

**ANNEX 7**

**RECORD OF WATER LEVEL OF**

**THE MEKONG RIVER AND**

**THE NAM NGUM RIVER**

# **1. RECORD OF WATER LEVEL OF THE MEKONG RIVER**

### Annual Maximum and Minimum Water Level and Discharge

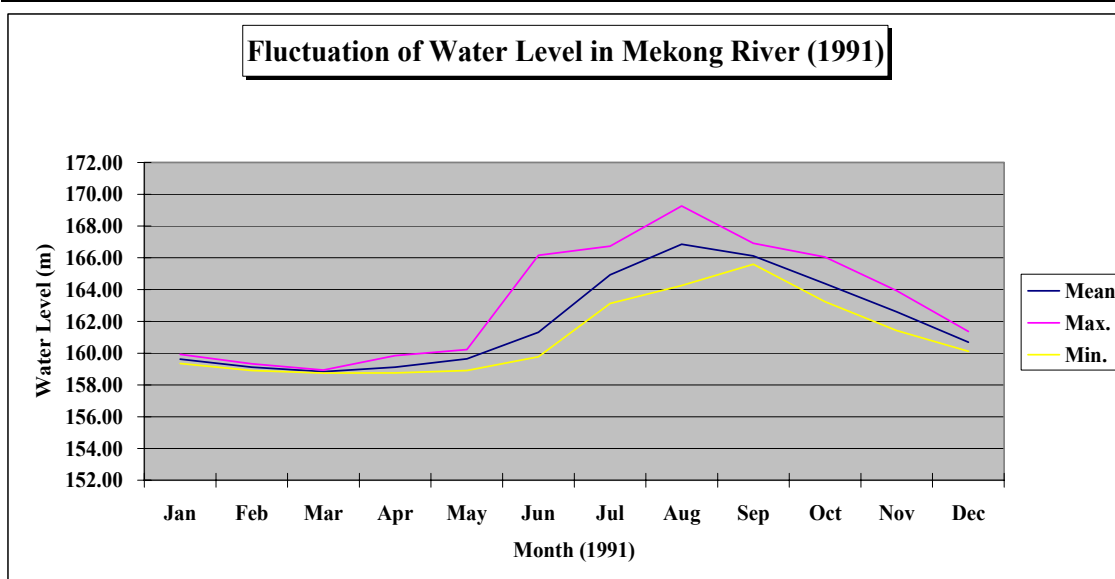
Year	Vientiane KM4 (Zero fo Gauge Elevation 158.040 m above M.S.L. Ko Lak Datum.)					
	Water Level (m)				Discharge (m3/sec)	
	Gauge		Above M.S.L.		Max. Discharge	Min. Discharge
	Max.	Min.	Max. Water Level	Min. Water Level		
1960	11.35	-0.28	169.390	157.760	18,200	815
1961	11.22	0.45	169.260	158.490	18,300	1,040
1962	10.30	0.12	168.340	158.160	15,400	1,070
1963	10.47	0.00	168.510	158.040	15,800	920
1964	10.83	0.28	168.870	158.320	17,200	1,170
1965	8.58	0.16	166.620	158.200	12,800	1,100
1966	12.71	0.26	170.750	158.300	21,300	1,160
1967	9.15	0.54	167.190	158.580	12,900	1,170
1968	10.16	0.30	168.200	158.340	14,700	990
1969	11.87	-0.04	169.910	158.000	19,100	804
1970	11.85	0.26	169.890	158.300	19,000	930
1971	12.51	0.62	170.550	158.660	22,900	1,060
1972	9.86	0.43	167.900	158.470	14,200	965
1973	11.68	0.45	169.720	158.490	19,700	1,020
1974	10.32	0.53	168.360	158.570	15,900	1,090
1975	10.76	0.33	168.800	158.370	16,400	962
1976	11.27	0.53	169.310	158.570	18,200	1,140
1977	9.70	0.50	167.740	158.540	14,400	1,220
1978	12.08	0.38	170.120	158.420	21,300	1,070
1979	10.20	0.23	168.240	158.270	15,200	1,020
1980	11.90	0.54	169.940	158.580	20,600	1,150
1981	10.72	0.65	168.760	158.690	16,600	1,200
1982	11.90	0.58	169.940	158.620	16,600	1,170
1983	9.97	0.63	168.010	158.670	14,600	1,200
1984	10.28	0.40	168.320	158.440	15,400	1,090
1985	11.50	0.43	169.540	158.470	17,100	919
1986	9.84	0.64	167.880	158.680	13,400	986
1987	8.58	0.63	166.620	158.670	10,800	964
1988	9.50	0.60	167.540	158.640	12,600	970
1989	8.70	0.21	166.740	158.250	11,100	853
1990	11.22	0.51	169.260	158.550	16,400	943
1991	11.22	0.70	169.260	158.740	16,400	1,010
1992	6.67	0.77	164.710	158.810	7,500	1,040
1993	9.78	0.30	167.820	158.340	13,300	880
1994	11.08	0.47	169.120	158.510	17,959	867
1995	11.95	0.07	169.990	158.110	18,495	668
1996	11.48	0.93	169.520	158.970	17,305	1,114
1997	11.34	0.71	169.380	158.750	16,959	999
1998	10.38	0.62	168.420	158.660	13,700	997
1999	10.88	0.33	168.920	158.370	14,900	598
2000	11.53	0.88	169.570	158.920	16,300	1,070
2001	11.35	0.56	169.390	158.600		
2002	12.60	0.70	170.640	158.740		
Max.	12.71	0.93	170.750	158.970	22,900	1,220
Min.	6.67	-0.28	164.710	157.760	7,500	598
Ave.	10.73	0.44	168.767	158.480	16,120	1,010

Station Name: Km 4. Vientiane. Muang Sysatanak  
 Latitude; 017° 55' 42" N  
 Longitude; 102° 37' 12" E in Customs compound at village of wat Sop  
 Managing Agency: Inland Waterway Division (MCTPC)  
 Drainage Area: 299,000 Km<sup>2</sup>

River Name: Mekong  
 Gauge and Datum: 158.040 m above M.S.L. Ko Lak datum.  
 Observed Item: W.L. Discharge Measurement, Sediment, W/  
 Started Date: W.L. 1895

**WATER LEVEL HISTORICAL of Mekong at Vientiane**

Day	YEAR										161.95	
	1991	Mean	Max.	169.26								
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	159.92	159.33	158.91	158.75	159.23	159.77	166.18	164.66	166.91	166.03	163.70	161.36
2	159.90	159.30	158.91	158.75	159.16	159.86	165.76	164.41	166.64	166.04	163.36	161.30
3	159.88	159.27	158.91	158.76	159.09	159.95	165.16	164.34	166.32	165.94	163.06	161.25
4	159.83	159.25	158.91	158.82	159.04	160.05	164.44	164.26	166.04	165.87	162.93	161.23
5	159.79	159.23	158.93	158.93	158.96	160.19	164.02	164.27	165.99	165.89	162.76	161.22
6	159.75	159.22	158.93	159.05	158.92	160.28	163.62	164.26	166.37	165.78	162.64	161.15
7	159.73	159.20	158.91	159.11	158.90	160.41	163.44	164.89	166.38	165.40	162.63	161.09
8	159.73	159.20	158.91	159.12	158.92	160.48	163.54	165.56	166.16	165.33	163.08	161.05
9	159.70	159.20	158.87	159.19	158.98	160.48	163.13	166.26	165.89	165.20	163.76	160.94
10	159.68	159.20	158.84	159.32	159.06	160.57	163.25	166.33	165.71	165.05	163.94	160.89
11	159.66	159.19	158.82	159.63	159.50	160.72	163.40	166.22	165.80	164.77	163.91	160.84
12	159.66	159.19	158.80	159.83	159.60	160.89	163.55	165.76	165.90	164.43	163.78	160.79
13	159.68	159.17	158.80	159.84	159.81	161.08	163.58	165.52	165.95	164.14	163.52	160.74
14	159.74	159.15	158.83	159.66	160.04	161.17	163.54	165.43	166.04	164.00	163.23	160.69
15	159.80	159.12	158.81	159.39	160.14	161.18	163.67	167.45	166.14	163.88	162.99	160.66
16	159.76	159.12	158.79	159.34	160.23	161.07	163.89	168.66	166.26	163.77	162.73	160.62
17	159.72	159.11	158.79	159.14	160.16	161.06	164.06	168.89	166.15	163.68	162.56	160.59
18	159.62	159.10	158.80	159.09	160.10	161.35	165.84	169.26	166.07	163.79	162.41	160.56
19	159.57	159.06	158.83	159.01	160.07	161.18	166.20	169.20	166.22	163.86	162.24	160.54
20	159.54	159.03	158.84	158.94	160.12	161.32	166.22	169.22	166.33	163.88	162.11	160.47
21	159.52	159.01	158.82	158.91	160.12	161.11	166.63	169.26	166.40	163.45	161.99	160.44
22	159.49	158.98	158.80	158.86	160.05	161.30	166.73	169.19	166.41	163.34	161.90	160.41
23	159.46	158.97	158.83	158.86	159.94	161.29	166.58	168.92	166.37	163.26	161.82	160.37
24	159.44	158.96	158.87	158.85	159.96	161.11	166.34	168.53	166.21	163.24	161.74	160.33
25	159.42	158.96	158.88	158.85	160.00	161.15	166.15	167.92	166.05	163.25	161.65	160.30
26	159.42	158.94	158.87	158.89	159.84	161.84	166.02	167.35	165.79	163.35	161.57	160.27
27	159.43	158.92	158.82	158.94	159.77	163.24	165.88	167.21	165.69	163.46	161.52	160.24
28	159.38	158.91	158.78	159.04	159.74	163.95	165.83	167.26	165.59	163.56	161.49	160.21
29	159.38		158.76	159.16	159.76	165.52	165.70	167.35	165.70	163.80	161.47	160.19
30	159.37		158.74	159.23	159.74	166.16	165.40	167.30	165.92	164.16	161.43	160.16
31	159.35		158.74		159.77		165.20	167.45		164.06		160.12
Mean	159.62	159.12	158.84	159.11	159.64	161.32	164.93	166.86	166.11	164.38	162.60	160.68
Max.	159.92	159.33	158.93	159.84	160.23	166.16	166.73	169.26	166.91	166.04	163.94	161.36
Min.	159.35	158.91	158.74	158.75	158.90	159.77	163.13	164.26	165.59	163.24	161.43	160.12

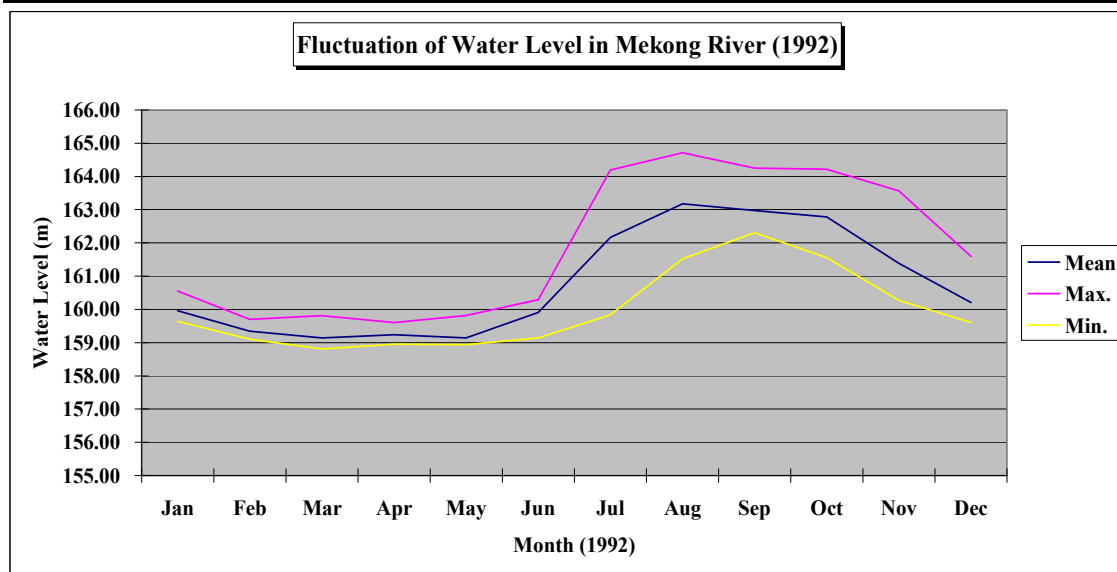


Station Name: Km 4. Vientiane. Muang Sysatanak  
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 Longitude; 102° 37' 12" E in Customs compound at village of wat Sop  
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 Drainage Area: 299,000 Km<sup>2</sup>

River Name: Mekong  
 Gauge and Datum: 158.040 m above M.S.L. Ko Lak datum.  
 Observed Item: W.L. Discharge Measurement, Sediment, W  
 Started Date: W.L. 1895

**WATER LEVEL HISTORICAL of Mekong at Vientiane**

Day	YEAR											160.79
	1992											164.71
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	160.14	159.68	159.31	158.96	159.36	159.80	160.12	164.49	162.69	163.28	163.57	160.30
2	160.18	159.70	159.36	158.99	159.25	159.66	159.94	164.60	162.78	163.37	163.40	160.62
3	160.34	159.69	159.46	159.10	159.20	159.64	159.84	164.47	162.70	163.31	163.06	161.24
4	160.50	159.63	159.61	159.27	159.22	159.69	159.89	164.60	162.67	163.16	162.74	161.59
5	160.55	159.56	159.74	159.47	159.23	159.82	160.31	164.40	162.68	163.02	162.24	161.42
6	160.46	159.50	159.81	159.60	159.23	159.14	161.20	164.59	162.69	163.14	162.22	161.14
7	160.38	159.46	159.77	159.58	159.21	159.64	161.60	164.71	162.69	163.14	162.04	160.86
8	160.26	159.43	159.62	159.44	159.20	159.64	161.68	164.42	162.79	162.99	161.90	160.61
9	160.20	159.40	159.45	159.31	159.18	159.68	161.69	164.16	162.80	162.77	161.75	160.42
10	160.14	159.38	159.29	159.25	159.12	159.74	161.74	163.94	162.74	162.56	161.59	160.32
11	160.10	159.36	159.19	159.26	159.00	159.79	161.82	163.77	162.52	162.44	161.49	160.22
12	160.04	159.36	159.14	159.26	158.99	159.87	161.90	163.64	162.50	162.38	161.36	160.14
13	160.01	159.35	159.08	159.32	158.96	159.94	162.31	163.58	162.36	162.21	161.32	160.10
14	159.96	159.32	159.04	159.16	158.94	159.99	162.31	163.61	162.31	162.00	161.29	160.04
15	159.92	159.30	159.00	159.12	158.96	160.01	162.32	163.68	162.37	161.78	161.27	159.98
16	159.88	159.29	158.96	159.08	159.01	160.02	162.82	163.42	162.44	161.64	161.26	159.93
17	159.86	159.27	158.96	159.04	159.04	160.16	163.05	163.17	162.46	161.56	160.27	159.90
18	159.83	159.25	158.94	158.98	159.04	160.29	163.11	163.04	162.63	161.60	161.22	159.84
19	159.79	159.25	158.93	158.96	159.00	160.22	163.16	162.84	162.66	161.91	161.10	159.82
20	159.78	159.24	158.91	158.95	158.97	160.16	163.07	162.54	162.79	162.74	160.98	159.79
21	159.74	159.22	158.89	158.97	158.95	160.10	162.82	162.20	163.29	163.71	160.86	159.75
22	159.72	159.19	158.87	159.04	158.95	160.02	162.60	161.98	163.85	164.22	160.79	159.71
23	159.72	159.17	158.86	159.12	158.94	159.89	162.39	161.70	164.16	164.06	160.70	159.66
24	159.70	159.16	158.84	159.21	158.96	159.79	162.24	161.67	164.25	163.57	160.62	159.64
25	159.68	159.11	158.82	159.34	158.98	159.84	162.24	161.59	164.06	163.40	160.56	159.60
26	159.67	159.10	158.81	159.42	159.00	159.99	162.50	161.52	163.86	162.99	160.49	159.61
27	159.66	159.10	158.84	159.49	159.14	160.06	162.82	161.63	163.64	162.72	160.44	159.68
28	159.66	159.16	158.92	159.55	159.28	160.16	163.21	161.82	163.46	162.51	160.40	159.86
29	159.65	159.24	158.94	159.53	159.51	160.29	164.01	161.94	163.34	162.51	160.34	160.04
30	159.64		158.96	159.44	159.72	160.24	164.10	162.24	163.16	163.02	160.30	160.20
31	159.66		158.97		159.82		164.19	162.48		162.54		160.34
Mean	159.96	159.34	159.14	159.24	159.14	159.91	162.16	163.18	162.98	162.78	161.39	160.21
Max.	160.55	159.70	159.81	159.60	159.82	160.29	164.19	164.71	164.25	164.22	163.57	161.59
Min.	159.64	159.10	158.81	158.95	158.94	159.14	159.84	161.52	162.31	161.56	160.27	159.60

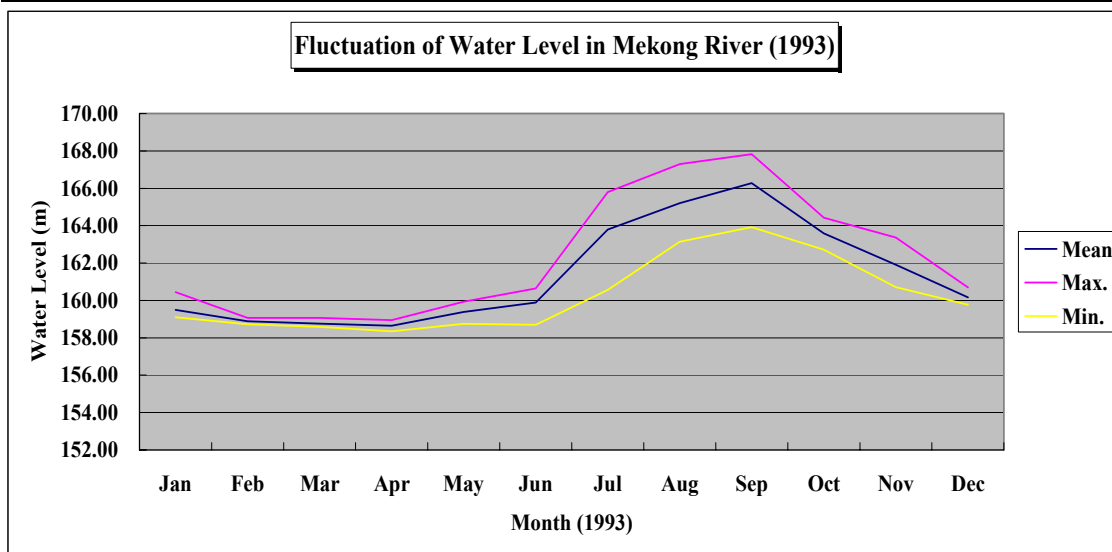


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River Name: Mekong  
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 Observed Item: W.L. Discharge Measurement, Sediment, W/  
 Started Date: W.L. 1895

**WATER LEVEL HISTORICAL of Mekong at Vientiane**

Day	YEAR											161.35
	1993											167.82
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	160.44	159.06	158.96	158.57	158.74	159.27	160.56	163.78	167.34	163.92	163.22	160.69
2	160.37	159.04	159.02	158.54	158.77	158.94	161.12	163.61	167.36	164.04	163.09	160.64
3	160.25	159.02	159.01	158.54	158.81	158.70	161.66	163.41	167.32	164.08	163.04	160.60
4	160.06	159.00	158.99	158.55	158.91	158.70	162.24	163.33	167.30	164.14	163.18	160.54
5	159.90	159.00	159.03	158.56	158.96	159.04	162.74	163.26	167.30	164.28	163.36	160.51
6	159.76	159.00	159.06	158.54	158.91	159.31	162.94	163.14	167.56	164.18	163.34	160.46
7	159.66	158.98	159.01	158.51	158.87	159.54	162.91	163.46	167.70	164.04	163.18	160.41
8	159.58	158.97	158.92	158.39	158.90	159.78	162.89	164.49	167.76	164.16	162.94	160.38
9	159.52	158.95	158.84	158.34	158.95	160.03	162.92	164.97	167.82	164.34	162.64	160.34
10	159.48	158.94	158.78	158.38	159.08	160.19	163.04	164.90	167.81	164.42	162.41	160.33
11	159.44	158.92	158.74	158.42	159.24	160.04	163.24	164.64	167.76	164.42	162.14	160.30
12	159.41	158.90	158.72	158.46	159.34	160.19	163.64	164.66	167.56	164.26	162.06	160.24
13	159.39	158.88	158.72	158.47	159.39	160.10	164.44	164.78	167.22	164.08	161.94	160.19
14	159.36	158.86	158.72	158.48	159.44	160.04	165.28	164.74	166.76	163.89	161.84	160.16
15	159.34	158.84	158.72	158.50	159.54	160.02	165.80	164.78	166.26	163.70	161.75	160.14
16	159.34	158.84	158.74	158.54	159.66	160.02	165.72	164.78	165.99	163.57	161.64	160.11
17	159.33	158.82	158.74	158.68	159.84	160.01	165.60	164.84	165.74	163.42	161.54	160.06
18	159.31	158.82	158.72	158.75	159.90	160.00	165.58	164.89	165.54	163.28	161.46	160.05
19	159.28	158.79	158.70	158.81	159.92	159.96	165.64	164.92	165.48	163.09	161.38	160.04
20	159.28	158.78	158.69	158.86	159.84	159.85	165.44	165.49	165.50	162.97	161.30	160.04
21	159.27	158.77	158.67	158.92	159.79	159.74	164.94	166.04	165.44	162.97	161.22	160.01
22	159.25	158.77	158.66	158.90	159.71	159.91	164.48	166.31	165.64	162.94	161.18	159.98
23	159.30	158.75	158.65	158.94	159.64	160.36	164.24	166.31	165.70	162.88	161.14	159.96
24	159.34	158.74	158.62	158.92	159.64	160.64	163.94	166.16	165.39	162.78	161.06	159.92
25	159.40	158.72	158.61	158.89	159.66	160.62	163.84	166.54	165.10	162.72	161.01	159.88
26	159.36	158.75	158.58	158.86	159.70	160.46	163.94	167.03	165.00	162.87	160.94	159.86
27	159.30	158.80	158.60	158.77	159.72	160.34	163.96	167.26	164.74	162.99	160.90	159.85
28	159.22	158.90	158.60	158.74	159.66	160.32	163.91	167.30	164.36	163.12	160.83	159.83
29	159.20		158.62	158.72	159.58	160.26	163.70	167.24	164.06	163.18	160.78	159.81
30	159.14		158.62	158.72	159.51	160.34	163.64	167.24	163.92	163.18	160.71	159.79
31	159.10		158.60		159.46		163.80	167.30		163.16		159.76
Mean	159.50	158.88	158.76	158.64	159.39	159.89	163.80	165.21	166.28	163.58	161.91	160.16
Max.	160.44	159.06	159.06	158.94	159.92	160.64	165.80	167.30	167.82	164.42	163.36	160.69
Min.	159.10	158.72	158.58	158.34	158.74	158.70	160.56	163.14	163.92	162.72	160.71	159.76

