074, 42.405, 42.736, 43.067, 43.398, 43.729, 44.060, 44.391, 44.722, 45.053, 45.384, 45.715, 46.046, 46.377, 46.708, 47.039, 47.370, 47.701, 48.032, 48.363, 48.694, 49.025, 49.356, 49.687, 50.018, 50.349, 50.680, 51.011, 51.342, 51.673, 52.004, 52.335, 52.666, 52.997, 53.328, 53.659, 53.990, 54.321, 54.652, 54.983, 55.314, 55.645, 55.976, 56.307, 56.638, 56.969, 57.300, 57.631, 57.962, 58.293, 58.624, 58.955, 59.286, 59.617, 59.948, 60.279, 60.610, 60.941, 61.272, 61.603, 61.934, 62.265, 62.596, 62.927, 63.258, 63.589, 63.920, 64.251, 64.582, 64.913, 65.244, 65.575, 65.906, 66.237, 66.568, 66.899, 67.230, 67.561, 67.892, 68.223, 68.554, 68.885, 69.216, 69.547, 69.878, 70.209, 70.540, 70.871, 71.202, 71.533, 71.864, 72.195, 72.526, 72.857, 73.188, 73.519, 73.850, 74.181, 74.512, 74.843, 75.174, 75.505, 75.836, 76.167, 76.498, 76.829, 77.160, 77.491, 77.822, 78.153, 78.484, 78.815, 79.146, 79.477, 79.808, 80.139, 80.470, 80.801, 81.132, 81.463, 81.794, 82.125, 82.456, 82.787, 83.118, 83.449, 83.780, 84.111, 84.442, 84.773, 85.104, 85.435, 85.766, 86.097, 86.428, 86.759, 87.090, 87.421, 87.752, 88.083, 88.414, 88.745, 89.076, 89.407, 89.738, 90.069, 90.400, 90.731, 91.062, 91.393, 91.724, 92.055, 92.386, 92.717, 93.048, 93.379, 93.710, 94.041, 94.372, 94.703, 95.034, 95.365, 95.696, 96.027, 96.358, 96.689, 97.020, 97.351, 97.682, 98.013, 98.344, 98.675, 99.006, 99.337, 99.668, 100.000.





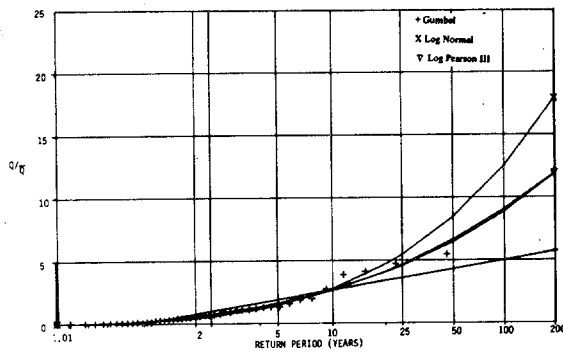
STATION 11973680 SAN ANTONIO CREEK NEAR CLAREMONT, CALIF.
 PEAK = 21499.0 CFS, AREA = 16,389.00 AC, 50 OBS (1918-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 931.818 STD = 3992.414 SKEW = 5.076989
 LOG NORMAL & PIII: MEAN = 1,000468 STD = .046938 SKEW = .644073
 GUMBEL PARAMETERS: ALPHA = .000356 BETA = .000910

RETURN PERIOD	Q	QAVG	QPEAK	QLOG	QPIII	QGUM
2.00	169.10	177.78	88.00	348.39	94.42	69.97
2.33	300.40	311.68	191.00	648.92	119.83	97.14
2.50	440.10	458.88	270.00	921.70	139.17	107.40
5.00	1000.10	1040.00	500.00	1800.00	277.44	210.00
10.00	2000.10	2080.00	1000.00	3600.00	440.88	340.00
20.00	4000.10	4080.00	2000.00	7200.00	779.70	600.00
50.00	9000.10	9080.00	4500.00	15000.00	1391.00	1050.00
100.00	16000.10	16080.00	8000.00	28000.00	2440.00	1800.00
200.00	28000.10	28080.00	14000.00	48000.00	4000.00	3000.00



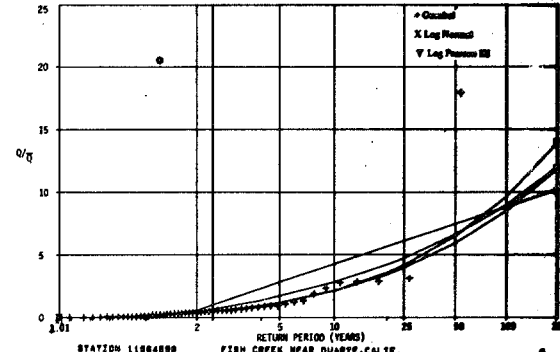
STATION 11973470 CUCAMONGA CREEK NEAR UPLAND, CALIF.
 PEAK = 14108.0 CFS, AREA = 16,000.00 AC, 48 OBS (1926-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 890.000 STD = 899.000 SKEW = 4.000000
 LOG NORMAL & PIII: MEAN = 9,300000 STD = .000000 SKEW = .000000
 GUMBEL PARAMETERS: ALPHA = .000000 BETA = .000000

RETURN PERIOD	Q	QAVG	QPEAK	QLOG	QPIII	QGUM
2.00	304.76	302.00	241.00	271.00	255.00	240.00
2.33	401.74	399.00	327.00	360.00	335.00	320.00
2.50	440.10	437.00	350.00	390.00	360.00	340.00
5.00	1000.10	1000.00	800.00	900.00	800.00	700.00
10.00	2000.10	2000.00	1600.00	1800.00	1600.00	1400.00
20.00	4000.10	4000.00	3200.00	3600.00	3200.00	2800.00
50.00	9000.10	9000.00	7200.00	8000.00	7200.00	6400.00
100.00	16000.10	16000.00	12800.00	14000.00	12800.00	11200.00
200.00	28000.10	28000.00	22400.00	24000.00	22400.00	19600.00



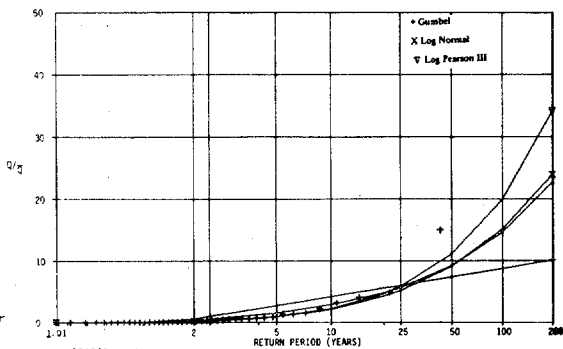
STATION 11984880 ROGERS CREEK NEAR AZUSA, CALIF.
 PEAK = 2400.0 CFS, AREA = 8,540.00 AC, 45 OBS (1914-1962) 0 ZEROS
 STATISTICAL VALUES: MEAN = 427.711 STD = 583.388 SKEW = 2.122789
 LOG NORMAL & PIII: MEAN = 2,289507 STD = .024177 SKEW = -.381143
 GUMBEL PARAMETERS: ALPHA = .002273 BETA = .104.125

RETURN PERIOD	Q	QAVG	QPEAK	QLOG	QPIII	QGUM
2.00	240.00	240.00	244.00	345.39	193.44	287.00
2.33	319.17	319.17	327.79	438.48	250.61	364.00
2.50	340.00	340.00	344.00	468.00	268.00	380.00
5.00	717.10	717.10	720.00	940.00	500.00	780.00
10.00	1164.14	1164.14	1160.00	1174.00	1220.34	1157.00
20.00	2012.04	2012.04	2000.00	2091.14	2300.31	2060.00
50.00	3841.70	3841.70	3800.00	3963.44	4201.38	3800.00
100.00	5169.01	5169.01	5100.00	5250.19	5460.48	5074.19
200.00	7169.01	7169.01	7000.00	7330.73	7522.08	7000.00



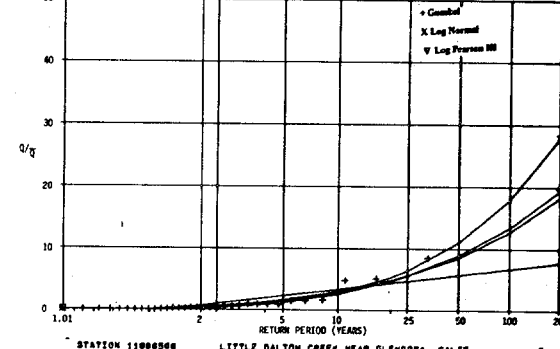
STATION 11984880 FISH CREEK NEAR DUARTE, CALIF.
 PEAK = 13988.0 CFS, AREA = 6,385.00 AC, 55 OBS (1910-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 724.088 STD = 1811.992 SKEW = 0.841780
 LOG NORMAL & PIII: MEAN = 189.000 STD = .079540 SKEW = .120000
 GUMBEL PARAMETERS: ALPHA = .000707 BETA = .000.001

RETURN PERIOD	Q	QAVG	QPEAK	QLOG	QPIII	QGUM
2.00	324.68	324.68	280.00	420.00	270.70	300.00
2.33	474.01	474.01	371.70	570.00	361.22	400.00
2.50	500.00	500.00	400.00	600.00	381.14	420.00
5.00	1241.03	1241.03	1000.00	1400.00	800.00	1000.00
10.00	2050.07	2050.07	1600.00	2000.00	1300.00	1600.00
20.00	3421.07	3421.07	2700.00	3200.00	2000.00	2600.00
50.00	6000.00	6000.00	4800.00	5600.00	3800.00	4600.00
100.00	9500.00	9500.00	7600.00	8800.00	5700.00	7000.00
200.00	13988.00	13988.00	11200.00	12800.00	8174.00	10000.00



STATION 11986880 DALTON CREEK NEAR GLENDRORA, CALIF.
 PEAK = 3840.0 CFS, AREA = 7,300.00 AC, 42 OBS (1926-1962) 0 ZEROS
 STATISTICAL VALUES: MEAN = 282.428 STD = 581.348 SKEW = 2.791519
 LOG NORMAL & PIII: MEAN = 1,620880 STD = .000078 SKEW = -.192730
 GUMBEL PARAMETERS: ALPHA = .002335 BETA = .23.177

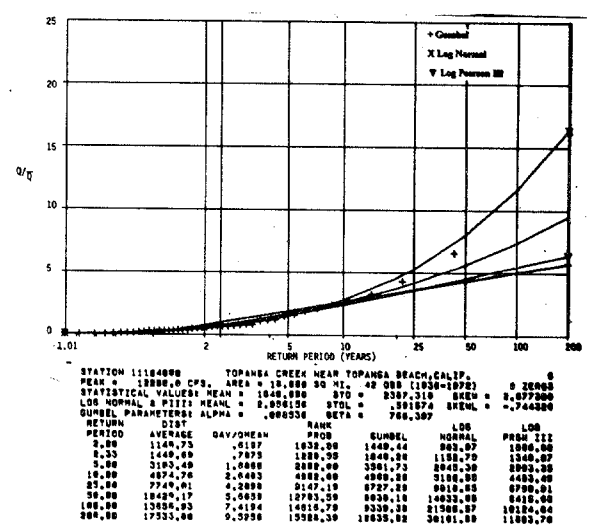
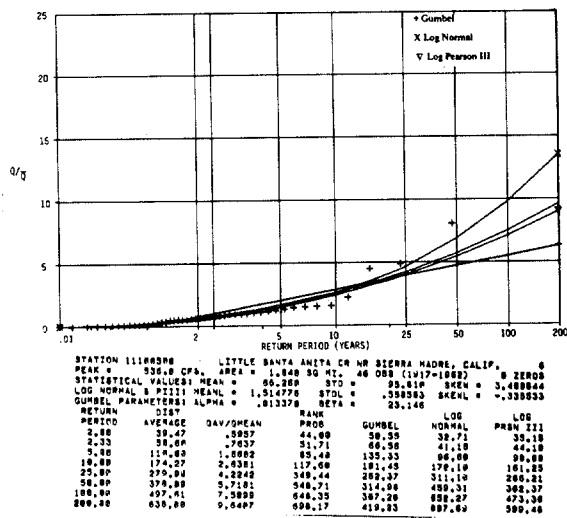
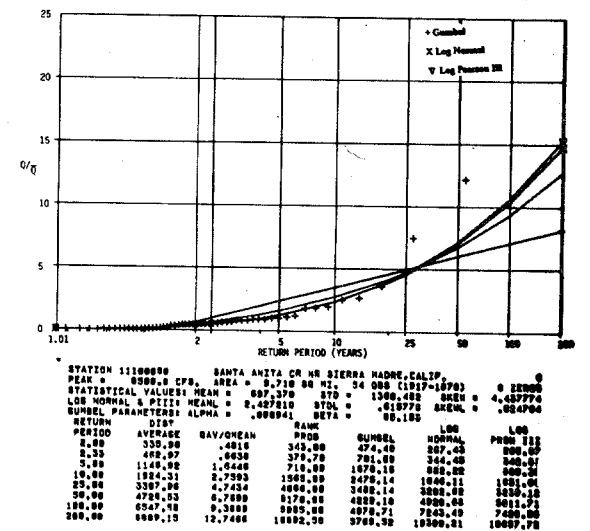
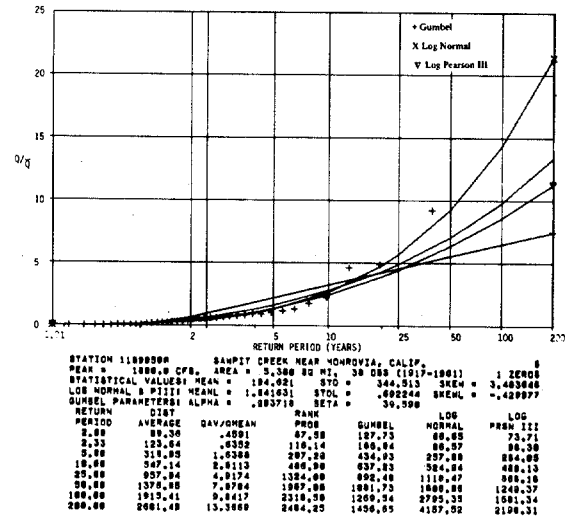
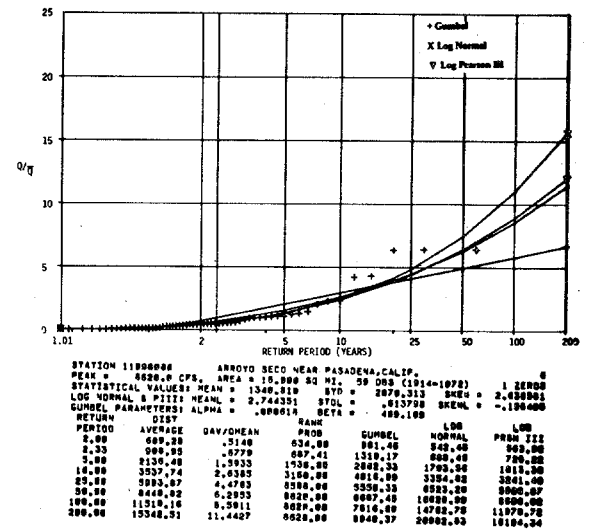
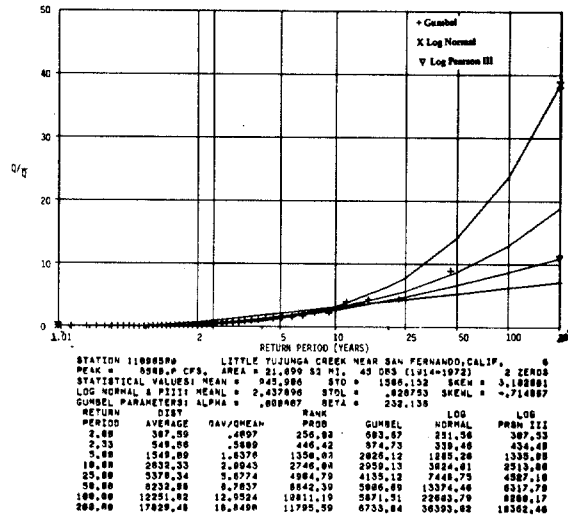
RETURN PERIOD	Q	QAVG	QPEAK	QLOG	QPIII	QGUM
2.00	27.07	27.07	27.00	43.00	18.74	29.00
2.33	35.00	35.00	35.00	50.00	20.00	36.00
2.50	38.00	38.00	38.00	53.00	21.00	39.00
5.00	70.00	70.00	70.00	90.00	30.00	70.00
10.00	110.00	110.00	110.00	140.00	40.00	110.00
20.00	180.00	180.00	180.00	220.00	50.00	180.00
50.00	300.00	300.00	300.00	380.00	70.00	300.00
100.00	450.00	450.00	450.00	550.00	90.00	450.00
200.00	650.00	650.00	650.00	780.00	110.00	650.00



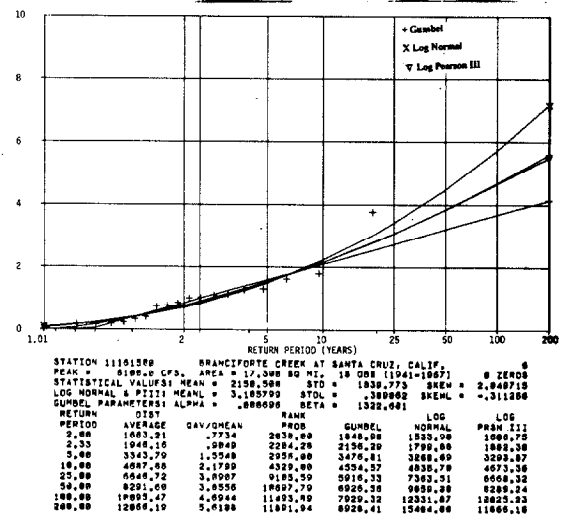
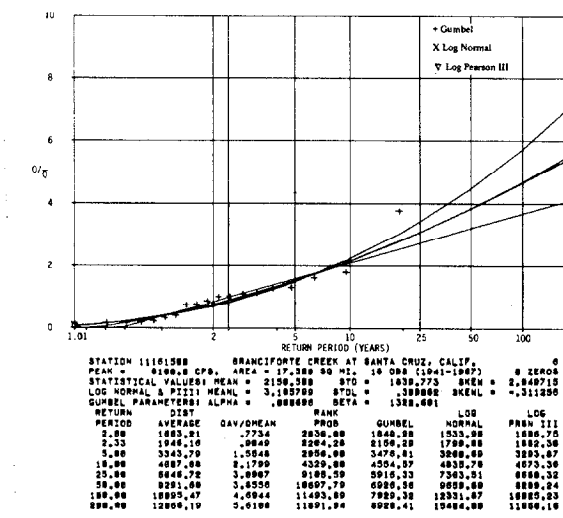
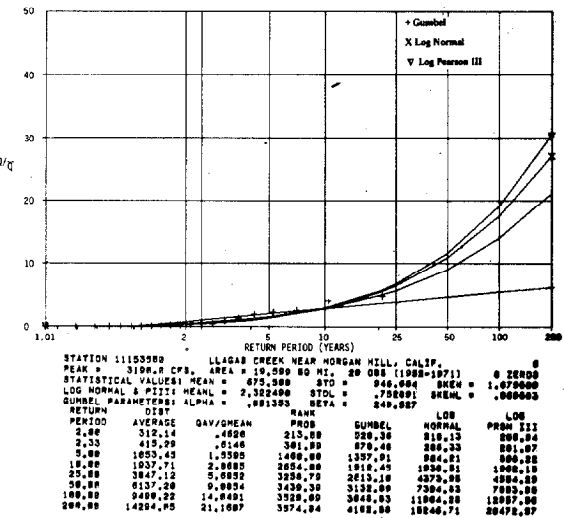
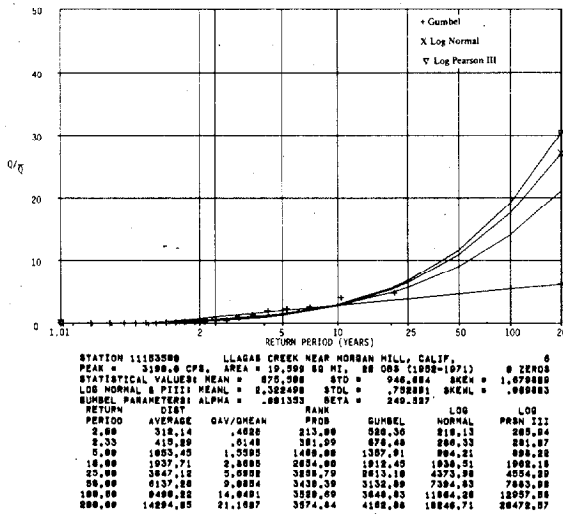
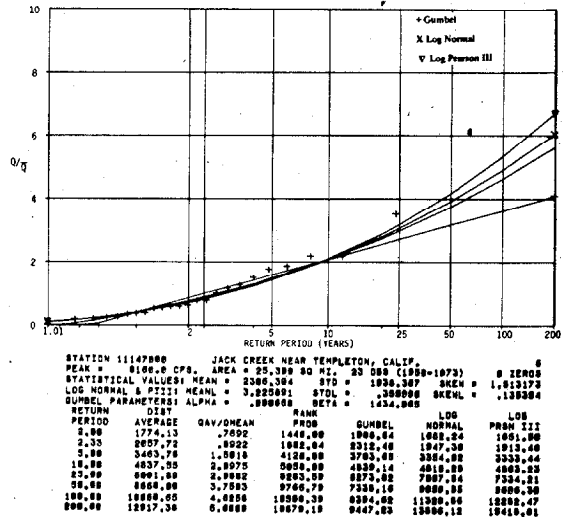
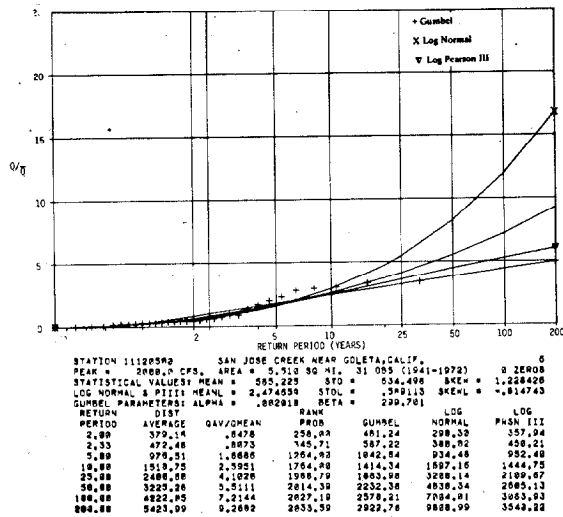
STATION 11986880 LITTLE DALTON CREEK NEAR GLENDRORA, CALIF.
 PEAK = 1700.0 CFS, AREA = 2,700.00 AC, 32 OBS (1914-1962) 0 ZEROS
 STATISTICAL VALUES: MEAN = 189.000 STD = 305.115 SKEW = 3.075000
 LOG NORMAL & PIII: MEAN = 1,730193 STD = .0774034 SKEW = -.217803
 GUMBEL PARAMETERS: ALPHA = .003923 BETA = .24.410

RETURN PERIOD	Q	QAVG	QPEAK	QLOG	QPIII	QGUM
2.00	84.00	84.00	84.00	130.00	60.00	84.00
2.33	110.00	110.00	110.00	160.00	77.00	110.00
2.50	120.00	120.00	120.00	170.00	80.00	120.00
5.00	220.00	220.00	220.00	320.00	120.00	220.00
10.00	350.00	350.00	350.00	500.00	160.00	350.00
20.00	550.00	550.00	550.00	780.00	210.00	550.00
50.00	1100.00	1100.00	1100.00	1400.00	300.00	1100.00
100.00	1700.00	1700.00	1700.00	2100.00	400.00	1700.00
200.00	2400.00	2400.00	2400.00	2800.00	500.00	2400.00

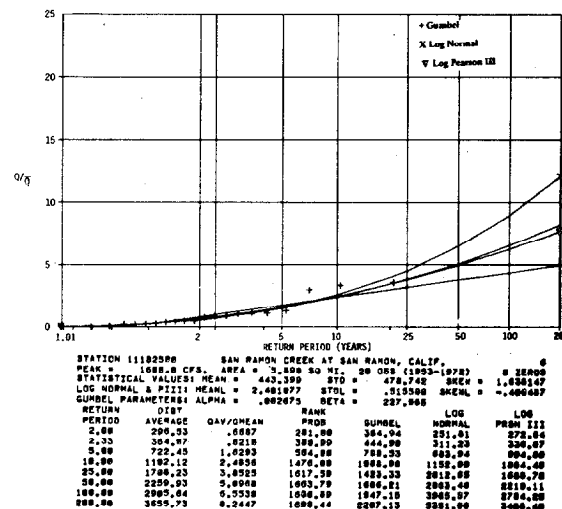
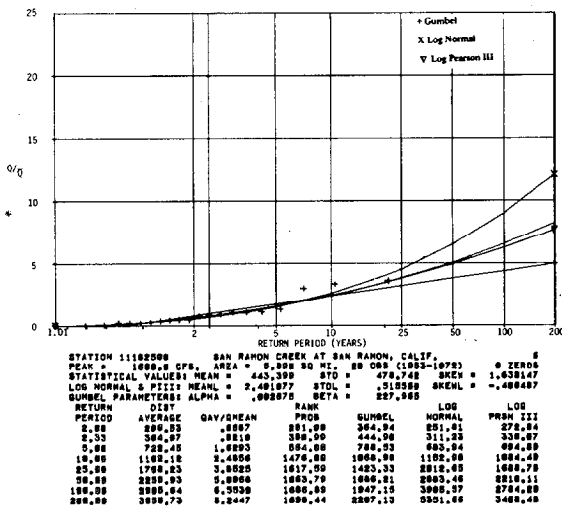
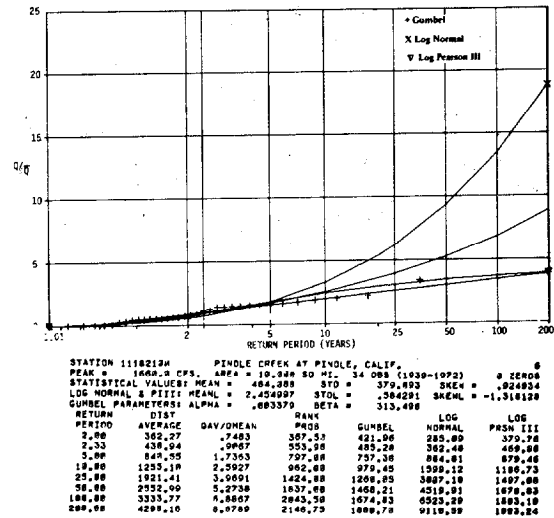
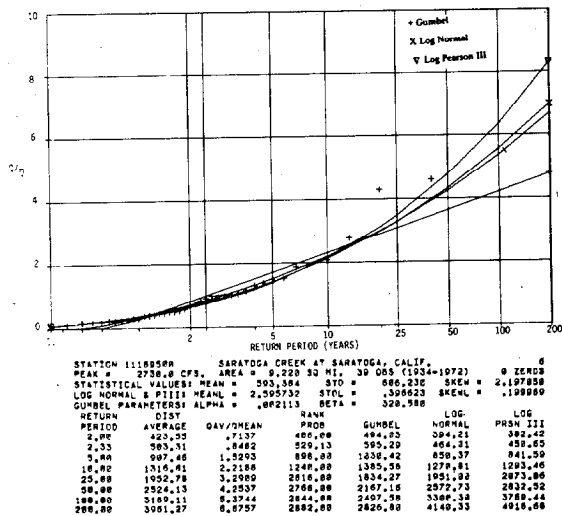
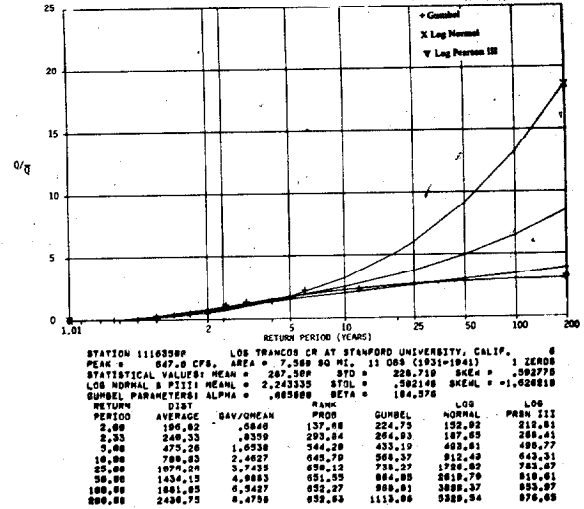
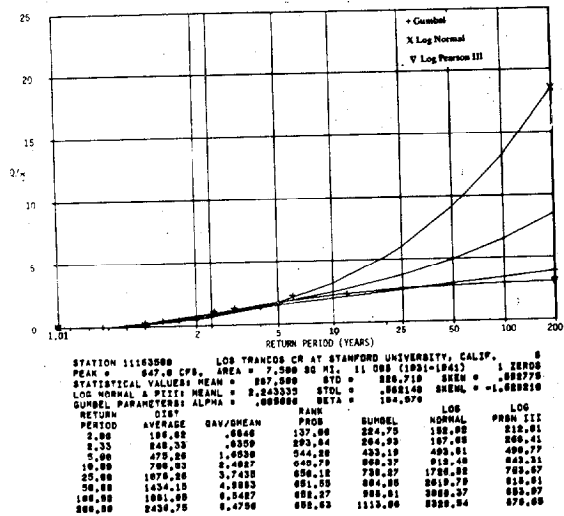
Appendix A-06. California 31-36. Flood frequency curves and data.



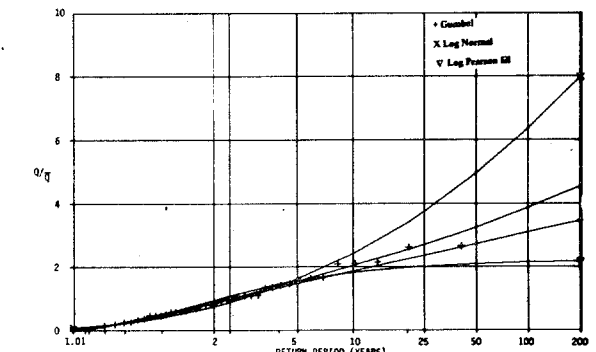
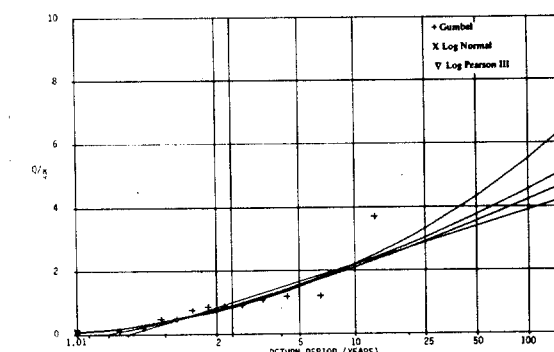
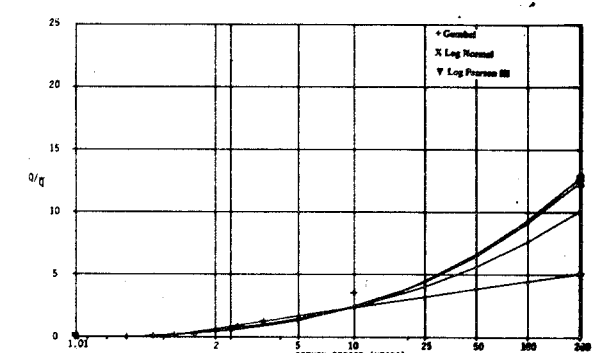
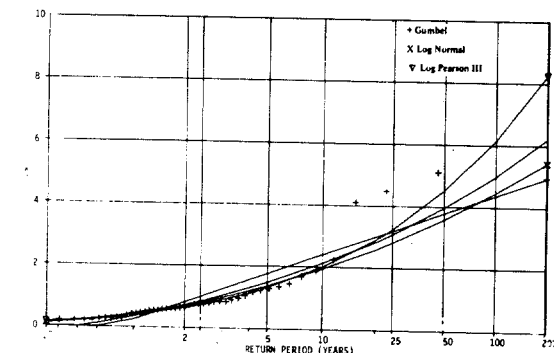
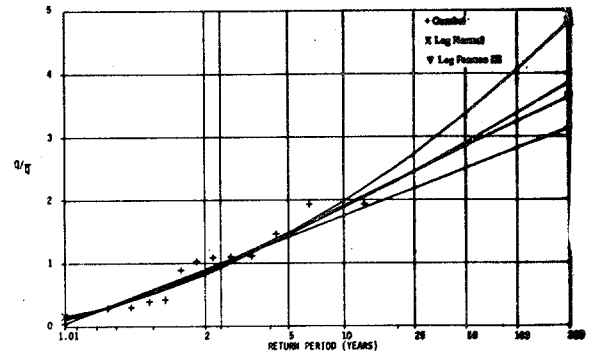
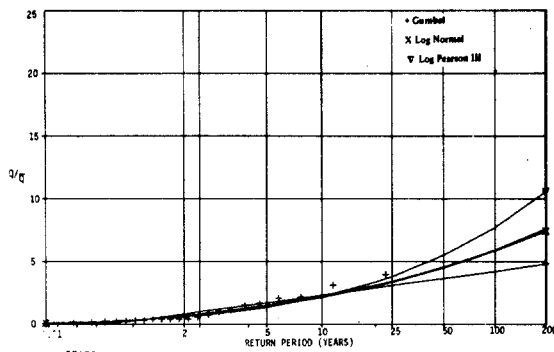
Appendix A-06. California 37-42. Flood frequency curves and data.



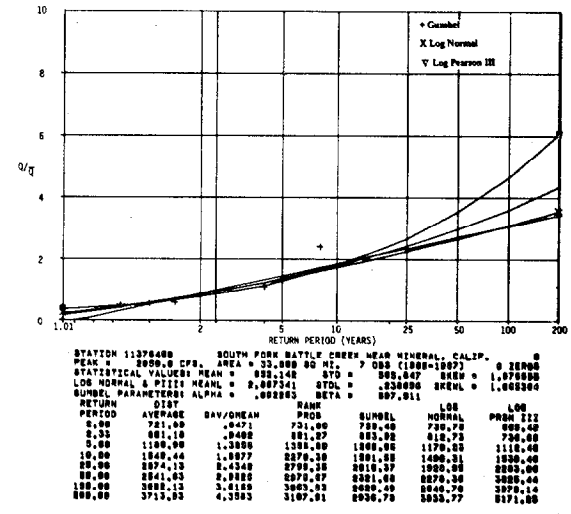
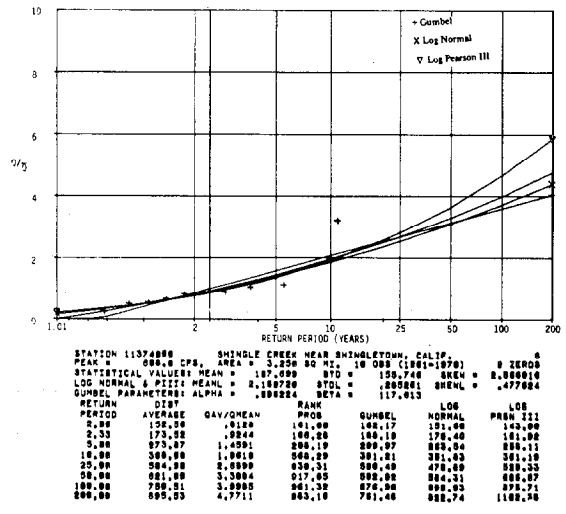
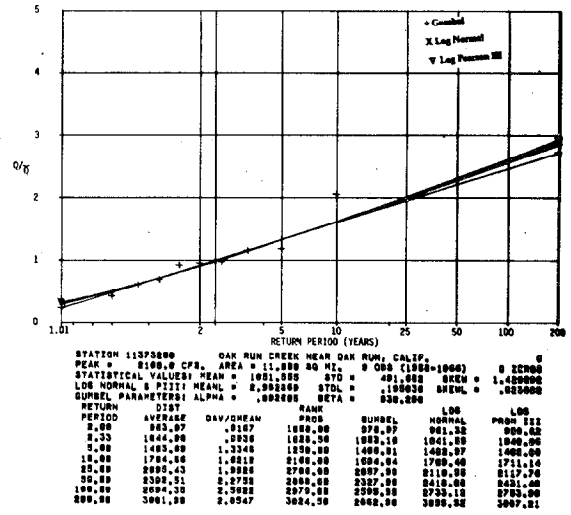
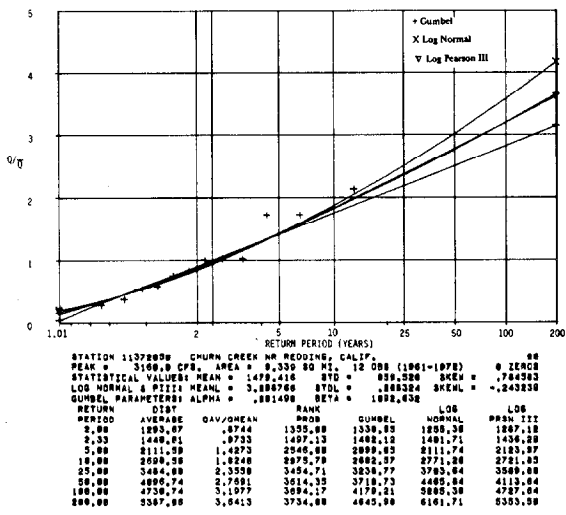
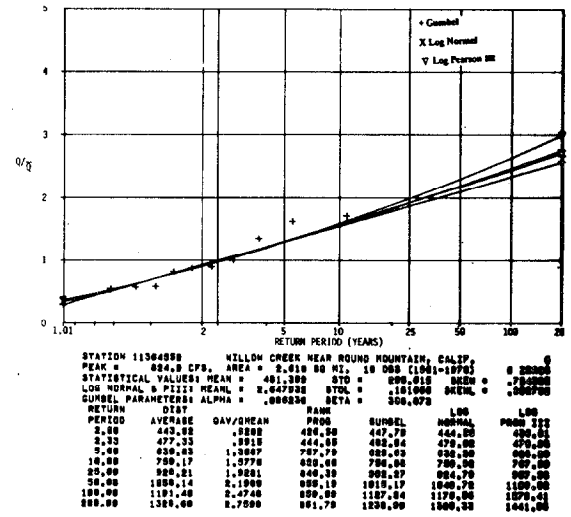
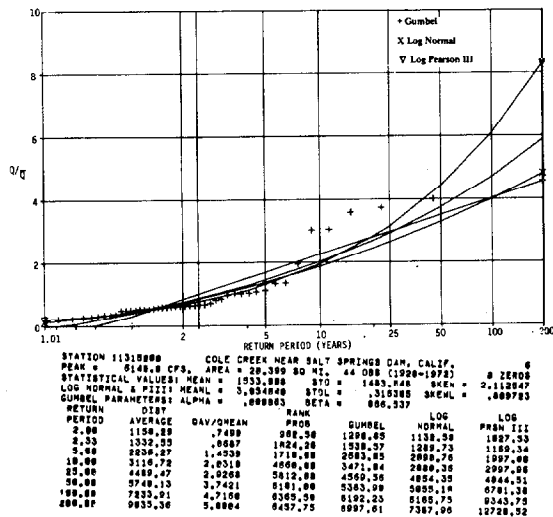
Appendix A-06. California 49-54. Flood frequency curves and data.



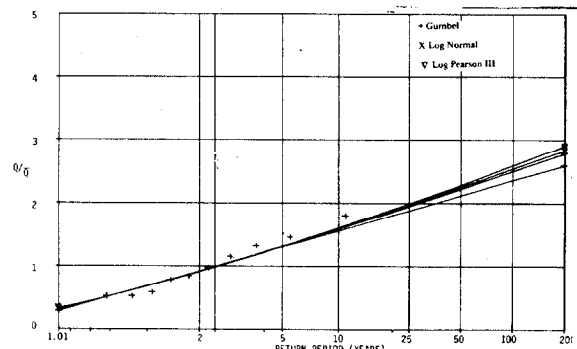
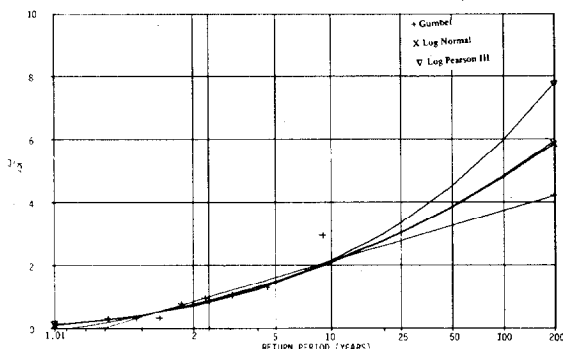
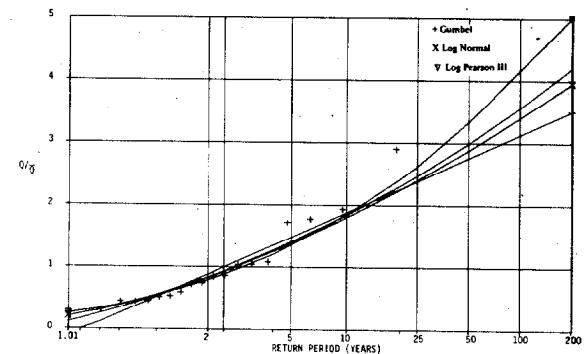
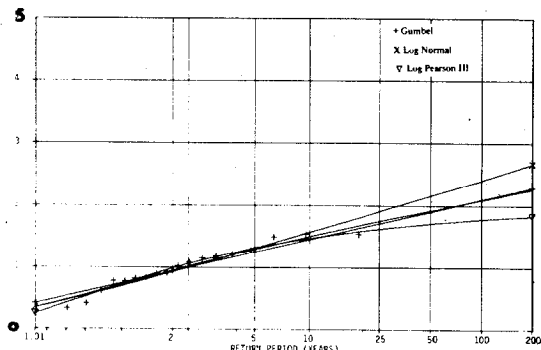
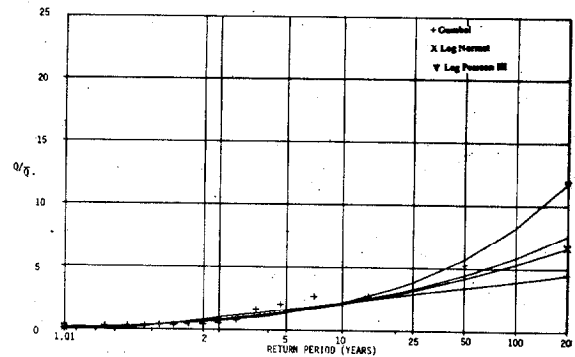
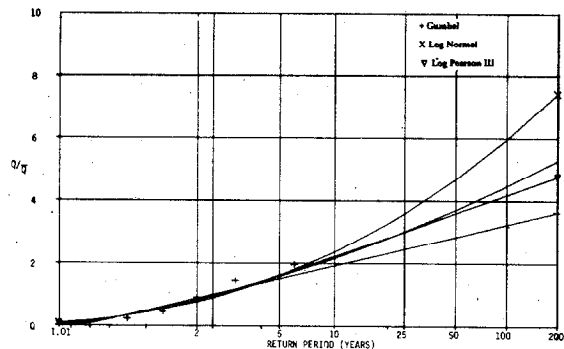
Appendix A-06. California 55-60. Flood frequency curves and data.



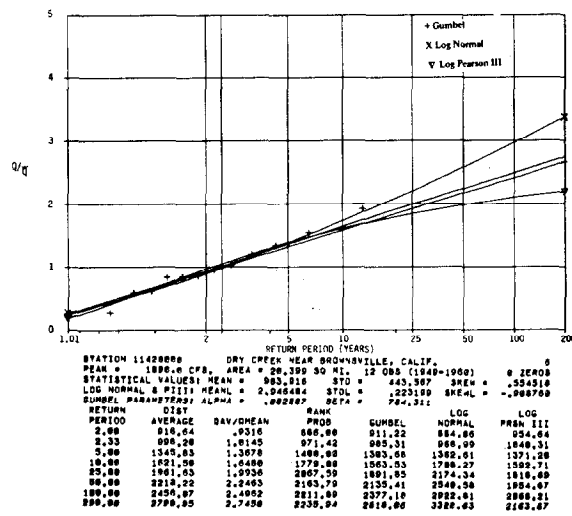
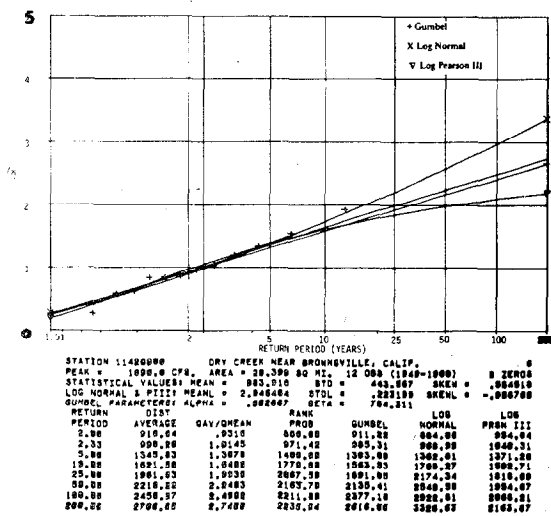
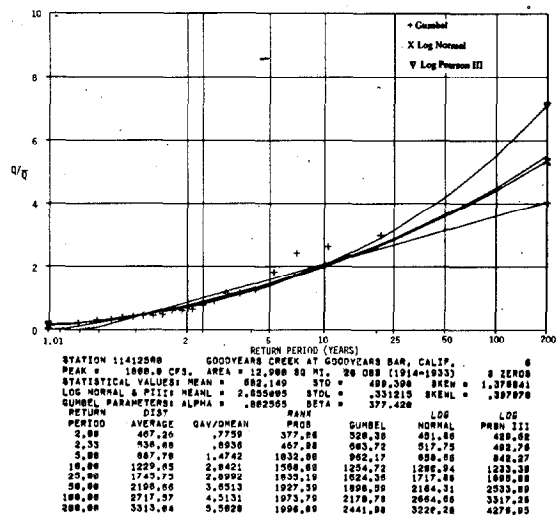
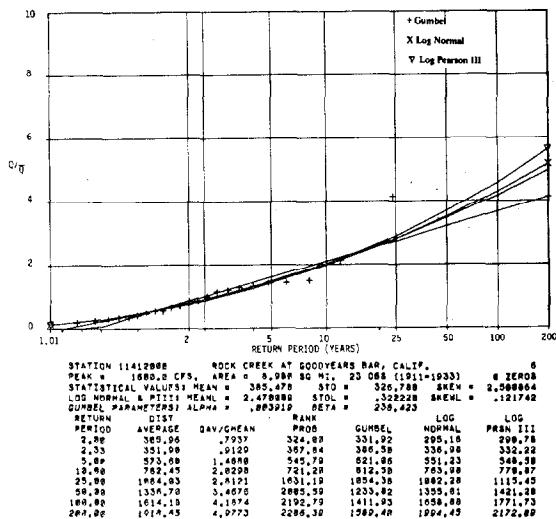
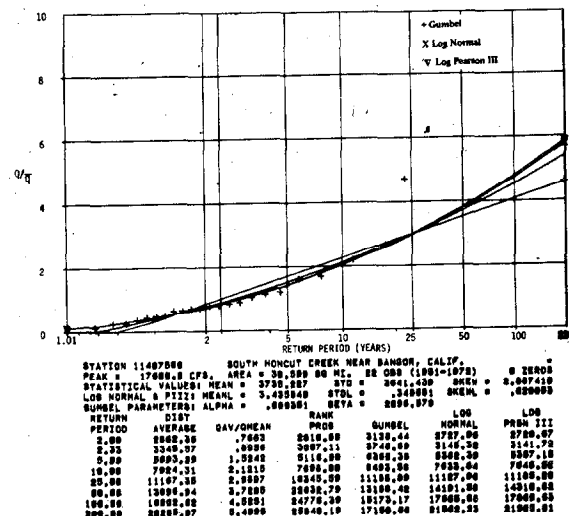
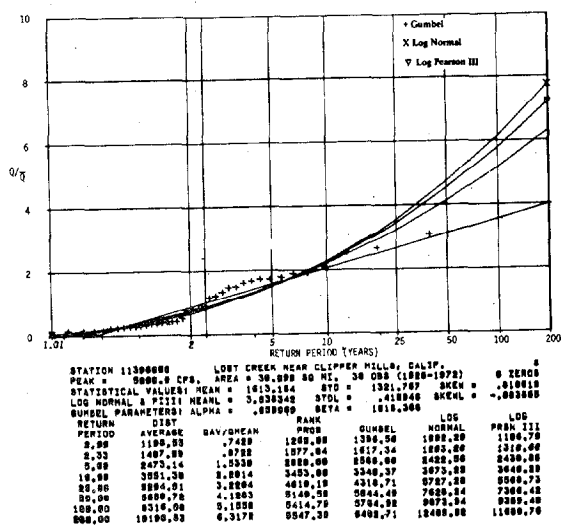
Appendix A-06. California 61-66. Flood frequency curves and data.



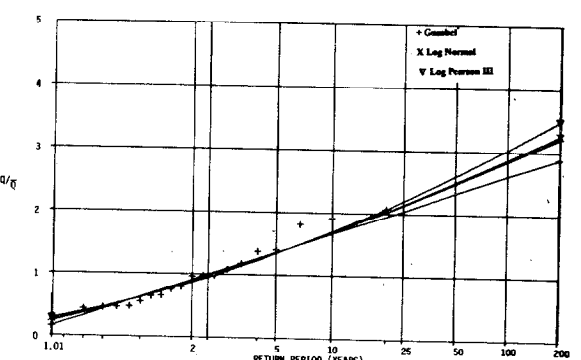
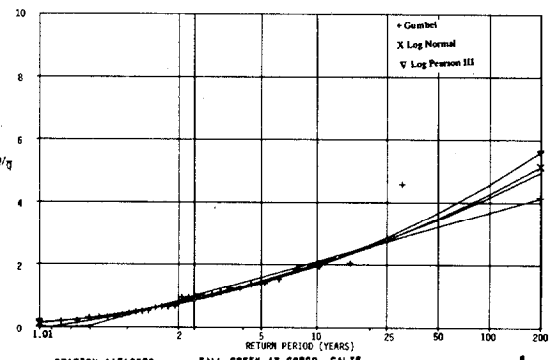
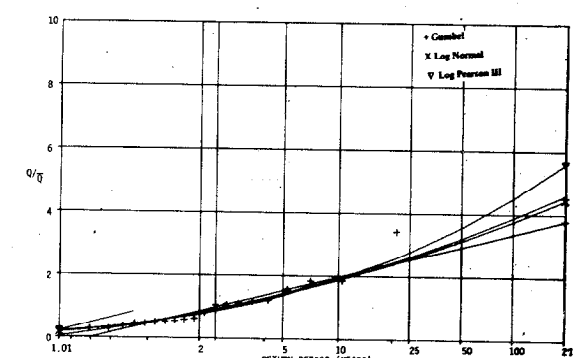
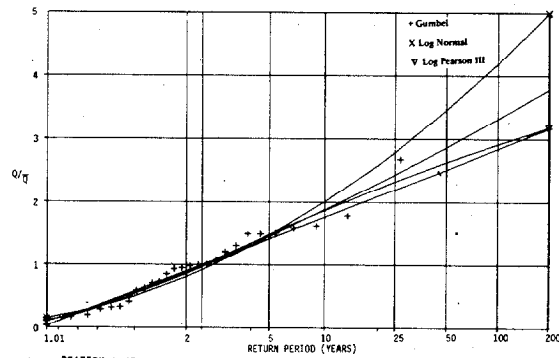
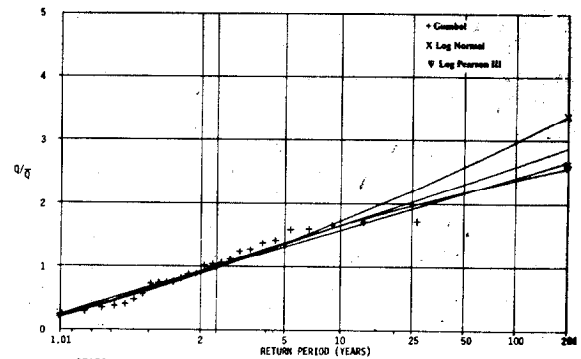
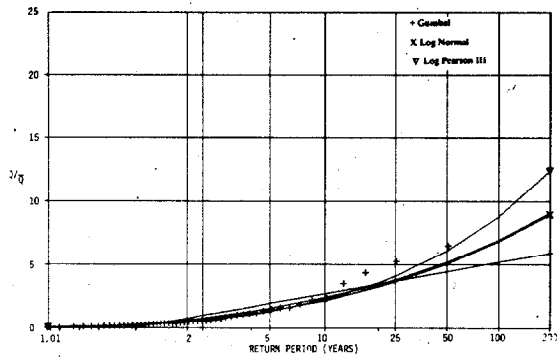
Appendix A-06. California 67-72. Flood frequency curves and data.



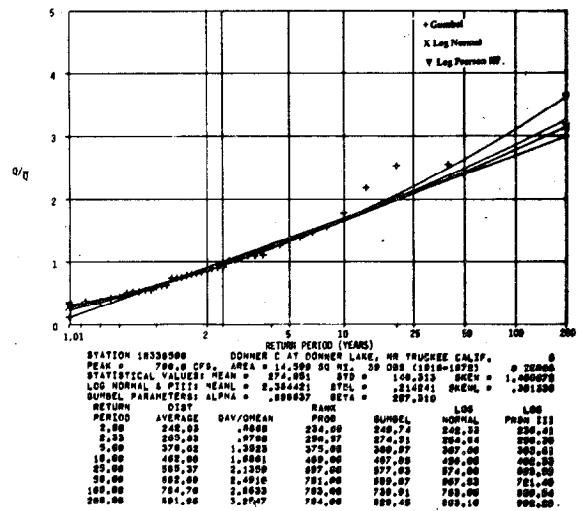
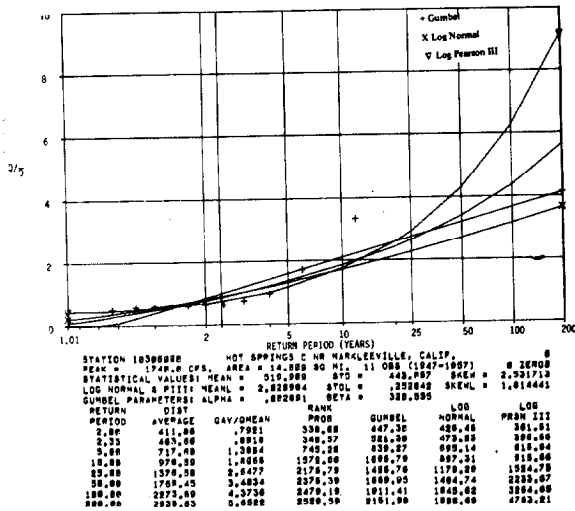
Appendix A-06. California 73-78. Flood frequency curves and data.



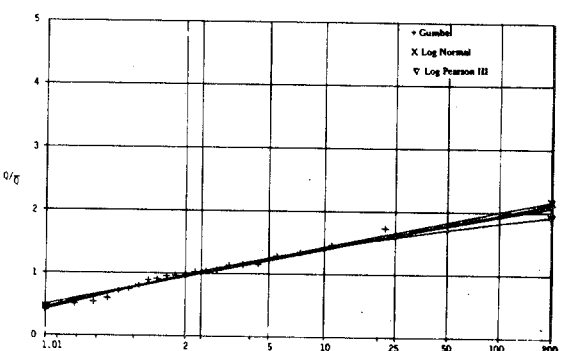
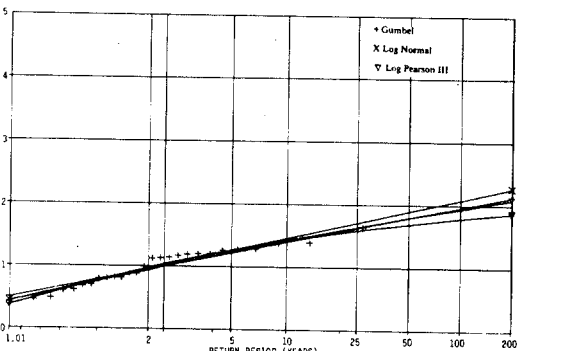
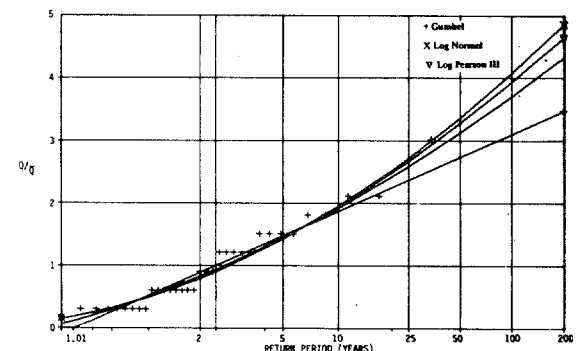
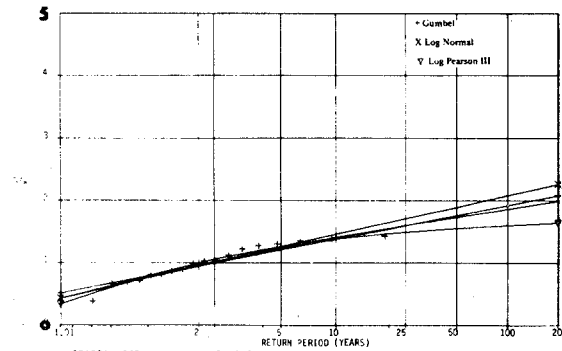
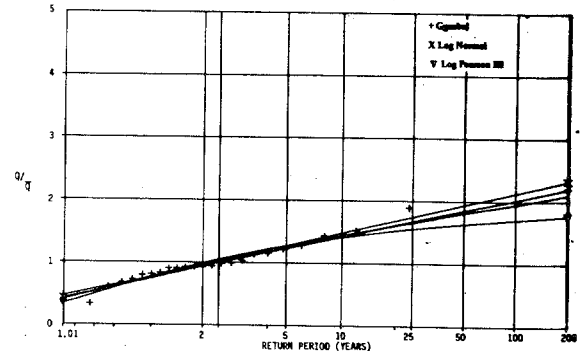
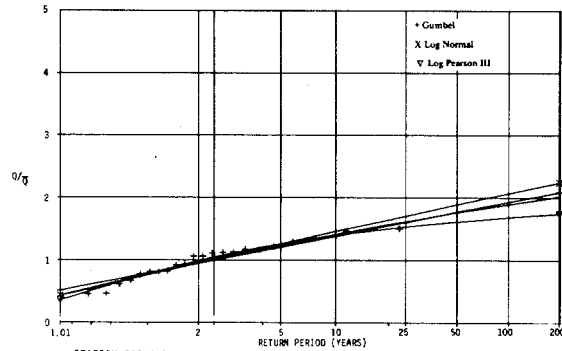
Appendix A-06. California 79-84. Flood frequency curves and data.



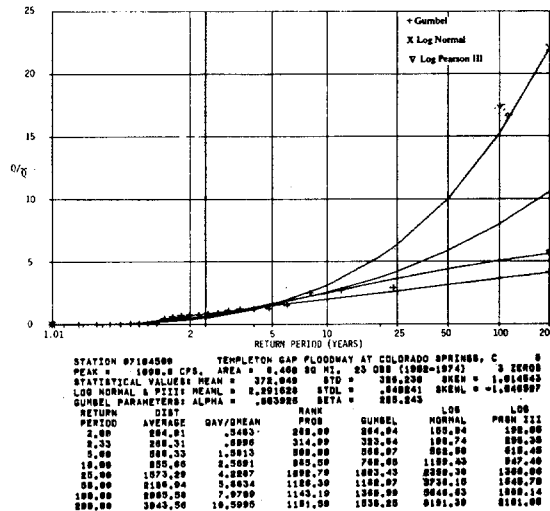
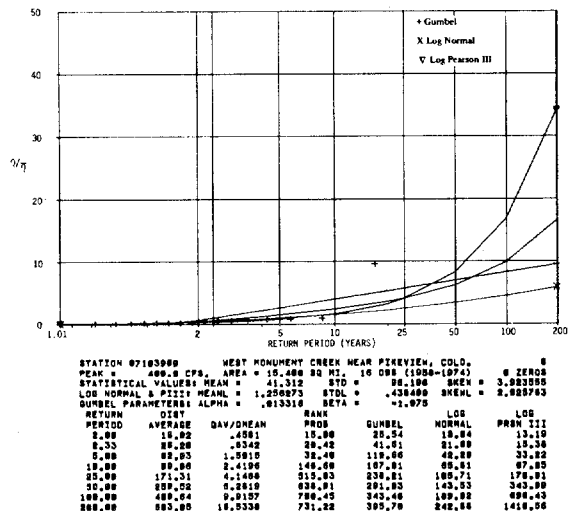
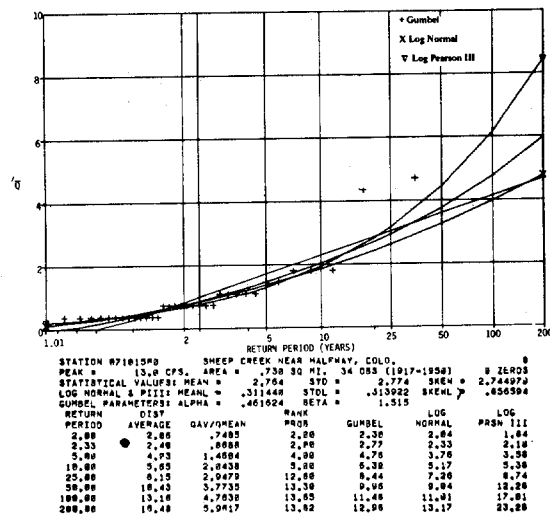
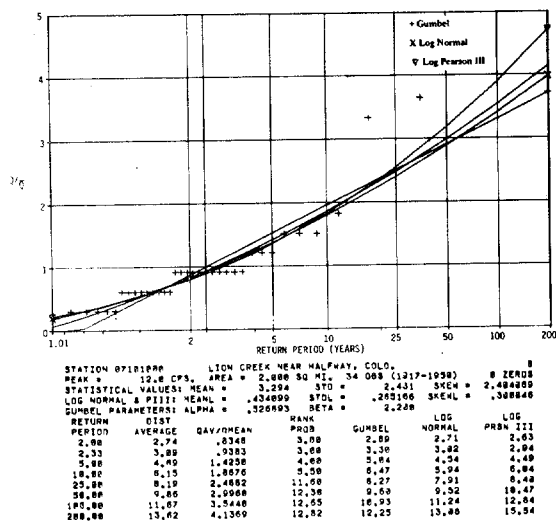
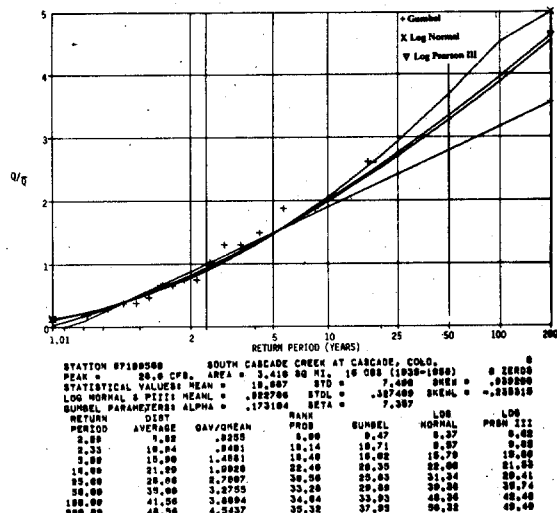
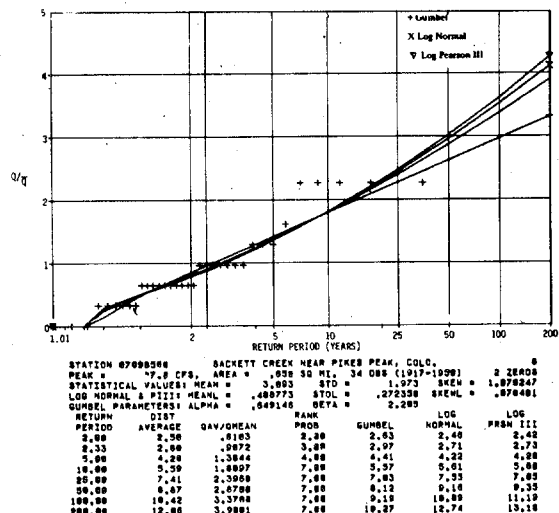
Appendix A-06. California 85-90. Flood frequency curves and data.



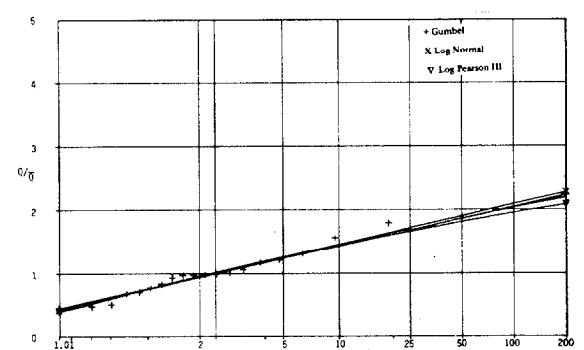
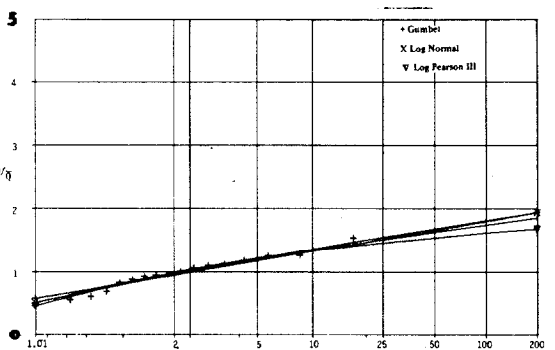
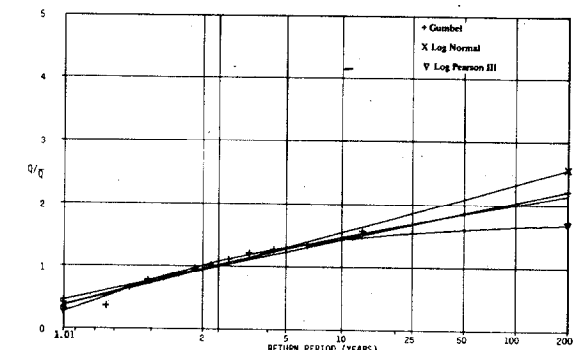
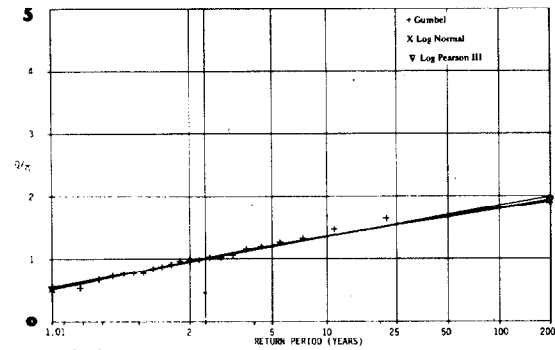
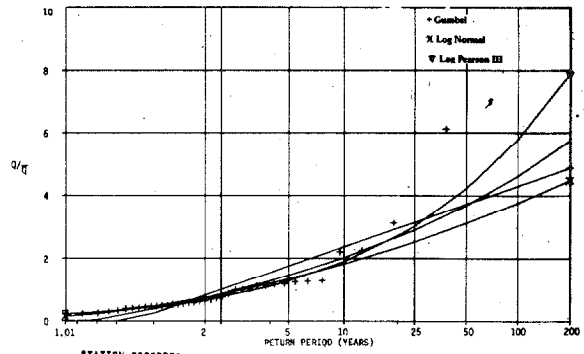
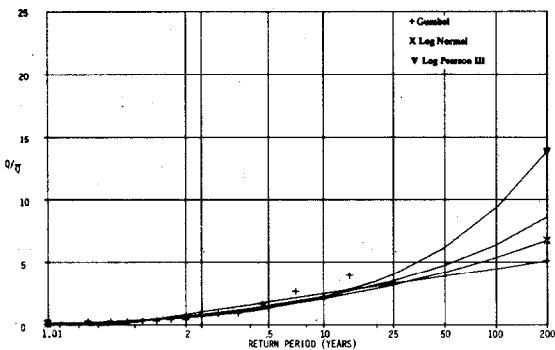
Appendix A-06. California 91-92. Flood frequency curves and data.



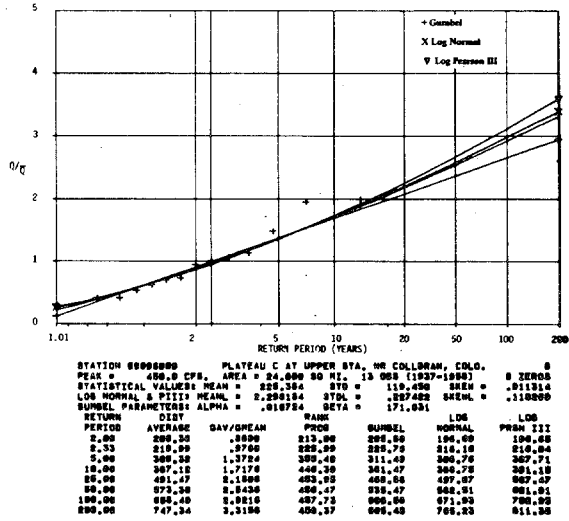
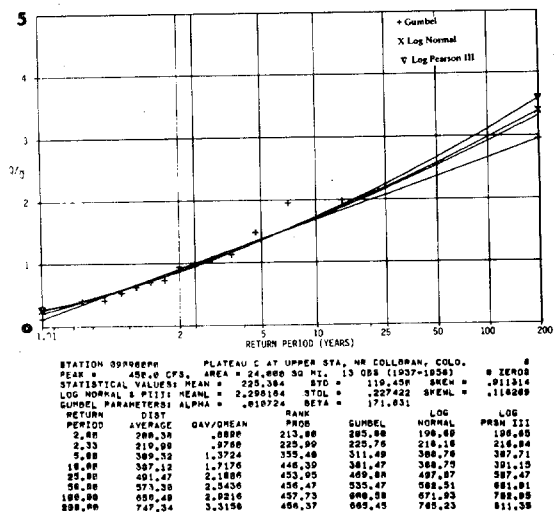
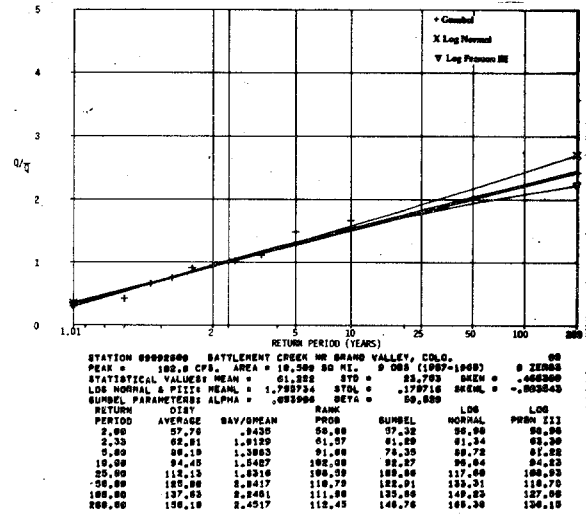
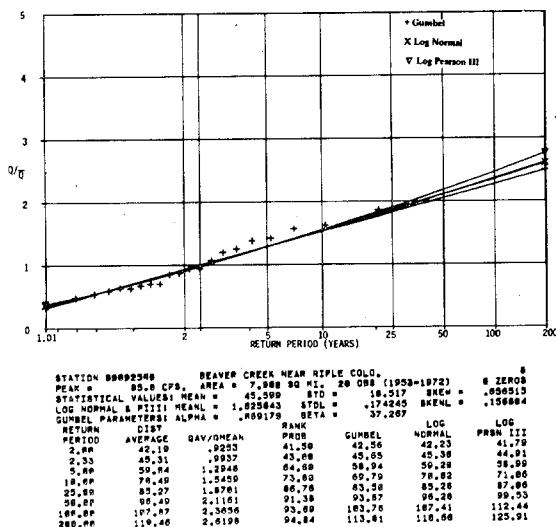
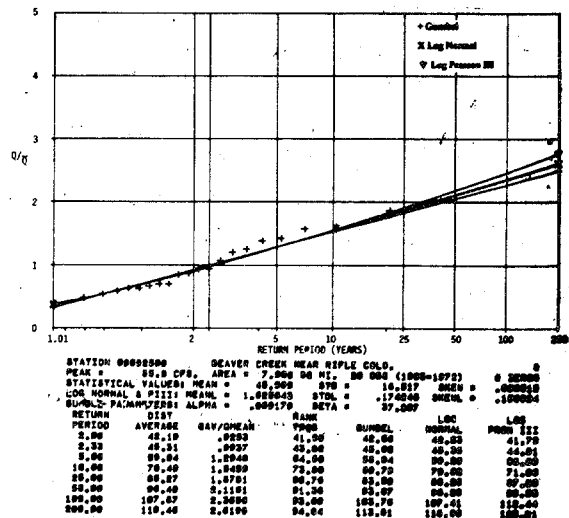
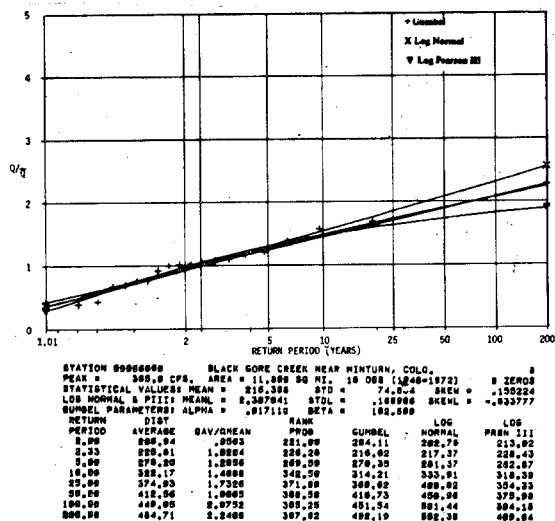
Appendix A-08. Colorado 1-6. Flood frequency curves and data.



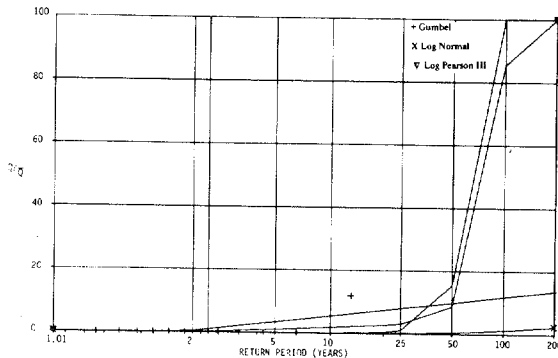
Appendix A-08. Colorado 7-12. Flood frequency curves and data.



Appendix A-08. Colorado 13-18. Flood frequency curves and data.

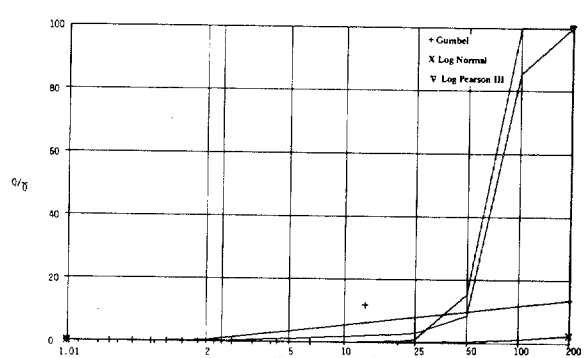


Appendix A-08. Colorado 19-24. Flood frequency curves and data.



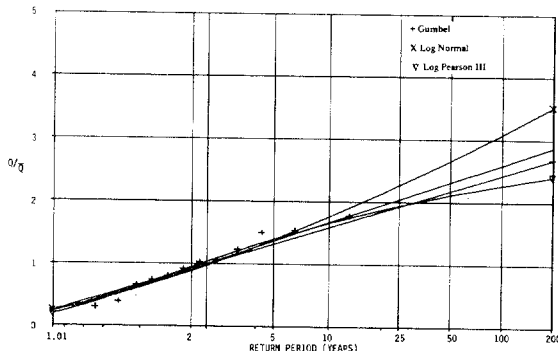
STATION 89087600 BRUSH CREEK NEAR COLLBRAN, CO. 8 ZEROS
 PEAK = 2808865.6 CFS, AREA = 9.379 SQ MI, 12 OBS (1958-1967)
 STATISTICAL VALUES: MEAN = 168776.562 STD = 577337.375 SKEW = 3.464181
 LOG NORMAL & PIII: MEAN = 2.315616 STD = 1.289286 SKEW = 3.146850
 GUMBEL PARAMETERS: ALPHA = .080802 BETA = -93825.258

RETURN PERIOD	AVERAGE	QAV/DHEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	24142.80	.1447	99.00	72159.23	289.83	82.64	
2.33	26343.93	.1378	123.85	106899.88	551.35	85.58	
3.00	19538.80	1.1715	245.00	582986.25	2517.27	86.02	
10.00	51289.68	1.0725	1488143.75	921108.37	9891.48	8688.34	
25.00	521516.18	3.1278	205906.00	1348529.58	37434.93	178984.08	
50.00	1444932.75	8.0538	3479885.50	1885547.58	92881.03	2577258.00	
100.00	1428648.00	95.5428	3739853.00	1989223.00	286719.93	48612208.00	
200.00	8822856592.00	1378.4058	3860837.00	2293747.56	432626.58	682974868.00	



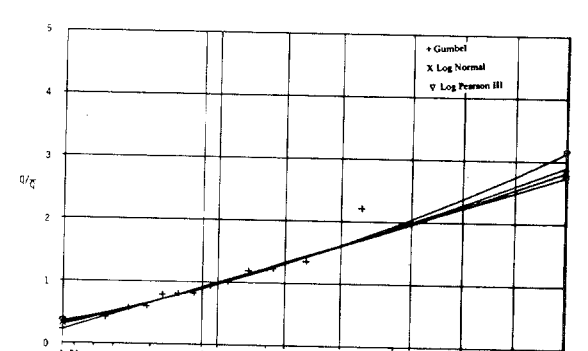
STATION 89087600 BRUSH CREEK NEAR COLLBRAN, CO. 8 ZEROS
 PEAK = 2808865.6 CFS, AREA = 9.379 SQ MI, 12 OBS (1958-1967)
 STATISTICAL VALUES: MEAN = 168776.562 STD = 577337.375 SKEW = 3.464181
 LOG NORMAL & PIII: MEAN = 2.315616 STD = 1.289286 SKEW = 3.146850
 GUMBEL PARAMETERS: ALPHA = .080802 BETA = -93825.258

RETURN PERIOD	AVERAGE	QAV/DHEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	24142.80	.1447	99.00	72159.23	289.83	82.64	
2.33	26343.93	.1378	123.85	106899.88	551.35	85.58	
3.00	19538.80	1.1715	245.00	582986.25	2517.27	86.02	
10.00	51289.68	1.0725	1488143.75	921108.37	9891.48	8688.34	
25.00	521516.18	3.1278	205906.00	1348529.58	37434.93	178984.08	
50.00	1444932.75	8.0538	3479885.50	1885547.58	92881.03	2577258.00	
100.00	1428648.00	95.5428	3739853.00	1989223.00	286719.93	48612208.00	
200.00	8822856592.00	1378.4058	3860837.00	2293747.56	432626.58	682974868.00	



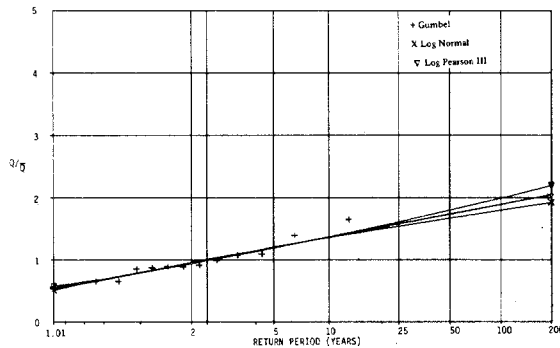
STATION 89137800 DIRTY GEORGE CREEK NEAR GRAND MESA, CO. 8 ZEROS
 PEAK = 86.8 CFS, AREA = 6.078 SQ MI, 12 OBS (1958-1969)
 STATISTICAL VALUES: MEAN = 48.418 STD = 38.100 SKEW = -1.88134
 LOG NORMAL & PIII: MEAN = 1.824844 STD = .232813 SKEW = -.778981
 GUMBEL PARAMETERS: ALPHA = .897861 BETA = 36.471

RETURN PERIOD	AVERAGE	QAV/DHEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	44.00	.0932	47.50	44.79	43.13	46.10	
2.33	48.13	1.0000	60.00	48.48	47.45	50.05	
3.00	68.71	1.3778	73.00	56.34	57.83	66.19	
10.00	81.10	1.0703	88.78	77.89	88.84	86.83	
25.00	99.83	2.8405	91.28	93.88	109.00	94.11	
50.00	118.00	2.3249	94.14	105.78	129.84	108.67	
100.00	125.83	2.0509	96.87	117.83	149.38	118.14	
200.00	130.89	2.0728	96.28	129.83	179.71	116.72	



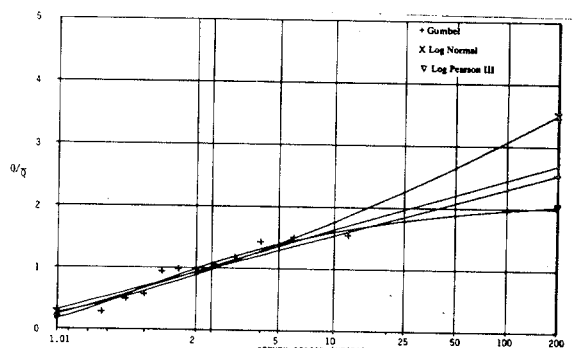
STATION 89137800 DIRTY GEORGE CREEK NEAR GRAND MESA, CO. 8 ZEROS
 PEAK = 86.8 CFS, AREA = 6.078 SQ MI, 12 OBS (1958-1969)
 STATISTICAL VALUES: MEAN = 48.418 STD = 38.100 SKEW = -1.88134
 LOG NORMAL & PIII: MEAN = 1.824844 STD = .232813 SKEW = -.778981
 GUMBEL PARAMETERS: ALPHA = .897861 BETA = 36.471

RETURN PERIOD	AVERAGE	QAV/DHEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	44.00	.0932	47.50	44.79	43.13	46.10	
2.33	48.13	1.0000	60.00	48.48	47.45	50.05	
3.00	68.71	1.3778	73.00	56.34	57.83	66.19	
10.00	81.10	1.0703	88.78	77.89	88.84	86.83	
25.00	99.83	2.8405	91.28	93.88	109.00	94.11	
50.00	118.00	2.3249	94.14	105.78	129.84	108.67	
100.00	125.83	2.0509	96.87	117.83	149.38	118.14	
200.00	130.89	2.0728	96.28	129.83	179.71	116.72	



STATION 89140800 KISER CREEK NEAR GRAND MESA, CO. 8 ZEROS
 PEAK = 83.8 CFS, AREA = 5.808 SQ MI, 12 OBS (1958-1969)
 STATISTICAL VALUES: MEAN = 59.893 STD = 14.338 SKEW = 1.318218
 LOG NORMAL & PIII: MEAN = 1.684918 STD = .118688 SKEW = -.338976
 GUMBEL PARAMETERS: ALPHA = .889391 BETA = 43.634

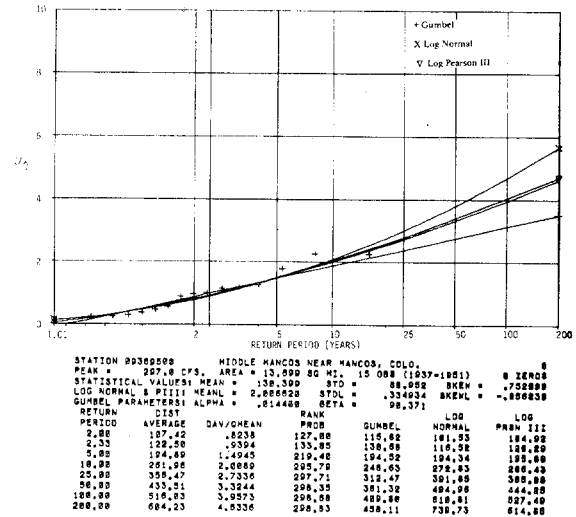
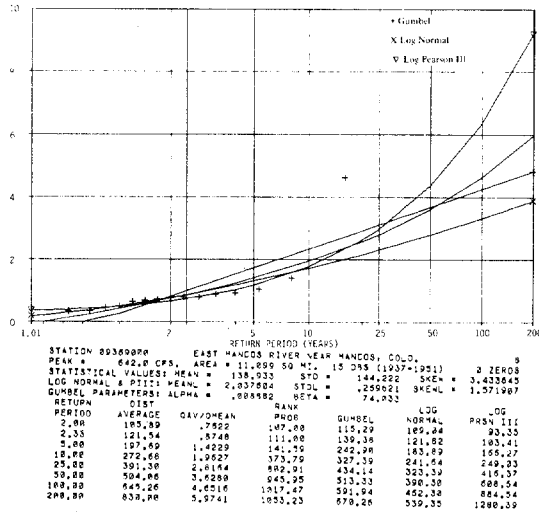
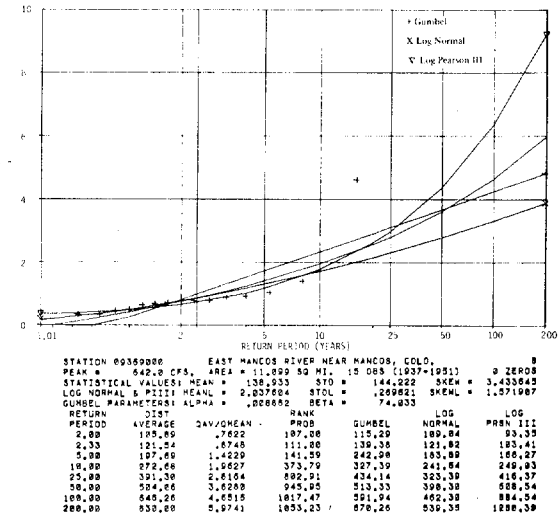
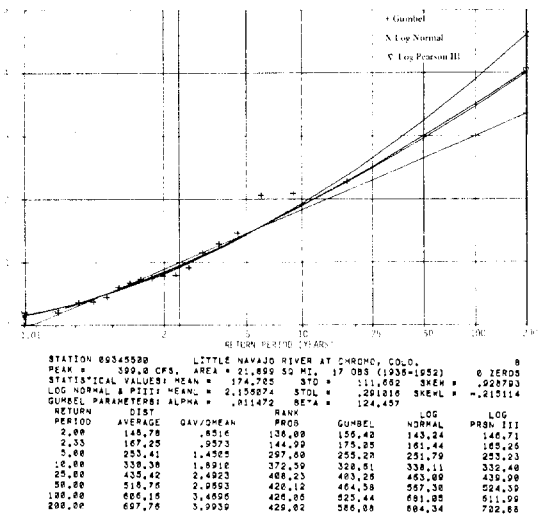
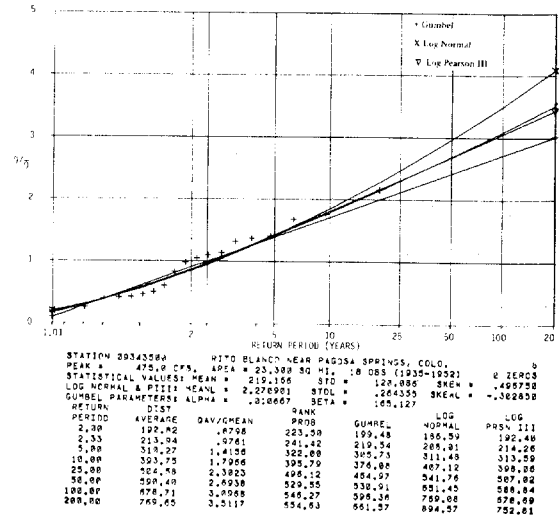
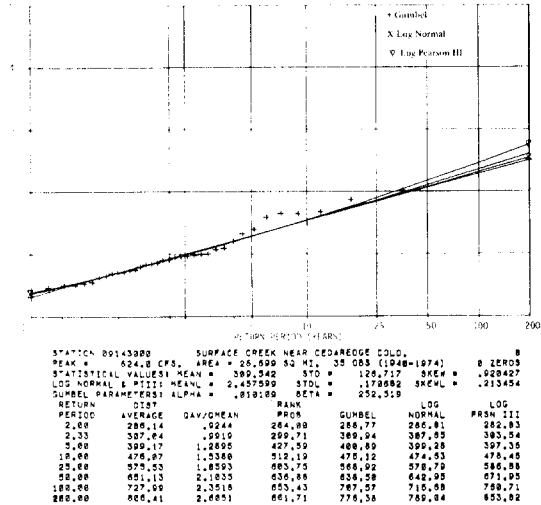
RETURN PERIOD	AVERAGE	QAV/DHEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	47.88	.0944	49.08	47.73	46.48	47.88	
2.33	56.10	1.0810	47.71	58.12	59.77	49.38	
3.00	68.33	1.0851	61.00	68.41	69.82	69.88	
10.00	69.00	1.3789	79.18	69.88	69.12	69.88	
25.00	75.28	1.5815	89.24	79.41	77.38	69.88	
50.00	87.11	1.7394	92.02	87.28	83.82	69.83	
100.00	95.87	1.8993	94.31	95.82	98.16	69.86	
200.00	105.13	2.0593	95.12	105.87	95.35	118.17	



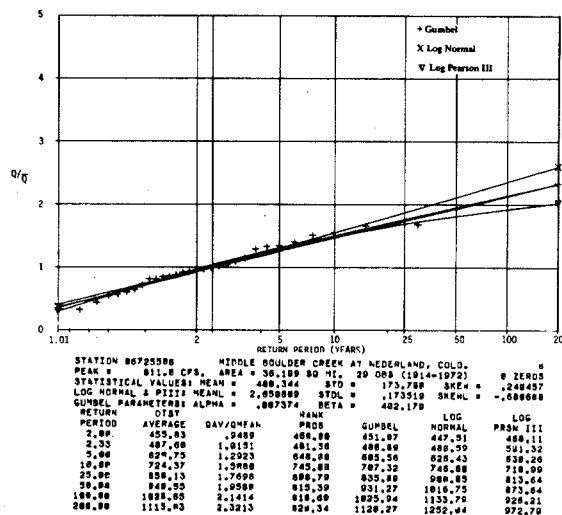
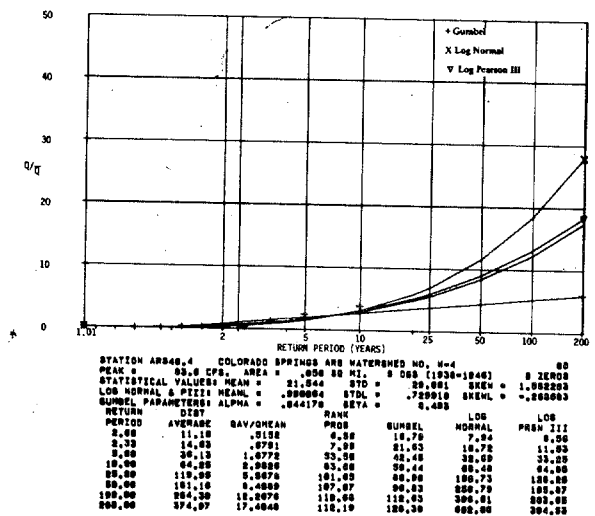
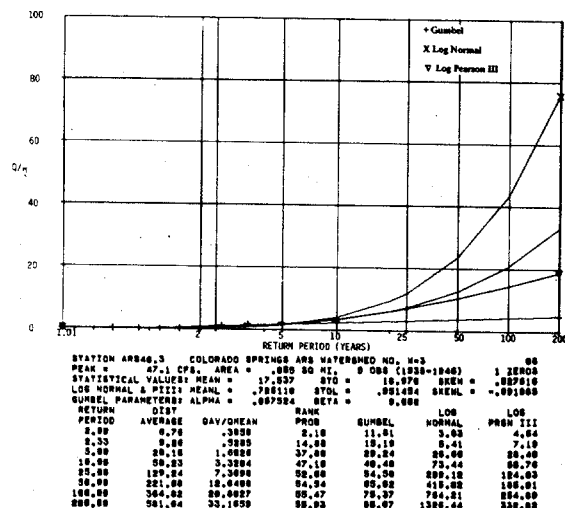
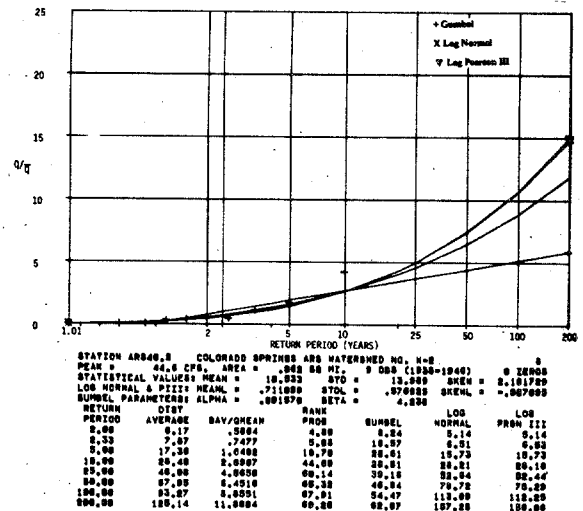
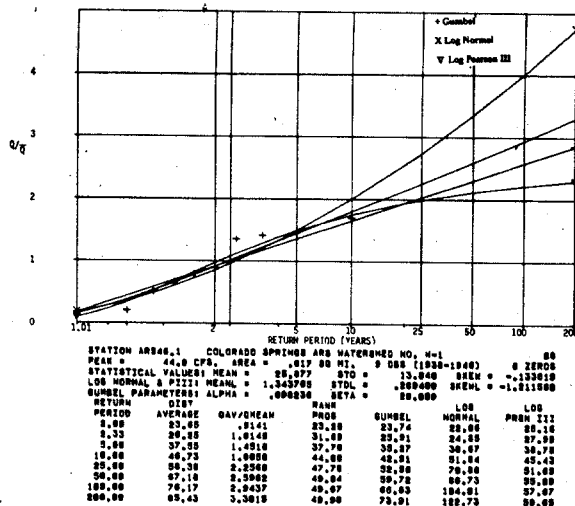
STATION 89148700 COTTONWOOD CREEK NEAR GRAND MESA, CO. 8 ZEROS
 PEAK = 38.8 CFS, AREA = 8.038 SQ MI, 11 OBS (1958-1968)
 STATISTICAL VALUES: MEAN = 64.454 STD = 19.836 SKEW = -1.384888
 LOG NORMAL & PIII: MEAN = 1.341097 STD = .288591 SKEW = -1.143897
 GUMBEL PARAMETERS: ALPHA = .128280 BETA = 19.836

RETURN PERIOD	AVERAGE	QAV/DHEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	23.88	.0488	84.00	22.77	21.87	24.00	
2.33	28.01	1.0488	85.71	24.48	24.48	26.41	
3.00	33.49	1.3695	36.20	31.83	34.28	34.36	
10.00	48.15	1.6489	37.88	37.88	43.84	39.88	
25.00	48.88	1.8718	38.78	41.81	46.38	45.88	
50.00	54.11	2.8189	38.78	46.88	46.88	46.88	
100.00	58.87	2.4035	38.84	58.84	58.84	46.83	
200.00	65.83	2.8921	38.84	65.84	65.84	46.74	

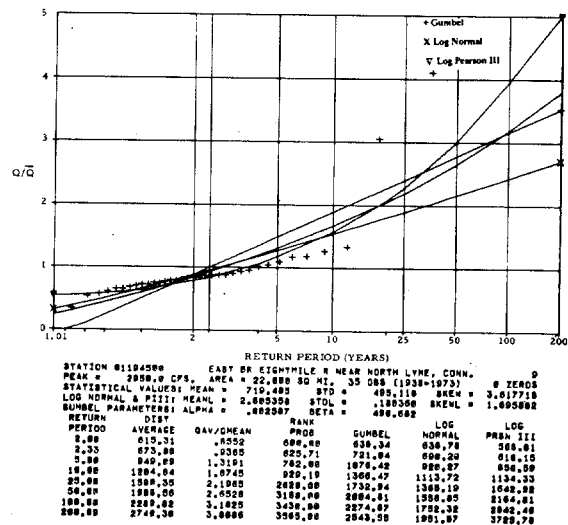
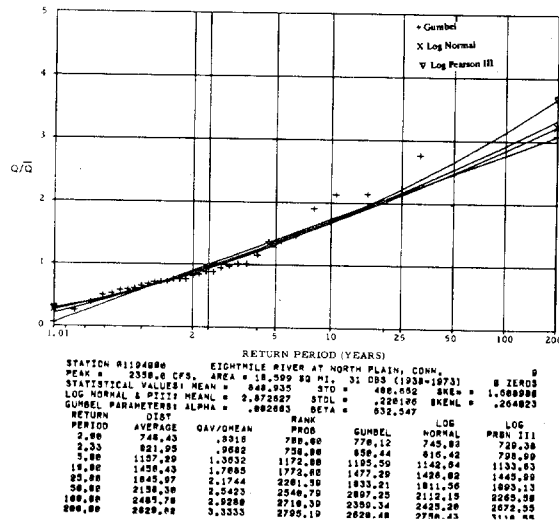
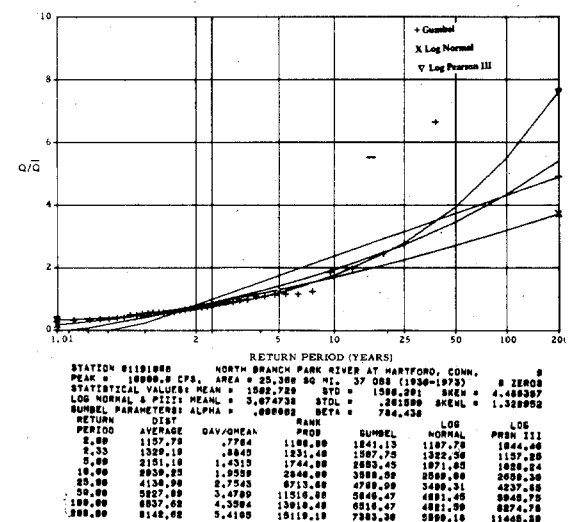
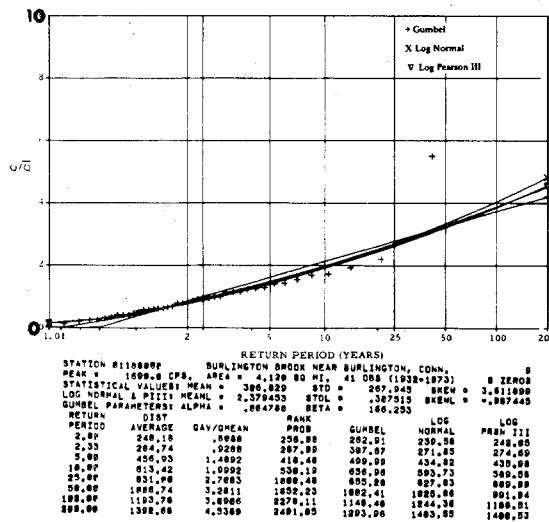
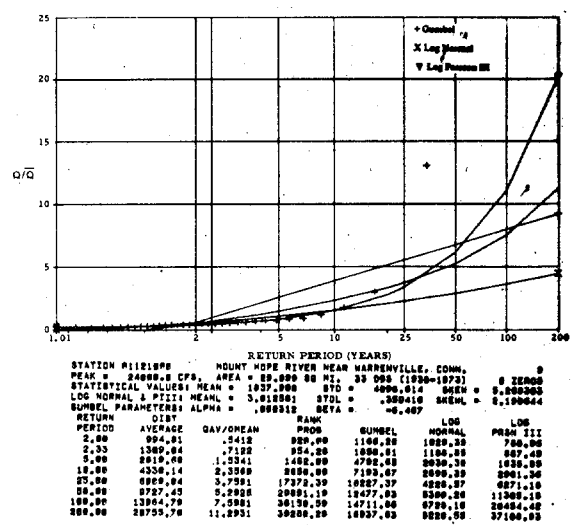
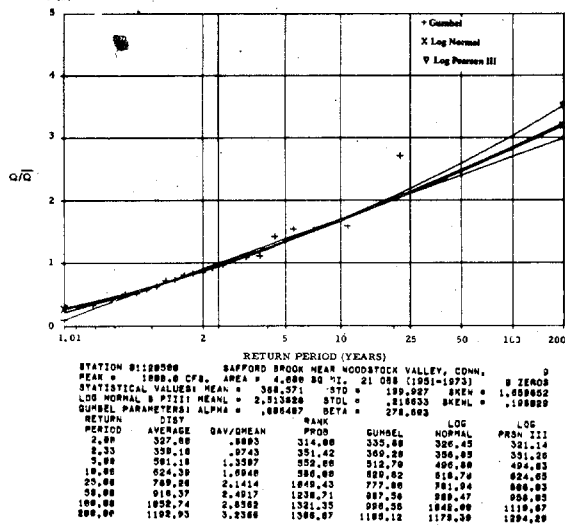
Appendix A-08. Colorado 25-30. Flood frequency curves and data.



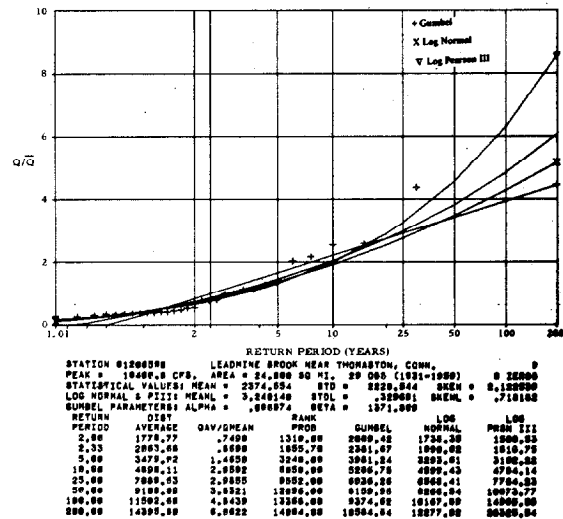
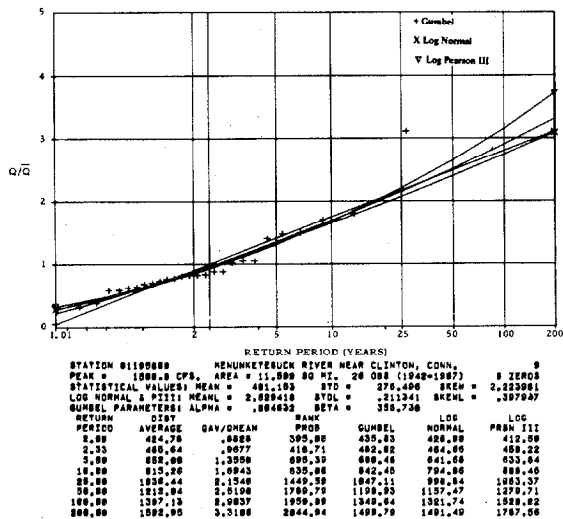
Appendix A-08. Colorado 31-36. Flood frequency curves and data.



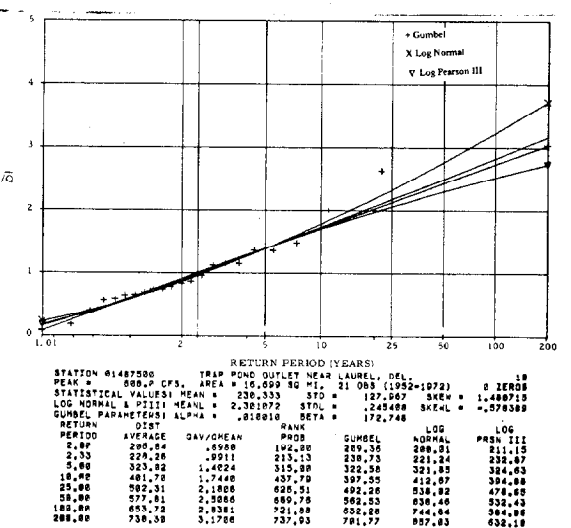
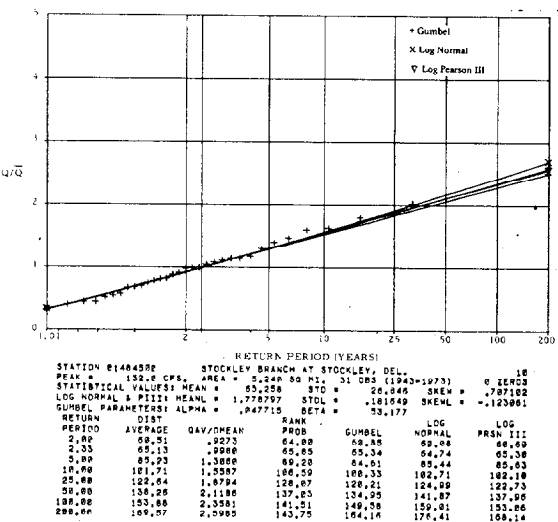
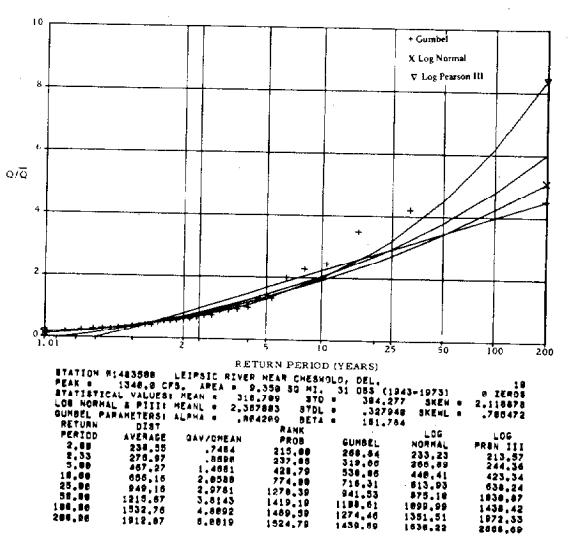
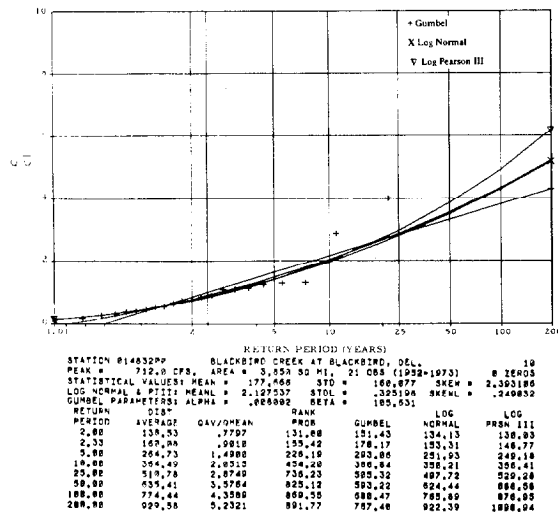
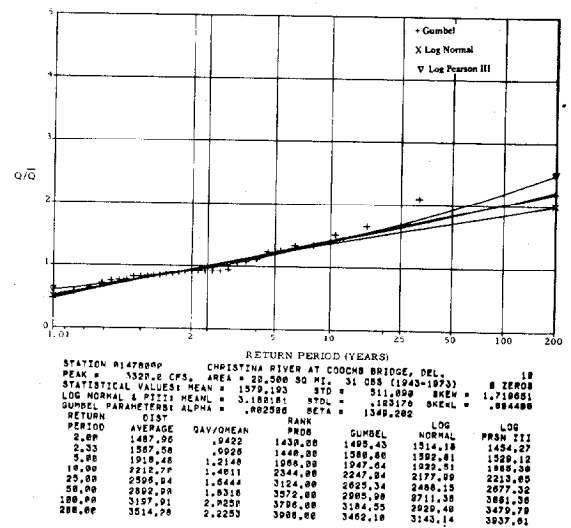
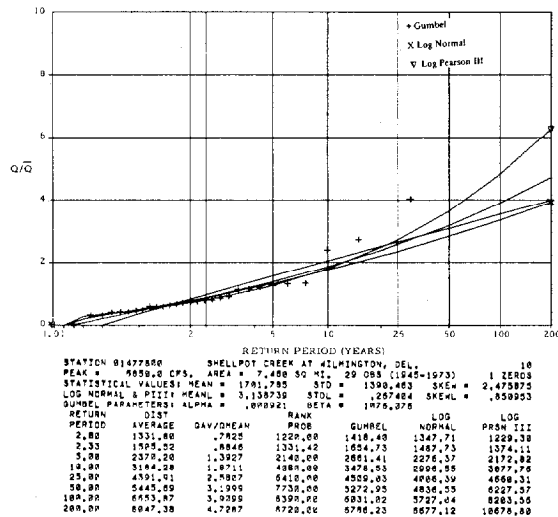
Appendix A-08. Colorado 37-41. Flood frequency curves and data.



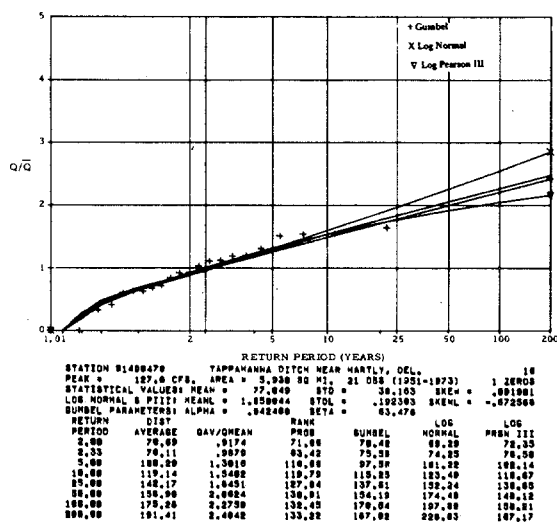
Appendix A-09. Connecticut 1-6. Flood frequency curves and data.



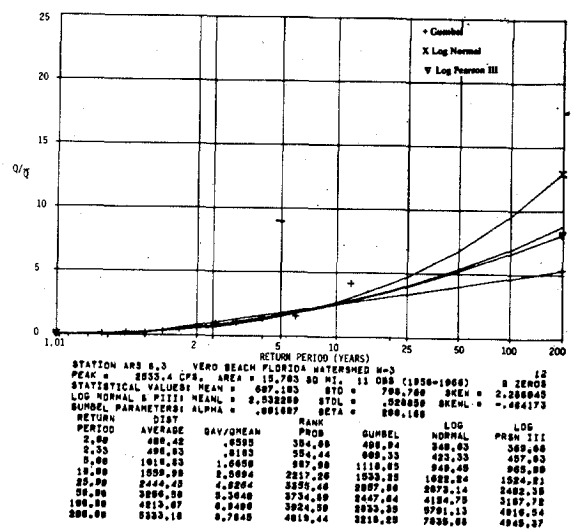
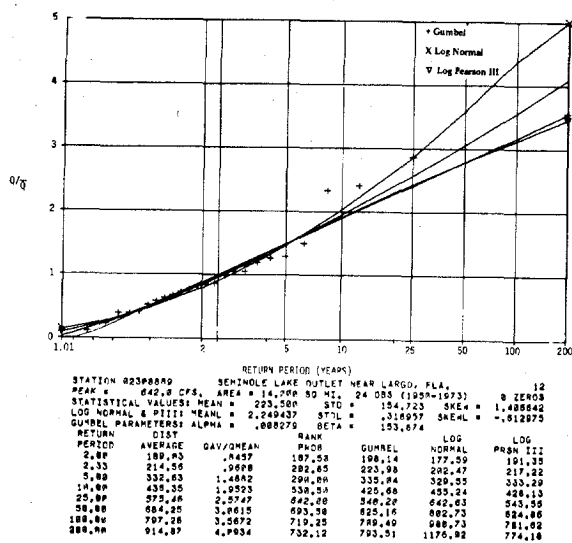
Appendix A-09. Connecticut 7-8. Flood frequency curves and data.



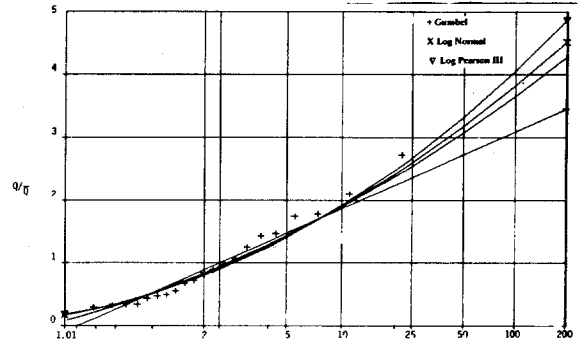
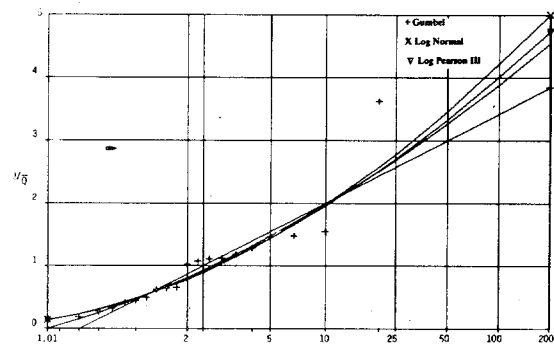
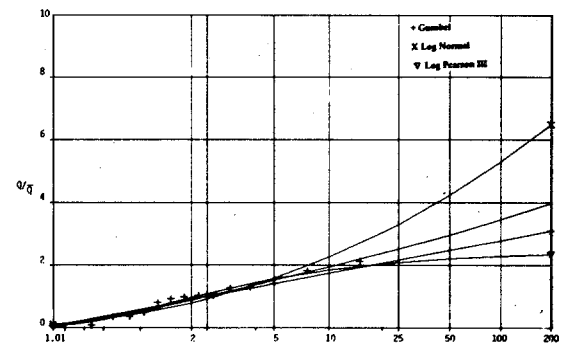
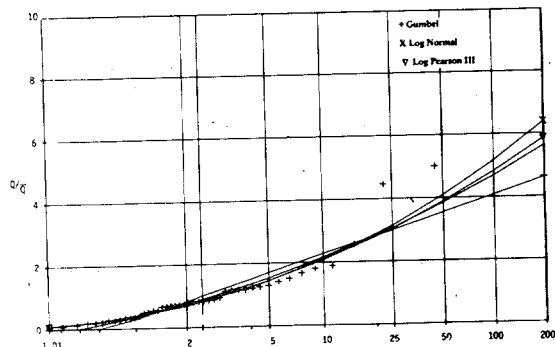
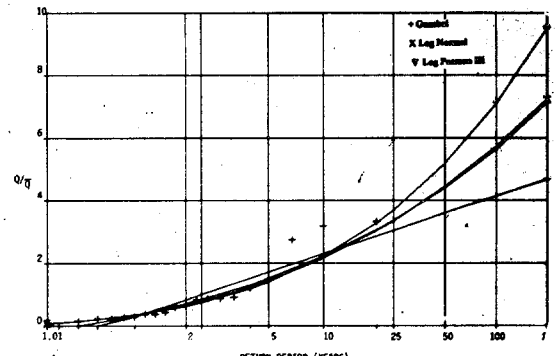
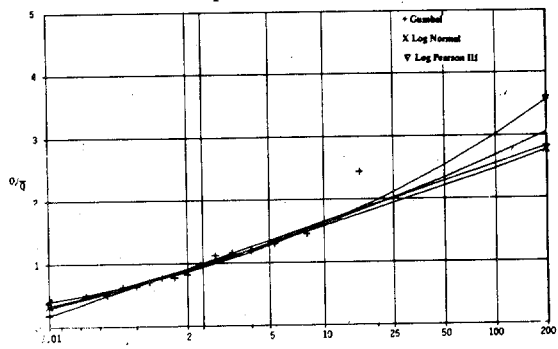
Appendix A-10. Delaware 1-6. Flood frequency curves and data.



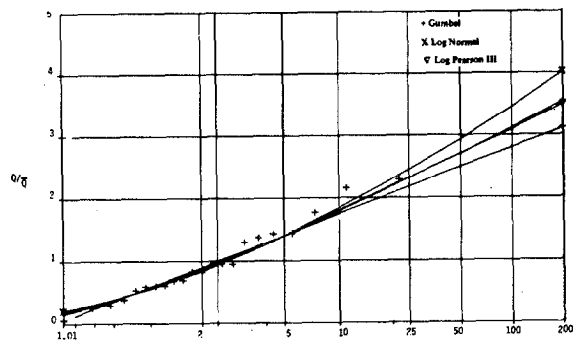
Appendix A-10. Delaware 7. Flood frequency curves and data.



Appendix A-12. Florida 7-8. Flood frequency curves and data.

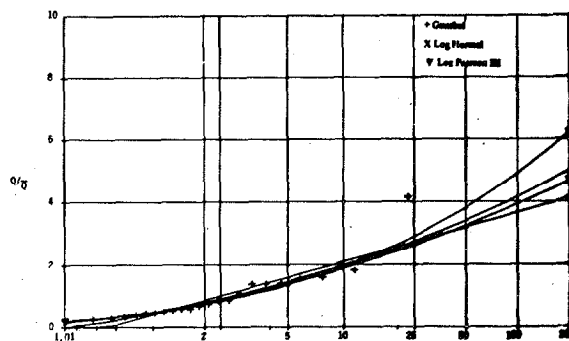


Appendix A-13. Georgia 1-6. Flood frequency curves and data.



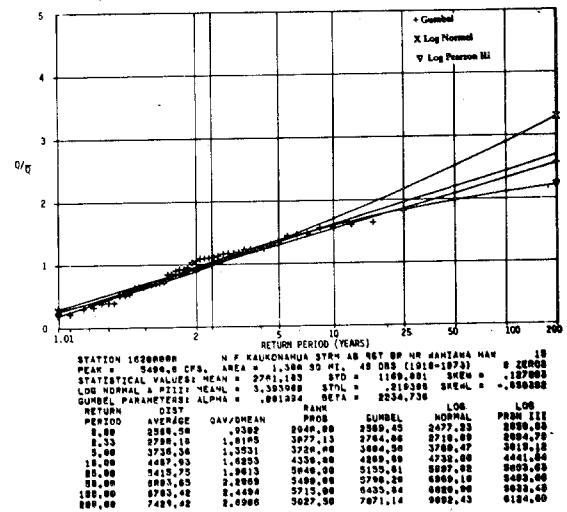
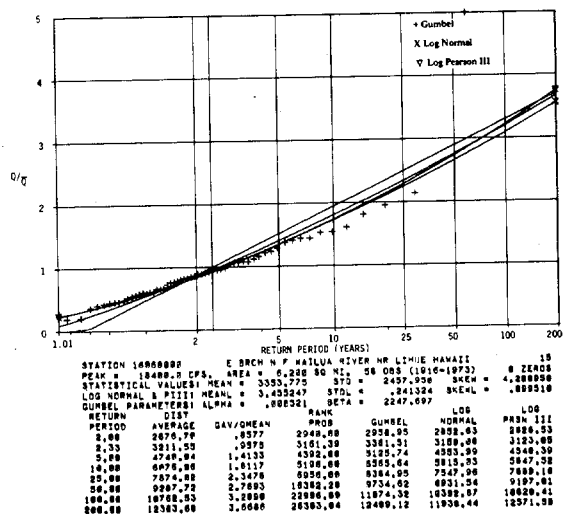
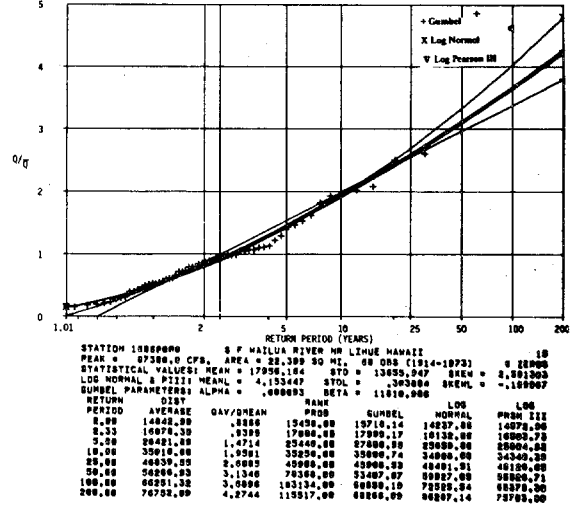
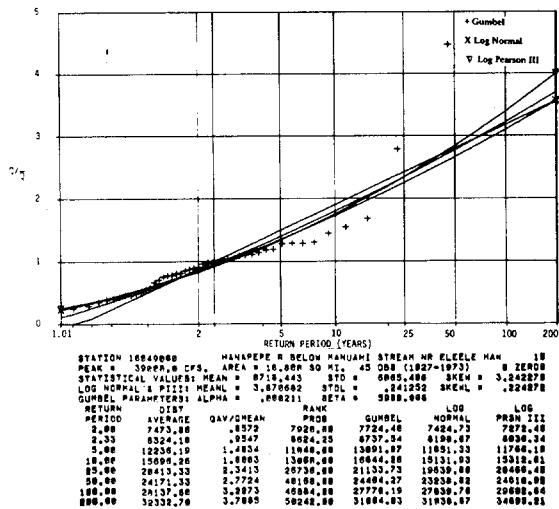
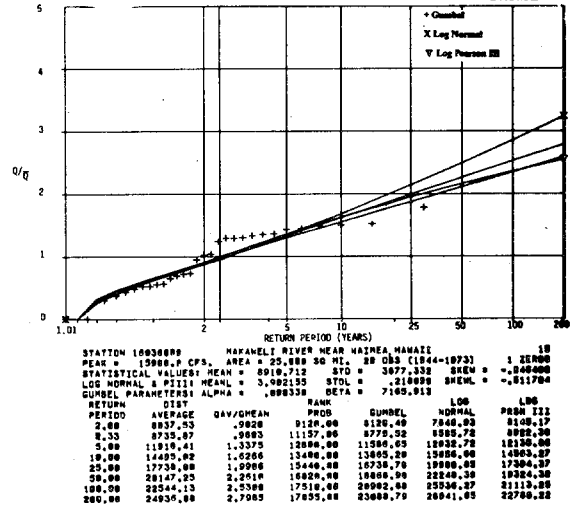
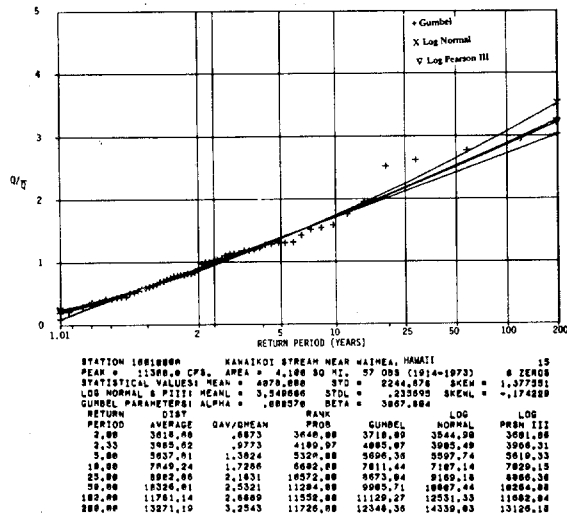
STATION 02021980 MURDER CREEK NEAR MONTICELLO, GA. 13
 PEAK = 3248.0 CFS, AREA = 24.680 SQ MI, 21 DBS (1952-1970) W ZERO
 STATISTICAL VALUES: MEAN = 1417.380 STD = 814.346 SKEW = .98284
 LOG NORMAL & PIII: MEAN = 3.88866 STD = .30213 SKEW = -.24858
 GUMBEL PARAMETERS: ALPHA = .01073 BETA = 1890.923

RETURN PERIOD	AVERAGE	QAV/MEAN	QAV	QAV/MEAN	QAV	QAV/MEAN	QAV
1.00	1840.00	.8756	1190.00	1282.02	1284.11	1284.03	
2.00	1376.30	.8724	1347.13	1418.94	1341.02	1375.99	
5.00	895.93	1.4152	2606.00	2864.46	2809.92	2815.44	
10.00	851.00	1.7990	2942.00	2481.58	2889.09	2889.00	
20.00	8276.07	2.3117	3662.70	3684.88	3403.38	3682.86	
50.00	3339.75	2.7009	5246.30	3531.48	4187.30	3436.83	
100.00	4420.41	2.1107	3386.17	3875.09	4981.00	4284.08	
200.00	5619.46	3.0413	3489.00	4417.01	5689.13	4947.78	

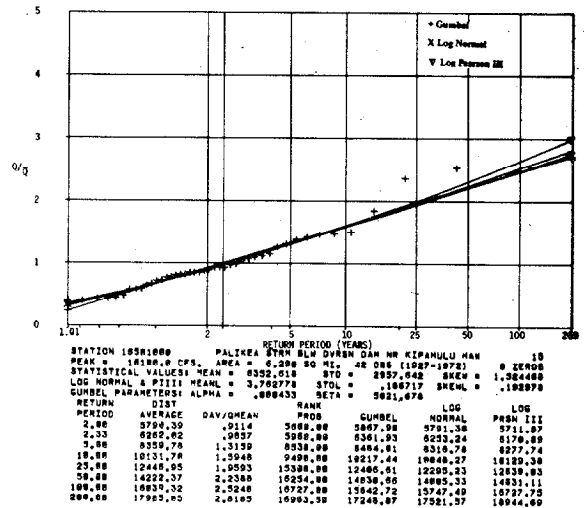
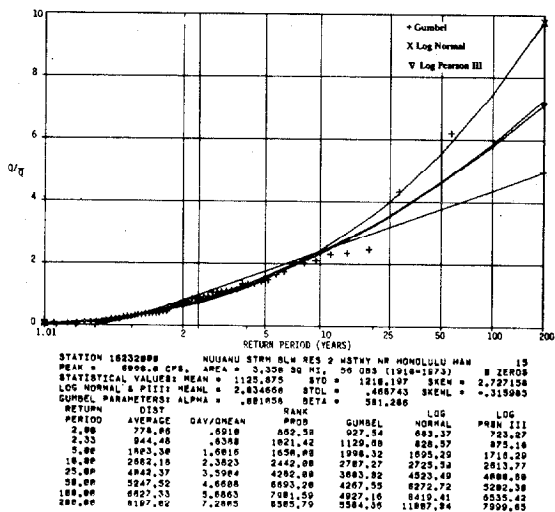
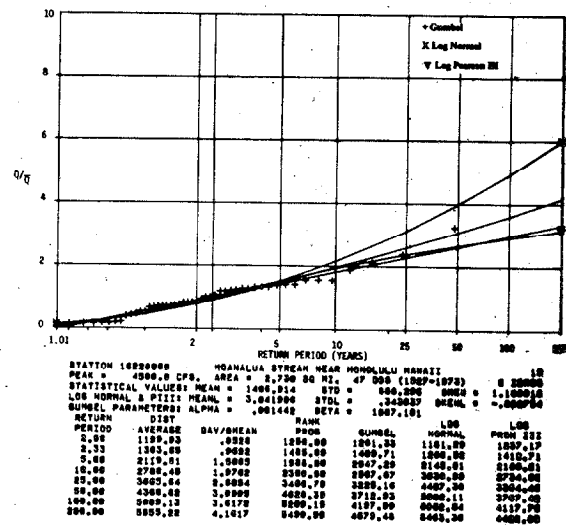
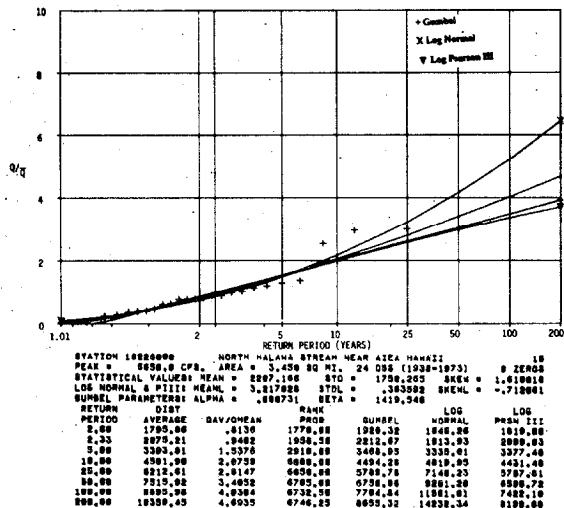


STATION 02030900 ROCK CREEK NEAR FAIRMOUNT, GA. 13
 PEAK = 2889.0 CFS, AREA = 3.616 SQ MI, 22 DBS (1960-1970) W ZERO
 STATISTICAL VALUES: MEAN = 830.303 STD = 450.911 SKEW = 2.00000
 LOG NORMAL & PIII: MEAN = 2.51703 STD = .36111 SKEW = .44310
 GUMBEL PARAMETERS: ALPHA = .022041 BETA = 327.000

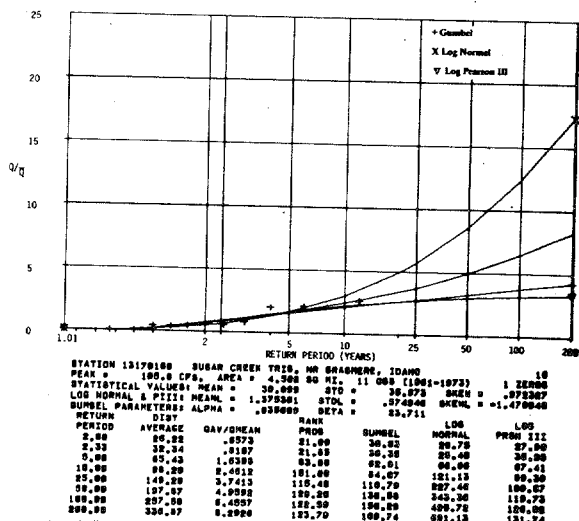
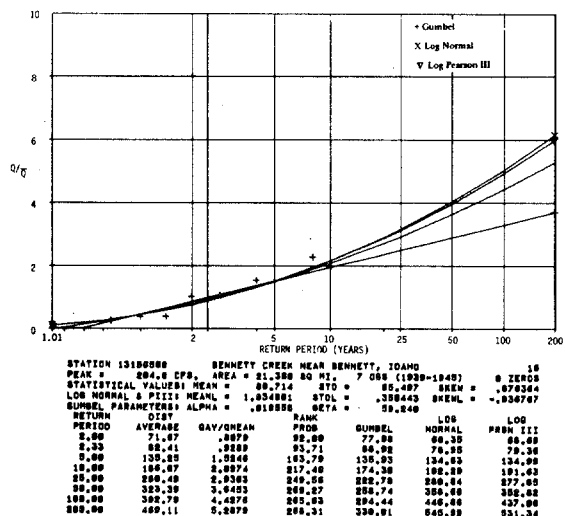
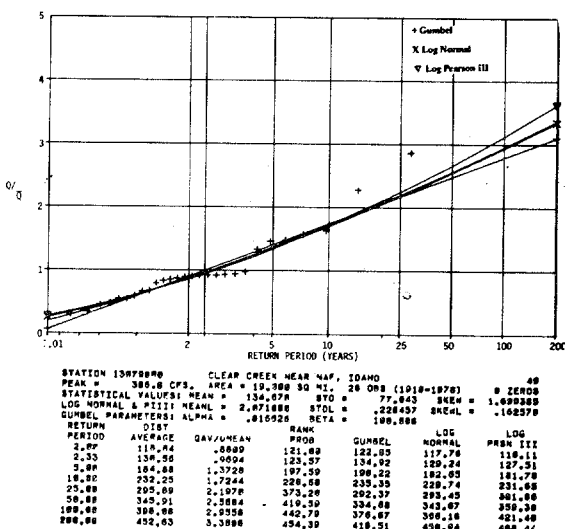
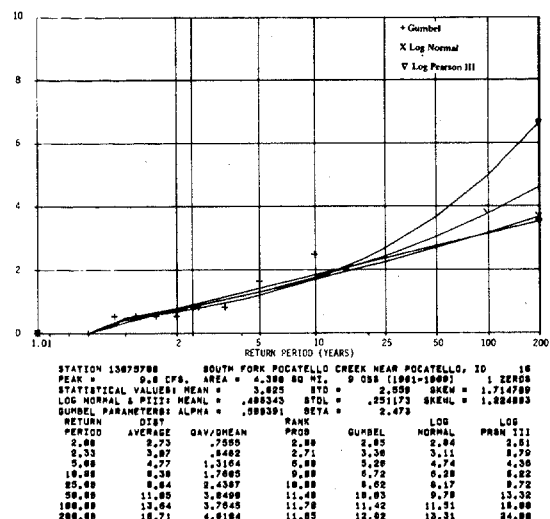
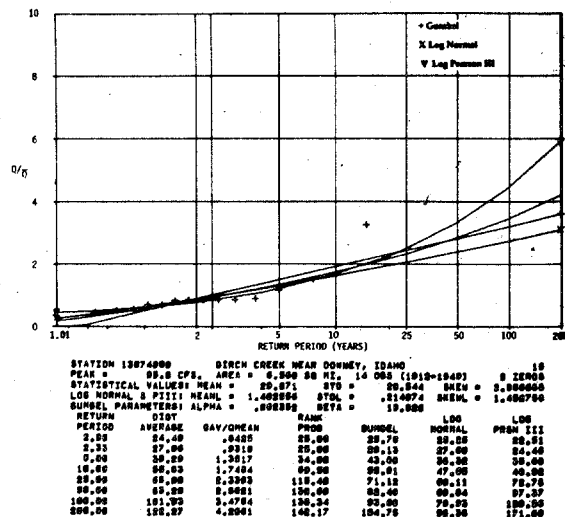
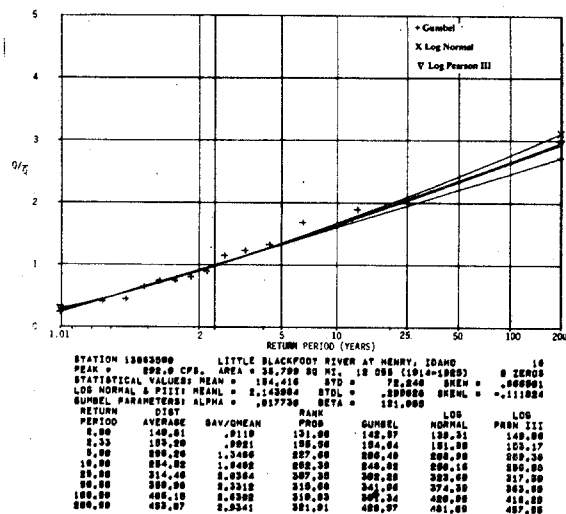
RETURN PERIOD	AVERAGE	QAV/MEAN	QAV	QAV/MEAN	QAV	QAV/MEAN	QAV
1.00	481.31	.7849	301.00	260.70	260.70	260.70	
2.00	435.91	.9000	434.00	351.70	351.70	351.70	
5.00	775.00	1.4614	775.00	696.30	740.35	737.30	
10.00	1052.47	1.8803	830.10	1119.00	1007.14	1007.00	
20.00	1408.00	2.7079	2296.31	1408.13	1304.71	1304.00	
50.00	1616.43	3.4178	2400.00	1704.00	1704.00	1704.00	
100.00	2225.00	4.1800	3140.30	1940.30	2270.00	2270.00	
200.00	2649.93	4.9902	3207.00	2191.00	2600.70	2600.00	



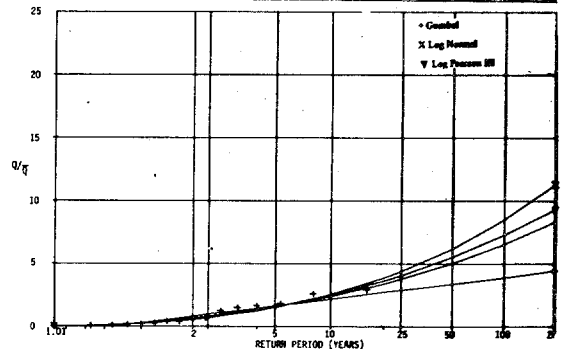
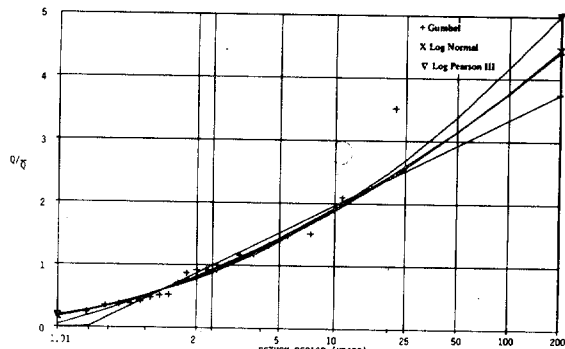
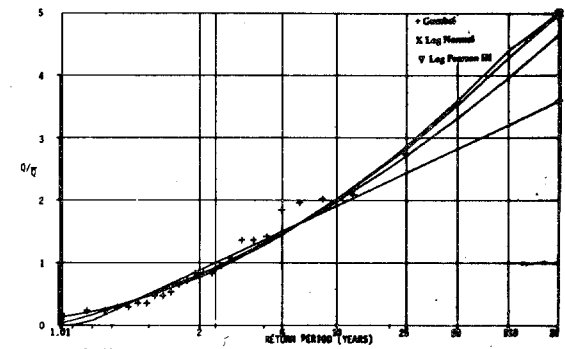
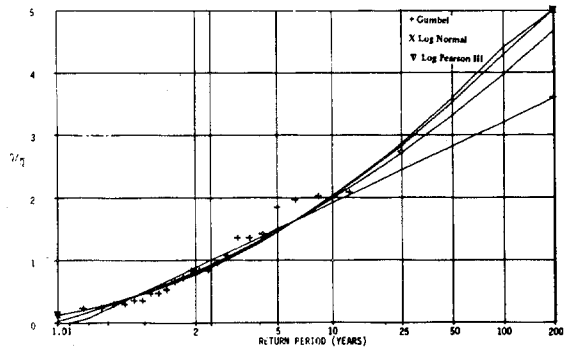
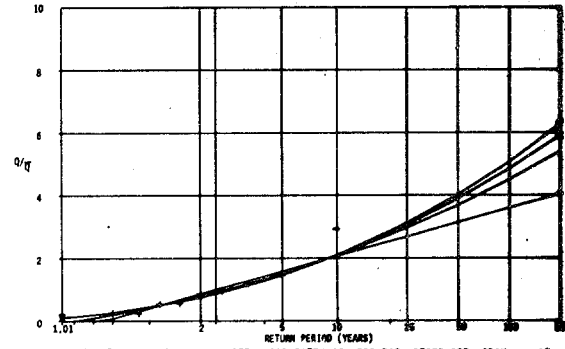
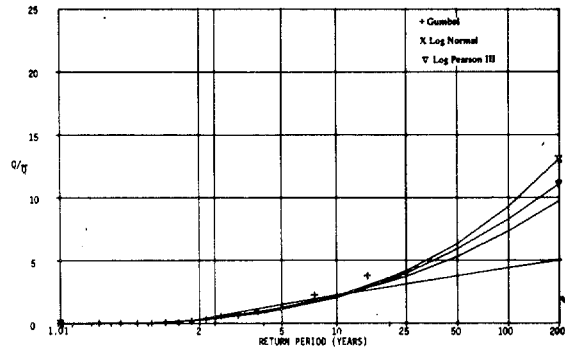
Appendix A-15. Hawaii 1-6. Flood frequency curves and data.



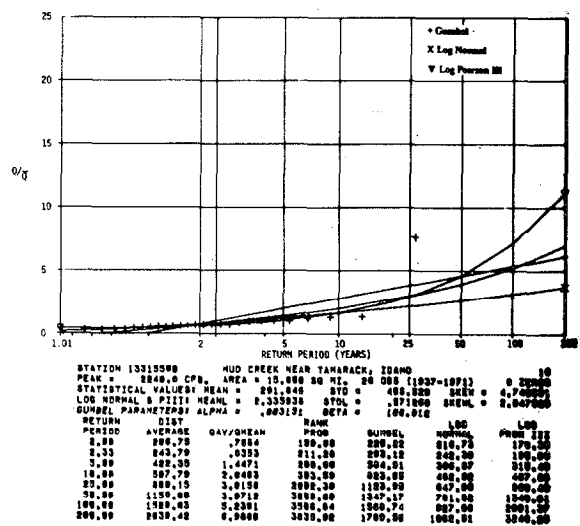
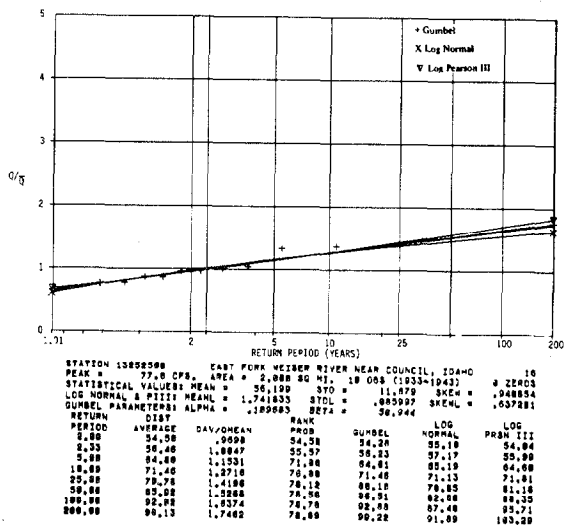
Appendix A-15. Hawaii 7-10. Flood frequency curves and data.



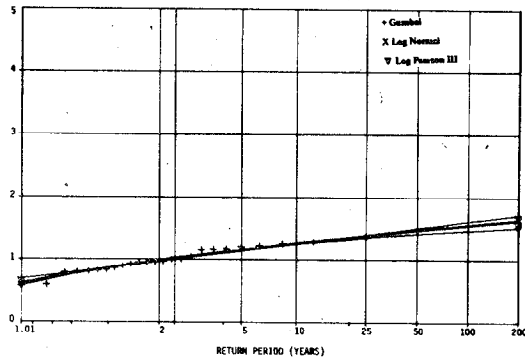
Appendix A-16. Idaho 7-12. Flood frequency curves and data.



Appendix A-16. Idaho 13-18. Flood frequency curves and data.

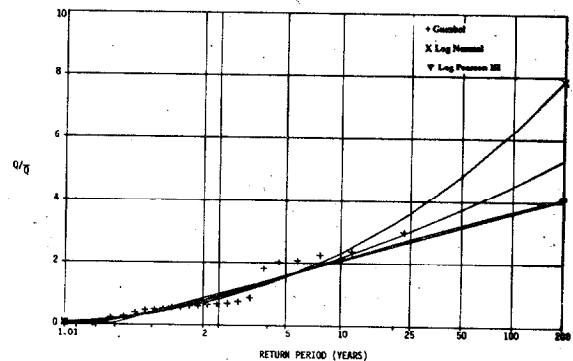


Appendix A-16. Idaho 19-20. Flood frequency curves and data.



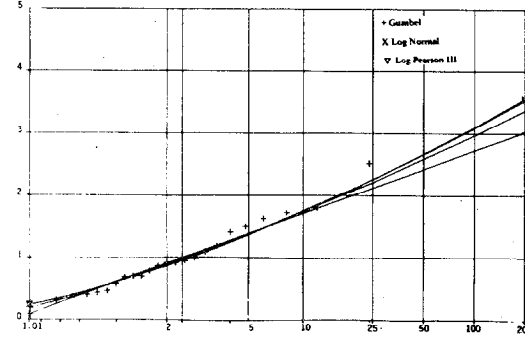
STATION 03337000 BONEYARD CREEK AT URBANA, ILL. 17
 PEAK = 386.8 CFS, AREA = 6,648 SQ MI, 24 DBS (1948-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 435.833 STD = 64.630 SKEW = -.897788
 LOG NORMAL & PIII MEAN = 2,631188 STD = .887481 SKEW = -.448265
 GUMBEL PARAMETERS: ALPHA = .918889 BETA = 387.455

RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PRISM III
2.00	427.67	.9817	418.89	481.92	487.88	434.84
2.33	443.01	1.0104	440.00	438.10	443.31	449.62
5.00	503.92	1.1562	524.00	484.49	504.07	504.89
10.00	549.20	1.2681	555.00	546.89	553.61	547.38
25.00	609.33	1.3820	586.00	609.40	609.40	589.81
50.00	638.32	1.4073	612.50	656.87	646.77	615.72
100.00	675.23	1.3400	622.25	702.31	682.28	639.40
200.00	709.22	1.4272	626.82	740.30	718.31	666.93



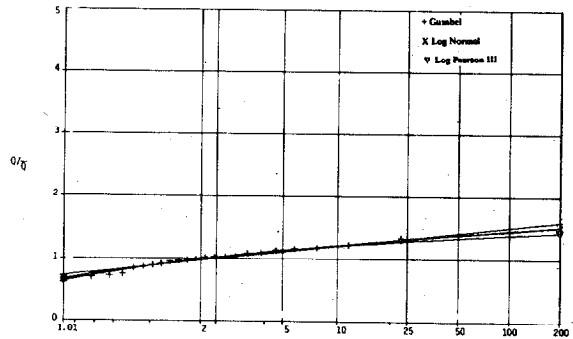
STATION 03344500 RANGE CREEK NEAR CASEY, ILL. 17
 PEAK = 3599.8 CFS, AREA = 7,008 SQ MI, 22 DBS (1951-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1145.136 STD = 977.483 SKEW = 1.183011
 LOG NORMAL & PIII MEAN = 2,111760 STD = .468898 SKEW = -.798898
 GUMBEL PARAMETERS: ALPHA = .481310 BETA = 755.178

RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PRISM III
2.00	912.76	.7833	740.00	1004.08	816.13	917.84
2.33	1069.91	.9182	767.05	1100.21	909.18	1076.37
5.00	1531.07	1.3708	2390.00	1600.96	1590.90	1605.87
10.00	2541.26	2.1818	2748.00	2442.70	2721.33	2468.75
25.00	3545.32	3.0428	3556.79	3100.35	4289.06	3239.73
50.00	4379.04	3.7511	3883.30	3783.28	5688.54	3786.18
100.00	5105.49	4.5192	4046.89	4236.40	7844.40	4289.70
200.00	6236.08	5.5927	4128.34	4787.82	9173.51	4789.88



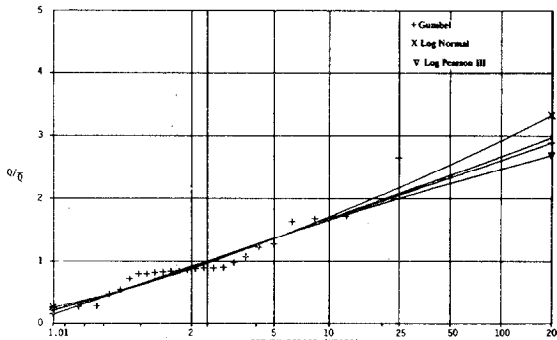
STATION 03335200 HAVES CREEK AT GLENDALE, ILL. 17
 PEAK = 5429.2 CFS, AREA = 10,890 SQ MI, 23 DBS (1950-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 2537.088 STD = 1397.669 SKEW = 1.005813
 LOG NORMAL & PIII MEAN = 2,343209 STD = .238808 SKEW = -.812693
 GUMBEL PARAMETERS: ALPHA = .008010 BETA = 1988.647

RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PRISM III
2.00	2239.85	.8826	2320.00	2389.34	2284.25	2286.76
2.33	2489.05	.9729	2577.13	2542.01	2436.48	2434.39
5.00	3512.08	1.3843	3888.00	3545.21	3486.40	3497.04
10.00	4419.34	1.7417	4490.00	4384.00	4449.81	4446.02
25.00	5631.37	2.2191	6475.19	5596.34	5755.36	5748.82
50.00	6570.41	2.5915	7351.50	6166.81	6784.72	6780.00
100.00	7555.48	2.8773	7790.79	6927.82	7688.89	7648.49
200.00	8571.93	3.3778	8018.59	7686.84	9848.34	8045.93



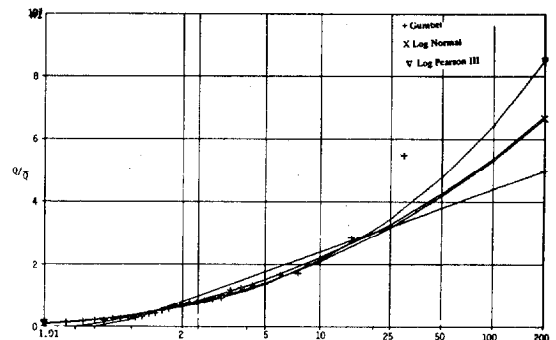
STATION 03380500 SUGAR CREEK NEAR DIXON SPRINGS, ILL. 17
 PEAK = 1878.8 CFS, AREA = 9,788 SQ MI, 22 DBS (1950-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1391.545 STD = 828.014 SKEW = -.233334
 LOG NORMAL & PIII MEAN = 2,137522 STD = .873510 SKEW = -.368874
 GUMBEL PARAMETERS: ALPHA = .885572 BETA = 1288.218

RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PRISM III
2.00	1371.30	.8655	1480.00	1553.91	1375.00	1387.20
2.33	1418.20	1.0148	1440.00	1382.26	1415.11	1429.41
5.00	1875.85	1.3323	1840.00	1957.07	1881.85	1888.00
10.00	1898.95	1.2191	1890.00	1891.56	1781.85	1898.00
25.00	1837.94	1.3287	1880.00	1801.54	1848.00	1805.80
50.00	1936.00	1.3917	1951.00	1907.00	1945.84	1976.35
100.00	2038.70	1.4593	1985.55	2112.77	1945.84	1976.35
200.00	2121.84	1.5243	2082.75	2287.47	2123.05	2083.21



STATION 04000000 DEER CREEK NEAR CHICAGO HEIGHTS, ILL. 17
 PEAK = 1889.8 CFS, AREA = 23,199 SQ MI, 24 DBS (1948-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 519.386 STD = 297.056 SKEW = 1.503564
 LOG NORMAL & PIII MEAN = 2,453593 STD = .222925 SKEW = -.456869
 GUMBEL PARAMETERS: ALPHA = .004797 BETA = 399.198

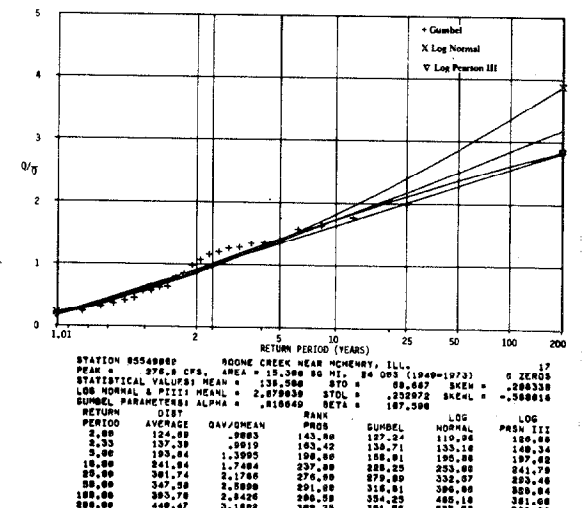
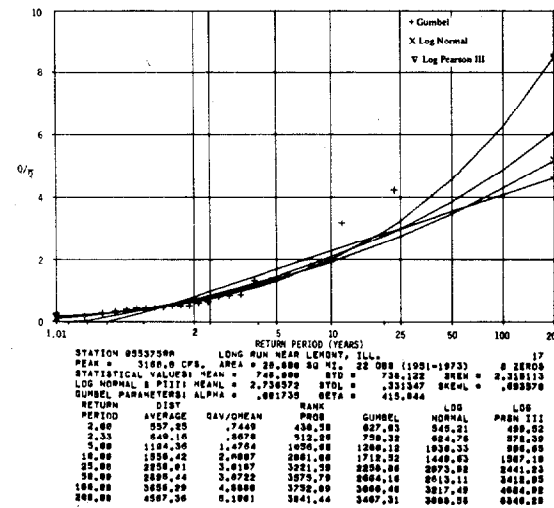
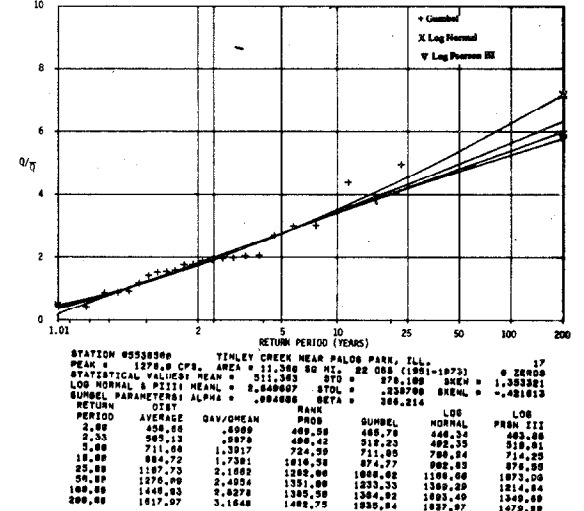
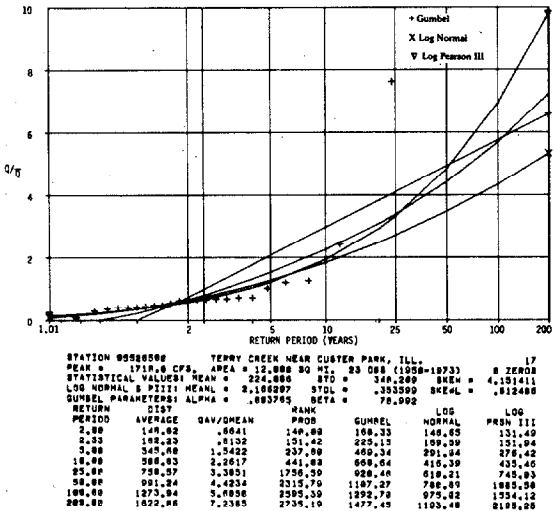
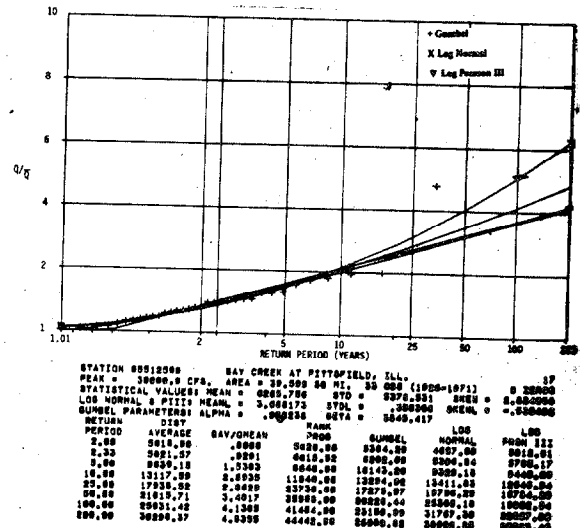
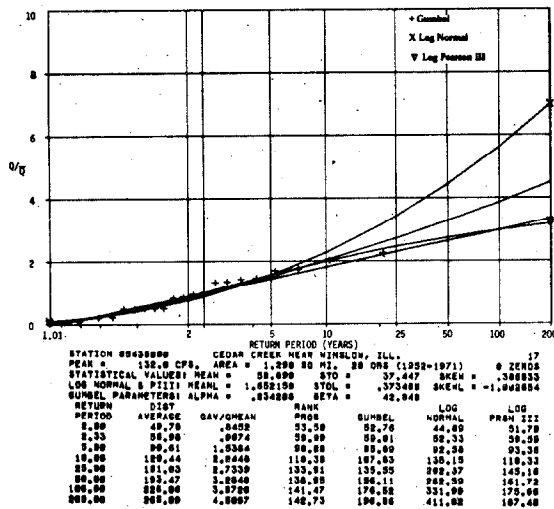
RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PRISM III
2.00	471.84	.9878	451.00	475.55	486.86	478.30
2.33	516.20	.9938	467.00	520.34	535.19	523.48
5.00	712.47	1.3714	653.00	712.38	789.48	715.04
10.00	874.52	1.6833	880.00	809.12	888.14	884.59
25.00	1088.00	2.0986	1380.00	1087.10	1132.28	1043.27
50.00	1235.19	2.3776	1621.00	1214.00	1322.75	1168.71
100.00	1389.73	2.6751	1741.50	1350.01	1521.40	1287.78
200.00	1545.02	2.9748	1881.75	1505.21	1728.32	1481.55



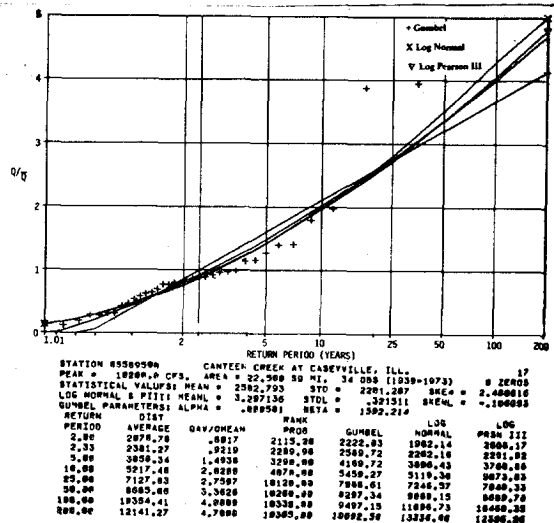
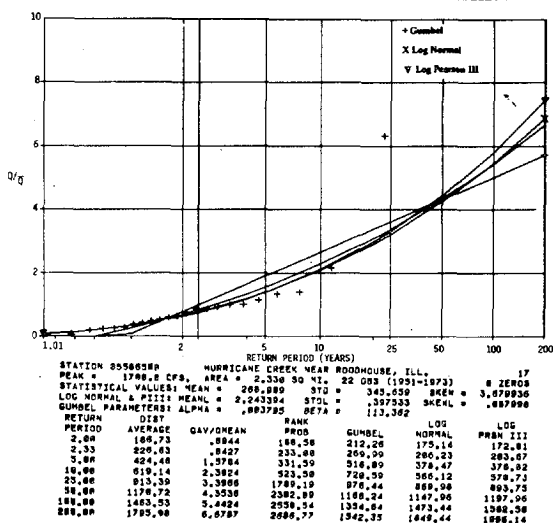
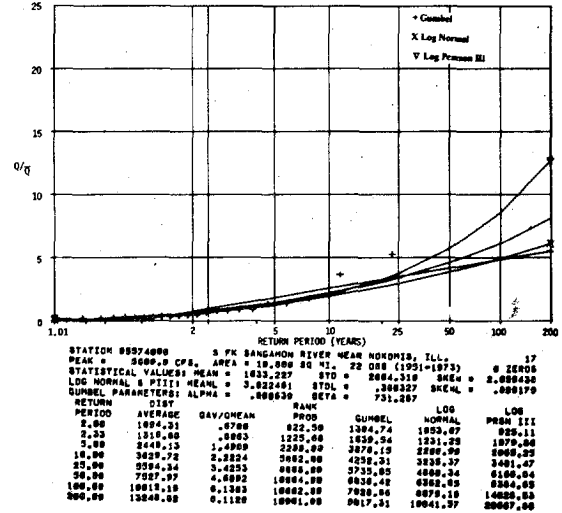
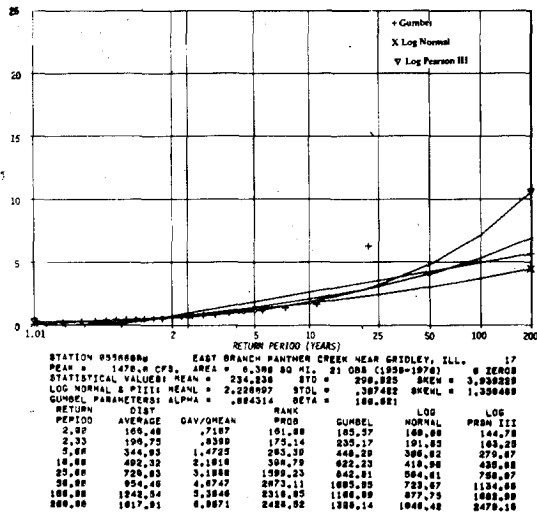
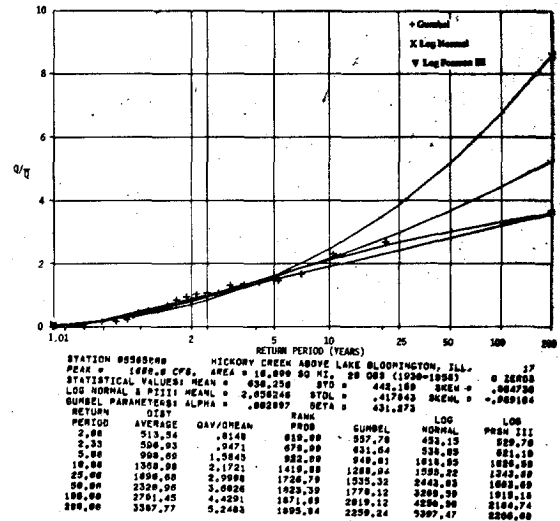
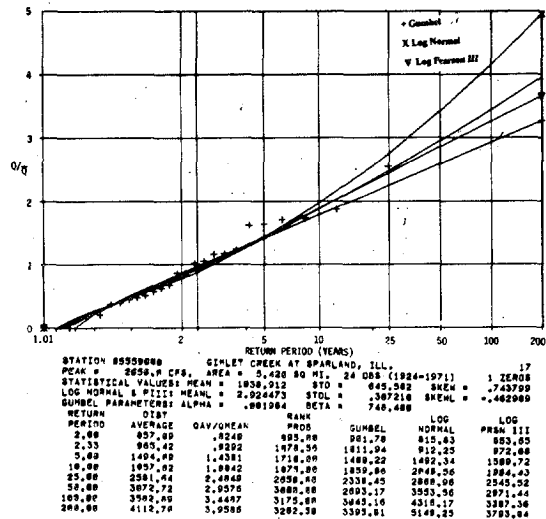
STATION 05415000 EAST FORK CALENA RIVER AT COUNCIL HILL, ILL. 17
 PEAK = 10669.8 CFS, AREA = 28,890 SQ MI, 20 DBS (1948-1969) 0 ZEROS
 STATISTICAL VALUES: MEAN = 3823.440 STD = 3277.732 SKEW = 2.838782
 LOG NORMAL & PIII MEAN = 5,388721 STD = .387510 SKEW = .291898
 GUMBEL PARAMETERS: ALPHA = .009350 BETA = 1548.458

RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PRISM III
2.00	2151.85	.7114	2276.00	2486.27	2926.37	1948.51
2.33	2566.49	.8073	2111.00	3833.77	2375.77	2377.92
5.00	4635.81	1.5326	4196.00	5386.42	4286.76	4224.61
10.00	6728.49	2.2227	6059.00	7380.54	6350.17	6584.78
25.00	9863.24	3.2053	5989.00	8732.64	9046.36	10508.93
50.00	12883.00	4.2012	10792.00	11532.45	12836.38	14488.00
100.00	12288.53	5.3687	22186.00	13318.97	19115.30	19461.23
200.00	2898.88	6.7188	23363.00	13686.95	29186.00	23669.07

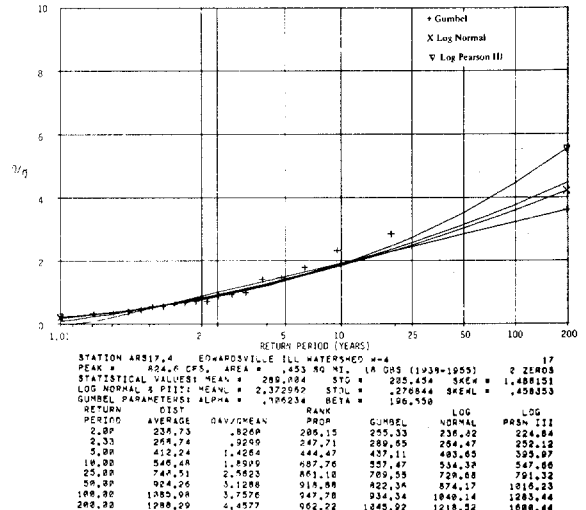
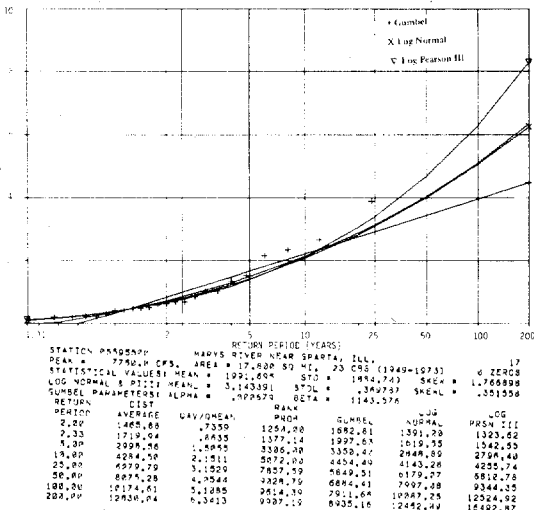
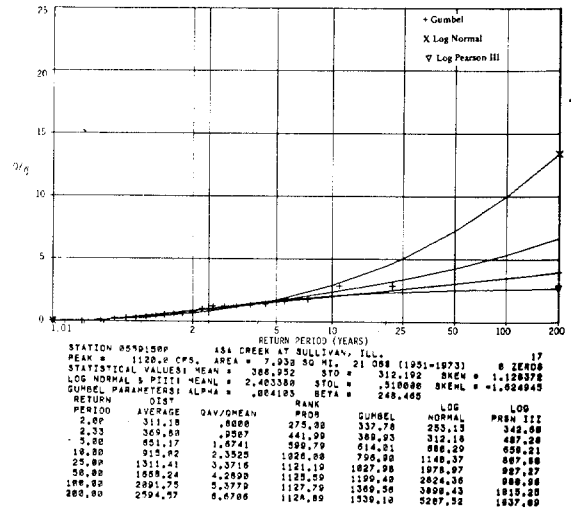
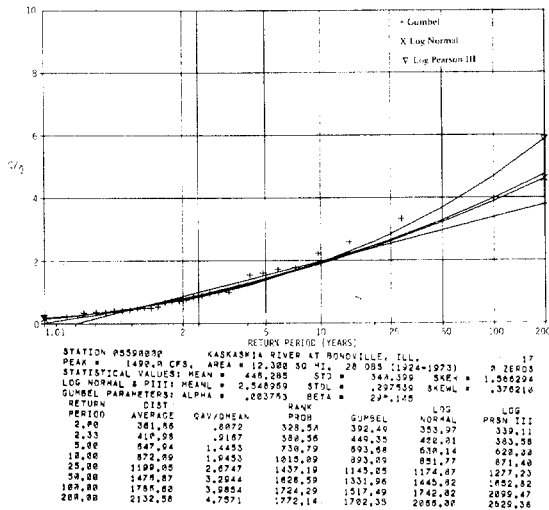
Appendix A-17. Illinois 1-6. Flood frequency curves and data.



