

THE SOCIALIST REPUBLIC OF THE UNION OF BURMA

FEASIBILITY REPORT

ON

THE OKKAN DAM IRRIGATION PROJECT

APPENDIX

NOVEMBER 1981

JAPAN INTERNATIONAL COOPERATION AGENCY

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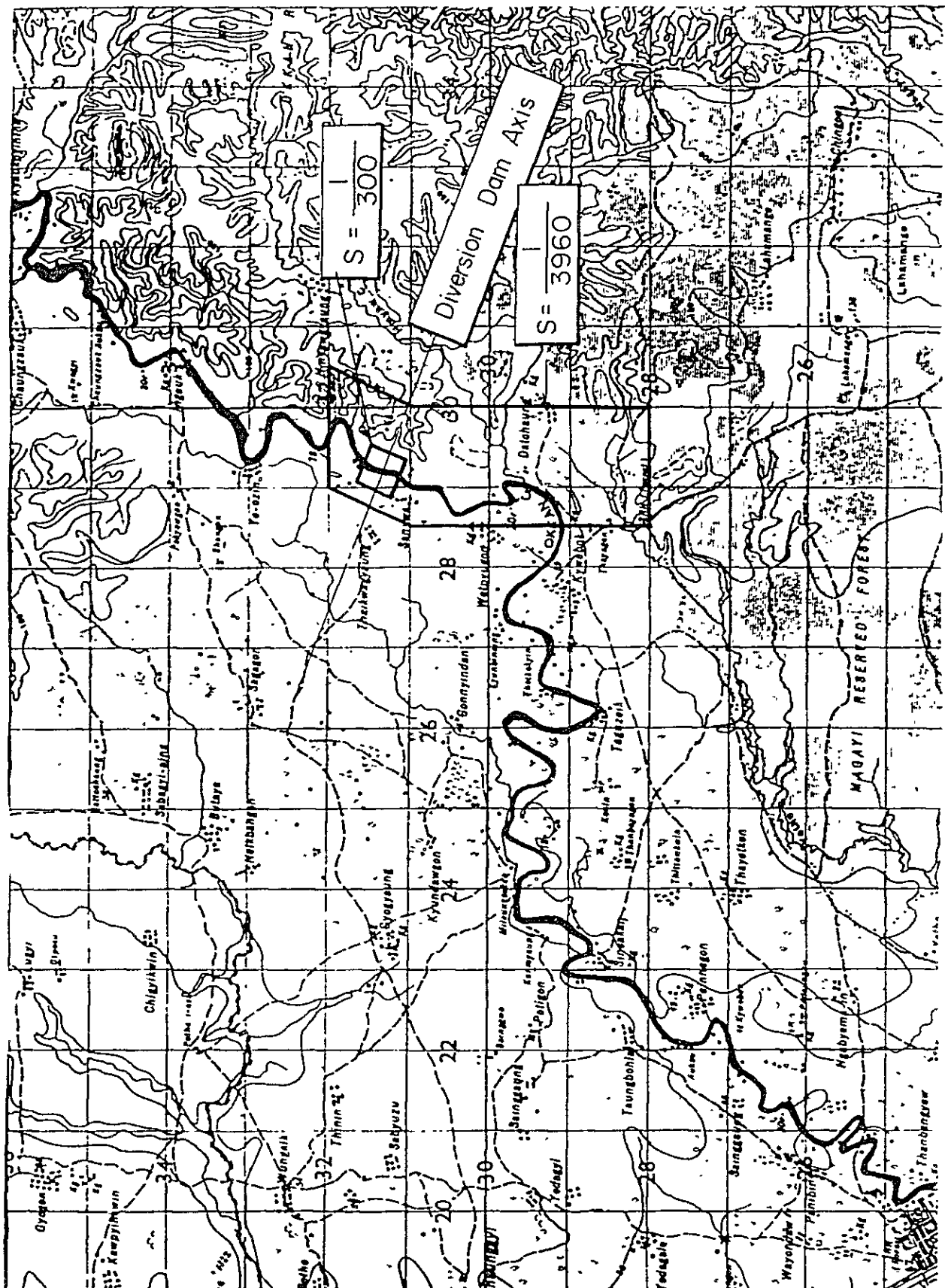