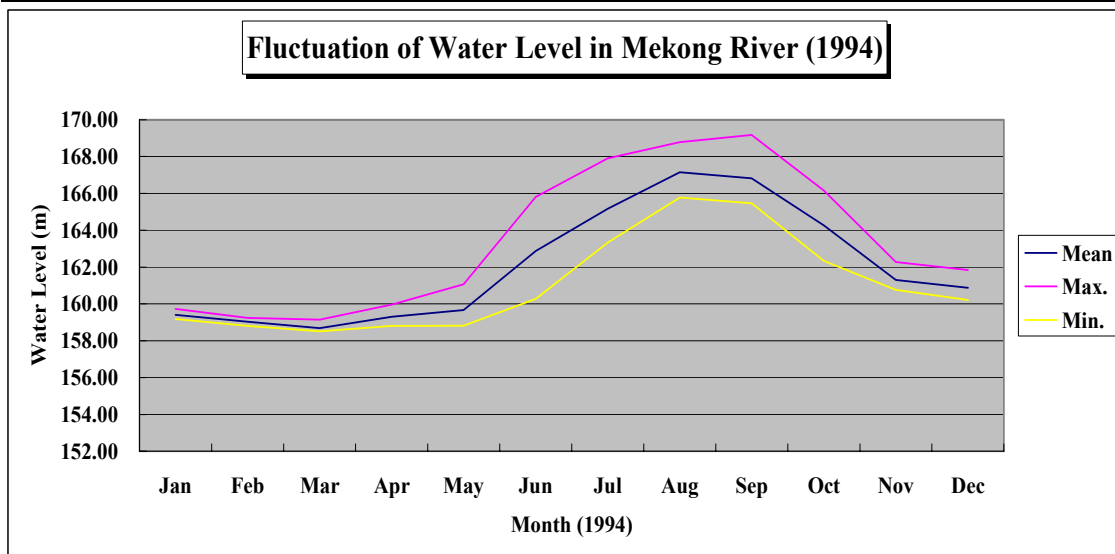


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 Started Date: W.L. 1895

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Day	YEAR											
	1994											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	159.73	159.24	158.77	159.16	159.06	160.80	165.76	166.84	169.18	166.16	162.27	160.79
2	159.70	159.19	158.74	159.19	159.01	160.49	165.98	167.52	169.12	165.91	162.10	160.84
3	159.67	159.16	158.72	159.36	158.94	160.28	165.89	166.98	169.12	165.74	162.02	160.90
4	159.66	159.13	158.72	159.80	158.91	160.30	165.39	166.54	168.78	165.80	161.94	161.06
5	159.62	159.10	158.71	159.94	158.85	160.74	164.99	166.42	168.42	165.76	161.86	161.22
6	159.59	159.08	158.70	159.97	158.82	161.32	164.62	166.69	168.18	165.66	161.78	161.39
7	159.56	159.05	158.68	159.94	158.84	161.76	164.08	166.70	167.97	165.58	161.70	161.56
8	159.53	159.02	158.66	159.84	158.86	161.86	163.62	166.60	167.64	165.54	161.60	161.38
9	159.49	159.00	158.64	159.68	158.89	161.86	163.36	166.46	167.34	165.36	161.52	161.24
10	159.46	158.98	158.66	159.44	158.84	161.99	163.33	166.20	166.96	165.14	161.49	161.16
11	159.44	159.01	158.66	159.32	158.92	162.18	163.56	165.96	166.55	164.93	161.46	161.10
12	159.44	159.07	158.65	159.18	159.18	162.90	163.82	165.92	166.30	164.84	161.42	161.14
13	159.42	159.13	158.64	159.14	159.21	162.98	163.86	165.80	166.22	164.64	161.39	161.40
14	159.39	159.18	158.61	159.11	159.30	163.81	164.26	165.78	166.09	164.44	161.36	161.84
15	159.39	159.22	158.60	159.06	159.57	164.13	164.50	166.01	166.17	164.41	161.32	161.44
16	159.38	159.17	158.58	158.94	159.46	164.26	164.62	165.90	166.18	164.31	161.21	161.17
17	159.38	159.07	158.58	158.86	159.64	163.92	165.04	165.94	166.17	164.21	161.16	160.87
18	159.39	159.02	158.57	158.81	159.88	163.52	165.86	166.36	166.24	164.04	161.02	160.72
19	159.36	159.00	158.55	158.89	160.06	163.08	166.97	166.62	166.39	163.94	160.97	160.59
20	159.34	158.98	158.53	159.02	160.24	162.69	167.91	167.38	166.32	163.76	160.91	160.50
21	159.31	158.96	158.51	159.16	160.42	162.34	167.51	168.40	166.36	163.54	160.87	160.42
22	159.28	158.94	158.54	159.28	160.56	162.14	166.45	168.78	166.32	163.44	160.84	160.37
23	159.26	158.91	158.58	159.31	160.64	162.82	166.09	168.67	166.24	163.32	160.80	160.34
24	159.24	158.90	158.64	159.33	160.48	163.42	165.78	168.50	166.15	163.12	160.76	160.30
25	159.22	158.88	158.66	159.36	160.29	164.00	165.72	168.49	165.96	162.96	160.78	160.27
26	159.20	158.85	158.69	159.30	160.17	164.10	165.19	168.54	165.87	162.84	160.84	160.22
27	159.20	158.83	158.73	159.26	160.00	165.42	164.84	168.50	165.64	162.78	160.89	160.32
28	159.18	158.81	158.78	159.22	160.16	165.54	164.69	168.47	165.46	162.66	160.96	160.56
29	159.20		158.87	159.16	160.44	165.69	164.94	168.30	165.58	162.57	160.96	160.77
30	159.22		159.06	159.14	160.96	165.81	166.22	168.09	165.81	162.45	160.87	160.74
31	159.24		159.14		161.06			168.31		162.34		160.68
Mean	159.40	159.03	158.68	159.31	159.67	162.87	165.16	167.15	166.82	164.26	161.30	160.88
Max.	159.73	159.24	159.14	159.97	161.06	165.81	167.91	168.78	169.18	166.16	162.27	161.84
Min.	159.18	158.81	158.51	158.81	158.82	160.28	163.33	165.78	165.46	162.34	160.76	160.22

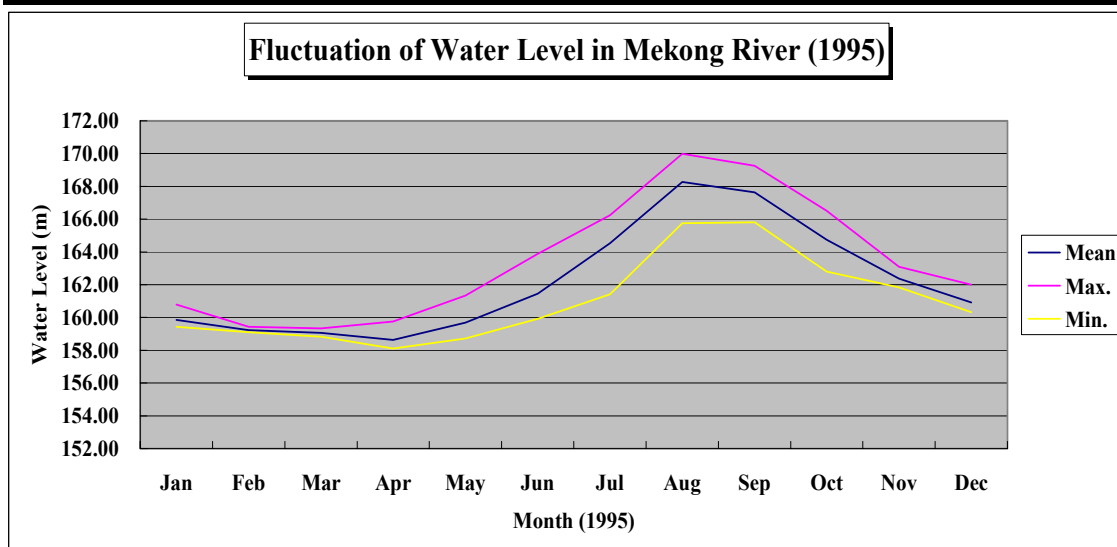


Station Name: Km 4. Vientiane. Muang Sysatanak  
 Latitude: 017° 55' 42" N  
 Longitude: 102° 37' 12" E in Customs compound at village of wat Sop  
 Managing Agency: Inland Waterway Division (MCTPC)  
 Drainage Area: 299,000 Km<sup>2</sup>

River Name: Mekong  
 Gauge and Datum: 158.040 m above M.S.L. Ko Lak datum.  
 Observed Item: W.L. Discharge Measurement, Sediment, W  
 Started Date: W.L. 1895

**WATER LEVEL HISTORICAL of Mekong at Vientiane**

Day	YEAR													
	1995											162.22		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Max.	169.99
1	160.79	159.44	159.12	159.60	158.72	160.91	161.44	166.02	168.54	166.52	163.10	162.00	Min.	158.11
2	160.44	159.42	159.12	159.68	158.76	161.02	161.42	166.91	169.06	166.42	162.88	161.86		
3	160.34	159.40	159.12	159.76	158.80	160.96	161.62	166.99	168.97	166.10	162.71	161.74		
4	160.20	159.37	159.13	159.60	158.80	160.74	162.24	166.64	168.95	165.81	162.54	161.64		
5	160.12	159.34	159.13	159.29	158.84	160.41	162.92	166.06	169.09	165.69	162.44	161.52		
6	160.11	159.32	159.14	159.04	158.88	160.09	163.04	165.76	169.26	165.96	162.35	161.42		
7	160.10	159.30	159.14	158.92	158.92	159.94	163.06	166.44	169.22	166.03	162.29	161.34		
8	160.07	159.27	159.34	158.74	159.02	159.92	163.23	166.66	169.04	166.06	162.24	161.28		
9	160.06	159.25	159.20	158.65	159.00	160.02	163.36	167.08	168.89	165.98	162.17	161.23		
10	160.02	159.22	159.24	158.54	159.02	160.22	163.77	167.49	168.86	165.70	162.04	161.18		
11	159.96	159.20	159.23	158.42	159.02	160.50	164.02	167.68	168.70	165.44	161.94	161.13		
12	159.91	159.20	159.21	158.32	159.10	160.70	164.71	168.01	168.51	165.36	162.16	161.08		
13	159.86	159.20	159.20	158.24	159.24	160.90	165.27	168.04	168.28	165.19	162.34	160.99		
14	159.83	159.21	159.19	158.21	159.44	161.52	165.51	168.14	167.94	165.04	162.36	160.96		
15	159.79	159.21	159.13	158.17	159.64	162.82	165.44	168.19	167.58	165.08	162.15	160.86		
16	159.75	159.22	159.07	158.12	159.81	163.89	165.34	168.27	167.36	165.30	162.32	160.78		
17	159.71	159.22	159.02	158.11	159.96	163.52	165.39	168.84	167.14	165.21	162.62	160.73		
18	159.68	159.23	158.97	158.22	160.02	162.86	165.36	169.44	166.79	164.96	162.66	160.68		
19	159.66	159.23	158.89	158.31	159.99	162.84	165.51	169.87	166.34	164.54	162.66	160.64		
20	159.70	159.22	158.84	158.36	159.94	162.06	165.45	169.96	165.96	164.16	162.64	160.58		
21	159.73	159.18	158.83	158.41	159.96	161.89	165.61	169.87	165.89	163.90	162.77	160.57		
22	159.78	159.17	158.85	158.41	159.97	161.86	166.10	169.90	165.84	163.83	162.62	160.54		
23	159.74	159.17	158.92	158.42	159.97	161.96	166.24	169.99	165.81	163.74	162.36	160.52		
24	159.66	159.13	158.88	158.43	159.97	162.16	166.11	169.91	166.44	163.64	162.11	160.49		
25	159.58	159.12	159.00	158.42	159.96	161.92	166.08	169.77	167.24	163.50	161.97	160.46		
26	159.52	159.12	159.00	158.39	160.23	161.70	166.02	169.71	167.31	163.34	161.84	160.44		
27	159.49	159.11	159.01	158.42	160.97	161.60	165.82	169.67	166.90	163.17	161.94	160.42		
28	159.48	159.11	158.99	158.55	161.33	161.69	165.46	169.38	166.52	162.96	162.36	160.38		
29	159.47		158.94	158.64	161.17	161.62	165.16	168.94	166.37	162.92	162.43	160.36		
30	159.46		158.98	158.68	160.96	161.54	164.89	168.48	166.51	162.81	162.19	160.36		
31	159.44		159.28		160.81		165.06	168.20		162.86		160.33		
Mean	159.85	159.24	159.07	158.64	159.68	161.46	164.54	168.27	167.64	164.75	162.37	160.92		
Max.	160.79	159.44	159.34	159.76	161.33	163.89	166.24	169.99	169.26	166.52	163.10	162.00		
Min.	159.44	159.11	158.83	158.11	158.72	159.92	161.42	165.76	165.81	162.81	161.84	160.33		



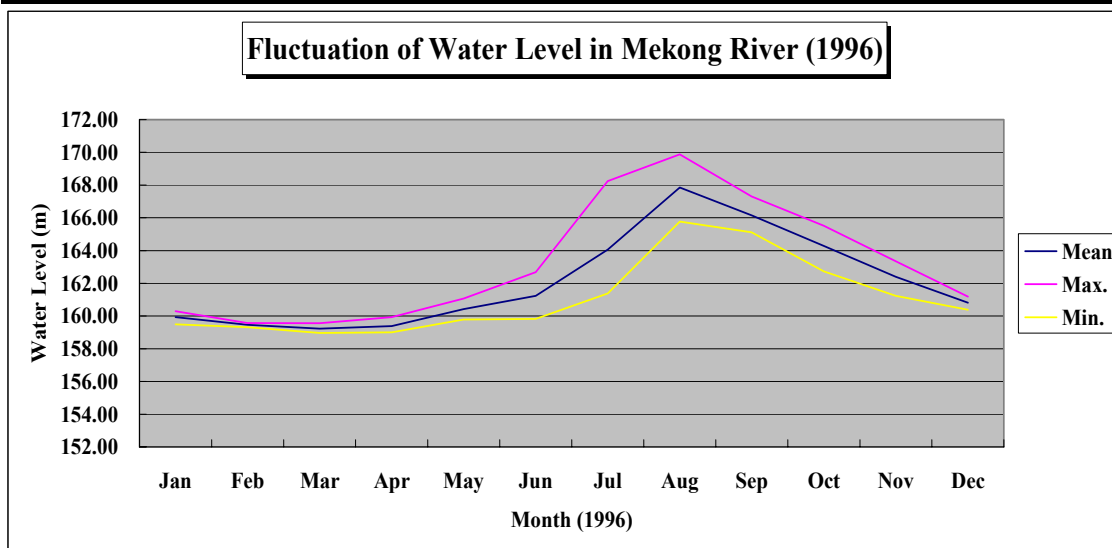


Station Name: Km 4. Vientiane. Muang Sysatanak  
 Latitude: 017° 55' 42" N  
 Longitude: 102° 37' 12" E in Customs compound at village of wat Sop  
 Managing Agency: Inland Waterway Division (MCTPC)  
 Drainage Area: 299,000 Km<sup>2</sup>

River Name: Mekong  
 Gauge and Datum: 158.040 m above M.S.L. Ko Lak datum.  
 Observed Item: W.L. Discharge Measurement, Sediment, W  
 Started Date: W.L. 1895

**WATER LEVEL HISTORICAL of Mekong at Vientiane**

Day	YEAR													
	1996											162.12		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Max.	169.88
1	160.29	159.46	159.42	159.28	160.06	159.82	161.38	168.31	166.40	165.22	162.64	161.18	Min.	158.97
2	160.24	159.49	159.50	159.42	160.52	159.86	161.58	168.34	166.50	164.91	162.60	161.12		
3	160.21	159.49	159.54	159.50	160.99	159.88	161.71	168.04	166.72	164.48	162.56	161.06		
4	160.21	159.48	159.56	159.54	161.07	159.94	161.68	167.77	167.08	164.34	162.54	161.04		
5	160.22	159.48	159.51	159.66	161.00	160.18	161.87	167.66	167.30	164.26	162.52	161.00		
6	160.20	159.51	159.44	159.81	160.92	160.29	162.19	167.63	167.26	164.23	162.47	160.96		
7	160.18	159.52	159.36	159.94	160.78	160.56	162.26	167.62	167.04	164.20	162.66	160.94		
8	160.16	159.50	159.34	159.92	160.62	160.88	162.26	167.51	166.79	164.16	163.04	161.00		
9	160.14	159.48	159.31	159.82	160.49	161.02	162.52	167.14	166.54	164.37	163.16	161.04		
10	160.10	159.50	159.29	159.74	160.42	161.00	162.72	166.76	166.21	164.78	163.30	161.07		
11	160.04	159.53	159.27	159.64	160.34	160.93	162.72	166.31	165.84	165.24	163.34	161.04		
12	160.01	159.56	159.24	159.54	160.26	160.92	162.76	165.95	165.58	165.52	163.22	161.04		
13	160.01	159.57	159.21	159.42	160.22	160.97	163.09	165.77	165.52	165.38	163.14	161.06		
14	160.02	159.57	159.18	159.31	160.22	161.20	163.44	165.99	165.30	165.33	163.24	161.14		
15	160.02	159.57	159.17	159.20	160.13	161.33	163.69	166.67	165.11	165.36	163.19	161.17		
16	159.99	159.56	159.16	159.11	160.05	161.50	163.59	167.09	165.17	165.30	163.04	161.12		
17	159.96	159.53	159.16	159.06	160.02	161.81	163.74	167.32	165.40	165.09	162.69	161.00		
18	159.93	159.49	159.15	159.04	160.25	162.24	164.28	167.97	165.51	165.00	162.39	160.88		
19	159.90	159.47	159.14	159.01	160.44	162.17	164.44	169.02	165.44	164.81	162.20	160.74		
20	159.86	159.44	159.14	159.02	160.82	162.38	164.36	169.10	165.37	164.36	162.07	160.64		
21	159.82	159.42	159.16	159.04	160.99	162.64	164.38	169.10	165.41	164.14	161.96	160.54		
22	159.79	159.40	159.13	159.07	160.95	162.68	164.61	169.16	165.44	163.85	161.84	160.46		
23	159.76	159.36	159.10	159.27	160.76	162.40	165.20	169.27	166.24	163.71	161.76	160.44		
24	159.74	159.34	159.07	159.22	160.61	162.14	165.42	169.31	166.44	163.46	161.70	160.46		
25	159.68	159.32	159.04	159.17	160.35	161.81	165.54	169.52	166.82	163.40	161.64	160.47		
26	159.64	159.31	159.01	159.16	160.27	161.52	165.74	169.38	167.14	163.31	161.60	160.47		
27	159.61	159.31	158.97	159.18	160.09	161.37	166.74	169.88	166.92	163.17	161.50	160.42		
28	159.59	159.32	159.00	159.32	159.94	161.27	167.77	168.40	166.52	163.04	161.42	160.41		
29	159.57	159.34	159.04	159.51	159.84	161.18	168.03	167.89	166.18	162.92	161.33	160.40		
30	159.54		159.12	159.74	159.82	161.20	168.12	167.21	165.64	162.80	161.24	160.39		
31	159.49		159.21		159.78		168.25	166.67		162.74		160.38		
Mean	159.93	159.46	159.22	159.39	160.42	161.24	164.07	167.86	166.16	164.29	162.40	160.81		
Max.	160.29	159.57	159.56	159.94	161.07	162.68	168.25	169.88	167.30	165.52	163.34	161.18		
Min.	159.49	159.31	158.97	159.01	159.78	159.82	161.38	165.77	165.11	162.74	161.24	160.38		