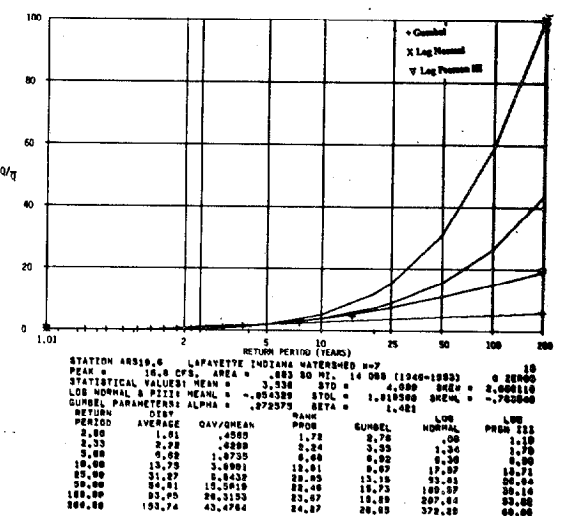
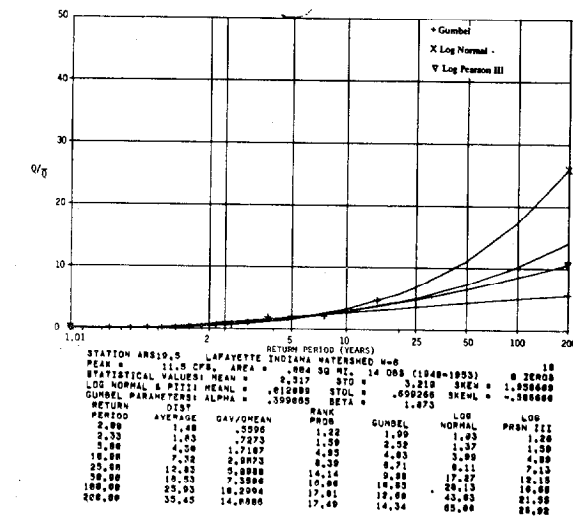
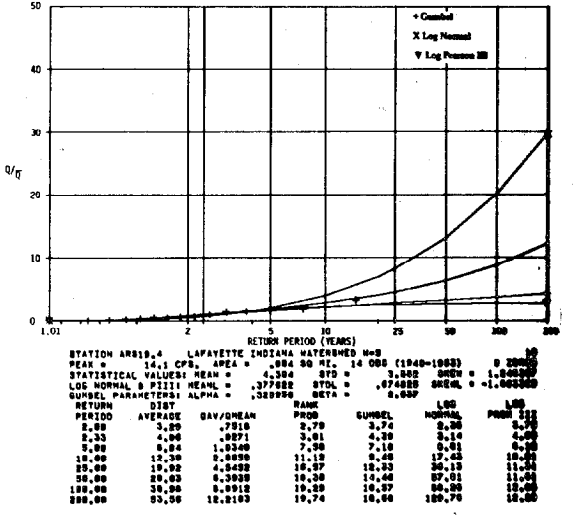
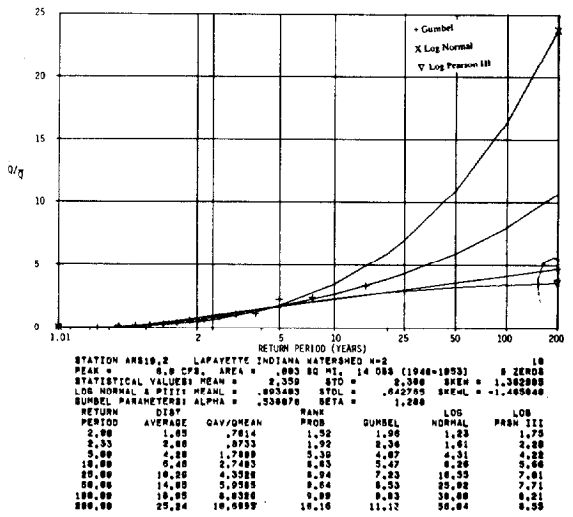
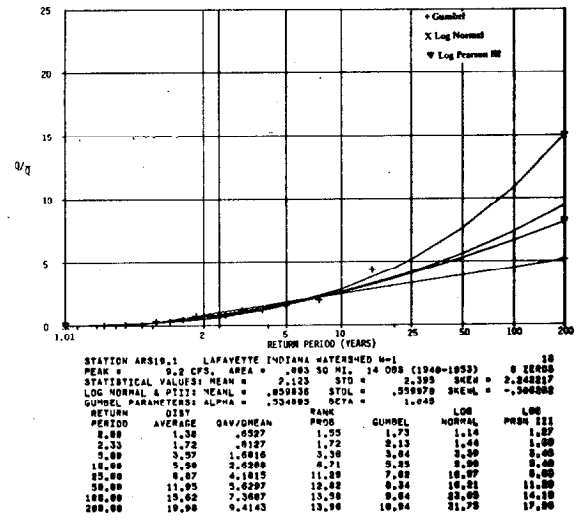
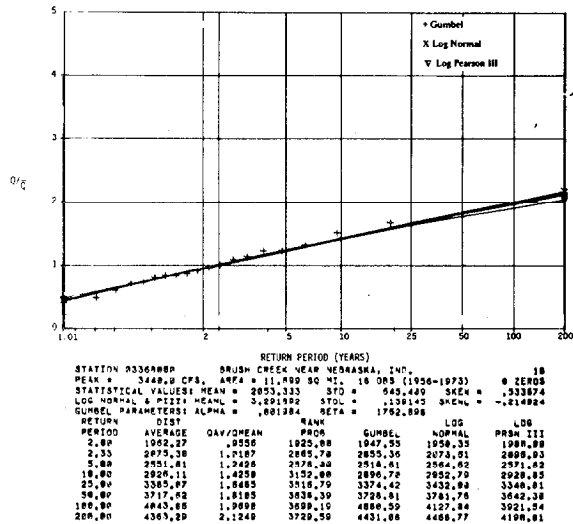
Appendix A-17. Illinois 7-12. Flood frequency curves and data.



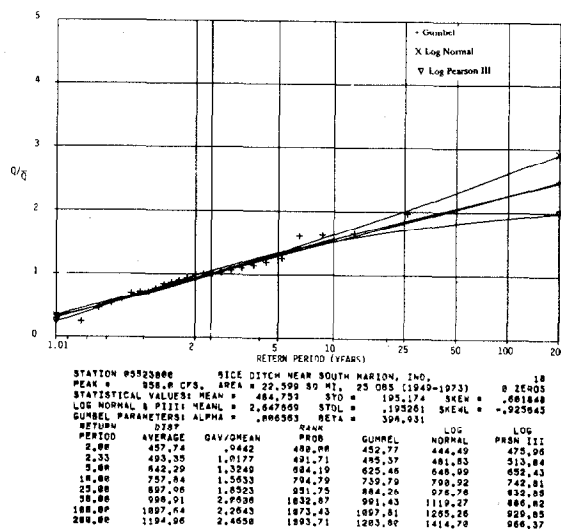
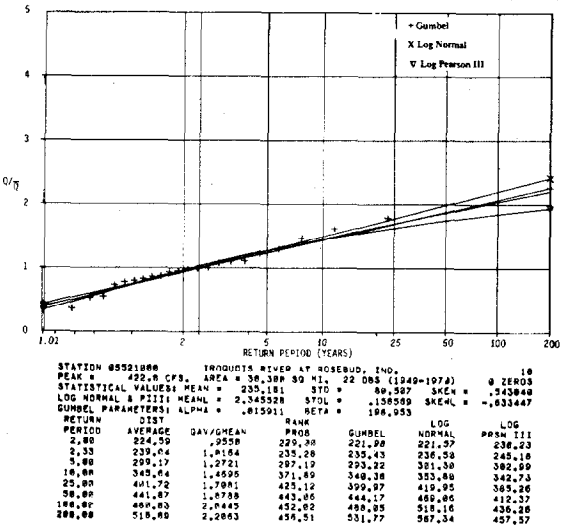
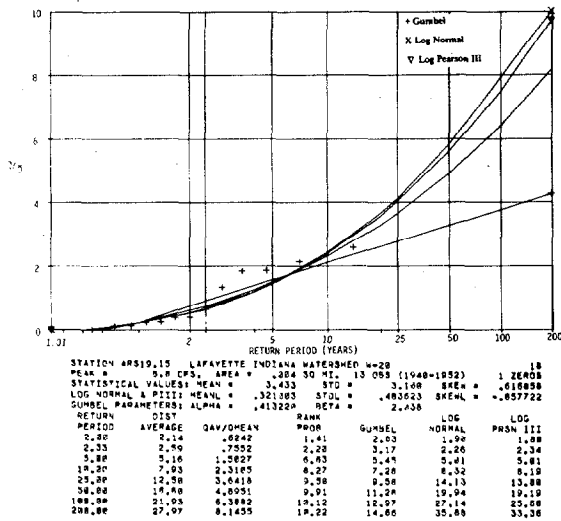
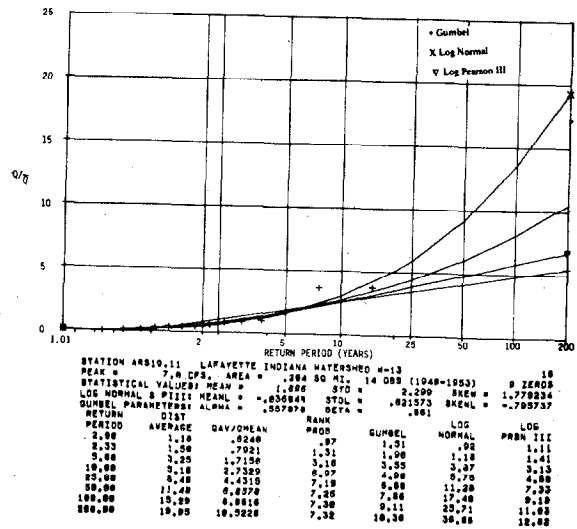
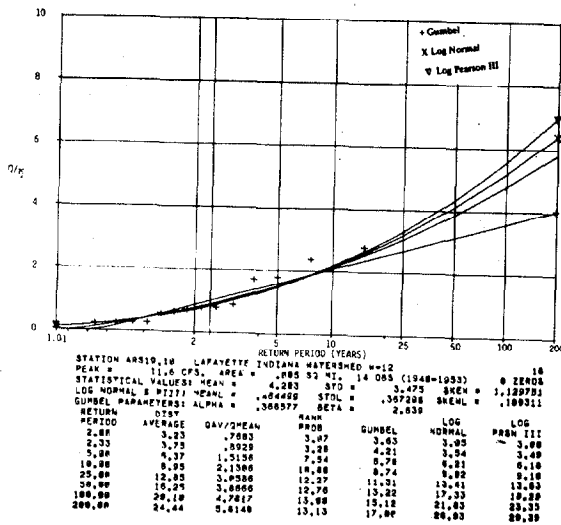
Appendix A-17. Illinois 13-18. Flood frequency curves and data.



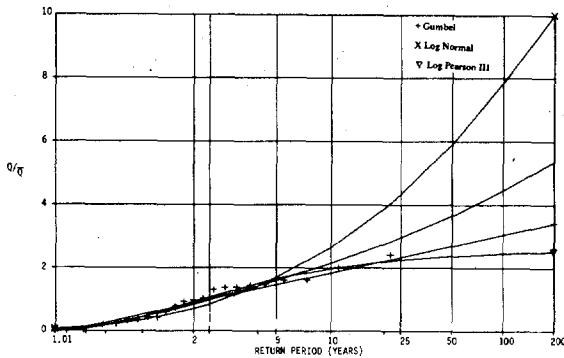
Appendix A-17. Illinois 19-22. Flood frequency curves and data.



Appendix A-18. Indiana 1-6. Flood frequency curves and data.

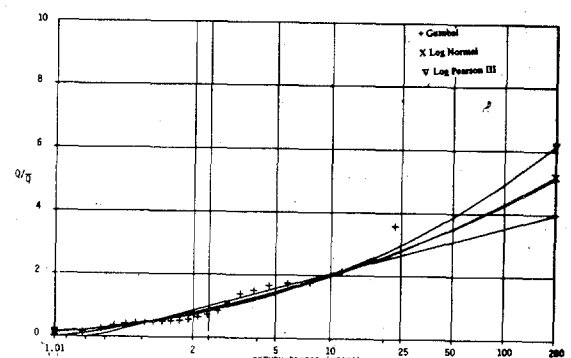


Appendix A-18. Indiana 7-11. Flood frequency curves and data.



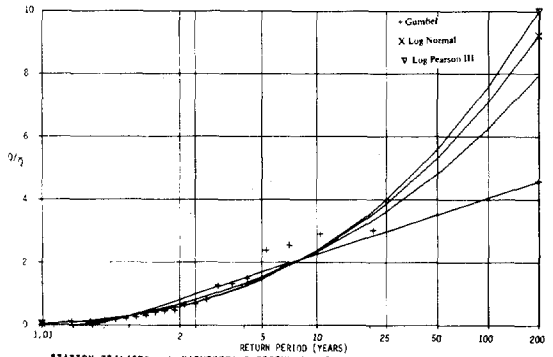
STATION 85411856 CRANE CREEK TRIBUTARY NEAR SARATOGA, IOWA 19
 PEAK = 1930.8 CFS, AREA = 4.988 SQ MI, 21 OBS (1953-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 752.333 STD = 494.311 SKEW = .368772
 LOG NORMAL & PIII: MEAN = 2.739287 STD = .447018 SKEW = .1586824
 GUMBEL PARAMETERS: ALPHA = .862591 BETA = 529.892

RETURN PERIOD	AVERAGE	QAV/QMEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	855.23	.8443	734.00	871.32	537.38	607.00
2.33	737.38	.8891	688.00	753.80	645.33	612.34
5.00	1212.43	1.4113	1174.00	1188.88	1270.64	1248.98
10.00	1834.63	2.1772	1488.00	1398.24	2013.71	1582.13
25.00	3245.77	4.0658	1856.00	1764.14	3267.78	1795.48
50.00	2786.27	3.6749	1998.00	2835.58	4463.09	1799.35
100.00	3359.08	4.4688	2984.00	2384.09	5912.34	1659.91
200.00	4836.37	5.3551	2497.00	2573.47	7636.93	1499.83



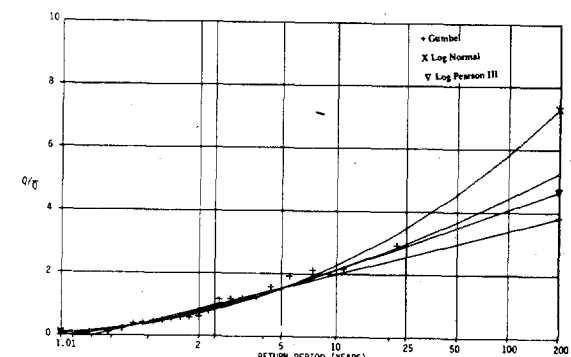
STATION 85414490 HAWK CREEK NEAR RICHLANDVILLE, IOWA 19
 PEAK = 710.4 CFS, AREA = 22.888 SQ MI, 22 OBS (1951-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 2081.818 STD = 1629.280 SKEW = 1.746909
 LOG NORMAL & PIII: MEAN = 3.163889 STD = .323658 SKEW = .246377
 GUMBEL PARAMETERS: ALPHA = .688786 BETA = 1208.837

RETURN PERIOD	AVERAGE	QAV/QMEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	1581.88	.7898	1225.88	1734.80	1587.17	1481.83
2.33	1815.88	.8988	1497.18	2085.84	1744.44	1892.63
5.00	2935.84	1.4751	3482.88	3178.39	2859.89	2828.86
10.00	4846.88	2.2821	4992.88	4138.85	3865.82	4838.85
25.00	5688.21	2.8223	7488.79	5338.81	5831.13	5982.89
50.00	7819.82	3.5888	8724.39	6331.48	7887.85	7778.37
100.00	8549.12	4.2788	9382.19	7119.40	8647.34	8688.82
200.00	19257.38	5.1248	9711.85	8894.28	10484.82	12382.88



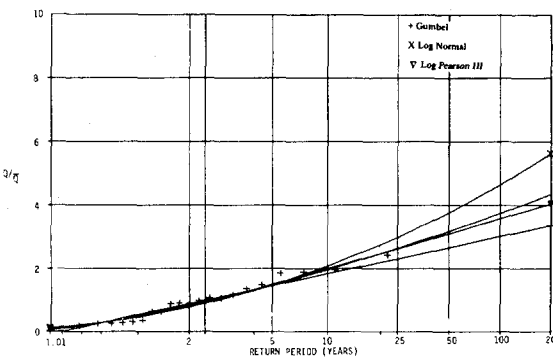
STATION 85414680 HAWK CREEK TRIBUTARY AT DOUROUQUE, IOWA 19
 PEAK = 2580.8 CFS, AREA = 1.510 SQ MI, 20 OBS (1951-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 848.899 STD = 428.288 SKEW = 1.124184
 LOG NORMAL & PIII: MEAN = 2.711488 STD = .457428 SKEW = .1891583
 GUMBEL PARAMETERS: ALPHA = .881561 BETA = 478.838

RETURN PERIOD	AVERAGE	QAV/QMEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	575.51	.8558	484.58	785.81	514.34	588.37
2.33	681.88	.8934	575.99	842.88	624.88	611.79
5.00	1387.58	1.5384	1858.00	1431.88	1248.76	1245.23
10.00	1907.85	2.5414	2428.00	1812.37	1884.72	1888.80
25.00	3844.78	3.5343	2868.00	2151.74	3253.88	3388.87
50.00	4952.74	4.8241	2688.00	2976.33	4476.77	4711.13
100.00	5581.41	5.2328	2628.00	3417.38	5866.27	6488.38
200.00	8781.48	7.0765	2639.58	3863.28	7748.83	8488.41



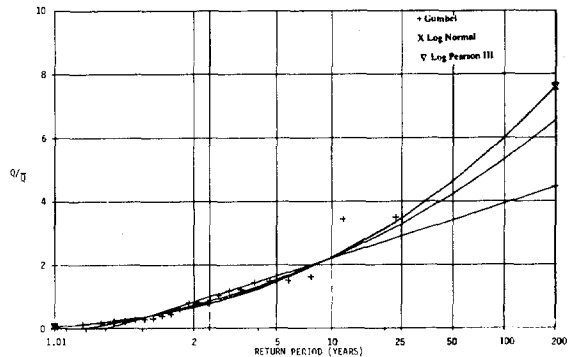
STATION 85420680 HAWK CREEK NEAR RICEVILLE, IOWA 19
 PEAK = 703.8 CFS, AREA = .988 SQ MI, 21 OBS (1953-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 248.888 STD = 184.873 SKEW = 1.814141
 LOG NORMAL & PIII: MEAN = 2.238783 STD = .398858 SKEW = -.531293
 GUMBEL PARAMETERS: ALPHA = .888936 BETA = 157.583

RETURN PERIOD	AVERAGE	QAV/QMEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	186.78	.7923	156.88	218.48	173.88	188.81
2.33	221.65	.9218	245.84	241.84	283.91	218.81
5.00	378.84	1.5488	436.58	373.88	378.87	378.87
10.00	515.75	2.1438	518.18	481.88	548.49	515.76
25.00	718.68	2.8983	724.85	818.87	837.81	788.58
50.00	888.82	3.8888	685.47	728.88	1888.88	844.87
100.00	1878.82	4.4677	845.73	888.73	1488.82	988.19
200.00	1887.68	5.2673	885.87	881.82	1788.81	1188.48



STATION 85447780 EAST BRANCH IOWA RIVER NEAR HAYFIELD, IOWA 19
 PEAK = 457.8 CFS, AREA = 7.848 SQ MI, 21 OBS (1952-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 188.478 STD = 121.275 SKEW = .014818
 LOG NORMAL & PIII: MEAN = 2.178472 STD = .332843 SKEW = .014818
 GUMBEL PARAMETERS: ALPHA = .818552 BETA = 133.981

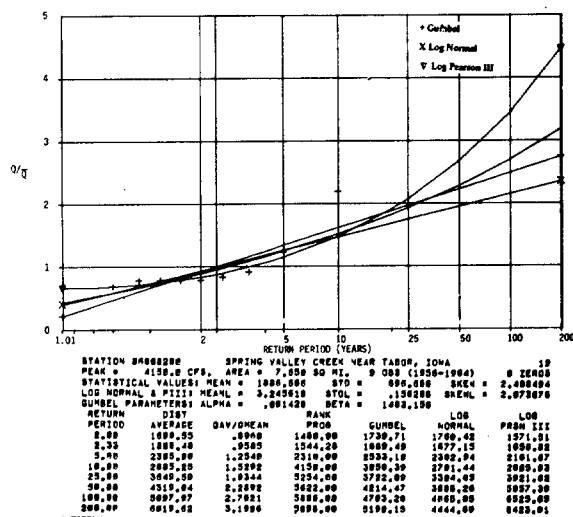
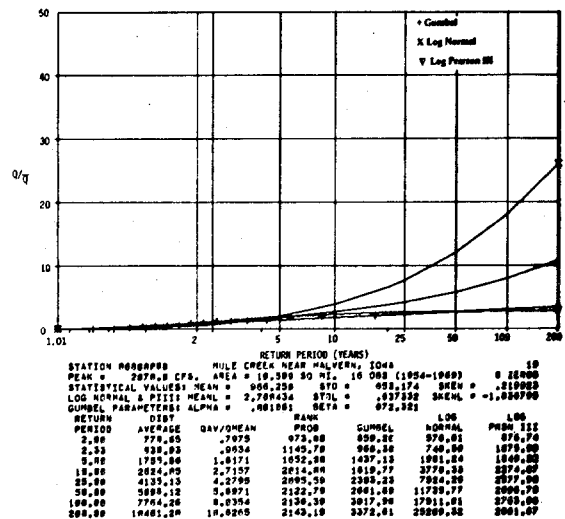
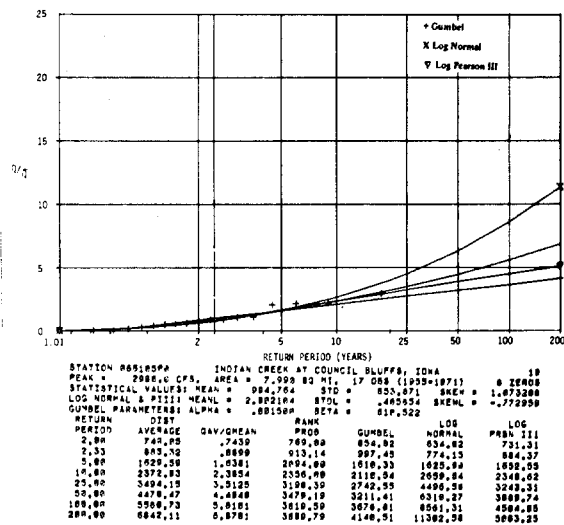
RETURN PERIOD	AVERAGE	QAV/QMEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	157.86	.8375	173.88	188.87	148.87	158.82
2.33	179.32	.8914	194.42	198.88	188.72	179.38
5.00	288.87	1.4892	322.88	275.88	281.82	284.88
10.00	372.85	2.0781	387.39	348.88	394.88	377.88
25.00	488.51	2.6582	467.44	436.71	564.82	498.88
50.00	888.74	3.1873	388.71	583.31	712.81	588.81
100.00	787.37	3.7542	324.85	588.41	877.87	678.23
200.00	828.22	4.3518	334.42	836.27	1888.82	784.98



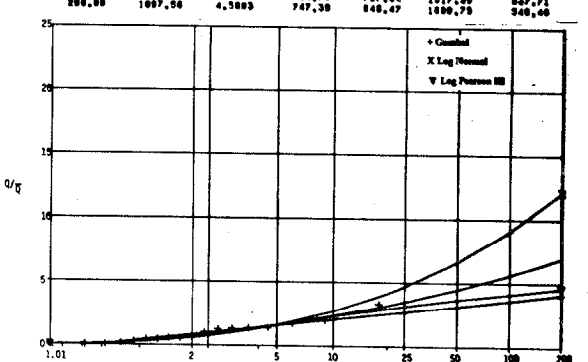
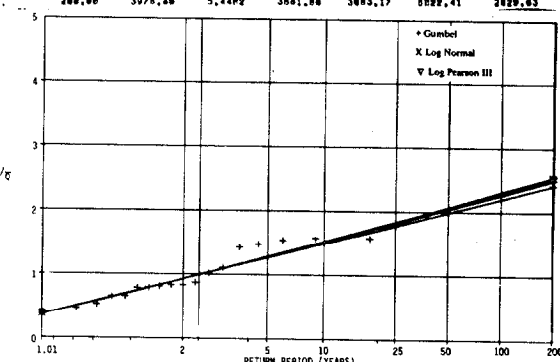
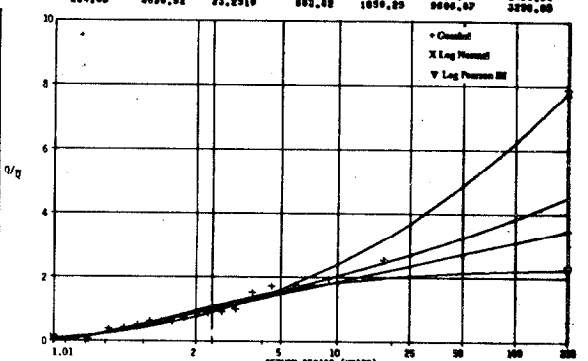
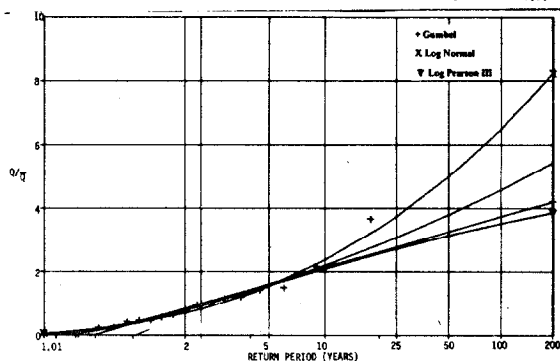
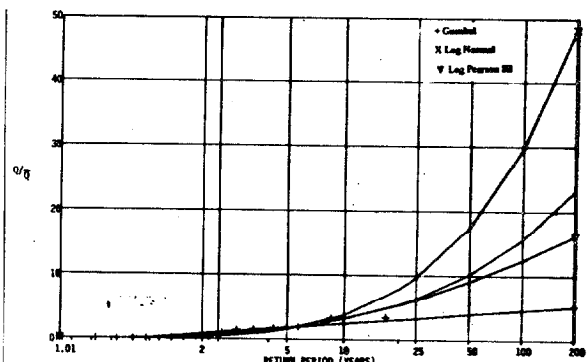
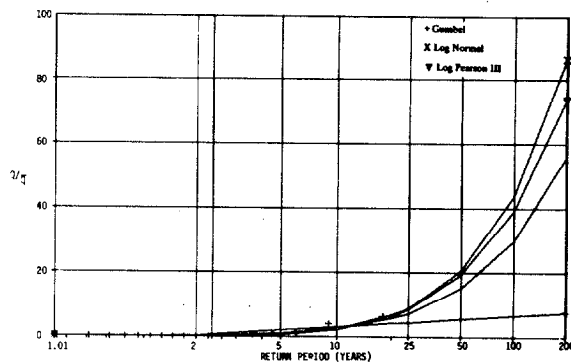
STATION 85453680 HAWK CREEK NEAR MELROSE, IOWA 19
 PEAK = 2889.8 CFS, AREA = 8.128 SQ MI, 22 OBS (1951-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 788.881 STD = 786.428 SKEW = 1.18837
 LOG NORMAL & PIII: MEAN = 2.728833 STD = .489194 SKEW = .083732
 GUMBEL PARAMETERS: ALPHA = .881787 BETA = 468.998

RETURN PERIOD	AVERAGE	QAV/QMEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	582.18	.7888	641.88	875.88	535.38	535.27
2.33	688.47	.8532	677.88	881.84	633.88	633.78
5.00	1295.84	1.5471	1198.88	1339.87	1183.83	1183.41
10.00	1787.77	2.2384	2315.88	1778.28	1701.82	1792.22
25.00	2637.88	3.3828	2884.88	2334.72	2788.58	2798.78
50.00	3588.82	4.2452	2827.88	2748.70	3788.51	3715.38
100.00	4253.84	5.3258	2838.58	3155.88	4788.27	4887.82
200.00	5238.35	6.5582	2844.25	3583.32	8888.48	6888.28

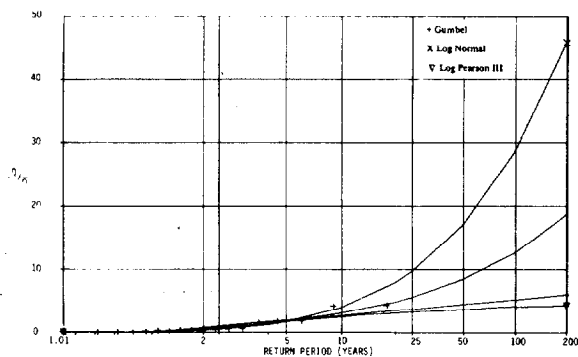
Appendix A-19. Iowa 1-6. Flood frequency curves and data.



Appendix A-19. Iowa 13-15. Flood frequency curves and data.

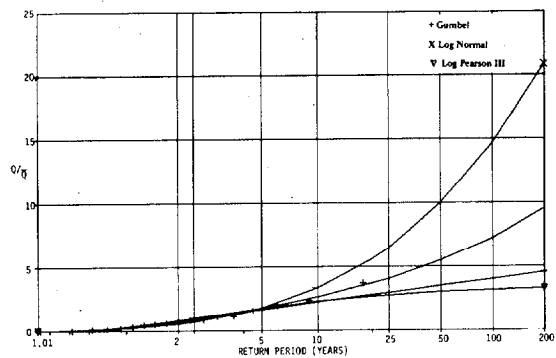


Appendix A-20. Kansas 1-6. Flood frequency curves and data.



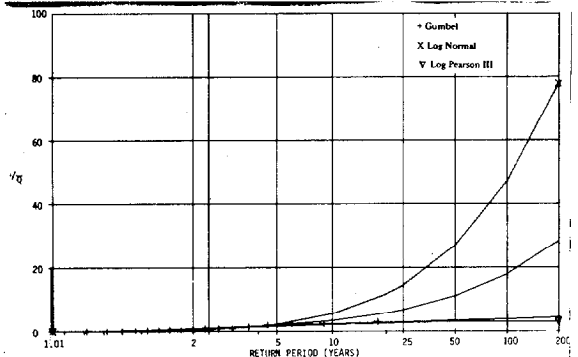
STATION 86663496 BIG CREEK TRIBUTARY NEAR OSALLAM, KANS. 28
 PEAK = 3800.0 CFS. AREA = 4.810 SQ MI. 17 OBS (1957-1973) 2 ZEROS
 STATISTICAL VALUES: MEAN = 697.117 STD = 848.083 SKEW = 1.448009
 LOG NORMAL & PIII: MEAN = 2.389993 STD = .617383 SKEW = -1.441844
 GUMBEL PARAMETERS: ALPHA = .001352 BETA = 278.078

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	385.77	.5546	246.00	541.91	281.18	388.83
2.33	583.81	.7980	385.78	788.18	381.47	518.06
5.00	1287.00	1.8174	1240.00	1379.81	1224.00	1196.30
10.00	2145.85	3.1026	2050.00	1834.07	1683.00	1781.03
25.00	3815.47	6.6183	3816.78	2835.38	2781.00	2308.08
50.00	5926.05	8.5810	5826.30	3185.81	11928.13	2838.31
100.00	6886.00	12.7648	5846.18	3871.87	28338.37	2861.08
200.00	13061.48	18.7382	5884.50	4185.84	31778.76	3887.08



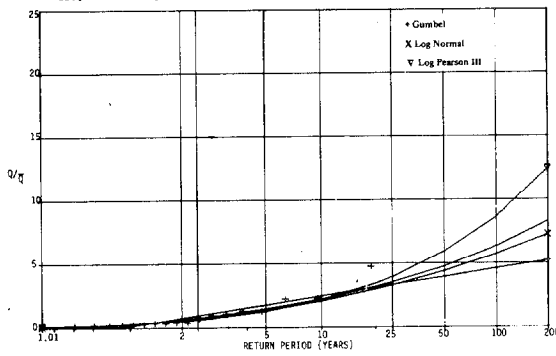
STATION 8670798 WILD CAT CREEK AT RILEY, KANS. 28
 PEAK = 4796.0 CFS. AREA = 14.882 SQ MI. 17 OBS (1957-1973) 2 ZEROS
 STATISTICAL VALUES: MEAN = 1250.328 STD = 1216.986 SKEW = 1.844921
 LOG NORMAL & PIII: MEAN = 2.047058 STD = .618462 SKEW = -1.537833
 GUMBEL PARAMETERS: ALPHA = .001452 BETA = 711.885

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	918.66	.7293	1888.00	1888.00	723.16	992.74
2.33	1131.85	.8979	1188.00	1285.39	853.76	1226.60
5.00	2282.82	1.7641	2238.00	2138.87	2285.87	2233.52
10.00	3538.38	2.8584	3348.00	2849.79	4288.51	2984.35
25.00	5165.43	4.4994	5178.00	3758.58	8242.28	3487.45
50.00	6949.79	5.7186	5788.00	4418.83	12617.83	3766.52
100.00	9191.85	7.2979	5884.00	5882.14	18511.85	3982.85
200.00	12833.56	9.3548	6247.00	5743.83	26242.88	4114.88



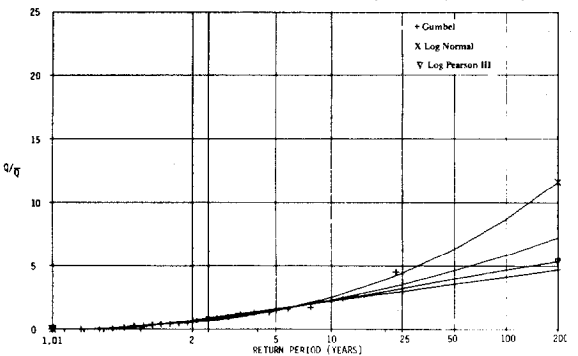
STATION 86864798 SPRING CREEK NEAR KANOPOLIS, KANS. 24
 PEAK = 3800.0 CFS. AREA = 9.439 SQ MI. 17 OBS (1957-1973) 2 ZEROS
 STATISTICAL VALUES: MEAN = 994.058 STD = 948.136 SKEW = .997415
 LOG NORMAL & PIII: MEAN = 2.825788 STD = .875887 SKEW = -2.866485
 GUMBEL PARAMETERS: ALPHA = .001382 BETA = 976.088

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	683.56	.6873	788.00	859.08	425.48	787.38
2.33	877.84	.8830	848.27	997.91	526.34	1030.22
5.00	2098.48	2.0928	2168.00	1671.82	2321.31	2162.23
10.00	3468.00	3.5688	2088.00	2252.91	5534.74	2274.63
25.00	6829.08	6.8643	3148.00	2916.48	14622.27	2938.83
50.00	11188.58	11.2272	3328.00	3434.71	28493.97	3953.82
100.00	17085.08	18.8676	3418.00	3847.14	46978.27	3115.21
200.00	28363.08	28.5332	3455.00	4457.50	77488.60	3148.46



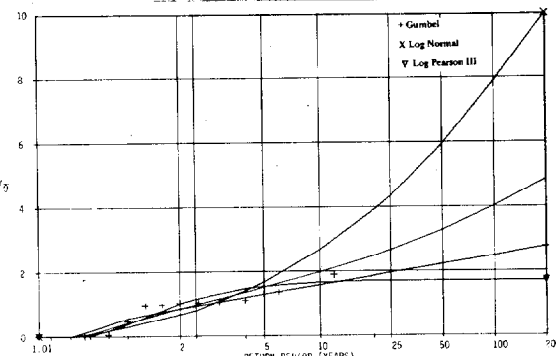
STATION 86888898 DRY CREEK NEAR MAPLE HILL, KANS. 24
 PEAK = 19800.0 CFS. AREA = 15.500 SQ MI. 18 OBS (1939-1973) 2 ZEROS
 STATISTICAL VALUES: MEAN = 3150.008 STD = 2827.537 SKEW = 2.345485
 LOG NORMAL & PIII: MEAN = 3.295508 STD = .413913 SKEW = .685924
 GUMBEL PARAMETERS: ALPHA = .000353 BETA = 1517.484

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	2187.80	.6901	1308.00	2355.44	1574.21	1794.83
2.33	2543.19	.8073	2328.43	3181.42	2346.33	2127.82
5.00	4798.89	1.5234	4778.00	5785.38	4463.87	4227.53
10.00	7197.58	2.2849	8878.00	7898.01	6687.45	7084.78
25.00	11280.50	3.5857	16848.00	18575.88	12476.12	12548.60
50.00	18181.83	4.7941	19774.00	12567.83	13962.24	18754.73
100.00	28819.84	6.3555	21237.00	14645.28	18132.19	27382.86
200.00	26254.84	8.3349	21888.50	16515.48	22973.45	39275.98



STATION 86874598 EAST LIMESTONE CREEK NEAR IONIA, KANS. 20
 PEAK = 3922.0 CFS. AREA = 25.599 SQ MI. 22 OBS (1934-1973) 1 ZERO
 STATISTICAL VALUES: MEAN = 676.458 STD = 687.217 SKEW = 2.628392
 LOG NORMAL & PIII: MEAN = 2.721387 STD = .501720 SKEW = -7.288314
 GUMBEL PARAMETERS: ALPHA = .001443 BETA = 471.187

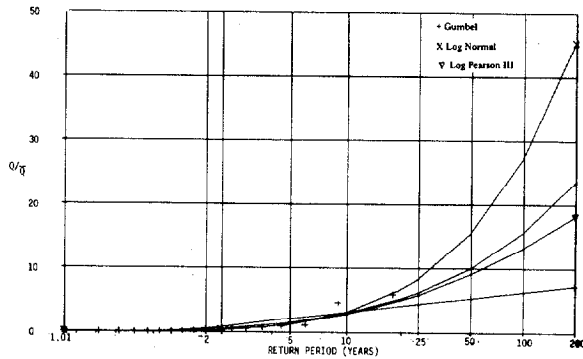
RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	586.71	.8671	556.88	872.91	499.28	565.83
2.33	788.15	.8135	748.16	829.61	508.28	696.53
5.00	1399.82	1.6833	1286.88	1473.82	1347.49	1372.54
10.00	2884.74	2.3930	1939.88	1995.75	2250.74	2807.74
25.00	5131.88	3.3898	4883.59	2653.57	3884.86	2856.97
50.00	4885.89	4.8587	4982.79	3141.80	5537.43	3486.75
100.00	5119.11	5.9788	5321.38	3824.84	7408.59	4095.91
200.00	6313.38	7.2539	5538.69	4188.73	10131.61	4691.37



STATION 86888898 LITTLE DELAWARE RIVER NEAR HORTON, KANS. 20
 PEAK = 1250.0 CFS. AREA = 19.000 SQ MI. 11 OBS (1951-1964) 1 ZERO
 STATISTICAL VALUES: MEAN = 858.390 STD = 328.277 SKEW = -2.247953
 LOG NORMAL & PIII: MEAN = 2.706293 STD = .426673 SKEW = -2.338643
 GUMBEL PARAMETERS: ALPHA = .003999 BETA = 512.273

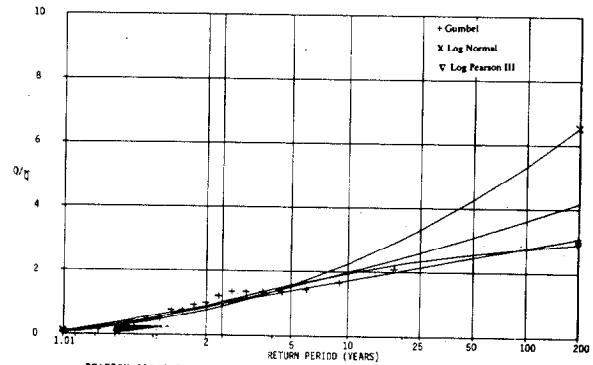
RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	568.16	.6625	473.00	568.33	459.10	578.85
2.33	740.49	.8282	604.14	624.79	578.71	769.78
5.00	907.82	1.5281	828.19	869.42	118.99	1022.03
10.00	1392.63	1.6845	1174.59	1649.71	1764.88	1993.37
25.00	1754.26	2.0728	1435.63	1287.82	2864.89	1128.28
50.00	2186.11	3.2999	1521.31	1463.73	3988.99	1125.67
100.00	2644.74	4.2322	1584.15	1638.45	5174.31	1127.88
200.00	3082.05	4.8768	1588.87	1812.44	5868.15	1128.85

Appendix A-20. Kansas 7-12. Flood frequency curves and data.



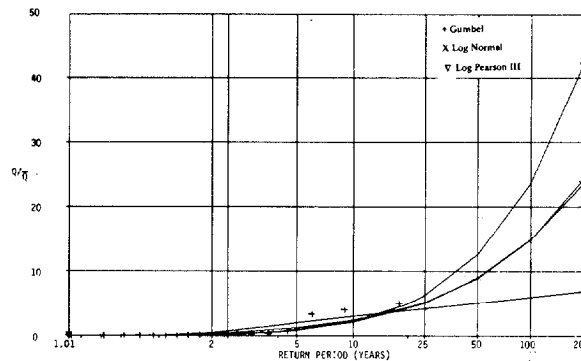
STATION 87142188 RATTLESNAKE CREEK TRIS NR MULLINVILLE, KANS. 28
 PEAK = 7808.9 CFS, AREA = 18,380 SQ MI, 17 OBS (1937-1973) 2 ZEROS
 STATISTICAL VALUES: MEAN = 1185.882 STD = 2838.397 SKEW = 2.488888
 LOG NORMAL & PIII: MEANL = 2.474888 STDL = .882888 SKEWL = -.483811
 GUMBEL PARAMETERS: ALPHA = .088888 BETA = 287.787

RETURN PERIOD	DIST	AVERAGE	QAV/QMEAN	RANK	PROB	GUMBEL	NORMAL	PRISM III
2.00	483.88	.3877	549.88	788.33	788.33	283.38	285.18	
2.33	619.88	.5231	552.88	1688.51	1688.51	388.78	435.87	
5.00	1074.88	1.0819	1228.88	8546.84	1518.82	1087.12		
10.00	1618.55	3.0948	5888.88	3746.78	5778.88	3335.88		
25.00	7376.18	6.2843	7428.88	8836.91	8883.18	8888.74		
50.00	11895.84	18.0381	7888.88	8379.88	18474.82	18833.88		
100.00	18883.18	15.6138	8336.88	7488.79	38346.84	18473.38		
200.00	27858.88	23.0993	8382.88	8387.88	83748.48	21883.58		



STATION 87143188 CHEYENNE CREEK TRIS NEAR CLAPLIN, KANS. 28
 PEAK = 398.8 CFS, AREA = 1,488 SQ MI, 17 OBS (1937-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 130.178 STD = 78.085 SKEW = -.818488
 LOG NORMAL & PIII: MEANL = 2.836358 STDL = .187188 SKEWL = -1.888841
 GUMBEL PARAMETERS: ALPHA = .016488 BETA = 183.848

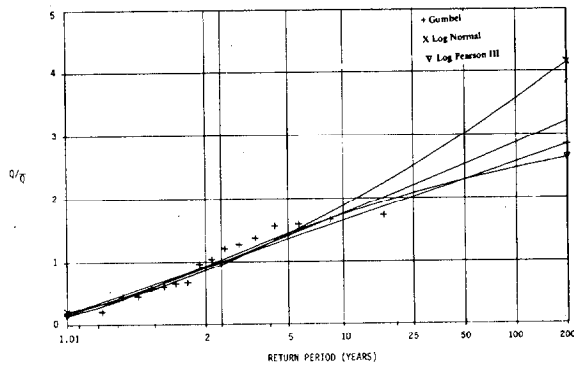
RETURN PERIOD	DIST	AVERAGE	QAV/QMEAN	RANK	PROB	GUMBEL	NORMAL	PRISM III
2.00	118.88	.8884	148.88	148.88	148.88	128.38	128.38	
2.33	138.88	.9888	175.71	138.88	138.88	138.88	138.88	
5.00	218.88	1.5281	198.88	198.88	198.88	198.88	198.88	
10.00	274.88	1.8888	248.88	248.88	248.88	248.88	248.88	
25.00	388.34	2.8878	388.34	388.34	388.34	388.34	388.34	
50.00	428.38	3.1882	388.38	388.38	388.38	388.38	388.38	
100.00	588.38	3.8214	388.38	388.38	388.38	388.38	388.38	
200.00	577.84	4.1781	344.88	428.77	883.43	481.83		



STATION 87142088 SPRING CREEK NEAR DILLWYN, KANS. 28
 PEAK = 3786.8 CFS, AREA = 14,388 SQ MI, 17 OBS (1937-1973) 2 ZEROS
 STATISTICAL VALUES: MEAN = 738.288 STD = 1234.827 SKEW = 1.761854
 LOG NORMAL & PIII: MEANL = 2.283343 STDL = .778818 SKEWL = .388801
 GUMBEL PARAMETERS: ALPHA = .081838 BETA = 183.954

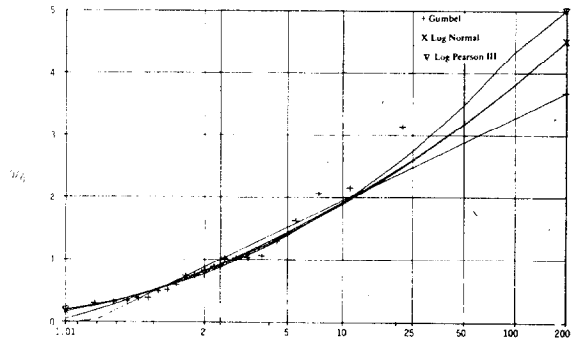
RETURN PERIOD	DIST	AVERAGE	QAV/QMEAN	RANK	PROB	GUMBEL	NORMAL	PRISM III
2.00	288.88	.2789	188.88	356.32	143.82	121.82		
2.33	313.88	.4247	198.88	876.87	188.82	174.87		
5.00	951.84	1.2884	1336.88	1492.84	785.18	855.37		
10.00	1827.75	2.4723	3148.88	2284.17	1628.15	1838.84		
25.00	3881.42	5.2883	3886.88	3141.88	3818.37	4883.83		
50.00	8819.77	8.8531	4148.88	3828.83	8781.88	8334.48		
100.00	18974.96	14.8457	4274.88	4484.19	11882.57	17378.15		
200.00	17838.84	24.1388	4537.88	5164.88	17364.38	38888.87		

Appendix A-20. Kansas 13-15. Flood frequency curves and data.



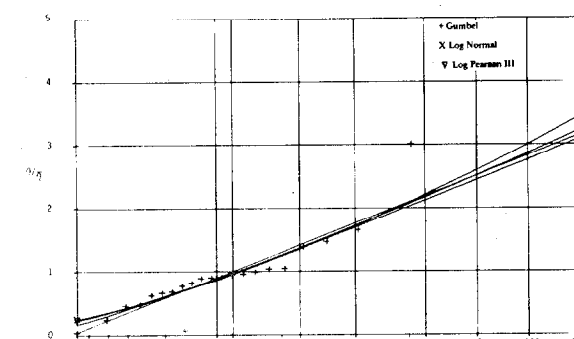
STATION 83274000 BEAR BRANCH NEAR NOBLE, KY. 21
 PEAK = 415.7 CFS, AREA = 2,210 SQ MI, 16 OBS (1955-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 280.174 STD = 119.091 SKEW = .052308
 LOG NORMAL & PIII: MEAN = 2,313385 STD = .285088 SKEW = -.097283
 GUMBEL PARAMETERS: ALPHA = .019782 BETA = 185.263

RETURN PERIOD	DIST	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	216.17	.0840	249.38	218.50	285.77	223.23	
2.33	236.65	.0959	278.56	238.50	229.51	247.88	
2.50	235.05	1.4178	373.19	325.41	344.37	347.35	
10.00	421.91	1.7644	482.39	395.52	459.72	419.08	
25.00	527.42	2.2064	426.75	464.12	600.84	496.11	
50.00	607.08	2.5384	426.87	549.84	722.92	548.23	
100.00	687.08	2.8733	429.93	615.88	854.18	592.88	
200.00	754.26	3.2128	431.45	688.98	994.28	632.43	



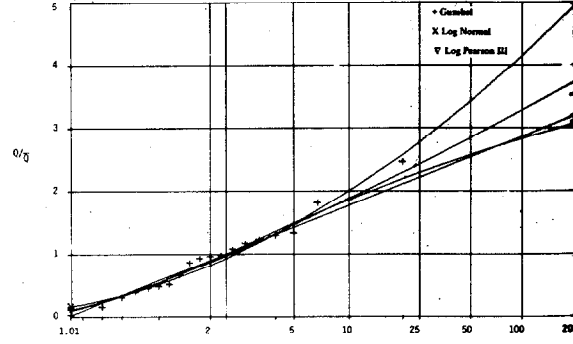
STATION 83286500 CAVE CREEK NEAR FORT SPRING, KY. 21
 PEAK = 499.0 CFS, AREA = 2,538 SQ MI, 21 OBS (1953-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 127.980 STD = 92.592 SKEW = 1.607834
 LOG NORMAL & PIII: MEAN = 2,686490 STD = .201424 SKEW = -.203496
 GUMBEL PARAMETERS: ALPHA = .013634 BETA = 85.353

RETURN PERIOD	DIST	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	104.26	.0840	185.00	111.82	181.57	98.99	
2.33	117.07	.0959	122.28	114.85	111.69		
2.50	107.55	1.4178	199.26	193.75	179.58	177.51	
10.00	244.07	1.7644	272.78	247.88	248.90	245.83	
25.00	332.37	2.2064	415.00	318.52	338.21	336.10	
50.00	405.41	2.5384	479.00	387.37	484.64	444.21	
100.00	487.56	2.8733	497.50	417.83	485.89	555.06	
200.00	573.53	3.2128	511.25	488.12	573.99	678.47	



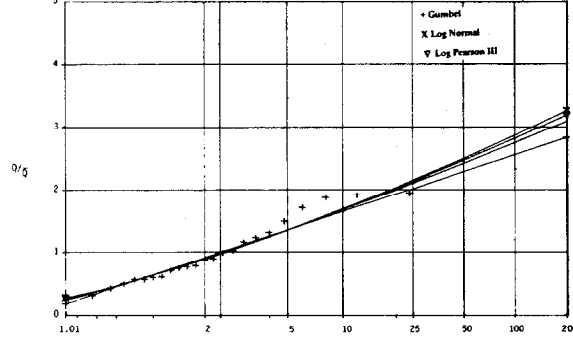
STATION 83288000 FLAT CREEK NEAR FRANKFORT, KY. 21
 PEAK = 7100.0 CFS, AREA = 5,638 SQ MI, 28 OBS (1952-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 2353.899 STD = 1377.598 SKEW = 2.268933
 LOG NORMAL & PIII: MEAN = 3,313714 STD = .231892 SKEW = -.269858
 GUMBEL PARAMETERS: ALPHA = .009020 BETA = 1733.188

RETURN PERIOD	DIST	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	2894.76	.0840	2139.00	2127.33	2850.27	2897.88	
2.33	3389.88	.0959	2326.06	2357.43	2264.27	3385.55	
2.50	3387.88	1.3888	3102.88	3346.52	3221.71	3236.82	
10.00	4888.58	1.7346	3850.00	4153.24	4879.62	4817.64	
25.00	5100.74	2.1946	3812.00	5176.96	5824.94	5821.94	
50.00	5947.73	2.5276	4056.00	5899.35	6137.44	5776.41	
100.00	6769.02	2.8788	4028.00	6680.88	7895.83	6533.64	
200.00	7687.17	3.2328	4064.88	7428.31	8890.38	7296.65	



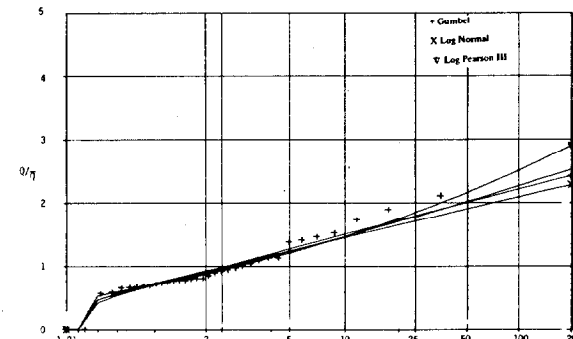
STATION 83283800 STILLWATER CREEK AT STILLWATER, KY. 21
 PEAK = 7398.0 CFS, AREA = 24,880 SQ MI, 19 OBS (1958-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 2983.218 STD = 1781.264 SKEW = .068517
 LOG NORMAL & PIII: MEAN = 3,388822 STD = .386277 SKEW = -.735758
 GUMBEL PARAMETERS: ALPHA = .008715 BETA = 2191.596

RETURN PERIOD	DIST	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	2812.33	.0727	2880.00	2781.20	2459.35	2674.37	
2.33	2952.08	.0798	3844.25	2908.12	2784.46	3813.98	
2.50	4395.66	1.4852	4888.00	4277.41	4416.86	4462.78	
10.00	5931.93	1.8815	5578.00	5828.90	5997.81	5577.84	
25.00	7289.88	2.4287	7754.00	6838.48	8313.36	6886.54	
50.00	8534.48	2.8499	6482.88	7817.84	10283.28	7718.89	
100.00	9825.78	3.2828	8648.00	9588.58	12468.87	8481.84	
200.00	11161.17	3.7288	9628.00	9559.94	14745.81	9181.78	



STATION 83290000 SOUTH ELKHORN CREEK AT FORT SPRING, KY. 21
 PEAK = 1898.0 CFS, AREA = 24,880 SQ MI, 23 OBS (1951-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 972.173 STD = 464.378 SKEW = .725118
 LOG NORMAL & PIII: MEAN = 2,435873 STD = .218938 SKEW = -.447828
 GUMBEL PARAMETERS: ALPHA = .026444 BETA = 754.283

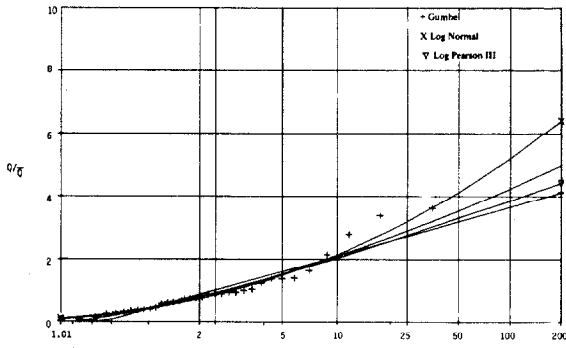
RETURN PERIOD	DIST	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	873.84	.0809	850.38	892.79	882.72	868.15	
2.33	935.36	.0827	940.35	973.60	944.23	948.17	
2.50	1321.38	1.2501	1094.88	1321.34	1309.82	1321.82	
10.00	1833.34	1.6888	1844.88	1805.12	1849.71	1845.18	
25.00	2843.13	2.1810	1891.18	1985.84	2891.77	2875.88	
50.00	2958.84	2.4285	1885.38	2328.62	2488.89	2486.53	
100.00	2884.53	2.7572	1912.78	2493.83	2788.67	2749.38	
200.00	3811.29	3.4974	1916.38	2758.67	3173.17	3184.84	



STATION 83291000 BIG EAGLE CREEK AT SADIEVILLE, KY. 21
 PEAK = 8878.0 CFS, AREA = 42,889 SQ MI, 34 OBS (1952-1973) 1 ZERO
 STATISTICAL VALUES: MEAN = 4087.272 STD = 1982.878 SKEW = 1.822488
 LOG NORMAL & PIII: MEAN = 3,841920 STD = .158178 SKEW = .769755
 GUMBEL PARAMETERS: ALPHA = .008782 BETA = 3846.978

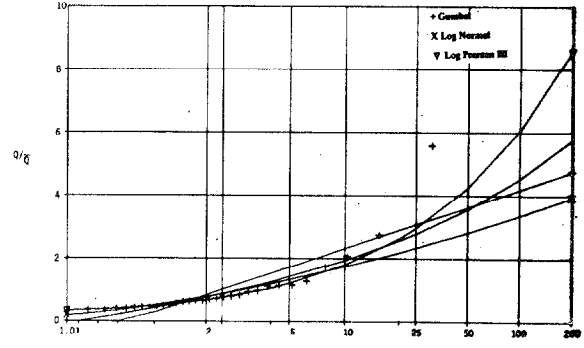
RETURN PERIOD	DIST	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	4283.44	.0134	3875.88	4389.71	4341.83	4148.88	
2.33	4539.48	.0720	4338.06	4815.72	4882.18	4618.88	
2.50	5810.98	1.2483	6486.88	5923.72	5823.78	5883.31	
10.00	8888.88	1.4788	7685.88	7884.43	8783.34	8886.81	
25.00	8333.18	1.7854	9485.88	8335.18	7886.18	8848.88	
50.00	9454.64	2.8237	10173.88	9388.38	8886.73	10128.81	
100.00	10628.31	2.2759	18528.38	18559.38	9778.81	11748.81	
200.00	11645.43	2.5375	18783.38	11348.88	18648.88	13448.88	

Appendix A-21. Kentucky 1-6. Flood frequency curves and data.



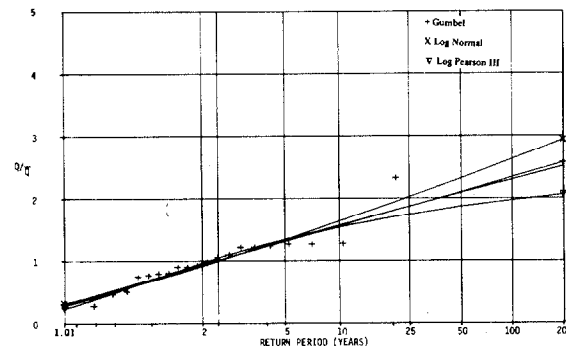
STATION 03200000 SOUTH FORK BEARGRASS CREEK AT LOUISVILLE, KY. 21
 PEAK = 4940.0 CFS. AREA = 17,190 SQ MI. 34 OBS (1946-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1301.952 STD = 1137.413 SKEW = 1.855190
 LOG NORMAL & PIII: MEAN = 2.907928 STD = 1.395430 SKEW = -.467772
 GUMBEL PARAMETERS: ALPHA = .001108 BETA = 841.116

RETURN PERIOD	AVERAGE	DAY/OEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	1076.03	.7994	1095.00	1172.10	995.00	1052.42	1052.42
2.33	1091.16	.8187	1109.00	1195.49	1158.74	1071.08	1071.08
5.00	1089.84	1.1344	1078.00	1196.04	1204.39	1049.94	1049.94
10.00	1085.40	2.1048	1056.00	1274.27	1254.21	1077.71	1077.71
15.00	1094.70	2.9039	1089.00	1378.06	1308.12	1073.20	1073.20
25.00	1086.78	3.3545	1069.00	1405.58	1309.79	1025.09	1025.09
50.00	1078.05	4.2088	1054.00	1497.34	1298.31	1025.51	1025.51
100.00	1062.55	4.9958	1012.25	1525.08	1273.98	1043.08	1043.08



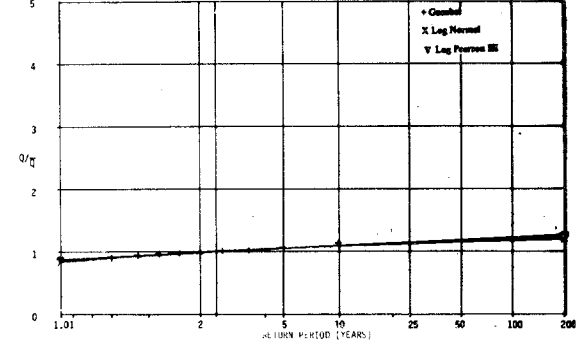
STATION 03200000 F BEARGRASS C. CANONS L. LOUISVILLE, KY. 21
 PEAK = 10500.0 CFS. AREA = 10,400 SQ MI. 30 OBS (1943-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1893.233 STD = 1917.014 SKEW = 3.320208
 LOG NORMAL & PIII: MEAN = 2.100020 STD = .272807 SKEW = 1.380499
 GUMBEL PARAMETERS: ALPHA = .000566 BETA = 1022.576

RETURN PERIOD	AVERAGE	DAY/OEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	1438.54	.7838	1285.00	1371.00	1468.34	1276.81	1276.81
2.33	1651.03	.8757	1412.00	1891.27	1848.02	1410.82	1410.82
5.00	2063.71	1.4231	2144.00	3247.23	2481.07	2069.61	2069.61
10.00	3092.39	1.9585	3858.00	4398.24	3282.39	3401.89	3401.89
15.00	3527.38	2.7940	9228.00	5889.17	4418.46	3586.08	3586.08
25.00	8736.20	3.3731	12514.00	8601.81	5337.06	8089.16	8089.16
50.00	8540.39	4.5349	14157.00	7988.07	6339.11	11408.38	11408.38
100.00	10933.96	5.7467	14978.50	8947.71	7484.79	10140.28	10140.28



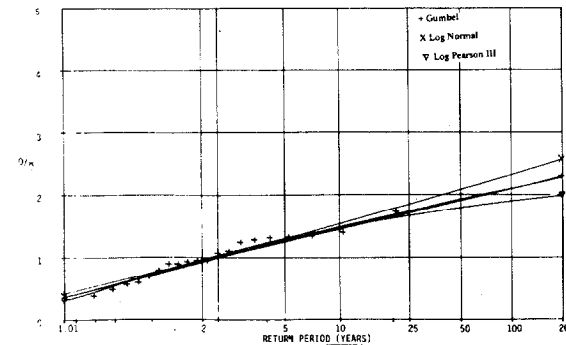
STATION 03200000 SALT RIVER NEAR HARRODSBURG, KY. 21
 PEAK = 7800.0 CFS. AREA = 41,300 SQ MI. 28 OBS (1903-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 3208.598 STD = 1308.188 SKEW = 1.388717
 LOG NORMAL & PIII: MEAN = 3.477586 STD = 1.064400 SKEW = -.848840
 GUMBEL PARAMETERS: ALPHA = .000921 BETA = 2854.007

RETURN PERIOD	AVERAGE	DAY/OEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	3684.05	.9493	3115.00	3852.09	3883.81	3198.98	3198.98
2.33	3338.00	1.0103	3448.00	3184.87	3888.75	3451.84	3451.84
5.00	4305.43	1.3318	4124.00	4882.00	4394.90	4421.70	4421.70
10.00	5178.10	1.5776	4185.00	5806.88	4384.58	5068.00	5068.00
15.00	6163.25	1.7877	8108.70	6165.74	4631.10	5732.70	5732.70
25.00	6870.27	2.0882	9489.30	8999.81	7094.00	6136.40	6136.40
50.00	7575.70	2.4993	10229.00	7646.04	6603.27	6477.36	6477.36
100.00	8225.22	2.9100	10680.04	6481.50	6825.51	7768.29	7768.29



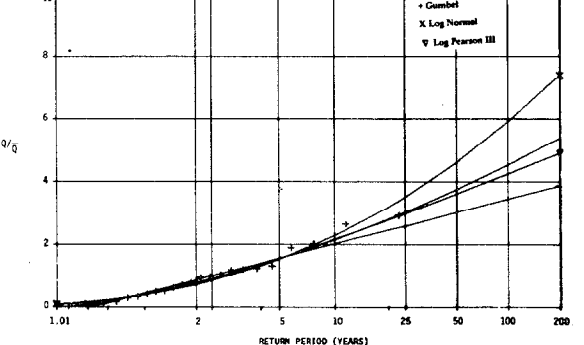
STATION 03200000 F BEARGRASS C. CANONS L. LOUISVILLE, KY. 21
 PEAK = 10500.0 CFS. AREA = 10,400 SQ MI. 30 OBS (1943-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1893.233 STD = 1917.014 SKEW = 3.320208
 LOG NORMAL & PIII: MEAN = 2.100020 STD = .272807 SKEW = 1.380499
 GUMBEL PARAMETERS: ALPHA = .000566 BETA = 1022.576

RETURN PERIOD	AVERAGE	DAY/OEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	1421.10	.9923	140.00	141.55	142.88	141.08	141.08
2.33	143.00	1.0848	143.57	143.20	144.78	143.69	143.69
5.00	151.00	1.8548	153.00	158.58	151.57	151.11	151.11
10.00	196.05	1.8930	153.00	156.52	156.38	156.82	156.82
15.00	183.00	1.1380	180.00	164.00	181.31	163.67	163.67
25.00	167.70	1.1711	171.00	169.05	164.89	168.57	168.57
50.00	172.22	1.2923	172.00	175.28	168.13	173.31	173.31
100.00	176.00	1.2538	172.50	188.73	171.09	177.06	177.06



STATION 03300000 PLU CREEK NEAR WILSONVILLE, KY. 21
 PEAK = 3100.0 CFS. AREA = 19,880 SQ MI. 28 OBS (1904-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 9801.300 STD = 1048.891 SKEW = .878611
 LOG NORMAL & PIII: MEAN = 3.448400 STD = 1.000000 SKEW = -.698599
 GUMBEL PARAMETERS: ALPHA = .001827 BETA = 8511.783

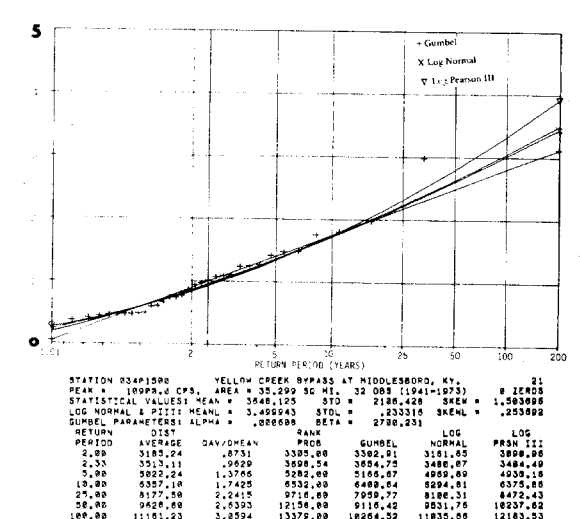
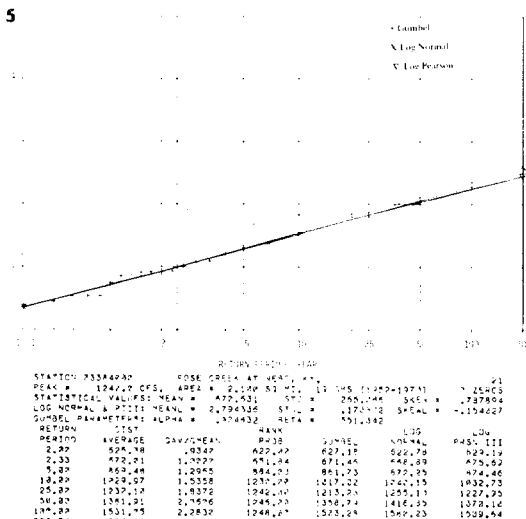
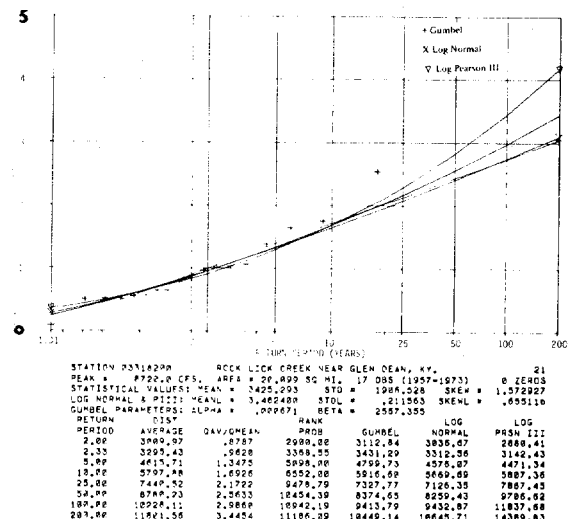
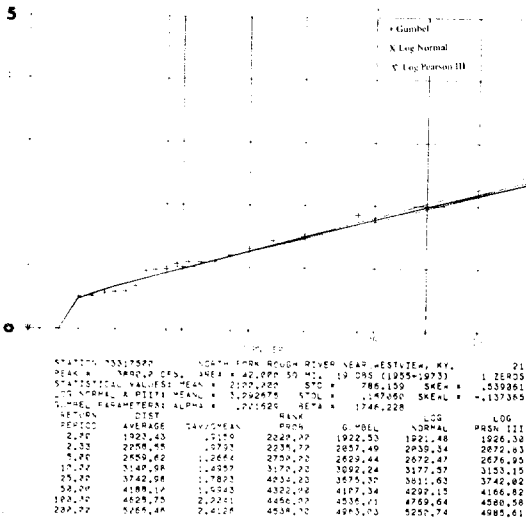
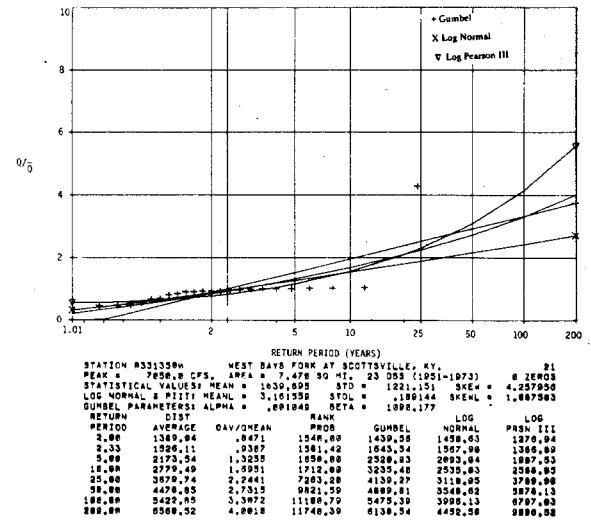
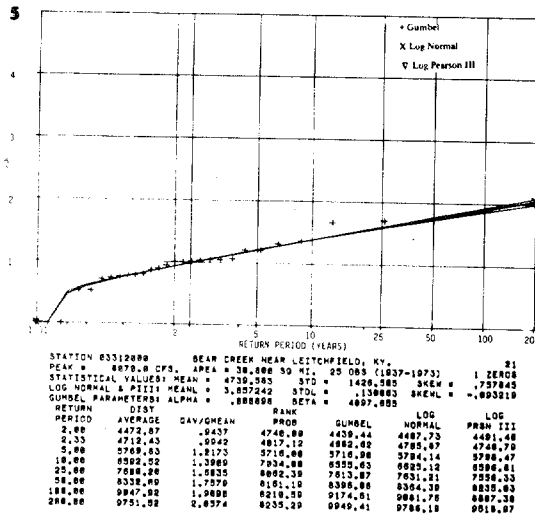
RETURN PERIOD	AVERAGE	DAY/OEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	2839.00	.9521	3000.00	2810.40	2786.19	2817.03	2817.03
2.33	3031.00	1.0100	3100.00	2884.78	2899.83	3110.00	3110.00
5.00	3637.10	1.2889	3030.00	3734.18	3077.05	3088.00	3088.00
10.00	4461.04	1.4989	3100.00	4340.71	3068.00	4430.75	4430.75
15.00	5017.00	1.7497	3200.00	5110.44	3053.00	4890.00	4890.00
25.00	5786.00	1.9213	3700.00	5691.79	3028.00	5338.43	5338.43
50.00	6800.01	2.1003	3970.00	6260.75	3031.00	6566.00	6566.00
100.00	6800.10	2.2814	4675.00	6837.67	3028.00	5940.00	5940.00



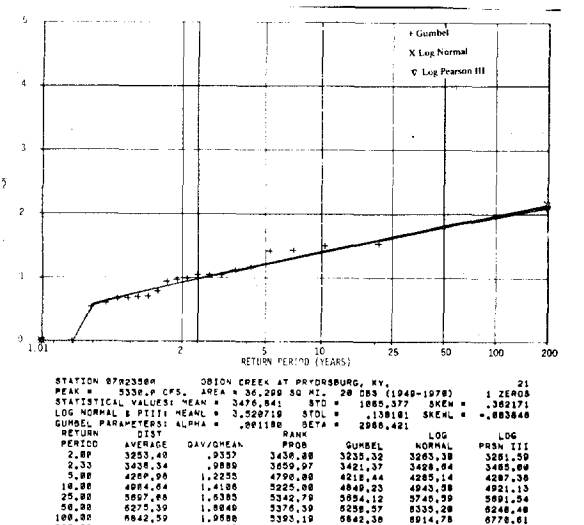
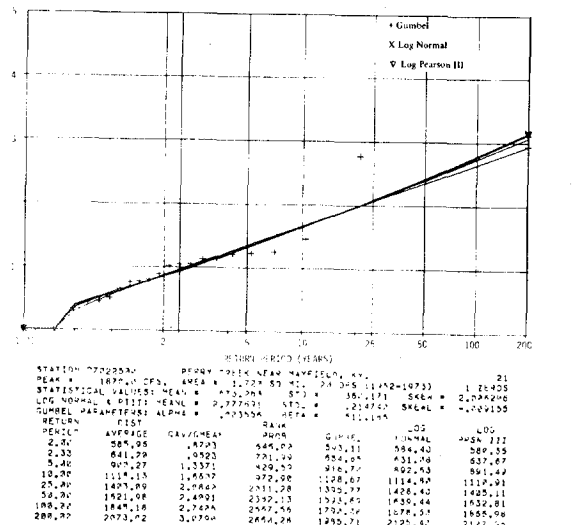
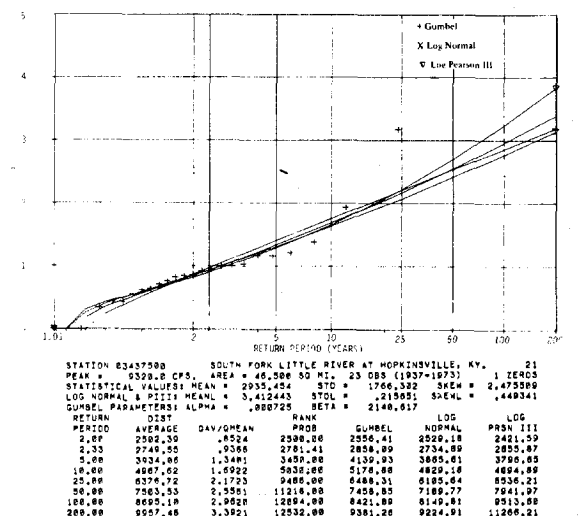
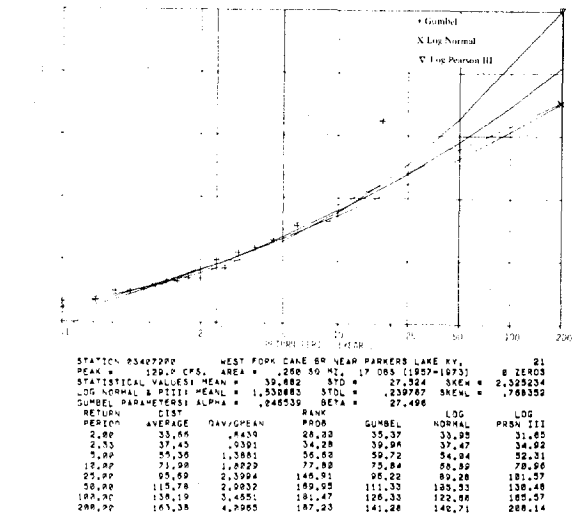
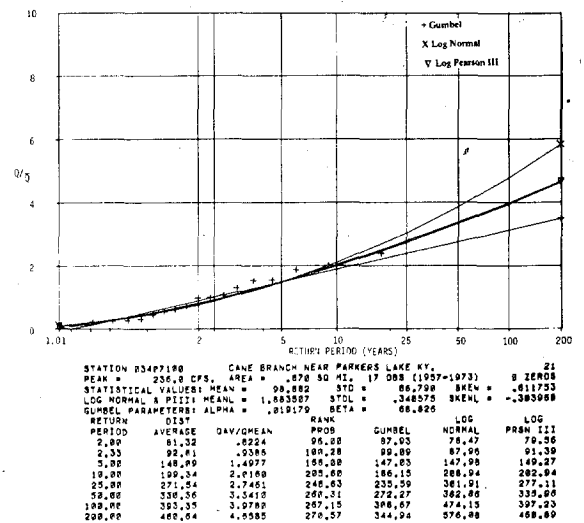
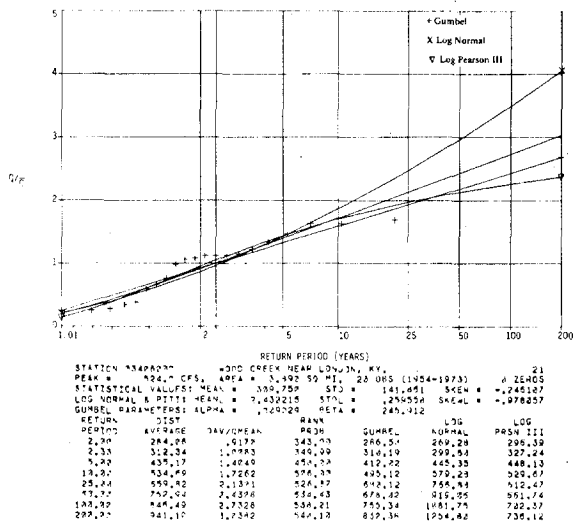
STATION 03304000 MCGILL CREEK NEAR MCKINNEY, KY. 21
 PEAK = 1400.0 CFS. AREA = 3,140 SQ MI. 22 OBS (1908-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 785.372 STD = 384.015 SKEW = 1.147190
 LOG NORMAL & PIII: MEAN = 2.558405 STD = .503897 SKEW = -.464728
 GUMBEL PARAMETERS: ALPHA = .003244 BETA = 337.090

RETURN PERIOD	AVERAGE	DAY/OEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	397.10	.7888	439.00	448.50	361.79	389.10	389.10
2.33	482.61	.8155	584.13	368.81	408.37	400.00	400.00
5.00	704.84	1.3591	778.00	700.00	776.87	700.00	700.00
10.00	1000.12	2.1575	1247.00	1091.10	1190.30	1092.30	1092.30
15.00	1231.38	3.4827	1491.10	1315.41	1776.71	1500.00	1500.00
25.00	1805.09	3.7584	1555.50	1590.00	2330.40	1837.20	1837.20
50.00	2833.00	4.5369	1567.70	1740.40	3504.37	2131.00	2131.00
100.00	2785.02	5.3947	1693.00	1820.00	3730.07	2470.00	2470.00

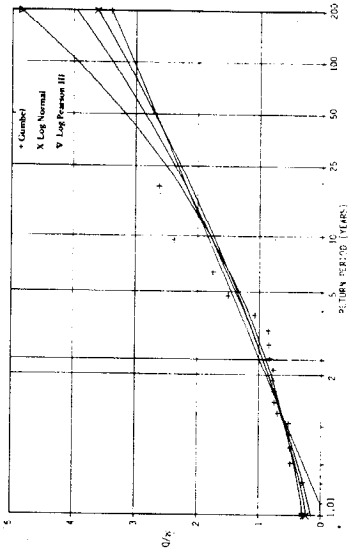
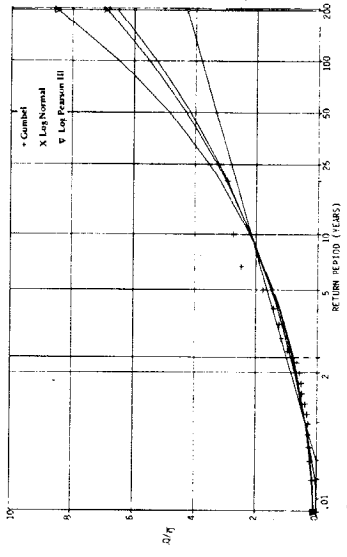
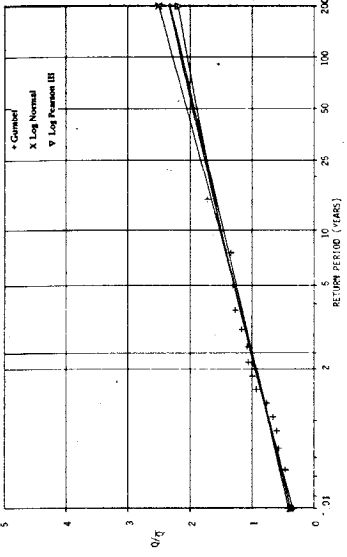
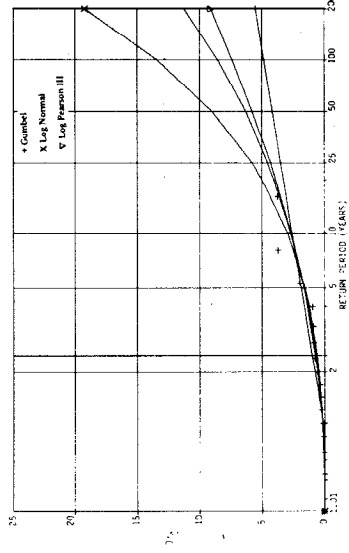
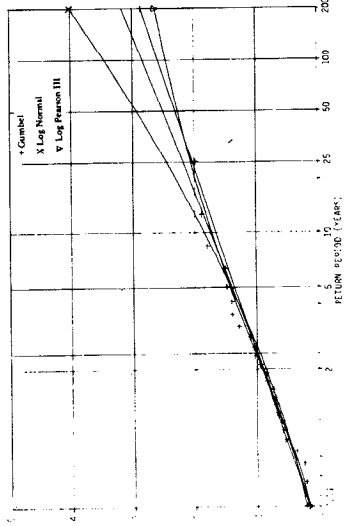
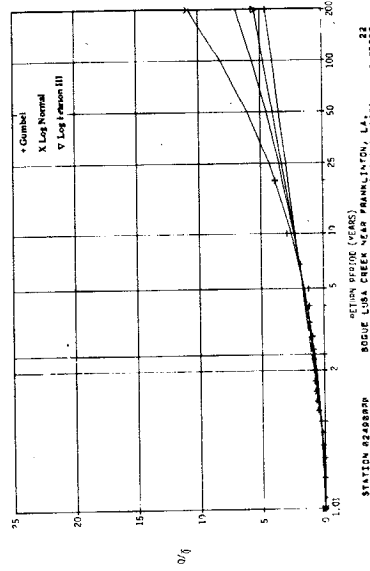
Appendix A-21. Kentucky 7-12. Flood frequency curves and data.



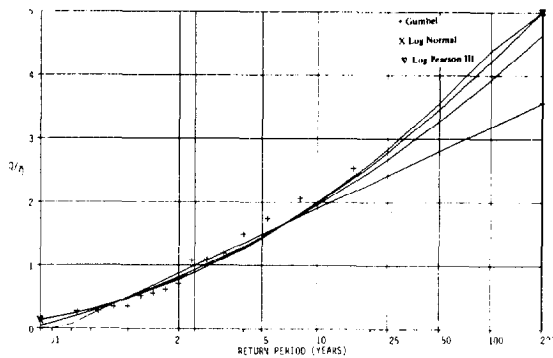
Appendix A-21. Kentucky 19-24. Flood frequency curves and data.



Appendix A-21. Kentucky 25-30. Flood frequency curves and data.

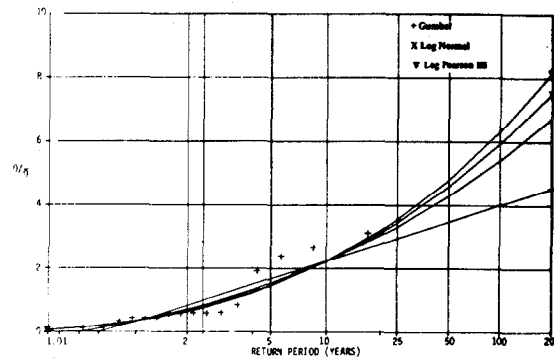


Appendix A-22. Louisiana 1-6. Flood frequency curves and data.



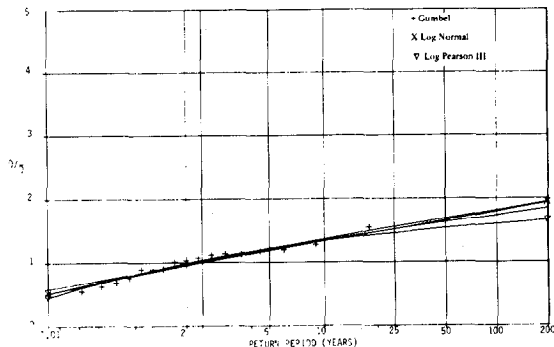
STATION 87373800 ALEXANDER CREEK NEAR ST. FRANCISVILLE, LA. 22
 PEAK = 15200.0 CFS. AREA = 23,899 SQ MI. 15 DSS (1951-1971) 0 ZEROES
 STATISTICAL VALUES: MEAN = 3866.000 STD = 4171.132 SKEW = .955176
 LOG NORMAL & PIII: MEAN = 3.674009 STD = .312620 SKEW = .973519
 GUMBEL PARAMETERS: ALPHA = .009387 BETA = 4084.938

RETURN PERIOD	AVERAGE	DAV/GMEAN	RANK	GUMBEL	LOGNORMAL	PEARSON III	LOG
2.00	4804.10	.8293	4280.00	5282.41	4726.60	4679.23	
2.33	5357.43	.8318	5471.41	5978.10	5368.30	5324.91	
3.00	6733.54	1.4872	10120.30	8973.81	8656.35	8631.28	
10.00	11748.95	1.6093	13490.00	11418.52	11883.54	11946.80	
25.00	18940.21	2.4801	18244.00	14593.89	18884.11	18941.05	
50.00	19812.53	3.2873	17172.00	18793.89	23726.37	21816.37	
100.00	23993.40	3.6306	17636.00	19487.73	25225.59	26218.24	
200.00	27740.71	4.4698	17468.00	21372.47	31688.09	31723.48	



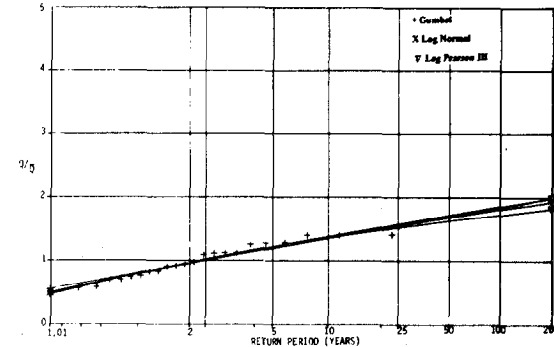
STATION 87373000 BAYOU RAYON ROUGE ABOVE BAKER, LA. 22
 PEAK = 2300.0 CFS. AREA = 13,600 SQ MI. 16 DSS (1951-1971) 0 ZEROES
 STATISTICAL VALUES: MEAN = 1376.537 STD = 1519.420 SKEW = 1.840000
 LOG NORMAL & PIII: MEAN = 2.898003 STD = .489510 SKEW = .498288
 GUMBEL PARAMETERS: ALPHA = .008878 BETA = 777.194

RETURN PERIOD	AVERAGE	DAV/GMEAN	RANK	GUMBEL	LOGNORMAL	PEARSON III	LOG
2.00	969.88	.7228	822.30	1194.70	914.83	906.09	
2.33	1174.28	.8585	822.30	1376.00	1091.10	1090.64	
3.00	2115.99	1.5434	3686.00	2382.13	2017.67	2006.19	
10.00	2879.17	2.2431	3686.00	3885.88	3881.82	3878.44	
25.00	4087.88	3.3319	4486.30	4871.87	4746.80	4746.80	
50.00	5984.72	4.3879	4786.10	4786.10	5319.42	5307.80	
100.00	7483.52	5.4588	4814.50	5513.33	6158.70	6158.70	
200.00	9238.47	6.7385	4837.20	6251.93	10361.41	11180.16	



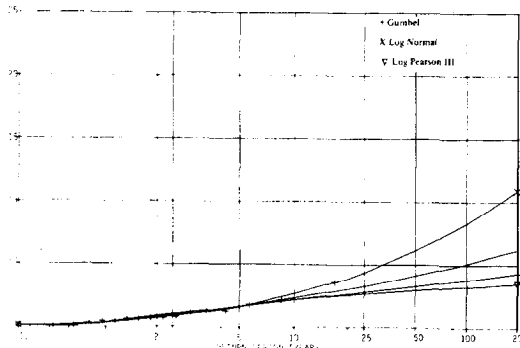
STATION 87375600 WAXLEY CREEK NEAR ROBERT, LA. 22
 PEAK = 2800.0 CFS. AREA = 25,109 SQ MI. 17 DSS (1951-1971) 0 ZEROES
 STATISTICAL VALUES: MEAN = 1475.952 STD = 475.440 SKEW = .928888
 LOG NORMAL & PIII: MEAN = 3.255976 STD = .317505 SKEW = .932592
 GUMBEL PARAMETERS: ALPHA = .002096 BETA = 1552.114

RETURN PERIOD	AVERAGE	DAV/GMEAN	RANK	GUMBEL	LOGNORMAL	PEARSON III	LOG
2.00	1627.03	.7330	1340.00	1788.22	1615.41	1567.88	
2.33	1915.21	1.2100	1338.74	1877.37	1945.34	1936.92	
3.00	2287.81	1.7392	2216.40	2218.34	2280.30	2280.79	
10.00	2524.88	1.7450	2494.80	2495.02	2506.43	2506.08	
25.00	2831.59	1.4177	3172.16	2846.24	2917.09	2730.84	
50.00	3051.34	1.4245	3333.59	3120.24	3168.49	2878.34	
100.00	3259.58	1.7175	3291.78	3398.24	3426.21	3071.27	
200.00	3467.47	1.7447	3335.89	3825.37	3946.37	3167.47	



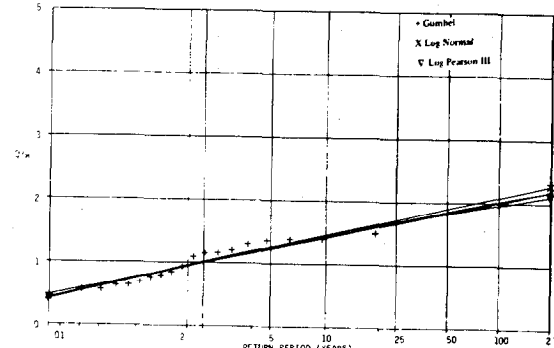
STATION 87374600 PONCHATOLA CREEK AT NATALBANY, LA. 22
 PEAK = 2500.0 CFS. AREA = 13,600 SQ MI. 22 DSS (1951-1971) 0 ZEROES
 STATISTICAL VALUES: MEAN = 1522.654 STD = 436.452 SKEW = .891288
 LOG NORMAL & PIII: MEAN = 3.183458 STD = .322733 SKEW = .946888
 GUMBEL PARAMETERS: ALPHA = .002933 BETA = 1424.943

RETURN PERIOD	AVERAGE	DAV/GMEAN	RANK	GUMBEL	LOGNORMAL	PEARSON III	LOG
2.00	1568.14	.8684	1505.00	1548.82	1581.91	1587.39	
2.33	1644.41	1.2147	1778.78	1821.82	1648.72	1648.00	
3.00	1768.23	1.2148	2878.00	1935.12	1981.41	1986.10	
10.00	2217.89	1.3681	2270.00	2197.79	2243.89	2216.33	
25.00	2516.20	1.5527	2382.30	2513.85	2553.88	2474.77	
50.00	2729.67	1.6945	2316.10	2753.31	2798.95	2644.56	
100.00	2938.24	1.9119	2383.80	2991.48	3014.54	2882.70	
200.00	3137.47	1.9361	2528.34	3228.42	3233.67	2958.52	



STATION 87380100 OLDWELL CREEK AT LIVINGSTON, LA. 22
 PEAK = 4050.0 CFS. AREA = 22,699 SQ MI. 18 DSS (1951-1971) 0 ZEROES
 STATISTICAL VALUES: MEAN = 1866.298 STD = 1224.937 SKEW = 1.841878
 LOG NORMAL & PIII: MEAN = 2.058514 STD = .472587 SKEW = 1.158827
 GUMBEL PARAMETERS: ALPHA = .001437 BETA = 819.572

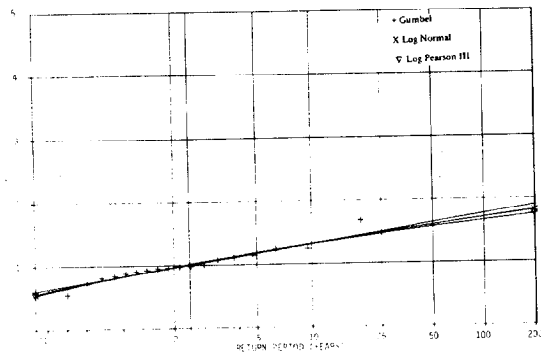
RETURN PERIOD	AVERAGE	DAV/GMEAN	RANK	GUMBEL	LOGNORMAL	PEARSON III	LOG
2.00	1505.78	.7734	885.82	1163.87	920.56	1185.08	
2.33	1604.40	.8224	1927.12	1370.13	1783.59	1318.87	
3.00	2255.48	1.6798	2176.77	2258.45	2256.45	2259.30	
10.00	3191.78	1.3381	3583.06	2870.84	3531.83	3065.57	
25.00	4440.44	1.4308	5593.19	3882.94	6751.31	3782.88	
50.00	5709.32	4.1758	8276.52	4571.85	8414.61	4141.20	
100.00	7420.42	5.1354	6418.20	5244.93	11321.38	4485.82	
200.00	8599.24	5.2281	6740.14	5245.92	14832.72	4776.33	



STATION 87380150 MIDDLE OLDWELL CREEK NEAR WALKER, LA. 22
 PEAK = 1730.0 CFS. AREA = 22,390 SQ MI. 19 DSS (1951-1971) 0 ZEROES
 STATISTICAL VALUES: MEAN = 1153.844 STD = 370.725 SKEW = .942231
 LOG NORMAL & PIII: MEAN = 3.030458 STD = .370725 SKEW = .942231
 GUMBEL PARAMETERS: ALPHA = .023405 BETA = 387.126

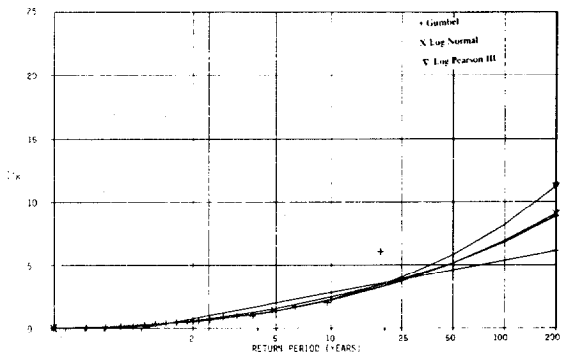
RETURN PERIOD	AVERAGE	DAV/GMEAN	RANK	GUMBEL	LOGNORMAL	PEARSON III	LOG
2.00	1990.44	.7927	1178.00	1893.10	1995.10	1118.83	
2.33	1165.70	1.2192	1319.30	1195.11	1113.31	1176.86	
3.00	1449.43	1.2334	1384.00	1421.19	1456.77	1484.35	
10.00	1866.82	1.4455	1822.00	1638.35	1891.85	1874.47	
25.00	1848.45	1.8610	1738.70	1912.74	1982.73	1824.86	
50.00	2138.33	1.8538	1894.30	2116.20	2107.13	2181.86	
100.00	2332.34	2.0211	1827.10	2318.34	2449.83	2288.72	
200.00	2523.54	2.1888	1838.50	2519.66	2421.58	2422.39	

Appendix A-22. Louisiana 7-12. Flood frequency curves and data.



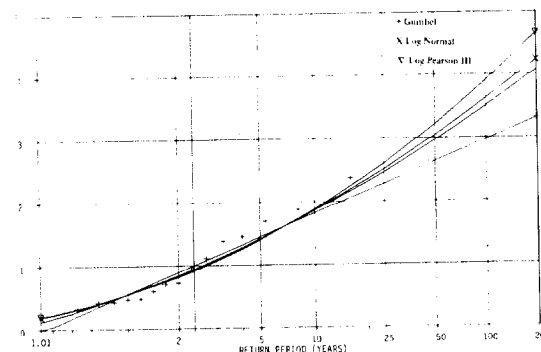
STATION 74126AA FLATOW CREEK NEAR LAKE, LA. 22
 PEAK = 1450.0 CFS, AREA = 18.444 SQ MI, 15 OBS (1941-1948) 22605
 STATISTICAL VALUES: MEAN = 924.156 STD = 244.341 SKEW = .475848
 LOG NORMAL & PIII: MEAN = 2.253452 STD = 1.14411 SKEW = -.197363
 GUMBEL PARAMETERS: ALPHA = .795543 BETA = .275121

RETURN PERIOD	AVERAGE	DAV/MEAN	RANK	GUMBEL	LOG	LOG PIII
2.00	497.36	0.5310	497.36	597.24	599.41	595.45
2.33	535.08	0.5711	535.08	644.47	646.60	642.63
5.00	1095.20	1.0000	1095.20	1235.34	1231.33	1193.14
10.00	1227.34	1.1924	1227.34	1315.15	1294.89	1219.26
25.00	1355.88	1.4811	1355.88	1564.74	1570.67	1351.22
50.00	1474.95	1.6909	1474.95	1736.14	1744.24	1442.31
100.00	1597.77	1.9711	1597.77	1974.13	1974.27	1527.16
200.00	1727.61	2.4125	1727.61	2353.44	2371.15	1764.49



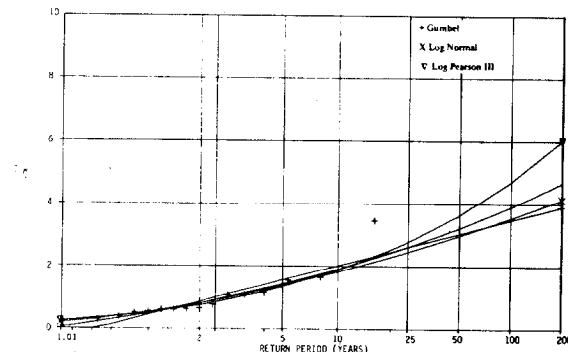
STATION 74224VP FLATOW CREEK NEAR LAKE, LA. 22
 PEAK = 23800.0 CFS, AREA = 22.637 SQ MI, 18 OBS (1941-1948) 22605
 STATISTICAL VALUES: MEAN = 3594.444 STD = 5414.121 SKEW = 3.219033
 LOG NORMAL & PIII: MEAN = 3.145735 STD = .467731 SKEW = .214324
 GUMBEL PARAMETERS: ALPHA = .269235 BETA = 146.288

RETURN PERIOD	AVERAGE	DAV/MEAN	RANK	GUMBEL	LOG	LOG PIII
2.00	2448.00	0.6722	2448.00	2945.94	3016.49	2946.65
2.33	3057.71	0.7811	3057.71	3662.80	3721.59	3621.35
5.00	6221.70	1.4035	6221.70	5499.42	5619.42	5493.48
10.00	8525.40	2.4527	8525.40	7445.49	7504.41	7274.54
25.00	15841.84	3.4627	15841.84	12742.49	12994.76	12447.11
50.00	20259.18	5.1382	20259.18	17999.46	18158.25	17278.28
100.00	26648.20	6.5281	26648.20	24922.04	25030.79	23630.79
200.00	34363.32	8.4313	34363.32	34554.75	34655.20	33329.88



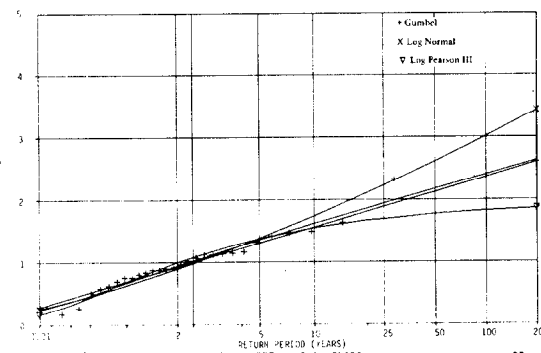
STATION 753489BP BRUSHY CREEK NEAR HORTHAM, LA. 22
 PEAK = 2220.0 CFS, AREA = 16.000 SQ MI, 15 OBS (1951-1963) 22605
 STATISTICAL VALUES: MEAN = 933.333 STD = 587.113 SKEW = .880487
 LOG NORMAL & PIII: MEAN = 2.869855 STD = .274714 SKEW = .161789
 GUMBEL PARAMETERS: ALPHA = .000219 BETA = .609137

RETURN PERIOD	AVERAGE	DAV/MEAN	RANK	GUMBEL	LOG	LOG PIII
2.00	792.00	0.8485	792.00	837.11	775.36	792.00
2.33	888.21	0.9455	888.21	935.19	859.74	884.72
5.00	1334.75	1.4258	1334.75	1356.59	1321.02	1314.85
10.00	1734.45	1.8864	1734.45	1700.59	1745.04	1753.17
25.00	2384.91	2.4655	2384.91	2105.89	2249.12	2439.51
50.00	2768.55	2.9653	2768.55	2457.48	2645.23	2692.00
100.00	3266.00	3.5692	3266.00	2777.44	3080.40	3042.32
200.00	3882.79	4.0744	3882.79	3266.32	3595.95	3556.18



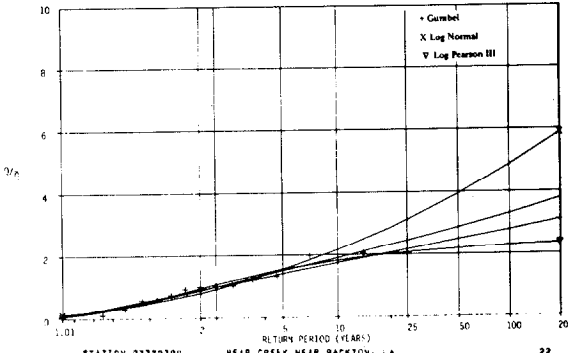
STATION 753550BP MENPHIS CREEK NEAR HOT WELLS, LA. 22
 PEAK = 8320.0 CFS, AREA = 18.000 SQ MI, 15 OBS (1948-1949) 22605
 STATISTICAL VALUES: MEAN = 2488.799 STD = 1991.350 SKEW = 2.396100
 LOG NORMAL & PIII: MEAN = 3.298218 STD = .275148 SKEW = .833355
 GUMBEL PARAMETERS: ALPHA = .000673 BETA = 1245.187

RETURN PERIOD	AVERAGE	DAV/MEAN	RANK	GUMBEL	LOG	LOG PIII
2.00	1054.52	0.4141	1054.52	1504.88	2089.19	1948.88
2.33	2211.19	0.9218	2211.19	1937.36	2486.78	2193.34
5.00	3641.54	1.4334	3641.54	3526.00	3771.51	3385.74
10.00	4981.84	1.9168	4981.84	5714.00	4885.35	4386.83
25.00	8381.81	2.9248	8381.81	9888.00	8292.69	5813.17
50.00	12768.44	3.5324	12768.44	11278.00	7326.74	7184.11
100.00	14677.24	3.9183	11974.88	6375.66	8515.81	11335.68
200.00	11277.13	4.4972	12322.88	9493.68	9885.87	14488.82



STATION 753665BP BAYOU ARCHAIC NEAR HORTHAM, LA. 22
 PEAK = 7840.0 CFS, AREA = 19.400 SQ MI, 28 OBS (1943-1974) 22605
 STATISTICAL VALUES: MEAN = 1223.428 STD = 532.165 SKEW = .306892
 LOG NORMAL & PIII: MEAN = 3.242218 STD = .227430 SKEW = -1.034018
 GUMBEL PARAMETERS: ALPHA = .002077 BETA = 965.253

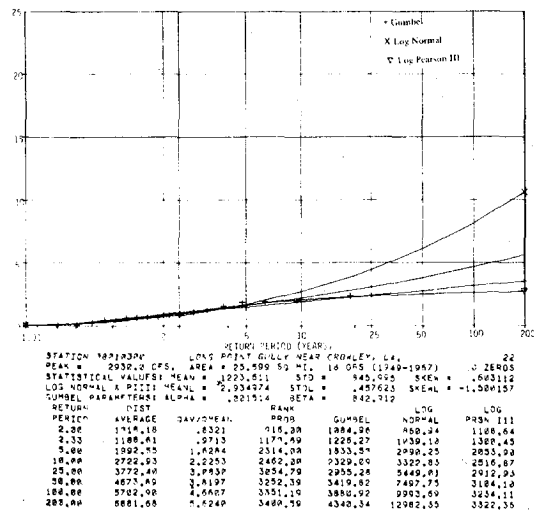
RETURN PERIOD	AVERAGE	DAV/MEAN	RANK	GUMBEL	LOG	LOG PIII
2.00	1155.97	0.8499	1155.97	1155.97	1097.47	1155.97
2.33	1221.45	0.9247	1221.45	1221.45	1204.32	1221.45
5.00	1563.77	1.3637	1563.77	1644.33	1617.12	1563.77
10.00	1997.11	1.6241	1997.11	1915.82	2149.14	1997.11
25.00	2795.08	2.1403	2795.08	2312.71	2733.39	2778.93
50.00	3447.77	2.7123	3447.77	2644.83	3281.27	3197.18
100.00	3928.43	3.4715	3928.43	2894.44	3602.32	3239.16
200.00	4277.74	4.0319	3558.19	3163.94	4208.47	3275.68



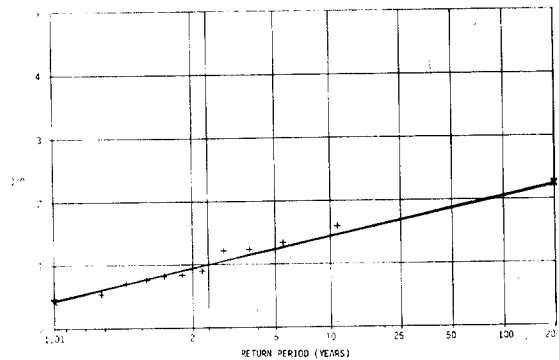
STATION 753722BP BAYOU ARCHAIC NEAR HORTHAM, LA. 22
 PEAK = 7000.0 CFS, AREA = 11.100 SQ MI, 18 OBS (1954-1968) 22605
 STATISTICAL VALUES: MEAN = 1911.622 STD = 692.431 SKEW = .943319
 LOG NORMAL & PIII: MEAN = 2.392021 STD = .334441 SKEW = -1.326153
 GUMBEL PARAMETERS: ALPHA = .001840 BETA = 932.519

RETURN PERIOD	AVERAGE	DAV/MEAN	RANK	GUMBEL	LOG	LOG PIII
2.00	1081.04	0.4227	1081.04	1220.70	1094.43	1081.04
2.33	1211.19	0.4851	1211.19	1249.79	1214.19	1211.19
5.00	1827.34	1.3774	1827.34	1774.08	1711.12	1877.73
10.00	2521.03	1.9152	2521.03	2468.00	2116.74	2631.97
25.00	3674.48	2.4543	3674.48	3544.74	2826.31	3783.12
50.00	4463.08	2.8742	4463.08	4172.41	3490.53	4775.54
100.00	4917.73	3.1511	2545.24	3344.94	3498.97	2776.24
200.00	4583.03	3.7418	2545.24	3742.44	7129.44	2856.63

Appendix A-22. Louisiana 13-18. Flood frequency curves and data.

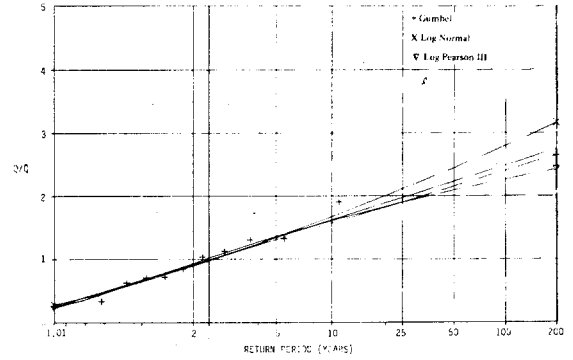


Appendix A-22. Louisiana 19. Flood frequency curves and data.



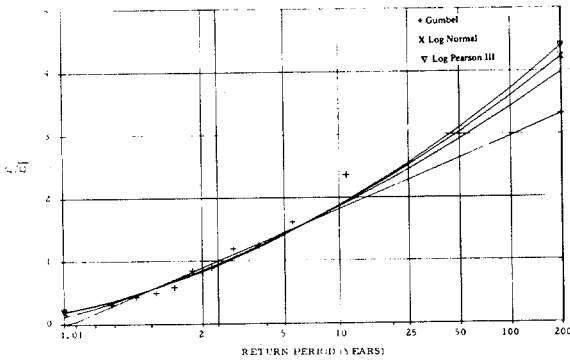
STATION #1914790 FACTORY BROOK NEAR MADANASKA, ME. 23
 PEAK = 253.7 CFS, AREA = 5.833 SQ MI, 10 OBS (1964-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 116.004 STD = 52.310 SKEW = .533734
 LOG NORMAL & PIII MEAN = 2.177774 STD = .144848 SKEW = .811360
 GUMBEL PARAMETERS: ALPHA = .024352 BETA = 134.367

RETURN PERIOD	AVERAGE	DAY/CHEN	PROB	GUMBEL	LOG-NORMAL	PRISM III
2.00	146.00	.2493	139.30	149.30	151.13	150.24
2.33	155.97	1.0068	157.28	158.16	159.50	159.49
5.00	197.08	1.2330	208.79	195.85	199.00	199.01
10.00	229.25	1.4500	248.50	226.62	237.32	236.64
25.00	265.32	1.6392	275.35	265.40	265.58	269.08
50.00	297.13	1.8094	284.97	294.33	299.24	298.02
100.00	325.78	2.0514	284.16	322.05	326.64	327.51
200.00	354.17	2.2410	291.74	351.47	354.84	355.26



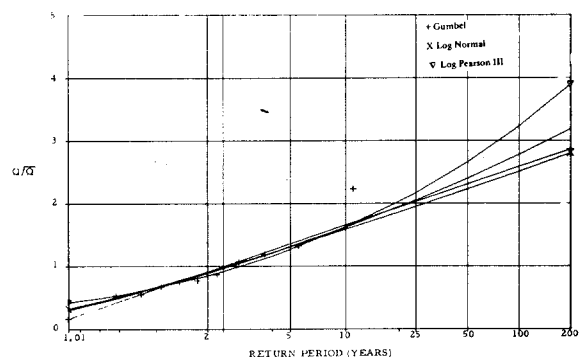
STATION #1915790 HOULTON BROOK NEAR DYMOV, ME. 23
 PEAK = 234.0 CFS, AREA = 5.889 SQ MI, 10 OBS (1964-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 123.330 STD = 55.446 SKEW = .812526
 LOG NORMAL & PIII MEAN = 2.048701 STD = .210705 SKEW = -.375244
 GUMBEL PARAMETERS: ALPHA = .021051 BETA = 98.440

RETURN PERIOD	AVERAGE	DAY/CHEN	PROB	GUMBEL	LOG-NORMAL	PRISM III
2.00	114.44	.2274	117.00	114.31	111.86	117.10
2.33	124.33	1.0378	132.14	123.37	121.90	127.44
5.00	167.98	1.3530	164.48	163.37	160.31	169.56
10.00	211.63	1.5330	224.90	195.85	206.37	208.68
25.00	244.84	1.8411	275.75	236.89	251.68	235.96
50.00	276.67	2.2420	291.37	267.33	303.11	259.96
100.00	308.22	2.4977	299.18	297.55	346.08	281.11
200.00	335.84	2.7523	303.09	327.95	390.32	308.94



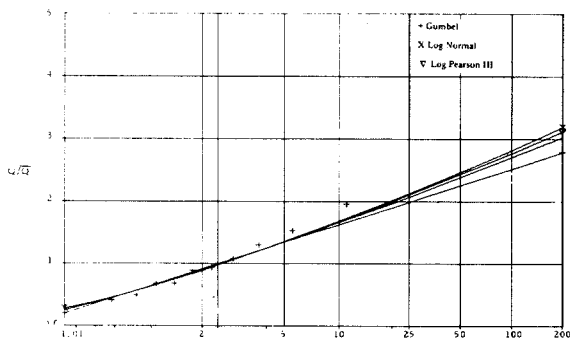
STATION #1917380 NICHOLS BROOK NEAR CARIMOU, ME. 23
 PEAK = 281.0 CFS, AREA = 3.048 SQ MI, 10 OBS (1964-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 118.699 STD = 74.807 SKEW = 1.103805
 LOG NORMAL & PIII MEAN = 1.995508 STD = .272472 SKEW = .865481
 GUMBEL PARAMETERS: ALPHA = .017183 BETA = 85.196

RETURN PERIOD	AVERAGE	DAY/CHEN	PROB	GUMBEL	LOG-NORMAL	PRISM III
2.00	191.91	.9571	185.38	186.82	88.98	99.28
2.33	113.97	.9945	116.28	119.13	111.74	111.04
5.00	176.44	1.4335	185.10	172.89	185.41	169.03
10.00	221.48	1.8021	272.89	216.77	223.26	224.18
25.00	291.02	2.4592	339.83	272.28	299.72	303.84
50.00	346.72	2.9320	358.41	313.30	382.45	378.39
100.00	405.11	3.4488	388.28	354.15	430.88	443.19
200.00	473.32	3.9800	385.10	394.83	582.39	522.57



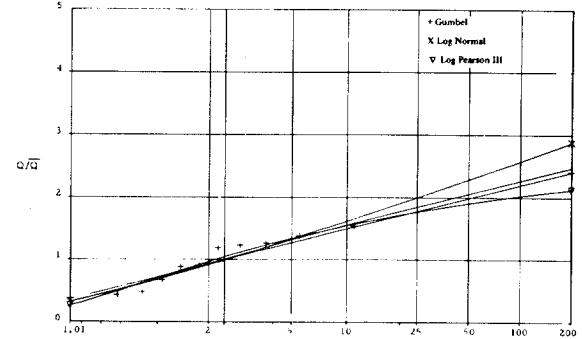
STATION #1918490 SULLIVER BROOK NEAR MONARDA, ME. 23
 PEAK = 582.8 CFS, AREA = 11.889 SQ MI, 10 OBS (1964-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 251.380 STD = 127.416 SKEW = 1.787038
 LOG NORMAL & PIII MEAN = 2.359938 STD = .189721 SKEW = .417428
 GUMBEL PARAMETERS: ALPHA = .019953 BETA = 194.163

RETURN PERIOD	AVERAGE	DAY/CHEN	PROB	GUMBEL	LOG-NORMAL	PRISM III
2.00	225.00	.8854	87.58	236.51	229.04	215.95
2.33	244.20	.9713	234.28	251.90	247.62	233.50
5.00	331.08	1.3298	325.09	343.39	338.05	381.79
10.00	469.80	1.6297	359.80	417.99	480.08	418.72
25.00	517.55	2.0578	688.79	512.39	492.21	546.10
50.00	605.08	2.4858	741.39	582.25	561.64	671.12
100.00	699.53	2.7814	766.69	651.71	632.33	613.97
200.00	802.17	3.1890	779.34	728.08	785.44	889.16



STATION #1934390 COFFIN BROOK NEAR LEE, ME. 23
 PEAK = 143.0 CFS, AREA = 2.219 SQ MI, 10 OBS (1964-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 72.890 STD = 35.428 SKEW = .818768
 LOG NORMAL & PIII MEAN = 1.816321 STD = .214109 SKEW = -.948853
 GUMBEL PARAMETERS: ALPHA = .031156 BETA = 50.056

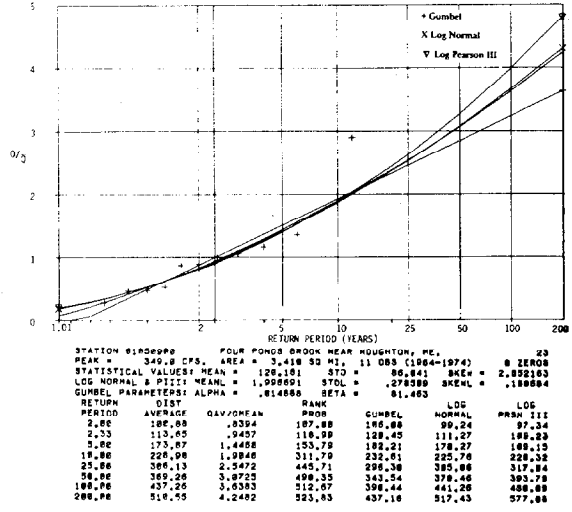
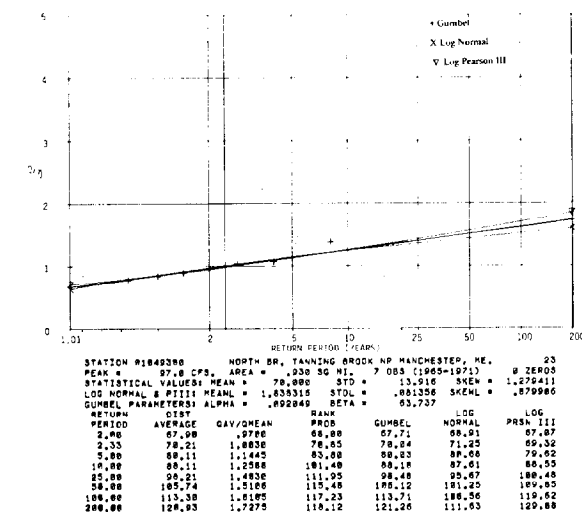
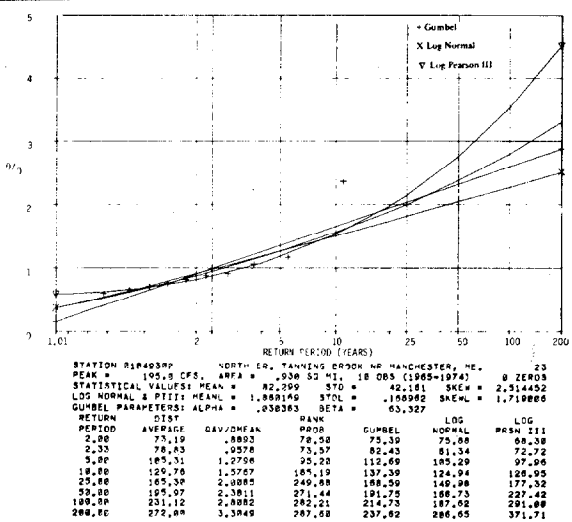
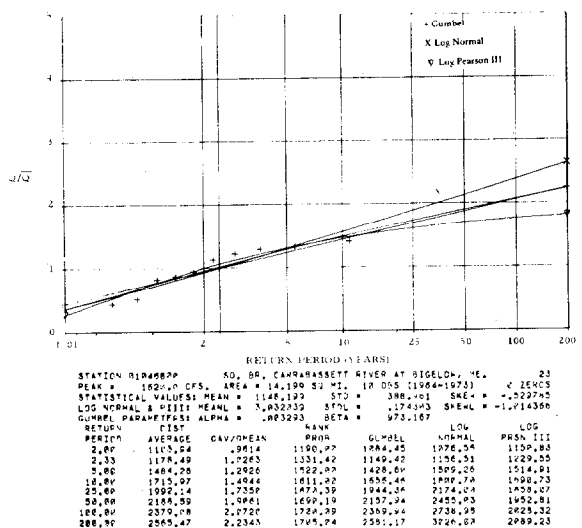
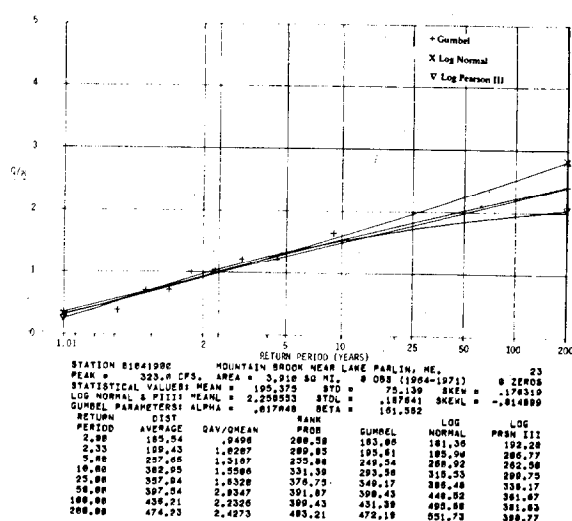
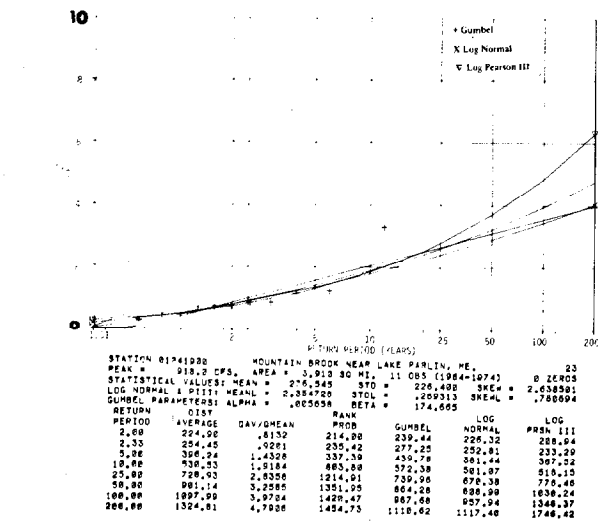
RETURN PERIOD	AVERAGE	DAY/CHEN	PROB	GUMBEL	LOG-NORMAL	PRISM III
2.00	56.12	.5879	67.87	67.89	65.39	65.77
2.33	72.12	.6804	71.85	73.01	71.33	71.83
5.00	96.08	1.3577	108.59	98.44	99.20	99.30
10.00	121.77	1.6793	130.09	119.19	125.22	122.08
25.00	151.97	2.0701	169.35	165.41	155.31	153.97
50.00	174.98	2.3921	167.19	164.87	186.32	177.96
100.00	197.48	2.7117	179.59	184.19	286.27	282.50
200.00	251.11	3.0384	172.99	285.47	335.13	227.88



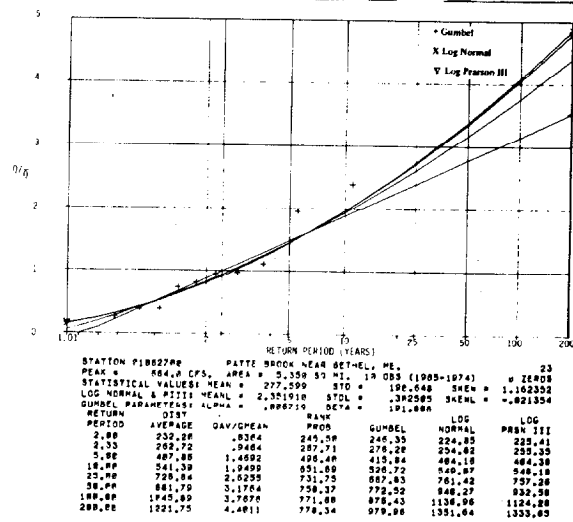
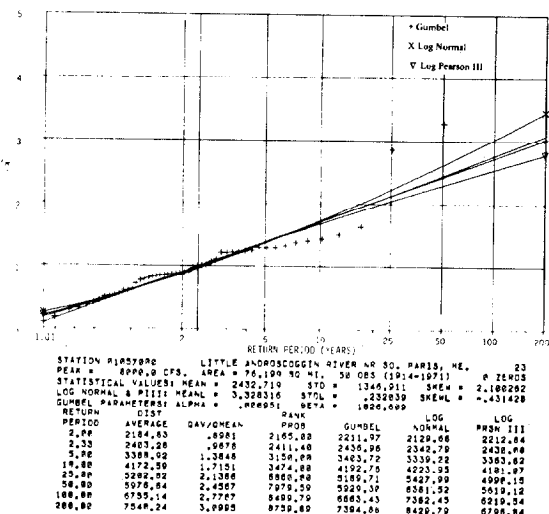
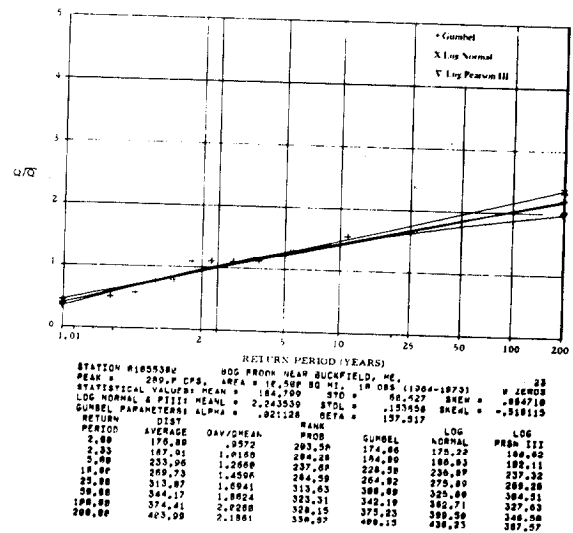
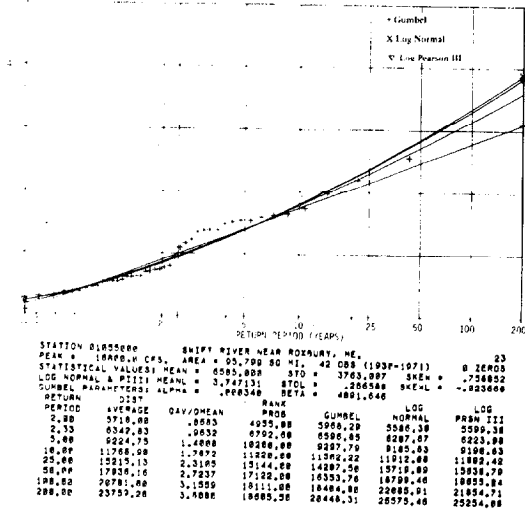
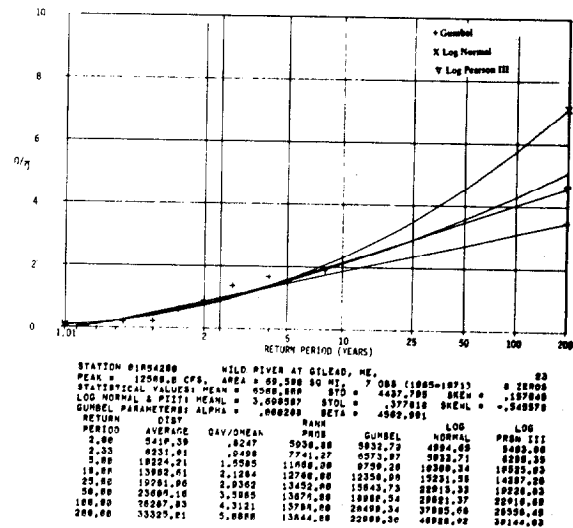
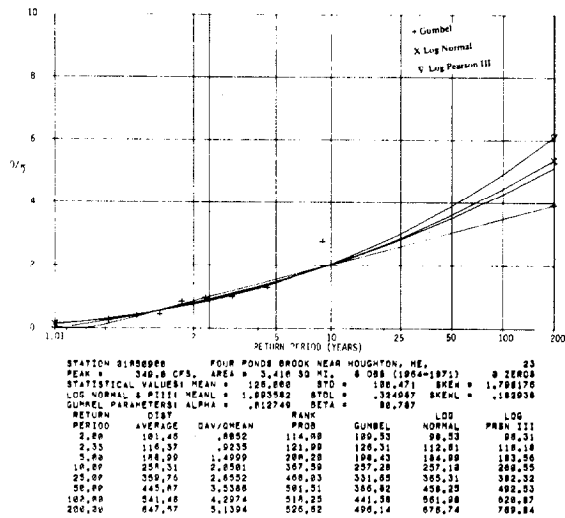
STATION #1937430 SOREE RIVER AT ROCKPORT, ME. 23
 PEAK = 624.0 CFS, AREA = 4.320 SQ MI, 10 OBS (1964-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 485.380 STD = 194.391 SKEW = -1.245380
 LOG NORMAL & PIII MEAN = 2.571170 STD = .192438 SKEW = -.732938
 GUMBEL PARAMETERS: ALPHA = .026289 BETA = 333.433

RETURN PERIOD	AVERAGE	DAY/CHEN	PROB	GUMBEL	LOG-NORMAL	PRISM III
2.00	381.25	.9449	423.38	378.16	372.53	393.67
2.33	410.37	1.0170	465.55	463.38	483.10	463.94
5.00	533.48	1.3221	549.19	514.94	546.08	544.34
10.00	638.91	1.5618	617.39	605.50	657.38	627.76
25.00	748.41	1.8958	669.28	712.93	695.37	716.25
50.00	834.15	2.0873	676.47	804.81	822.53	772.71
100.00	918.95	2.2750	682.73	869.47	844.52	828.55
200.00	1009.75	2.4491	688.37	973.85	1009.27	903.24

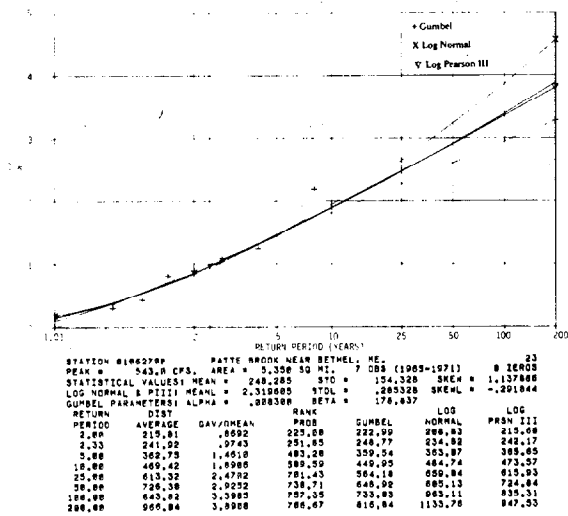
Appendix A-23. Maine 1-6. Flood frequency curves and data.



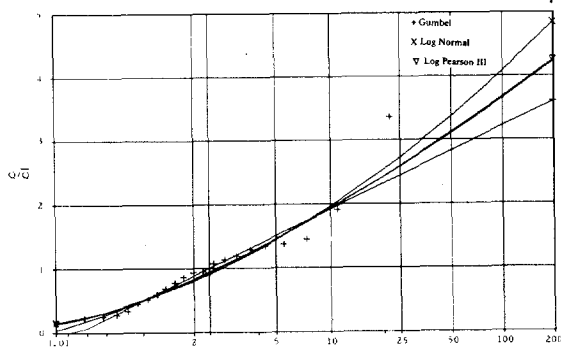
Appendix A-23. Maine 7-12. Flood frequency curves and data.



Appendix A-23. Maine 13-18. Flood frequency curves and data.

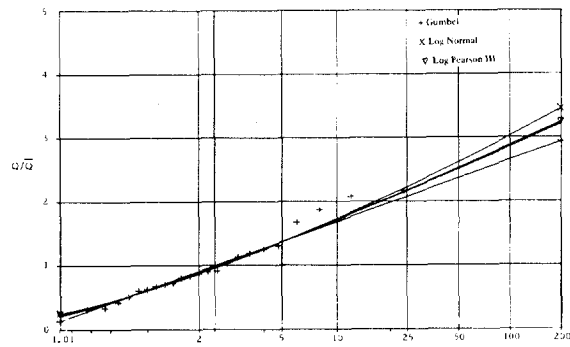


Appendix A-23. Maine 19. Flood frequency curves and data.



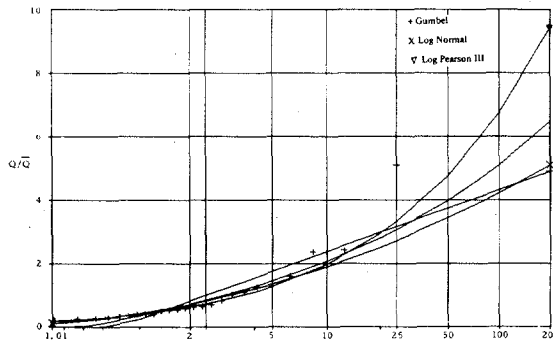
STATION 81486888 NANDOIN BRANCH NEAR PRINCESS ANNE, MD. 24
 PEAK = 347.8 CFS, AREA = 5.808 SQ MI, 21 DBS (1951-1973) 8 ZEROS
 STATISTICAL VALUES: MEAN = 192.571 STD = 115.124 SKEW = 1.91811
 LOG NORMAL & PIII: MEAN = 2.115563 STD = .303242 SKEW = -.199345
 GUMBEL PARAMETERS: ALPHA = .011127 BETA = 119.785

RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	135.88	.8366	152.88	143.70	139.48	133.94
2.33	155.07	.8471	185.42	182.93	147.80	151.19
5.00	238.87	1.4693	281.39	245.56	234.87	236.19
10.00	319.40	1.9406	296.20	313.88	319.32	314.15
25.00	421.85	2.5889	375.31	398.21	443.16	421.77
50.00	585.58	3.1394	479.15	481.43	547.54	587.54
100.00	764.87	3.8570	731.07	524.18	682.39	707.43
200.00	886.78	4.2353	757.93	586.70	787.79	801.63



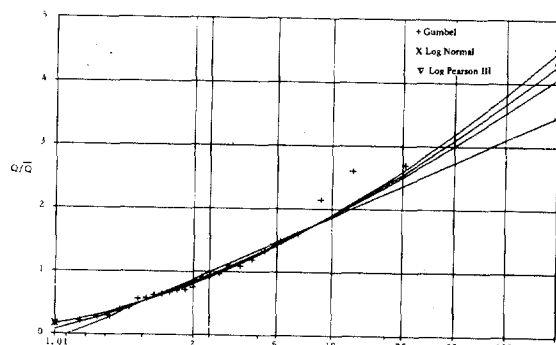
STATION 81490888 CHICAMACOMICO RIVER NEAR SALEP, MD. 24
 PEAK = 542.8 CFS, AREA = 15.008 SQ MI, 23 DBS (1951-1973) 8 ZEROS
 STATISTICAL VALUES: MEAN = 250.139 STD = 131.597 SKEW = -.83496
 LOG NORMAL & PIII: MEAN = 2.341153 STD = .231180 SKEW = -.122553
 GUMBEL PARAMETERS: ALPHA = .009733 BETA = 199.611

RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	225.22	.8924	218.08	226.55	219.38	221.75
2.33	235.20	.9303	238.65	235.54	241.32	243.84
5.00	344.23	1.3782	344.60	345.88	343.37	344.31
10.00	428.93	1.7148	498.79	422.89	433.97	438.73
25.00	548.38	2.1583	542.52	516.49	537.18	544.44
50.00	626.98	2.5830	554.47	591.75	654.64	631.84
100.00	713.86	2.9539	568.23	653.46	758.91	721.19
200.00	883.04	3.6139	553.12	734.84	883.87	816.88



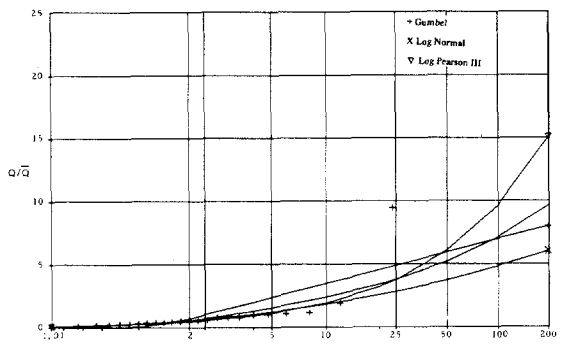
STATION 81492088 BEAVERDAM BRANCH AT MATTHEWS, MD. 24
 PEAK = 2280.8 CFS, AREA = 5.458 SQ MI, 24 DBS (1959-1973) 8 ZEROS
 STATISTICAL VALUES: MEAN = 431.106 STD = 457.650 SKEW = 2.85060
 LOG NORMAL & PIII: MEAN = 2.491411 STD = .330850 SKEW = .878133
 GUMBEL PARAMETERS: ALPHA = .082799 BETA = 225.228

RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	314.72	.7299	268.88	356.18	318.83	277.00
2.33	368.63	.8549	284.85	432.89	385.21	319.88
5.00	636.14	1.4754	502.89	781.88	588.87	558.47
10.00	964.86	2.0607	1635.88	1039.17	825.48	556.56
25.00	1326.92	3.16775	3288.80	1387.91	1177.52	1435.33
50.00	1728.63	3.9988	2775.88	1610.20	1483.27	2050.43
100.00	2288.86	5.1846	3688.58	1668.63	1825.98	2884.34
200.00	2793.78	6.4795	3286.25	2117.15	2288.25	4657.83



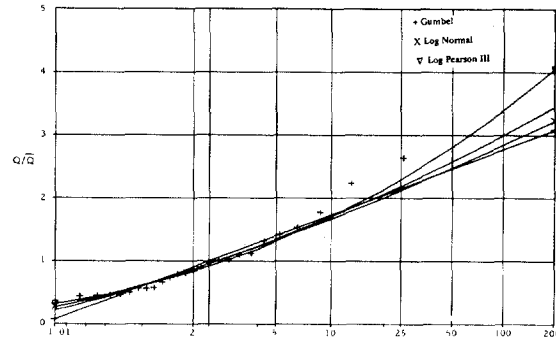
STATION 81493688 UNICORN BRANCH NEAR MILLINGTON, MD. 24
 PEAK = 1880.8 CFS, AREA = 22.388 SQ MI, 25 DBS (1948-1973) 8 ZEROS
 STATISTICAL VALUES: MEAN = 391.710 STD = 283.561 SKEW = 1.33808
 LOG NORMAL & PIII: MEAN = 2.386185 STD = .287887 SKEW = -.878819
 GUMBEL PARAMETERS: ALPHA = .084888 BETA = 273.117

RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	329.92	.8422	294.88	348.82	318.28	281.07
2.33	371.46	.9483	368.42	392.55	358.39	328.88
5.00	588.21	1.4454	576.48	581.72	537.88	508.88
10.00	741.77	1.8936	736.12	736.12	746.33	743.25
25.00	983.93	2.5118	1838.39	931.24	1019.39	1081.80
50.00	1178.87	3.0874	1875.19	1075.52	1485.05	1812.38
100.00	1383.50	3.5318	1884.58	1219.37	1482.83	1436.18
200.00	1688.73	4.0864	1894.78	1362.78	1758.82	1878.97



STATION 81493588 MORGAN CREEK NEAR KENNEDYVILLE, MD. 24
 PEAK = 7580.8 CFS, AREA = 10.598 SQ MI, 23 DBS (1951-1973) 8 ZEROS
 STATISTICAL VALUES: MEAN = 758.171 STD = 1408.416 SKEW = 4.23598
 LOG NORMAL & PIII: MEAN = 2.644839 STD = .481810 SKEW = 1.698413
 GUMBEL PARAMETERS: ALPHA = .088654 BETA = 119.436

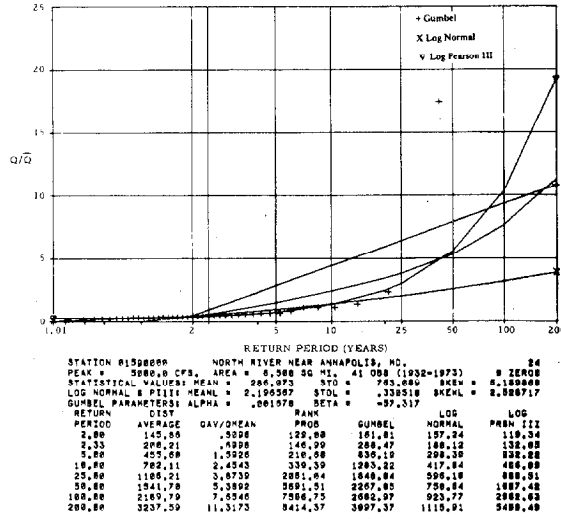
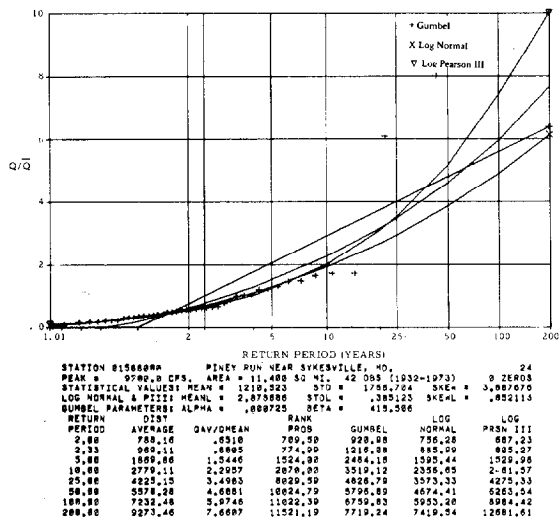
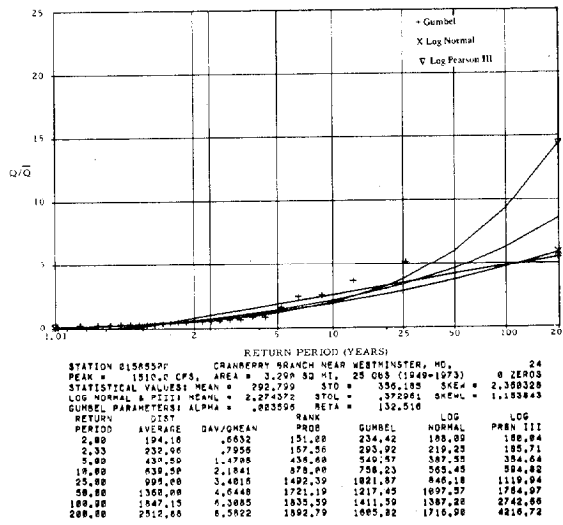
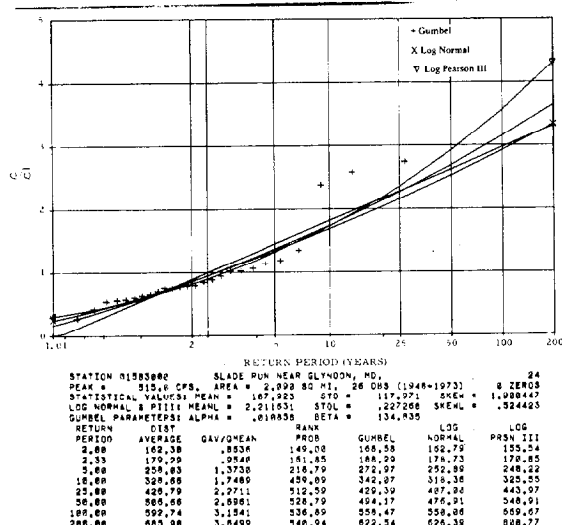
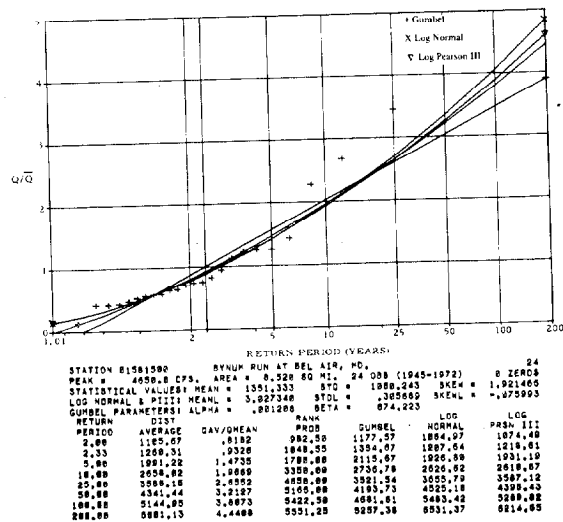
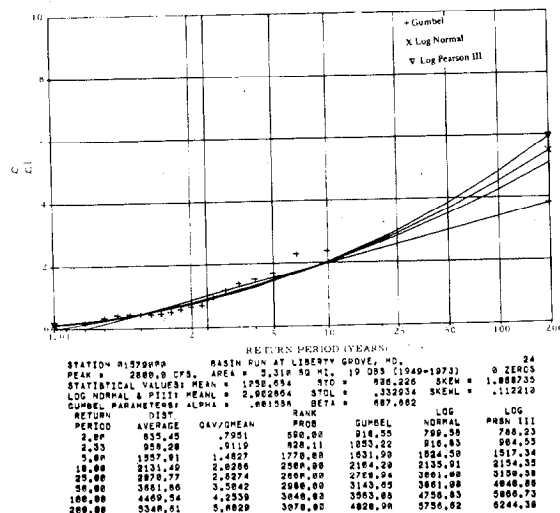
RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	453.93	.7539	397.08	544.44	441.49	374.00
2.33	585.26	.7495	448.85	794.89	528.71	448.14
5.00	1237.78	1.5664	825.19	1871.12	961.44	888.78
10.00	1986.16	2.4123	1282.89	2748.59	1443.94	1325.19
25.00	3629.86	3.4220	7736.70	3855.33	2326.55	2873.31
50.00	4148.84	5.2464	10884.39	4882.60	2848.77	4791.80
100.00	5831.45	7.1263	12837.19	5489.91	3284.32	7398.92
200.00	7684.33	8.6995	12793.50	6314.11	4773.43	11965.40



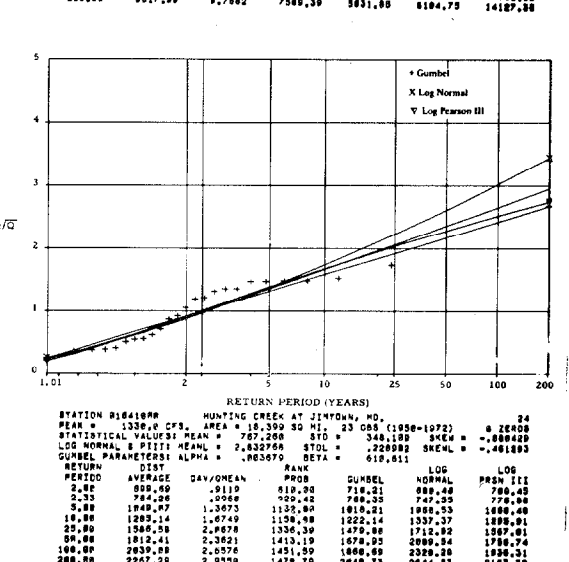
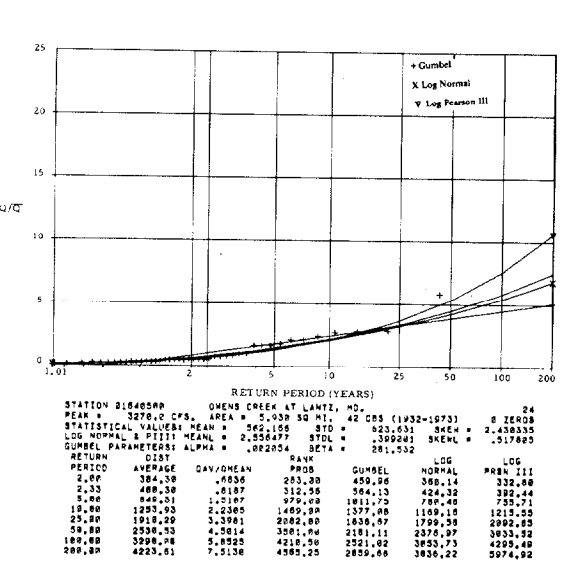
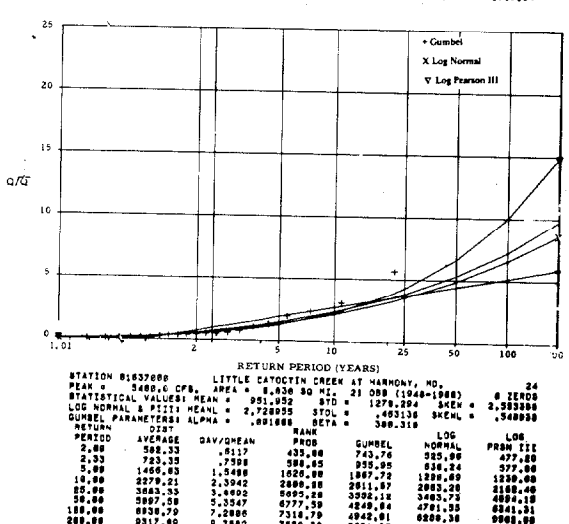
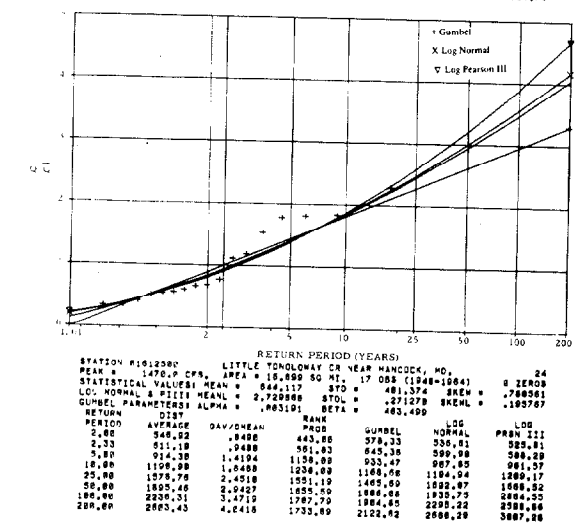
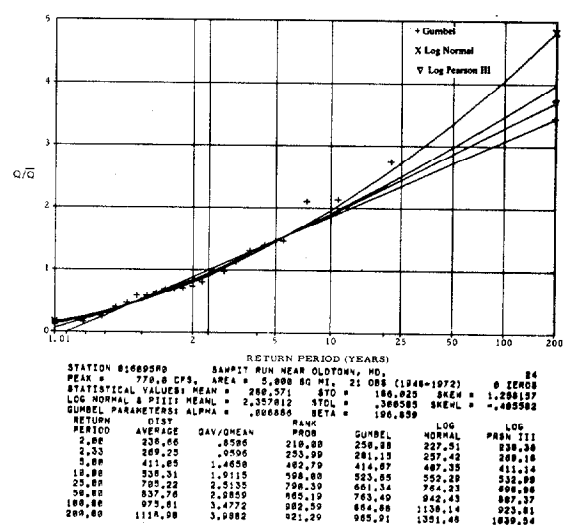
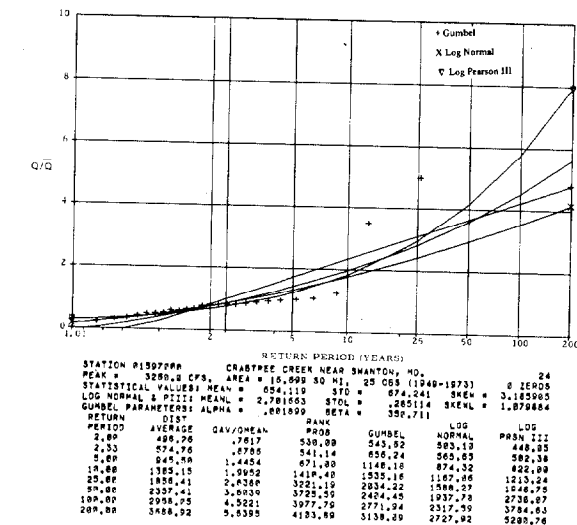
STATION 81496888 NORTHEAST CREEK AT LESLIE, MD. 24
 PEAK = 4800.8 CFS, AREA = 24.388 SQ MI, 25 DBS (1949-1973) 8 ZEROS
 STATISTICAL VALUES: MEAN = 1815.850 STD = 1828.227 SKEW = 1.49328
 LOG NORMAL & PIII: MEAN = 3.282541 STD = .219958 SKEW = .479788
 GUMBEL PARAMETERS: ALPHA = .071245 BETA = 1553.137

RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	1501.82	.8781	1580.28	1547.32	1594.19	1531.34
2.33	1747.13	.9921	1751.40	1819.87	1744.68	1677.34
5.00	2467.98	1.3586	2554.92	2557.10	2441.48	2482.07
10.00	3187.43	1.7114	3556.80	3159.45	3050.55	3112.65
25.00	3880.70	2.1078	4778.39	3929.51	3669.84	4178.93
50.00	4768.77	2.5887	5155.19	4485.17	4519.35	5105.85
100.00	5469.86	3.0874	5347.59	5845.55	5174.17	6159.17
200.00	6276.71	3.4566	5442.79	5893.93	5871.89	7354.30

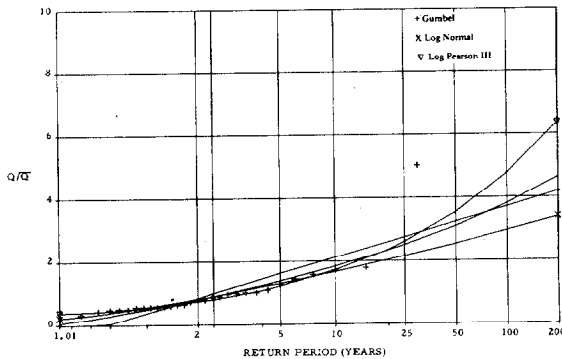
Appendix A-24. Maryland 1-6. Flood frequency curves and data.



