

ANNEXURE I : STREAMFLOW CALIBRATIONS

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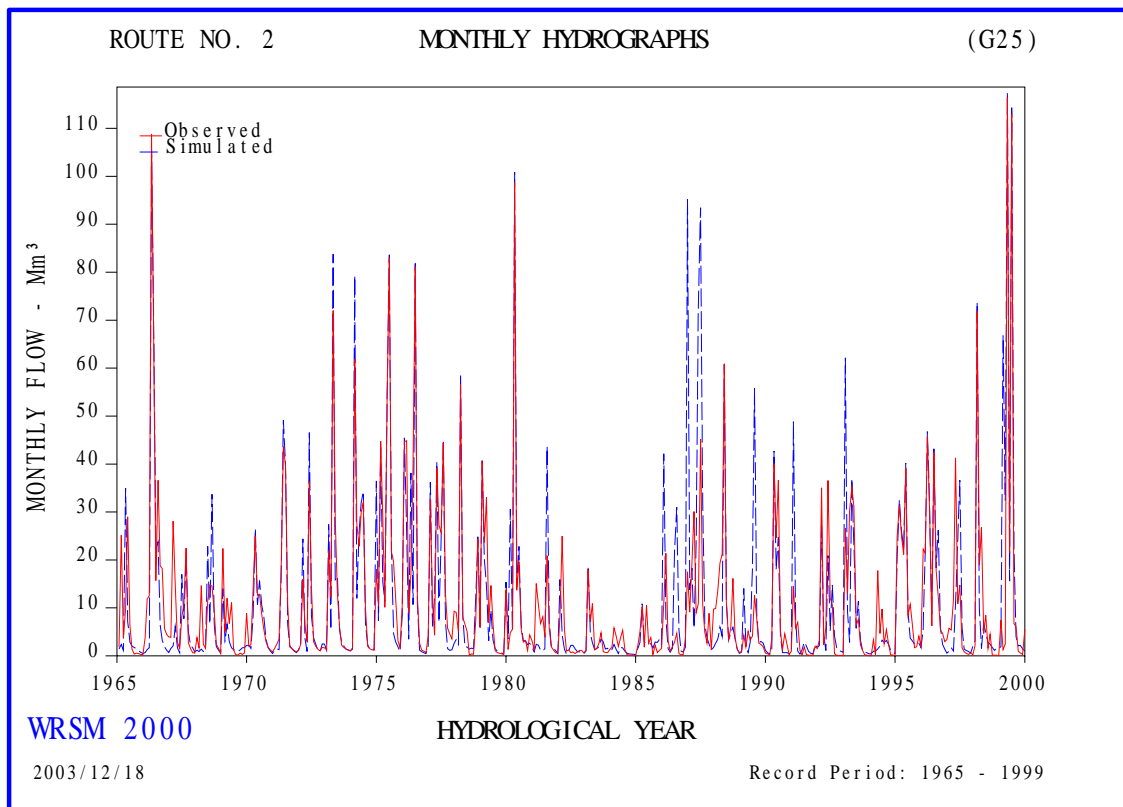
I.1.

CALIBRATION AT GAUGE CG25

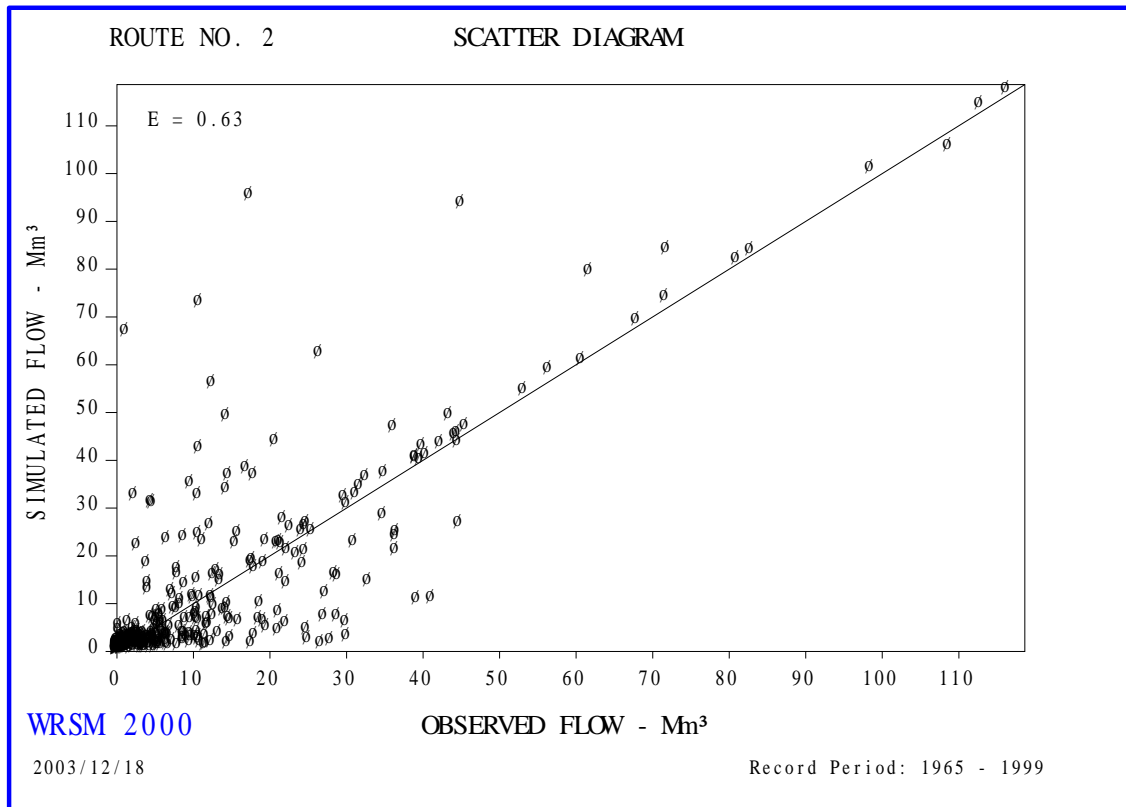
H.1.1. STATISTICS OF SIMULATED AND OBSERVED SEQUENCES

Index	Unit	Observed	Simulated
Mean annual runoff (MAR)	(Million m ³)	130.82	130.60
Standard deviation of annual flows (S)	(Million m ³ /yr)	77.90	84.87
Coefficient of variability (S/MAR)	(%)	59.55	64.98
Coefficient of skewness	-	0.7765	0.9114
Range	(% MAR)	537.37	395.09
Autocorrelation coefficient of annual flows	-	0.3352	0.2226
Mean of logs of annual flows	(Million m ³)	2.0351	2.0099
Standard deviation of logs of annual flows	-	0.2824	0.3379
Index of seasonal variability	(%)	32.10	28.52

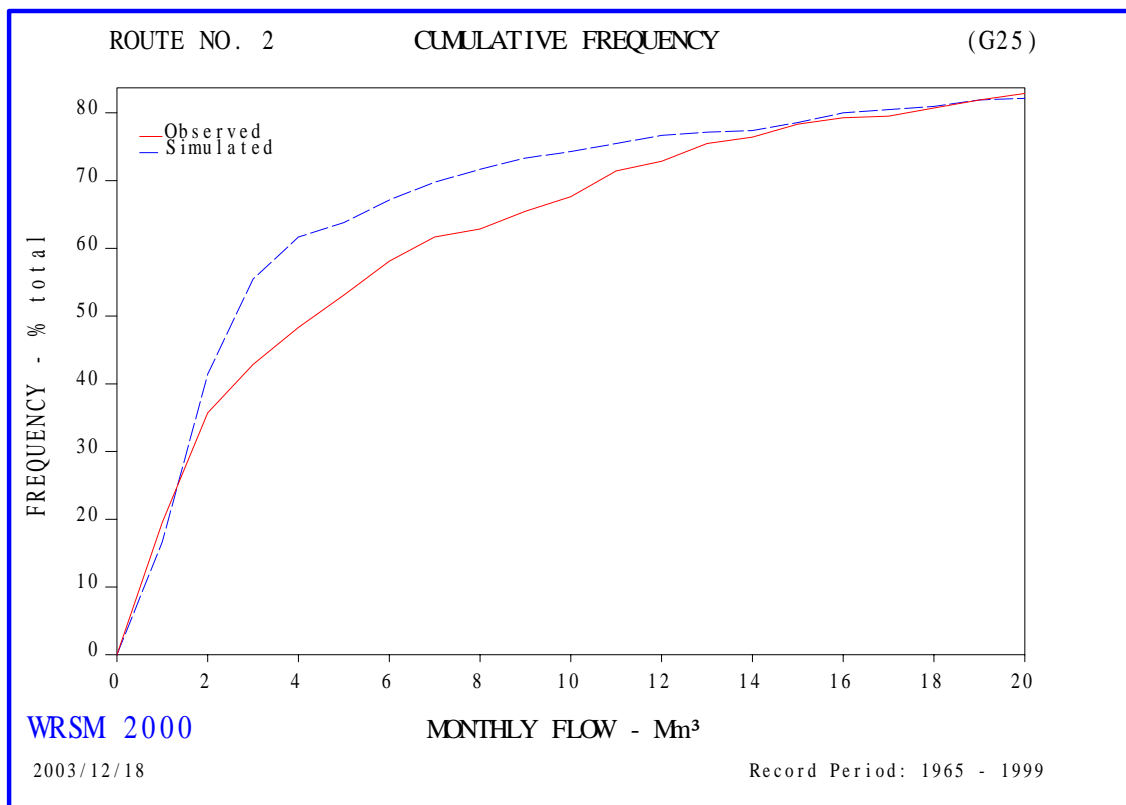
H.1.2. OBSERVED VERSUS SIMULATED STREAMFLOW (MONTHLY)



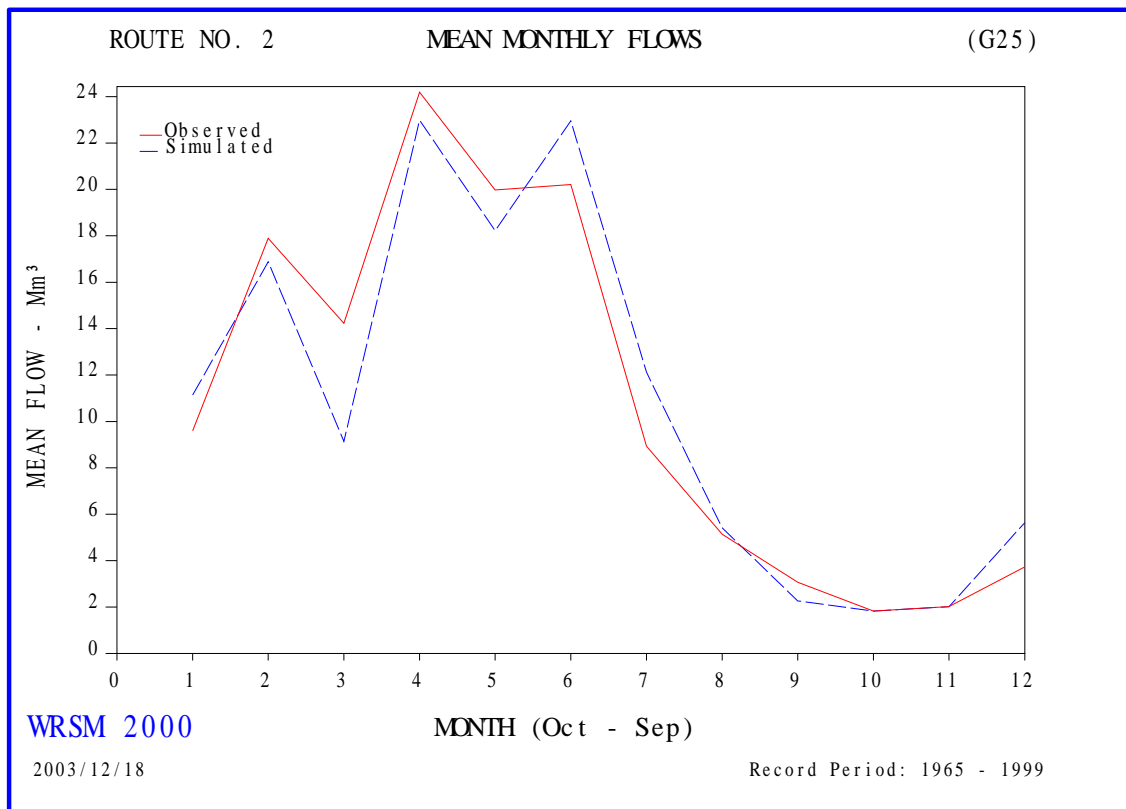
H.1.5. OBSERVED VERSUS SIMULATED FLOW SCATTER DIAGRAM