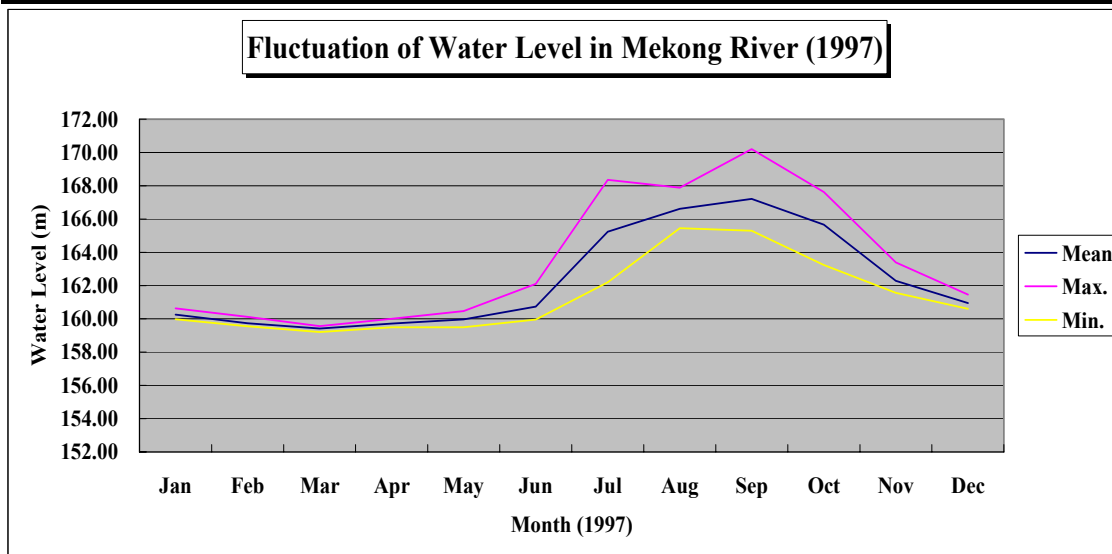


Station Name: Km 4. Vientiane. Muang Sysatanak  
 Latitude; 017° 55' 42" N  
 Longitude; 102° 37' 12" E in Customs compound at village of wat Sop  
 Managing Agency: Inland Waterway Division (MCTPC)  
 Drainage Area: 299,000 Km<sup>2</sup>

River Name: Mekong  
 Gauge and Datum: 158.040 m above M.S.L. Ko Lak datum.  
 Observed Item: W.L. Discharge Measurement, Sediment, W  
 Started Date: W.L. 1895

**WATER LEVEL HISTORICAL of Mekong at Vientiane**

Day	YEAR											162.33
	1997											170.20
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	160.63	160.07	159.57	159.73	159.50	160.48	162.20	167.89	166.05	166.39	163.39	161.46
2	160.58	160.12	159.54	159.91	159.56	160.60	162.60	167.51	166.86	167.12	163.35	161.38
3	160.51	160.11	159.52	159.94	159.61	160.74	162.80	167.21	167.53	167.40	163.27	161.30
4	160.45	160.07	159.52	159.85	159.67	160.82	162.80	167.22	168.62	167.57	163.19	161.26
5	160.43	159.99	159.56	159.77	159.75	160.81	162.65	167.31	169.50	167.63	163.13	161.23
6	160.43	159.90	159.56	159.74	159.77	160.77	162.48	167.15	169.72	167.61	162.97	161.20
7	160.43	159.80	159.56	159.75	159.72	160.72	162.29	166.90	169.76	167.47	162.90	161.18
8	160.42	159.74	159.52	159.75	159.64	160.62	162.23	166.68	170.01	167.37	162.80	161.13
9	160.38	159.73	159.48	159.73	159.59	160.48	162.21	166.36	170.20	167.09	162.68	161.06
10	160.34	159.73	159.41	159.79	159.58	160.38	162.69	165.94	169.99	166.79	162.55	161.01
11	160.31	159.74	159.39	159.80	159.58	160.30	163.15	165.60	169.63	166.70	162.46	160.97
12	160.30	159.74	159.41	159.71	159.59	160.13	163.60	165.91	169.16	166.80	162.38	160.96
13	160.30	159.73	159.42	159.66	159.63	160.02	164.26	167.05	168.62	166.95	162.30	160.94
14	160.30	159.69	159.42	159.66	159.71	159.98	164.49	167.83	167.98	166.89	162.25	160.91
15	160.30	159.64	159.38	159.66	159.77	159.95	164.92	167.68	167.37	166.59	162.18	160.87
16	160.31	159.58	159.33	159.66	159.83	159.96	165.67	167.31	166.74	166.22	162.10	160.86
17	160.29	159.55	159.28	159.63	159.97	160.00	166.47	167.12	166.24	165.81	161.97	160.84
18	160.25	159.56	159.22	159.68	160.17	160.19	166.58	167.24	165.85	165.42	161.79	160.83
19	160.21	159.61	159.20	159.83	160.37	160.34	166.48	167.56	165.58	165.10	161.67	160.86
20	160.15	159.63	159.22	159.97	160.46	160.47	166.41	167.42	165.43	164.84	161.63	160.85
21	160.13	159.62	159.25	160.01	160.39	160.58	166.39	167.01	165.31	164.64	161.68	160.82
22	160.13	159.60	159.24	159.92	160.18	160.70	166.69	166.58	165.29	164.44	161.75	160.77
23	160.12	159.59	159.24	159.78	160.02	160.89	167.77	166.13	165.45	164.23	161.76	160.75
24	160.11	159.58	159.25	159.62	160.21	161.08	168.20	165.75	165.61	164.10	161.79	160.74
25	160.09	159.56	159.31	159.55	160.27	161.33	167.96	165.50	165.66	163.99	161.82	160.80
26	160.07	159.55	159.36	159.52	160.37	161.71	167.76	165.45	165.51	163.71	161.82	160.80
27	160.04	159.58	159.46	159.49	160.45	162.06	167.80	165.56	165.55	163.45	161.80	160.77
28	160.02	159.59	159.54	159.49	160.44	162.10	168.11	165.65	165.77	163.32	161.75	160.72
29	159.99		159.55	159.50	160.39	161.98	168.35	165.58	165.69	163.23	161.67	160.65
30	159.98		159.52	159.50	160.36	161.97	168.32	165.52	165.71	163.25	161.56	160.60
31	160.01		159.57		160.39		168.21	165.57		163.27		160.60
Mean	160.26	159.73	159.41	159.72	159.97	160.74	165.24	166.62	167.21	165.66	162.28	160.94
Max.	160.63	160.12	159.57	160.01	160.46	162.10	168.35	167.89	170.20	167.63	163.39	161.46
Min.	159.98	159.55	159.20	159.49	159.50	159.95	162.20	165.45	165.29	163.23	161.56	160.60

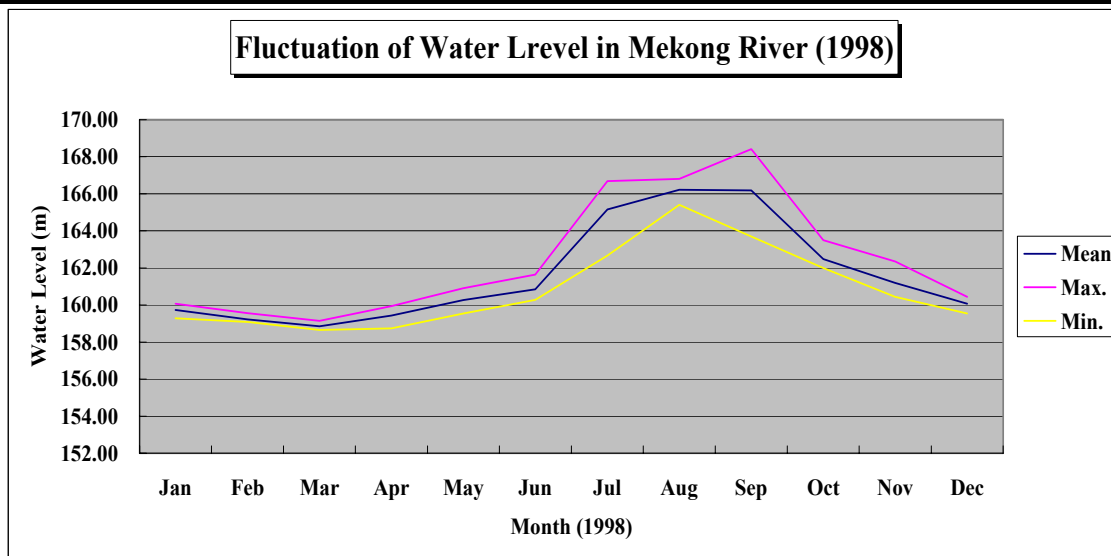


Station Name: Km 4. Vientiane. Muang Sysatanak  
 Latitude; 017° 55' 42" N  
 Longitude; 102° 37' 12" E in Customs compound at village of wat Sop  
 Managing Agency: Inland Waterway Division (MCTPC)  
 Drainage Area: 299,000 Km<sup>2</sup>

River Name: Mekong  
 Gauge and Datum: 158.040 m above M.S.L. Ko Lak datum.  
 Observed Item: W.L. Discharge Measurement, Sediment, W  
 Started Date: W.L. 1895

**WATER LEVEL HISTORICAL of Mekong at Vientiane**

Day	YEAR											161.65
	1998											168.42
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	160.06	159.45	159.15	158.74	159.84	160.69	162.67	165.79	166.32	163.50	162.34	160.44
2	159.99	159.56	159.14	158.78	159.69	160.77	163.32	165.64	166.47	163.29	162.04	160.42
3	160.02	159.56	159.07	158.93	159.59	160.88	163.46	165.51	166.79	163.19	161.70	160.42
4	160.00	159.50	159.04	159.12	159.54	160.99	163.57	165.42	166.84	163.19	161.56	160.41
5	159.99	159.37	158.96	159.24	159.54	161.07	163.74	165.41	166.99	163.16	161.56	160.41
6	159.94	159.24	158.89	159.36	159.56	161.12	164.34	165.42	167.04	163.02	161.64	160.40
7	159.91	159.19	158.87	159.51	159.62	161.20	164.84	165.46	167.16	162.92	161.66	160.40
8	159.90	159.12	158.84	159.66	159.79	161.18	165.10	165.74	167.81	162.84	161.69	160.33
9	159.88	159.09	158.84	159.75	159.94	161.11	165.97	165.98	168.42	162.74	161.71	160.27
10	159.86	159.10	158.86	159.80	160.09	161.01	166.26	166.01	168.38	162.54	161.82	160.24
11	159.84	159.12	158.84	159.74	160.30	161.01	165.98	166.06	168.20	162.36	161.74	160.24
12	159.84	159.11	158.84	159.66	160.59	161.22	165.52	166.26	168.14	162.26	161.56	160.24
13	159.82	159.11	158.91	159.51	160.72	161.20	165.19	166.42	167.94	162.26	161.47	160.23
14	159.82	159.13	158.90	159.41	160.60	160.98	165.24	166.54	167.48	162.30	161.34	160.21
15	159.82	159.22	158.85	159.30	160.44	160.74	165.88	166.48	166.98	162.32	161.14	160.15
16	159.81	159.27	158.84	159.24	160.39	160.62	166.48	166.32	166.54	162.29	161.04	160.14
17	159.74	159.24	158.84	159.27	160.50	160.58	166.68	166.24	166.14	162.23	160.99	160.14
18	159.64	159.18	158.87	159.24	160.67	160.61	166.64	166.34	166.09	162.18	160.84	160.06
19	159.54	159.14	158.89	159.16	160.82	160.61	166.44	166.54	166.09	162.16	160.84	159.94
20	159.57	159.14	158.89	159.14	160.91	160.54	166.14	166.62	165.81	162.27	160.83	159.87
21	159.67	159.16	158.88	159.26	160.74	160.42	165.88	166.64	165.54	162.34	160.81	159.82
22	159.72	159.16	158.86	159.42	160.59	160.31	165.57	166.64	165.24	162.21	160.79	159.79
23	159.72	159.17	158.84	159.52	160.50	160.27	165.27	166.66	164.84	162.08	160.72	159.72
24	159.68	159.17	158.79	159.54	160.42	160.36	165.01	166.70	164.51	162.04	160.68	159.71
25	159.61	159.14	158.70	159.62	160.32	160.49	164.84	166.81	164.26	162.02	160.61	159.84
26	159.52	159.14	158.66	159.71	160.28	160.61	164.77	166.74	164.16	162.00	160.57	159.90
27	159.40	159.17	158.67	159.78	160.30	160.78	164.67	166.54	164.04	162.00	160.52	159.84
28	159.32	159.16	158.68	159.87	160.40	160.98	164.51	166.49	163.84	162.04	160.48	159.74
29	159.29		158.67	159.94	160.43	161.26	164.84	166.49	163.74	162.17	160.46	159.64
30	159.33		158.65	159.92	160.45	161.64	165.29	166.47	163.70	162.37	160.44	159.56
31	159.36		158.67		160.50		165.74	166.32		162.47		159.54
Mean	159.73	159.22	158.85	159.44	160.26	160.84	165.16	166.22	166.18	162.48	161.19	160.07
Max.	160.06	159.56	159.15	159.94	160.91	161.64	166.68	166.81	168.42	163.50	162.34	160.44
Min.	159.29	159.09	158.65	158.74	159.54	160.27	162.67	165.41	163.70	162.00	160.44	159.54

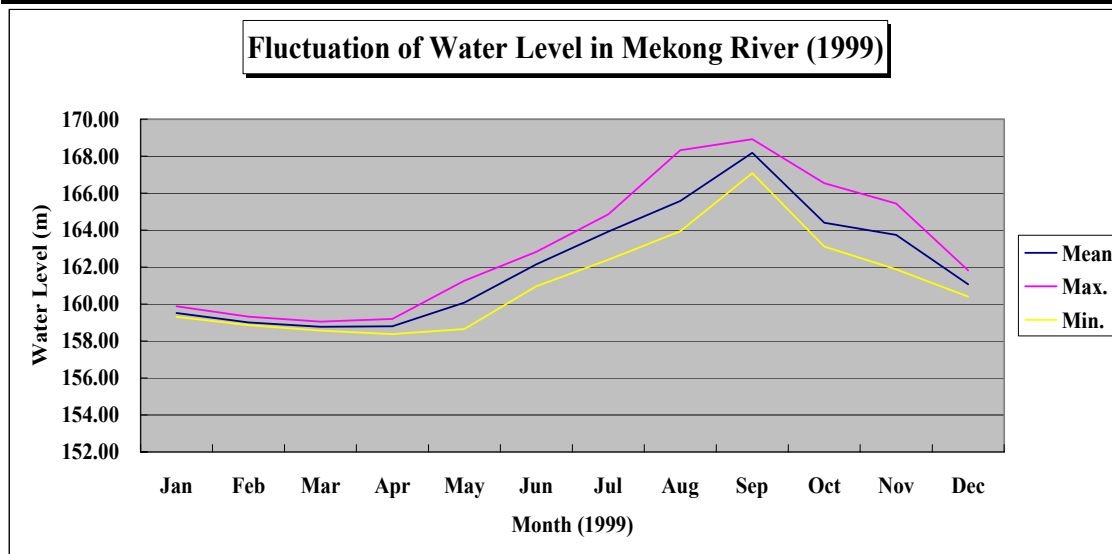


Station Name: Km 4. Vientiane. Muang Sysatanak  
 Latitude; 017° 55' 42" N  
 Longitude; 102° 37' 12" E in Customs compound at village of wat Sop  
 Managing Agency: Inland Waterway Division (MCTPC)  
 Drainage Area: 299,000 Km<sup>2</sup>

River Name: Mekong  
 Gauge and Datum: 158.040 m above M.S.L. Ko Lak datum.  
 Observed Item: W.L. Discharge Measurement, Sediment, W  
 Started Date: W.L. 1895

**WATER LEVEL HISTORICAL of Mekong at Vientiane**

Day	YEAR											162.11
	1999											168.92
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	159.51	159.32	158.82	158.83	158.64	160.96	162.67	164.46	168.47	166.54	163.14	161.81
2	159.49	159.23	158.77	158.81	158.76	161.14	162.49	164.17	168.78	166.11	163.78	161.74
3	159.49	159.22	158.77	158.60	158.82	161.42	162.46	163.94	168.91	165.94	164.11	161.70
4	159.52	159.14	158.64	158.38	158.82	161.64	162.40	163.96	168.92	165.90	164.64	161.60
5	159.54	159.14	158.56	158.37	158.76	161.90	162.50	164.01	168.82	165.80	164.57	161.54
6	159.54	159.12	158.56	158.46	158.79	161.90	162.92	163.99	168.62	165.64	164.74	161.48
7	159.52	159.10	158.64	158.54	158.89	161.78	163.70	164.18	168.52	165.48	165.34	161.48
8	159.54	159.06	158.81	158.65	159.27	161.59	164.16	164.54	168.52	165.24	165.44	161.48
9	159.52	159.02	158.96	158.72	159.60	161.49	164.29	165.04	168.52	165.06	165.24	161.44
10	159.49	158.87	159.04	158.72	159.77	161.44	164.34	165.01	168.44	164.81	164.84	161.36
11	159.47	158.87	159.04	158.64	160.01	161.42	164.14	164.78	168.28	164.64	164.70	161.34
12	159.38	158.91	159.01	158.56	160.47	161.50	163.94	164.69	168.34	164.54	164.72	161.32
13	159.32	158.96	158.96	158.51	160.77	161.71	163.71	164.86	168.42	164.44	164.54	161.30
14	159.30	159.09	158.96	158.57	160.64	162.42	163.47	165.00	168.48	164.30	164.42	161.24
15	159.30	159.07	158.92	158.81	160.56	162.82	163.38	164.94	168.28	164.14	164.27	161.20
16	159.32	159.02	158.82	158.92	160.64	162.80	163.57	164.94	168.04	164.11	164.35	161.14
17	159.34	158.93	158.78	159.15	160.64	162.50	164.14	164.89	167.82	164.09	164.26	161.06
18	159.34	158.87	158.84	159.19	160.50	162.37	164.61	165.06	167.59	164.06	163.90	160.93
19	159.36	158.87	158.86	159.14	160.27	162.38	164.56	165.66	167.36	164.04	163.52	160.92
20	159.46	158.89	158.82	159.01	160.17	162.50	164.27	166.34	167.24	164.01	163.26	160.84
21	159.59	158.93	158.74	158.93	160.14	162.60	164.09	165.66	167.46	163.89	163.09	160.78
22	159.64	158.97	158.68	158.89	160.24	162.59	164.14	166.79	167.86	163.74	162.94	160.74
23	159.72	158.99	158.63	159.02	160.54	162.79	164.46	166.94	168.07	163.54	162.76	160.70
24	159.83	159.02	158.61	159.14	160.92	162.79	164.74	167.04	168.09	163.37	162.54	160.64
25	159.88	158.99	158.57	159.17	161.27	162.80	164.86	167.00	168.41	163.25	162.34	160.60
26	159.84	158.94	158.59	159.17	161.12	162.64	164.82	167.02	168.47	163.11	162.29	160.54
27	159.77	158.90	158.59	159.02	160.89	162.50	164.77	167.14	168.31	163.12	162.27	160.52
28	159.67	158.86	158.64	158.76	160.69	162.60	164.83	167.14	167.98	163.24	162.18	160.49
29	159.58		158.72	158.52	160.57	162.78	164.54	167.32	167.62	163.59	162.04	160.42
30	159.45		158.77	158.50	160.54	162.79	164.34	167.92	167.08	163.42	161.88	160.40
31	159.40		158.81		160.74		164.44	168.32		163.12		160.40
Mean	159.52	159.01	158.77	158.79	160.08	162.15	163.93	165.57	168.19	164.40	163.74	161.07
Max.	159.88	159.32	159.04	159.19	161.27	162.82	164.86	168.32	168.92	166.54	165.44	161.81
Min.	159.30	158.86	158.56	158.37	158.64	160.96	162.40	163.94	167.08	163.11	161.88	160.40

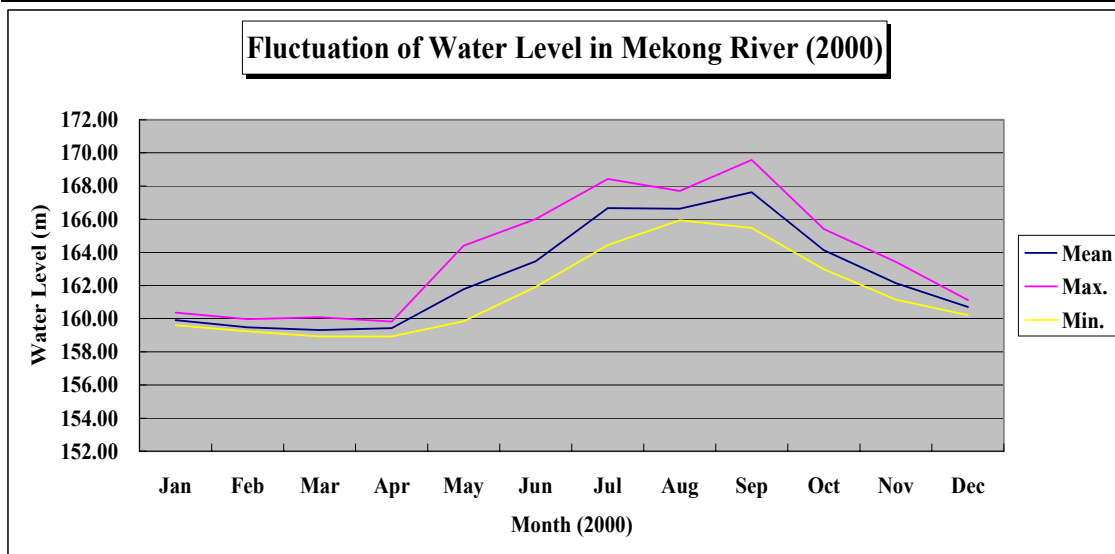


Station Name: Km 4. Vientiane. Muang Sysatanak  
 Latitude; 017° 55' 42" N  
 Longitude; 102° 37' 12" E in Customs compound at village of wat Sop  
 Managing Agency: Inland Waterway Division (MCTPC)  
 Drainage Area: 299,000 Km<sup>2</sup>

River Name: Mekong  
 Gauge and Datum: 158.040 m above M.S.L. Ko Lak datum.  
 Observed Item: W.L. Discharge Measurement, Sediment, W/  
 Started Date: W.L. 1895