Appendix A-24. Maryland 7-12. Flood frequency curves and data.

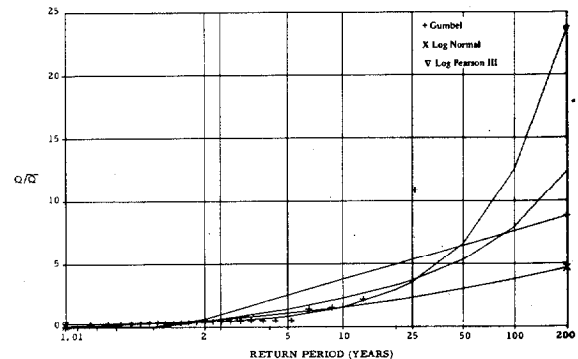


Appendix A-24. Maryland 13-18. Flood frequency curves and data.



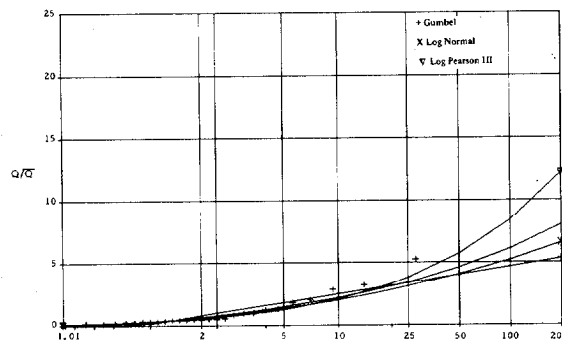
STATION 81640558 LITTLE FALLS BRANCH NEAR BETHESDA, MD. 24
 PEAK = 7802.8 CFS, AREA = 4,190 SQ MI, 29 DBS (1945-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1490.446 STD = 1280.725 SKEW = 3.803263
 LOG NORMAL & PIII: MEANL = 3,804547 STDL = 237826 SKEWL = 1.228884
 GUMBEL PARAMETERS: ALPHA = .809093 BETA = 912.056

RETURN PERIOD	AVERAGE	DAY/OVERNIGHT	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	1211.46	.8117	1180.00	1261.67	1243.21	1119.11	1119.11
2.33	1381.60	.9125	1387.42	1495.51	1378.42	1219.73	1219.73
5.00	2077.05	1.5993	1980.00	2422.26	1988.22	1843.37	1843.37
10.00	2784.15	1.9453	2540.00	3177.42	2582.02	2582.25	2582.25
25.00	3781.98	2.5880	3537.00	4132.48	3232.98	3928.24	3928.24
50.00	4855.59	3.1180	4438.70	4848.70	3814.15	5385.93	5385.93
100.00	5694.02	3.6183	5047.30	5545.46	4426.24	7125.35	7125.35
200.00	6948.29	4.4510	6100.00	6244.10	5066.02	9514.16	9514.16



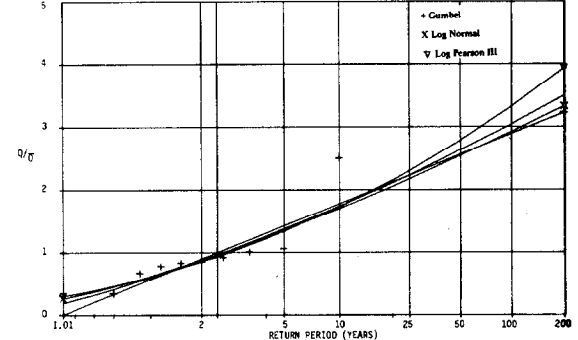
STATION 81661008 CHAPTICO CREEK AT CHAPTICO, MD. 84
 PEAK = 7809.8 CFS, AREA = 16,000 SQ MI, 28 DBS (1948-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 717.250 STD = 1919.414 SKEW = 4.431407
 LOG NORMAL & PIII: MEANL = 2,397588 STDL = .358968 SKEWL = 8.347718
 GUMBEL PARAMETERS: ALPHA = .898646 BETA = 36.983

RETURN PERIOD	AVERAGE	DAY/OVERNIGHT	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	387.48	.5493	326.00	400.01	398.02	297.91	297.91
2.33	464.48	.7041	339.14	781.00	486.00	334.17	334.17
5.00	1074.26	1.4991	424.00	1898.07	789.13	881.07	881.07
10.00	1854.55	2.3971	514.00	2894.00	1140.40	1187.00	1187.00
25.00	2976.00	3.7350	795.00	3814.00	1680.29	2948.00	2948.00
50.00	3851.22	5.3718	1077.00	4840.07	2187.72	4786.00	4786.00
100.00	5764.48	7.9355	1238.00	5479.75	2790.05	5949.13	5949.13
200.00	8648.00	12.3825	1516.00	6292.01	3517.40	10916.10	10916.10



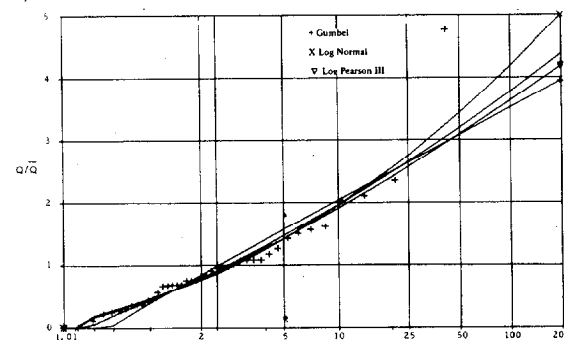
STATION 81661308 ST. MARYS RIVER AT GREAT MILLS, MD. 24
 PEAK = 7038.8 CFS, AREA = 74,000 SQ MI, 27 DBS (1947-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1511.185 STD = 1766.810 SKEW = 2.398358
 LOG NORMAL & PIII: MEANL = 2,983524 STDL = .393351 SKEWL = .741329
 GUMBEL PARAMETERS: ALPHA = .930725 BETA = 716.120

RETURN PERIOD	AVERAGE	DAY/OVERNIGHT	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	1015.30	.6719	712.00	1221.02	982.77	881.74	881.74
2.33	1228.27	.8074	827.99	1516.74	1131.39	1012.47	1012.47
5.00	2269.43	1.5917	2324.00	2784.00	2882.65	1958.75	1958.75
10.00	3379.05	2.2386	4458.00	3819.92	3871.48	3221.40	3221.40
25.00	5197.00	3.4390	7304.00	5127.07	4887.48	5786.11	5786.11
50.00	6976.10	4.6163	9382.00	6887.85	6176.10	8651.55	8651.55
100.00	9229.17	5.1072	10146.00	7866.02	7889.12	12717.58	12717.58
200.00	12179.25	6.4139	12573.00	8822.29	9822.23	16405.24	16405.24



STATION 83876800 BEAR CREEK AT FRIENDSVILLE, MD. 84
 PEAK = 4858.8 CFS, AREA = 48,000 SQ MI, 0 DBS (1980-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1855.055 STD = 1119.885 SKEW = 2.897740
 LOG NORMAL & PIII: MEANL = 3,814198 STDL = .283058 SKEWL = .348816
 GUMBEL PARAMETERS: ALPHA = .851144 BETA = 1351.028

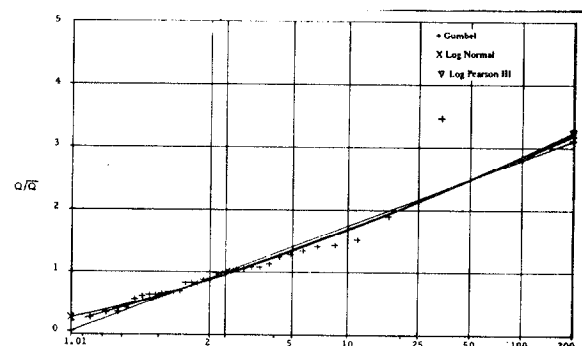
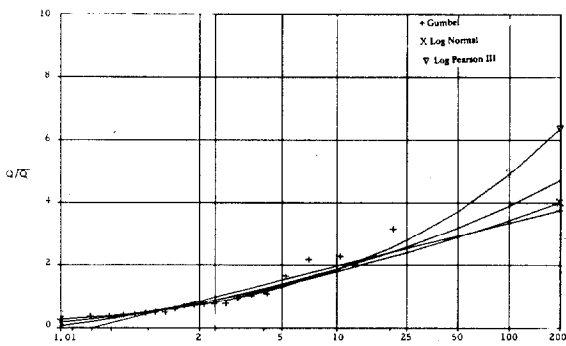
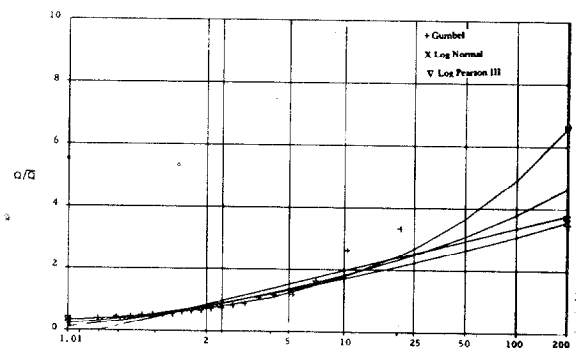
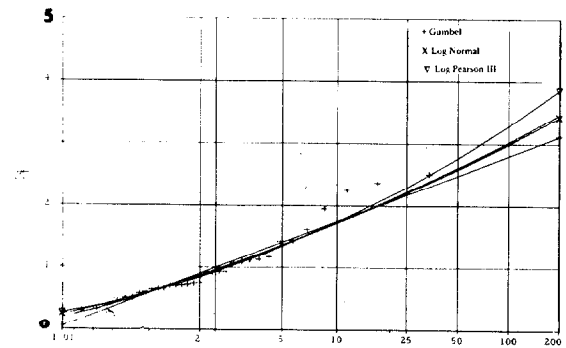
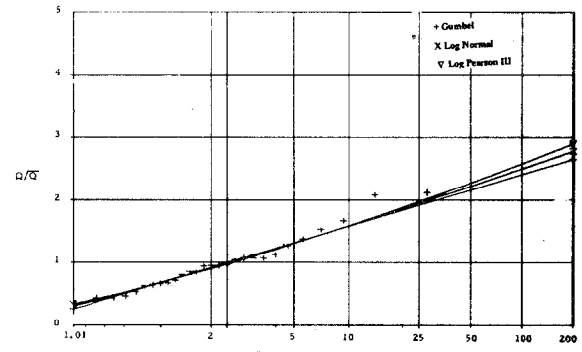
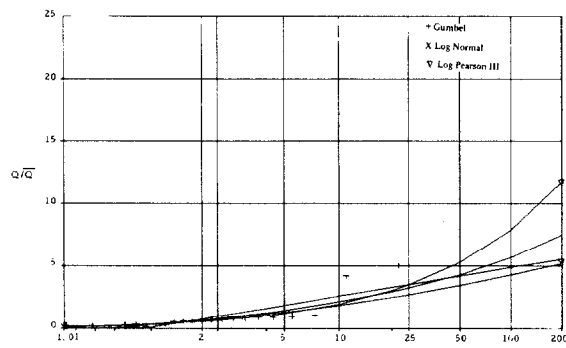
RETURN PERIOD	AVERAGE	DAY/OVERNIGHT	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	1032.04	.8886	1990.00	1072.15	1037.41	1509.80	1509.80
2.33	1789.18	.9880	1075.70	1659.07	1798.82	1743.44	1743.44
5.00	2861.81	1.3880	1886.00	2662.51	2525.08	2407.78	2407.78
10.00	3634.83	1.7433	4858.00	3317.89	3197.04	3218.97	3218.97
25.00	4151.04	2.2370	8258.00	4146.21	4935.58	4276.04	4276.04
50.00	4885.90	2.6516	6766.00	4708.74	4714.38	5175.07	5175.07
100.00	5657.36	3.0488	7653.00	5370.80	5424.88	6176.88	6176.88
200.00	6478.46	3.4913	7160.58	5976.38	6184.60	7292.36	7292.36



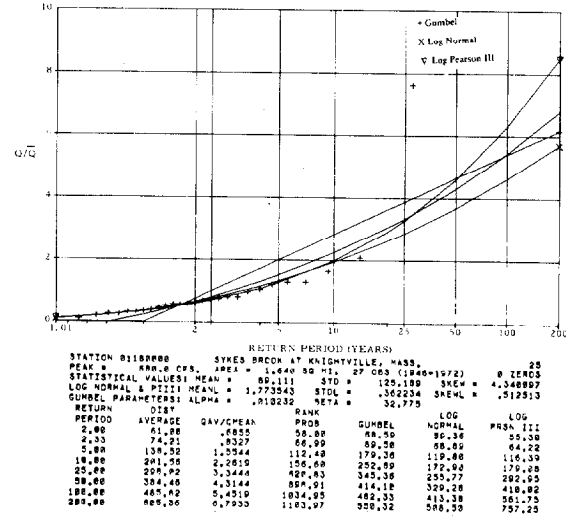
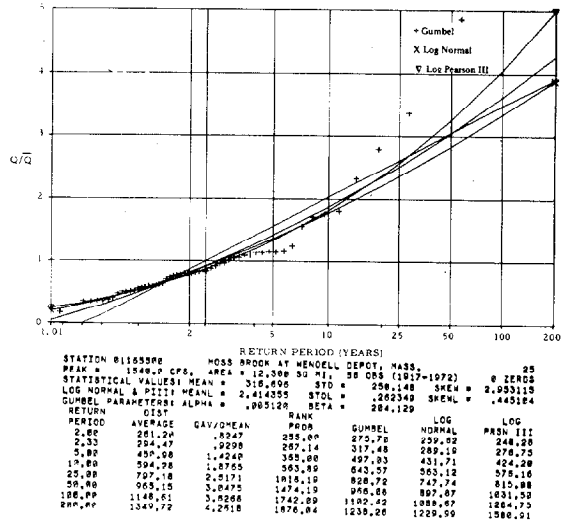
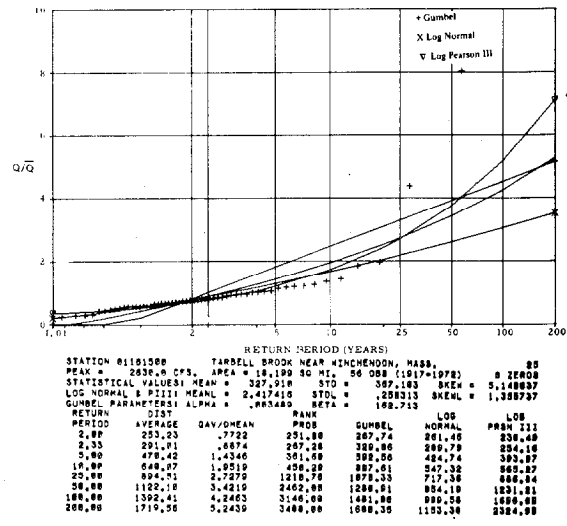
STATION 81406598 BEAVERDAM CREEK NEAR SALISBURY, MD. 34
 PEAK = 1400.8 CFS, AREA = 19,580 SQ MI, 41 DBS (1930-1973) 1 ZERO
 STATISTICAL VALUES: MEAN = 318.875 STD = 256.173 SKEW = 2.651227
 LOG NORMAL & PIII: MEANL = 2,388235 STDL = .313686 SKEWL = -.259841
 GUMBEL PARAMETERS: ALPHA = .805128 BETA = 139.295

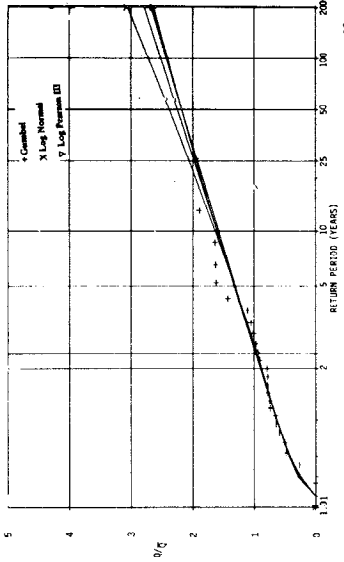
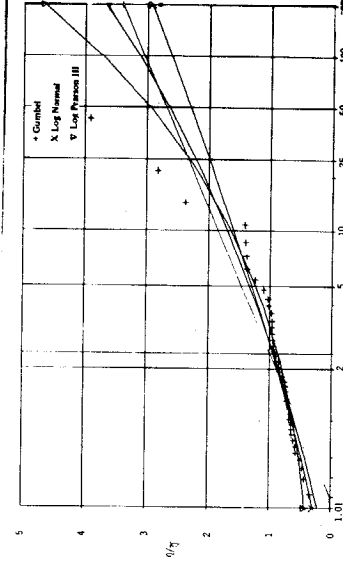
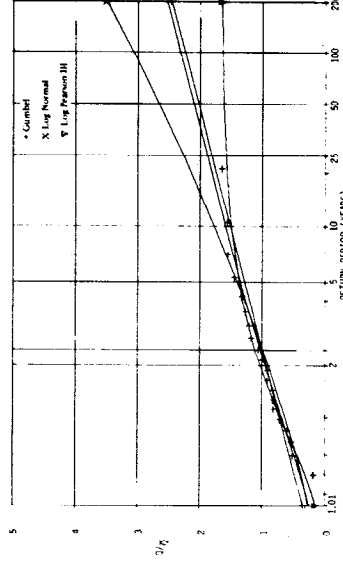
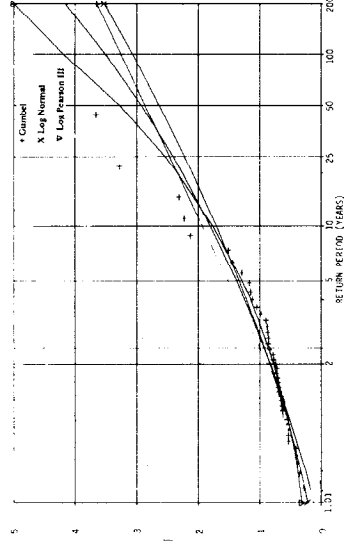
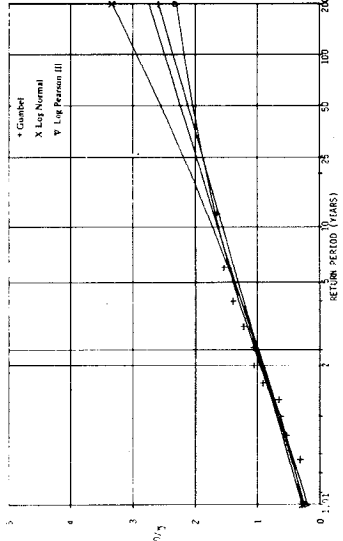
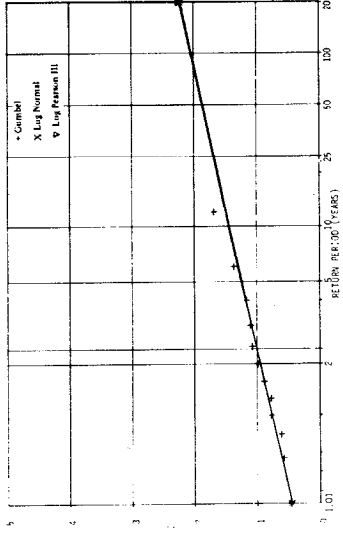
RETURN PERIOD	AVERAGE	DAY/OVERNIGHT	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	248.16	.6814	255.00	265.46	239.82	245.30	245.30
2.33	284.62	.9102	295.00	303.16	289.47	279.83	279.83
5.00	457.25	1.4760	422.00	485.61	441.37	444.52	444.52
10.00	611.62	1.9080	685.00	688.41	686.58	584.58	584.58
25.00	824.30	2.6515	972.04	818.83	854.80	799.99	799.99
50.00	994.24	3.1988	1099.38	950.48	950.47	961.79	961.79
100.00	1175.20	3.7740	1915.08	1091.83	1288.25	1129.57	1129.57
200.00	1361.51	4.3796	2079.12	1227.76	1554.31	1382.51	1382.51

Appendix A-24. Maryland 19-23. Flood frequency curves and data.

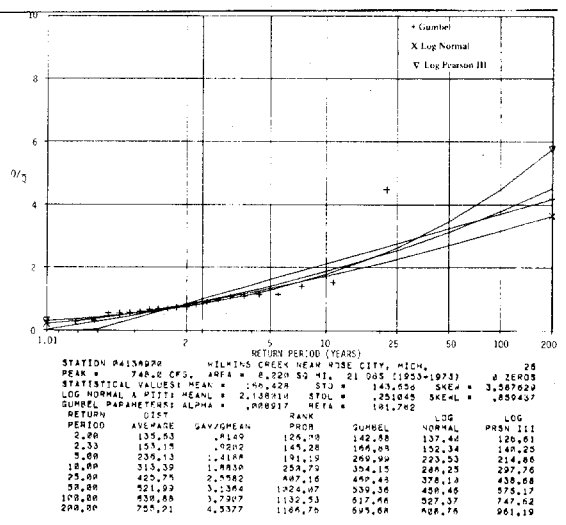
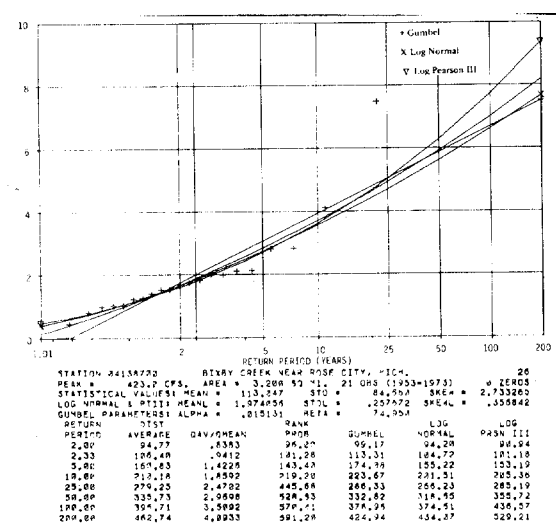
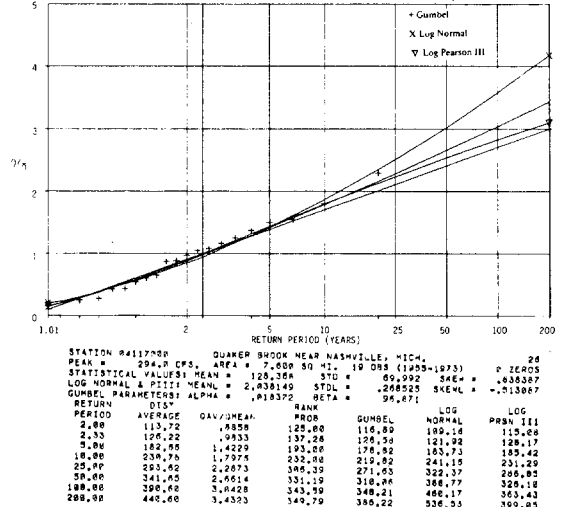
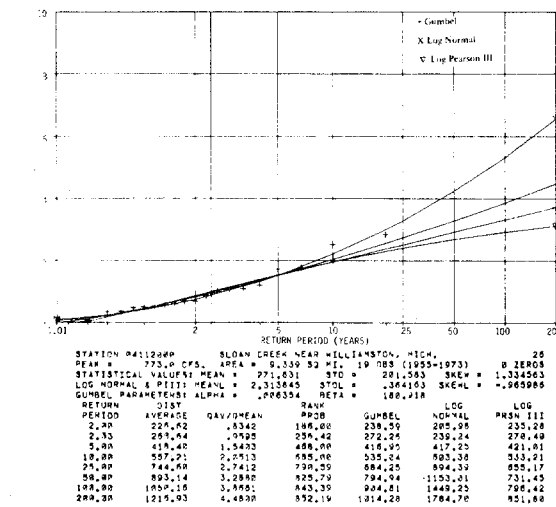
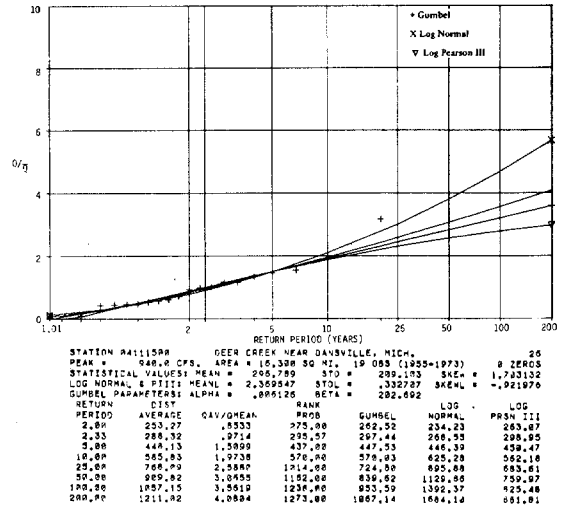
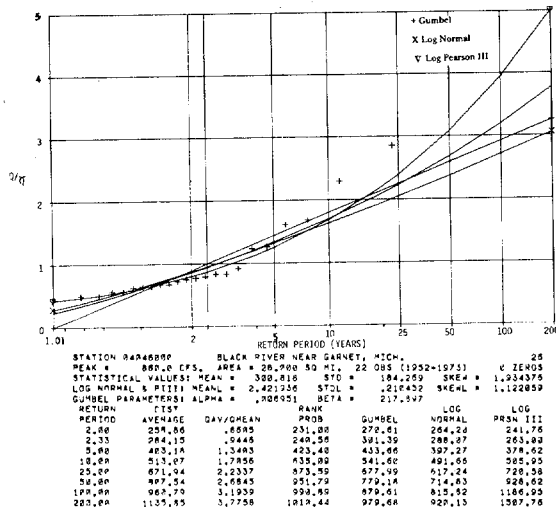


Appendix A-25. Massachusetts 1-6. Flood frequency curves and data.

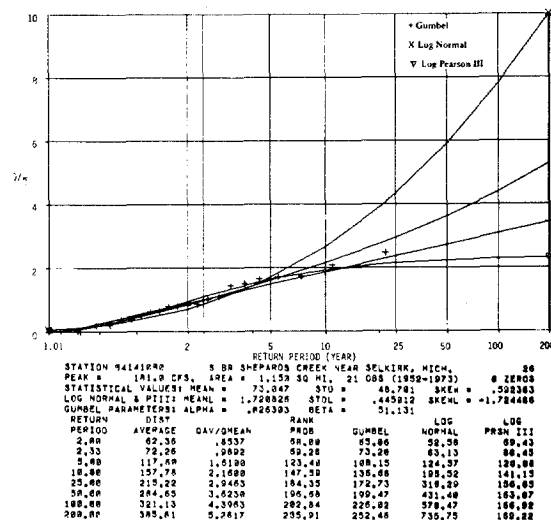
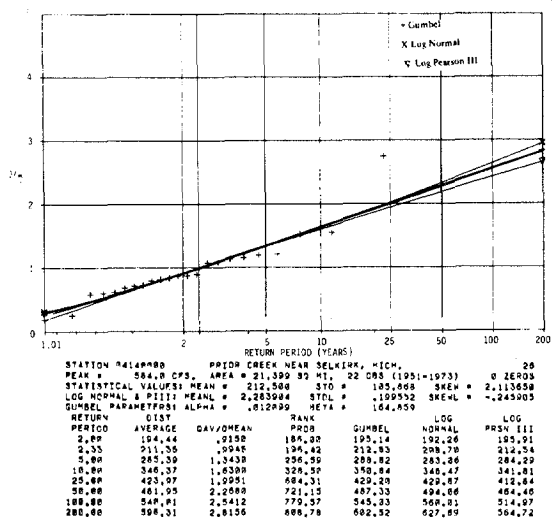




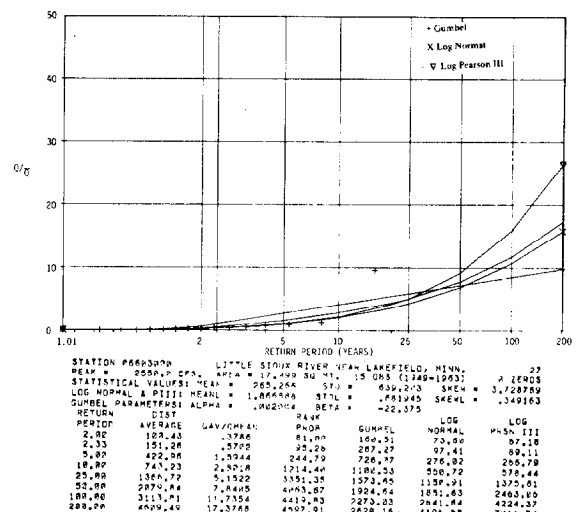
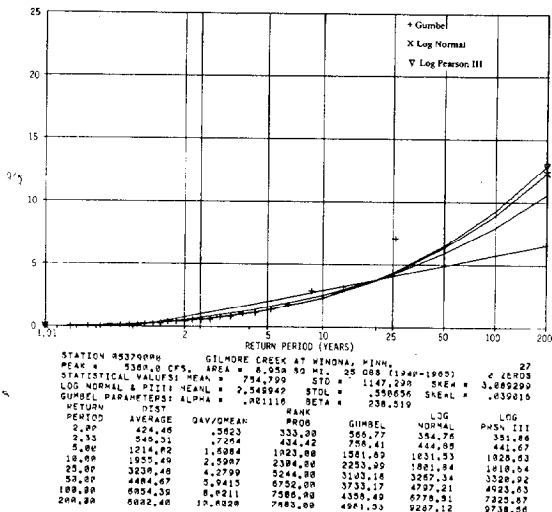
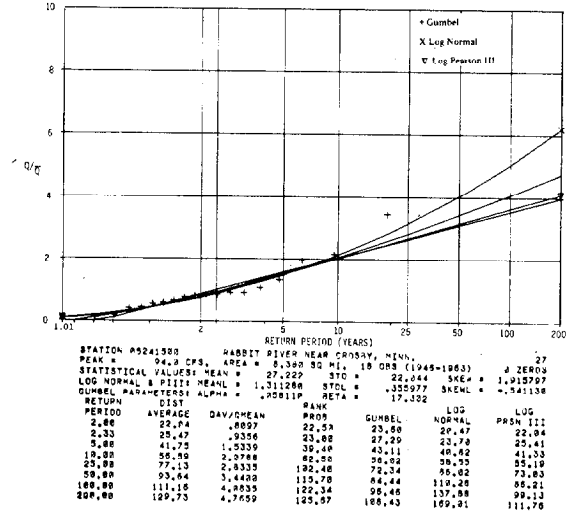
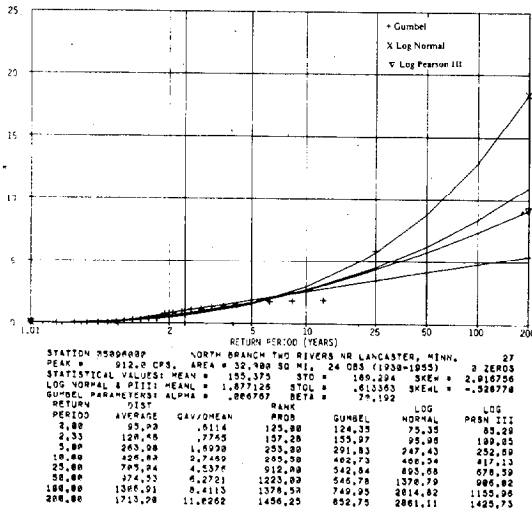
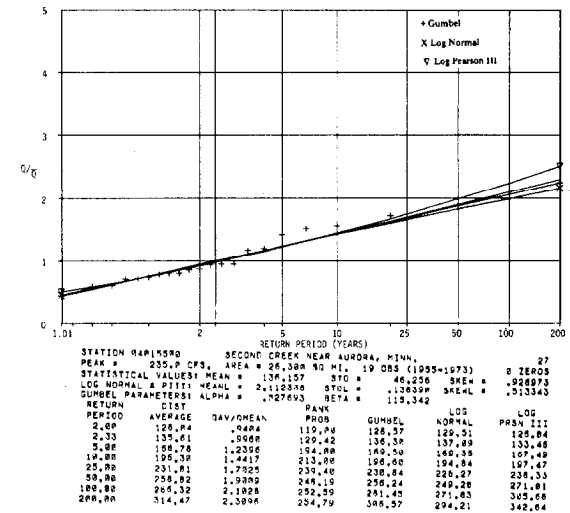
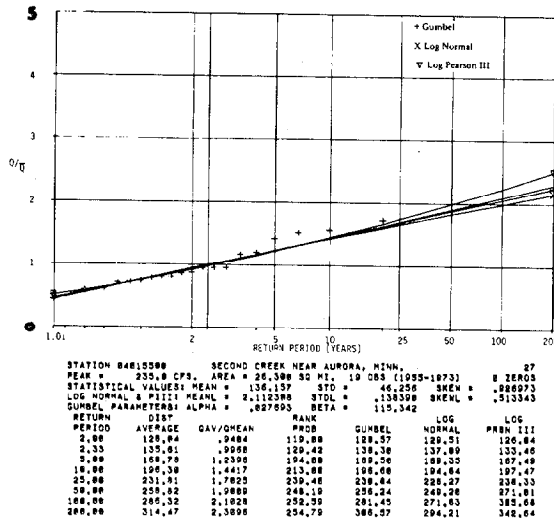
Appendix A-25. Massachusetts 13-18. Flood frequency curves and data.



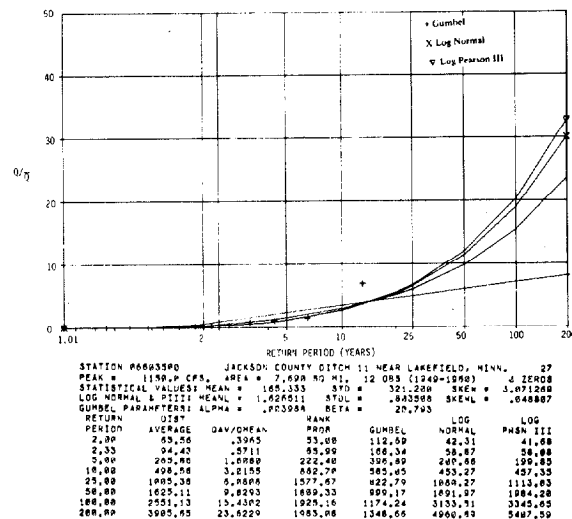
Appendix A-26. Michigan 1-6. Flood frequency curves and data.



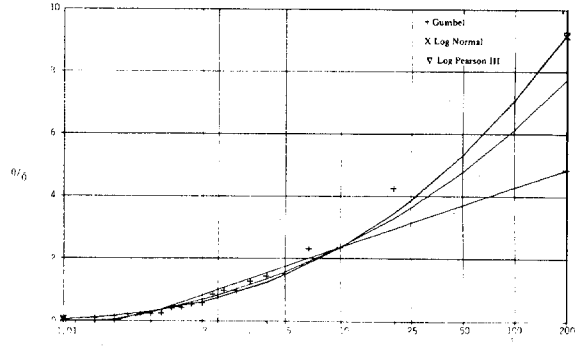
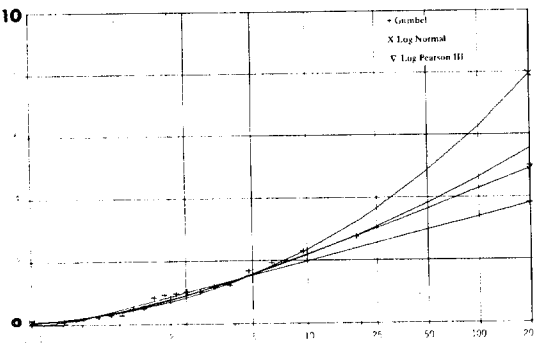
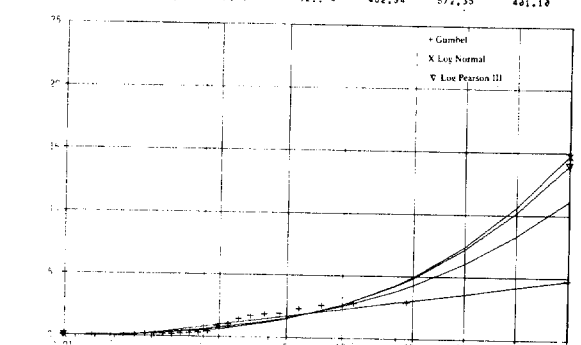
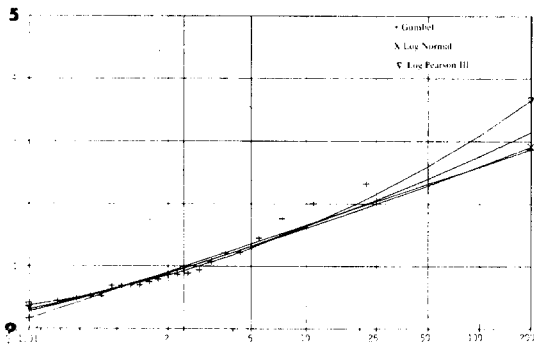
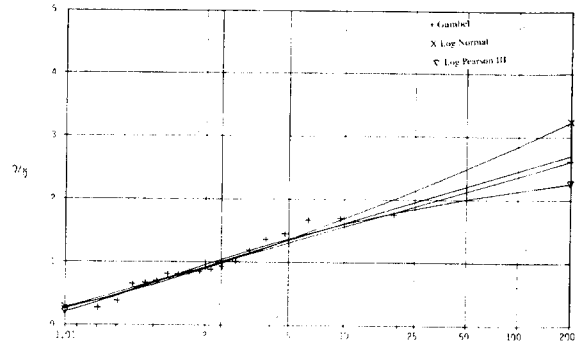
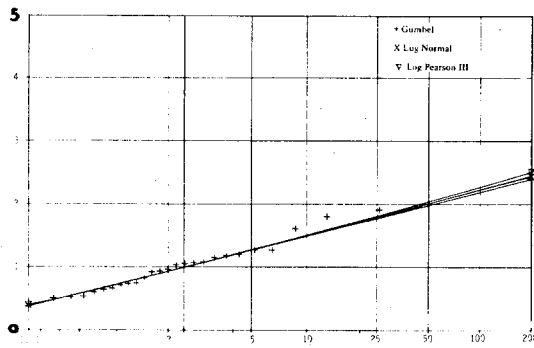
Appendix A-26. Michigan 7-8. Flood frequency curves and data.



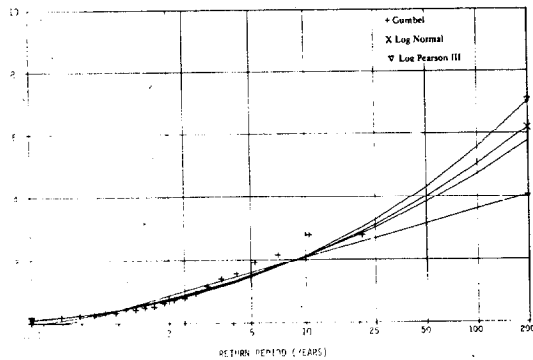
Appendix A-27. Minnesota 1-6. Flood frequency curves and data.



Appendix A-27. Minnesota 7. Flood frequency curves and data.

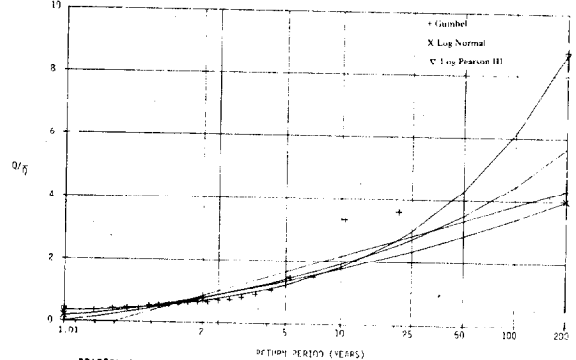


Appendix A-28. Mississippi 1-6. Flood frequency curves and data.



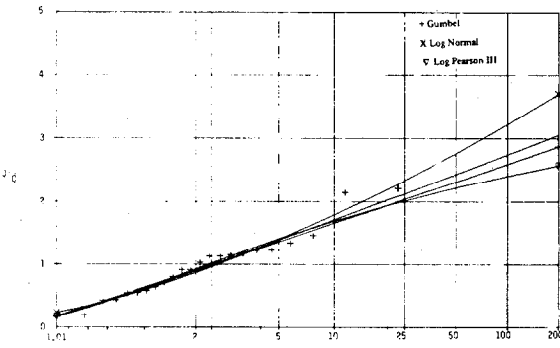
STATION 2247014C KEE CREEK AT LUNEBENTON, MISS. 26
 PEAK = 1507.0 CFS. AREA = 15,594 SQ MI. 26 DBS (1952-1973) 0 ZK005
 STATISTICAL VALUES: MEAN = 1258.140 STD = 1945.815 SKEW = 1.140578
 LOG NORMAL & PIII: MEAN = 2,350492 STD = 3,62262 SKEW = 1.01863
 GUMBEL PARAMETERS: ALPHA = .701227 BETA = 784.584

RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	GUMBEL	LOG NORMAL	LOG PIII
2.00	952.95	.7652	483.88	1887.25	916.88	806.66
2.33	1117.81	.8883	399.59	1261.63	1037.12	1034.67
5.00	1891.28	1.1909	331.00	2012.92	1838.28	1824.46
10.00	2454.79	1.1768	3422.85	2622.48	2653.41	2688.44
25.00	3606.49	1.0284	3530.28	3395.14	3924.84	4182.28
50.00	4815.78	1.0278	3588.98	3969.35	3652.89	3425.84
100.00	5959.95	1.0363	3589.00	4537.34	4343.83	3998.91
200.00	7256.62	0.7567	3588.97	5194.24	7485.44	8652.28



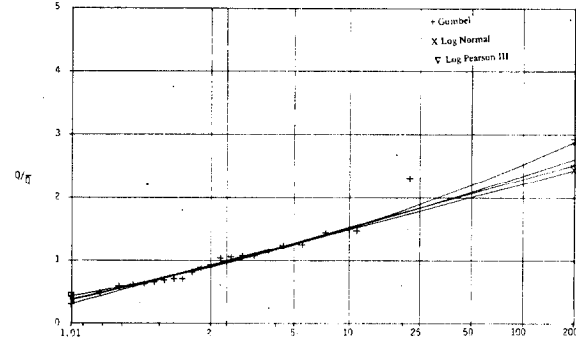
STATION 2248145H HINDOOR CREEK NEAR DOPLARVILLE, MISS. 28
 PEAK = 7090.0 CFS. AREA = 21,558 SQ MI. 28 DBS (1952-1971) 7 ZK005
 STATISTICAL VALUES: MEAN = 1936.097 STD = 1755.743 SKEW = 0.302729
 LOG NORMAL & PIII: MEAN = 3,183812 STD = 273425 SKEW = 1.376468
 GUMBEL PARAMETERS: ALPHA = .809732 BETA = 1147.132

RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	GUMBEL	LOG NORMAL	LOG PIII
2.00	1581.85	.7753	1255.48	1548.70	1526.94	1527.57
2.33	1708.96	.8827	1350.28	1441.52	1708.56	1474.82
5.00	2926.40	1.0952	2686.33	1999.79	2594.46	2385.82
10.00	3751.23	1.0272	3146.80	4228.74	3422.84	3544.31
25.00	5315.24	2.7444	7280.88	5524.33	4506.86	5815.57
50.00	6759.09	3.3123	7280.88	8486.90	5266.39	8346.22
100.00	8645.43	4.4455	7195.01	7442.35	8064.38	11884.33
200.00	10981.57	5.4723	7447.53	4394.30	7728.32	14822.81



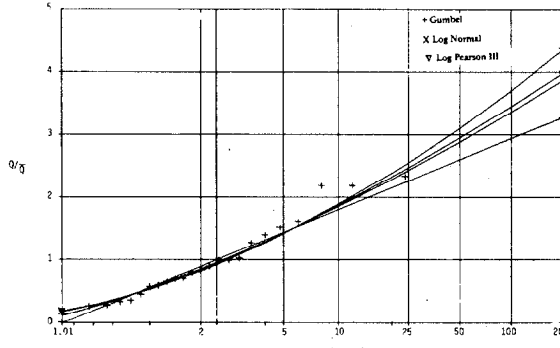
STATION 2248585C PURPLE CREEK NEAR JACKSON, MISS. 28
 PEAK = 2980.0 CFS. AREA = 3,458 SQ MI. 28 DBS (1952-1973) 8 ZK005
 STATISTICAL VALUES: MEAN = 1397.545 STD = 864.487 SKEW = .699636
 LOG NORMAL & PIII: MEAN = 3,058179 STD = 245386 SKEW = -.696119
 GUMBEL PARAMETERS: ALPHA = .801927 BETA = 1008.325

RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	GUMBEL	LOG NORMAL	LOG PIII
2.00	1187.10	.8870	1275.88	1108.84	1253.60	1342.41
2.33	1384.21	.9882	1481.42	1390.63	1532.48	1848.18
5.00	1922.41	1.3957	1672.88	1768.58	2044.73	2219.97
10.00	2246.85	1.7183	1736.68	2175.84	2344.73	2517.22
25.00	2784.34	2.1284	2897.19	2887.08	3032.55	2633.14
50.00	3184.78	2.4356	2938.39	3032.55	3614.49	2987.38
100.00	3585.66	2.7422	2958.29	3284.73	4211.28	3154.08
200.00	3986.71	3.0505	2959.44	3755.58	4835.97	3378.57



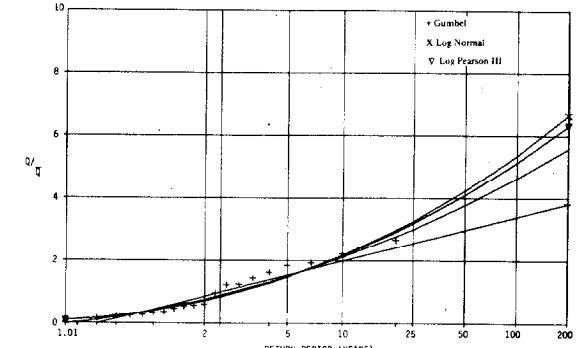
STATION 2248579D HANGING MOSS CREEK NEAR JACKSON, MISS. 28
 PEAK = 7326.0 CFS. AREA = 16,800 SQ MI. 21 DBS (1953-1973) 4 ZK005
 STATISTICAL VALUES: MEAN = 2395.057 STD = 254.749 SKEW = 1.819481
 LOG NORMAL & PIII: MEAN = 3,331468 STD = 1162.53 SKEW = .478974
 GUMBEL PARAMETERS: ALPHA = .801341 BETA = 187.323

RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	GUMBEL	LOG NORMAL	LOG PIII
2.00	1213.95	.9239	2140.88	2144.48	2145.88	2082.17
2.33	1674.71	.9885	2422.85	2385.95	2293.32	2226.85
5.00	2644.21	1.2708	2898.38	2885.22	2939.14	2984.08
10.00	3518.19	1.5255	3398.89	3548.52	3464.84	3517.22
25.00	4852.92	1.8482	5549.20	4255.16	4129.89	4375.39
50.00	6025.01	2.0073	6389.30	4775.43	4625.35	5072.84
100.00	7418.46	2.3747	6889.72	5299.83	5122.35	5827.58
200.00	8827.97	2.6197	7195.55	5916.27	5822.82	6645.62



STATION 2248688B RHODES CREEK NEAR TERRY, MISS. 28
 PEAK = 4780.0 CFS. AREA = 20,490 SQ MI. 25 DBS (1948-1973) 0 ZK005
 STATISTICAL VALUES: MEAN = 2843.888 STD = 1285.282 SKEW = .933846
 LOG NORMAL & PIII: MEAN = 3,228128 STD = 278468 SKEW = -.147822
 GUMBEL PARAMETERS: ALPHA = .881812 BETA = 1475.622

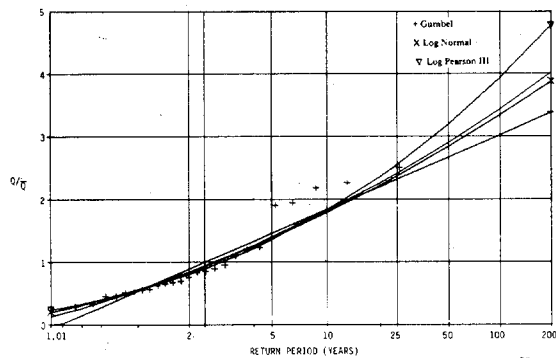
RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	GUMBEL	LOG NORMAL	LOG PIII
2.00	1751.43	.8504	1788.88	1837.53	1594.43	1721.84
2.33	1988.49	.9388	1982.82	2848.58	1981.14	1931.88
5.00	2851.77	1.4330	3156.88	2957.13	2913.35	2924.81
10.00	3788.43	1.8564	4476.88	3690.37	3808.88	3824.27
25.00	4973.78	2.4322	4792.39	4634.99	5238.27	5855.76
50.00	5988.88	2.8864	4841.19	5329.07	6355.82	8831.25
100.00	6884.88	3.3885	5015.39	6819.31	7575.17	7859.33
200.00	7988.78	3.8673	5882.79	6780.43	8897.88	8134.19



STATION 226020R FICE CREEK AT ETNA, MISS. 26
 PEAK = 6248.0 CFS. AREA = 9,080 SQ MI. 19 DBS (1982-1978) 8 ZK005
 STATISTICAL VALUES: MEAN = 2332.610 STD = 373853 SKEW = .788828
 LOG NORMAL & PIII: MEAN = 3,228236 STD = 373853 SKEW = -.147822
 GUMBEL PARAMETERS: ALPHA = .889714 BETA = 1525.581

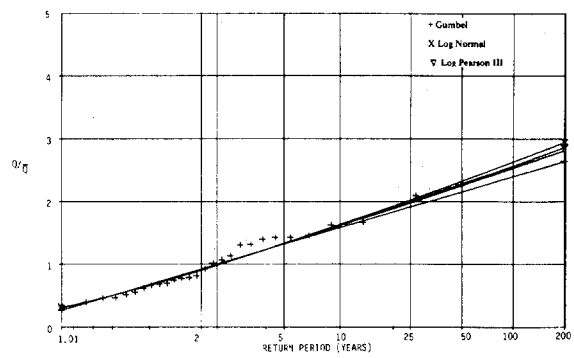
RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	GUMBEL	LOG NORMAL	LOG PIII
2.00	1812.88	.7779	1420.88	2836.88	1891.35	1787.87
2.33	2108.74	.8885	2887.46	2334.33	1979.27	1891.44
5.00	3538.49	1.5189	4388.88	3825.87	3408.97	3409.44
10.00	4846.84	2.1283	5228.88	4875.27	3688.88	3884.78
25.00	7848.34	3.8181	6444.88	8882.10	7656.88	7656.88
50.00	8834.84	3.7874	6852.88	8886.38	8911.37	9888.88
100.00	10835.97	4.4452	7656.88	7995.88	1283.88	1283.88
200.00	13858.81	5.5978	7154.88	8937.24	1588.75	1718.88

Appendix A-28. Mississippi 7-12. Flood frequency curves and data.



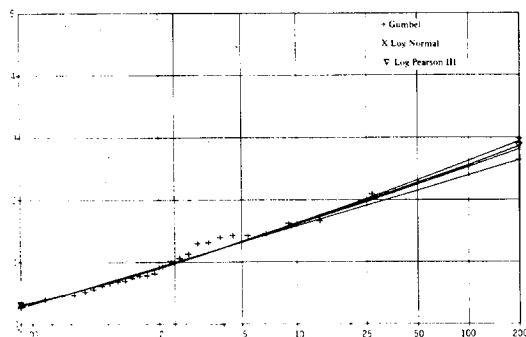
STATION #7268888 NORTH TIPPACH CREEK NEAR HIXLEY, MISS. 28
 PEAK = 7180.0 CFS. AREA = 29.400 SQ MI. 25 DBS (1930-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 2851.190 STD = 1924.461 SKEW = 1.264374
 LOG NORMAL & P III: MEAN = 3.375118 STD = .258448 SKEW = .374958
 GUMBEL PARAMETERS: ALPHA = .009780 BETA = 2008.121

RETURN PERIOD	AVERAGE	DAY/OCEAN	RANK	GUMBEL	LOG NORMAL	LOG P III
2.00	2598.35	.9464	2150.00	2552.44	2572.81	2285.64
2.33	2672.85	.9448	2490.00	2835.06	2837.83	2543.75
5.00	3074.72	1.4939	5520.00	4149.79	3914.45	3659.94
10.00	3184.75	1.8242	6260.00	5221.26	5085.88	5187.19
25.00	3642.06	2.4109	7072.00	6570.10	6724.67	7229.11
50.00	4224.79	2.9850	7430.00	7976.45	8052.91	8442.81
100.00	4725.49	3.4351	7518.00	8576.17	8471.72	11126.37
200.00	11350.48	4.7122	7709.00	10560.65	10979.93	13528.86



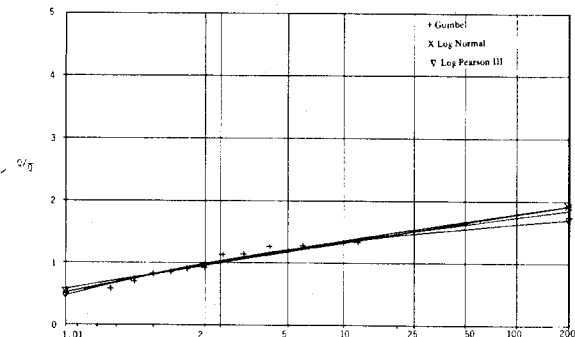
STATION #7271688 CLEAR CREEK NEAR OXFORD, MISS. 28
 PEAK = 9588.0 CFS. AREA = 18.388 SQ MI. 28 DBS (1930-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 3108.878 STD = 1387.376 SKEW = .813178
 LOG NORMAL & P III: MEAN = 3.448955 STD = .198888 SKEW = -.089460
 GUMBEL PARAMETERS: ALPHA = .069922 BETA = 2443.466

RETURN PERIOD	AVERAGE	DAY/OCEAN	RANK	GUMBEL	LOG NORMAL	LOG P III
2.00	2843.46	.9148	2715.00	2888.08	2817.43	2832.36
2.33	3061.27	.9013	3217.11	3112.44	3087.41	3073.97
5.00	4133.16	1.3098	4268.00	4188.08	4148.08	4148.08
10.00	5815.59	1.8127	5076.00	4921.78	5087.19	5048.83
25.00	6147.77	1.9779	6390.00	5949.15	6082.34	6211.84
50.00	7087.85	2.2545	7116.00	6711.27	7217.12	7003.35
100.00	7875.62	2.5243	7476.00	7487.79	8177.11	7986.17
200.00	8759.62	2.8193	7659.00	8221.53	8161.88	8852.48



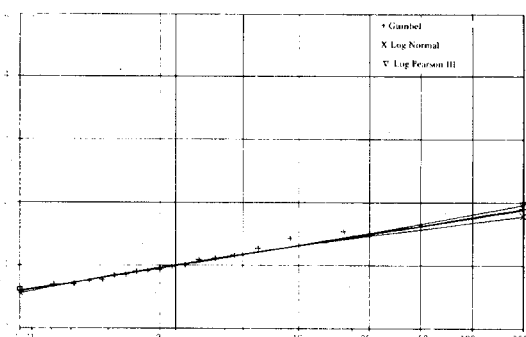
STATION #7271688 CLEAR CREEK NEAR OXFORD, MISS. 28
 PEAK = 9588.0 CFS. AREA = 18.388 SQ MI. 28 DBS (1930-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 3108.878 STD = 1387.376 SKEW = .813178
 LOG NORMAL & P III: MEAN = 3.448955 STD = .198888 SKEW = -.089460
 GUMBEL PARAMETERS: ALPHA = .069922 BETA = 2443.466

RETURN PERIOD	AVERAGE	DAY/OCEAN	RANK	GUMBEL	LOG NORMAL	LOG P III
2.00	2843.46	.9148	2715.00	2888.08	2817.43	2832.36
2.33	3061.27	.9013	3217.11	3112.44	3087.41	3073.97
5.00	4133.16	1.3098	4268.00	4188.08	4148.08	4148.08
10.00	5815.59	1.8127	5076.00	4921.78	5087.19	5048.83
25.00	6147.77	1.9779	6390.00	5949.15	6082.34	6211.84
50.00	7087.85	2.2545	7116.00	6711.27	7217.12	7003.35
100.00	7877.92	2.5243	7476.00	7487.79	8177.11	7986.17
200.00	8759.62	2.8193	7659.00	8221.53	8161.88	8852.48



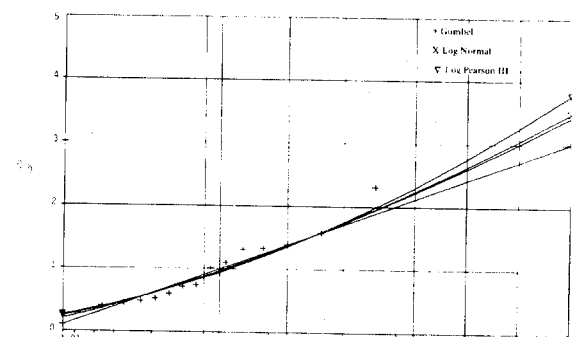
STATION #7268888 ASCALAPONE CREEK NEAR CHARLESTON, MISS. 28
 PEAK = 12888.0 CFS. AREA = 31.898 SQ MI. 11 DBS (1941-1958) 0 ZEROS
 STATISTICAL VALUES: MEAN = 5076.880 STD = 2283.880 SKEW = -.082108
 LOG NORMAL & P III: MEAN = 3.844171 STD = .115578 SKEW = -.483817
 GUMBEL PARAMETERS: ALPHA = .008551 BETA = 8942.680

RETURN PERIOD	AVERAGE	DAY/OCEAN	RANK	GUMBEL	LOG NORMAL	LOG P III
2.00	8824.48	.9720	8428.00	8693.83	8793.88	8983.72
2.33	9238.55	1.0813	10831.28	9877.18	9881.48	9416.08
5.00	10828.86	1.2848	11928.00	12715.88	11881.77	11844.31
10.00	12104.68	1.3444	12188.00	12853.37	12384.28	12188.24
25.00	13788.14	1.5113	12488.00	13745.25	14813.87	13587.31
50.00	14777.66	1.6222	12598.00	14895.81	15198.32	14146.76
100.00	15885.08	1.7405	12648.00	16841.38	16333.78	14841.63
200.00	16881.14	1.8523	12678.00	17481.14	17448.58	15472.78



STATION #7268888 THOMPSON CREEK AT MCCASKEY, MISS. 28
 PEAK = 3988.0 CFS. AREA = 14.480 SQ MI. 17 DBS (1958-1958) 0 ZEROS
 STATISTICAL VALUES: MEAN = 2974.795 STD = 634.223 SKEW = .867578
 LOG NORMAL & P III: MEAN = 3.366977 STD = .192348 SKEW = -.423484
 GUMBEL PARAMETERS: ALPHA = .022819 BETA = 2289.385

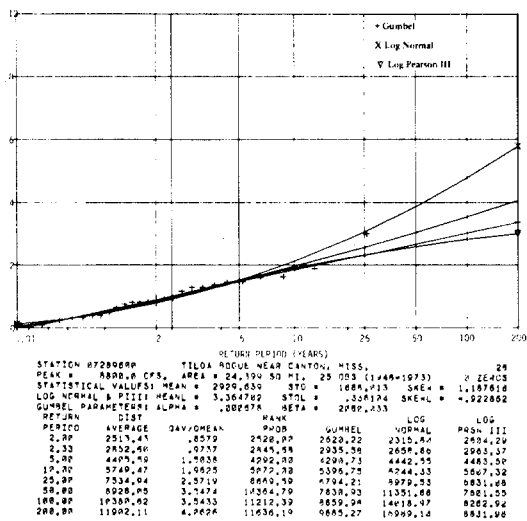
RETURN PERIOD	AVERAGE	DAY/OCEAN	RANK	GUMBEL	LOG NORMAL	LOG P III
2.00	2480.87	.9633	2420.00	2476.76	2586.34	2485.38
2.33	2597.64	1.0859	2551.42	2574.78	2814.23	2571.98
5.00	3741.88	1.1814	3112.00	3831.62	3856.56	3826.84
10.00	3484.54	1.3223	3736.00	3483.46	3598.43	3419.73
25.00	3856.86	1.4978	4058.00	3872.89	3787.82	3918.64
50.00	4190.33	1.6275	4159.19	4221.15	4687.23	4281.62
100.00	4521.56	1.7561	4289.59	4566.63	4337.28	4599.66
200.00	4852.58	1.8647	4234.75	4911.24	4586.57	5047.94



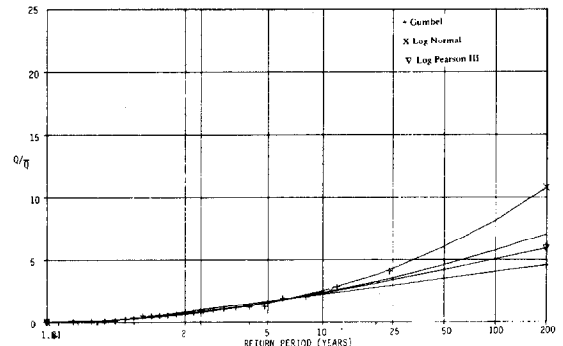
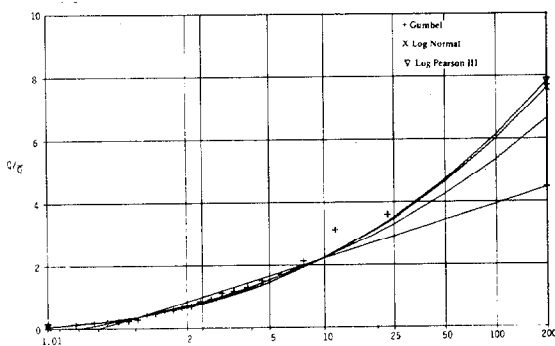
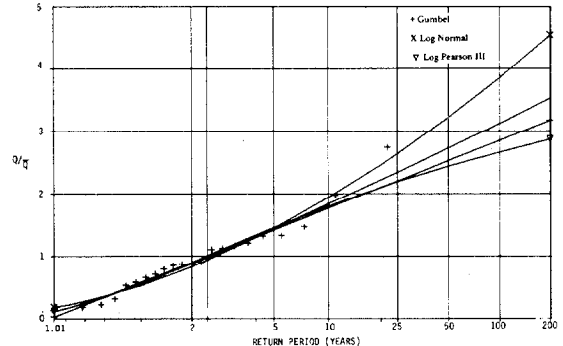
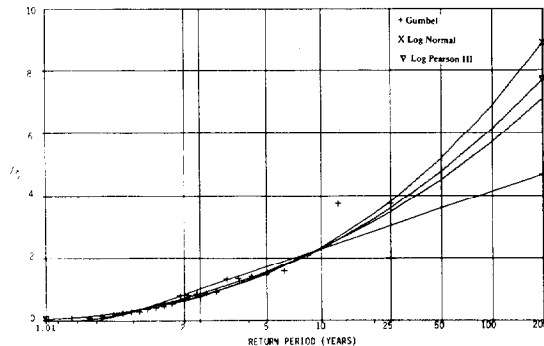
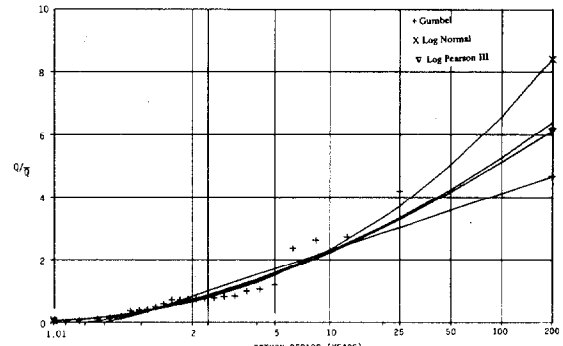
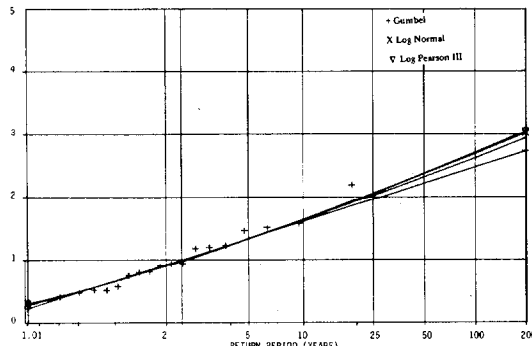
STATION #7268888 GUDGEN CREEK NEAR VICKSBURG, MISS. 28
 PEAK = 4578.0 CFS. AREA = 5.580 SQ MI. 14 DBS (1935-1958) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1972.928 STD = 1879.188 SKEW = 1.043188
 LOG NORMAL & P III: MEAN = 3.238418 STD = .233520 SKEW = 1.159118
 GUMBEL PARAMETERS: ALPHA = .081187 BETA = 1489.297

RETURN PERIOD	AVERAGE	DAY/OCEAN	RANK	GUMBEL	LOG NORMAL	LOG P III
2.00	1738.92	.6822	1738.00	1784.86	1723.32	1689.18
2.33	1914.33	.6712	2182.84	1974.32	1897.14	1871.53
5.00	2716.78	1.3754	2740.00	2748.92	2719.26	2697.22
10.00	3425.62	1.7388	3445.00	3381.12	3433.44	3482.29
25.00	4382.05	2.2233	5150.00	4179.98	4419.28	4546.99
50.00	5138.19	2.6369	5585.00	4772.46	5288.98	5441.89
100.00	5938.88	3.0391	5862.50	5388.69	6022.48	6469.81
200.00	6763.32	3.4315	5911.25	5946.74	6882.84	7468.59

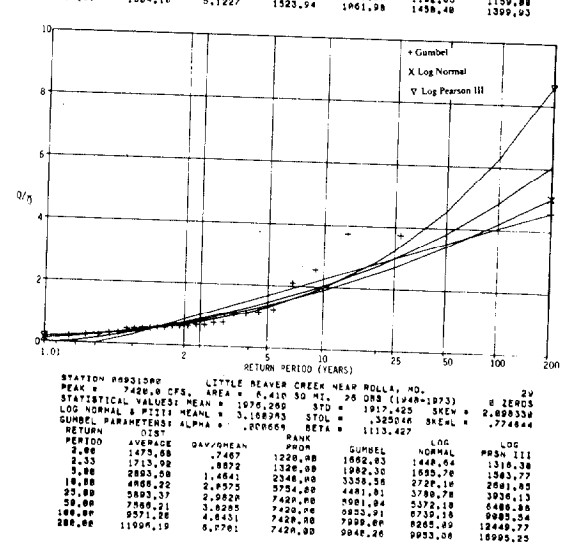
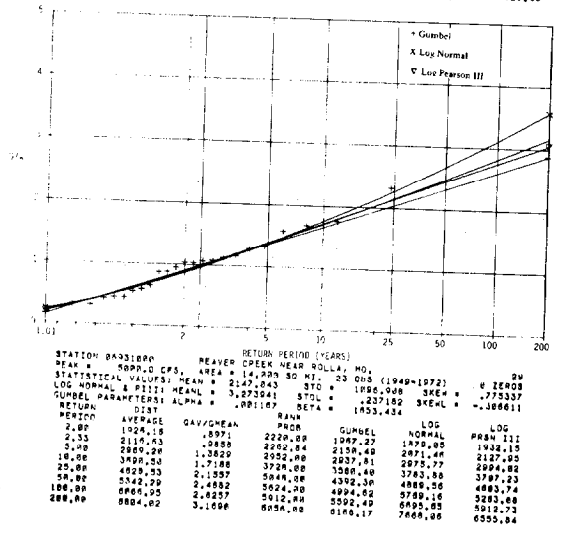
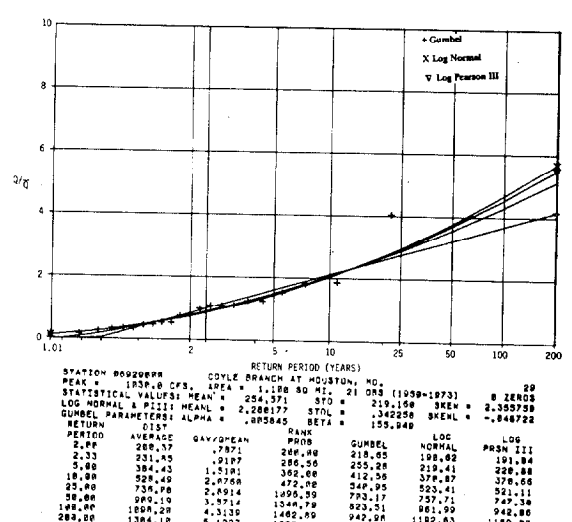
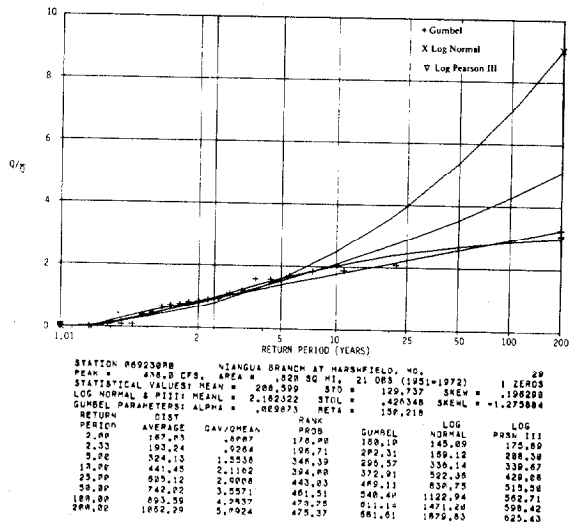
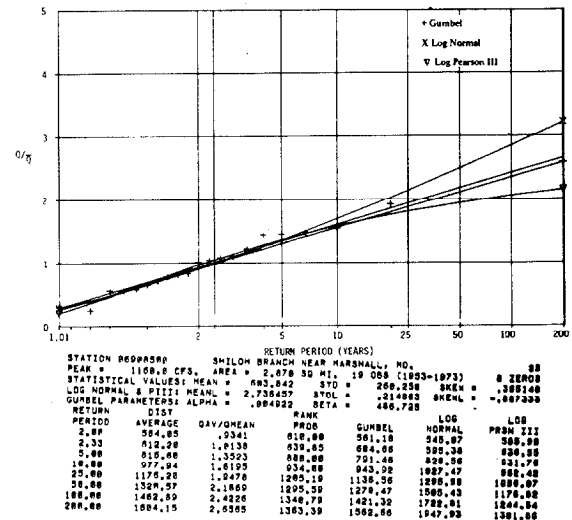
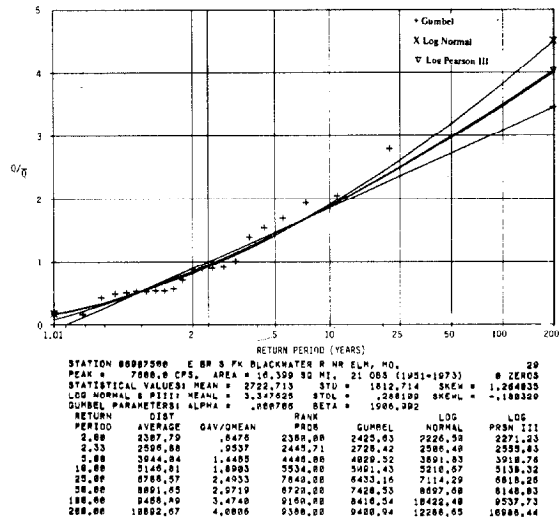
Appendix A-28. Mississippi 13-18. Flood frequency curves and data.



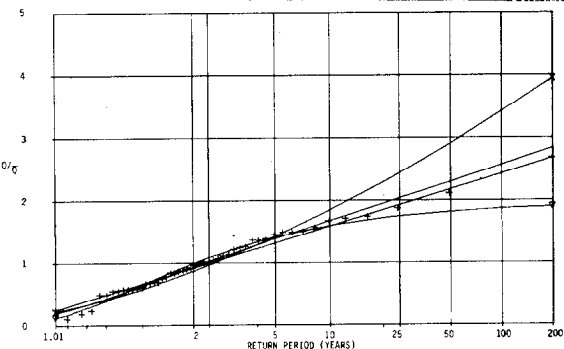
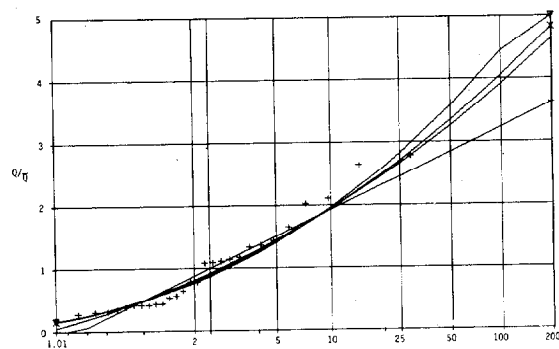
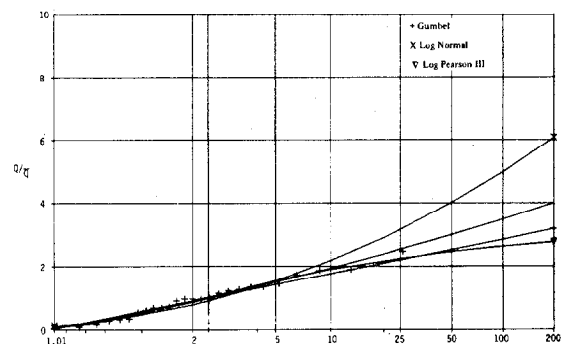
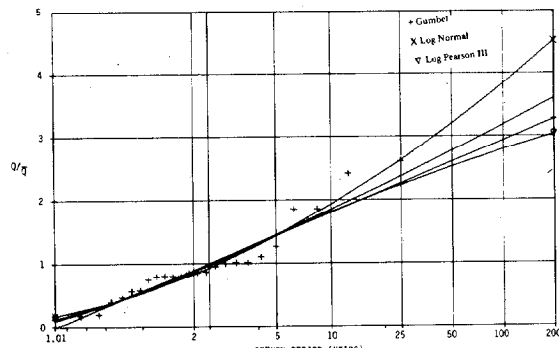
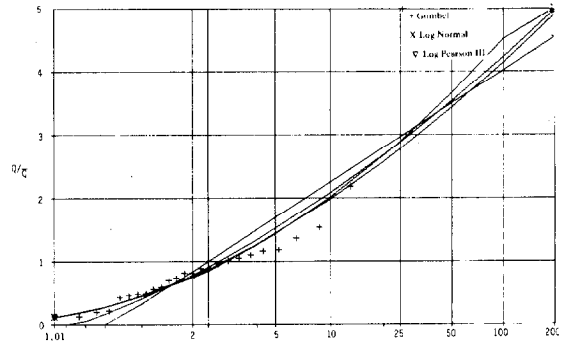
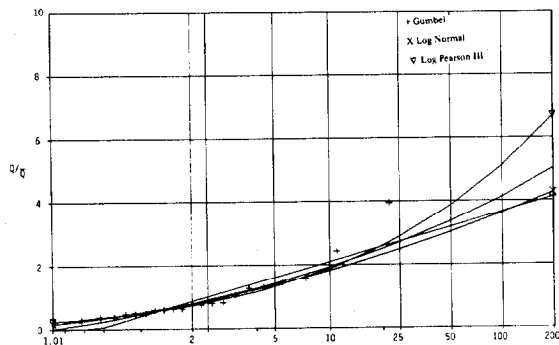
Appendix A-28. Mississippi 19. Flood frequency curves and data.



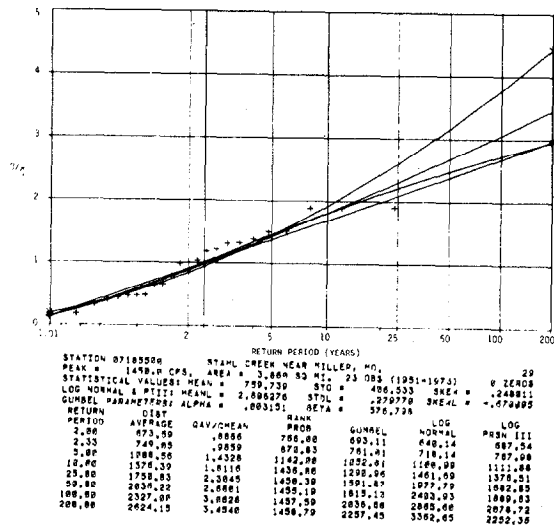
Appendix A-29. Missouri 1-6. Flood frequency curves and data.



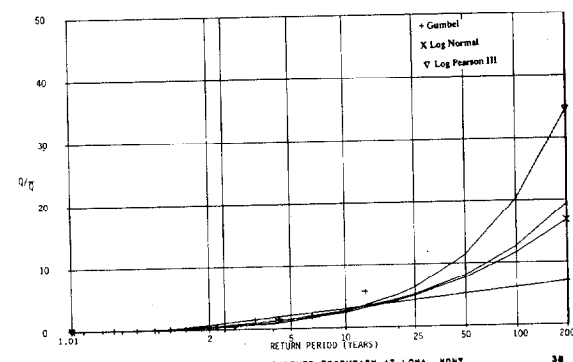
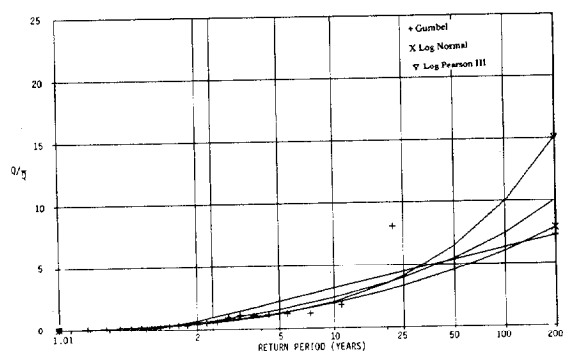
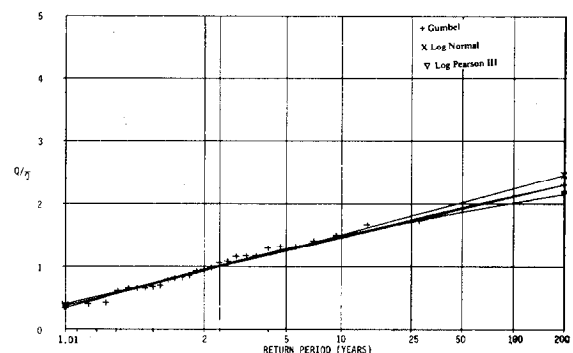
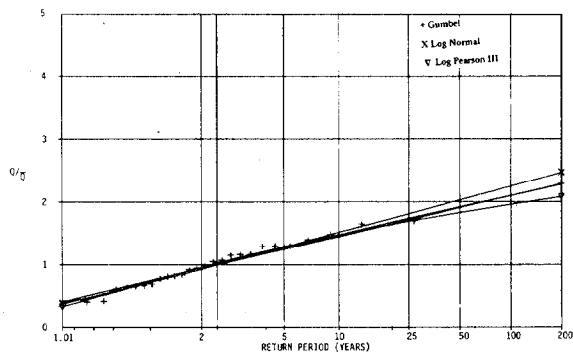
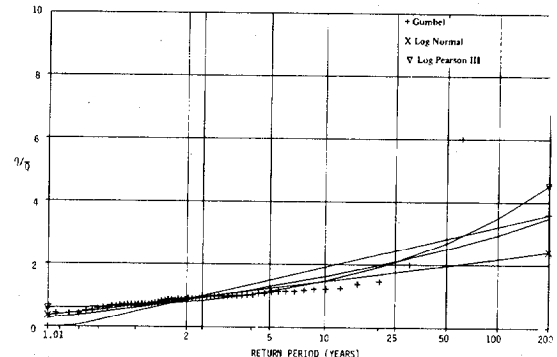
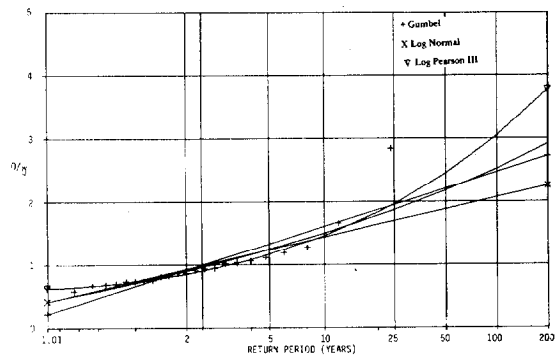
Appendix A-29. Missouri 7-12. Flood frequency curves and data.



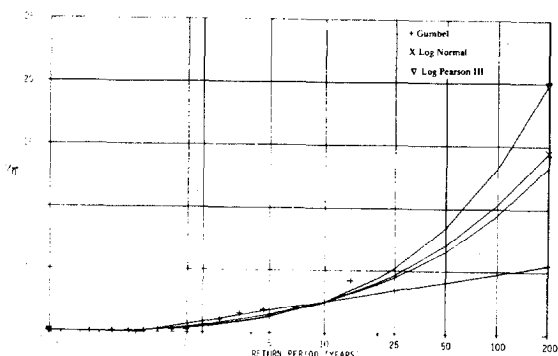
Appendix A-29. Missouri 13-18. Flood frequency curves and data.



Appendix A-29. Missouri 19. Flood frequency curves and data.

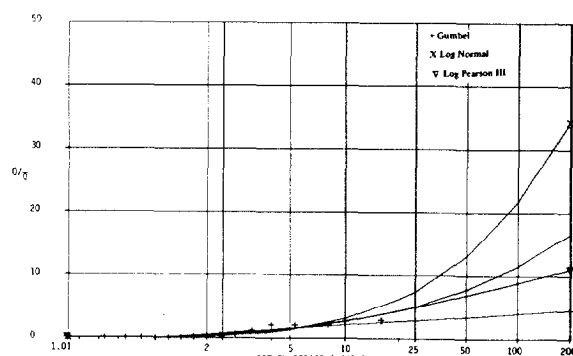


Appendix A-30. Montana 1-6. Flood frequency curves and data.



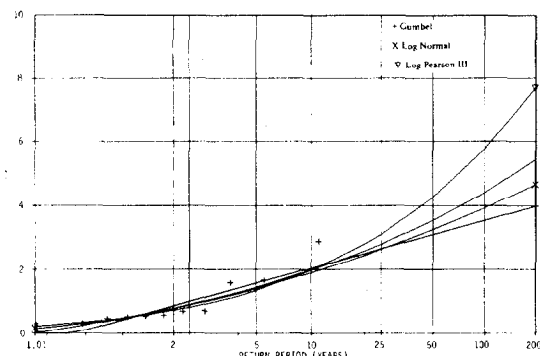
STATION #6182388 HARTAS & TRIBUTARY NO. 2 AT LOMA, MONT. 38
 PEAK = 42.8 CFS, AREA = 1.258 SQ MI, 13 DBS (1958-1973) 3 ZEROS
 STATISTICAL VALUES: MEAN = 6.916 STD = 13.332 SKEW = 1.881886
 LOG NORMAL & PIII: MEAN = .663141 STD = .285417 SKEW = .276893
 GUMBEL PARAMETERS: ALPHA = .183874 BETA = 4.367

PERIOD	DIST	AVERAGE	DAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	4.87	4.938	2.00	6.75	4.11	3.75	
2.33	6.08	6.334	4.89	8.08	5.33	4.84	
5.00	14.06	14.792	18.48	17.83	13.23	12.81	
10.00	24.63	25.048	35.28	29.21	24.48	24.81	
25.00	44.24	44.618	51.88	34.37	40.43	51.88	
50.00	65.33	65.987	87.84	41.15	78.49	84.27	
100.00	95.42	94.418	66.92	47.87	182.33	131.83	
200.00	131.72	13.2636	62.48	54.57	143.48	107.12	



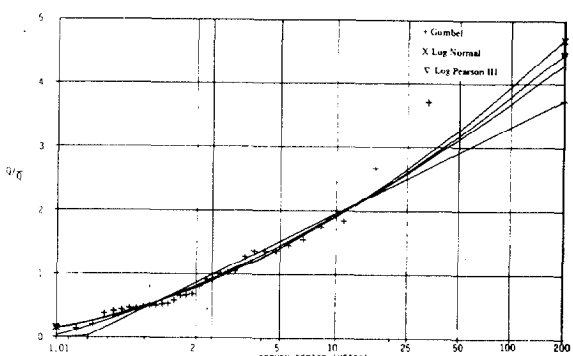
STATION #613888 SPRING COULEE NEAR MAYNE, MONT. 38
 PEAK = 345.8 CFS, AREA = 17.888 SQ MI, 15 DBS (1958-1973) 3 ZEROS
 STATISTICAL VALUES: MEAN = 128.633 STD = 124.488 SKEW = .592388
 LOG NORMAL & PIII: MEAN = 1.698883 STD = .771363 SKEW = -.712838
 GUMBEL PARAMETERS: ALPHA = .018296 BETA = 86.813

PERIOD	DIST	AVERAGE	DAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	44.10	.3551	46.88	66.88	88.88	88.88	
2.33	88.48	.3887	58.41	96.55	43.88	51.81	
5.00	178.88	1.4333	206.59	187.88	182.58	177.88	
10.00	327.10	2.8634	295.79	288.47	304.12	334.88	
25.00	605.88	8.8938	374.51	355.48	911.38	519.24	
50.00	988.88	7.8348	488.73	424.87	1912.45	448.32	
100.00	1421.40	11.5718	413.87	492.85	2973.81	1888.88	
200.00	2841.37	16.8286	428.43	559.72	4288.15	1359.84	



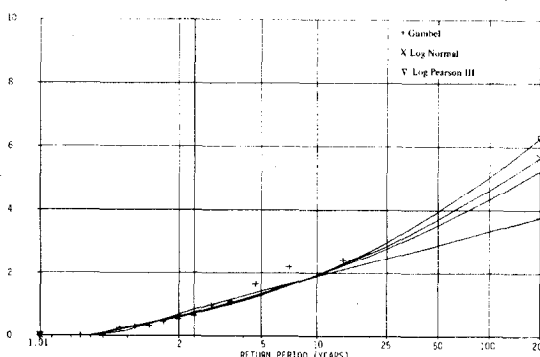
STATION #618888 BOULDER & ROCK CREEK NEAR BASIN, MONT. 38
 PEAK = 982.8 CFS, AREA = 19.359 SQ MI, 18 DBS (1947-1957) 3 ZEROS
 STATISTICAL VALUES: MEAN = 291.499 STD = 167.034 SKEW = 1.064908
 LOG NORMAL & PIII: MEAN = 2.207195 STD = .304145 SKEW = .781893
 GUMBEL PARAMETERS: ALPHA = .007887 BETA = 127.532

PERIOD	DIST	AVERAGE	DAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	155.20	.7925	127.80	174.28	158.25	143.84	
2.33	181.43	.8836	148.45	201.15	179.34	164.88	
5.00	291.48	1.4591	331.39	318.53	283.71	272.19	
10.00	399.25	1.8863	527.19	414.44	384.21	328.17	
25.00	584.41	2.8388	728.88	534.72	531.92	628.68	
50.00	712.98	3.5478	775.43	624.24	655.88	808.84	
100.00	884.09	4.4187	885.71	713.11	721.83	1159.32	
200.00	1094.19	5.4537	916.25	801.85	849.40	1546.45	



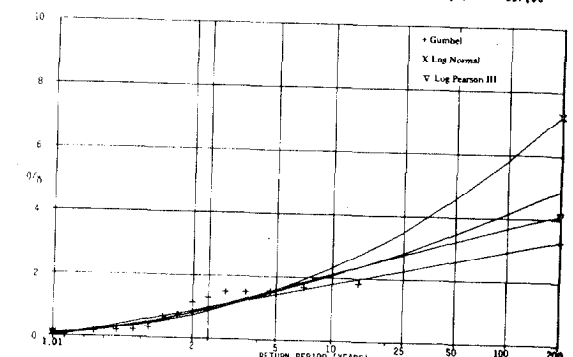
STATION #613588 A FORK MUSSEL-SHELL NEAR DELPHINE, MONT. 38
 PEAK = 423.8 CFS, AREA = 31.399 SQ MI, 32 DBS (1941-1972) 3 ZEROS
 STATISTICAL VALUES: MEAN = 115.759 STD = 64.388 SKEW = 1.005388
 LOG NORMAL & PIII: MEAN = 1.957330 STD = .208932 SKEW = -.777989
 GUMBEL PARAMETERS: ALPHA = .015181 BETA = 75.778

PERIOD	DIST	AVERAGE	DAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	84.49	.8271	86.88	98.92	98.78	91.58	
2.33	178.73	.9383	105.88	114.81	107.83	103.88	
5.00	299.29	1.4520	198.48	174.38	181.99	182.38	
10.00	395.48	2.5077	288.69	224.81	218.25	217.92	
25.00	554.04	3.4388	384.81	268.48	382.84	287.13	
50.00	713.04	4.1388	451.45	352.88	373.42	362.31	
100.00	824.42	4.8088	502.72	378.79	458.81	432.88	
200.00	888.48	4.2971	522.38	424.81	525.88	587.93	



STATION #615518 BLACK COULEE NEAR MALTA, MONT. 38
 PEAK = 288.8 CFS, AREA = 8.648 SQ MI, 13 DBS (1958-1972) 3 ZEROS
 STATISTICAL VALUES: MEAN = 98.272 STD = 78.382 SKEW = .403977
 LOG NORMAL & PIII: MEAN = 1.832551 STD = .347537 SKEW = .175982
 GUMBEL PARAMETERS: ALPHA = .018214 BETA = 56.826

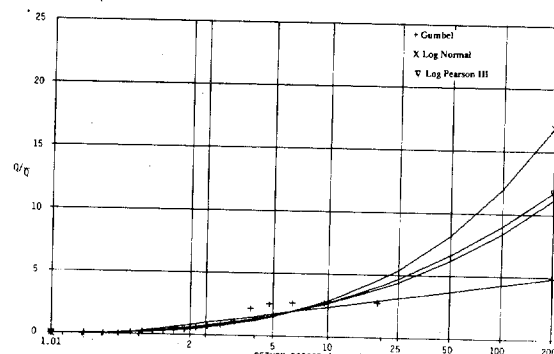
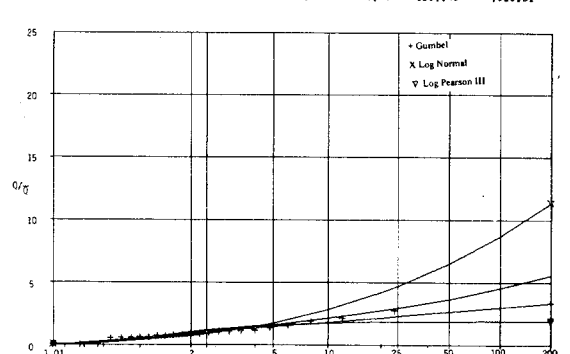
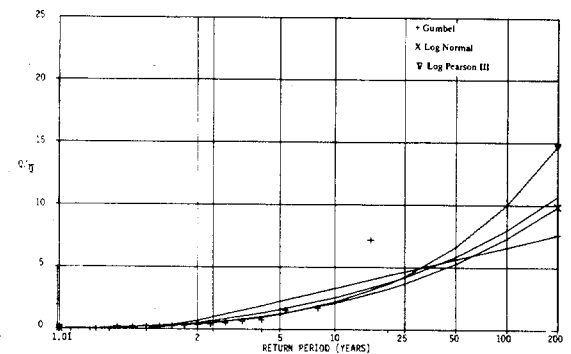
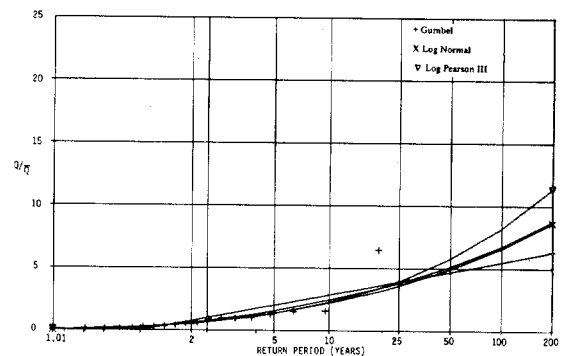
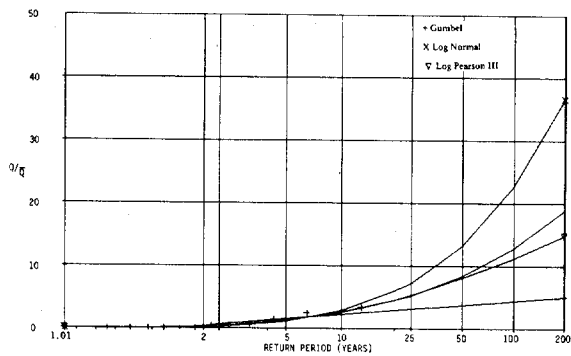
PERIOD	DIST	AVERAGE	DAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	38.48	.8588	64.78	58.88	53.33		
2.33	78.10	.7775	59.88	77.71	87.31	85.33	
5.00	183.35	1.8864	188.88	138.37	188.83	118.85	
10.00	174.81	1.9342	212.88	178.45	178.34	178.84	
25.00	281.38	2.7847	228.70	224.85	259.25	278.84	
50.00	317.91	3.5218	234.48	285.37	334.15	358.88	
100.00	381.44	4.3388	237.10	381.05	418.47	453.88	
200.00	473.14	5.2413	238.50	348.17	512.47	568.78	



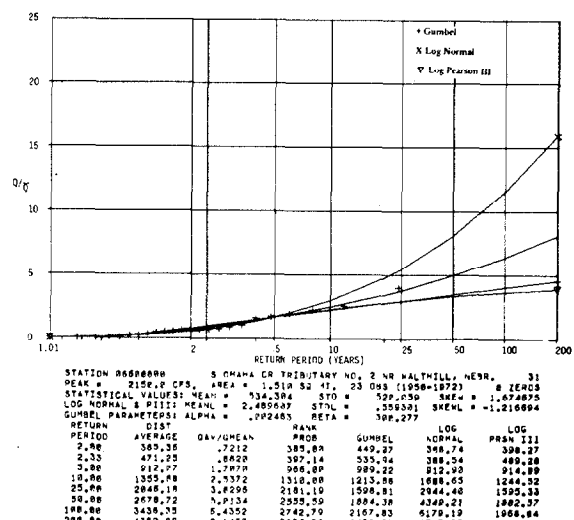
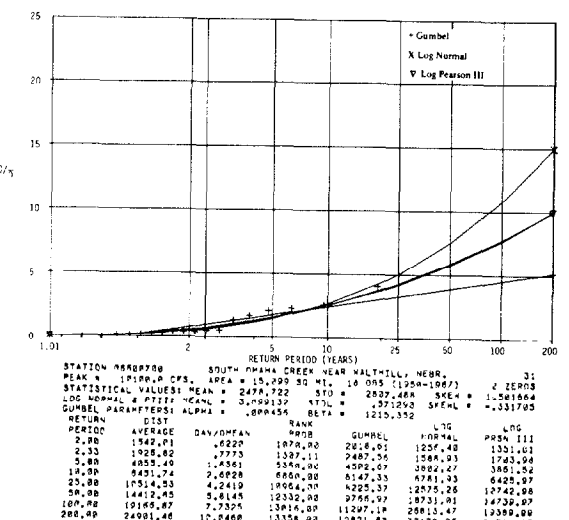
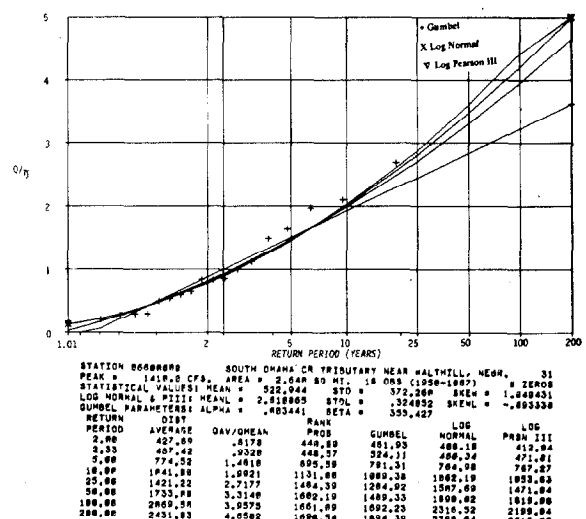
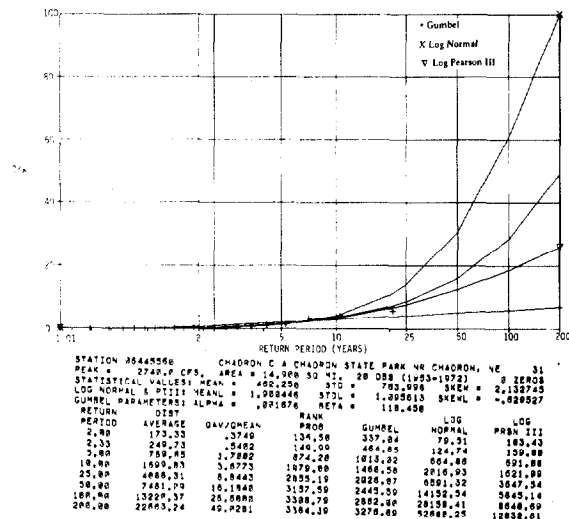
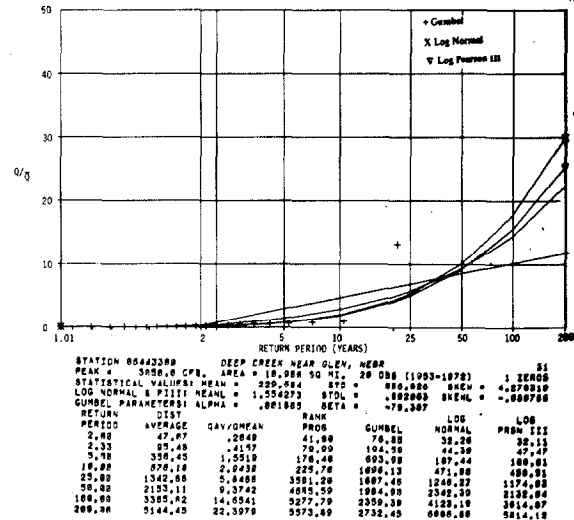
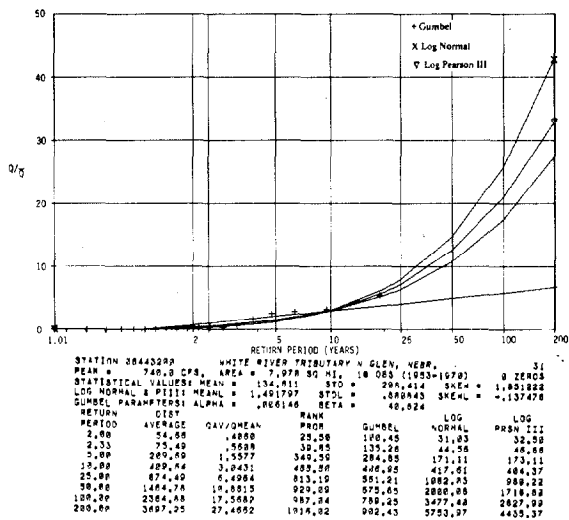
STATION #615518 BLACK COULEE NEAR MALTA, MONT. 38
 PEAK = 248.8 CFS, AREA = 6.848 SQ MI, 13 DBS (1958-1972) 3 ZEROS
 STATISTICAL VALUES: MEAN = 188.789 STD = 88.720 SKEW = -.175114
 LOG NORMAL & PIII: MEAN = 1.988828 STD = .381587 SKEW = -.087883
 GUMBEL PARAMETERS: ALPHA = .015888 BETA = 93.442

PERIOD	DIST	AVERAGE	DAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	107.38	.8289	158.88	118.33	87.88		
2.33	125.48	.8514	159.88	114.48	114.48	108.88	
5.00	208.87	1.5432	188.88	187.88	188.84	188.88	
10.00	271.32	2.8088	238.88	238.88	381.78	287.88	
25.00	371.84	2.8388	248.88	285.88	488.84	388.88	
50.00	458.84	3.4848	254.78	358.33	588.84	488.88	
100.00	538.51	4.1574	257.19	363.33	758.88	678.88	
200.00	633.32	4.8883	258.59	487.17	848.17	838.48	

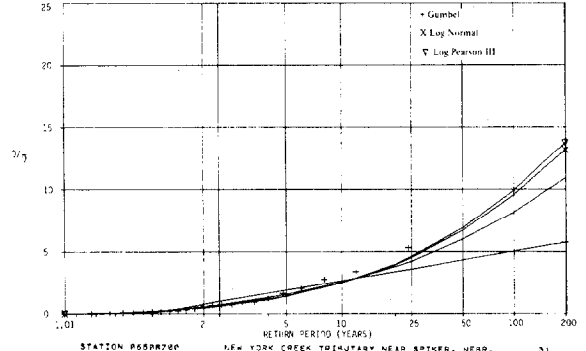
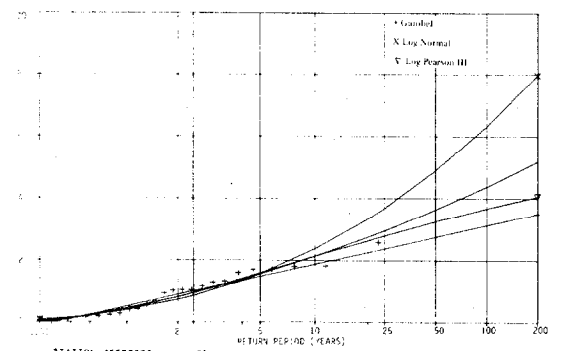
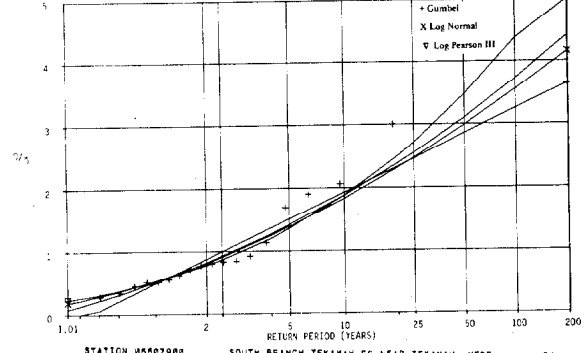
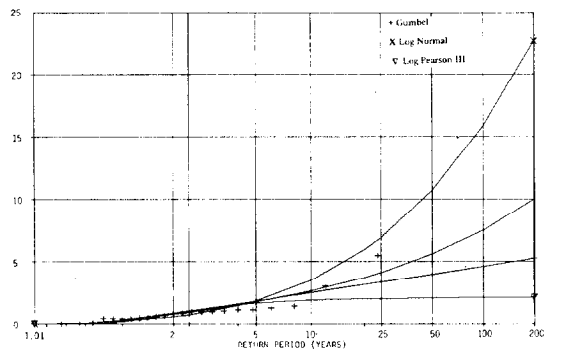
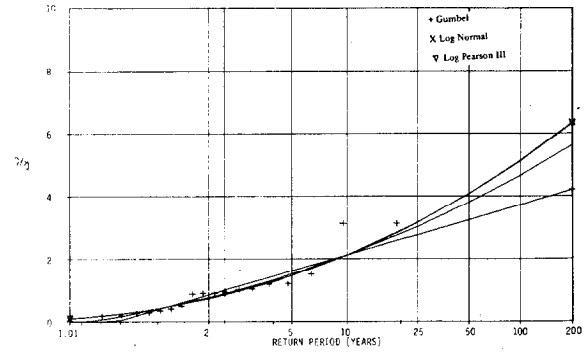
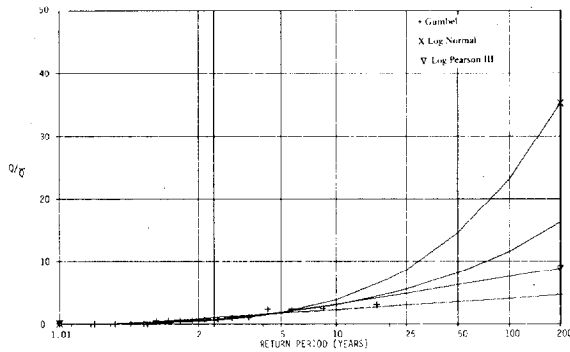
Appendix A-30. Montana 7-12. Flood frequency curves and data.



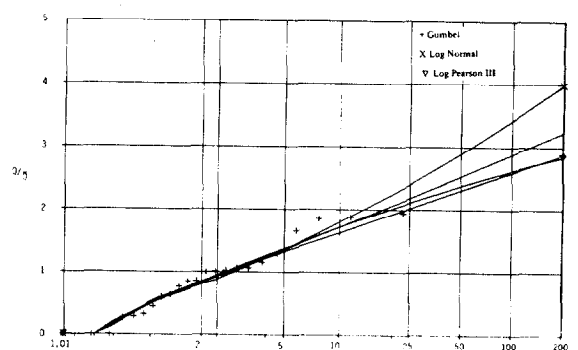
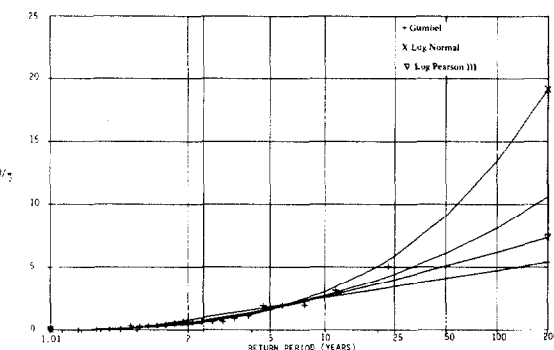
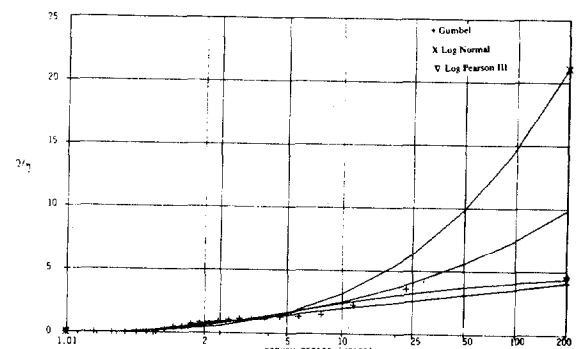
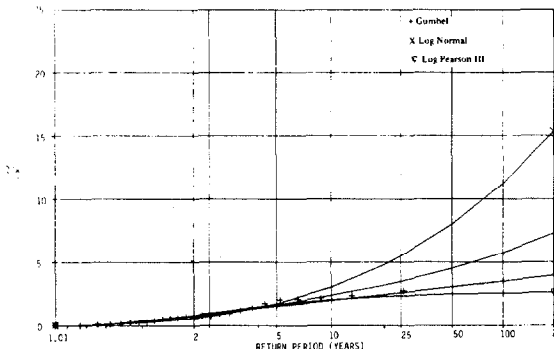
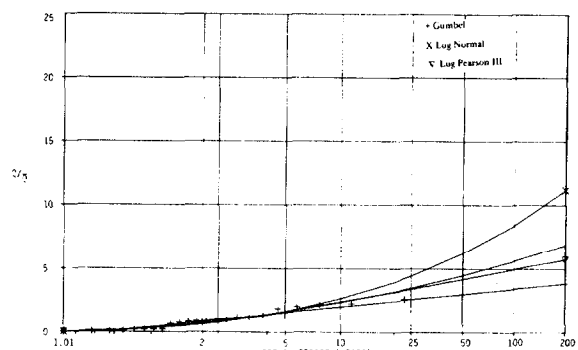
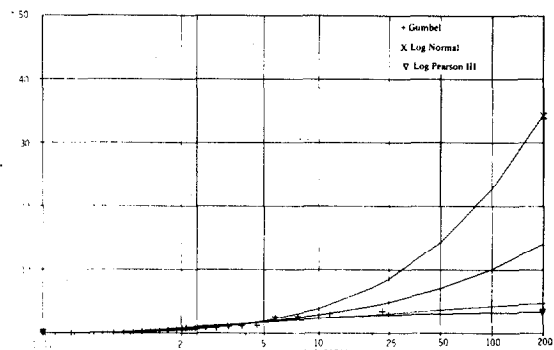
Appendix A-30. Montana 13-17. Flood frequency curves and data.



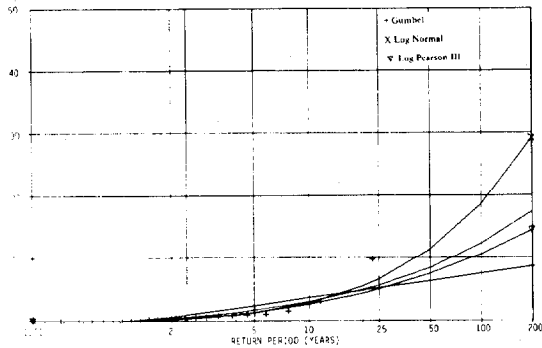
Appendix A-31. Nebraska 1-6. Flood frequency curves and data.



Appendix A-31. Nebraska 7-12. Flood frequency curves and data.

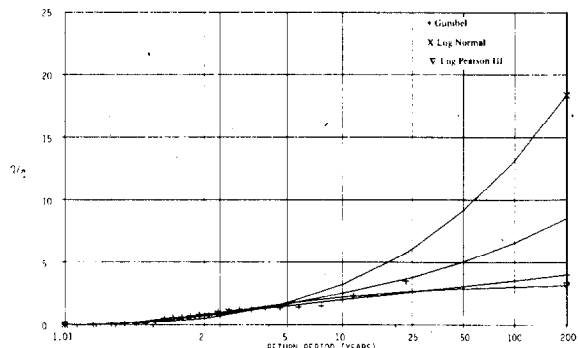


Appendix A-31. Nebraska 13-18. Flood frequency curves and data.



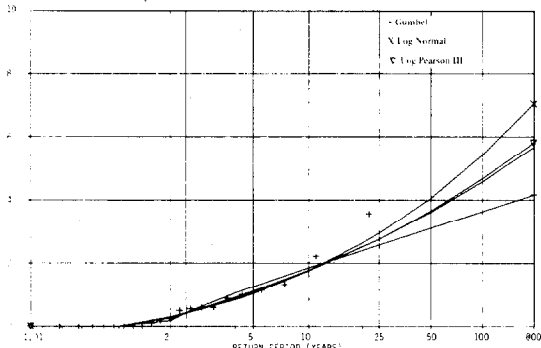
STATION 04760270 ELM CREEK NEAR SUMMIT, NEBR.
 PEAK = 1687.9 CFS. AREA = 14,307 SQ MI. 22 OBS (1951-1972) 31
 STATISTICAL VALUES: MEAN = 168.305 STD = 330.285 SKEW = 3.067135
 LOG NORMAL & PIII: MEAN = 1.80428 STD = .77868 SKEW = -.418336
 GUMBEL PARAMETERS: ALPHA = .003516 BETA = 11.388

RETURN PERIOD	AVERAGE	GAUSS/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	72.45	.4970	83.82	112.17	49.46	56.83
2.33	179.25	.6194	84.77	171.81	58.88	76.68
5.00	291.76	1.7171	148.43	423.87	222.98	228.44
10.00	721.77	3.0774	438.37	637.25	486.75	445.89
25.00	982.45	4.4457	1759.30	691.30	1134.46	882.69
50.00	1441.72	4.4411	2281.89	1884.44	1940.91	1289.82
100.00	2084.53	12.3892	2545.58	1276.45	3175.48	1817.93
200.00	2958.15	17.4171	2677.75	1467.74	4939.99	2435.64



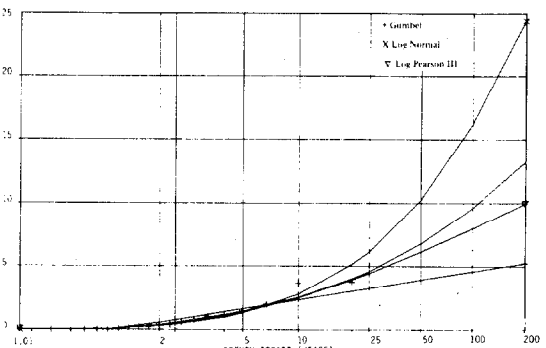
STATION 04760330 ELM CREEK TRIBUTARY NO. 2 NEAR OVERTON, NEBR.
 PEAK = 679.0 CFS. AREA = 5,820 SQ MI. 22 OBS (1951-1972) 31
 STATISTICAL VALUES: MEAN = 193.727 STD = 159.841 SKEW = 1.389812
 LOG NORMAL & PIII: MEAN = 2.094373 STD = .577230 SKEW = -1.748851
 GUMBEL PARAMETERS: ALPHA = .008314 BETA = 121.708

RETURN PERIOD	AVERAGE	GAUSS/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	144.15	.7848	177.88	167.53	114.41	151.71
2.33	179.27	.9253	219.99	194.23	147.27	198.51
5.00	335.08	1.7375	274.39	388.08	355.16	348.67
10.00	494.77	2.5573	418.28	492.56	637.32	442.31
25.00	745.49	3.4481	694.27	588.97	1109.39	528.19
50.00	884.73	4.4831	795.63	688.87	1778.94	586.53
100.00	1281.48	6.4189	845.31	695.74	2556.16	593.67
200.00	1859.43	8.5173	876.15	782.51	3555.88	611.63



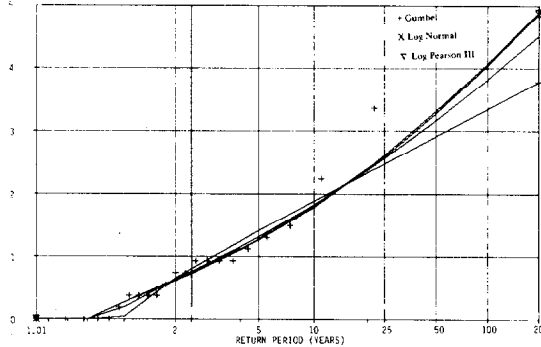
STATION 04770600 MOON RIVER TRIBUTARY NEAR LOGANSPORT, NEBR.
 PEAK = 150.0 CFS. AREA = 2,122 SQ MI. 21 OBS (1952-1972) 31
 STATISTICAL VALUES: MEAN = 44.723 STD = 42.175 SKEW = 1.876007
 LOG NORMAL & PIII: MEAN = 1.470923 STD = .422031 SKEW = -.243151
 GUMBEL PARAMETERS: ALPHA = .028934 BETA = 24.289

RETURN PERIOD	AVERAGE	GAUSS/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	11.81	.7638	11.87	8.61	12.58	13.88
2.33	19.45	.4308	20.74	18.89	18.10	19.10
5.00	51.01	1.1356	43.28	37.14	47.35	48.54
10.00	85.86	1.7509	52.70	53.91	76.41	79.33
25.00	124.74	2.7774	107.19	110.37	133.57	124.38
50.00	143.79	3.4218	153.59	147.14	192.14	164.77
100.00	197.21	4.5003	205.79	183.79	244.27	210.53
200.00	254.58	5.4472	215.40	187.17	315.42	266.51



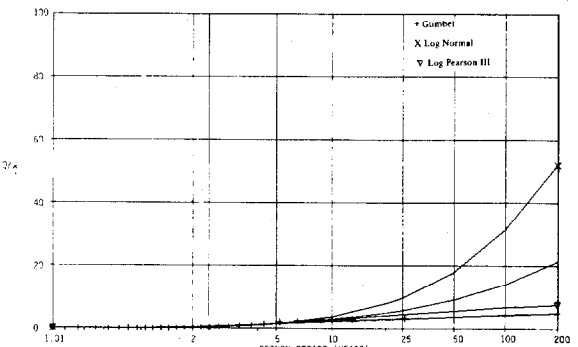
STATION 04770670 MOON RIVER NEAR LOGANSPORT, NEBR.
 PEAK = 190.0 CFS. AREA = 2,104 SQ MI. 19 OBS (1952-1972) 31
 STATISTICAL VALUES: MEAN = 50.129 STD = 84.740 SKEW = 1.505075
 LOG NORMAL & PIII: MEAN = 1.321574 STD = .699747 SKEW = -.608615
 GUMBEL PARAMETERS: ALPHA = .001268 BETA = 23.216

RETURN PERIOD	AVERAGE	GAUSS/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	19.04	.3076	19.74	27.03	15.13	16.79
2.33	27.74	.4554	21.71	36.34	27.42	23.79
5.00	73.57	1.4678	75.09	84.38	66.37	69.05
10.00	120.44	2.5307	105.49	121.27	149.31	125.93
25.00	233.26	4.4468	199.19	195.16	369.57	244.64
50.00	341.58	6.4134	192.79	198.33	518.42	312.26
100.00	481.63	8.5125	190.79	231.21	812.44	482.24
200.00	651.04	10.2092	194.40	253.85	1121.43	587.40



STATION 04777700 LILLIAN CREEK TRIBUTARY NEAR BROKEN HORN, NEBR.
 PEAK = 18.0 CFS. AREA = 2,020 SQ MI. 21 OBS (1952-1972) 31
 STATISTICAL VALUES: MEAN = 5.352 STD = 4.241 SKEW = 1.938272
 LOG NORMAL & PIII: MEAN = .628118 STD = .316578 SKEW = .847977
 GUMBEL PARAMETERS: ALPHA = .031098 BETA = 1.444

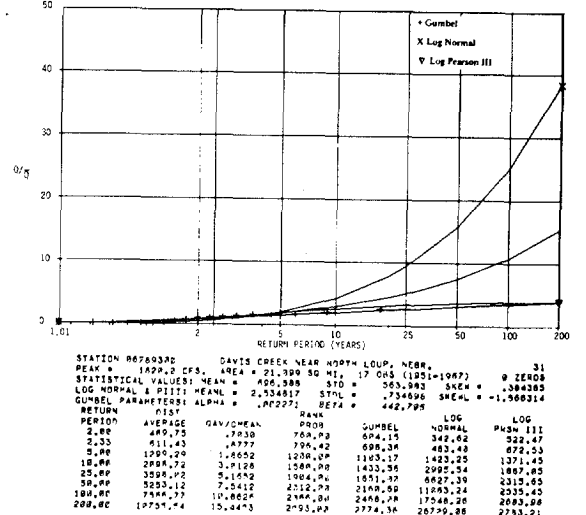
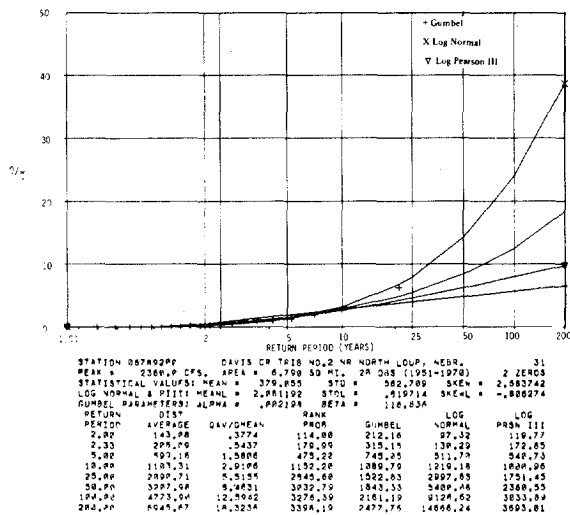
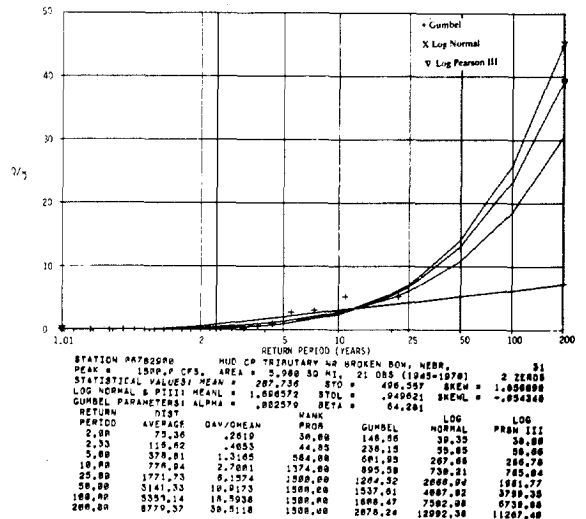
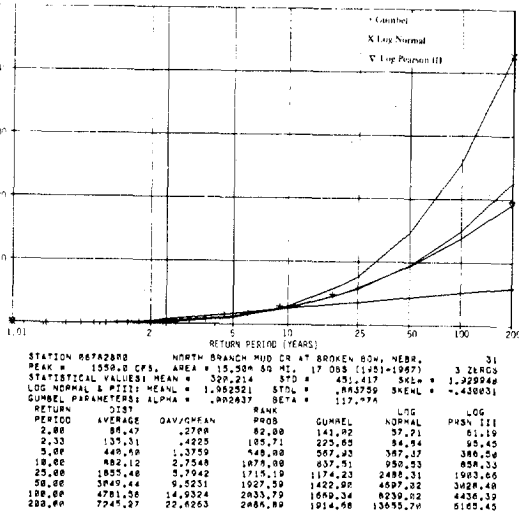
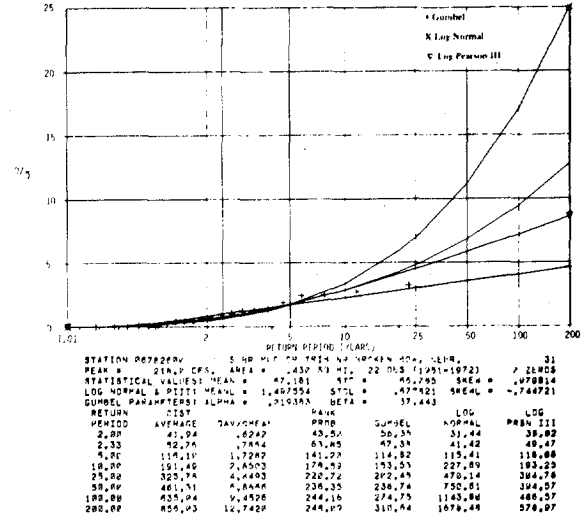
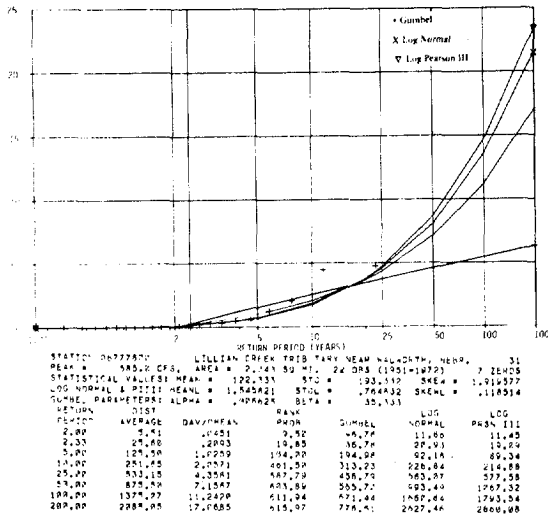
RETURN PERIOD	AVERAGE	GAUSS/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	3.44	.8441	3.57	3.40	3.33	3.33
2.33	4.17	.7582	4.57	4.38	3.99	3.92
5.00	7.89	1.3061	6.68	7.61	6.99	6.81
10.00	9.84	1.8333	11.20	10.15	9.70	9.62
25.00	13.76	2.5737	18.72	13.31	13.91	14.65
50.00	17.81	3.1778	21.36	15.65	17.79	17.79
100.00	20.46	3.8239	22.88	17.97	21.82	21.82
200.00	24.17	4.5165	23.34	20.27	26.34	26.22



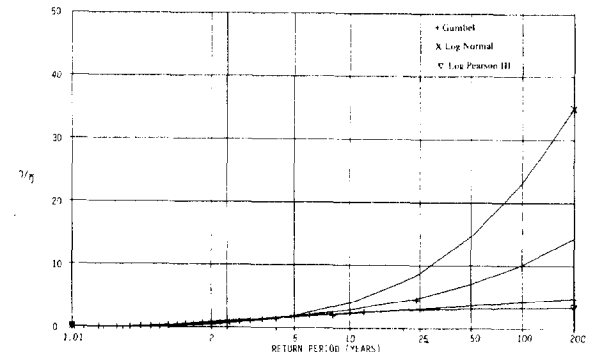
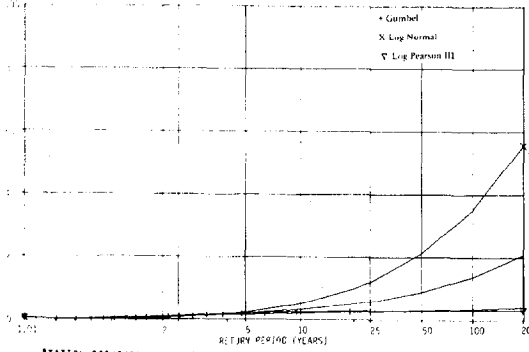
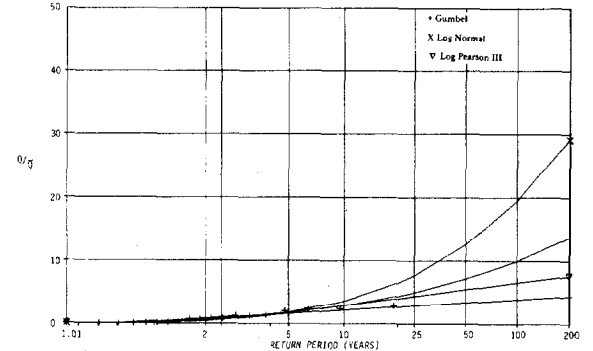
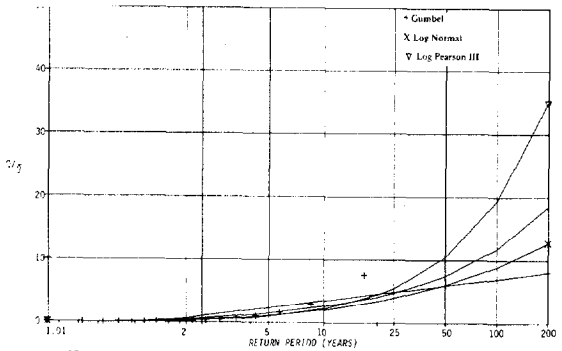
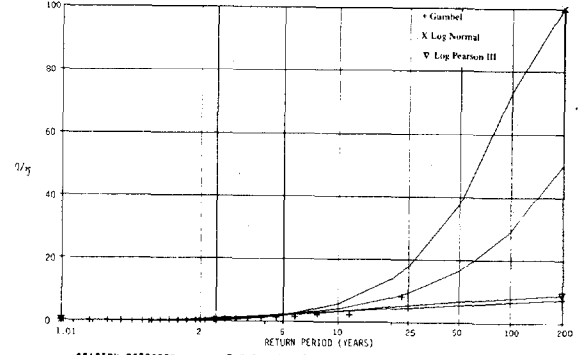
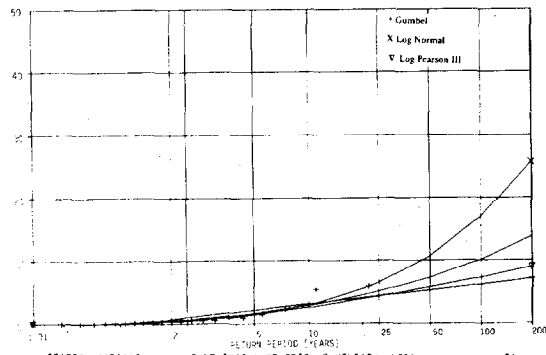
STATION 04777700 LILLIAN CREEK NEAR BROKEN HORN, NEBR.
 PEAK = 230.0 CFS. AREA = 4,778 SQ MI. 25 OBS (1950-1972) 31
 STATISTICAL VALUES: MEAN = 291.478 STD = 385.935 SKEW = .984699
 LOG NORMAL & PIII: MEAN = 1.968155 STD = .859982 SKEW = -1.126118
 GUMBEL PARAMETERS: ALPHA = .074167 BETA = 143.085

RETURN PERIOD	AVERAGE	GAUSS/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	197.87	.3832	50.00	187.76	86.89	89.74
2.33	152.24	.3488	159.38	224.33	25.45	136.35
5.00	436.48	1.5598	375.88	454.80	498.12	446.51
10.00	821.98	2.9188	788.08	637.18	1041.98	785.69
25.00	1609.44	5.7886	992.39	865.11	2781.13	1281.29
50.00	3206.57	9.5917	1020.19	1033.30	5869.48	1574.34
100.00	5206.57	14.0591	1020.19	1288.35	8647.18	1859.86
200.00	8225.48	21.4066	1043.39	1385.82	14684.69	2104.96

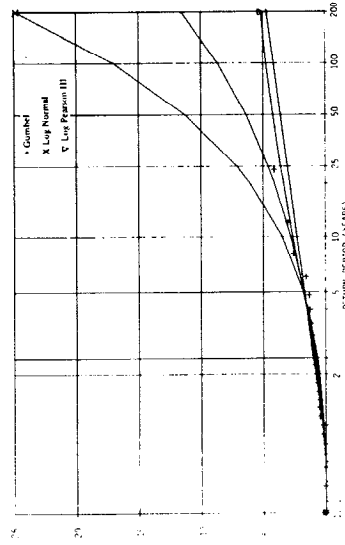
Appendix A-31. Nebraska 19-24. Flood frequency curves and data.



Appendix A-31. Nebraska 25-30. Flood frequency curves and data.

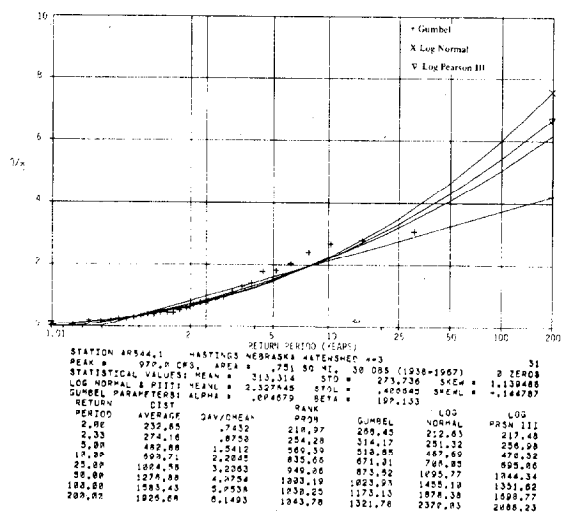


Appendix A-31. Nebraska 31-36. Flood frequency curves and data.

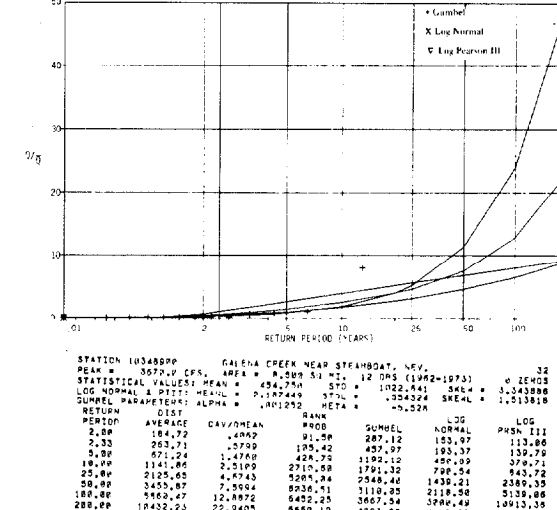
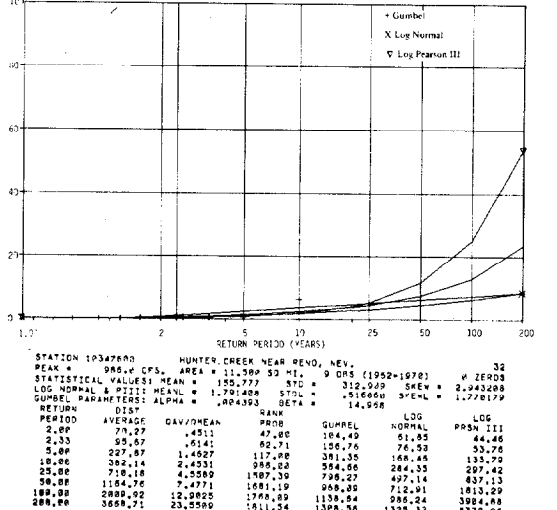
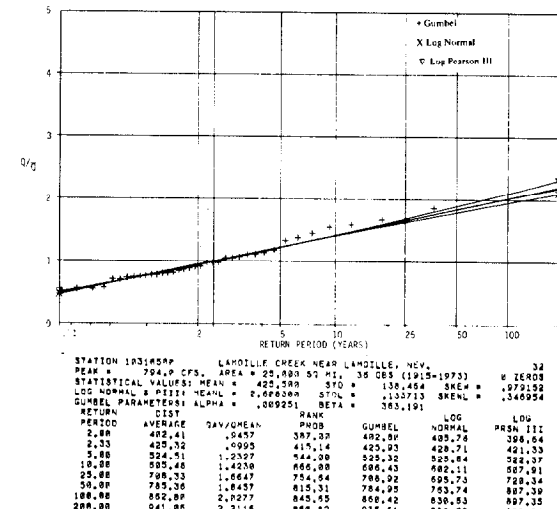
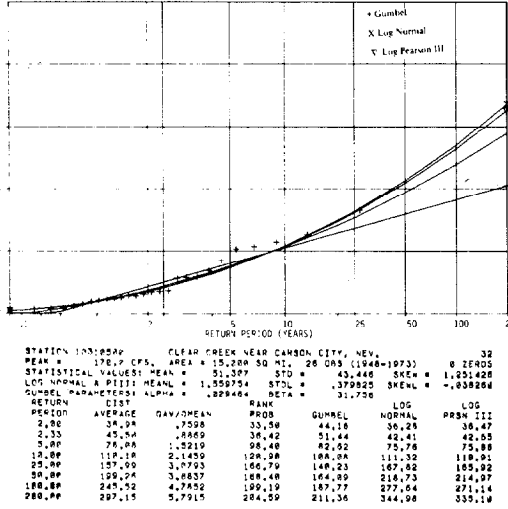
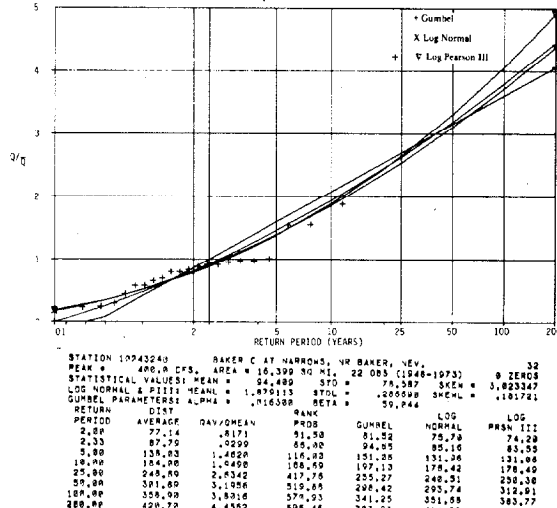
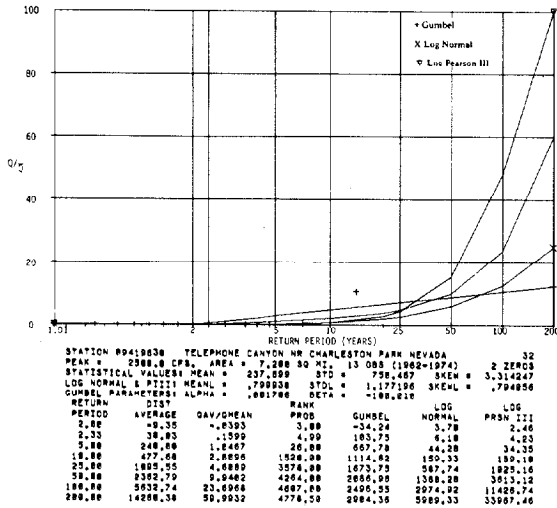


STATION ANALYSIS: WOLF CREEK NEAR STAC 461, NEPA, 31
 PLAK 4 42107 CFS, AREA 4.122 SQ MI, 23 CFS (1124-1972) 4.16808
 STATISTICAL VALUES: MEAN = 2.05133, STD = 1.74124, SKEW = 1.76893
 LOG-NORMAL DISTRIBUTION: MEAN = 1.01133, STD = 1.11181
 GUMBEL PARAMETERS: ALPHA = 1.7113, BETA = 144.517

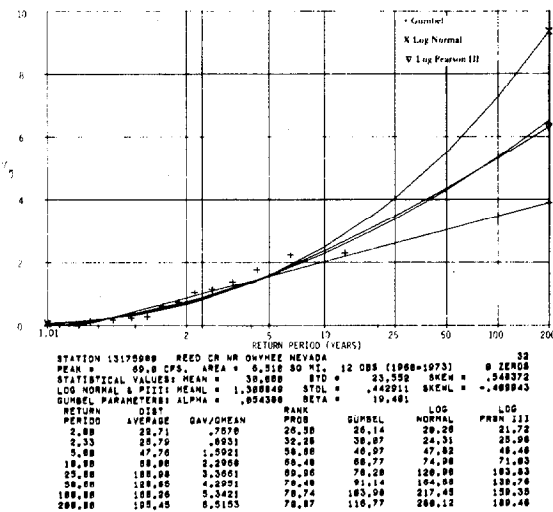
PERIOD AVERAGE GALT/STAN RANK GUMBEL NORMAL LOG
 2.00 454.84 6988 720.76 854.46 117.25 601.84
 2.33 456.28 6846 720.76 854.46 117.25 601.84
 2.67 457.71 6704 720.76 854.46 117.25 601.84
 3.00 459.14 6562 720.76 854.46 117.25 601.84
 3.33 460.57 6420 720.76 854.46 117.25 601.84
 3.67 462.00 6278 720.76 854.46 117.25 601.84
 4.00 463.43 6136 720.76 854.46 117.25 601.84
 4.33 464.86 5994 720.76 854.46 117.25 601.84
 4.67 466.29 5852 720.76 854.46 117.25 601.84
 5.00 467.72 5710 720.76 854.46 117.25 601.84
 5.33 469.15 5568 720.76 854.46 117.25 601.84
 5.67 470.58 5426 720.76 854.46 117.25 601.84
 6.00 472.01 5284 720.76 854.46 117.25 601.84
 6.33 473.44 5142 720.76 854.46 117.25 601.84
 6.67 474.87 5000 720.76 854.46 117.25 601.84
 7.00 476.30 4858 720.76 854.46 117.25 601.84
 7.33 477.73 4716 720.76 854.46 117.25 601.84
 7.67 479.16 4574 720.76 854.46 117.25 601.84
 8.00 480.59 4432 720.76 854.46 117.25 601.84
 8.33 482.02 4290 720.76 854.46 117.25 601.84
 8.67 483.45 4148 720.76 854.46 117.25 601.84
 9.00 484.88 4006 720.76 854.46 117.25 601.84
 9.33 486.31 3864 720.76 854.46 117.25 601.84
 9.67 487.74 3722 720.76 854.46 117.25 601.84
 10.00 489.17 3580 720.76 854.46 117.25 601.84
 10.33 490.60 3438 720.76 854.46 117.25 601.84
 10.67 492.03 3296 720.76 854.46 117.25 601.84
 11.00 493.46 3154 720.76 854.46 117.25 601.84
 11.33 494.89 3012 720.76 854.46 117.25 601.84
 11.67 496.32 2870 720.76 854.46 117.25 601.84
 12.00 497.75 2728 720.76 854.46 117.25 601.84
 12.33 499.18 2586 720.76 854.46 117.25 601.84
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 13.00 502.04 2302 720.76 854.46 117.25 601.84
 13.33 503.47 2160 720.76 854.46 117.25 601.84
 13.67 504.90 2018 720.76 854.46 117.25 601.84
 14.00 506.33 1876 720.76 854.46 117.25 601.84
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 15.33 512.05 1308 720.76 854.46 117.25 601.84
 15.67 513.48 1166 720.76 854.46 117.25 601.84
 16.00 514.91 1024 720.76 854.46 117.25 601.84
 16.33 516.34 882 720.76 854.46 117.25 601.84
 16.67 517.77 740 720.76 854.46 117.25 601.84
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 68.00 737.99 0 720.76 854.46 117.25 601.84
 68.33 739.42 0 720.76 854.46 117.25 601.84
 68.67 740.85 0 720.76 854.46 117.25 601.84
 69.00 742.28 0 720.76 854.46 117.25 601.84
 69.33 743.71 0 720.76 854.46 117.25 601.84
 69.67 745.14 0 720.76 854.46 117.25 601.84
 70.00 746.57 0 720.76 854.46 117.25 601.84
 70.33 748.00 0 720.76 854.46 117.25 601.84
 70.67 749.43 0 720.76 854.46 117.25 601.84
 71.00 750.86 0 720.76 854.46 117.25 601.84
 71.33 752.29 0 720.76 854.46 117.25 601.84
 71.67 753.72 0 720.76 854.46 117.25 601.84
 72.00 755.15 0 720.76 854.46 117.25 601.84
 72.33 756.58 0 720.76 854.46 117.25 601.84
 72.67 758.01 0 720.76 854.46 117.25 601.84
 73.00 759.44 0 720.76 854.46 117.25 601.84
 73.33 760.87 0 720.76 854.46 117.25 601.84
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 79.00 785.18 0 720.76 854.46 117.25 601.84
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 84.67 809.49 0 720.76 854.46 117.25 601.84
 85.00 810.92 0 720.76 854.46 117.25 601.84
 85.33 812.35 0 720.76 854.46 117.25 601.84
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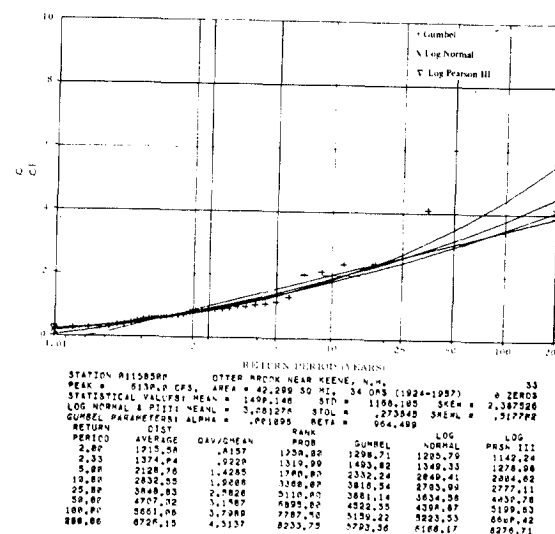
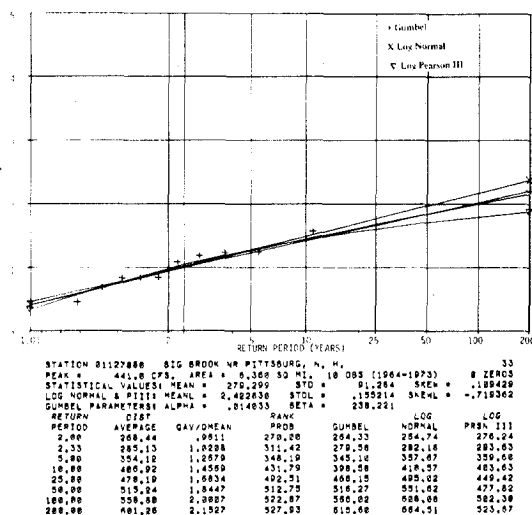
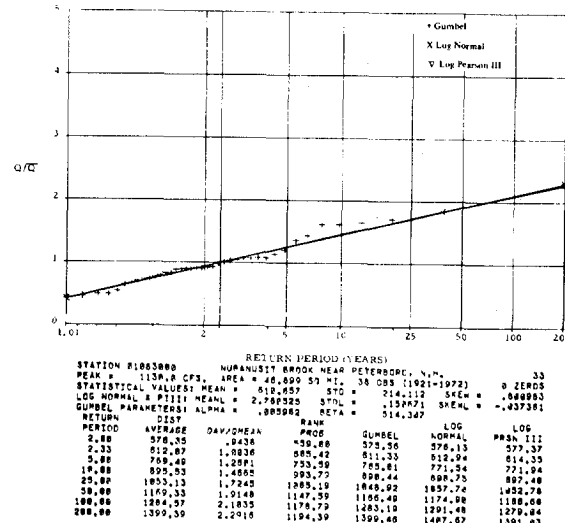
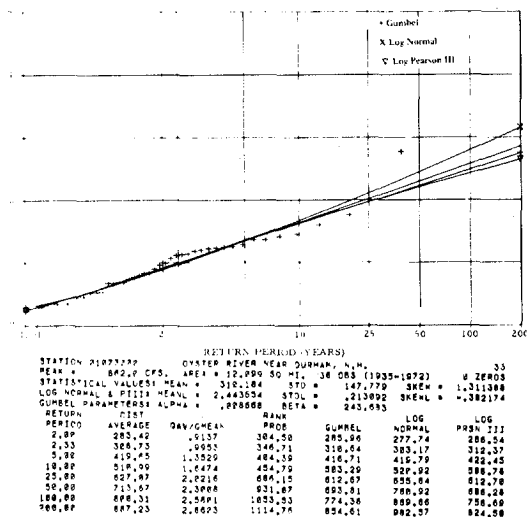
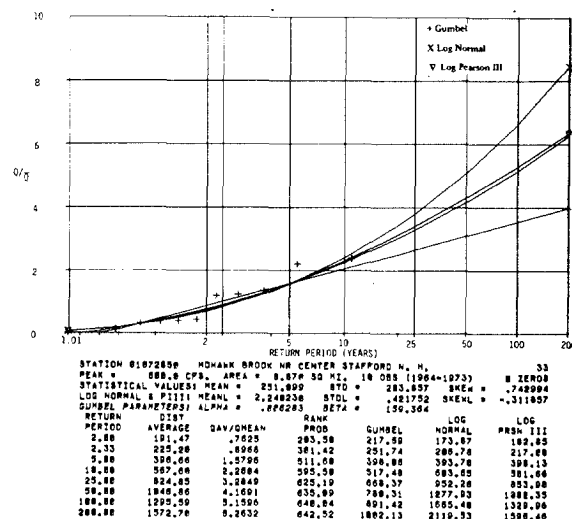
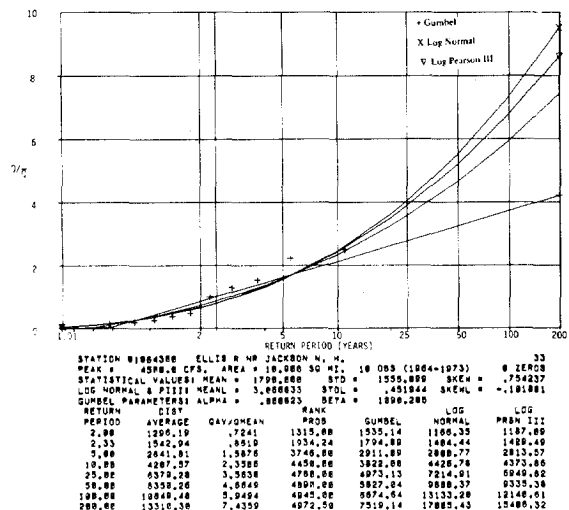
Appendix A-31. Nebraska 43. Flood frequency curves and data.



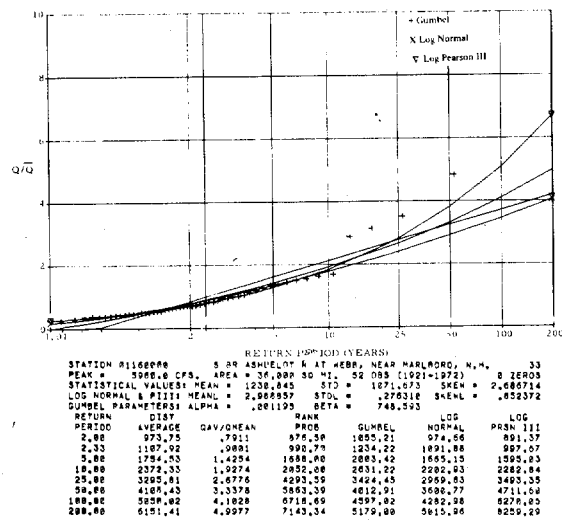
Appendix A-32. Nevada 1-6. Flood frequency curves and data.



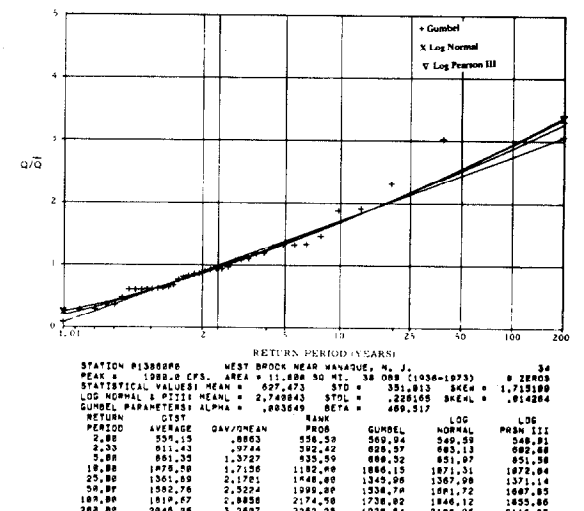
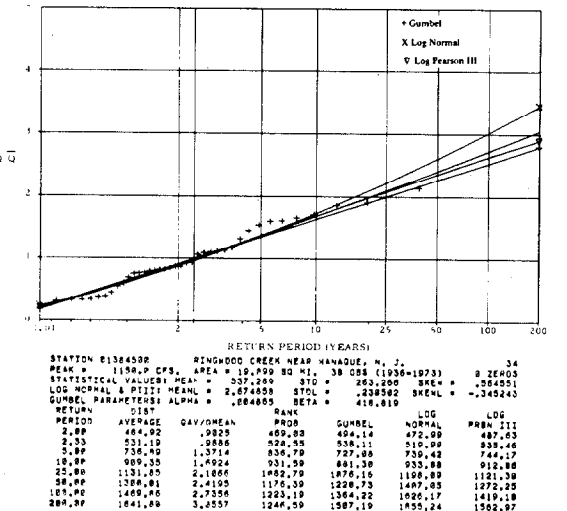
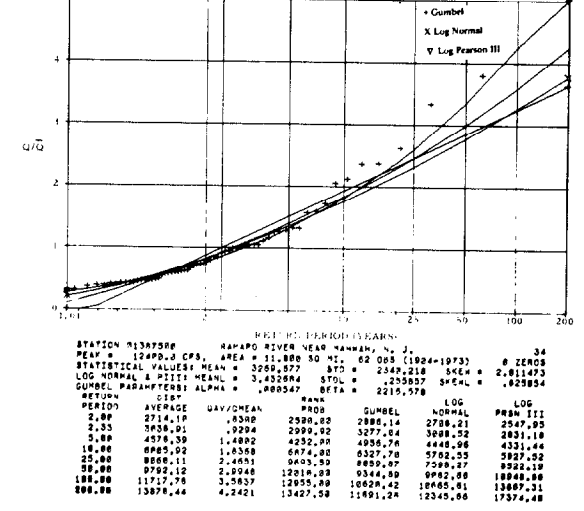
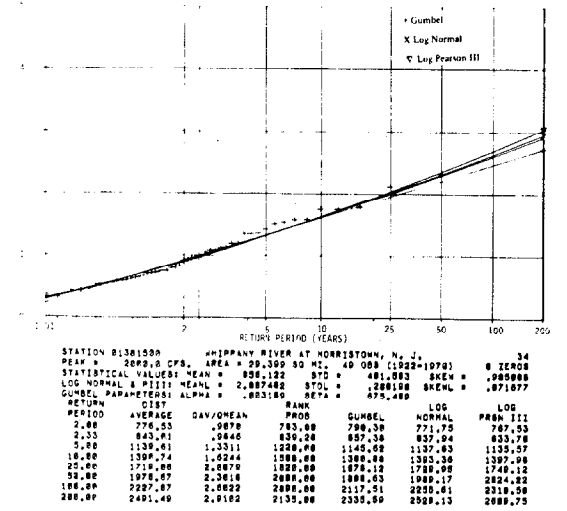
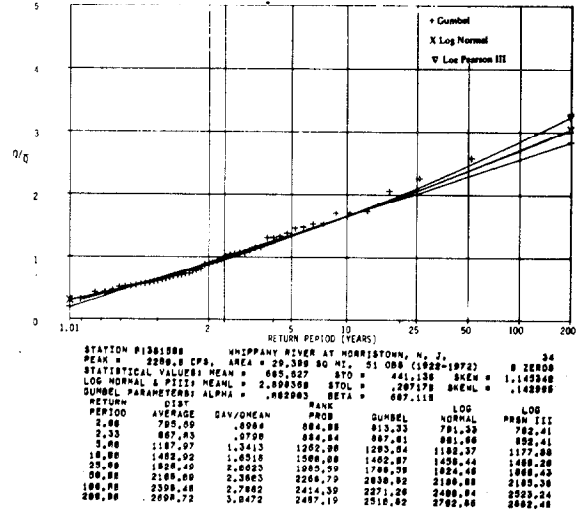
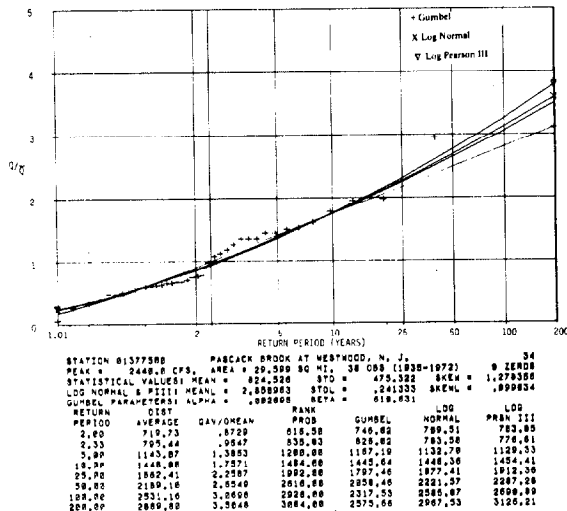
Appendix A-32. Nevada 7. Flood frequency curves and data.



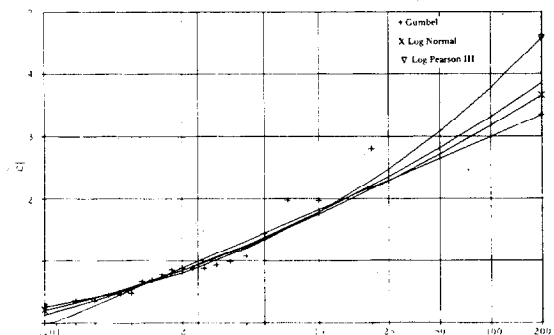
Appendix A-33. New Hampshire 1-6. Flood frequency curves and data.



Appendix A-33. New Hampshire 7. Flood frequency curves and data.

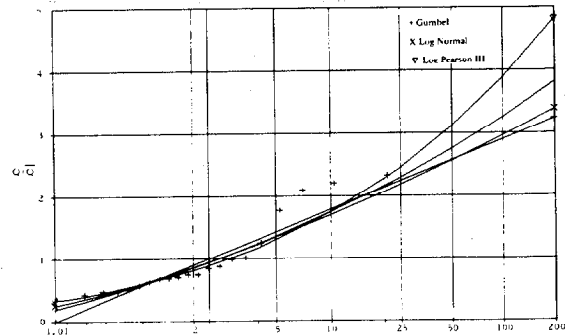


Appendix A-34. New Jersey 1-6. Flood frequency curves and data.