H.1.6. MONTHLY STREAMFLOW CUMULATIVE FREQUENCY CURVE



H.1.7. SEASONALITY OF FLOWS



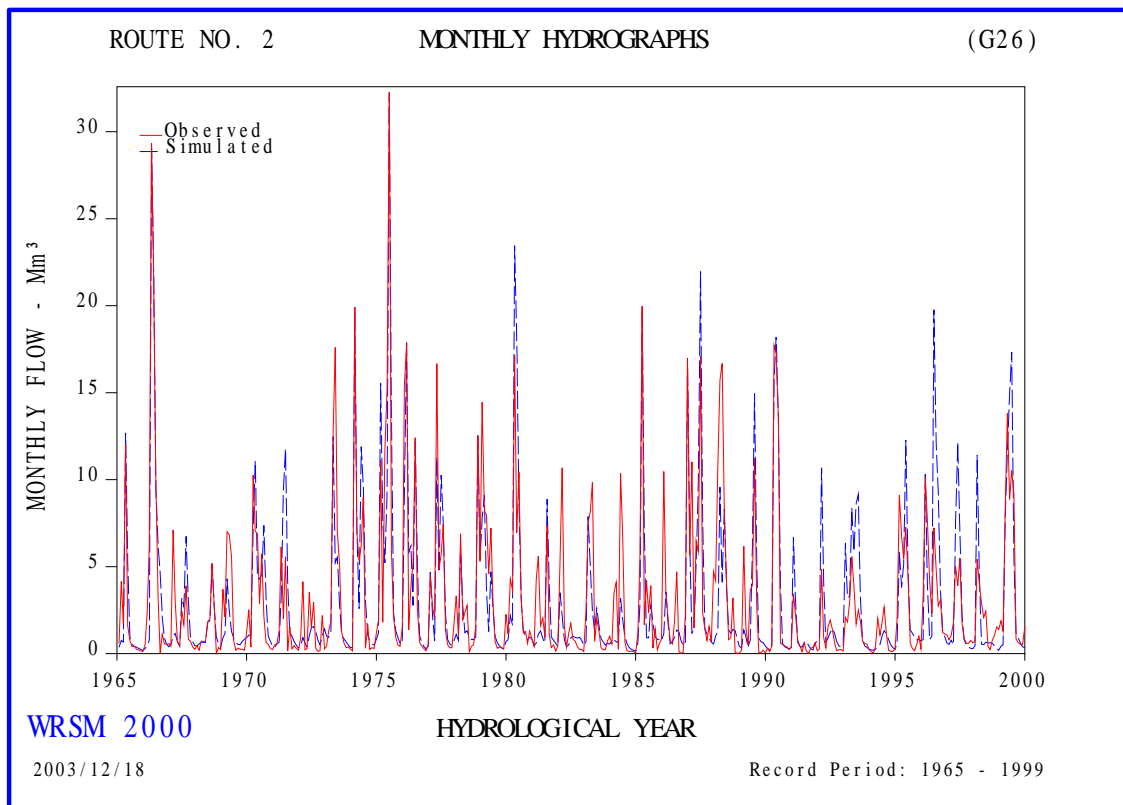
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CALIBRATION AT GAUGE CG26

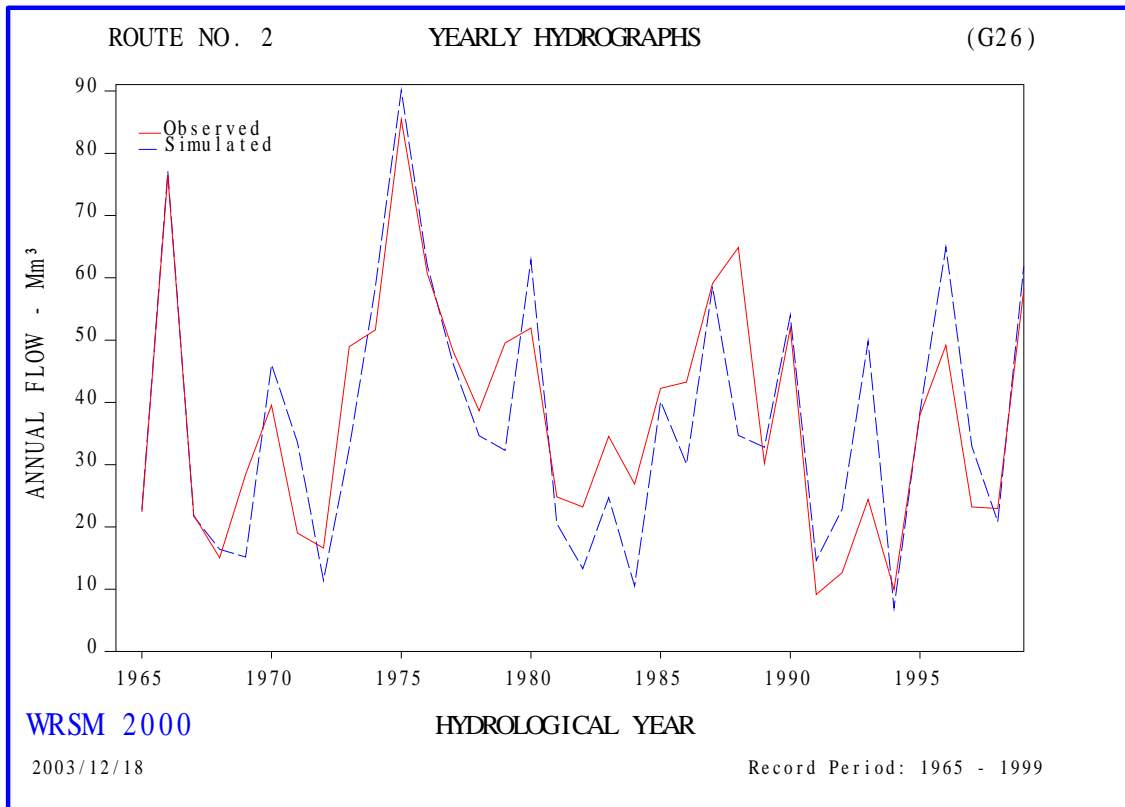
H.2.1. STATISTICS OF SIMULATED AND OBSERVED SEQUENCES

Index	Unit	Observed	Simulated
Mean annual runoff (MAR)	(Million m ³)	37.82	37.03
Standard deviation of annual flows (S)	(Million m ³ /yr)	19.06	20.56
Coefficient of variability (S/MAR)	(%)	50.40	55.51
Coefficient of skewness	-	0.5254	0.6638
Range	(% MAR)	357.00	315.92
Autocorrelation coefficient of annual flows	-	0.2448	0.0807
Mean of logs of annual flows	(Million m ³)	1.5167	1.4955
Standard deviation of logs of annual flows	-	0.2457	0.2693
Index of seasonal variability	(%)	31.53	29.19

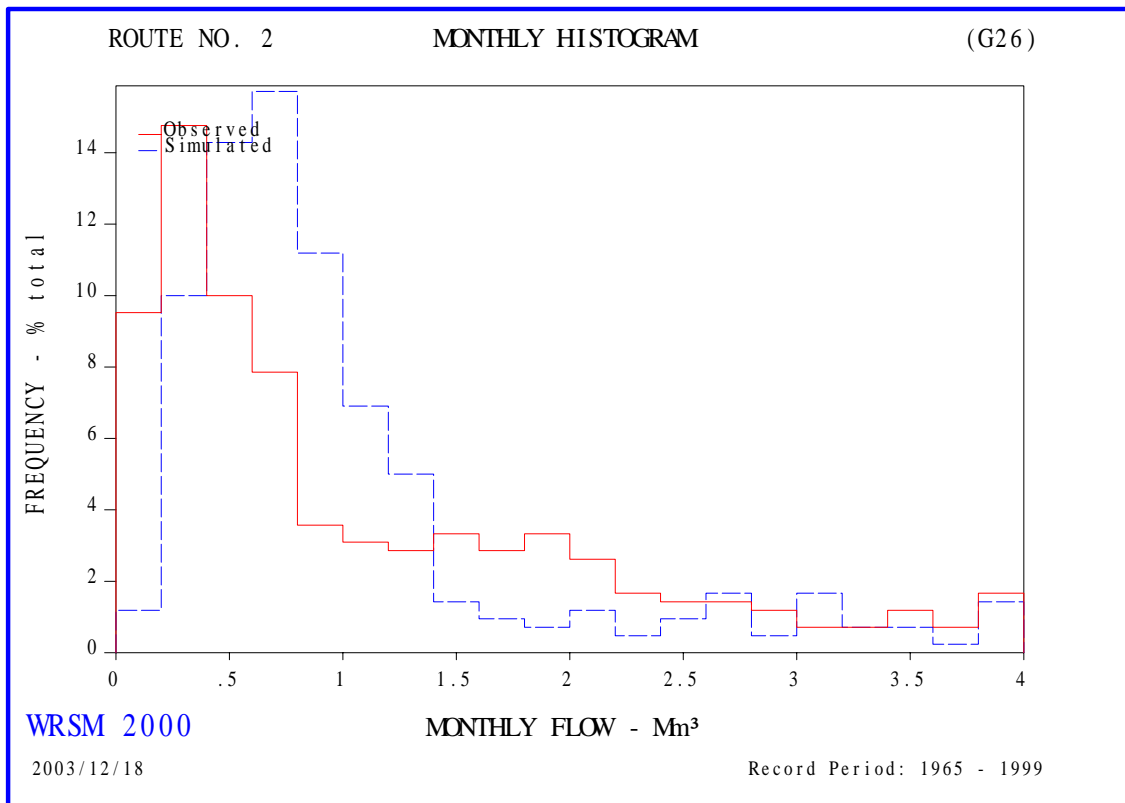
H.2.2. OBSERVED VERSUS SIMULATED STREAMFLOW (MONTHLY)



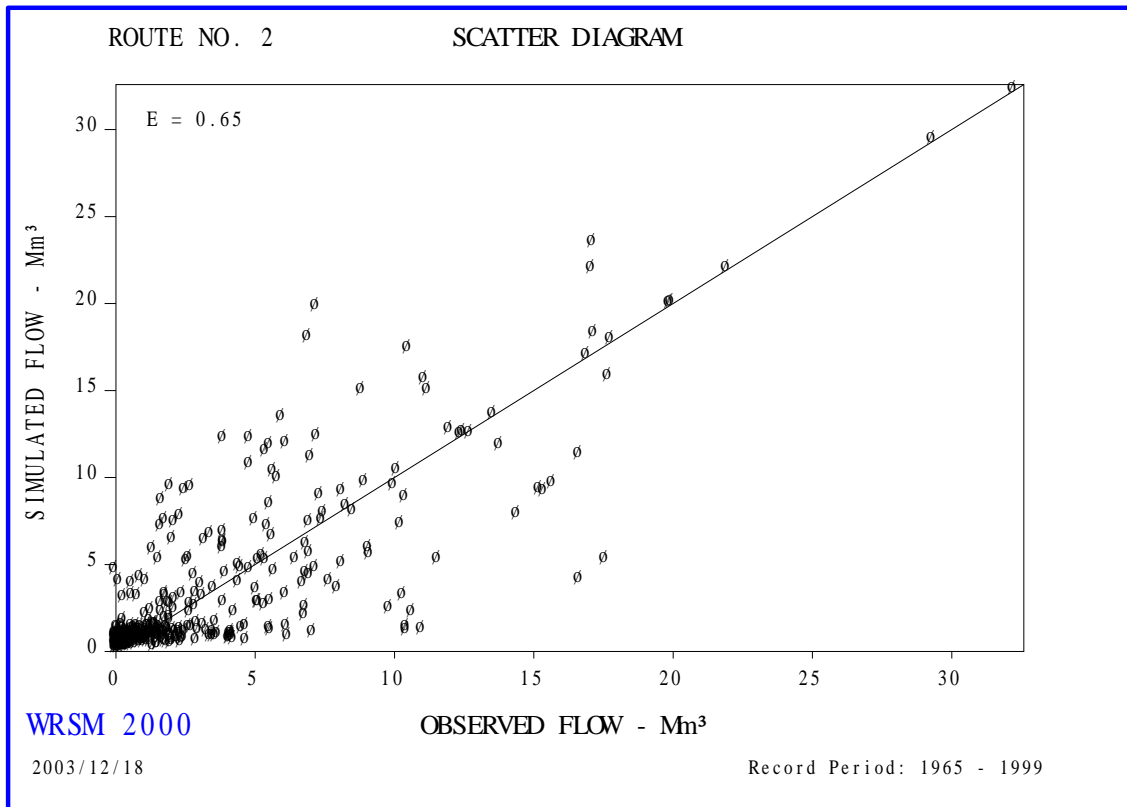
H.2.3. OBSERVED VERSUS SIMULATED STREAMFLOW (ANNUAL)