**WATER LEVEL HISTORICAL of Mekong at Vientiane**

Day	YEAR											162.62
	2000											169.57
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	160.36	159.60	159.22	158.93	159.84	161.92	164.44	167.70	166.19	165.26	163.07	161.11
2	160.33	159.54	159.32	158.94	159.92	162.02	164.69	167.30	166.32	165.30	163.17	161.11
3	160.26	159.51	159.49	158.96	160.04	162.52	164.86	166.88	166.92	165.27	163.08	161.09
4	160.19	159.51	159.59	159.02	160.14	162.58	164.92	166.57	168.00	164.99	163.08	161.04
5	160.15	159.54	159.68	159.12	160.24	162.79	164.98	166.29	168.38	164.79	163.10	161.02
6	160.12	159.57	159.78	159.16	160.37	162.69	165.08	166.02	168.77	164.70	163.39	161.00
7	160.10	159.59	159.92	159.20	160.57	162.69	165.08	165.93	169.32	164.70	163.42	161.06
8	160.10	159.72	160.09	159.31	160.61	162.54	164.76	165.93	169.57	164.89	163.12	161.10
9	160.11	159.92	160.09	159.33	160.61	162.40	164.57	166.44	169.54	165.03	162.74	161.08
10	160.12	159.96	159.92	159.36	160.57	162.36	164.54	167.13	169.46	165.25	162.54	161.04
11	160.06	159.84	159.64	159.24	160.58	162.42	164.64	167.46	169.22	165.41	162.40	160.98
12	160.02	159.64	159.44	159.12	160.67	162.48	165.90	167.44	168.84	165.29	162.28	160.92
13	159.96	159.56	159.36	159.06	160.92	162.44	166.82	167.30	168.64	164.96	162.16	160.86
14	159.92	159.68	159.30	159.11	161.34	162.14	167.46	167.07	168.61	164.71	162.00	160.77
15	159.91	159.42	159.24	159.24	161.67	161.99	167.87	166.77	168.61	164.44	161.98	160.71
16	159.90	159.37	159.20	159.34	161.79	162.17	167.69	166.50	168.39	164.07	161.94	160.71
17	159.90	159.34	159.18	159.54	161.84	162.30	167.44	166.34	168.09	163.67	161.84	160.69
18	159.89	159.31	159.18	159.64	161.89	162.59	167.44	166.22	167.87	163.37	161.79	160.62
19	159.84	159.29	159.16	159.69	162.01	163.24	167.39	166.09	167.67	163.24	161.76	160.54
20	159.80	159.29	159.14	159.73	162.10	164.57	167.46	166.27	167.48	163.26	161.70	160.50
21	159.76	159.27	159.09	159.77	162.10	165.59	167.62	166.46	167.19	163.20	161.64	160.47
22	159.72	159.26	159.06	159.79	163.40	165.99	167.72	166.52	166.87	163.07	161.59	160.46
23	159.69	159.24	159.05	159.79	164.13	166.01	167.81	166.67	166.54	162.99	161.54	160.42
24	159.66	159.27	159.04	159.77	164.20	165.84	167.92	166.62	166.38	163.10	161.44	160.37
25	159.64	159.37	159.01	159.77	164.40	165.49	168.14	166.52	166.36	163.34	161.36	160.32
26	159.61	159.34	158.97	159.76	164.30	165.24	168.24	166.64	166.22	163.44	161.29	160.27
27	159.62	159.31	158.94	159.74	163.89	165.07	168.32	166.80	166.09	163.62	161.24	160.22
28	159.62	159.28	158.93	159.72	163.40	164.91	168.42	166.77	165.85	163.50	161.20	160.21
29	159.62	159.23	158.93	159.77	162.92	164.72	168.37	166.47	165.64	163.22	161.14	160.24
30	159.63		158.94	159.82	162.44	164.49	168.20	166.24	165.48	163.07	161.14	160.31
31	159.64		158.92		162.06		168.00	166.16		162.99		160.32
Mean	159.91	159.47	159.32	159.42	161.77	163.47	166.67	166.63	167.62	164.13	162.14	160.70
Max.	160.36	159.96	160.09	159.82	164.40	166.01	168.42	167.70	169.57	165.41	163.42	161.11
Min.	159.61	159.23	158.92	158.93	159.84	161.92	164.44	165.93	165.48	162.99	161.14	160.21

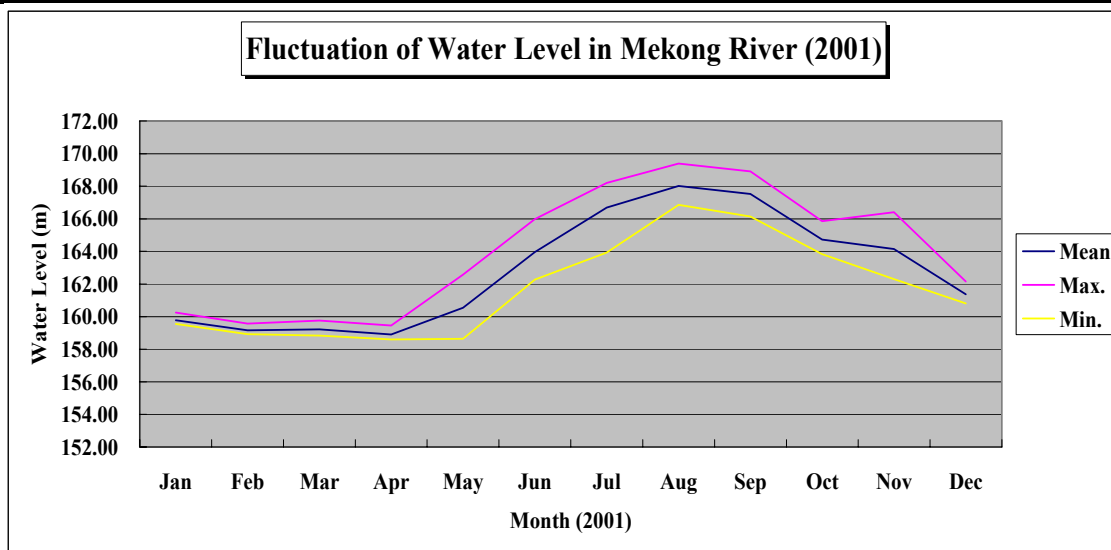


Station Name: Km 4. Vientiane. Muang Sysatanak  
 Latitude; 017° 55' 42" N  
 Longitude; 102° 37' 12" E in Customs compound at village of wat Sop  
 Managing Agency: Inland Waterway Division (MCTPC)  
 Drainage Area: 299,000 Km<sup>2</sup>

River Name: Mekong  
 Gauge and Datum: 158.040 m above M.S.L. Ko Lak datum.  
 Observed Item: W.L. Discharge Measurement, Sediment, W  
 Started Date: W.L. 1895

**WATER LEVEL HISTORICAL of Mekong at Vientiane**

Day	YEAR											162.86
	2001											169.39
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	160.25	159.57	158.93	159.46	158.84	162.27	163.94	167.58	167.21	165.86	165.86	162.16
2	160.14	159.54	158.93	159.34	158.74	162.84	164.14	167.46	167.09	165.64	166.40	162.07
3	160.04	159.45	158.89	159.12	158.64	163.21	164.24	167.43	167.00	165.44	166.39	162.00
4	160.00	159.34	158.84	158.91	158.76	164.24	164.18	167.77	167.22	165.14	166.04	161.94
5	159.98	159.31	158.86	158.77	158.86	164.94	164.64	168.76	167.74	165.14	165.70	161.90
6	159.98	159.28	158.94	158.77	159.12	164.97	165.29	169.28	168.34	165.01	165.59	161.82
7	159.98	159.24	158.98	158.87	159.08	165.22	166.12	169.36	168.70	165.04	165.74	161.94
8	160.00	159.24	159.02	159.08	159.21	165.80	166.04	169.39	168.91	164.90	165.74	162.09
9	160.02	159.23	159.02	159.18	159.28	165.98	166.24	169.28	168.84	164.94	165.62	162.12
10	159.80	159.23	159.03	159.12	159.34	165.72	166.47	169.06	168.86	165.06	165.41	161.89
11	159.70	159.18	159.04	158.94	159.44	165.12	166.69	168.66	168.84	165.62	164.58	161.42
12	159.69	159.12	159.10	158.84	159.54	164.54	166.74	168.60	168.72	165.69	164.04	161.08
13	159.74	159.10	159.14	158.86	159.66	164.18	166.79	168.92	168.54	165.60	163.68	161.04
14	159.82	159.07	159.11	158.88	159.82	163.84	166.74	168.64	168.36	165.42	163.82	161.14
15	159.84	159.04	159.11	158.90	160.01	163.82	166.74	168.22	168.09	165.14	163.84	161.06
16	159.82	159.04	159.23	158.94	160.11	163.94	166.69	167.91	167.80	164.84	163.80	161.10
17	159.74	159.08	159.31	158.94	160.16	164.04	166.80	167.73	167.54	164.69	163.72	161.29
18	159.70	159.12	159.35	158.92	160.38	164.24	166.87	167.84	167.34	164.49	163.59	161.30
19	159.68	159.12	159.42	158.92	161.07	164.30	167.47	168.06	167.16	164.20	163.44	161.24
20	159.66	159.10	159.54	158.96	161.66	164.14	168.04	167.94	166.94	163.94	163.47	161.28
21	159.64	159.07	159.62	158.94	162.19	163.80	168.20	167.80	166.72	163.90	163.52	161.06
22	159.64	159.06	159.72	158.92	162.58	163.47	168.06	167.59	166.70	163.86	163.22	161.02
23	159.66	159.05	159.75	158.84	162.54	163.11	167.97	167.44	166.76	163.92	162.99	161.02
24	159.63	159.04	159.69	158.78	162.38	162.82	167.82	167.39	166.72	163.92	162.95	161.07
25	159.58	159.02	159.56	158.72	162.34	162.67	167.76	167.34	166.69	163.84	162.75	161.02
26	159.56	158.99	159.39	158.67	162.37	162.76	167.71	167.16	166.78	164.04	162.53	160.94
27	159.56	158.94	159.26	158.60	162.38	162.96	167.64	166.86	166.84	164.24	162.45	160.92
28	159.57	158.92	159.12	158.63	162.31	163.07	167.77	166.94	166.64	164.21	162.66	160.91
29	159.61		159.09	158.71	162.11	163.31	167.97	167.42	166.37	164.06	162.51	160.84
30	159.62		159.19	158.82	161.94	163.69	167.99	167.39	166.14	164.14	162.29	160.82
31	159.62		159.39		161.91		167.72	167.26		164.74		160.82
Mean	159.78	159.16	159.21	158.91	160.54	163.97	166.69	168.02	167.52	164.73	164.14	161.37
Max.	160.25	159.57	159.75	159.46	162.58	165.98	168.20	169.39	168.91	165.86	166.40	162.16
Min.	159.56	158.92	158.84	158.60	158.64	162.27	163.94	166.86	166.14	163.84	162.29	160.82

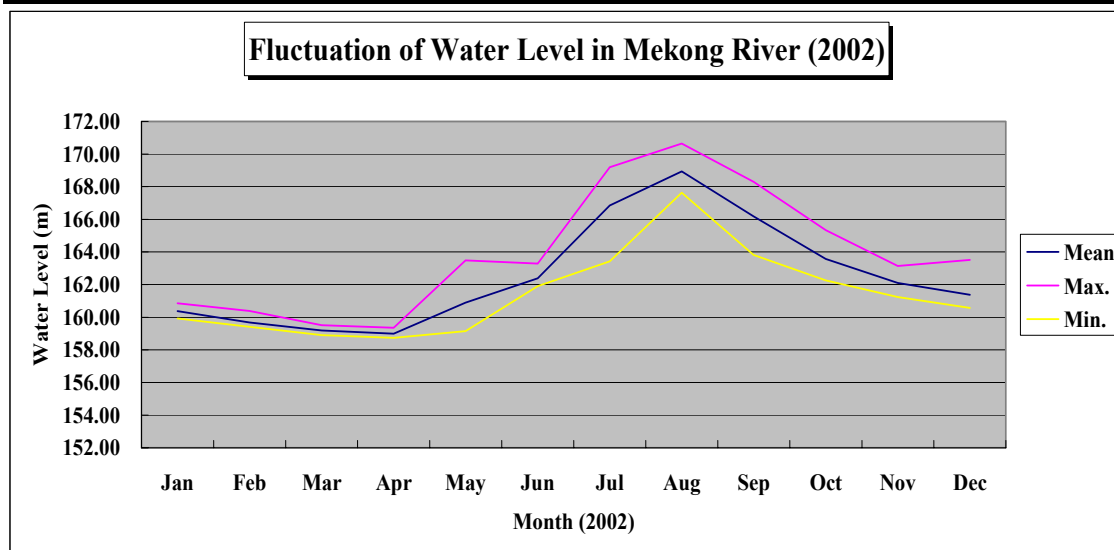


Station Name: Km 4. Vientiane. Muang Sysatanak  
 Latitude; 017° 55' 42" N  
 Longitude; 102° 37' 12" E in Customs compound at village of wat Sop  
 Managing Agency: Inland Waterway Division (MCTPC)  
 Drainage Area: 299,000 Km<sup>2</sup>

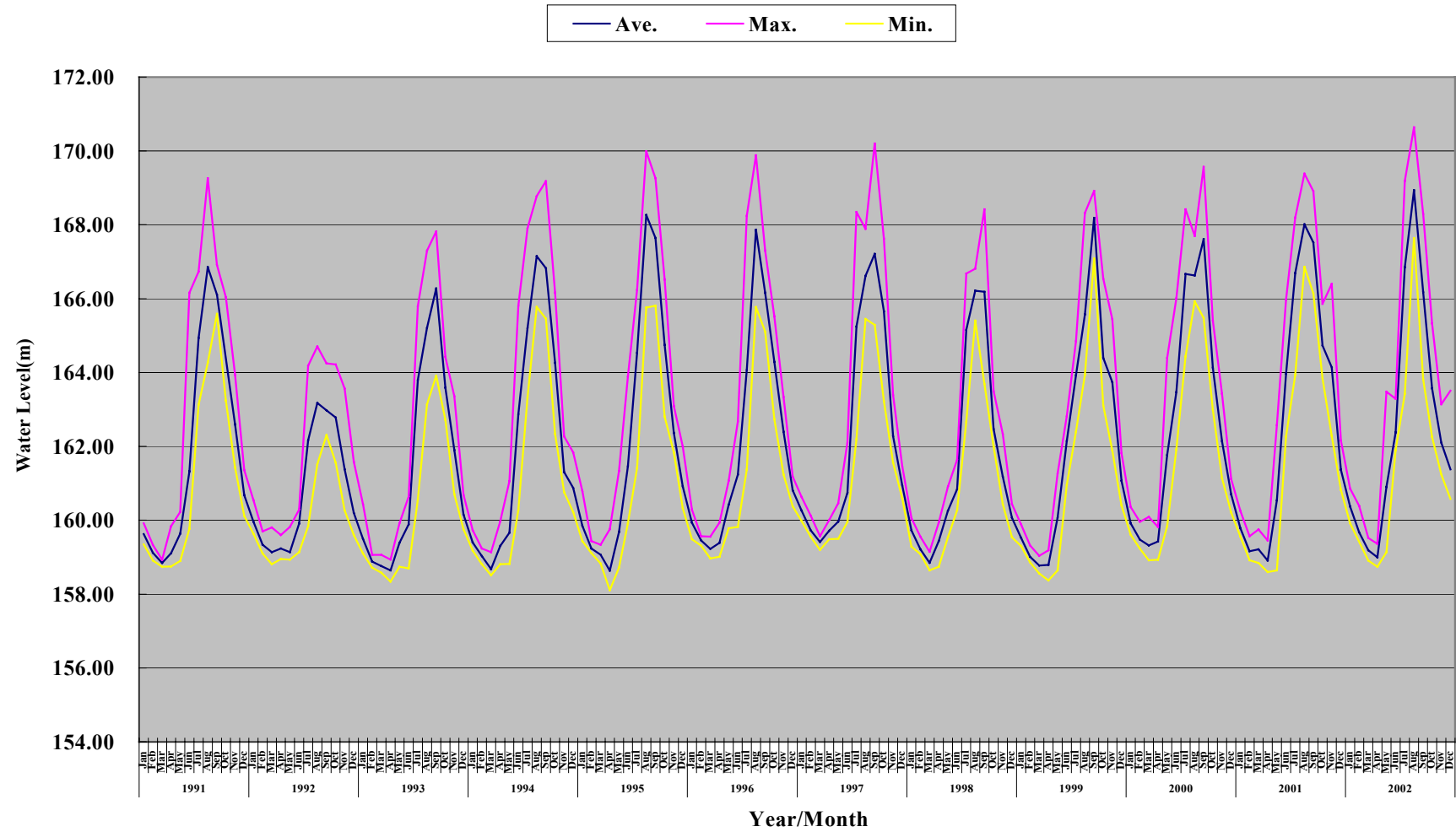
River Name: Mekong  
 Gauge and Datum: 158.040 m above M.S.L. Ko Lak datum.  
 Observed Item: W.L. Discharge Measurement, Sediment, W  
 Started Date: W.L. 1895

**WATER LEVEL HISTORICAL of Mekong at Vientiane**

Day	YEAR											
	2002											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	160.74	160.39	159.52	159.00	159.14	162.36	163.58	168.34	167.90	163.78	162.74	161.49
2	160.58	160.31	159.40	158.94	159.36	162.56	163.49	168.44	167.64	164.06	162.84	161.72
3	160.44	160.24	159.36	158.89	159.44	162.61	163.42	168.34	167.54	164.46	163.04	163.51
4	160.44	160.14	159.32	158.89	159.42	162.59	163.66	168.84	167.69	164.56	163.14	163.30
5	160.54	159.90	159.24	159.00	159.26	162.44	164.90	169.44	168.06	164.84	163.06	162.90
6	160.79	159.74	159.31	159.06	159.16	162.29	164.74	169.34	168.3	165.24	162.79	162.5
7	160.84	159.69	159.34	159.08	159.14	162.12	164.62	169.28	168.24	165.33	162.54	162.16
8	160.86	159.69	159.41	158.96	159.30	162.02	164.76	169.34	168.19	165.22	162.56	162.01
9	160.86	159.77	159.44	158.91	159.44	162.02	165.34	169.34	167.70	165.24	162.67	161.59
10	160.74	159.74	159.39	158.89	159.50	162.04	166.56	168.94	167.39	165.16	162.72	161.32
11	160.49	159.69	159.31	158.88	159.34	162.16	166.32	168.46	167.01	164.82	162.72	161.14
12	160.37	159.64	159.21	158.80	159.30	162.04	166.59	168.02	166.56	164.46	162.57	161.04
13	160.37	159.56	159.14	158.74	159.48	161.96	166.59	167.64	166.14	164.12	162.40	161.00
14	160.34	159.54	159.21	158.76	159.80	161.92	167.26	167.64	165.71	163.78	162.26	161.02
15	160.24	159.51	159.26	158.78	160.10	161.90	167.44	167.94	165.49	163.54	162.04	161.19
16	160.14	159.52	159.06	158.81	160.28	162.88	167.72	168.60	165.36	163.36	161.84	161.19
17	160.18	159.52	158.91	158.84	160.40	163.26	167.99	168.92	165.24	163.12	161.77	161.34
18	160.34	159.52	159.04	158.94	160.51	163.12	168.39	168.98	165.52	162.91	161.70	161.36
19	160.46	159.49	159.14	159.01	161.02	163.00	168.44	169.32	165.84	162.79	161.66	161.24
20	160.44	159.51	159.04	159.10	162.24	162.67	168.40	170.22	165.96	162.66	161.62	161.18
21	160.29	159.51	159.14	159.24	162.74	162.38	168.22	170.64	165.97	162.52	161.56	160.96
22	160.17	159.50	159.14	159.36	162.94	162.30	168.06	170.44	165.68	162.44	161.60	160.87
23	160.12	159.49	159.09	159.36	162.84	162.26	168.92	170.19	165.44	162.42	161.60	160.82
24	160.09	159.46	158.99	159.34	162.96	162.17	169.19	170.04	165.14	162.36	161.54	160.78
25	160.04	159.42	158.94	159.19	163.39	162.14	169.00	169.86	164.87	162.26	161.47	160.74
26	159.94	159.42	159.04	159.08	163.48	162.12	168.71	169.38	164.64	162.30	161.39	160.74
27	159.92	159.50	159.11	159.02	163.42	162.07	168.34	168.72	164.37	162.36	161.34	160.72
28	160.04	159.56	159.09	159.02	163.18	162.14	167.92	168.29	164.12	162.47	161.30	160.58
29	160.09		159.07	159.03	162.75	162.54	167.72	168.04	163.84	162.53	161.24	160.64
30	160.18		159.05	159.03	162.41	163.29	167.92	168.04	163.82	162.67	161.26	160.78
31	160.44		159.04		162.24		168.10	168.07		162.76		161.02
Mean	160.37	159.68	159.19	159.00	160.90	162.38	166.85	168.94	166.18	163.57	162.10	161.38
Max.	160.86	160.39	159.52	159.36	163.48	163.29	169.19	170.64	168.30	165.33	163.14	163.51
Min.	159.92	159.42	158.91	158.74	159.14	161.90	163.42	167.64	163.82	162.26	161.24	160.58