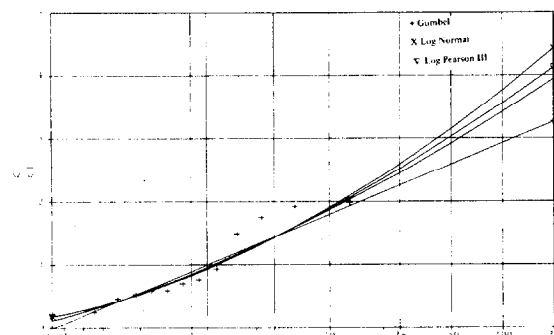
STATION 21364500 SADDLE RIVER AT RIDGE ROAD, N. J. 34
 PEAK = 2626.0 CFS, AREA = 21,590 SQ MI, 19 CBS (1955-1973) 8 ZEROS
 STATISTICAL VALUES: MEAN = 1048.528 STD = 664.992 SKEW = 1.082430
 LOG NORMAL & PIII MEAN = 2.947442 STOL = .246296 SKEW = .419450
 GUMBEL PARAMETERS: ALPHA = .061028 BETA = 741.270

PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG	LOG	LOG
PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PRSN III	PRSN III
2.00	469.74	.4559	910.00	931.34	888.81	851.66	
2.33	589.09	.5291	923.28	1042.62	980.40	947.00	
5.00	1451.58	1.3949	1513.00	1319.92	1428.14	1480.45	
10.00	1871.98	1.7981	2050.00	1909.48	1832.81	1876.88	
25.00	2459.68	2.3528	2692.00	2481.70	2391.82	2382.37	
50.00	2939.63	2.8251	3436.00	2795.85	2840.00	3211.85	
100.00	3459.87	3.3251	4688.00	3129.38	3315.18	3935.22	
200.00	4824.35	3.8876	5674.00	3498.42	3815.38	4766.24	



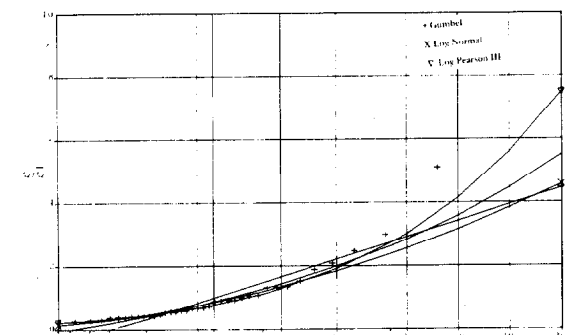
STATION 21391800 HONESKUS BROOK AT HONESKUS, N. J. 34
 PEAK = 2350.0 CFS, AREA = 16,380 SQ MI, 28 CBS (1954-1973) 8 ZEROS
 STATISTICAL VALUES: MEAN = 1009.699 STD = 513.824 SKEW = 1.314590
 LOG NORMAL & PIII MEAN = 2.949838 STOL = .238201 SKEW = .719758
 GUMBEL PARAMETERS: ALPHA = .092887 BETA = 733.360

PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG	LOG	LOG
PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PRSN III	PRSN III
2.00	367.21	.4588	909.13	972.64	819.67	819.67	
2.33	497.37	.5481	953.98	1011.03	959.52	988.07	
5.00	1388.79	1.3874	1488.00	1482.06	1364.12	1325.07	
10.00	1788.26	1.7512	2219.00	1811.35	1722.62	1778.63	
25.00	2319.47	2.2971	2599.19	2255.72	2209.64	2483.08	
50.00	2779.63	2.7528	3419.38	2682.87	2594.76	3141.48	
100.00	3287.34	3.2557	4444.76	2937.12	2998.59	3926.31	
200.00	3950.08	3.8159	5457.39	3279.35	3427.78	4861.98	



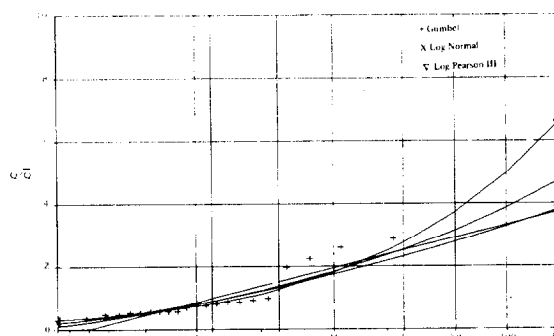
STATION 21394000 WEST BRANCH ONAWAY RIVER AT HILL RUN, N. J. 34
 PEAK = 1700.0 CFS, AREA = 7,123 SQ MI, 12 CBS (1936-1959) 8 ZEROS
 STATISTICAL VALUES: MEAN = 550.283 STD = 338.973 SKEW = .878864
 LOG NORMAL & PIII MEAN = 2.567625 STOL = .261812 SKEW = .114383
 GUMBEL PARAMETERS: ALPHA = .283779 BETA = 307.375

PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG	LOG	LOG
PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PRSN III	PRSN III
2.00	471.00	.4578	484.51	484.54	457.74	483.42	
2.33	526.47	.5027	482.79	531.15	513.95	520.34	
5.00	707.47	1.4478	1083.29	724.40	702.41	792.00	
10.00	1029.03	1.8798	1781.20	992.93	1751.51	1442.64	
25.00	1357.93	2.4954	1104.39	1245.74	1425.95	1380.01	
50.00	1819.47	2.9784	1112.19	1429.87	1755.68	1687.00	
100.00	1887.53	3.4420	1116.29	1614.59	2271.05	1966.74	
200.00	2197.45	3.9480	1114.24	1738.54	2435.82	2271.11	



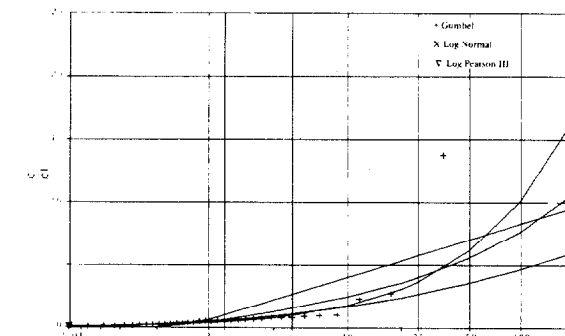
STATION 21307500 WALNUT BROOK NEAR FLEMINGTON, N. J. 34
 PEAK = 1598.0 CFS, AREA = 2,240 SQ MI, 37 CBS (1937-1973) 8 ZEROS
 STATISTICAL VALUES: MEAN = 387.378 STD = 286.337 SKEW = 2.519825
 LOG NORMAL & PIII MEAN = 2.349282 STOL = .372219 SKEW = .773848
 GUMBEL PARAMETERS: ALPHA = .374441 BETA = 177.553

PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG	LOG	LOG
PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PRSN III	PRSN III
2.00	525.12	.4761	294.00	490.11	434.43	434.43	
2.33	571.08	.5145	299.00	508.26	464.98	542.44	
5.00	645.41	1.4523	412.39	515.28	499.42	483.54	
10.00	815.98	2.7930	608.00	684.22	571.08	592.72	
25.00	875.92	2.8421	1232.00	897.67	791.58	931.81	
50.00	1103.58	3.5976	1726.00	1395.63	977.32	1277.70	
100.00	1371.49	4.8881	1079.00	1513.61	1484.55	1725.43	
200.00	1602.53	5.4957	2988.58	1559.62	1484.41	2382.77	



STATION 21468800 MID MT HIGHTWAY BROOK IN LEE ST FOREST, N. J. 34
 PEAK = 58.0 CFS, AREA = 2,730 SQ MI, 21 CBS (1953-1973) 8 ZEROS
 STATISTICAL VALUES: MEAN = 17.304 STD = 12.987 SKEW = 1.077782
 LOG NORMAL & PIII MEAN = 1.193528 STOL = .208339 SKEW = 1.089740
 GUMBEL PARAMETERS: ALPHA = .080593 BETA = 11.505

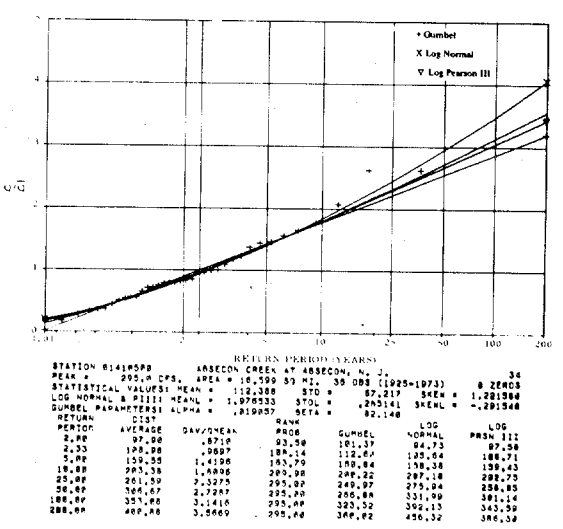
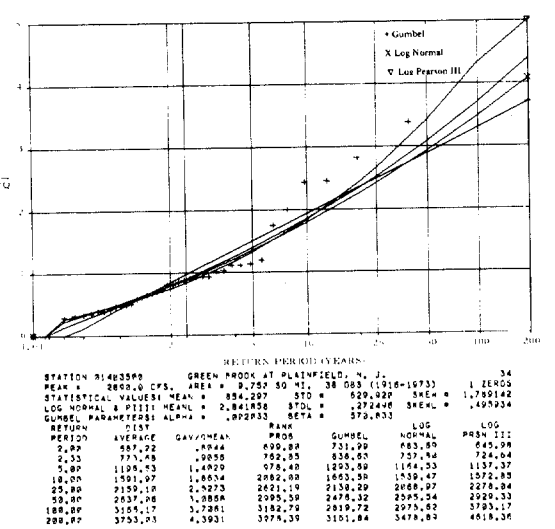
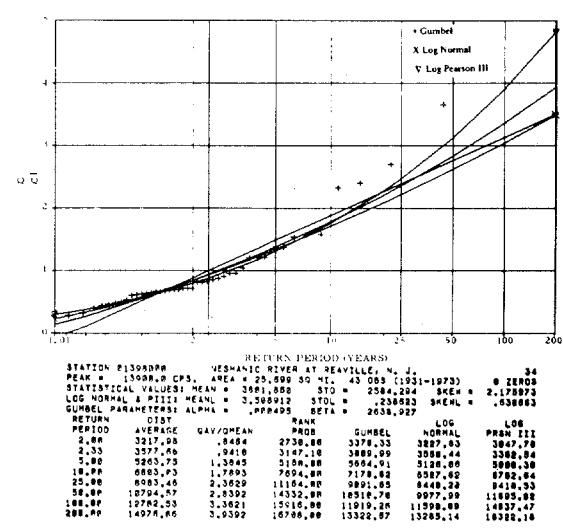
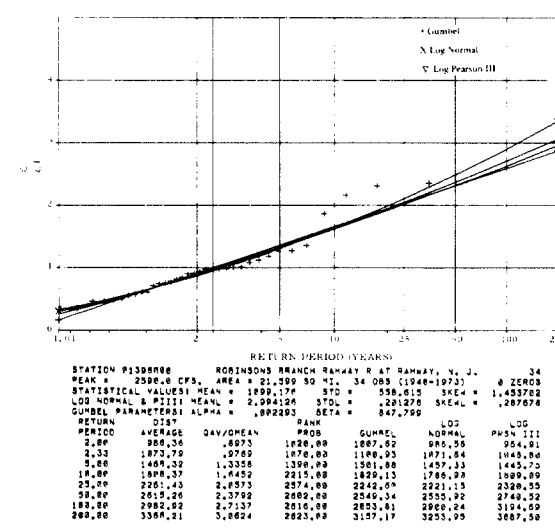
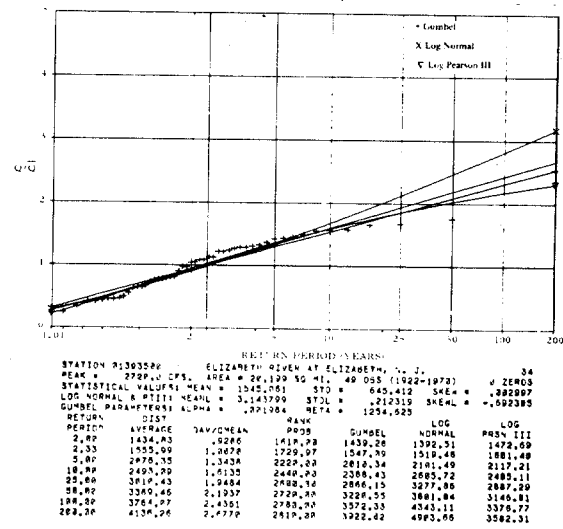
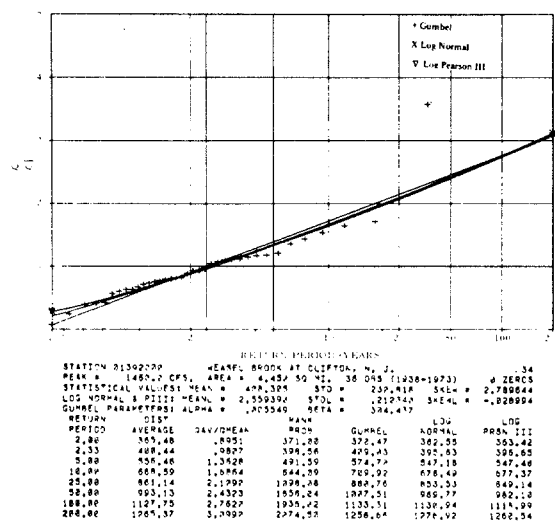
PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG	LOG	LOG
PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PRSN III	PRSN III
2.00	14.11	.8139	13.38	15.19	14.24	12.01	
2.33	15.83	.9153	13.57	17.34	15.63	14.33	
5.00	24.14	1.3953	27.26	26.59	23.49	22.34	
10.00	32.80	1.8549	43.88	34.14	30.52	31.00	
25.00	44.81	2.5436	58.00	43.88	46.35	46.00	
50.00	54.76	3.1531	52.00	50.76	46.37	64.81	
100.00	61.47	3.6948	53.00	57.76	55.83	65.99	
200.00	81.38	4.7838	54.48	64.76	65.67	115.49	



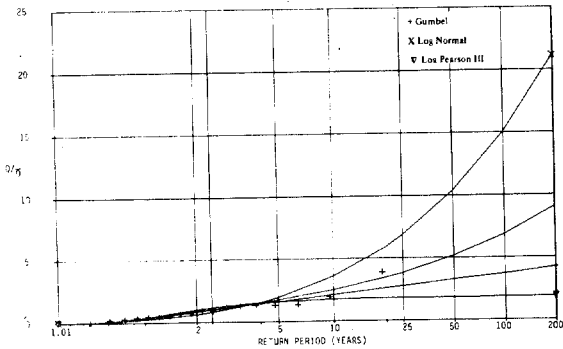
STATION 21482500 SALEM RIVER AT WOODSTOCK, N. J. 34
 PEAK = 2200.0 CFS, AREA = 14,990 SQ MI, 34 CBS (1949-1973) 8 ZEROS
 STATISTICAL VALUES: MEAN = 1066.588 STD = 373.853 SKEW = 3.346884
 LOG NORMAL & PIII MEAN = 2.983458 STOL = .418713 SKEW = 1.107288
 GUMBEL PARAMETERS: ALPHA = .088344 BETA = 74.637

PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG	LOG	LOG
PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PRSN III	PRSN III
2.00	418.72	.5127	847.88	987.84	699.98	687.57	
2.33	1116.95	.8907	679.00	1086.28	651.81	788.88	
5.00	2565.33	1.6522	1346.00	4273.93	1822.09	1831.88	
10.00	4044.38	2.5095	2685.00	6448.55	2756.25	2918.19	
25.00	6489.38	4.4945	14084.00	9198.44	4331.70	5937.05	
50.00	8975.93	5.9244	2727.00	11237.72	5886.78	8881.38	
100.00	12353.17	7.7372	33431.58	13261.83	7846.17	14688.43	
200.00	17875.28	10.6948	38811.75	15278.74	9585.87	28368.92	

Appendix A-34. New Jersey 7-12. Flood frequency curves and data.

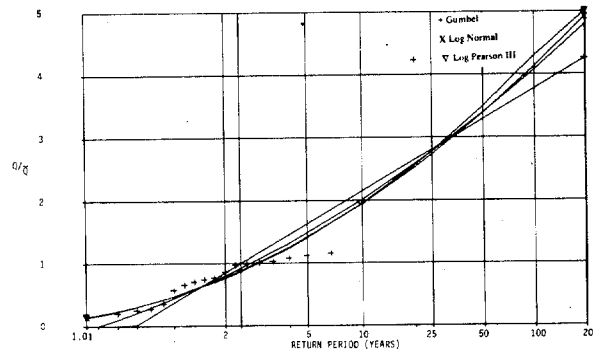


Appendix A-34. New Jersey 13-18. Flood frequency curves and data.



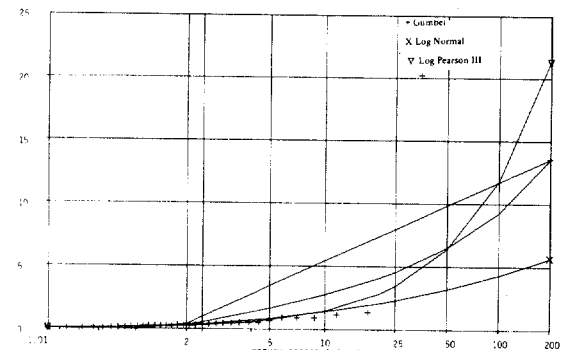
STATION 87226000 DOG CREEK NEAR SHOMAKER, N. MEX. 35
 PEAK = 8100.0 CFS, AREA = 11,199.50 MI., 18 OBS (1954-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1589.27 STD = 1304.440 SKEW = 2.817281
 LOG NORMAL & PIII: MEAN = 3.682398 STD = .5996530 SKEW = -2.026177
 GUMBEL PARAMETERS: ALPHA = .000018 BETA = 872.278

RETURN PERIOD	AVERAGE	QAV/QMEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	1341.60	.8386	1318.09	1371.24	1085.44	1044.13	
2.33	1588.26	1.0000	1498.97	1684.16	1288.75	1015.85	
5.00	2884.74	1.7532	2156.00	2685.84	1711.31	1637.87	
10.00	4618.50	2.5119	3409.00	3421.03	2166.18	2055.88	
25.00	8119.74	3.4233	6031.50	4454.88	18887.90	2937.19	
50.00	8251.07	5.1582	6105.70	5219.75	16881.98	2954.21	
100.00	10995.85	6.8753	8692.89	5979.70	24807.48	2959.81	
200.00	14480.23	9.6551	9586.44	6737.85	33759.88	2961.76	



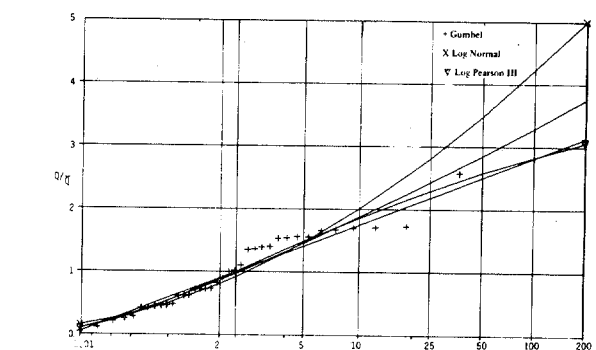
STATION 87227050 PLAZA LARGA CR TRIO NR RAGLAND, N. MEX. 35
 PEAK = 1178.0 CFS, AREA = .500 80 MI., 18 OBS (1952-1970) 0 ZEROS
 STATISTICAL VALUES: MEAN = 276.268 STD = 244.189 SKEW = 2.869587
 LOG NORMAL & PIII: MEAN = 2.331651 STD = .311193 SKEW = -.683368
 GUMBEL PARAMETERS: ALPHA = .005248 BETA = 166.373

RETURN PERIOD	AVERAGE	QAV/QMEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	221.11	.8885	240.00	236.24	214.81	213.40	
2.33	284.19	1.0000	272.14	277.83	245.80	245.80	
5.00	411.07	1.4088	310.00	459.38	302.29	301.82	
10.00	507.07	2.0197	340.00	595.38	357.88	346.89	
25.00	705.01	2.7769	1200.00	775.11	758.82	767.81	
50.00	936.70	3.3089	1040.00	910.28	930.86	955.89	
100.00	1128.02	4.0532	1074.00	1045.36	1138.85	1187.41	
200.00	1323.04	4.7919	1737.00	1175.91	1388.83	1427.37	



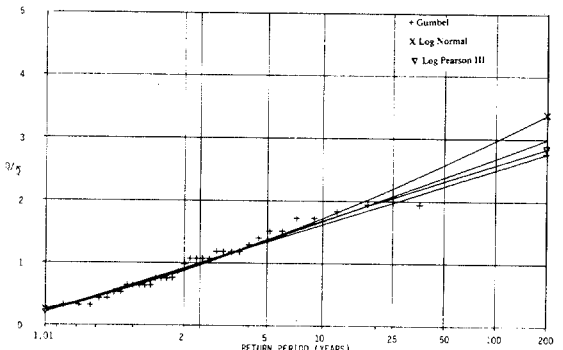
STATION 87226500 COSTILLA CR 49 COSTILLA DAM, N. MEX. 35
 PEAK = 3870.0 CFS, AREA = 26,486.50 MI., 34 OBS (1937-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 191.147 STD = 652.499 SKEW = 3.759988
 LOG NORMAL & PIII: MEAN = 1.825843 STD = .409460 SKEW = 1.168391
 GUMBEL PARAMETERS: ALPHA = .001062 BETA = -122.457

RETURN PERIOD	AVERAGE	QAV/QMEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	87.25	.13855	83.30	84.14	65.98	52.75	
2.33	112.50	.3900	86.00	103.27	81.21	53.15	
5.00	324.13	1.0977	132.00	651.63	160.36	144.28	
10.00	530.07	2.7936	223.30	1244.37	267.05	284.27	
25.00	879.54	4.5951	2426.70	1927.56	444.38	465.49	
50.00	1244.90	6.5111	4053.30	1886.07	616.82	1201.86	
100.00	1774.21	9.2819	9218.30	2241.91	826.30	2252.48	
200.00	2588.35	12.4587	8646.25	2095.49	1783.13	4677.23	



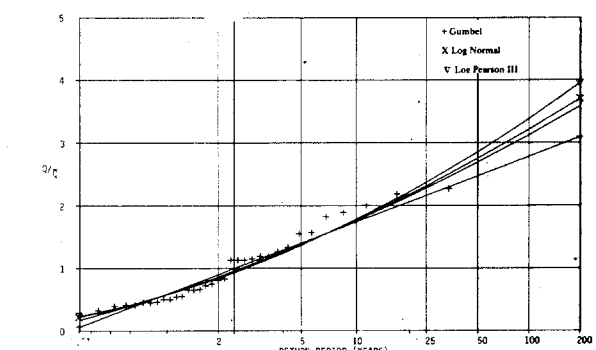
STATION 87226000 CASTIAS CREEK NR COSTILLA, N. MEX. 35
 PEAK = 181.0 CFS, AREA = 19.000 80 MI., 36 OBS (1937-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 70.361 STD = 40.940 SKEW = -3.58228
 LOG NORMAL & PIII: MEAN = 1.756429 STD = .397449 SKEW = -.739934
 GUMBEL PARAMETERS: ALPHA = .001356 BETA = 51.078

RETURN PERIOD	AVERAGE	QAV/QMEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	61.22	.8781	61.00	63.66	57.33	52.66	
2.33	88.74	.9777	72.85	72.48	65.33	76.88	
5.00	102.00	1.4638	116.00	99.61	104.04	105.13	
10.00	137.44	1.8823	128.00	153.74	142.06	151.32	
25.00	171.23	2.4336	132.00	153.97	198.06	161.67	
50.00	201.16	2.8598	196.34	176.48	245.45	161.63	
100.00	231.00	3.2672	218.15	198.67	287.69	199.61	
200.00	263.85	3.7599	229.88	228.85	354.98	219.81	



STATION 87225500 SANTISTEVAN CREEK NR COSTILLA, N. MEX. 35
 PEAK = 18.0 CFS, AREA = 2.500 80 MI., 35 OBS (1938-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 9.262 STD = 4.433 SKEW = -1.469908
 LOG NORMAL & PIII: MEAN = .913513 STD = .226430 SKEW = -.358785
 GUMBEL PARAMETERS: ALPHA = .288328 BETA = 7.267

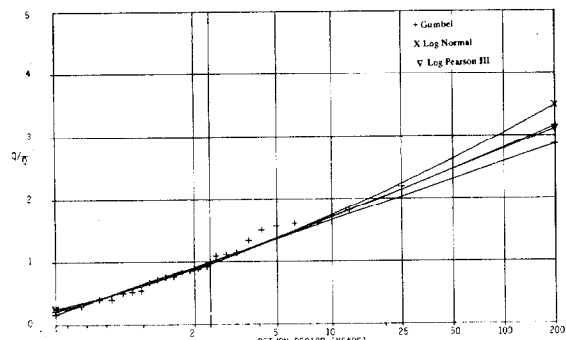
RETURN PERIOD	AVERAGE	QAV/QMEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	8.39	.9882	9.10	8.33	6.10	8.45	
2.33	9.17	.9996	10.00	9.07	8.99	9.28	
5.00	12.65	1.3866	13.68	16.45	12.70	12.70	
10.00	15.33	1.6780	16.40	18.85	15.98	15.81	
25.00	19.27	2.0813	18.00	18.33	23.91	21.37	
50.00	22.08	2.3942	18.00	26.77	26.41	19.68	
100.00	24.91	2.6895	18.00	23.18	27.56	23.96	
200.00	27.75	2.9778	18.00	25.50	31.37	24.11	



STATION 87226000 LATIN CREEK NEAR CERRO, N. MEX. 35
 PEAK = 126.0 CFS, AREA = 10.000 80 MI., 33 OBS (1938-1970) 0 ZEROS
 STATISTICAL VALUES: MEAN = 55.363 STD = 31.493 SKEW = -.612008
 LOG NORMAL & PIII: MEAN = 1.675828 STD = .246924 SKEW = -.121088
 GUMBEL PARAMETERS: ALPHA = .248727 BETA = 41.208

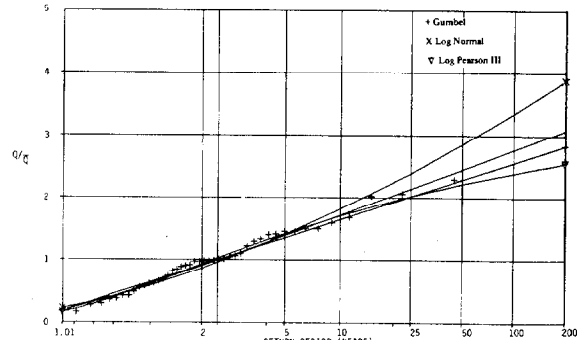
RETURN PERIOD	AVERAGE	QAV/QMEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	49.15	.8698	45.00	58.20	47.40	46.86	
2.33	53.27	.9023	50.00	55.46	58.46	51.90	
5.00	76.61	1.3893	86.00	76.83	76.83	76.83	
10.00	97.07	1.7679	106.50	96.48	98.24	99.82	
25.00	129.44	2.2839	124.20	119.74	126.29	131.30	
50.00	149.27	2.6944	127.50	137.81	150.40	156.89	
100.00	173.18	3.1287	120.20	154.15	177.97	187.16	
200.00	194.33	3.5824	136.15	171.24	204.95	216.82	

Appendix A-35. New Mexico 7-12. Flood frequency curves and data.



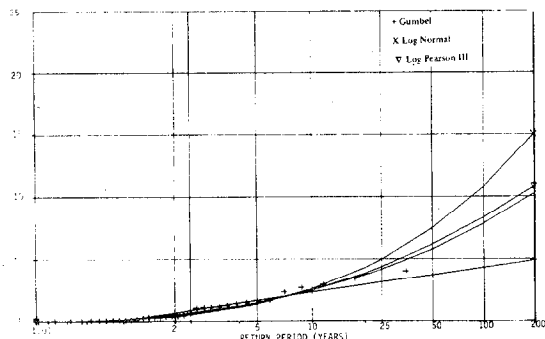
STATION 862640PH RED RIVER NEAR RED RIVER, N. MEX. 35
 PEAK = 244.0 CFS, AREA = 19,999 SQ MI, 24 OBS (1941-1964) 0 ZEROS
 STATISTICAL VALUES: MEAN = 120.941 STD = 80.995 SKEW = .067545
 LOG NORMAL & PIII: MEAN = 2.322769 STD = .332598 SKEW = -.223378
 GUMBEL PARAMETERS: ALPHA = .021832 BETA = 52.534

RETURN PERIOD	AVERAGE	QAVG/MEAN	RANK	GUMBEL	NORMAL	LOG	LOG
2.00	107.45	.8957	104.82	110.84	105.38	107.50	
2.33	116.14	.9541	119.09	120.25	115.95	119.22	
5.00	165.15	1.3750	186.00	163.24	165.41	166.18	
10.00	204.13	1.7088	234.00	200.42	209.35	209.40	
25.00	257.74	2.1432	294.00	244.77	269.19	257.84	
50.00	297.11	2.4750	357.00	278.15	316.50	298.58	
100.00	337.47	2.8129	424.00	311.34	360.38	335.28	
200.00	379.93	3.1575	494.25	344.42	418.48	374.24	



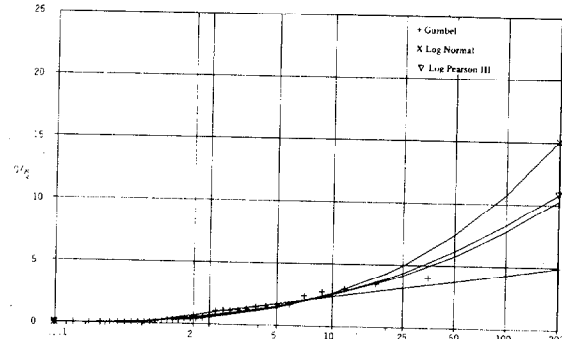
STATION 862710PH RIO LUCERO NEAR ARROYO SECO, N. MEX. 35
 PEAK = 330.0 CFS, AREA = 16,399 SQ MI, 44 OBS (1911-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 130.459 STD = 65.231 SKEW = .068138
 LOG NORMAL & PIII: MEAN = 2.053856 STD = .282328 SKEW = -.777224
 GUMBEL PARAMETERS: ALPHA = .019537 BETA = 181.365

RETURN PERIOD	AVERAGE	QAVG/MEAN	RANK	GUMBEL	NORMAL	LOG	LOG
2.00	118.48	.9058	120.88	119.06	113.28	121.07	
2.33	130.35	.9994	131.42	130.88	125.58	134.02	
5.00	182.87	1.3996	195.88	177.66	184.68	186.24	
10.00	225.06	1.7294	214.50	215.89	238.51	234.51	
25.00	280.76	2.1473	275.88	264.10	313.55	264.15	
50.00	321.30	2.4598	303.88	299.90	373.70	299.24	
100.00	367.17	2.7719	316.50	335.55	437.61	315.05	
200.00	403.38	3.0953	328.25	370.97	505.43	333.24	



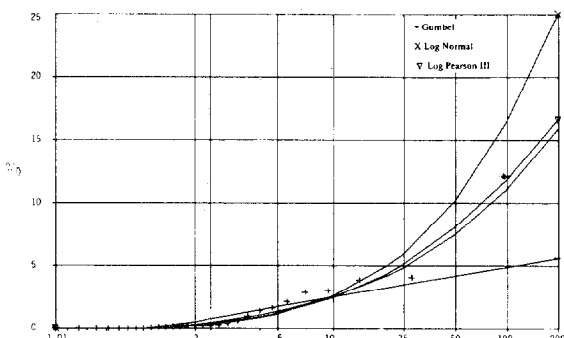
STATION 863025PH TESUQUE CR 43 DIVERGENCE NW SANTA FE N. MEX. 35
 PEAK = 532.0 CFS, AREA = 11,599 SQ MI, 34 OBS (1938-1978) 0 ZEROS
 STATISTICAL VALUES: MEAN = 157.831 STD = 105.840 SKEW = 1.358079
 LOG NORMAL & PIII: MEAN = 1.894454 STD = .577992 SKEW = .258725
 GUMBEL PARAMETERS: ALPHA = .007577 BETA = 69.968

RETURN PERIOD	AVERAGE	QAVG/MEAN	RANK	GUMBEL	NORMAL	LOG	LOG
2.00	89.80	.5815	62.88	117.57	72.28	74.74	
2.33	110.59	.7842	105.99	146.78	88.68	96.41	
5.00	240.36	1.5434	203.00	209.89	237.86	238.12	
10.00	393.10	2.5823	267.00	280.47	413.99	305.44	
25.00	654.05	4.1951	353.59	484.86	777.39	689.88	
50.00	919.14	5.7938	408.79	587.79	1171.27	971.38	
100.00	1225.98	7.8887	494.39	876.07	1988.02	1307.12	
200.00	1689.59	10.2588	711.19	771.79	2358.82	1998.92	



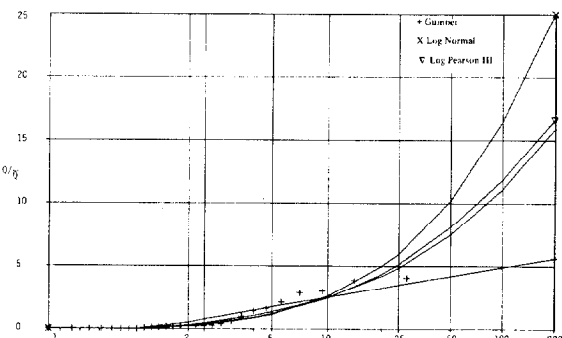
STATION 863025PH TESUQUE CR 43 DIVERGENCE NW SANTA FE N. MEX. 35
 PEAK = 532.0 CFS, AREA = 11,599 SQ MI, 34 OBS (1938-1978) 0 ZEROS
 STATISTICAL VALUES: MEAN = 157.831 STD = 105.840 SKEW = 1.358079
 LOG NORMAL & PIII: MEAN = 1.894454 STD = .577992 SKEW = .258725
 GUMBEL PARAMETERS: ALPHA = .007577 BETA = 69.968

RETURN PERIOD	AVERAGE	QAVG/MEAN	RANK	GUMBEL	NORMAL	LOG	LOG
2.00	89.80	.5815	62.88	117.57	72.28	74.74	
2.33	110.59	.7842	105.99	146.78	88.68	96.41	
5.00	240.36	1.5434	203.00	209.89	237.86	238.12	
10.00	393.10	2.5823	267.00	280.47	413.99	305.44	
25.00	654.05	4.1951	353.59	484.86	777.39	689.88	
50.00	919.14	5.7938	408.79	587.79	1171.27	971.38	
100.00	1225.98	7.8887	494.39	876.07	1988.02	1307.12	
200.00	1689.59	10.2588	711.19	771.79	2358.82	1998.92	



STATION 863130PH CANADA ANCHA TRI NEAR SANTA FE N. MEX. 35
 PEAK = 200.0 CFS, AREA = 1,238 SQ MI, 27 OBS (1943-1972) 4 ZEROS
 STATISTICAL VALUES: MEAN = 72.782 STD = 85.019 SKEW = 1.381947
 LOG NORMAL & PIII: MEAN = 1.397722 STD = .730642 SKEW = -.255824
 GUMBEL PARAMETERS: ALPHA = .013481 BETA = 30.824

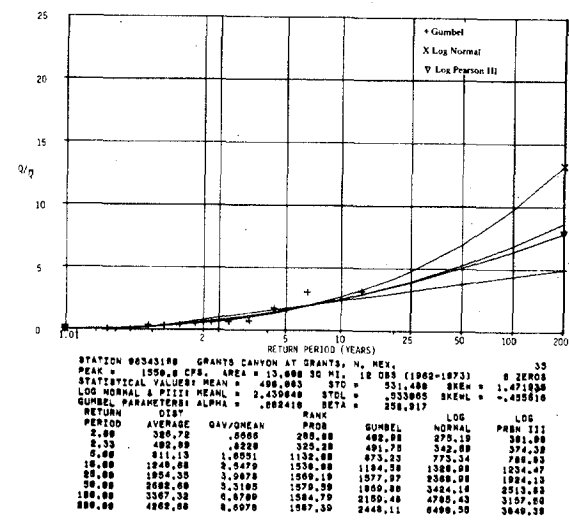
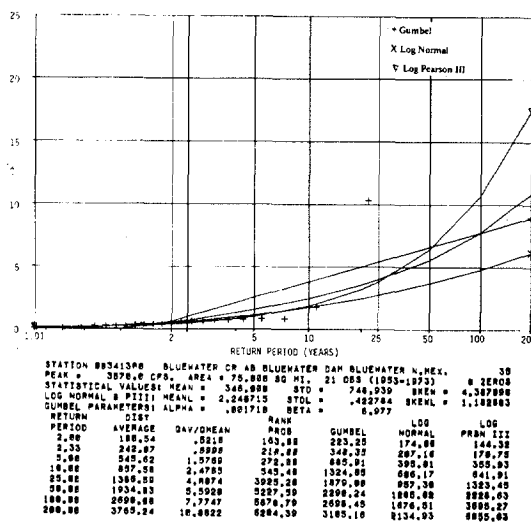
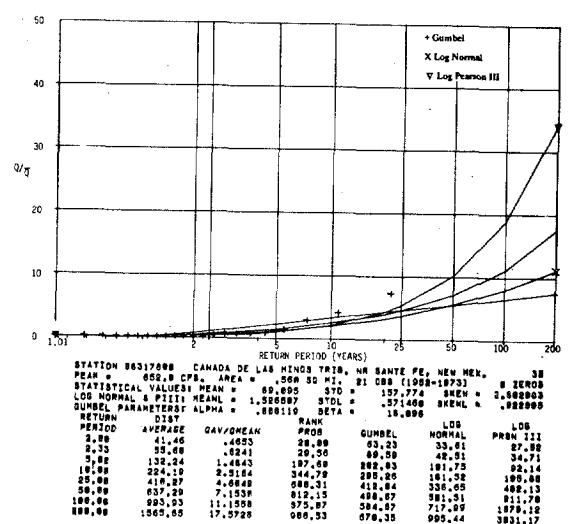
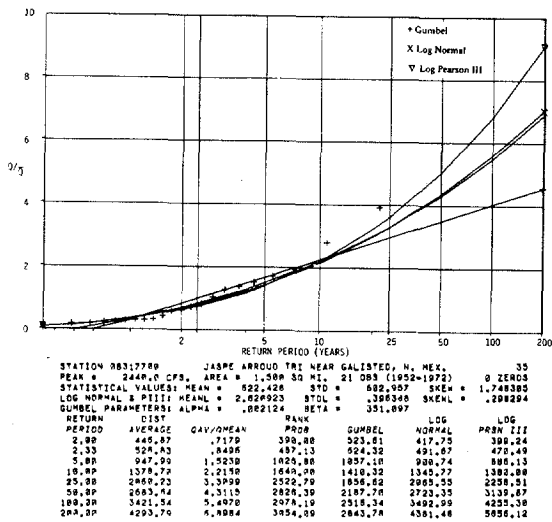
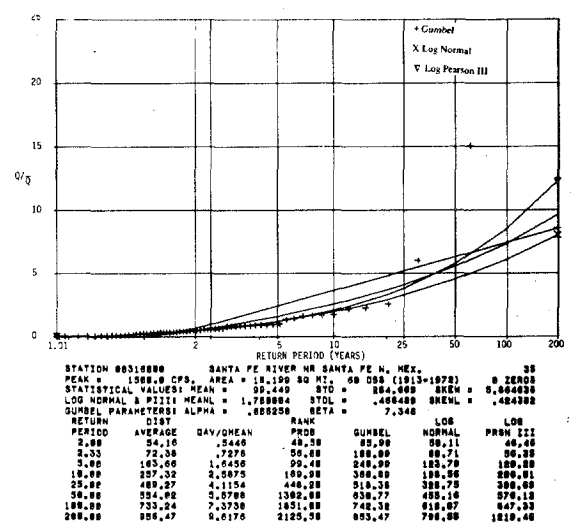
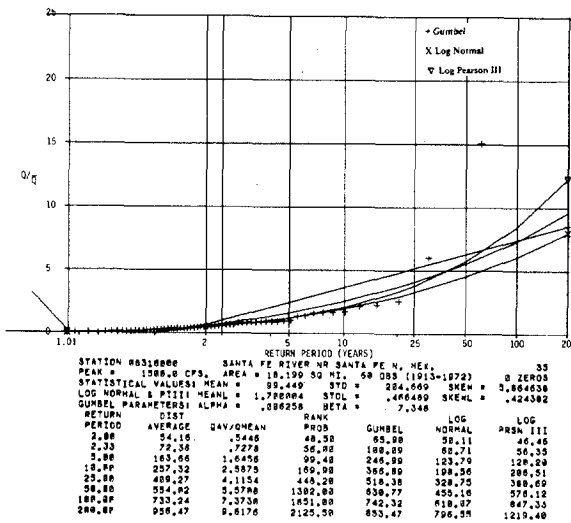
RETURN PERIOD	AVERAGE	QAVG/MEAN	RANK	GUMBEL	NORMAL	LOG	LOG
2.00	35.26	.4678	17.00	38.15	18.18	18.45	
2.33	35.93	.4938	17.88	38.54	18.74	19.02	
5.00	100.58	1.3792	133.88	107.88	85.76	179.82	
10.00	180.15	2.5438	232.88	184.34	191.28	375.32	
25.00	359.79	4.8885	296.19	235.11	423.05	592.41	
50.00	587.93	8.0884	364.39	307.42	743.07	885.48	
100.00	888.34	11.1802	386.79	359.28	1288.25	1208.01	
200.00	1155.59	15.8761	310.80	419.01	1846.89	1208.01	



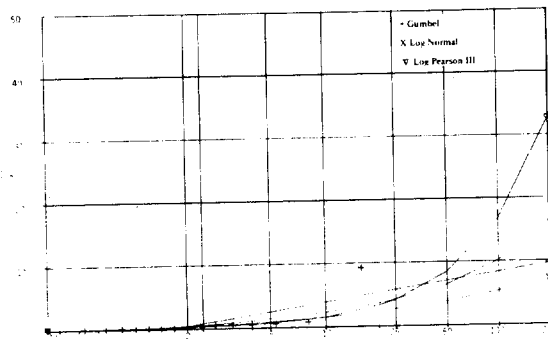
STATION 863130PH CANADA ANCHA TRI NEAR SANTA FE N. MEX. 35
 PEAK = 200.0 CFS, AREA = 1,238 SQ MI, 27 OBS (1943-1972) 4 ZEROS
 STATISTICAL VALUES: MEAN = 72.782 STD = 85.019 SKEW = 1.381947
 LOG NORMAL & PIII: MEAN = 1.397722 STD = .730642 SKEW = -.255824
 GUMBEL PARAMETERS: ALPHA = .013481 BETA = 30.824

RETURN PERIOD	AVERAGE	QAVG/MEAN	RANK	GUMBEL	NORMAL	LOG	LOG
2.00	35.26	.4678	17.00	38.15	18.18	18.45	
2.33	35.93	.4938	17.88	38.54	18.74	19.02	
5.00	100.58	1.3792	133.88	107.88	85.76	179.82	
10.00	180.15	2.5438	232.88	184.34	191.28	375.32	
25.00	359.79	4.8885	296.19	235.11	423.05	592.41	
50.00	587.93	8.0884	364.39	307.42	743.07	885.48	
100.00	888.34	11.1802	386.79	359.28	1288.25	1208.01	
200.00	1155.59	15.8761	310.80	419.01	1846.89	1208.01	

Appendix A-35. New Mexico 13-18. Flood frequency curves and data.

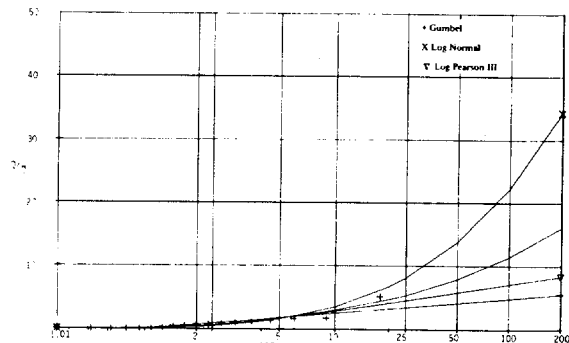


Appendix A-35. New Mexico 19-24. Flood frequency curves and data.



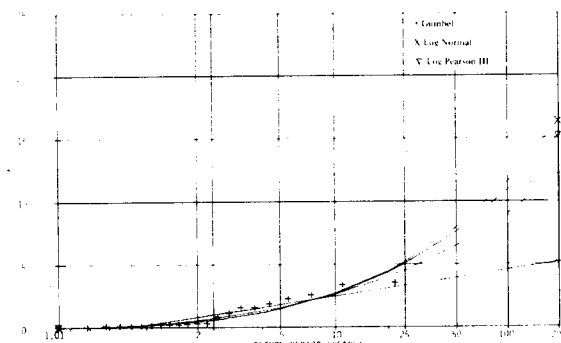
STATION 8634850B ENCINAL CREEK NR CASA BLANCA, N. MEX. 33
 PEAK = 4336.8 CFS, AREA = 4,190.80 MI., 19 DBS (1959-1973) 1 ZEROES
 STATISTICAL VALUES: MEAN = 467.205 STD = 1110.645 SKEW = 3.685324
 LOG NORMAL & PIII: MEAN = 2.240980 STD = .486830 SKEW = 1.974744
 GUMBEL PARAMETERS: ALPHA = .001147 BETA = -.35.284

RETURN PERIOD	AVERAGE	DAV/GMEAN	PROB	GUMBEL	NORMAL	LOG PRISM III
2.00	159.73	.3418	123.86	195.73	162.32	120.94
2.33	243.20	.5205	197.13	388.09	193.58	147.12
2.55	265.41	1.4239	282.59	1284.59	437.88	353.74
5.00	665.41	2.3864	1972.88	1692.88	730.53	745.99
10.00	1119.13	4.2191	5744.43	2691.52	1280.19	1855.81
25.00	1971.54	6.4025	7881.71	3375.33	1860.24	3545.92
50.00	3819.85	16.1408	7638.33	3914.28	2484.35	7829.75
100.00	4742.79	16.1408	7638.33	4520.84	3311.29	15273.91
200.00	7782.81	16.4824	7944.87			



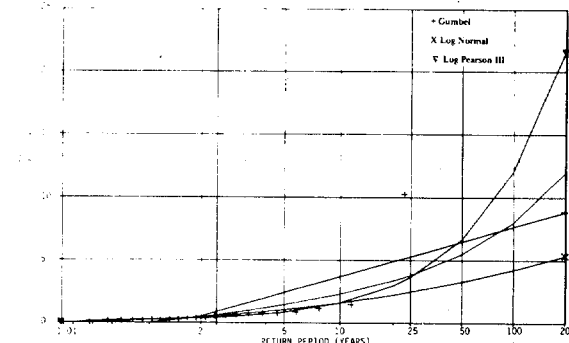
STATION 8635088B LA JENCIA CREEK TRIS, NR MAGDALENA, N. MEX. 33
 PEAK = 2318.8 CFS, AREA = 3,679.30 MI., 17 DBS (1957-1973) 1 ZEROES
 STATISTICAL VALUES: MEAN = 480.582 STD = 666.783 SKEW = 2.674313
 LOG NORMAL & PIII: MEAN = 2.388218 STD = .749288 SKEW = -.081389
 GUMBEL PARAMETERS: ALPHA = .002111 BETA = .216.518

RETURN PERIOD	AVERAGE	DAV/GMEAN	PROB	GUMBEL	NORMAL	LOG PRISM III
2.00	253.82	.5188	388.88	347.05	182.93	226.80
2.33	335.92	.6853	483.56	452.48	238.48	315.89
2.55	649.63	1.7293	716.88	864.68	868.75	836.48
5.00	1474.30	3.8116	1198.88	1252.18	1757.41	1413.87
10.00	2641.77	5.3682	2089.19	1782.21	3977.44	2245.88
25.00	3864.65	7.9557	3559.59	2635.78	9758.68	8882.18
50.00	5585.47	11.4891	3824.79	3567.57	18888.19	1786.43
100.00	7848.48	16.4314	4882.39	2696.15	18781.71	4887.33
200.00						



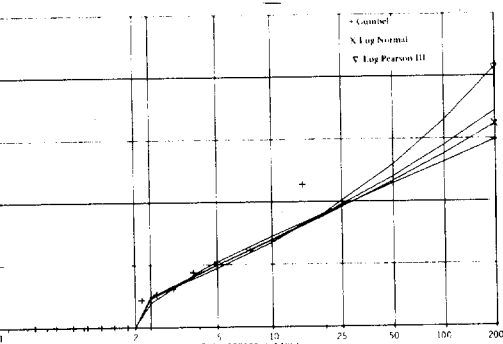
STATION 8635088B PECOS RIVER TRIS, NR DILLIA, N. MEX. 33
 PEAK = 175.8 CFS, AREA = 198.30 MI., 21 DBS (1952-1973) 0 ZEROES
 STATISTICAL VALUES: MEAN = 49.757 STD = 56.305 SKEW = 1.137488
 LOG NORMAL & PIII: MEAN = 1.389892 STD = .681789 SKEW = -.856412
 GUMBEL PARAMETERS: ALPHA = .022714 BETA = .24.378

RETURN PERIOD	AVERAGE	DAV/GMEAN	PROB	GUMBEL	NORMAL	LOG PRISM III
2.00	28.67	.3882	16.88	48.51	22.99	23.20
2.33	36.33	.7381	28.71	49.93	26.32	28.72
2.55	70.23	1.5923	106.88	68.41	73.32	73.76
5.00	138.91	2.9388	106.19	123.45	135.24	134.83
10.00	229.46	4.3312	175.84	165.19	229.13	229.63
25.00	322.78	6.4868	176.91	190.14	394.28	377.85
50.00	448.33	9.3104	188.45	228.89	575.38	542.88
100.00	667.99	12.2192	181.22	257.52	811.52	754.63
200.00						



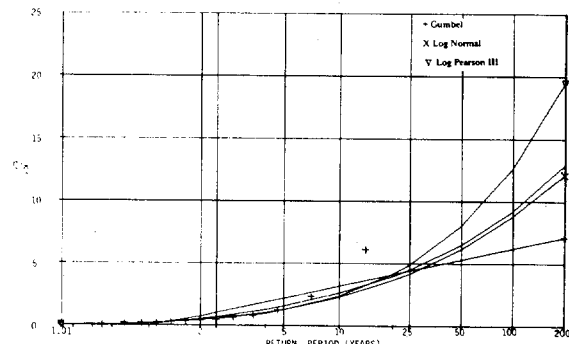
STATION 8635328B PINTADA CREEK TR NR OLIVER CORNER N. MEX. 33
 PEAK = 2188.8 CFS, AREA = 455000.82 MI., 22 DBS (1958-1973) 1 ZEROES
 STATISTICAL VALUES: MEAN = 265.984 STD = 448.176 SKEW = 4.393884
 LOG NORMAL & PIII: MEAN = 2.083808 STD = .388884 SKEW = 1.768886
 GUMBEL PARAMETERS: ALPHA = .002018 BETA = 5.6485

RETURN PERIOD	AVERAGE	DAV/GMEAN	PROB	GUMBEL	NORMAL	LOG PRISM III
2.00	93.43	.4088	78.88	188.38	188.48	188.48
2.33	187.79	.6355	118.42	183.88	118.88	88.78
2.55	381.47	1.4785	169.48	183.24	888.13	181.88
5.00	476.51	2.3388	244.59	798.21	338.24	338.87
10.00	783.88	3.8443	2245.59	1888.57	512.53	788.84
25.00	1124.92	5.3188	3888.38	1338.49	878.18	1388.18
50.00	1835.95	8.8231	3482.14	1578.45	874.15	2485.88
100.00	2437.54	11.9543	3888.57	1889.33	1889.14	4485.84
200.00						



STATION 8638331B PINTADA ARROYO TRIS, NR ENCINO, N. MEX. 33
 PEAK = 26.8 CFS, AREA = 1,888.32 MI., 14 DBS (1968-1973) 7 ZEROES
 STATISTICAL VALUES: MEAN = 11.428 STD = 7.287 SKEW = 1.617485
 LOG NORMAL & PIII: MEAN = .968432 STD = .246181 SKEW = .019430
 GUMBEL PARAMETERS: ALPHA = .177724 BETA = 8.185

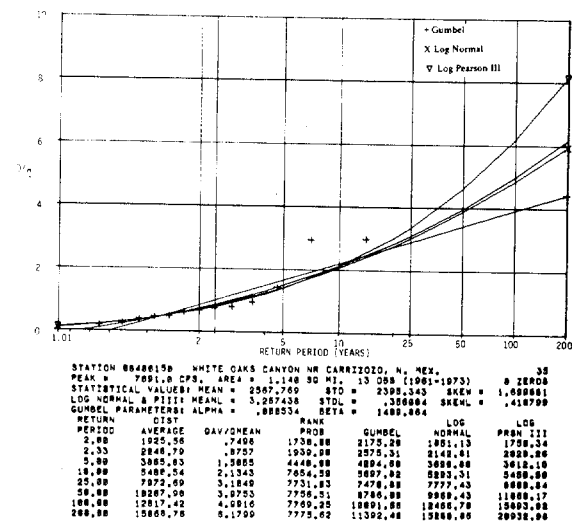
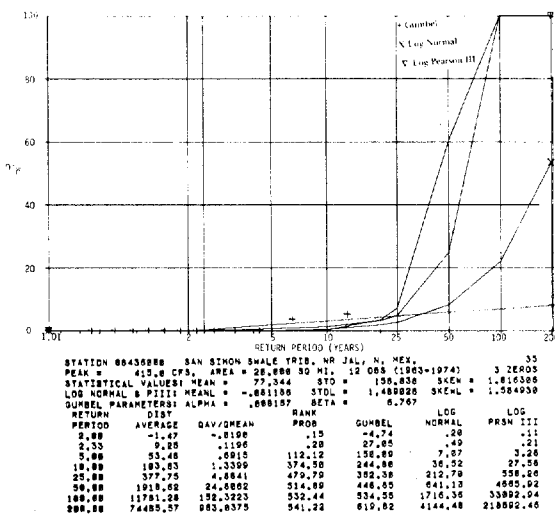
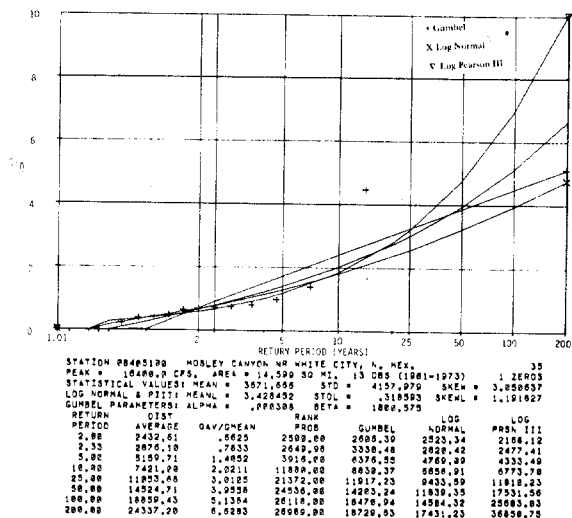
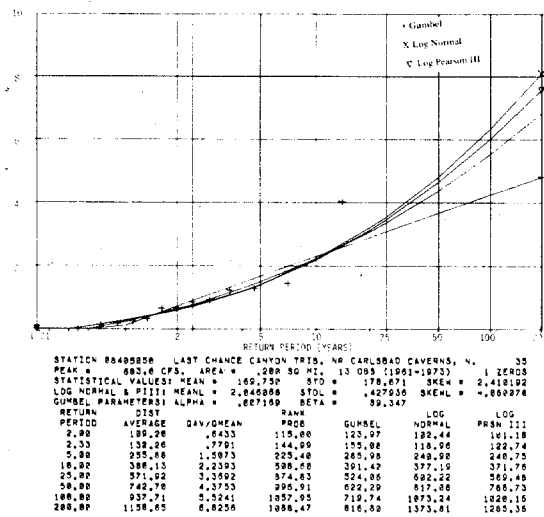
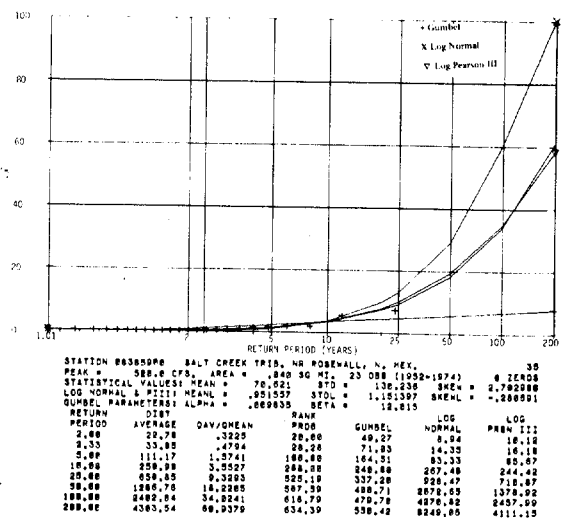
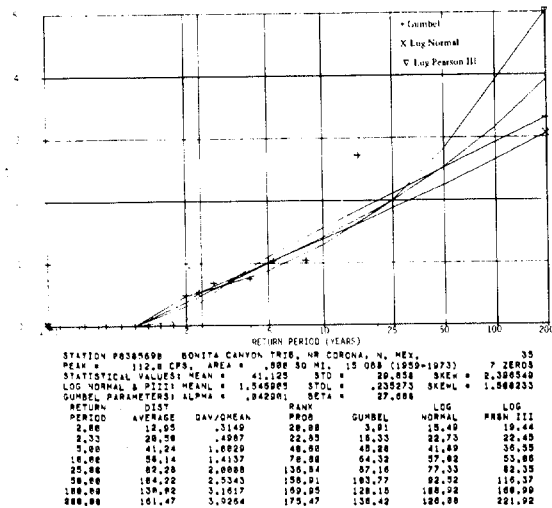
RETURN PERIOD	AVERAGE	DAV/GMEAN	PROB	GUMBEL	NORMAL	LOG PRISM III
2.00	.88	.8888	2.58	.88	.88	.88
2.33	1.15	.4589	9.37	4.43	8.49	5.38
2.55	11.38	.0956	12.93	11.98	11.48	16.77
5.00	16.82	1.4929	28.88	16.82	15.81	15.53
10.00	22.43	1.0533	38.88	22.16	22.83	23.12
25.00	27.59	2.4885	34.48	26.14	26.64	26.88
50.00	33.15	2.9818	36.28	30.14	31.65	37.71
100.00	39.41	3.4408	37.18	34.88	36.92	47.28
200.00						



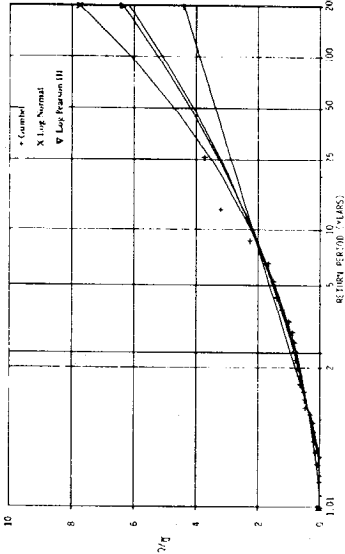
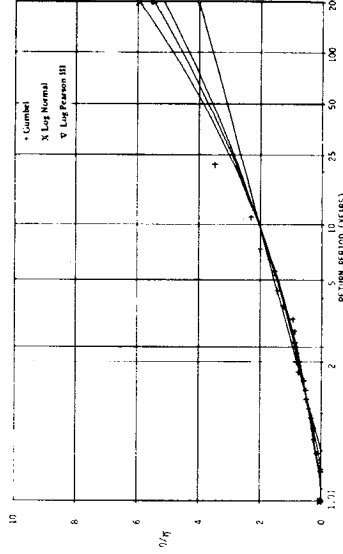
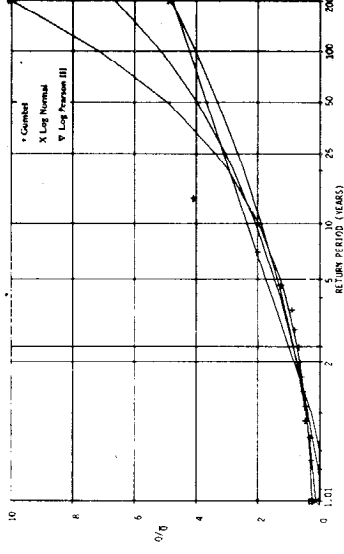
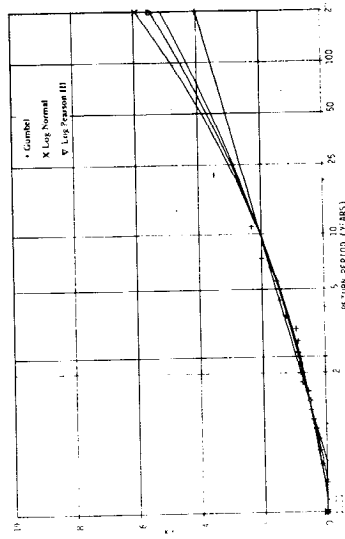
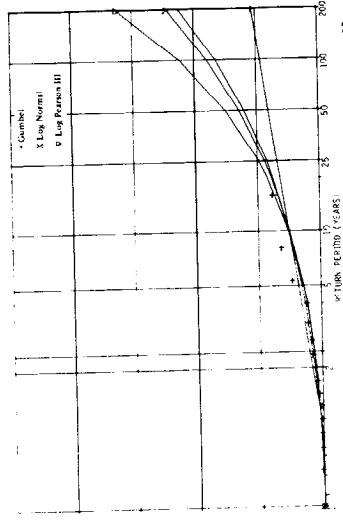
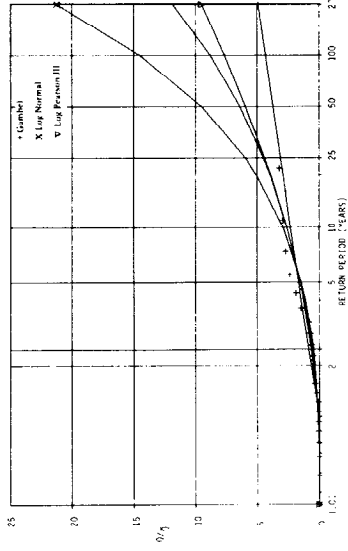
STATION 8638337B PECOS RIVER TRIS, NR PUERTO DE LUNA, N. MEX. 33
 PEAK = 1458.8 CFS, AREA = 378.30 MI., 13 DBS (1961-1973) 8 ZEROES
 STATISTICAL VALUES: MEAN = 236.133 STD = 388.382 SKEW = 2.884888
 LOG NORMAL & PIII: MEAN = 2.014481 STD = .388183 SKEW = .383119
 GUMBEL PARAMETERS: ALPHA = .003283 BETA = 59.617

RETURN PERIOD	AVERAGE	DAV/GMEAN	PROB	GUMBEL	NORMAL	LOG PRISM III
2.00	183.41	.5228	91.88	171.88	183.37	93.81
2.33	268.44	.6878	83.99	237.38	138.14	119.81
2.55	373.88	1.5832	339.88	514.98	388.18	388.58
5.00	617.79	2.6188	1888.88	748.78	548.81	588.58
10.00	1064.74	4.3887	1887.31	1838.15	888.38	1165.71
25.00	1739.85	8.5197	2188.15	1254.37	1482.38	1882.88
50.00	2181.58	9.2379	2228.57	1488.38	2878.73	2887.81
100.00	3848.45	12.8892	2282.78	1881.43	2885.47	4888.78
200.00						

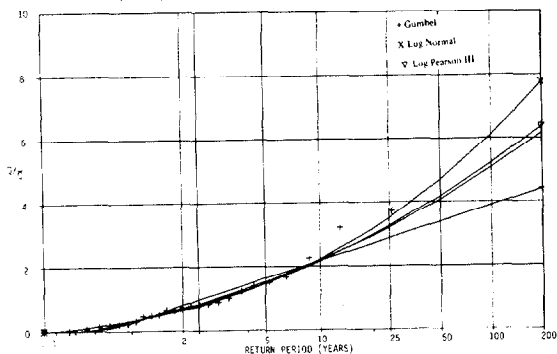
Appendix A-35. New Mexico 25-30. Flood frequency curves and data.



Appendix A-35. New Mexico 31-36. Flood frequency curves and data.

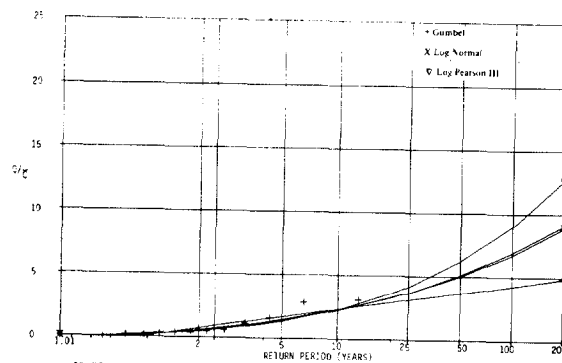


Appendix A-35. New Mexico 37-42. Flood frequency curves and data.



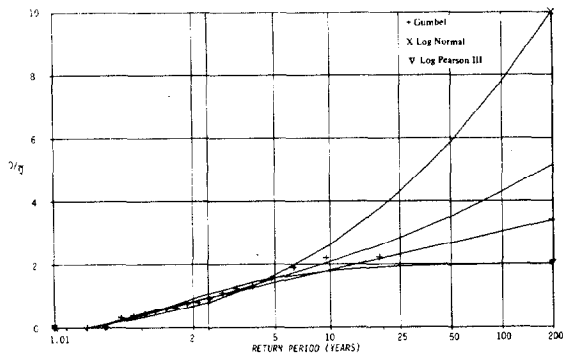
STATION 89367800 CHUSCA WASH NEAR MEXICAN SPRINGS, N. MEX. 33
 PEAK = 6400.0 CFS, AREA = 8.700 SQ MI, 23 DRS (1937-1972) 1.2E05
 STATISTICAL VALUES: MEAN = 1735.708 STD = 1532.738 SKEW = 1.749812
 LOG NORMAL & PIII: MEAN = 3.361907 STD = .414364 SKEW = -.317424
 GUMBEL PARAMETERS: ALPHA = .000790 BETA = .094475

RETURN PERIOD	AVERAGE	DAV/DMEAN	PROB	GUMBEL	NORMAL	PRSN III	LOG
2.00	1297.83	.7930	1250.00	1378.48	1189.02	1135.00	
2.33	1432.52	.8340	1391.41	1551.71	1291.13	1254.72	
5.00	2514.58	1.5235	2550.43	2815.76	2295.00	2224.00	
10.00	3777.91	2.2210	4548.00	3756.12	3039.41	3738.20	
25.00	5925.46	3.2195	6364.79	4944.20	3924.81	5082.16	
50.00	7935.11	4.0092	8422.39	5824.82	4869.23	7285.30	
100.00	8721.85	5.0835	7651.19	6609.85	5487.58	8979.25	
200.00	10595.69	6.1774	7165.59	7569.17	6389.74	11921.14	



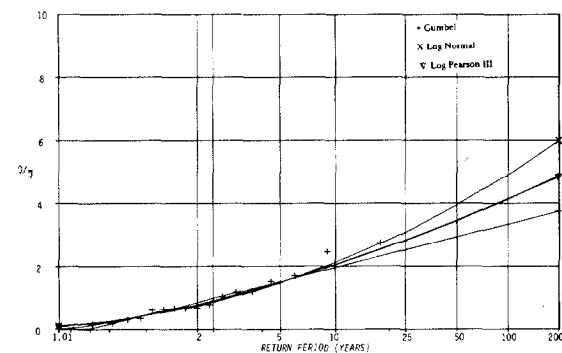
STATION 89385800 LITTLE COLORADO RIVER TRIB. NR ST. JOHNS 33
 PEAK = 326.0 CFS, AREA = .358 SQ MI, 12 DRS (1963-1974) 1.2E05
 STATISTICAL VALUES: MEAN = 185.275 STD = 118.278 SKEW = 1.346982
 LOG NORMAL & PIII: MEAN = 1.481013 STD = .461217 SKEW = .378349
 GUMBEL PARAMETERS: ALPHA = .011499 BETA = 54.747

RETURN PERIOD	AVERAGE	DAV/DMEAN	PROB	GUMBEL	NORMAL	PRSN III	LOG
2.00	61.82	.5873	45.68	75.07	57.48	58.08	
2.33	75.76	.7197	53.37	95.21	67.48	64.63	
5.00	105.06	1.4925	219.00	177.02	144.78	138.82	
10.00	230.15	2.2717	318.16	243.82	235.84	335.47	
25.00	384.71	3.0544	338.47	327.38	380.43	437.48	
50.00	528.16	3.8171	345.23	389.84	541.43	584.81	
100.00	787.33	4.7198	348.52	458.27	736.74	844.81	
200.00	926.48	5.6292	359.31	511.27	848.37	1328.08	



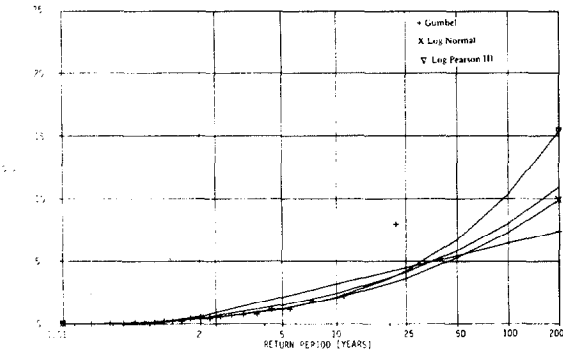
STATION 89367800 CATRON WASH NR MEXICAN SPRINGS, N. MEX. 33
 PEAK = 4700.0 CFS, AREA = 20.800 SQ MI, 18 DRS (1937-1967) 1.2E05
 STATISTICAL VALUES: MEAN = 2135.478 STD = 1418.498 SKEW = 1.602080
 LOG NORMAL & PIII: MEAN = 3.192893 STD = .445454 SKEW = -2.008382
 GUMBEL PARAMETERS: ALPHA = .000988 BETA = 1585.749

RETURN PERIOD	AVERAGE	DAV/DMEAN	PROB	GUMBEL	NORMAL	PRSN III	LOG
2.00	1761.00	.8251	1495.00	1811.86	1489.28	2884.71	
2.33	2636.41	.9545	1991.39	2854.53	1728.88	2338.43	
5.00	5345.87	1.5858	3469.00	3881.53	3548.21	3494.47	
10.00	4471.73	2.0948	4714.00	5012.11	3688.25	3874.44	
25.00	8866.74	2.8593	4759.50	4938.32	5144.58	4157.41	
50.00	7587.71	3.5157	4774.79	5735.51	12537.98	4251.66	
100.00	9145.93	4.2824	4782.30	6585.83	14833.67	4386.70	
200.00	11026.27	5.1043	4788.10	7268.77	21403.67	4322.38	



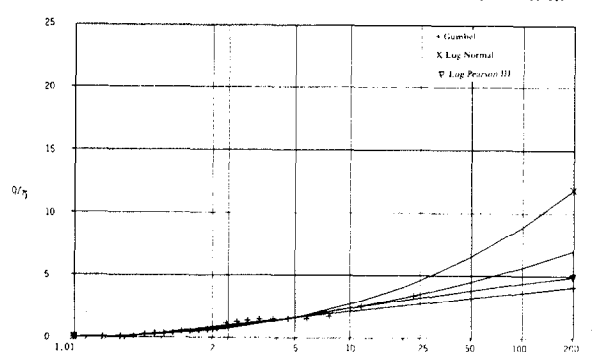
STATION 89367800 GALESTEMA CANYON TRIB. NR BLACK ROCK, N. MEX. 33
 PEAK = 966.0 CFS, AREA = 16.800 SQ MI, 17 DRS (1957-1973) 2.1E05
 STATISTICAL VALUES: MEAN = 248.235 STD = 179.775 SKEW = 1.288982
 LOG NORMAL & PIII: MEAN = 2.268833 STD = .348714 SKEW = -.287761
 GUMBEL PARAMETERS: ALPHA = .007125 BETA = 159.336

RETURN PERIOD	AVERAGE	DAV/DMEAN	PROB	GUMBEL	NORMAL	PRSN III	LOG
2.00	194.18	.8883	165.00	218.77	182.31	189.46	
2.33	223.28	.9208	287.13	248.88	219.41	218.26	
5.00	383.24	1.5128	384.70	365.83	358.48	381.49	
10.00	493.84	2.0555	606.39	475.15	518.24	498.12	
25.00	678.87	2.8258	678.75	688.21	743.81	884.88	
50.00	698.40	3.4509	700.93	708.93	944.81	835.83	
100.00	993.47	4.1354	714.25	884.91	1188.82	894.88	
200.00	1168.32	4.8632	728.06	982.54	1441.35	1161.08	



STATION 89367800 MILK RANCH CANYON NEAR FORT WINGATE, N. MEX. 33
 PEAK = 1290.0 CFS, AREA = 14.000 SQ MI, 21 DRS (1948-1972) 1.2E05
 STATISTICAL VALUES: MEAN = 109.500 STD = 297.920 SKEW = 3.783818
 LOG NORMAL & PIII: MEAN = 1.980831 STD = .516115 SKEW = .418882
 GUMBEL PARAMETERS: ALPHA = .004290 BETA = 35.431

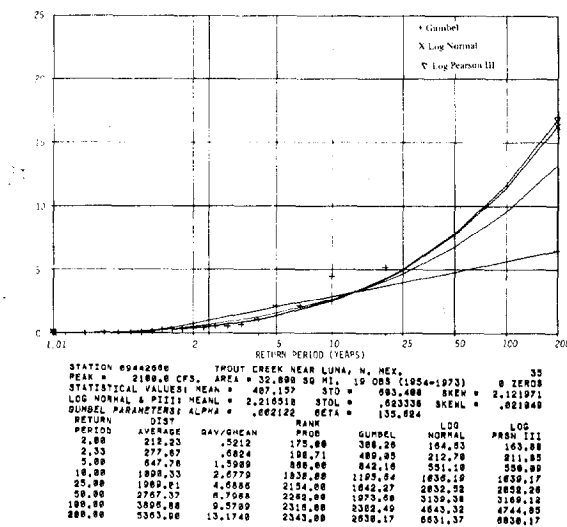
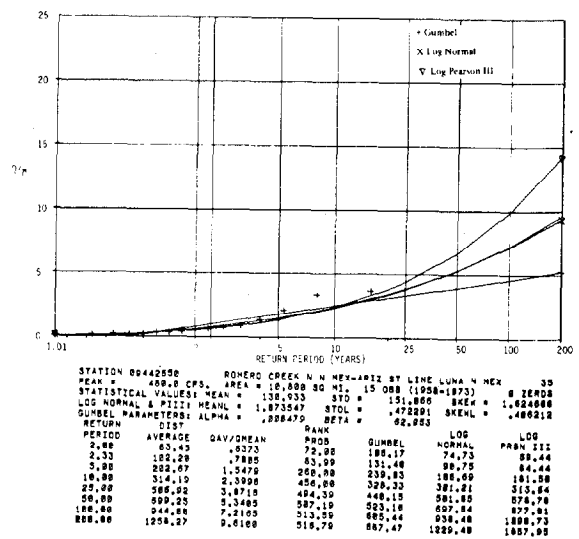
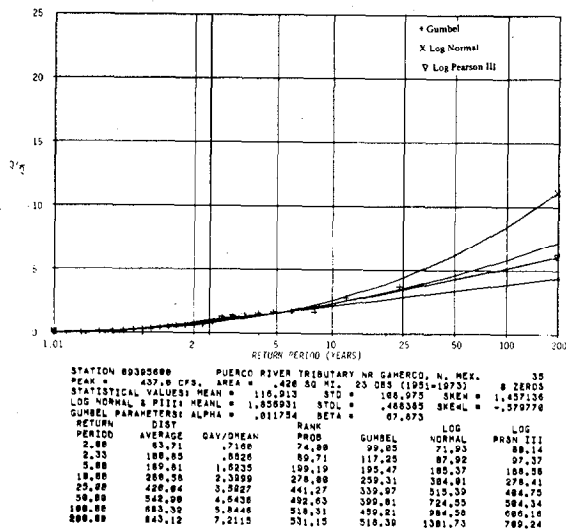
RETURN PERIOD	AVERAGE	DAV/DMEAN	PROB	GUMBEL	NORMAL	PRSN III	LOG
2.00	82.42	.4462	72.00	104.87	70.11	68.00	
2.33	111.29	.5597	89.71	155.87	98.48	85.32	
5.00	268.08	1.6742	288.00	371.30	288.33	289.28	
10.00	423.85	2.4950	371.39	546.82	355.95	366.30	
25.00	766.49	4.1581	167.12	787.74	625.35	728.30	
50.00	904.22	5.0958	1088.50	931.48	1081.78	1169.44	
100.00	1367.59	6.0072	2121.27	1893.89	1251.91	1758.32	
200.00	1806.51	10.9102	2228.53	1255.72	1686.88	2889.28	



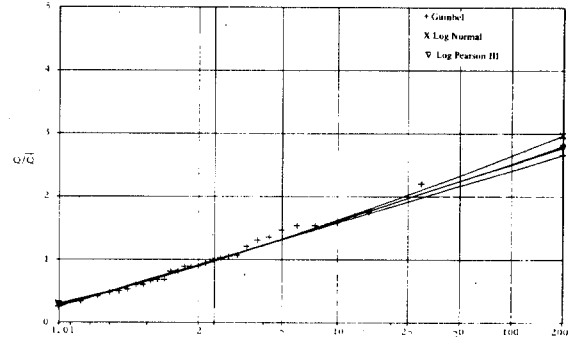
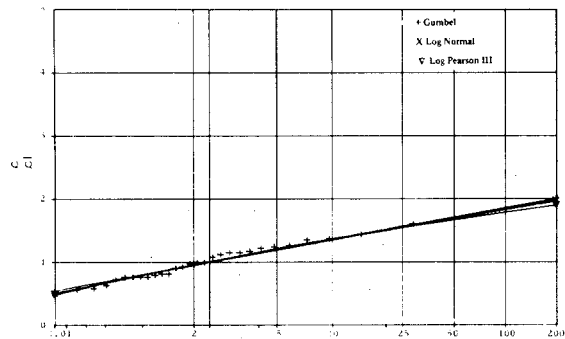
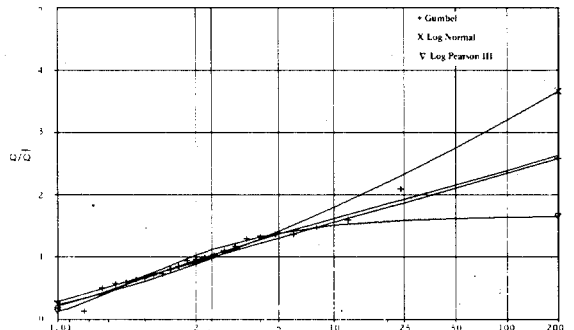
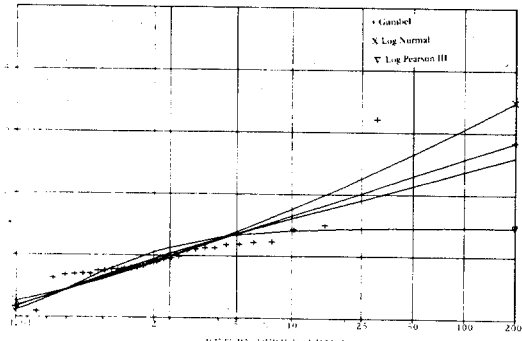
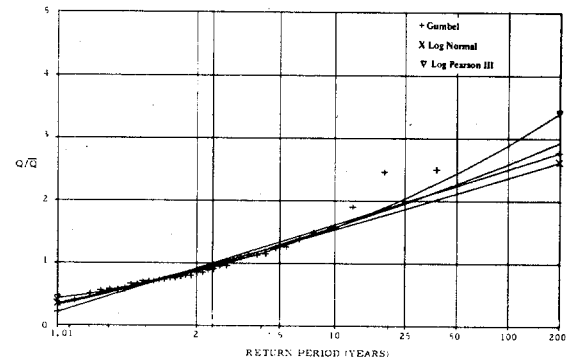
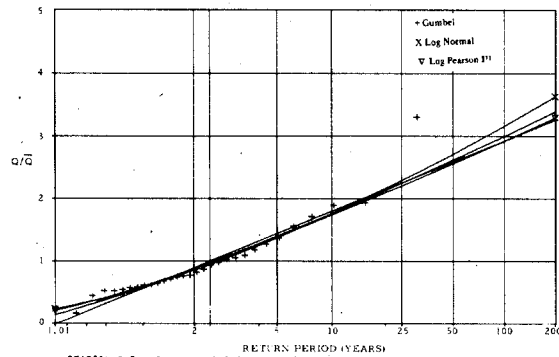
STATION 89367800 MAZON TRAIL WASH TRIBUTARY NR GANFUO, N. MEX. 33
 PEAK = 437.0 CFS, AREA = .423 SQ MI, 22 DRS (1951-1972) 2.1E05
 STATISTICAL VALUES: MEAN = 126.845 STD = 119.304 SKEW = 1.280331
 LOG NORMAL & PIII: MEAN = 1.985744 STD = .464535 SKEW = -.624885
 GUMBEL PARAMETERS: ALPHA = .011511 BETA = 79.401

RETURN PERIOD	AVERAGE	DAV/DMEAN	PROB	GUMBEL	NORMAL	PRSN III	LOG
2.00	95.78	.7414	86.28	118.06	81.23	94.92	
2.33	114.48	.8085	150.45	150.58	96.34	115.04	
5.00	211.47	1.4418	200.00	208.57	211.53	215.19	
10.00	395.96	2.3501	287.50	273.29	346.93	364.43	
25.00	456.98	3.3342	445.56	343.86	506.55	418.72	
50.00	584.83	4.7074	464.77	415.43	842.41	495.08	
100.00	721.28	5.0092	516.38	472.58	1146.17	578.81	
200.00	890.52	6.0795	531.09	535.47	1224.58	658.44	

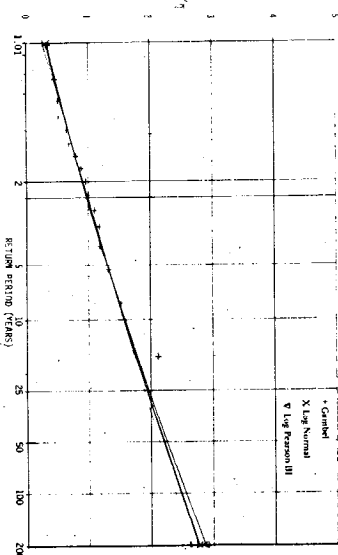
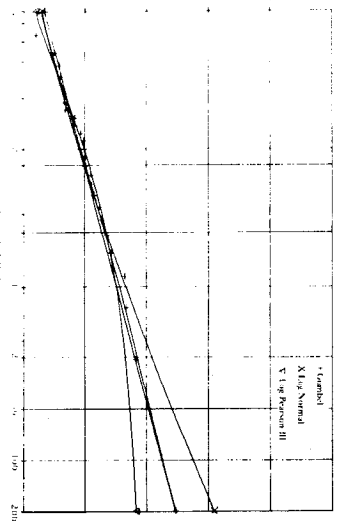
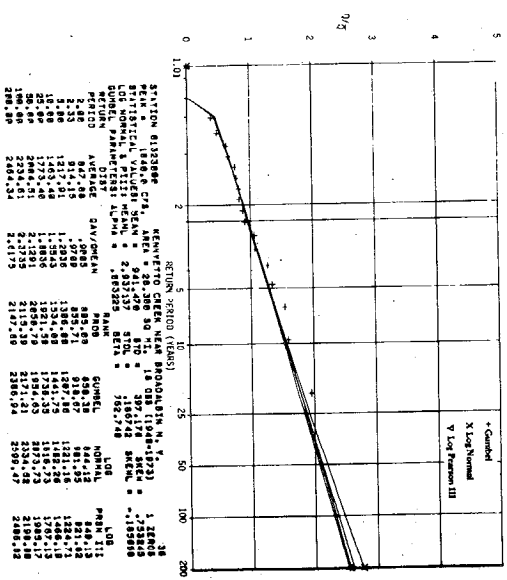
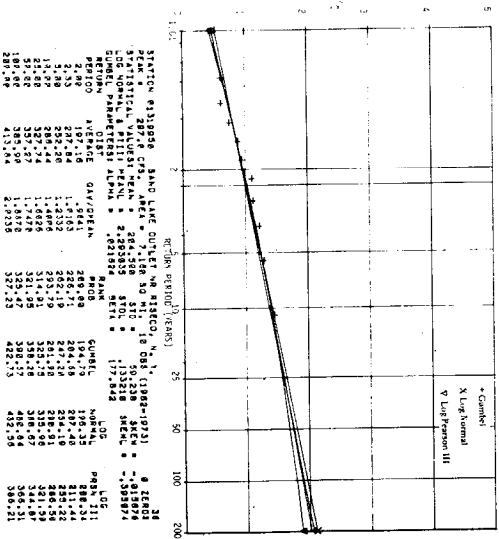
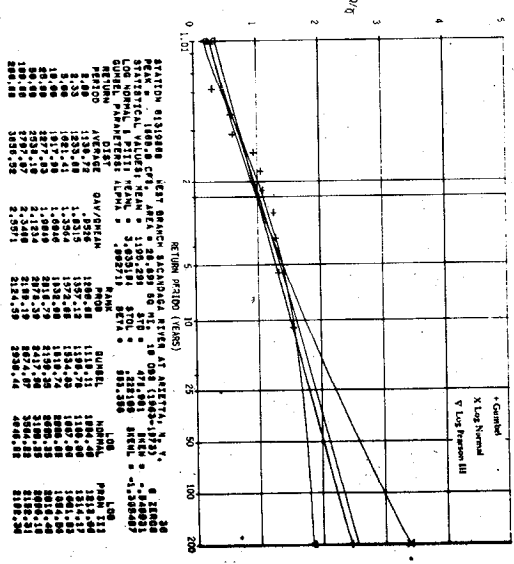
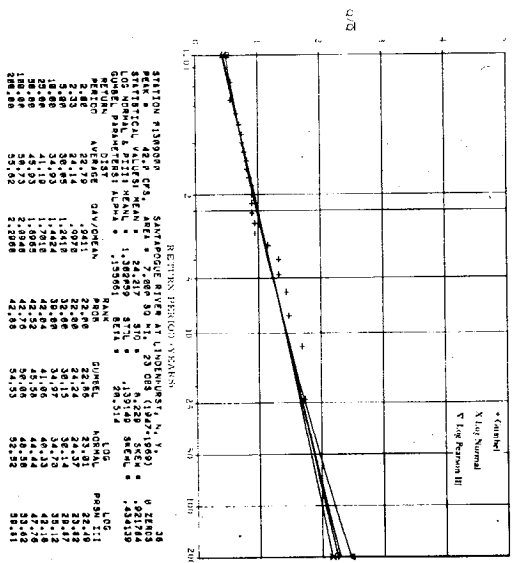
Appendix A-35. New Mexico 43-48. Flood frequency curves and data.

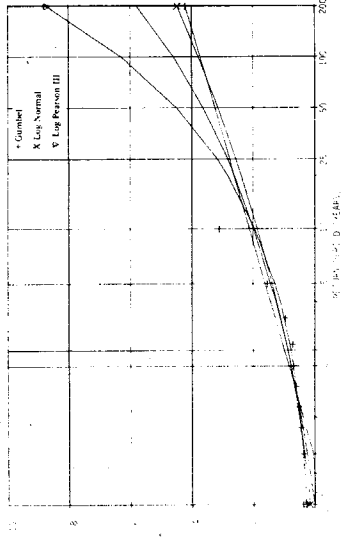


Appendix A-35. New Mexico 49-51. Flood frequency curves and data.

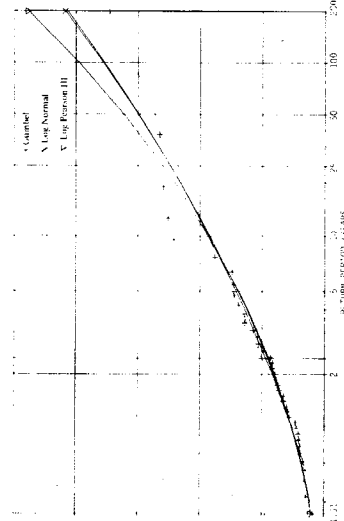


Appendix A-36. New York 1-6. Flood frequency curves and data.

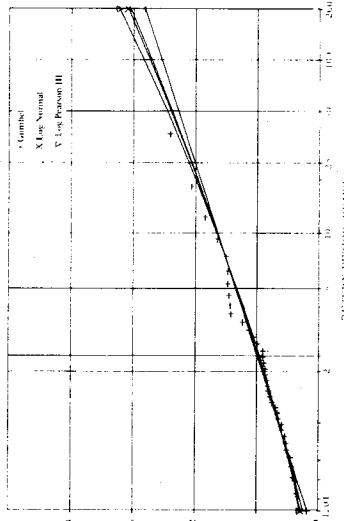




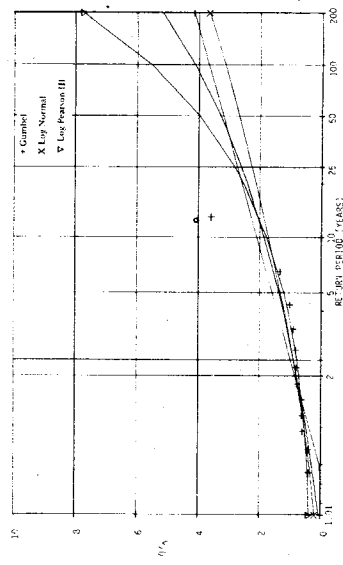
STATION 8132800 CREEK AT WADE PARK, N.Y. OBS (1938-1973) 36
 PEAK = 2176.0 CFS AREA = 13,000 SQ. MI. 0.03 (1938-1973) 0.2623
 STATISTICAL VALUES: MEAN = 699.446 STD = 880.392 SEEM = 2.189374
 LOG NORMAL DISTRIBUTION: MEAN = 6.21106 STD = 1.109278
 GUMBEL PARAMETERS: ALPHA = 0.02215 BETA = 424.617
 PERIOD AVERAGE GAV/DEAN RANK LOG
 2.00 545.38 7432 493.38 359.22 359.25 489.28
 5.00 1024.17 14418 1084.30 1335.07 856.12 959.75
 10.00 1382.67 14356 2178.68 1407.52 1384.68 1507.63
 50.00 2326.68 51328 3582.00 2247.04 2192.79 3125.15
 100.00 3282.22 41379 3594.51 3534.47 4374.18
 200.00 4050.12 31353 3740.77 5113.37 6055.19



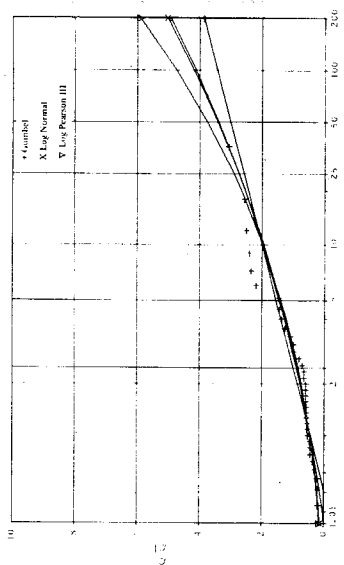
STATION 8132800 CREEK AT WADE PARK, N.Y. OBS (1938-1973) 36
 PEAK = 2176.0 CFS AREA = 13,000 SQ. MI. 0.03 (1938-1973) 0.2623
 STATISTICAL VALUES: MEAN = 699.446 STD = 880.392 SEEM = 2.189374
 LOG NORMAL DISTRIBUTION: MEAN = 6.21106 STD = 1.109278
 GUMBEL PARAMETERS: ALPHA = 0.02215 BETA = 424.617
 PERIOD AVERAGE GAV/DEAN RANK LOG
 2.00 545.38 7432 493.38 359.22 359.25 489.28
 5.00 1024.17 14418 1084.30 1335.07 856.12 959.75
 10.00 1382.67 14356 2178.68 1407.52 1384.68 1507.63
 50.00 2326.68 51328 3582.00 2247.04 2192.79 3125.15
 100.00 3282.22 41379 3594.51 3534.47 4374.18
 200.00 4050.12 31353 3740.77 5113.37 6055.19



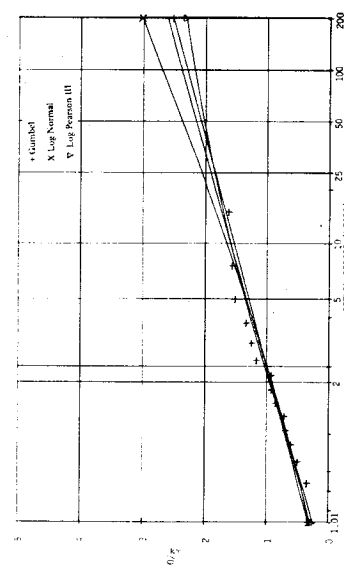
STATION 8132800 CREEK AT WADE PARK, N.Y. OBS (1938-1973) 36
 PEAK = 2176.0 CFS AREA = 13,000 SQ. MI. 0.03 (1938-1973) 0.2623
 STATISTICAL VALUES: MEAN = 699.446 STD = 880.392 SEEM = 2.189374
 LOG NORMAL DISTRIBUTION: MEAN = 6.21106 STD = 1.109278
 GUMBEL PARAMETERS: ALPHA = 0.02215 BETA = 424.617
 PERIOD AVERAGE GAV/DEAN RANK LOG
 2.00 545.38 7432 493.38 359.22 359.25 489.28
 5.00 1024.17 14418 1084.30 1335.07 856.12 959.75
 10.00 1382.67 14356 2178.68 1407.52 1384.68 1507.63
 50.00 2326.68 51328 3582.00 2247.04 2192.79 3125.15
 100.00 3282.22 41379 3594.51 3534.47 4374.18
 200.00 4050.12 31353 3740.77 5113.37 6055.19



STATION 8132800 CREEK AT WADE PARK, N.Y. OBS (1938-1973) 36
 PEAK = 2176.0 CFS AREA = 13,000 SQ. MI. 0.03 (1938-1973) 0.2623
 STATISTICAL VALUES: MEAN = 699.446 STD = 880.392 SEEM = 2.189374
 LOG NORMAL DISTRIBUTION: MEAN = 6.21106 STD = 1.109278
 GUMBEL PARAMETERS: ALPHA = 0.02215 BETA = 424.617
 PERIOD AVERAGE GAV/DEAN RANK LOG
 2.00 545.38 7432 493.38 359.22 359.25 489.28
 5.00 1024.17 14418 1084.30 1335.07 856.12 959.75
 10.00 1382.67 14356 2178.68 1407.52 1384.68 1507.63
 50.00 2326.68 51328 3582.00 2247.04 2192.79 3125.15
 100.00 3282.22 41379 3594.51 3534.47 4374.18
 200.00 4050.12 31353 3740.77 5113.37 6055.19

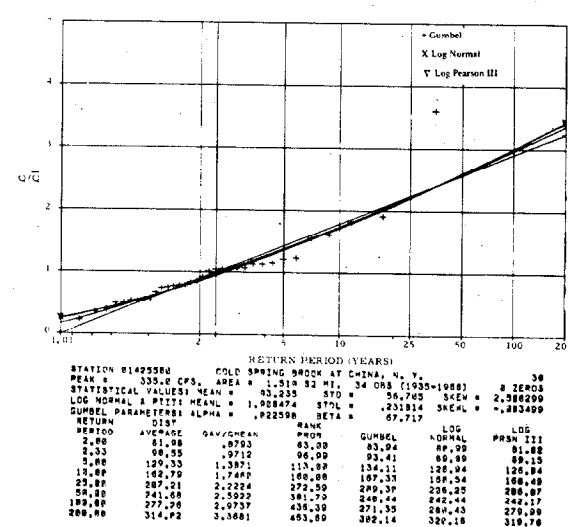
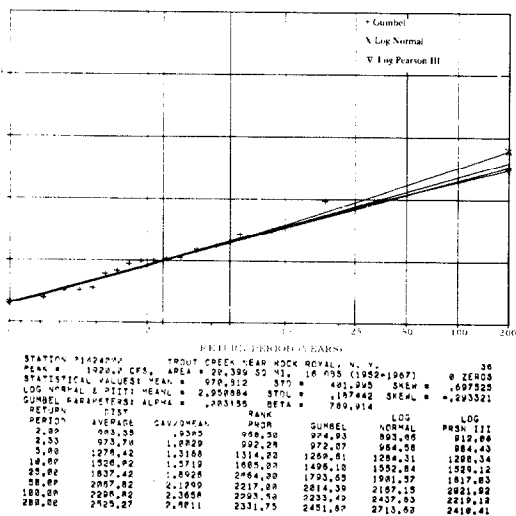
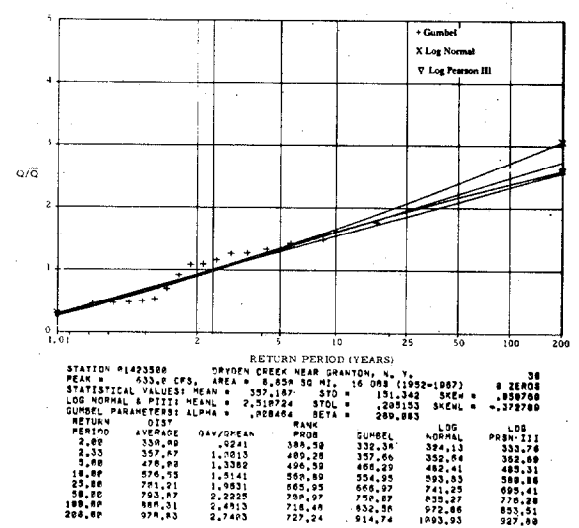
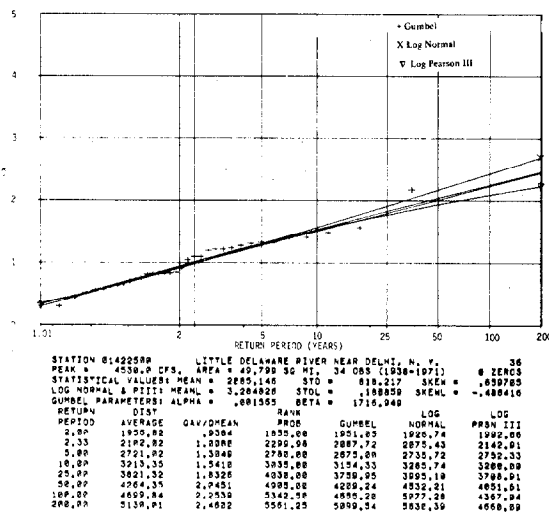
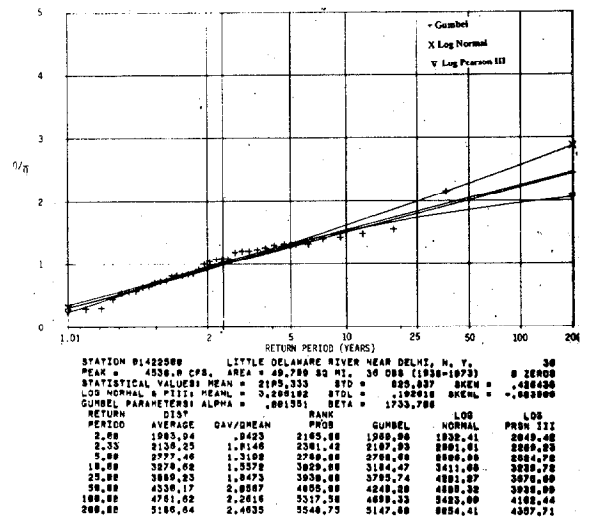
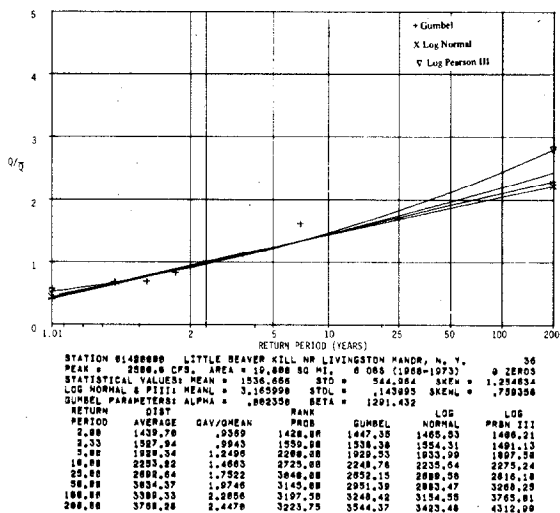


STATION 8132800 CREEK AT WADE PARK, N.Y. OBS (1938-1973) 36
 PEAK = 2176.0 CFS AREA = 13,000 SQ. MI. 0.03 (1938-1973) 0.2623
 STATISTICAL VALUES: MEAN = 699.446 STD = 880.392 SEEM = 2.189374
 LOG NORMAL DISTRIBUTION: MEAN = 6.21106 STD = 1.109278
 GUMBEL PARAMETERS: ALPHA = 0.02215 BETA = 424.617
 PERIOD AVERAGE GAV/DEAN RANK LOG
 2.00 545.38 7432 493.38 359.22 359.25 489.28
 5.00 1024.17 14418 1084.30 1335.07 856.12 959.75
 10.00 1382.67 14356 2178.68 1407.52 1384.68 1507.63
 50.00 2326.68 51328 3582.00 2247.04 2192.79 3125.15
 100.00 3282.22 41379 3594.51 3534.47 4374.18
 200.00 4050.12 31353 3740.77 5113.37 6055.19

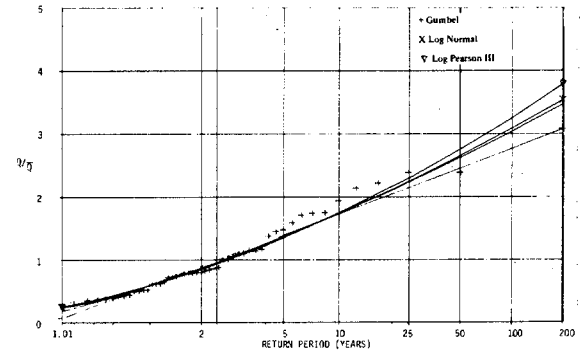
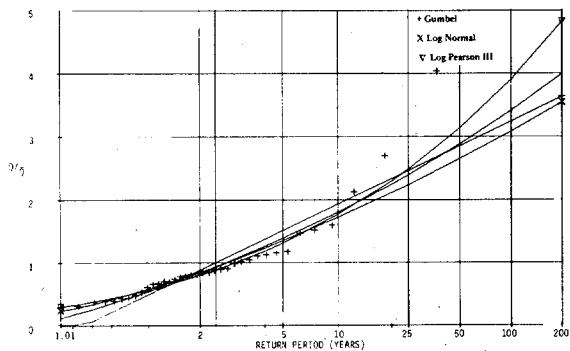
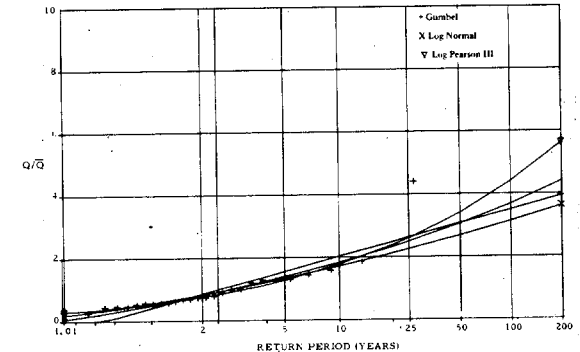
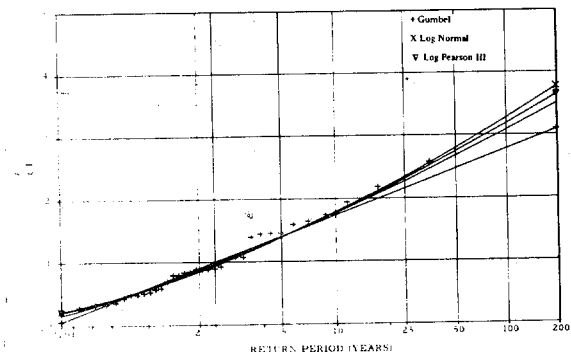
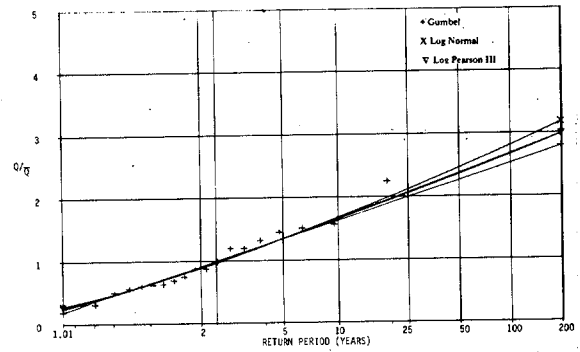
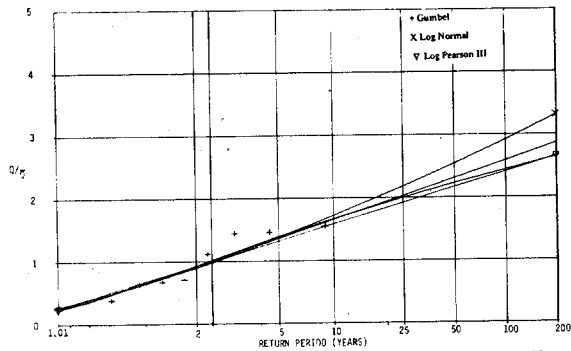


STATION 8132800 CREEK AT WADE PARK, N.Y. OBS (1938-1973) 36
 PEAK = 2176.0 CFS AREA = 13,000 SQ. MI. 0.03 (1938-1973) 0.2623
 STATISTICAL VALUES: MEAN = 699.446 STD = 880.392 SEEM = 2.189374
 LOG NORMAL DISTRIBUTION: MEAN = 6.21106 STD = 1.109278
 GUMBEL PARAMETERS: ALPHA = 0.02215 BETA = 424.617
 PERIOD AVERAGE GAV/DEAN RANK LOG
 2.00 545.38 7432 493.38 359.22 359.25 489.28
 5.00 1024.17 14418 1084.30 1335.07 856.12 959.75
 10.00 1382.67 14356 2178.68 1407.52 1384.68 1507.63
 50.00 2326.68 51328 3582.00 2247.04 2192.79 3125.15
 100.00 3282.22 41379 3594.51 3534.47 4374.18
 200.00 4050.12 31353 3740.77 5113.37 6055.19

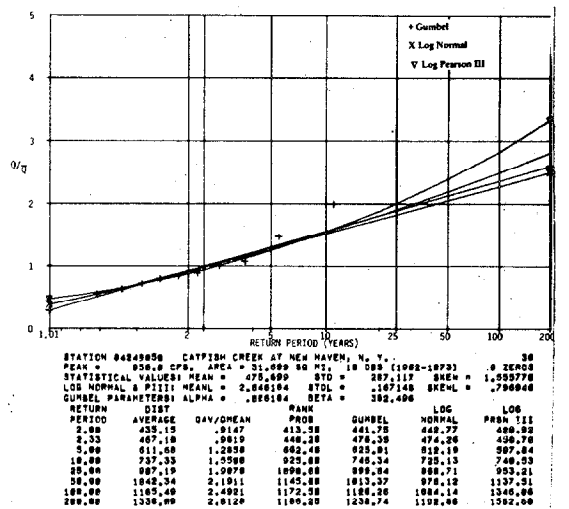
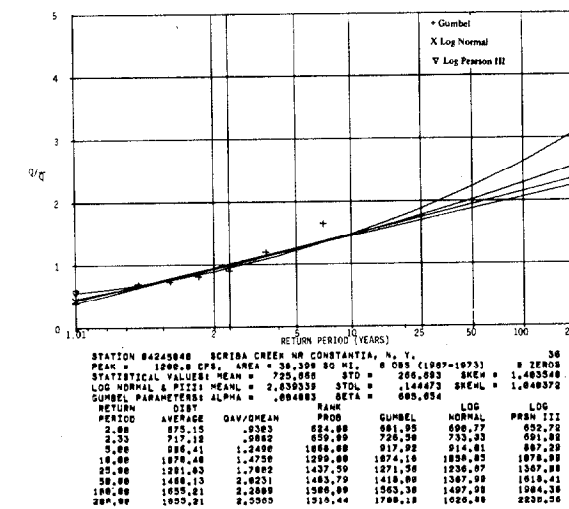
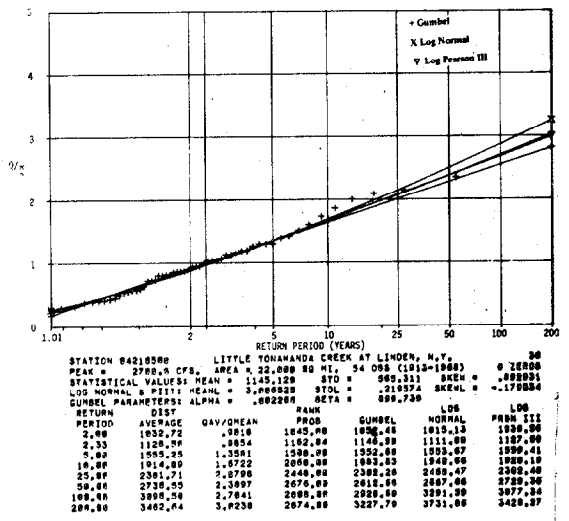
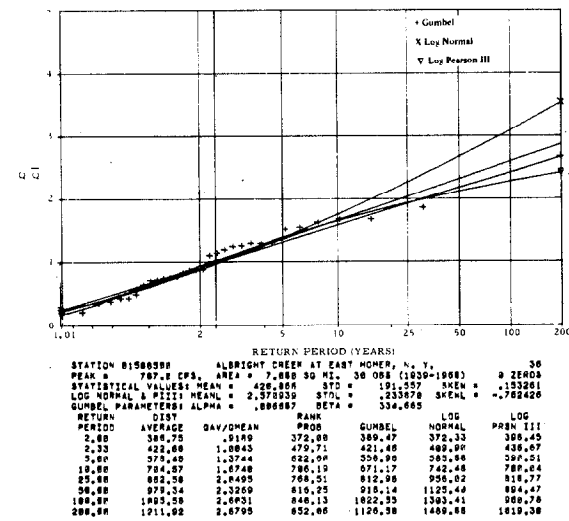
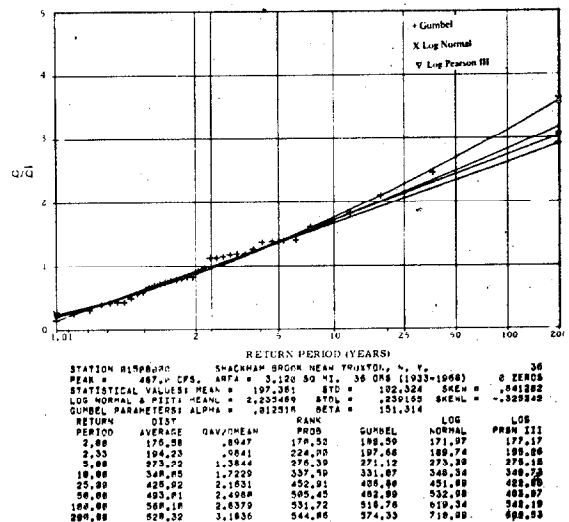
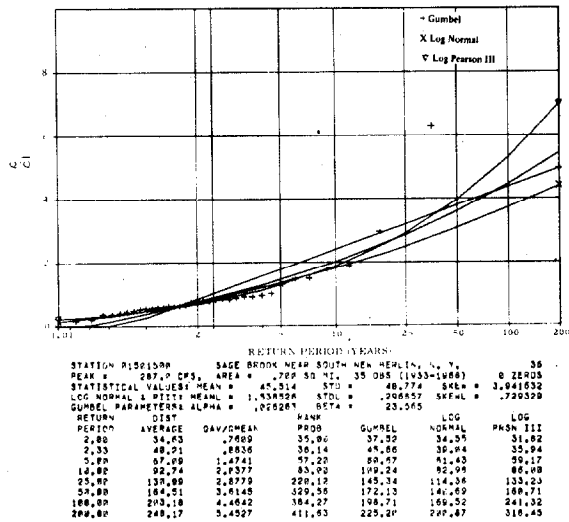
Appendix A-36. New York 19-24. Flood frequency curves and data.



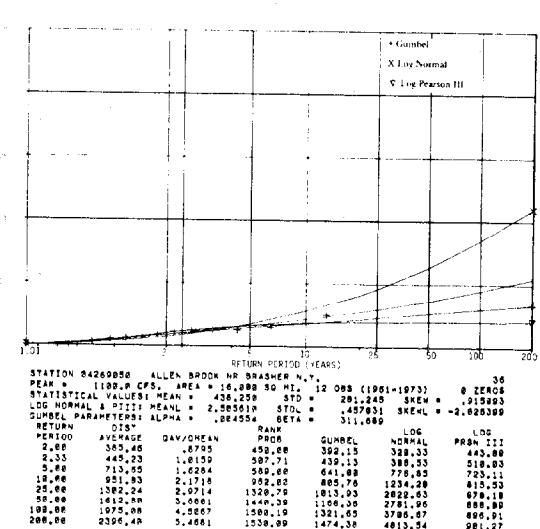
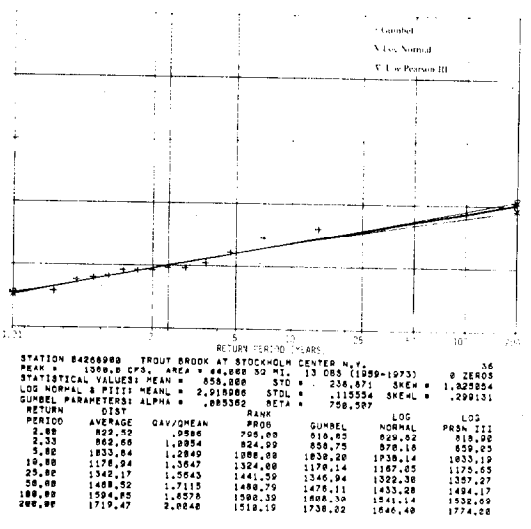
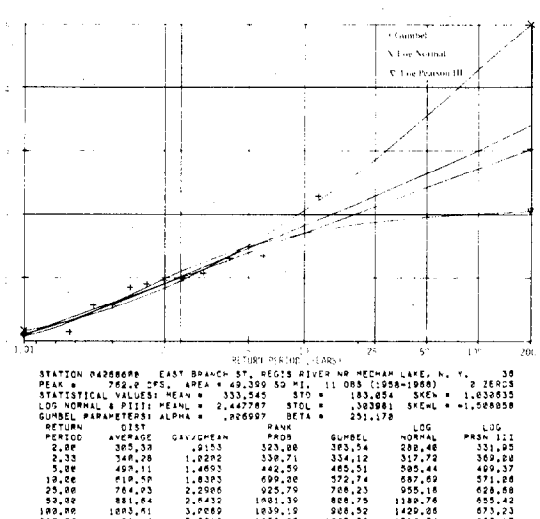
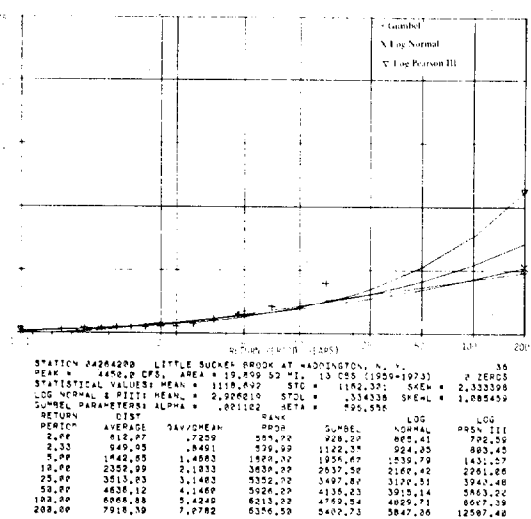
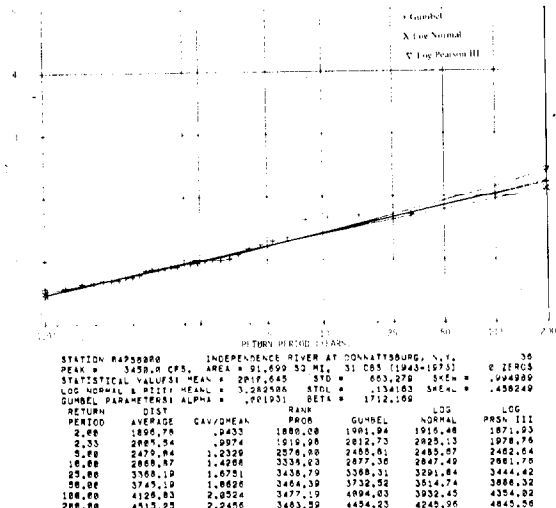
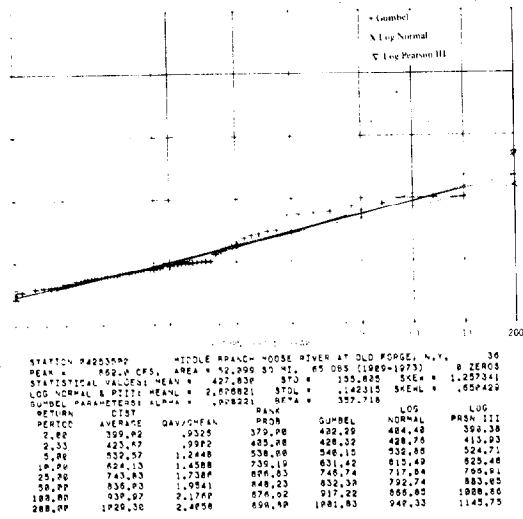
Appendix A-36. New York 25-30. Flood frequency curves and data.



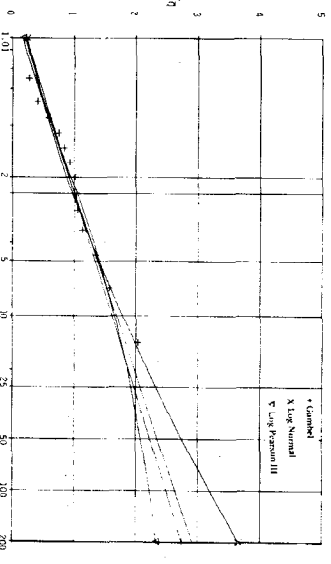
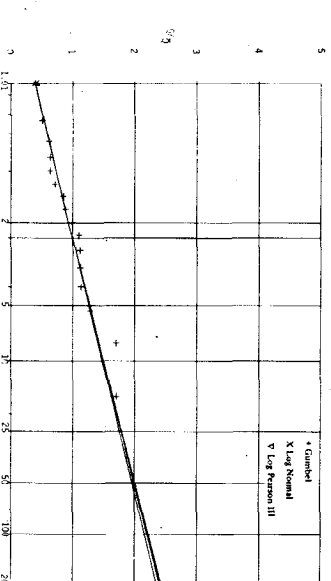
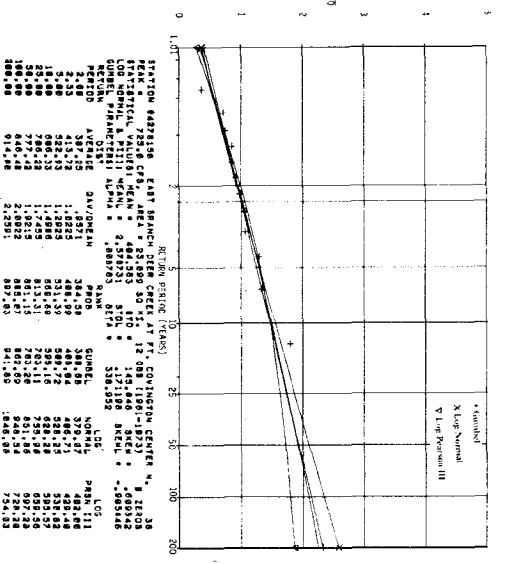
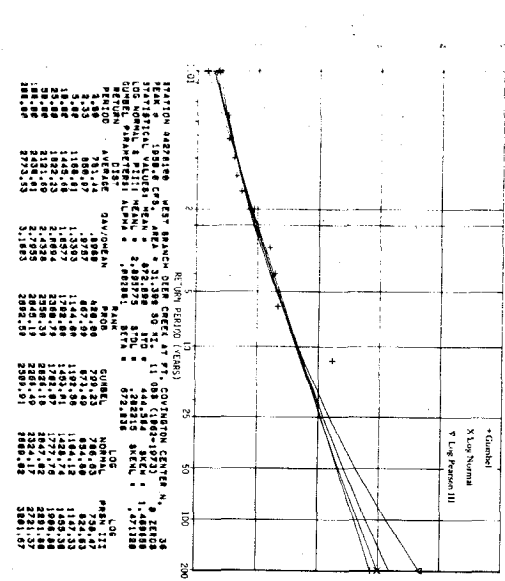
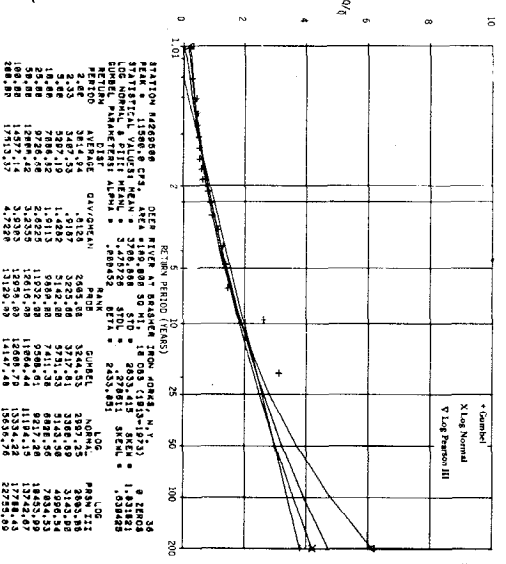
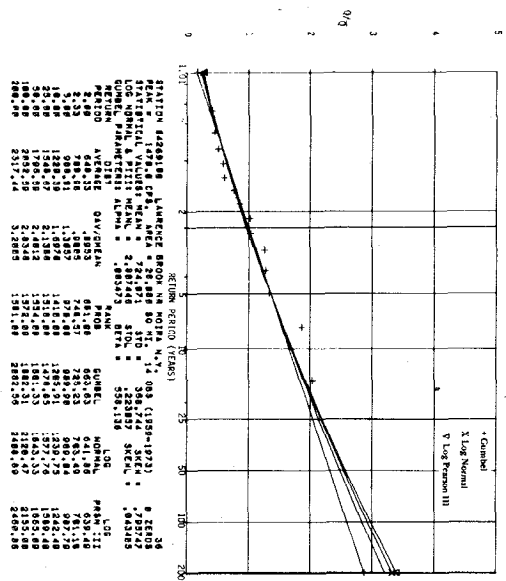
Appendix A-36. New York 31-36. Flood frequency curves and data.



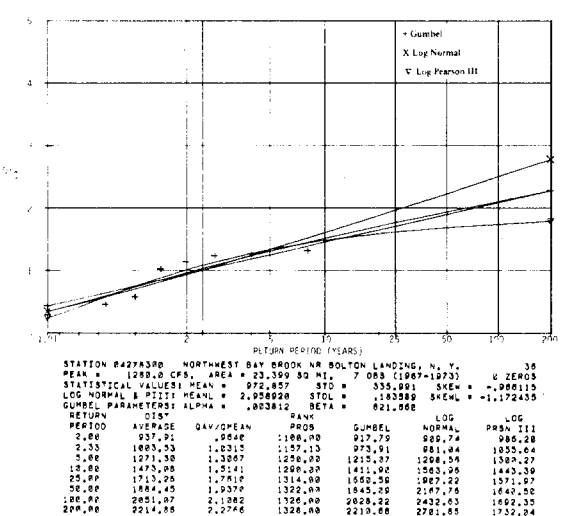
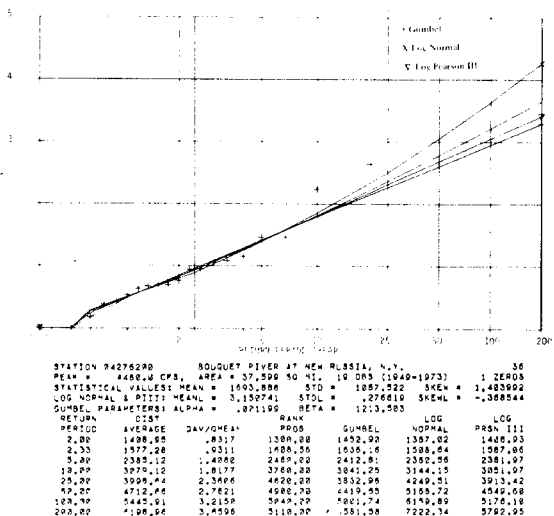
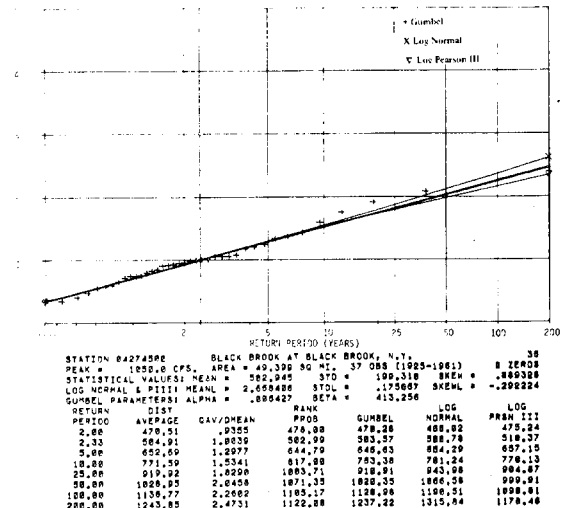
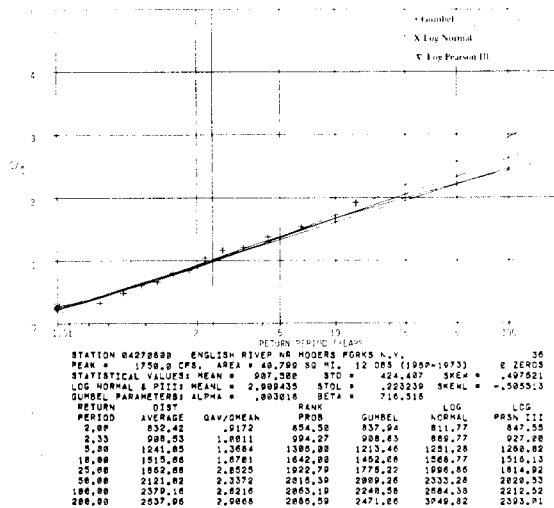
Appendix A-36. New York 37-42. Flood frequency curves and data.



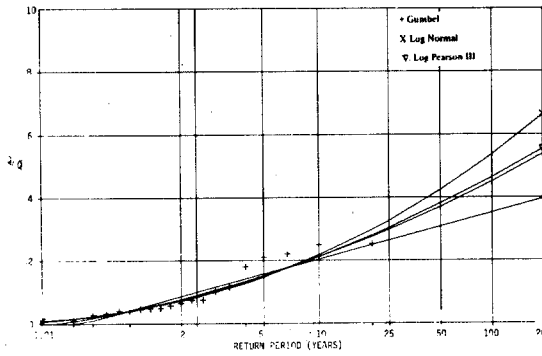
Appendix A-36. New York 43-48. Flood frequency curves and data.



Appendix A-36. New York 49-54. Flood frequency curves and data.

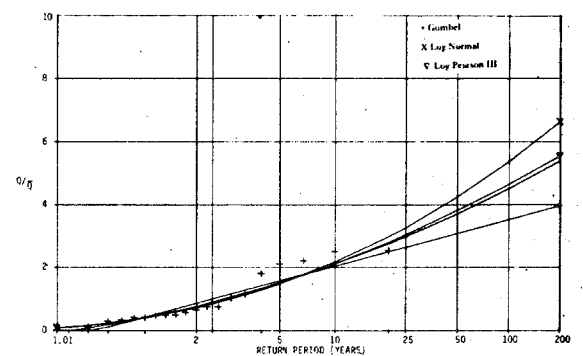


Appendix A-37. New York 55-58. Flood frequency curves and data.



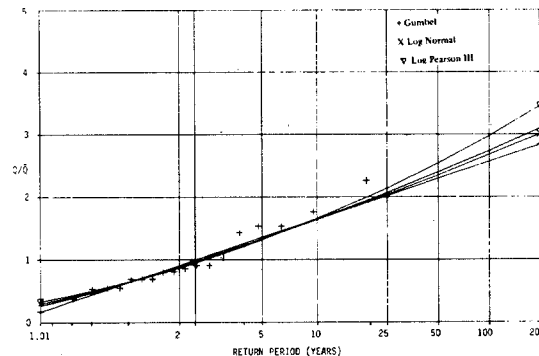
STATION 02081400 SMITHWICK C TRIBUTARY NW WILLIFORD, N.C. 37
 PEAK = 252.0 CFS. AREA = 1.020 SQ MI. 10 DMS (1953-1971) 4 26005
 STATISTICAL VALUES: MEAN = 96.444 STD = 4.234 SKEW = .076177
 LOG NORMAL & PIII: MEAN = 1.486471 STD = .273677 SKEW = -.221763
 GUMBEL PARAMETERS: ALPHA = .155467 BETA = .63.522

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOGN	LOGN III
2.00	77.73	.7738	55.40	72.16	74.31	74.31
2.33	89.57	.8957	74.72	86.17	86.61	86.61
5.00	152.21	1.5221	157.03	148.44	153.10	153.10
10.00	211.40	2.1140	274.64	217.47	212.43	212.43
25.00	294.94	2.9494	352.47	325.09	344.26	344.26
50.00	371.40	3.7140	378.42	422.67	380.95	380.95
100.00	450.15	4.5015	392.74	534.44	463.92	463.92
200.00	537.71	5.3771	395.73	661.74	553.56	553.56



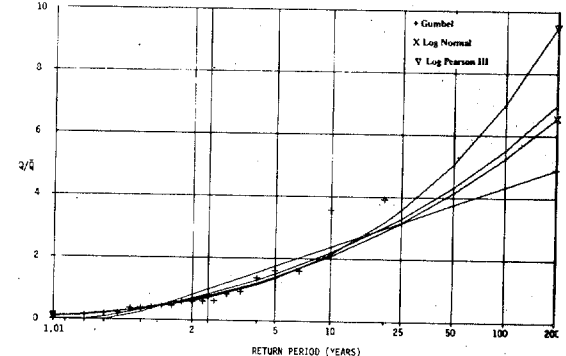
STATION 02081400 SMITHWICK C TRIBUTARY NW WILLIFORD, N.C. 37
 PEAK = 252.0 CFS. AREA = 1.020 SQ MI. 10 DMS (1953-1971) 4 26005
 STATISTICAL VALUES: MEAN = 96.444 STD = 4.234 SKEW = .076177
 LOG NORMAL & PIII: MEAN = 1.486471 STD = .273677 SKEW = -.221763
 GUMBEL PARAMETERS: ALPHA = .155467 BETA = .63.522

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOGN	LOGN III
2.00	77.73	.7738	55.40	72.16	74.31	74.31
2.33	89.57	.8957	74.72	86.17	86.61	86.61
5.00	152.21	1.5221	157.03	148.44	153.10	153.10
10.00	211.40	2.1140	274.64	217.47	212.43	212.43
25.00	294.94	2.9494	352.47	325.09	344.26	344.26
50.00	371.40	3.7140	378.42	422.67	380.95	380.95
100.00	450.15	4.5015	392.74	534.44	463.92	463.92
200.00	537.71	5.3771	395.73	661.74	553.56	553.56



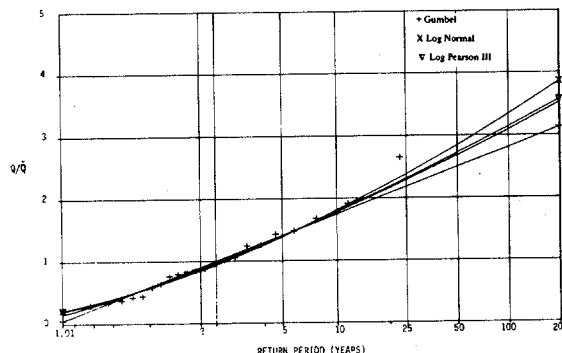
STATION 02082600 HARTS HILL RUN NEAR TAUXBORO, N.C. 37
 PEAK = 689.0 CFS. AREA = 2.580 SQ MI. 18 DMS (1953-1971) 4 26003
 STATISTICAL VALUES: MEAN = 300.355 STD = 151.401 SKEW = 1.167789
 LOG NORMAL & PIII: MEAN = 2.431238 STD = .204139 SKEW = .118237
 GUMBEL PARAMETERS: ALPHA = .170489 BETA = 252.354

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOGN	LOGN III
2.00	288.47	.8972	275.40	275.02	283.20	283.20
2.33	293.49	.8771	272.05	301.83	293.54	286.51
5.00	487.42	1.3392	486.98	479.33	484.93	397.29
10.00	601.84	1.6530	545.08	497.72	603.02	499.79
25.00	823.22	2.7735	710.00	689.41	814.73	645.53
50.00	921.45	2.4937	773.66	892.24	708.79	786.51
100.00	928.04	2.7484	881.30	774.51	886.72	887.01
200.00	934.74	3.1003	815.75	836.45	948.46	1041.72



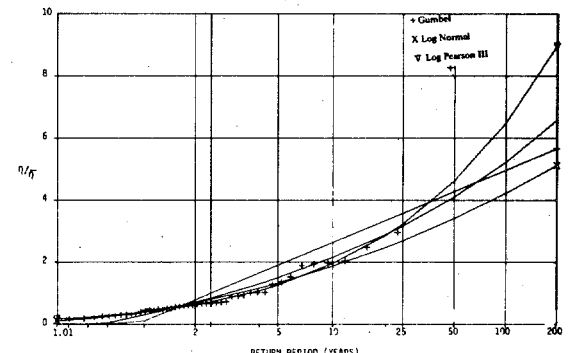
STATION 02083410 DEEP CREEK NEAR SCOTLAND NECK, N.C. 37
 PEAK = 2300.0 CFS. AREA = 11.690 SQ MI. 19 DMS (1953-1971) 4 26008
 STATISTICAL VALUES: MEAN = 583.780 STD = 620.886 SKEW = 2.861954
 LOG NORMAL & PIII: MEAN = 2.592942 STD = .385110 SKEW = .444841
 GUMBEL PARAMETERS: ALPHA = .182763 BETA = 364.389

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOGN	LOGN III
2.00	413.11	.7876	353.42	482.83	391.85	386.38
2.33	491.13	.8412	384.28	585.74	450.18	429.02
5.00	884.78	1.5188	948.02	1031.39	824.90	805.80
10.00	1291.24	2.2118	2088.80	1393.12	1218.56	1208.18
25.00	1935.73	3.3111	2344.02	1934.84	1847.66	2092.74
50.00	2524.98	4.3281	2452.80	2195.01	2417.99	2802.34
100.00	3233.46	5.5369	2476.70	2534.33	3078.21	4081.35
200.00	4733.47	8.0951	2498.80	2671.28	3836.49	5543.43



STATION 02084500 HENNING RUN NEAR WASHINGTON, N.C. 37
 PEAK = 850.0 CFS. AREA = 15.200 SQ MI. 22 DMS (1948-1971) 4 26005
 STATISTICAL VALUES: MEAN = 324.318 STD = 197.373 SKEW = 1.109697
 LOG NORMAL & PIII: MEAN = 2.442937 STD = .256487 SKEW = .141342
 GUMBEL PARAMETERS: ALPHA = .169620 BETA = 232.306

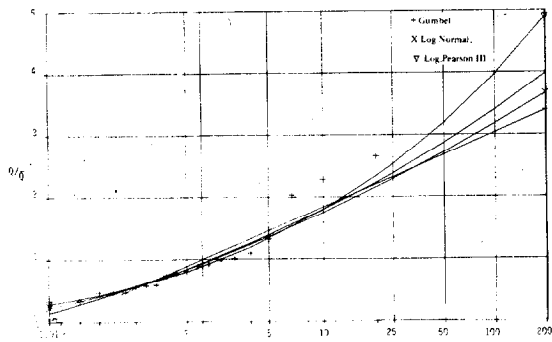
RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOGN	LOGN III
2.00	291.89	.8753	284.59	293.97	277.12	289.09
2.33	314.83	.9027	319.13	324.47	307.97	311.21
5.00	459.25	1.4169	473.12	454.54	453.02	455.39
10.00	479.43	1.4764	459.30	509.42	537.73	486.03
25.00	744.44	2.2961	672.15	778.20	773.16	736.84
50.00	872.54	2.6997	649.59	811.24	925.31	892.45
100.00	1007.75	3.1407	1444.79	913.51	1193.28	1119.44
200.00	1147.63	3.5294	1472.39	1015.35	1293.53	1150.20



STATION 02086000 DIAL CREEK NEAR BAHAMA, N.C. 37
 PEAK = 440.0 CFS. AREA = 6.710 SQ MI. 48 DMS (1928-1971) 4 26008
 STATISTICAL VALUES: MEAN = 532.328 STD = 674.223 SKEW = 4.406100
 LOG NORMAL & PIII: MEAN = 2.509842 STD = .336488 SKEW = .762864
 GUMBEL PARAMETERS: ALPHA = .101307 BETA = 229.915

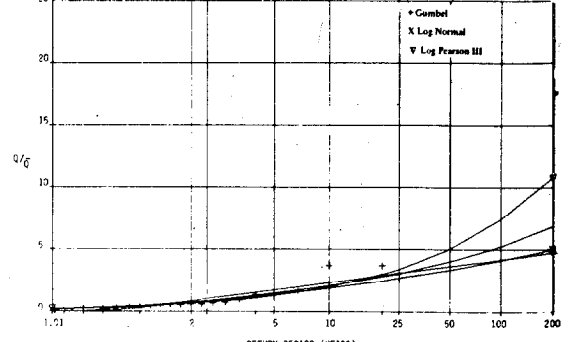
RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOGN	LOGN III
2.00	374.52	.7869	336.53	461.81	371.22	335.07
2.33	448.72	.8429	359.49	534.44	428.27	385.45
5.00	805.63	2.2564	705.59	1018.23	712.57	866.18
10.00	1153.24	2.1444	1462.22	1415.09	1701.07	1244.78
25.00	1691.14	3.1844	1419.47	1911.34	1441.21	1732.25
50.00	2107.47	4.1145	4165.16	2282.09	1422.31	2487.83
100.00	2784.77	5.2313	5494.59	2448.45	225.42	4451.82
200.00	3594.63	6.4445	5557.39	3412.51	2778.22	4773.11

Appendix A-37. North Carolina 1-6. Flood frequency curves and data.



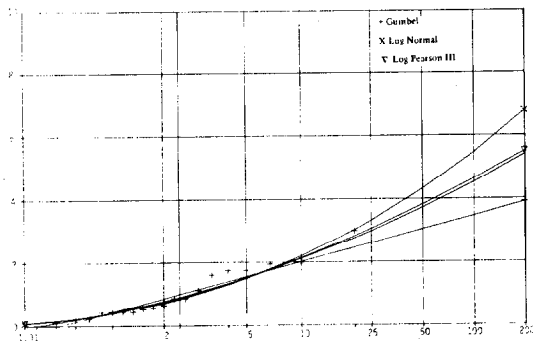
STATION 8296140 STONE CREEK NEAR NEWTWN GROVE, N.C. 37
 PEAK = 3112.7 CFS, AREA = 27.493 SQ MI, 19 CRS (1953-1971) 8 26408
 STATISTICAL VALUES: MEAN = 94.753 STD = 42.753 SKEW = 1.034142
 LOG NORMAL & PIII: MEAN = 1.745171 STD = 1.245387 SKEW = 1.046783
 GUMBEL PARAMETERS: ALPHA = 1.279435 BETA = 45.466

RETURN PERIOD	AVERAGE	DAV/MEAN	PROB	GUMBEL	LOG-NORMAL	LOG-PEARSON III
2.33	45.23	4.493	51.12	57.80	54.47	52.21
2.33	51.12	1.945	78.42	64.92	62.94	57.81
5.00	57.80	1.306	88.78	95.13	86.71	85.83
10.00	118.65	1.403	148.23	119.79	113.91	118.79
25.00	174.79	2.261	174.79	120.47	149.75	154.46
50.00	184.76	2.405	145.44	174.17	175.63	287.16
100.00	224.16	3.412	191.19	197.71	275.32	257.75
200.00	254.24	3.984	191.59	219.47	237.84	317.28



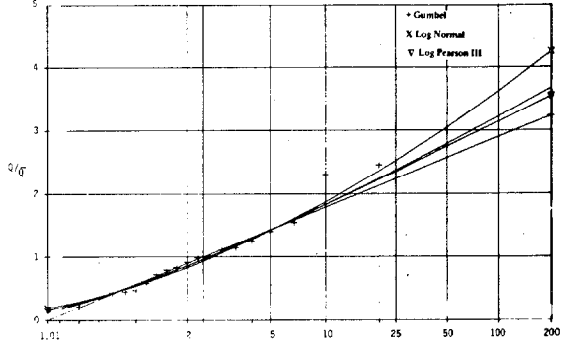
STATION 8296140 STONE CREEK NEAR NEWTWN GROVE, N.C. 37
 PEAK = 3112.7 CFS, AREA = 27.493 SQ MI, 19 CRS (1953-1971) 8 26408
 STATISTICAL VALUES: MEAN = 94.753 STD = 42.753 SKEW = 1.034142
 LOG NORMAL & PIII: MEAN = 1.745171 STD = 1.245387 SKEW = 1.046783
 GUMBEL PARAMETERS: ALPHA = 1.279435 BETA = 45.466

RETURN PERIOD	AVERAGE	DAV/MEAN	PROB	GUMBEL	LOG-NORMAL	LOG-PEARSON III
2.33	45.23	4.493	51.12	57.80	54.47	52.21
2.33	51.12	1.945	78.42	64.92	62.94	57.81
5.00	57.80	1.306	88.78	95.13	86.71	85.83
10.00	118.65	1.403	148.23	119.79	113.91	118.79
25.00	174.79	2.261	174.79	120.47	149.75	154.46
50.00	184.76	2.405	145.44	174.17	175.63	287.16
100.00	224.16	3.412	191.19	197.71	275.32	257.75
200.00	254.24	3.984	191.59	219.47	237.84	317.28



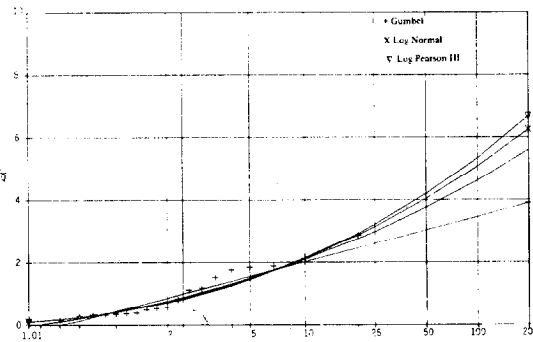
STATION 8296140 STONE CREEK NEAR NEWTWN GROVE, N.C. 37
 PEAK = 3112.7 CFS, AREA = 27.493 SQ MI, 19 CRS (1953-1971) 8 26408
 STATISTICAL VALUES: MEAN = 94.753 STD = 42.753 SKEW = 1.034142
 LOG NORMAL & PIII: MEAN = 1.745171 STD = 1.245387 SKEW = 1.046783
 GUMBEL PARAMETERS: ALPHA = 1.279435 BETA = 45.466

RETURN PERIOD	AVERAGE	DAV/MEAN	PROB	GUMBEL	LOG-NORMAL	LOG-PEARSON III
2.33	45.23	4.493	51.12	57.80	54.47	52.21
2.33	51.12	1.945	78.42	64.92	62.94	57.81
5.00	57.80	1.306	88.78	95.13	86.71	85.83
10.00	118.65	1.403	148.23	119.79	113.91	118.79
25.00	174.79	2.261	174.79	120.47	149.75	154.46
50.00	184.76	2.405	145.44	174.17	175.63	287.16
100.00	224.16	3.412	191.19	197.71	275.32	257.75
200.00	254.24	3.984	191.59	219.47	237.84	317.28



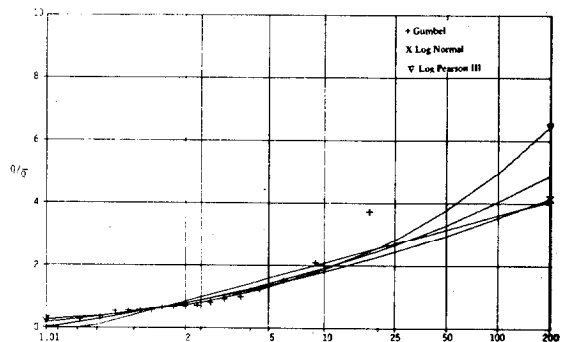
STATION 8296140 STONE CREEK NEAR NEWTWN GROVE, N.C. 37
 PEAK = 3112.7 CFS, AREA = 27.493 SQ MI, 19 CRS (1953-1971) 8 26408
 STATISTICAL VALUES: MEAN = 94.753 STD = 42.753 SKEW = 1.034142
 LOG NORMAL & PIII: MEAN = 1.745171 STD = 1.245387 SKEW = 1.046783
 GUMBEL PARAMETERS: ALPHA = 1.279435 BETA = 45.466

RETURN PERIOD	AVERAGE	DAV/MEAN	PROB	GUMBEL	LOG-NORMAL	LOG-PEARSON III
2.33	45.23	4.493	51.12	57.80	54.47	52.21
2.33	51.12	1.945	78.42	64.92	62.94	57.81
5.00	57.80	1.306	88.78	95.13	86.71	85.83
10.00	118.65	1.403	148.23	119.79	113.91	118.79
25.00	174.79	2.261	174.79	120.47	149.75	154.46
50.00	184.76	2.405	145.44	174.17	175.63	287.16
100.00	224.16	3.412	191.19	197.71	275.32	257.75
200.00	254.24	3.984	191.59	219.47	237.84	317.28



STATION 8296140 STONE CREEK NEAR NEWTWN GROVE, N.C. 37
 PEAK = 3112.7 CFS, AREA = 27.493 SQ MI, 19 CRS (1953-1971) 8 26408
 STATISTICAL VALUES: MEAN = 94.753 STD = 42.753 SKEW = 1.034142
 LOG NORMAL & PIII: MEAN = 1.745171 STD = 1.245387 SKEW = 1.046783
 GUMBEL PARAMETERS: ALPHA = 1.279435 BETA = 45.466

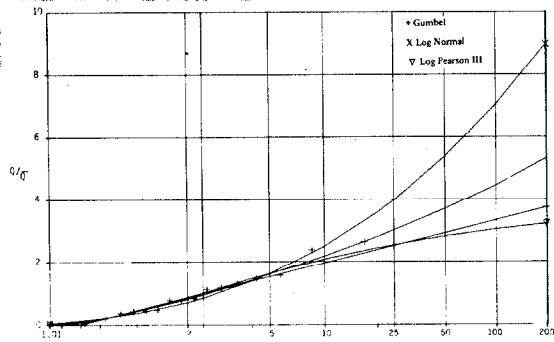
RETURN PERIOD	AVERAGE	DAV/MEAN	PROB	GUMBEL	LOG-NORMAL	LOG-PEARSON III
2.33	45.23	4.493	51.12	57.80	54.47	52.21
2.33	51.12	1.945	78.42	64.92	62.94	57.81
5.00	57.80	1.306	88.78	95.13	86.71	85.83
10.00	118.65	1.403	148.23	119.79	113.91	118.79
25.00	174.79	2.261	174.79	120.47	149.75	154.46
50.00	184.76	2.405	145.44	174.17	175.63	287.16
100.00	224.16	3.412	191.19	197.71	275.32	257.75
200.00	254.24	3.984	191.59	219.47	237.84	317.28



STATION 8296140 STONE CREEK NEAR NEWTWN GROVE, N.C. 37
 PEAK = 3112.7 CFS, AREA = 27.493 SQ MI, 19 CRS (1953-1971) 8 26408
 STATISTICAL VALUES: MEAN = 94.753 STD = 42.753 SKEW = 1.034142
 LOG NORMAL & PIII: MEAN = 1.745171 STD = 1.245387 SKEW = 1.046783
 GUMBEL PARAMETERS: ALPHA = 1.279435 BETA = 45.466

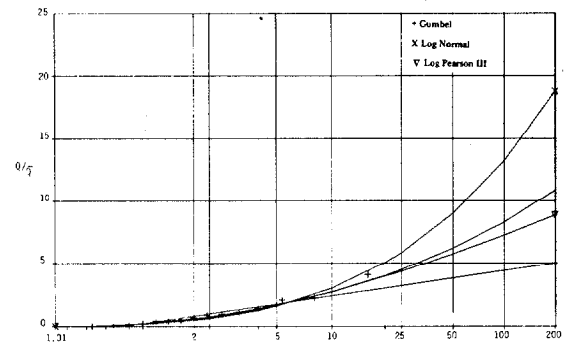
RETURN PERIOD	AVERAGE	DAV/MEAN	PROB	GUMBEL	LOG-NORMAL	LOG-PEARSON III
2.33	45.23	4.493	51.12	57.80	54.47	52.21
2.33	51.12	1.945	78.42	64.92	62.94	57.81
5.00	57.80	1.306	88.78	95.13	86.71	85.83
10.00	118.65	1.403	148.23	119.79	113.91	118.79
25.00	174.79	2.261	174.79	120.47	149.75	154.46
50.00	184.76	2.405	145.44	174.17	175.63	287.16
100.00	224.16	3.412	191.19	197.71	275.32	257.75
200.00	254.24	3.984	191.59	219.47	237.84	317.28

Appendix A-37. North Carolina 7-12. Flood frequency curves and data.



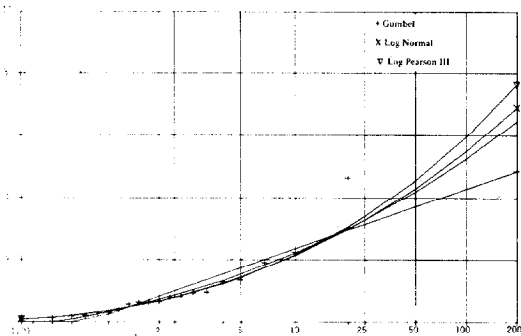
STATION 32701453 SHEPHERD CREEK NEAR SNOW HILL, N. C. 37
 PEAK = 240.0 CFS, AREA = 1,487.50 MI. 10 DMS (1953-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 94.25 STD = 71.736 SKEW = .905853
 LOG NORMAL & PIII: MEAN = 1.905518 STD = .427402 SKEW = -1.159852
 GUMBEL PARAMETERS: ALPHA = .970538 BETA = 52.743

RETURN PERIOD	AVERAGE	QAV/MEAN	PROR	GUMBEL	LOG NORMAL	PKSN III
2.00	75.44	.2155	74.92	82.73	87.25	83.75
2.33	85.77	.2518	84.27	94.47	99.96	94.59
2.50	107.05	1.4316	106.77	104.73	113.79	104.06
10.00	206.77	2.1358	202.54	185.22	137.35	197.23
25.00	265.24	1.3255	276.27	234.11	374.46	241.25
50.00	307.51	1.1129	306.41	276.58	527.39	286.57
100.00	402.74	0.8781	277.73	314.66	961.77	287.54
200.00	471.44	0.7218	277.67	353.77	147.73	303.05



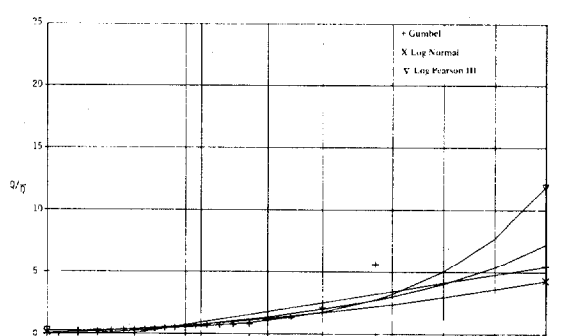
STATION 32701819 HALFPOON CREEK NEAR FORT BARNWELL, N. C. 37
 PEAK = 1830.0 CFS, AREA = 4,474.50 MI. 15 DMS (1953-1966) 0 ZEROS
 STATISTICAL VALUES: MEAN = 392.754 STD = 429.377 SKEW = 1.461488
 LOG NORMAL & PIII: MEAN = 2.254303 STD = .510791 SKEW = -.573392
 GUMBEL PARAMETERS: ALPHA = .302782 BETA = 159.798

RETURN PERIOD	AVERAGE	QAV/MEAN	PROR	GUMBEL	LOG NORMAL	PKSN III
2.00	247.01	.6323	247.01	321.57	196.95	225.12
2.33	311.27	.7535	340.99	353.41	253.13	287.25
2.50	407.49	1.2024	746.88	701.77	443.42	697.33
10.00	1275.12	2.7371	1155.88	853.81	1184.45	1491.59
25.00	1706.40	4.5735	1462.79	1271.22	2311.55	1714.52
50.00	2435.46	6.2122	2094.39	1507.27	3538.88	2251.24
100.00	3261.44	8.3786	2513.19	1741.17	5153.03	2857.14
200.00	4273.41	11.8025	2971.49	1974.41	7363.79	3474.10



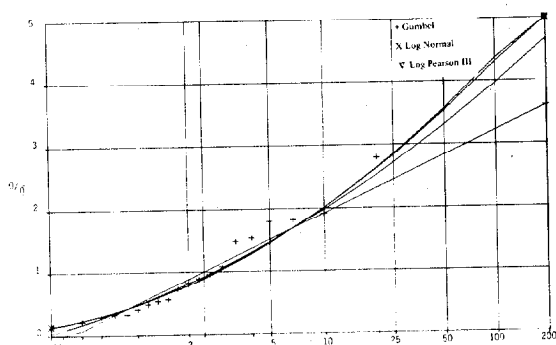
STATION 32702022 PALMETTO SWAMP NEAR WANCEFOURD, N. C. 37
 PEAK = 3700.0 CFS, AREA = 24,190.50 MI. 10 DMS (1953-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 707.105 STD = 838.220 SKEW = 2.561832
 LOG NORMAL & PIII: MEAN = 2.752722 STD = .361529 SKEW = -1.120880
 GUMBEL PARAMETERS: ALPHA = .701525 BETA = 414.942

RETURN PERIOD	AVERAGE	QAV/MEAN	PROR	GUMBEL	LOG NORMAL	PKSN III
2.00	474.41	.7233	520.48	559.73	539.91	538.28
2.33	485.77	.8802	661.42	738.74	634.19	623.39
2.50	1233.73	1.4427	1789.72	1471.32	1155.35	1146.44
10.00	1760.28	1.0024	1490.72	1892.42	1714.84	1733.55
25.00	2615.47	3.2414	4382.27	2512.87	2018.41	2715.71
50.00	3353.92	4.2462	4440.23	2973.14	3440.74	3645.18
100.00	4138.92	5.2052	5227.20	3437.82	4390.85	4764.18
200.00	4713.44	6.4780	5413.02	3685.22	5580.25	5161.83



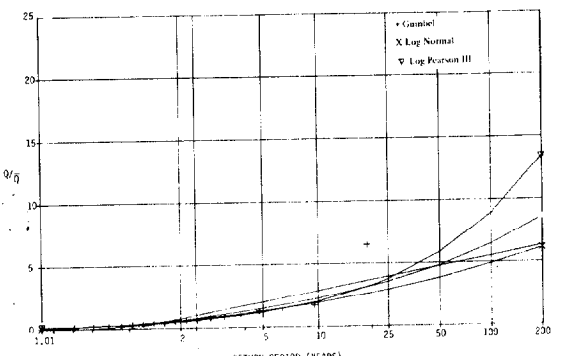
STATION 32802127 HATCHERS CREEK NEAR NEW HARRI, N. C. 37
 PEAK = 7000.0 CFS, AREA = 33,550.00 MI. 10 DMS (1953-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1233.42 STD = 1506.000 SKEW = 3.220312
 LOG NORMAL & PIII: MEAN = 2.952780 STD = .371168 SKEW = 1.538267
 GUMBEL PARAMETERS: ALPHA = .899655 BETA = 558.258

RETURN PERIOD	AVERAGE	QAV/MEAN	PROR	GUMBEL	LOG NORMAL	PKSN III
2.00	877.48	.7114	760.88	987.33	766.97	747.84
2.33	1038.21	.8352	981.42	1238.14	1015.10	1037.32
2.50	1769.35	1.4452	1420.37	2011.43	1598.16	1423.96
10.00	2941.51	2.4057	2709.24	3193.98	3181.95	2249.74
25.00	3769.90	3.2727	7849.30	4384.52	3921.42	4864.47
50.00	5935.09	4.4822	9558.08	5128.37	3727.15	5249.74
100.00	6886.28	5.4208	10440.28	5546.14	4553.15	9689.42
200.00	8543.19	7.2587	10874.98	6746.42	5249.17	14719.48



STATION 32702520 WILE SWAMP NEAR KINGSLEY, N. C. 37
 PEAK = 862.0 CFS, AREA = 2,345.00 MI. 10 DMS (1953-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 370.160 STD = 312.725 SKEW = 1.823939
 LOG NORMAL & PIII: MEAN = 2.370882 STD = .307415 SKEW = -1.024074
 GUMBEL PARAMETERS: ALPHA = .707621 BETA = 674.026

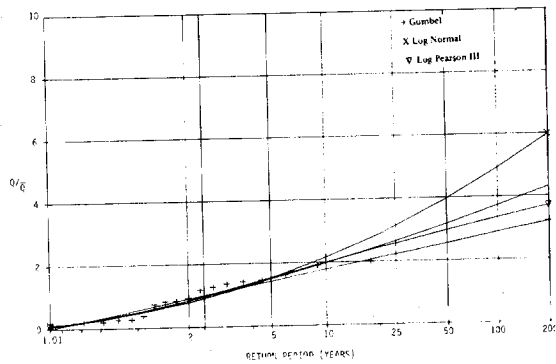
RETURN PERIOD	AVERAGE	QAV/MEAN	PROR	GUMBEL	LOG NORMAL	PKSN III
2.00	245.33	.7367	271.58	269.21	234.49	235.59
2.33	270.53	.8229	277.96	371.33	244.27	258.98
2.50	440.96	1.4748	447.10	453.74	437.46	437.75
10.00	605.90	1.6842	676.90	578.17	635.43	624.10
25.00	814.34	2.7111	893.22	735.85	878.38	850.81
50.00	904.82	3.1128	990.77	862.57	1071.11	1066.07
100.00	1190.51	3.2658	1150.17	946.25	1310.15	1292.74
200.00	1402.28	4.6685	1178.57	1284.17	1579.41	1548.77



STATION 32702781 WILE SWAMP NEAR KINGSLEY, N. C. 37
 PEAK = 1320.0 CFS, AREA = 4,057.54 MI. 10 DMS (1953-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 207.124 STD = 233.385 SKEW = 3.330571
 LOG NORMAL & PIII: MEAN = 2.107776 STD = .384654 SKEW = .972549
 GUMBEL PARAMETERS: ALPHA = .704363 BETA = 71.435

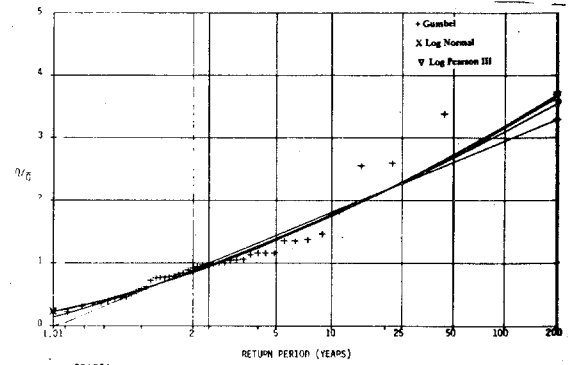
RETURN PERIOD	AVERAGE	QAV/MEAN	PROR	GUMBEL	LOG NORMAL	PKSN III
2.00	130.46	.7437	117.53	124.63	126.57	149.57
2.33	159.25	.7866	121.71	245.86	148.37	128.38
2.50	214.70	1.5776	274.53	414.37	268.33	248.48
10.00	405.27	2.2026	437.17	566.55	354.26	415.88
25.00	725.94	3.4664	1332.44	803.84	597.41	768.91
50.00	979.06	4.8242	1121.39	985.84	741.24	1192.06
100.00	1317.80	6.4504	2153.49	1193.18	984.37	1813.88
200.00	1749.40	8.1214	2137.44	1261.47	1259.18	2725.08

Appendix A-37. North Carolina 13-18. Flood frequency curves and data.