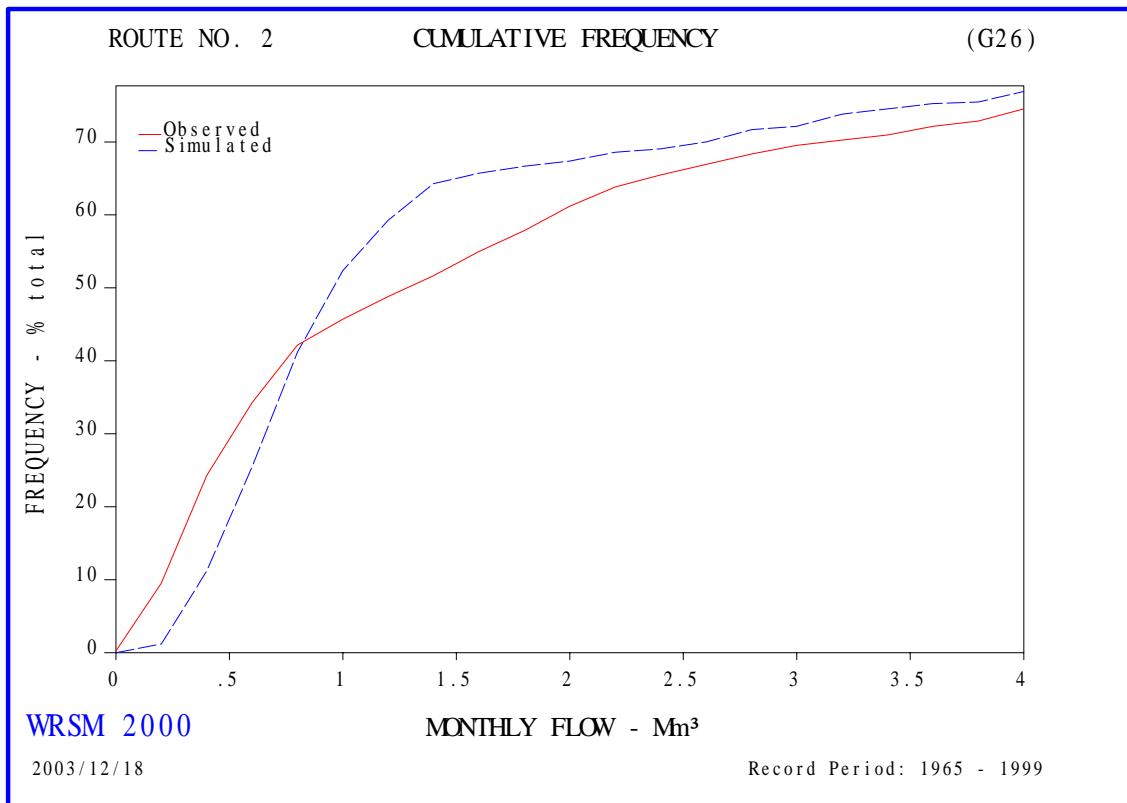
H.2.4. MONTHLY STREAMFLOW HISTOGRAM



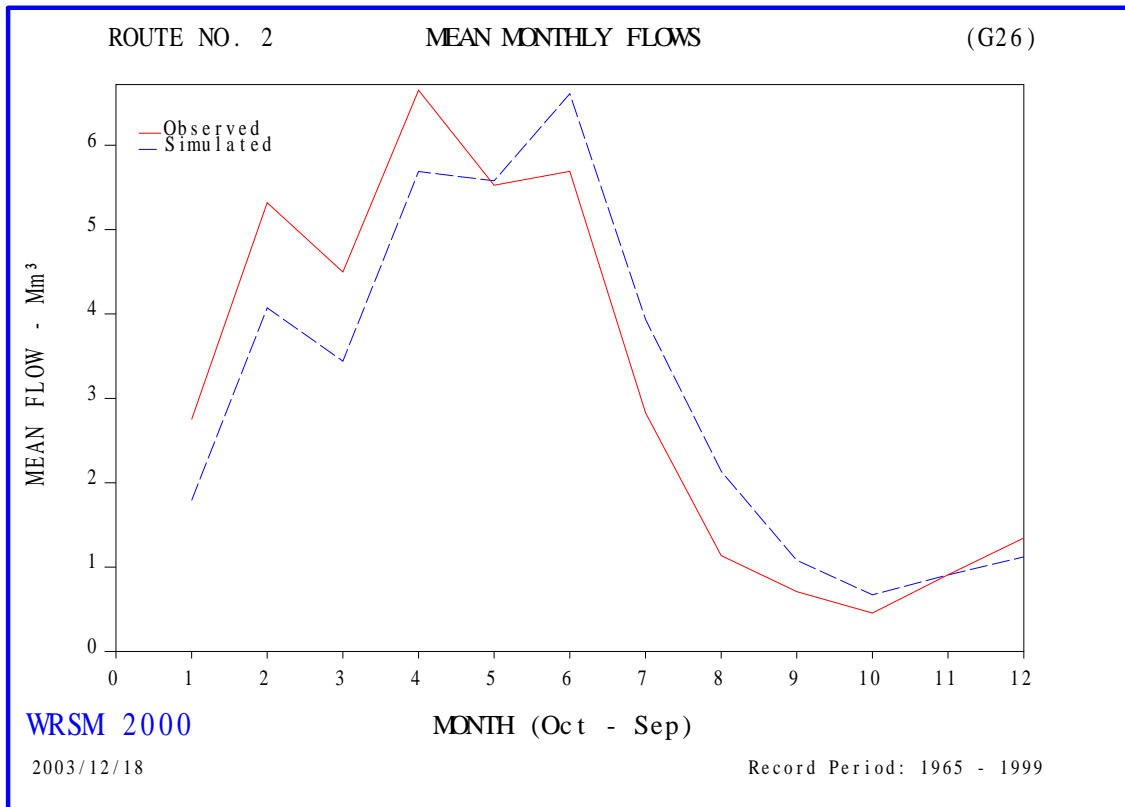
H.2.5. OBSERVED VERSUS SIMULATED FLOW SCATTER DIAGRAM



H.2.6. MONTHLY STREAMFLOW CUMULATIVE FREQUENCY CURVE



H.2.7. SEASONALITY OF FLOWS



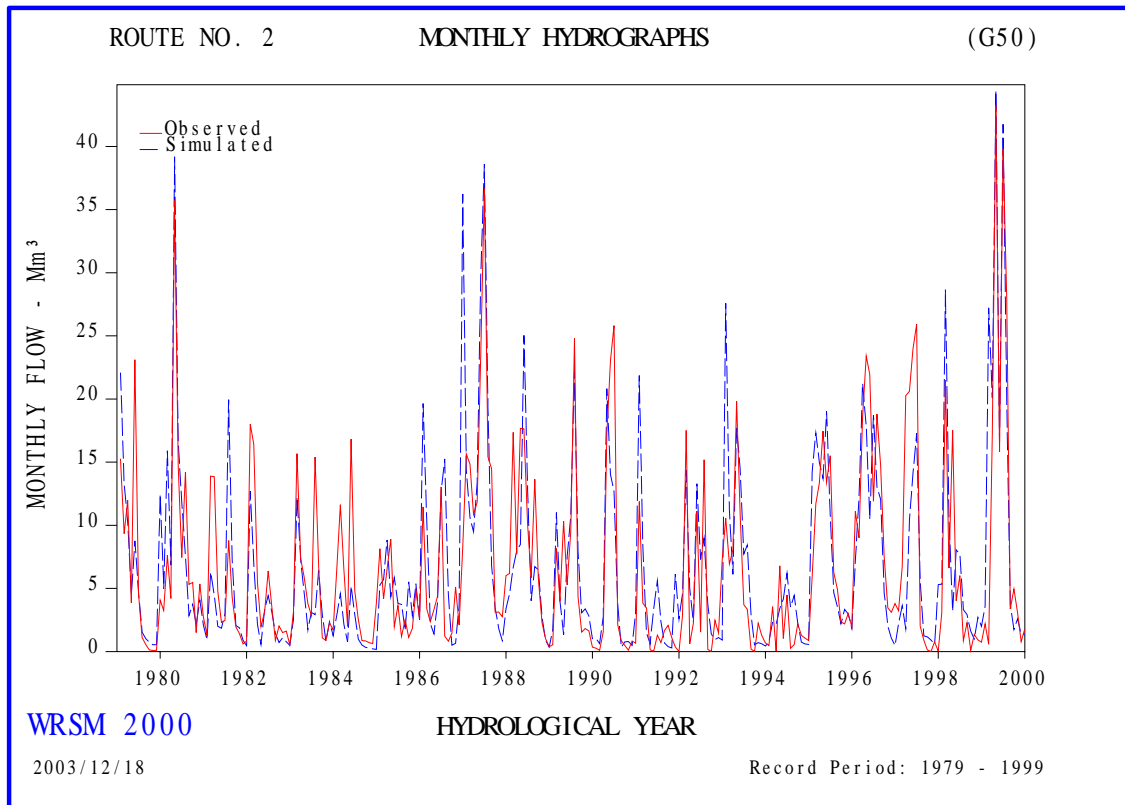
I.3.

CALIBRATION AT GAUGE CG50

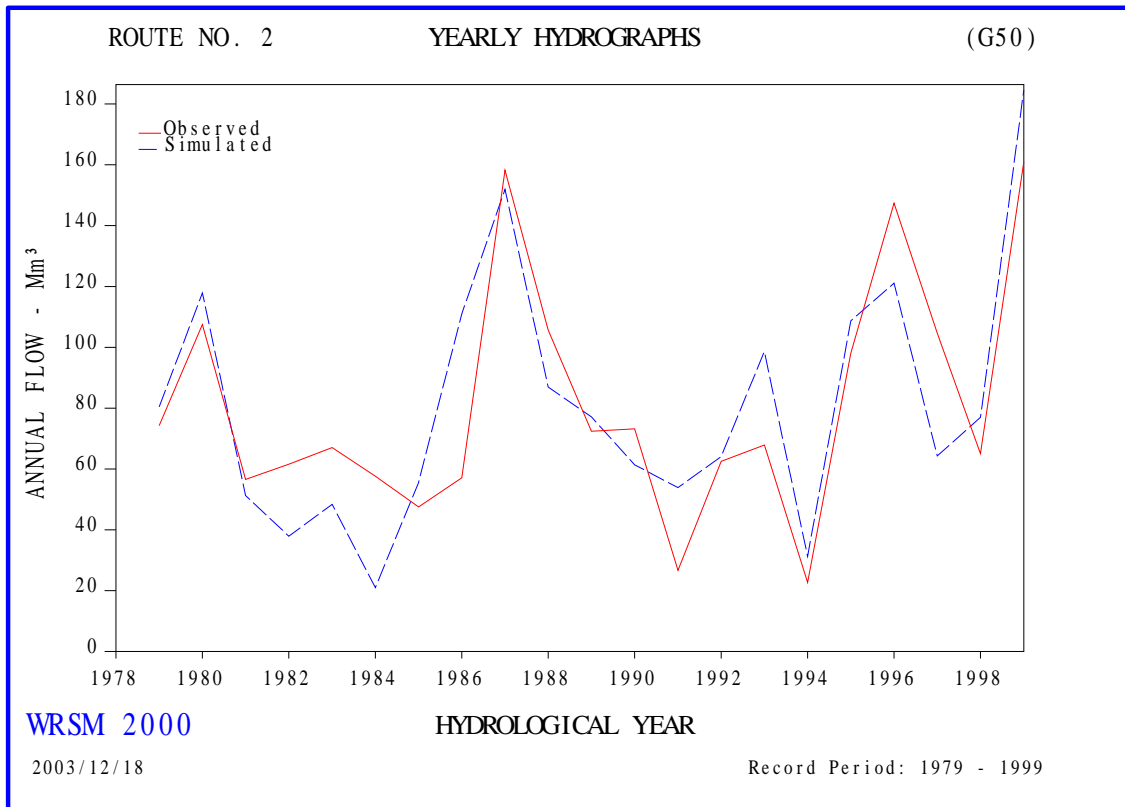
H.3.1. STATISTICS OF SIMULATED AND OBSERVED SEQUENCES

Index	Unit	Observed	Simulated
Mean annual runoff (MAR)	(Million m ³)	80.70	81.15
Standard deviation of annual flows (S)	(Million m ³ /yr)	38.49	40.603
Coefficient of variability (S/MAR)	(%)	47.70	50.03
Coefficient of skewness	-	0.8555	0.8965
Range	(% MAR)	257.75	303.15
Autocorrelation coefficient of annual flows	-	0.1419	0.1650
Mean of logs of annual flows	(Million m ³)	1.8582	1.8555
Standard deviation of logs of annual flows	-	0.2180	0.2292
Index of seasonal variability	(%)	26.77	25.22