**Fluctuation of Water Level in Mekong River (1991-2002)**





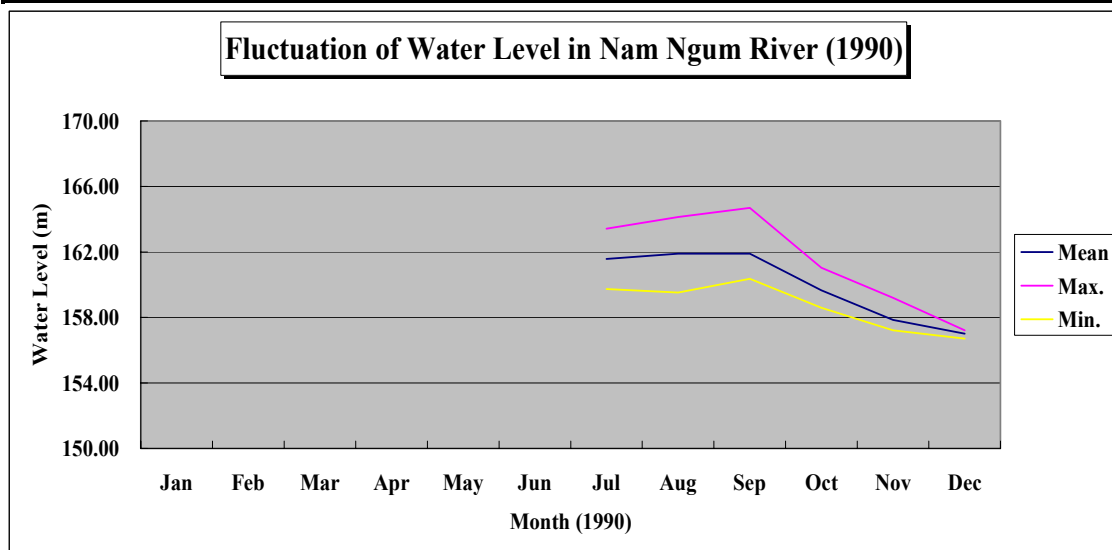
## **2. RECORD OF WATER LEVEL OF THE NAM NGUM RIVER**

Station Name: Veunekham Muang Saythany  
 Latitude; 018° 11' 00" N  
 Longitude; 102° 37' 00" E on the right bank at the river  
 Managing Agency: Department of Meteorology and Hydrology(M.A.F)  
 Drainage Area: 15,230 Km<sup>2</sup>

River Name: Nam Ngum  
 Gauge and Datum: 154.32 m (Altitude)  
 Observed Item: W.L. Discharge Measurement,  
 Started Date: 1989

**WATER LEVEL HISTORICAL of Nam Ngum at Veunekham**

Day	YEAR											
	1990											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1							161.66	163.35	161.47	160.11	158.50	157.21
2							161.02	163.84	161.52	160.39	159.20	157.19
3							160.63	164.13	161.30	160.45	158.11	157.17
4							161.10	164.04	161.01	160.21	158.04	157.15
5							160.77	164.08	160.80	159.96	158.00	157.13
6							161.75	163.91	160.76	159.37	157.95	157.11
7							162.92	163.57	160.94	160.01	157.98	157.10
8							163.42	162.72	161.13	160.43	158.03	157.10
9							163.10	163.03	161.07	161.04	158.53	157.06
10							163.23	162.96	161.03	161.01	158.47	157.09
11							162.84	162.96	161.55	160.84	158.49	157.08
12							162.37	162.43	162.60	160.64	158.32	157.15
13							161.57	162.38	163.93	160.35	158.08	157.20
14							160.96	162.33	164.70	160.11	157.96	157.07
15							160.52	161.97	164.38	160.03	157.87	157.01
16							159.87	161.67	163.90	159.95	157.79	157.04
17							160.48	161.39	163.69	159.77	157.72	157.05
18							159.73	161.16	163.31	159.59	157.67	157.02
19							159.90	160.85	162.78	158.88	157.62	157.00
20							159.82	160.60	161.95	159.21	157.56	156.99
21							160.01	159.88	162.46	159.03	157.51	157.00
22							160.73	160.09	162.31	158.92	157.43	156.99
23							161.55	159.77	161.87	158.82	157.40	156.97
24							161.69	159.57	161.44	158.73	157.41	156.92
25							161.95	159.52	161.28	158.69	157.36	156.94
26							162.16	160.95	161.06	158.88	157.33	156.79
27							162.38	161.09	160.86	159.20	157.30	156.74
28							162.49	161.15	160.71	159.00	157.27	156.74
29							162.47	161.10	160.68	158.78	157.24	156.77
30							162.60	161.24	160.37	158.59	157.22	156.72
31							162.93	161.32		158.60		156.71
Mean							161.57	161.90	161.90	159.66	157.85	157.01
Max.							163.42	164.13	164.70	161.04	159.20	157.21
Min.							159.73	159.52	160.37	158.59	157.22	156.71

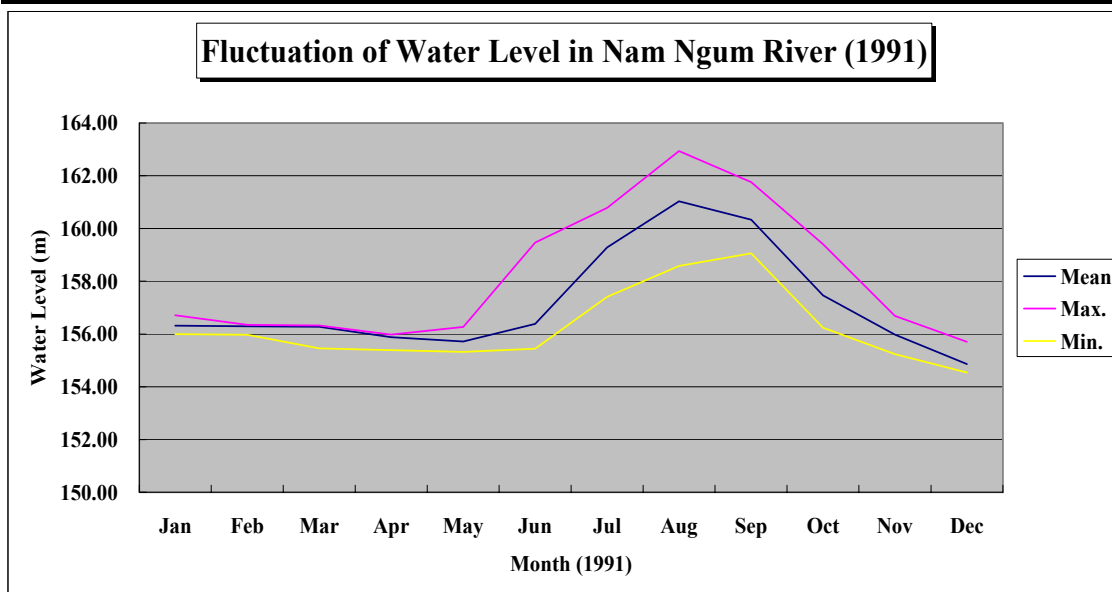


Station Name: Veunekham Muang Saythany  
 Latitude: 018° 11' 00" N  
 Longitude: 102° 37' 00" E on the right bank at the river  
 Managing Agency: Department of Meteorology and Hydrology(M.A.F)  
 Drainage Area: 15,230 Km<sup>2</sup>

River Name: Nam Ngum  
 Gauge and Datum: 154.32 m (Altitude)  
 Observed Item: W.L. Discharge Measurement,  
 Started Date: 1989

**WATER LEVEL HISTORICAL of Nam Ngum at Veunekham**

Day	YEAR											
	1991											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	156.71	155.97	156.32	155.39	155.78	155.71	159.24	158.85	161.38	159.39	156.69	155.22
2	156.70	156.07	156.33	155.51	155.72	155.50	159.00	158.58	160.93	159.41	156.50	155.22
3	156.68	156.31	156.33	155.68	155.32	155.44	158.86	158.75	160.61	159.39	156.33	155.18
4	156.63	156.35	156.32	155.93	155.68	155.52	158.92	159.64	160.32	159.22	156.26	154.99
5	156.59	156.34	156.32	155.94	155.66	155.46	159.65	159.19	160.36	159.07	156.15	154.94
6	156.58	156.34	156.31	155.94	155.66	155.88	159.55	159.07	160.36	158.97	156.11	154.94
7	156.57	156.34	156.30	155.94	155.60	156.14	158.79	159.39	160.38	158.76	156.29	154.92
8	156.61	156.34	156.29	155.94	155.58	156.28	158.25	160.20	160.27	158.44	156.08	154.90
9	156.64	156.32	156.29	155.94	155.58	156.33	157.85	161.07	159.93	158.38	156.15	154.88
10	156.63	156.33	156.29	155.94	155.80	156.65	157.65	161.02	159.66	158.19	156.38	154.86
11	156.59	156.33	156.29	155.94	155.80	156.44	157.49	160.80	159.74	157.77	156.47	154.80
12	156.54	156.33	156.29	155.92	155.69	156.10	157.41	160.85	160.32	158.46	156.45	154.80
13	156.54	156.33	156.29	155.91	155.66	156.03	158.27	160.99	160.08	157.20	156.40	154.71
14	156.54	156.32	156.33	155.91	155.65	155.98	158.31	159.83	159.83	157.01	156.25	154.77
15	156.41	156.32	156.33	155.91	155.63	156.05	158.36	160.19	159.83	156.88	156.27	154.78
16	156.31	156.32	156.32	155.93	155.57	155.95	158.98	161.15	160.11	156.86	156.16	155.52
17	156.14	156.32	156.30	155.92	155.65	155.88	160.59	161.64	160.04	156.76	155.95	155.70
18	156.07	156.31	156.30	155.92	155.71	155.92	160.78	161.93	160.47	156.70	155.85	154.74
19	156.03	156.30	156.30	155.92	155.74	156.28	160.29	162.06	161.39	156.68	155.81	155.18
20	156.07	156.30	156.30	155.93	155.75	156.30	159.93	162.08	161.76	156.64	155.75	155.10
21	156.08	156.30	156.30	155.93	155.75	156.21	159.77	162.20	161.53	156.58	155.73	154.75
22	156.07	156.29	156.30	155.98	155.71	156.14	159.78	162.29	161.13	156.45	155.65	154.59
23	156.03	156.29	156.30	155.97	155.57	156.10	159.77	162.19	161.09	156.39	155.64	154.58
24	156.01	156.28	156.30	155.95	155.60	156.15	159.76	161.91	160.65	156.30	155.58	154.56
25	156.00	156.28	156.30	155.91	155.69	156.40	159.77	161.76	160.83	156.26	155.59	154.56
26	156.01	156.28	156.30	155.88	155.78	156.74	160.29	162.49	160.25	156.24	155.58	154.56
27	156.02	156.31	156.30	155.88	155.85	157.03	160.70	162.94	159.41	156.49	155.51	154.55
28	156.02	156.32	156.30	155.87	155.92	158.12	160.39	162.77	159.18	156.58	155.34	154.56
29	156.04		156.30	155.94	156.27	159.40	159.90	162.39	159.06	156.60	155.29	154.58
30	156.04		156.30	155.84	156.27	159.47	159.60	162.07	159.26	156.68	155.24	154.57
31	156.03		155.46		155.77		159.76	161.77		156.74		154.54
Mean	156.32	156.29	156.28	155.88	155.72	156.39	159.28	161.03	160.34	157.47	155.98	154.86
Max.	156.71	156.35	156.33	155.98	156.27	159.47	160.78	162.94	161.76	159.41	156.69	155.70
Min.	156.00	155.97	155.46	155.39	155.32	155.44	157.41	158.58	159.06	156.24	155.24	154.54

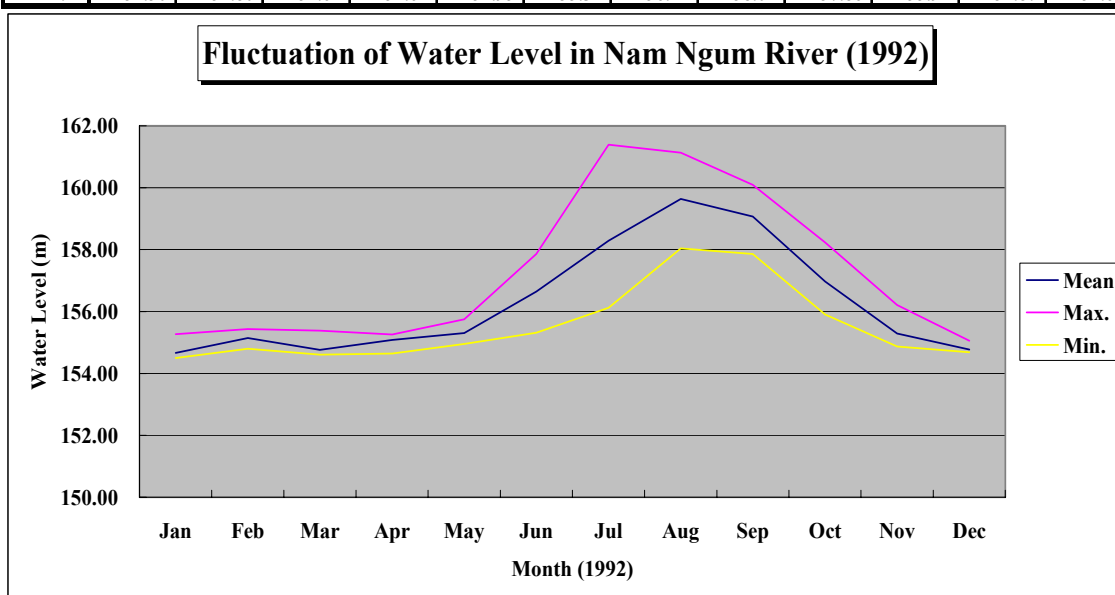


Station Name: Veunekham Muang Saythany  
 Latitude: 018° 11' 00" N  
 Longitude: 102° 37' 00" E on the right bank at the river  
 Managing Agency: Department of Meteorology and Hydrology(M.A.F)  
 Drainage Area: 15,230 Km<sup>2</sup>

River Name: Nam Ngum  
 Gauge and Datum: 154.32 m (Altitude)  
 Observed Item: W.L. Discharge Measurement,  
 Started Date: 1989

**WATER LEVEL HISTORICAL of Nam Ngum at Veunekham**

Day	YEAR											
	1992											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	154.54	155.23	155.38	154.68	155.16	155.34	156.75	160.01	159.66	158.13	156.21	154.86
2	154.52	155.24	155.30	154.64	155.16	155.34	156.50	160.13	160.09	158.19	155.98	154.84
3	154.55	155.20	155.25	154.66	155.18	155.32	156.34	160.24	159.95	158.23	155.78	154.84
4	154.59	155.26	155.10	154.68	155.14	155.36	156.29	160.11	159.48	158.10	155.59	154.83
5	154.65	155.22	154.70	154.67	155.17	155.81	156.20	160.87	159.19	157.81	155.56	154.84
6	154.65	155.22	154.65	155.12	155.13	155.99	156.12	161.13	158.99	157.84	155.45	154.84
7	154.66	155.22	154.63	155.20	155.16	156.50	156.13	160.92	159.38	157.86	155.43	154.80
8	154.57	155.21	154.65	155.15	155.18	156.50	156.16	160.81	159.38	157.77	155.48	154.77
9	154.57	155.22	154.65	155.08	155.12	156.43	156.30	160.48	159.40	157.55	155.34	154.75
10	154.58	155.19	154.65	155.15	155.16	156.41	156.73	160.09	159.47	157.37	155.29	154.74
11	154.62	155.17	154.65	155.16	155.22	156.13	158.80	159.81	159.78	156.82	155.33	154.75
12	154.59	155.18	154.65	155.15	155.28	156.02	158.60	159.64	159.19	156.58	155.23	154.72
13	154.65	155.18	154.93	155.18	155.21	156.08	158.11	159.57	158.77	156.95	155.17	154.73
14	154.75	155.18	154.76	155.19	155.24	156.75	158.11	160.06	158.65	156.98	155.10	154.76
15	154.66	155.17	154.65	155.17	155.23	157.25	159.64	160.28	158.66	156.86	155.02	154.73
16	154.63	155.18	154.62	155.16	155.23	157.69	160.24	160.14	158.97	156.77	155.28	154.71
17	154.62	155.16	154.61	155.14	154.98	157.82	159.47	160.49	159.23	156.71	155.06	154.71
18	154.59	154.93	155.02	155.15	154.95	157.84	158.79	159.69	159.30	156.11	155.28	154.71
19	154.55	154.82	155.16	155.14	155.50	157.59	158.17	159.77	159.14	155.97	155.39	154.70
20	154.57	154.80	154.72	155.17	155.70	157.64	157.86	159.29	158.67	155.93	155.40	154.69
21	154.56	154.81	154.62	155.18	155.38	157.86	157.50	158.84	158.57	156.02	155.34	154.71
22	154.55	154.95	154.62	155.19	155.30	157.56	157.36	158.42	159.04	156.44	155.20	154.72
23	154.50	155.15	154.62	155.17	155.27	157.22	157.70	158.12	159.15	156.55	155.02	154.72
24	154.51	155.19	154.64	155.16	155.35	157.11	159.51	158.32	158.90	156.38	154.97	154.74
25	154.51	155.18	154.61	155.17	155.41	156.99	160.30	158.04	159.08	156.41	154.96	154.74
26	154.51	155.19	154.63	155.17	155.75	156.69	160.91	158.14	159.13	156.95	155.05	154.89
27	154.51	155.27	154.68	155.17	155.68	156.50	161.39	158.37	159.13	156.84	154.97	155.06
28	155.08	155.15	154.66	155.26	155.59	156.34	160.78	159.16	158.13	156.94	154.95	154.86
29	155.21	155.43	154.70	155.23	155.59	156.36	160.29	159.33	157.86	157.04	154.93	154.75
30	155.25		154.65	155.17	155.53	156.91	159.96	159.17	157.88	155.91	154.87	154.72
31	155.27		154.64		155.43		159.95	159.33		156.04		154.72
Mean	154.66	155.15	154.77	155.08	155.30	156.65	158.29	159.64	159.07	156.97	155.29	154.77
Max.	155.27	155.43	155.38	155.26	155.75	157.86	161.39	161.13	160.09	158.23	156.21	155.06
Min.	154.50	154.80	154.61	154.64	154.95	155.32	156.12	158.04	157.86	155.91	154.87	154.69

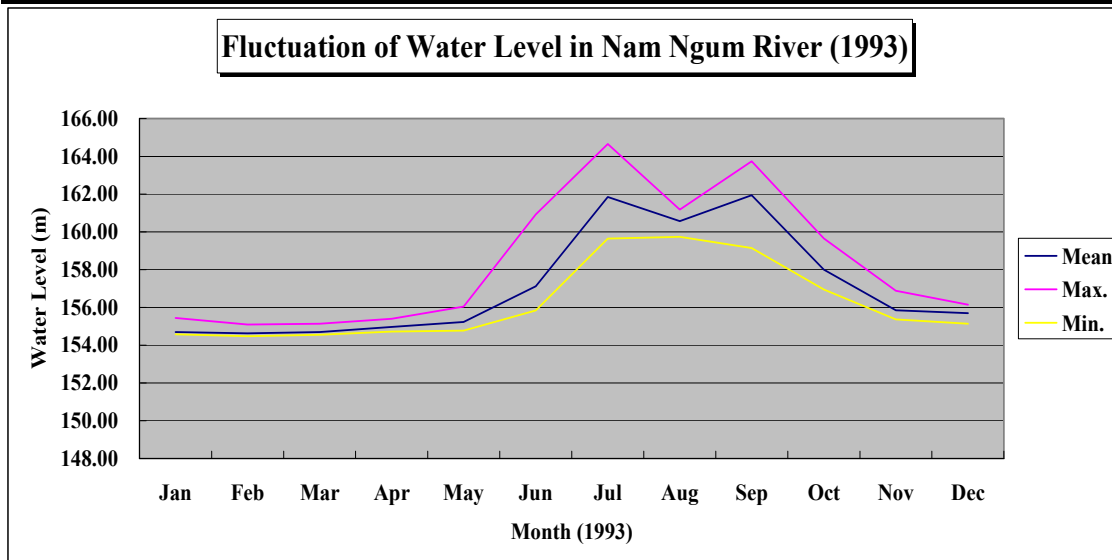


Station Name: Veunekham Muang Saythany  
 Latitude; 018° 11' 00" N  
 Longitude; 102° 37' 00" E on the right bank at the river  
 Managing Agency: Department of Meteorology and Hydrology(M.A.F)  
 Drainage Area: 15,230 Km<sup>2</sup>

River Name: Nam Ngum  
 Gauge and Datum: 154.32 m (Altitude)  
 Observed Item: W.L. Discharge Measurement,  
 Started Date: 1989

**WATER LEVEL HISTORICAL of Nam Ngum at Veunekham**

Day	YEAR											
	1993											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	154.71	154.53	154.55	154.76	155.61	157.01	162.39	161.08	162.08	159.58	156.88	155.37
2	154.69	154.49	154.59	154.80	155.08	156.49	162.79	160.78	161.79	159.65	156.83	155.34
3	154.66	154.48	154.63	154.93	154.86	156.02	161.77	160.22	161.71	159.59	156.23	155.34
4	154.66	154.52	155.00	154.90	154.85	155.84	160.92	160.29	161.72	159.18	156.12	155.34
5	154.65	154.60	154.76	154.89	154.96	155.88	161.07	160.26	161.90	159.07	156.13	155.32
6	154.61	154.54	154.61	154.84	154.92	155.85	160.28	160.26	161.66	158.93	156.16	155.28
7	154.76	154.62	154.55	154.86	155.00	155.87	160.96	160.62	161.79	158.85	156.15	155.49
8	154.76	154.58	154.56	154.86	154.94	156.84	161.58	160.78	161.76	158.69	156.09	155.59
9	154.73	154.55	154.60	154.86	154.77	156.42	161.29	160.75	161.70	158.50	156.03	156.03
10	154.81	154.57	155.13	154.85	154.84	156.86	160.51	160.71	161.60	158.37	155.98	156.04
11	154.64	154.58	154.82	154.84	155.04	156.80	159.98	160.61	161.79	158.43	155.97	156.02
12	154.59	154.60	154.72	154.99	155.20	157.59	159.64	160.15	162.24	158.36	155.97	155.39
13	154.58	154.54	154.71	155.00	155.26	157.64	160.54	159.85	163.12	158.17	155.91	155.14
14	154.67	154.59	154.63	155.00	155.07	157.50	162.33	159.74	163.37	158.08	155.89	155.82
15	154.84	154.59	154.61	155.01	155.17	157.30	163.12	159.93	163.02	157.85	155.88	156.14
16	155.03	154.59	154.66	155.01	155.12	157.07	163.76	160.02	162.47	157.80	155.79	156.07
17	155.44	155.10	154.64	155.01	154.96	156.89	164.47	159.93	162.22	157.66	155.72	156.02
18	154.83	155.08	154.69	154.98	154.93	156.70	164.65	160.72	162.62	157.60	155.70	155.84
19	154.64	154.98	154.72	154.97	154.90	156.45	164.27	160.88	163.57	157.51	155.61	155.34
20	154.64	154.79	154.99	155.02	155.15	156.33	163.82	160.79	163.74	157.41	155.60	155.27
21	154.63	154.65	154.88	155.10	155.47	156.29	163.15	160.61	163.30	157.34	155.59	155.72
22	154.64	154.59	154.74	155.20	155.37	156.25	162.54	160.35	162.58	157.38	155.53	155.72
23	154.61	154.59	154.72	155.22	155.34	156.33	162.14	160.40	162.14	157.50	155.52	155.74
24	154.61	154.59	154.69	155.12	155.58	156.65	161.46	160.86	161.74	157.50	155.51	155.82
25	154.59	154.59	154.74	155.07	155.82	157.67	161.20	161.16	161.33	157.13	155.51	155.84
26	154.60	154.56	154.64	154.99	155.76	158.36	161.18	161.17	161.08	157.09	155.51	155.88
27	154.65	154.57	154.62	154.79	155.58	158.13	161.15	161.08	160.74	156.98	155.45	155.92
28	154.66	154.55	154.63	154.72	155.50	159.18	161.08	161.00	160.42	156.97	155.42	155.90
29	154.63		154.63	154.77	155.55	160.26	160.99	160.90	159.80	156.94	155.38	155.82
30	154.60		154.65	155.40	155.67	160.92	160.93	160.92	159.15	156.94	155.37	155.85
31	154.59		154.68		156.05		161.14	160.95		156.94		155.92
Mean	154.70	154.63	154.70	154.96	155.24	157.11	161.84	160.57	161.94	158.00	155.85	155.69
Max.	155.44	155.10	155.13	155.40	156.05	160.92	164.65	161.17	163.74	159.65	156.88	156.14
Min.	154.58	154.48	154.55	154.72	154.77	155.84	159.64	159.74	159.15	156.94	155.37	155.14