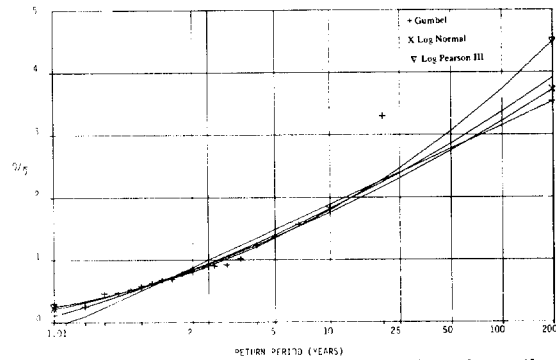
STATION 92093409 SOUTH FORK CREEK TRI. IN JACKSONVILLE, N. C. 37
 PEAK = 282.0 CFS, AREA = 1,000 SQ MI, 17 OBS (1954-1971) 2 ZEROS
 STATISTICAL VALUES: MEAN = 175.176 STD = 45.446 SKEW = 1.14275
 LOG NORMAL & PIII: MEAN = 2.030166 STD = .342001 SKEW = 1.057653
 GUMBEL PARAMETERS: ALPHA = .015343 BETA = 1.01606

RETURN PERIOD	AVERAGE	DAY/100 YRS	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	119.88	84892	132.08	125.49	125.43	119.23
2.33	134.00	90208	138.71	130.43	125.98	136.57
5.00	209.04	1,5820	213.40	199.35	212.84	219.18
10.00	276.33	1,0895	276.33	244.27	251.44	270.93
25.00	369.17	2,6003	286.19	316.94	426.54	359.43
50.00	441.11	3,1664	291.59	355.31	553.18	434.25
100.00	517.09	3,7712	294.29	401.41	565.35	450.33
200.00	598.62	4,3028	295.64	446.75	634.58	515.32



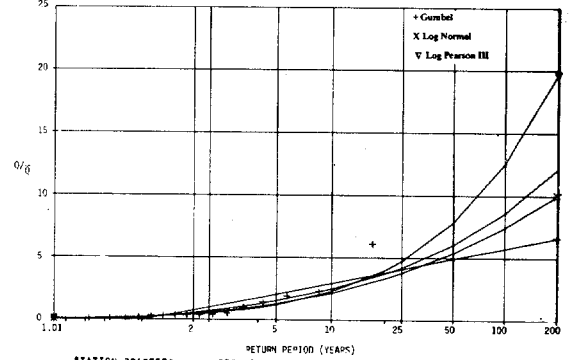
STATION 92093409 EAST FORK DEEP RIVER NEAR HIGH POINT, N. C. 37
 PEAK = 6340.0 CFS, AREA = 14,699 SQ MI, 43 OBS (1920-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1863.637 STD = 1162.199 SKEW = 2.029187
 LOG NORMAL & PIII: MEAN = 3.022599 STD = .244204 SKEW = .026033
 GUMBEL PARAMETERS: ALPHA = .001102 BETA = 1340.947

PERIOD	AVERAGE	DAY/100 YRS	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	1819.07	8698	1728.08	1873.36	1924.26	1901.89
2.33	1798.76	9068	1825.74	1887.49	1982.78	1780.08
5.00	2495.68	1,3085	2248.08	2781.88	2559.07	2506.18
10.00	3314.59	1,7743	3138.09	3382.31	3278.68	3288.31
25.00	4205.84	2,2867	3182.79	4242.74	4289.43	4289.88
50.00	5012.22	2,6801	3476.39	4886.91	5882.54	5091.88
100.00	5769.11	3,1268	7123.19	5514.36	5901.85	5951.18
200.00	6508.73	3,5483	7446.59	6145.58	6760.91	6664.18



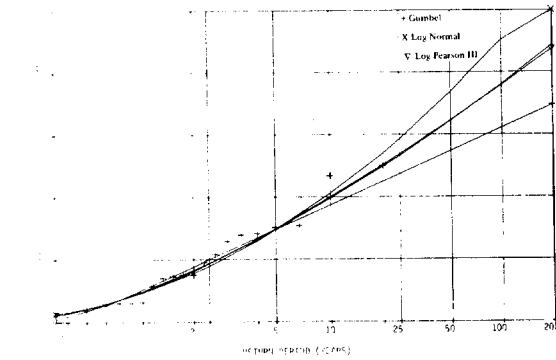
STATION 92103397 SOUTH FORK ANDERSON CREEK NEAR ELLINGTON, N. C. 37
 PEAK = 402.0 CFS, AREA = 7,080 SQ MI, 19 OBS (1953-1971) 2 ZEROS
 STATISTICAL VALUES: MEAN = 145.947 STD = 127.273 SKEW = 2.385337
 LOG NORMAL & PIII: MEAN = 2.921957 STD = .249332 SKEW = .349767
 GUMBEL PARAMETERS: ALPHA = .012794 BETA = 1.06124

RETURN PERIOD	AVERAGE	DAY/100 YRS	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	124.11	8724	127.02	123.45	119.39	121.39
2.33	136.49	9249	130.45	146.25	135.34	132.46
5.00	207.43	1,4790	214.23	210.24	200.35	197.67
10.00	242.02	1,0227	270.50	276.37	256.35	262.74
25.00	361.05	2,7345	334.19	351.10	336.35	350.92
50.00	416.49	2,9974	400.19	445.28	422.41	445.86
100.00	492.74	3,7714	511.54	496.71	476.72	544.46
200.00	571.11	4,3016	572.75	519.34	543.41	655.59



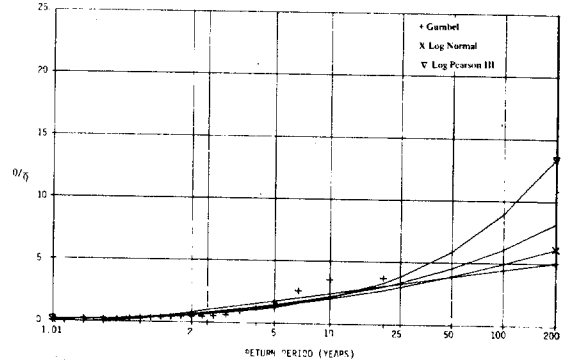
STATION 92103397 SOUTH FORK ANDERSON CREEK NEAR ELLINGTON, N. C. 37
 PEAK = 2000.0 CFS, AREA = 14,000 SQ MI, 18 OBS (1933-1971) 2 ZEROS
 STATISTICAL VALUES: MEAN = 328.312 STD = 497.218 SKEW = 2.863078
 LOG NORMAL & PIII: MEAN = 2.202636 STD = .398369 SKEW = .621242
 GUMBEL PARAMETERS: ALPHA = .002577 BETA = 102.634

PERIOD	AVERAGE	DAY/100 YRS	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	141.87	8573	122.59	244.85	199.45	141.32
2.33	232.92	9138	140.14	327.87	196.55	174.32
5.00	470.25	1,3514	256.03	584.01	427.92	486.25
10.00	615.99	2,5434	1139.02	975.77	718.02	756.10
25.00	1382.26	4,2349	2336.79	1343.66	1243.34	1568.18
50.00	1985.49	6,7845	2419.39	1857.47	1773.18	2566.72
100.00	2811.12	8,4148	3429.19	1887.47	2441.49	4164.46
200.00	3949.04	12,1928	3134.59	2157.37	3286.66	4423.07



STATION 92103397 SOUTH FORK ANDERSON CREEK NEAR ELLINGTON, N. C. 37
 PEAK = 2000.0 CFS, AREA = 9,200 SQ MI, 19 OBS (1953-1971) 2 ZEROS
 STATISTICAL VALUES: MEAN = 177.494 STD = 249.131 SKEW = .601584
 LOG NORMAL & PIII: MEAN = 2.907994 STD = .320534 SKEW = .310514
 GUMBEL PARAMETERS: ALPHA = .002331 BETA = 57.1484

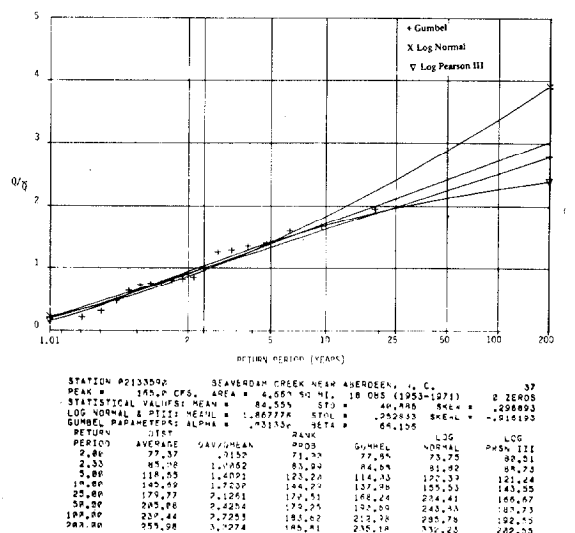
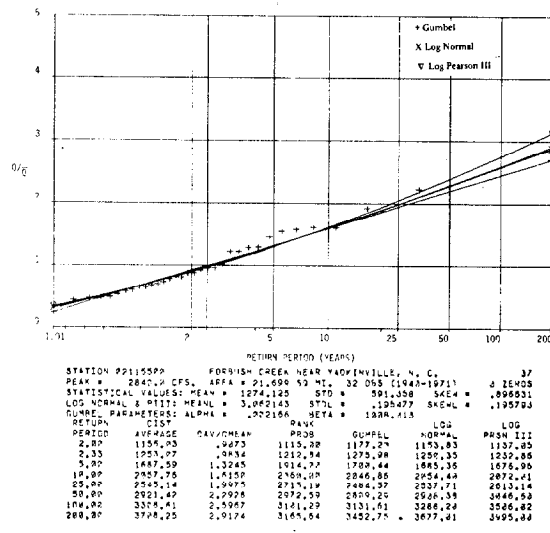
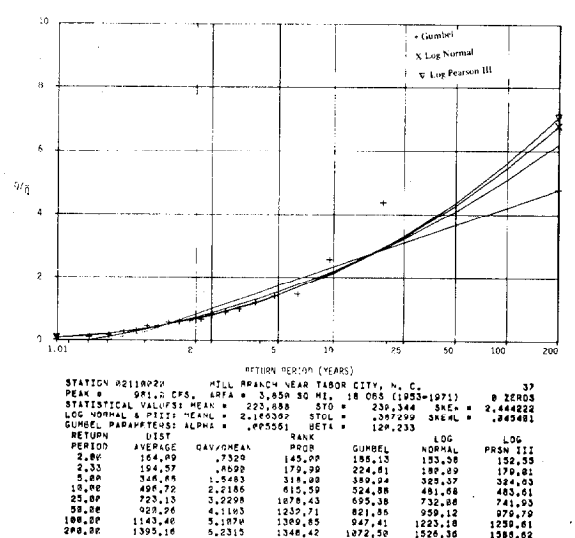
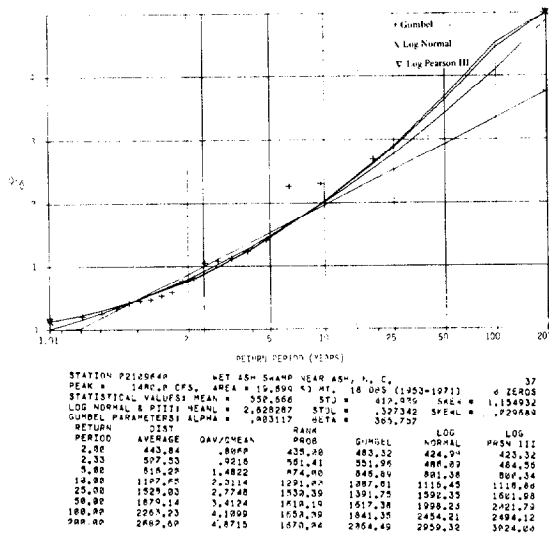
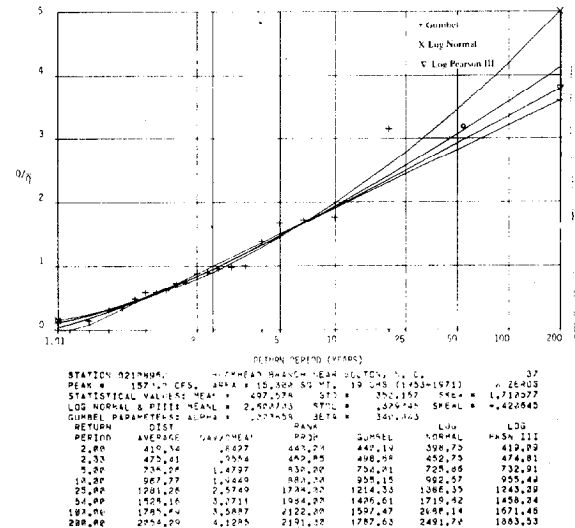
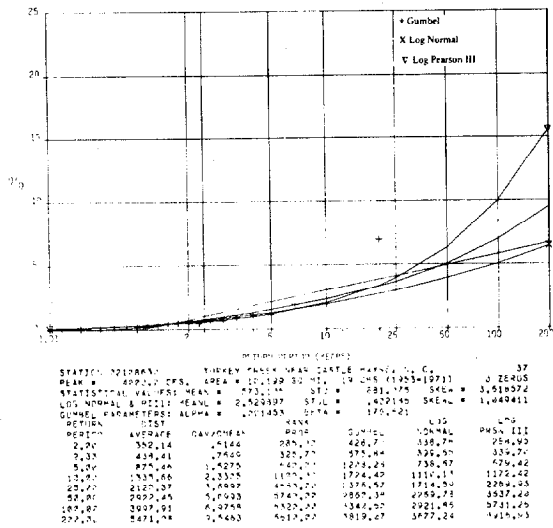
PERIOD	AVERAGE	DAY/100 YRS	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	972.47	8811	861.78	727.65	688.40	750.39
2.33	772.49	9444	827.12	819.41	735.41	763.36
5.00	1215.09	1,4859	1288.33	1213.71	1214.44	1224.84
10.00	1617.26	1,0093	1620.80	1535.51	1685.15	1537.12
25.00	2181.34	2,4677	2076.25	1742.11	2356.81	2283.31
50.00	2634.25	3,2216	2128.80	2243.75	3012.34	2848.71
100.00	3114.90	3,6995	2154.80	2543.14	3698.34	3103.79
200.00	3624.43	4,4525	2167.08	2841.47	4457.33	3574.58



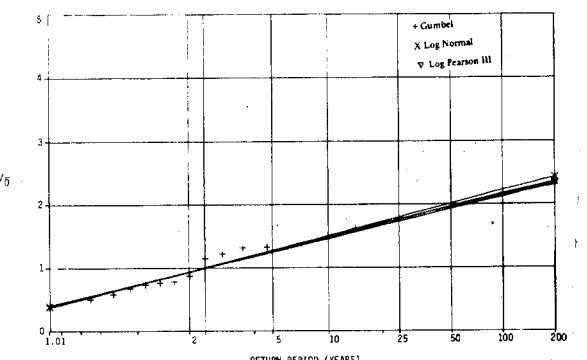
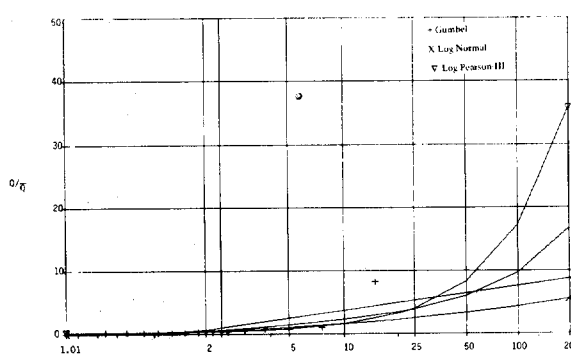
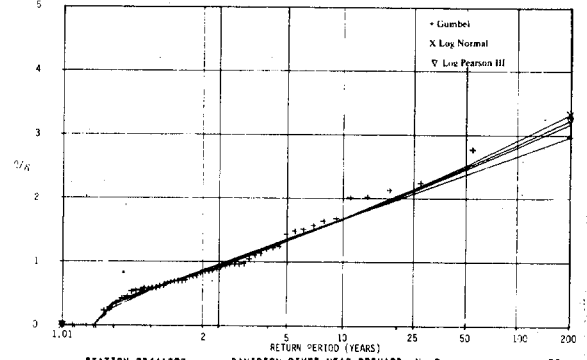
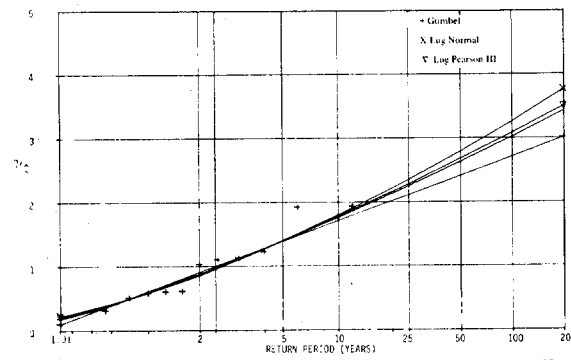
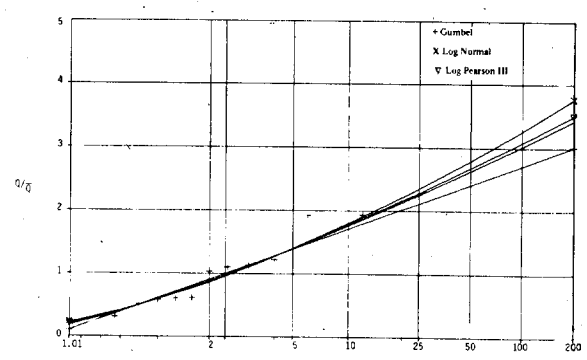
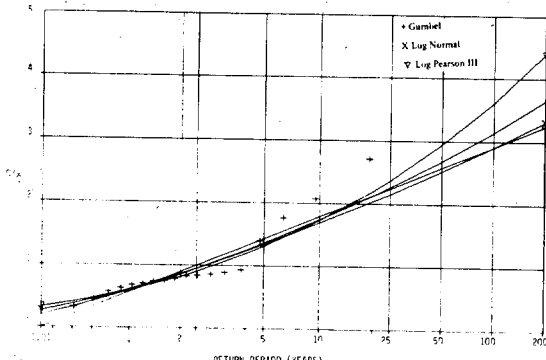
STATION 92103397 SOUTH FORK ANDERSON CREEK NEAR ELLINGTON, N. C. 37
 PEAK = 800.0 CFS, AREA = 9,200 SQ MI, 19 OBS (1953-1971) 2 ZEROS
 STATISTICAL VALUES: MEAN = 210.842 STD = 237.591 SKEW = 1.763333
 LOG NORMAL & PIII: MEAN = 2.151301 STD = .377732 SKEW = .079735
 GUMBEL PARAMETERS: ALPHA = .003391 BETA = 136.225

PERIOD	AVERAGE	DAY/100 YRS	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	147.27	8623	149.98	176.92	161.57	143.24
2.33	179.91	9117	111.71	216.59	175.47	143.59
5.00	315.73	1,4766	306.98	387.12	294.42	274.44
10.00	478.08	2,1816	760.98	506.30	431.25	434.43
25.00	724.38	3,3746	819.79	702.15	649.75	633.22
50.00	985.91	4,5795	838.39	832.63	845.39	1281.31
100.00	1329.02	6,1537	868.19	982.12	1271.33	1937.74
200.00	1771.62	8,2079	853.09	1491.15	1337.35	2893.59

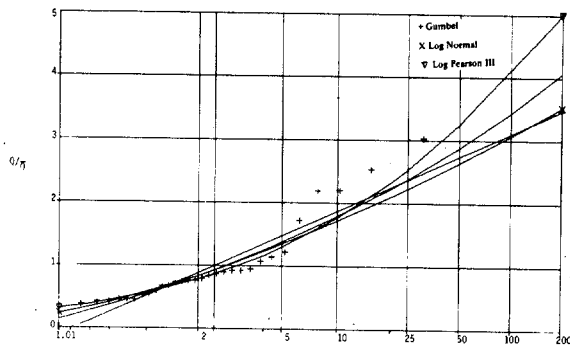
Appendix A-37. North Carolina 19-24. Flood frequency curves and data.



Appendix A-37. North Carolina 25-30. Flood frequency curves and data.

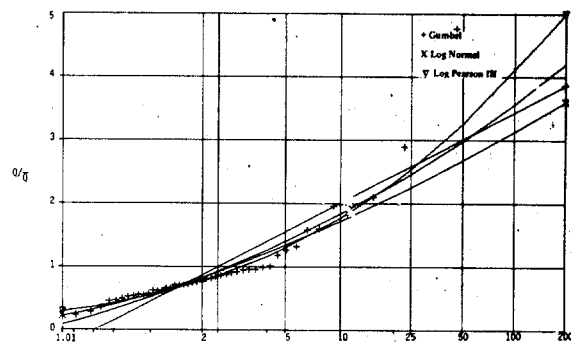


Appendix A-37. North Carolina 31-36. Flood frequency curves and data.



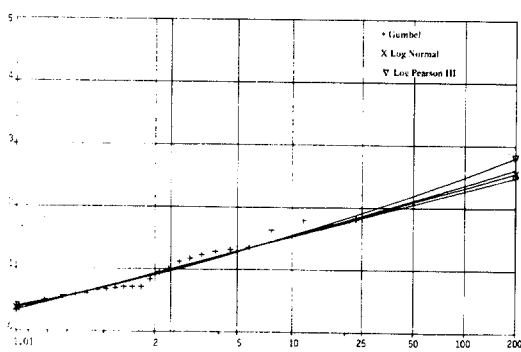
STATION #3444500 SOUTH FORK MILLS R AT THE PINK BEDS, N. C. 37
 PEAK = 2297.0 CFS, AREA = 9,089 SQ MI, 32 OBS (1928-1971) # ZEROS
 STATISTICAL VALUES: MEAN = 710.533 STD = 494.129 SKEW = 1.768088
 LOG NORMAL & PIII: MEAN = 2,791194 STD = 2,689394 SKEW = .749995
 GUMBEL PARAMETERS: ALPHA = .082213 BETA = 320.274

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PIII
2.00	915.82	.6429	579.50	659.27	619.16	578.09
2.33	984.83	.6379	632.29	732.27	693.51	638.61
5.00	1300.11	.6281	844.21	1085.86	987.34	956.43
10.00	1701.45	.6204	1169.90	1379.99	1259.42	1206.93
25.00	2194.81	.6103	2380.56	2072.60	1935.45	1854.14
50.00	2511.57	.6058	2475.26	2276.42	2248.94	2174.75
100.00	2664.22	.6033	2532.84	2535.14	2579.29	2574.17



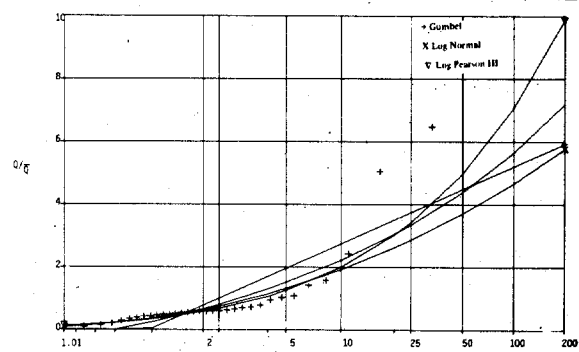
STATION #3458000 REETREE CREEK NEAR SHANNANDO, N. C. 37
 PEAK = 1379.0 CFS, AREA = 5,488 SQ MI, 45 OBS (1927-1971) # ZEROS
 STATISTICAL VALUES: MEAN = 285.777 STD = 222.869 SKEW = 3.107884
 LOG NORMAL & PIII: MEAN = 2,378298 STD = 2,478581 SKEW = .072672
 GUMBEL PARAMETERS: ALPHA = .085752 BETA = 186.367

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PIII
2.00	237.94	.6297	28.00	230.26	239.11	224.43
2.33	266.86	.6289	29.42	267.47	264.66	248.44
5.00	402.47	.6248	357.58	447.31	385.89	375.39
10.00	527.85	.6209	504.39	577.77	495.73	516.84
25.00	706.24	.6142	105.42	742.69	647.47	728.77
50.00	855.74	.6091	1413.19	844.84	789.22	935.89
100.00	1021.25	.6051	1661.59	986.23	991.31	1179.14
200.00	1205.59	.6030	1755.79	1107.16	1094.59	1474.71



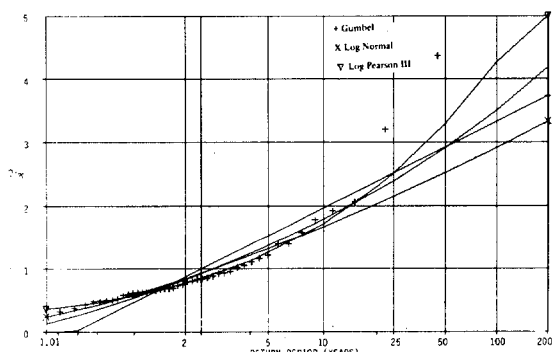
STATION #3459500 ALLEN CREEK NEAR HAZELWOOD, N. C. 37
 PEAK = 1497.0 CFS, AREA = 14,408 SQ MI, 22 OBS (1928-1971) # ZEROS
 STATISTICAL VALUES: MEAN = 590.772 STD = 327.620 SKEW = .725876
 LOG NORMAL & PIII: MEAN = 2,875420 STD = 1,719220 SKEW = .242123
 GUMBEL PARAMETERS: ALPHA = .085307 BETA = 659.248

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PIII
2.00	745.65	.6242	724.84	753.64	729.87	716.84
2.33	824.28	.6219	822.41	807.80	802.63	789.34
5.00	1241.52	.6120	1072.92	1245.15	1043.64	1037.81
10.00	1585.60	.6061	1411.00	1585.15	1242.17	1305.46
25.00	1975.85	.6005	1471.59	1477.40	1405.84	1543.81
50.00	2105.86	.5984	1486.72	1557.81	1688.42	1773.37
100.00	2202.75	.5967	1490.30	1636.38	1878.65	2014.18
200.00	2318.30	.5957	1497.60	2014.32	2072.69	2257.97



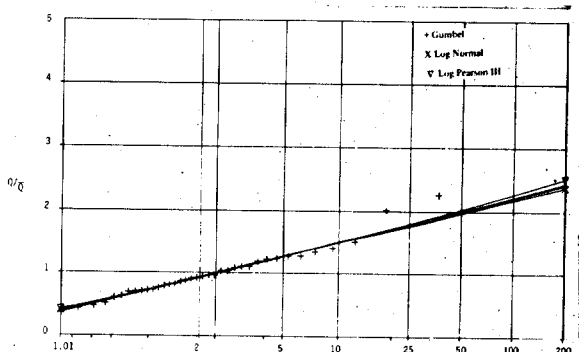
STATION #3440000 N FORK SHANNANDO R NEAR BLACK MOUNTAIN, N. C. 37
 PEAK = 1659.0 CFS, AREA = 25,938 SQ MI, 32 OBS (1928-1957) # ZEROS
 STATISTICAL VALUES: MEAN = 2556.000 STD = 3418.897 SKEW = 3.277297
 LOG NORMAL & PIII: MEAN = 3,220456 STD = 3,67653 SKEW = .687475
 GUMBEL PARAMETERS: ALPHA = .080374 BETA = 1011.538

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PIII
2.00	1719.97	.6745	1493.88	1589.70	1861.36	1588.06
2.33	2082.71	.6707	1589.70	2056.78	1928.37	1700.81
5.00	3062.93	.6527	2094.88	3014.66	3385.89	3246.84
10.00	3689.89	.6428	2228.00	3535.88	3717.44	4016.83
25.00	4507.53	.6307	1534.88	4567.86	4715.84	4734.24
50.00	5110.41	.6208	1772.88	5142.24	4944.19	5267.82
100.00	5441.27	.6147	1991.88	5598.64	5198.20	5865.82
200.00	5842.59	.6106	1998.88	6115.24	5485.84	6516.88



STATION #3501800 CULLASAGA RIVER AT HIGHLANDS, N. C. 37
 PEAK = 5196.0 CFS, AREA = 14,008 SQ MI, 44 OBS (1928-1971) # ZEROS
 STATISTICAL VALUES: MEAN = 1159.036 STD = 909.448 SKEW = 2.943771
 LOG NORMAL & PIII: MEAN = 2,999113 STD = 2,537113 SKEW = 1.425250
 GUMBEL PARAMETERS: ALPHA = .091274 BETA = 774.252

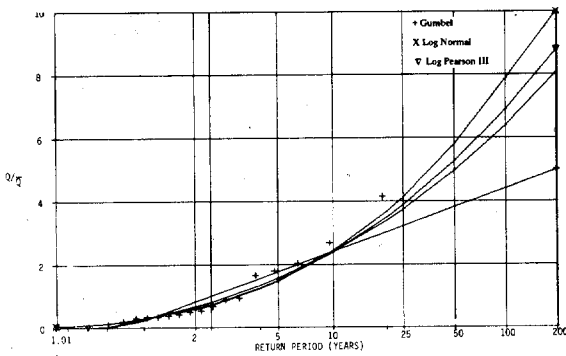
RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PIII
2.00	675.81	.6348	633.84	1227.21	922.00	927.55
2.33	1046.27	.6287	987.71	1172.37	1090.87	995.76
5.00	1600.92	.6170	1420.84	1701.11	1551.40	1461.85
10.00	2095.66	.6071	2179.80	2302.14	1959.86	2022.81
25.00	2602.83	.6003	4324.00	2946.41	2514.82	2945.20
50.00	3490.87	.5953	5235.00	3425.53	2993.85	3853.17
100.00	4090.19	.5946	5842.50	3800.23	3414.32	4963.99
200.00	4899.25	.5918	6146.25	4371.15	3899.74	6463.80



STATION #3511500 OLD CREEK NEAR REPTON CITY, N. C. 37
 PEAK = 2319.0 CFS, AREA = 13,610 SQ MI, 16 OBS (1934-1971) # ZEROS
 STATISTICAL VALUES: MEAN = 1919.258 STD = 104.747 SKEW = 1.405790
 LOG NORMAL & PIII: MEAN = 2,970874 STD = 1,157733 SKEW = .101847
 GUMBEL PARAMETERS: ALPHA = .083245 BETA = 441.621

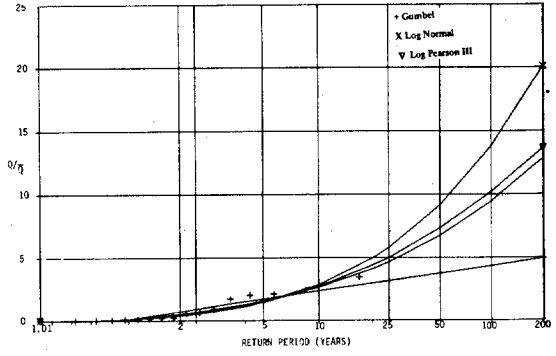
RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PIII
2.00	951.97	.6334	948.50	954.96	954.71	945.44
2.33	1016.11	.6300	945.98	1028.49	1016.05	1000.19
5.00	1297.27	.6197	1284.73	1305.79	1296.14	1291.87
10.00	1526.37	.6105	1490.34	1535.82	1528.08	1528.43
25.00	1923.14	.6007	2190.91	1927.17	1863.34	1836.84
50.00	2244.44	.5958	2375.04	2243.31	2015.85	2076.36
100.00	2267.13	.5943	2487.54	2259.84	2222.94	2319.71
200.00	2492.16	.5911	2513.75	2473.30	2432.19	2576.76

Appendix A-37. North Carolina 37-42. Flood frequency curves and data.



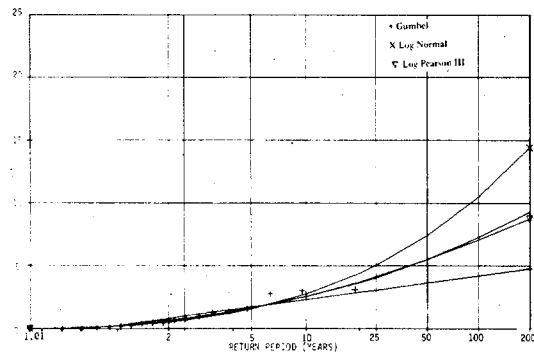
STATION 05P50800 SWAN CREEK NEAR ABSARAKA, N. DAK. 38
 PEAK = 226.0 CFS, AREA = 32,599 SQ MI, 18 OBS (1955-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 149.111 STD = 152.111 SKEW = 1.788408
 LOG NORMAL & PIII: MEAN = 1.941141 STD = .484925 SKEW = -.159354
 GUMBEL PARAMETERS: ALPHA = .067081 BETA = 76.180

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	99.93	.7082	76.30	122.54	87.32	89.84
2.33	121.90	.8109	97.14	149.62	106.56	109.74
3.00	138.25	1.0079	277.30	245.97	223.56	225.28
10.00	381.41	2.5237	422.30	385.94	385.39	357.98
25.00	459.17	3.7599	672.70	480.93	617.18	579.41
50.00	740.41	4.9854	756.30	560.93	865.40	745.67
100.00	953.57	6.3056	798.19	658.31	1173.75	1028.67
200.00	1222.25	8.7628	815.39	746.34	1568.82	1311.39



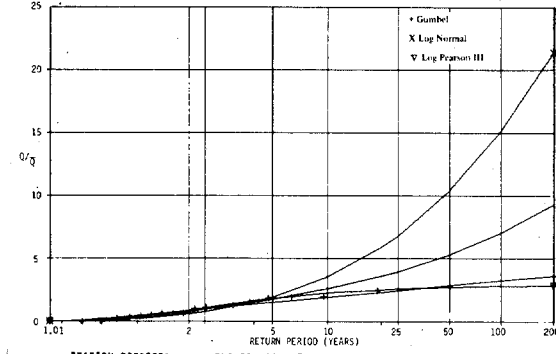
STATION 05P50805 SWAN CREEK TRIBUTARY NEAR ABSARAKA, N. DAK. 38
 PEAK = 120.0 CFS, AREA = 2,988 SQ MI, 18 OBS (1955-1972) 1 ZERO
 STATISTICAL VALUES: MEAN = 34.466 STD = 37.584 SKEW = 1.858940
 LOG NORMAL & PIII: MEAN = 1.185983 STD = .843534 SKEW = -.272995
 GUMBEL PARAMETERS: ALPHA = .034664 BETA = 17.344

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	18.80	.5239	14.00	25.31	14.86	14.81
2.33	23.82	.6081	22.14	32.81	17.65	19.44
3.00	33.79	1.0697	71.00	39.44	50.55	50.37
10.00	91.50	2.6549	95.30	81.68	90.90	92.01
25.00	161.71	4.6773	131.19	108.58	208.10	173.95
50.00	235.98	6.7779	143.90	138.17	318.56	254.88
100.00	325.75	9.4803	149.86	152.88	477.18	352.48
200.00	444.51	12.8969	152.82	171.10	691.95	478.48



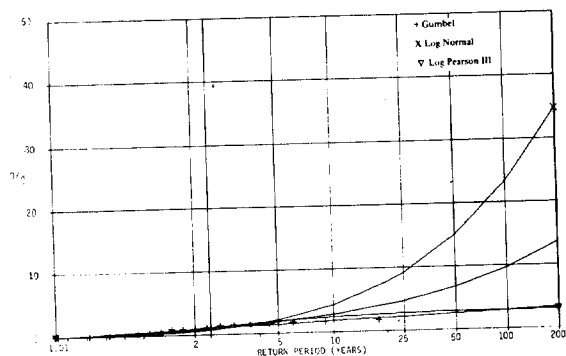
STATION 05P50905 SWAN CREEK TRIBUTARY NEAR CASSELTON, N. DAK. 38
 PEAK = 229.0 CFS, AREA = 2,398 SQ MI, 18 OBS (1955-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 72.222 STD = 73.746 SKEW = 1.217103
 LOG NORMAL & PIII: MEAN = 1.92447 STD = .553746 SKEW = -.428252
 GUMBEL PARAMETERS: ALPHA = .017370 BETA = 36.936

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	47.34	.6555	43.80	58.13	39.12	42.70
2.33	58.38	.8786	59.42	72.49	49.12	53.40
3.00	118.75	1.4443	132.80	125.34	114.44	116.44
10.00	167.46	2.5588	228.50	168.98	280.33	187.28
25.00	298.06	4.0091	238.19	233.17	384.84	308.13
50.00	390.59	5.5382	228.30	263.56	535.83	386.40
100.00	574.73	7.2655	229.84	303.86	788.20	518.28
200.00	873.96	9.3192	229.52	343.91	1043.14	832.12



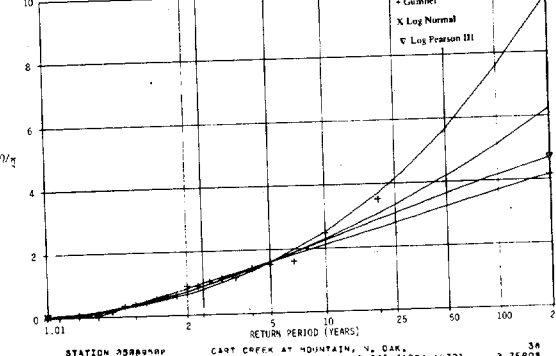
STATION 05P50900 ENGLISH COULEE TRAIN, N. DAK. 38
 PEAK = 184.0 CFS, AREA = 4,658 SQ MI, 18 OBS (1955-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 66.011 STD = 67.909 SKEW = .481112
 LOG NORMAL & PIII: MEAN = 1.807918 STD = .588265 SKEW = -1.754698
 GUMBEL PARAMETERS: ALPHA = .028737 BETA = 45.291

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	52.67	.7937	54.50	58.75	40.34	50.32
2.33	63.85	.9552	73.89	66.76	51.88	72.25
3.00	117.98	1.7712	125.23	131.14	129.78	129.81
10.00	173.20	2.6882	133.40	191.11	238.37	192.81
25.00	284.87	3.8764	172.18	194.67	456.87	173.87
50.00	355.74	5.3488	185.97	190.98	893.19	182.95
100.00	471.98	7.2857	191.53	217.80	1719.52	189.34
200.00	619.84	9.3823	194.78	243.11	1424.26	191.54



STATION 05P6200 SALTWATER COULEE, N. DAK. 38
 PEAK = 200.0 CFS, AREA = 22,094 SQ MI, 17 OBS (1955-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 139.174 STD = 164.752 SKEW = -.342073
 LOG NORMAL & PIII: MEAN = 1.952921 STD = .694987 SKEW = -1.884779
 GUMBEL PARAMETERS: ALPHA = .012174 BETA = 113.837

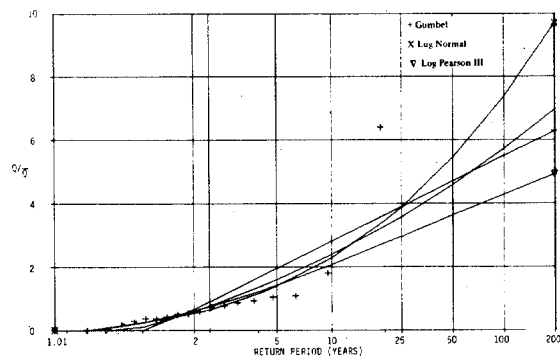
RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	127.22	.7885	156.90	142.95	86.72	143.27
2.33	152.40	.8588	211.42	159.44	119.59	179.59
3.00	294.15	1.8730	237.50	231.81	245.13	317.51
10.00	469.44	2.8940	280.31	280.83	697.71	393.43
25.00	743.42	4.7057	292.79	385.46	1478.79	446.39
50.00	1006.08	6.8939	298.39	429.72	2441.14	477.43
100.00	1507.03	9.7740	298.19	475.54	3714.76	477.43
200.00	2197.27	13.8971	299.49	532.35	5527.25	465.38



STATION 05P6400 CAST CREEK AT MOUNTAIN, N. DAK. 38
 PEAK = 138.0 CFS, AREA = 16,800 SQ MI, 19 OBS (1954-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 371.952 STD = 332.997 SKEW = 1.582720
 LOG NORMAL & PIII: MEAN = 2.391644 STD = .458514 SKEW = -.756969
 GUMBEL PARAMETERS: ALPHA = .033992 BETA = 224.502

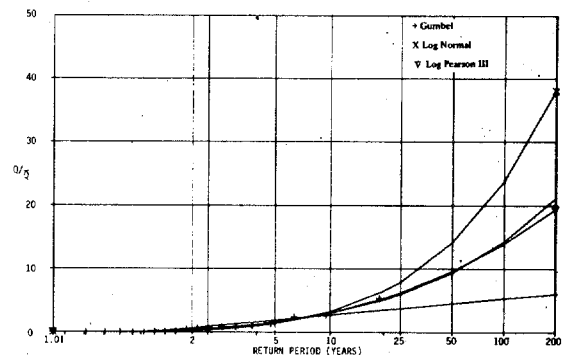
RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRISM III
2.00	281.04	.7507	337.90	318.45	246.48	280.84
2.33	334.49	.9925	382.27	372.28	287.81	335.99
3.00	600.24	1.5178	576.94	582.57	594.04	583.85
10.00	897.09	2.3123	697.90	788.33	942.32	841.31
25.00	1236.71	3.3329	1374.90	1077.53	1548.00	1142.20
50.00	1508.79	4.2889	1523.79	1284.82	2114.58	1357.78
100.00	1917.92	5.1886	1598.30	1376.91	2812.98	1381.58
200.00	2516.86	6.2472	1635.59	1553.18	3647.72	1753.29

Appendix A-38. North Dakota 1-6. Flood frequency curves and data.



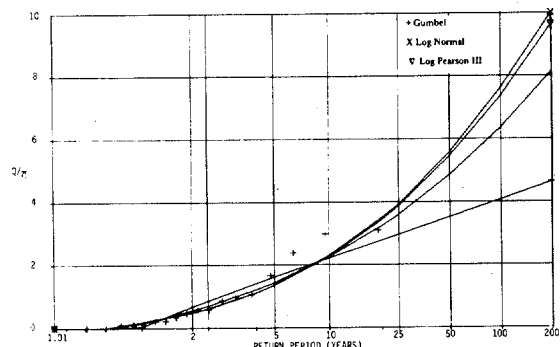
STATION 05898800 CAPT CREEK TRIBUTARY NEAR CRYSTAL, N. DAK. 38
 PEAK = 860.0 CFS, AREA = 3,778 SQ MI, 18 OBS (1955-1972) 1 ZERO
 STATISTICAL VALUES: MEAN = 183.008 STD = 140.005 SKEW = 3.388724
 LOG NORMAL & PIII: MEAN = 1,777902 STD = .477471 SKEW = -.668171
 GUMBEL PARAMETERS: ALPHA = .986545 BETA = 55.988

RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	GUMBEL	LOG	LOG
PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD
2.00	62.48	.0863	37.58	68.67	59.34	62.47
2.33	75.28	.1003	41.65	84.45	66.79	75.74
5.00	159.53	1.5802	130.79	203.60	144.79	148.21
10.00	245.49	2.4163	234.38	291.86	237.98	215.82
25.00	389.97	3.5898	375.52	483.57	399.07	369.87
50.00	473.08	4.5991	453.26	485.46	561.47	375.41
100.00	569.86	5.7235	1642.12	567.28	750.72	442.85
200.00	718.80	5.9755	1986.86	648.53	1009.37	597.97



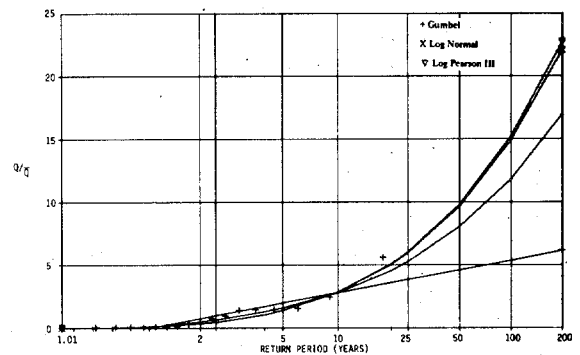
STATION 05123520 EGG CREEK NEAR GLENBURN, N. DAK. 38
 PEAK = 388.0 CFS, AREA = 26,889 SQ MI, 18 OBS (1955-1972) 1 ZERO
 STATISTICAL VALUES: MEAN = 55.784 STD = 77.784 SKEW = 2.888488
 LOG NORMAL & PIII: MEAN = 1,246855 STD = .812815 SKEW = -.388888
 GUMBEL PARAMETERS: ALPHA = .816488 BETA = 28.781

RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	GUMBEL	LOG	LOG
PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD
2.00	23.40	.4248	32.58	37.92	15.83	17.89
2.33	32.37	.5885	35.95	51.38	21.19	24.68
5.00	85.44	1.6048	87.38	107.93	78.89	81.38
10.00	108.51	3.0219	109.58	153.74	103.08	107.87
25.00	334.79	6.0936	334.79	211.43	445.71	347.83
50.00	528.49	9.4771	528.49	256.68	792.79	526.48
100.00	892.87	14.3939	417.44	256.68	1307.89	785.56
200.00	1181.61	21.1893	431.22	338.85	2119.78	1086.88



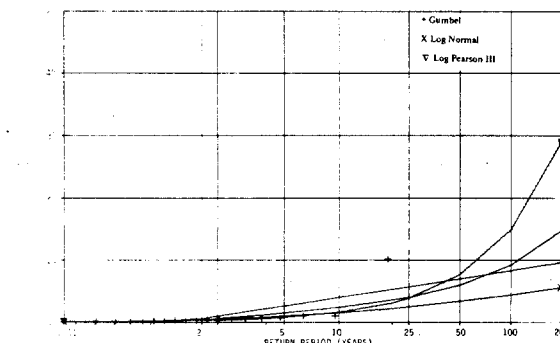
STATION 05123580 EGG CREEK TRIBUTARY NEAR DEERING, N. DAK. 38
 PEAK = 26.0 CFS, AREA = 4,259 SQ MI, 18 OBS (1955-1972) 2 ZEROS
 STATISTICAL VALUES: MEAN = 8.337 STD = 1.440 SKEW = 1.258956
 LOG NORMAL & PIII: MEAN = .691538 STD = .465009 SKEW = -.824375
 GUMBEL PARAMETERS: ALPHA = .151610 BETA = 4.555

RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	GUMBEL	LOG	LOG
PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD
2.00	4.73	.5873	4.53	5.79	4.14	4.14
2.33	5.95	.7823	5.02	7.29	5.77	5.19
5.00	12.13	1.4558	15.22	13.55	11.40	11.40
10.00	14.89	2.2657	25.10	19.55	19.22	18.89
25.00	34.74	3.5935	25.24	24.53	32.79	32.58
50.00	49.86	4.8587	28.62	29.48	45.54	45.54
100.00	51.74	5.3529	24.91	34.29	53.55	51.49
200.00	67.79	6.1348	24.68	38.58	64.22	60.46



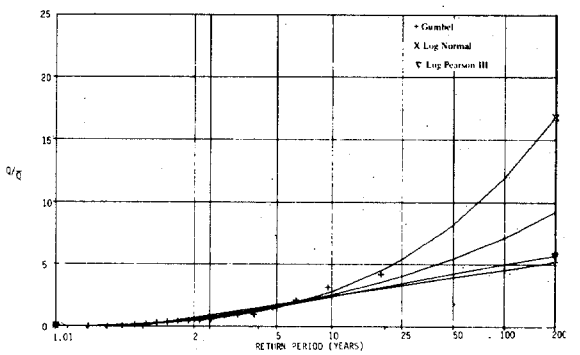
STATION 06320790 PAINTED WOODS C TR1. N. WILLISTON, N. DAK. 38
 PEAK = 119.0 CFS, AREA = .358 SQ MI, 17 OBS (1955-1972) 8 ZEROS
 STATISTICAL VALUES: MEAN = 18.368 STD = 27.368 SKEW = 2.488064
 LOG NORMAL & PIII: MEAN = .967247 STD = .586951 SKEW = -.816488
 GUMBEL PARAMETERS: ALPHA = .946775 BETA = 7.284

RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	GUMBEL	LOG	LOG
PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD
2.00	8.03	.5678	7.88	15.13	7.38	7.33
2.33	13.05	.6666	16.14	19.87	9.76	9.74
5.00	31.69	1.6178	29.48	39.33	27.49	27.84
10.00	55.88	2.8487	49.48	55.37	55.93	56.89
25.00	103.05	5.1068	127.36	75.64	117.53	118.93
50.00	197.71	8.0514	149.68	96.64	189.77	192.08
100.00	252.91	11.8444	169.64	105.00	299.13	298.28
200.00	332.88	16.9882	188.41	120.48	432.95	445.28



STATION 06320800 PAINTED WOODS C TR1. N. WILLISTON, N. DAK. 38
 PEAK = 160.0 CFS, AREA = 17,190 SQ MI, 18 OBS (1955-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 155.388 STD = 382.976 SKEW = 1.148348
 LOG NORMAL & PIII: MEAN = 1.851644 STD = .824973 SKEW = 1.932841
 GUMBEL PARAMETERS: ALPHA = .303320 BETA = -7.930

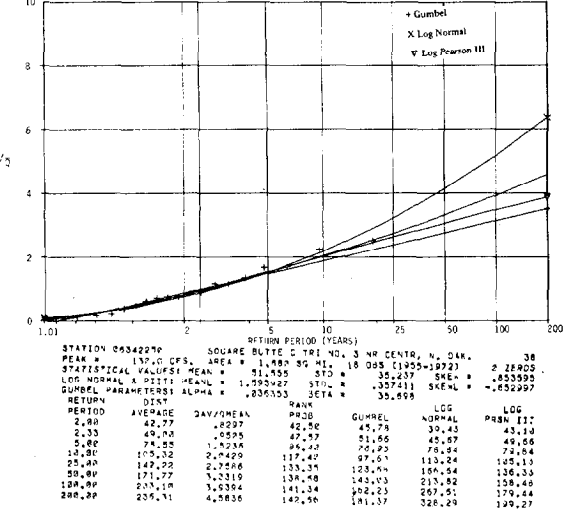
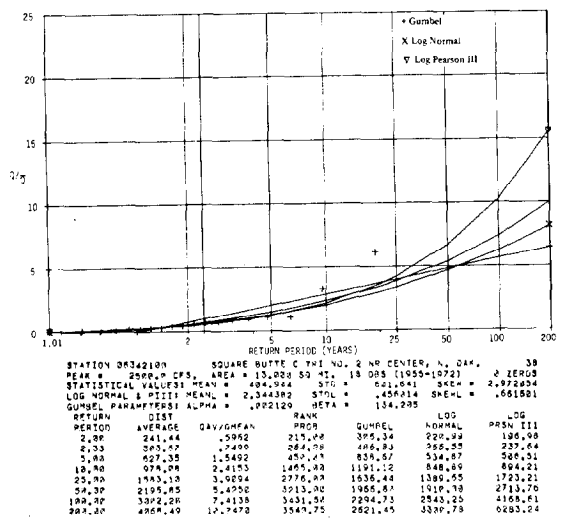
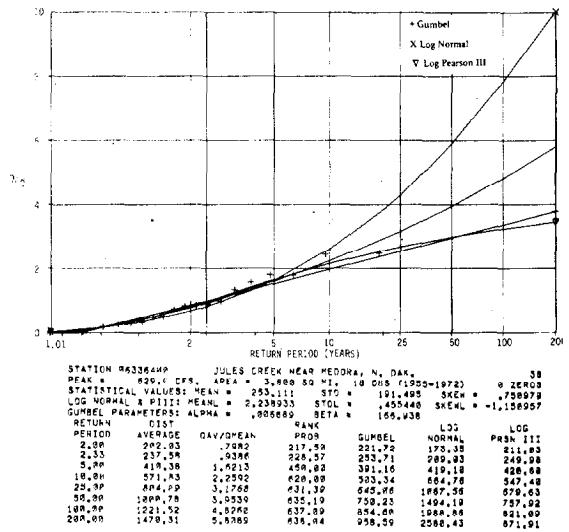
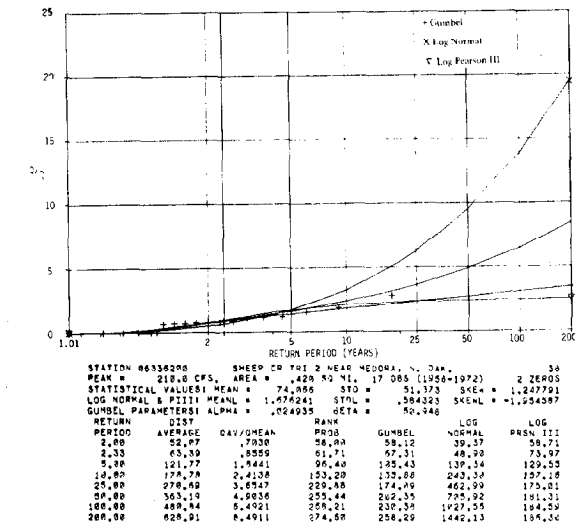
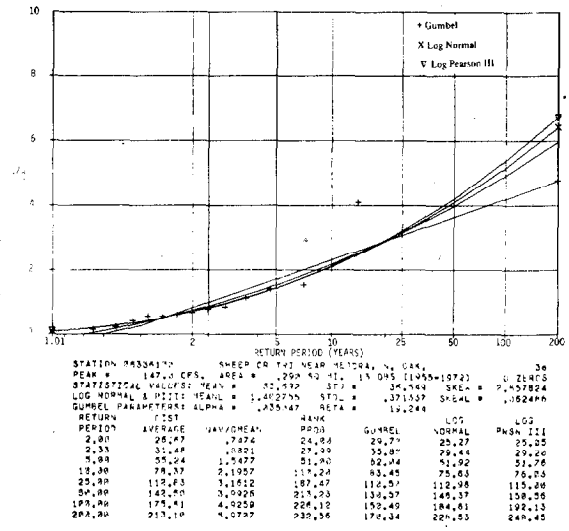
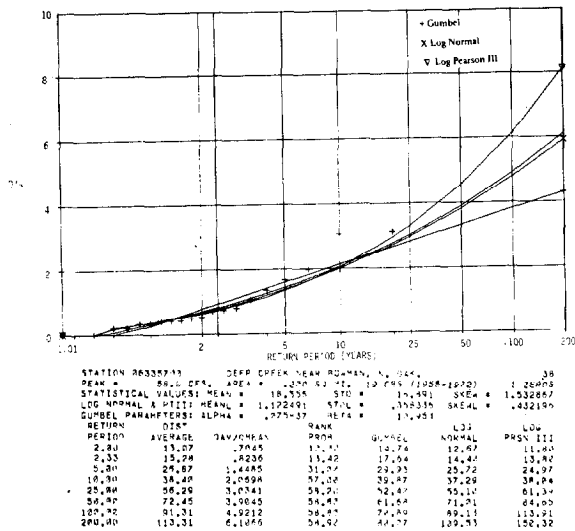
RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	GUMBEL	LOG	LOG
PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD
2.00	71.56	.4722	62.88	65.89	71.11	71.11
2.33	100.50	.6400	73.71	150.53	84.05	84.05
5.00	238.41	1.5214	128.00	417.38	151.78	158.48
10.00	377.77	2.4311	344.98	629.79	240.38	255.84
25.00	635.78	4.0014	1945.68	898.36	303.13	615.79
50.00	949.52	6.0559	2462.79	1057.57	528.43	1196.63
100.00	1455.76	9.2358	2764.39	1305.51	889.66	2382.11
200.00	2209.52	14.7431	2985.19	1492.63	876.88	4381.28



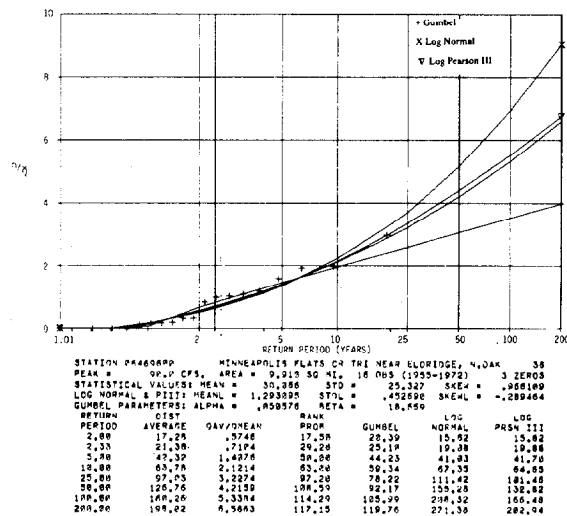
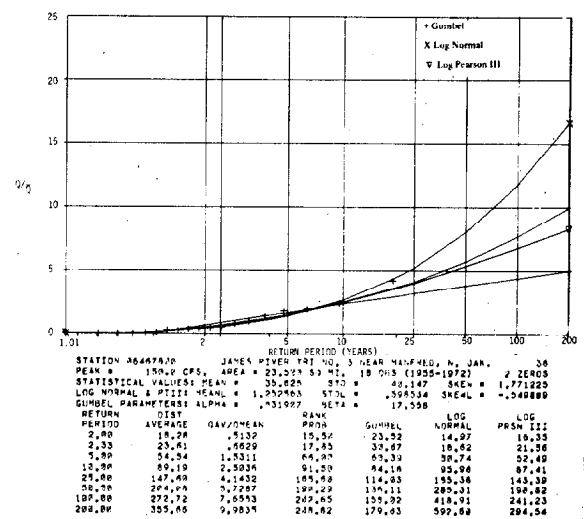
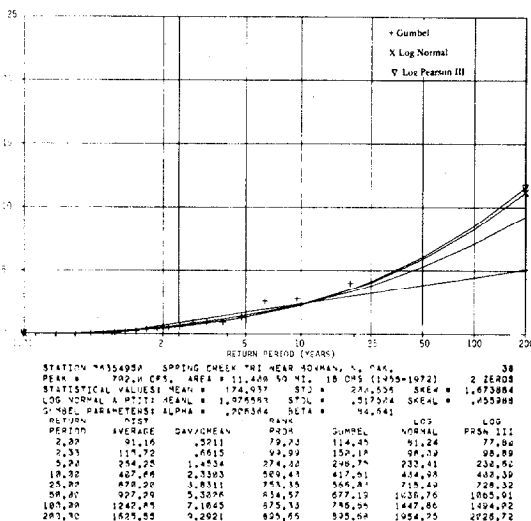
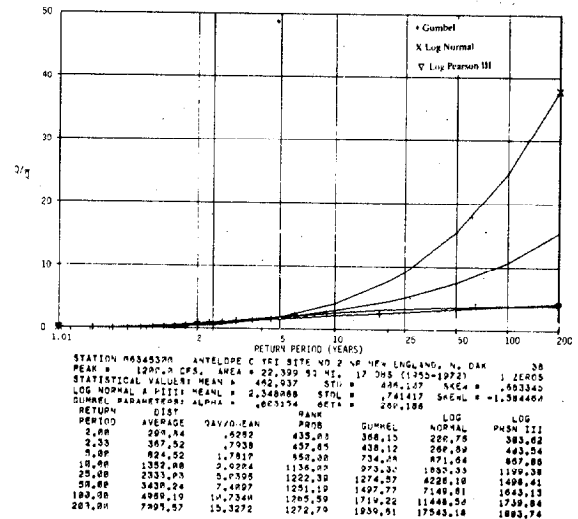
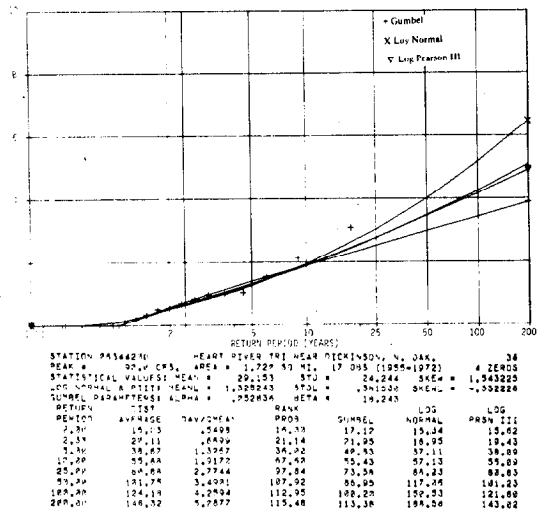
STATION 06320800 PAINTED WOODS C TR1. N. WILLISTON, N. DAK. 38
 PEAK = 276.0 CFS, AREA = 6,388 SQ MI, 18 OBS (1955-1972) 1 ZERO
 STATISTICAL VALUES: MEAN = 45.705 STD = 76.712 SKEW = 1.821598
 LOG NORMAL & PIII: MEAN = 1.538321 STD = .591668 SKEW = -.873150
 GUMBEL PARAMETERS: ALPHA = .168552 BETA = 31.568

RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	GUMBEL	LOG	LOG
PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD
2.00	36.99	.5933	31.83	48.27	31.33	37.36
2.33	46.32	.7507	37.14	61.34	38.68	47.98
5.00	107.26	1.6325	108.00	116.04	101.82	104.68
10.00	188.73	2.5868	292.56	217.63	186.65	198.10
25.00	267.71	4.2745	391.48	301.48	355.64	328.67
50.00	368.61	5.4882	318.77	358.60	548.45	281.37
100.00	472.77	7.1932	331.88	391.48	787.28	328.07
200.00	607.07	9.2538	334.44	342.34	1186.81	374.97

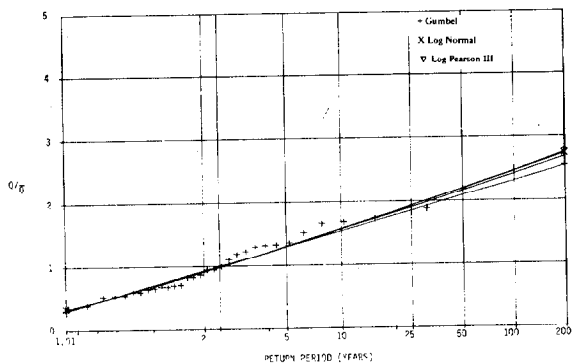
Appendix A-38. North Dakota 7-12. Flood frequency curves and data.



Appendix A-38. North Dakota 13-18. Flood frequency curves and data.

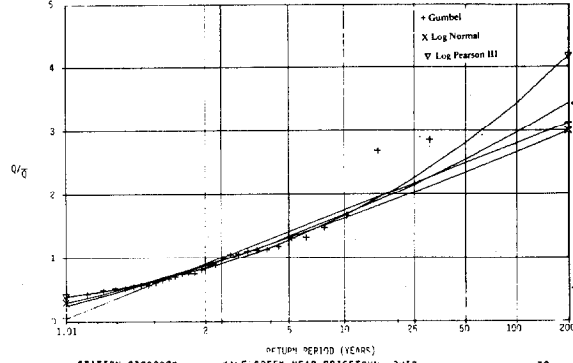


Appendix A-38. North Dakota 19-23. Flood frequency curves and data.



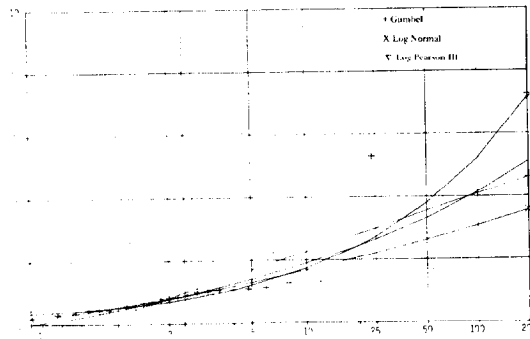
STATION 83899572 WILL CREEK NEAR BERLIN CENTER, OHIO 39
 PEAK = 1992.7 CFS, AREA = 19,400 SQ MI, 30 OBS (1942-1971) 2.25403
 STATISTICAL VALUES: MEAN = 1016.06 STDEV = 424.375 SKEW = 2.88887
 LOG NORMAL & PIII: MEAN = 2.065192 STDEV = 1.04463 SKEW = 0.144472
 GUMBEL PARAMETERS: ALPHA = .725118 BETA = 810.730

RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PKSN III
2.00	931.09	.0217	016.27	942.51	925.81	925.86
2.33	1071.43	.0094	007.84	1011.47	990.81	989.69
5.00	1321.97	1.3097	1374.38	1316.37	1325.22	1324.69
10.00	1486.84	1.0717	1694.08	1544.87	1597.58	1596.41
25.00	1927.10	1.5982	1604.38	1878.71	1850.39	1853.75
50.00	2174.77	2.1039	1957.07	2111.73	2217.79	2224.81
100.00	2444.74	2.4273	2363.02	2343.73	2490.19	2501.83
200.00	2774.94	2.7417	2724.75	2570.49	2757.19	2746.15



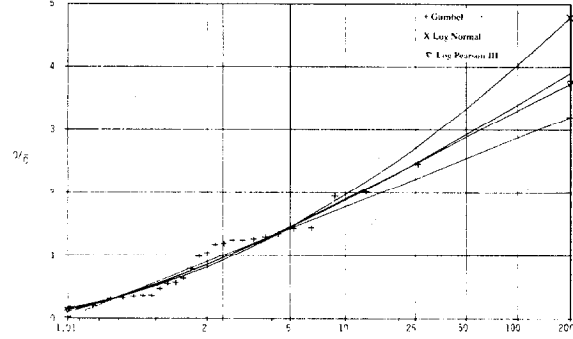
STATION 83899572 WILL CREEK NEAR BERLIN CENTER, OHIO 39
 PEAK = 1992.7 CFS, AREA = 19,400 SQ MI, 30 OBS (1942-1971) 2.25403
 STATISTICAL VALUES: MEAN = 1016.06 STDEV = 424.375 SKEW = 2.88887
 LOG NORMAL & PIII: MEAN = 2.065192 STDEV = 1.04463 SKEW = 0.144472
 GUMBEL PARAMETERS: ALPHA = .725118 BETA = 810.730

RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PKSN III
2.00	931.09	.0217	016.27	942.51	925.81	925.86
2.33	1071.43	.0094	007.84	1011.47	990.81	989.69
5.00	1321.97	1.3097	1374.38	1316.37	1325.22	1324.69
10.00	1486.84	1.0717	1694.08	1544.87	1597.58	1596.41
25.00	1927.10	1.5982	1604.38	1878.71	1850.39	1853.75
50.00	2174.77	2.1039	1957.07	2111.73	2217.79	2224.81
100.00	2444.74	2.4273	2363.02	2343.73	2490.19	2501.83
200.00	2774.94	2.7417	2724.75	2570.49	2757.19	2746.15



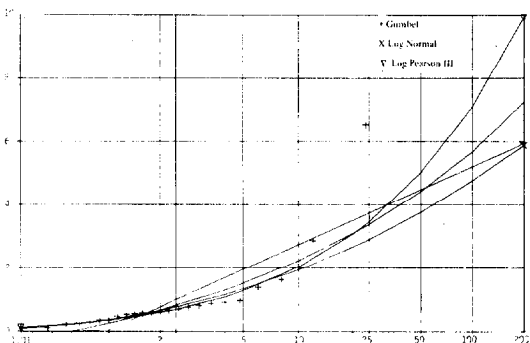
STATION 83899572 WILL CREEK NEAR BERLIN CENTER, OHIO 39
 PEAK = 1992.7 CFS, AREA = 19,400 SQ MI, 30 OBS (1942-1971) 2.25403
 STATISTICAL VALUES: MEAN = 1016.06 STDEV = 424.375 SKEW = 2.88887
 LOG NORMAL & PIII: MEAN = 2.065192 STDEV = 1.04463 SKEW = 0.144472
 GUMBEL PARAMETERS: ALPHA = .725118 BETA = 810.730

RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PKSN III
2.00	931.09	.0217	016.27	942.51	925.81	925.86
2.33	1071.43	.0094	007.84	1011.47	990.81	989.69
5.00	1321.97	1.3097	1374.38	1316.37	1325.22	1324.69
10.00	1486.84	1.0717	1694.08	1544.87	1597.58	1596.41
25.00	1927.10	1.5982	1604.38	1878.71	1850.39	1853.75
50.00	2174.77	2.1039	1957.07	2111.73	2217.79	2224.81
100.00	2444.74	2.4273	2363.02	2343.73	2490.19	2501.83
200.00	2774.94	2.7417	2724.75	2570.49	2757.19	2746.15



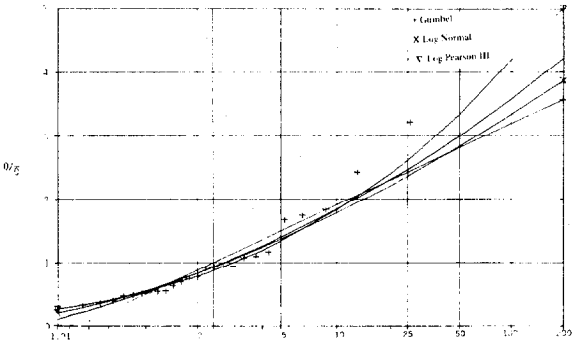
STATION 83899572 WILL CREEK NEAR BERLIN CENTER, OHIO 39
 PEAK = 1992.7 CFS, AREA = 19,400 SQ MI, 30 OBS (1942-1971) 2.25403
 STATISTICAL VALUES: MEAN = 1016.06 STDEV = 424.375 SKEW = 2.88887
 LOG NORMAL & PIII: MEAN = 2.065192 STDEV = 1.04463 SKEW = 0.144472
 GUMBEL PARAMETERS: ALPHA = .725118 BETA = 810.730

RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PKSN III
2.00	931.09	.0217	016.27	942.51	925.81	925.86
2.33	1071.43	.0094	007.84	1011.47	990.81	989.69
5.00	1321.97	1.3097	1374.38	1316.37	1325.22	1324.69
10.00	1486.84	1.0717	1694.08	1544.87	1597.58	1596.41
25.00	1927.10	1.5982	1604.38	1878.71	1850.39	1853.75
50.00	2174.77	2.1039	1957.07	2111.73	2217.79	2224.81
100.00	2444.74	2.4273	2363.02	2343.73	2490.19	2501.83
200.00	2774.94	2.7417	2724.75	2570.49	2757.19	2746.15



STATION 83899572 WILL CREEK NEAR BERLIN CENTER, OHIO 39
 PEAK = 1992.7 CFS, AREA = 19,400 SQ MI, 30 OBS (1942-1971) 2.25403
 STATISTICAL VALUES: MEAN = 1016.06 STDEV = 424.375 SKEW = 2.88887
 LOG NORMAL & PIII: MEAN = 2.065192 STDEV = 1.04463 SKEW = 0.144472
 GUMBEL PARAMETERS: ALPHA = .725118 BETA = 810.730

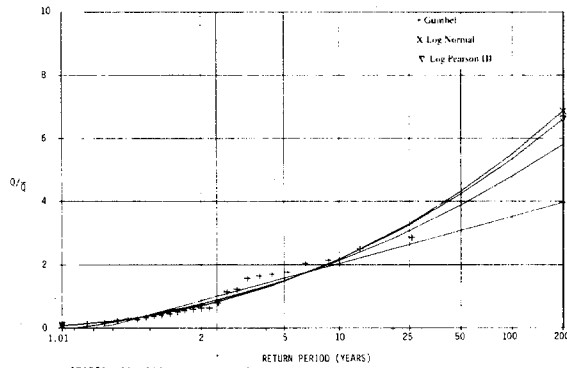
RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PKSN III
2.00	931.09	.0217	016.27	942.51	925.81	925.86
2.33	1071.43	.0094	007.84	1011.47	990.81	989.69
5.00	1321.97	1.3097	1374.38	1316.37	1325.22	1324.69
10.00	1486.84	1.0717	1694.08	1544.87	1597.58	1596.41
25.00	1927.10	1.5982	1604.38	1878.71	1850.39	1853.75
50.00	2174.77	2.1039	1957.07	2111.73	2217.79	2224.81
100.00	2444.74	2.4273	2363.02	2343.73	2490.19	2501.83
200.00	2774.94	2.7417	2724.75	2570.49	2757.19	2746.15



STATION 83899572 WILL CREEK NEAR BERLIN CENTER, OHIO 39
 PEAK = 1992.7 CFS, AREA = 19,400 SQ MI, 30 OBS (1942-1971) 2.25403
 STATISTICAL VALUES: MEAN = 1016.06 STDEV = 424.375 SKEW = 2.88887
 LOG NORMAL & PIII: MEAN = 2.065192 STDEV = 1.04463 SKEW = 0.144472
 GUMBEL PARAMETERS: ALPHA = .725118 BETA = 810.730

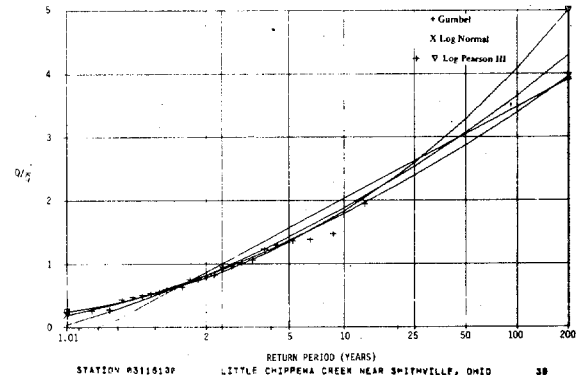
RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PKSN III
2.00	931.09	.0217	016.27	942.51	925.81	925.86
2.33	1071.43	.0094	007.84	1011.47	990.81	989.69
5.00	1321.97	1.3097	1374.38	1316.37	1325.22	1324.69
10.00	1486.84	1.0717	1694.08	1544.87	1597.58	1596.41
25.00	1927.10	1.5982	1604.38	1878.71	1850.39	1853.75
50.00	2174.77	2.1039	1957.07	2111.73	2217.79	2224.81
100.00	2444.74	2.4273	2363.02	2343.73	2490.19	2501.83
200.00	2774.94	2.7417	2724.75	2570.49	2757.19	2746.15

Appendix A-39. Ohio 1-6. Flood frequency curves and data.



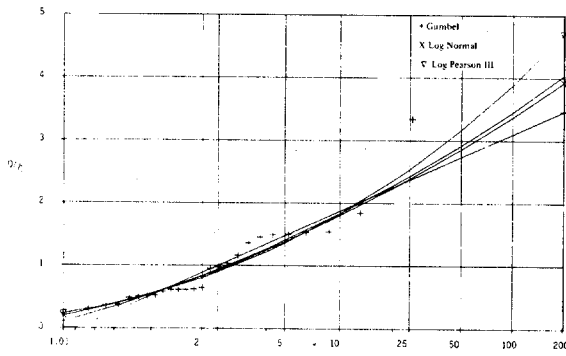
STATION #3116007 BARNES RUN NEAR SUMMERFIELD, OHIO 30
 PEAK = 2350.0 CFS, AREA = 3.330 SQ MI, 25 OBS (1947-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 817.919 STD = 659.338 SKEW = .844066
 LOG NORMAL & PIII: MEAN = 2.762834 STD = .343188 SKEW = -.845032
 GUMBEL PARAMETERS: ALPHA = .001943 BETA = 521.332

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	624.77	.7660	305.03	776.91	579.20	583.88	
2.33	724.02	.8887	427.12	819.99	678.80	682.78	
5.00	1245.21	1.5160	1432.00	1293.02	1217.39	1219.31	
10.00	1753.32	2.1436	1874.00	1679.17	1794.58	1785.29	
25.00	2519.61	3.1005	2338.00	2166.50	2715.30	2676.50	
50.00	3185.11	3.8905	2494.00	2528.78	3547.32	3478.24	
100.00	3926.38	4.8004	2572.00	2887.50	4510.24	4376.88	
200.00	4758.79	5.8181	2611.00	3245.84	5617.44	5412.91	



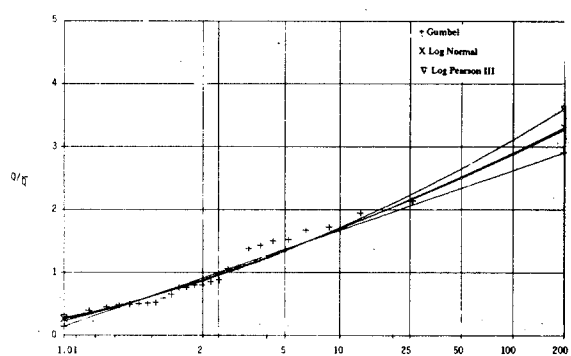
STATION #3116130 LITTLE CHIPMUNK CREEK NEAR SMITHVILLE, OHIO 30
 PEAK = 3930.3 CFS, AREA = 15.390 SQ MI, 25 OBS (1947-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 924.719 STD = 732.419 SKEW = 3.079989
 LOG NORMAL & PIII: MEAN = 2.082735 STD = .884080 SKEW = -.451688
 GUMBEL PARAMETERS: ALPHA = .001740 BETA = 595.135

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	784.20	.8264	745.03	884.88	739.80	728.83	
2.33	863.73	.9324	862.83	927.82	847.26	818.82	
5.00	1323.81	1.4315	1248.00	1456.72	1288.79	1248.82	
10.00	1749.76	1.8869	1336.00	1881.77	1680.61	1607.00	
25.00	2345.49	2.5366	1644.79	2483.89	2211.14	2082.84	
50.00	2841.39	3.0727	1852.59	2826.18	2639.85	2488.27	
100.00	3382.52	3.6578	1956.19	3225.25	3141.22	2981.00	
200.00	3973.28	4.2948	1983.89	3622.59	3654.81	3467.71	



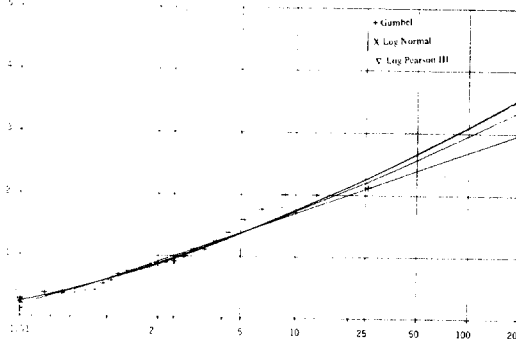
STATION #3119490 JEFFERSON CREEK NEAR JEWETT, OHIO 30
 PEAK = 347.0 CFS, AREA = 2.548 SQ MI, 25 OBS (1947-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 105.750 STD = 73.547 SKEW = 1.881475
 LOG NORMAL & PIII: MEAN = 1.952384 STD = .249047 SKEW = .328114
 GUMBEL PARAMETERS: ALPHA = .017447 BETA = 76.645

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	92.72	.8444	71.32	97.77	91.68	88.76	
2.33	105.44	.9444	104.71	109.29	102.26	98.93	
5.00	195.03	1.4424	164.79	192.81	192.43	191.25	
10.00	261.41	1.9367	192.84	285.91	198.71	261.41	
25.00	267.49	2.4729	308.39	260.38	260.52	279.55	
50.00	321.20	2.9272	446.14	308.79	314.92	348.13	
100.00	379.43	3.4560	459.39	348.97	379.28	429.42	
200.00	442.41	4.9357	510.54	382.86	439.55	515.71	



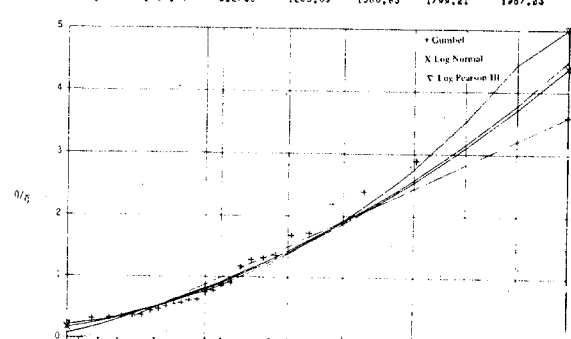
STATION #3119748 CONOTTON CREEK AT JEWETT, OHIO 30
 PEAK = 1170.7 CFS, AREA = 14.380 SQ MI, 25 OBS (1947-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 540.386 STD = 282.575 SKEW = .758213
 LOG NORMAL & PIII: MEAN = 2.061447 STD = .222771 SKEW = .184651
 GUMBEL PARAMETERS: ALPHA = .004533 BETA = 417.341

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	483.49	.8878	448.20	498.80	497.22	472.72	
2.33	539.17	.9729	478.30	543.89	526.27	516.37	
5.00	741.39	1.3591	528.19	748.71	739.56	735.61	
10.00	925.45	1.6960	586.89	914.24	926.77	935.33	
25.00	1173.09	2.1524	1155.59	1123.44	1179.27	1216.88	
50.00	1367.88	2.5308	1222.79	1276.56	1377.26	1447.76	
100.00	1571.24	2.8830	1251.59	1432.56	1584.24	1697.11	
200.00	1784.14	3.2735	1265.69	1586.83	1798.21	1927.23	



STATION #3132972 FOUR RUN AT MANSFIELD, OHIO 30
 PEAK = 945.0 CFS, AREA = 5.170 SQ MI, 25 OBS (1947-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 453.550 STD = 244.741 SKEW = .921858
 LOG NORMAL & PIII: MEAN = 2.392697 STD = .237300 SKEW = -.098923
 GUMBEL PARAMETERS: ALPHA = .005234 BETA = 343.220

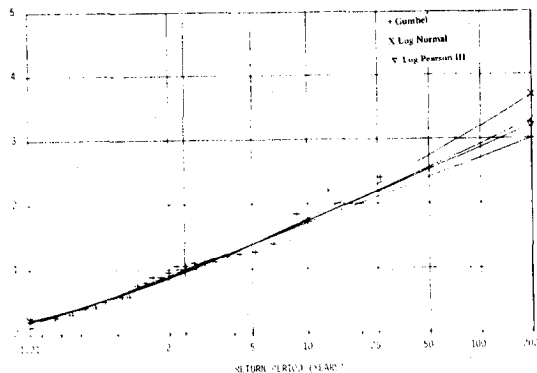
RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	417.20	.8935	408.00	413.25	394.13	394.38	
2.33	448.18	.9771	415.56	424.13	424.03		
5.00	626.14	1.3812	705.20	620.79	626.35	624.39	
10.00	788.92	1.7157	904.72	773.17	794.81	793.62	
25.00	1091.72	2.3505	952.79	994.30	1026.20	1024.63	
50.00	1189.32	2.3792	991.39	1088.71	1218.94	1208.33	
100.00	1347.71	2.9923	1089.59	1222.17	1405.32	1401.48	
200.00	1523.25	3.3598	1012.84	1355.01	1688.75	1684.88	



STATION #3140088 OTTER FORK NEAR CENTERVILLE, OHIO 30
 PEAK = 445.0 CFS, AREA = 2.370 SQ MI, 25 OBS (1947-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 143.479 STD = 126.315 SKEW = 1.208037
 LOG NORMAL & PIII: MEAN = 2.493286 STD = .284510 SKEW = .373922
 GUMBEL PARAMETERS: ALPHA = .011426 BETA = 124.737

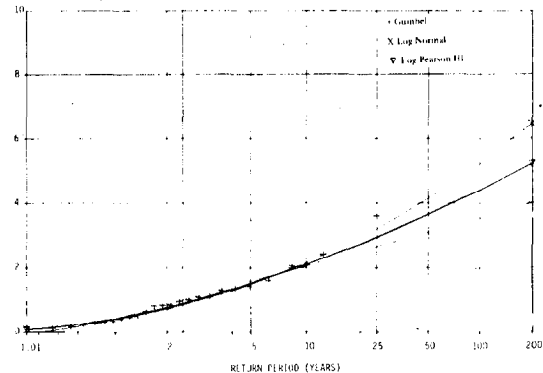
RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	126.93	.6234	118.89	135.72	118.89	119.84	
2.33	142.36	.6925	130.24	133.82	136.55	135.00	
5.00	219.73	1.4310	148.24	201.38	215.31	212.81	
10.00	291.48	1.9924	140.39	295.01	297.31	295.62	
25.00	398.44	2.5838	141.01	375.10	390.96	423.25	
50.00	484.14	3.1957	141.95	454.55	476.81	541.96	
100.00	581.43	3.7938	141.37	493.70	570.19	684.71	
200.00	689.27	4.4906	141.98	552.52	671.83	844.18	

Appendix A-39. Ohio 7-12. Flood frequency curves and data.



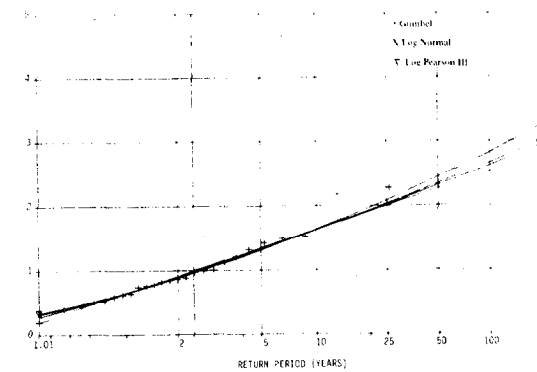
STATION 331493RD LITTLE RIVER NEAR JANKETVILLE, OHIO 39
 PEAK = 2970.0 CFS, AREA = 11,400 SQ MI, 25 DMS (1947-1971) 0 ZERO3
 STATISTICAL VALUES: MEAN = 1261.110 STD = 625.130 SKEW = 1.268858
 LOG NORMAL & PIII: MEAN = 2,427.444 STD = 2,362.444 SKEW = 1.268858
 GUMBEL PARAMETERS: ALPHA = 1.027741 BETA = 449.105

RETURN PERIOD	AVERAGE	DAY/24HR	PEAK	LOG	LOG	LOG
2.00	701.02	1.0000	1170.70	740.75	761.07	761.07
2.33	862.24	1.0000	1261.11	821.39	842.72	842.72
5.00	1194.79	1.3308	1584.27	1101.74	1195.41	1195.41
10.00	1497.45	1.7458	1956.10	1267.45	1459.10	1459.10
25.00	1804.80	2.0710	2443.19	1393.83	1864.07	1864.07
50.00	2194.41	2.5994	2911.53	1502.42	2173.27	2173.27
100.00	2511.53	3.2000	3186.00	1586.17	2461.70	2461.70
200.00	2824.10	3.2940	3297.89	1673.51	2751.00	2751.00



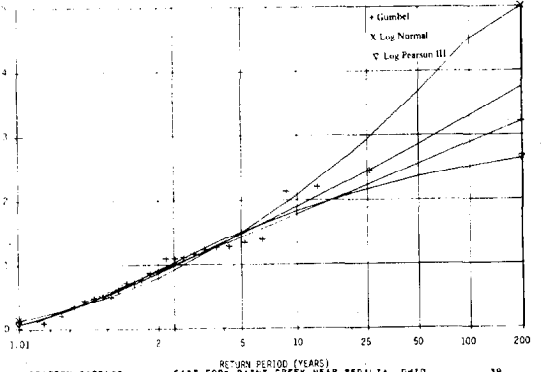
STATION 331501RD LITTLE RIVER NEAR JANKETVILLE, OHIO 39
 PEAK = 1890.0 CFS, AREA = 11,400 SQ MI, 25 DMS (1947-1971) 0 ZERO3
 STATISTICAL VALUES: MEAN = 1261.110 STD = 625.130 SKEW = 1.268858
 LOG NORMAL & PIII: MEAN = 2,427.444 STD = 2,362.444 SKEW = 1.268858
 GUMBEL PARAMETERS: ALPHA = 1.027741 BETA = 449.105

RETURN PERIOD	AVERAGE	DAY/24HR	PEAK	LOG	LOG	LOG
2.00	701.02	1.0000	1170.70	740.75	761.07	761.07
2.33	862.24	1.0000	1261.11	821.39	842.72	842.72
5.00	1194.79	1.3308	1584.27	1101.74	1195.41	1195.41
10.00	1497.45	1.7458	1956.10	1267.45	1459.10	1459.10
25.00	1804.80	2.0710	2443.19	1393.83	1864.07	1864.07
50.00	2194.41	2.5994	2911.53	1502.42	2173.27	2173.27
100.00	2511.53	3.2000	3186.00	1586.17	2461.70	2461.70
200.00	2824.10	3.2940	3297.89	1673.51	2751.00	2751.00



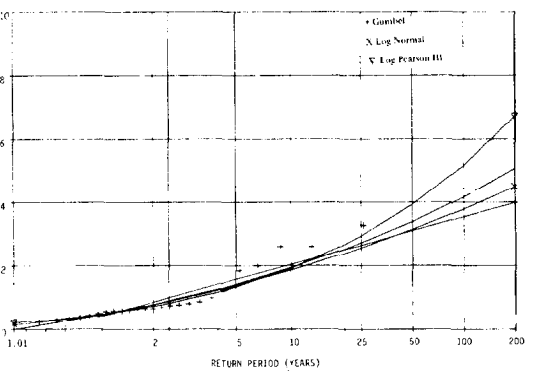
STATION 332260RD SCIOTO RIVER NEAR JANKETVILLE, OHIO 39
 PEAK = 2200.0 CFS, AREA = 11,400 SQ MI, 25 DMS (1947-1971) 0 ZERO3
 STATISTICAL VALUES: MEAN = 1261.110 STD = 625.130 SKEW = 1.268858
 LOG NORMAL & PIII: MEAN = 2,427.444 STD = 2,362.444 SKEW = 1.268858
 GUMBEL PARAMETERS: ALPHA = 1.027741 BETA = 449.105

RETURN PERIOD	AVERAGE	DAY/24HR	PEAK	LOG	LOG	LOG
2.00	701.02	1.0000	1170.70	740.75	761.07	761.07
2.33	862.24	1.0000	1261.11	821.39	842.72	842.72
5.00	1194.79	1.3308	1584.27	1101.74	1195.41	1195.41
10.00	1497.45	1.7458	1956.10	1267.45	1459.10	1459.10
25.00	1804.80	2.0710	2443.19	1393.83	1864.07	1864.07
50.00	2194.41	2.5994	2911.53	1502.42	2173.27	2173.27
100.00	2511.53	3.2000	3186.00	1586.17	2461.70	2461.70
200.00	2824.10	3.2940	3297.89	1673.51	2751.00	2751.00



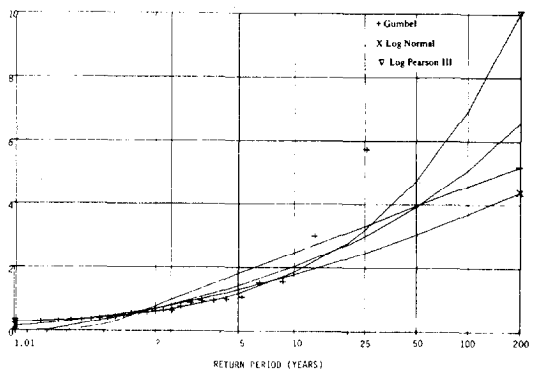
STATION 332310RD EAST FORK PAINT CREEK NEAR SEDALIA, OHIO 39
 PEAK = 515.4 CFS, AREA = 4,230 SQ MI, 25 DMS (1947-1971) 0 ZERO3
 STATISTICAL VALUES: MEAN = 209.459 STD = 126.588 SKEW = 1.268858
 LOG NORMAL & PIII: MEAN = 2,427.444 STD = 2,362.444 SKEW = 1.268858
 GUMBEL PARAMETERS: ALPHA = 1.027741 BETA = 449.105

RETURN PERIOD	AVERAGE	DAY/24HR	PEAK	LOG	LOG	LOG
2.00	144.24	1.0000	199.70	109.24	109.98	109.98
2.33	167.72	1.0000	209.46	116.35	116.35	116.35
5.00	207.57	1.3308	244.32	126.72	126.72	126.72
10.00	244.32	1.7458	281.37	136.35	136.35	136.35
25.00	281.37	2.0710	324.19	145.11	145.11	145.11
50.00	324.19	2.5994	364.07	152.67	152.67	152.67
100.00	364.07	3.2000	400.00	158.61	158.61	158.61
200.00	400.00	3.2940	431.14	163.26	163.26	163.26



STATION 332341RD INDIAN CREEK NEAR JANKETVILLE, OHIO 39
 PEAK = 9640.0 CFS, AREA = 9,710 SQ MI, 25 DMS (1947-1971) 0 ZERO3
 STATISTICAL VALUES: MEAN = 1776.459 STD = 1396.774 SKEW = 1.268858
 LOG NORMAL & PIII: MEAN = 3,131.241 STD = 3,045.153 SKEW = 1.268858
 GUMBEL PARAMETERS: ALPHA = 1.027741 BETA = 449.105

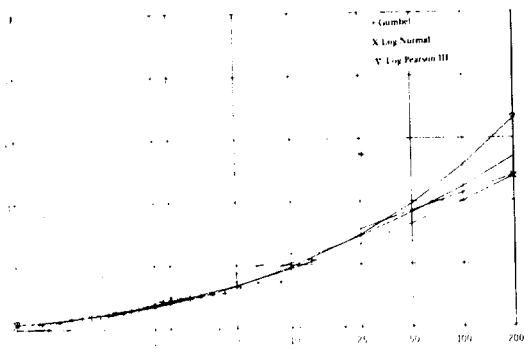
RETURN PERIOD	AVERAGE	DAY/24HR	PEAK	LOG	LOG	LOG
2.00	1540.43	1.0000	1467.13	1352.62	1358.44	1358.44
2.33	1558.72	1.0000	1574.28	1370.34	1370.34	1370.34
5.00	2492.58	1.4355	2064.32	1504.65	1504.65	1504.65
10.00	3372.48	1.7458	2594.05	1586.17	1586.17	1586.17
25.00	4702.74	2.0710	3594.79	1673.51	1673.51	1673.51
50.00	5594.14	2.5994	4407.46	1745.11	1745.11	1745.11
100.00	6474.19	3.2000	5121.71	1802.42	1802.42	1802.42
200.00	7273.63	3.2940	5682.11	1848.74	1848.74	1848.74



STATION 332354RD SALT CREEK NEAR JANKETVILLE, OHIO 39
 PEAK = 17200.0 CFS, AREA = 10,100 SQ MI, 25 DMS (1947-1971) 0 ZERO3
 STATISTICAL VALUES: MEAN = 1776.459 STD = 1396.774 SKEW = 1.268858
 LOG NORMAL & PIII: MEAN = 3,131.241 STD = 3,045.153 SKEW = 1.268858
 GUMBEL PARAMETERS: ALPHA = 1.027741 BETA = 449.105

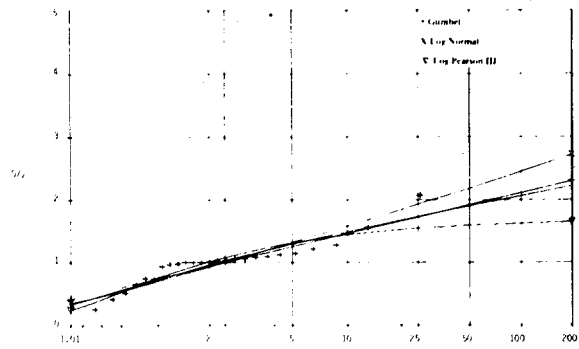
RETURN PERIOD	AVERAGE	DAY/24HR	PEAK	LOG	LOG	LOG
2.00	1302.44	1.0000	1143.44	1144.11	1144.11	1144.11
2.33	1518.45	1.0000	1261.11	1261.11	1261.11	1261.11
5.00	2177.17	1.4355	1584.27	1393.83	1393.83	1393.83
10.00	2841.41	1.7458	1956.10	1459.10	1459.10	1459.10
25.00	3542.41	2.0710	2443.19	1502.42	1502.42	1502.42
50.00	4072.77	2.5994	2813.70	1548.74	1548.74	1548.74
100.00	4597.59	3.2000	3186.00	1586.17	1586.17	1586.17
200.00	5112.02	3.2940	3461.70	1623.26	1623.26	1623.26

Appendix A-39. Ohio 13-18. Flood frequency curves and data.



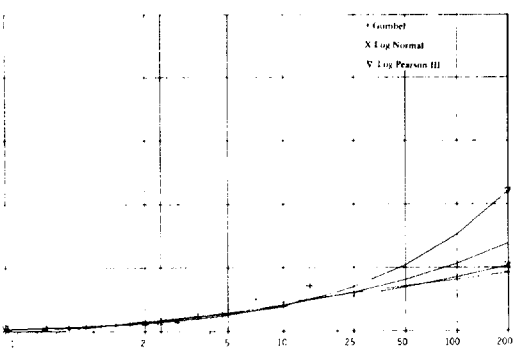
STATION 83241000 SOUTH BRANCH LITTLE SALT C AT JACKS, OHIO 39
 PEAK = 1470.0 CFS, AREA = 1,353.51 AC, 25 DMS (1947-1971) 0 ZEMOS
 STATISTICAL VALUES: MEAN = 173,210 STD = 141,737 SKEW = 1,943,377
 LOG NORMAL & PITTS: MEAN = 2,115,003 STD = 1,111,943 SKEW = 1,488,889
 GUMBEL PARAMETERS: ALPHA = .0272754 BETA = 92,453

PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	LOG	LOG
2.00	152.00	754.1	121.79	144.25	137.41	123.50	123.50
2.33	154.92	740.9	130.45	148.82	149.57	124.37	124.37
2.50	155.40	738.4	132.48	149.43	150.67	124.91	124.91
5.00	160.20	708.4	157.39	160.48	160.58	127.42	127.42
10.00	164.90	678.4	182.30	171.53	171.63	130.43	130.43
25.00	174.90	578.4	242.30	192.58	192.68	136.48	136.48
50.00	184.90	478.4	302.30	213.63	213.73	141.53	141.53
100.00	194.90	378.4	362.30	234.68	234.78	146.58	146.58
200.00	204.90	278.4	422.30	255.73	255.83	151.63	151.63



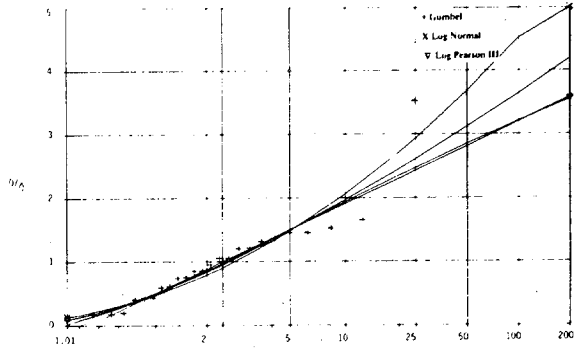
STATION 83241000 SOUTH BRANCH LITTLE SALT C AT JACKS, OHIO 39
 PEAK = 1470.0 CFS, AREA = 1,353.51 AC, 25 DMS (1947-1971) 0 ZEMOS
 STATISTICAL VALUES: MEAN = 173,210 STD = 141,737 SKEW = 1,943,377
 LOG NORMAL & PITTS: MEAN = 2,115,003 STD = 1,111,943 SKEW = 1,488,889
 GUMBEL PARAMETERS: ALPHA = .0272754 BETA = 92,453

PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	LOG	LOG
2.00	152.00	754.1	121.79	144.25	137.41	123.50	123.50
2.33	154.92	740.9	130.45	148.82	149.57	124.37	124.37
2.50	155.40	738.4	132.48	149.43	150.67	124.91	124.91
5.00	160.20	708.4	157.39	160.48	160.58	127.42	127.42
10.00	164.90	678.4	182.30	171.53	171.63	130.43	130.43
25.00	174.90	578.4	242.30	192.58	192.68	136.48	136.48
50.00	184.90	478.4	302.30	213.63	213.73	141.53	141.53
100.00	194.90	378.4	362.30	234.68	234.78	146.58	146.58
200.00	204.90	278.4	422.30	255.73	255.83	151.63	151.63



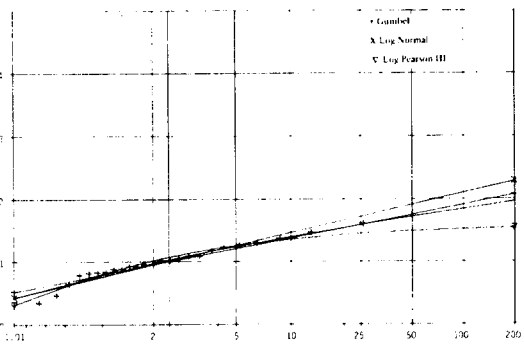
STATION 83241000 SOUTH BRANCH LITTLE SALT C AT JACKS, OHIO 39
 PEAK = 1470.0 CFS, AREA = 1,353.51 AC, 25 DMS (1947-1971) 0 ZEMOS
 STATISTICAL VALUES: MEAN = 173,210 STD = 141,737 SKEW = 1,943,377
 LOG NORMAL & PITTS: MEAN = 2,115,003 STD = 1,111,943 SKEW = 1,488,889
 GUMBEL PARAMETERS: ALPHA = .0272754 BETA = 92,453

PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	LOG	LOG
2.00	152.00	754.1	121.79	144.25	137.41	123.50	123.50
2.33	154.92	740.9	130.45	148.82	149.57	124.37	124.37
2.50	155.40	738.4	132.48	149.43	150.67	124.91	124.91
5.00	160.20	708.4	157.39	160.48	160.58	127.42	127.42
10.00	164.90	678.4	182.30	171.53	171.63	130.43	130.43
25.00	174.90	578.4	242.30	192.58	192.68	136.48	136.48
50.00	184.90	478.4	302.30	213.63	213.73	141.53	141.53
100.00	194.90	378.4	362.30	234.68	234.78	146.58	146.58
200.00	204.90	278.4	422.30	255.73	255.83	151.63	151.63



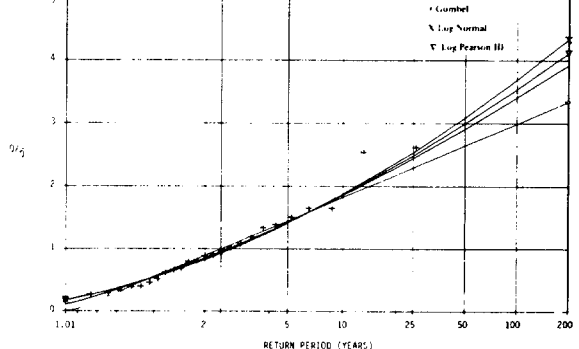
STATION 83241000 SOUTH BRANCH LITTLE SALT C AT JACKS, OHIO 39
 PEAK = 1470.0 CFS, AREA = 1,353.51 AC, 25 DMS (1947-1971) 0 ZEMOS
 STATISTICAL VALUES: MEAN = 173,210 STD = 141,737 SKEW = 1,943,377
 LOG NORMAL & PITTS: MEAN = 2,115,003 STD = 1,111,943 SKEW = 1,488,889
 GUMBEL PARAMETERS: ALPHA = .0272754 BETA = 92,453

PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	LOG	LOG
2.00	152.00	754.1	121.79	144.25	137.41	123.50	123.50
2.33	154.92	740.9	130.45	148.82	149.57	124.37	124.37
2.50	155.40	738.4	132.48	149.43	150.67	124.91	124.91
5.00	160.20	708.4	157.39	160.48	160.58	127.42	127.42
10.00	164.90	678.4	182.30	171.53	171.63	130.43	130.43
25.00	174.90	578.4	242.30	192.58	192.68	136.48	136.48
50.00	184.90	478.4	302.30	213.63	213.73	141.53	141.53
100.00	194.90	378.4	362.30	234.68	234.78	146.58	146.58
200.00	204.90	278.4	422.30	255.73	255.83	151.63	151.63



STATION 83241000 SOUTH BRANCH LITTLE SALT C AT JACKS, OHIO 39
 PEAK = 1470.0 CFS, AREA = 1,353.51 AC, 25 DMS (1947-1971) 0 ZEMOS
 STATISTICAL VALUES: MEAN = 173,210 STD = 141,737 SKEW = 1,943,377
 LOG NORMAL & PITTS: MEAN = 2,115,003 STD = 1,111,943 SKEW = 1,488,889
 GUMBEL PARAMETERS: ALPHA = .0272754 BETA = 92,453

PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	LOG	LOG
2.00	152.00	754.1	121.79	144.25	137.41	123.50	123.50
2.33	154.92	740.9	130.45	148.82	149.57	124.37	124.37
2.50	155.40	738.4	132.48	149.43	150.67	124.91	124.91
5.00	160.20	708.4	157.39	160.48	160.58	127.42	127.42
10.00	164.90	678.4	182.30	171.53	171.63	130.43	130.43
25.00	174.90	578.4	242.30	192.58	192.68	136.48	136.48
50.00	184.90	478.4	302.30	213.63	213.73	141.53	141.53
100.00	194.90	378.4	362.30	234.68	234.78	146.58	146.58
200.00	204.90	278.4	422.30	255.73	255.83	151.63	151.63

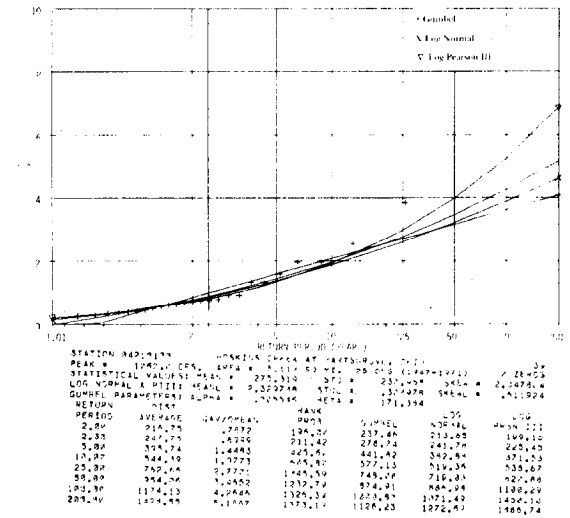
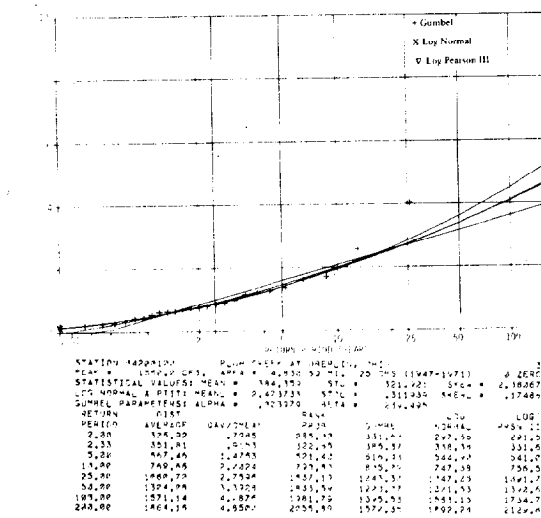
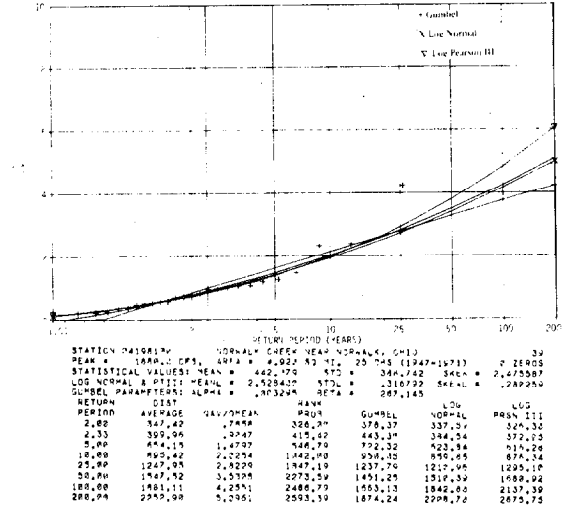
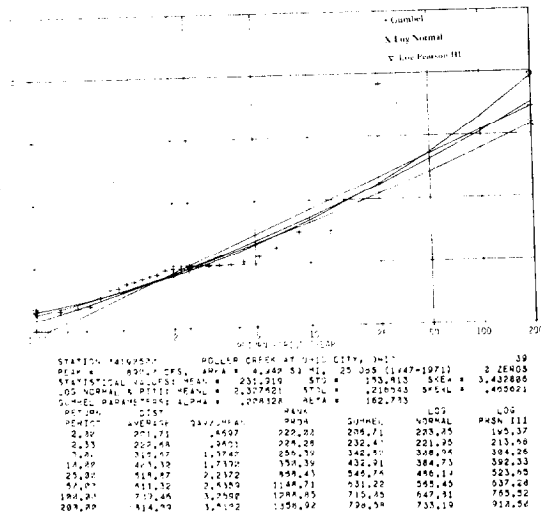
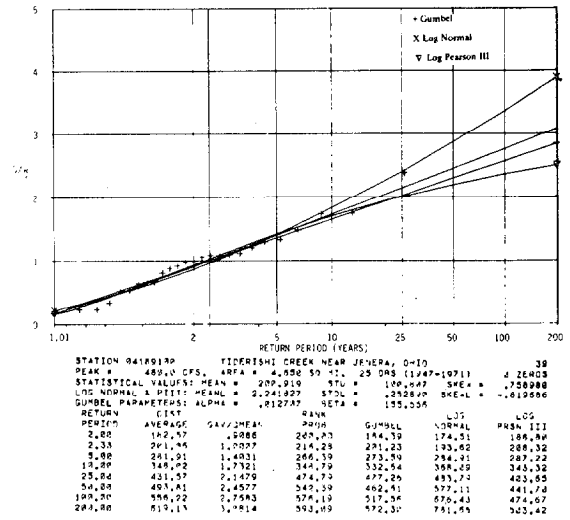
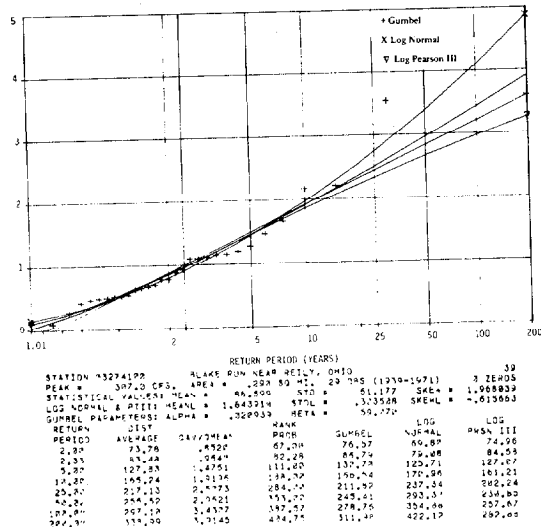


STATION 83241000 SOUTH BRANCH LITTLE SALT C AT JACKS, OHIO 39
 PEAK = 1470.0 CFS, AREA = 1,353.51 AC, 25 DMS (1947-1971) 0 ZEMOS
 STATISTICAL VALUES: MEAN = 173,210 STD = 141,737 SKEW = 1,943,377
 LOG NORMAL & PITTS: MEAN = 2,115,003 STD = 1,111,943 SKEW = 1,488,889
 GUMBEL PARAMETERS: ALPHA = .0272754 BETA = 92,453

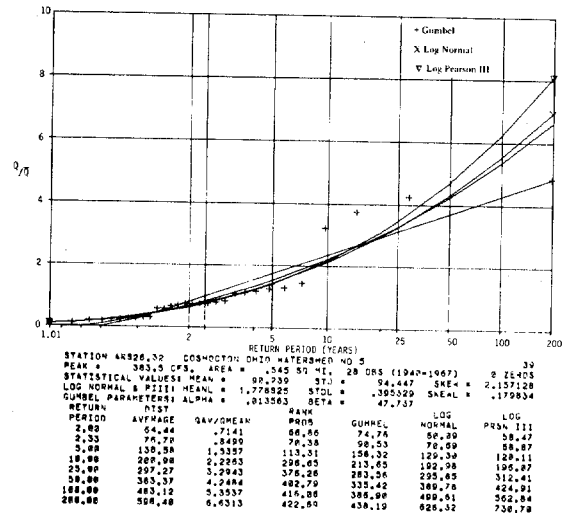
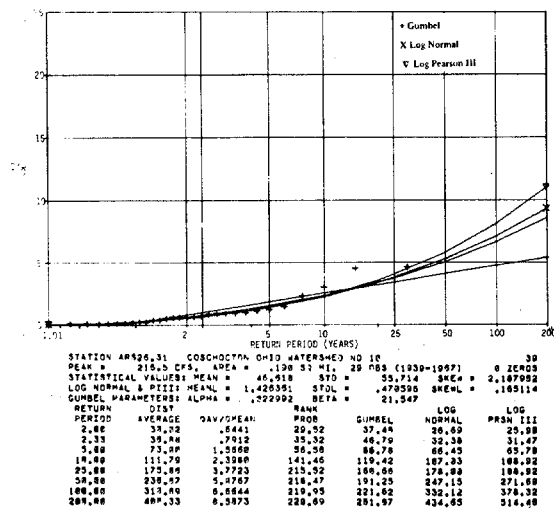
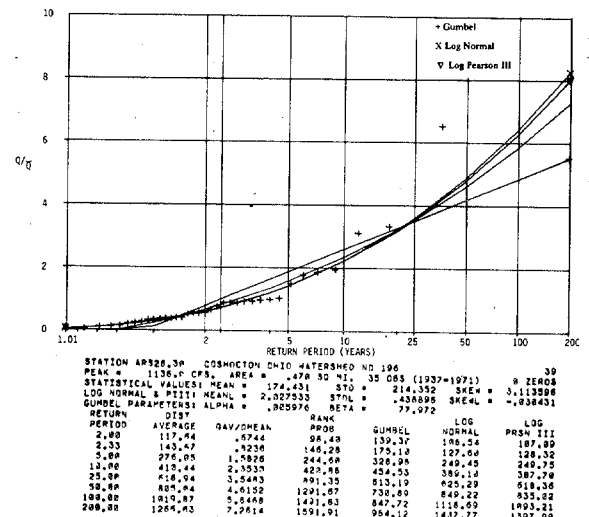
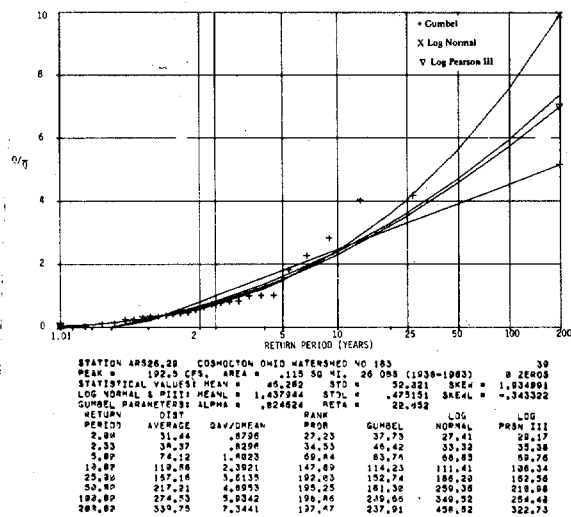
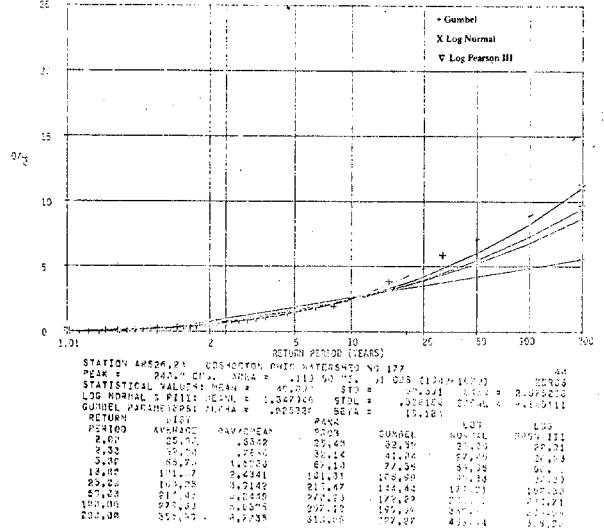
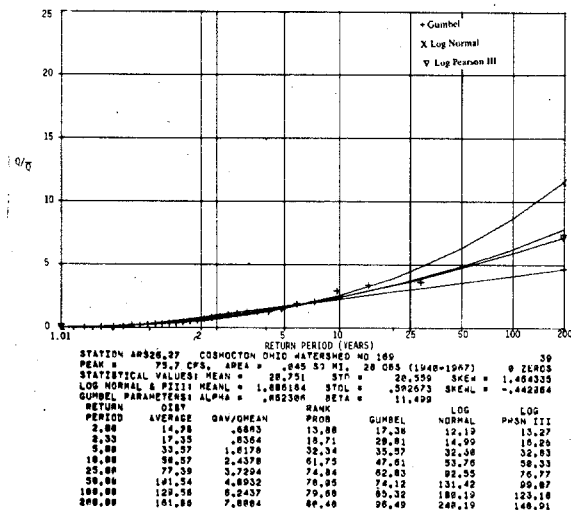
PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	LOG	LOG
2.00	152.00	754.1	121.79	144.25	137.41	123.50	123.50
2.33	154.92	740.9	130.45	148.82	149.57	124.37	124.37
2.50	155.40	738.4	132.48	149.43	150.67	124.91	124.91
5.00	160.20	708.4	157.39	160.48	160.58	127.42	127.42
10.00	164.90	678.4	182.30	171.53	171.63	130.43	130.43
25.00	174.90	578.4	242.30	192.58	192.68	136.48	136.48
50.00	184.90	478.4	302.30	213.63	213.73	141.53	141.53
100.00	194.90	378.4	362.30	234.68	234.78	146.58	146.58
200.00	204.90	278.4	422.30	255.73	255.83	151.63	151.63

Appendix A-39. Ohio 19-24. Flood frequency curves and data.

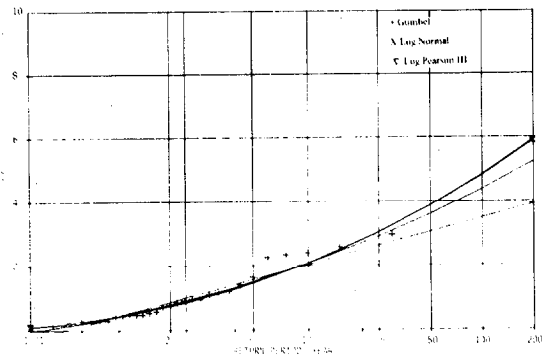
2/3



Appendix A-39. Ohio 25-30. Flood frequency curves and data.

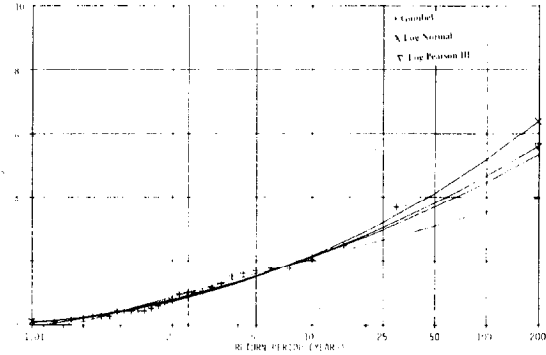


Appendix A-39. Ohio 31-36. Flood frequency curves and data.



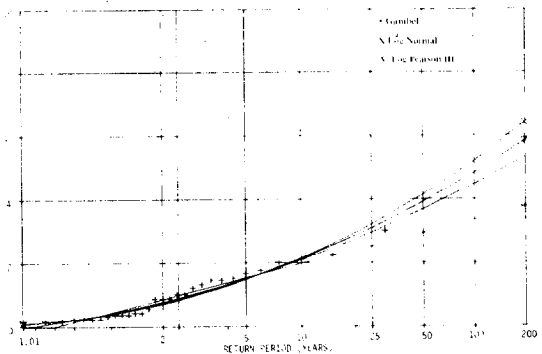
STATION AR526.33 COSHOCTON OHIO WATERSHED NO 94
 PEAK = 572.0 CFS, AREA = 1,437 SQ MI, 29 OBS (1939-1967) 39
 STATISTICAL VALUES: MEAN = 192.533 STD = 104.134 SKEW = 1.167789
 LOG NORMAL & PIII: MEAN = 2.118875 STD = 1.041425 SKEW = 1.014304
 GUMBEL PARAMETERS: ALPHA = .278351 BETA = 125.123

RETURN PERIOD	AVERAGE	DAV/GMEAN	QDRA	GUMBEL	LOGNORMAL	P45N PIII
2.00	152.57	.7841	149.32	149.24	144.17	144.79
2.33	175.54	.7948	175.54	164.27	166.43	165.43
5.00	281.00	1.4362	315.43	305.54	283.77	285.68
10.00	421.46	2.0941	467.42	454.75	404.25	404.25
25.00	583.24	2.6349	590.31	559.74	520.24	520.24
50.00	729.15	3.0909	634.43	594.39	750.44	750.44
100.00	851.47	4.3740	627.13	678.34	139.12	139.12
200.00	1019.25	5.2355	638.23	742.71	1144.49	1144.50



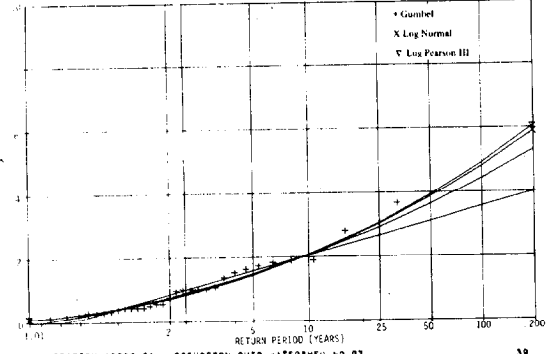
STATION AR526.34 COSHOCTON OHIO WATERSHED NO 94
 PEAK = 1412.0 CFS, AREA = 2,379 SQ MI, 29 OBS (1939-1967) 39
 STATISTICAL VALUES: MEAN = 384.751 STD = 312.474 SKEW = 1.214637
 LOG NORMAL & PIII: MEAN = 2.448332 STD = 1.305485 SKEW = 1.172339
 GUMBEL PARAMETERS: ALPHA = .204124 BETA = 245.460

RETURN PERIOD	AVERAGE	DAV/GMEAN	QDRA	GUMBEL	LOGNORMAL	P45N PIII
2.00	308.25	.7816	306.53	335.88	241.24	287.41
2.33	348.49	.8062	335.14	345.79	326.28	324.18
5.00	544.07	1.5100	443.71	606.52	579.15	575.04
10.00	608.25	2.0932	705.33	760.34	625.80	611.73
25.00	1136.54	2.9239	1114.24	1228.11	1225.88	1164.90
50.00	1411.82	3.4873	1543.97	1592.06	1581.36	1461.13
100.00	1711.76	4.4408	1711.76	1356.74	1909.31	1786.27
200.00	2045.15	5.3025	1408.48	1526.31	2451.62	2146.50



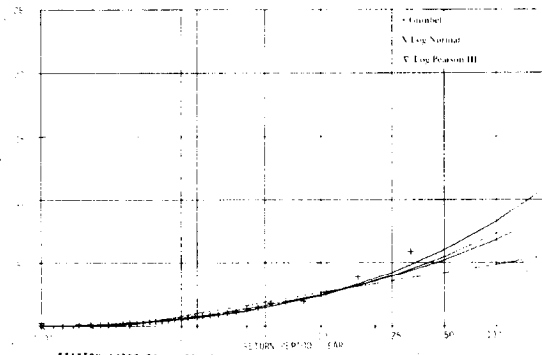
STATION AR526.35 COSHOCTON OHIO WATERSHED NO 95
 PEAK = 1568.7 CFS, AREA = 4,115 SQ MI, 30 OBS (1939-1967) 39
 STATISTICAL VALUES: MEAN = 526.324 STD = 344.951 SKEW = .660375
 LOG NORMAL & PIII: MEAN = 2.586268 STD = .355745 SKEW = -1.22492
 GUMBEL PARAMETERS: ALPHA = .003241 BETA = 548.561

RETURN PERIOD	AVERAGE	DAV/GMEAN	QDRA	GUMBEL	LOGNORMAL	P45N PIII
2.00	413.10	.7850	406.45	461.54	385.71	392.07
2.33	477.24	.8067	444.19	527.36	444.24	455.87
5.00	753.54	1.4364	681.79	611.25	757.73	767.25
10.00	1009.84	2.0936	1114.34	1042.43	1135.12	1121.99
25.00	1548.75	2.9425	1503.42	1334.77	1685.47	1626.22
50.00	1928.45	3.6849	1734.24	1551.54	2175.24	2028.52
100.00	2347.41	4.4409	1492.86	1766.32	2735.81	2538.54
200.00	2827.52	5.2347	1311.15	1291.40	3375.34	3288.73



STATION AR526.36 COSHOCTON OHIO WATERSHED NO 97
 PEAK = 1325.8 CFS, AREA = 7,156 SQ MI, 31 OBS (1937-1967) 39
 STATISTICAL VALUES: MEAN = 993.755 STD = 739.452 SKEW = 1.559058
 LOG NORMAL & PIII: MEAN = 2.828019 STD = .358204 SKEW = .833648
 GUMBEL PARAMETERS: ALPHA = .001732 BETA = 573.061

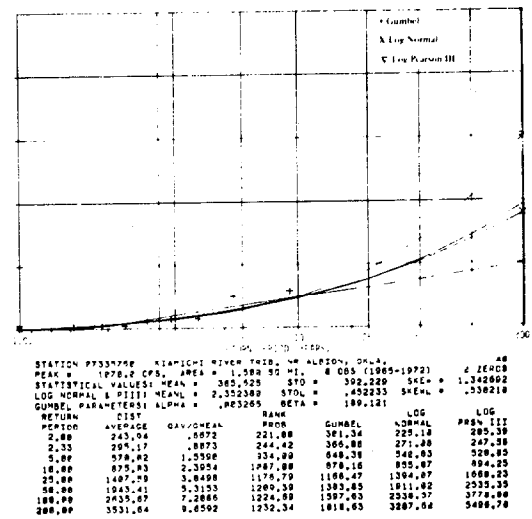
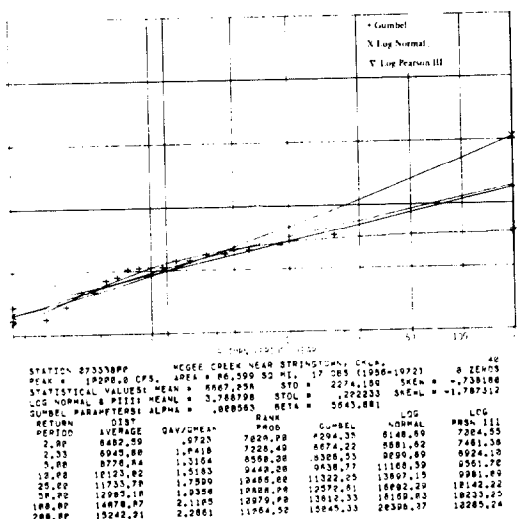
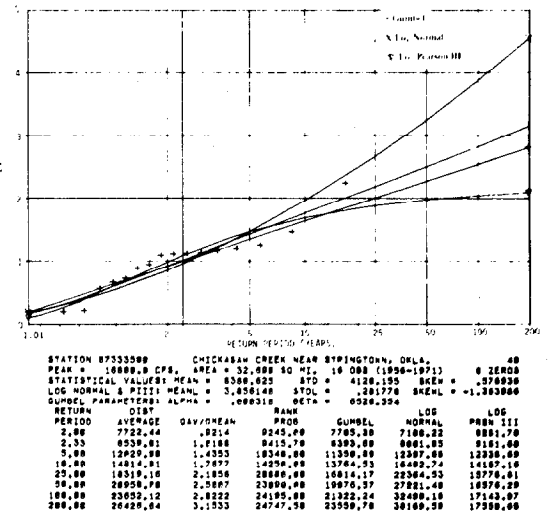
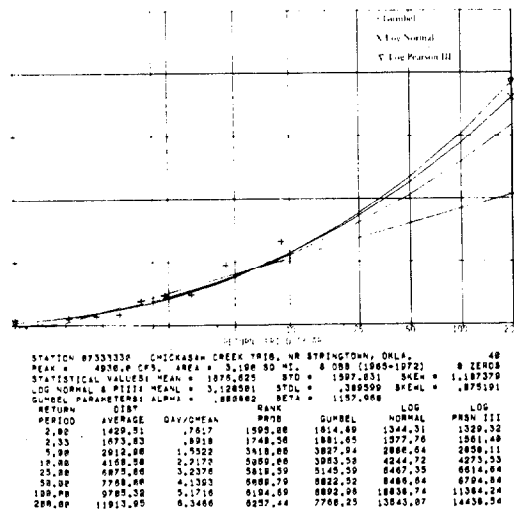
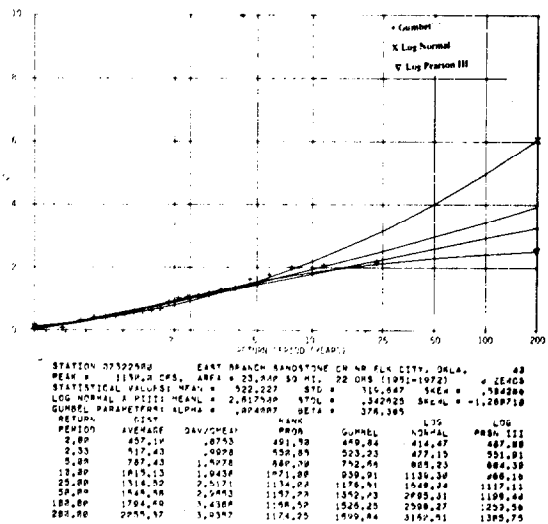
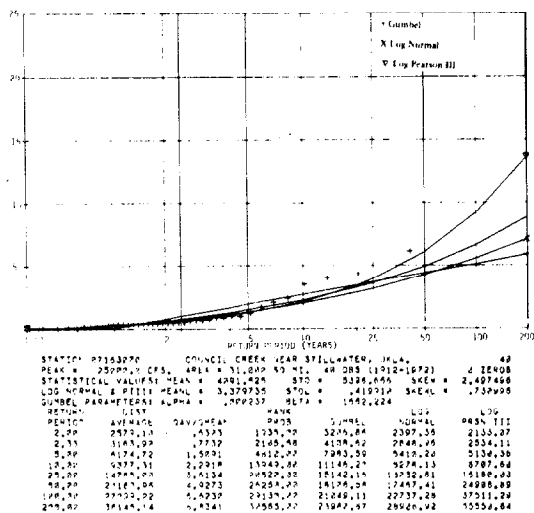
RETURN PERIOD	AVERAGE	DAV/GMEAN	QDRA	GUMBEL	LOGNORMAL	P45N PIII
2.00	704.10	.7795	692.72	784.56	658.37	665.38
2.33	814.27	.8012	823.63	968.08	771.89	765.87
5.00	1357.89	1.4087	1153.23	1438.83	1317.49	1315.83
10.00	1874.45	2.0739	1788.72	1872.81	1876.17	1884.16
25.00	2643.54	2.9199	3195.25	2419.34	2744.61	2768.47
50.00	3394.11	3.5368	3607.71	3625.37	3583.36	3553.50
100.00	4415.06	4.4328	3458.03	3228.41	4385.28	4451.58
200.00	4512.43	5.3131	3084.55	3629.87	5233.89	5474.25



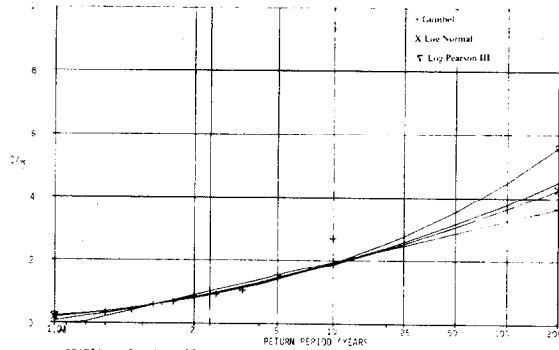
STATION AR526.24 COSHOCTON OHIO WATERSHED NO 127
 PEAK = 742.0 CFS, AREA = 1,115 SQ MI, 31 OBS (1940-1970) 39
 STATISTICAL VALUES: MEAN = 47.227 STD = 52.391 SKEW = 2.377420
 LOG NORMAL & PIII: MEAN = 1.346724 STD = .339184 SKEW = -1.403111
 GUMBEL PARAMETERS: ALPHA = .725324 BETA = 14.144

RETURN PERIOD	AVERAGE	DAV/GMEAN	QDRA	GUMBEL	LOGNORMAL	P45N PIII
2.00	25.93	.6340	25.47	32.50	22.21	22.21
2.33	32.24	.7364	32.14	41.32	27.45	28.23
5.00	65.72	1.4748	57.11	77.38	55.55	67.40
10.00	101.47	2.0441	101.11	125.40	90.63	97.80
25.00	171.74	3.1142	171.47	166.44	172.21	162.82
50.00	214.45	3.6440	172.29	246.46	224.71	224.71
100.00	270.33	4.8224	247.12	190.39	330.14	298.90
200.00	355.34	4.7734	317.56	227.27	452.44	365.85

Appendix A-39. Ohio 37-41. Flood frequency curves and data.

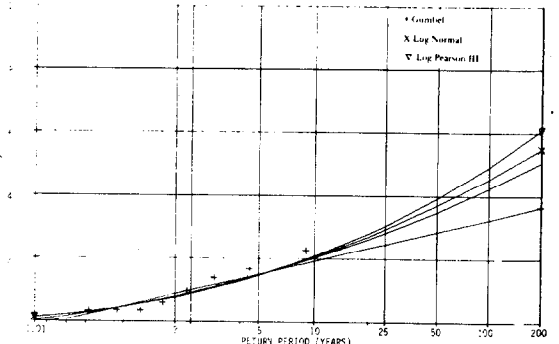


Appendix A-40. Oklahoma 1-6. Flood frequency curves and data.



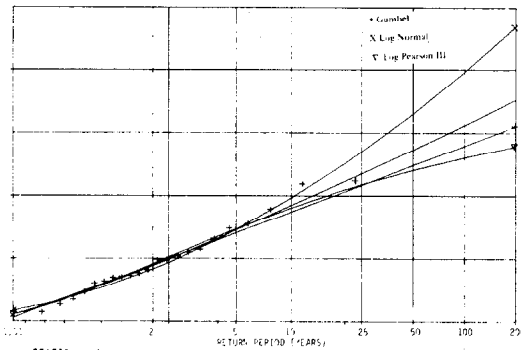
STATION 87337200 BIG BRANCH NR RINGGOLD, OKLA.
 PEAK = 1400.0 CFS, AREA = 1.380 SQ MI, 0 DBS (1904-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 544.555 STD = 393.117 SKEW = 1.827175
 LOG NORMAL & PIII: MEAN = 2.655859 STD = .277354 SKEW = .440418
 GUMBEL PARAMETERS: ALPHA = .805258 BETA = 367.452

RETURN PERIOD	DIST	AVERAGE	GAUSS/MEAN	RANK	GUMBEL	LOG	LOG
PERIOD					MEAN	NORMAL	PEARSON III
2.00	452.00	.8318	466.88	480.12	440.83	459.02	
2.33	510.38	.9372	488.55	545.79	584.15	481.19	
5.00	784.93	1.4468	628.09	827.95	770.07	755.86	
10.00	1041.08	1.9115	1066.88	1058.25	1019.86	1044.80	
25.00	1411.23	2.5915	1044.00	1340.22	1379.35	1508.10	
50.00	1725.30	3.1546	1072.00	1565.00	1976.10	1954.73	
100.00	2069.26	3.7989	2036.00	1779.35	1987.82	2440.92	
200.00	2453.95	4.5083	2066.00	1902.84	2329.30	3030.63	



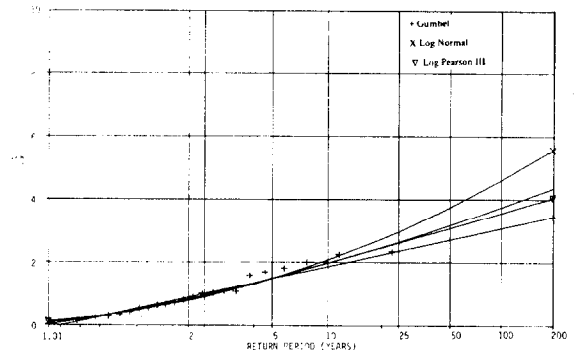
STATION 87338700 MOUNTAIN FORK TRIB, NR SMITHVILLE, OKLA.
 PEAK = 390.0 CFS, AREA = .908 SQ MI, 0 DBS (1905-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 228.375 STD = 138.856 SKEW = .807883
 LOG NORMAL & PIII: MEAN = 2.238875 STD = .327545 SKEW = .140789
 GUMBEL PARAMETERS: ALPHA = .808134 BETA = 140.248

RETURN PERIOD	DIST	AVERAGE	GAUSS/MEAN	RANK	GUMBEL	LOG	LOG
PERIOD					MEAN	NORMAL	PEARSON III
2.00	179.24	.8133	175.59	175.59	194.47	171.28	
2.33	204.40	.9283	227.85	228.07	194.21	194.80	
5.00	329.46	1.4014	306.88	304.36	326.86	324.82	
10.00	447.66	2.0313	313.88	426.81	435.58	468.37	
25.00	622.26	2.8236	503.19	543.88	648.00	673.89	
50.00	776.43	3.4969	688.58	650.89	815.55	865.89	
100.00	935.43	4.2447	618.20	716.83	1081.78	1087.07	
200.00	1114.21	5.0741	624.14	882.67	1288.18	1343.86	



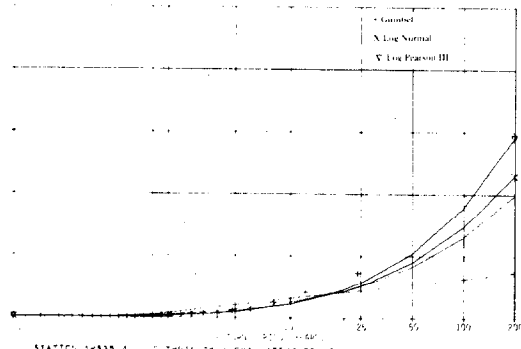
STATION 87335100 GUTHRIE OKLAHOMA WATERSHED NO 4-1
 PEAK = 197.7 CFS, AREA = .752 SQ MI, 22 DBS (1752-1955) 0 ZEROS
 STATISTICAL VALUES: MEAN = 48.192 STD = 27.490 SKEW = .764502
 LOG NORMAL & PIII: MEAN = 1.473954 STD = .207624 SKEW = -.630024
 GUMBEL PARAMETERS: ALPHA = .745539 BETA = 39.424

RETURN PERIOD	DIST	AVERAGE	GAUSS/MEAN	RANK	GUMBEL	LOG	LOG
PERIOD					MEAN	NORMAL	PEARSON III
2.00	49.44	.4460	43.44	45.44	47.17	44.07	
2.33	47.49	.4983	47.51	46.27	45.27	46.30	
5.00	59.52	1.4911	72.87	68.37	72.36	71.21	
10.00	86.44	1.8475	29.55	94.11	94.72	97.21	
25.00	112.08	2.3427	127.35	124.45	124.44	124.74	
50.00	131.48	2.7279	129.14	137.55	139.62	139.91	
100.00	139.24	3.1182	129.44	134.53	130.61	125.94	
200.00	150.47	3.5147	126.65	142.44	125.67	134.37	



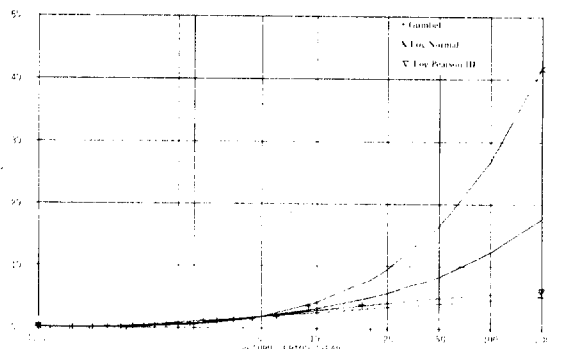
STATION 87334000 GUTHRIE OKLAHOMA WATERSHED NO 4-3
 PEAK = 430.0 CFS, AREA = .204 SQ MI, 22 DBS (1939-1955) 0 ZEROS
 STATISTICAL VALUES: MEAN = 3.762 STD = 2.516 SKEW = .745100
 LOG NORMAL & PIII: MEAN = .469521 STD = .337804 SKEW = -.450915
 GUMBEL PARAMETERS: ALPHA = .513312 BETA = 2.633

RETURN PERIOD	DIST	AVERAGE	GAUSS/MEAN	RANK	GUMBEL	LOG	LOG
PERIOD					MEAN	NORMAL	PEARSON III
2.00	11.16	.4344	3.22	3.22	2.14	3.12	
2.33	3.77	.6037	1.71	3.77	3.37	3.36	
5.00	7.45	1.4377	4.55	5.57	5.53	5.65	
10.00	7.45	1.5945	4.21	7.24	7.48	7.48	
25.00	9.46	2.4944	4.83	8.27	11.10	9.67	
50.00	10.91	3.1054	4.87	10.27	14.09	11.60	
100.00	14.14	3.7477	4.78	11.86	17.33	13.44	
200.00	15.33	4.1975	4.74	13.71	23.35	15.21	



STATION 87334000 GUTHRIE OKLAHOMA WATERSHED NO 4-3
 PEAK = 120.0 CFS, AREA = .174 SQ MI, 03 DBS (1931-1955) 3 ZEROS
 STATISTICAL VALUES: MEAN = 1.48135 STD = 3.140 SKEW = 2.919281
 LOG NORMAL & PIII: MEAN = .348001 STD = .772777 SKEW = .180800
 GUMBEL PARAMETERS: ALPHA = .433155 BETA = .314

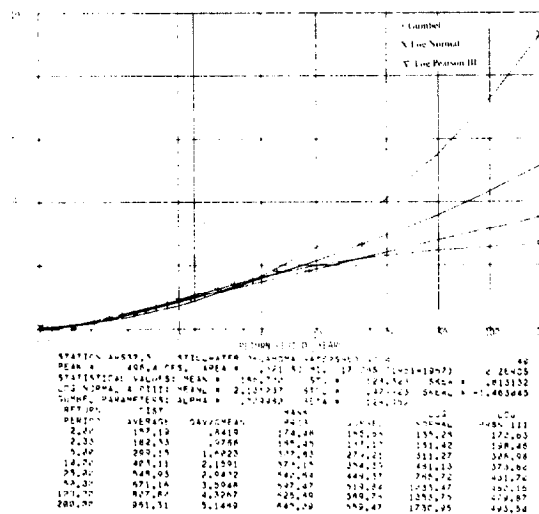
RETURN PERIOD	DIST	AVERAGE	GAUSS/MEAN	RANK	GUMBEL	LOG	LOG
PERIOD					MEAN	NORMAL	PEARSON III
2.00	.44	.2867	.14	.47	.34	.30	
2.33	.77	.4079	.77	1.20	.68	.64	
5.00	2.21	1.3475	1.72	3.39	1.94	1.90	
10.00	8.14	2.8412	5.77	5.14	3.72	3.63	
25.00	8.40	4.1497	10.22	7.33	8.94	8.45	
50.00	11.40	4.7420	14.75	8.90	14.80	17.23	
100.00	15.19	15.7300	16.01	16.00	24.25	20.32	
200.00	16.34	16.4380	16.45	16.15	37.72	47.70	



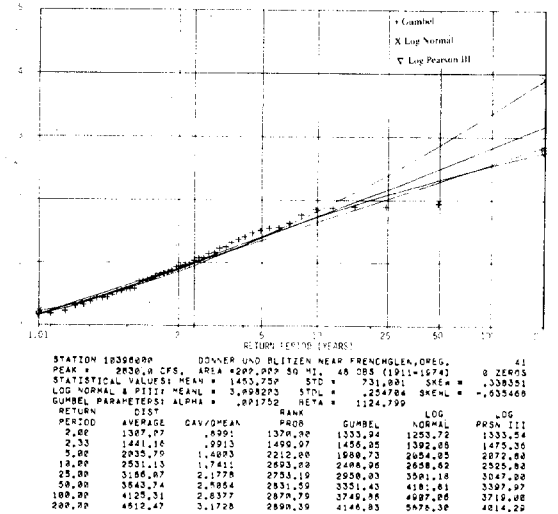
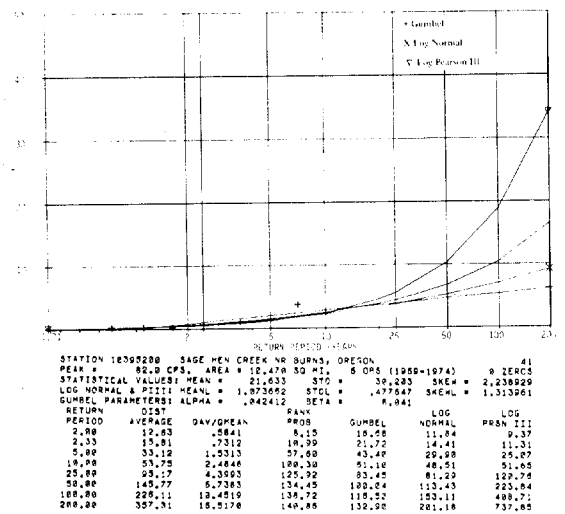
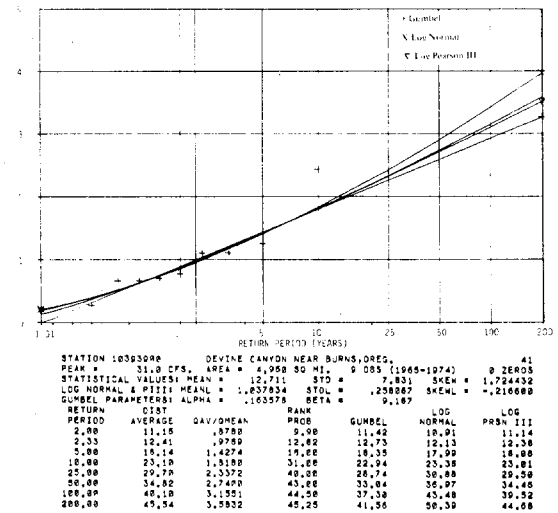
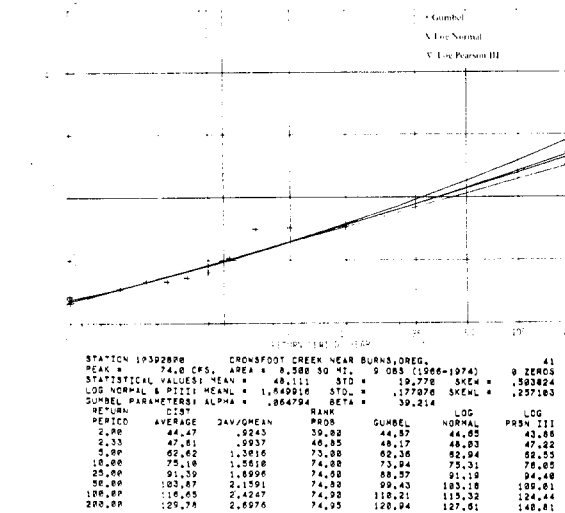
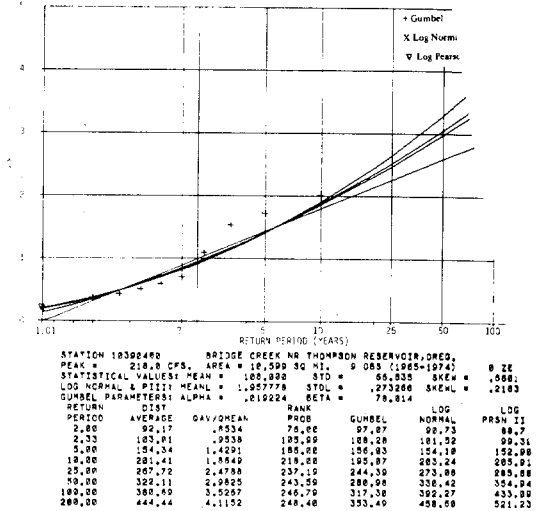
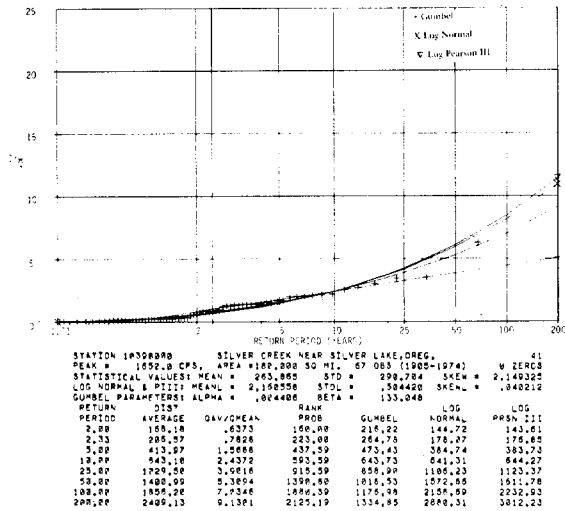
STATION 87337200 BIG BRANCH NR RINGGOLD, OKLA.
 PEAK = 1400.0 CFS, AREA = 1.380 SQ MI, 0 DBS (1904-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 544.555 STD = 393.117 SKEW = 1.827175
 LOG NORMAL & PIII: MEAN = 2.655859 STD = .277354 SKEW = .440418
 GUMBEL PARAMETERS: ALPHA = .805258 BETA = 367.452

RETURN PERIOD	DIST	AVERAGE	GAUSS/MEAN	RANK	GUMBEL	LOG	LOG
PERIOD					MEAN	NORMAL	PEARSON III
2.00	452.00	.8318	466.88	480.12	440.83	459.02	
2.33	510.38	.9372	488.55	545.79	584.15	481.19	
5.00	784.93	1.4468	628.09	827.95	770.07	755.86	
10.00	1041.08	1.9115	1066.88	1058.25	1019.86	1044.80	
25.00	1411.23	2.5915	1044.00	1340.22	1379.35	1508.10	
50.00	1725.30	3.1546	1072.00	1565.00	1976.10	1954.73	
100.00	2069.26	3.7989	2036.00	1779.35	1987.82	2440.92	
200.00	2453.95	4.5083	2066.00	1902.84	2329.30	3030.63	

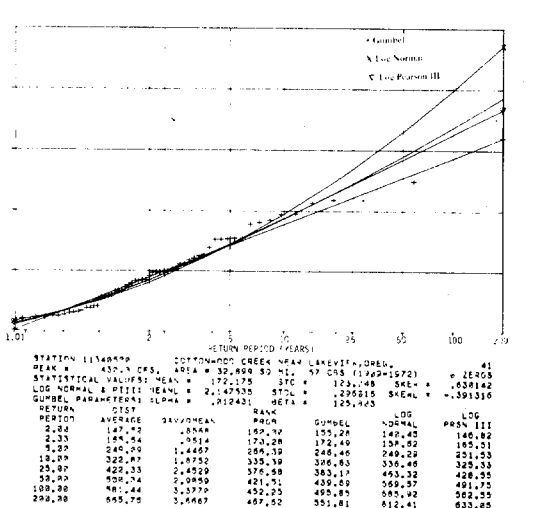
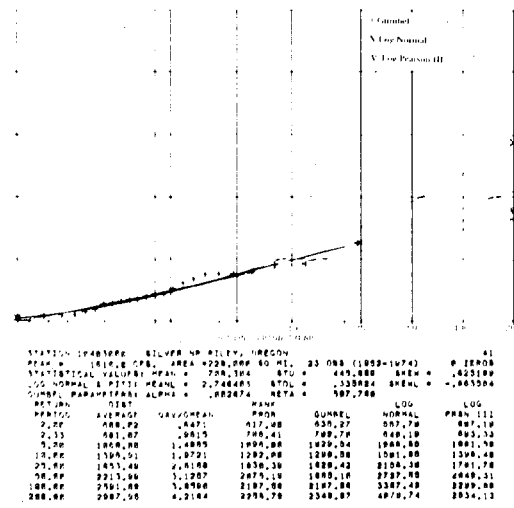
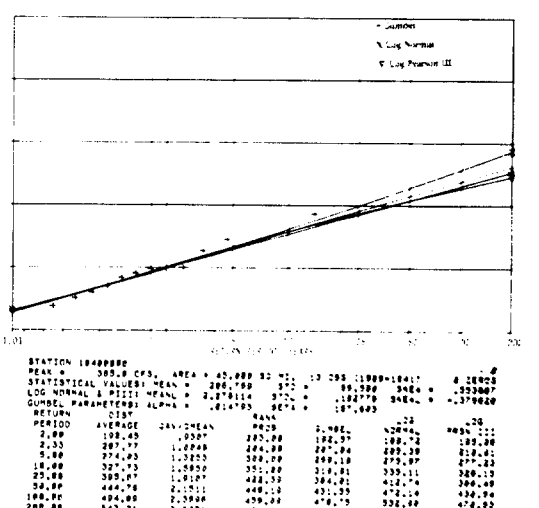
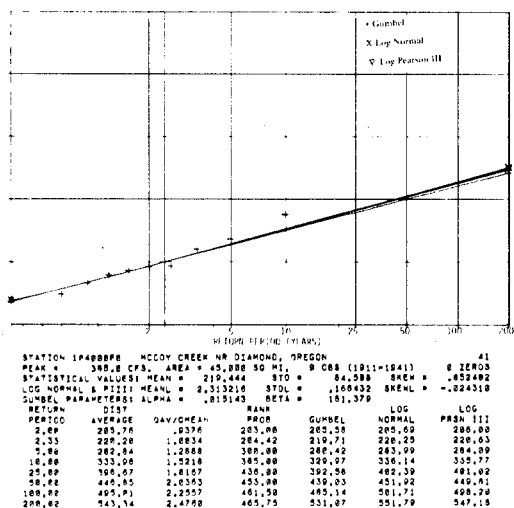
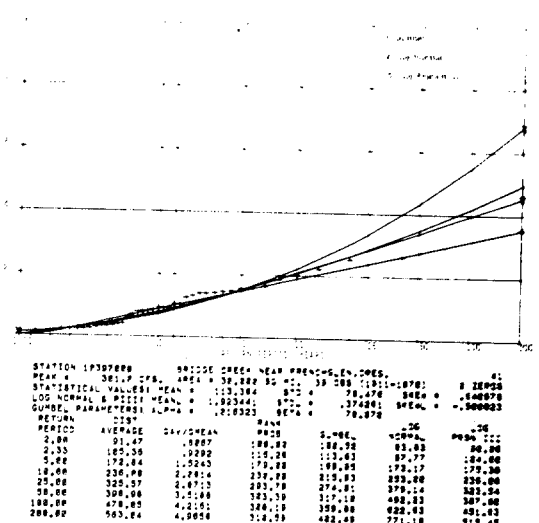
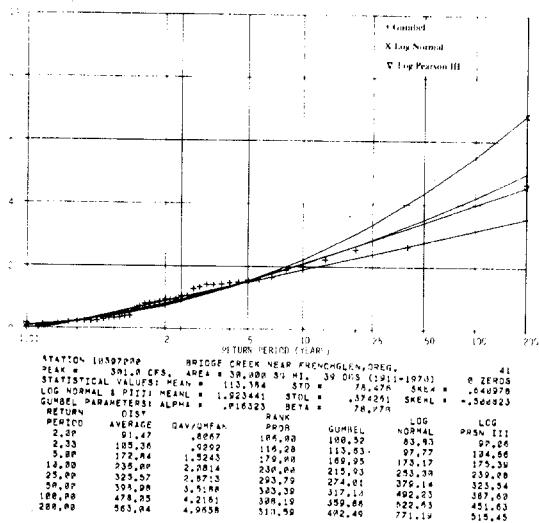
Appendix A-40. Oklahoma 7-12. Flood frequency curves and data.



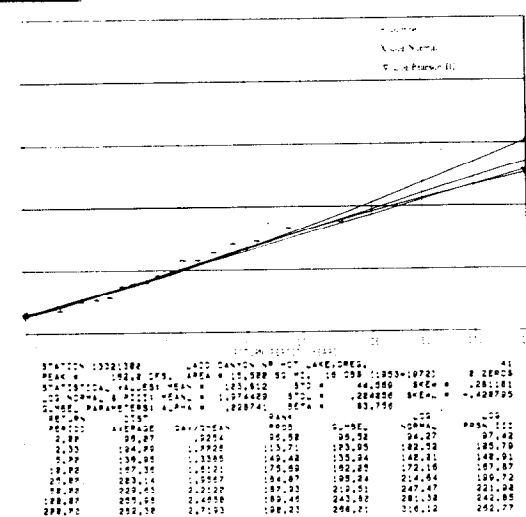
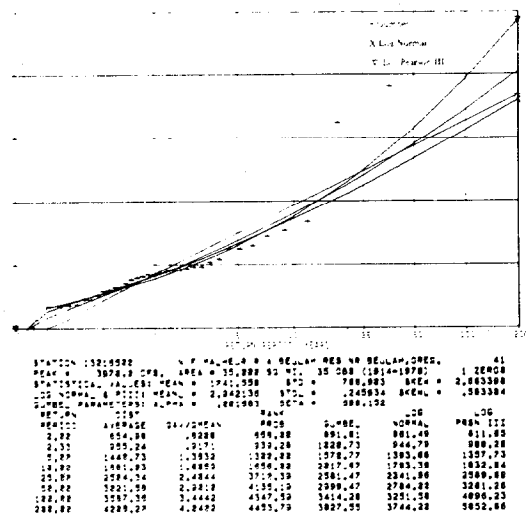
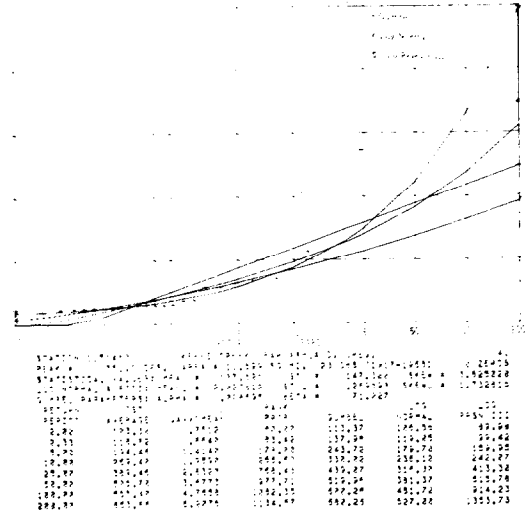
Appendix A-40. Oklahoma 13. Flood frequency curves and data.



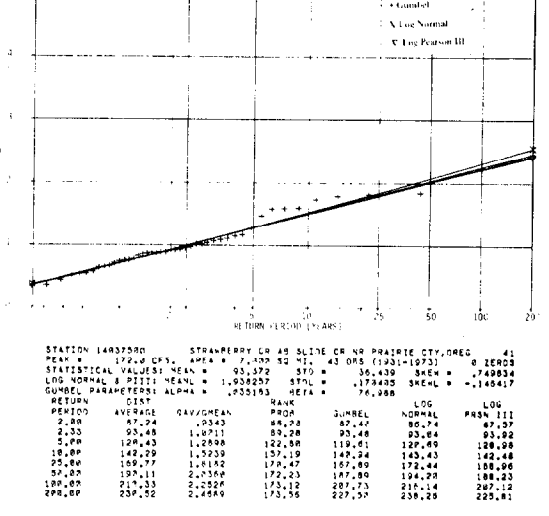
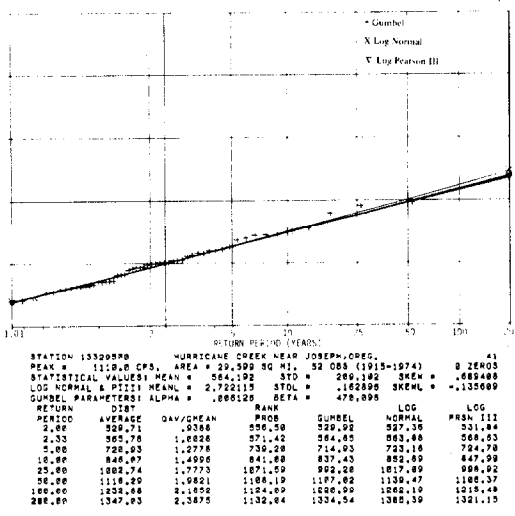
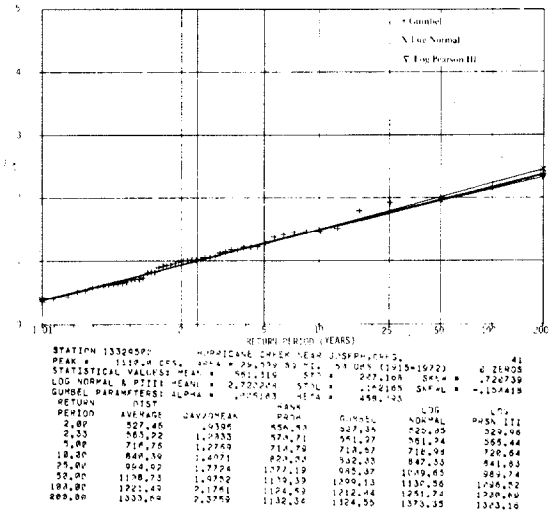
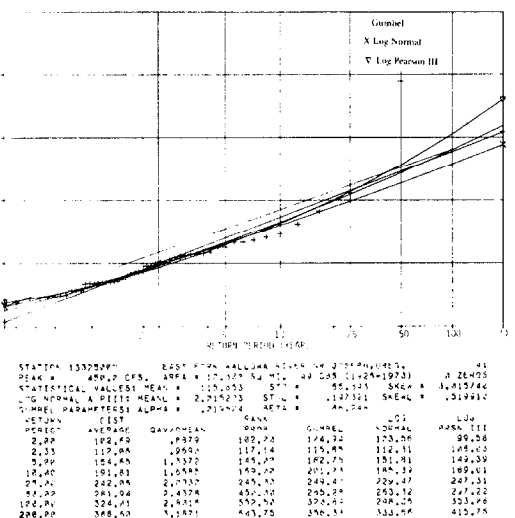
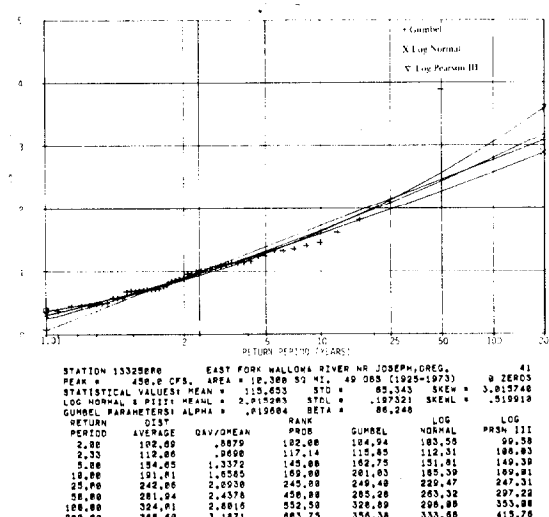
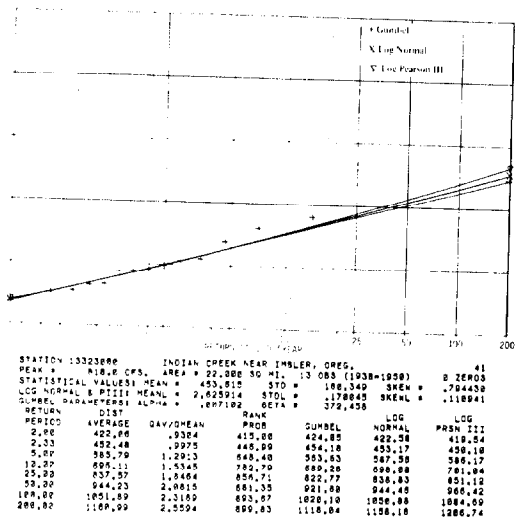
Appendix A-41. Oregon 1-6. Flood frequency curves and data.