FIGURE R-2 (1) LOCATION OF CROSS-SECTIONAL SURVEYING
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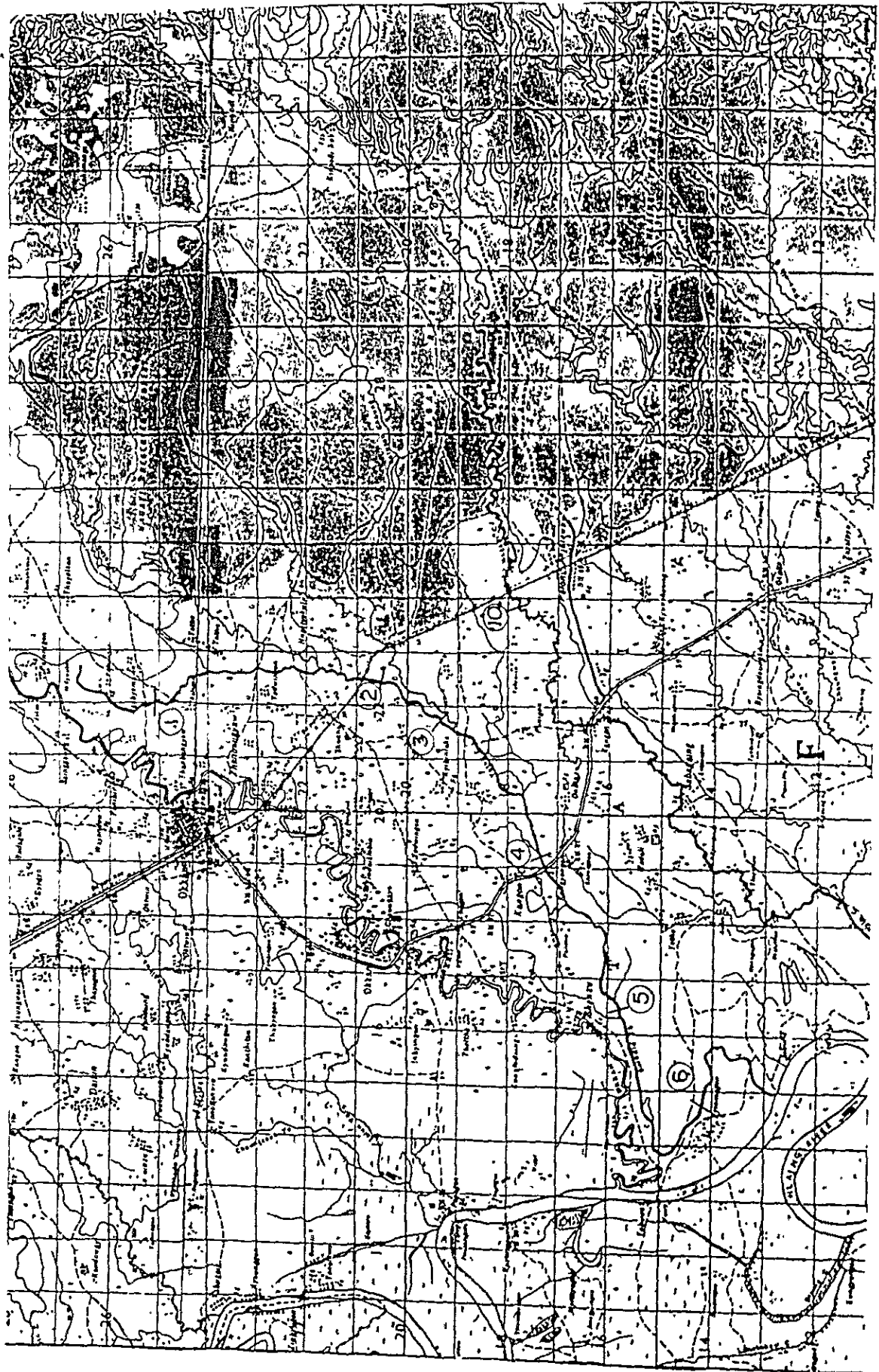