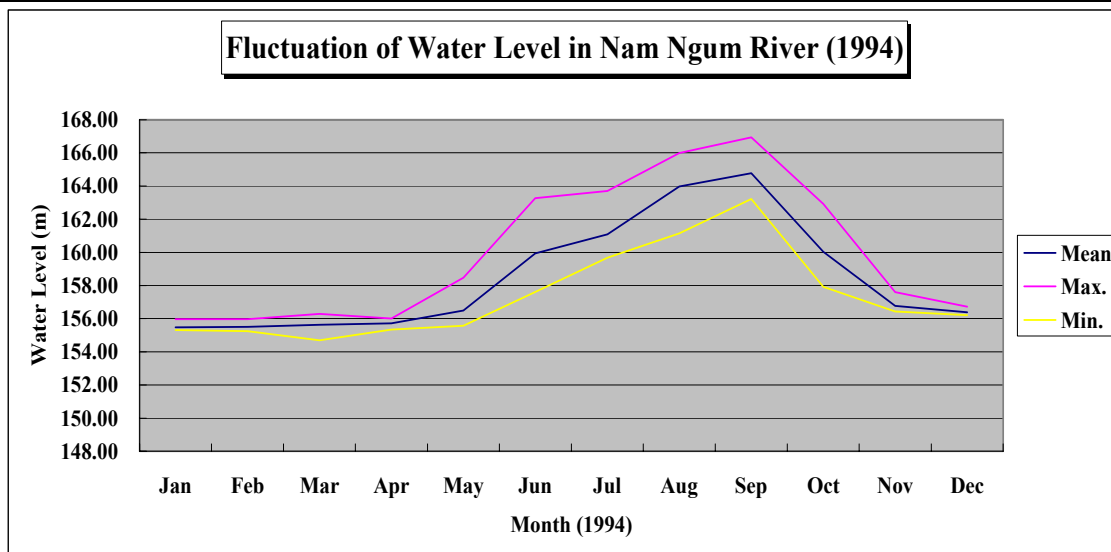


Station Name: Veunekham Muang Saythany  
 Latitude; 018° 11' 00" N  
 Longitude; 102° 37' 00" E on the right bank at the river  
 Managing Agency: Department of Meteorology and Hydrology(M.A.F)  
 Drainage Area: 15,230 Km<sup>2</sup>

River Name: Nam Ngum  
 Gauge and Datum: 154.32 m (Altitude)  
 Observed Item: W.L. Discharge Measurement,  
 Started Date: 1989

**WATER LEVEL HISTORICAL of Nam Ngum at Veunekham**

Day	YEAR											
	1994											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	155.92	155.83	155.32	156.00	155.64	157.74	160.93	161.66	166.21	162.92	157.60	156.68
2	155.92	155.82	155.33	155.92	155.60	158.07	160.97	162.66	166.34	162.58	157.24	156.67
3	155.88	155.82	155.32	155.89	155.60	158.03	160.95	162.95	166.33	162.24	157.17	156.73
4	155.42	155.90	155.31	155.71	155.72	157.70	160.47	163.58	166.26	161.88	157.01	156.56
5	155.45	155.97	155.68	155.63	155.64	157.61	160.22	164.37	166.14	161.52	156.97	156.50
6	155.42	155.93	155.74	155.64	155.59	158.17	159.83	164.16	166.94	161.20	157.00	156.50
7	155.46	155.94	155.77	155.64	155.58	159.56	159.68	163.82	165.71	160.91	156.82	156.50
8	155.43	155.90	154.69	155.68	155.57	160.02	160.15	163.53	165.43	160.65	156.86	156.46
9	155.43	155.62	155.28	155.77	155.66	160.62	159.95	163.23	165.22	160.40	156.88	156.46
10	155.37	155.35	155.30	155.81	155.87	162.18	159.94	162.88	165.00	160.20	156.88	156.42
11	155.34	155.35	155.42	155.76	156.33	163.08	161.31	162.52	164.77	160.09	156.84	156.40
12	155.33	155.46	155.23	155.65	156.36	163.27	161.80	162.11	164.57	160.00	156.84	156.38
13	155.34	155.46	155.19	155.62	156.53	163.17	161.27	161.64	164.24	160.00	156.78	156.38
14	155.31	155.33	155.72	155.63	156.59	161.90	160.70	161.29	163.89	160.10	156.78	156.31
15	155.34	155.33	155.67	155.69	156.43	160.98	160.38	161.15	163.61	160.42	156.72	156.35
16	155.42	155.34	155.68	155.86	156.31	160.25	160.71	161.28	163.70	160.60	156.67	156.35
17	155.32	155.38	155.81	155.87	156.24	159.68	161.75	162.60	163.91	160.48	156.68	156.32
18	155.41	155.39	155.84	155.86	156.24	159.10	163.08	163.87	164.10	160.12	156.64	156.27
19	155.42	155.35	155.79	155.84	156.49	158.70	163.71	164.64	164.25	159.84	156.64	156.31
20	155.45	155.33	155.67	155.82	156.85	158.56	163.64	165.22	164.56	159.60	156.64	156.31
21	155.44	155.32	155.67	155.74	157.07	158.84	163.27	165.58	164.55	159.51	156.65	156.25
22	155.44	155.32	155.67	155.57	157.54	159.06	162.85	165.80	164.53	159.34	156.62	156.28
23	155.43	155.31	155.73	155.34	158.47	158.94	161.90	165.92	165.16	159.14	156.58	156.28
24	155.41	155.28	155.79	155.34	158.29	159.33	161.57	165.99	164.65	158.97	156.50	156.28
25	155.40	155.24	155.89	155.65	157.83	159.95	161.08	165.98	164.54	158.66	156.45	156.27
26	155.38	155.26	155.87	155.67	156.71	160.17	160.67	165.88	164.36	158.50	156.62	156.27
27	155.35	155.32	155.86	155.65	156.35	160.62	160.24	165.79	163.94	158.39	156.50	156.25
28	155.37	155.32	155.87	155.65	156.62	160.97	159.99	165.71	163.65	158.34	156.44	156.22
29	155.54		156.22	155.68	157.28	161.02	159.90	165.60	163.48	158.31	156.44	156.22
30	155.97		156.28	155.68	156.83	160.94	160.09	165.61	163.22	158.18	156.50	156.24
31	155.82		156.10		157.43		160.57	165.97		157.92		156.23
Mean	155.48	155.51	155.64	155.71	156.49	159.94	161.08	163.97	164.78	160.03	156.77	156.38
Max.	155.97	155.97	156.28	156.00	158.47	163.27	163.71	165.99	166.94	162.92	157.60	156.73
Min.	155.31	155.24	154.69	155.34	155.57	157.61	159.68	161.15	163.22	157.92	156.44	156.22

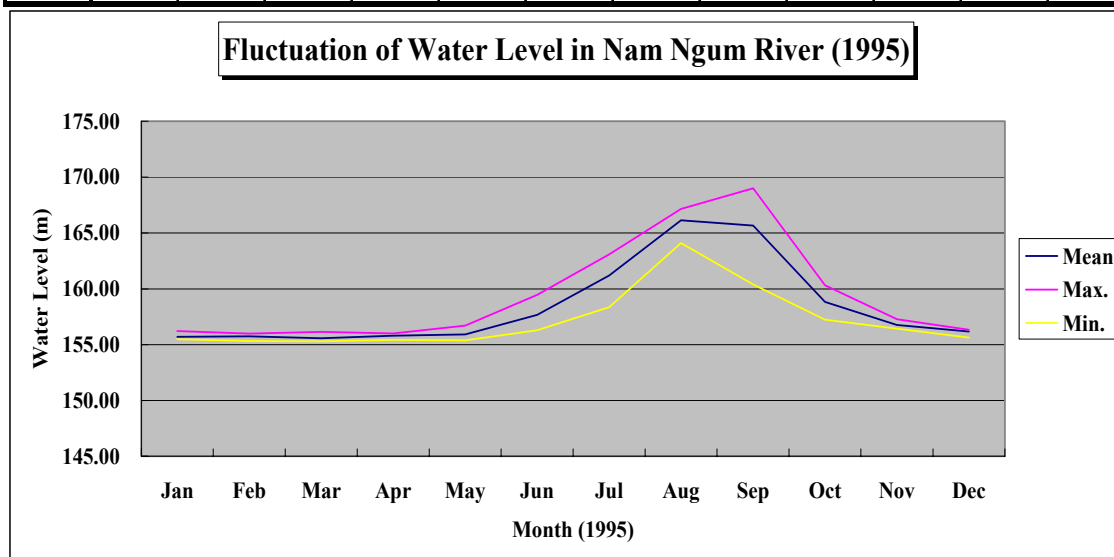


Station Name: Veunekham Muang Saythany  
 Latitude; 018° 11' 00" N  
 Longitude; 102° 37' 00" E on the right bank at the river  
 Managing Agency: Department of Meteorology and Hydrology(M.A.F)  
 Drainage Area: 15,230 Km<sup>2</sup>

River Name: Nam Ngum  
 Gauge and Datum: 154.32 m (Altitude)  
 Observed Item: W.L. Discharge Measurement,  
 Started Date: 1989

**WATER LEVEL HISTORICAL of Nam Ngum at Veunekham**

Day	YEAR											
	1995											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	156.21	155.89	155.91	155.93	155.56	156.29	158.60	164.11	166.59	160.30	157.28	156.32
2	156.18	155.99	155.66	155.85	155.38	156.33	158.50	164.87	167.05	160.25	157.14	156.30
3	156.18	155.83	155.67	155.72	155.39	156.44	158.34	165.03	167.67	160.18	157.07	156.31
4	156.14	155.71	155.64	155.73	155.39	156.35	159.47	164.81	168.38	160.06	157.05	156.28
5	155.85	155.83	155.43	155.70	155.41	156.78	159.82	164.62	168.80	160.01	157.00	156.26
6	155.71	155.80	155.42	155.73	155.43	156.91	160.17	165.18	168.95	160.20	156.99	156.25
7	155.68	155.79	155.42	155.81	155.44	157.26	161.52	165.97	169.00	160.32	156.89	156.20
8	155.67	155.73	155.43	155.84	155.45	157.15	161.37	166.44	169.00	160.20	156.80	156.07
9	155.64	155.66	155.43	155.85	155.48	157.28	161.34	166.90	168.87	160.09	156.73	156.17
10	155.63	155.60	155.34	155.79	155.50	157.65	161.70	166.57	168.64	159.92	156.96	156.24
11	155.61	155.32	155.32	155.74	155.46	157.91	161.39	166.53	168.36	159.64	156.67	156.21
12	155.61	155.61	155.32	155.77	155.58	158.04	160.69	166.42	168.06	159.44	156.68	156.21
13	155.61	155.69	155.30	155.78	155.80	158.50	160.17	166.34	167.81	159.02	156.66	156.25
14	155.54	155.72	155.33	155.90	155.77	159.43	159.97	166.49	167.52	158.66	156.87	156.22
15	155.52	155.73	155.45	155.94	155.80	159.46	160.27	166.66	167.10	158.54	156.64	156.24
16	155.53	155.72	155.48	155.98	155.72	158.86	161.21	166.86	166.73	158.67	157.04	156.24
17	155.53	155.73	155.46	156.01	156.71	158.38	162.34	167.02	166.28	158.72	157.01	156.22
18	155.52	155.72	155.47	156.00	156.46	157.95	162.78	167.14	165.84	158.46	156.79	156.24
19	155.53	155.70	155.49	155.99	156.60	157.66	162.59	167.13	165.31	159.12	156.80	156.22
20	155.51	155.57	155.47	155.96	156.62	157.74	161.94	167.08	164.68	158.12	156.81	156.20
21	155.51	155.39	155.44	155.96	156.44	158.10	161.35	167.00	163.89	157.96	156.62	156.16
22	155.51	155.65	155.44	155.93	156.32	158.04	161.30	166.94	163.28	157.78	156.64	156.13
23	155.50	155.70	155.43	155.95	156.24	157.85	161.06	166.76	162.76	157.64	156.48	156.16
24	155.49	155.70	155.49	155.97	156.16	157.64	161.12	166.55	162.26	157.86	156.48	156.18
25	155.50	155.93	155.62	155.74	156.14	157.42	161.47	166.30	161.96	157.68	156.48	156.13
26	155.48	155.90	155.88	155.48	156.12	157.58	162.20	165.70	161.70	157.52	156.45	156.12
27	155.49	155.89	155.95	155.47	156.12	157.72	162.50	166.02	161.35	157.47	156.45	156.03
28	155.79	155.84	155.87	155.45	156.13	157.36	162.93	165.78	160.96	157.88	156.44	155.94
29	156.07		155.94	155.45	156.19	157.80	162.85	165.59	160.60	157.28	156.45	155.94
30	156.01		156.14	155.42	156.20	158.17	163.07	165.50	160.39	157.25	156.46	155.63
31	155.90		155.89		156.22		162.81	166.12		157.24		155.84
Mean	155.70	155.73	155.57	155.79	155.91	157.67	161.19	166.14	165.66	158.82	156.76	156.16
Max.	156.21	155.99	156.14	156.01	156.71	159.46	163.07	167.14	169.00	160.32	157.28	156.32
Min.	155.48	155.32	155.30	155.42	155.38	156.29	158.34	164.11	160.39	157.24	156.44	155.63

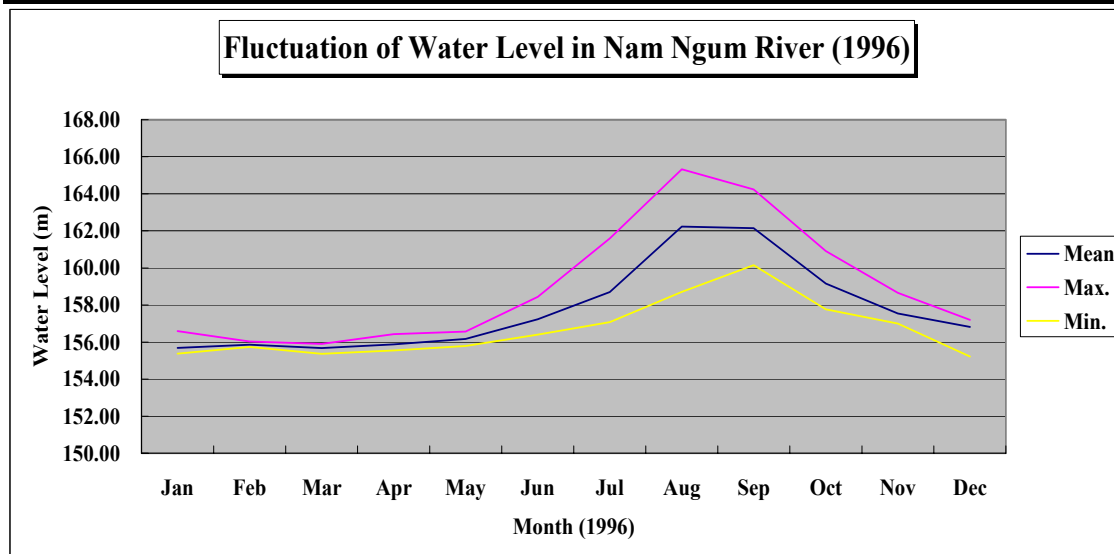


Station Name: Veunekham Muang Saythany  
 Latitude; 018° 11' 00" N  
 Longitude; 102° 37' 00" E on the right bank at the river  
 Managing Agency: Department of Meteorology and Hydrology(M.A.F)  
 Drainage Area: 15,230 Km<sup>2</sup>

River Name: Nam Ngum  
 Gauge and Datum: 154.32 m (Altitude)  
 Observed Item: W.L. Discharge Measurement,  
 Started Date: 1989

**WATER LEVEL HISTORICAL of Nam Ngum at Veunekham**

Day	YEAR																	
	1996	Mean	157.76	Max.	165.33	Min.	155.22	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
1	156.12	155.92	155.79	155.56	156.21	156.40	157.59	161.89	163.26	160.92	157.53	157.16						
2	156.19	155.90	155.75	155.55	155.94	156.40	157.29	161.79	163.44	160.35	157.27	157.19						
3	155.74	155.80	155.73	155.63	155.92	156.46	157.07	159.00	164.21	160.04	157.07	155.22						
4	155.64	155.84	155.74	155.65	156.17	156.56	157.15	158.71	164.23	159.35	157.04	157.20						
5	155.61	155.83	155.75	155.61	156.30	156.54	158.16	161.26	163.92	159.11	157.25	157.12						
6	155.61	155.80	155.74	155.64	156.16	156.54	158.69	161.69	163.42	159.20	157.75	157.11						
7	155.62	155.81	155.70	155.62	156.01	156.50	157.97	161.45	162.74	159.48	158.11	157.08						
8	155.64	155.81	155.69	155.64	155.96	156.60	157.83	161.05	162.44	159.77	158.20	157.09						
9	155.63	155.80	155.36	155.61	155.87	156.78	157.84	160.72	162.00	160.51	158.63	157.03						
10	155.58	155.80	155.73	155.59	155.88	156.82	157.91	160.31	161.43	160.76	158.66	156.88						
11	156.59	155.80	155.73	155.59	155.86	156.70	157.64	159.92	161.22	160.75	158.21	156.83						
12	155.53	155.78	155.77	155.93	155.81	156.58	157.63	159.68	161.02	160.39	158.09	157.02						
13	155.51	155.78	155.78	156.08	155.79	156.51	157.92	159.65	160.68	160.00	157.96	157.05						
14	155.50	155.77	155.88	156.08	155.78	156.77	158.15	160.69	160.30	159.68	157.79	156.94						
15	155.52	155.73	155.90	156.11	155.79	157.38	158.16	161.03	160.15	159.49	157.66	156.84						
16	155.51	155.73	155.89	156.09	156.00	157.59	158.08	161.62	160.31	159.33	157.78	156.82						
17	155.50	155.80	155.81	156.06	156.18	157.64	157.98	162.51	160.76	159.18	157.36	156.82						
18	155.56	155.88	155.88	155.74	156.11	157.72	158.08	162.78	161.28	159.02	157.22	156.86						
19	155.56	155.96	155.83	155.94	156.33	157.84	159.12	163.33	160.98	158.91	157.15	156.90						
20	155.49	155.98	155.86	156.08	156.37	158.14	159.52	163.91	161.16	158.67	157.14	156.91						
21	155.57	155.98	155.57	155.99	156.37	158.01	159.14	163.32	160.47	158.61	157.00	156.90						
22	155.52	156.01	155.46	156.36	156.38	158.44	158.74	163.59	161.79	158.54	157.14	156.91						
23	155.52	156.02	155.43	155.96	156.56	157.98	159.06	163.20	162.92	158.34	157.35	156.89						
24	155.50	156.03	155.45	155.79	156.42	157.56	159.18	163.96	163.68	158.20	157.36	156.86						
25	155.38	155.98	155.43	155.67	156.48	157.31	158.93	165.25	163.64	158.12	157.41	156.83						
26	155.71	155.88	155.43	155.62	156.45	157.76	159.38	165.33	163.32	158.04	157.34	156.87						
27	155.82	155.82	155.45	155.75	156.56	157.98	160.04	165.11	163.13	157.94	157.26	156.73						
28	155.85	155.82	155.51	156.28	156.56	157.96	161.16	164.76	162.70	157.77	157.26	156.29						
29	155.88	155.76	155.54	156.43	156.41	157.77	161.11	164.24	162.15	157.81	157.22	156.28						
30	155.92		155.59	156.38	156.38	157.77	161.29	163.69	161.53	157.79	157.21	156.27						
31	156.02		155.61		156.36		161.60	163.48		157.77		156.33						
Mean	155.69	155.86	155.67	155.87	156.17	157.23	158.69	162.22	162.14	159.16	157.55	156.81						
Max.	156.59	156.03	155.90	156.43	156.56	158.44	161.60	165.33	164.23	160.92	158.66	157.20						
Min.	155.38	155.73	155.36	155.55	155.78	156.40	157.07	158.71	160.15	157.77	157.00	155.22						