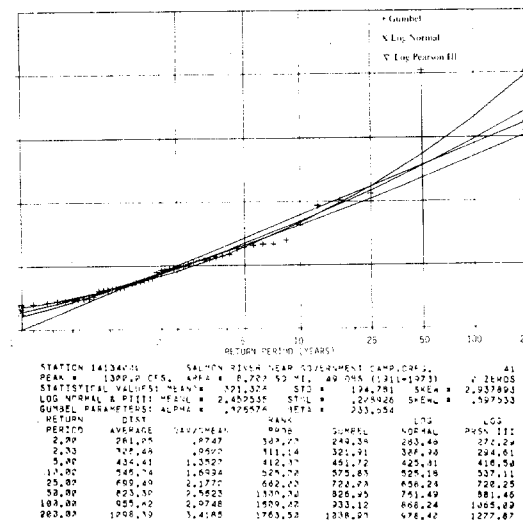
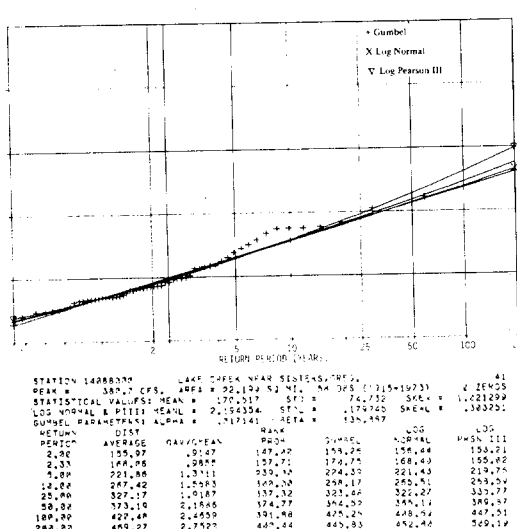
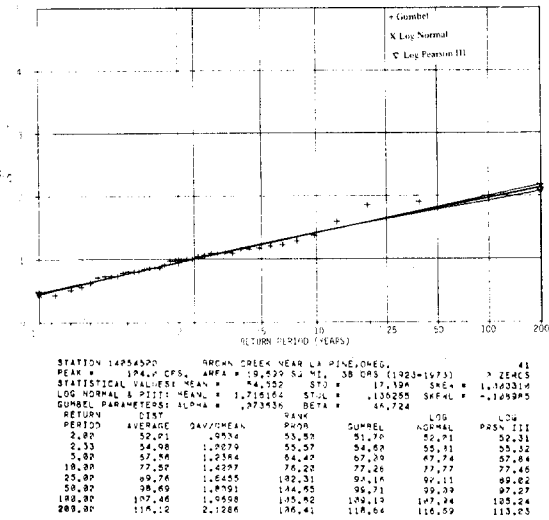
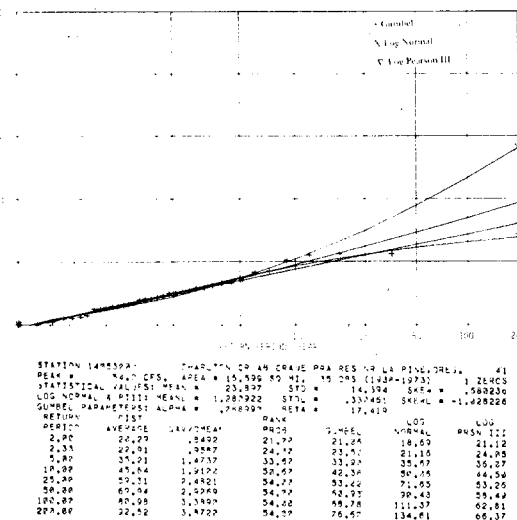
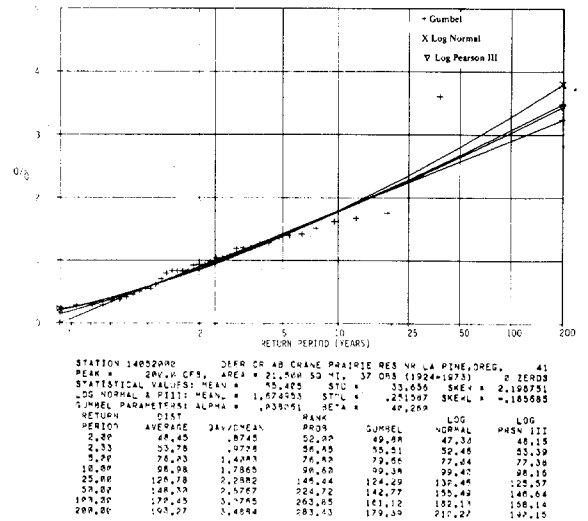
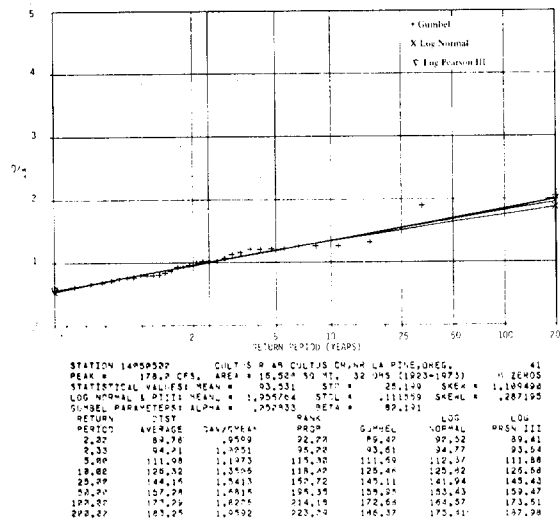
Appendix A-41. Oregon 7-12. Flood frequency curves and data.



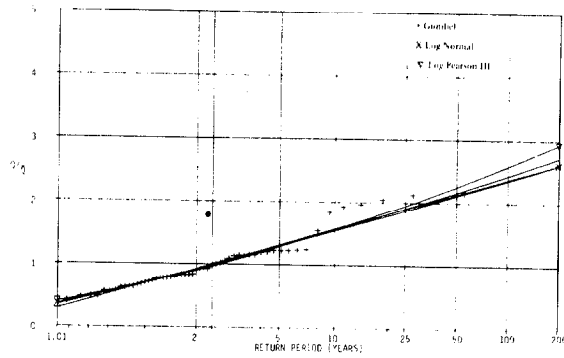
154



Appendix A-41. Oregon 19-24. Flood frequency curves and data.

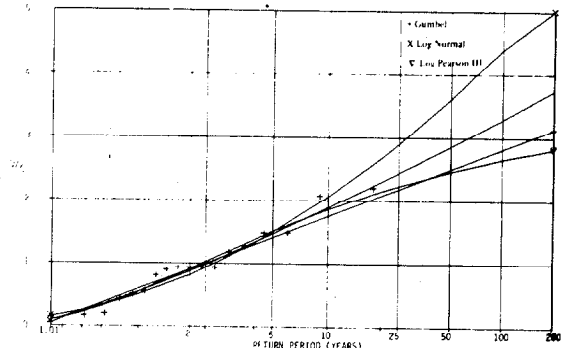


Appendix A-41. Oregon 25-30. Flood frequency curves and data.



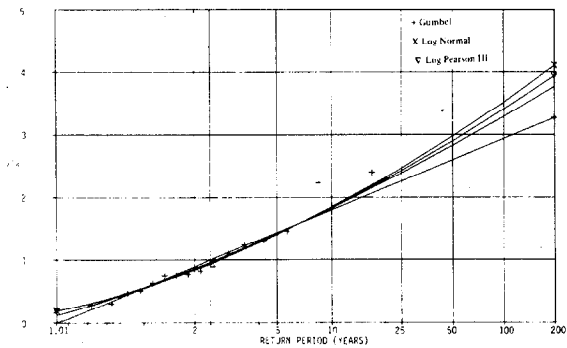
STATION 141415R0 LITTLE SANDY RIVER NEAR BULL RUN, OREG. 41
 PEAK = 539.0 CFS, AREA = 22,388 SQ FT, 15 DRS (1913-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 2452.277 STD = 1077.576 SKEW = 1.235861
 LOG NORMAL & PIII: MEAN = 3,353.989 STD = 1774.403 SKEW = 1.44817
 GUMBEL PARAMETERS: ALPHA = .000198 BETA = 1971.712

RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PKIN III
2.00	2248.55	0.9167	2232.08	2277.29	2257.25	2211.12
2.33	2428.10	.9866	2579.06	2450.09	2466.23	2377.97
5.00	3182.90	1.2973	3894.04	3224.44	3172.70	3149.91
10.00	3825.28	1.5536	4604.98	3851.24	3792.44	3833.88
25.00	4888.44	1.9825	5158.79	4843.88	4822.42	4772.92
50.00	5512.86	2.1681	5385.59	5231.58	5187.43	5226.86
100.00	5975.79	2.4363	5772.79	5815.14	5744.34	5828.23
200.00	6658.46	2.7147	5468.39	6366.47	6324.97	7183.25



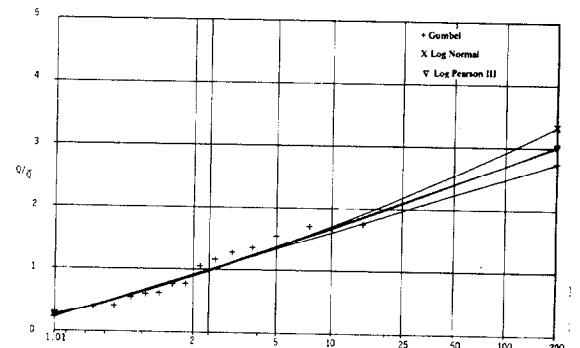
STATION 141427R0 FERN CREEK NEAR LOWELL, OREG. 41
 PEAK = 922.0 CFS, AREA = 448 SQ FT, 17 DRS (1954-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 23,558 STD = 13,472 SKEW = .639978
 LOG NORMAL & PIII: MEAN = 1,284.957 STD = .314285 SKEW = -.948878
 GUMBEL PARAMETERS: ALPHA = .003592 BETA = 17,486

RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PKIN III
2.00	20.78	.8787	22.68	21.31	19.29	21.83
2.33	23.26	.9876	22.90	23.68	21.91	24.29
5.00	34.84	1.4789	35.87	33.41	35.41	35.78
10.00	44.67	1.8063	40.68	41.42	46.88	43.91
25.00	57.53	2.4428	52.84	51.54	81.37	52.67
50.00	67.42	2.8621	53.92	59.89	83.13	58.09
100.00	77.63	3.2954	54.46	66.58	183.76	62.69
200.00	88.72	3.7447	54.73	73.92	124.12	66.61



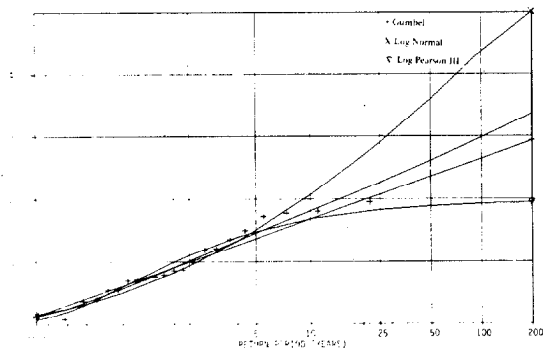
STATION 141582R0 MACKEL CREEK NEAR UPPER SODA, OREG. 41
 PEAK = 109.0 CFS, AREA = 219 SQ FT, 14 DRS (1951-1968) 0 ZEROS
 STATISTICAL VALUES: MEAN = 46,437 STD = 20,071 SKEW = 1.887004
 LOG NORMAL & PIII: MEAN = 1,552742 STD = 247521 SKEW = -.473830
 GUMBEL PARAMETERS: ALPHA = .048781 BETA = 37,626

RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PKIN III
2.00	35.49	.8625	34.88	36.13	35.74	35.07
2.33	40.84	.9609	37.14	42.32	38.45	40.16
5.00	60.47	1.4257	50.57	61.34	59.09	60.89
10.00	77.67	1.8345	57.17	78.75	76.53	76.22
25.00	121.59	2.5017	104.23	99.19	104.38	103.31
50.00	125.19	2.8222	125.42	123.54	123.52	123.44
100.00	139.74	3.2937	127.61	124.72	149.54	144.71
200.00	152.26	3.7765	144.40	139.19	174.44	157.21



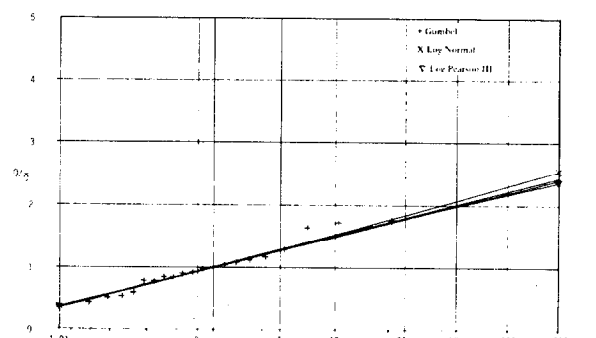
STATION 141600R0 AMAZON CREEK NEAR EUGENE, OREG. 41
 PEAK = 3972.0 CFS, AREA = 21,309 SQ FT, 14 DRS (1955-1968) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1752.571 STD = 631.311 SKEW = .314583
 LOG NORMAL & PIII: MEAN = 3,193788 STD = .222918 SKEW = -.389939
 GUMBEL PARAMETERS: ALPHA = .071347 BETA = 1376.473

RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PKIN III
2.00	1589.71	.8879	1480.93	1619.32	1592.28	1568.44
2.33	1736.14	.9996	1656.55	1755.18	1711.65	1741.78
5.00	2388.12	1.3632	2729.09	2351.88	2422.56	2412.87
10.00	2935.37	1.8771	3038.09	2838.84	3088.48	2978.74
25.00	3453.31	2.3845	3304.98	3454.21	3654.39	3681.33
50.00	4125.73	2.7940	3119.64	3918.79	4464.93	4211.88
100.00	4745.67	3.2732	3126.52	4355.41	5152.43	4749.97
200.00	5064.97	3.7269	3134.75	4915.27	5927.52	5272.14



STATION 141849R0 SHEEK CREEK NEAR CASCADIA, OREG. 41
 PEAK = 116.0 CFS, AREA = .808 SQ FT, 21 DRS (1953-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 59,192 STD = 31,962 SKEW = 1.587883
 LOG NORMAL & PIII: MEAN = 1,493741 STD = 3,07038 SKEW = 1.444531
 GUMBEL PARAMETERS: ALPHA = .041237 BETA = 45,211

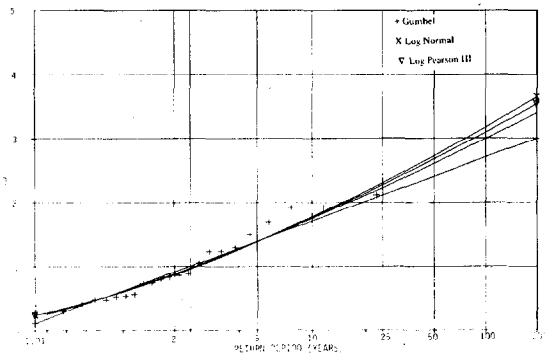
RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PKIN III
2.00	54.32	.8177	51.98	54.80	49.42	50.46
2.33	64.44	1.0214	55.29	66.24	56.88	60.88
5.00	86.56	1.4624	76.58	81.58	89.95	88.14
10.00	107.43	1.8151	106.39	99.78	123.03	99.48
25.00	134.18	2.5972	117.97	122.77	171.86	187.32
50.00	154.86	2.9163	121.94	130.83	213.22	111.53
100.00	176.48	3.2815	123.81	156.14	258.91	113.76
200.00	199.25	3.7463	124.81	173.63	384.97	115.16



STATION 141968R0 SOAP CREEK NEAR TROUTMAN, OREG. 41
 PEAK = 80.0 CFS, AREA = .578 SQ FT, 28 DRS (1913-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 48,699 STD = 18,455 SKEW = .903493
 LOG NORMAL & PIII: MEAN = 1,637981 STD = .185586 SKEW = -.227173
 GUMBEL PARAMETERS: ALPHA = .026865 BETA = 46,151

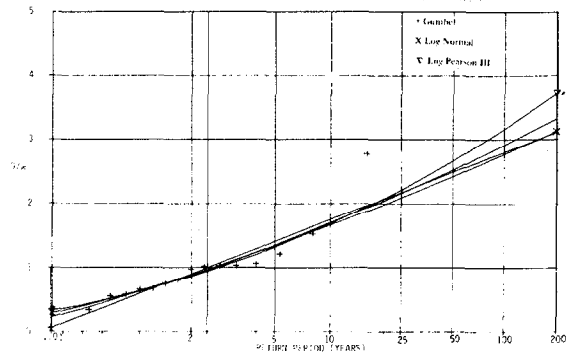
RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PKIN III
2.00	45.88	.9389	46.55	45.64	45.15	46.04
2.33	48.91	1.0744	48.99	48.75	48.57	49.31
5.00	62.81	1.3897	61.64	62.16	63.76	63.28
10.00	74.91	1.5188	81.08	72.40	74.47	74.16
25.00	84.93	1.8876	86.32	88.76	89.94	87.39
50.00	94.38	2.0786	87.18	98.27	101.25	98.88
100.00	104.09	2.2298	87.58	107.11	112.51	106.83
200.00	116.77	2.4388	87.79	117.47	124.07	115.83

Appendix A-41. Oregon 31-36. Flood frequency curves and data.



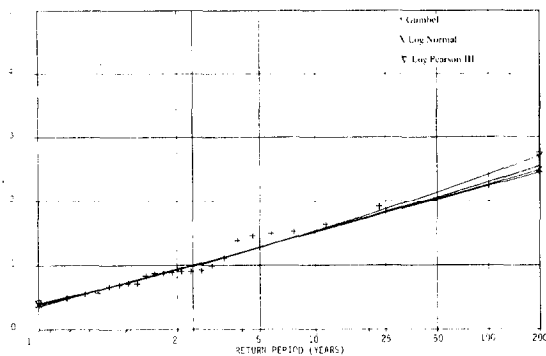
STATION 14102100 GLENN CREEK NEAR SALT LAKE, OREG. 41
 PEAK = 172.0 CFS. AREA = 2,720 SQ MI. 22 OBS (1951-1973) 0 ZEROES
 STATISTICAL VALUES: MEAN = 81.134 STD = 44.015 SKEL = .723065
 LOG NORMAL & PIII: MEAN = 1.84648 STD = .240952 SKEL = -.408869
 GUMBEL PARAMETERS: ALPHA = .229113 BETA = 51.325

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOGNORMAL	LOG	PKSN III
2.00	71.49	.8625	54.24	73.42	76.25	77.44	
2.33	76.96	.8735	73.96	81.27	77.91	78.88	
5.00	112.65	1.3392	127.42	112.44	112.94		
10.00	141.88	1.7485	155.59	130.55	143.77	143.21	
25.00	185.02	2.2298	173.23	171.23	180.88	184.55	
50.00	211.35	2.5040	187.43	187.43	201.34	217.32	
100.00	242.85	2.9931	194.31	219.39	237.78	251.39	
200.00	275.49	3.5954	195.15	243.22	296.14	287.43	



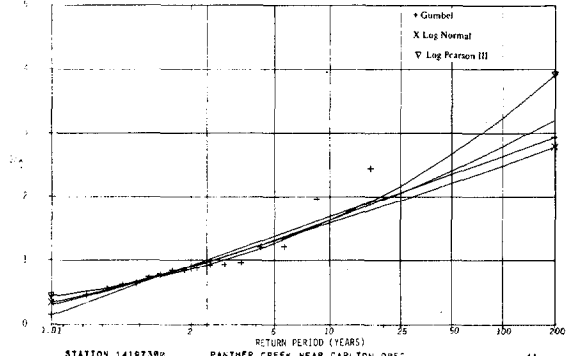
STATION 14102200 G1-SON CREEK NEAR SALT LAKE, OREG. 41
 PEAK = 474.0 CFS. AREA = 4,432 SQ MI. 15 OBS (1957-1966) 0 ZEROES
 STATISTICAL VALUES: MEAN = 156.533 STD = 49.045 SKEL = .225182
 LOG NORMAL & PIII: MEAN = 2.143314 STD = .214205 SKEL = .377882
 GUMBEL PARAMETERS: ALPHA = .14257 BETA = 114.142

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOGNORMAL	LOG	PKSN III
2.00	134.43	.8657	154.20	141.87	138.44	134.43	
2.33	151.89	.8773	181.14	156.81	151.08	147.19	
5.00	212.43	1.3388	185.48	221.37	209.41	207.58	
10.00	268.19	1.7375	216.39	273.97	267.18	264.45	
25.00	339.42	2.2197	214.70	348.43	327.33	347.49	
50.00	398.71	2.5275	187.27	360.77	376.86	417.75	
100.00	458.43	2.9133	184.63	438.74	433.77	482.59	
200.00	519.78	3.5285	154.31	487.53	485.78	582.93	



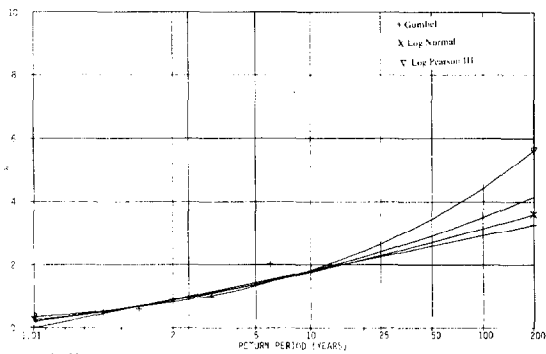
STATION 14105000 HASKINS CREEK NEAR McMINNVILLE, OREG. 41
 PEAK = 510.0 CFS. AREA = 6,780 SQ MI. 22 OBS (1929-1951) 0 ZEROES
 STATISTICAL VALUES: MEAN = 316.588 STD = 126.852 SKEL = .433798
 LOG NORMAL & PIII: MEAN = 2.447588 STD = .195949 SKEL = .433798
 GUMBEL PARAMETERS: ALPHA = .019162 BETA = 261.775

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOGNORMAL	LOG	PKSN III
2.00	299.67	.9281	282.39	297.84	296.74	292.24	
2.33	316.59	.9388	287.71	318.89	317.57	313.25	
5.00	404.57	1.2827	459.39	406.17	406.29	407.08	
10.00	465.28	1.5234	489.79	483.21	484.11	488.29	
25.00	584.15	1.8340	417.19	576.51	579.13	594.96	
50.00	656.28	2.0739	458.39	645.73	659.19	681.82	
100.00	735.58	2.3495	579.29	714.43	721.54	779.78	
200.00	813.49	2.5538	689.64	782.68	793.34	884.01	



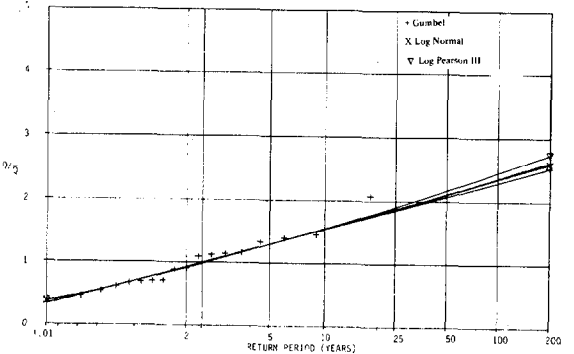
STATION 14107300 PANTHER CREEK NEAR CARLTON, OREG. 41
 PEAK = 612.0 CFS. AREA = 3,194 SQ MI. 16 OBS (1953-1959) 0 ZEROES
 STATISTICAL VALUES: MEAN = 250.259 STD = 138.517 SKEL = 1.084783
 LOG NORMAL & PIII: MEAN = 2.353796 STD = .188549 SKEL = .688984
 GUMBEL PARAMETERS: ALPHA = .073814 BETA = 191.517

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOGNORMAL	LOG	PKSN III
2.00	223.22	.8912	216.80	228.86	226.87	213.33	
2.33	242.06	.9072	224.57	236.46	235.19	230.27	
5.00	339.26	1.3165	183.19	344.44	345.97	317.38	
10.00	407.37	1.6278	182.30	408.48	395.77	405.58	
25.00	511.98	2.0582	180.39	517.48	485.22	542.91	
50.00	602.80	2.4086	181.19	589.67	553.42	605.88	
100.00	657.72	2.7981	171.39	588.21	522.97	689.90	
200.00	811.11	3.2812	721.79	731.88	693.88	978.36	



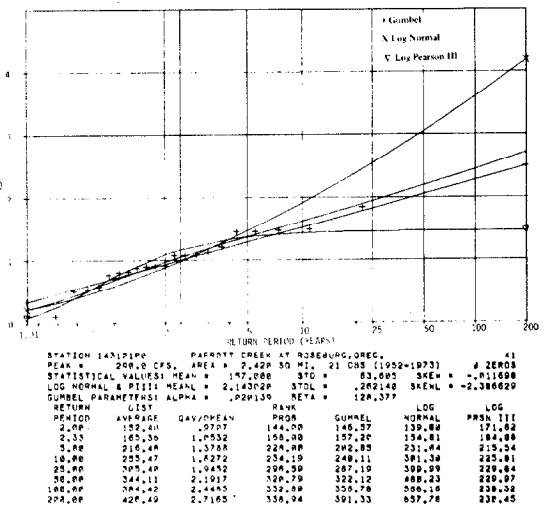
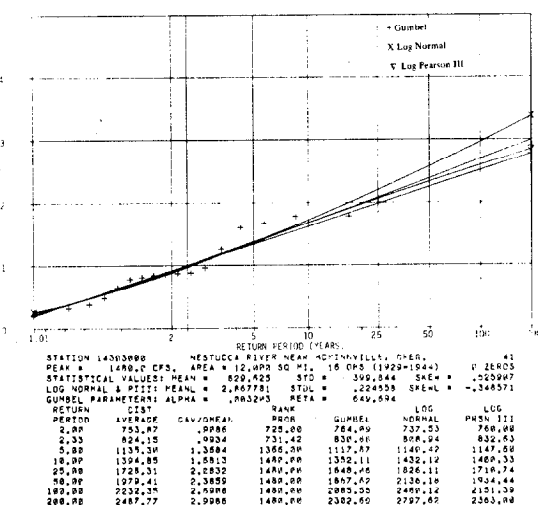
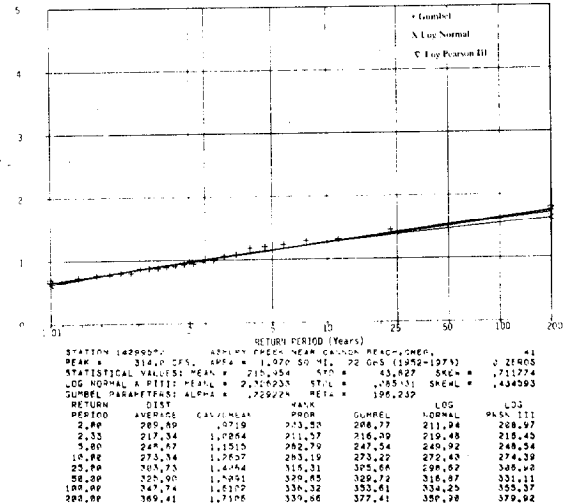
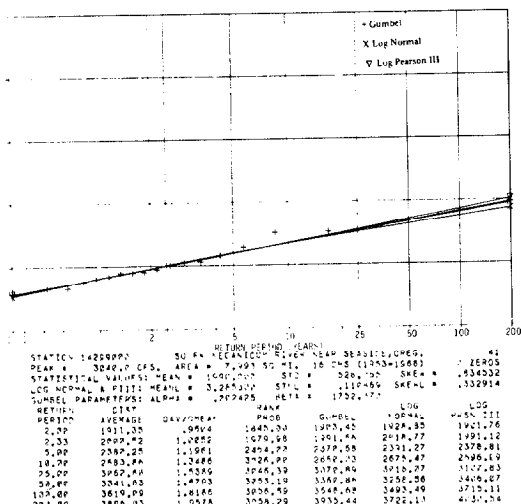
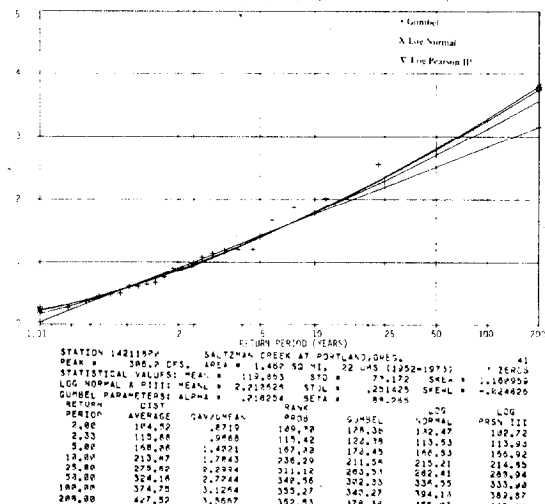
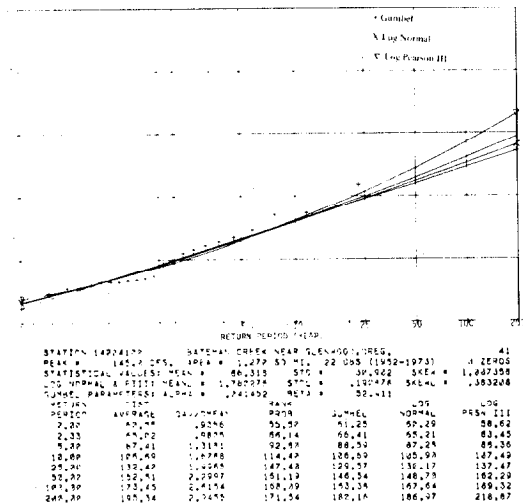
STATION 14200300 SILVER CREEK AT SILVERWOOD, OREG. 41
 PEAK = 5897.0 CFS. AREA = 47,850 SQ MI. 5 OBS (1944-1958) 0 ZEROES
 STATISTICAL VALUES: MEAN = 2894.884 STD = 1778.585 SKEL = 1.557391
 LOG NORMAL & PIII: MEAN = 3.455395 STD = .123172 SKEL = .088528
 GUMBEL PARAMETERS: ALPHA = .000726 BETA = 2393.463

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOGNORMAL	LOG	PKSN III
2.00	2457.91	.6031	2579.22	2602.63	2543.24	2447.74	
2.33	2763.64	.6849	2589.98	2899.67	2844.73	2556.54	
5.00	4839.46	1.3328	3289.89	4176.47	4734.55	3889.67	
10.00	5217.33	1.4828	7120.87	5181.57	5135.34	5297.96	
25.00	6951.72	2.4921	8218.30	6435.37	6442.35	7677.19	
50.00	8442.98	2.9171	1584.08	7512.21	7842.53	9772.03	
100.00	10139.19	3.5111	4787.98	8481.55	9177.83	12087.24	
200.00	12965.99	4.1888	8958.52	9467.97	14451.34	18388.74	

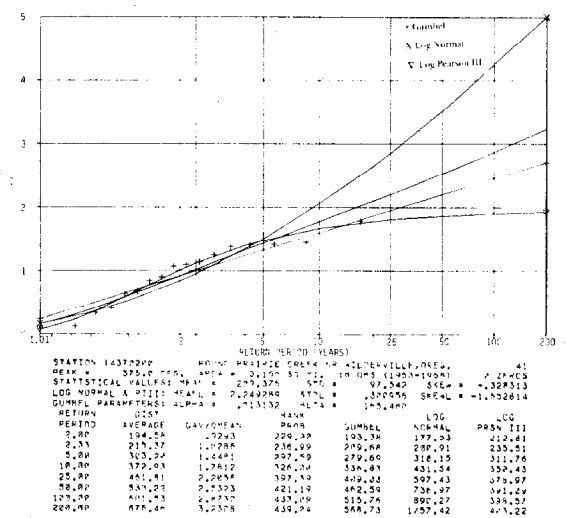
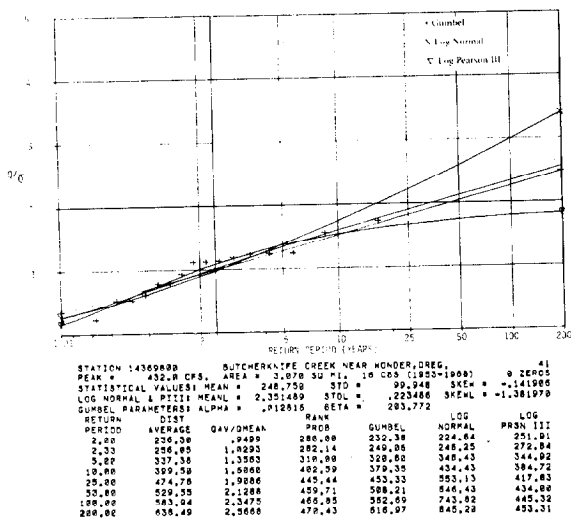
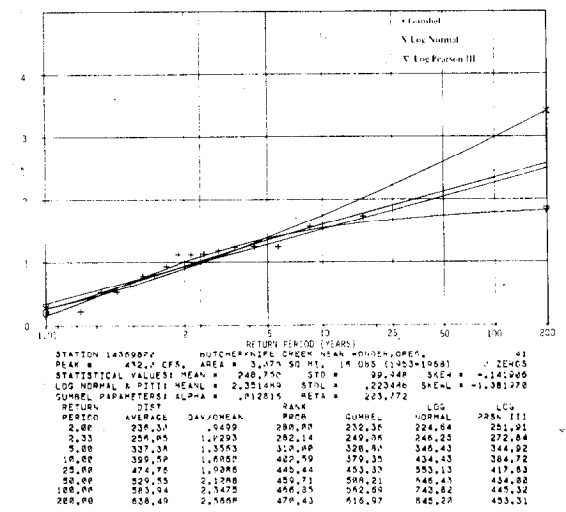
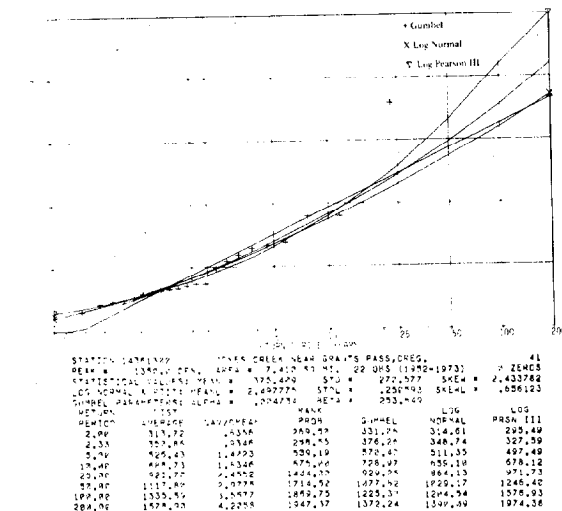
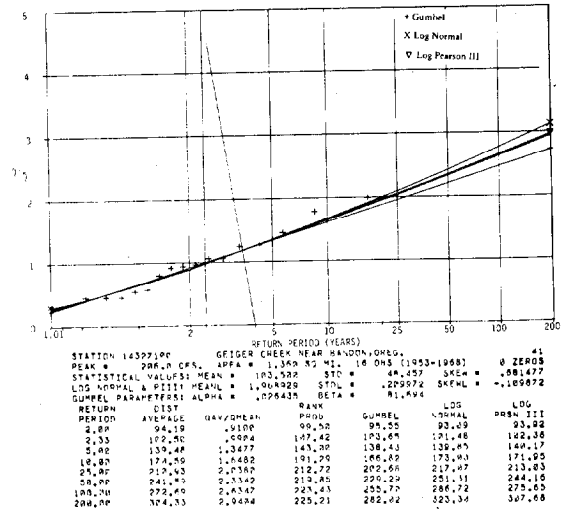
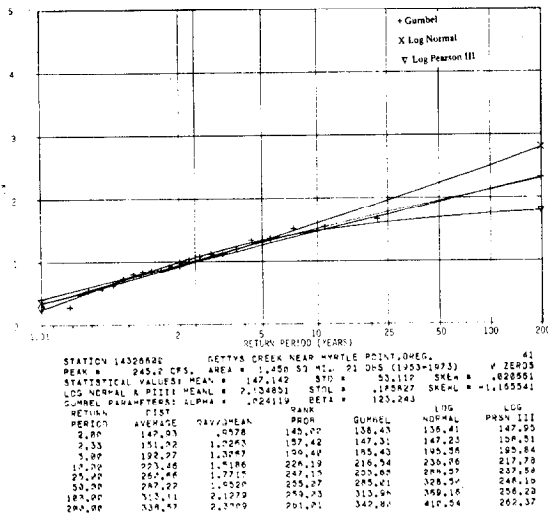


STATION 14200800 BEAVER CREEK NEAR GLENWOOD, OREG. 41
 PEAK = 472.0 CFS. AREA = 4,318 SQ MI. 17 OBS (1952-1968) 0 ZEROES
 STATISTICAL VALUES: MEAN = 227.728 STD = 94.103 SKEL = 1.028748
 LOG NORMAL & PIII: MEAN = 2.324197 STD = .173792 SKEL = .145779
 GUMBEL PARAMETERS: ALPHA = .113622 BETA = 185.339

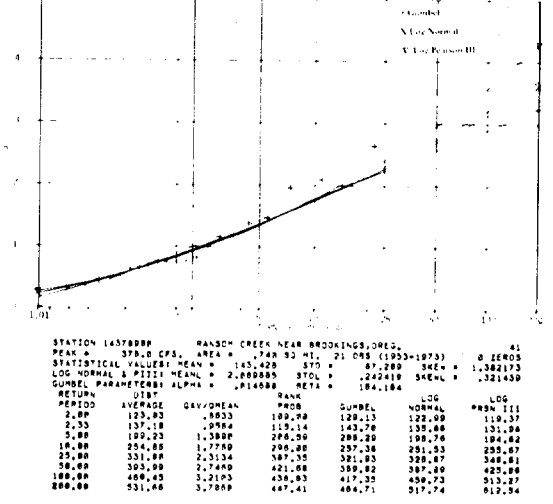
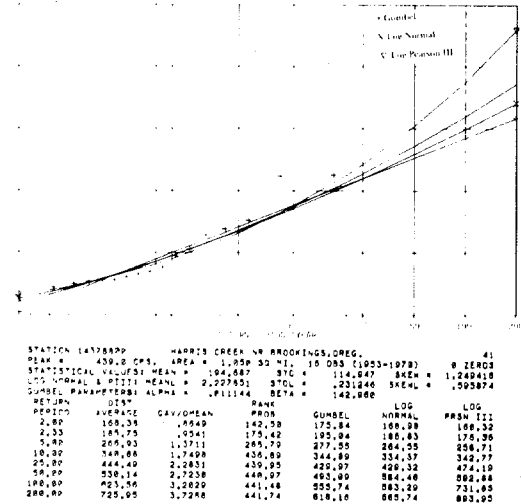
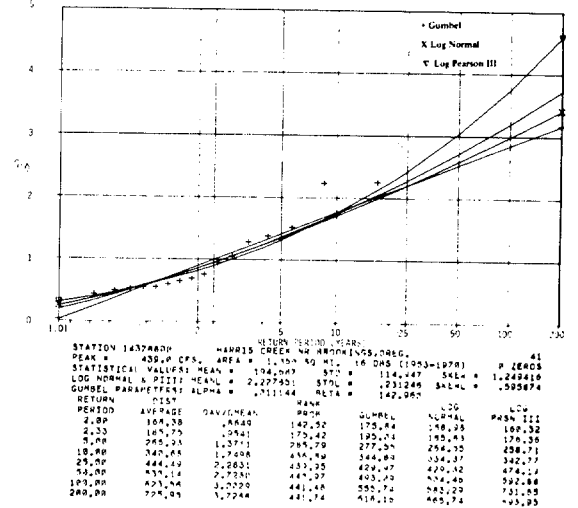
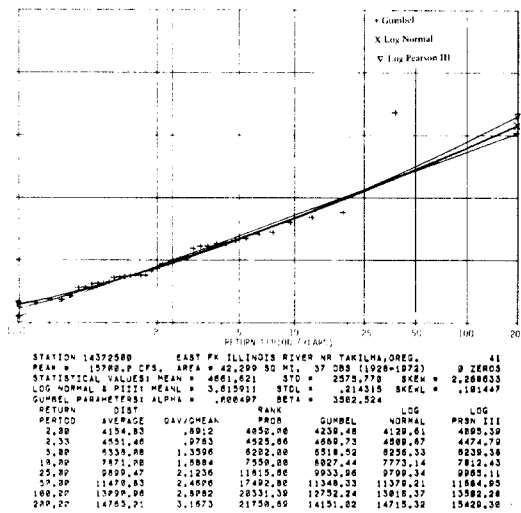
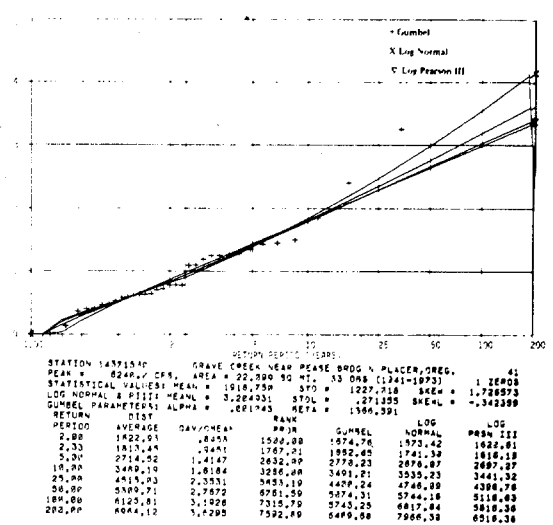
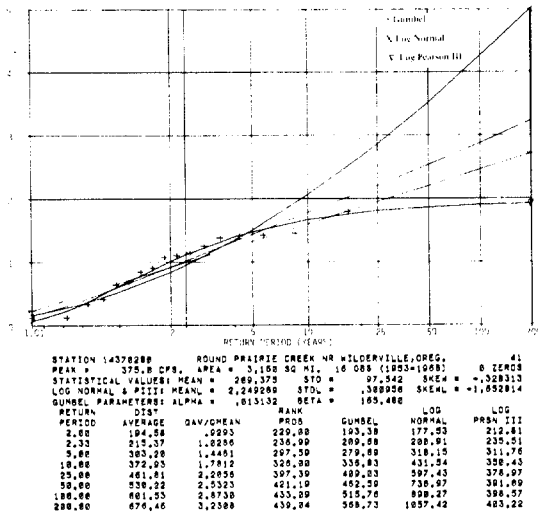
RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOGNORMAL	LOG	PKSN III
2.00	218.70	.8257	251.71	227.77	211.75	209.64	
2.33	228.43	.8444	251.71	228.17	226.88	224.62	
5.00	295.24	1.2985	117.19	295.40	295.50	294.64	
10.00	350.41	1.5481	339.25	330.50	352.49	354.46	
25.00	429.35	1.8724	511.47	426.14	426.14	403.56	
50.00	482.29	2.1190	103.23	471.51	481.13	494.04	
100.00	535.84	2.3579	107.92	523.17	525.12	555.41	
200.00	596.86	2.6223	420.13	574.13	591.44	626.42	



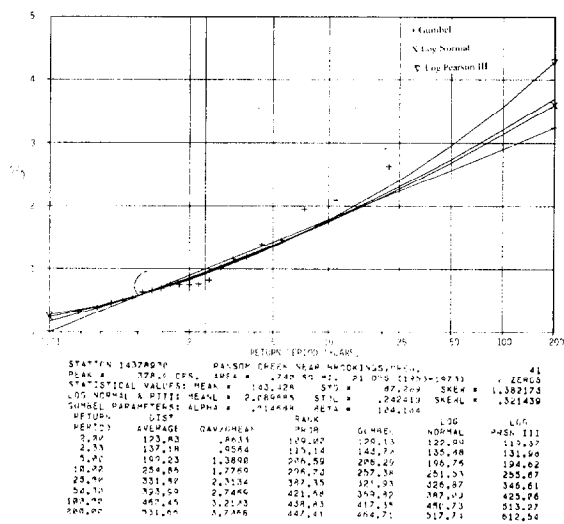
Appendix A-41. Oregon 43-48. Flood frequency curves and data.



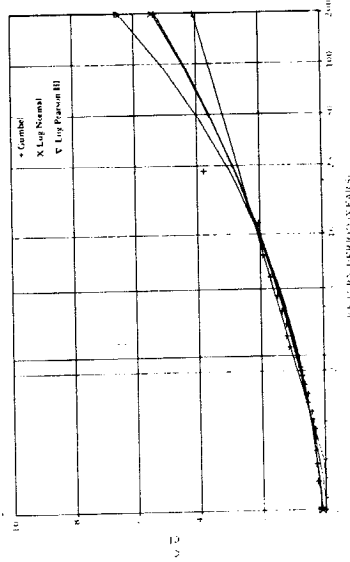
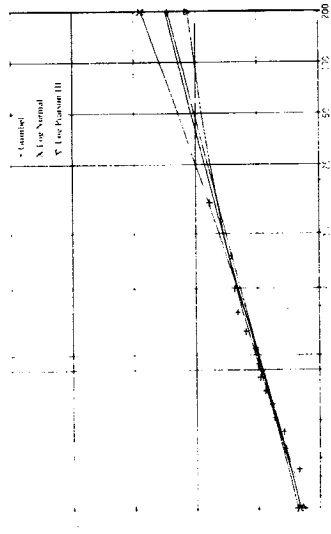
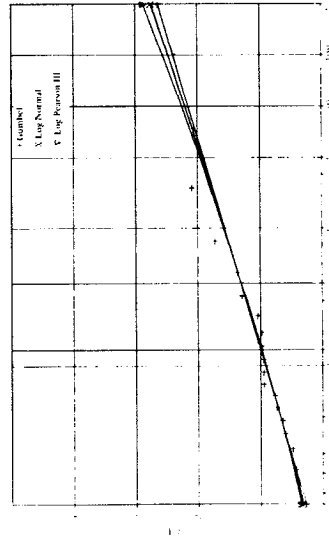
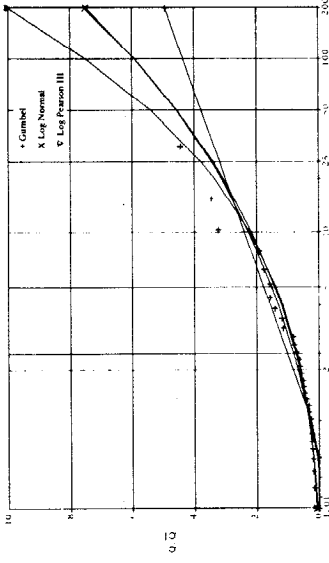
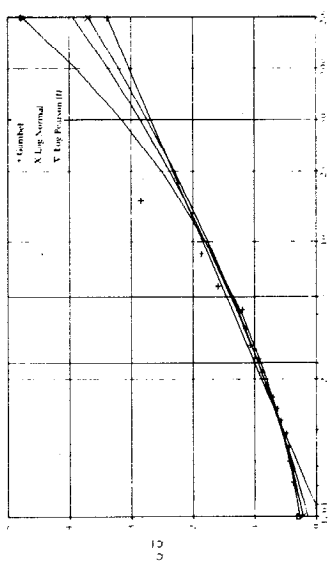
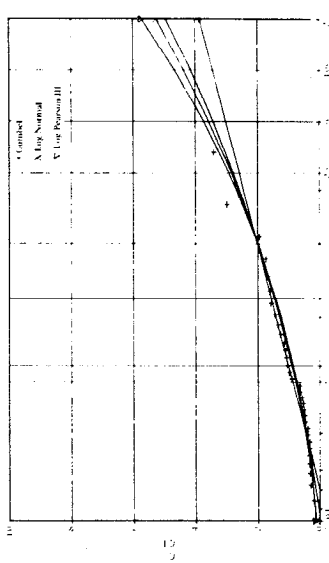
Appendix A-41. Oregon 49-54. Flood frequency curves and data.



Appendix A-41. Oregon 55-60. Flood frequency curves and data.



Appendix A-41. Oregon 61. Flood frequency curves and data.

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DEPARTMENT OF AGRICULTURE

BUREAU OF PLANT INDUSTRY

PLANT BREEDING AND GENETICS SECTION

REPORT ON THE PROGRESS OF WORK DURING THE YEAR 1908

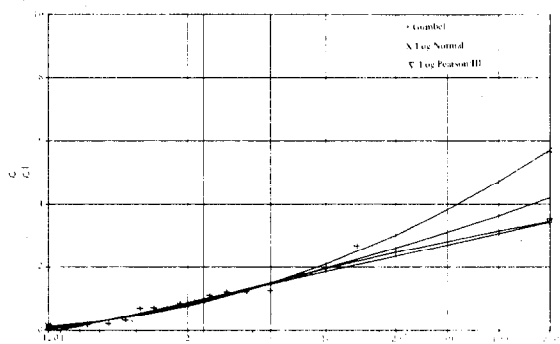
BY

J. H. MASON

CHIEF OF SECTION

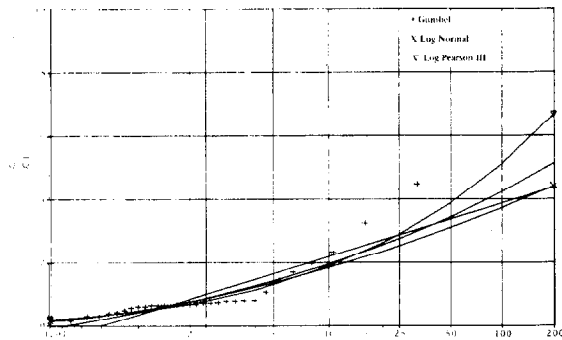
WASHINGTON, D. C.

1909



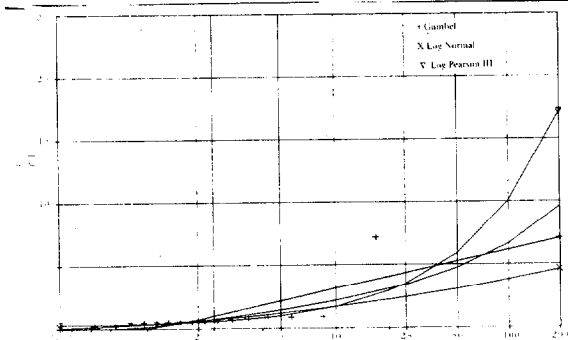
STATION #1551886 GRAPIES RUN AT WILLIAMSPORT, PA. 42
 PEAK = 313.0 CFS, AREA = 3.148 SQ MI, 14 CDS (1840-1933) 2 2603
 STATISTICAL VALUES: MEAN = 338.028 STD = 223.752 SKEW = 1.219523
 LOG NORMAL & PIII: MEAN = 2.429327 STD = .333146 SKEW = .701538
 GUMBEL PARAMETERS: ALPHA = .005720 BETA = 238.239

RETURN PERIOD	AVERAGE	DAV/CMEAN	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	288.24	.8574	391.00	380.25	268.75	303.75
2.33	327.59	.8665	352.99	339.53	308.17	334.98
3.00	410.47	1.1461	439.00	408.23	512.58	518.69
10.00	871.88	1.9823	750.00	831.31	716.32	866.03
25.00	1099.31	2.0239	1031.59	796.92	1028.06	841.30
50.00	1669.21	3.1281	1128.79	919.70	1296.59	961.07
100.00	2338.78	5.6547	1168.39	1041.74	1781.23	1173.13
200.00	4429.49	8.2958	1191.19	1163.25	1937.20	1176.01



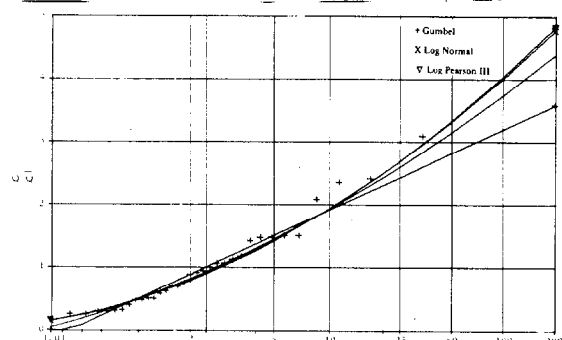
STATION #1552500 MUNCY CREEK NEAR STONESTOWN, PA. 42
 PEAK = 18990.0 CFS, AREA = 23.888 SQ MI, 31 CDS (1938-1978) 8 2603
 STATISTICAL VALUES: MEAN = 2248.935 STD = 2839.438 SKEW = 2.599695
 LOG NORMAL & PIII: MEAN = 5.248823 STD = .293986 SKEW = .863889
 GUMBEL PARAMETERS: ALPHA = .006624 BETA = 1325.816

RETURN PERIOD	AVERAGE	DAV/CMEAN	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	1755.85	.7617	1500.00	1889.81	1741.89	1616.00
2.33	2013.40	.8644	1450.00	2292.30	1961.09	1928.43
3.00	3257.21	1.4592	2018.00	3724.47	3672.91	2974.28
10.00	4445.54	1.9764	2079.00	4925.93	4135.80	4275.92
25.00	6213.64	2.7666	2311.59	6443.98	5076.26	6528.68
50.00	7755.79	3.4532	1190.70	7576.16	6663.71	6733.50
100.00	9523.54	4.2493	1198.39	8888.01	8372.85	11511.79
200.00	11653.18	5.1485	1245.19	9891.77	8807.92	14009.48



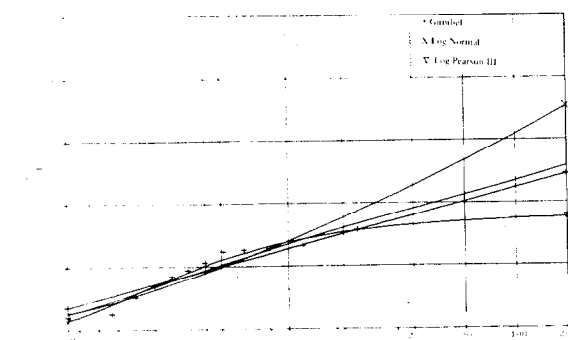
STATION #1563570 SILVER RUN NEAR LOUISVILLE, PA. 42
 PEAK = 8780.0 CFS, AREA = 15.000 SQ MI, 15 CDS (1955-1978) 8 2603
 STATISTICAL VALUES: MEAN = 1226.587 STD = 2039.158 SKEW = 3.865586
 LOG NORMAL & PIII: MEAN = 2.406580 STD = .332124 SKEW = 1.901350
 GUMBEL PARAMETERS: ALPHA = .006631 BETA = 313.155

RETURN PERIOD	AVERAGE	DAV/CMEAN	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	768.70	.8263	428.57	803.98	787.73	653.46
2.33	845.84	.8778	750.13	1233.68	886.98	720.89
3.00	1115.87	1.4890	1272.00	2059.16	1456.64	1236.89
10.00	2704.40	2.2244	3446.02	3876.43	2099.43	2174.36
25.00	4221.98	3.4468	11210.00	5382.23	3988.14	4249.70
50.00	4908.47	4.2781	13805.10	6496.75	3789.87	7289.97
100.00	6213.84	5.6957	15174.59	7603.23	4058.74	12369.91
200.00	11770.27	8.2922	15752.29	8755.57	5145.14	20566.19



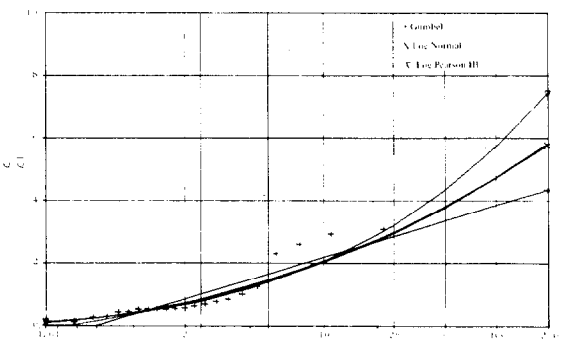
STATION #1566501 CLAPP CREEK NEAR CARBONSVILLE, PA. 42
 PEAK = 980.0 CFS, AREA = 20.589 SQ MI, 33 CDS (1928-1977) 2 2603
 STATISTICAL VALUES: MEAN = 318.480 STD = 222.616 SKEW = 1.331810
 LOG NORMAL & PIII: MEAN = 2.405385 STD = .381756 SKEW = .820134
 GUMBEL PARAMETERS: ALPHA = .007554 BETA = 218.731

RETURN PERIOD	AVERAGE	DAV/CMEAN	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	263.48	.8261	282.00	282.42	254.27	253.68
2.33	298.28	.9349	144.21	310.61	287.76	287.24
3.00	463.50	1.4534	271.30	470.30	455.75	455.36
10.00	615.71	1.9304	717.10	600.80	618.20	619.27
25.00	836.14	2.6930	282.15	774.58	850.21	850.63
50.00	1095.51	3.1599	1054.07	886.82	1036.52	1063.71
100.00	1194.18	4.7445	132.53	1318.15	1275.76	1284.36
200.00	1354.49	4.3422	1169.76	1139.24	1515.34	1536.24



STATION #1571000 PAYTON CREEK NEAR PEAPACK, PA. 42
 PEAK = 109.0 CFS, AREA = 11.100 SQ MI, 11 CDS (1942-1953) 9 2603
 STATISTICAL VALUES: MEAN = 1293.997 STD = 475.282 SKEW = .552874
 LOG NORMAL & PIII: MEAN = 2.034724 STD = .233173 SKEW = -1.528888
 GUMBEL PARAMETERS: ALPHA = .002808 BETA = 589.328

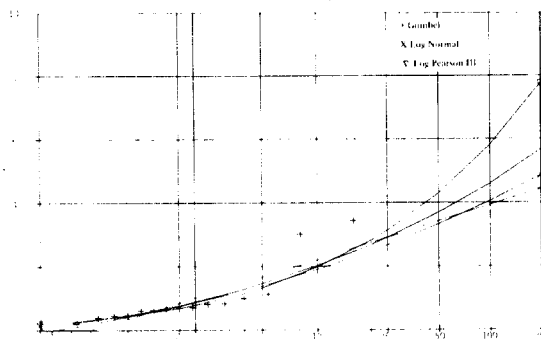
RETURN PERIOD	AVERAGE	DAV/CMEAN	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	1148.81	.9540	1298.00	1125.22	1095.88	1235.53
2.33	1245.70	1.1931	1459.99	1294.58	1193.41	1338.14
3.00	1648.37	1.1453	1379.99	1345.70	1846.15	1912.27
10.00	1648.37	1.1453	1379.99	1824.11	2141.40	1855.07
25.00	2394.42	1.9157	2081.10	2175.84	2746.58	1992.14
50.00	2771.77	2.1376	2135.59	2436.84	3204.53	2803.78
100.00	2625.40	2.1904	2172.70	2895.88	3726.85	2794.13
200.00	3174.27	2.1835	2191.35	2955.07	4256.11	2128.74



STATION #1573500 WALNUT CREEK AT WALNUT GAP, PA. 42
 PEAK = 2650.0 CFS, AREA = 13.500 SQ MI, 21 CDS (1938-1953) 9 2603
 STATISTICAL VALUES: MEAN = 855.910 STD = 775.194 SKEW = 1.512885
 LOG NORMAL & PIII: MEAN = 2.791988 STD = .384256 SKEW = .339861
 GUMBEL PARAMETERS: ALPHA = .001632 BETA = 766.226

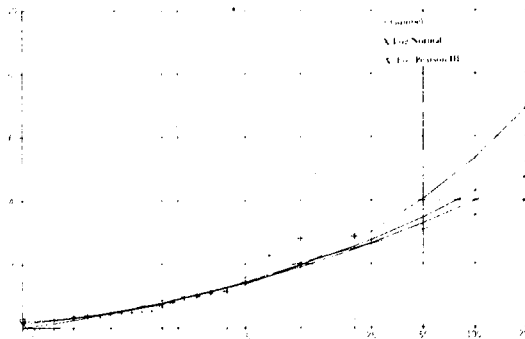
RETURN PERIOD	AVERAGE	DAV/CMEAN	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	844.40	.7557	499.00	728.50	616.42	591.06
2.33	752.18	.8793	561.27	808.06	715.42	684.87
3.00	1277.28	1.4927	1610.00	1414.30	1219.44	1198.52
10.00	1704.57	2.7573	2454.00	1808.45	1736.06	1779.28
25.00	2768.40	3.6129	2696.79	2442.10	2532.14	2797.25
50.00	3275.73	3.8261	2728.39	2897.74	3230.48	3733.83
100.00	4073.64	4.7575	2750.10	3290.23	4022.48	4899.31
200.00	4987.34	5.6289	2774.59	3711.14	4811.28	6359.81

Appendix A-42. Pennsylvania 7-12. Flood frequency curves and data.



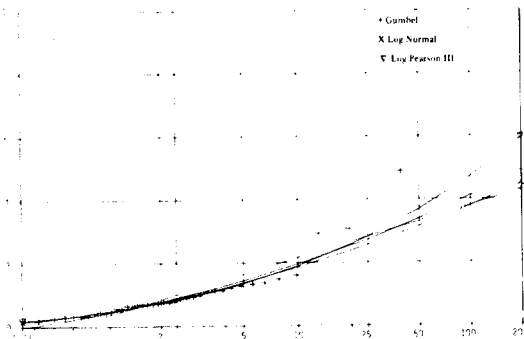
STATION 01614086 CONOCOCHIEGUE CO. NR FAYETTEVILLE PENNA. 42
 PEAK = 302.0 CFS, AREA = 5,350 SQ MI, 15 OBS (1961-1975) 2 ZEROS
 STATISTICAL VALUES: MEAN = 114.333 STD = 186.568 SKEW = 2.14182
 LOG NORMAL & PIII: MEAN = 114.333 STD = 186.568 SKEW = 2.14182
 LOG NORMAL & PIII: MEAN = 114.333 STD = 186.568 SKEW = 2.14182
 GUMBEL PARAMETERS: ALPHA = 0.02018 BETA = 68.358

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	87.76	0.7675	78.28	86.88	86.73	76.71
2.33	101.28	0.8860	85.42	114.84	98.59	92.63
5.00	187.72	1.6870	126.88	191.17	158.94	153.88
10.00	232.70	2.0355	165.59	253.61	216.17	220.44
25.00	332.01	2.6930	409.63	332.58	305.89	337.53
50.00	420.00	3.6818	425.31	391.03	382.44	401.38
100.00	525.36	4.5959	455.16	440.13	462.37	463.99
200.00	646.85	5.6750	457.87	507.81	555.50	555.03



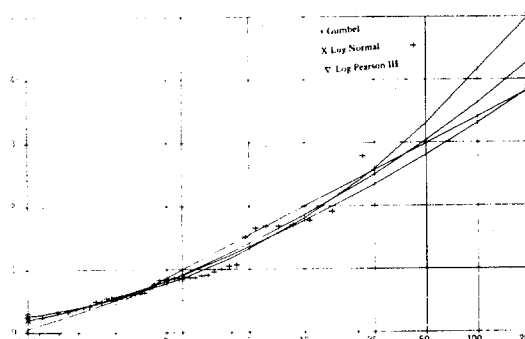
STATION 03290577 GREENLICK RESERVOIR, PA. 42
 PEAK = 1925.0 CFS, AREA = 1,440 SQ MI, 19 OBS (1942-1971) 2 ZEROS
 STATISTICAL VALUES: MEAN = 546.441 STD = 404.744 SKEW = 1.52957
 LOG NORMAL & PIII: MEAN = 546.441 STD = 404.744 SKEW = 1.52957
 LOG NORMAL & PIII: MEAN = 546.441 STD = 404.744 SKEW = 1.52957
 GUMBEL PARAMETERS: ALPHA = 0.02018 BETA = 68.358

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	444.71	0.7524	174.72	442.65	438.96	414.27
2.33	513.47	0.7974	204.77	545.16	497.25	469.40
5.00	814.44	1.4917	474.11	892.47	772.46	771.88
10.00	1114.38	1.9264	1024.72	1158.41	1095.59	1115.70
25.00	1504.38	2.7776	1424.77	1495.03	1403.47	1406.77
50.00	1947.76	3.4771	1454.72	1745.25	1661.59	1684.13
100.00	2417.69	4.2414	1464.73	1993.13	2234.17	2025.72
200.00	2941.94	5.2120	1447.77	2249.17	2684.44	2661.10



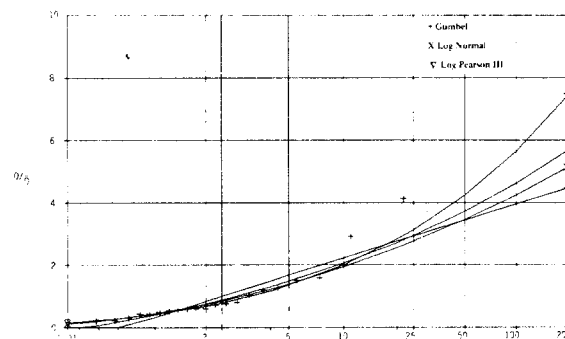
STATION 03290577 GREENLICK RESERVOIR, PA. 42
 PEAK = 1925.0 CFS, AREA = 1,440 SQ MI, 19 OBS (1942-1971) 2 ZEROS
 STATISTICAL VALUES: MEAN = 546.441 STD = 404.744 SKEW = 1.52957
 LOG NORMAL & PIII: MEAN = 546.441 STD = 404.744 SKEW = 1.52957
 LOG NORMAL & PIII: MEAN = 546.441 STD = 404.744 SKEW = 1.52957
 GUMBEL PARAMETERS: ALPHA = 0.02018 BETA = 68.358

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	444.71	0.7524	174.72	442.65	438.96	414.27
2.33	513.47	0.7974	204.77	545.16	497.25	469.40
5.00	814.44	1.4917	474.11	892.47	772.46	771.88
10.00	1114.38	1.9264	1024.72	1158.41	1095.59	1115.70
25.00	1504.38	2.7776	1424.77	1495.03	1403.47	1406.77
50.00	1947.76	3.4771	1454.72	1745.25	1661.59	1684.13
100.00	2417.69	4.2414	1464.73	1993.13	2234.17	2025.72
200.00	2941.94	5.2120	1447.77	2249.17	2684.44	2661.10



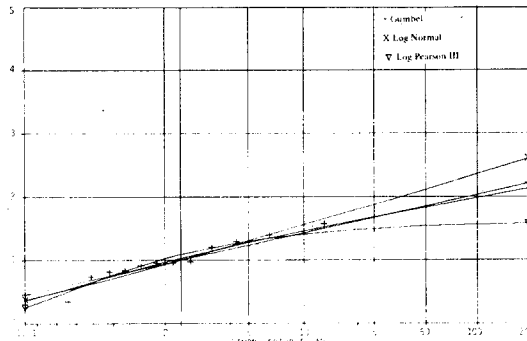
STATION 03290577 GREENLICK RESERVOIR, PA. 42
 PEAK = 1925.0 CFS, AREA = 1,440 SQ MI, 19 OBS (1942-1971) 2 ZEROS
 STATISTICAL VALUES: MEAN = 546.441 STD = 404.744 SKEW = 1.52957
 LOG NORMAL & PIII: MEAN = 546.441 STD = 404.744 SKEW = 1.52957
 LOG NORMAL & PIII: MEAN = 546.441 STD = 404.744 SKEW = 1.52957
 GUMBEL PARAMETERS: ALPHA = 0.02018 BETA = 68.358

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	444.71	0.7524	174.72	442.65	438.96	414.27
2.33	513.47	0.7974	204.77	545.16	497.25	469.40
5.00	814.44	1.4917	474.11	892.47	772.46	771.88
10.00	1114.38	1.9264	1024.72	1158.41	1095.59	1115.70
25.00	1504.38	2.7776	1424.77	1495.03	1403.47	1406.77
50.00	1947.76	3.4771	1454.72	1745.25	1661.59	1684.13
100.00	2417.69	4.2414	1464.73	1993.13	2234.17	2025.72
200.00	2941.94	5.2120	1447.77	2249.17	2684.44	2661.10



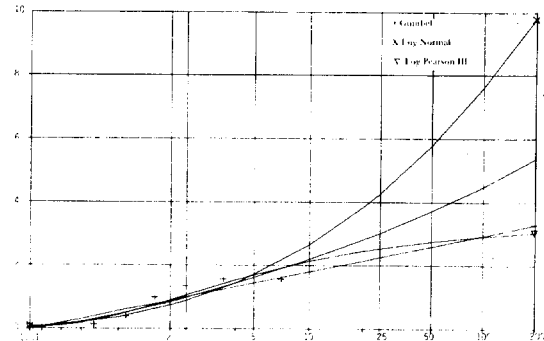
STATION 03290577 GREENLICK RESERVOIR, PA. 42
 PEAK = 1925.0 CFS, AREA = 1,440 SQ MI, 19 OBS (1942-1971) 2 ZEROS
 STATISTICAL VALUES: MEAN = 546.441 STD = 404.744 SKEW = 1.52957
 LOG NORMAL & PIII: MEAN = 546.441 STD = 404.744 SKEW = 1.52957
 LOG NORMAL & PIII: MEAN = 546.441 STD = 404.744 SKEW = 1.52957
 GUMBEL PARAMETERS: ALPHA = 0.02018 BETA = 68.358

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	444.71	0.7524	174.72	442.65	438.96	414.27
2.33	513.47	0.7974	204.77	545.16	497.25	469.40
5.00	814.44	1.4917	474.11	892.47	772.46	771.88
10.00	1114.38	1.9264	1024.72	1158.41	1095.59	1115.70
25.00	1504.38	2.7776	1424.77	1495.03	1403.47	1406.77
50.00	1947.76	3.4771	1454.72	1745.25	1661.59	1684.13
100.00	2417.69	4.2414	1464.73	1993.13	2234.17	2025.72
200.00	2941.94	5.2120	1447.77	2249.17	2684.44	2661.10



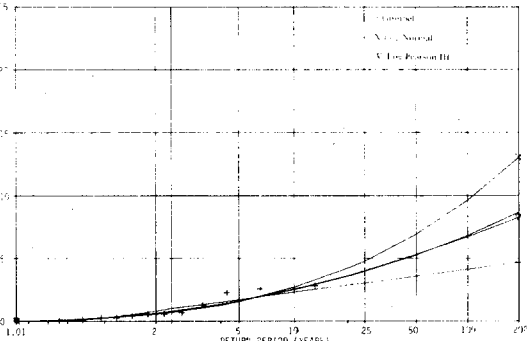
STATION 500315A RIO DE LA PLATA AT PROYECTO LA PLATA PUERTO RICO 75
 PEAK = 8000.0 CFS, AREA = 14,392 SQ MI, 12 DMS (1950-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 5670.77, STD = 1779.10, SKEW = -1.463999
 LOG NORMAL & PIII: MEAN = 1.707102, STD = 1.271711, SKEW = -1.463999
 GUMBEL PARAMETERS: ALPHA = 1.09440, BETA = 6337.467

RETURN PERIOD	AVERAGE	QAV/OMEAN	PROB	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	5814.41	0.9710	0.4174	5353.97	5845.98	5845.98
2.33	5872.30	1.0147	0.4711	5567.27	5924.44	5924.44
5.00	7092.10	1.2563	0.7801	7092.10	7465.18	7465.18
10.00	8336.47	1.4440	0.9472	8336.47	8656.45	8656.45
25.00	9544.04	1.6958	0.9824	9544.04	10511.07	10511.07
50.00	10437.30	1.8301	0.9925	10437.30	12036.15	12036.15
100.00	11285.48	1.9385	0.9984	11285.48	13397.13	13397.13
200.00	12122.54	2.0341	0.9994	12122.54	14781.73	14781.73



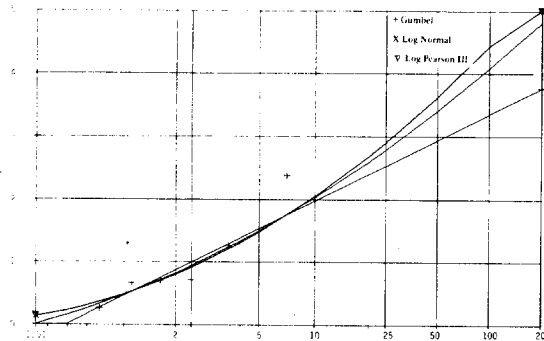
STATION 500315A RIO DE LA PLATA AT PROYECTO LA PLATA PUERTO RICO 75
 PEAK = 8000.0 CFS, AREA = 14,392 SQ MI, 12 DMS (1950-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 5670.77, STD = 1779.10, SKEW = -1.463999
 LOG NORMAL & PIII: MEAN = 1.707102, STD = 1.271711, SKEW = -1.463999
 GUMBEL PARAMETERS: ALPHA = 1.09440, BETA = 6337.467

RETURN PERIOD	AVERAGE	QAV/OMEAN	PROB	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	5814.41	0.9710	0.4174	5353.97	5845.98	5845.98
2.33	5872.30	1.0147	0.4711	5567.27	5924.44	5924.44
5.00	7092.10	1.2563	0.7801	7092.10	7465.18	7465.18
10.00	8336.47	1.4440	0.9472	8336.47	8656.45	8656.45
25.00	9544.04	1.6958	0.9824	9544.04	10511.07	10511.07
50.00	10437.30	1.8301	0.9925	10437.30	12036.15	12036.15
100.00	11285.48	1.9385	0.9984	11285.48	13397.13	13397.13
200.00	12122.54	2.0341	0.9994	12122.54	14781.73	14781.73



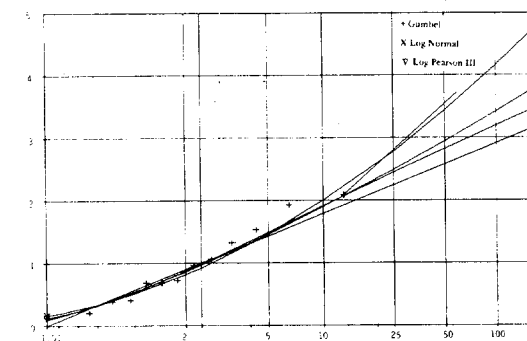
STATION 500315A RIO DE LA PLATA AT PROYECTO LA PLATA PUERTO RICO 75
 PEAK = 8000.0 CFS, AREA = 14,392 SQ MI, 12 DMS (1950-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 5670.77, STD = 1779.10, SKEW = -1.463999
 LOG NORMAL & PIII: MEAN = 1.707102, STD = 1.271711, SKEW = -1.463999
 GUMBEL PARAMETERS: ALPHA = 1.09440, BETA = 6337.467

RETURN PERIOD	AVERAGE	QAV/OMEAN	PROB	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	5814.41	0.9710	0.4174	5353.97	5845.98	5845.98
2.33	5872.30	1.0147	0.4711	5567.27	5924.44	5924.44
5.00	7092.10	1.2563	0.7801	7092.10	7465.18	7465.18
10.00	8336.47	1.4440	0.9472	8336.47	8656.45	8656.45
25.00	9544.04	1.6958	0.9824	9544.04	10511.07	10511.07
50.00	10437.30	1.8301	0.9925	10437.30	12036.15	12036.15
100.00	11285.48	1.9385	0.9984	11285.48	13397.13	13397.13
200.00	12122.54	2.0341	0.9994	12122.54	14781.73	14781.73



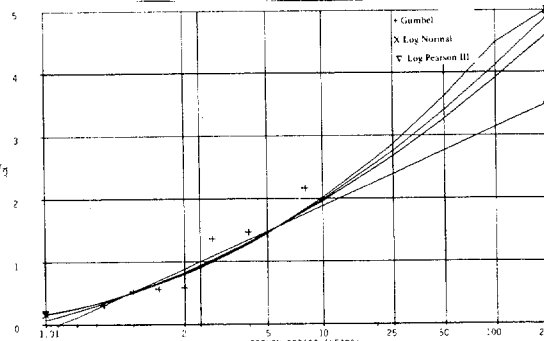
STATION 500315A RIO DE LA PLATA AT PROYECTO LA PLATA PUERTO RICO 75
 PEAK = 8000.0 CFS, AREA = 14,392 SQ MI, 12 DMS (1950-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 5670.77, STD = 1779.10, SKEW = -1.463999
 LOG NORMAL & PIII: MEAN = 1.707102, STD = 1.271711, SKEW = -1.463999
 GUMBEL PARAMETERS: ALPHA = 1.09440, BETA = 6337.467

RETURN PERIOD	AVERAGE	QAV/OMEAN	PROB	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	5814.41	0.9710	0.4174	5353.97	5845.98	5845.98
2.33	5872.30	1.0147	0.4711	5567.27	5924.44	5924.44
5.00	7092.10	1.2563	0.7801	7092.10	7465.18	7465.18
10.00	8336.47	1.4440	0.9472	8336.47	8656.45	8656.45
25.00	9544.04	1.6958	0.9824	9544.04	10511.07	10511.07
50.00	10437.30	1.8301	0.9925	10437.30	12036.15	12036.15
100.00	11285.48	1.9385	0.9984	11285.48	13397.13	13397.13
200.00	12122.54	2.0341	0.9994	12122.54	14781.73	14781.73



STATION 500315A RIO DE LA PLATA AT PROYECTO LA PLATA PUERTO RICO 75
 PEAK = 8000.0 CFS, AREA = 14,392 SQ MI, 12 DMS (1950-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 5670.77, STD = 1779.10, SKEW = -1.463999
 LOG NORMAL & PIII: MEAN = 1.707102, STD = 1.271711, SKEW = -1.463999
 GUMBEL PARAMETERS: ALPHA = 1.09440, BETA = 6337.467

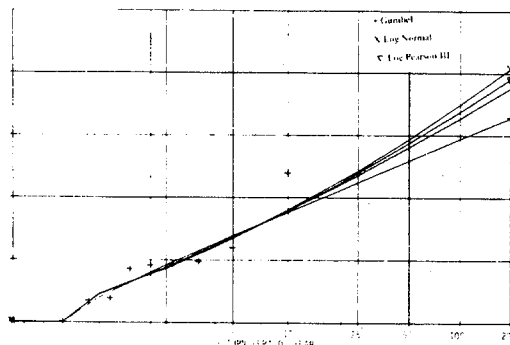
RETURN PERIOD	AVERAGE	QAV/OMEAN	PROB	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	5814.41	0.9710	0.4174	5353.97	5845.98	5845.98
2.33	5872.30	1.0147	0.4711	5567.27	5924.44	5924.44
5.00	7092.10	1.2563	0.7801	7092.10	7465.18	7465.18
10.00	8336.47	1.4440	0.9472	8336.47	8656.45	8656.45
25.00	9544.04	1.6958	0.9824	9544.04	10511.07	10511.07
50.00	10437.30	1.8301	0.9925	10437.30	12036.15	12036.15
100.00	11285.48	1.9385	0.9984	11285.48	13397.13	13397.13
200.00	12122.54	2.0341	0.9994	12122.54	14781.73	14781.73



STATION 500315A RIO DE LA PLATA AT PROYECTO LA PLATA PUERTO RICO 75
 PEAK = 8000.0 CFS, AREA = 14,392 SQ MI, 12 DMS (1950-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 5670.77, STD = 1779.10, SKEW = -1.463999
 LOG NORMAL & PIII: MEAN = 1.707102, STD = 1.271711, SKEW = -1.463999
 GUMBEL PARAMETERS: ALPHA = 1.09440, BETA = 6337.467

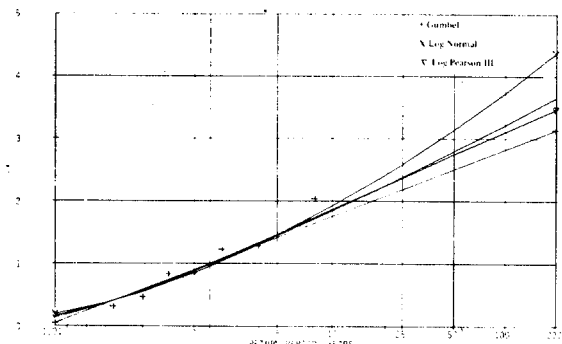
RETURN PERIOD	AVERAGE	QAV/OMEAN	PROB	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	5814.41	0.9710	0.4174	5353.97	5845.98	5845.98
2.33	5872.30	1.0147	0.4711	5567.27	5924.44	5924.44
5.00	7092.10	1.2563	0.7801	7092.10	7465.18	7465.18
10.00	8336.47	1.4440	0.9472	8336.47	8656.45	8656.45
25.00	9544.04	1.6958	0.9824	9544.04	10511.07	10511.07
50.00	10437.30	1.8301	0.9925	10437.30	12036.15	12036.15
100.00	11285.48	1.9385	0.9984	11285.48	13397.13	13397.13
200.00	12122.54	2.0341	0.9994	12122.54	14781.73	14781.73

Appendix A-75. Puerto Rico 1-6. Flood frequency curves and data.



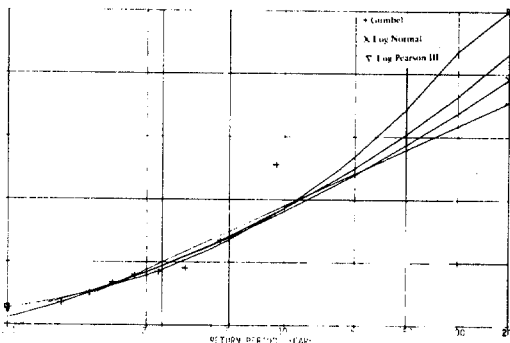
STATION 5811448B RIO CERRILLOS AT PONCE, PUERTO RICO 75
 PEAK = 9148.0 CFS, AREA = 17,000 SQ MI, 9 OBS (1965-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 3811.258 STD = 2425.327 SKEW = 1.642419
 LOG NORMAL & PIII: MEAN = 3.555944 STD = .208314 SKEW = -.059279
 GUMBEL PARAMETERS: ALPHA = .008526 BETA = 2719.082

RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	3807.20	.7892	3486.88	3808.22	2987.80	2955.08
2.33	3384.81	.6981	3357.13	3512.89	3294.81	3347.74
5.00	3216.29	1.3678	4056.08	5387.84	5184.83	5159.82
10.00	2884.81	1.7852	7148.80	8744.40	8871.74	8795.88
25.00	2606.72	2.3526	11888.80	8547.75	8236.48	8122.81
50.00	18801.58	2.8826	12804.88	8689.80	11189.87	10954.87
100.00	12458.71	3.2848	13282.88	11285.15	13282.88	12867.76
200.00	14529.58	3.7545	13491.88	12922.85	15948.84	14885.25



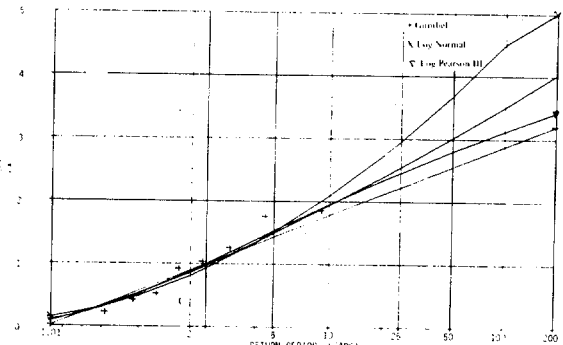
STATION 5811448B RIO BUCANA AT PONCE, PUERTO RICO 75
 PEAK = 12888.0 CFS, AREA = 25,500 SQ MI, 7 OBS (1965-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 5887.142 STD = 3412.988 SKEW = .894118
 LOG NORMAL & PIII: MEAN = 3.781815 STD = .278161 SKEW = -.388114
 GUMBEL PARAMETERS: ALPHA = .009375 BETA = 4351.292

RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	5194.81	.8823	4968.88	5527.79	5025.58	5025.16
2.33	5700.58	.9535	4250.88	5507.89	5025.58	5048.77
5.00	8514.00	1.4463	9336.88	8247.81	8583.35	8534.82
10.00	10878.58	1.8478	12888.88	10346.88	11315.87	10972.65
25.00	14816.30	2.3888	15819.19	12873.21	15235.33	13948.75
50.00	16445.95	2.7935	15729.50	14747.32	18498.48	16132.12
100.00	18048.58	3.2182	16884.79	16887.54	21939.78	18281.85
200.00	21921.58	3.6558	16962.39	18498.88	25877.58	20426.21



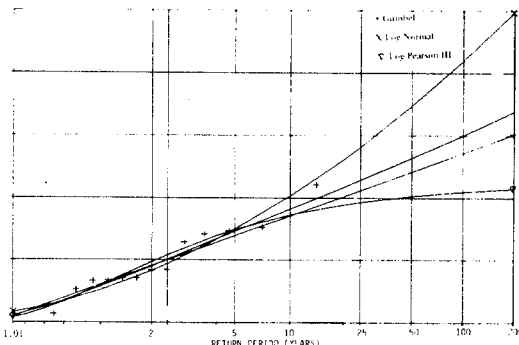
STATION 5811598B RIO PORTUGUES AT PONCE, PUERTO RICO 75
 PEAK = 5702.0 CFS, AREA = 8,820 SQ MI, 8 OBS (1964-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 2988.758 STD = 1585.147 SKEW = 1.432588
 LOG NORMAL & PIII: MEAN = 3.283332 STD = .278461 SKEW = .503098
 GUMBEL PARAMETERS: ALPHA = .022816 BETA = 1582.601

RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	1014.28	.8437	1865.88	2811.58	1918.88	1918.88
2.33	2141.88	.6437	1938.58	2275.88	2135.33	2014.58
5.00	3219.98	1.4192	3596.88	3395.93	3188.88	3081.18
10.00	4222.98	1.8813	6064.88	4319.14	4117.18	4232.61
25.00	5689.72	2.4588	7543.58	5488.55	5444.88	6881.40
50.00	6889.82	3.2363	8036.79	6142.15	6519.44	7884.27
100.00	8245.95	3.6341	8283.30	7197.39	7688.19	9889.57
200.00	9768.59	4.3922	8488.09	8849.58	8888.34	12543.24



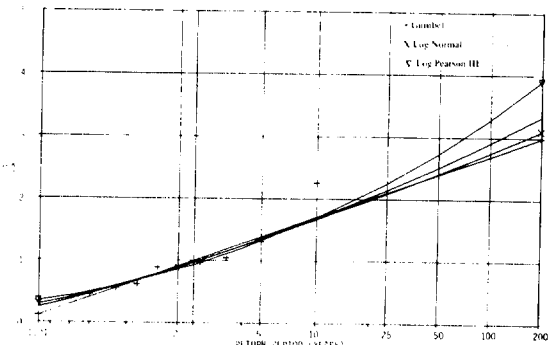
STATION 5811598B RIO PORTUGUES AT HIGHWAY 14 AT PONCE, PUERTO RICO 75
 PEAK = 5889.0 CFS, AREA = 14,500 SQ MI, 8 OBS (1965-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 3184.258 STD = 1887.918 SKEW = .277125
 LOG NORMAL & PIII: MEAN = 3.412586 STD = .318886 SKEW = -.166814
 GUMBEL PARAMETERS: ALPHA = .008674 BETA = 2511.186

RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	2747.47	.8882	3198.88	2853.29	2585.92	2583.59
2.33	3889.18	.9784	3359.88	3178.28	2947.25	3181.04
5.00	4724.72	1.4431	5886.58	4532.48	4793.85	4847.85
10.00	6148.17	1.9433	5914.19	5844.39	6119.81	6184.28
25.00	8885.30	2.5407	6888.87	7849.13	9338.48	7778.88
50.00	9544.82	3.1882	8188.43	8891.23	11882.85	8878.77
100.00	11888.27	3.5848	8191.21	9125.78	14244.81	9881.11
200.00	18889.28	4.1133	8288.48	11516.58	17889.82	10852.37



STATION 581218B RIO TALLARA AT PENUELAS, PUERTO RICO 75
 PEAK = 14889.0 CFS, AREA = 24,190 SQ MI, 13 OBS (1958-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 6892.397 STD = 3624.144 SKEW = 1.755811
 LOG NORMAL & PIII: MEAN = 3.743517 STD = .309314 SKEW = -1.379384
 GUMBEL PARAMETERS: ALPHA = .008353 BETA = 4071.419

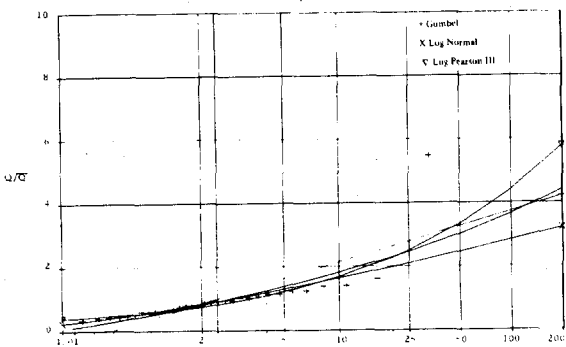
RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	6893.88	.7853	5528.88	4898.35	5541.34	6461.97
2.33	6893.31	1.1216	5549.09	6613.72	6286.32	7193.88
5.00	9564.40	1.4538	9734.09	9215.73	9017.99	8881.15
10.00	12994.37	1.8279	12794.68	11338.15	13443.97	11423.91
25.00	15129.18	2.2914	10584.39	14883.07	18988.21	12787.05
50.00	17468.88	2.6448	17447.19	14812.73	22932.97	13438.94
100.00	19884.27	3.1288	14747.39	17984.88	27522.39	13914.88
200.00	22362.37	3.5478	18794.20	19994.21	32878.43	14825.47



STATION 581248B RIO GUANAYILLA AT PENUELAS, PUERTO RICO 75
 PEAK = 4881.0 CFS, AREA = 18,541 SQ MI, 9 OBS (1961-1969) 0 ZEROS
 STATISTICAL VALUES: MEAN = 2482.151 STD = 1341.692 SKEW = 1.722832
 LOG NORMAL & PIII: MEAN = 3.347553 STD = .299234 SKEW = .386887
 GUMBEL PARAMETERS: ALPHA = .030954 BETA = 1879.461

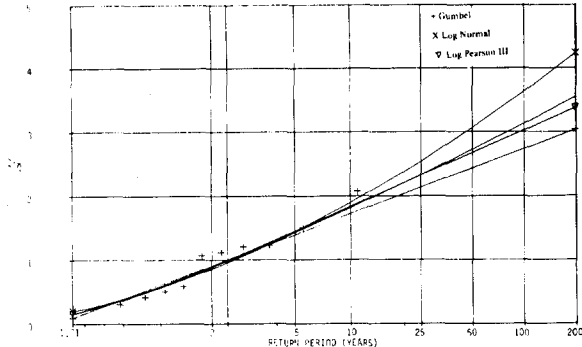
RETURN PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	2200.19	.8882	2290.88	2281.41	2226.56	2137.33
2.33	2415.81	.9724	2385.20	2485.75	2487.55	2438.88
5.00	3359.88	1.4529	3248.88	3458.71	3341.77	3287.85
10.00	4184.09	1.8402	5888.88	4238.81	4131.82	4218.14
25.00	5338.81	2.1405	7616.88	5238.83	5182.11	5088.88
50.00	6253.32	2.5169	7488.88	5994.88	5997.37	6001.08
100.00	7231.07	2.9122	7724.88	6888.88	6888.88	6158.72
200.00	8274.78	3.3327	7842.88	7427.88	7711.37	6688.22

Appendix A-75. Puerto Rico 7-12. Flood frequency curves and data.



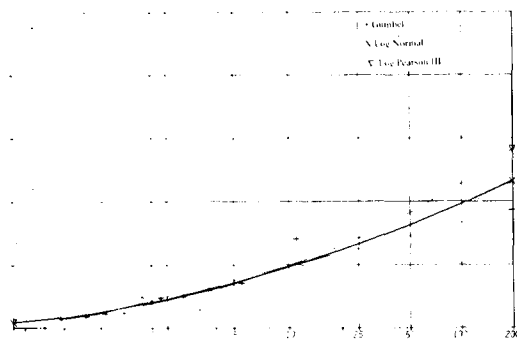
STATION 0115507P ADAMSVILLE BROOK AT ADAMSVILLE, P.I. 44
 PEAK = 1940.0 CFS, AREA = 8,400 SQ MI, 32 DBS (1964-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 193.345 STD = 164.444 SKEW = 4.51583
 LOG NORMAL & PIII MEAN = 2.012460 STD = 2.60755 SKEW = 1.251350
 GUMBEL PARAMETERS: ALPHA = .007542 BETA = 114.912

PERIOD	AVERAGE	CAV/MEAN	PROB	GUMBEL	LOG	LOG
RETURN	DIST	RANK				
2.00	158.91	.8194	165.09	155.30	163.09	149.02
2.33	177.87	.7209	174.14	193.87	175.82	154.78
5.00	260.15	1.0321	228.10	315.78	253.12	238.50
10.00	354.93	1.4317	271.79	415.28	318.47	324.32
25.00	478.22	2.4774	421.62	541.00	449.92	485.72
50.00	645.04	3.7502	512.05	634.27	477.51	645.00
100.00	710.45	5.4713	558.47	726.84	545.59	653.00
200.00	814.52	8.4196	601.21	819.75	625.50	1114.21



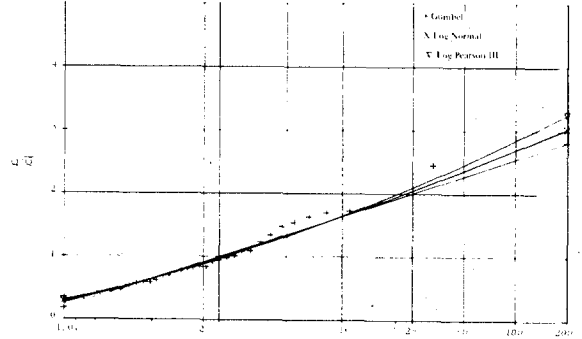
STATION 0111388 NEPHEC R NR HARRISVILLE RI 44
 PEAK = 1020.0 CFS, AREA = 16,800 SQ MI, 10 DBS (1964-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 482.699 STD = 275.448 SKEW = .532889
 LOG NORMAL & PIII MEAN = 2.653772 STD = .278818 SKEW = -.251183
 GUMBEL PARAMETERS: ALPHA = .004781 BETA = 370.699

PERIOD	AVERAGE	CAV/MEAN	PROB	GUMBEL	LOG	LOG
RETURN	DIST	RANK				
2.00	435.47	.8838	538.58	448.84	428.58	437.83
2.33	483.94	.8022	581.99	493.53	480.86	486.42
5.00	704.76	1.4304	714.19	689.19	706.49	715.49
10.00	895.47	1.8174	902.19	848.71	932.93	884.76
25.00	1147.66	2.3205	1178.67	1058.37	1244.10	1143.51
50.00	1342.27	2.7243	1238.83	1199.37	1587.85	1318.89
100.00	1542.94	3.1297	1267.41	1348.46	1788.57	1491.00
200.00	1747.20	3.5453	1282.78	1498.41	2084.81	1686.65



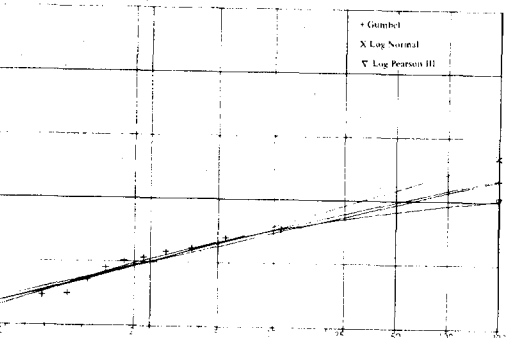
STATION 0111148B CHEPACHET R AT CHEPACHET RI 44
 PEAK = 1742.0 CFS, AREA = 17,399 SQ MI, 10 DBS (1964-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 344.599 STD = 284.158 SKEW = 1.773828
 LOG NORMAL & PIII MEAN = 2.469769 STD = .204687 SKEW = .518895
 GUMBEL PARAMETERS: ALPHA = .004089 BETA = 256.728

PERIOD	AVERAGE	CAV/MEAN	PROB	GUMBEL	LOG	LOG
RETURN	DIST	RANK				
2.00	319.44	.8207	373.68	338.83	311.88	300.28
2.33	358.59	.7323	377.57	385.49	351.83	339.20
5.00	561.16	1.4588	533.54	588.45	558.31	543.53
10.00	751.41	1.8537	627.58	705.91	741.23	730.38
25.00	1028.44	2.6888	1375.11	986.24	1029.12	1002.60
50.00	1257.87	3.2786	1491.85	1122.27	1252.83	1308.51
100.00	1513.43	3.8253	1546.82	1277.15	1507.41	1756.84
200.00	1798.32	4.4706	1578.81	1431.48	1783.84	2173.54



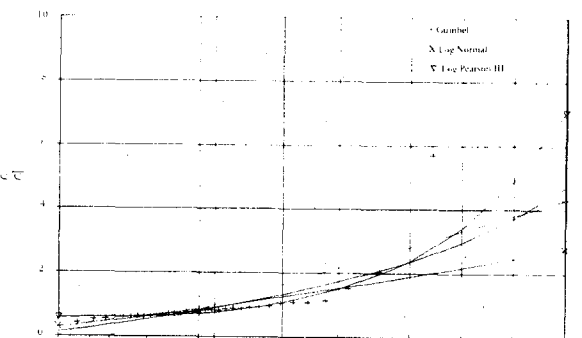
STATION 011458P AONASCATUCKET RIVER AT CENTERVILLE, N.I. 44
 PEAK = 1440.0 CFS, AREA = 36,200 SQ MI, 32 DBS (1954-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 287.458 STD = 799.494 SKEW = 1.266203
 LOG NORMAL & PIII MEAN = 2.721155 STD = .226658 SKEW = 1.57519
 GUMBEL PARAMETERS: ALPHA = .004633 BETA = 454.766

PERIOD	AVERAGE	CAV/MEAN	PROB	GUMBEL	LOG	LOG
RETURN	DIST	RANK				
2.00	328.78	.8997	496.57	539.86	525.21	519.70
2.33	375.67	.8097	552.42	588.38	572.71	565.04
5.00	747.45	1.3445	686.82	768.80	784.52	781.24
10.00	945.12	1.6496	1014.00	987.94	956.67	973.70
25.00	1205.33	2.2888	1151.10	1184.74	1297.72	1238.18
50.00	1395.48	2.6754	1355.59	1341.59	1524.38	1430.49
100.00	1587.56	2.7923	1557.74	1499.92	1586.98	1875.75
200.00	1786.26	3.1468	1725.84	1657.68	1785.39	1915.77



STATION 011563B ACOSENECK R AT ACOSENECK RI 44
 PEAK = 314.0 CFS, AREA = 8,230 SQ MI, 12 DBS (1964-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 286.369 STD = 74.295 SKEW = -.107435
 LOG NORMAL & PIII MEAN = 2.784026 STD = 1.78270 SKEW = -.752085
 GUMBEL PARAMETERS: ALPHA = .017241 BETA = 175.056

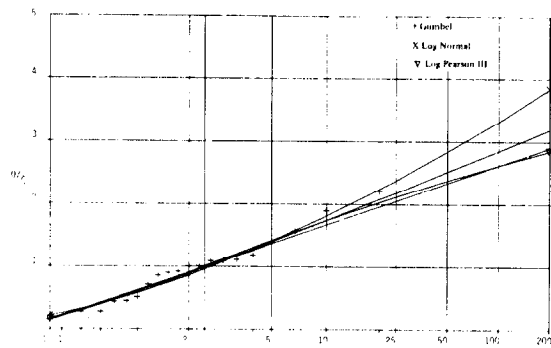
PERIOD	AVERAGE	CAV/MEAN	PROB	GUMBEL	LOG	LOG
RETURN	DIST	RANK				
2.00	196.81	.9521	216.58	194.32	192.72	205.60
2.33	218.53	1.0195	227.85	205.73	207.37	217.48
5.00	268.75	1.3814	281.79	282.06	272.27	315.06
10.00	313.04	1.5223	315.29	303.58	326.16	312.00
25.00	368.68	1.7854	334.23	358.57	395.47	359.01
50.00	488.21	1.9758	340.62	399.37	447.43	376.83
100.00	446.32	2.1813	343.41	435.80	502.88	528.21
200.00	483.49	2.3433	345.48	468.21	554.63	416.85



STATION 011507P AONASCATUCKET RIVER NEAR EAST GREENWICH, N.I. 44
 PEAK = 940.0 CFS, AREA = 23,207 SQ MI, 33 DBS (1958-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 421.538 STD = 379.428 SKEW = 4.621562
 LOG NORMAL & PIII MEAN = 2.740154 STD = 1.074438 SKEW = 2.485375
 GUMBEL PARAMETERS: ALPHA = .003393 BETA = 250.779

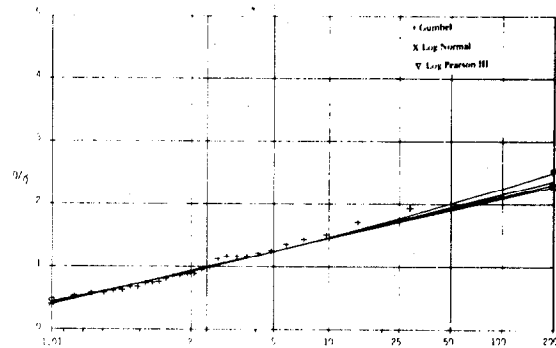
PERIOD	AVERAGE	CAV/MEAN	PROB	GUMBEL	LOG	LOG
RETURN	DIST	RANK				
2.00	343.04	.9155	428.01	428.01	428.01	428.01
2.33	348.71	.8943	348.24	421.82	382.87	398.86
5.00	545.45	1.3458	451.34	592.75	530.51	458.70
10.00	733.14	1.5328	570.15	713.87	647.45	574.84
25.00	1007.44	2.3704	1847.70	1183.29	840.70	1001.84
50.00	1252.44	2.6704	2897.87	1400.57	919.52	1439.28
100.00	1568.45	2.7507	3412.43	1406.25	1006.24	2081.69
200.00	1070.74	4.7544	3673.21	1811.23	1149.91	2865.67

Appendix A-44. Rhode Island 1-6. Flood frequency curves and data.



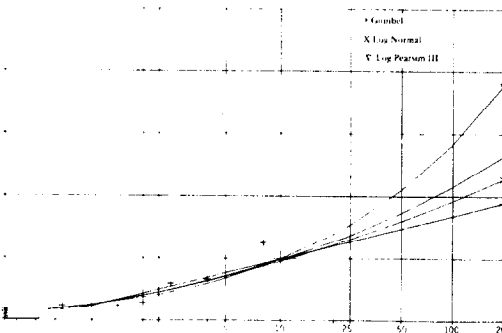
STATION #214700P NORTH TYE RIVER NEAR SAFFORD, S.C. 43
 PEAK = 3813.0 CFS, AREA = 44,004 SQ MI, 10 DMS (1941-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1079.006 STD = 940.757 SKEW = -.738915
 LOG NORMAL & PIII: MEAN = 1,107.104 STD = 251.028 SKEW = -.552744
 GUMBEL PARAMETERS: ALPHA = 777.921 BETA = 1251.146

PERIOD	AVERAGE	QAVG/MEAN	RANK	GUMBEL	LOG	LOG	LOG
2.00	249.44	.8301	1843.77	1451.34	1413.71	1404.85	
2.33	257.47	.8324	1770.24	1532.24	1507.34	1498.44	
2.67	265.44	1.4022	2042.77	2226.73	2226.73	2319.85	
3.00	269.53	1.7476	2197.73	2770.93	2695.53	2841.53	
10.00	356.40	2.1841	3714.22	3532.87	3686.53	3456.50	
25.00	412.12	2.7217	3922.77	3910.24	4134.14	3881.10	
50.00	4458.04	2.4584	4124.12	4275.93	4425.33	4297.57	
100.00	4914.40	3.1350	4174.22	4751.24	4752.37	4644.01	



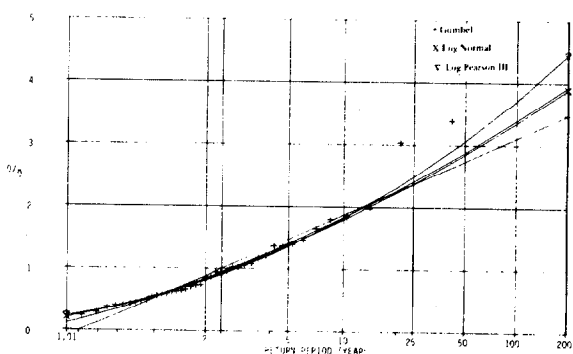
STATION #216440P KERSH RIVER NEAR GREENVILLE, S.C. 43
 PEAK = 4940.0 CFS, AREA = 48,400 SQ MI, 28 DMS (1942-1971) 2 ZEROS
 STATISTICAL VALUES: MEAN = 2008.128 STD = 732.237 SKEW = .348043
 LOG NORMAL & PIII: MEAN = 3,294.243 STD = 1407.92 SKEW = .204440
 GUMBEL PARAMETERS: ALPHA = 1201.792 BETA = 1757.421

PERIOD	AVERAGE	QAVG/MEAN	RANK	GUMBEL	LOG	LOG	LOG
2.00	106.43	.5351	1474.19	1073.14	1078.27	1045.87	
2.33	200.28	.6972	2145.50	2048.70	2133.17	2008.69	
2.67	2634.83	1.7548	2492.77	4038.73	2747.87	2924.91	
3.00	3083.74	1.6779	3221.77	3079.35	3671.35	3142.19	
10.00	3884.24	1.7640	3074.19	3574.42	3874.42	3750.18	
25.00	4001.41	1.7514	4041.12	4243.23	4173.55	4221.13	
50.00	4708.74	2.1853	4174.19	4480.44	4245.74	4731.17	
100.00	4775.12	2.1772	4443.24	4877.48	4797.41	5074.41	



STATION #214057P GILLS CR AT COLUMBIA, S.C. 43
 PEAK = 2050.0 CFS, AREA = 50,990 SQ MI, 7 DMS (1949-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1179.142 STD = 851.408 SKEW = 1.265804
 LOG NORMAL & PIII: MEAN = 2,091.201 STD = 1,008.881 SKEW = 1.822746
 GUMBEL PARAMETERS: ALPHA = 1814.38 BETA = 777.008

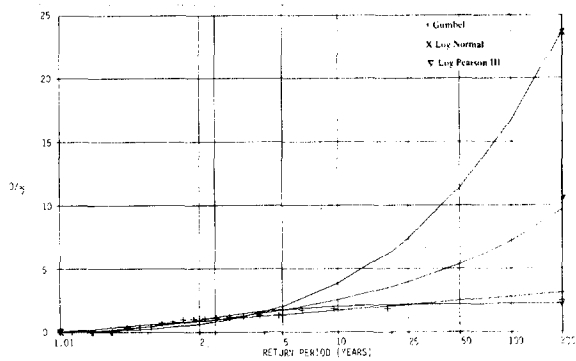
PERIOD	AVERAGE	QAVG/MEAN	RANK	GUMBEL	LOG	LOG	LOG
2.00	955.14	.8108	874.00	1033.23	957.76	874.00	
2.33	1002.02	.9176	1090.53	1181.25	1079.22	984.00	
2.67	1704.91	1.4408	2122.00	1821.83	1681.01	1816.09	
3.00	2314.78	1.9820	3228.00	2344.00	2337.33	2342.33	
10.00	3245.07	2.7238	3886.59	3985.55	3988.98	3947.00	
25.00	4884.31	3.4837	4180.19	3403.47	3783.97	4075.40	
50.00	5879.48	4.3881	4219.50	3979.38	4541.17	4898.00	
100.00	6241.67	5.2934	4274.70	4465.51	5351.88	4898.00	



STATION #215450P NORTH PACOLET R AT FINGERVILLE, S.C. 43
 PEAK = 1286.0 CFS, AREA = 110,000 SQ MI, 41 DMS (1931-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 3880.177 STD = 2446.040 SKEW = 1.865868
 LOG NORMAL & PIII: MEAN = 3,486.203 STD = 1,258.999 SKEW = 1.253758
 GUMBEL PARAMETERS: ALPHA = 1885.515 BETA = 2576.840

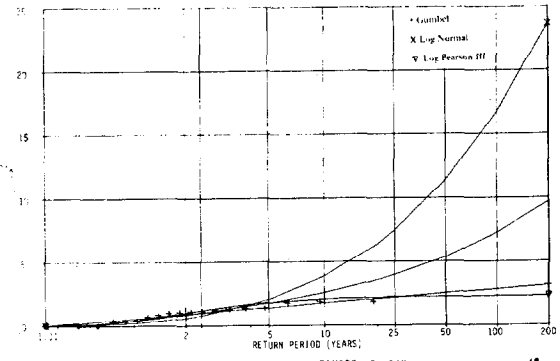
PERIOD	AVERAGE	QAVG/MEAN	RANK	GUMBEL	LOG	LOG	LOG
2.00	3128.44	.8466	3119.00	3287.80	3084.41	3810.12	
2.33	3488.74	.9465	3488.00	3783.88	3433.00	3305.16	
2.67	5217.89	1.4119	5180.00	5488.83	5102.00	5801.83	
3.00	6774.12	1.8321	6792.00	6944.91	6838.13	6727.32	
10.00	8774.12	2.4168	11616.00	8785.85	8780.11	9288.97	
25.00	10879.29	2.8892	12788.00	10151.38	10534.28	11343.33	
50.00	12548.85	3.3857	13254.00	11366.77	12480.81	13727.37	
100.00	14554.74	3.9386	13527.80	12857.31	14084.79	16422.32	

Appendix A-45. South Carolina 1-4. Flood frequency curves and data.



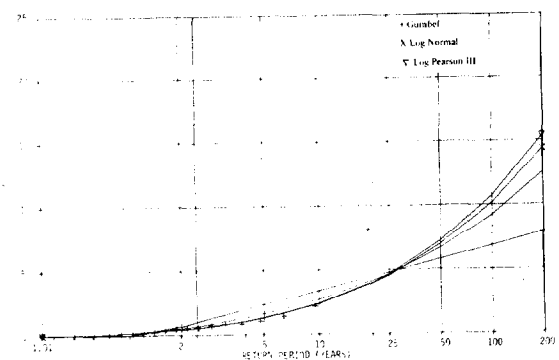
STATION 86399780 PINE CREEK NEAR ARDMORE, S. DAK. 46
 PEAK = 1550.0 CFS, AREA = 5.478 SQ MI, 18 DBS (1955-1972) 2 26003
 STATISTICAL VALUES: MEAN = 819.377 STD = 271.369 SKEW = -2.027440
 LOG NORMAL & PIII: MEAN = 2.720850 STD = .608620 SKEW = -2.020876
 GUMBEL PARAMETERS: ALPHA = .002088 BETA = .694.939

RETURN PERIOD	AVERAGE	QAV/GMEAN	PROB	GUMBEL	NORMAL	LOG PRN III
2.00	781.54	.8563	915.83	741.18	525.84	437.64
2.33	836.72	1.0130	955.71	820.77	578.29	496.19
5.00	1458.81	1.7885	1176.88	1142.81	1717.78	1562.85
10.00	2185.83	2.2693	1541.88	1441.97	3159.92	1764.11
25.00	3246.78	3.3549	1552.39	1754.68	6118.24	1807.87
50.00	4415.45	5.3894	1556.19	2056.35	9353.26	1836.74
100.00	5957.31	7.2714	1556.49	2316.85	13786.75	1848.89
200.00	7946.87	9.6908	1556.74	2574.86	19411.35	1854.39



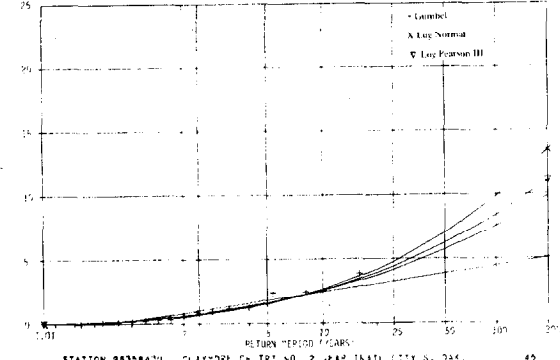
STATION 86399780 PINE CREEK NEAR ARDMORE, S. DAK. 46
 PEAK = 1550.0 CFS, AREA = 5.478 SQ MI, 18 DBS (1955-1972) 2 26003
 STATISTICAL VALUES: MEAN = 819.377 STD = 271.369 SKEW = -2.027440
 LOG NORMAL & PIII: MEAN = 2.720850 STD = .608620 SKEW = -2.020876
 GUMBEL PARAMETERS: ALPHA = .002088 BETA = .694.939

RETURN PERIOD	AVERAGE	QAV/GMEAN	PROB	GUMBEL	NORMAL	LOG PRN III
2.00	781.54	.8563	915.83	741.18	525.84	437.64
2.33	836.72	1.0130	955.71	820.77	578.29	496.19
5.00	1458.81	1.7885	1176.88	1142.81	1717.78	1562.85
10.00	2185.83	2.2693	1541.88	1441.97	3159.92	1764.11
25.00	3246.78	3.3549	1552.39	1754.68	6118.24	1807.87
50.00	4415.45	5.3894	1556.19	2056.35	9353.26	1836.74
100.00	5957.31	7.2714	1556.49	2316.85	13786.75	1848.89
200.00	7946.87	9.6908	1556.74	2574.86	19411.35	1854.39



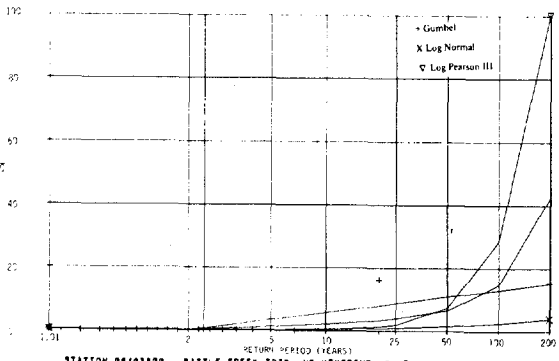
STATION 86399780 PINE CREEK NEAR ARDMORE, S. DAK. 46
 PEAK = 1550.0 CFS, AREA = 5.478 SQ MI, 18 DBS (1955-1972) 2 26003
 STATISTICAL VALUES: MEAN = 819.377 STD = 271.369 SKEW = -2.027440
 LOG NORMAL & PIII: MEAN = 2.720850 STD = .608620 SKEW = -2.020876
 GUMBEL PARAMETERS: ALPHA = .002088 BETA = .694.939

RETURN PERIOD	AVERAGE	QAV/GMEAN	PROB	GUMBEL	NORMAL	LOG PRN III
2.00	781.54	.8563	915.83	741.18	525.84	437.64
2.33	836.72	1.0130	955.71	820.77	578.29	496.19
5.00	1458.81	1.7885	1176.88	1142.81	1717.78	1562.85
10.00	2185.83	2.2693	1541.88	1441.97	3159.92	1764.11
25.00	3246.78	3.3549	1552.39	1754.68	6118.24	1807.87
50.00	4415.45	5.3894	1556.19	2056.35	9353.26	1836.74
100.00	5957.31	7.2714	1556.49	2316.85	13786.75	1848.89
200.00	7946.87	9.6908	1556.74	2574.86	19411.35	1854.39



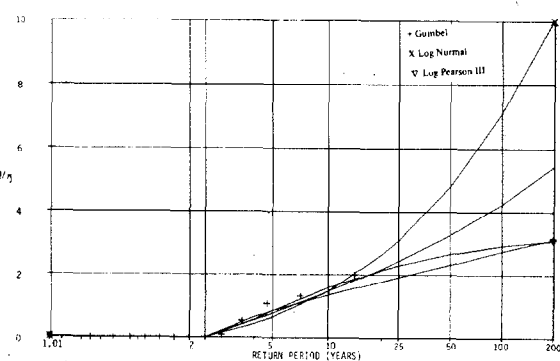
STATION 86399780 PINE CREEK NEAR ARDMORE, S. DAK. 46
 PEAK = 1550.0 CFS, AREA = 5.478 SQ MI, 18 DBS (1955-1972) 2 26003
 STATISTICAL VALUES: MEAN = 819.377 STD = 271.369 SKEW = -2.027440
 LOG NORMAL & PIII: MEAN = 2.720850 STD = .608620 SKEW = -2.020876
 GUMBEL PARAMETERS: ALPHA = .002088 BETA = .694.939

RETURN PERIOD	AVERAGE	QAV/GMEAN	PROB	GUMBEL	NORMAL	LOG PRN III
2.00	781.54	.8563	915.83	741.18	525.84	437.64
2.33	836.72	1.0130	955.71	820.77	578.29	496.19
5.00	1458.81	1.7885	1176.88	1142.81	1717.78	1562.85
10.00	2185.83	2.2693	1541.88	1441.97	3159.92	1764.11
25.00	3246.78	3.3549	1552.39	1754.68	6118.24	1807.87
50.00	4415.45	5.3894	1556.19	2056.35	9353.26	1836.74
100.00	5957.31	7.2714	1556.49	2316.85	13786.75	1848.89
200.00	7946.87	9.6908	1556.74	2574.86	19411.35	1854.39



STATION 86403880 BATTLE CREEK TRIB., NW KEYSTONE, S. DAK. 46
 PEAK = 1000.0 CFS, AREA = 3.980 SQ MI, 19 DBS (1956-1974) 2 26003
 STATISTICAL VALUES: MEAN = 82.828 STD = 321.815 SKEW = -1.122806
 LOG NORMAL & PIII: MEAN = .618867 STD = .738483 SKEW = -2.388861
 GUMBEL PARAMETERS: ALPHA = .005883 BETA = .92.897

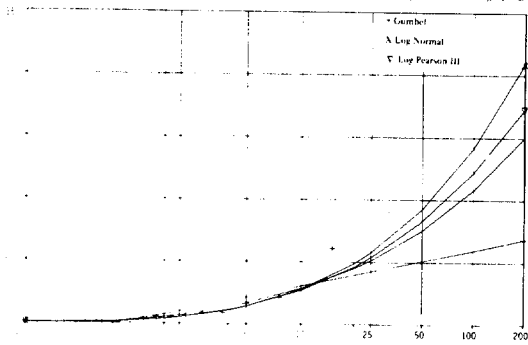
RETURN PERIOD	AVERAGE	QAV/GMEAN	PROB	GUMBEL	NORMAL	LOG PRN III
2.00	45.35	.7286	51.00	44.09	4.41	2.37
2.33	47.15	.7891	53.01	44.09	4.41	2.37
5.00	101.82	1.2412	5.28	282.35	15.17	7.92
10.00	177.65	2.1857	16.08	472.74	35.24	28.95
25.00	314.59	3.8351	1992.00	711.80	74.83	107.13
50.00	545.57	6.5911	2114.39	888.71	127.27	606.81
100.00	899.11	14.8297	2381.19	1084.18	284.31	2331.72
200.00	1475.77	42.3538	2512.59	1258.89	515.34	8872.96



STATION 86403880 BATTLE CREEK TRIB., NW KEYSTONE, S. DAK. 46
 PEAK = 1000.0 CFS, AREA = 3.980 SQ MI, 19 DBS (1956-1974) 2 26003
 STATISTICAL VALUES: MEAN = 82.828 STD = 321.815 SKEW = -1.122806
 LOG NORMAL & PIII: MEAN = .618867 STD = .738483 SKEW = -2.388861
 GUMBEL PARAMETERS: ALPHA = .005883 BETA = .92.897

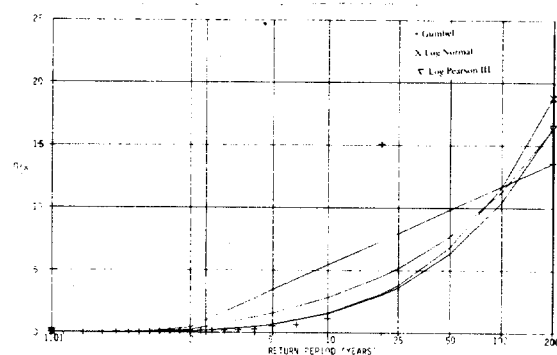
RETURN PERIOD	AVERAGE	QAV/GMEAN	PROB	GUMBEL	NORMAL	LOG PRN III
2.00	45.35	.7286	51.00	44.09	4.41	2.37
2.33	47.15	.7891	53.01	44.09	4.41	2.37
5.00	101.82	1.2412	5.28	282.35	15.17	7.92
10.00	177.65	2.1857	16.08	472.74	35.24	28.95
25.00	314.59	3.8351	1992.00	711.80	74.83	107.13
50.00	545.57	6.5911	2114.39	888.71	127.27	606.81
100.00	899.11	14.8297	2381.19	1084.18	284.31	2331.72
200.00	1475.77	42.3538	2512.59	1258.89	515.34	8872.96

Appendix A-46. South Dakota 1-6. Flood frequency curves and data.



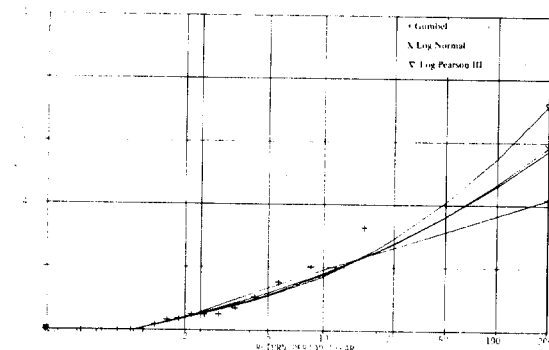
STATION #445292 SOUTH CREEK NEAR HILL CITY, S. DAK. 46
 PEAK = 17,000 CFS, AREA = 2,747 SQ MI, 14 DBS (1956-1960) 0 ZEROS
 STATISTICAL VALUES: MEAN = 27,457 STD = 66,311 SKEW = 2.992851
 LOG NORMAL & PIII: MEAN = 1,927196 STD = 574724 SKEW = -1.29854
 GUMBEL PARAMETERS: ALPHA = .70281 BETA = 7.214

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	14.76	.5755	15.78	22.59	12.54	11.86
2.33	14.45	.5744	16.14	22.59	12.54	11.86
5.00	44.22	1.6017	45.41	50.47	36.35	30.74
10.00	79.07	2.8778	81.45	85.74	57.37	44.88
25.00	141.50	5.1547	144.42	154.55	101.89	75.18
50.00	211.33	7.2476	217.59	228.85	159.84	119.36
100.00	277.47	9.2814	287.42	305.41	240.46	171.17
200.00	414.14	14.1722	422.47	441.55	341.78	251.78



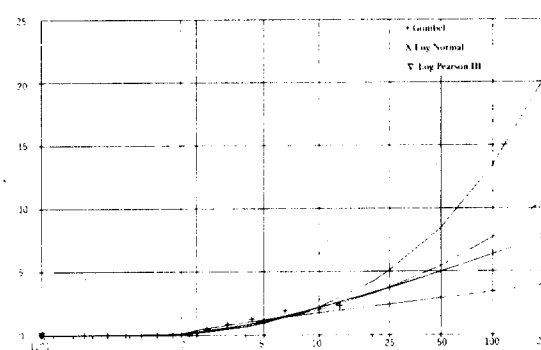
STATION #445292 SOUTH CREEK NEAR HILL CITY, S. DAK. 46
 PEAK = 17,000 CFS, AREA = 2,747 SQ MI, 14 DBS (1956-1960) 0 ZEROS
 STATISTICAL VALUES: MEAN = 27,457 STD = 66,311 SKEW = 2.992851
 LOG NORMAL & PIII: MEAN = 1,927196 STD = 574724 SKEW = -1.29854
 GUMBEL PARAMETERS: ALPHA = .70281 BETA = 7.214

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	84.58	.2356	42.88	127.76	38.22	39.17
2.33	84.58	.2356	42.88	127.76	38.22	39.17
5.00	464.28	1.5009	155.08	1804.86	193.49	194.78
10.00	826.54	2.6407	325.88	1585.25	451.54	444.88
25.00	1487.62	5.1080	5175.88	2318.82	1119.36	1050.68
50.00	2235.63	7.7948	6797.88	2863.83	1999.88	1845.37
100.00	3271.42	11.2756	7664.88	3483.21	3388.38	3038.56
200.00	4717.45	16.2558	8618.58	4241.42	5454.82	4757.83



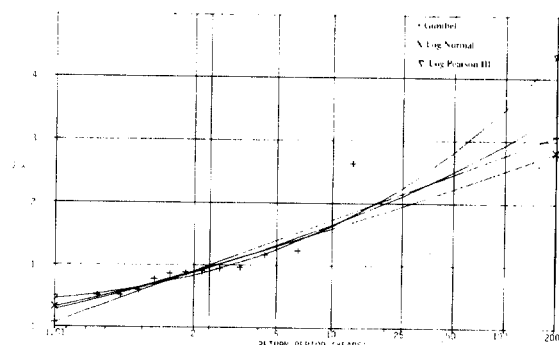
STATION #445292 SOUTH CREEK NEAR HILL CITY, S. DAK. 46
 PEAK = 17,000 CFS, AREA = 2,747 SQ MI, 14 DBS (1956-1960) 0 ZEROS
 STATISTICAL VALUES: MEAN = 27,457 STD = 66,311 SKEW = 2.992851
 LOG NORMAL & PIII: MEAN = 1,927196 STD = 574724 SKEW = -1.29854
 GUMBEL PARAMETERS: ALPHA = .70281 BETA = 7.214

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	211.15	.4853	227.30	201.17	226.27	212.88
2.33	208.19	.4851	228.28	201.17	226.27	212.88
5.00	623.92	1.1977	690.48	620.31	788.31	569.72
10.00	948.76	1.8868	1252.80	1026.79	921.33	894.26
25.00	1443.84	2.7717	1994.79	1374.49	1455.78	1521.26
50.00	1891.80	3.8214	2122.50	1844.62	1895.62	2135.25
100.00	2402.42	4.8119	2231.19	1911.83	2436.91	2858.52
200.00	2969.17	5.7526	2285.59	2177.60	3048.54	3731.38



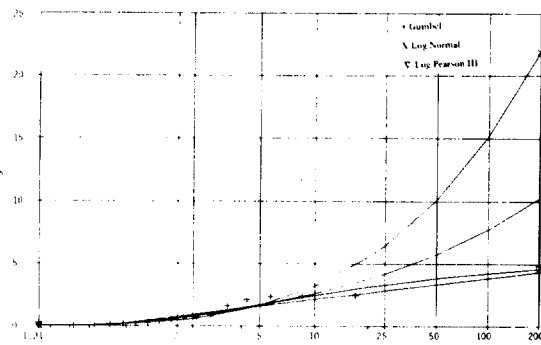
STATION #445292 SOUTH CREEK NEAR HILL CITY, S. DAK. 46
 PEAK = 17,000 CFS, AREA = 2,747 SQ MI, 14 DBS (1956-1960) 0 ZEROS
 STATISTICAL VALUES: MEAN = 27,457 STD = 66,311 SKEW = 2.992851
 LOG NORMAL & PIII: MEAN = 1,927196 STD = 574724 SKEW = -1.29854
 GUMBEL PARAMETERS: ALPHA = .70281 BETA = 7.214

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	16.25	.1144	6.28	12.03	14.95	14.88
2.33	16.25	.1144	6.28	12.03	14.95	14.88
5.00	34.85	.2738	37.71	37.47	57.47	31.72
10.00	174.13	1.1744	214.09	174.70	135.33	135.27
25.00	284.21	2.1437	313.39	284.18	312.67	349.78
50.00	534.09	3.7511	556.34	534.30	727.38	528.48
100.00	775.12	5.4511	575.94	775.94	1242.42	715.39
200.00	1007.47	7.7315	577.84	1007.84	1535.15	942.41
200.00	1505.58	11.2721	581.42	1504.37	2872.14	1469.35



STATION #445292 SOUTH CREEK NEAR HILL CITY, S. DAK. 46
 PEAK = 17,000 CFS, AREA = 2,747 SQ MI, 14 DBS (1956-1960) 0 ZEROS
 STATISTICAL VALUES: MEAN = 27,457 STD = 66,311 SKEW = 2.992851
 LOG NORMAL & PIII: MEAN = 1,927196 STD = 574724 SKEW = -1.29854
 GUMBEL PARAMETERS: ALPHA = .70281 BETA = 7.214

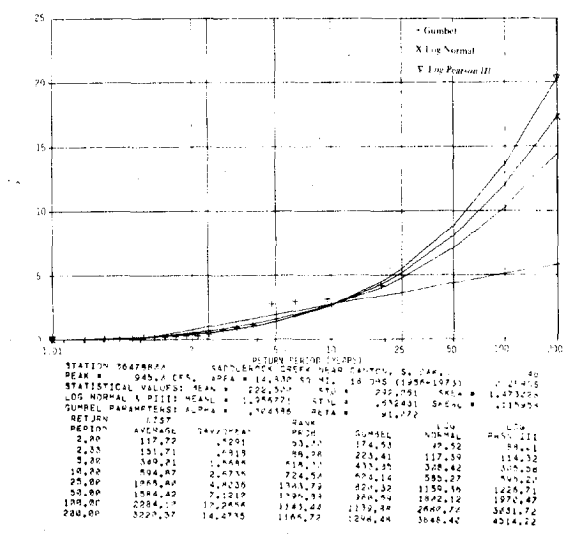
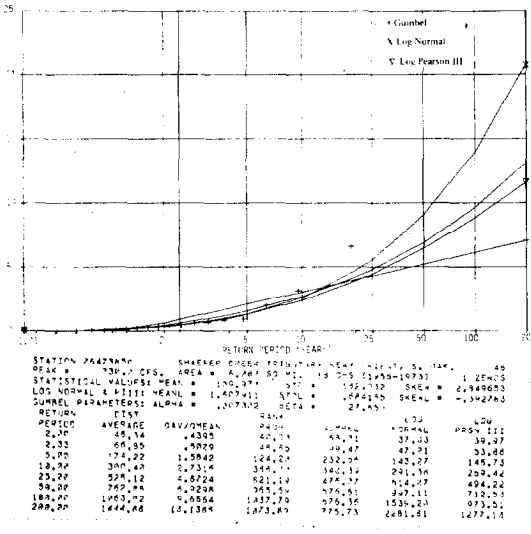
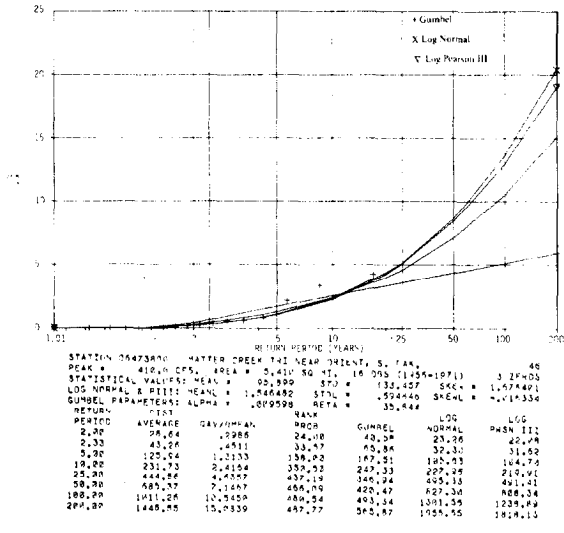
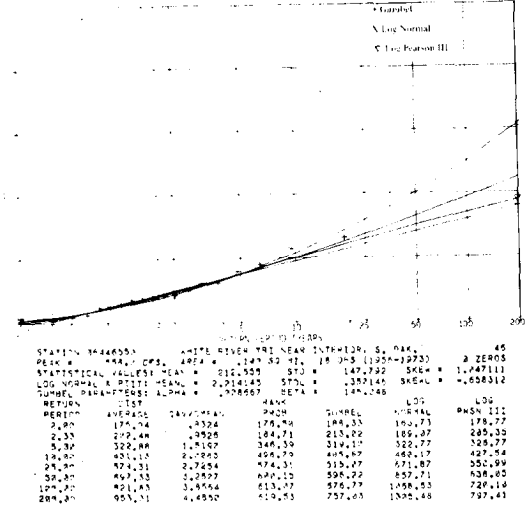
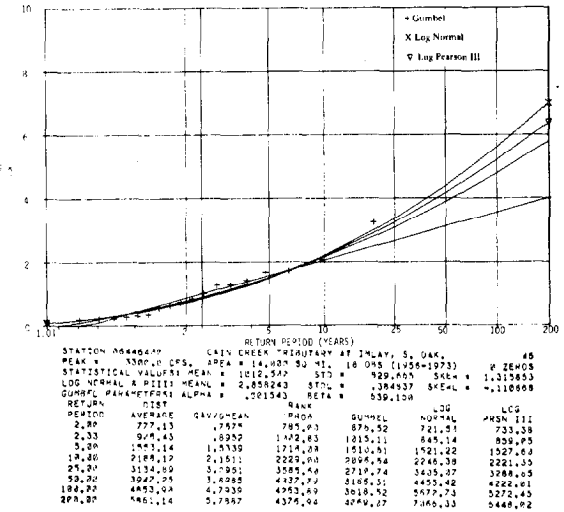
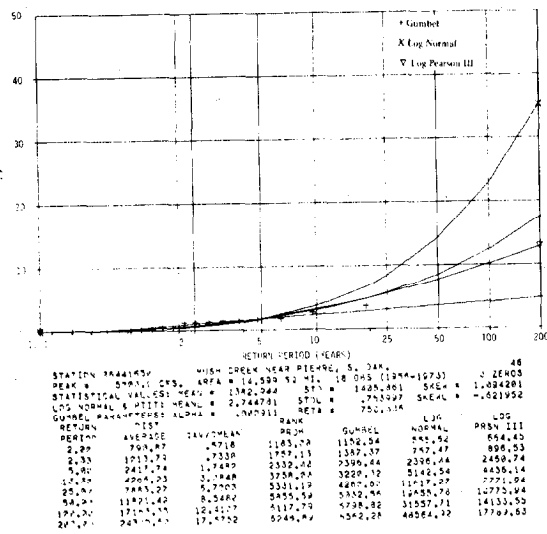
RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	45.78	.8817	46.58	47.14	46.58	45.38
2.33	45.78	.8817	46.58	47.14	46.58	45.38
5.00	65.77	1.3248	62.68	63.80	62.68	61.81
10.00	85.87	1.8532	81.19	80.28	82.01	84.79
25.00	118.83	2.1183	111.07	101.85	116.55	116.55
50.00	136.17	2.5881	137.95	127.95	136.33	136.33
100.00	152.44	2.9348	143.91	131.11	162.29	162.29
200.00	177.29	3.4154	159.61	146.31	205.75	205.75



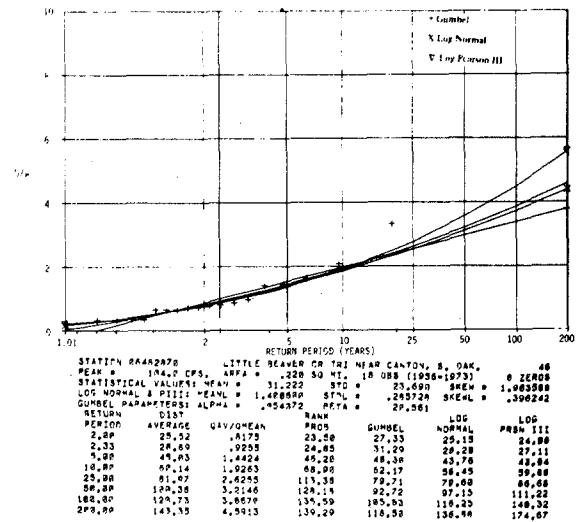
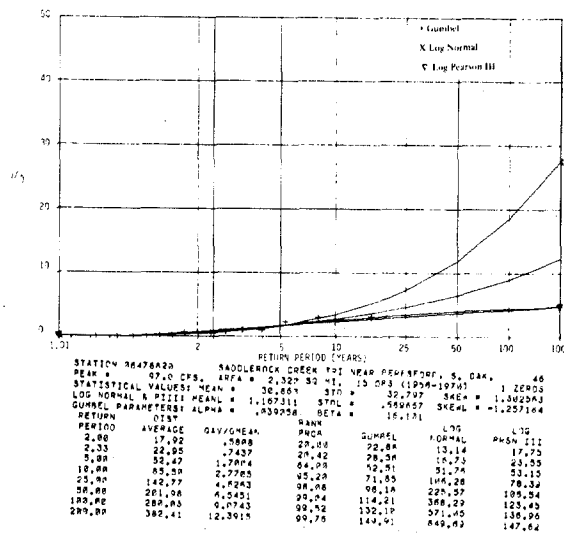
STATION #445292 SOUTH CREEK NEAR HILL CITY, S. DAK. 46
 PEAK = 17,000 CFS, AREA = 2,747 SQ MI, 14 DBS (1956-1960) 0 ZEROS
 STATISTICAL VALUES: MEAN = 27,457 STD = 66,311 SKEW = 2.992851
 LOG NORMAL & PIII: MEAN = 1,927196 STD = 574724 SKEW = -1.29854
 GUMBEL PARAMETERS: ALPHA = .70281 BETA = 7.214

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	NORMAL	PRSN III
2.00	53.97	.8258	52.58	52.58	46.45	52.74
2.33	53.97	.8258	52.58	52.58	46.45	52.74
5.00	141.73	1.4713	132.79	137.22	142.18	145.81
10.00	225.12	2.3312	207.19	207.19	274.96	216.78
25.00	358.14	4.2254	211.28	245.82	349.85	283.37
50.00	491.26	5.7932	212.93	285.58	489.85	327.55
100.00	656.76	7.3885	215.11	324.58	683.41	383.41
200.00	872.65	10.2047	213.45	371.48	1054.34	592.16

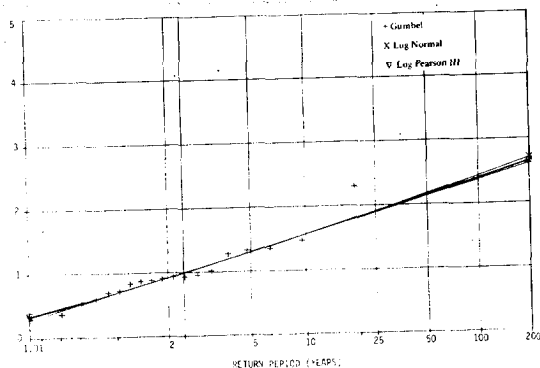
Appendix A-46. South Dakota 7-12. Flood frequency curves and data.



Appendix A-46. South Dakota 13-18. Flood frequency curves and data.

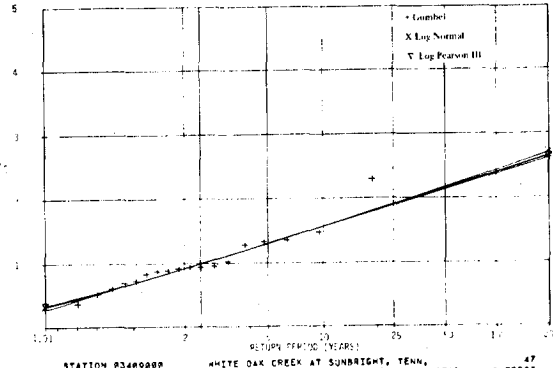


Appendix A-46. South Dakota 19-20. Flood frequency curves and data.



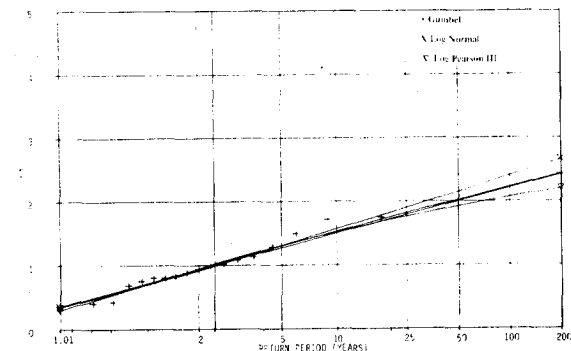
STATION 03409000 WHITE OAK CREEK AT SUNBRIGHT, TENN. 47
 PEAK = 409.0 CFS. AREA = 13,500 SQ MI. 18 OBS (1920-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 2136.066 STD = 535.772 SKEW = 1.487065
 LOG NORMAL & PIII: MEAN = 3.203886 STD = 1.01853 SKEW = -1.559623
 GUMBEL PARAMETERS: ALPHA = .061359 BETA = 1715.568

RETURN PERIOD	AVERAGE	DAV/OEAM	RANK	GUMBEL	NORMAL	LOG PRSN III
2.00	1975.34	.9245	1975.00	1983.30	1987.28	1975.46
2.33	2129.53	.9806	2088.00	2139.81	2119.95	2129.84
5.00	2885.84	1.3122	2888.00	2811.27	2798.50	2881.58
10.00	3359.78	1.5724	3334.00	3359.46	3364.78	3359.11
25.00	4088.07	1.9943	4057.00	4050.18	4095.52	4050.38
50.00	4608.82	2.1531	4578.00	4555.03	4649.34	4586.58
100.00	5134.34	2.4839	5089.00	5075.97	5211.75	5115.89
200.00	5672.53	2.6546	5644.00	5584.13	5782.78	5586.08



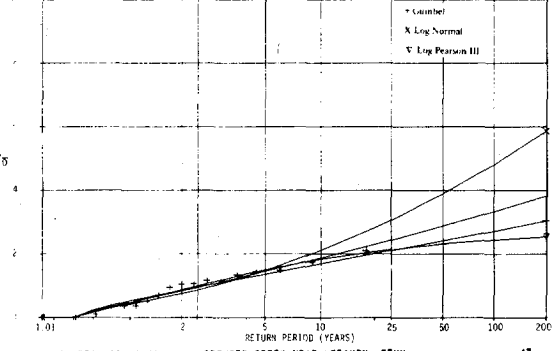
STATION 03409000 WHITE OAK CREEK AT SUNBRIGHT, TENN. 47
 PEAK = 409.0 CFS. AREA = 13,500 SQ MI. 18 OBS (1920-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 2136.066 STD = 535.772 SKEW = 1.487065
 LOG NORMAL & PIII: MEAN = 3.203886 STD = 1.01853 SKEW = -1.559623
 GUMBEL PARAMETERS: ALPHA = .061359 BETA = 1715.568

RETURN PERIOD	AVERAGE	DAV/OEAM	RANK	GUMBEL	NORMAL	LOG PRSN III
2.00	1975.34	.9245	1975.00	1983.30	1987.28	1975.46
2.33	2129.53	.9806	2088.00	2139.81	2119.95	2129.84
5.00	2885.84	1.3122	2888.00	2811.27	2798.50	2881.58
10.00	3359.78	1.5724	3334.00	3359.46	3364.78	3359.11
25.00	4088.07	1.9943	4057.00	4050.18	4095.52	4050.38
50.00	4608.82	2.1531	4578.00	4555.03	4649.34	4586.58
100.00	5134.34	2.4839	5089.00	5075.97	5211.75	5115.89
200.00	5672.53	2.6546	5644.00	5584.13	5782.78	5586.08



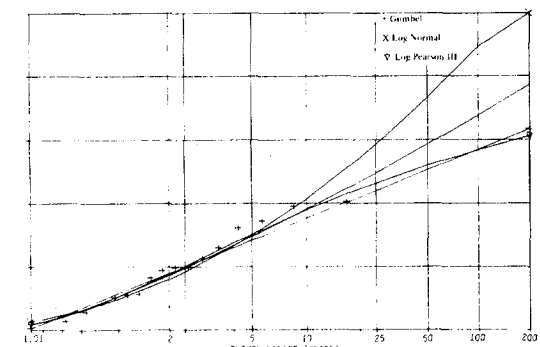
STATION 03425700 SPENCER CREEK NEAR LEBANON, TENN. 47
 PEAK = 932.0 CFS. AREA = 35,299 SQ MI. 17 OBS (1955-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 3336.411 STD = 2892.175 SKEW = .955445
 LOG NORMAL & PIII: MEAN = 3.695115 STD = 1.178283 SKEW = -1.493584
 GUMBEL PARAMETERS: ALPHA = .069321 BETA = 4411.431

RETURN PERIOD	AVERAGE	DAV/OEAM	RANK	GUMBEL	NORMAL	LOG PRSN III
2.00	5827.91	.9415	5828.00	5891.44	4953.79	5125.38
2.33	5994.69	1.0185	5389.07	5345.96	5332.48	5385.65
5.00	6996.36	1.3328	7388.00	6926.05	7888.42	7842.59
10.00	8185.13	1.5348	8178.00	8034.18	8385.25	8106.84
25.00	9721.32	1.8287	9383.10	9585.48	10166.55	9437.73
50.00	10851.65	2.0284	9491.50	10692.82	11011.79	10298.84
100.00	11921.85	2.2328	9485.79	11816.81	12874.75	11873.09
200.00	12907.38	2.4342	9582.89	12936.67	14255.84	11799.58



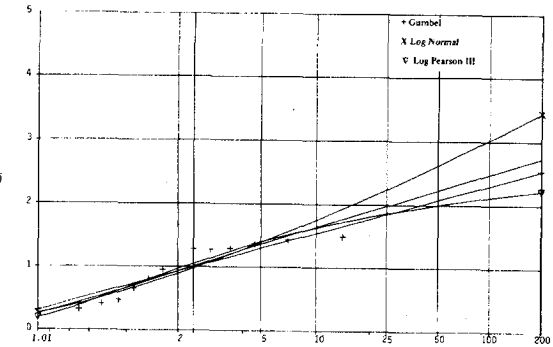
STATION 03425700 SPENCER CREEK NEAR LEBANON, TENN. 47
 PEAK = 932.0 CFS. AREA = 35,299 SQ MI. 17 OBS (1955-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 3336.411 STD = 2892.175 SKEW = .955445
 LOG NORMAL & PIII: MEAN = 3.695115 STD = 1.178283 SKEW = -1.493584
 GUMBEL PARAMETERS: ALPHA = .069321 BETA = 4411.431

RETURN PERIOD	AVERAGE	DAV/OEAM	RANK	GUMBEL	NORMAL	LOG PRSN III
2.00	5827.91	.9415	5828.00	5891.44	4953.79	5125.38
2.33	5994.69	1.0185	5389.07	5345.96	5332.48	5385.65
5.00	6996.36	1.3328	7388.00	6926.05	7888.42	7842.59
10.00	8185.13	1.5348	8178.00	8034.18	8385.25	8106.84
25.00	9721.32	1.8287	9383.10	9585.48	10166.55	9437.73
50.00	10851.65	2.0284	9491.50	10692.82	11011.79	10298.84
100.00	11921.85	2.2328	9485.79	11816.81	12874.75	11873.09
200.00	12907.38	2.4342	9582.89	12936.67	14255.84	11799.58



STATION 03425700 SPENCER CREEK NEAR LEBANON, TENN. 47
 PEAK = 932.0 CFS. AREA = 35,299 SQ MI. 17 OBS (1955-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 3336.411 STD = 2892.175 SKEW = .955445
 LOG NORMAL & PIII: MEAN = 3.695115 STD = 1.178283 SKEW = -1.493584
 GUMBEL PARAMETERS: ALPHA = .069321 BETA = 4411.431

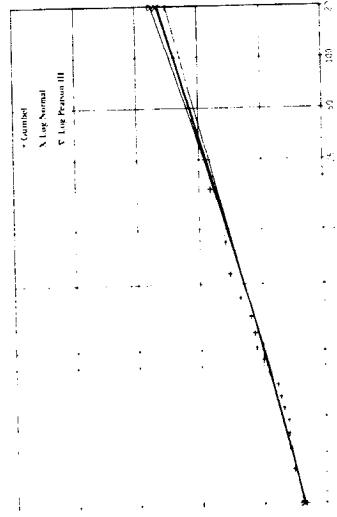
RETURN PERIOD	AVERAGE	DAV/OEAM	RANK	GUMBEL	NORMAL	LOG PRSN III
2.00	5827.91	.9415	5828.00	5891.44	4953.79	5125.38
2.33	5994.69	1.0185	5389.07	5345.96	5332.48	5385.65
5.00	6996.36	1.3328	7388.00	6926.05	7888.42	7842.59
10.00	8185.13	1.5348	8178.00	8034.18	8385.25	8106.84
25.00	9721.32	1.8287	9383.10	9585.48	10166.55	9437.73
50.00	10851.65	2.0284	9491.50	10692.82	11011.79	10298.84
100.00	11921.85	2.2328	9485.79	11816.81	12874.75	11873.09
200.00	12907.38	2.4342	9582.89	12936.67	14255.84	11799.58



STATION 03425700 SPENCER CREEK NEAR LEBANON, TENN. 47
 PEAK = 932.0 CFS. AREA = 35,299 SQ MI. 17 OBS (1955-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 3336.411 STD = 2892.175 SKEW = .955445
 LOG NORMAL & PIII: MEAN = 3.695115 STD = 1.178283 SKEW = -1.493584
 GUMBEL PARAMETERS: ALPHA = .069321 BETA = 4411.431

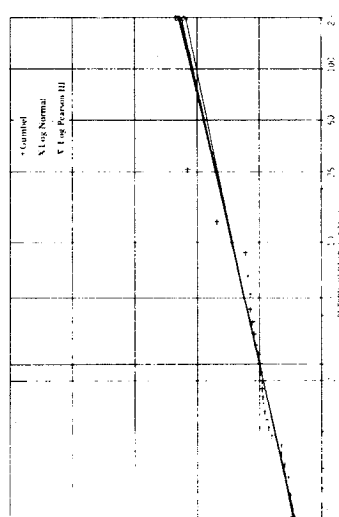
RETURN PERIOD	AVERAGE	DAV/OEAM	RANK	GUMBEL	NORMAL	LOG PRSN III
2.00	5827.91	.9415	5828.00	5891.44	4953.79	5125.38
2.33	5994.69	1.0185	5389.07	5345.96	5332.48	5385.65
5.00	6996.36	1.3328	7388.00	6926.05	7888.42	7842.59
10.00	8185.13	1.5348	8178.00	8034.18	8385.25	8106.84
25.00	9721.32	1.8287	9383.10	9585.48	10166.55	9437.73
50.00	10851.65	2.0284	9491.50	10692.82	11011.79	10298.84
100.00	11921.85	2.2328	9485.79	11816.81	12874.75	11873.09
200.00	12907.38	2.4342	9582.89	12936.67	14255.84	11799.58

Appendix A-47. Tennessee 1-6. Flood frequency curves and data.