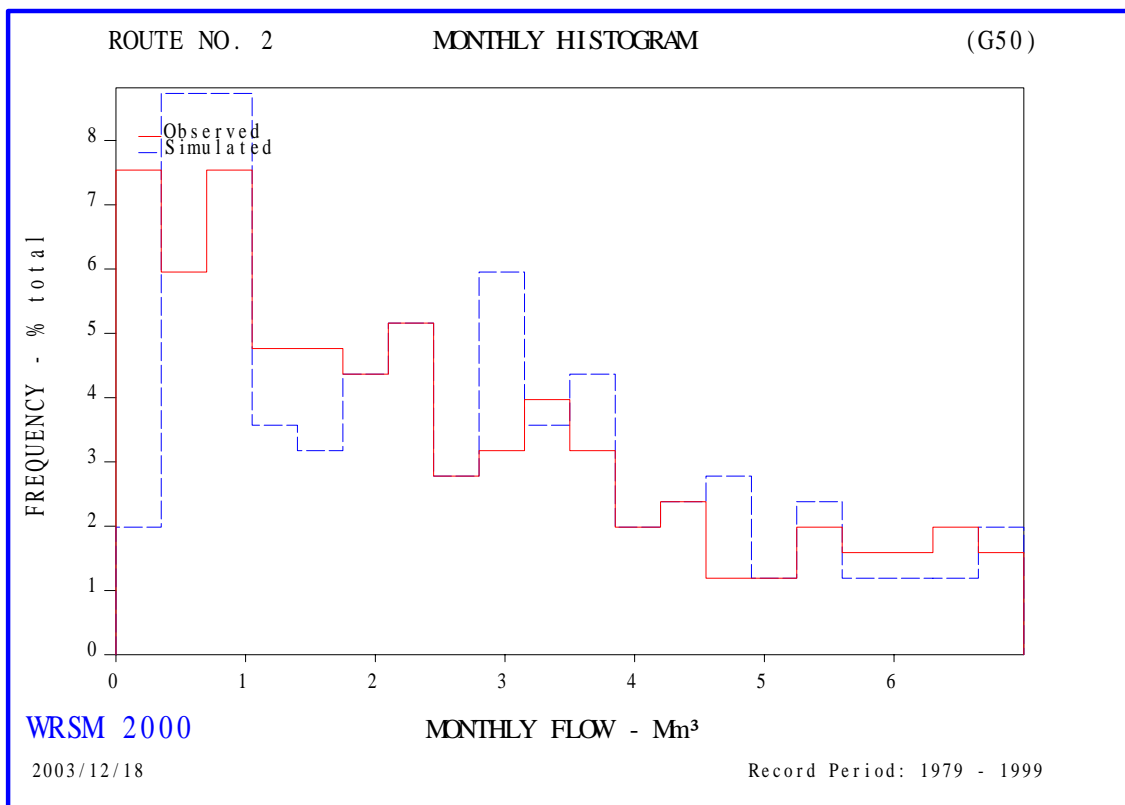
H.3.2. OBSERVED VERSUS SIMULATED STREAMFLOW (MONTHLY)



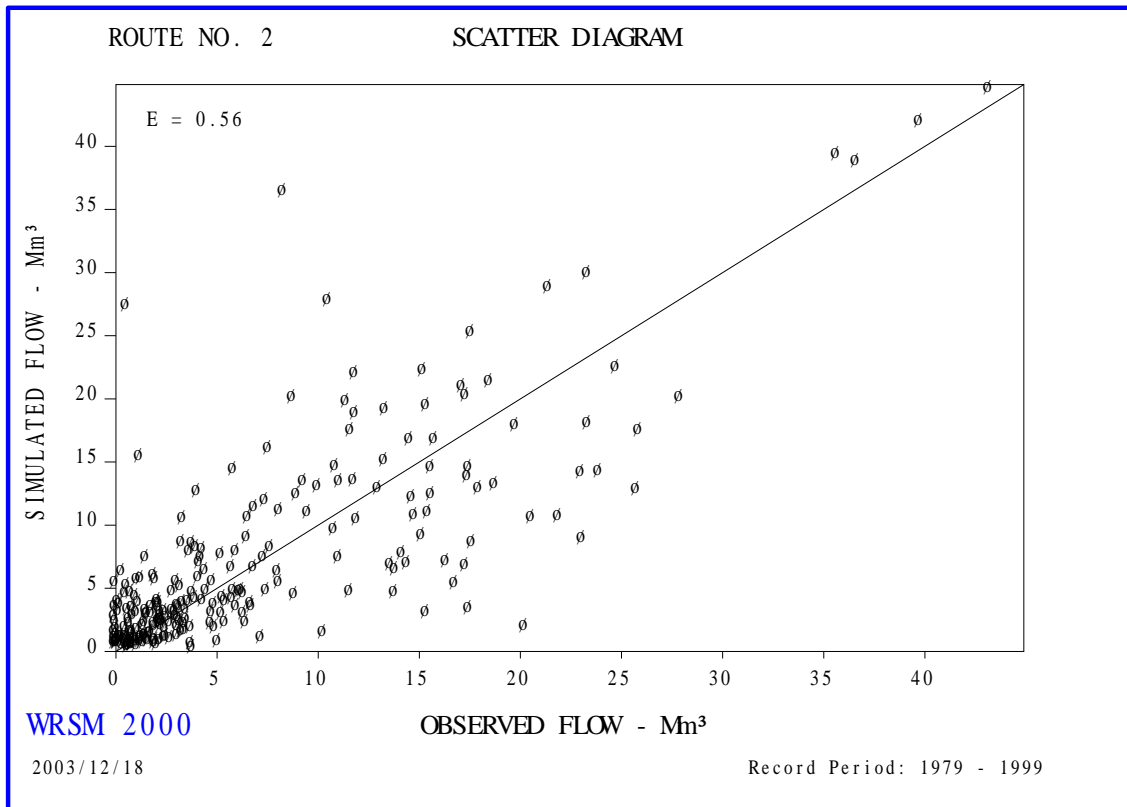
H.3.3. OBSERVED VERSUS SIMULATED STREAMFLOW (ANNUAL)



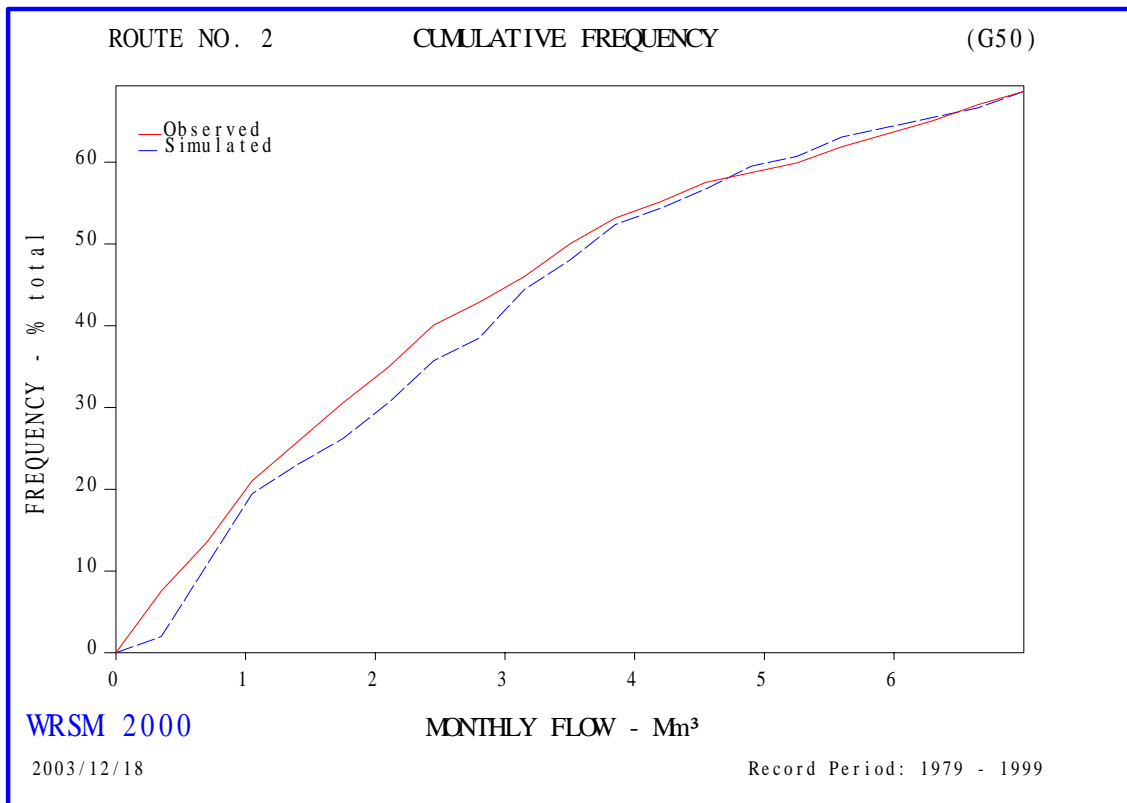
H.3.4. MONTHLY STREAMFLOW HISTOGRAM



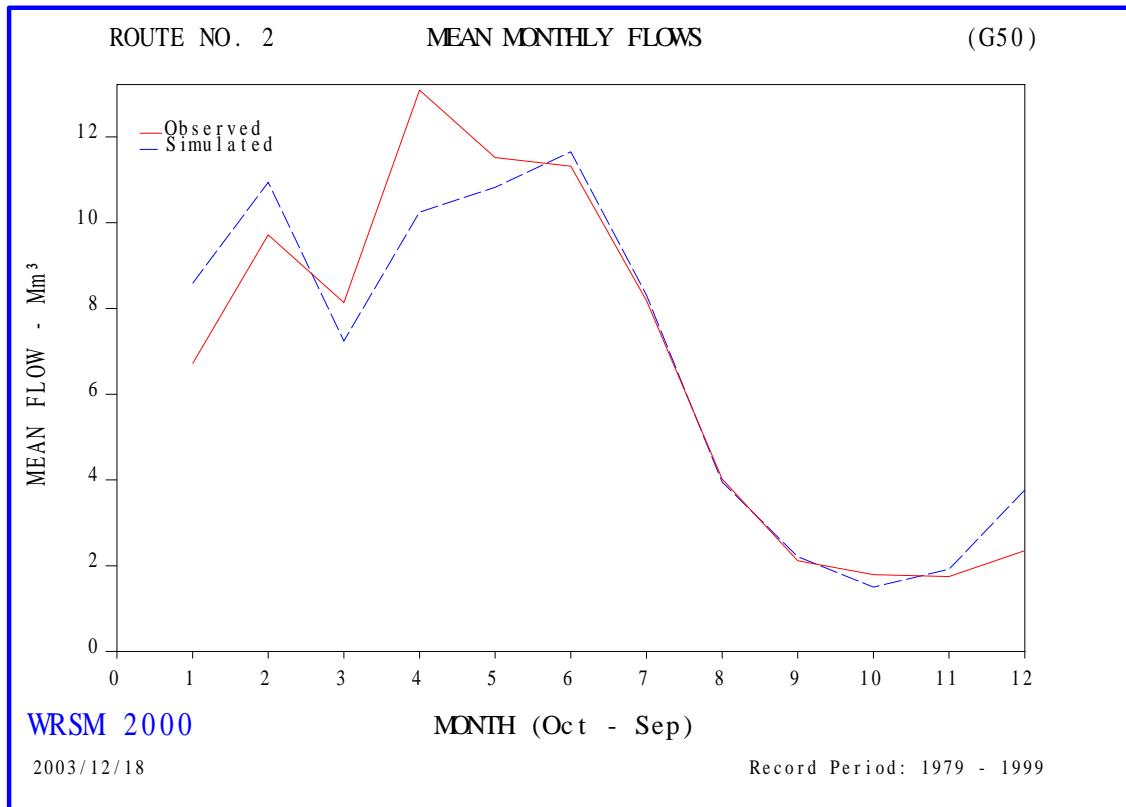
H.3.5. OBSERVED VERSUS SIMULATED FLOW SCATTER DIAGRAM



H.3.6. MONTHLY STREAMFLOW CUMULATIVE FREQUENCY CURVE



H.3.7. SEASONALITY OF FLOWS



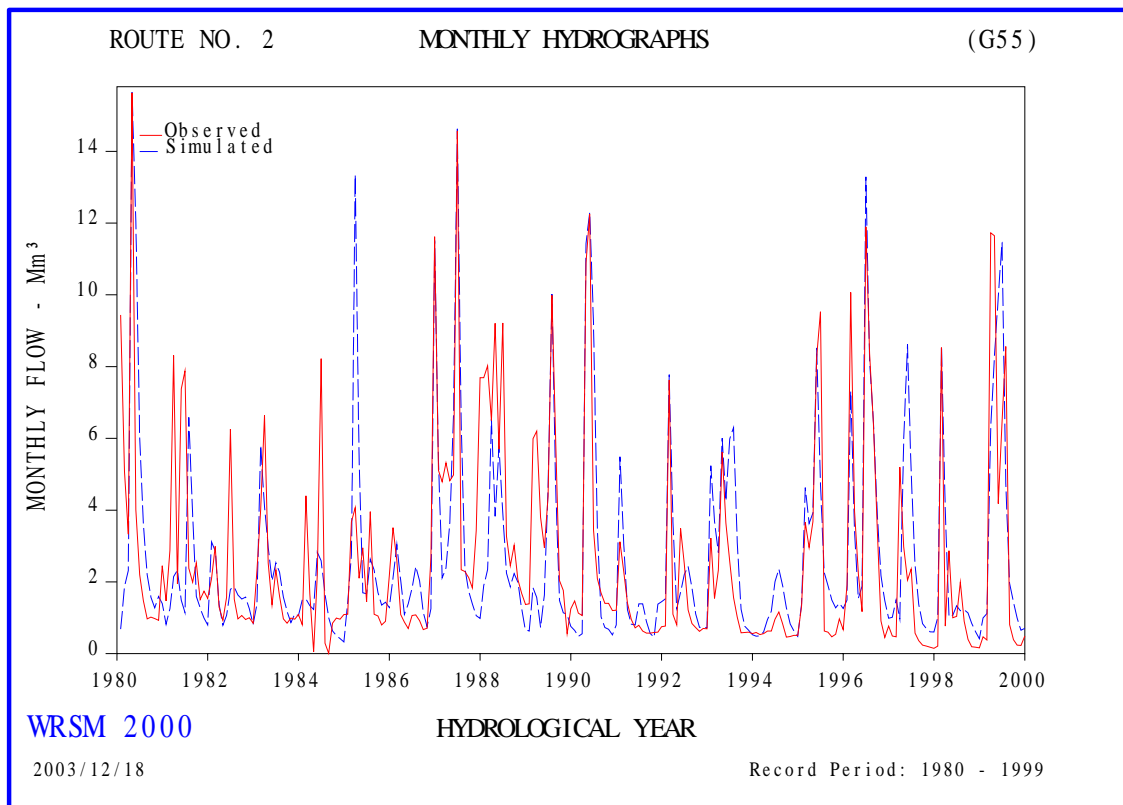
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CALIBRATION AT GAUGE CG55