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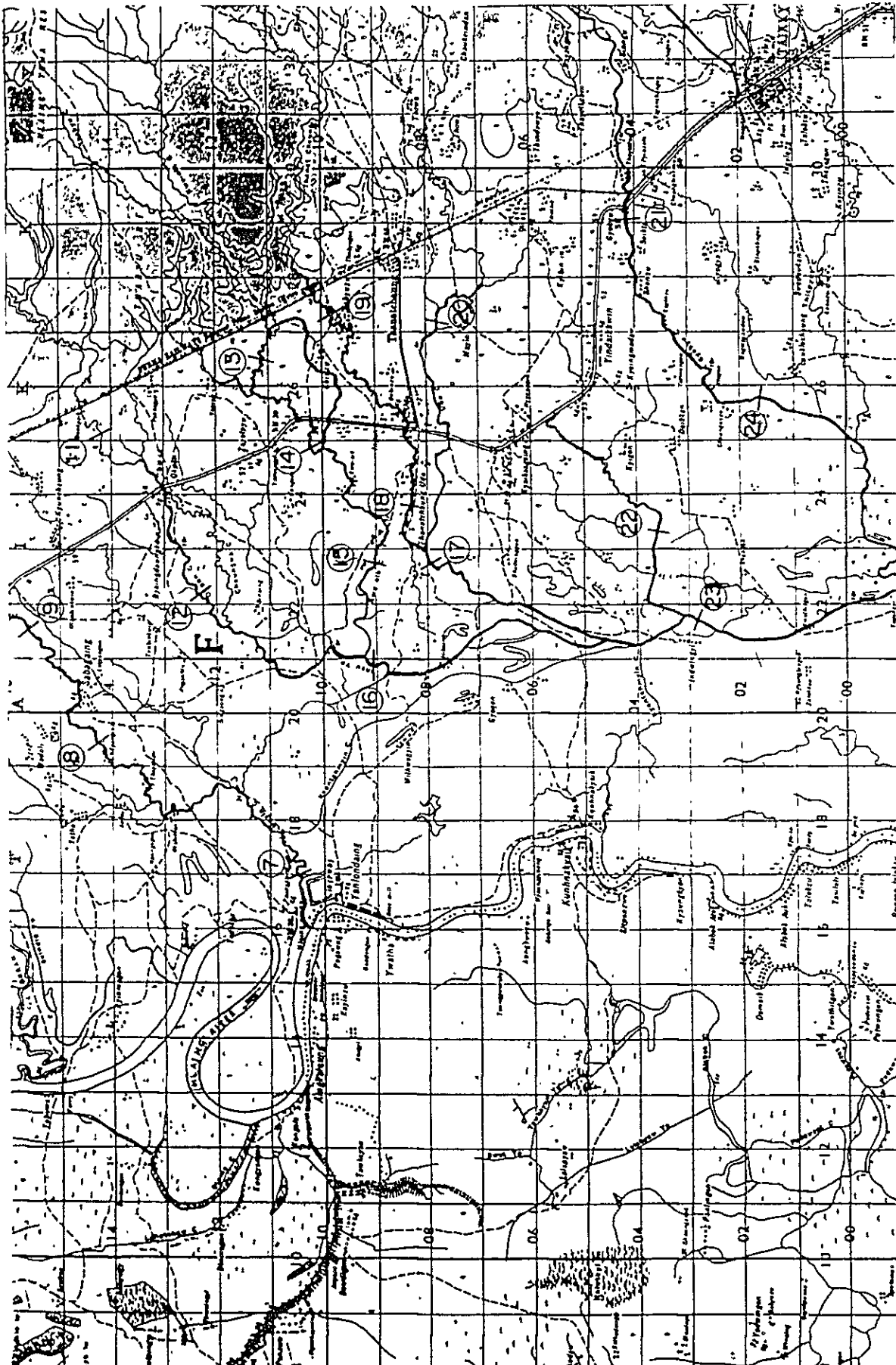
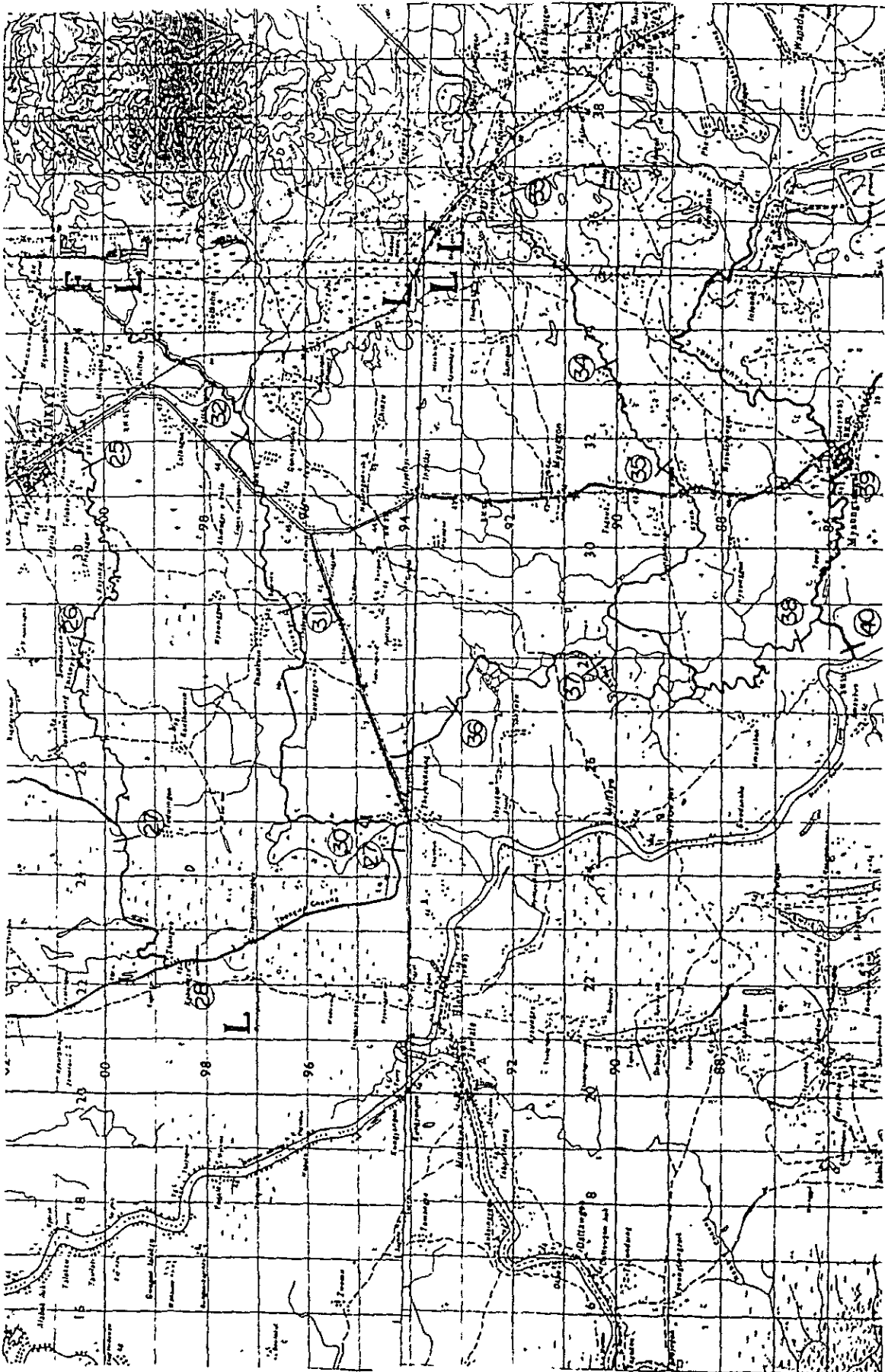