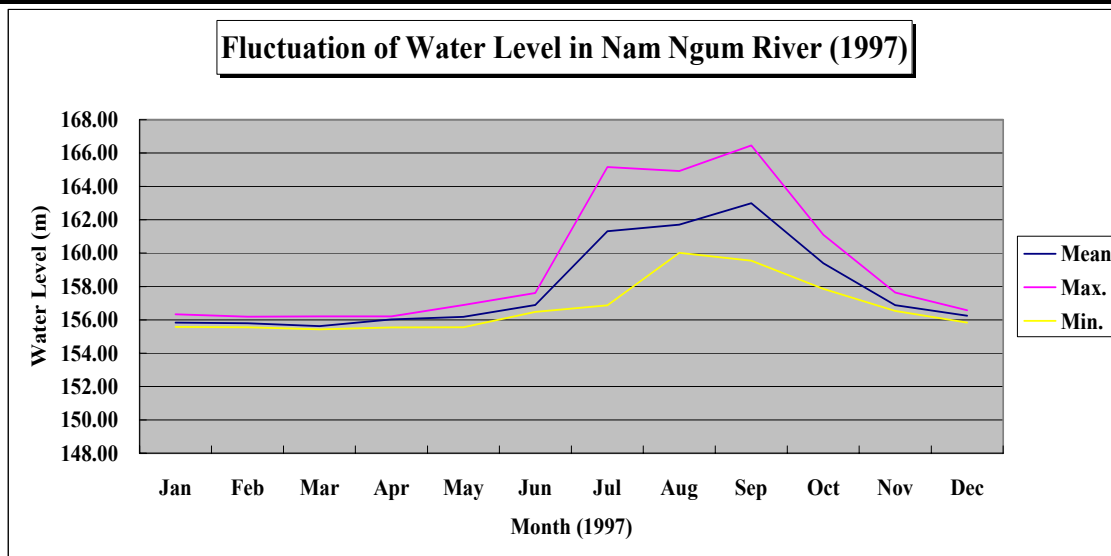


Station Name: Veunekham Muang Saythany  
 Latitude; 018° 11' 00" N  
 Longitude; 102° 37' 00" E on the right bank at the river  
 Managing Agency: Department of Meteorology and Hydrology(M.A.F)  
 Drainage Area: 15,230 Km<sup>2</sup>

River Name: Nam Ngum  
 Gauge and Datum: 154.32 m (Altitude)  
 Observed Item: W.L. Discharge Measurement,  
 Started Date: 1989

**WATER LEVEL HISTORICAL of Nam Ngum at Veunekham**

Day	YEAR											Mean	157.92
	1997											Max.	166.46
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Min.
1	156.32	155.90	155.63	156.21	155.56	156.73	156.87	164.92	163.19	159.84	157.64	156.56	
2	156.32	156.04	155.63	156.21	155.58	156.83	158.22	164.64	163.80	160.13	157.43	156.57	
3	156.22	156.05	155.60	156.21	155.57	156.87	159.65	164.35	164.74	160.52	157.20	156.55	
4	156.31	156.07	155.43	156.21	155.55	156.83	159.77	163.84	165.50	160.56	157.07	156.51	
5	156.33	156.04	155.43	156.19	155.58	156.88	159.19	163.57	165.94	160.56	157.12	156.45	
6	156.20	156.10	155.43	156.13	155.58	156.80	158.67	163.39	166.18	160.68	157.12	156.44	
7	156.31	156.15	155.51	156.15	155.57	156.74	158.47	162.97	166.41	160.83	157.12	156.41	
8	155.57	156.14	155.62	156.13	155.58	156.72	158.02	162.37	166.46	160.88	157.02	156.43	
9	155.72	156.19	155.62	156.14	155.60	156.71	157.90	161.86	166.39	161.11	156.97	156.40	
10	155.74	156.14	155.63	156.16	155.62	156.61	157.76	161.40	166.16	160.41	156.97	156.41	
11	155.62	155.72	155.53	156.16	155.62	156.59	157.75	160.84	165.95	160.22	156.97	156.51	
12	155.62	155.55	155.49	156.14	155.63	156.61	157.97	161.08	165.56	160.01	156.95	156.42	
13	155.67	155.63	155.47	156.13	155.68	156.56	159.10	161.18	165.08	159.96	156.92	156.27	
14	155.72	155.70	155.53	156.16	156.30	156.53	159.54	161.42	164.45	160.01	156.91	156.25	
15	155.73	155.71	155.53	156.14	156.31	156.48	159.79	161.44	163.71	159.84	156.81	156.26	
16	155.73	155.62	155.55	156.13	156.35	156.63	161.00	161.34	162.80	159.66	156.78	156.30	
17	155.80	155.62	155.51	156.15	156.33	156.66	161.53	161.40	162.08	159.42	156.78	156.31	
18	155.79	155.62	155.43	156.12	156.35	156.68	161.86	161.41	161.56	159.10	156.78	156.27	
19	155.77	155.62	155.43	156.14	156.58	156.92	162.46	161.46	161.15	158.92	156.68	156.30	
20	155.78	155.62	155.50	156.14	156.56	157.02	163.32	161.15	160.90	158.72	156.66	156.31	
21	155.77	155.61	155.52	156.14	156.53	157.03	163.38	160.87	160.53	158.64	156.65	156.20	
22	155.66	155.63	155.55	156.07	156.48	157.03	163.81	160.52	160.51	158.52	156.66	156.16	
23	155.69	155.65	155.60	156.05	156.63	157.02	164.54	160.13	160.37	158.35	156.65	156.15	
24	155.65	155.64	155.61	156.03	156.60	157.01	164.98	160.02	160.13	158.20	156.66	156.00	
25	155.66	155.65	155.55	155.54	156.67	157.13	165.11	160.22	159.83	158.14	156.70	155.93	
26	155.64	155.63	155.53	155.54	156.89	157.15	165.10	160.23	159.55	158.08	156.68	155.93	
27	155.63	155.63	155.64	155.55	156.84	157.49	164.86	160.35	159.62	158.02	156.64	155.91	
28	155.62	155.63	156.16	155.57	156.79	157.50	164.86	160.43	160.53	158.08	156.57	155.87	
29	155.64		156.20	155.63	156.81	157.56	164.92	160.32	160.48	158.10	156.54	155.85	
30	155.66		156.19	155.61	156.82	157.61	165.10	160.92	160.13	157.96	156.55	155.85	
31	155.88		156.19		156.82		165.17	162.76		157.85		155.83	
Mean	155.83	155.80	155.62	156.03	156.17	156.90	161.31	161.70	162.99	159.40	156.87	156.25	
Max.	156.33	156.19	156.20	156.21	156.89	157.61	165.17	164.92	166.46	161.11	157.64	156.57	
Min.	155.57	155.55	155.43	155.54	155.55	156.48	156.87	160.02	159.55	157.85	156.54	155.83	

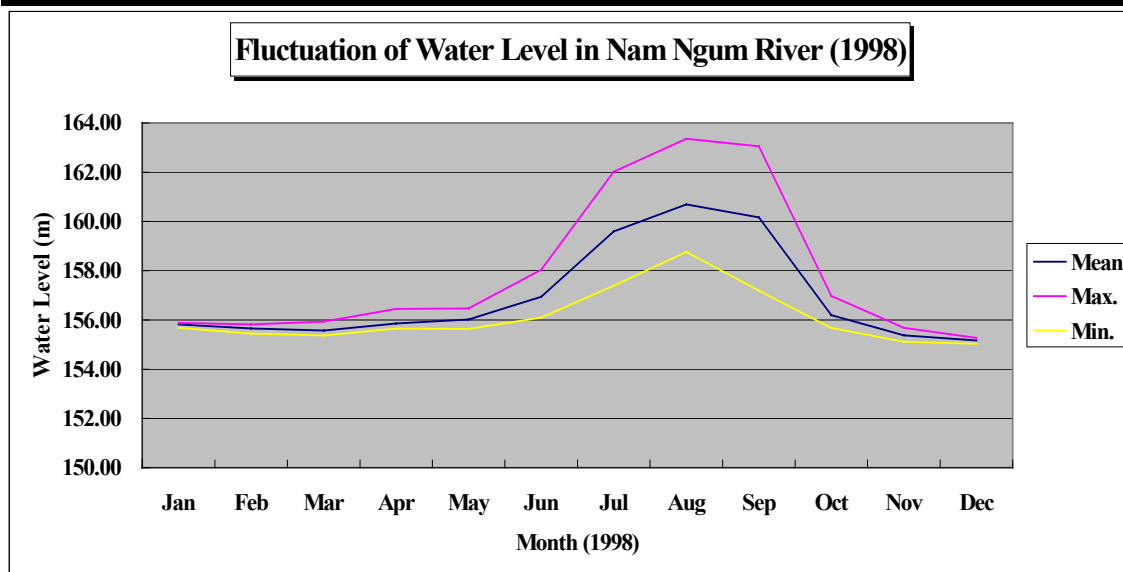


Station Name: Veunekham Muang Saythany  
 Latitude; 018° 11' 00" N  
 Longitude; 102° 37' 00" E on the right bank at the river  
 Managing Agency: Department of Meteorology and Hydrology(M.A.F)  
 Drainage Area: 15,230 Km<sup>2</sup>

River Name: Nam Ngum  
 Gauge and Datum: 154.32 m (Altitude)  
 Observed Item: W.L. Discharge Measurement,  
 Started Date: 1989

**WATER LEVEL HISTORICAL of Nam Ngum at Veunekham**

Day	YEAR										Mean	156.93
	1998										Max.	163.36
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	155.82	155.74	155.51	155.67	155.75	156.53	157.39	159.28	160.63	156.98	155.68	155.11
2	155.83	155.71	155.41	155.70	155.75	157.32	157.67	159.27	160.75	156.70	155.57	155.11
3	155.84	155.72	155.48	155.74	155.75	157.40	159.18	159.21	160.73	156.64	155.51	155.13
4	155.85	155.72	155.45	155.88	155.63	156.97	161.64	159.03	160.67	156.61	155.55	155.11
5	155.84	155.72	155.54	155.79	155.66	156.79	162.02	158.87	160.57	156.46	155.54	155.16
6	155.86	155.75	155.55	155.71	155.71	156.68	161.27	158.76	161.05	156.37	155.55	155.20
7	155.85	155.74	155.54	155.70	155.74	157.35	160.60	158.95	161.74	156.31	155.55	155.18
8	155.85	155.74	155.53	155.71	155.71	157.63	159.68	159.61	162.56	156.23	155.47	155.21
9	155.84	155.75	155.37	155.82	155.76	157.48	159.44	160.22	163.02	156.21	155.36	155.14
10	155.84	155.80	155.49	155.81	155.74	157.17	159.54	160.54	163.05	156.15	155.53	155.19
11	155.85	155.80	155.49	155.79	155.73	157.15	159.66	161.28	162.77	156.11	155.53	155.19
12	155.85	155.81	155.49	156.14	155.67	158.01	159.87	161.59	162.41	155.97	155.45	155.20
13	155.83	155.76	155.49	155.79	155.75	158.04	159.04	160.71	161.96	156.05	155.43	155.23
14	155.86	155.80	155.80	156.05	155.90	157.42	158.84	161.06	161.57	156.06	155.39	155.26
15	155.87	155.74	155.87	156.12	156.14	156.81	158.96	161.11	161.04	156.06	155.41	155.23
16	155.87	155.55	155.56	156.16	156.14	156.79	160.52	160.77	160.52	156.08	155.29	155.25
17	155.88	155.78	155.93	156.13	156.18	156.69	160.82	160.57	159.98	156.11	155.31	155.24
18	155.85	155.82	155.88	156.22	155.90	156.67	160.88	160.63	159.83	156.08	155.32	155.27
19	155.87	155.57	155.68	156.45	156.12	156.58	160.83	160.46	159.61	156.68	155.31	155.23
20	155.86	155.48	155.47	156.12	156.31	156.50	160.40	160.44	159.55	156.65	155.33	155.24
21	155.85	155.44	155.49	156.01	156.28	156.35	159.70	160.67	159.39	156.51	155.34	155.23
22	155.86	155.46	155.54	155.76	156.32	156.09	159.48	160.94	158.99	156.29	155.30	155.20
23	155.86	155.46	155.48	155.72	156.24	156.41	159.64	161.67	158.60	156.14	155.30	155.14
24	155.69	155.48	155.44	155.68	156.19	156.42	159.22	162.62	158.39	155.99	155.22	155.16
25	155.77	155.48	155.54	155.65	156.15	156.40	158.98	163.11	158.16	155.95	155.25	155.16
26	155.73	155.51	155.55	155.74	156.27	156.40	158.75	163.36	157.84	155.87	155.22	155.16
27	155.72	155.51	155.51	155.64	156.47	156.60	158.62	162.80	157.65	155.76	155.17	155.15
28	155.71	155.49	155.70	155.65	156.40	156.84	158.63	161.61	157.52	155.75	155.16	155.04
29	155.71		155.69	155.64	156.40	157.20	158.55	161.05	157.35	155.74	155.13	155.03
30	155.68		155.53	155.69	156.36	157.44	158.54	160.70	157.19	155.74	155.12	155.05
31	155.71		155.66		156.44		158.91	160.60		155.67		155.06
Mean	155.82	155.65	155.57	155.86	156.02	156.94	159.59	160.69	160.17	156.19	155.38	155.17
Max.	155.88	155.82	155.93	156.45	156.47	158.04	162.02	163.36	163.05	156.98	155.68	155.27
Min.	155.68	155.44	155.37	155.64	155.63	156.09	157.39	158.76	157.19	155.67	155.12	155.03



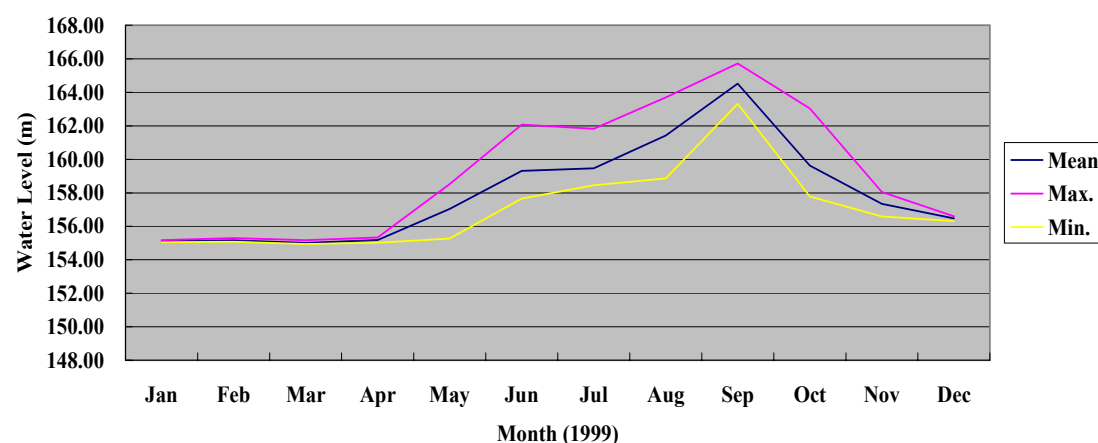
Station Name: Veunekham Muang Saythany  
 Latitude; 018° 11' 00" N  
 Longitude; 102° 37' 00" E on the right bank at the river  
 Managing Agency: Department of Meteorology and Hydrology(M.A.F)  
 Drainage Area: 15,230 Km<sup>2</sup>

River Name: Nam Ngum  
 Gauge and Datum: 154.32 m (Altitude)  
 Observed Item: W.L. Discharge Measurement,  
 Started Date: 1989

**WATER LEVEL HISTORICAL of Nam Ngum at Veunekham**

Day	YEAR											1998			
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean	157.98	
													<b>1999</b>	<b>Max.</b>	<b>165.72</b>
														<b>Min.</b>	<b>154.93</b>
1	155.07	155.07	155.17	155.03	155.28	158.22	158.54	158.86	164.18	163.04	157.89	156.59			
2	155.08	155.09	155.16	155.03	155.33	158.19	158.94	159.69	164.44	162.28	157.98	156.55			
3	155.07	155.07	155.13	155.02	155.30	157.88	159.13	160.35	164.29	161.85	157.65	156.58			
4	155.06	155.07	155.04	155.02	155.27	157.92	158.84	160.55	163.94	161.63	157.92	156.55			
5	155.07	155.07	155.02	155.03	155.38	157.98	159.05	160.63	163.72	161.43	157.84	156.54			
6	155.11	155.08	155.00	155.02	155.94	158.02	160.49	161.08	163.60	161.17	157.78	156.50			
7	155.11	155.07	155.02	155.03	156.48	157.92	161.79	161.32	163.58	160.74	157.86	156.53			
8	155.13	155.10	154.99	155.05	157.00	157.86	161.82	161.21	163.42	160.41	158.05	156.51			
9	155.15	155.12	155.00	155.08	157.37	157.74	161.12	160.96	163.54	160.33	158.00	156.52			
10	155.15	155.13	154.94	155.25	157.21	157.65	160.49	160.68	163.40	160.17	157.91	156.49			
11	155.13	155.11	154.93	155.29	157.50	158.31	159.83	160.59	163.31	160.32	157.64	156.31			
12	155.12	155.12	154.93	155.19	157.29	159.62	159.60	161.41	164.19	160.08	157.69	156.44			
13	155.15	155.14	154.93	155.17	157.02	162.07	159.37	161.85	164.88	160.03	157.69	156.54			
14	155.17	155.18	154.96	155.23	156.60	160.51	158.96	161.65	165.09	159.91	157.69	156.39			
15	155.17	155.22	155.00	155.18	156.42	160.51	158.71	161.48	165.05	159.62	157.43	156.41			
16	155.16	155.22	154.96	155.18	156.32	159.89	158.54	161.27	164.98	159.38	157.30	156.52			
17	155.07	155.19	154.96	155.23	156.52	159.36	158.44	161.14	164.80	159.25	157.35	156.50			
18	155.05	155.28	154.98	155.34	156.60	158.95	158.44	161.84	164.72	158.99	157.25	156.50			
19	155.07	155.29	155.00	155.24	156.80	159.24	158.61	162.44	164.50	158.85	157.08	156.45			
20	155.07	155.29	154.98	155.24	157.13	159.45	158.71	162.38	164.78	158.71	156.91	156.45			
21	155.06	155.09	154.99	155.29	157.13	160.41	158.65	161.85	165.20	158.53	156.96	156.43			
22	155.08	155.16	155.00	155.29	157.21	161.11	158.68	161.39	165.40	158.49	156.79	156.40			
23	155.15	155.14	154.97	155.29	157.89	161.69	158.71	161.22	165.56	158.40	156.76	156.41			
24	155.07	155.18	154.97	155.28	158.43	160.88	158.88	161.31	165.71	158.29	156.69	156.40			
25	155.08	155.20	154.99	155.28	158.51	160.15	160.11	161.36	165.72	158.19	156.67	156.38			
26	155.06	155.22	154.96	155.28	158.47	159.78	160.65	161.32	165.50	158.09	156.67	156.32			
27	155.06	155.18	155.00	155.31	158.38	159.96	160.37	161.58	165.15	157.78	156.63	156.39			
28	155.06	155.19	155.04	155.28	158.20	159.90	159.94	162.47	164.77	157.82	156.61	156.46			
29	155.06		155.04	155.27	157.99	159.37	159.65	163.11	164.41	158.22	156.61	156.48			
30	155.07		155.03	155.27	158.45	158.72	159.37	163.32	163.78	158.29	156.58	156.51			
31	155.07		155.03		158.44		158.86	163.70		158.14		156.50			
Mean	155.10	155.15	155.00	155.19	157.03	159.31	159.46	161.42	164.52	159.63	157.33	156.47			
Max.	155.17	155.29	155.17	155.34	158.51	162.07	161.82	163.70	165.72	163.04	158.05	156.59			
Min.	155.05	155.07	154.93	155.02	155.27	157.65	158.44	158.86	163.31	157.78	156.58	156.31			

**Fluctuation of Water Level in Nam Ngum River (1999)**

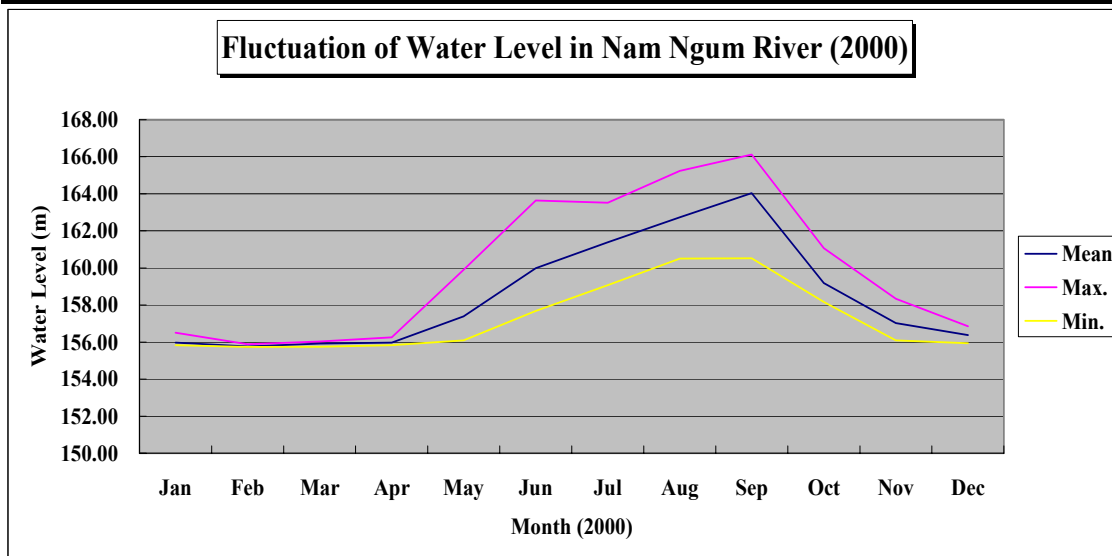


Station Name: Veunekham Muang Saythany  
 Latitude; 018° 11' 00" N  
 Longitude; 102° 37' 00" E on the right bank at the river  
 Managing Agency: Department of Meteorology and Hydrology(M.A.F)  
 Drainage Area: 15,230 Km<sup>2</sup>