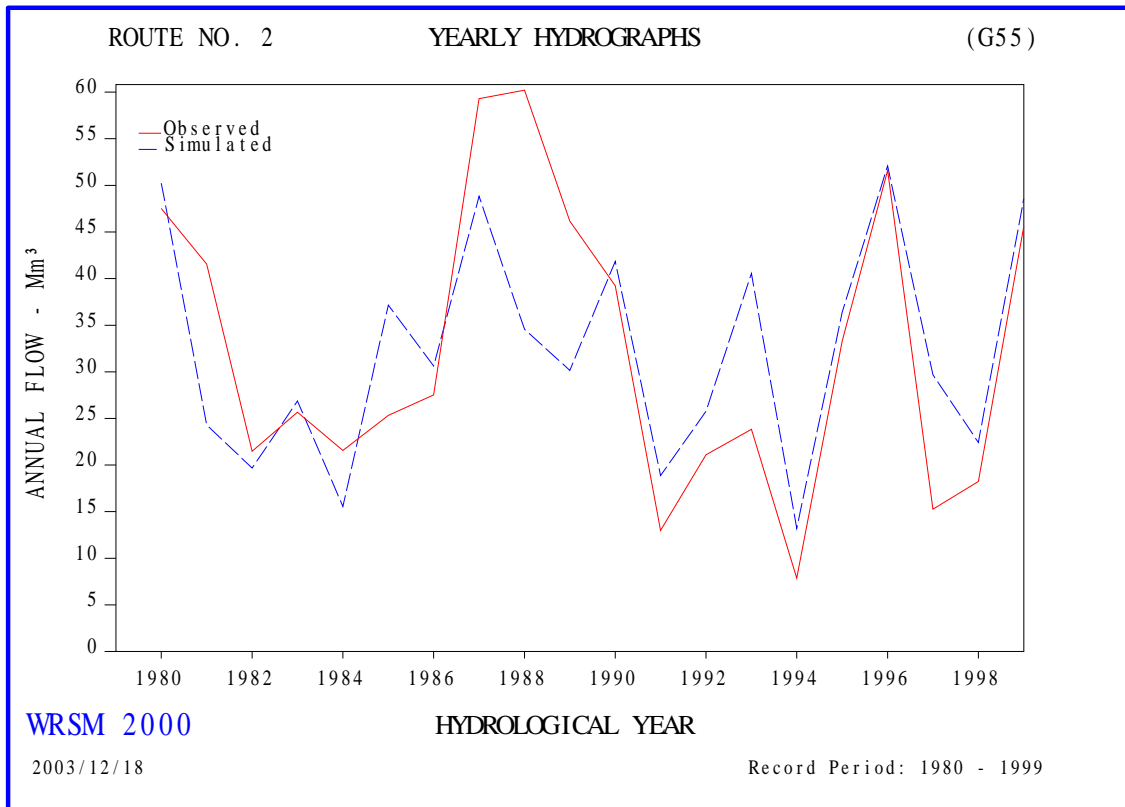
H.4.1. STATISTICS OF SIMULATED AND OBSERVED SEQUENCES

Index	Unit	Observed	Simulated
Mean annual runoff (MAR)	(Million m ³)	32.26	32.37
Standard deviation of annual flows (S)	(Million m ³ /yr)	15.59	11.89
Coefficient of variability (S/MAR)	(%)	48.32	36.75
Coefficient of skewness	-	0.3693	0.1866
Range	(% MAR)	272.74	132.85
Autocorrelation coefficient of annual flows	-	0.3249	-0.1567
Mean of logs of annual flows	(Million m ³)	1.4537	1.4794
Standard deviation of logs of annual flows	-	0.2359	0.1727
Index of seasonal variability	(%)	22.12	22.01

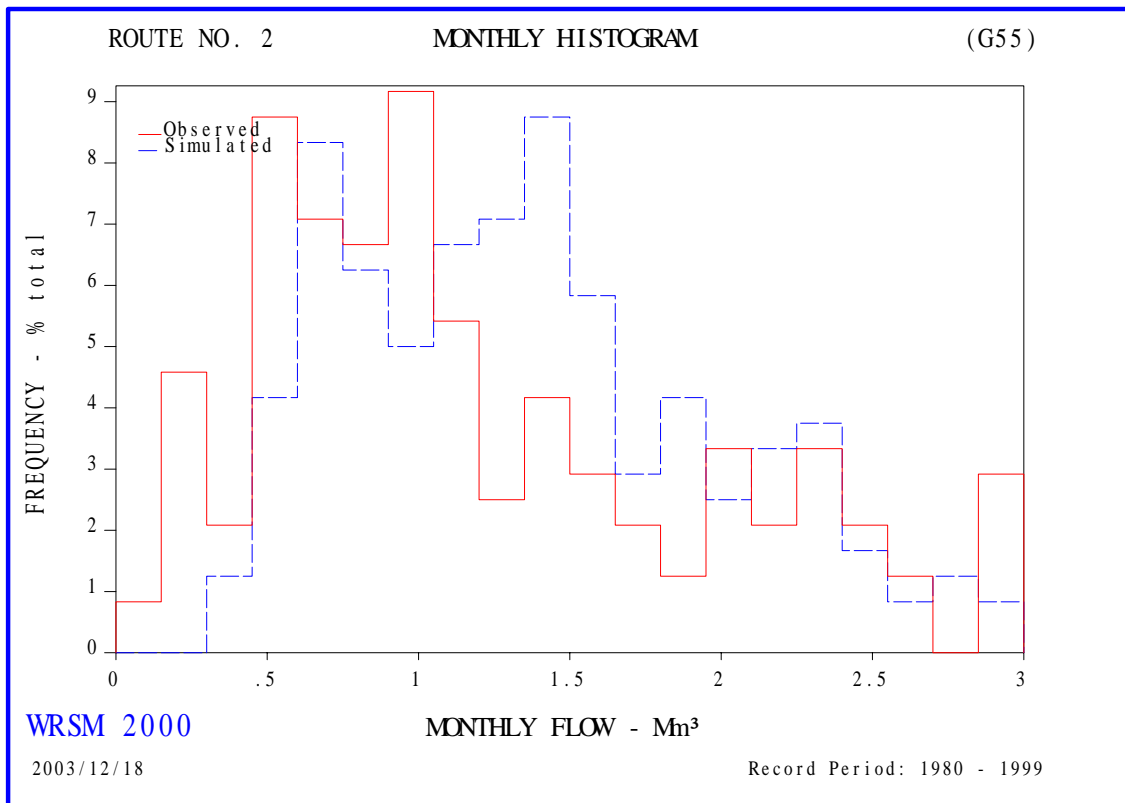
H.4.2. OBSERVED VERSUS SIMULATED STREAMFLOW (MONTHLY)



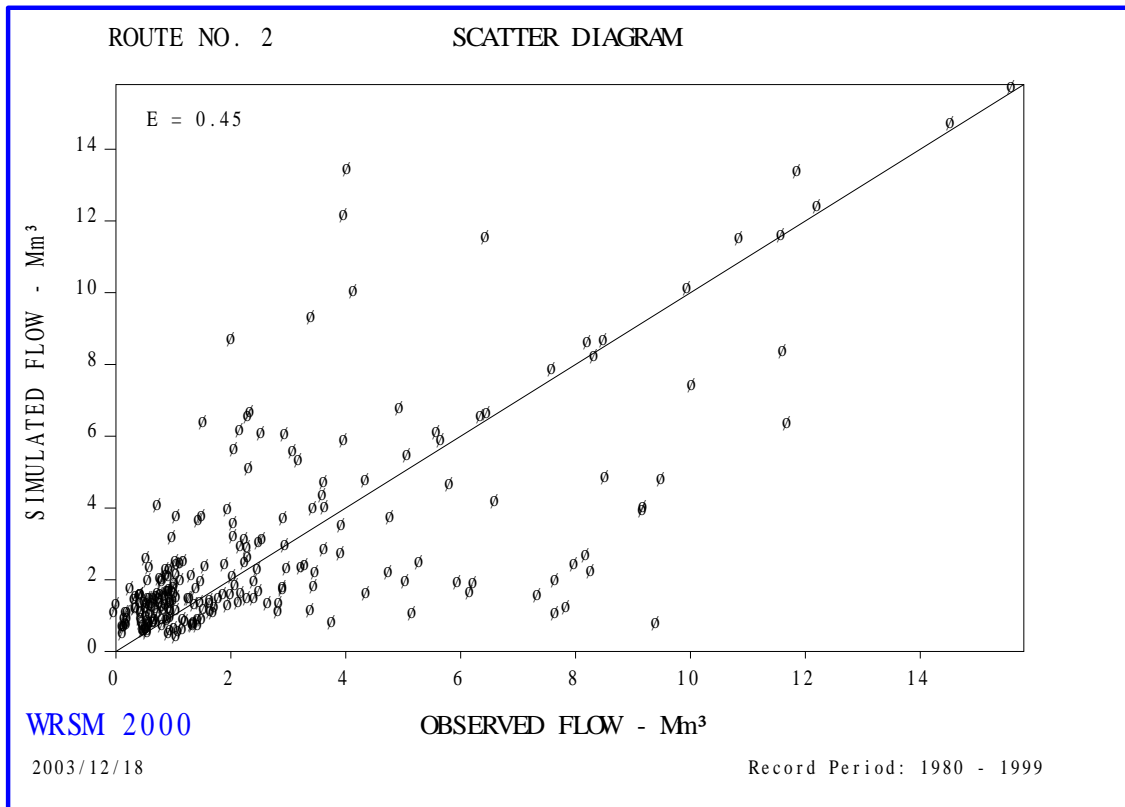
H.4.3. OBSERVED VERSUS SIMULATED STREAMFLOW (ANNUAL)