FIGURE R-2 (3) LOCATION OF CROSS-SECTIONAL SURVEYING
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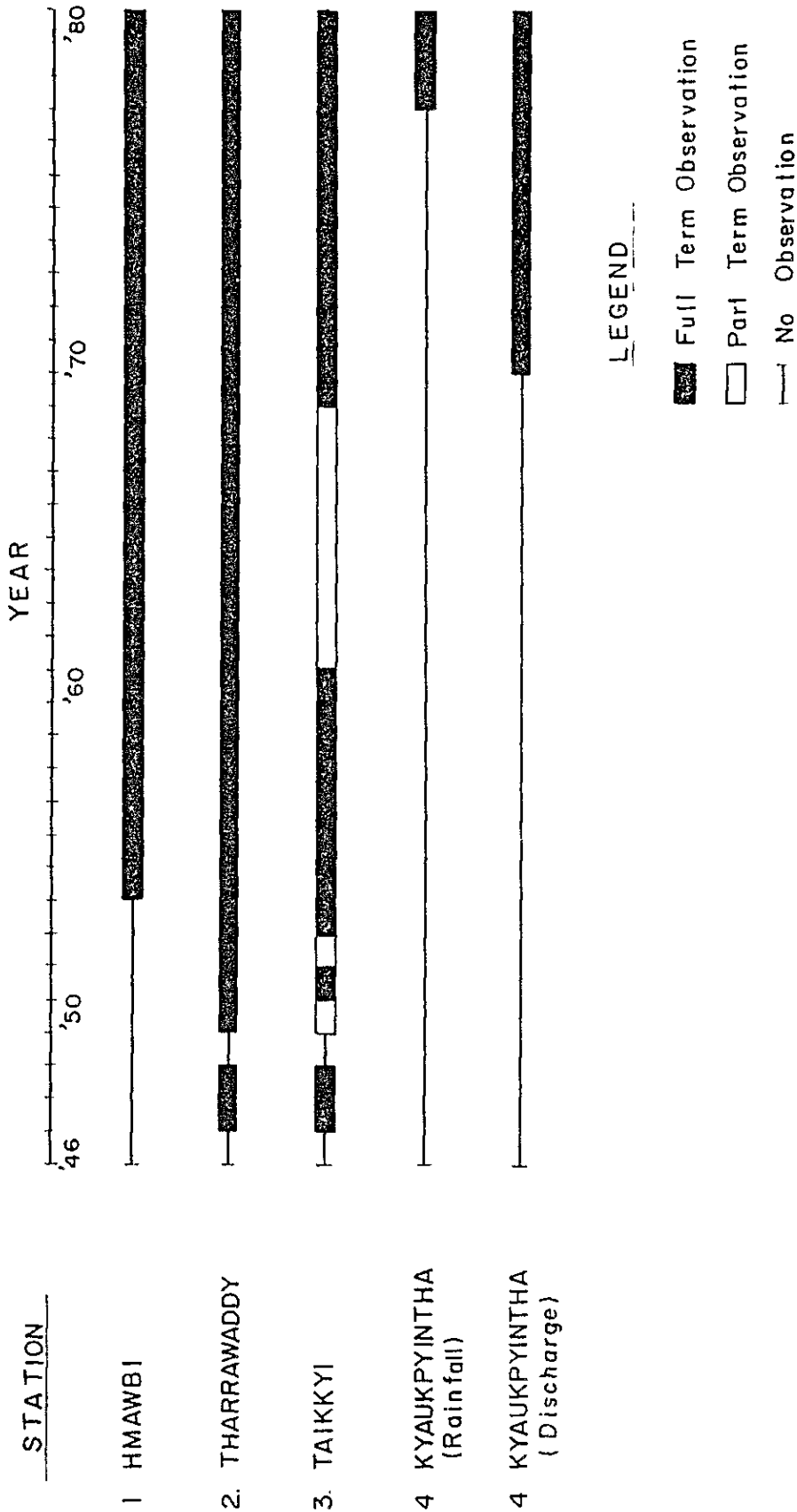