River Name: Nam Ngum  
 Gauge and Datum: 154.32 m (Altitude)  
 Observed Item: W.L. Discharge Measurement,  
 Started Date: 1989

**WATER LEVEL HISTORICAL of Nam Ngum at Veunekham**

Day	YEAR											158.48
	2000											166.12
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	156.50	155.77	155.88	155.93	156.29	157.68	161.43	163.41	162.38	161.06	158.34	156.13
2	156.18	155.74	155.88	155.94	156.11	158.12	160.35	163.32	162.59	160.89	158.27	156.21
3	156.15	155.73	155.88	155.93	156.09	158.11	159.70	163.16	162.72	160.56	158.13	156.08
4	156.06	155.75	155.89	155.92	156.12	158.15	159.30	162.66	163.71	160.33	158.06	155.97
5	155.98	155.74	156.03	155.95	156.28	158.21	159.46	162.26	164.71	160.01	157.98	155.99
6	155.95	155.73	156.00	155.98	156.38	158.25	159.67	163.28	165.37	159.86	157.93	156.07
7	155.96	155.75	156.00	155.95	156.48	158.05	159.44	164.25	165.73	159.92	157.93	156.10
8	155.89	155.75	155.93	155.94	156.47	158.01	159.15	164.67	165.82	159.80	157.91	156.11
9	155.88	155.74	155.94	155.97	156.37	159.06	159.07	165.00	165.91	159.72	157.70	156.12
10	155.92	155.74	155.90	155.96	156.24	160.85	159.17	165.20	166.03	159.73	157.42	156.01
11	155.95	155.75	155.90	156.00	156.29	160.58	159.07	165.24	165.91	159.54	157.44	155.93
12	155.96	155.76	155.87	156.00	156.38	159.78	159.30	164.72	165.75	159.37	157.17	156.01
13	155.94	155.75	155.91	156.01	156.48	159.03	160.65	164.05	165.87	159.20	157.05	156.04
14	155.95	155.76	155.93	156.00	156.48	158.55	161.61	163.12	166.05	158.85	156.97	156.05
15	155.94	155.74	155.92	156.00	156.58	158.20	162.02	162.65	166.12	158.71	156.95	156.10
16	155.97	155.74	155.93	155.97	156.76	158.08	161.93	162.21	166.06	158.53	156.88	156.50
17	155.95	155.78	155.93	155.84	157.07	158.19	161.79	162.22	165.81	158.39	156.79	156.53
18	155.95	155.76	155.75	155.87	159.90	158.78	161.85	162.44	165.55	158.31	156.67	156.21
19	155.94	155.76	155.80	155.86	158.43	160.40	162.06	162.32	165.09	158.24	156.56	156.48
20	155.94	155.78	155.93	155.85	158.88	161.00	161.92	162.11	164.67	158.16	156.46	156.48
21	155.94	155.79	155.95	155.87	159.38	161.16	161.82	161.89	164.15	158.16	156.42	156.53
22	155.94	155.79	155.95	156.03	159.69	161.38	162.21	161.50	162.92	158.35	156.38	156.66
23	155.94	155.78	155.96	156.03	159.20	161.57	162.66	161.02	162.73	158.73	156.32	156.84
24	155.96	155.78	155.95	156.03	158.75	161.88	163.23	160.68	162.16	159.12	156.29	156.81
25	155.96	155.78	155.94	156.01	158.39	162.20	163.42	160.50	161.82	159.31	156.19	156.73
26	155.95	155.78	155.96	155.88	158.13	162.16	163.42	160.51	161.53	159.07	156.16	156.82
27	155.94	155.78	155.94	155.99	158.15	162.98	163.42	160.90	160.89	158.80	156.12	156.85
28	155.84	155.78	155.94	156.01	158.05	163.64	163.41	161.45	161.11	158.62	156.13	156.84
29	155.87	155.89	155.95	156.06	157.84	163.28	163.50	162.59	161.39	158.47	156.14	156.84
30	155.88		155.94	156.26	157.72	162.30	163.51	162.68	160.52	158.36	156.10	156.85
31	155.84		155.93		157.60		163.47	162.71		158.32		156.83
Mean	155.97	155.76	155.92	155.97	157.39	159.99	161.39	162.73	164.04	159.18	157.03	156.38
Max.	156.50	155.89	156.03	156.26	159.90	163.64	163.51	165.24	166.12	161.06	158.34	156.85
Min.	155.84	155.73	155.75	155.84	156.09	157.68	159.07	160.50	160.52	158.16	156.10	155.93

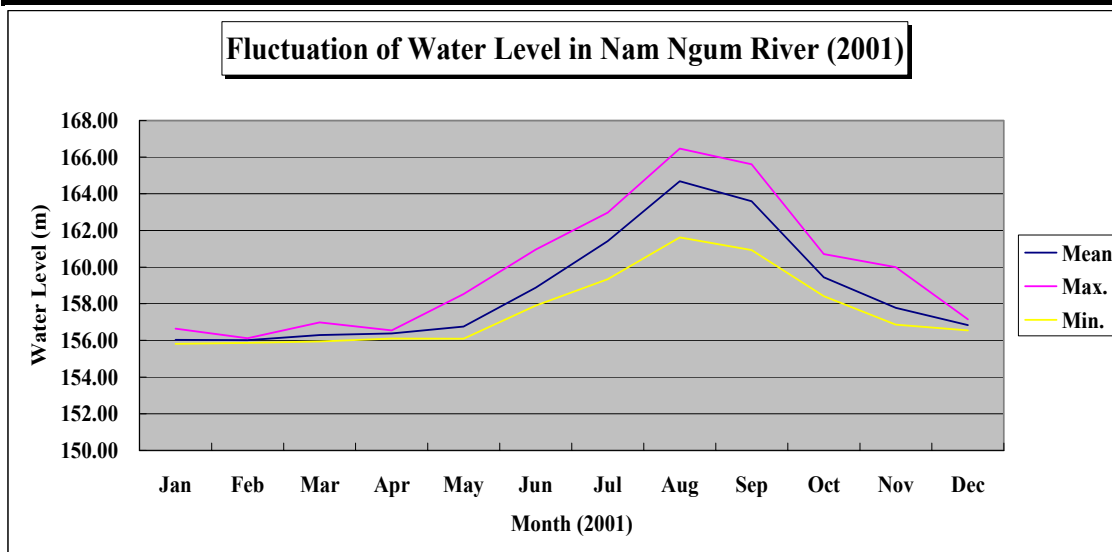


Station Name: Veunekham Muang Saythany  
 Latitude; 018° 11' 00" N  
 Longitude; 102° 37' 00" E on the right bank at the river  
 Managing Agency: Department of Meteorology and Hydrology(M.A.F)  
 Drainage Area: 15,230 Km<sup>2</sup>

River Name: Nam Ngum  
 Gauge and Datum: 154.32 m (Altitude)  
 Observed Item: W.L. Discharge Measurement,  
 Started Date: 1989

**WATER LEVEL HISTORICAL of Nam Ngum at Veunekham**

Day	YEAR											
	2001											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	156.65	156.11	155.96	156.18	156.30	159.24	160.54	161.81	164.68	160.71	158.87	156.86
2	156.26	156.12	155.95	156.15	156.32	159.24	159.89	161.63	164.32	160.29	158.92	156.75
3	156.10	156.10	155.94	156.13	156.34	158.81	159.35	161.62	164.01	160.01	160.00	156.65
4	155.99	156.04	156.02	156.14	156.40	158.26	159.60	162.29	164.16	159.93	159.27	156.73
5	155.99	155.99	156.03	156.12	156.42	158.38	160.97	162.98	164.29	159.91	159.04	156.71
6	155.97	156.03	156.04	156.10	156.29	158.55	161.43	163.11	164.54	159.98	158.86	156.72
7	156.00	156.04	156.05	156.37	156.09	158.54	161.20	163.35	164.36	159.91	158.60	156.73
8	155.96	156.04	156.05	156.45	156.23	158.80	160.57	163.93	165.61	159.69	158.51	156.71
9	155.95	156.01	156.12	156.47	156.30	158.99	160.58	164.69	165.58	159.55	158.42	156.73
10	155.95	156.00	156.19	156.45	156.37	158.99	161.52	165.24	165.52	159.98	158.31	156.55
11	155.93	156.03	156.31	156.46	156.41	159.06	161.69	165.36	165.51	160.22	157.98	156.62
12	155.95	156.07	156.28	156.46	156.50	159.63	161.31	165.53	165.46	160.16	157.67	156.60
13	155.94	156.08	156.28	156.47	156.38	159.90	160.94	165.72	165.41	160.10	157.45	156.59
14	155.95	156.02	156.28	156.52	156.24	159.58	160.65	165.98	165.21	159.92	157.38	156.59
15	155.94	156.04	156.36	156.55	156.41	159.06	160.89	166.26	164.96	159.76	157.36	156.61
16	155.91	156.01	156.34	156.54	156.46	158.82	161.12	166.40	164.50	160.00	157.36	156.62
17	155.86	156.03	156.45	156.52	156.60	158.49	161.20	166.44	163.99	159.84	157.42	156.91
18	155.82	156.01	156.70	156.51	156.63	158.29	161.21	166.47	163.57	159.50	157.42	156.93
19	155.83	155.96	156.78	156.50	156.63	158.29	161.06	166.47	163.18	159.14	157.18	156.94
20	155.83	155.97	156.98	156.46	156.65	158.14	161.10	166.40	162.66	158.73	157.02	156.93
21	156.04	156.00	156.91	156.48	156.63	158.05	161.27	166.22	162.59	158.73	157.12	157.02
22	156.04	156.00	156.90	156.46	156.84	157.94	162.21	165.89	162.03	158.57	157.26	157.13
23	155.91	156.04	156.31	156.45	157.11	157.90	162.69	165.49	161.86	158.48	157.24	157.15
24	155.94	156.02	156.23	156.47	157.20	158.20	162.74	164.97	161.71	158.42	157.06	157.12
25	156.03	156.01	156.19	156.46	157.19	158.55	162.49	164.62	161.69	158.42	157.04	156.94
26	156.13	155.87	156.17	156.45	157.06	158.78	162.71	164.36	161.53	158.55	156.86	157.08
27	156.16	155.89	156.17	156.34	157.10	158.83	162.90	164.04	161.37	158.86	156.88	157.07
28	156.21	156.05	156.24	156.30	157.44	159.38	162.98	164.04	161.23	158.81	156.90	156.99
29	156.21		156.36	156.32	158.25	160.84	162.72	164.32	161.13	158.83	156.90	156.98
30	156.15		156.27	156.32	158.35	160.95	162.40	164.66	160.93	158.82	156.88	156.98
31	156.12		156.20		158.53		162.14	164.76		158.83		156.97
Mean	156.02	156.02	156.29	156.39	156.76	158.88	161.42	164.68	163.59	159.44	157.77	156.84
Max.	156.65	156.12	156.98	156.55	158.53	160.95	162.98	166.47	165.61	160.71	160.00	157.15
Min.	155.82	155.87	155.94	156.10	156.09	157.90	159.35	161.62	160.93	158.42	156.86	156.55

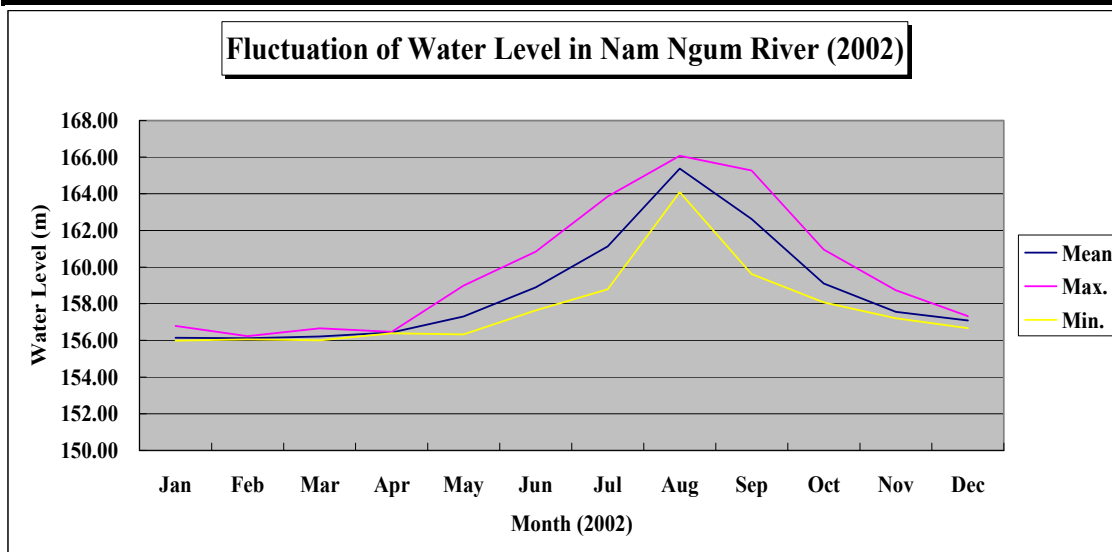


Station Name: Veunekham Muang Saythany  
 Latitude; 018° 11' 00" N  
 Longitude; 102° 37' 00" E on the right bank at the river  
 Managing Agency: Department of Meteorology and Hydrology(M.A.F)  
 Drainage Area: 15,230 Km<sup>2</sup>

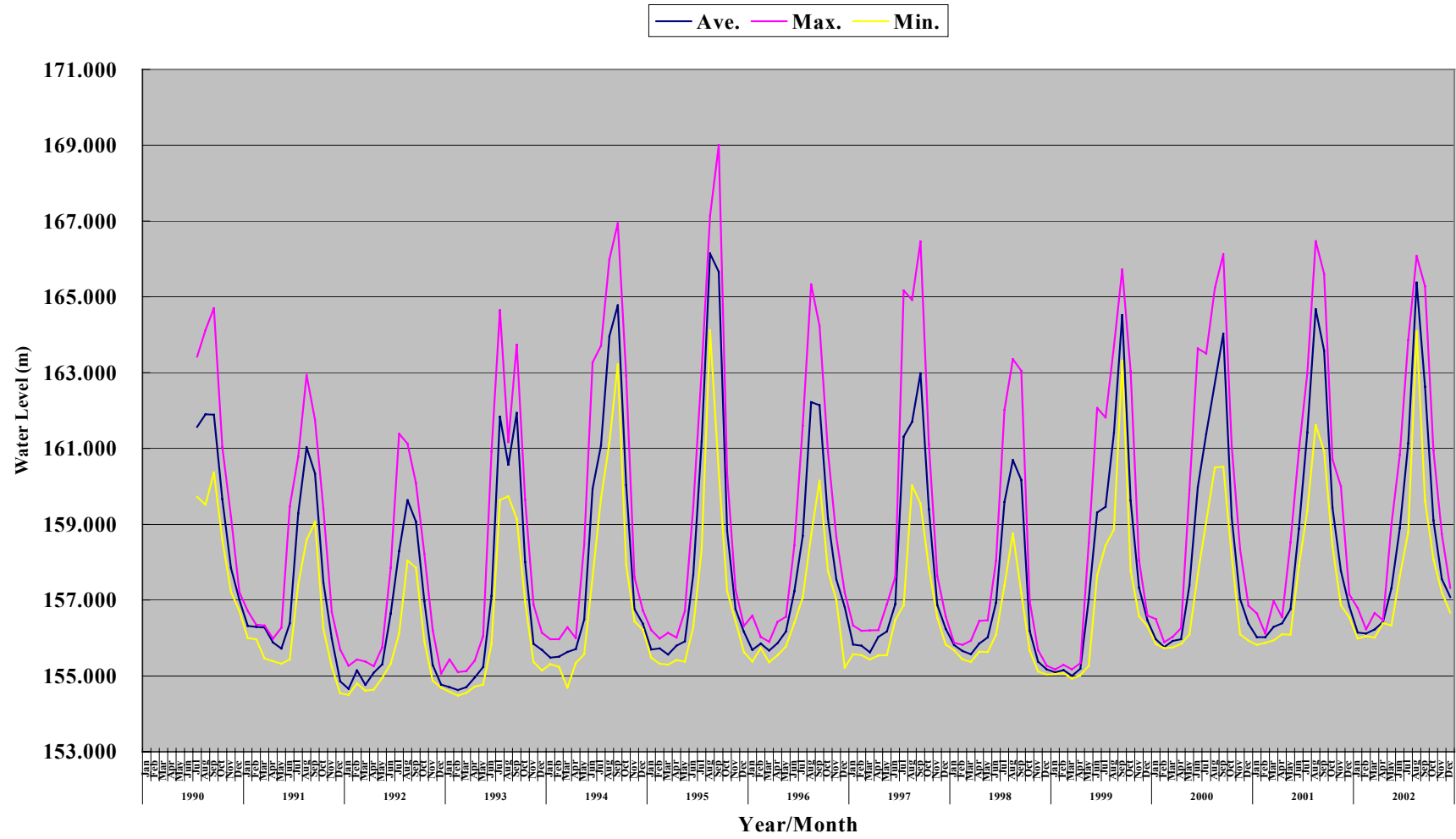
River Name: Nam Ngum  
 Gauge and Datum: 154.32 m (Altitude)  
 Observed Item: W.L. Discharge Measurement,  
 Started Date: 1989

**WATER LEVEL HISTORICAL of Nam Ngum at Veunekham**

Day	YEAR											
	2002											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	156.79	156.23	156.26	156.42	156.41	158.77	159.72	164.09	165.28	160.71	158.74	157.28
2	156.36	156.20	156.41	156.43	156.38	158.25	159.52	164.16	165.04	160.18	158.19	157.05
3	156.20	156.20	156.47	156.43	156.38	157.85	159.24	164.50	165.03	160.18	158.12	157.04
4	156.03	156.14	156.41	156.43	156.39	157.64	158.93	164.52	164.91	160.03	158.07	157.15
5	156.02	156.10	156.20	156.44	156.37	157.83	158.79	164.55	164.80	159.96	157.91	157.15
6	155.99	156.06	156.10	156.42	156.38	157.87	158.88	164.95	164.80	160.00	157.80	157.09
7	155.99	156.06	156.04	156.42	156.37	158.21	159.05	165.12	165.07	160.32	157.69	157.06
8	156.03	156.05	156.04	156.41	156.36	158.65	159.61	165.68	165.16	160.61	157.57	157.04
9	156.02	156.05	156.04	156.39	156.33	158.80	159.84	165.74	165.17	160.95	157.49	157.05
10	156.06	156.05	156.03	156.39	156.35	159.77	160.15	165.74	164.94	160.04	157.43	157.07
11	156.04	156.05	156.05	156.43	156.36	159.76	160.66	165.64	164.36	159.70	157.38	157.21
12	156.03	156.15	156.05	156.43	156.46	160.84	160.82	165.50	163.65	159.47	157.32	157.19
13	156.02	156.14	156.03	156.45	156.91	160.56	160.55	165.47	163.01	159.14	157.28	157.13
14	156.06	156.14	156.04	156.45	157.25	159.83	160.38	165.54	162.23	158.93	157.23	157.12
15	156.17	156.14	156.01	156.44	157.26	159.83	160.35	165.62	161.65	158.73	157.22	157.07
16	156.12	156.13	156.03	156.46	157.28	160.59	160.51	165.65	161.35	158.57	157.21	157.06
17	156.13	156.14	156.02	156.47	157.34	159.86	161.12	165.64	161.39	158.44	157.23	157.05
18	156.12	156.12	156.03	156.47	157.69	159.03	162.25	165.65	161.49	158.49	157.28	157.02
19	156.16	156.12	156.03	156.45	158.50	158.62	162.66	165.85	161.55	158.24	157.58	157.01
20	156.17	156.12	156.03	156.45	158.31	158.48	162.28	166.08	161.65	158.24	157.38	157.07
21	156.17	156.13	156.05	156.44	158.14	158.33	161.97	166.07	161.79	158.17	157.60	156.99
22	156.16	156.14	156.44	156.44	158.04	158.17	161.96	165.87	161.50	158.12	157.47	157.01
23	156.14	156.12	156.66	156.40	157.75	158.00	162.74	165.63	161.15	158.12	157.53	157.00
24	156.14	156.12	156.34	156.41	157.64	157.85	163.08	165.52	160.83	158.08	157.54	156.82
25	156.14	156.12	156.48	156.41	157.64	157.80	162.85	165.57	160.67	158.15	157.48	156.67
26	156.24	156.13	156.52	156.41	157.88	157.95	162.51	165.49	160.31	158.19	157.41	156.84
27	156.22	156.12	156.42	156.40	158.48	157.97	162.38	165.63	159.95	158.12	157.39	157.10
28	156.18	156.12	156.41	156.42	158.62	159.77	162.45	165.19	159.62	158.11	157.44	157.29
29	156.21		156.45	156.41	158.36	160.17	162.70	165.25	159.97	158.16	157.38	157.32
30	156.21		156.41	156.40	158.18	159.88	163.32	165.41	160.53	158.70	157.32	157.28
31	156.22		156.43		158.99		163.86	165.36		159.39		157.26
Mean	156.15	156.12	156.22	156.43	157.32	158.90	161.13	165.38	162.63	159.10	157.56	157.08
Max.	156.79	156.23	156.66	156.47	158.99	160.84	163.86	166.08	165.28	160.95	158.74	157.32
Min.	155.99	156.05	156.01	156.39	156.33	157.64	158.79	164.09	159.62	158.08	157.21	156.67



**Fluctuation of Water Level in Nam Ngum River (Jul. 1990-2002)**



**Fluctuation of Monthly Average Water Level in Nam Ngum River (1990-2002)**