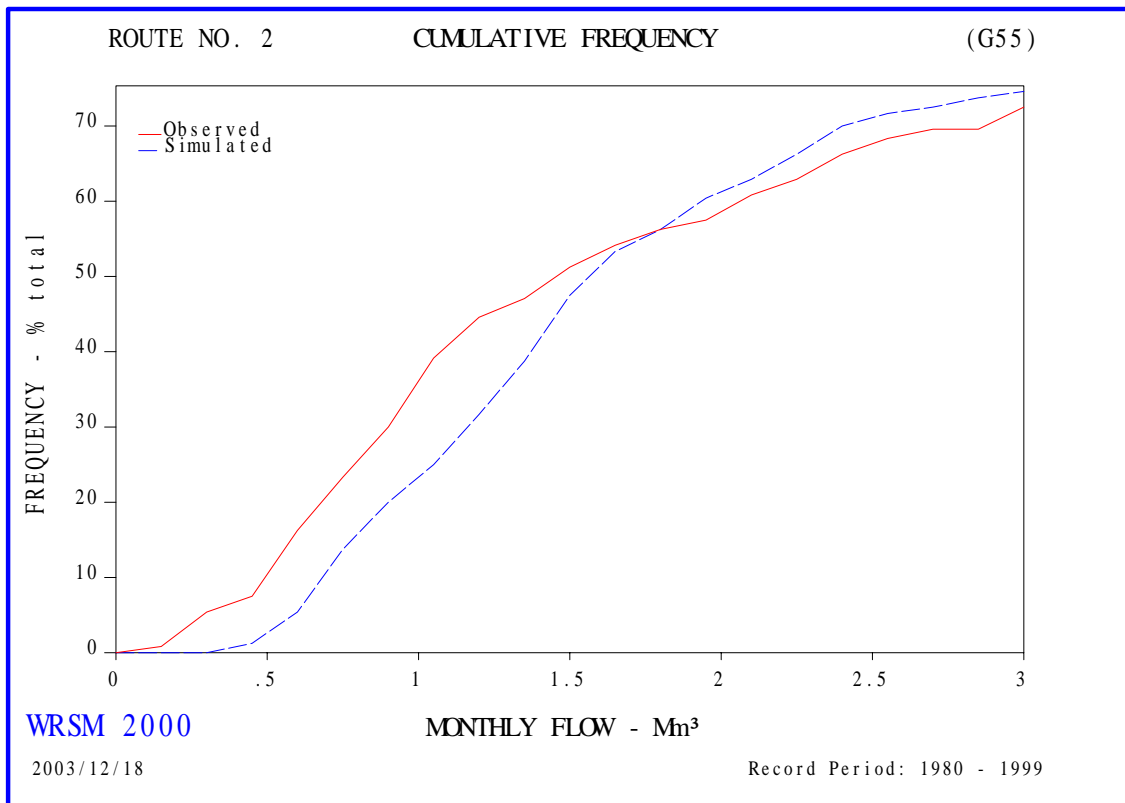
H.4.4. MONTHLY STREAMFLOW HISTOGRAM



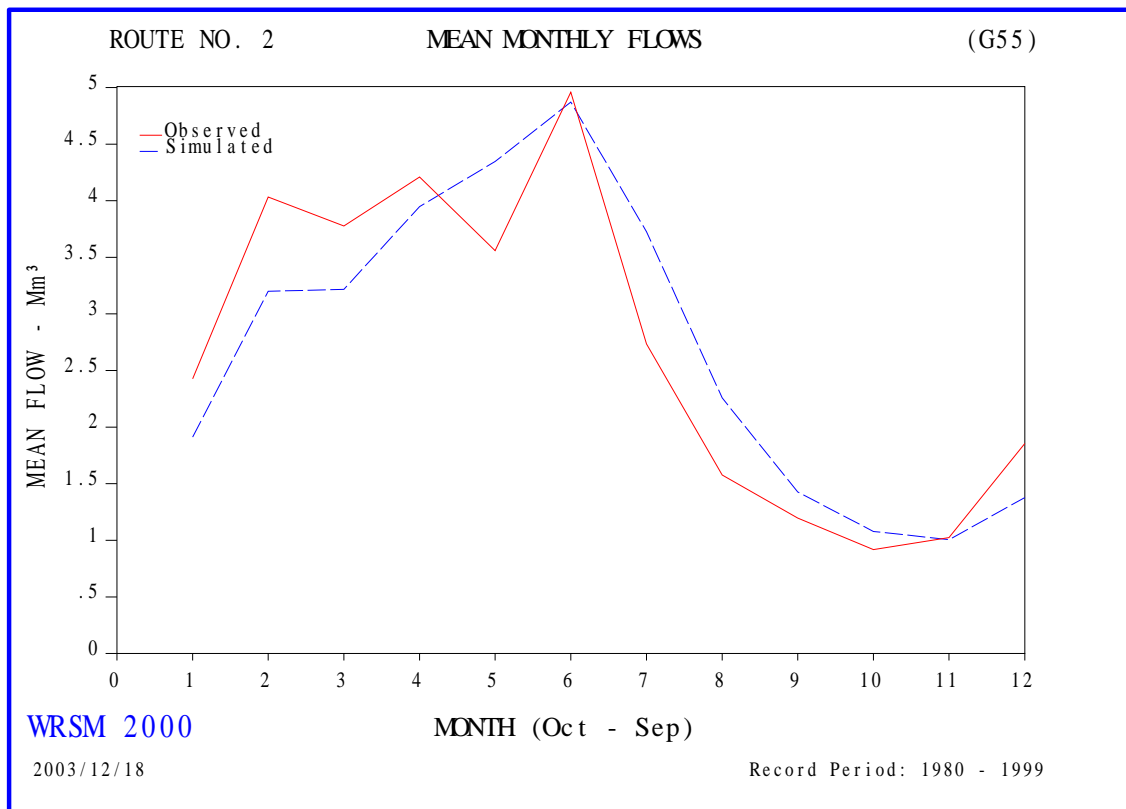
H.4.5. OBSERVED VERSUS SIMULATED FLOW SCATTER DIAGRAM



H.4.6. MONTHLY STREAMFLOW CUMULATIVE FREQUENCY CURVE



H.4.7. SEASONALITY OF FLOWS



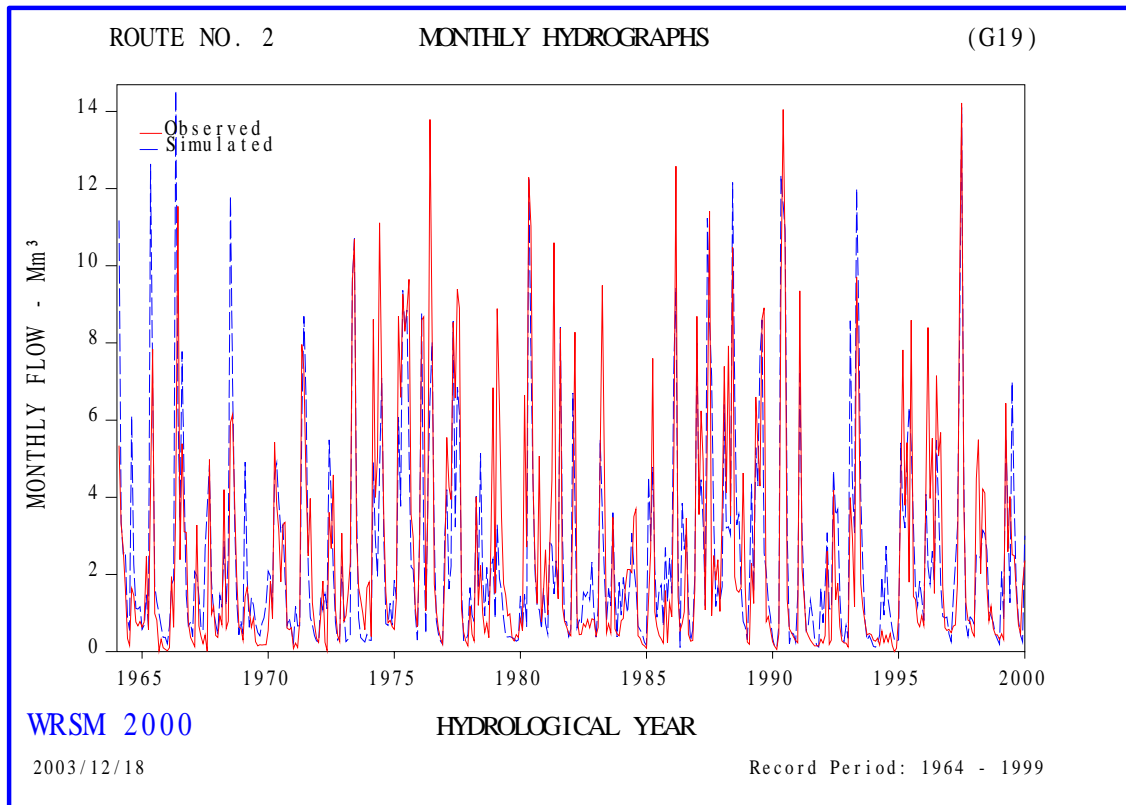
I.5.

CALIBRATION AT GAUGE MG19

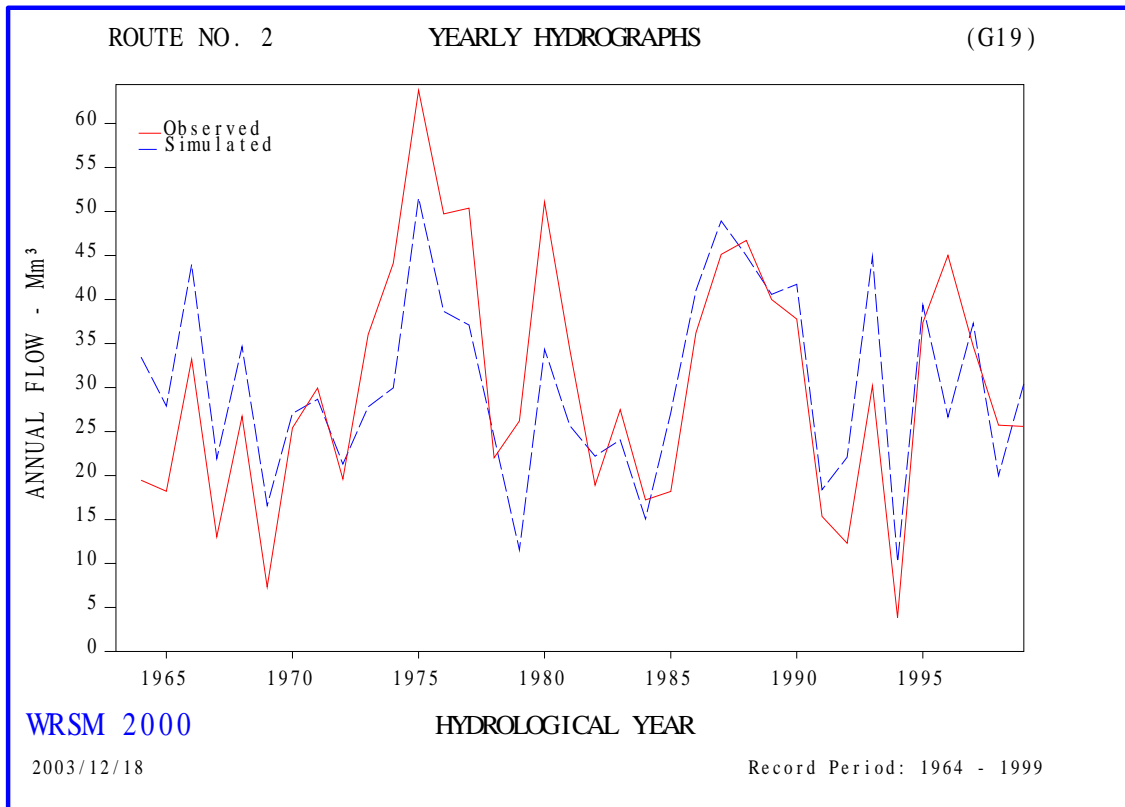
H.5.1. STATISTICS OF SIMULATED AND OBSERVED SEQUENCES

Index	Unit	Observed	Simulated
Mean annual runoff (MAR)	(Million m ³)	32.23	30.32
Standard deviation of annual flows (S)	(Million m ³ /yr)	13.74	10.58
Coefficient of variability (S/MAR)	(%)	45.47	34.89
Coefficient of skewness	-	0.2727	0.0989
Range	(% MAR)	347.34	207.81
Autocorrelation coefficient of annual flows	-	0.3800	0.0542
Mean of logs of annual flows	(Million m ³)	1.4239	1.4523
Standard deviation of logs of annual flows	-	0.2494	0.1698
Index of seasonal variability	(%)	23.41	23.87

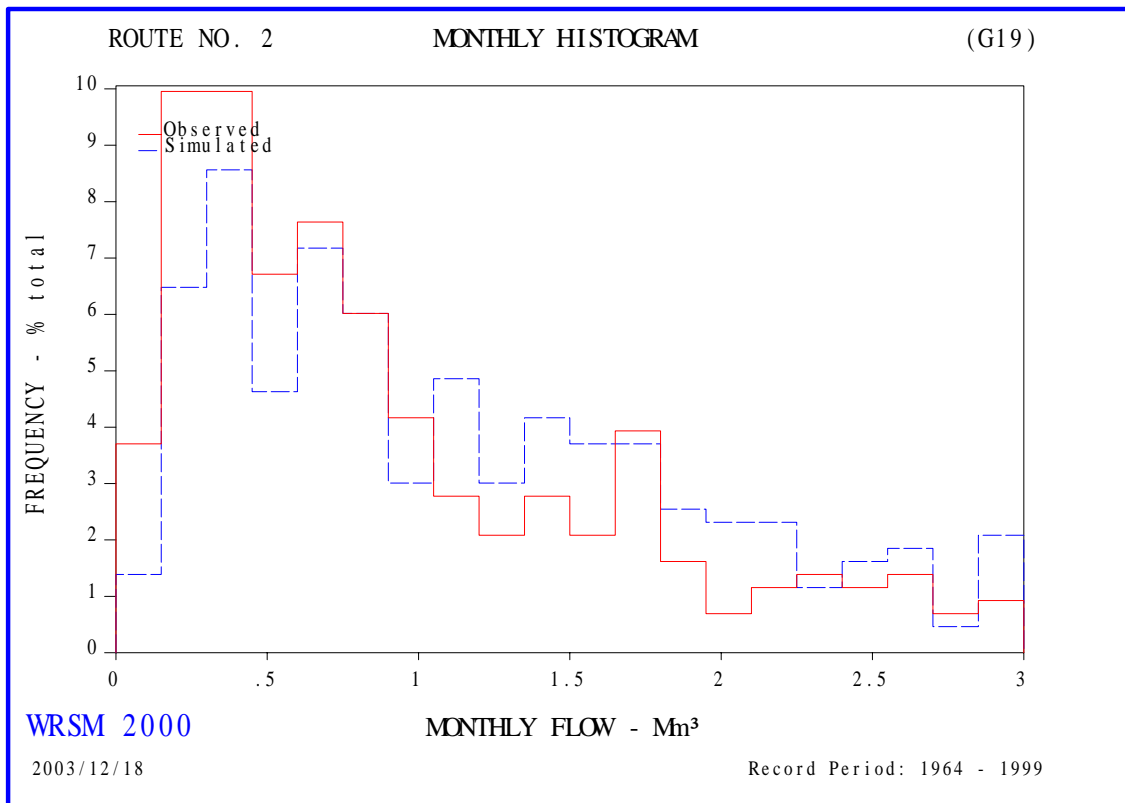
H.5.2. OBSERVED VERSUS SIMULATED STREAMFLOW (MONTHLY)