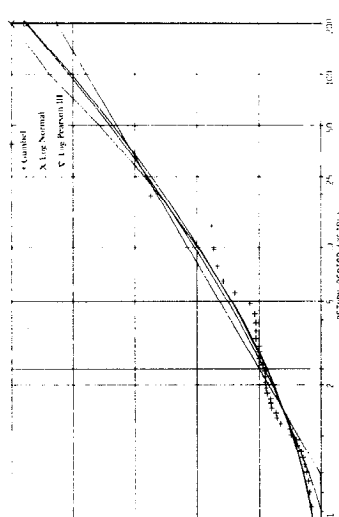
STATION 3393B
BIG CREEK NEAR ROGERSVILLE, TENN.
STATISTICAL VALUES: MEAN = 1000.00 STD = 1000.00
LOG NORMAL: MEAN = 1000.00 STD = 1000.00
LOG PEARSON III: MEAN = 1000.00 STD = 1000.00
GUMBEL: MEAN = 1000.00 STD = 1000.00
RETURN PERIOD (YEARS): 2 5 10 25 50 100 200

STATION 3393B
BIG CREEK NEAR ROGERSVILLE, TENN.
STATISTICAL VALUES: MEAN = 1000.00 STD = 1000.00
LOG NORMAL: MEAN = 1000.00 STD = 1000.00
LOG PEARSON III: MEAN = 1000.00 STD = 1000.00
GUMBEL: MEAN = 1000.00 STD = 1000.00
RETURN PERIOD (YEARS): 2 5 10 25 50 100 200

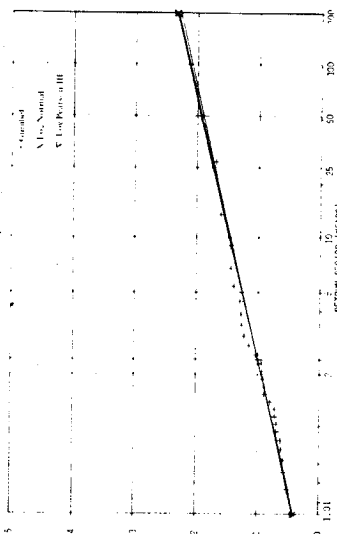


STATION 3393B
BIG CREEK NEAR ROGERSVILLE, TENN.
STATISTICAL VALUES: MEAN = 1000.00 STD = 1000.00
LOG NORMAL: MEAN = 1000.00 STD = 1000.00
LOG PEARSON III: MEAN = 1000.00 STD = 1000.00
GUMBEL: MEAN = 1000.00 STD = 1000.00
RETURN PERIOD (YEARS): 2 5 10 25 50 100 200

STATION 3393B
BIG CREEK NEAR ROGERSVILLE, TENN.
STATISTICAL VALUES: MEAN = 1000.00 STD = 1000.00
LOG NORMAL: MEAN = 1000.00 STD = 1000.00
LOG PEARSON III: MEAN = 1000.00 STD = 1000.00
GUMBEL: MEAN = 1000.00 STD = 1000.00
RETURN PERIOD (YEARS): 2 5 10 25 50 100 200

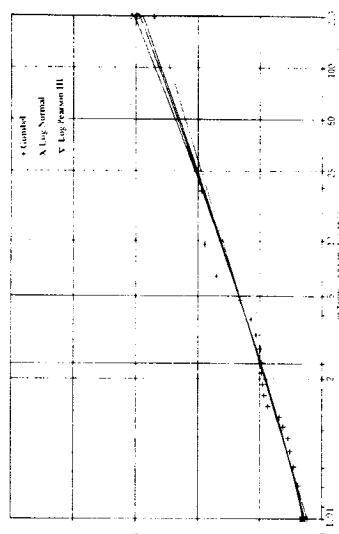


STATION 3393B
BIG CREEK NEAR ROGERSVILLE, TENN.
STATISTICAL VALUES: MEAN = 1000.00 STD = 1000.00
LOG NORMAL: MEAN = 1000.00 STD = 1000.00
LOG PEARSON III: MEAN = 1000.00 STD = 1000.00
GUMBEL: MEAN = 1000.00 STD = 1000.00
RETURN PERIOD (YEARS): 2 5 10 25 50 100 200



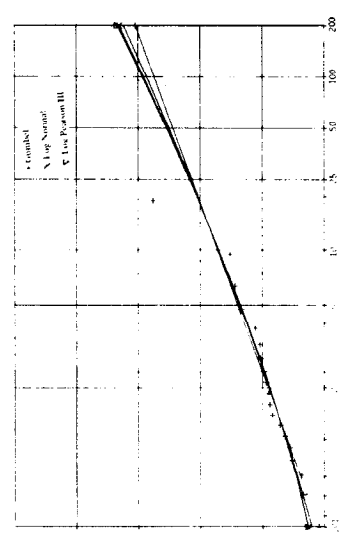
STATION 3393B
BIG CREEK NEAR ROGERSVILLE, TENN.
STATISTICAL VALUES: MEAN = 1000.00 STD = 1000.00
LOG NORMAL: MEAN = 1000.00 STD = 1000.00
LOG PEARSON III: MEAN = 1000.00 STD = 1000.00
GUMBEL: MEAN = 1000.00 STD = 1000.00
RETURN PERIOD (YEARS): 2 5 10 25 50 100 200

STATION 3393B
BIG CREEK NEAR ROGERSVILLE, TENN.
STATISTICAL VALUES: MEAN = 1000.00 STD = 1000.00
LOG NORMAL: MEAN = 1000.00 STD = 1000.00
LOG PEARSON III: MEAN = 1000.00 STD = 1000.00
GUMBEL: MEAN = 1000.00 STD = 1000.00
RETURN PERIOD (YEARS): 2 5 10 25 50 100 200



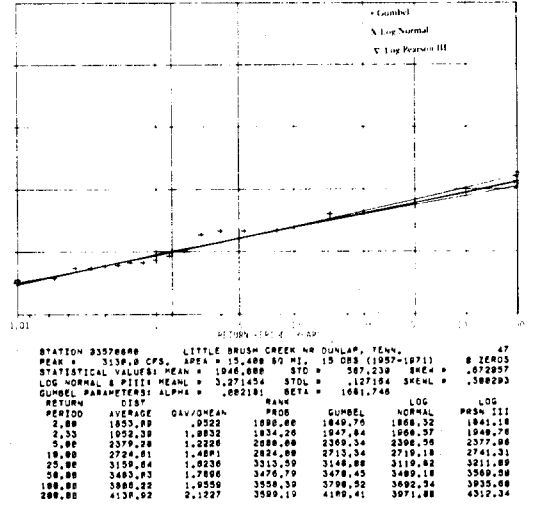
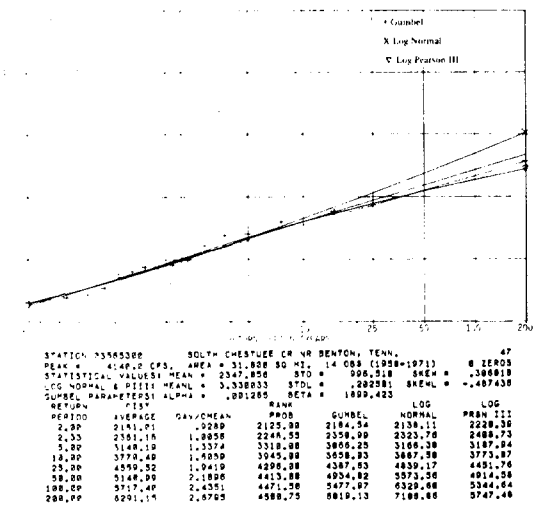
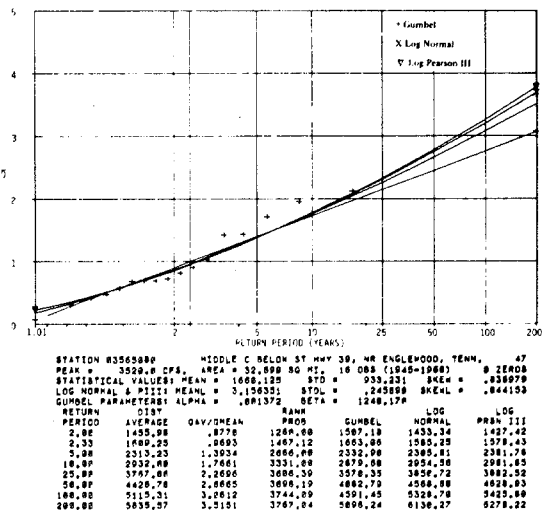
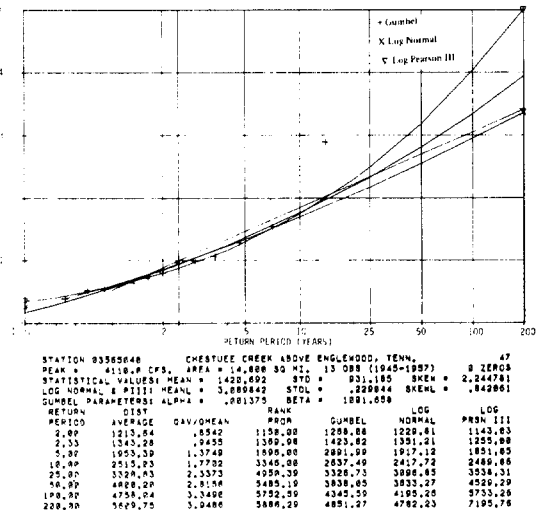
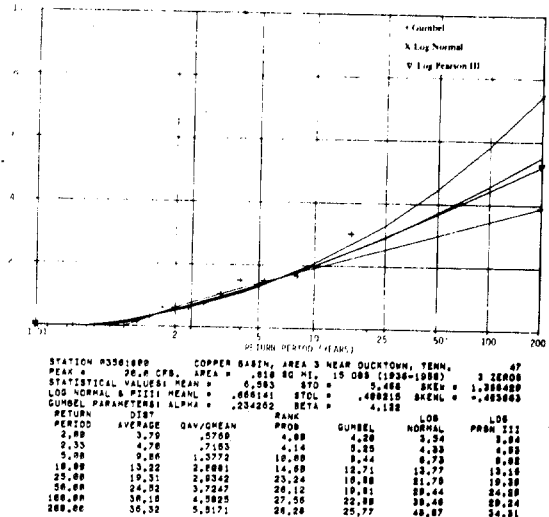
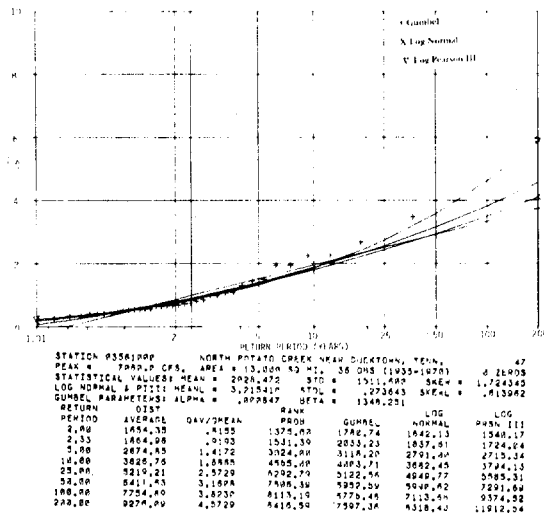
STATION 3393B
BIG CREEK NEAR ROGERSVILLE, TENN.
STATISTICAL VALUES: MEAN = 1000.00 STD = 1000.00
LOG NORMAL: MEAN = 1000.00 STD = 1000.00
LOG PEARSON III: MEAN = 1000.00 STD = 1000.00
GUMBEL: MEAN = 1000.00 STD = 1000.00
RETURN PERIOD (YEARS): 2 5 10 25 50 100 200

STATION 3393B
BIG CREEK NEAR ROGERSVILLE, TENN.
STATISTICAL VALUES: MEAN = 1000.00 STD = 1000.00
LOG NORMAL: MEAN = 1000.00 STD = 1000.00
LOG PEARSON III: MEAN = 1000.00 STD = 1000.00
GUMBEL: MEAN = 1000.00 STD = 1000.00
RETURN PERIOD (YEARS): 2 5 10 25 50 100 200

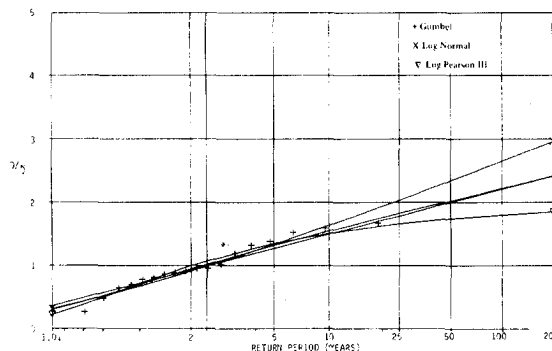
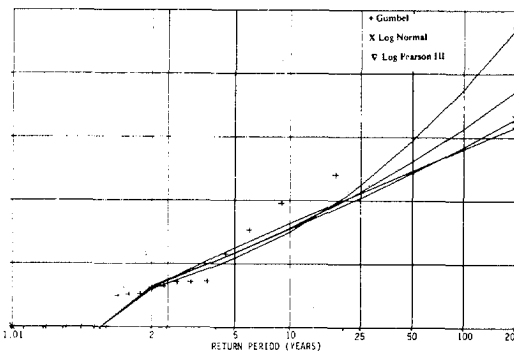
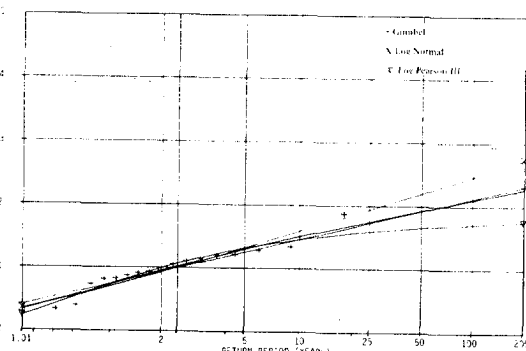
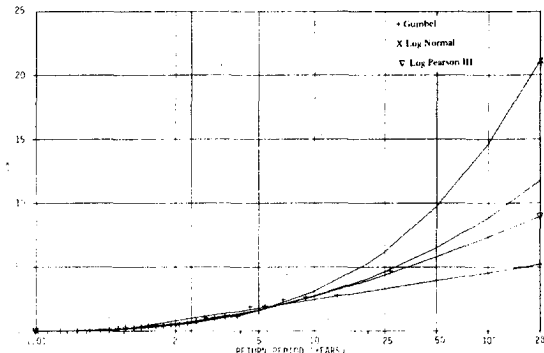
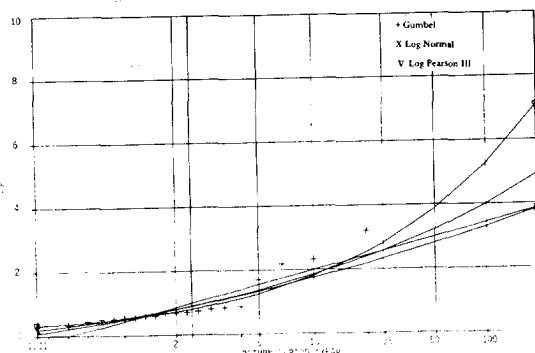


STATION 3393B
BIG CREEK NEAR ROGERSVILLE, TENN.
STATISTICAL VALUES: MEAN = 1000.00 STD = 1000.00
LOG NORMAL: MEAN = 1000.00 STD = 1000.00
LOG PEARSON III: MEAN = 1000.00 STD = 1000.00
GUMBEL: MEAN = 1000.00 STD = 1000.00
RETURN PERIOD (YEARS): 2 5 10 25 50 100 200

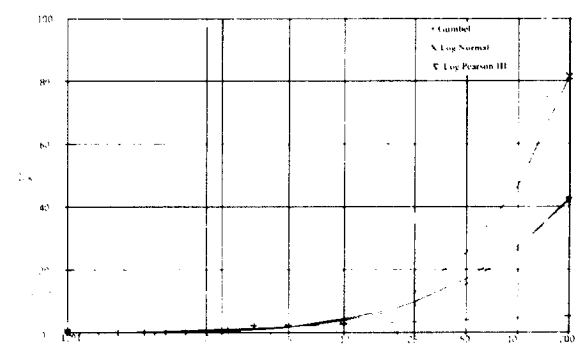
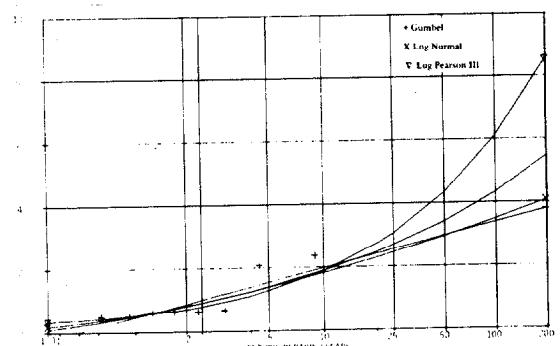
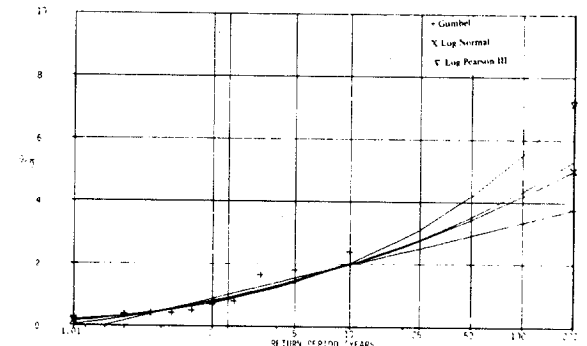
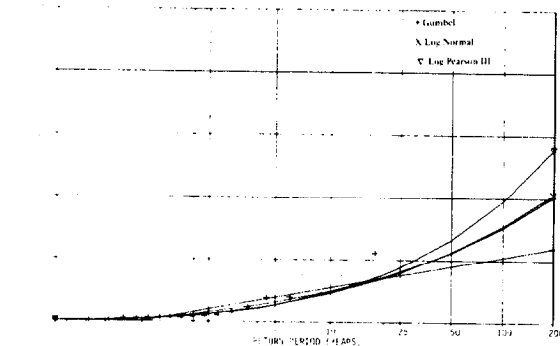
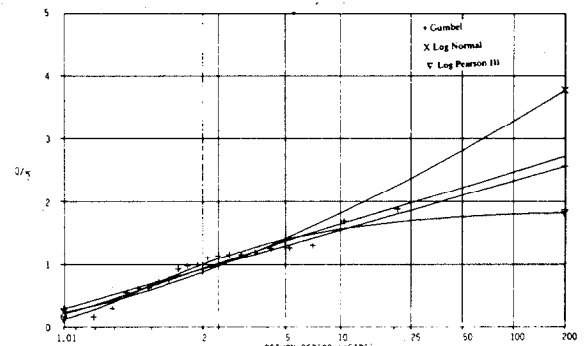
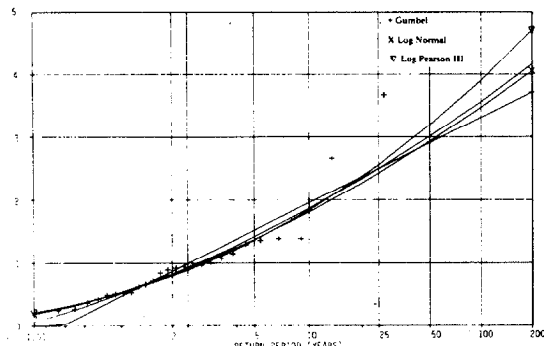
Appendix A-47. Tennessee 7-12. Flood frequency curves and data.



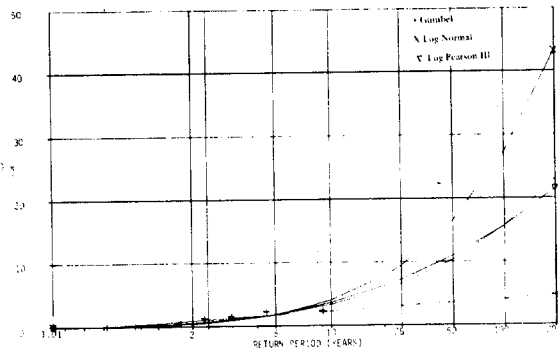
Appendix A-47. Tennessee 19-24. Flood frequency curves and data.



Appendix A-47. Tennessee 25-29. Flood frequency curves and data.

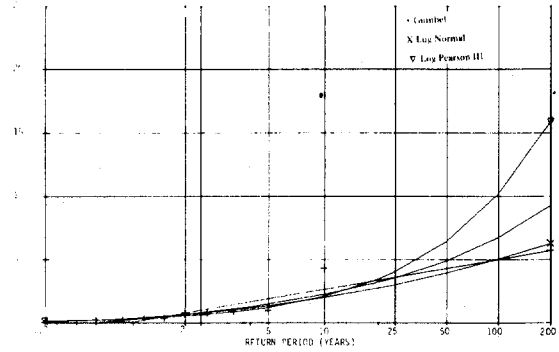


Appendix A-48. Texas 1-6. Flood frequency curves and data.



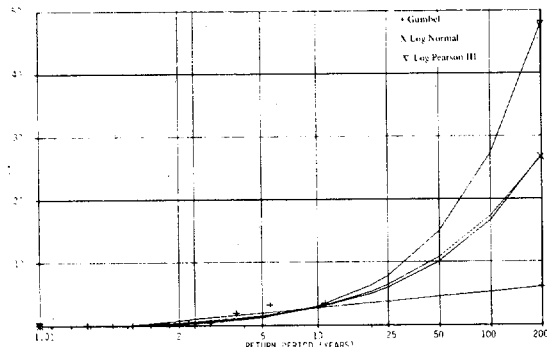
STATION 88133798 BULL CREEK NEAR POPSON, TEX. 48
 PEAK = 297.8 CFS, AREA = 1,408.80 AC, 8 OBS (1967-1974) 0 ZEROS
 STATISTICAL VALUES: MEAN = 111.625 STD = 189.288 SKEW = .342892
 LOG NORMAL & PIII: MEAN = 1.827924 STD = .707980 SKEW = -.497864
 GUMBEL PARAMETERS: ALPHA = .011729 BETA = 82.481

RETURN PERIOD	AVERAGE	DAY/MEAN	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	81.40	.5592	99.98	93.72	42.48	48.08
2.33	78.60	.7886	144.99	111.96	58.93	66.39
5.00	108.62	1.7749	253.79	198.35	199.37	284.34
10.00	388.92	5.3104	257.39	254.33	447.41	486.63
25.00	734.84	6.5759	259.56	335.16	1859.04	807.01
50.00	1159.03	16.3555	288.27	395.13	1849.24	1223.43
100.00	1751.71	15.0928	288.63	454.63	3892.14	1748.34
200.00	2573.57	23.8553	288.81	513.98	4818.66	2398.18



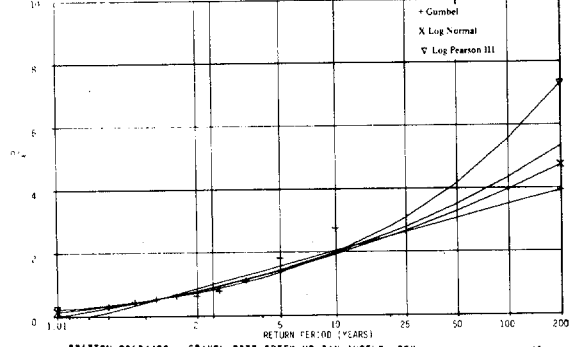
STATION 88133388 QUARRY CREEK NEAR STERLING CITY, TEX. 48
 PEAK = 2120.8 CFS, AREA = 3,282.50 AC, 9 OBS (1968-1974) 0 ZEROS
 STATISTICAL VALUES: MEAN = 488.444 STD = 625.999 SKEW = 2.749241
 LOG NORMAL & PIII: MEAN = 2.582381 STD = .382749 SKEW = 1.197498
 GUMBEL PARAMETERS: ALPHA = .082346 BETA = 288.744

RETURN PERIOD	AVERAGE	DAY/MEAN	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	324.36	.5648	378.88	385.85	317.98	300.97
2.33	302.87	.8826	377.14	409.41	372.13	313.66
5.00	738.92	1.5128	475.88	939.73	887.69	889.33
10.00	1188.98	2.2782	2126.88	1386.45	983.89	1036.37
25.00	1747.74	3.5781	3187.88	1749.88	1488.63	1885.38
50.00	2488.43	4.9388	3436.88	2115.54	1943.33	3188.43
100.00	3393.43	6.7531	3888.58	2454.74	2471.28	4884.87
200.00	4542.88	9.2988	3882.75	2794.69	3878.81	7750.74



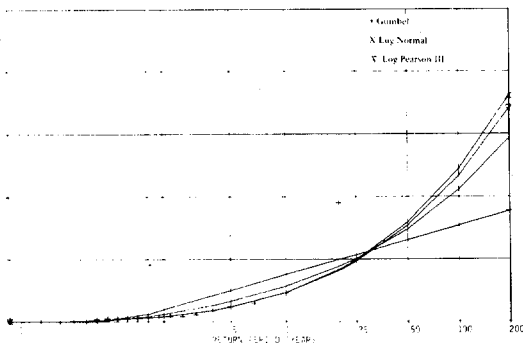
STATION 88134388 NOLKE STATION CREEK NEAR SAN ANGELO, TEX. 48
 PEAK = 388.0 CFS, AREA = 509.50 AC, 10 OBS (1965-1974) 0 ZEROS
 STATISTICAL VALUES: MEAN = 86.799 STD = 116.443 SKEW = 1.239348
 LOG NORMAL & PIII: MEAN = 1.433439 STD = .758824 SKEW = -.359971
 GUMBEL PARAMETERS: ALPHA = .010813 BETA = 33.588

RETURN PERIOD	AVERAGE	DAY/MEAN	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	39.66	.4559	27.58	67.38	27.12	24.45
2.33	52.49	.6847	41.28	87.17	35.92	33.37
5.00	133.30	1.8388	258.79	175.18	115.18	111.68
10.00	258.71	2.8883	298.89	241.57	248.21	282.34
25.00	523.84	5.1327	319.63	520.24	559.38	681.31
50.00	879.33	18.1396	314.81	394.27	942.15	1301.58
100.00	1444.29	18.7392	316.98	458.83	1588.64	2385.88
200.00	2328.75	76.8285	317.95	523.15	2318.98	4146.12



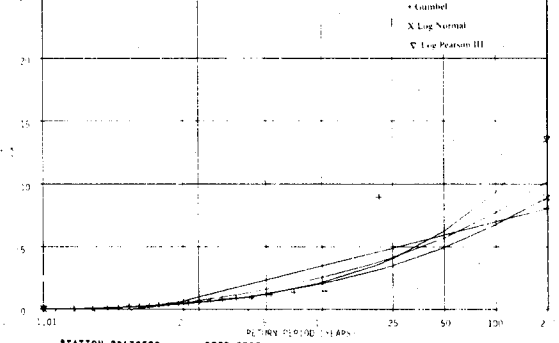
STATION 88134488 GRAVEL PITT CREEK NEAR SAN ANGELO, TEX. 48
 PEAK = 62.8 CFS, AREA = 198.50 AC, 9 OBS (1968-1974) 0 ZEROS
 STATISTICAL VALUES: MEAN = 22.355 STD = 17.958 SKEW = 1.647933
 LOG NORMAL & PIII: MEAN = 1.252768 STD = .381688 SKEW = .079417
 GUMBEL PARAMETERS: ALPHA = .071328 BETA = 14.473

RETURN PERIOD	AVERAGE	DAY/MEAN	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	18.82	.7888	14.88	18.61	17.89	16.55
2.33	28.53	.9183	16.85	22.61	28.25	18.73
5.00	39.93	1.4585	41.88	35.58	32.87	38.98
10.00	44.85	1.8885	65.88	46.92	43.38	45.55
25.00	63.87	2.7983	74.58	59.31	68.23	80.66
50.00	79.24	3.5132	78.88	68.17	74.38	94.24
100.00	98.95	4.3474	88.28	78.86	89.78	125.44
200.00	128.98	5.3239	81.95	88.71	106.62	164.91



STATION 88135000 DEEP CREEK NEAR MERCURY, TEX. 48
 PEAK = 7492.7 CFS, AREA = 5,420.43 AC, 19 OBS (1953-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 779.415 STD = 187.126 SKEW = 3.872664
 LOG NORMAL & PIII: MEAN = 2.482293 STD = .677455 SKEW = -.239379
 GUMBEL PARAMETERS: ALPHA = .019786 BETA = 27.445

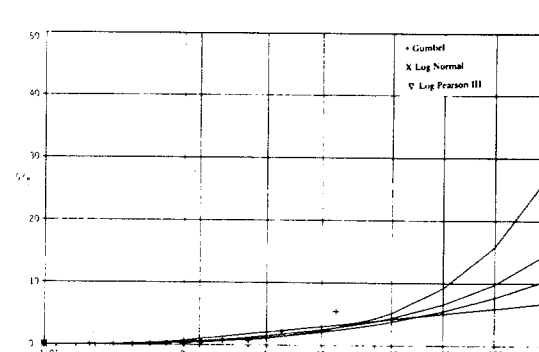
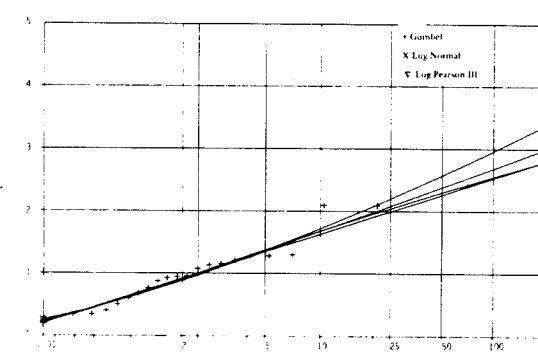
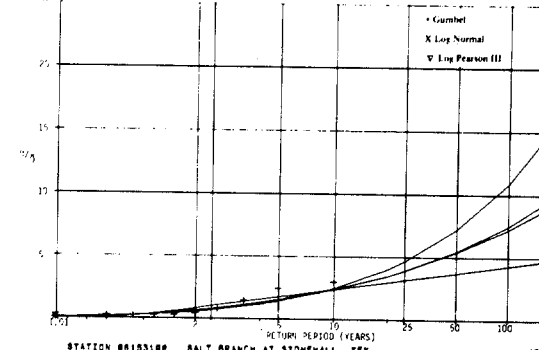
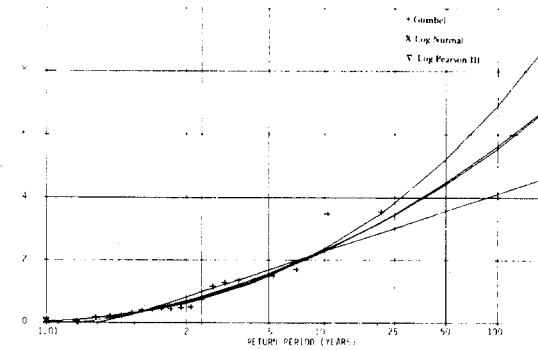
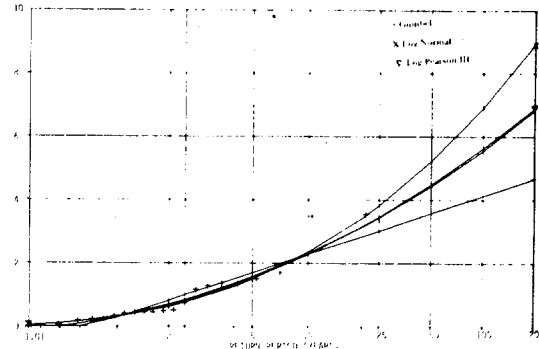
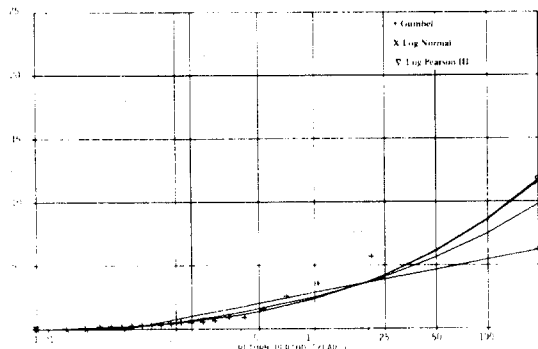
RETURN PERIOD	AVERAGE	DAY/MEAN	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	137.04	.4336	288.82	383.54	252.33	285.54
2.33	480.50	.6259	381.85	784.67	324.12	337.77
5.00	1989.14	1.6559	936.07	1984.15	947.47	944.61
10.00	2228.75	2.8905	1488.39	2963.12	1868.17	1868.03
25.00	3069.24	5.8816	8548.30	4290.64	3885.75	3886.92
50.00	5792.75	7.4322	10793.19	5117.66	6232.28	6827.44
100.00	8208.15	12.5842	11019.39	6326.59	8538.89	9111.14
200.00	11421.87	14.6554	12481.70	6938.81	14052.21	13288.98



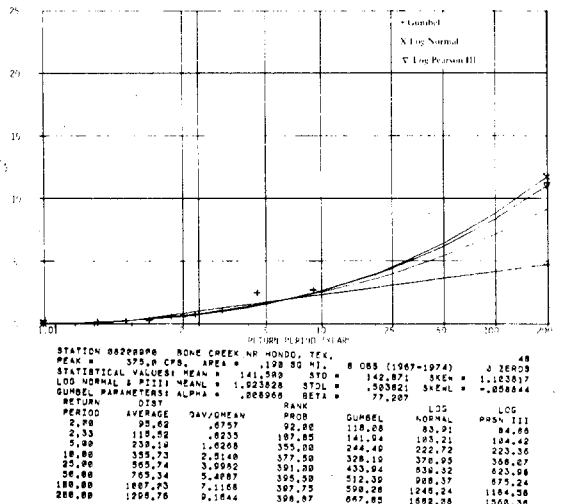
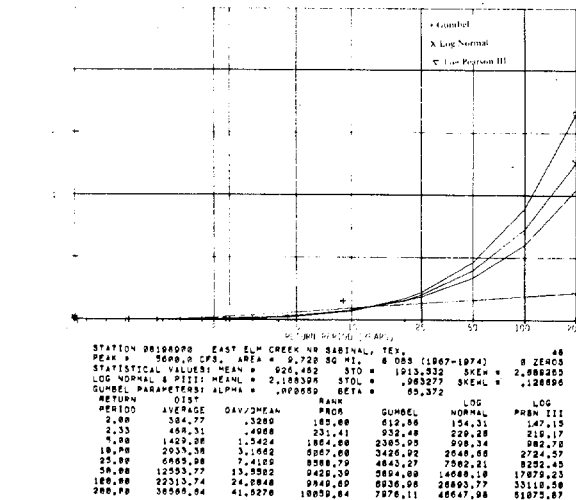
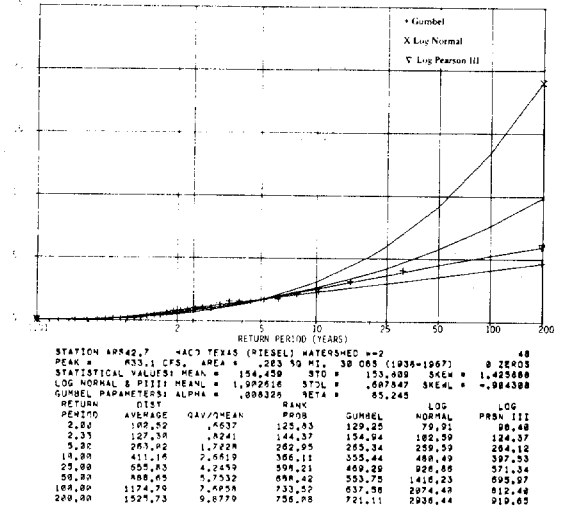
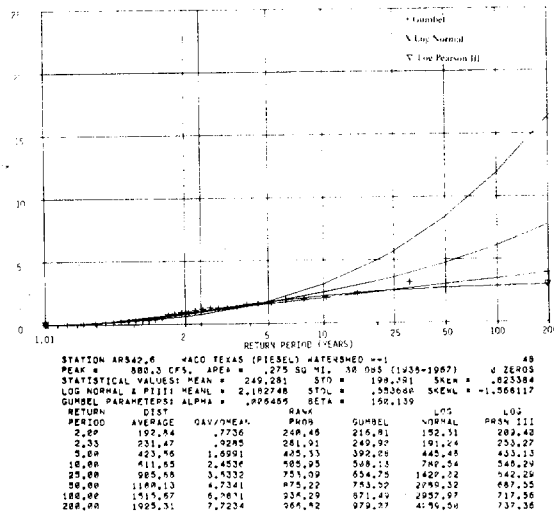
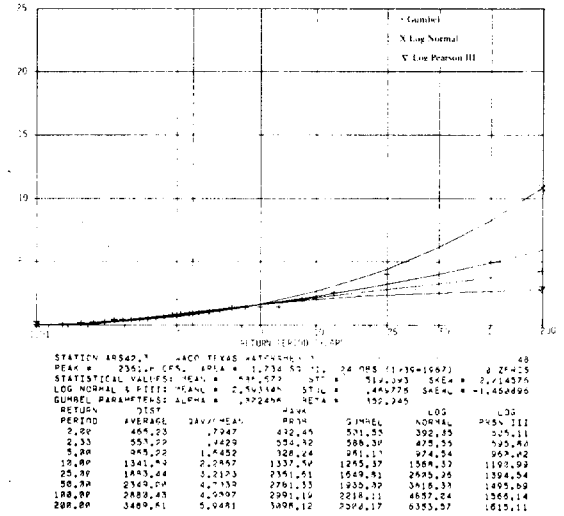
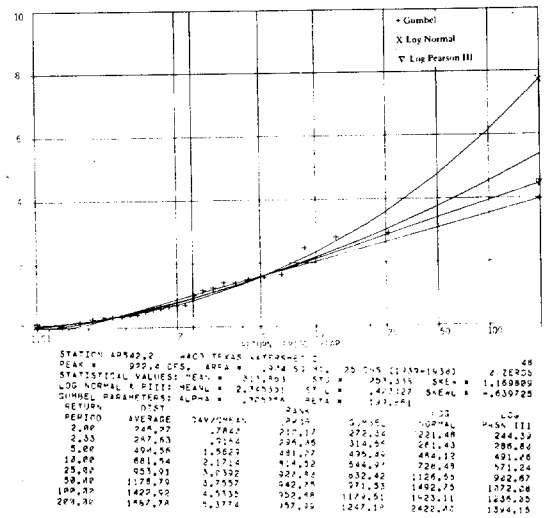
STATION 88135088 DEEP CREEK NEAR MERCURY, TEX. 48
 PEAK = 3888.8 CFS, AREA = 45,888.50 AC, 28 OBS (1958-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 3758.589 STD = 7186.875 SKEW = 4.132438
 LOG NORMAL & PIII: MEAN = 3.261587 STD = .491826 SKEW = .302788
 GUMBEL PARAMETERS: ALPHA = .081177 BETA = 511.484

RETURN PERIOD	AVERAGE	DAY/MEAN	RANK	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	2838.59	.5415	1825.88	2578.93	1826.82	1886.82
2.33	2695.33	.7186	2449.92	3773.27	2254.36	2878.58
5.00	6880.44	2.5235	4248.08	8839.78	4729.89	4598.65
10.00	9873.72	2.5235	5478.08	11168.51	7777.74	8286.92
25.00	15857.09	4.1747	38898.88	18484.35	13223.32	15268.28
50.00	21582.93	5.7331	48898.88	22438.84	18823.89	23447.13
100.00	28888.33	7.7881	55788.88	28388.13	25348.82	34951.87
200.00	38227.75	10.1923	58748.58	38888.87	33585.82	58848.82

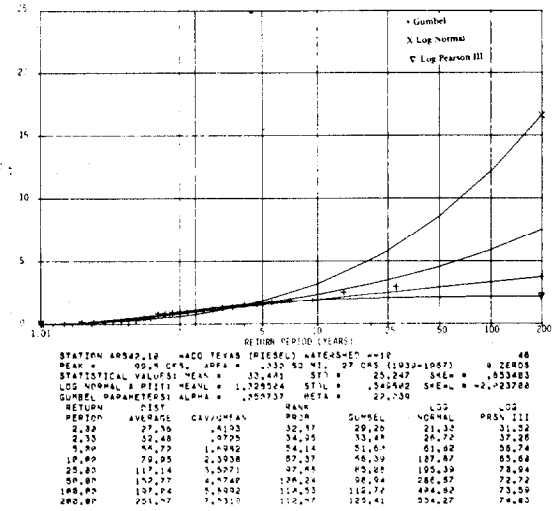
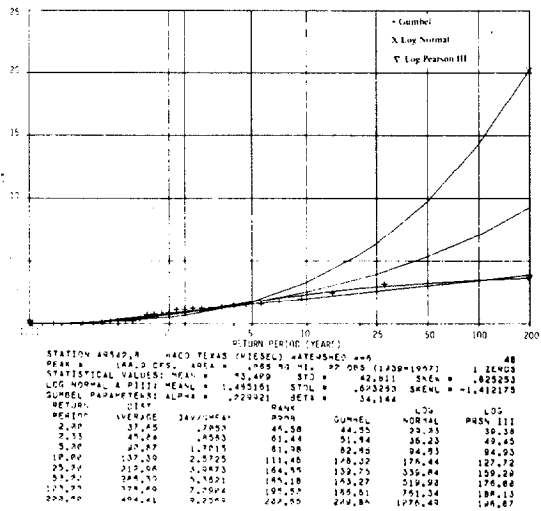
Appendix A-48. Texas 7-12. Flood frequency curves and data.



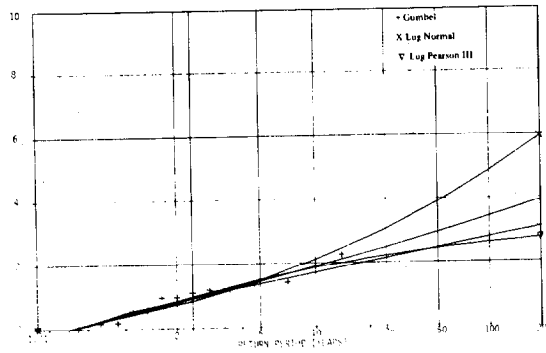
Appendix A-48. Texas 13-18. Flood frequency curves and data.



Appendix A-48. Texas 19-24. Flood frequency curves and data.

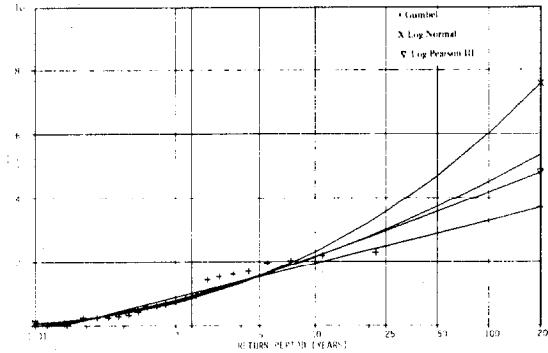


Appendix A-48. Texas 25-26. Flood frequency curves and data.



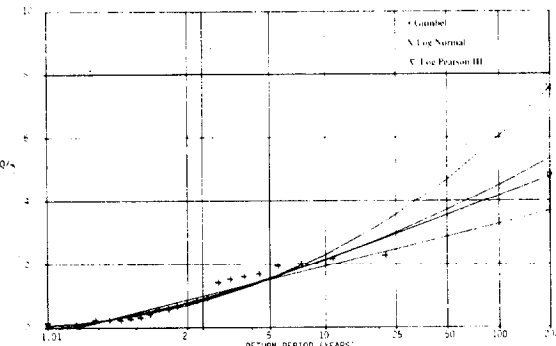
STATION 0016000 UNION CREEK NEAR HUAL, UTAH 49
 PEAK = 2100.0 CFS, AREA = 18,434 SQ MI, 11 OBS (1943-1967) 1 ZERO
 STATISTICAL VALUES: MEAN = 520.454 STD = 437.157 SKEW = 2.514464
 LOG NORMAL & PIII: MEAN = 2,471.41 STD = 2,104.62 SKEW = -1.101761
 GUMBEL PARAMETERS: ALPHA = .002363 BETA = 444.460

RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	GUMBEL	NORMAL	PKIN III
2.00	759.51	.8196	912.30	785.47	457.69	791.85
2.33	861.14	.8992	1110.68	882.57	780.57	915.18
5.00	1341.36	1.4583	1274.00	1274.21	1374.69	1401.78
10.00	1764.47	1.9241	1760.00	1760.32	1904.88	1735.24
25.00	2304.79	2.4871	2437.00	2437.23	2844.32	2872.61
50.00	2728.79	2.9447	2474.00	2474.65	3530.64	2427.81
100.00	3171.13	3.4220	2788.00	2788.27	4599.01	2423.88
200.00	3637.74	3.9234	2844.00	2872.50	5488.08	2548.37



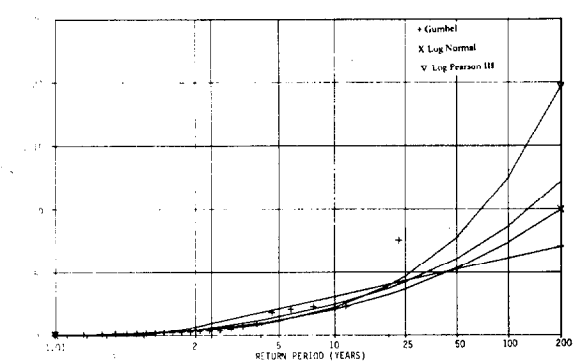
STATION 0016000 UNION CREEK NEAR HUAL, UTAH 49
 PEAK = 2100.0 CFS, AREA = 18,434 SQ MI, 11 OBS (1943-1967) 1 ZERO
 STATISTICAL VALUES: MEAN = 520.454 STD = 437.157 SKEW = 2.514464
 LOG NORMAL & PIII: MEAN = 2,471.41 STD = 2,104.62 SKEW = -1.101761
 GUMBEL PARAMETERS: ALPHA = .002363 BETA = 444.460

RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	GUMBEL	NORMAL	PKIN III
2.00	759.51	.8196	912.30	785.47	457.69	791.85
2.33	861.14	.8992	1110.68	882.57	780.57	915.18
5.00	1341.36	1.4583	1274.00	1274.21	1374.69	1401.78
10.00	1764.47	1.9241	1760.00	1760.32	1904.88	1735.24
25.00	2304.79	2.4871	2437.00	2437.23	2844.32	2872.61
50.00	2728.79	2.9447	2474.00	2474.65	3530.64	2427.81
100.00	3171.13	3.4220	2788.00	2788.27	4599.01	2423.88
200.00	3637.74	3.9234	2844.00	2872.50	5488.08	2548.37



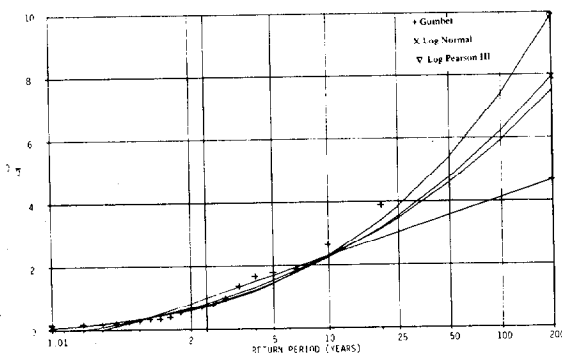
STATION 0016000 UNION CREEK NEAR HUAL, UTAH 49
 PEAK = 2100.0 CFS, AREA = 18,434 SQ MI, 11 OBS (1943-1967) 1 ZERO
 STATISTICAL VALUES: MEAN = 520.454 STD = 437.157 SKEW = 2.514464
 LOG NORMAL & PIII: MEAN = 2,471.41 STD = 2,104.62 SKEW = -1.101761
 GUMBEL PARAMETERS: ALPHA = .002363 BETA = 444.460

RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	GUMBEL	NORMAL	PKIN III
2.00	759.51	.8196	912.30	785.47	457.69	791.85
2.33	861.14	.8992	1110.68	882.57	780.57	915.18
5.00	1341.36	1.4583	1274.00	1274.21	1374.69	1401.78
10.00	1764.47	1.9241	1760.00	1760.32	1904.88	1735.24
25.00	2304.79	2.4871	2437.00	2437.23	2844.32	2872.61
50.00	2728.79	2.9447	2474.00	2474.65	3530.64	2427.81
100.00	3171.13	3.4220	2788.00	2788.27	4599.01	2423.88
200.00	3637.74	3.9234	2844.00	2872.50	5488.08	2548.37



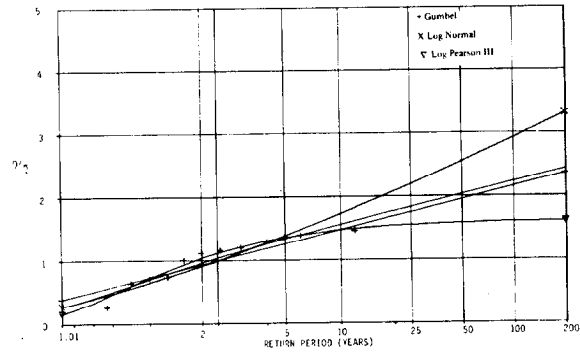
STATION 0016000 UNION CREEK NEAR HUAL, UTAH 49
 PEAK = 2100.0 CFS, AREA = 18,434 SQ MI, 11 OBS (1943-1967) 1 ZERO
 STATISTICAL VALUES: MEAN = 520.454 STD = 437.157 SKEW = 2.514464
 LOG NORMAL & PIII: MEAN = 2,471.41 STD = 2,104.62 SKEW = -1.101761
 GUMBEL PARAMETERS: ALPHA = .002363 BETA = 444.460

RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	GUMBEL	NORMAL	PKIN III
2.00	759.51	.8196	912.30	785.47	457.69	791.85
2.33	861.14	.8992	1110.68	882.57	780.57	915.18
5.00	1341.36	1.4583	1274.00	1274.21	1374.69	1401.78
10.00	1764.47	1.9241	1760.00	1760.32	1904.88	1735.24
25.00	2304.79	2.4871	2437.00	2437.23	2844.32	2872.61
50.00	2728.79	2.9447	2474.00	2474.65	3530.64	2427.81
100.00	3171.13	3.4220	2788.00	2788.27	4599.01	2423.88
200.00	3637.74	3.9234	2844.00	2872.50	5488.08	2548.37



STATION 0023000 SHEEP CREEK NEAR MANILA, UTAH 49
 PEAK = 1800.0 CFS, AREA = 45,899 SQ MI, 19 OBS (1943-1991) 0 ZERO
 STATISTICAL VALUES: MEAN = 262.736 STD = 202.197 SKEW = 1.658145
 LOG NORMAL & PIII: MEAN = 2,227.193 STD = 4,239.36 SKEW = .237816
 GUMBEL PARAMETERS: ALPHA = .004889 BETA = 144.747

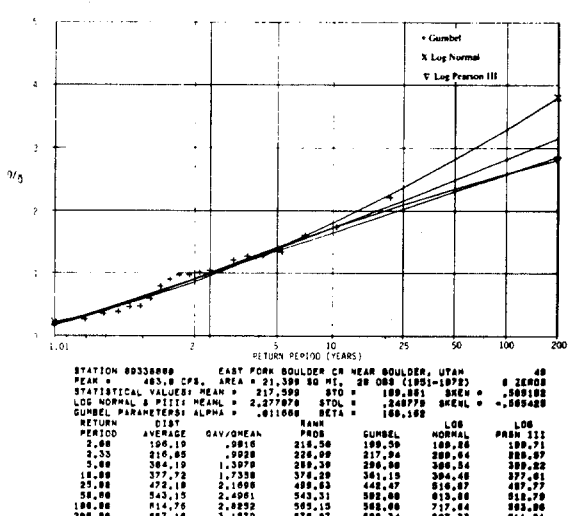
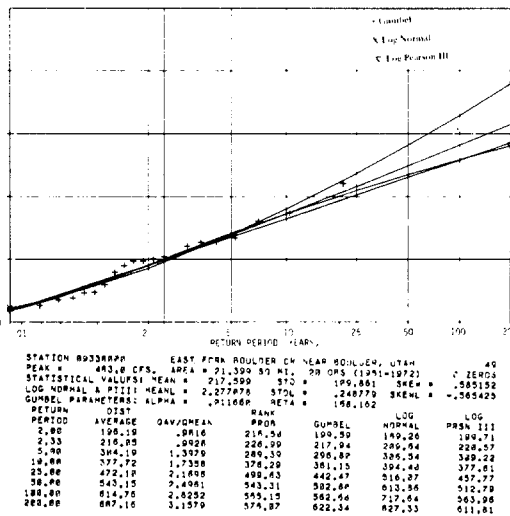
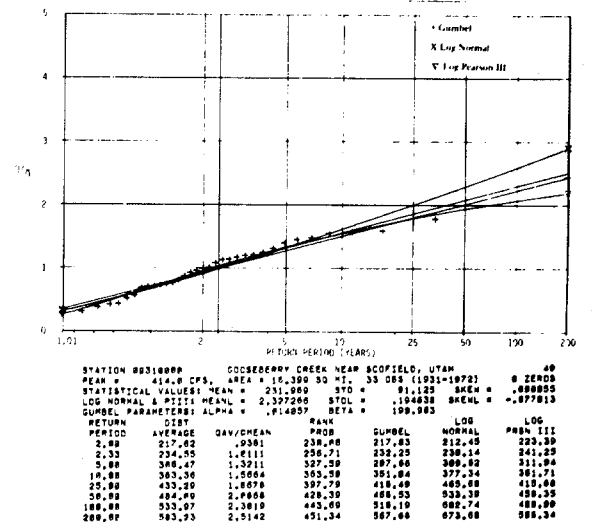
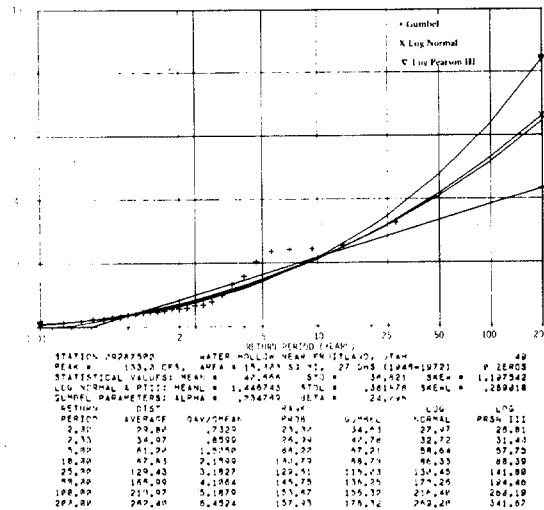
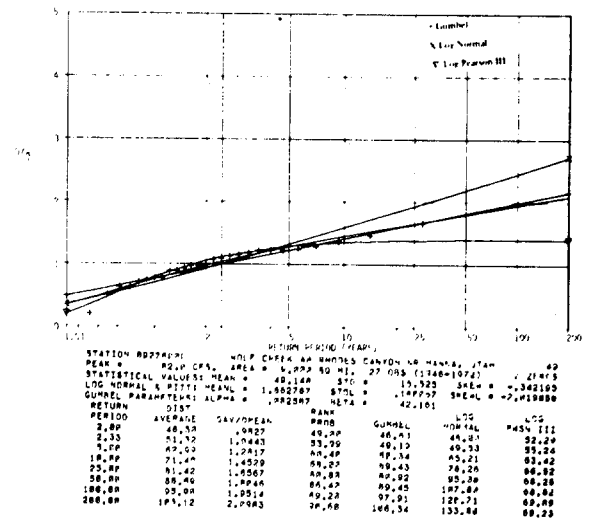
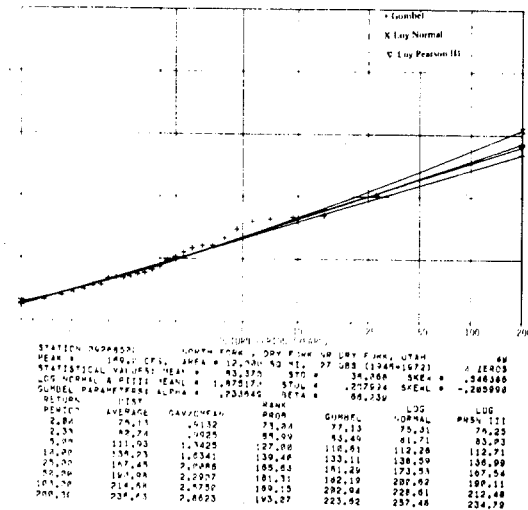
RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	GUMBEL	NORMAL	PKIN III
2.00	100.00	.8086	176.88	815.78	188.71	152.34
2.33	219.20	.8346	193.13	263.58	208.82	193.49
5.00	484.80	1.5482	472.08	451.75	383.72	378.38
10.00	599.10	2.2884	684.89	695.35	518.55	582.38
25.00	912.81	3.4735	1065.19	799.43	932.28	1088.22
50.00	1293.06	4.9812	1215.30	943.48	1252.98	1414.67
100.00	1551.88	5.5864	1288.79	1089.51	1652.83	1934.31
200.00	1907.10	7.4873	1313.30	1228.79	2863.48	2589.36



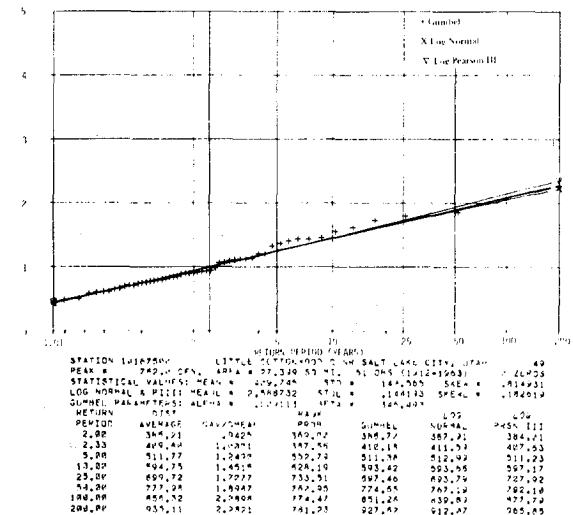
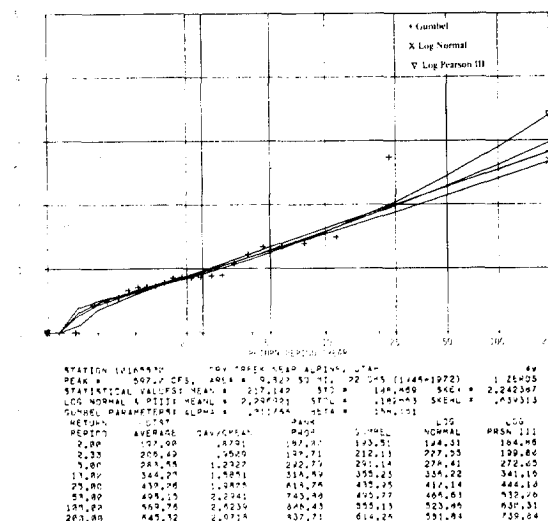
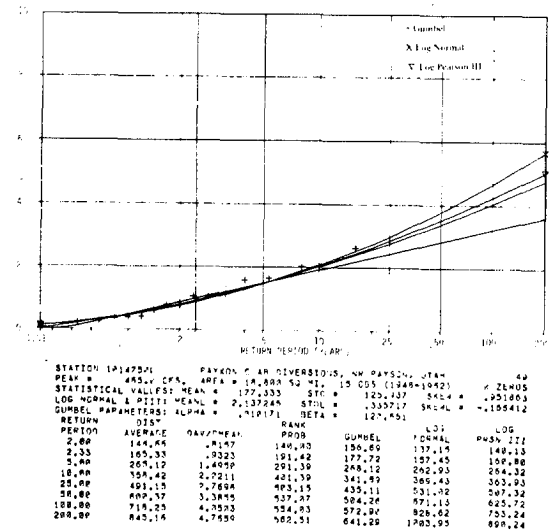
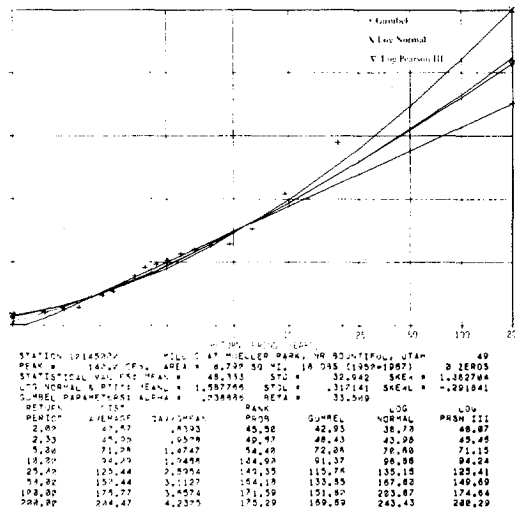
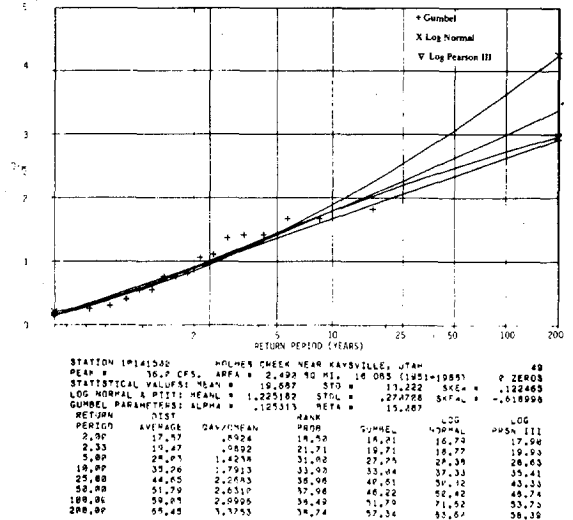
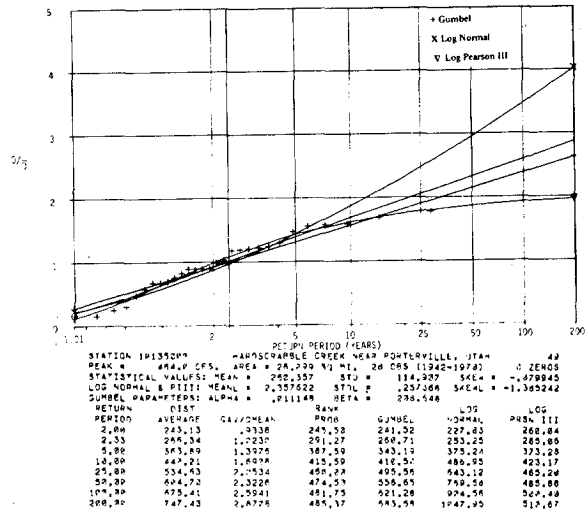
STATION 0023000 SHEEP CREEK NEAR MANILA, UTAH 49
 PEAK = 1800.0 CFS, AREA = 45,899 SQ MI, 19 OBS (1943-1991) 0 ZERO
 STATISTICAL VALUES: MEAN = 262.736 STD = 202.197 SKEW = 1.658145
 LOG NORMAL & PIII: MEAN = 2,227.193 STD = 4,239.36 SKEW = .237816
 GUMBEL PARAMETERS: ALPHA = .004889 BETA = 144.747

RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	GUMBEL	NORMAL	PKIN III
2.00	100.00	.8086	176.88	815.78	188.71	152.34
2.33	219.20	.8346	193.13	263.58	208.82	193.49
5.00	484.80	1.5482	472.08	451.75	383.72	378.38
10.00	599.10	2.2884	684.89	695.35	518.55	582.38
25.00	912.81	3.4735	1065.19	799.43	932.28	1088.22
50.00	1293.06	4.9812	1215.30	943.48	1252.98	1414.67
100.00	1551.88	5.5864	1288.79	1089.51	1652.83	1934.31
200.00	1907.10	7.4873	1313.30	1228.79	2863.48	2589.36

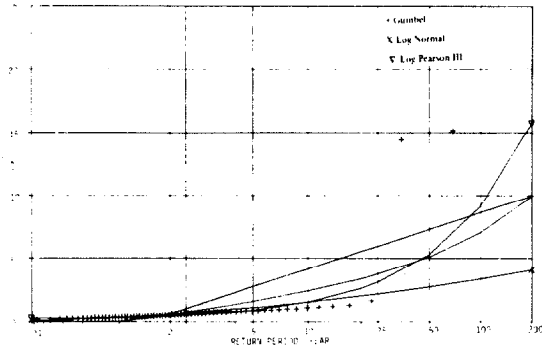
Appendix A-49. Utah 1-6. Flood frequency curves and data.



Appendix A-49. Utah 7-12. Flood frequency curves and data.

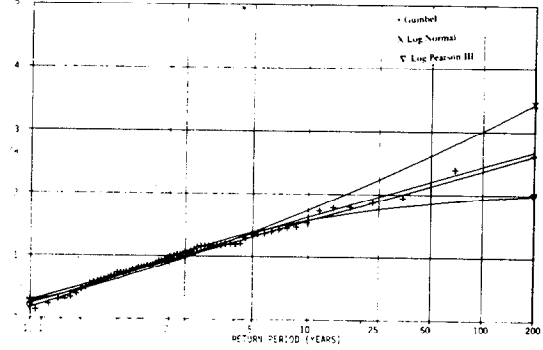


Appendix A-49. Utah 13-18. Flood frequency curves and data.



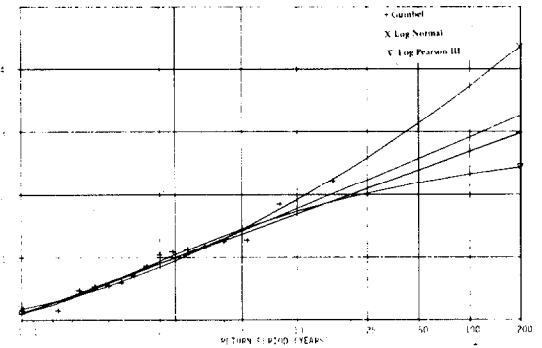
STATION 1217884P HILL CREEK NEAR SALT LAKE CITY, UTAH 49
 PEAK = 1432.8 CFS, AREA = 21,400 SQ MI, 48 OBS (1289-1971) 8 26023
 STATISTICAL VALUES: MEAN = 24.455 STD = 239.171 SKEW = 5.561882
 LOG NORMAL & PIII: MEAN = 1.725684 STD = 3.325277 SKEW = 2.354182
 GUMBEL PARAMETERS: ALPHA = .075555 BETA = -0.121

PERIOD	AVERAGE	DAY/MEAN	RANK	GUMBEL	LOG	LOG	LOG
2.00	51.86	.5385	51.92	56.73	53.94	42.21	
2.33	66.02	.7292	57.38	65.18	51.51	47.35	
5.00	147.19	1.5704	61.88	269.38	132.23	84.94	
10.00	227.74	2.4110	182.24	305.22	143.19	144.95	
25.00	355.18	3.7803	442.44	505.59	205.12	224.65	
50.00	484.29	5.1378	1424.71	691.48	258.37	345.22	
100.00	667.58	7.2676	1453.47	617.43	318.75	555.56	
200.00	958.43	9.2351	1479.58	942.43	345.54	1467.38	



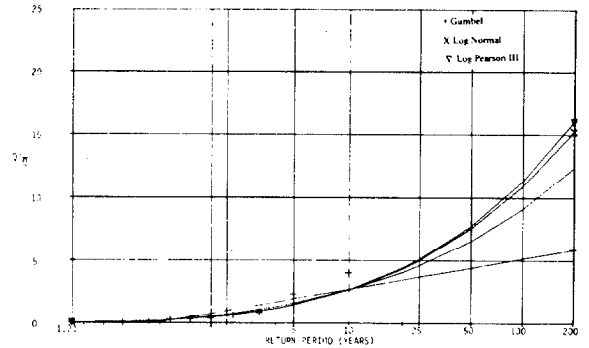
STATION 1217253P CITY CREEK NEAR SALT LAKE CITY, UTAH 49
 PEAK = 193.4 CFS, AREA = 10,130 SQ MI, 68 OBS (1990-1988) 8 26023
 STATISTICAL VALUES: MEAN = 47.426 STD = 20.779 SKEW = .568482
 LOG NORMAL & PIII: MEAN = 1.782901 STD = .227194 SKEW = -1.101488
 GUMBEL PARAMETERS: ALPHA = .743328 BETA = 54.520

PERIOD	AVERAGE	DAY/MEAN	RANK	GUMBEL	LOG	LOG	LOG
2.00	83.55	.9354	59.58	83.24	68.53	81.83	
2.33	89.13	1.0178	71.42	88.82	66.58	72.82	
5.00	97.03	1.3638	92.88	86.38	64.17	94.32	
10.00	117.04	1.6335	108.38	106.02	118.34	107.47	
25.00	132.33	1.9658	128.19	128.08	151.94	119.50	
50.00	140.44	2.2831	151.27	128.08	145.21	128.17	
100.00	165.41	2.4411	172.88	181.43	284.78	131.22	
200.00	181.97	2.6739	193.32	177.09	233.19	135.13	



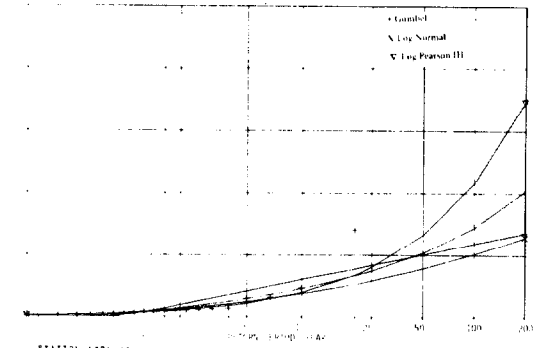
STATION 1218508P ANTIMONY CREEK NEAR ANTIMONY, UTAH 49
 PEAK = 549.8 CFS, AREA = 26,888 SQ MI, 15 OBS (1947-1971) 8 26023
 STATISTICAL VALUES: MEAN = 381.153 STD = 189.174 SKEW = .705468
 LOG NORMAL & PIII: MEAN = 2.499851 STD = .273111 SKEW = -1.088488
 GUMBEL PARAMETERS: ALPHA = .707858 BETA = 229.154

PERIOD	AVERAGE	DAY/MEAN	RANK	GUMBEL	LOG	LOG	LOG
2.00	270.19	.9830	314.08	274.55	285.09	285.08	
2.33	381.06	1.0927	332.71	381.64	287.71	316.53	
5.00	432.23	1.4355	388.39	416.84	457.98	448.89	
10.00	528.07	1.7854	480.39	515.88	574.78	524.86	
25.00	674.17	2.2387	788.05	633.89	770.18	618.32	
50.00	775.68	2.5759	744.47	722.18	943.88	881.82	
100.00	878.35	2.9168	765.23	818.53	1181.88	782.87	
200.00	982.48	3.2639	771.12	898.62	1312.98	737.87	



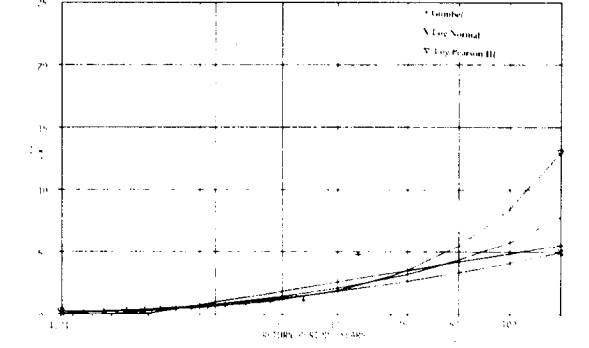
STATION 1826987P COTTONWOOD CREEK NEAR SALINA, UTAH 49
 PEAK = 105.8 CFS, AREA = 7,889 SQ MI, 9 OBS (1959-1968) 8 26023
 STATISTICAL VALUES: MEAN = 41.088 STD = 24.474 SKEW = 1.891517
 LOG NORMAL & PIII: MEAN = 1.287794 STD = .585671 SKEW = .636198
 GUMBEL PARAMETERS: ALPHA = .823553 BETA = 14.486

PERIOD	AVERAGE	DAY/MEAN	RANK	GUMBEL	LOG	LOG	LOG
2.00	25.56	.5748	15.88	32.87	18.38	22.23	
2.33	38.11	.7345	22.14	41.17	24.87	24.49	
5.00	86.94	1.6327	99.88	89.27	86.38	88.19	
10.00	116.41	2.0031	105.88	112.18	108.25	109.81	
25.00	189.17	4.0141	286.48	152.58	285.76	280.27	
50.00	276.41	6.5858	228.19	182.41	389.57	318.86	
100.00	374.47	9.1335	227.89	212.11	447.17	464.14	
200.00	507.89	12.3855	238.34	241.89	625.32	656.79	



STATION 1219127P PLEASANT CREEK NEAR MOUNT PLEASANT, UTAH 49
 PEAK = 2262.1 CFS, AREA = 19,121 SQ MI, 12 OBS (1948-1961) 8 26023
 STATISTICAL VALUES: MEAN = 251.742 STD = 459.242 SKEW = 8.513238
 LOG NORMAL & PIII: MEAN = 2.224701 STD = .400120 SKEW = 1.158799
 GUMBEL PARAMETERS: ALPHA = .712783 BETA = 84.733

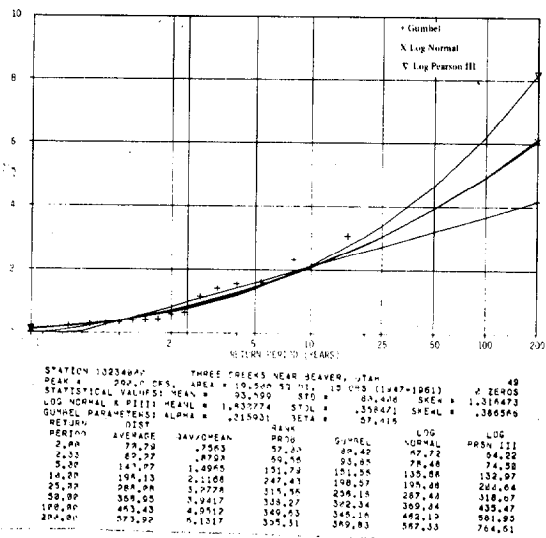
PERIOD	AVERAGE	DAY/MEAN	RANK	GUMBEL	LOG	LOG	LOG
2.00	174.85	.7301	147.23	218.41	157.52	146.44	
2.33	215.24	.7872	161.71	283.29	198.31	185.24	
5.00	442.55	1.5127	411.40	593.82	385.88	509.82	
10.00	441.28	2.3337	716.46	893.24	508.92	1182.00	
25.00	1504.04	4.3356	2332.20	1486.43	1155.83	1945.92	
50.00	2128.23	7.2674	3148.99	1737.41	1492.31	3154.81	
200.00	1974.63	17.1579	3264.28	1887.42	1984.39	5855.00	



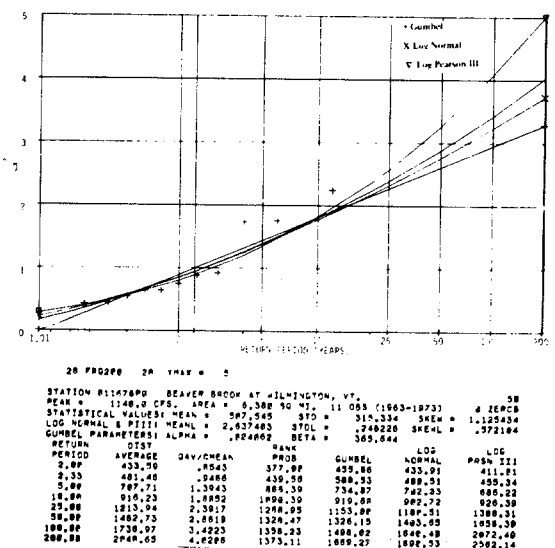
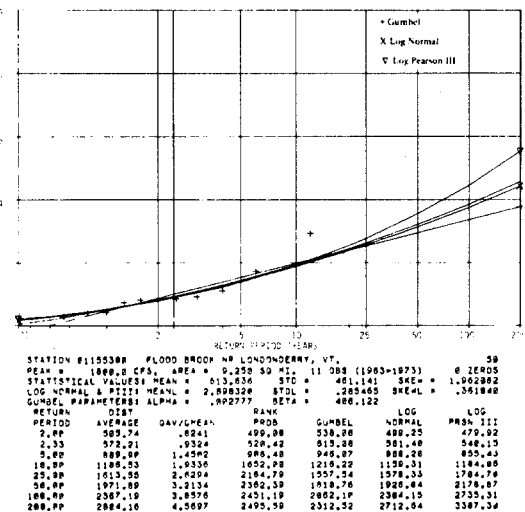
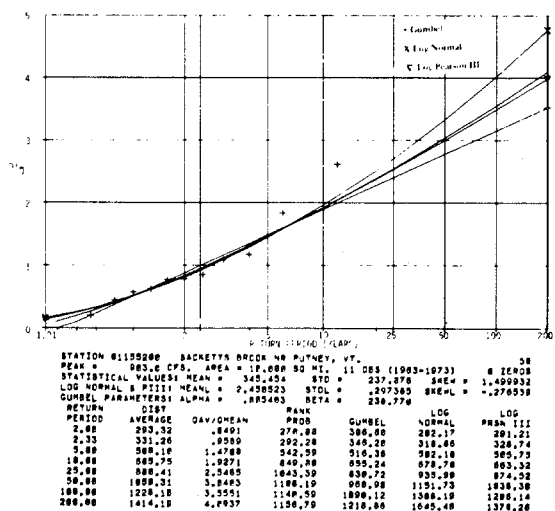
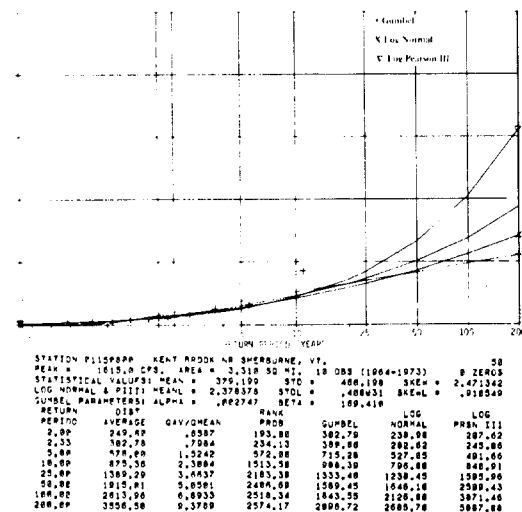
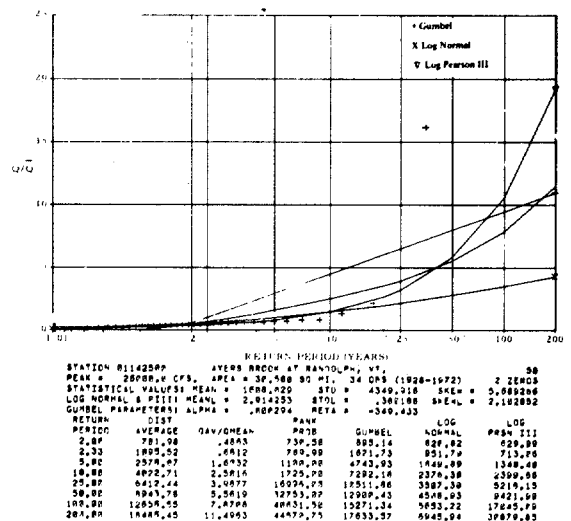
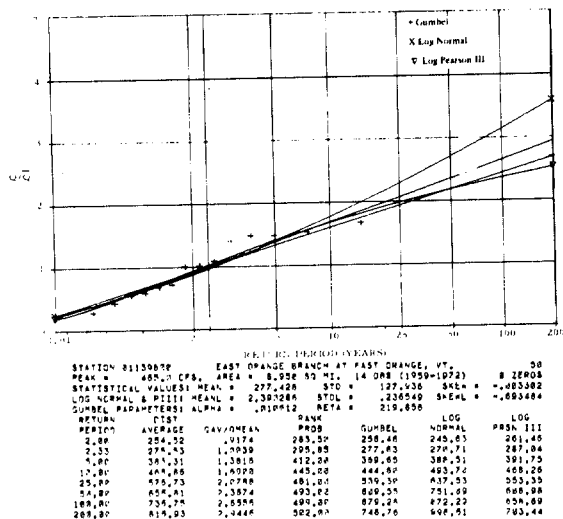
STATION 1219129P TWIN CREEK NEAR MOUNT PLEASANT, UTAH 49
 PEAK = 489.7 CFS, AREA = 5,401 SQ MI, 12 OBS (1955-1961) 8 26023
 STATISTICAL VALUES: MEAN = 191.254 STD = 128.255 SKEW = 2.137414
 LOG NORMAL & PIII: MEAN = 1.851933 STD = .337797 SKEW = 1.482329
 GUMBEL PARAMETERS: ALPHA = .751928 BETA = 44.444

PERIOD	AVERAGE	DAY/MEAN	RANK	GUMBEL	LOG	LOG	LOG
2.00	70.37	.6070	88.20	87.72	71.11	54.84	
2.33	83.73	.6277	71.42	101.64	81.48	68.08	
5.00	199.36	1.4277	113.49	191.54	134.49	121.61	
10.00	210.70	2.1411	376.79	284.32	168.70	194.75	
25.00	329.00	3.2489	444.87	357.83	285.77	359.48	
50.00	441.51	4.3408	792.33	426.41	336.75	555.39	
100.00	594.75	5.3344	815.78	484.08	418.13	856.41	
200.00	703.82	7.4472	834.88	582.77	505.18	1312.59	

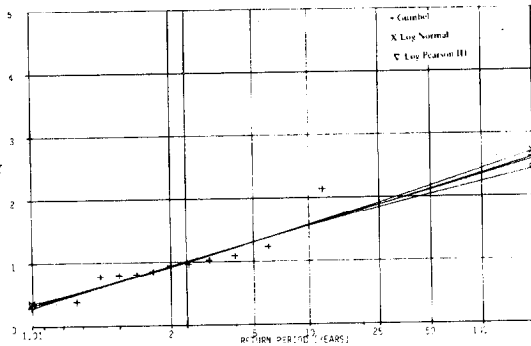
Appendix A-49. Utah 19-24. Flood frequency curves and data.



Appendix A-49. Utah 25. Flood frequency curves and data.

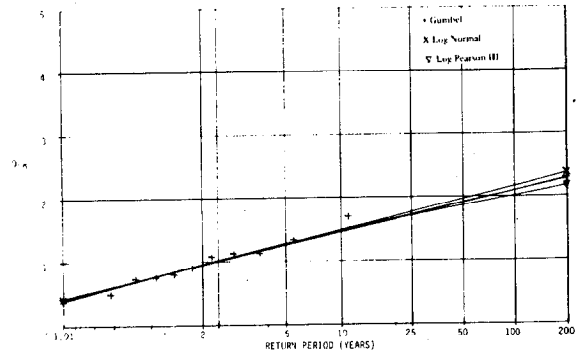


Appendix A-50. Vermont 1-6. Flood frequency curves and data.



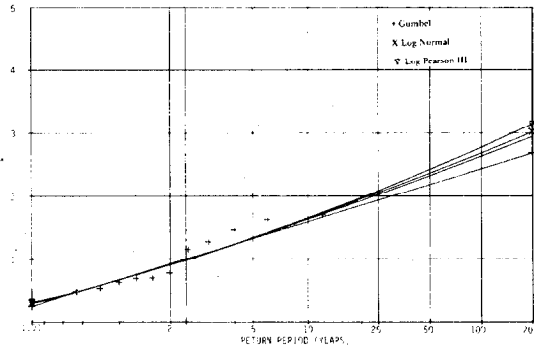
STATION 81353388 SOUTH STREAM AT BENNINGTON, VT. 58
 PEAK = 166.0 CFS, AREA = 7.700 SQ MI, 11 OBS (1963-1973) 8 ZEROS
 STATISTICAL VALUES: MEAN = 77.969 STD = 35.871 SKEW = 1.759277
 LOG NORMAL & PIII MEAN = 1.657556 STD = 1.08487 SKEW = -1.270845
 GUMBEL PARAMETERS: ALPHA = .037619 BETA = 52.866

RETURN PERIOD	AVERAGE	QAV/QMEAN	PROB	GUMBEL	NORMAL	LOG PRSN III
2.00	72.84	.8324	74.00	72.35	72.18	73.46
2.33	78.34	1.0043	74.85	75.01	77.65	76.87
5.00	102.40	1.3150	91.08	102.32	102.38	102.73
10.00	122.05	1.5666	102.08	122.17	122.82	121.16
25.00	146.03	1.8809	122.40	147.54	149.28	143.37
50.00	164.77	2.1158	129.19	165.84	169.38	159.18
100.00	182.78	2.3468	137.59	184.30	189.42	174.41
200.00	208.71	2.5782	151.70	202.09	218.23	189.21



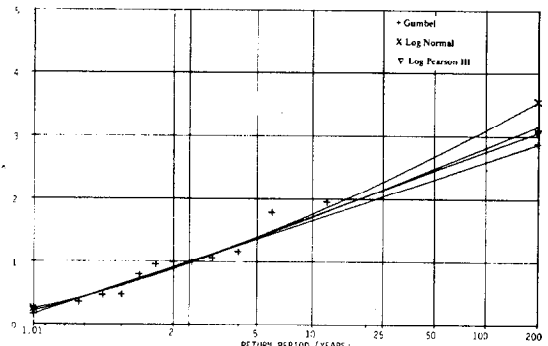
STATION 84879488 POULTNEY RIVER TRID. AT EAST POULTNEY, VT. 58
 PEAK = 98.0 CFS, AREA = 1.130 SQ MI, 18 OBS (1964-1973) 8 ZEROS
 STATISTICAL VALUES: MEAN = 57.799 STD = 28.898 SKEW = .839372
 LOG NORMAL & PIII MEAN = 1.737855 STD = 1.54886 SKEW = -.266198
 GUMBEL PARAMETERS: ALPHA = .060735 BETA = 48.786

RETURN PERIOD	AVERAGE	QAV/QMEAN	PROB	GUMBEL	NORMAL	LOG PRSN III
2.00	54.91	.9580	57.88	54.98	54.58	55.05
2.33	56.43	1.0189	62.85	57.88	58.27	59.16
5.00	73.38	1.2895	74.88	72.28	73.79	74.85
10.00	85.93	1.4745	85.98	84.86	86.38	85.38
25.00	99.84	1.7274	102.78	98.93	102.80	98.99
50.00	118.49	1.9116	114.37	109.97	113.02	107.67
100.00	128.94	2.0824	116.88	128.93	128.90	119.70
200.00	131.28	2.2718	117.84	131.84	136.77	125.17



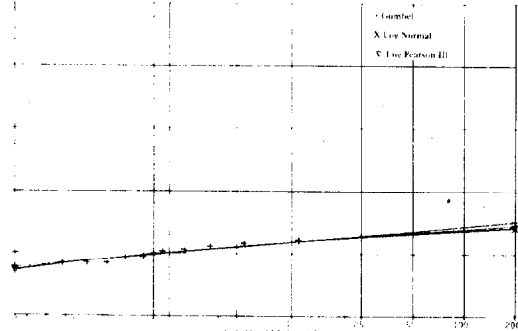
STATION 84282288 METABEE RIVER TRID. NO. 2 AT EAST RUPERT, VT. 58
 PEAK = 138.0 CFS, AREA = 1.860 SQ MI, 11 OBS (1963-1973) 8 ZEROS
 STATISTICAL VALUES: MEAN = 75.272 STD = 34.891 SKEW = .438911
 LOG NORMAL & PIII MEAN = 1.636864 STD = .902617 SKEW = -.303218
 GUMBEL PARAMETERS: ALPHA = .036713 BETA = 66.571

RETURN PERIOD	AVERAGE	QAV/QMEAN	PROB	GUMBEL	NORMAL	LOG PRSN III
2.00	69.45	.8196	59.88	70.55	69.10	68.86
2.33	75.49	.8868	63.85	76.38	75.17	74.66
5.00	102.84	1.3378	119.28	101.42	102.47	102.22
10.00	124.69	1.6349	128.79	121.86	125.83	125.59
25.00	154.45	2.0289	139.12	147.89	156.68	150.98
50.00	177.34	2.3251	154.55	165.85	182.49	164.89
100.00	205.82	2.6358	175.28	185.86	205.08	211.61
200.00	224.97	2.8455	195.93	204.91	237.28	239.89



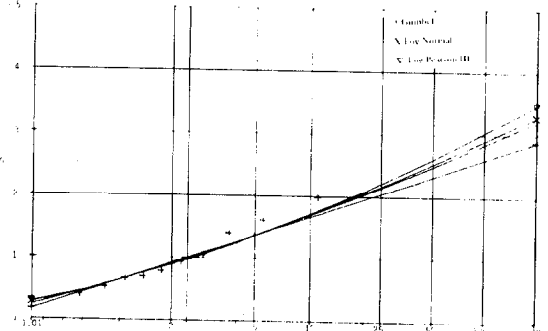
STATION 84282388 BRANDY BROOK AT BROAD LOAF, VT. 58
 PEAK = 256.0 CFS, AREA = 2.240 SQ MI, 11 OBS (1963-1973) 8 ZEROS
 STATISTICAL VALUES: MEAN = 120.836 STD = 61.229 SKEW = .728862
 LOG NORMAL & PIII MEAN = 2.827325 STD = 1.334388 SKEW = -.281931
 GUMBEL PARAMETERS: ALPHA = .028897 BETA = 93.851

RETURN PERIOD	AVERAGE	QAV/QMEAN	PROB	GUMBEL	NORMAL	LOG PRSN III
2.00	106.78	.9818	120.88	118.59	106.49	109.31
2.33	119.45	1.0981	120.88	126.82	117.28	122.26
5.00	167.87	1.3849	185.48	164.82	167.71	168.49
10.00	207.33	1.7166	231.79	206.73	212.63	208.61
25.00	250.94	2.1522	246.91	246.11	275.82	258.50
50.00	299.42	2.4828	251.95	276.77	322.55	285.86
100.00	339.88	2.8167	254.47	313.18	373.67	332.75
200.00	368.85	3.1578	255.73	346.47	427.24	388.85



STATION 84282558 BEAVER BROOK AT CORNWALL, VT. 58
 PEAK = 73.0 CFS, AREA = 1.110 SQ MI, 18 OBS (1964-1973) 8 ZEROS
 STATISTICAL VALUES: MEAN = 66.899 STD = 21.175 SKEW = .857803
 LOG NORMAL & PIII MEAN = 1.775122 STD = .988144 SKEW = -.071030
 GUMBEL PARAMETERS: ALPHA = .037332 BETA = 56.358

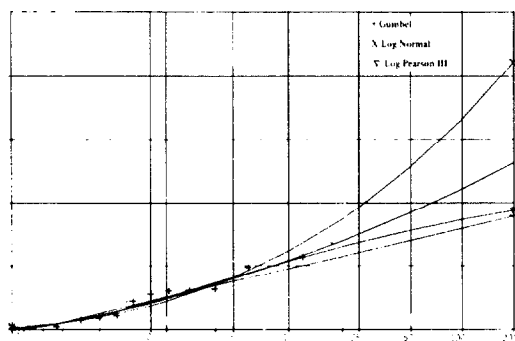
RETURN PERIOD	AVERAGE	QAV/QMEAN	PROB	GUMBEL	NORMAL	LOG PRSN III
2.00	59.26	.9741	59.38	58.73	58.58	59.49
2.33	66.72	1.0184	62.07	66.12	61.87	69.08
5.00	86.45	1.1891	69.40	86.14	71.15	86.91
10.00	101.12	1.1834	72.78	78.08	78.95	86.91
25.00	127.42	1.2710	74.98	77.15	75.93	79.18
50.00	146.19	1.3340	75.34	81.73	79.14	79.68
100.00	163.77	1.3939	75.87	86.27	82.23	82.82
200.00	187.27	1.4521	76.43	90.79	85.11	85.91



STATION 84282688 LITTLE OTTER CREEK TRID. AT LITTLE OTTER, VT. 58
 PEAK = 64.0 CFS, AREA = 1.480 SQ MI, 18 OBS (1964-1973) 8 ZEROS
 STATISTICAL VALUES: MEAN = 52.299 STD = 18.519 SKEW = .857803
 LOG NORMAL & PIII MEAN = 1.459995 STD = 1.228426 SKEW = -.116958
 GUMBEL PARAMETERS: ALPHA = .077343 BETA = 24.886

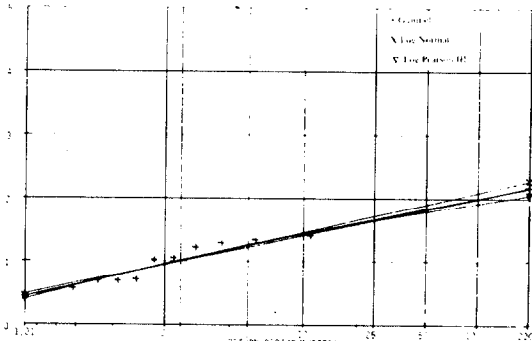
RETURN PERIOD	AVERAGE	QAV/QMEAN	PROB	GUMBEL	NORMAL	LOG PRSN III
2.00	28.85	.8094	27.88	29.50	28.78	28.49
2.33	31.48	.8911	31.14	32.35	31.50	31.21
5.00	44.18	1.3953	42.80	44.28	44.11	43.97
10.00	54.84	1.6078	50.86	52.80	50.13	51.36
25.00	69.18	2.1413	70.72	66.11	66.99	71.36
50.00	88.34	2.4874	74.58	75.18	81.02	84.22
100.00	101.93	2.8463	74.58	84.18	83.73	87.88
200.00	103.98	3.2192	75.34	93.18	108.32	112.45

Appendix A-50. Vermont 7-12. Flood frequency curves and data.



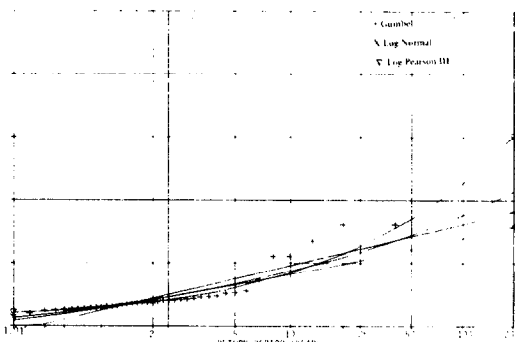
STATION #4282799 LEWIS CREEK TRIB. AT STARKSBORO, VT. 50
 PEAK = 721.0 CFS. AREA = 5,310 SQ MI. 11 OBS (1963-1973) 2 ZEROS
 STATISTICAL VALUES: MEAN = 314.600 STD = 216.384 SKEW = .537371
 LOG NORMAL & PIII: MEAN = 2,335881 STD = .412311 SKEW = -.925447
 GUMBEL PARAMETERS: ALPHA = .092865 BETA = 215.726

RETURN PERIOD	AVERAGE	GAUSS/MEAN	RANK	GUMBEL	NORMAL	PRISM III
2.00	257.22	.0151	341.80	278.20	228.91	204.40
2.33	268.98	.0599	357.35	294.04	271.19	289.87
5.00	400.42	1.0873	524.50	471.43	586.25	514.78
10.00	683.19	2.1755	699.20	599.30	772.93	677.63
25.00	943.34	3.2942	774.19	781.81	1286.92	862.68
50.00	1157.48	3.7682	884.59	886.92	1589.34	1005.48
100.00	1308.81	4.2293	817.79	990.95	2004.51	1287.97
200.00	1645.88	5.2414	824.59	1115.55	2634.65	1169.22



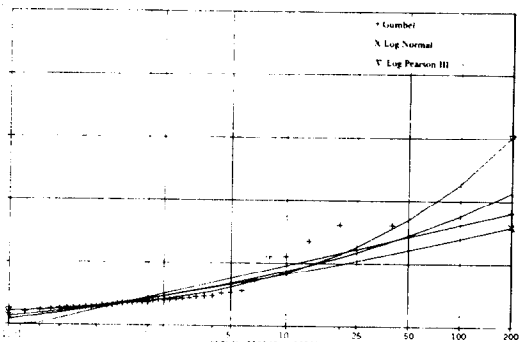
STATION #4282752 LEWIS CREEK TRIB. NO. 2 AT ROCKVILLE, VT. 50
 PEAK = 58.0 CFS. AREA = 1,074 SQ MI. 18 OBS (1964-1973) 2 ZEROS
 STATISTICAL VALUES: MEAN = 40.899 STD = 12.939 SKEW = -.286913
 LOG NORMAL & PIII: MEAN = 1.599219 STD = .147114 SKEW = -.326247
 GUMBEL PARAMETERS: ALPHA = .295541 BETA = 35.250

RETURN PERIOD	AVERAGE	GAUSS/MEAN	RANK	GUMBEL	NORMAL	PRISM III
2.00	39.11	.0563	42.58	38.76	38.92	30.84
2.33	41.49	1.07136	44.99	48.84	41.35	42.68
5.00	51.53	1.2551	54.98	58.27	51.76	51.87
10.00	59.00	1.4447	57.79	57.88	68.88	59.27
25.00	69.84	1.8795	69.08	67.58	76.44	67.44
50.00	75.30	1.8431	67.34	74.84	78.45	73.45
100.00	82.05	2.0893	69.67	81.73	85.00	78.83
200.00	87.92	2.1589	68.63	88.78	93.11	85.96



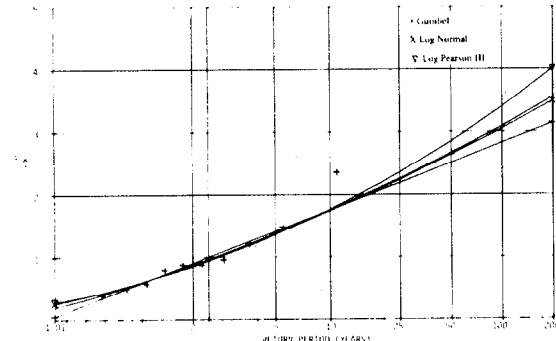
STATION #4284888 JAIL BRANCH AT EAST BARRE, VT. 50
 PEAK = 1006.0 CFS. AREA = 48,300 SQ MI. 39 OBS (1921-1988) 0 ZEROS
 STATISTICAL VALUES: MEAN = 587.871 STD = 492.581 SKEW = 2.224483
 LOG NORMAL & PIII: MEAN = 2.888533 STD = .221845 SKEW = 1.487212
 GUMBEL PARAMETERS: ALPHA = .863182 BETA = 388.718

RETURN PERIOD	AVERAGE	GAUSS/MEAN	RANK	GUMBEL	NORMAL	PRISM III
2.00	473.90	.0339	418.88	581.88	485.86	432.99
2.33	524.34	.0935	458.42	589.13	532.80	471.79
5.00	760.37	1.3495	555.88	745.77	685.26	621.75
10.00	965.30	1.7527	1258.08	1893.08	932.01	809.20
25.00	1337.40	2.3552	1829.08	1391.87	1184.08	1405.94
50.00	1641.15	2.8809	1829.08	1612.62	1386.15	1829.32
100.00	1998.84	3.5184	1829.08	1832.33	1587.94	2573.84
200.00	2424.16	4.2888	1829.08	2058.95	1861.45	3419.58



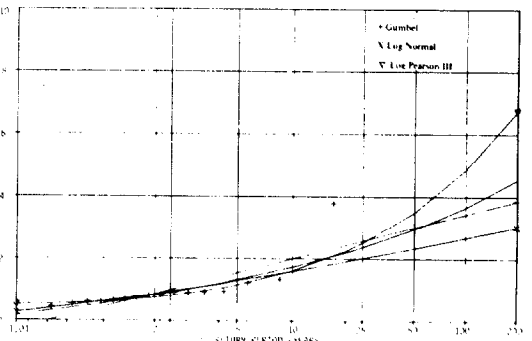
STATION #4284888 JAIL BRANCH AT EAST BARRE, VT. 50
 PEAK = 1006.0 CFS. AREA = 48,300 SQ MI. 39 OBS (1921-1988) 0 ZEROS
 STATISTICAL VALUES: MEAN = 587.871 STD = 492.581 SKEW = 2.224483
 LOG NORMAL & PIII: MEAN = 2.888533 STD = .221845 SKEW = 1.487212
 GUMBEL PARAMETERS: ALPHA = .863182 BETA = 388.718

RETURN PERIOD	AVERAGE	GAUSS/MEAN	RANK	GUMBEL	NORMAL	PRISM III
2.00	473.90	.0339	418.88	581.88	485.86	432.99
2.33	524.34	.0935	458.42	589.13	532.80	471.79
5.00	760.37	1.3495	555.88	745.77	685.26	621.75
10.00	965.30	1.7527	1258.08	1893.08	932.01	809.20
25.00	1337.40	2.3552	1829.08	1391.87	1184.08	1405.94
50.00	1641.15	2.8809	1829.08	1612.62	1386.15	1829.32
100.00	1998.84	3.5184	1829.08	1832.33	1587.94	2573.84
200.00	2424.16	4.2888	1829.08	2058.95	1861.45	3419.58



STATION #4284888 STEVENS BRANCH TRIB. AT SOUTH BARRE, VT. 50
 PEAK = 92.0 CFS. AREA = 1,339 SQ MI. 18 OBS (1964-1973) 2 ZEROS
 STATISTICAL VALUES: MEAN = 26.386 STD = 15.200 SKEW = 1.545590
 LOG NORMAL & PIII: MEAN = 1.382224 STD = .232987 SKEW = .277873
 GUMBEL PARAMETERS: ALPHA = .064859 BETA = 19.442

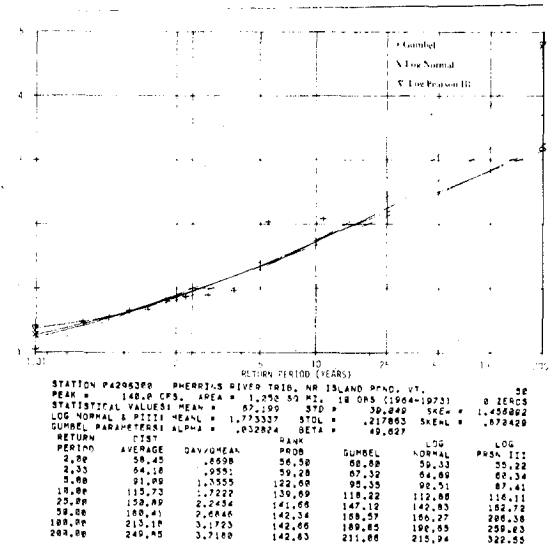
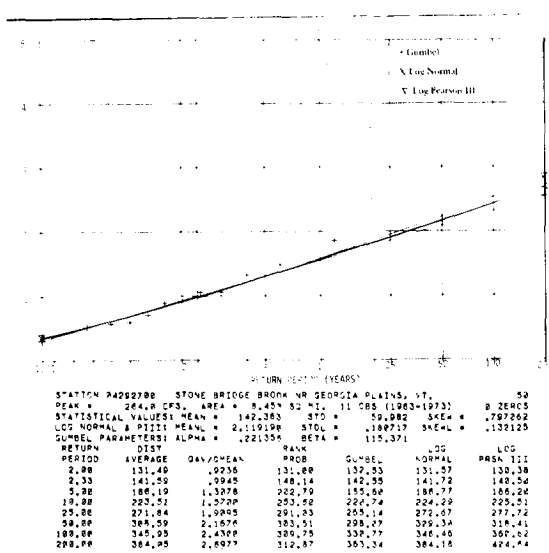
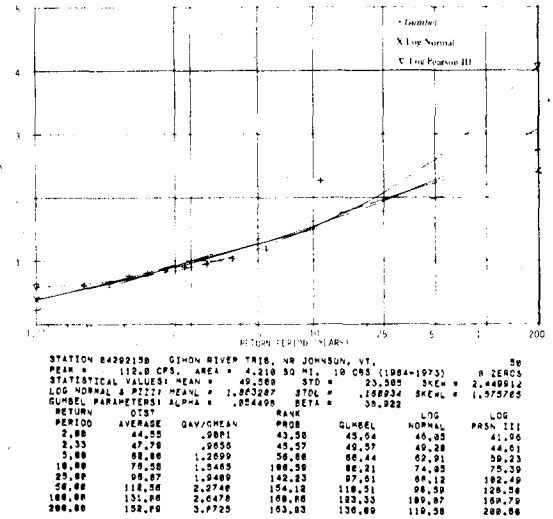
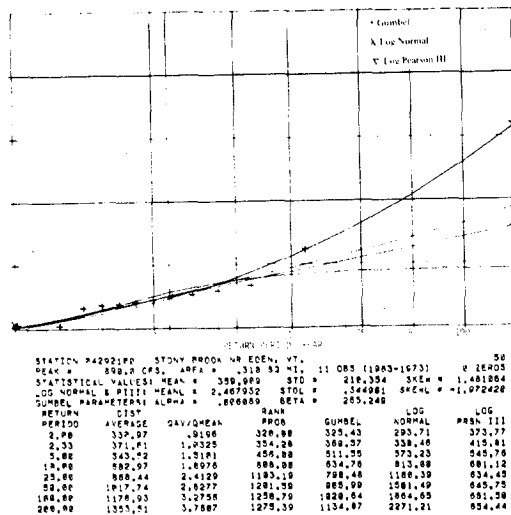
RETURN PERIOD	AVERAGE	GAUSS/MEAN	RANK	GUMBEL	NORMAL	PRISM III
2.00	25.90	.0782	25.88	25.88	25.88	20.46
2.33	29.47	.0988	25.57	26.34	25.33	24.73
5.00	36.43	1.3532	37.08	37.28	38.18	35.84
10.00	46.14	1.7564	59.78	46.21	45.78	48.40
25.00	59.40	2.2589	74.88	57.40	58.89	61.84
50.00	78.49	2.8519	79.94	65.88	69.28	74.88
100.00	81.22	3.0884	82.47	74.16	88.19	88.31
200.00	85.12	3.5499	83.73	82.44	91.81	100.32

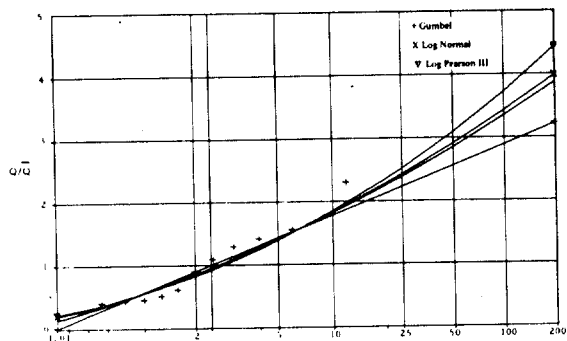


STATION #4291000 GREEN RIVER AT GARFIELD, VT. 50
 PEAK = 2900.0 CFS. AREA = 16,170 SQ MI. 19 OBS (1913-1932) 4 ZEROS
 STATISTICAL VALUES: MEAN = 529.437 STD = 412.121 SKEW = 3.482281
 LOG NORMAL & PIII: MEAN = 2.455664 STD = .211823 SKEW = 1.888889
 GUMBEL PARAMETERS: ALPHA = .205192 BETA = 343.224

RETURN PERIOD	AVERAGE	GAUSS/MEAN	RANK	GUMBEL	NORMAL	PRISM III
2.00	439.22	.0373	431.47	489.51	459.12	359.23
2.33	494.41	.1018	470.79	528.75	497.17	426.32
5.00	715.90	1.3487	492.11	925.44	687.27	619.28
10.00	837.43	1.7554	1037.79	1206.84	863.93	863.93
25.00	1259.90	2.3524	2410.79	1371.14	1072.42	1336.46
50.00	1764.40	2.8476	2431.39	1548.74	1241.28	1854.35
100.00	1936.07	3.4444	2471.43	1722.91	1627.45	2377.66
200.00	2402.25	4.2461	2172.54	2044.34	1872.17	3052.53

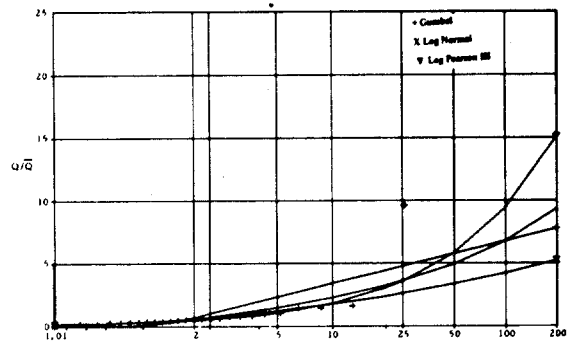
Appendix A-50. Vermont 13-18. Flood frequency curves and data.





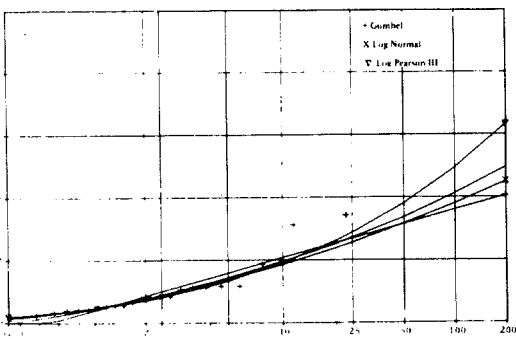
STATION #1020000 ABRAMS CREEK NEAR WINCHESTER, VA. 51
 PEAK = 982.0 CFS, AREA = 16,988 SQ MI, 11 DRS (1958-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 417.727 STD = 281.825 SKEW = .881873
 LOG NORMAL & PIII MEAN = 2.359163 STD = 2.00785 SKEW = 1.86745
 GUMBEL PARAMETERS: ALPHA = .895986 BETA = 304.485

RETURN PERIOD	AVERAGE	QAV/OHEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	358.93	.8618	379.89	378.45	354.94	348.39	
2.33	408.58	.9590	448.78	418.52	395.38	388.88	
5.00	508.73	1.4141	626.38	599.27	588.33	584.61	
10.00	762.48	1.8270	899.59	746.79	766.14	774.21	
25.00	1098.92	2.3981	1124.23	833.15	1015.36	1054.87	
50.00	1193.86	2.8588	1190.11	1071.44	1216.43	1292.12	
100.00	1398.49	3.3514	1236.55	1268.72	1434.84	1536.81	
200.00	1622.43	3.9791	1293.27	1345.47	1665.24	1858.58	



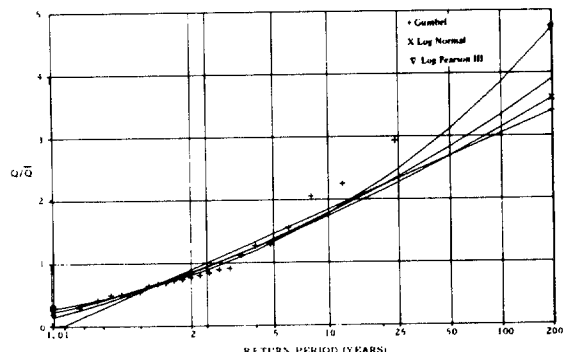
STATION #1020000 NORTH RIVER NEAR STOKESVILLE, VA. 81
 PEAK = 1118.0 CFS, AREA = 17,199 SQ MI, 28 DRS (1947-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1182.758 STD = 212.714 SKEW = 4.83360
 LOG NORMAL & PIII MEAN = 2.839321 STD = 1.845132 SKEW = 1.408817
 GUMBEL PARAMETERS: ALPHA = .896883 BETA = 186.938

RETURN PERIOD	AVERAGE	QAV/OHEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	689.15	.5973	682.88	685.87	689.74	678.83	
2.33	875.99	.7071	895.28	1188.44	882.88	887.74	
5.00	1777.99	1.5418	1222.20	2884.85	1481.88	1484.12	
10.00	2683.72	2.3367	1786.89	3827.56	3828.12	3124.47	
25.00	4214.18	3.6542	18736.89	3488.74	3818.93	4138.83	
50.00	5762.39	4.9943	15548.89	6884.33	3884.10	6738.48	
100.00	7656.98	6.8891	17845.88	7821.81	4885.88	10881.87	
200.00	10786.98	9.3528	18147.58	8874.88	6819.13	17382.78	



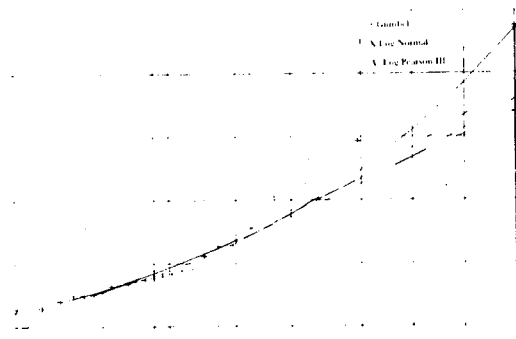
STATION #1021200 WAP BRANCH NEAR HINTON, VA. 51
 PEAK = 2890.0 CFS, AREA = 8,459 SQ MI, 22 DRS (1949-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 739.681 STD = 896.300 SKEW = 2.88870
 LOG NORMAL & PIII MEAN = 2.759887 STD = 2.04687 SKEW = 1.539488
 GUMBEL PARAMETERS: ALPHA = .892112 BETA = 437.815

RETURN PERIOD	AVERAGE	QAV/OHEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	581.07	.7864	385.88	631.38	574.43	548.39	
2.33	663.88	.8883	423.71	732.59	648.15	618.31	
5.00	1958.56	1.4487	958.88	1017.82	1214.52	981.34	
10.00	1834.73	1.8635	2814.88	1325.84	1374.84	1411.18	
25.00	1898.16	2.7237	2516.79	1971.86	1882.83	2114.81	
50.00	2488.48	3.1799	2613.59	2394.81	2313.81	2786.82	
100.00	3812.47	4.1288	2681.88	2835.81	2785.82	3810.28	
200.00	3818.20	4.9883	2685.84	2884.81	3294.86	4031.87	



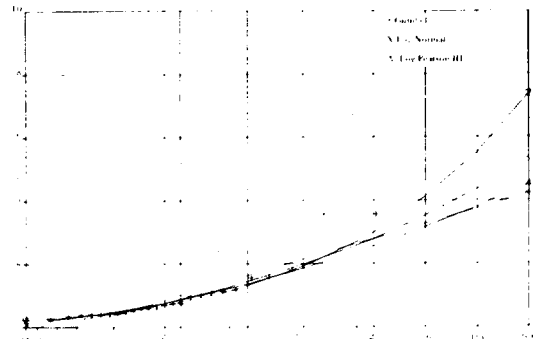
STATION #1020010 HAPPY CREEK AT FRONT ROYAL, VA. 51
 PEAK = 2480.0 CFS, AREA = 14,088 SQ MI, 23 DRS (1949-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 849.852 STD = 552.448 SKEW = 1.718811
 LOG NORMAL & PIII MEAN = 2.650124 STD = 2.243185 SKEW = .518289
 GUMBEL PARAMETERS: ALPHA = .892316 BETA = 681.448

RETURN PERIOD	AVERAGE	QAV/OHEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	723.88	.8317	638.88	758.11	732.87	686.81	
2.33	884.88	.8483	787.13	851.88	788.87	761.33	
5.00	1188.88	1.3889	1146.88	1247.81	1158.34	1188.79	
10.00	1923.88	1.7882	1832.88	1871.59	1481.88	1481.88	
25.00	2887.18	2.3822	2312.79	1888.48	1887.37	2113.54	
50.00	2488.88	2.8310	2786.39	2283.81	2283.84	2858.71	
100.00	2848.88	3.2455	2823.19	2584.82	2888.28	3277.28	
200.00	3318.74	3.8834	2891.39	2888.83	3857.22	4888.12	



STATION #1020010 HAPPY CREEK AT FRONT ROYAL, VA. 51
 PEAK = 2480.0 CFS, AREA = 14,088 SQ MI, 23 DRS (1949-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 849.852 STD = 552.448 SKEW = 1.718811
 LOG NORMAL & PIII MEAN = 2.650124 STD = 2.243185 SKEW = .518289
 GUMBEL PARAMETERS: ALPHA = .892316 BETA = 681.448

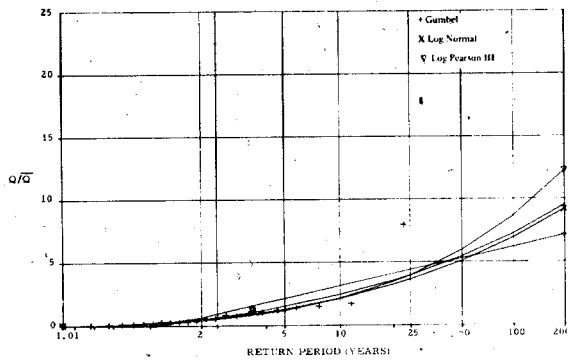
RETURN PERIOD	AVERAGE	QAV/OHEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	723.88	.8317	638.88	758.11	732.87	686.81	
2.33	884.88	.8483	787.13	851.88	788.87	761.33	
5.00	1188.88	1.3889	1146.88	1247.81	1158.34	1188.79	
10.00	1923.88	1.7882	1832.88	1871.59	1481.88	1481.88	
25.00	2887.18	2.3822	2312.79	1888.48	1887.37	2113.54	
50.00	2488.88	2.8310	2786.39	2283.81	2283.84	2858.71	
100.00	2848.88	3.2455	2823.19	2584.82	2888.28	3277.28	
200.00	3318.74	3.8834	2891.39	2888.83	3857.22	4888.12	



STATION #1020010 HAPPY CREEK AT FRONT ROYAL, VA. 51
 PEAK = 2480.0 CFS, AREA = 14,088 SQ MI, 23 DRS (1949-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 849.852 STD = 552.448 SKEW = 1.718811
 LOG NORMAL & PIII MEAN = 2.650124 STD = 2.243185 SKEW = .518289
 GUMBEL PARAMETERS: ALPHA = .892316 BETA = 681.448

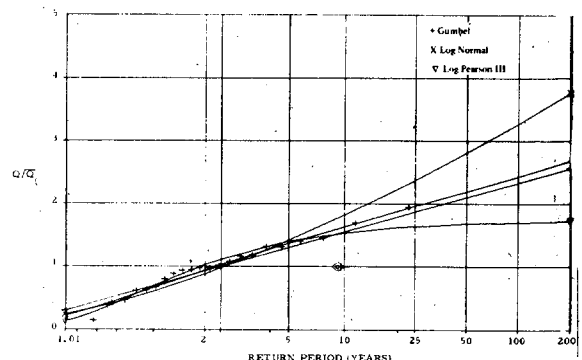
RETURN PERIOD	AVERAGE	QAV/OHEAN	PROB	GUMBEL	NORMAL	LOG	LOG PIII
2.00	723.88	.8317	638.88	758.11	732.87	686.81	
2.33	884.88	.8483	787.13	851.88	788.87	761.33	
5.00	1188.88	1.3889	1146.88	1247.81	1158.34	1188.79	
10.00	1923.88	1.7882	1832.88	1871.59	1481.88	1481.88	
25.00	2887.18	2.3822	2312.79	1888.48	1887.37	2113.54	
50.00	2488.88	2.8310	2786.39	2283.81	2283.84	2858.71	
100.00	2848.88	3.2455	2823.19	2584.82	2888.28	3277.28	
200.00	3318.74	3.8834	2891.39	2888.83	3857.22	4888.12	

Appendix A-51. Virginia 1-6. Flood frequency curves and data.



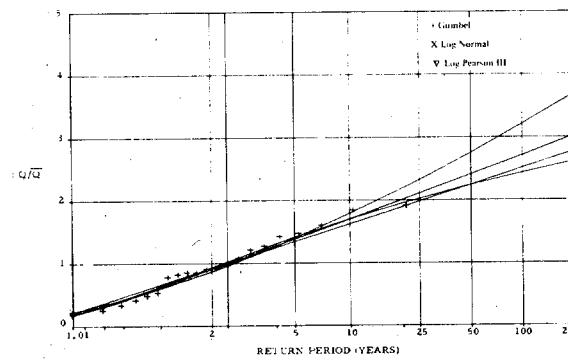
STATION 8165550P CEDAR RUN NEAR WARRENTON, VA. 51
 PEAK = 14500.0 CFS. AREA = 13.000 SQ MI. 22 OBS (1743-1971) 1 2E+05
 STATISTICAL VALUES: MEAN = 1819.700 STD = 3744.528 SKEW = 3.942774
 LOG NORMAL & PITTI MEANL = 2.973257 STDL = .487198 SKEWL = .294493
 GUMBEL PARAMETER: ALPHA = .029420 BETA = 447.252

RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	PROB	GUMBEL	LOGN	LOGN	LOGN
2.00	806.84	.4385	886.82	1137.34	892.23	832.21	832.21	832.21
2.33	1254.34	.6919	1114.22	1577.94	1084.55	1078.54	1078.54	1078.54
5.00	2824.35	1.5364	2352.88	3888.56	2336.38	2278.80	2278.80	2278.80
10.00	4488.42	2.4688	2896.03	5879.56	3854.35	3251.82	3251.82	3251.82
25.00	7248.67	3.9860	3542.00	7936.94	5847.74	4255.32	4255.32	4255.32
50.00	9912.78	5.4525	3654.77	9640.90	6737.51	4899.82	4899.82	4899.82
100.00	13215.92	7.2694	3578.84	11269.98	7576.41	5461.48	5461.48	5461.48
200.00	17742.50	9.7118	24969.82	12923.53	8640.14	6231.46	6231.46	6231.46



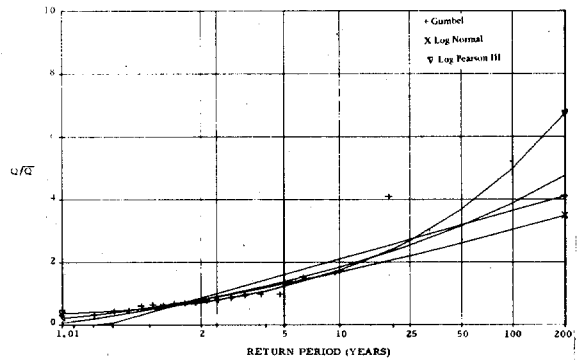
STATION 8165620P BROAD RUN NEAR WARRENTON, VA. 51
 PEAK = 2981.0 CFS. AREA = 2.940 SQ MI. 22 OBS (1958-1971) 3 2E+08
 STATISTICAL VALUES: MEAN = 183.865 STD = 43.464 SKEW = 1.02273
 LOG NORMAL & PITTI MEANL = 1.061996 STDL = .243143 SKEWL = -1.069443
 GUMBEL PARAMETER: ALPHA = .029188 BETA = 83.297

RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	PROB	GUMBEL	LOGN	LOGN	LOGN
2.00	97.87	.4488	108.00	95.85	91.62	91.62	91.62	91.62
2.33	108.34	1.0338	108.00	103.18	101.25	101.25	101.25	101.25
5.00	141.97	1.3777	130.80	134.69	140.53	144.50	144.50	144.50
10.00	169.95	1.6386	107.50	168.39	167.88	168.59	168.59	168.59
25.00	282.73	1.8886	182.00	192.87	244.40	194.83	194.83	194.83
50.00	228.58	2.1987	213.50	216.04	249.91	173.11	173.11	173.11
100.00	251.35	2.4392	219.25	248.88	337.42	175.73	175.73	175.73
200.00	276.82	2.6844	222.15	284.72	387.72	175.35	175.35	175.35



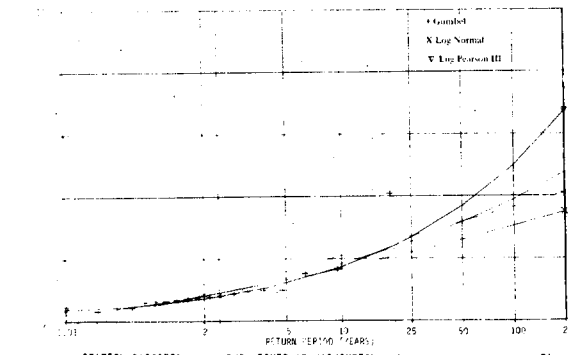
STATION 8165550P SOUTH FORK QUANTICO RIVER INDEPENDENT HILL, VA. 51
 PEAK = 1842.0 CFS. AREA = 7.848 SQ MI. 22 OBS (1952-1971) 3 2E+08
 STATISTICAL VALUES: MEAN = 542.650 STD = 209.948 SKEW = 1.44845
 LOG NORMAL & PITTI MEANL = 2.677791 STDL = .242115 SKEWL = -.668658
 GUMBEL PARAMETER: ALPHA = .074489 BETA = 425.723

RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	PROB	GUMBEL	LOGN	LOGN	LOGN
2.00	404.16	.5174	400.50	499.88	476.27	506.41	506.41	506.41
2.33	442.29	.6303	527.90	543.47	527.42	557.31	557.31	557.31
5.00	753.25	1.3442	795.72	737.77	741.35	767.49	767.49	767.49
10.00	958.48	1.7700	987.20	853.73	922.40	924.62	924.62	924.62
25.00	1146.94	2.1137	1046.30	1276.74	1264.73	1109.71	1109.71	1109.71
50.00	1311.73	2.4150	1053.10	1270.37	1466.57	1216.46	1216.46	1216.46
100.00	1475.34	2.7178	1071.30	1352.32	1742.22	1321.53	1321.53	1321.53
200.00	1647.44	3.0234	1075.70	1504.01	2076.95	1417.72	1417.72	1417.72



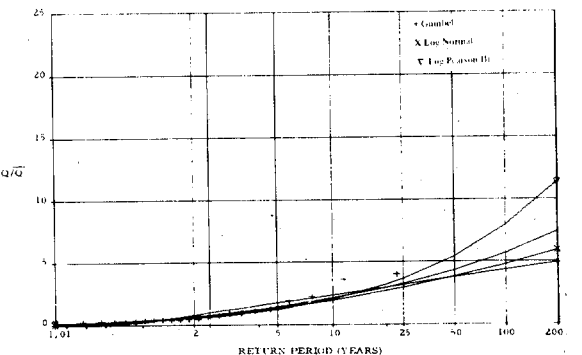
STATION 8166250P RUSH RIVER AT WASHINGTON, VA. 51
 PEAK = 2096.7 CFS. AREA = 15.100 SQ MI. 18 OBS (1954-1971) 3 2E+08
 STATISTICAL VALUES: MEAN = 819.386 STD = 514.428 SKEW = 3.231847
 LOG NORMAL & PITTI MEANL = 2.785482 STDL = .242222 SKEWL = 1.387285
 GUMBEL PARAMETER: ALPHA = .022288 BETA = 376.776

RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	PROB	GUMBEL	LOGN	LOGN	LOGN
2.00	404.43	.5174	452.50	528.83	507.45	451.08	451.08	451.08
2.33	459.19	.6312	494.14	612.80	561.57	625.04	625.04	625.04
5.00	853.13	1.3927	475.00	981.43	811.52	737.44	737.44	737.44
10.00	1139.70	1.8517	1164.00	1282.09	1137.14	1076.79	1076.79	1076.79
25.00	1537.40	2.5434	2495.10	1683.91	1347.58	1045.88	1045.88	1045.88
50.00	1937.37	3.4623	3417.50	1948.55	1595.60	2446.86	2446.86	2446.86
100.00	2379.11	4.8064	3694.70	2227.07	1897.71	3146.35	3146.35	3146.35
200.00	2917.12	6.7791	3839.30	2506.57	2132.54	4111.15	4111.15	4111.15



STATION 8166250P RUSH RIVER AT WASHINGTON, VA. 51
 PEAK = 2096.7 CFS. AREA = 15.100 SQ MI. 18 OBS (1954-1971) 3 2E+08
 STATISTICAL VALUES: MEAN = 819.386 STD = 514.428 SKEW = 3.231847
 LOG NORMAL & PITTI MEANL = 2.785482 STDL = .242222 SKEWL = 1.387285
 GUMBEL PARAMETER: ALPHA = .022288 BETA = 376.776

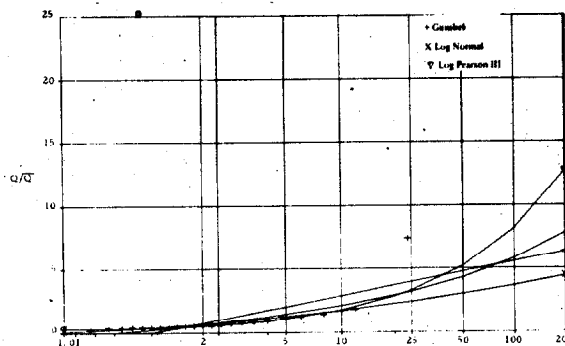
RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	PROB	GUMBEL	LOGN	LOGN	LOGN
2.00	404.43	.5174	452.50	528.83	507.45	451.08	451.08	451.08
2.33	459.19	.6312	494.14	612.80	561.57	625.04	625.04	625.04
5.00	853.13	1.3927	475.00	981.43	811.52	737.44	737.44	737.44
10.00	1139.70	1.8517	1164.00	1282.09	1137.14	1076.79	1076.79	1076.79
25.00	1537.40	2.5434	2495.10	1683.91	1347.58	1045.88	1045.88	1045.88
50.00	1937.37	3.4623	3417.50	1948.55	1595.60	2446.86	2446.86	2446.86
100.00	2379.11	4.8064	3694.70	2227.07	1897.71	3146.35	3146.35	3146.35
200.00	2917.12	6.7791	3839.30	2506.57	2132.54	4111.15	4111.15	4111.15



STATION 8167000P BEAVERDAM SWAMP NEAR ELK, VA. 51
 PEAK = 574.0 CFS. AREA = 7.100 SQ MI. 22 OBS (1953-1971) 3 2E+08
 STATISTICAL VALUES: MEAN = 142.456 STD = 156.488 SKEW = 1.908218
 LOG NORMAL & PITTI MEANL = 1.081015 STDL = .344490 SKEWL = .051867
 GUMBEL PARAMETER: ALPHA = .080511 BETA = 73.730

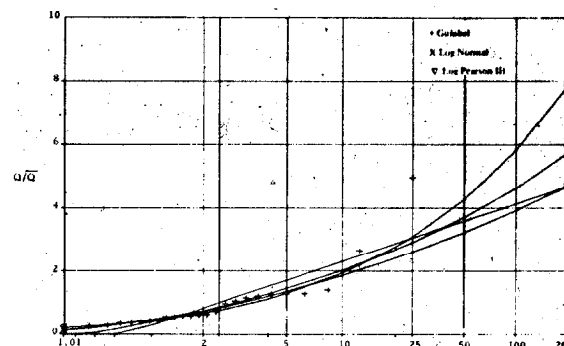
RETURN PERIOD	AVERAGE	QAV/QMEAN	RANK	PROB	GUMBEL	LOGN	LOGN	LOGN
2.00	99.52	.7821	85.00	116.74	95.92	85.25	85.25	85.25
2.33	117.43	.8391	83.99	141.92	111.44	96.83	96.83	96.83
5.00	269.45	1.4807	216.84	249.95	194.27	183.83	183.83	183.83
10.00	384.04	2.1557	257.23	338.11	281.27	295.13	295.13	295.13
25.00	461.90	3.2832	374.31	440.31	417.76	517.53	517.53	517.53
50.00	613.95	4.3339	590.15	532.14	538.76	706.26	706.26	706.26
100.00	804.89	5.7438	811.57	614.17	677.49	1126.85	1126.85	1126.85
200.00	1047.40	7.4251	817.73	695.90	834.85	1611.92	1611.92	1611.92

Appendix A-51. Virginia 7-12. Flood frequency curves and data.



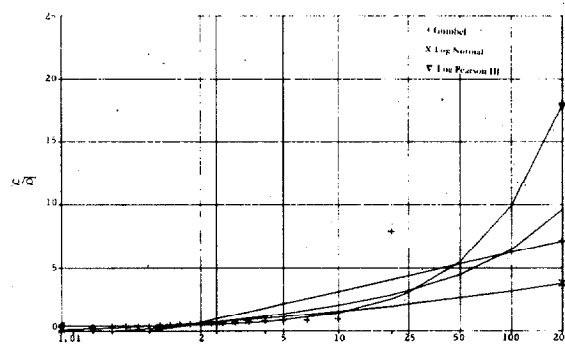
STATION 8187000 MUFSON CREEK NEAR ROUTHILLS TAVERN, VA. 51
 PEAK = 2740.0 CFS. AREA = 4.100 SQ MI. 23 DRS (1940-1971) 3 ZEROS
 STATISTICAL VALUES: MEAN = 372.098 STD = 554.355 SKEW = 4.282814
 LOG NORMAL & PIII: MEAN = 2.409188 STD = 3.12552 SKEW = 1.722223
 GUMBEL PARAMETERS: ALPHA = .002374 BETA = 124.352

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	259.61	.6955	214.8	282.44	254.73	212.30
2.33	311.19	.8118	237.15	372.95	291.27	238.05
3.00	367.88	1.0790	260.19	759.22	476.46	413.97
10.00	704.48	2.1443	628.82	1274.74	844.54	866.87
25.00	1261.83	3.2392	2010.73	1473.19	974.77	1225.72
50.00	1844.30	4.3355	3426.59	1700.19	1195.31	1836.76
100.00	2111.77	5.6706	4323.19	2042.84	1358.79	3323.85
200.00	2635.73	7.8253	4711.59	2555.15	1755.47	6710.11



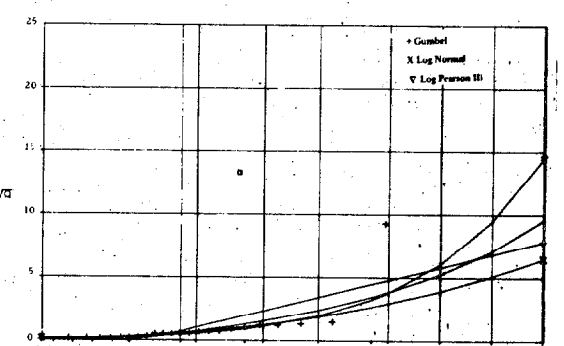
STATION 8187000 MUFSON CREEK NEAR ROUTHILLS TAVERN, VA. 51
 PEAK = 2740.0 CFS. AREA = 4.100 SQ MI. 23 DRS (1940-1971) 3 ZEROS
 STATISTICAL VALUES: MEAN = 372.098 STD = 554.355 SKEW = 4.282814
 LOG NORMAL & PIII: MEAN = 2.409188 STD = 3.12552 SKEW = 1.722223
 GUMBEL PARAMETERS: ALPHA = .002374 BETA = 124.352

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	259.61	.6955	214.8	282.44	254.73	212.30
2.33	311.19	.8118	237.15	372.95	291.27	238.05
3.00	367.88	1.0790	260.19	759.22	476.46	413.97
10.00	704.48	2.1443	628.82	1274.74	844.54	866.87
25.00	1261.83	3.2392	2010.73	1473.19	974.77	1225.72
50.00	1844.30	4.3355	3426.59	1700.19	1195.31	1836.76
100.00	2111.77	5.6706	4323.19	2042.84	1358.79	3323.85
200.00	2635.73	7.8253	4711.59	2555.15	1755.47	6710.11



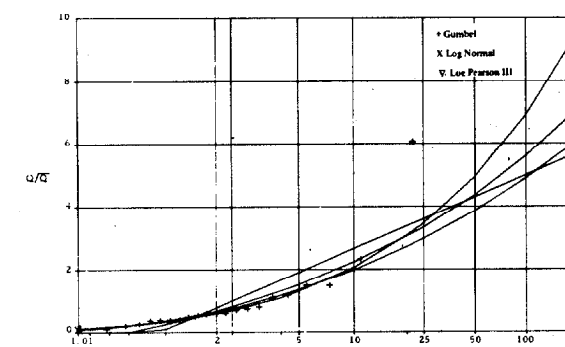
STATION 8187000 MUFSON CREEK NEAR ROUTHILLS TAVERN, VA. 51
 PEAK = 2740.0 CFS. AREA = 4.100 SQ MI. 23 DRS (1940-1971) 3 ZEROS
 STATISTICAL VALUES: MEAN = 372.098 STD = 554.355 SKEW = 4.282814
 LOG NORMAL & PIII: MEAN = 2.409188 STD = 3.12552 SKEW = 1.722223
 GUMBEL PARAMETERS: ALPHA = .002374 BETA = 124.352

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	259.61	.6955	214.8	282.44	254.73	212.30
2.33	311.19	.8118	237.15	372.95	291.27	238.05
3.00	367.88	1.0790	260.19	759.22	476.46	413.97
10.00	704.48	2.1443	628.82	1274.74	844.54	866.87
25.00	1261.83	3.2392	2010.73	1473.19	974.77	1225.72
50.00	1844.30	4.3355	3426.59	1700.19	1195.31	1836.76
100.00	2111.77	5.6706	4323.19	2042.84	1358.79	3323.85
200.00	2635.73	7.8253	4711.59	2555.15	1755.47	6710.11



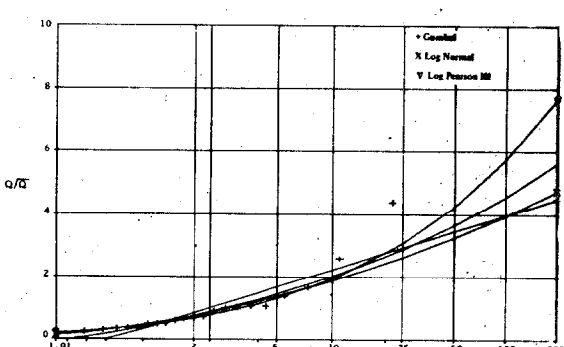
STATION 8187000 MUFSON CREEK NEAR ROUTHILLS TAVERN, VA. 51
 PEAK = 2740.0 CFS. AREA = 4.100 SQ MI. 23 DRS (1940-1971) 3 ZEROS
 STATISTICAL VALUES: MEAN = 372.098 STD = 554.355 SKEW = 4.282814
 LOG NORMAL & PIII: MEAN = 2.409188 STD = 3.12552 SKEW = 1.722223
 GUMBEL PARAMETERS: ALPHA = .002374 BETA = 124.352

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	259.61	.6955	214.8	282.44	254.73	212.30
2.33	311.19	.8118	237.15	372.95	291.27	238.05
3.00	367.88	1.0790	260.19	759.22	476.46	413.97
10.00	704.48	2.1443	628.82	1274.74	844.54	866.87
25.00	1261.83	3.2392	2010.73	1473.19	974.77	1225.72
50.00	1844.30	4.3355	3426.59	1700.19	1195.31	1836.76
100.00	2111.77	5.6706	4323.19	2042.84	1358.79	3323.85
200.00	2635.73	7.8253	4711.59	2555.15	1755.47	6710.11



STATION 8187000 MUFSON CREEK NEAR ROUTHILLS TAVERN, VA. 51
 PEAK = 2740.0 CFS. AREA = 4.100 SQ MI. 23 DRS (1940-1971) 3 ZEROS
 STATISTICAL VALUES: MEAN = 372.098 STD = 554.355 SKEW = 4.282814
 LOG NORMAL & PIII: MEAN = 2.409188 STD = 3.12552 SKEW = 1.722223
 GUMBEL PARAMETERS: ALPHA = .002374 BETA = 124.352

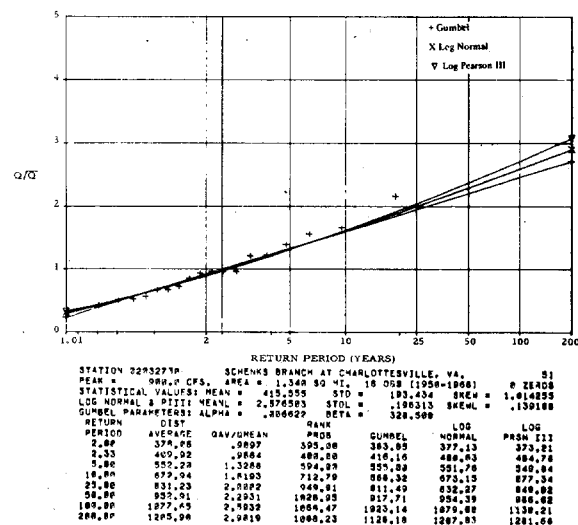
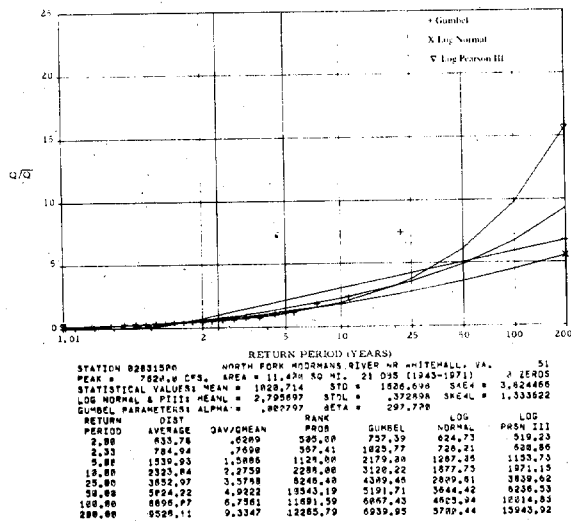
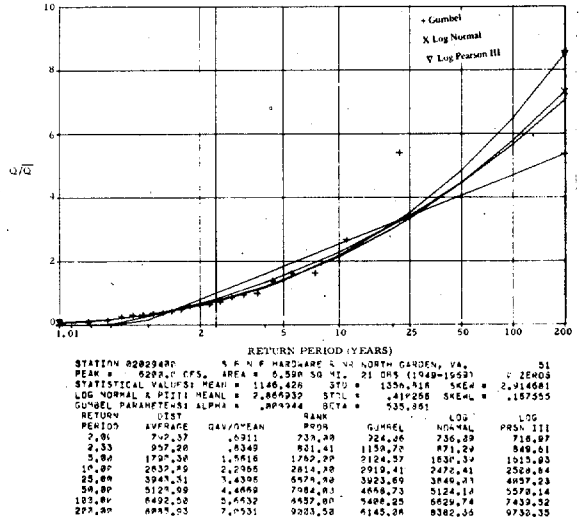
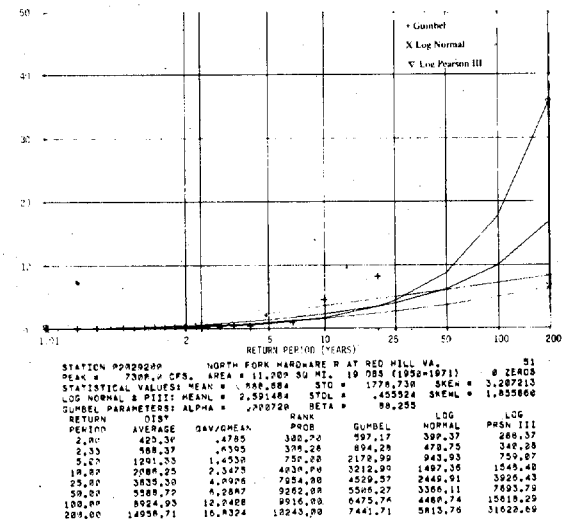
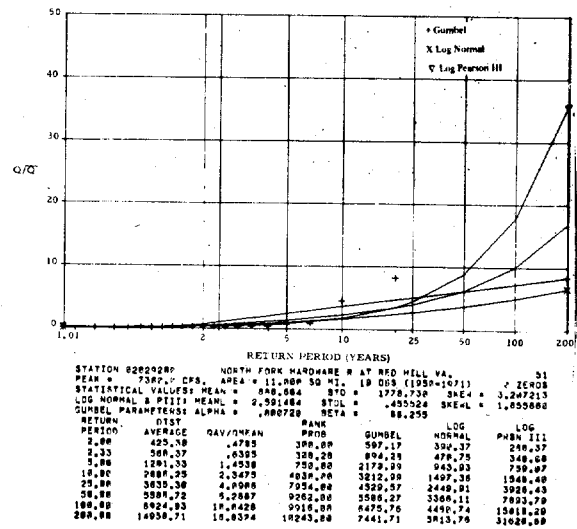
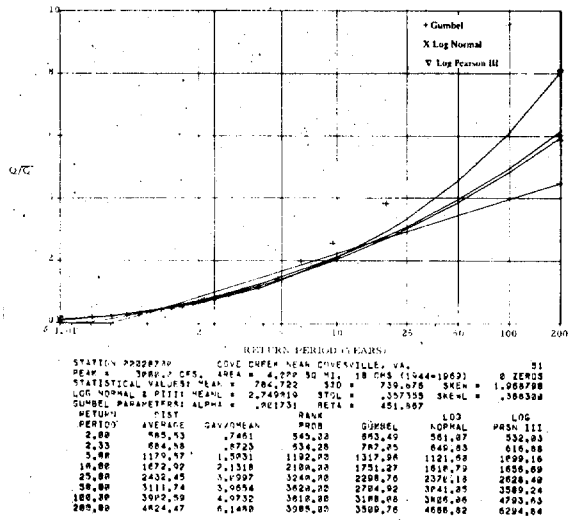
RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	259.61	.6955	214.8	282.44	254.73	212.30
2.33	311.19	.8118	237.15	372.95	291.27	238.05
3.00	367.88	1.0790	260.19	759.22	476.46	413.97
10.00	704.48	2.1443	628.82	1274.74	844.54	866.87
25.00	1261.83	3.2392	2010.73	1473.19	974.77	1225.72
50.00	1844.30	4.3355	3426.59	1700.19	1195.31	1836.76
100.00	2111.77	5.6706	4323.19	2042.84	1358.79	3323.85
200.00	2635.73	7.8253	4711.59	2555.15	1755.47	6710.11



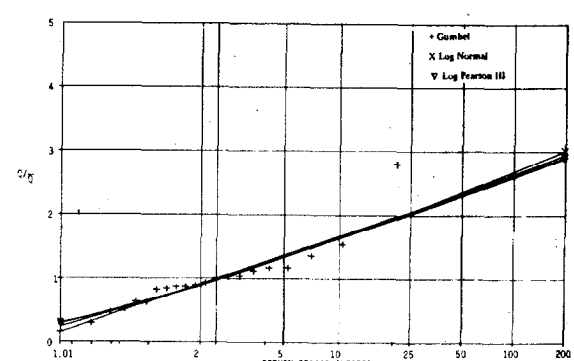
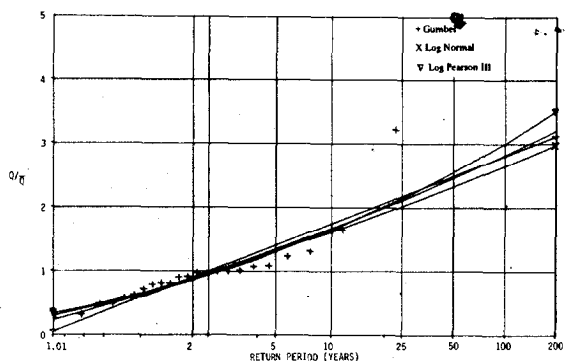
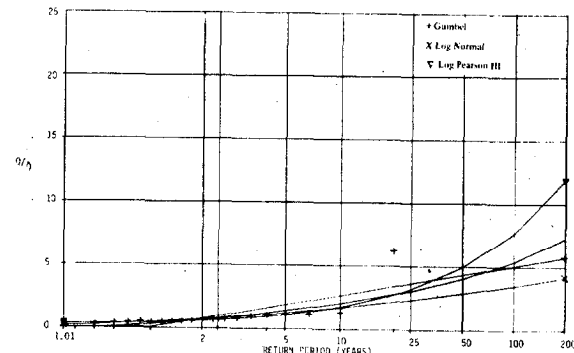
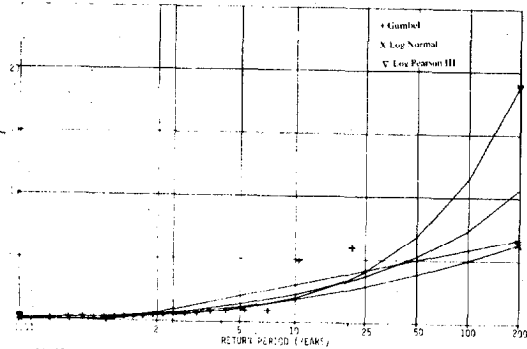
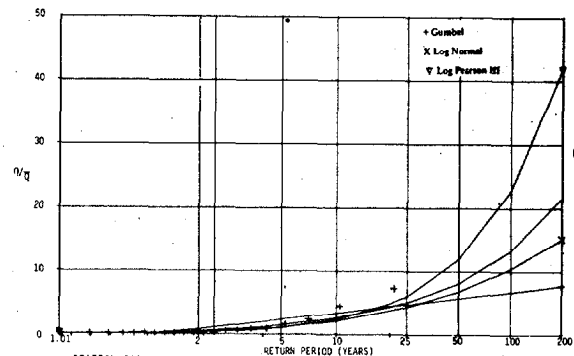
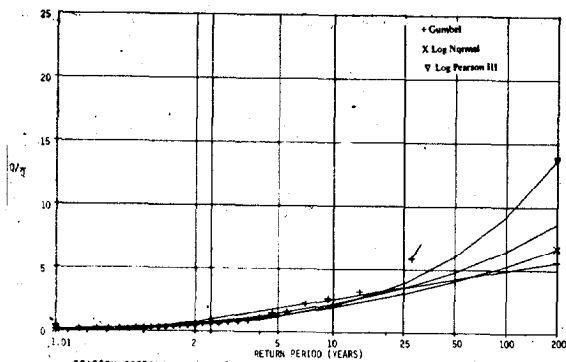
STATION 8187000 MUFSON CREEK NEAR ROUTHILLS TAVERN, VA. 51
 PEAK = 2740.0 CFS. AREA = 4.100 SQ MI. 23 DRS (1940-1971) 3 ZEROS
 STATISTICAL VALUES: MEAN = 372.098 STD = 554.355 SKEW = 4.282814
 LOG NORMAL & PIII: MEAN = 2.409188 STD = 3.12552 SKEW = 1.722223
 GUMBEL PARAMETERS: ALPHA = .002374 BETA = 124.352

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PEARSON III
2.00	259.61	.6955	214.8	282.44	254.73	212.30
2.33	311.19	.8118	237.15	372.95	291.27	238.05
3.00	367.88	1.0790	260.19	759.22	476.46	413.97
10.00	704.48	2.1443	628.82	1274.74	844.54	866.87
25.00	1261.83	3.2392	2010.73	1473.19	974.77	1225.72
50.00	1844.30	4.3355	3426.59	1700.19	1195.31	1836.76
100.00	2111.77	5.6706	4323.19	2042.84	1358.79	3323.85
200.00	2635.73	7.8253	4711.59	2555.15	1755.47	6710.11

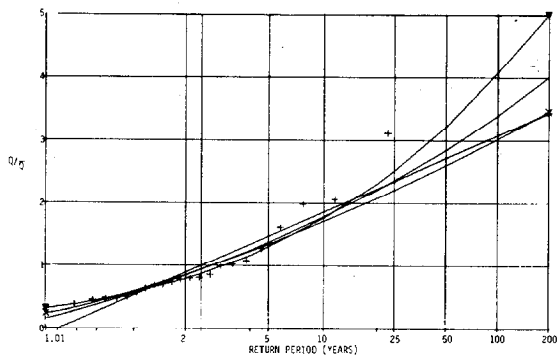
Appendix A-51. Virginia 13-18. Flood frequency curves and data.



Appendix A-51. Virginia 19-24. Flood frequency curves and data.

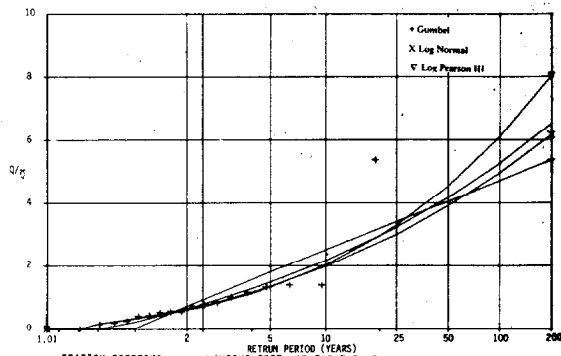


Appendix A-51. Virginia 25-30. Flood frequency curves and data.



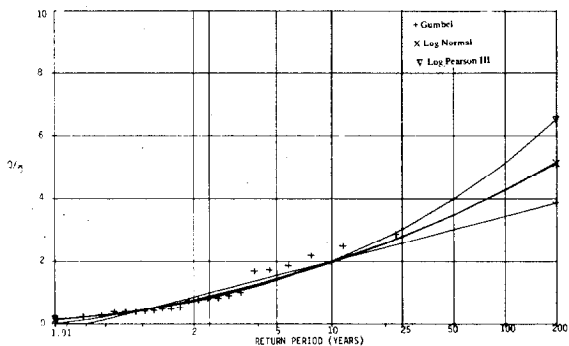
STATION 82883MR HENINGER CREEK NEAR BEDFORD, VA. 31
PEAK = 2280.0 CFS. AREA = 4.775 SQ MI. 22 DBS (1949-1971) 3 ZEROS
STATISTICAL VALUES: MEAN = 785.636 STD = 467.528 SKEW = 1.951435
LOG NORMAL & PIII: MEAN = 7.708247 STD = .233093 SKEW = .773734
GUMBEL PARAMETERS: ALPHA = .002739 BETA = 485.236

RETURN PERIOD	AVERAGE	DAV/MEAN	RANK	GUMBEL	LOG	LOG	LOG
2.00	598.12	.8476	555.88	628.00	682.90	562.47	
2.33	603.65	.9485	574.20	707.10	664.31	510.33	
5.00	655.90	1.3763	606.00	1042.75	959.64	922.41	
10.00	1257.42	1.7819	1435.00	1316.68	1289.85	1245.73	
25.00	1866.10	2.5611	2288.00	1862.41	1901.39	1774.12	
50.00	2618.97	2.4403	2825.00	1919.34	1848.76	1271.37	
100.00	2984.12	3.3928	2777.50	2174.45	2134.79	2873.12	
200.00	2824.22	4.0223	2653.75	2428.40	2443.17	3561.10	



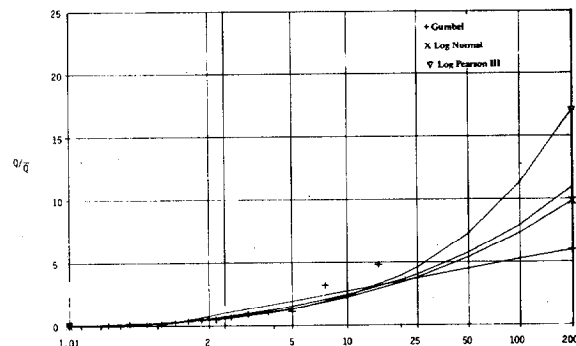
STATION 77403MR LAWSON CREEK AT TURNERVILLE, VA. 31
PEAK = 7740.0 CFS. AREA = 8.780 SQ MI. 18 DBS (1951-1968) 1 ZERO
STATISTICAL VALUES: MEAN = 1439.117 STD = 1786.233 SKEW = 3.588488
LOG NORMAL & PIII: MEAN = 2.886174 STD = .373886 SKEW = .386005
GUMBEL PARAMETERS: ALPHA = .008742 BETA = 682.312

RETURN PERIOD	AVERAGE	DAV/MEAN	RANK	GUMBEL	LOG	LOG	LOG
2.00	948.75	.6592	915.88	1043.22	930.46	872.56	
2.33	1143.62	.7546	1092.05	1348.06	1082.42	1028.39	
5.00	2140.48	1.4929	1926.00	2596.95	1946.32	1888.97	
10.00	3134.74	2.1782	2574.00	3613.46	2671.75	2616.02	
25.00	4867.15	3.2291	3117.00	4892.06	4316.47	4732.12	
50.00	5987.82	4.1677	1286.70	5842.39	5624.62	6526.46	
100.00	7361.04	5.2539	1230.30	6783.86	7129.34	8768.74	
200.00	9306.85	6.3887	1293.69	7721.92	8842.31	11536.92	



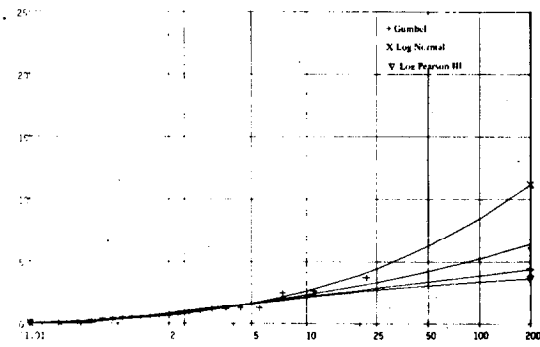
STATION 82935MR GENESSEE CREEK NEAR SALINA, VA. 31
PEAK = 1440.0 CFS. AREA = 0.288 SQ MI. 22 DBS (1959-1971) 3 ZEROS
STATISTICAL VALUES: MEAN = 580.439 STD = 389.720 SKEW = 1.192162
LOG NORMAL & PIII: MEAN = 2.553480 STD = .329405 SKEW = .548412
GUMBEL PARAMETERS: ALPHA = .003284 BETA = 325.212

RETURN PERIOD	AVERAGE	DAV/MEAN	RANK	GUMBEL	LOG	LOG	LOG
2.00	395.00	.7912	385.70	436.71	383.89	367.62	
2.33	453.27	.9471	399.35	501.81	437.61	419.80	
5.00	732.74	1.4403	891.79	781.35	713.65	702.73	
10.00	1172.27	2.0231	1205.70	1090.96	947.77	1014.68	
25.00	1474.94	2.4702	1455.10	1294.32	1396.98	1517.84	
50.00	1791.20	3.4084	1542.70	1512.33	1746.53	1925.62	
100.00	2143.40	4.2817	1586.70	1724.75	2135.47	2369.65	
200.00	2468.90	5.1674	1684.14	1936.33	2565.19	3259.16	



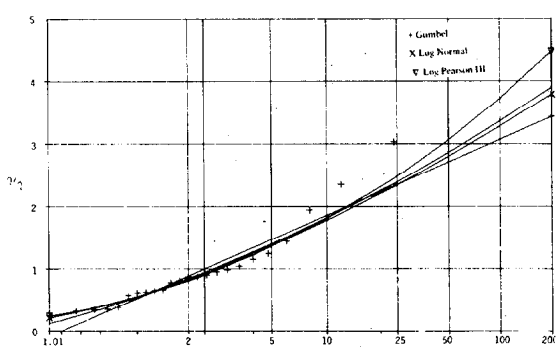
STATION 73189MR PEAK CREEK TRIBUTARY NEAR PULASKI, VA. 31
PEAK = 340.0 CFS. AREA = .815 SQ MI. 14 DBS (1949-1961) 2 ZEROS
STATISTICAL VALUES: MEAN = 77.783 STD = 95.971 SKEW = 2.252763
LOG NORMAL & PIII: MEAN = 1.571577 STD = .463882 SKEW = .521880
GUMBEL PARAMETERS: ALPHA = .013147 BETA = 27.598

RETURN PERIOD	AVERAGE	DAV/MEAN	RANK	GUMBEL	LOG	LOG	LOG
2.00	42.24	.3939	34.70	55.85	37.28	33.79	
2.33	52.22	.7448	41.05	71.08	45.68	41.43	
5.00	112.02	1.0543	80.70	139.97	96.35	93.14	
10.00	174.45	2.4663	284.70	176.19	159.78	167.69	
25.00	283.23	4.0974	384.70	267.22	272.29	328.51	
50.00	408.00	5.7644	418.30	317.32	384.61	526.25	
100.00	505.34	7.3647	435.10	372.23	523.37	749.40	
200.00	774.26	10.5385	443.50	424.15	603.41	1264.78	



STATION 73276MR HATCHER CREEK AT VASSANT, VA. 31
PEAK = 870.0 CFS. AREA = 1.000 SQ MI. 21 DBS (1951-1971) 5 ZEROS
STATISTICAL VALUES: MEAN = 1100.283 STD = 1112.113 SKEW = 1.616191
LOG NORMAL & PIII: MEAN = 7.487469 STD = .481740 SKEW = 1.115293
GUMBEL PARAMETERS: ALPHA = .001184 BETA = 590.485

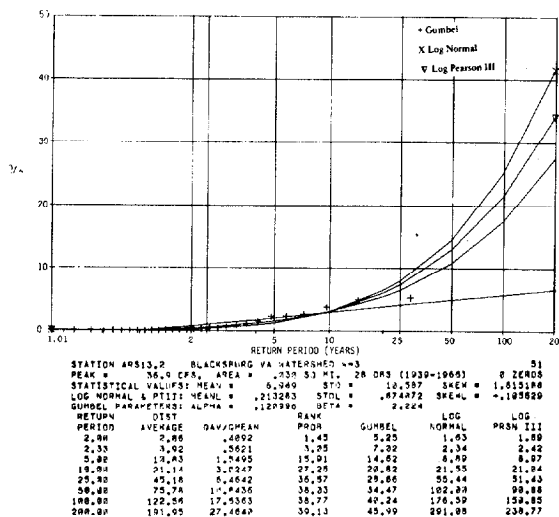
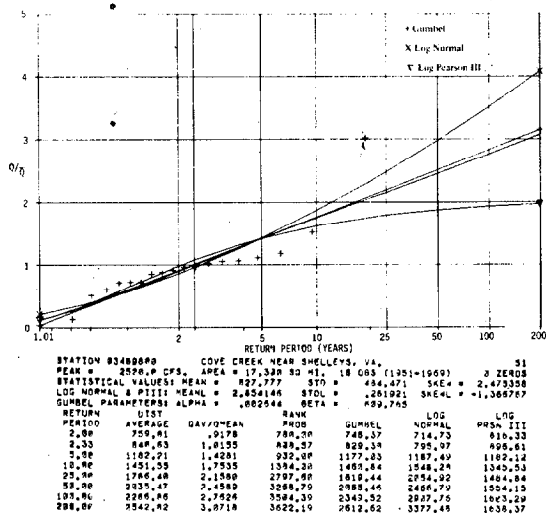
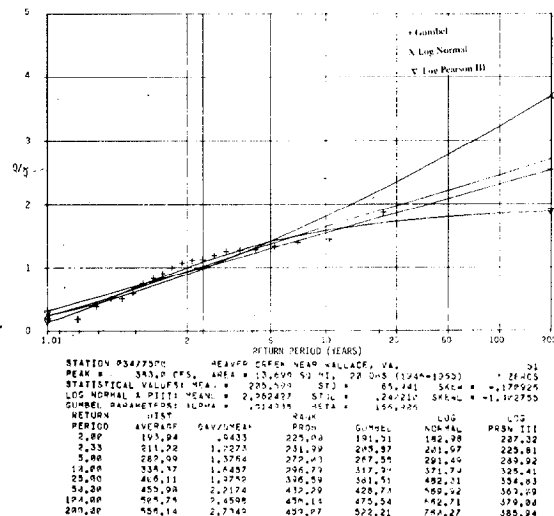
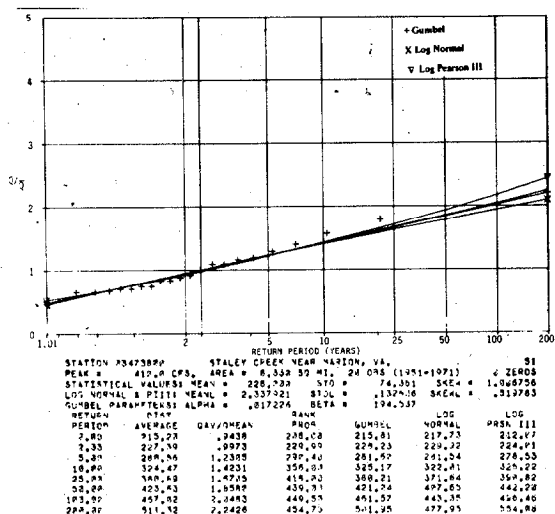
RETURN PERIOD	AVERAGE	DAV/MEAN	RANK	GUMBEL	LOG	LOG	LOG
2.00	515.47	.7950	799.00	1015.87	771.75	844.41	
2.33	1791.45	.9180	1070.00	1282.61	940.74	1130.84	
5.00	1981.97	1.4722	1580.00	2086.04	1983.10	1975.48	
10.00	2828.47	2.1584	3150.00	2861.65	3197.88	2626.87	
25.00	4064.87	3.3918	4712.10	3489.06	5382.35	3328.27	
50.00	5137.44	4.2789	5586.00	4124.50	7531.45	3755.98	
100.00	6339.11	5.7849	5893.00	4714.46	10161.51	4184.35	
200.00	7714.14	6.4322	5751.50	5322.20	13422.85	4397.36	



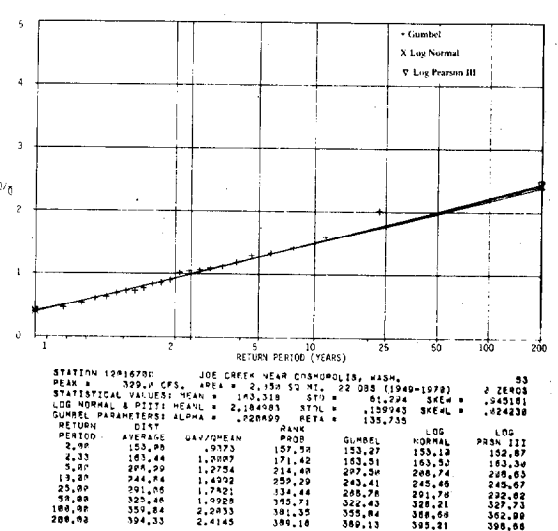
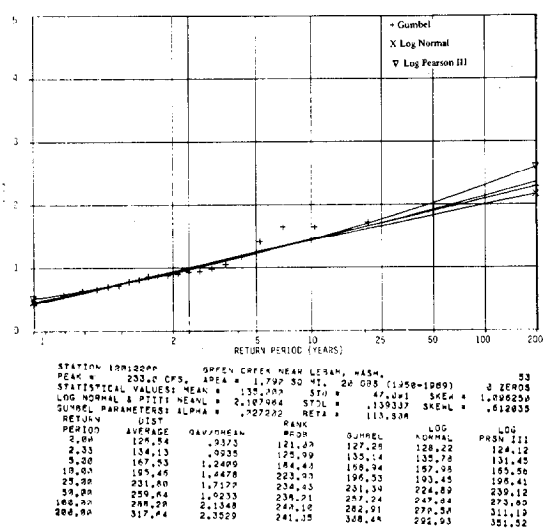
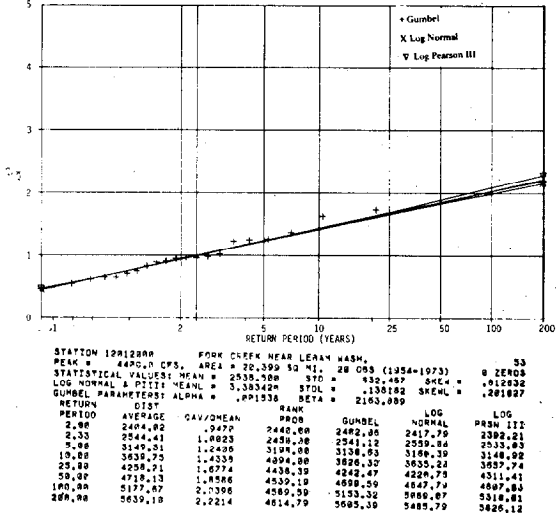
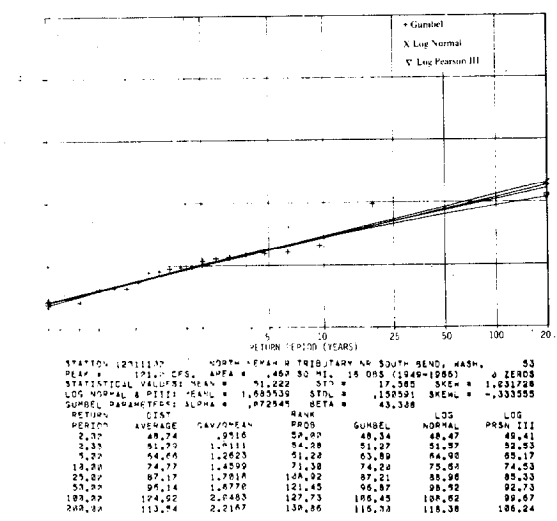
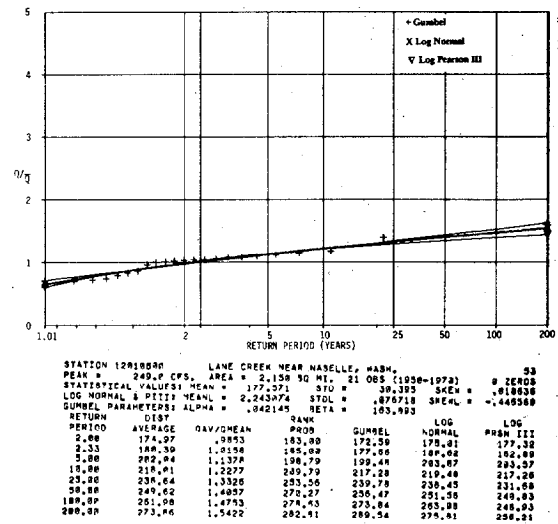
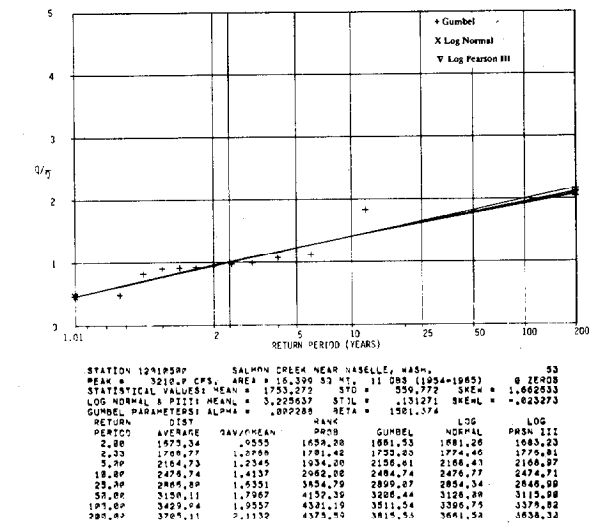
STATION 93423MR MIDDLE FORK HOLSTON AT SALSBURG, VA. 31
PEAK = 813.0 CFS. AREA = 7.380 SQ MI. 23 DBS (1948-1971) 8 ZEROS
STATISTICAL VALUES: MEAN = 267.730 STD = 177.110 SKEW = 1.616420
LOG NORMAL & PIII: MEAN = 2.353570 STD = .253691 SKEW = .287281
GUMBEL PARAMETERS: ALPHA = .007732 BETA = 188.135

RETURN PERIOD	AVERAGE	DAV/MEAN	RANK	GUMBEL	LOG	LOG	LOG
2.00	327.00	.4512	234.00	308.71	223.72	119.09	
2.33	254.15	.9492	230.71	266.29	231.55	245.88	
5.00	379.48	1.4460	343.20	395.42	369.23	365.48	
10.00	497.31	1.8281	366.50	499.19	472.32	480.23	
25.00	841.74	2.3950	428.27	632.20	624.38	665.19	
50.00	786.20	2.4921	597.63	727.34	756.41	821.33	
100.00	906.40	3.3633	591.31	824.40	876.64	107.74	
200.00	1044.80	3.9823	973.15	978.26	1017.38	1197.07	

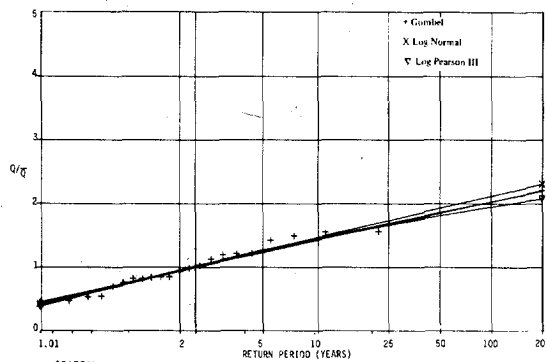
Appendix A-51. Virginia 31-36. Flood frequency curves and data.