Table 3B-1 STATION THARRAWADDY

YEAR	MONTHLY RAINFALL (MM)											
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1950	0.0	0.0	0.0	13.0	159.5	438.9	533.3	381.9	201.8	165.9	37.3	102.7
1951	22.3	0.0	0.0	0.0	57.9	613.4	324.7	541.2	286.1	218.4	37.9	3.3
1952	0.0	0.0	17.5	4.8	148.9	493.8	498.7	549.2	149.6	267.4	60.3	0.0
1953	14.5	1.3	0.0	57.9	203.4	484.5	514.8	538.6	264.6	145.3	115.6	9.9
1954	0.0	0.0	0.0	0.0	258.2	401.8	346.6	521.5	286.0	261.6	20.6	2.8
1955	0.0	7.5	0.0	8.7	0.0	413.8	359.2	282.7	306.9	68.4	26.9	0.0
1956	0.0	6.1	0.0	4.9	536.7	269.4	439.1	420.1	370.7	128.5	3.3	0.0
1957	0.0	1.3	0.0	0.0	98.2	376.5	654.2	253.9	360.5	168.6	7.4	0.0
1958	0.0	0.0	26.4	1.8	103.5	574.5	609.3	409.1	391.6	75.0	6.8	0.0
1959	41.7	0.0	0.0	21.3	176.7	244.7	370.8	277.1	503.3	175.1	9.9	0.0
1960	3.5	0.0	0.0	0.0	118.7	272.3	319.4	523.5	382.6	225.4	6.8	42.5
1961	0.0	0.0	0.0	5.9	118.7	475.6	722.6	466.9	404.8	190.1	28.0	9.7
1962	0.0	0.0	0.0	16.0	362.4	366.2	541.5	237.8	343.7	181.8	4.8	0.0
1963	0.0	0.0	0.0	1.8	34.8	403.2	961.7	480.9	374.2	189.0	12.8	0.0
1964	0.0	0.0	28.7	0.0	277.5	469.4	338.7	301.4	322.5	288.3	67.1	0.0
1965	0.0	2.8	0.0	0.0	338.0	667.0	423.8	401.6	245.9	289.2	16.0	37.9
1966	9.0	0.0	0.0	0.0	63.3	460.5	419.6	486.9	222.5	89.2	0.5	36.0
1967	58.0	0.0	0.0	0.0	252.0	184.0	496.0	665.0	401.0	126.0	45.0	0.0
1968	4.0	0.0	0.0	29.0	145.0	619.0	544.0	527.0	220.0	316.0	12.0	7.0
1969	0.0	0.0	0.0	0.0	170.0	462.0	435.0	440.0	304.0	228.0	49.0	0.0
1970	0.0	0.0	0.0	0.0	275.0	307.0	602.0	546.0	336.0	183.0	15.0	2.0
1971	0.0	0.0	0.0	7.0	106.0	631.0	624.0	540.0	130.0	158.0	6.0	0.0
1972	0.0	0.0	0.0	3.0	84.0	292.0	555.0	504.0	196.0	167.0	117.0	0.0
1973	0.0	0.0	17.0	0.0	321.0	526.0	476.0	445.0	326.0	176.0	51.0	0.0
1974	0.0	0.0	0.0	86.0	256.0	449.0	577.0	727.0	247.0	137.0	85.0	0.0
1975	48.0	0.0	0.0	0.0	190.0	366.0	303.0	622.0	275.0	178.0	79.0	0.0
1976	0.0	0.0	0.0	0.0	275.0	510.0	456.0	340.0	261.0	209.0	53.0	0.0
1977	17.0	0.0	0.0	5.0	173.0	369.0	582.0	480.0	203.0	83.0	12.0	0.0
1978	0.0	0.0	0.0	0.0	290.0	309.0	321.0	557.0	335.0	196.0	0.0	57.0
1979	0.0	0.0	0.0	0.0	56.0	424.0	333.0	661.0	152.0	96.0	0.0	0.0
1980	0.0	0.0	0.0	0.0	152.0	510.0	808.0	568.0	331.0	0.0	0.0	0.0

Table 3B-2 STATION HAWAII

MONTHLY RAINFALL (MM)