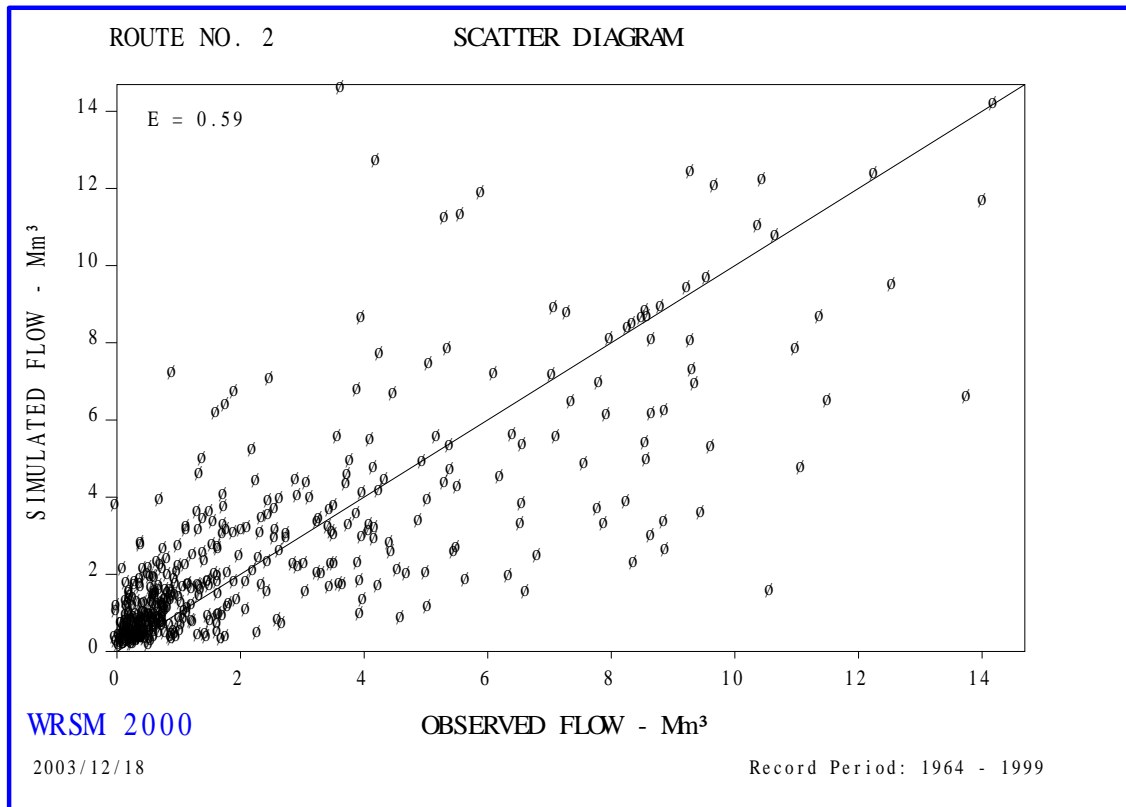
H.5.3. OBSERVED VERSUS SIMULATED STREAMFLOW (ANNUAL)



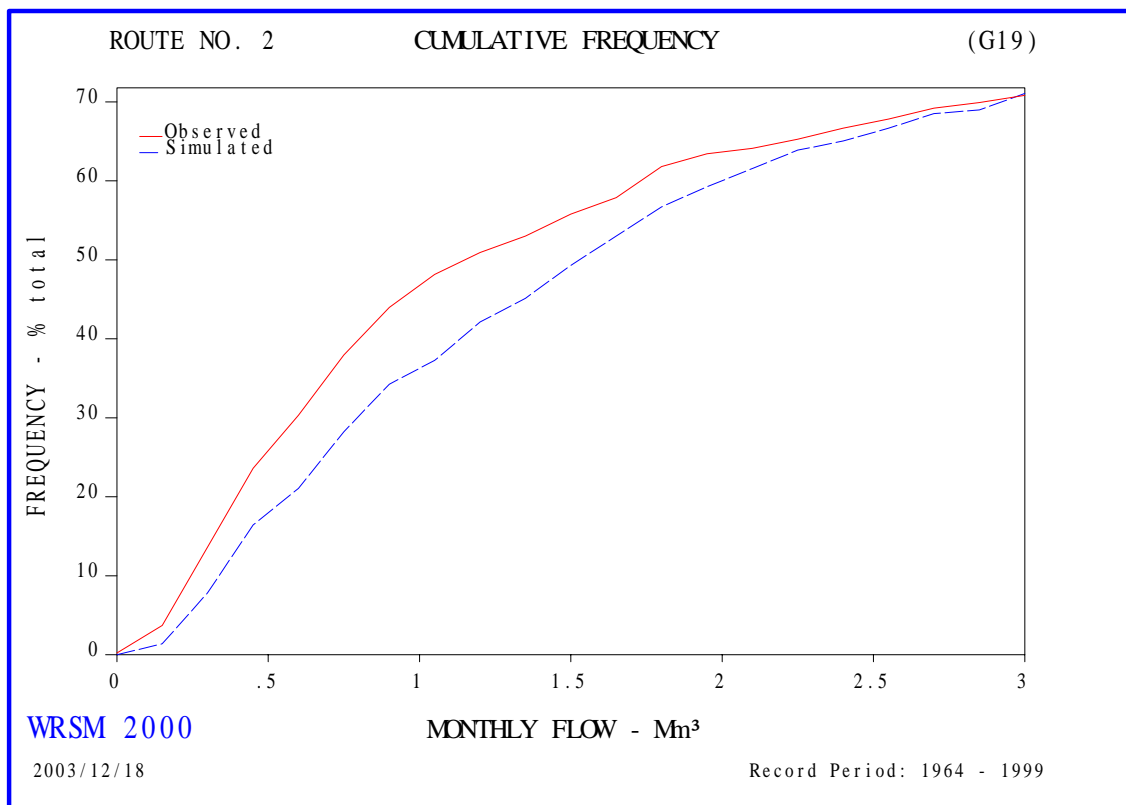
H.5.4. MONTHLY STREAMFLOW HISTOGRAM



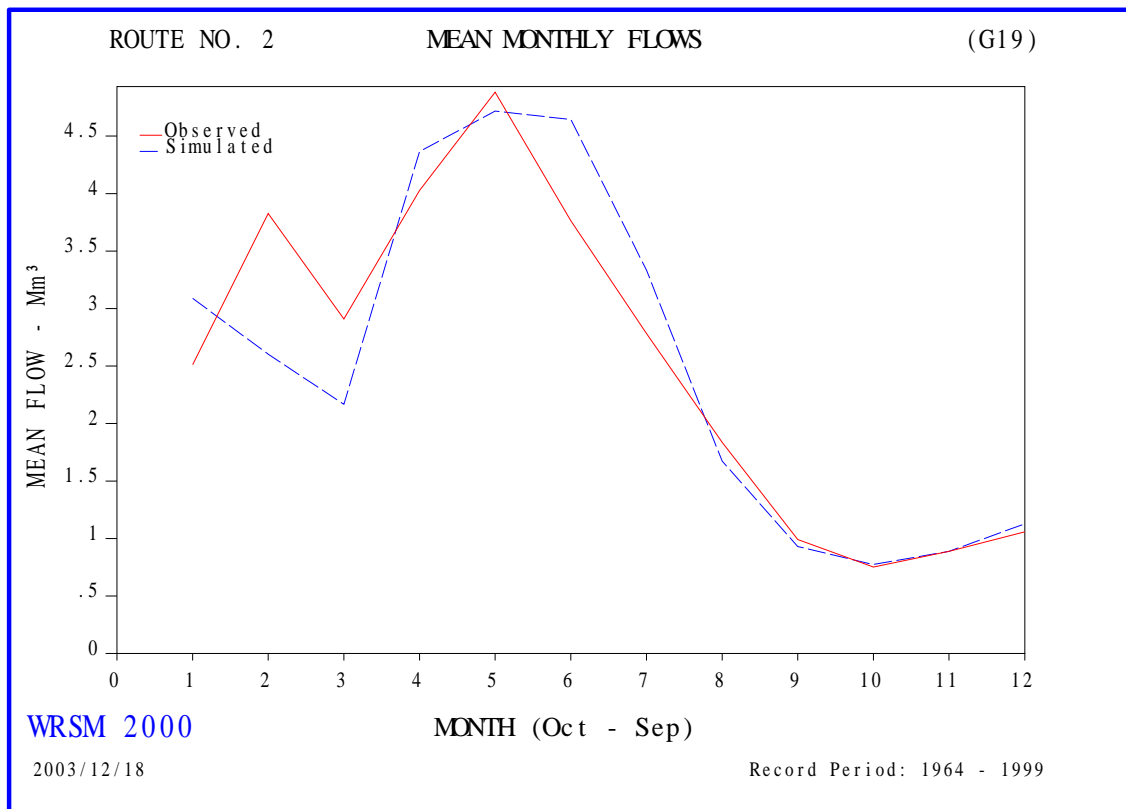
H.5.5. OBSERVED VERSUS SIMULATED FLOW SCATTER DIAGRAM



H.5.6. MONTHLY STREAMFLOW CUMULATIVE FREQUENCY CURVE



H.5.7. SEASONALITY OF FLOWS



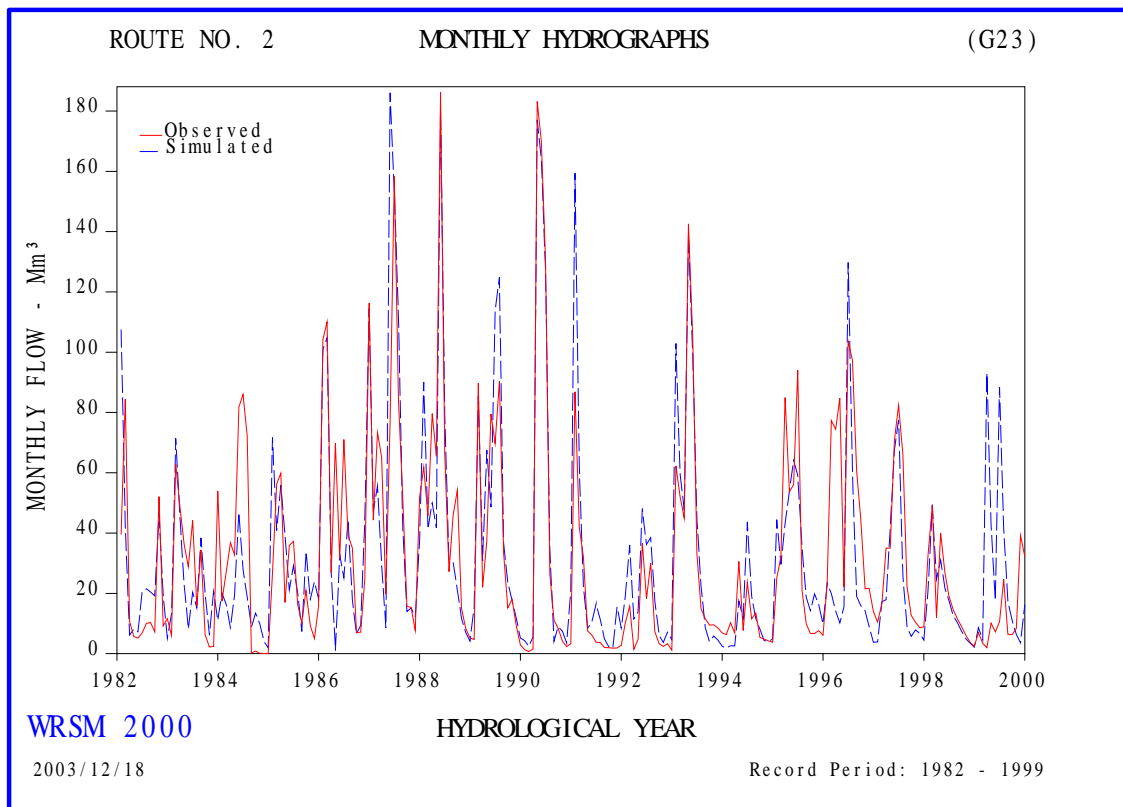
I.6.