Appendix A-51. Virginia 37-40. Flood frequency curves and data.

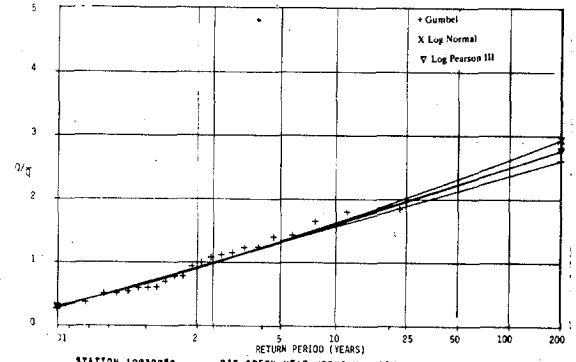


Appendix A-53. Washington 1-6. Flood frequency curves and data.



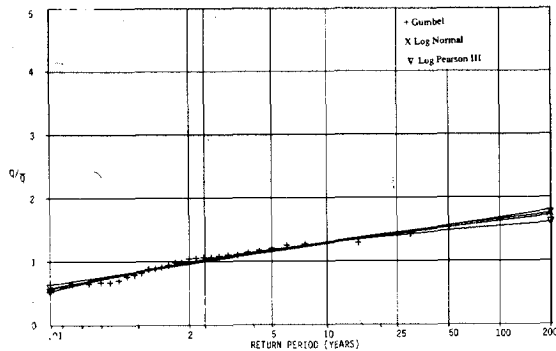
STATION 12819600 WATER MILL CREEK NEAR PELL, WASH. 53
 PEAK = 147.0 CFS. AREA = 1.989 SQ MI. 21 OBS (1950-1979) 2 ZEROS
 STATISTICAL VALUES: MEAN = 93.791 STD = 31.089 SKEW = -.288383
 LOG NORMAL & PIII: MEAN = 1.948191 STD = 1.58754 SKEW = -.525829
 GUMBEL PARAMETERS: ALPHA = .841385 BETA = 79.687

RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG	LOG	LOG
PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD
2.00	89.78	.9522	88.83	88.57	88.73	90.42	90.42
2.33	84.82	.9119	95.28	90.85	94.48	96.13	96.13
5.00	118.13	1.2595	124.48	116.11	118.85	119.33	119.33
10.00	136.42	1.4559	144.79	134.28	138.45	138.53	138.53
18.00	158.87	1.6944	147.12	157.23	162.58	158.43	158.43
25.00	175.13	1.8678	147.16	174.25	181.33	176.18	176.18
50.00	191.83	2.0374	147.76	191.15	199.88	192.92	192.92
100.00	206.66	2.2041	147.88	206.88	216.91	205.88	205.88



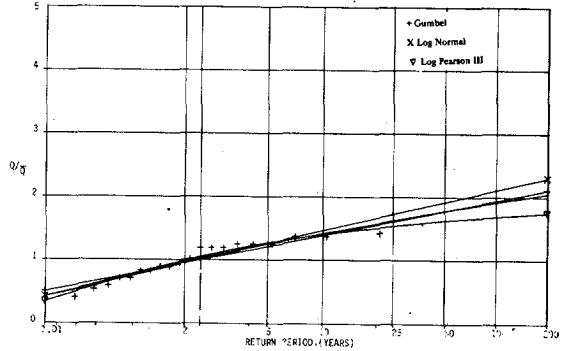
STATION 12839950 BIG CREEK NEAR MOQUIAM, WASH. 53
 PEAK = 123.0 CFS. AREA = .568 SQ MI. 22 OBS (1949-1978) 2 ZEROS
 STATISTICAL VALUES: MEAN = 86.480 STD = 29.185 SKEW = -.891658
 LOG NORMAL & PIII: MEAN = 1.780346 STD = .195236 SKEW = -.135767
 GUMBEL PARAMETERS: ALPHA = .843973 BETA = 53.388

RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG	LOG	LOG
PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD
2.00	86.07	.9181	85.88	81.83	86.33	86.93	86.93
2.33	86.82	.9362	72.42	86.38	85.45	86.13	86.13
5.00	88.27	1.3292	93.88	87.48	88.59	88.88	88.88
10.00	129.76	1.6977	117.68	104.47	108.29	107.92	107.92
18.00	138.49	1.9649	123.33	126.83	134.17	131.86	131.86
25.00	144.38	2.2339	124.82	142.82	154.87	148.86	148.86
50.00	165.35	2.5249	125.31	157.98	174.49	168.05	168.05
100.00	184.53	2.7788	125.55	173.72	190.48	184.48	184.48



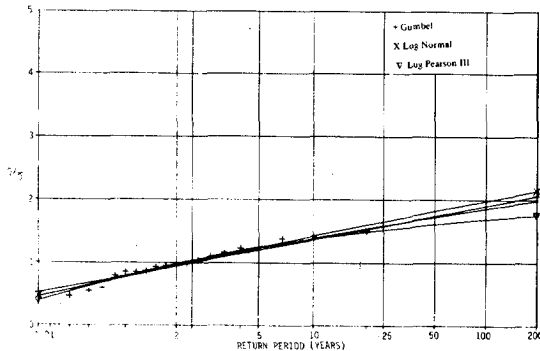
STATION 12837030 ROCK CREEK AT CEDARVILLE, WASH. 53
 PEAK = 1646.0 CFS. AREA = 24.828 SQ MI. 28 OBS (1945-1973) 2 ZEROS
 STATISTICAL VALUES: MEAN = 1141.955 STD = 249.881 SKEW = -.342813
 LOG NORMAL & PIII: MEAN = 3.347843 STD = .899248 SKEW = -.394588
 GUMBEL PARAMETERS: ALPHA = .805129 BETA = 1825.554

RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG	LOG	LOG
PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD
2.00	1117.55	.9758	1193.28	1191.42	1114.48	1131.23	1131.23
2.33	1149.37	1.0101	1224.38	1142.75	1187.79	1177.58	1177.58
5.00	1342.55	1.1756	1389.38	1322.84	1359.77	1354.54	1354.54
10.00	1479.47	1.2955	1480.88	1465.38	1493.81	1476.71	1476.71
18.00	1661.72	1.4376	1648.28	1633.28	1662.73	1658.16	1658.16
25.00	1755.67	1.5376	1754.38	1739.45	1781.82	1689.56	1689.56
50.00	1865.83	1.6336	1752.72	1926.54	1896.48	1773.53	1773.53
100.00	1971.44	1.7283	1778.52	2082.25	2087.19	1844.88	1844.88



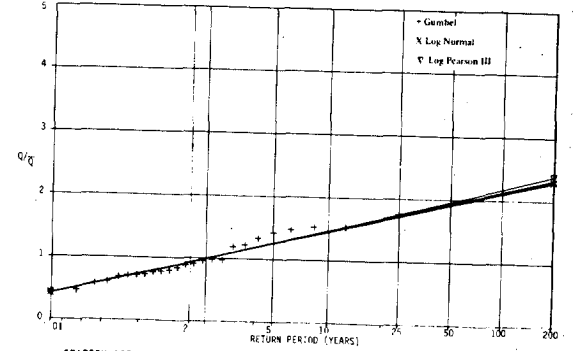
STATION 12835110 BIG CREEK TRIBUTARY NEAR MOQUIAM, WASH. 53
 PEAK = 24.0 CFS. AREA = .158 SQ MI. 28 OBS (1946-1968) 2 ZEROS
 STATISTICAL VALUES: MEAN = 14.590 STD = 5.848 SKEW = -.144412
 LOG NORMAL & PIII: MEAN = 1.208554 STD = .148323 SKEW = -.148313
 GUMBEL PARAMETERS: ALPHA = .823756 BETA = 14.426

RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG	LOG	LOG
PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD
2.00	16.13	.9661	16.59	15.87	15.88	16.06	16.06
2.33	17.88	1.0227	19.59	16.71	15.87	17.53	17.53
5.00	20.94	1.2339	21.88	20.35	21.19	21.28	21.28
10.00	23.84	1.4288	23.88	23.29	24.85	23.59	23.59
18.00	25.87	1.6343	24.16	27.63	28.09	27.22	27.22
25.00	29.72	1.7888	24.98	29.82	32.15	29.87	29.87
50.00	32.98	1.9253	24.79	32.55	35.31	28.33	28.33
100.00	34.34	2.0555	24.69	35.29	38.48	29.27	29.27



STATION 12842740 MAY CREEK NEAR POMS, WASH. 53
 PEAK = 759.0 CFS. AREA = 2.038 SQ MI. 10 OBS (1958-1968) 2 ZEROS
 STATISTICAL VALUES: MEAN = 489.385 STD = 143.983 SKEW = .944383
 LOG NORMAL & PIII: MEAN = 2.475455 STD = 1.183441 SKEW = -.588925
 GUMBEL PARAMETERS: ALPHA = .808881 BETA = 434.811

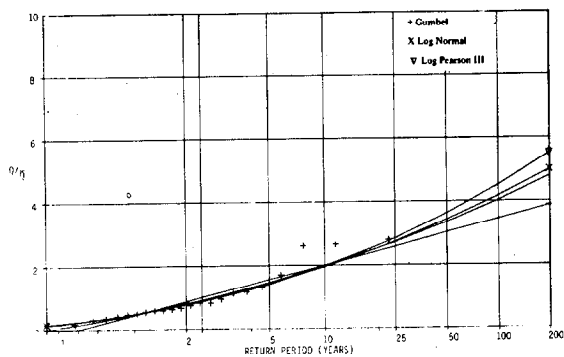
RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG	LOG	LOG
PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD
2.00	483.88	.9873	478.88	475.78	478.82	495.44	495.44
2.33	589.41	1.0281	595.83	498.42	585.58	522.83	522.83
5.00	617.11	1.2357	584.38	603.11	622.62	625.61	625.61
10.00	696.59	1.3949	711.88	687.41	714.83	683.52	683.52
18.00	765.36	1.5927	758.59	793.92	828.32	793.84	793.84
25.00	863.76	1.7297	787.79	872.34	918.96	897.39	897.39
50.00	925.57	1.8814	797.59	951.37	992.33	844.85	844.85
100.00	993.38	1.9882	882.19	1029.52	1072.83	877.78	877.78



STATION 12842200 GRADER CREEK NEAR POMS, WASH. 53
 PEAK = 507.0 CFS. AREA = 1.971 SQ MI. 24 OBS (1950-1973) 2 ZEROS
 STATISTICAL VALUES: MEAN = 336.708 STD = 114.453 SKEW = .643019
 LOG NORMAL & PIII: MEAN = 2.826822 STD = 1.158423 SKEW = .128127
 GUMBEL PARAMETERS: ALPHA = .818722 BETA = 287.040

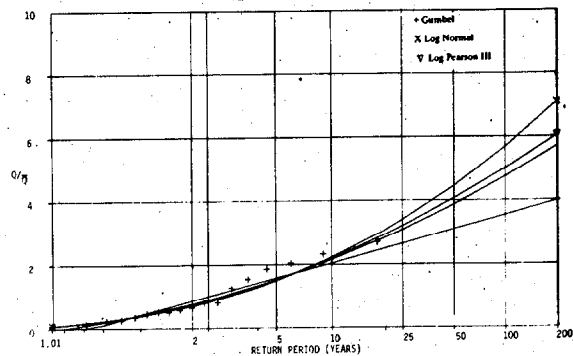
RETURN PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG	LOG	LOG
PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD
2.00	319.73	.9452	309.71	326.12	326.84	318.43	318.43
2.33	348.82	1.0098	359.71	348.88	341.18	338.87	338.87
5.00	427.78	1.2592	495.88	425.85	428.24	428.24	428.24
10.00	489.84	1.4888	568.53	495.81	499.92	562.88	562.88
18.00	589.44	1.7357	587.92	584.23	588.23	587.87	587.87
25.00	657.81	1.9348	635.88	649.93	652.33	649.47	649.47
50.00	724.88	2.1324	654.88	714.25	718.18	748.18	748.18
100.00	792.13	2.3318	683.58	778.82	782.66	813.89	813.89

Appendix A-53. Washington 7-12. Flood frequency curves and data.



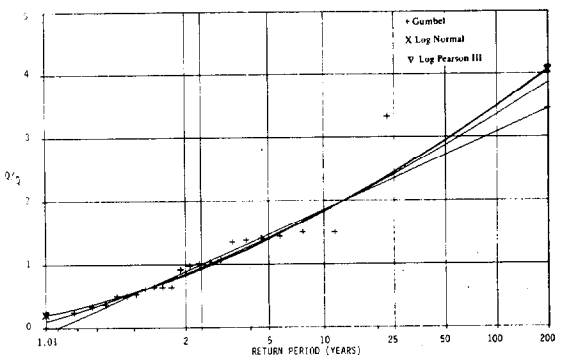
STATION 12047190 LEES CREEK AT PORT ANGELES, WASH. 53
 PEAK = 338.0 CFS, AREA = 4.77 SQ MI, 22 OBS (1949-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 120.115 STD = 23.056 SKEW = 1.471172
 LOG NORMAL & PIII: MEAN = 1.071134 STD = .313238 SKEW = -1.059566
 GUMBEL PARAMETERS: ALPHA = .713677 BETA = 76.172

RETURN PERIOD	AVERAGE	QAV/OHEAN	PROB	GUMBEL	NORMAL	PKIN III
2.00	96.81	.5048	86.83	104.98	93.57	91.89
2.33	115.93	.5188	99.93	122.61	106.43	104.61
3.00	174.74	1.4052	174.28	187.83	171.72	170.60
10.00	236.97	1.9861	319.33	242.73	235.64	236.37
25.00	329.65	2.7315	335.35	312.82	336.87	345.86
50.00	483.68	3.3551	347.18	363.44	411.95	435.94
100.00	485.94	4.0383	351.98	414.40	501.14	542.38
200.00	575.28	4.7876	353.94	465.35	598.43	664.85



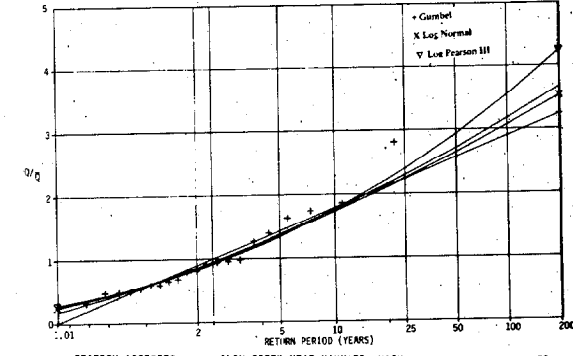
STATION 12047340 SIERRITA CREEK NEAR PORT ANGELES, WASH. 53
 PEAK = 1620.0 CFS, AREA = 15.30 SQ MI, 17 OBS (1953-1969) 0 ZEROS
 STATISTICAL VALUES: MEAN = 598.848 STD = 484.373 SKEW = .332864
 LOG NORMAL & PIII: MEAN = 2.602923 STD = .367967 SKEW = -1.059566
 GUMBEL PARAMETERS: ALPHA = .802443 BETA = 388.388

RETURN PERIOD	AVERAGE	QAV/OHEAN	PROB	GUMBEL	NORMAL	PKIN III
2.00	461.85	.7781	385.38	519.23	425.88	436.04
2.33	537.72	.8092	451.99	606.17	498.31	513.40
3.00	829.33	1.5373	1164.89	947.98	993.48	999.63
10.00	1204.25	2.1618	1444.23	1231.95	1336.20	1312.82
25.00	1847.41	3.8951	1681.59	1996.32	2035.46	1916.58
50.00	2319.10	5.6738	1788.79	2687.35	2432.76	2402.83
100.00	2842.27	6.7478	1908.39	3267.71	3485.28	3402.83
200.00	3429.40	7.7128	1928.19	3965.88	4249.22	3926.92



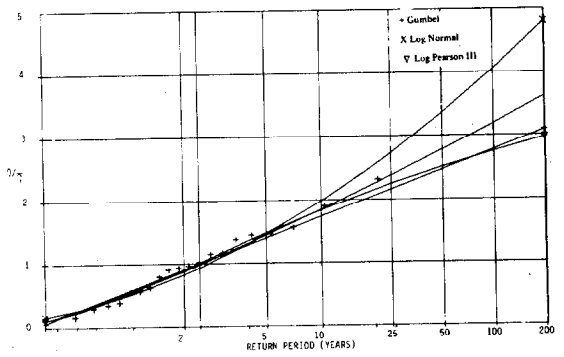
STATION 12049400 DEAN CREEK AT RLY, WASH. 53
 PEAK = 186.0 CFS, AREA = 3.448 SQ MI, 22 OBS (1949-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 32.568 STD = 21.539 SKEW = 2.000810
 LOG NORMAL & PIII: MEAN = 1.434158 STD = .266433 SKEW = .087347
 GUMBEL PARAMETERS: ALPHA = .059419 BETA = 22.798

RETURN PERIOD	AVERAGE	QAV/OHEAN	PROB	GUMBEL	NORMAL	PKIN III
2.00	27.78	.5547	31.98	29.96	27.17	27.13
2.33	31.86	.5958	35.14	32.96	30.32	30.31
3.00	45.37	1.4269	45.49	48.04	45.35	45.33
10.00	69.80	1.8464	49.09	66.07	59.56	59.58
25.00	78.83	2.4194	112.72	75.83	78.59	76.68
50.00	93.45	2.8755	130.85	88.40	95.65	96.85
100.00	109.92	3.3355	133.43	106.22	113.29	113.64
200.00	125.40	3.8509	158.21	111.92	131.94	132.58



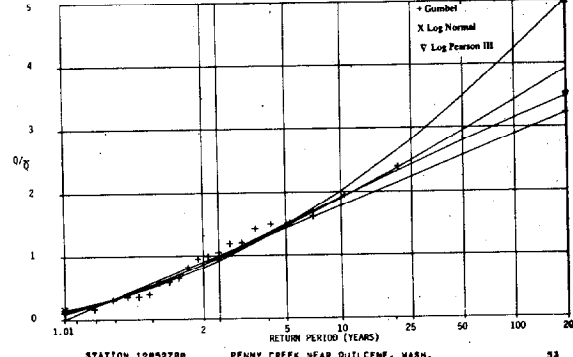
STATION 12050500 SNOW CREEK NEAR HAYWARD, WASH. 53
 PEAK = 733.0 CFS, AREA = 11.99 SQ MI, 21 OBS (1953-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 288.410 STD = 197.883 SKEW = 1.588889
 LOG NORMAL & PIII: MEAN = 2.331061 STD = .237340 SKEW = .582139
 GUMBEL PARAMETERS: ALPHA = .885117 BETA = 189.687

RETURN PERIOD	AVERAGE	QAV/OHEAN	PROB	GUMBEL	NORMAL	PKIN III
2.00	229.59	.8656	216.88	234.75	224.84	217.37
2.33	249.53	.9574	242.85	281.11	247.88	239.08
3.00	369.56	1.3435	481.39	374.38	351.37	351.48
10.00	469.81	1.7658	479.19	468.82	452.38	468.68
25.00	597.43	2.2923	752.76	583.62	584.93	583.78
50.00	728.50	2.7189	871.88	676.27	688.25	708.08
100.00	827.27	3.1742	926.43	756.28	881.16	824.38
200.00	954.83	3.6829	953.71	841.98	917.59	1184.31



STATION 12052400 PENNY CREEK NEAR DILLCENC, WASH. 53
 PEAK = 557.0 CFS, AREA = 5.788 SQ MI, 20 OBS (1949-1968) 0 ZEROS
 STATISTICAL VALUES: MEAN = 210.449 STD = 135.083 SKEW = .348978
 LOG NORMAL & PIII: MEAN = 2.207687 STD = .338223 SKEW = -.758877
 GUMBEL PARAMETERS: ALPHA = .009423 BETA = 178.332

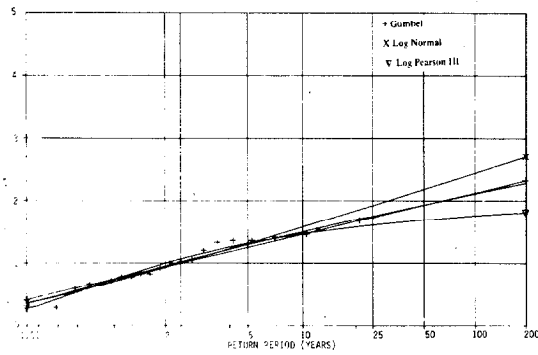
RETURN PERIOD	AVERAGE	QAV/OHEAN	PROB	GUMBEL	NORMAL	PKIN III
2.00	218.42	.6736	227.58	217.18	198.46	216.22
2.33	235.72	.7049	244.90	239.37	224.16	242.83
3.00	349.62	1.4350	351.19	337.44	332.45	359.99
10.00	444.85	1.8777	448.08	417.81	475.49	441.71
25.00	575.61	2.3438	573.15	517.58	455.43	538.81
50.00	685.05	2.7434	614.57	592.28	605.08	682.84
100.00	785.77	3.1976	635.78	686.26	678.67	680.88
200.00	867.14	3.6214	647.39	740.45	1140.85	711.53



STATION 12052700 PENNY CREEK NEAR DILLCENC, WASH. 53
 PEAK = 557.0 CFS, AREA = 5.788 SQ MI, 20 OBS (1949-1968) 0 ZEROS
 STATISTICAL VALUES: MEAN = 232.759 STD = 140.331 SKEW = .611768
 LOG NORMAL & PIII: MEAN = 2.275055 STD = .338235 SKEW = -.501669
 GUMBEL PARAMETERS: ALPHA = .009128 BETA = 199.580

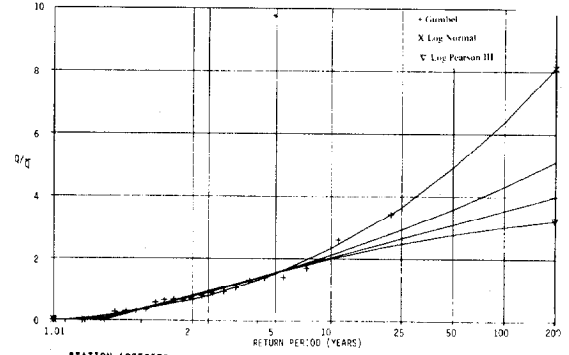
RETURN PERIOD	AVERAGE	QAV/OHEAN	PROB	GUMBEL	NORMAL	PKIN III
2.00	208.27	.6804	227.58	209.75	199.84	281.99
2.33	225.42	.7095	244.90	233.19	214.02	288.45
3.00	341.64	1.4878	351.19	333.91	343.65	347.38
10.00	443.62	1.9088	448.08	415.12	489.50	445.17
25.00	575.24	2.4028	573.13	519.99	535.24	565.46
50.00	685.89	2.8312	615.37	587.02	612.39	631.23
100.00	797.38	3.4284	636.78	673.33	685.84	733.89
200.00	917.32	3.9197	647.39	748.74	1175.87	611.34

Appendix A-53. Washington 13-18. Flood frequency curves and data.



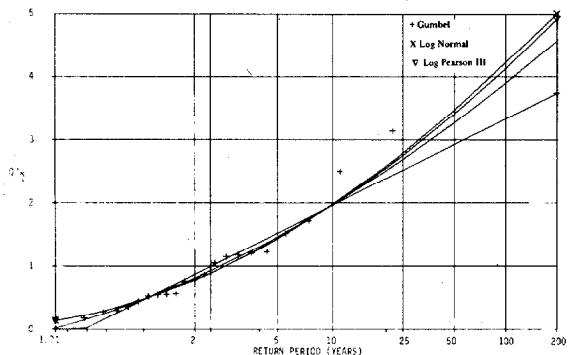
STATION 12953APP JOSEPHLLIPS R TRIBUTARY NEAR BRINNON, WASH. 53
 PEAK = 46.8 CFS, AREA = .559 SQ MI, 26 OBS (1951-1970) 0 ZEROS
 STATISTICAL VALUES: MEAN = 38.846 STD = 13.807 SKEW = .118924
 LOG NORMAL & PIII: MEAN = 1.537668 STD = .188263 SKEW = -1.271517
 GUMBEL PARAMETERS: ALPHA = .091714 BETA = 32.584

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PIII
2.00	37.14	.9592	37.50	36.55	36.13	38.86
2.33	38.89	1.0244	39.99	38.80	38.81	41.59
3.00	40.42	1.0593	53.88	48.91	51.25	51.48
10.00	58.40	1.5009	58.00	57.13	61.31	57.36
25.00	68.37	1.7508	67.44	67.43	74.75	62.02
50.00	75.20	1.9388	71.22	75.13	84.74	68.60
100.00	85.32	2.1113	75.11	82.72	94.92	86.42
200.00	85.82	2.2812	74.83	98.30	105.23	76.34



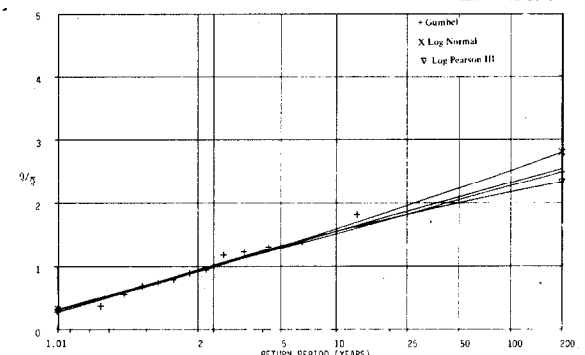
STATION 12953APP ANNAS RY TRIBUTARY NEAR POTLATCH, WASH. 53
 PEAK = 220.4 CFS, AREA = .422 SQ MI, 21 OBS (1951-1970) 1 ZEROS
 STATISTICAL VALUES: MEAN = 66.250 STD = 24.456 SKEW = 1.720687
 LOG NORMAL & PIII: MEAN = 1.673556 STD = .412512 SKEW = -1.142358
 GUMBEL PARAMETERS: ALPHA = .023360 BETA = 41.573

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PIII
2.00	58.83	.7945	46.80	54.2	48.33	52.67
2.33	59.37	.8062	44.85	63.58	52.23	52.31
3.00	107.71	1.5594	92.80	103.43	101.32	103.19
10.00	141.44	2.1305	161.80	135.77	155.52	135.41
25.00	195.17	2.9460	234.80	174.36	243.64	184.63
50.00	235.18	3.4958	257.79	236.30	423.84	288.68
100.00	286.87	4.3302	276.89	286.17	556.80	213.08
200.00	338.91	5.1157	276.94			



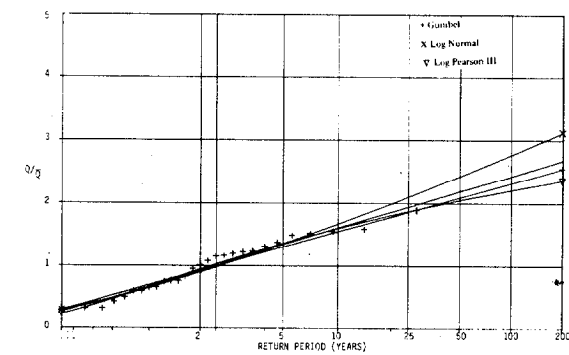
STATION 1295888P DEER HEAD CREEK NEAR HUGGSPOINT, WASH. 53
 PEAK = 445.0 CFS, AREA = 1.551 SQ MI, 21 OBS (1950-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 141.923 STD = 125.302 SKEW = 1.581980
 LOG NORMAL & PIII: MEAN = 2.045829 STD = .314729 SKEW = -.245114
 GUMBEL PARAMETERS: ALPHA = .012174 BETA = 94.107

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PIII
2.00	115.44	.8171	111.88	124.25	111.44	111.64
2.33	131.77	.9311	138.85	141.85	124.37	127.18
3.00	208.44	1.4739	194.68	217.57	204.37	204.64
10.00	288.13	1.9794	332.76	279.24	281.11	286.20
25.00	388.89	2.6913	455.79	357.25	395.81	398.41
50.00	463.45	3.2747	495.19	415.12	491.97	483.27
100.00	552.55	3.9829	513.19	472.50	596.47	585.83
200.00	647.94	4.5783	525.79	529.80	717.63	695.36



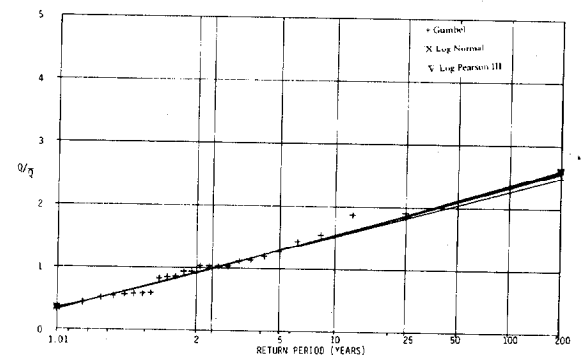
STATION 1296350P UNION RIVER NEAR HELFAIN, WASH. 53
 PEAK = 1719.0 CFS, AREA = 15.194 SQ MI, 12 OBS (1944-1950) 0 ZEROS
 STATISTICAL VALUES: MEAN = 841.164 STD = 126.532 SKEW = .316604
 LOG NORMAL & PIII: MEAN = 2.918115 STD = .177490 SKEW = -1.457186
 GUMBEL PARAMETERS: ALPHA = .003592 BETA = 727.717

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PIII
2.00	805.33	.9066	811.00	822.73	812.69	842.14
2.33	888.45	1.0087	922.24	882.24	874.21	905.29
3.00	1191.57	1.3180	1188.81	1194.23	1199.38	1174.53
10.00	1379.78	1.6788	1408.00	1347.18	1451.03	1378.32
25.00	1651.16	1.8738	1792.39	1618.90	1731.57	1618.29
50.00	1842.82	2.0594	1891.19	1806.77	1973.46	1769.52
100.00	2046.92	2.3210	1948.80	2091.11	2229.82	1916.16
200.00	2240.35	2.5424	1955.29	2194.74	2471.21	2055.12



STATION 1296555W GOLD CREEK NEAR BRENTON, WASH. 53
 PEAK = 242.0 CFS, AREA = 1.948 SQ MI, 27 OBS (1944-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 127.392 STD = 53.941 SKEW = .172484
 LOG NORMAL & PIII: MEAN = 2.065812 STD = .208324 SKEW = -.925981
 GUMBEL PARAMETERS: ALPHA = .023748 BETA = 105.310

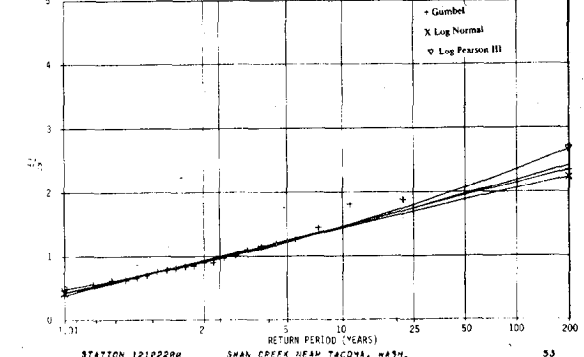
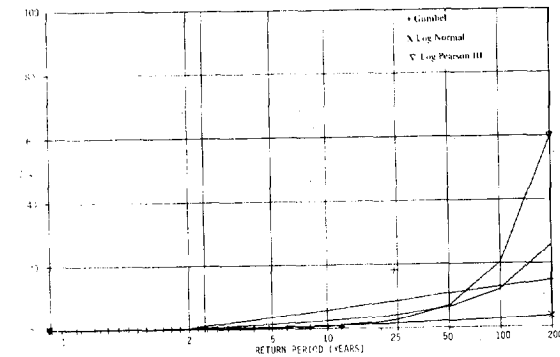
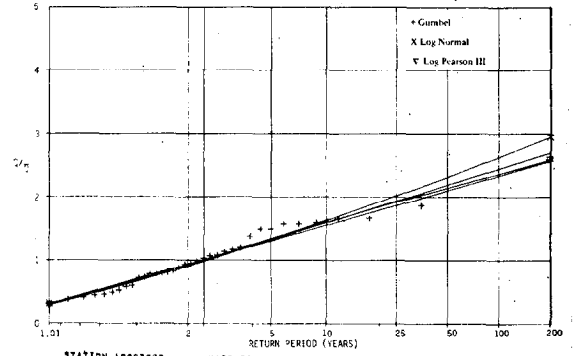
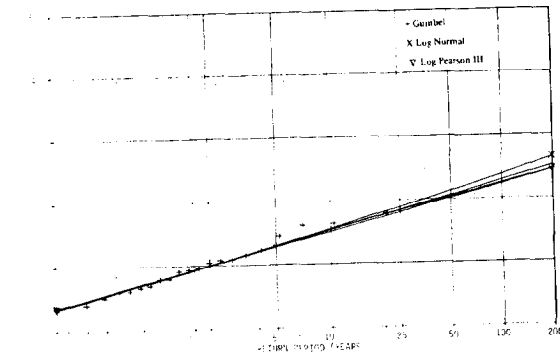
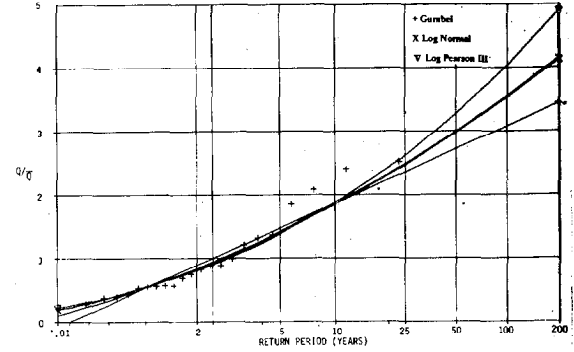
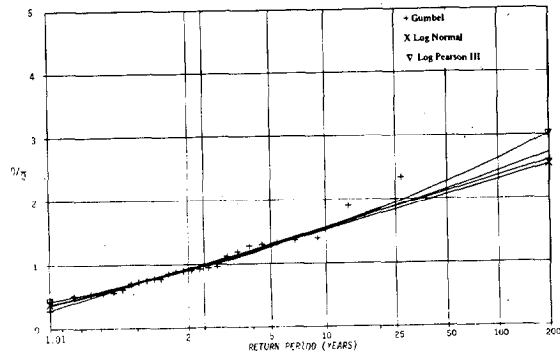
RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PIII
2.00	114.45	.9283	136.08	118.73	115.34	121.23
2.33	128.41	1.0064	149.09	127.76	125.71	131.77
3.00	171.38	1.3425	181.48	169.47	173.07	174.35
10.00	285.77	1.6127	199.00	198.87	213.95	205.28
25.00	348.67	1.8408	237.31	238.88	268.27	235.76
50.00	384.17	2.1958	259.15	267.82	319.44	265.44
100.00	411.31	2.4359	276.07	297.32	354.83	282.88
200.00	442.37	2.6855	278.93	326.31	399.88	361.44



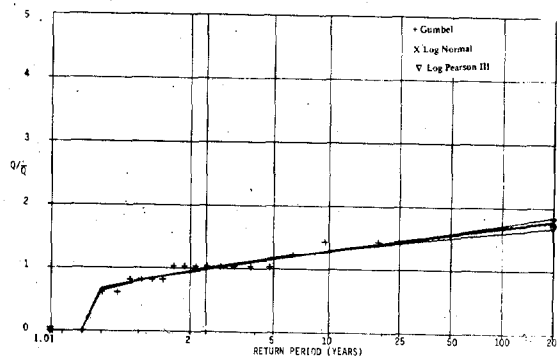
STATION 1296850P DEWATTO CREEK NEAR DEWATTO, WASH. 53
 PEAK = 2160.0 CFS, AREA = 19.388 SQ MI, 24 OBS (1948-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1125.256 STD = 454.332 SKEW = .783214
 LOG NORMAL & PIII: MEAN = 3.017748 STD = .175426 SKEW = -.838393
 GUMBEL PARAMETERS: ALPHA = .002519 BETA = 926.884

RETURN PERIOD	AVERAGE	QAV/MEAN	PROB	GUMBEL	LOG NORMAL	LOG PIII
2.00	1045.44	.9298	1118.30	1038.79	1041.78	1043.83
2.33	1127.78	.9578	1176.00	1126.68	1118.59	1122.89
3.00	1488.20	1.2574	1438.00	1452.73	1448.16	1454.98
10.00	1737.58	1.5441	1938.00	1718.92	1883.37	1848.27
25.00	2084.68	1.8379	2168.00	2055.20	2113.12	2183.74
50.00	2354.97	2.1328	2188.00	2304.97	2406.32	2341.81
100.00	2620.19	2.3284	2197.58	2552.29	2584.13	2578.11
200.00	2807.76	2.5657	2283.73	2799.02	2947.48	2914.66

Appendix A-53. Washington 19-24. Flood frequency curves and data.

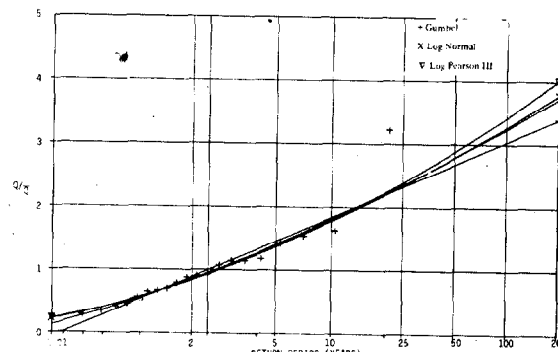


Appendix A-53. Washington 25-30. Flood frequency curves and data.



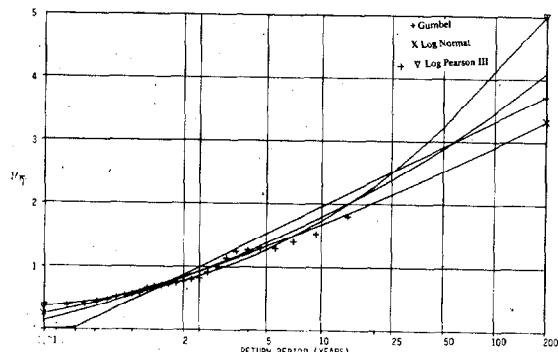
STATION 12102000 SOUTH FORK MYLENOS CREEK NEAR PUALLUP, WASH. 53
 PEAK = 7.0 CFS, AREA = 4.650 SQ MI. 18 OBS (1946-1965) 1 ZERO
 STATISTICAL VALUES: MEAN = 4.823 STD = 1.131 SKEW = .368193
 LOG NORMAL & PIII: MEAN = .071015 STD = .103843 SKEW = -.273394
 GUMBEL PARAMETERS: ALPHA = 1.132514 BETA = 4.314

PERIOD	AVERAGE	DAY/WEAK	RANK	LOG	LOG
PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD
2.00	4.82	.9581	5.82	4.56	4.00
2.33	4.81	.9988	5.88	4.75	4.08
3.00	5.05	1.1732	5.28	5.28	4.88
10.00	5.26	1.3038	7.08	6.24	5.79
25.00	7.05	1.4593	7.08	7.08	6.28
50.00	7.07	1.5097	7.08	7.08	6.93
100.00	8.06	1.6757	7.08	8.32	7.38
200.00	8.07	1.7762	7.08	8.94	7.76
				8.66	8.13



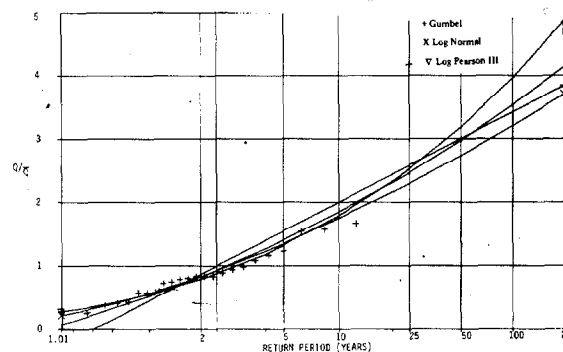
STATION 12103500 SNOW CREEK NEAR LUSTER, WASH. 83
 PEAK = 3480.0 CFS, AREA = 11.308 SQ MI. 28 OBS (1946-1965) 8 ZEROS
 STATISTICAL VALUES: MEAN = 1955.308 STD = 665.381 SKEW = 2.189332
 LOG NORMAL & PIII: MEAN = 2.957224 STD = .251884 SKEW = .188888
 GUMBEL PARAMETERS: ALPHA = .891867 BETA = 748.688

PERIOD	AVERAGE	DAY/WEAK	RANK	LOG	LOG
PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD
2.00	800.16	.8615	940.00	943.67	867.56
2.33	1912.41	.9581	987.00	1057.66	984.04
3.00	1480.11	1.1711	1444.00	1599.83	1481.14
10.00	1811.08	1.3038	1887.19	2459.83	1887.02
25.00	2487.68	2.3568	3687.19	2459.83	2478.40
50.00	2945.74	2.7088	4568.39	2836.31	2958.72
100.00	3429.21	3.2477	4710.23	3816.88	3429.21
200.00	3536.34	3.7293	4894.84	3582.72	3816.88



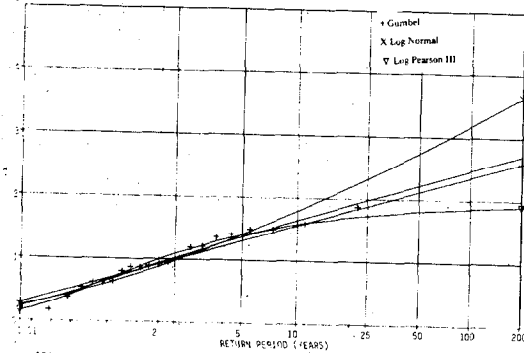
STATION 12104000 FRIDAY CREEK NEAR LUSTER, WASH. 53
 PEAK = 1570.0 CFS, AREA = 4.359 SQ MI. 27 OBS (1946-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 320.982 STD = 241.582 SKEW = 3.228018
 LOG NORMAL & PIII: MEAN = 2.445765 STD = .229255 SKEW = .943283
 GUMBEL PARAMETERS: ALPHA = -.705302 BETA = 218.250

PERIOD	AVERAGE	DAY/WEAK	RANK	LOG	LOG
PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD
2.00	274.40	.8397	256.00	287.37	257.18
2.33	763.94	.9345	290.00	327.72	282.53
3.00	451.39	1.3038	424.00	361.12	435.25
10.00	785.01	1.7919	415.50	842.64	417.75
25.00	776.80	2.3849	1276.39	621.45	703.41
50.00	844.48	2.8868	1713.19	954.11	825.36
100.00	1129.53	3.4548	1931.59	1065.78	933.17
200.00	1339.43	4.0945	2040.79	1216.97	1184.64



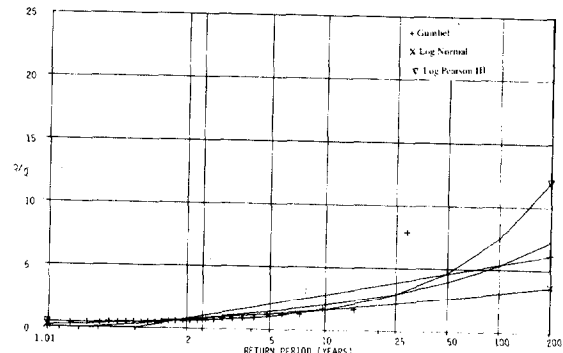
STATION 12105000 SHAY CREEK NEAR LUSTER, WASH. 53
 PEAK = 2380.0 CFS, AREA = 8.710 SQ MI. 24 OBS (1946-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 570.741 STD = 449.552 SKEW = 3.228018
 LOG NORMAL & PIII: MEAN = 2.878133 STD = .251884 SKEW = .311487
 GUMBEL PARAMETERS: ALPHA = .992288 BETA = 371.878

PERIOD	AVERAGE	DAY/WEAK	RANK	LOG	LOG
PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD
2.00	475.08	.8349	474.50	497.87	476.44
2.33	534.28	.9372	485.98	571.42	523.22
3.00	887.40	1.1615	722.00	887.50	775.32
10.00	1056.25	1.8529	925.50	1145.47	909.35
25.00	1487.35	2.4688	2380.00	1477.42	1319.81
50.00	1607.38	2.9778	3994.80	1713.29	1561.63
100.00	2013.85	3.5328	3451.75	1955.74	1728.16
200.00	2367.65	4.1412	3630.37	2192.38	2119.29



STATION 12107200 DEEP CREEK AT CUMBERBUND, WASH. 53
 PEAK = 108.0 CFS, AREA = 2.280 SQ MI. 21 OBS (1958-1979) 0 ZEROS
 STATISTICAL VALUES: MEAN = 66.389 STD = 20.079 SKEW = .137825
 LOG NORMAL & PIII: MEAN = 1.784187 STD = .218625 SKEW = -1.342527
 GUMBEL PARAMETERS: ALPHA = .743101 BETA = 55.420

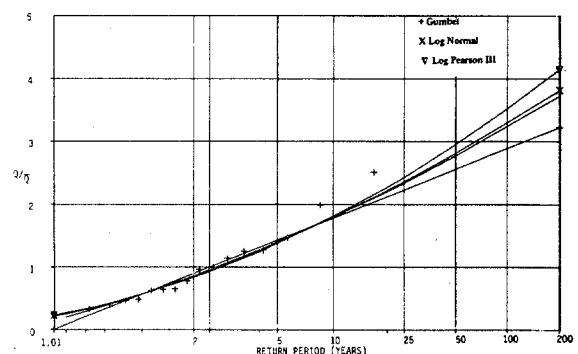
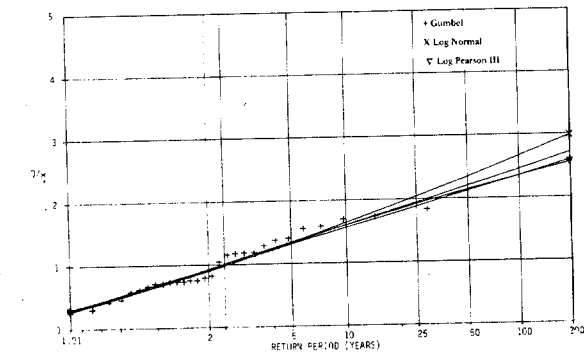
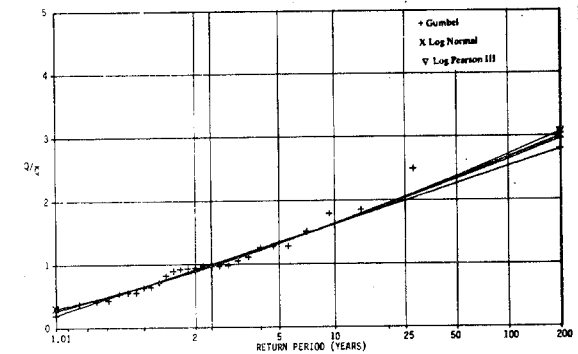
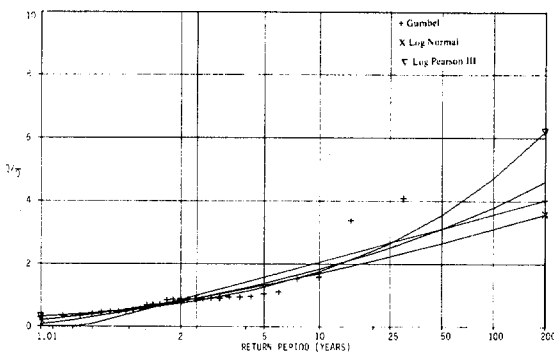
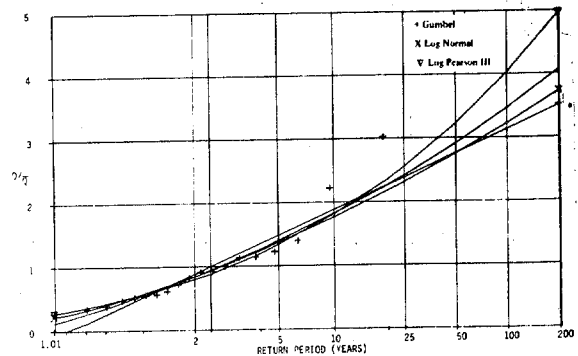
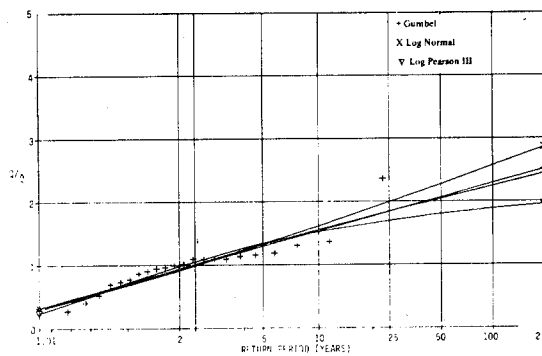
PERIOD	AVERAGE	DAY/WEAK	RANK	LOG	LOG
PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD
2.00	64.28	.8466	83.00	63.51	66.42
2.33	71.00	1.0245	87.55	68.47	68.38
3.00	94.14	1.3787	100.00	88.77	74.02
10.00	112.79	1.8469	107.79	107.16	122.79
25.00	135.69	2.3831	132.26	129.13	158.92
50.00	152.34	2.9275	138.63	145.42	187.39
100.00	180.78	3.4723	142.61	161.06	217.73
200.00	187.00	4.0187	144.98	177.72	249.47



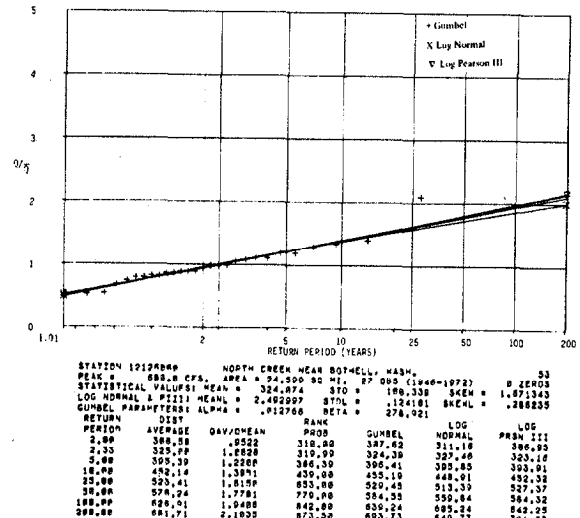
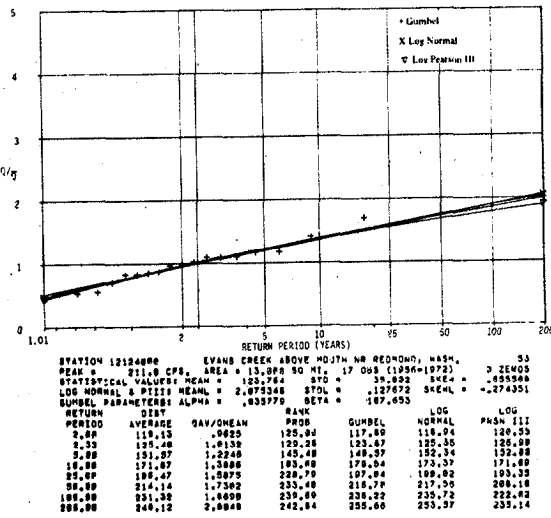
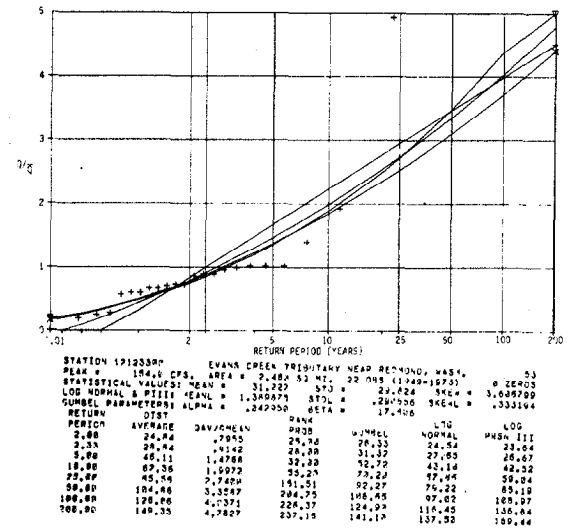
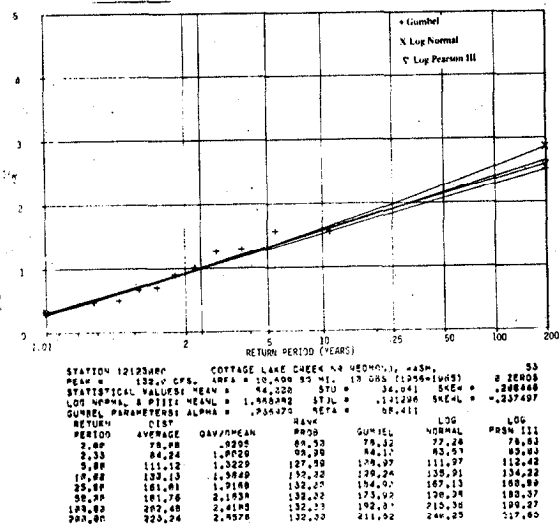
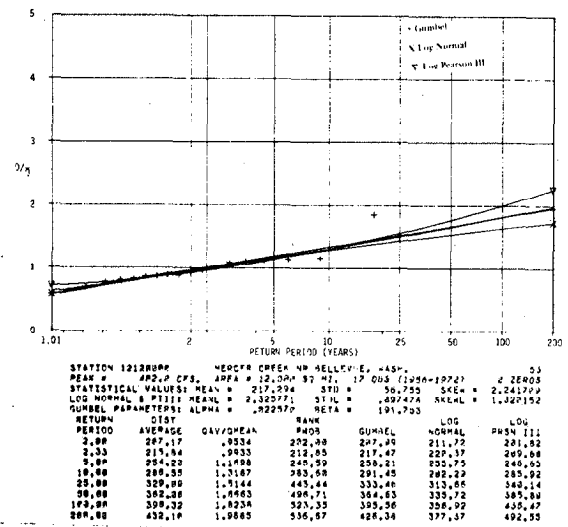
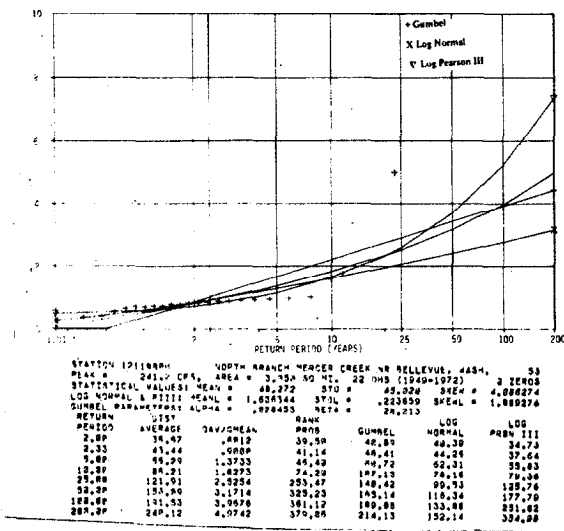
STATION 12109000 NEHALEM CREEK NEAR BLACK DIAMOND, WASH. 53
 PEAK = 8890.0 CFS, AREA = 25.580 SQ MI. 39 OBS (1946-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 1889.186 STD = 1520.0514 SKEW = 4.791884
 LOG NORMAL & PIII: MEAN = 2.997885 STD = .268885 SKEW = 2.388947
 GUMBEL PARAMETERS: ALPHA = .999842 BETA = 442.963

PERIOD	AVERAGE	DAY/WEAK	RANK	LOG	LOG
PERIOD	PERIOD	PERIOD	PERIOD	PERIOD	PERIOD
2.00	767.06	.7955	838.94	808.94	808.94
2.33	885.46	.8393	742.88	1092.60	882.24
3.00	1358.98	1.1327	1072.00	2194.12	1358.27
10.00	2280.54	2.6278	1811.00	3874.74	2280.54
25.00	3265.88	2.8988	7515.28	4280.74	2571.52
50.00	4352.75	3.9819	11447.59	5634.88	3226.06
100.00	5781.70	5.3227	13413.70	7634.88	5188.07
200.00	7873.00	7.2543	14304.60	8685.09	8133.48

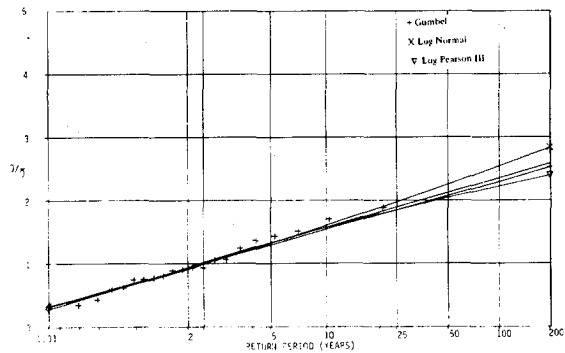
Appendix A-53. Washington 31-36. Flood frequency curves and data.



Appendix A-53. Washington 37-42. Flood frequency curves and data.

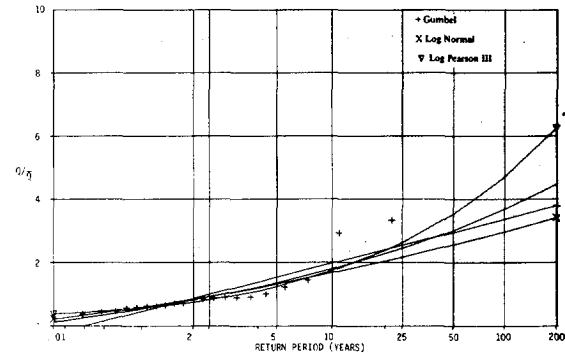


Appendix A-53. Washington 43-48. Flood frequency curves and data.



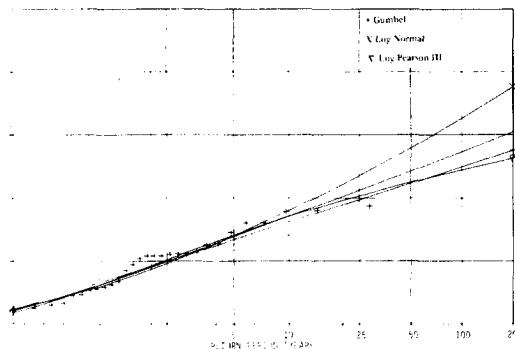
STATION 12132700 S F SKYKEMISH R TRIJUTARY AT HAWING, WASH. 53
 PEAK = 217.0 CFS, AREA = 155.50 MI. 28 DMS (1951-1973) 2 ZEROS
 STATISTICAL VALUES: MEAN = 114.800 STD = 47.532 SKEW = .273919
 LOG NORMAL & PIII: MEAN = 2.022947 STD = 1.06370 SKEW = -1.417540
 GUMBEL PARAMETERS: ALPHA = .024944 BETA = 93.510

PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III	LOG
2.00	197.97	.9318	185.50	197.11	185.42	188.58	
2.33	115.47	1.2728	107.78	115.44	114.54	117.37	
5.00	151.47	1.3892	105.48	149.15	152.47	155.38	
10.00	168.18	1.5750	133.79	177.01	184.30	180.54	
25.00	217.27	1.8910	220.35	212.19	227.14	212.40	
50.00	244.75	2.1241	229.18	238.29	259.39	234.48	
100.00	277.15	2.3567	233.50	264.20	291.53	255.13	
200.00	294.44	2.5438	235.73	291.01	325.94	274.67	



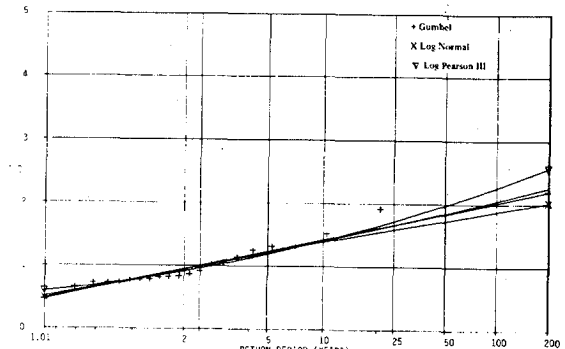
STATION 12135500 OLNEY CREEK NEAR GOLD BAR, WASH. 53
 PEAK = 402.0 CFS, AREA = 8.830 SQ MI. 21 DMS (1947-1988) 2 ZEROS
 STATISTICAL VALUES: MEAN = 1295.904 STD = 918.646 SKEW = 2.451443
 LOG NORMAL & PIII: MEAN = 3.897367 STD = 1.23525 SKEW = 1.248988
 GUMBEL PARAMETERS: ALPHA = .081487 BETA = 798.183

PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III	LOG
2.00	995.22	.8252	934.80	1056.76	1017.13	911.88	
2.33	1199.95	.9284	1052.83	1288.77	1126.59	1009.78	
5.00	1658.31	1.3751	1372.80	1861.06	1504.95	1509.83	
10.00	2174.07	1.8061	2174.80	2355.38	2206.96	2182.17	
25.00	2904.54	2.4459	4378.79	3988.67	2826.94	3167.46	
50.00	3641.45	3.1196	4294.30	5588.38	3703.45	4289.37	
100.00	4445.90	3.8867	4482.18	6364.46	5389.35	5684.35	
200.00	5491.05	4.4788	4456.89	4556.60	4195.14	7539.34	



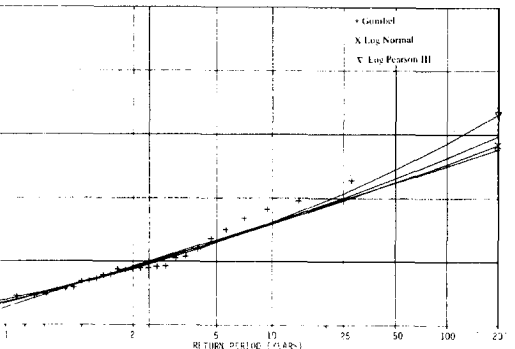
STATION 12143300 OLNEY CREEK NR CEDAR FALLS, WASH. 53
 PEAK = 182.0 CFS, AREA = 1.970 SQ MI. 28 DMS (1948-1973) 3 ZEROS
 STATISTICAL VALUES: MEAN = 97.182 STD = 40.325 SKEW = -1.02992
 LOG NORMAL & PIII: MEAN = 1.029599 STD = .845922 SKEW = -.581473
 GUMBEL PARAMETERS: ALPHA = .027452 BETA = 74.204

PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III	LOG
2.00	88.24	.9284	105.46	89.05	84.85	98.40	
2.33	64.54	1.090	106.14	95.28	93.88	97.88	
5.00	135.73	1.3907	144.82	138.55	138.58	137.88	
10.00	150.71	1.7128	173.12	157.67	175.34	160.15	
25.00	204.21	2.1228	189.87	191.06	228.75	197.95	
50.00	235.05	2.4249	186.93	217.42	271.51	216.84	
100.00	267.78	2.7369	186.98	242.82	316.87	237.82	



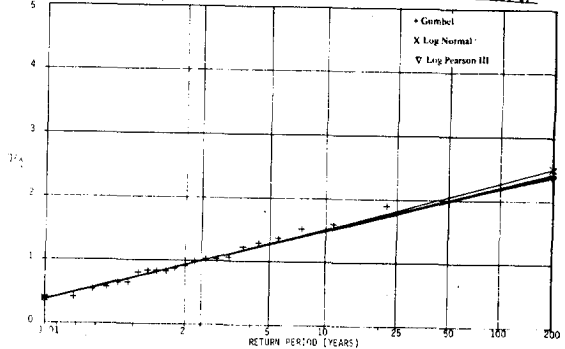
STATION 12148000 PATTERSON CREEK NR FALL CITY, WASH. 53
 PEAK = 480.0 CFS, AREA = 15.500 SQ MI. 28 DMS (1948-1972) 3 ZEROS
 STATISTICAL VALUES: MEAN = 248.149 STD = 81.454 SKEW = 1.436085
 LOG NORMAL & PIII: MEAN = 2.377778 STD = 1.26227 SKEW = .495357
 GUMBEL PARAMETERS: ALPHA = .015726 BETA = 212.495

PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III	LOG
2.00	234.31	.8494	212.88	235.80	238.81	228.01	
2.33	247.89	.9017	226.89	248.40	251.12	248.54	
5.00	303.89	1.2187	325.90	307.87	304.73	298.35	
10.00	351.55	1.4192	374.00	355.58	346.33	352.14	
25.00	414.89	1.8518	496.15	413.87	506.95	429.18	
50.00	482.54	2.4055	538.57	480.89	633.40	493.55	



STATION 12147000 GRIFFIN CREEK NEAR CAPTATION, WASH. 53
 PEAK = 1000.0 CFS, AREA = 17.100 SQ MI. 27 DMS (1944-1973) 2 ZEROS
 STATISTICAL VALUES: MEAN = 438.222 STD = 217.139 SKEW = 1.213468
 LOG NORMAL & PIII: MEAN = 2.582886 STD = 1.56232 SKEW = .374167
 GUMBEL PARAMETERS: ALPHA = .026005 BETA = 343.440

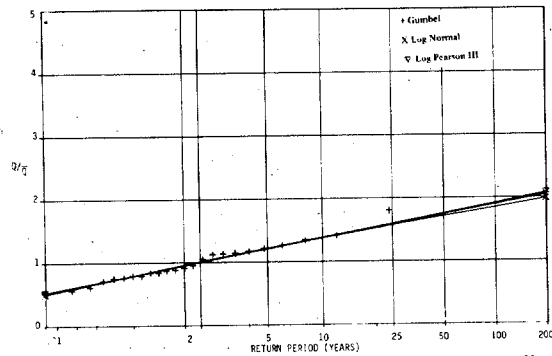
PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III	LOG
2.00	398.83	.8632	188.72	402.74	397.25	385.45	
2.33	429.89	.9701	303.80	438.88	429.82	418.48	
5.00	570.74	1.3213	423.19	580.71	576.89	570.72	
10.00	788.19	1.6169	611.88	712.81	708.71	711.95	
25.00	889.17	2.0960	889.80	866.35	862.80	814.19	
50.00	1015.85	2.3182	1053.73	983.74	988.44	1075.81	
100.00	1155.26	2.6302	1194.39	1098.27	1112.59	1254.54	
200.00	1301.19	2.8786	1124.89	1212.39	1242.35	1459.63	



STATION 12154000 WILSON CREEK NEAR ADAMSVILLE, WASH. 53
 PEAK = 50.0 CFS, AREA = .773 SQ MI. 21 DMS (1940-1989) 2 ZEROS
 STATISTICAL VALUES: MEAN = 26.199 STD = 9.127 SKEW = .735977
 LOG NORMAL & PIII: MEAN = 1.384074 STD = .815210 SKEW = -1.42858
 GUMBEL PARAMETERS: ALPHA = .129231 BETA = 21.722

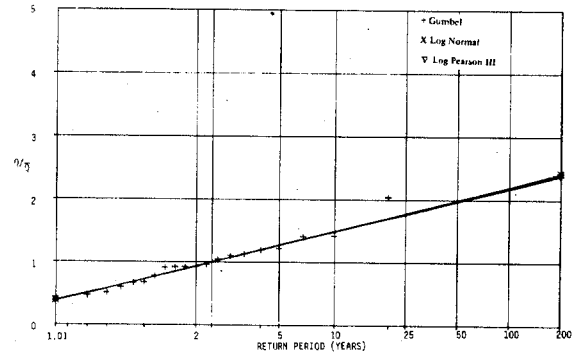
PERIOD	AVERAGE	DAY/MEAN	PROB	GUMBEL	NORMAL	PRSN III	LOG
2.00	24.58	.9301	24.89	24.58	24.48	24.68	
2.33	26.78	1.0734	25.57	26.22	26.19	26.42	
5.00	33.65	1.2848	33.20	33.34	33.76	33.54	
10.00	39.69	1.5123	41.68	39.18	39.95	39.78	
25.00	47.09	1.7876	50.96	46.51	47.42	46.98	
50.00	52.59	2.2783	54.48	51.88	53.72	52.13	
100.00	57.07	2.7175	56.24	57.37	59.81	57.26	
200.00	63.54	3.4201	57.12	62.78	65.95	62.29	

Appendix A-53. Washington 49-54. Flood frequency curves and data.



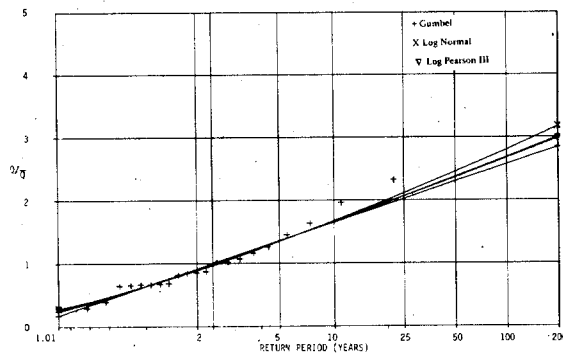
STATION 121978RP QUILCEDA CREEK NEAR ARVISSVILLE, WASH. 53
 PEAK = 306.6 CFS. AREA = 13,000 SQ MI. 23.065 (1947-1969) 0 ZEROS
 STATISTICAL VALUES: MEAN = 169.826 STD = 49.228 SKEW = .917738
 LOG NORMAL & P III: MEAN = 2.213456 STOL = 1.217586 SKEW = 1.18788
 GUMBEL PARAMETERS: ALPHA = .005921 BETA = 147.473

RETURN PERIOD	AVERAGE	DAY/ONE	PROB	GUMBEL	NORMAL	PRISM III
2.00	165.45	.0505	155.08	181.75	163.47	162.11
2.33	178.78	1.0056	174.85	169.06	171.66	170.40
2.50	186.24	1.2144	187.79	185.31	187.03	186.40
5.00	234.55	1.3811	235.59	234.15	234.18	235.33
10.00	269.78	1.5988	268.63	270.55	267.13	271.65
25.00	295.66	1.7451	300.31	287.65	298.82	298.61
50.00	321.53	1.8921	338.15	324.45	313.33	325.64
100.00	346.87	2.0425	364.67	351.14	336.57	352.64



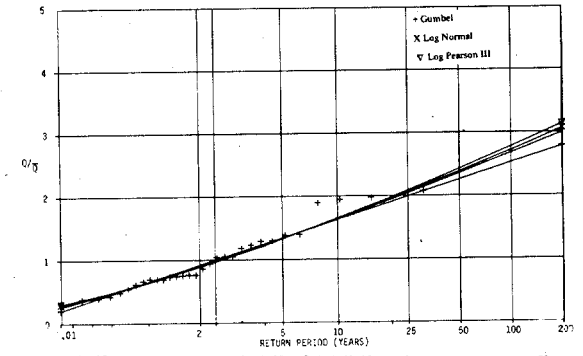
STATION 121898RP SQUIRE CREEK NEAR DARRINGTON, WASH. 53
 PEAK = 844.0 CFS. AREA = 18,800 SQ MI. 19.083 (1951-1969) 0 ZEROS
 STATISTICAL VALUES: MEAN = 3142.194 STD = 1178.267 SKEW = 1.690325
 LOG NORMAL & P III: MEAN = 3.469327 STOL = 1.59918 SKEW = 1.64547
 GUMBEL PARAMETERS: ALPHA = .001287 BETA = 2511.675

RETURN PERIOD	AVERAGE	DAY/ONE	PROB	GUMBEL	NORMAL	PRISM III
2.00	2951.24	.0592	2940.88	2949.82	2947.98	2946.73
2.33	3158.71	1.0027	3147.11	3145.81	3146.28	3156.08
2.50	3411.88	1.2765	3364.03	3391.54	4019.25	4022.21
5.00	4704.02	1.4983	4409.04	4681.68	4725.09	4718.89
10.00	5584.32	1.7773	6036.08	5553.94	5817.73	5811.63
25.00	6253.71	1.9839	7616.08	6280.84	6286.38	6211.63
50.00	6759.74	2.1895	8888.08	6943.16	8943.96	6832.11
100.00	7529.58	2.3598	9155.88	7465.93	7888.79	7484.33



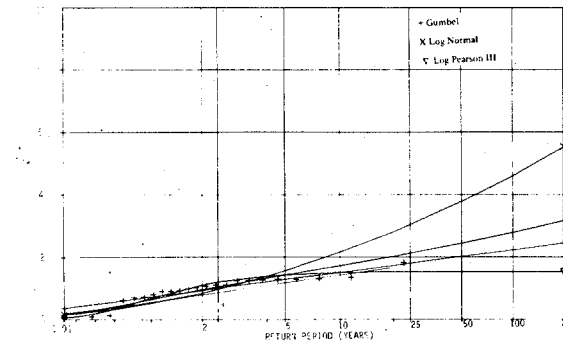
STATION 121898RP FISH CREEK NEAR ARLINGTON, WASH. 53
 PEAK = 245.0 CFS. AREA = 7,500 SQ MI. 21.065 (1951-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 195.371 STD = 32.048 SKEW = 1.287231
 LOG NORMAL & P III: MEAN = 1.974425 STOL = .213779 SKEW = -1.35841
 GUMBEL PARAMETERS: ALPHA = .024193 BETA = 81.744

RETURN PERIOD	AVERAGE	DAY/ONE	PROB	GUMBEL	NORMAL	PRISM III
2.00	95.58	.0505	96.88	95.65	94.23	95.33
2.33	104.25	.0875	101.14	103.73	102.93	104.00
2.50	143.17	1.3561	146.30	143.74	142.69	143.08
10.00	175.52	1.4965	209.19	174.76	177.16	175.42
25.00	218.49	2.0687	240.36	213.95	223.24	218.61
50.00	238.98	2.3745	266.27	243.22	259.13	249.67
100.00	263.42	2.6966	274.53	271.88	296.36	282.62
200.00	314.72	3.0999	278.81	300.53	334.89	314.62



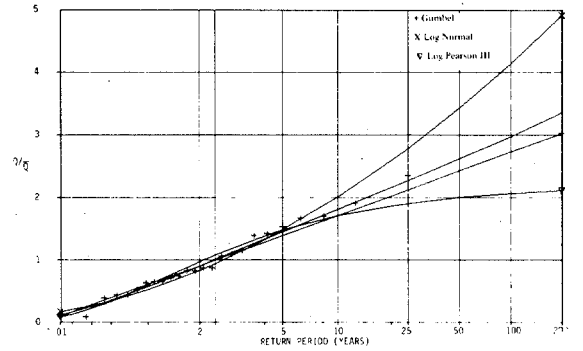
STATION 121898RP ALDEN CREEK NEAR HAMILTON, WASH. 53
 PEAK = 714.0 CFS. AREA = 10,500 SQ MI. 38.055 (1944-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 344.958 STD = 104.932 SKEW = .608889
 LOG NORMAL & P III: MEAN = 2.409178 STOL = .287159 SKEW = .653407
 GUMBEL PARAMETERS: ALPHA = .007573 BETA = 289.747

RETURN PERIOD	AVERAGE	DAY/ONE	PROB	GUMBEL	NORMAL	PRISM III
2.00	311.58	.0532	302.58	317.53	309.15	307.84
2.33	339.12	.0833	339.55	345.33	338.63	335.34
2.50	402.70	1.3419	471.59	465.21	481.91	461.28
10.00	567.09	1.9469	668.39	583.37	589.76	571.28
25.00	708.83	2.0672	796.37	685.36	716.74	716.80
50.00	812.15	2.3549	729.33	778.22	823.53	834.69
100.00	929.87	2.5792	734.75	869.24	937.93	935.47
200.00	1032.53	2.8940	741.44	958.84	1025.97	1021.88



STATION 121972RP SKAGIT RIVER TRIBUTARY NEAR LYMAN, WASH. 53
 PEAK = 233.0 CFS. AREA = 1,822 SQ MI. 22.085 (1951-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 127.277 STD = 53.947 SKEW = -.974547
 LOG NORMAL & P III: MEAN = 2.037161 STOL = .314544 SKEW = -2.467294
 GUMBEL PARAMETERS: ALPHA = .025595 BETA = 134.755

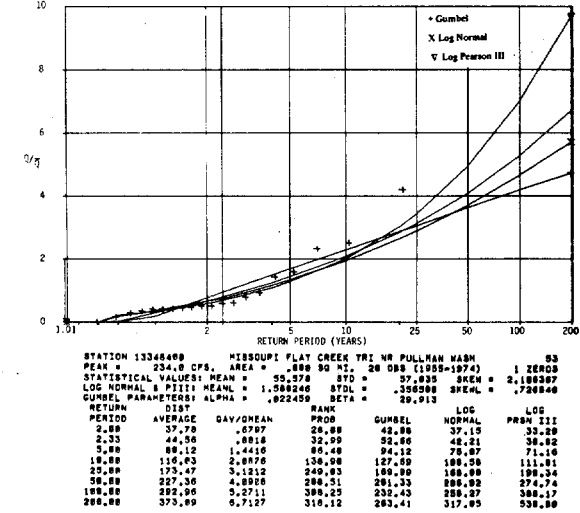
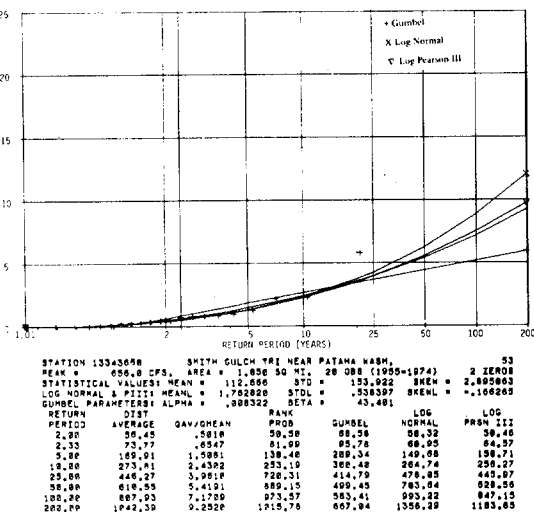
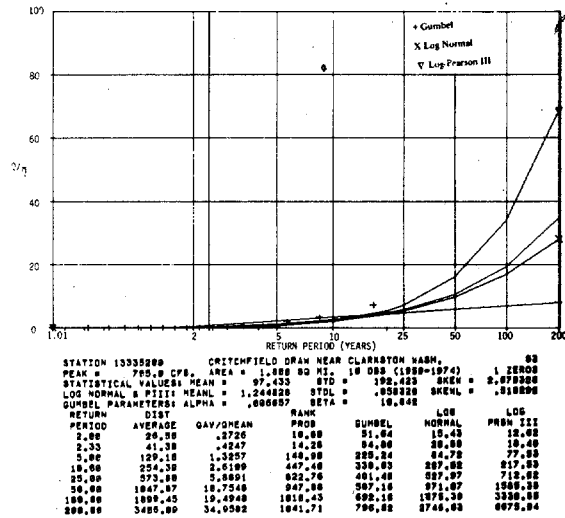
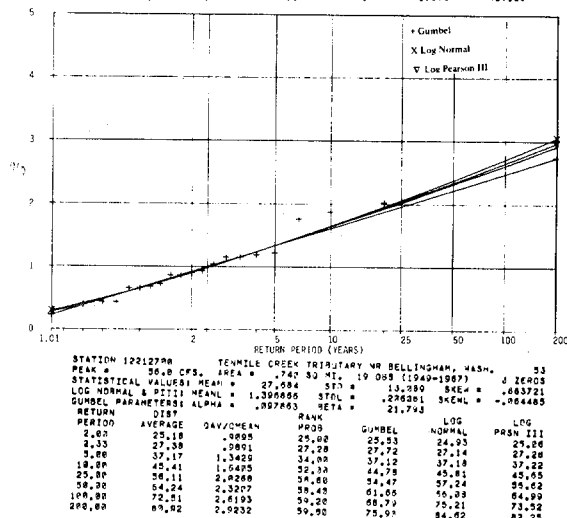
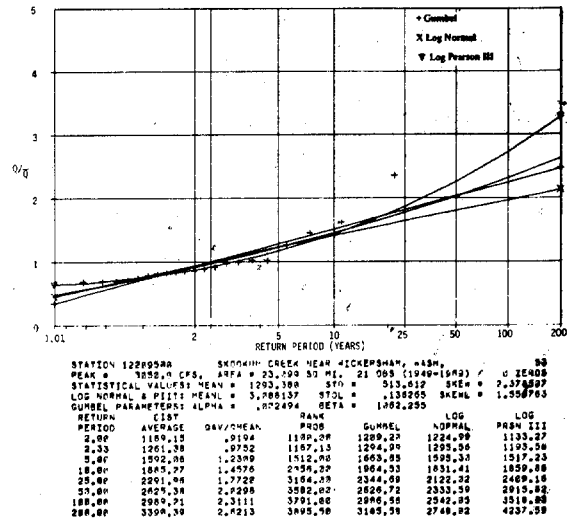
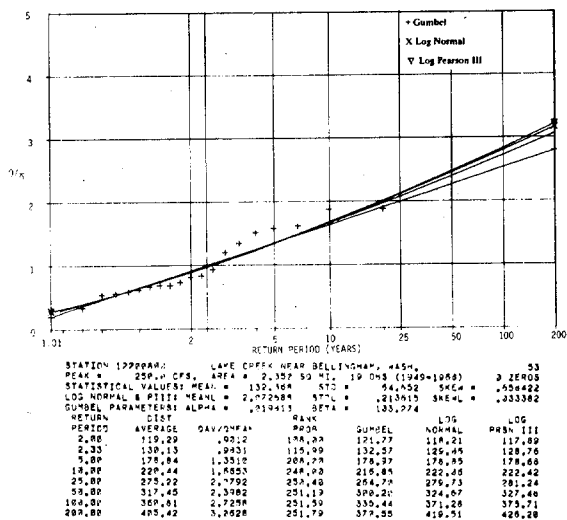
RETURN PERIOD	AVERAGE	DAY/ONE	PROB	GUMBEL	NORMAL	PRISM III
2.00	123.02	.0505	124.00	119.27	108.93	141.00
2.33	134.00	1.0501	141.14	127.43	125.98	153.80
2.50	182.21	1.4310	194.89	163.35	206.42	182.80
10.00	219.91	1.7378	170.89	192.07	275.62	181.44
25.00	278.90	2.1286	237.25	229.71	387.22	184.48
50.00	311.00	2.4487	268.47	257.27	482.20	195.5
100.00	353.54	2.7940	289.73	287.52	587.52	195.6
200.00	405.91	3.1711	287.87	311.50	785.25	195.6



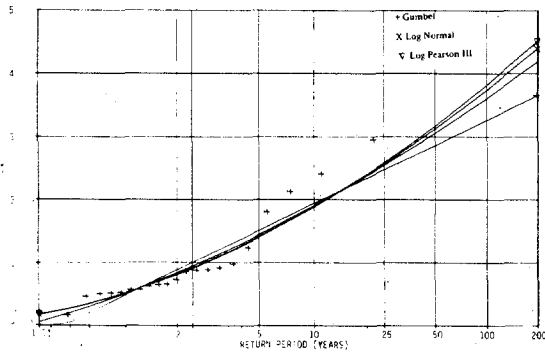
STATION 122097RP CARPENTER CREEK NEAR MOUNT VERNON, WASH. 53
 PEAK = 86.0 CFS. AREA = 2,087 SQ MI. 24.085 (1944-1972) 0 ZEROS
 STATISTICAL VALUES: MEAN = 35.457 STD = 27.031 SKEW = .734679
 LOG NORMAL & P III: MEAN = 1.484395 STOL = .208827 SKEW = -1.482675
 GUMBEL PARAMETERS: ALPHA = .063750 BETA = 27.428

RETURN PERIOD	AVERAGE	DAY/ONE	PROB	GUMBEL	NORMAL	PRISM III
2.00	31.89	.0505	31.89	33.17	30.46	35.64
2.33	36.88	1.0128	33.99	36.53	34.46	39.59
2.50	53.11	1.4580	58.88	56.94	94.38	54.82
10.00	65.22	1.6108	64.98	62.74	125.15	62.80
25.00	82.89	2.2739	84.28	77.59	191.42	69.45
50.00	95.57	2.6209	94.98	86.52	125.15	72.94
100.00	108.64	2.9793	98.78	99.57	156.97	75.39
200.00	122.22	3.3517	108.98	110.48	179.36	77.11

Appendix A-53. Washington 55-60. Flood frequency curves and data.

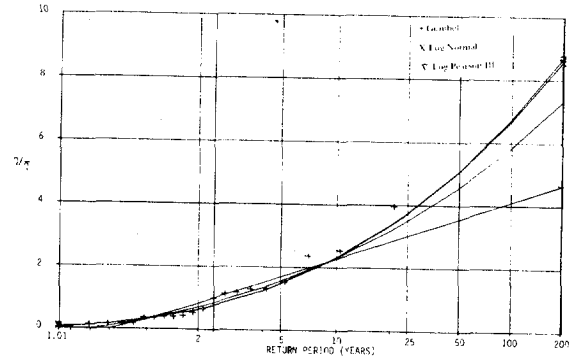


Appendix A-53. Washington 61-66. Flood frequency curves and data.



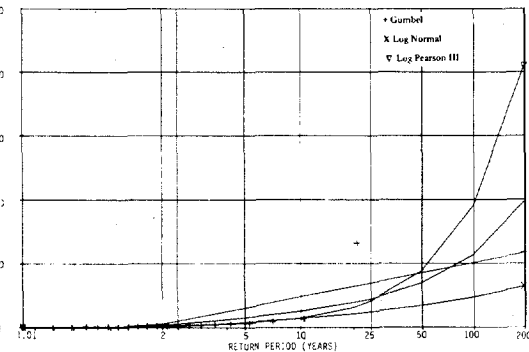
STATION 13349500 MISSOURI FLAT CREEK AT PULLMAN, WASH. 33
 PEAK = 1989.0 CFS, AREA = 27,080 SQ MI, 21 DBS (1955-1974) 2 ZEROS
 STATISTICAL VALUES: MEAN = 507.047 STD = 365.218 SKEW = 1.685422
 LOG NORMAL & P-III: MEAN = 2.014921 STD = .284755 SKEW = .841482
 GUMBEL PARAMETERS: ALPHA = .005387 BETA = .342.095

RETURN PERIOD	AVERAGE	DAY/ONEAN	PROB	GUMBEL	NORMAL	LOG	LOG P-III
2.00	425.12	8344	388.08	407.19	412.82	116.19	116.19
2.33	477.08	.9418	438.45	386.19	463.17	481.33	481.33
3.00	555.43	1.4464	788.08	778.33	715.52	714.42	714.42
10.00	905.45	1.3048	1185.88	884.28	854.75	937.31	937.31
25.00	1287.09	2.5491	1533.59	1284.61	1288.63	1318.32	1318.32
50.00	1546.79	3.0545	1859.79	1495.19	1584.19	1887.82	1887.82
100.00	1825.88	3.0820	1719.39	1894.21	1894.34	1932.83	1932.83
200.00	2123.32	4.1876	1749.19	1852.55	2289.24	2289.14	2289.14



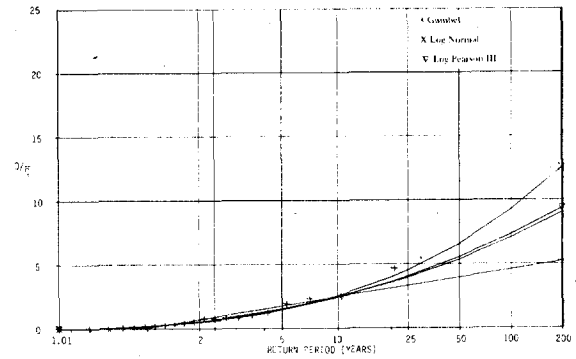
STATION 13349300 PALOUSE RIVER TRI AT COLFAX, WASH. 53
 PEAK = 183.8 CFS, AREA = 2,108 SQ MI, 28 DBS (1955-1974) 0 ZEROS
 STATISTICAL VALUES: MEAN = 46.049 STD = 45.714 SKEW = 1.728433
 LOG NORMAL & P-III: MEAN = 1.466491 STD = .438644 SKEW = .813572
 GUMBEL PARAMETERS: ALPHA = .020021 BETA = 29.478

RETURN PERIOD	AVERAGE	DAY/ONEAN	PROB	GUMBEL	NORMAL	LOG	LOG P-III
2.00	32.54	.7304	27.08	38.55	29.27	29.28	29.28
2.33	36.75	.8415	45.09	46.19	35.89	35.89	35.89
3.00	41.06	1.5532	58.08	70.68	68.59	68.59	68.59
10.00	106.52	2.3133	116.28	105.78	106.93	106.93	106.93
25.00	191.20	3.5886	193.58	139.62	171.63	172.36	172.36
50.00	218.85	4.0765	221.28	164.72	233.09	234.79	234.79
100.00	288.65	5.8382	235.13	189.64	386.96	386.85	386.85
200.00	338.27	7.3823	242.06	214.46	394.45	399.89	399.89



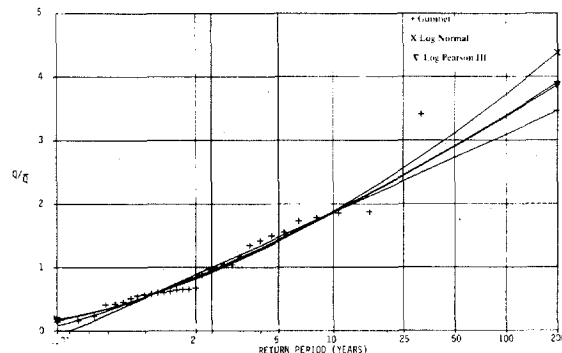
STATION 13349500 HARDMAN DRAW TRI AT PLAZA, WASH. 33
 PEAK = 1790.8 CFS, AREA = 1,648 SQ MI, 28 DBS (1955-1974) 0 ZEROS
 STATISTICAL VALUES: MEAN = 134.888 STD = 389.789 SKEW = 4.394917
 LOG NORMAL & P-III: MEAN = 1.921228 STD = .586951 SKEW = 1.688493
 GUMBEL PARAMETERS: ALPHA = .003286 BETA = .41.485

RETURN PERIOD	AVERAGE	DAY/ONEAN	PROB	GUMBEL	NORMAL	LOG	LOG P-III
2.00	47.38	.3538	29.99	79.11	41.89	82.99	82.99
2.33	74.38	.8545	35.99	135.22	51.55	36.14	36.14
3.00	285.38	1.5327	89.88	415.08	112.35	88.85	88.85
10.00	346.63	2.3599	176.58	643.34	186.28	186.28	186.28
25.00	602.83	4.4987	2036.88	931.88	326.73	549.99	549.99
50.00	933.75	6.9863	2716.89	1145.89	485.29	1189.87	1189.87
100.00	1519.61	11.3418	3947.84	1358.34	642.27	2556.81	2556.81
200.00	2836.73	19.6928	3216.47	1578.92	859.69	5486.47	5486.47



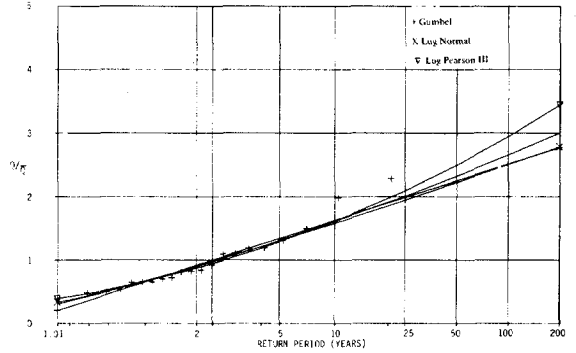
STATION 13352000 COW CREEK TRI NEAR RITZVILLE, WASH. 53
 PEAK = 790.0 CFS, AREA = 1,518 SQ MI, 28 DBS (1951-1973) 1 ZEROS
 STATISTICAL VALUES: MEAN = 42.573 STD = 49.181 SKEW = 2.189445
 LOG NORMAL & P-III: MEAN = 1.361192 STD = .533882 SKEW = -.249572
 GUMBEL PARAMETERS: ALPHA = .026046 BETA = 28.442

RETURN PERIOD	AVERAGE	DAY/ONEAN	PROB	GUMBEL	NORMAL	LOG	LOG P-III
2.00	25.15	.5039	27.50	31.82	21.37	22.27	22.27
2.33	31.42	.7381	35.99	48.88	28.11	28.11	28.11
3.00	56.75	1.5674	75.28	75.81	61.82	62.55	62.55
10.00	193.14	2.4697	184.38	104.76	187.42	183.24	183.24
25.00	188.83	3.9818	215.19	141.23	122.98	172.59	172.59
50.00	328.52	5.1676	255.89	188.25	286.28	237.18	237.18
100.00	389.20	7.8514	275.84	195.87	393.82	312.51	312.51
200.00	385.82	9.4458	285.82	221.78	534.23	599.86	599.86



STATION 14105000 BLUE CREEK NEAR WALLA WALLA, WASH. 53
 PEAK = 1020.8 CFS, AREA = 17,389 SQ MI, 31 DBS (1948-1971) 2 ZEROS
 STATISTICAL VALUES: MEAN = 345.967 STD = 257.707 SKEW = 1.733894
 LOG NORMAL & P-III: MEAN = 2.591421 STD = .281096 SKEW = -.403335
 GUMBEL PARAMETERS: ALPHA = .004069 BETA = 269.526

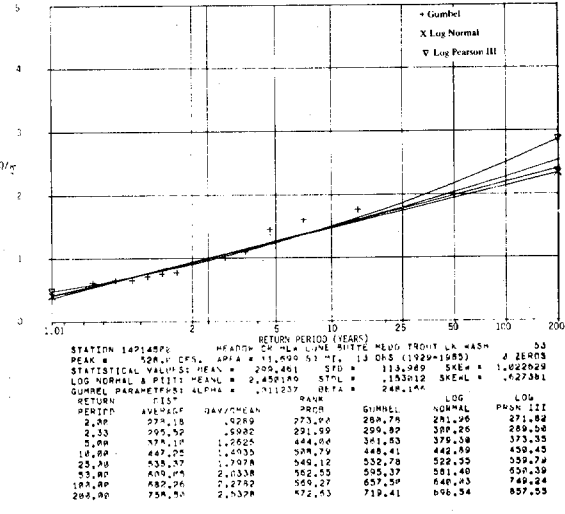
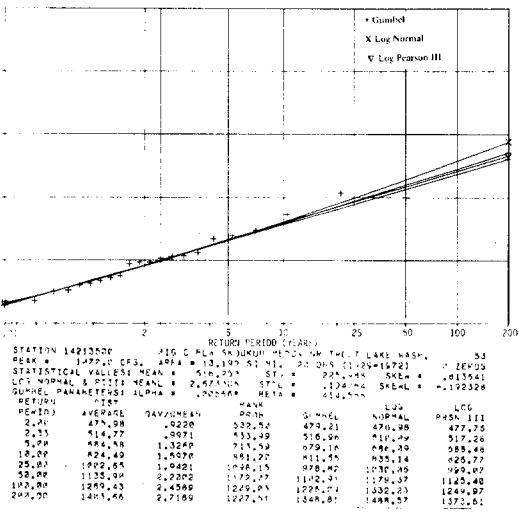
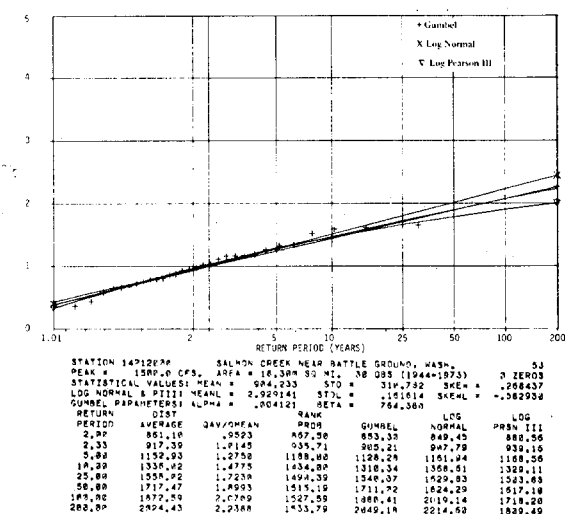
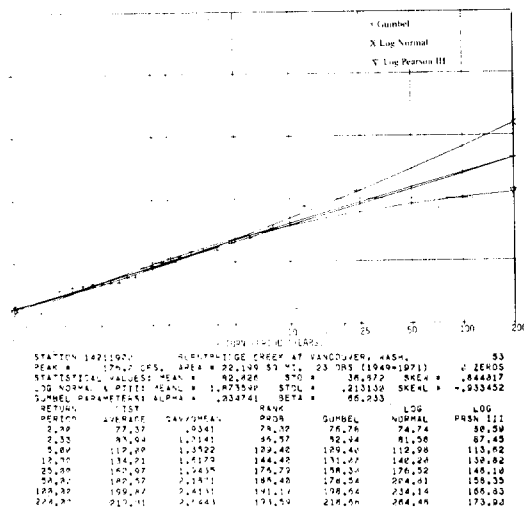
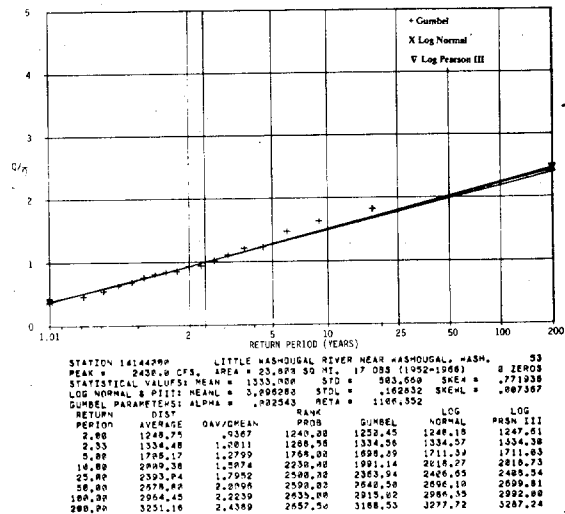
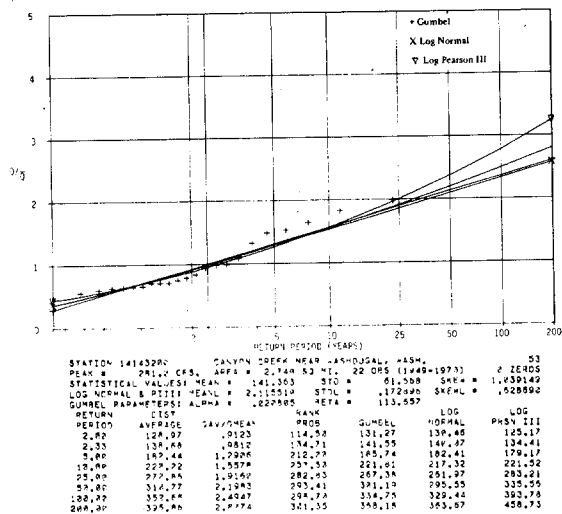
RETURN PERIOD	AVERAGE	DAY/ONEAN	PROB	GUMBEL	NORMAL	LOG	LOG P-III
2.00	328.42	.8569	282.08	343.71	317.25	324.30	324.30
2.33	360.08	.9560	378.57	366.77	356.25	363.08	363.08
3.00	556.92	1.4429	591.59	571.81	548.03	558.94	558.94
10.00	783.34	1.8741	718.39	720.83	620.21	717.88	717.88
25.00	948.79	2.4582	1153.39	913.65	986.04	943.68	943.68
50.00	1128.55	2.9187	1534.19	1059.21	1204.05	1128.41	1128.41
100.00	1312.87	3.3594	1784.59	1195.72	1437.27	1383.62	1383.62
200.00	1505.66	3.9018	1619.79	1335.72	1688.73	1492.55	1492.55



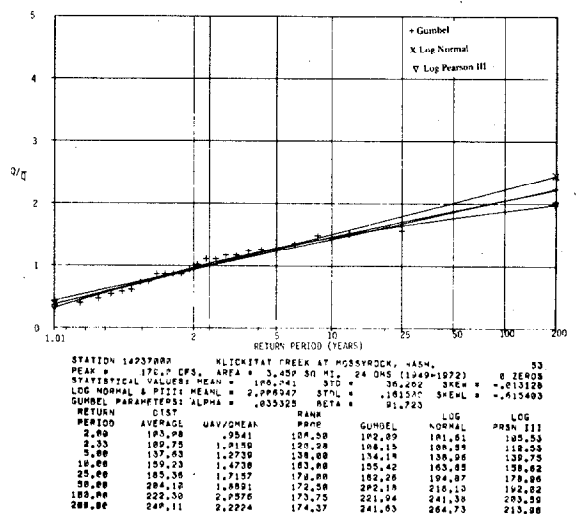
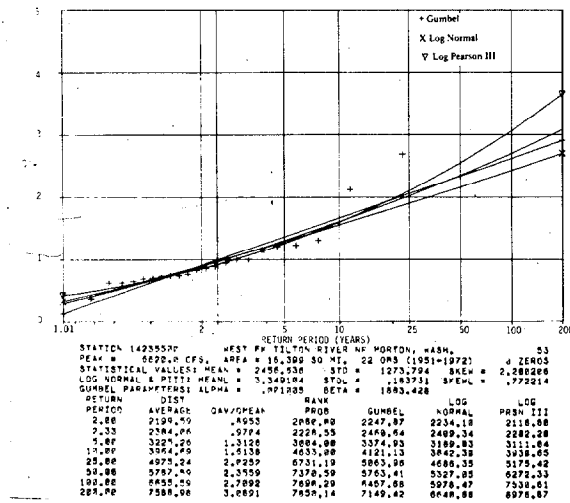
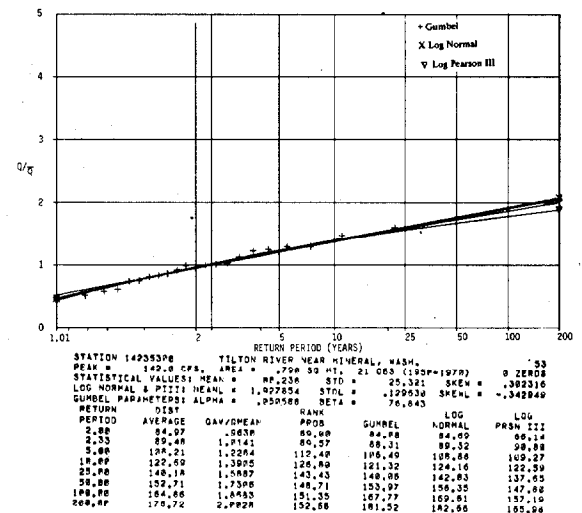
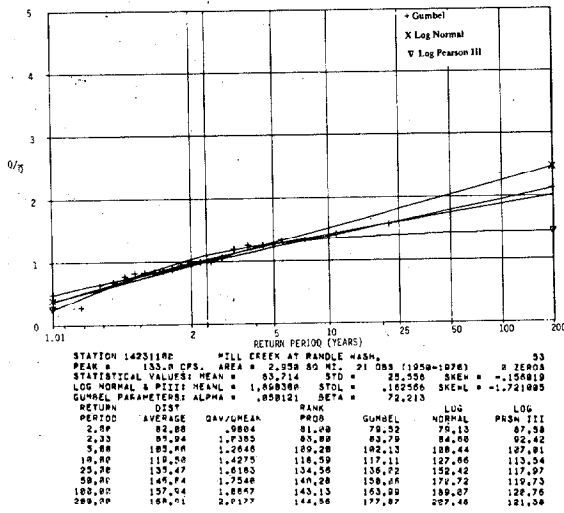
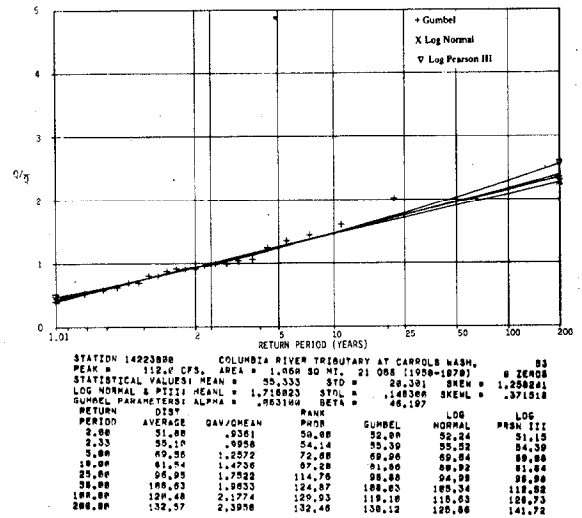
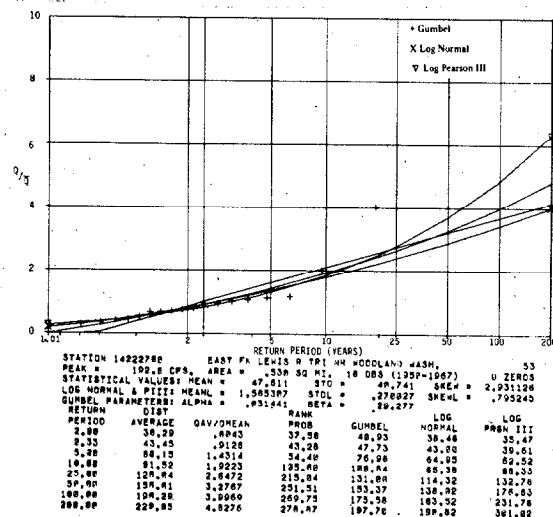
STATION 14125200 ROCK CREEK NEAR WILLARD, WASH. 53
 PEAK = 491.0 CFS, AREA = 4,108 SQ MI, 28 DBS (1949-1968) 2 ZEROS
 STATISTICAL VALUES: MEAN = 215.090 STD = 183.908 SKEW = 1.481287
 LOG NORMAL & P-III: MEAN = 2.291361 STD = .186512 SKEW = -.353763
 GUMBEL PARAMETERS: ALPHA = .012320 BETA = 188.344

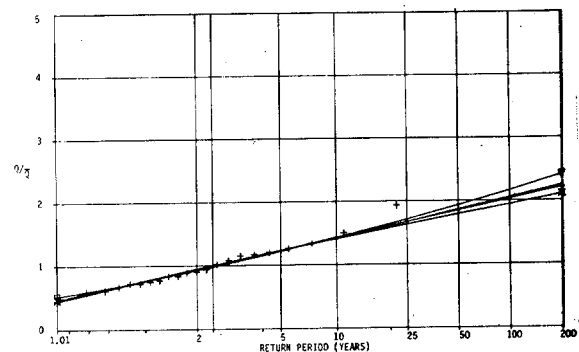
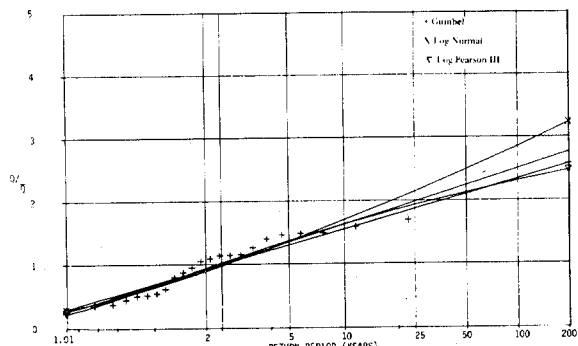
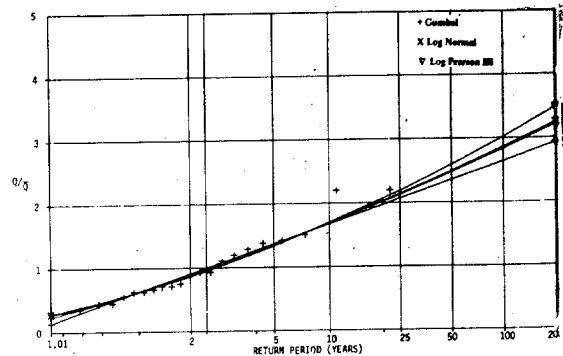
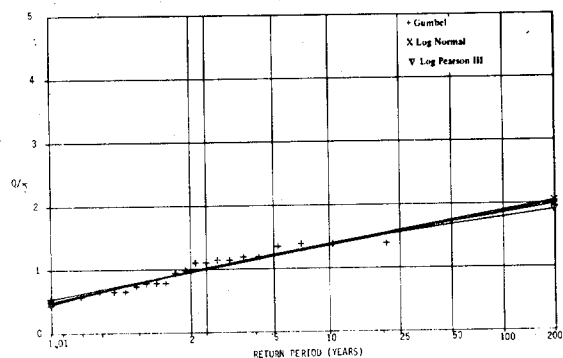
RETURN PERIOD	AVERAGE	DAY/ONEAN	PROB	GUMBEL	NORMAL	LOG	LOG P-III
2.00	194.89	.8519	186.89	198.87	195.68	186.32	186.32
2.33	219.13	.9749	190.28	215.42	211.58	203.68	203.68
3.00	263.84	1.3168	277.79	298.88	282.84	277.88	277.88
10.00	346.79	1.4120	417.59	358.88	341.49	347.89	347.89
25.00	432.27	2.0066	581.97	427.77	498.64	498.24	498.24
50.00	499.40	2.3229	527.53	484.82	477.75	537.89	537.89
100.00	571.89	2.5245	549.76	541.45	537.88	630.65	630.65
200.00	449.13	3.3336	547.58	597.87	988.28	741.32	741.32

Appendix A-53. Washington 67-72. Flood frequency curves and data.

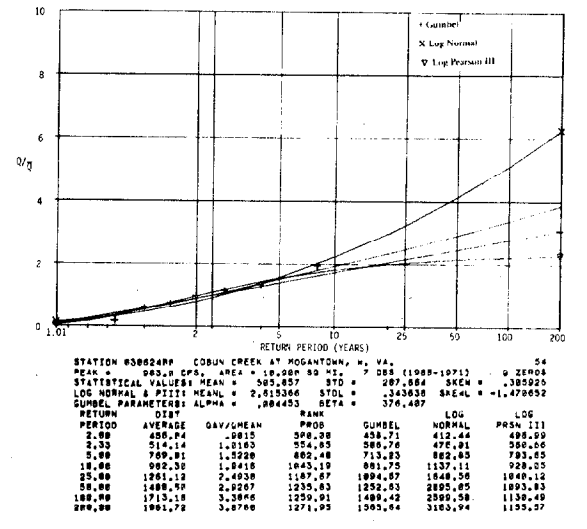
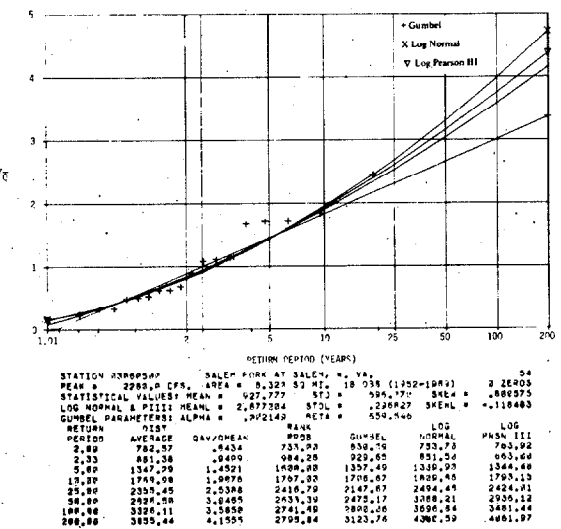
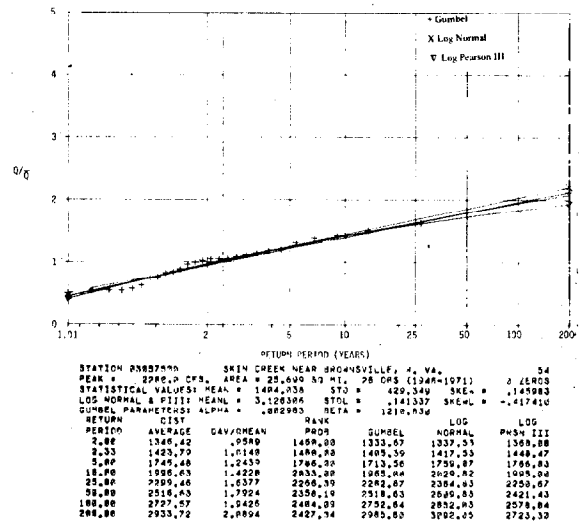
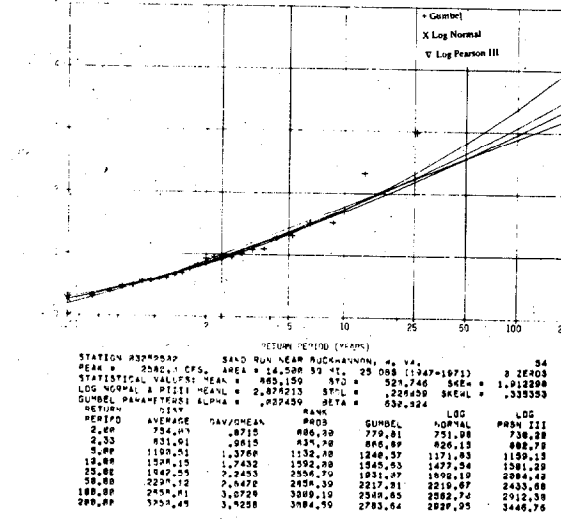
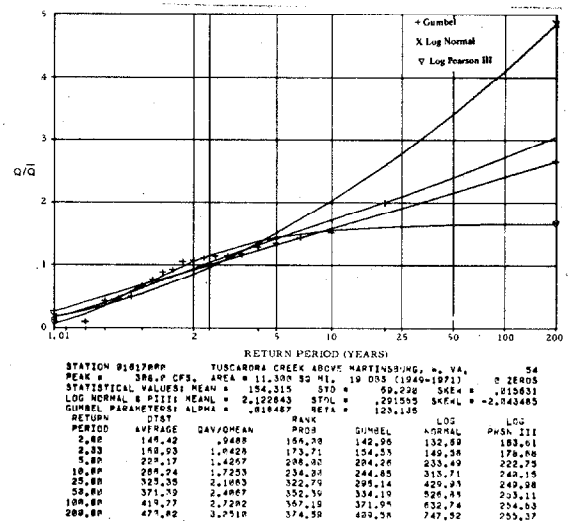
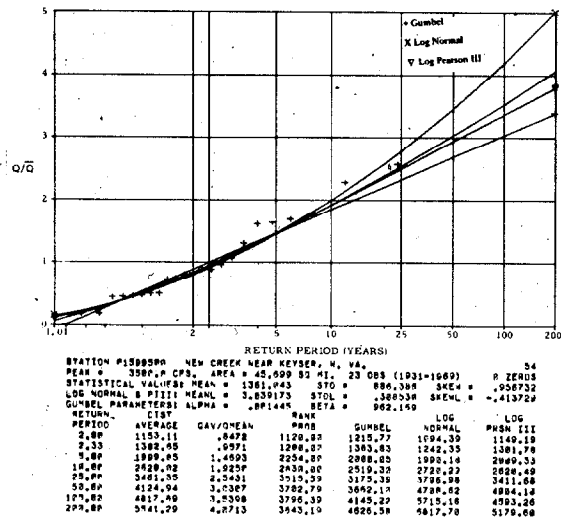


Appendix A-53. Washington 73-78. Flood frequency curves and data.

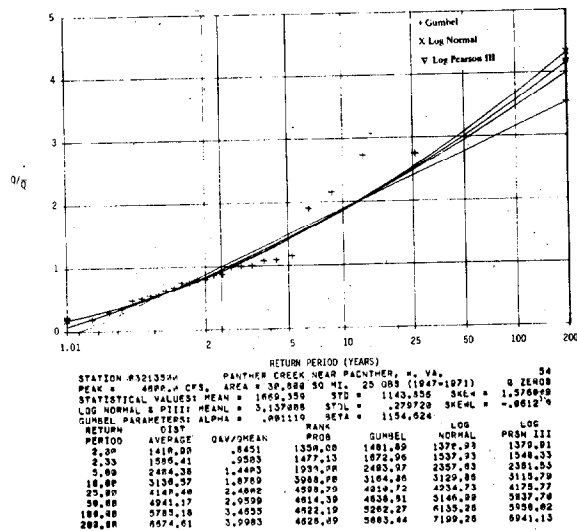




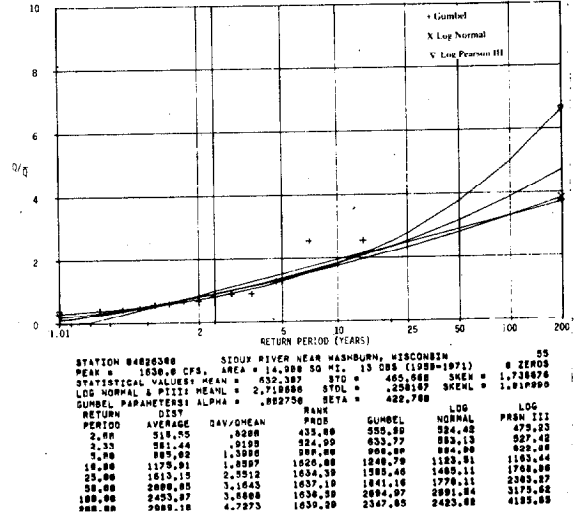
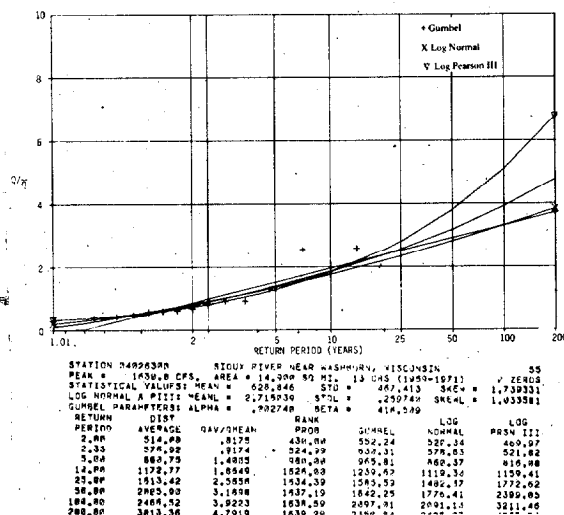
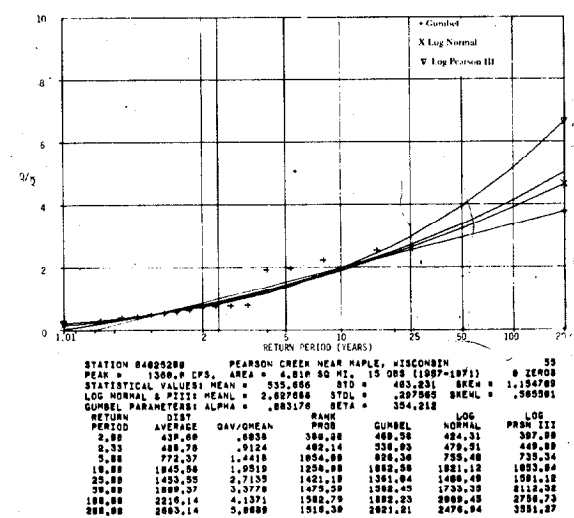
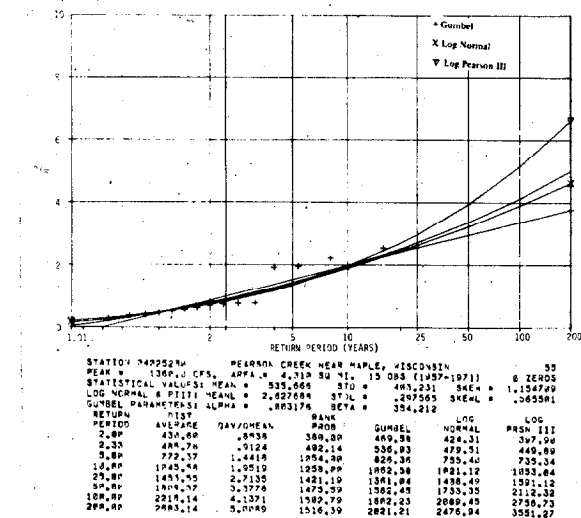
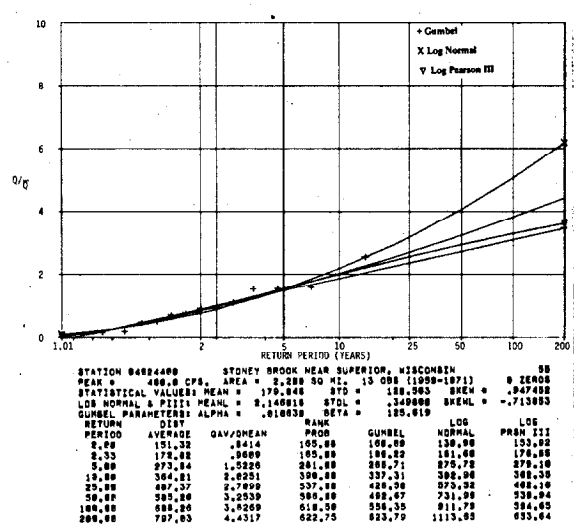
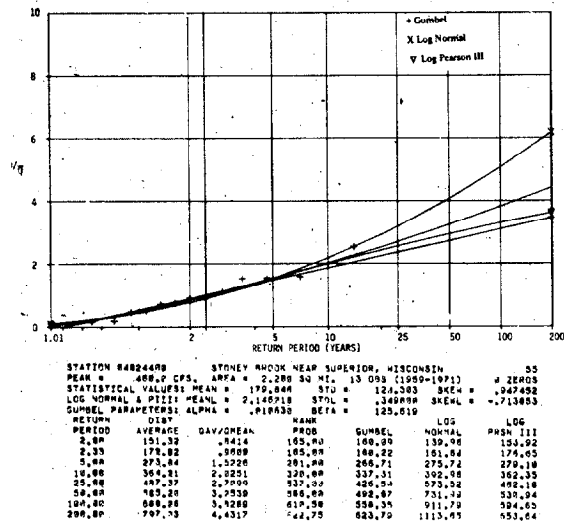
Appendix A-53. Washington 85-88. Flood frequency curves and data.



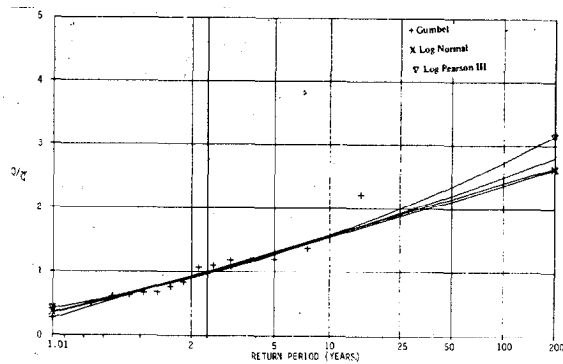
Appendix A-54. West Virginia 1-6. Flood frequency curves and data.



Appendix A-54. West Virginia 7. Flood frequency curves and data.

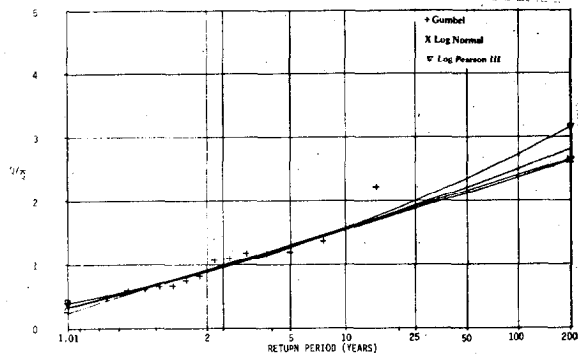


Appendix A-55. Wisconsin 1-6. Flood frequency curves and data.



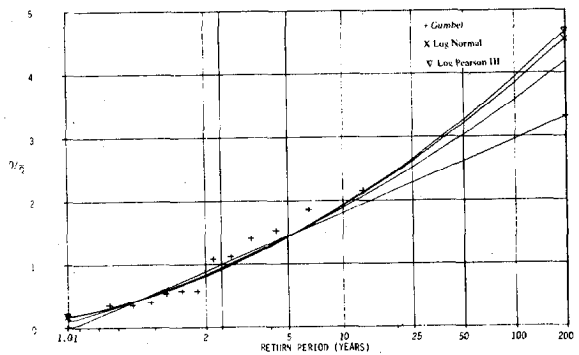
STATION 34026400 SPILLERBERG CREEK NR CUYUNA, WISCONSIN 55
 PEAK = 157.0 CFS, AREA = 5.180 SQ MI, 14 DBS (1908-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 70.542 STD = 31.728 SKEW = 1.553929
 LOG NORMAL & PIII: MEAN = 1.415908 STD = .276899 SKEW = .475425
 GUMBEL PARAMETERS: ALPHA = .048374 BETA = 55.356

PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG	LOG
PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PROB III
2.00	64.56	.9130	57.00	65.44	65.15	63.00
2.33	65.56	.9847	77.14	70.74	70.37	67.88
5.00	91.08	1.2801	90.00	93.51	91.90	89.63
10.00	111.19	1.5738	127.00	112.18	109.82	111.62
25.00	154.66	1.9345	181.00	153.54	152.98	141.44
50.00	196.53	2.2159	195.00	193.80	192.42	185.18
100.00	177.19	2.5803	204.00	170.29	166.90	163.58
200.00	195.77	2.8137	212.50	187.52	185.94	222.88



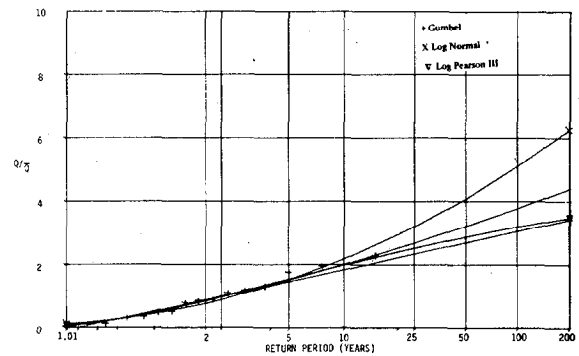
STATION 34026400 SPILLERBERG CREEK NR CUYUNA, WISCONSIN 55
 PEAK = 157.0 CFS, AREA = 5.180 SQ MI, 14 DBS (1908-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 70.542 STD = 31.728 SKEW = 1.553929
 LOG NORMAL & PIII: MEAN = 1.415908 STD = .276899 SKEW = .475425
 GUMBEL PARAMETERS: ALPHA = .048374 BETA = 55.356

PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG	LOG
PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PROB III
2.00	64.56	.9130	57.00	65.44	65.15	63.00
2.33	65.56	.9847	77.14	70.74	70.37	67.88
5.00	91.08	1.2801	90.00	93.51	91.90	89.63
10.00	111.19	1.5738	127.00	112.18	109.82	111.62
25.00	154.66	1.9345	181.00	153.54	152.98	141.44
50.00	196.53	2.2159	195.00	193.80	192.42	185.18
100.00	177.19	2.5803	204.00	170.29	166.90	163.58
200.00	195.77	2.8137	212.50	187.52	185.94	222.88



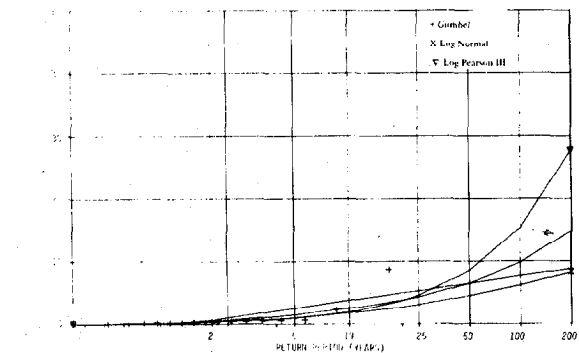
STATION 34026700 TROUT BROOK NR HAREWOOD, WISCONSIN 55
 PEAK = 205.0 CFS, AREA = .778 SQ MI, 12 DBS (1908-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 136.583 STD = 85.843 SKEW = .037810
 LOG NORMAL & PIII: MEAN = 2.851480 STD = .287405 SKEW = .047882
 GUMBEL PARAMETERS: ALPHA = .014857 BETA = 58.843

PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG	LOG
PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PROB III
2.00	110.71	.8472	114.00	125.34	118.38	112.00
2.33	129.40	.9518	159.37	138.85	128.78	126.12
5.00	197.49	1.4405	195.32	195.32	188.54	189.28
10.00	258.42	1.8928	283.80	248.40	262.87	263.79
25.00	344.30	2.2125	314.19	311.80	358.79	362.58
50.00	414.35	2.5337	324.50	358.01	438.45	445.88
100.00	480.31	2.8925	320.70	485.50	525.18	537.18
200.00	469.59	3.1702	332.59	452.18	618.99	637.87



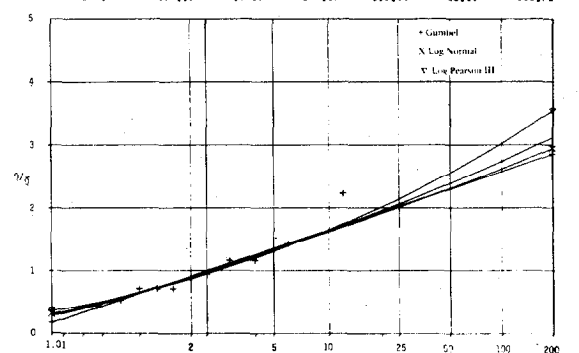
STATION 34026700 TROUT BROOK NR HAREWOOD, WISCONSIN 55
 PEAK = 205.0 CFS, AREA = .778 SQ MI, 12 DBS (1908-1971) 0 ZEROS
 STATISTICAL VALUES: MEAN = 136.583 STD = 85.843 SKEW = .037810
 LOG NORMAL & PIII: MEAN = 2.851480 STD = .287405 SKEW = .047882
 GUMBEL PARAMETERS: ALPHA = .014857 BETA = 58.843

PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG	LOG
PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PROB III
2.00	110.71	.8472	114.00	125.34	118.38	112.00
2.33	129.40	.9518	159.37	138.85	128.78	126.12
5.00	197.49	1.4405	195.32	195.32	188.54	189.28
10.00	258.42	1.8928	283.80	248.40	262.87	263.79
25.00	344.30	2.2125	314.19	311.80	358.79	362.58
50.00	414.35	2.5337	324.50	358.01	438.45	445.88
100.00	480.31	2.8925	320.70	485.50	525.18	537.18
200.00	469.59	3.1702	332.59	452.18	618.99	637.87



STATION 34026800 KNAPPE CREEK NR HAREWOOD, WISCONSIN 55
 PEAK = 1400.0 CFS, AREA = 3.479 SQ MI, 18 DBS (1904-1969) 6 ZEROS
 STATISTICAL VALUES: MEAN = 1501.812 STD = 3412.346 SKEW = 3.044632
 LOG NORMAL & PIII: MEAN = 2.811388 STD = .598524 SKEW = 1.133950
 GUMBEL PARAMETERS: ALPHA = .005370 BETA = 56.258

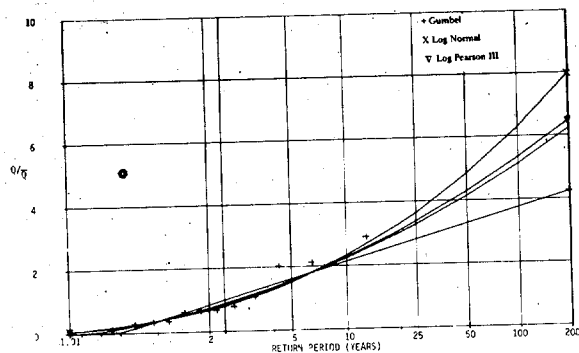
PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG	LOG
PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PROB III
2.00	781.55	.6505	474.00	1252.57	847.73	523.38
2.33	1711.52	.6365	744.71	1502.56	780.51	659.10
5.00	2441.58	1.3552	977.19	4051.81	1735.98	1542.72
10.00	4021.52	2.5277	979.39	8050.61	2905.95	3114.09
25.00	6094.79	4.3470	17292.79	8576.54	5835.45	7342.40
50.00	10667.14	6.5377	28991.10	17458.28	7129.50	13599.78
100.00	18621.13	9.8127	22540.69	12019.16	9861.45	24669.23
200.00	23059.70	14.7717	20415.34	14193.25	13215.79	44119.30



STATION 34026800 KNAPPE CREEK NR HAREWOOD, WISCONSIN 55
 PEAK = 1400.0 CFS, AREA = 3.479 SQ MI, 18 DBS (1904-1969) 6 ZEROS
 STATISTICAL VALUES: MEAN = 1501.812 STD = 3412.346 SKEW = 3.044632
 LOG NORMAL & PIII: MEAN = 2.811388 STD = .598524 SKEW = 1.133950
 GUMBEL PARAMETERS: ALPHA = .005370 BETA = 56.258

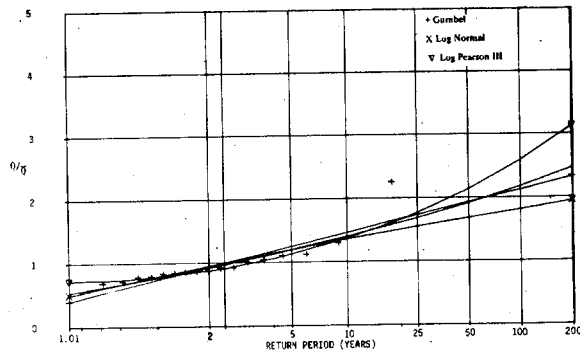
PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	LOG	LOG
PERIOD	AVERAGE	QAV/MEAN	RANK	GUMBEL	NORMAL	PROB III
2.00	781.55	.6505	474.00	1252.57	847.73	523.38
2.33	1711.52	.6365	744.71	1502.56	780.51	659.10
5.00	2441.58	1.3552	977.19	4051.81	1735.98	1542.72
10.00	4021.52	2.5277	979.39	8050.61	2905.95	3114.09
25.00	6094.79	4.3470	17292.79	8576.54	5835.45	7342.40
50.00	10667.14	6.5377	28991.10	17458.28	7129.50	13599.78
100.00	18621.13	9.8127	22540.69	12019.16	9861.45	24669.23
200.00	23059.70	14.7717	20415.34	14193.25	13215.79	44119.30

Appendix A-55. Wisconsin 7-12. Flood frequency curves and data.



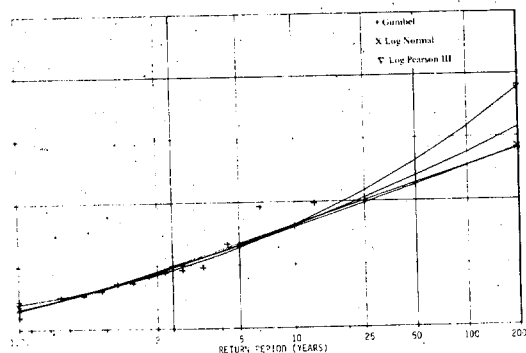
STATION 80295200 DEAD MAN GULCH NEAR MONETA, WYO. 56
 PEAK = 1336.0 CFS. AREA = 4.488 SQ MI. 12 OBS (1958-1969) 0 ZEROS
 STATISTICAL VALUES: MEAN = 458.398 STD = 484.188 SKEW = 1.219723
 LOG NORMAL & PIII: MEAN = 2.498186 STD = 4.137402 SKEW = -1.233863
 GUMBEL PARAMETERS: ALPHA = .883189 BETA = 278.451

RETURN PERIOD	AVERAGE	DAY/NEIGH	RANK	GUMBEL	NORMAL	PRISM III
2.00	344.01	.7516	389.00	392.27	314.83	388.73
2.33	406.01	.8888	334.30	459.77	373.18	388.80
3.00	719.05	1.3788	281.99	745.82	741.82	707.91
10.00	1838.33	2.3482	1225.38	986.55	1886.95	1838.00
10.00	1838.33	2.3482	1225.38	986.55	1886.95	1838.00
25.00	1498.80	3.2675	1088.30	1285.66	1886.25	1546.60
50.00	1081.51	4.1472	1002.60	1007.56	1825.98	1078.00
100.00	735.43	5.1328	1038.84	1737.82	2885.88	2444.47
200.00	2857.80	6.2313	1481.92	1647.27	3655.76	2866.25



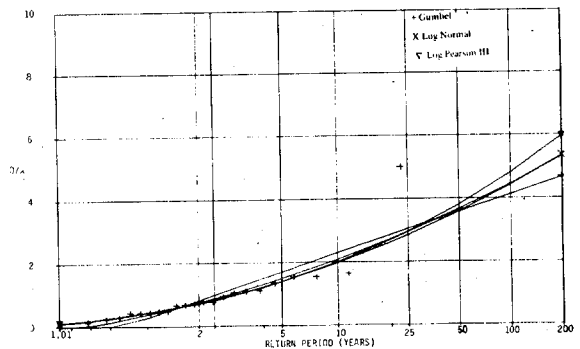
STATION 80278380 SHELL CREEK RESERVOIR, WYO. 56
 PEAK = 1976.0 CFS. AREA = 25.388 SQ MI. 17 OBS (1957-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 628.882 STD = 898.111 SKEW = 2.938239
 LOG NORMAL & PIII: MEAN = 2.988234 STD = 1.118371 SKEW = 1.998249
 GUMBEL PARAMETERS: ALPHA = .884827 BETA = 684.728

RETURN PERIOD	AVERAGE	DAY/NEIGH	RANK	GUMBEL	NORMAL	PRISM III
2.00	769.47	.8871	726.88	788.02	794.75	738.65
2.33	889.80	.9758	704.37	889.02	834.71	788.04
3.00	905.10	1.2885	621.50	1045.79	1081.88	946.01
10.00	1151.37	1.4818	1238.88	1216.43	1138.38	1137.89
25.00	1395.77	1.6839	2891.19	1439.80	1286.87	1488.17
50.00	1588.62	1.9177	2375.50	1582.18	1397.72	1761.37
100.00	1885.48	2.1737	2817.79	1765.88	1586.52	2138.08
200.00	2647.11	2.4637	2588.80	1927.15	1612.93	2586.28



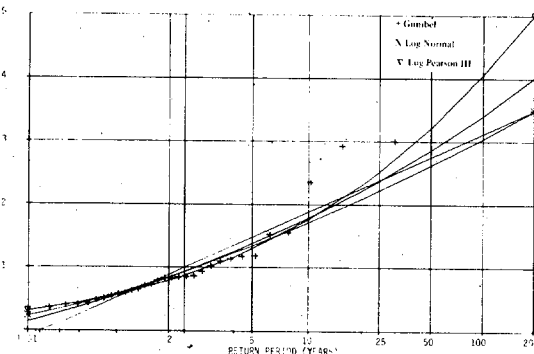
STATION 80208580 N FORK TONGUE RIVER NEAR DAYTON, WYO. 56
 PEAK = 589.0 CFS. AREA = 32.399 SQ MI. 12 OBS (1946-1957) 0 ZEROS
 STATISTICAL VALUES: MEAN = 285.383 STD = 148.335 SKEW = 1.382513
 LOG NORMAL & PIII: MEAN = 2.418978 STD = 1.028250 SKEW = .788579
 GUMBEL PARAMETERS: ALPHA = .889128 BETA = 228.433

RETURN PERIOD	AVERAGE	DAY/NEIGH	RANK	GUMBEL	NORMAL	PRISM III
2.00	254.31	.8897	245.38	285.56	257.51	244.74
2.33	275.87	.9728	237.85	284.82	274.76	284.83
3.00	374.01	1.3218	445.28	384.75	373.78	389.31
10.00	461.01	1.6284	555.79	486.98	454.44	454.44
25.00	561.42	2.0582	686.71	576.83	558.78	614.87
50.00	677.82	2.3982	736.35	647.88	638.84	748.75
100.00	781.01	2.7348	572.17	724.37	728.71	897.05
200.00	892.10	3.1458	689.38	884.34	1871.37	



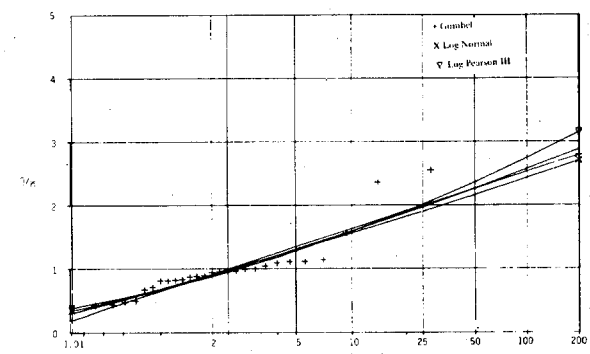
STATION 80208580 LITTLE TONGUE RIVER NEAR DAYTON, WYO. 56
 PEAK = 856.0 CFS. AREA = 25.099 SQ MI. 22 OBS (1951-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 169.980 STD = 180.387 SKEW = 3.388841
 LOG NORMAL & PIII: MEAN = 2.188978 STD = .938885 SKEW = 1.58457
 GUMBEL PARAMETERS: ALPHA = .887562 BETA = 93.888

RETURN PERIOD	AVERAGE	DAY/NEIGH	RANK	GUMBEL	NORMAL	PRISM III
2.00	138.60	.7698	128.98	142.14	138.17	123.77
2.33	158.70	.8808	138.71	178.44	144.87	142.80
3.00	257.22	1.1538	243.88	288.88	248.58	239.84
10.00	356.43	2.0977	276.58	391.26	337.89	348.92
25.00	586.41	2.9483	889.43	518.84	485.12	582.85
50.00	622.85	3.6822	1186.71	689.88	689.48	647.87
100.00	756.78	4.4535	1287.35	781.99	781.14	821.40
200.00	985.84	5.3278	1352.87	785.98	886.48	1013.87



STATION 80299580 WOLF CREEK AT WOLF, WYO. 56
 PEAK = 1138.0 CFS. AREA = 37.790 SQ MI. 30 OBS (1944-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 375.835 STD = 254.382 SKEW = 1.971831
 LOG NORMAL & PIII: MEAN = 2.584178 STD = 1.238482 SKEW = .733862
 GUMBEL PARAMETERS: ALPHA = .889836 BETA = 281.378

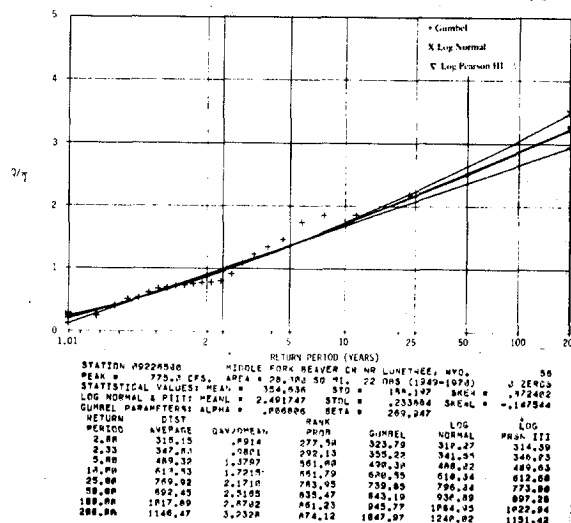
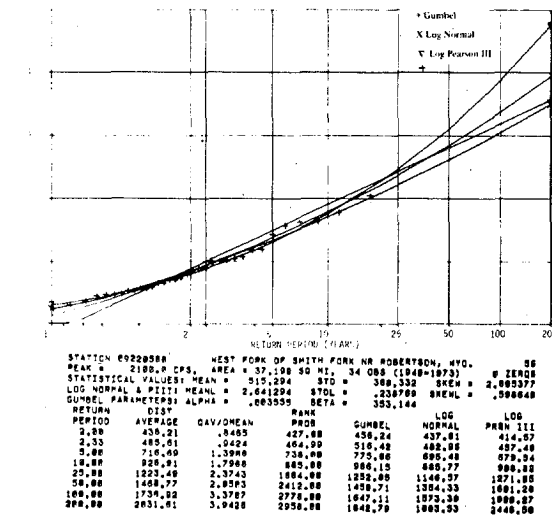
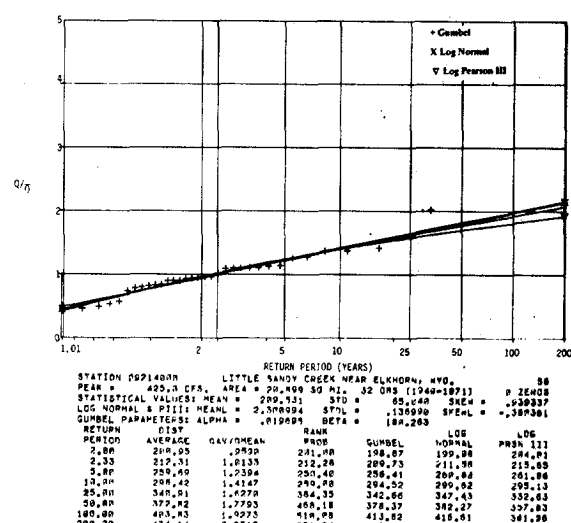
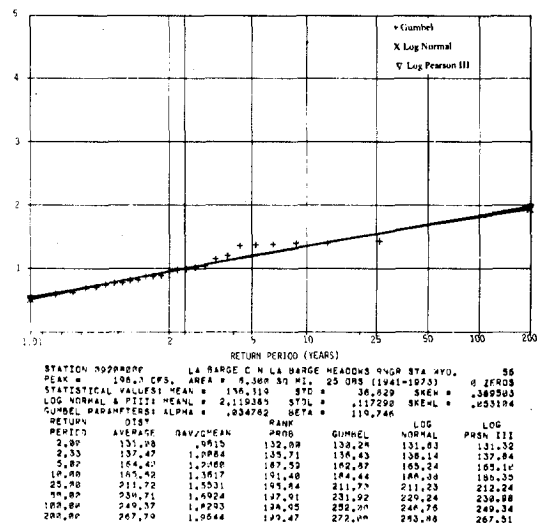
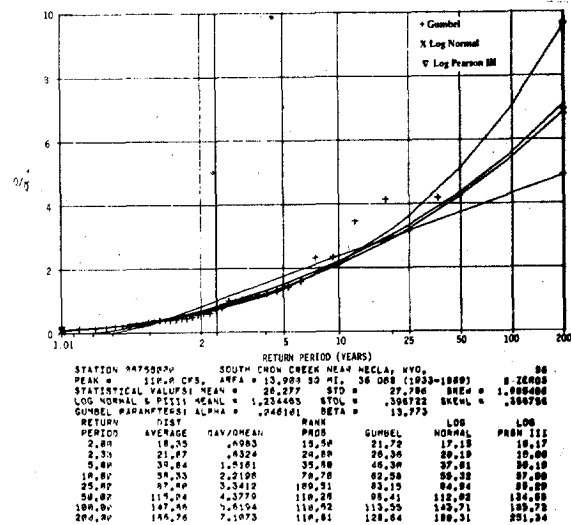
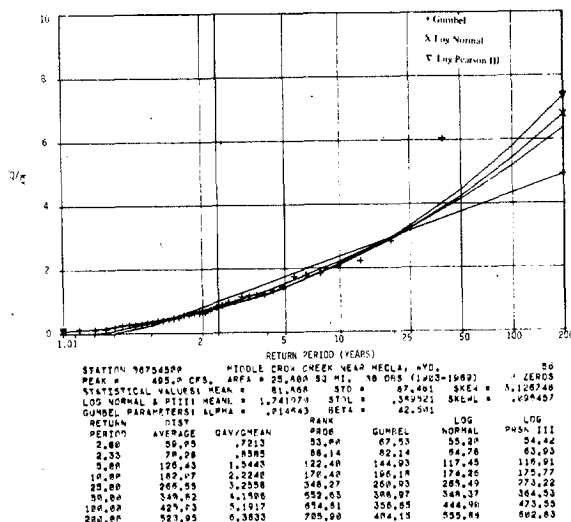
RETURN PERIOD	AVERAGE	DAY/NEIGH	RANK	GUMBEL	NORMAL	PRISM III
2.00	317.38	.8444	312.58	334.14	319.28	298.73
2.33	352.74	.9385	310.42	376.63	352.18	328.40
3.00	519.39	1.3817	443.50	550.29	588.91	491.88
10.00	874.84	1.7897	854.28	788.21	645.43	644.27
25.00	882.15	2.3737	1102.78	896.48	835.22	844.69
50.00	1876.88	2.8465	1141.39	1836.15	988.37	1287.27
100.00	1281.48	3.4895	1158.89	1174.79	1145.71	1523.69
200.00	1518.28	4.0185	1155.34	1312.93	1315.89	1984.84



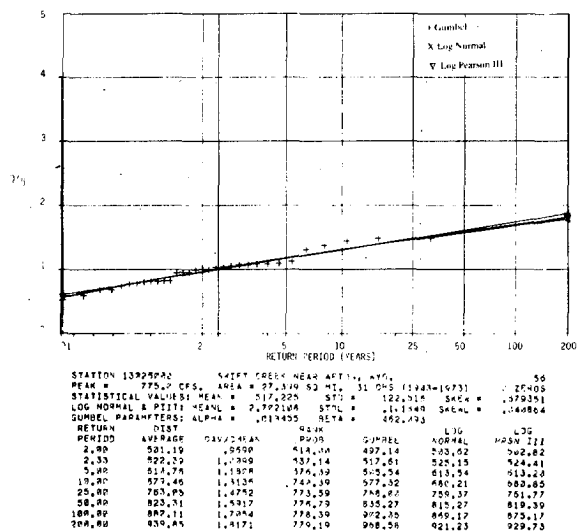
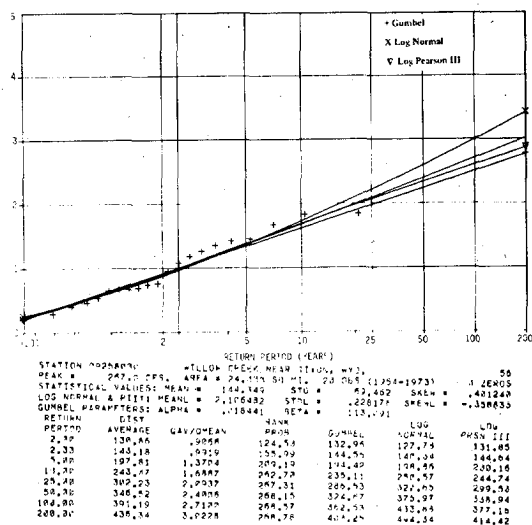
STATION 80311000 N FORK POWDER RIVER NEAR HAZZLETOWN, WYO. 56
 PEAK = 447.0 CFS. AREA = 25.740 SQ MI. 27 OBS (1947-1973) 0 ZEROS
 STATISTICAL VALUES: MEAN = 345.748 STD = 149.194 SKEW = 2.751892
 LOG NORMAL & PIII: MEAN = 2.400467 STD = 1.192492 SKEW = 1.573776
 GUMBEL PARAMETERS: ALPHA = .887562 BETA = 270.513

RETURN PERIOD	AVERAGE	DAY/NEIGH	RANK	GUMBEL	NORMAL	PRISM III
2.00	314.51	.8074	324.08	314.57	314.92	347.93
2.33	345.26	.8813	321.39	347.27	341.35	332.17
3.00	455.44	1.3167	457.39	488.85	451.41	448.63
10.00	554.26	1.8985	536.41	588.90	545.34	551.08
25.00	684.41	2.2684	574.87	653.47	652.15	648.99
50.00	786.41	2.7684	515.25	706.48	752.29	821.40
100.00	891.44	3.2714	931.51	878.41	843.80	952.21
200.00	1201.14	3.8772	942.75	971.81	935.24	1045.83

Appendix A-56. Wyoming 1-6. Flood frequency curves and data.



Appendix A-56. Wyoming 7-12. Flood frequency curves and data.



Appendix A-56. Wyoming 13-14. Flood frequency curves and data.

FEDERALLY COORDINATED PROGRAM OF HIGHWAY RESEARCH AND DEVELOPMENT (FCP)

The Offices of Research and Development of the Federal Highway Administration are responsible for a broad program of research with resources including its own staff, contract programs, and a Federal-Aid program which is conducted by or through the State highway departments and which also finances the National Cooperative Highway Research Program managed by the Transportation Research Board. The Federally Coordinated Program of Highway Research and Development (FCP) is a carefully selected group of projects aimed at urgent, national problems, which concentrates these resources on these problems to obtain timely solutions. Virtually all of the available funds and staff resources are a part of the FCP, together with as much of the Federal-aid research funds of the States and the NCHRP resources as the States agree to devote to these projects.*

FCP Category Descriptions

1. Improved Highway Design and Operation for Safety

Safety R&D addresses problems connected with the responsibilities of the Federal Highway Administration under the Highway Safety Act and includes investigation of appropriate design standards, roadside hardware, signing, and physical and scientific data for the formulation of improved safety regulations.

2. Reduction of Traffic Congestion and Improved Operational Efficiency

Traffic R&D is concerned with increasing the operational efficiency of existing highways by advancing technology, by improving designs for existing as well as new facilities, and by keeping the demand-capacity relationship in better balance through traffic management techniques such as bus and carpool preferential treatment, motorist information, and rerouting of traffic.

3. Environmental Considerations in Highway Design, Location, Construction, and Operation

Environmental R&D is directed toward identifying and evaluating highway elements which affect the quality of the human environment. The ultimate goals are reduction of adverse highway and traffic impacts, and protection and enhancement of the environment.

4. Improved Materials Utilization and Durability

Materials R&D is concerned with expanding the knowledge of materials properties and technology to fully utilize available naturally occurring materials, to develop extender or substitute materials for materials in short supply, and to devise procedures for converting industrial and other wastes into useful highway products. These activities are all directed toward the common goals of lowering the cost of highway construction and extending the period of maintenance-free operation.

5. Improved Design to Reduce Costs, Extend Life Expectancy, and Insure Structural Safety

Structural R&D is concerned with furthering the latest technological advances in structural designs, fabrication processes, and construction techniques, to provide safe, efficient highways at reasonable cost.

6. Prototype Development and Implementation of Research

This category is concerned with developing and transferring research and technology into practice, or, as it has been commonly identified, "technology transfer."

7. Improved Technology for Highway Maintenance

Maintenance R&D objectives include the development and application of new technology to improve management, to augment the utilization of resources, and to increase operational efficiency and safety in the maintenance of highway facilities.

* The complete 7-volume official statement of the FCP is available from the National Technical Information Service (NTIS), Springfield, Virginia 22161 (Order No. PB 242057, price \$45 postpaid). Single copies of the introductory volume are obtainable without charge from Program Analysis (HRD-2), Offices of Research and Development, Federal Highway Administration, Washington, D.C. 20590.