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL
1954	0.0	0.0	15.5	60.7	372.9	438.4	395.0	612.7	239.9	109.2	0.0	0.0	2244.3
1955	0.3	0.0	0.5	65.0	216.6	673.9	540.9	463.8	531.5	166.0	35.6	0.0	2700.1
1956	0.0	1.8	0.0	52.4	475.1	349.1	569.8	554.5	395.4	77.1	10.7	0.0	2485.9
1957	0.0	0.5	0.0	0.0	98.7	339.0	559.6	389.7	268.6	110.6	0.5	0.0	1867.2
1958	0.0	0.0	0.0	29.2	250.8	279.9	590.7	393.6	314.2	337.8	17.8	0.0	2214.0
1959	48.6	0.0	0.0	0.0	273.6	458.5	564.3	654.4	807.5	58.2	19.6	0.0	2964.7
1960	12.2	0.0	0.0	0.0	210.3	260.6	532.0	676.2	226.0	307.8	16.3	14.2	2255.6
1961	0.3	67.8	0.0	4.1	332.9	441.9	871.8	766.4	431.4	220.2	16.0	5.8	3158.6
1962	6.4	0.0	0.0	16.3	264.0	481.4	536.6	568.5	418.4	255.7	8.1	0.0	2555.4
1963	0.0	2.3	0.0	0.0	162.0	431.4	724.5	441.8	532.7	352.4	7.2	19.5	2713.8
1964	0.0	0.0	21.3	2.8	443.9	431.1	236.2	632.2	319.5	302.1	70.3	5.4	2515.0
1965	0.0	19.8	0.0	0.0	239.9	1027.9	501.4	371.3	315.3	231.9	28.3	88.7	2824.5
1966	0.0	0.0	0.0	0.0	302.0	595.0	463.0	402.0	569.0	145.0	5.0	0.0	2481.0
1967	0.0	0.0	0.0	36.0	159.0	253.0	261.0	652.0	393.0	214.0	1.0	0.0	1969.0
1968	1.0	0.0	0.0	83.8	258.5	537.2	709.4	649.4	308.9	104.1	33.0	0.0	2685.3
1969	0.0	0.0	0.0	11.7	482.5	513.8	602.7	769.6	383.0	51.8	0.0	0.0	2855.1
1970	0.0	0.0	61.0	0.0	343.0	426.0	540.0	633.0	221.0	253.0	48.0	34.0	2559.0
1971	0.0	0.0	2.0	0.0	222.0	543.0	517.0	632.0	282.0	181.0	5.0	2.0	2404.0
1972	0.0	0.0	0.0	58.0	137.0	535.0	635.0	526.0	147.0	107.0	95.0	5.0	2285.0
1973	0.0	0.0	72.0	0.0	462.0	423.0	478.0	749.0	427.0	208.0	140.0	0.0	2959.0
1974	0.0	0.0	2.0	42.0	400.0	627.0	665.0	640.0	264.0	203.0	96.0	0.0	2939.0
1975	90.0	0.0	0.0	0.0	296.0	512.0	730.0	585.0	344.0	277.0	12.0	0.0	2846.0
1976	0.0	0.0	0.0	6.0	615.0	460.0	472.0	530.0	499.0	184.0	29.0	0.0	2795.0
1977	26.0	4.0	2.0	7.0	222.0	303.0	694.0	400.0	221.0	105.0	23.0	43.0	2130.0
1978	7.0	4.0	13.0	0.0	232.0	226.0	474.0	756.0	206.0	184.0	1.0	0.0	2103.0
1979	0.0	0.0	0.0	48.0	235.0	405.0	373.0	509.0	259.0	80.0	0.0	0.0	1909.0
1980	0.0	0.0	0.0	0.0	377.0	461.0	687.0	528.6	421.0	197.0	29.0	0.0	2700.6