CALIBRATION AT GAUGE MG23

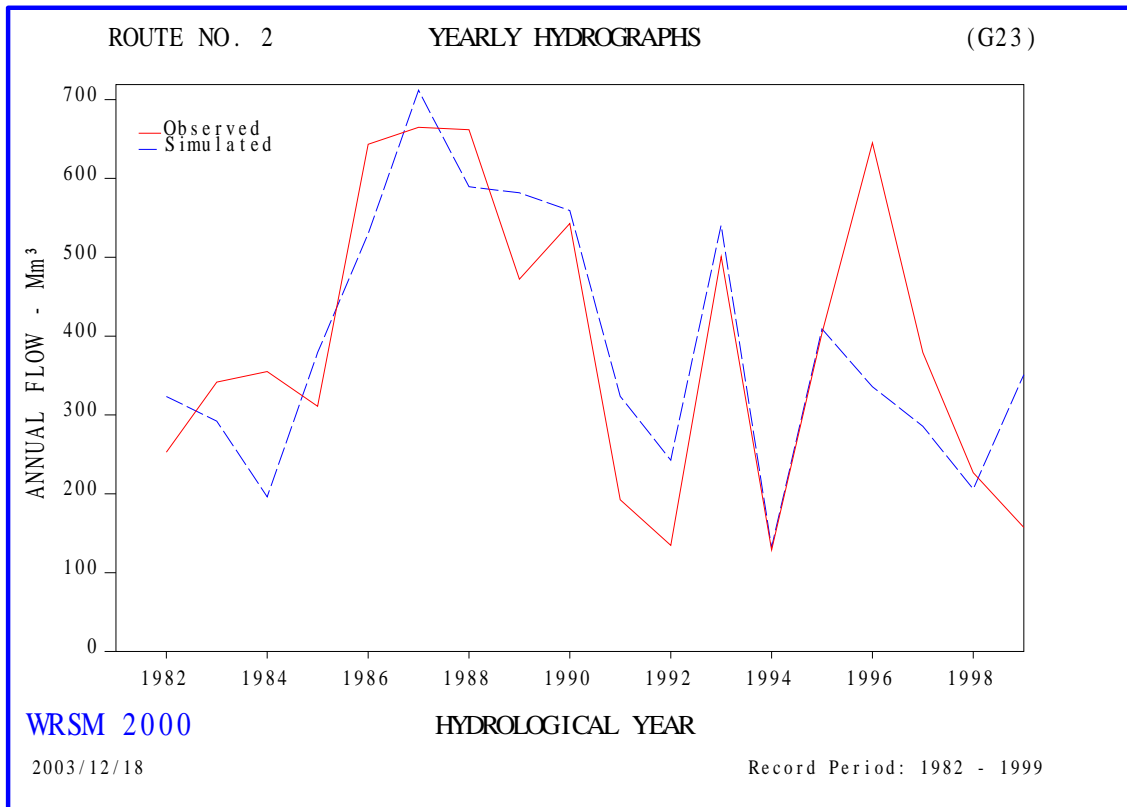
H.6.1. STATISTICS OF SIMULATED AND OBSERVED SEQUENCES

Index	Unit	Observed	Simulated
Mean annual runoff (MAR)	(Million m ³)	389.67	388.27
Standard deviation of annual flows (S)	(Million m ³ /yr)	188.39	161.74
Coefficient of variability (S/MAR)	(%)	48.35	41.66
Coefficient of skewness	-	0.1717	0.3881
Range	(% MAR)	297.43	302.11
Autocorrelation coefficient of annual flows	-	0.2823	0.3812
Mean of logs of annual flows	(Million m ³)	2.5338	2.5504
Standard deviation of logs of annual flows	-	0.2405	0.1951
Index of seasonal variability	(%)	23.12	23.61

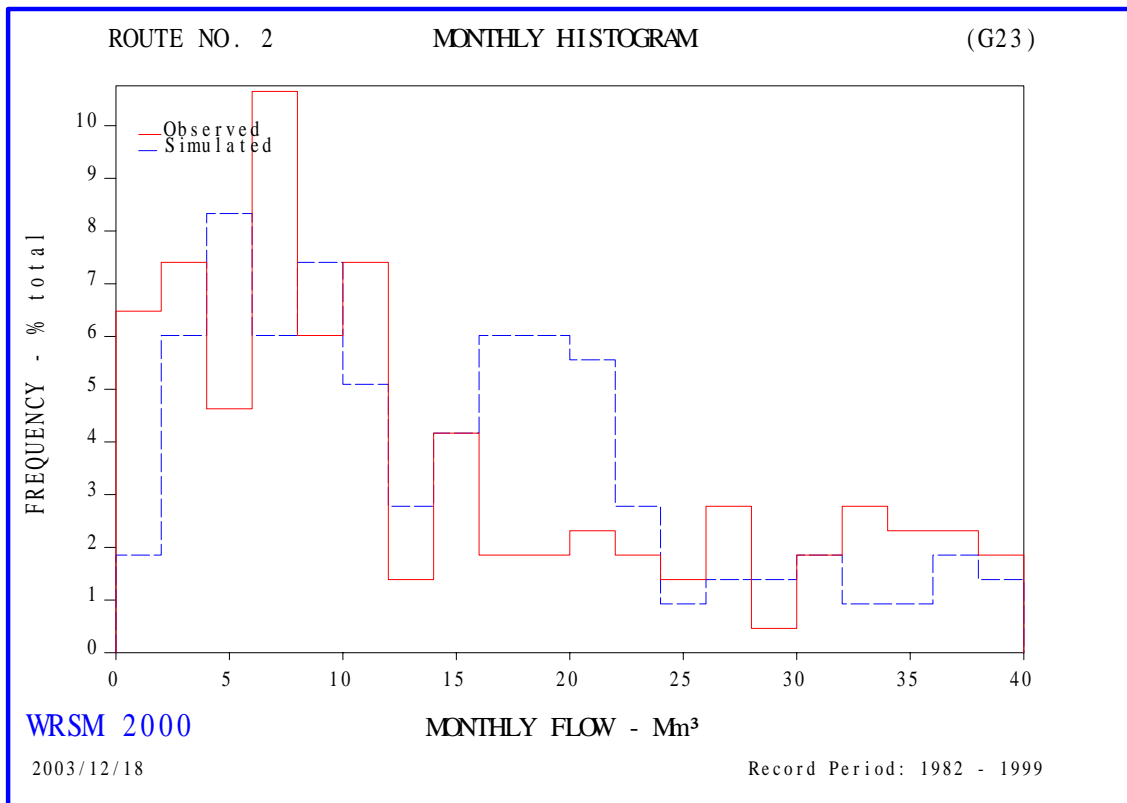
H.6.2. OBSERVED VERSUS SIMULATED STREAMFLOW (MONTHLY)



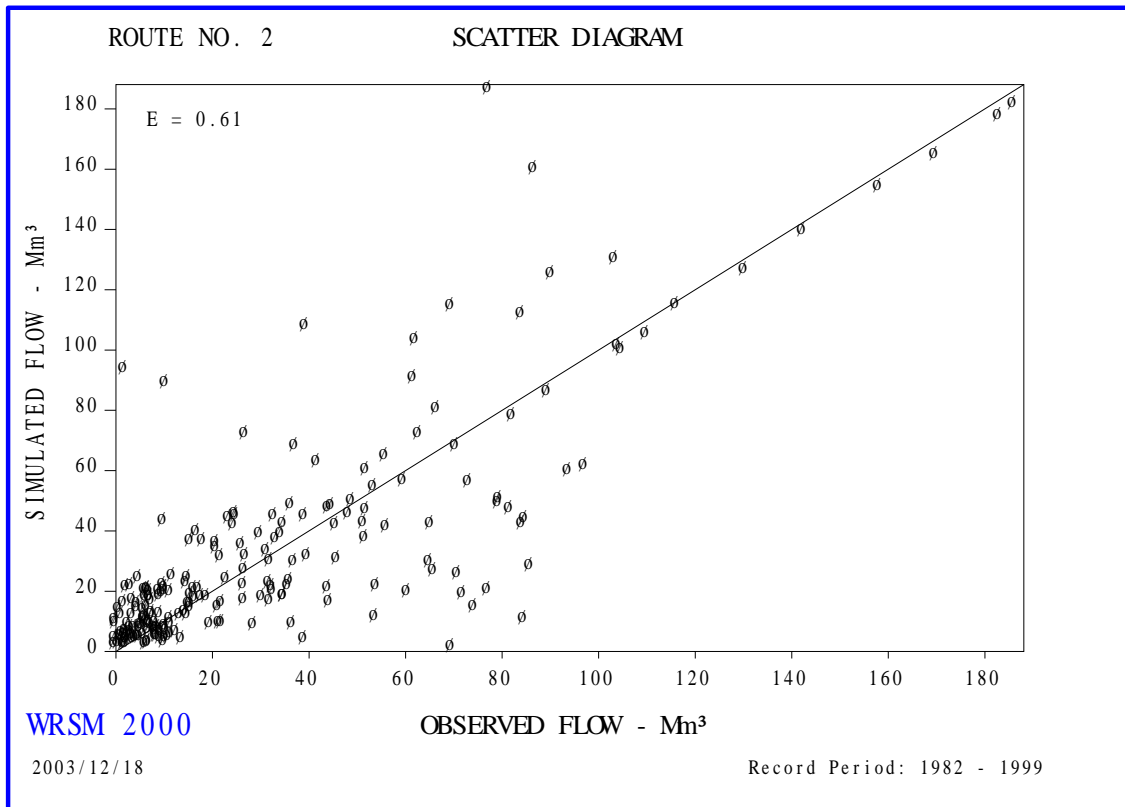
H.6.3. OBSERVED VERSUS SIMULATED STREAMFLOW (ANNUAL)



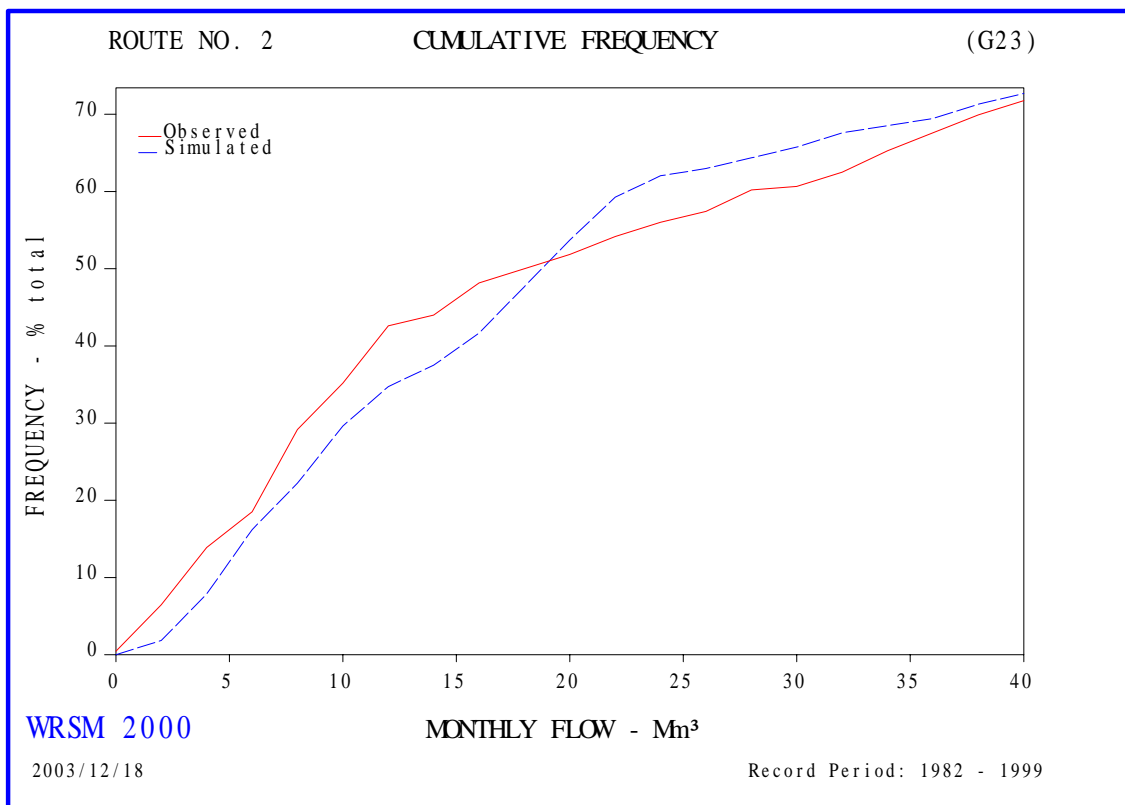
H.6.4. MONTHLY STREAMFLOW HISTOGRAM



H.6.5. OBSERVED VERSUS SIMULATED FLOW SCATTER DIAGRAM



H.6.6. MONTHLY STREAMFLOW CUMULATIVE FREQUENCY CURVE



H.6.7. SEASONALITY OF FLOWS