Table 3B-3 STATION IAKKYYI

YEAR	MONTHLY RAINFALL												TOTAL
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	
1954	0.0	0.0	1.8	3.8	294.5	600.1	398.8	458.9	545.8	264.7	1.8	0.0	2610.2
1955	0.0	0.0	0.0	41.7	271.4	563.7	522.6	493.5	462.6	179.0	18.7	0.0	2553.5
1956	0.0	0.0	0.0	37.3	653.7	353.3	458.6	443.8	381.8	0.0	0.0	0.0	2231.5
1957	0.0	0.0	0.0	0.0	193.6	219.1	674.1	548.7	434.6	108.4	0.0	0.0	1996.5
1958	0.0	0.0	0.0	11.7	258.0	521.5	638.0	454.4	436.6	229.7	0.0	0.0	2550.7
1959	21.9	0.0	0.0	11.9	148.2	469.0	436.3	626.1	864.2	191.3	13.2	0.0	2782.1
1960	5.6	0.0	0.0	3.1	246.6	379.6	519.0	782.5	441.0	240.6	51.3	16.8	2686.1
1961	0.0	67.8	0.0	4.1	359.9	443.2	787.2	703.7	434.9	270.5	16.0	5.8	3093.5
1962	6.4	0.0	0.0	16.3	274.3	474.6	521.4	546.7	424.6	298.7	8.1	0.0	2571.2
1963	0.0	2.3	0.0	0.0	224.4	434.9	670.4	446.3	515.2	407.1	7.2	19.5	2727.3
1964	0.0	0.0	21.3	2.8	447.9	907.5	493.5	597.2	346.2	335.5	70.3	5.4	2584.3
1965	0.0	19.8	0.0	0.0	286.2	574.7	493.2	390.4	342.5	279.8	28.3	88.7	2837.4
1966	0.0	0.0	0.0	0.0	335.4	564.7	463.1	414.7	544.0	210.9	5.0	0.0	2537.8
1967	0.0	0.0	0.0	36.0	191.1	253.4	268.9	612.9	404.5	265.6	1.0	0.0	2073.4
1968	1.0	0.0	0.0	83.8	300.5	518.8	658.5	610.9	337.8	178.5	33.0	0.0	2723.1
1969	0.0	0.0	0.0	0.0	329.0	741.5	584.9	746.7	347.4	219.6	15.2	0.0	2984.3
1970	0.0	0.0	45.7	91.4	581.5	391.2	458.6	630.7	386.6	527.9	4.4	10.7	3128.7
1971	0.0	0.0	4.0	4.0	166.0	620.0	520.0	303.0	171.0	276.0	7.0	0.0	2071.0
1972	0.0	0.0	0.0	28.0	180.0	713.0	752.0	680.0	126.0	211.0	145.0	0.0	2835.0
1973	0.0	0.0	2.0	0.0	156.0	288.0	349.0	955.0	392.0	167.0	72.0	0.0	2421.0
1974	0.0	0.0	0.0	0.0	328.0	698.0	772.0	410.0	107.0	160.0	17.0	0.0	2492.0
1975	20.0	0.0	0.0	0.0	389.0	556.0	681.0	759.0	324.0	145.0	0.0	6.0	2980.0
1976	0.0	0.0	0.0	15.0	262.0	283.0	582.0	758.0	518.0	122.0	0.0	0.0	2460.0
1977	0.0	0.0	6.0	0.0	142.0	396.6	684.0	492.0	437.0	44.0	97.0	0.0	2238.6
1978	1.0	11.0	0.0	0.0	220.0	272.1	512.0	820.0	470.0	378.0	0.0	0.0	2684.1
1979	0.0	0.0	0.0	0.0	223.0	312.0	373.0	587.0	233.0	58.0	0.0	0.0	1826.0
1980	0.0	0.0	0.0	0.0	206.0	577.0	592.0	657.0	471.0	122.0	0.0	0.0	2725.0

Tabid 3B-4 STATION KYAUPYINTHA

MONTHLY RAINFALL (MM)

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL
1954	0.0	0.0	0.0	0.0	300.1	410.0	368.3	503.1	321.5	302.7	20.6	2.8	2230.0
1955	0.0	2.5	0.0	8.7	0.0	420.1	378.0	319.0	337.7	169.2	26.9	0.0	1662.0
1956	0.0	0.1	0.0	4.9	514.8	309.1	439.7	424.9	386.8	246.4	3.3	0.0	2336.1
1957	0.0	1.3	0.0	0.0	176.8	291.3	605.4	256.8	379.0	184.8	7.4	0.0	2042.8
1958	0.0	0.0	26.4	1.8	180.8	544.0	570.8	416.5	403.0	158.9	6.8	0.0	2308.5
1959	41.7	0.0	0.0	21.3	237.3	289.7	386.9	314.7	489.1	226.0	9.9	0.0	2026.6
1960	3.5	0.0	0.0	0.0	192.6	211.0	347.3	504.7	396.0	274.8	6.8	42.5	2079.2
1961	0.0	0.0	0.0	5.9	192.6	467.7	659.2	461.0	413.1	247.6	28.0	9.7	7487.8
1962	0.0	0.0	0.0	15.0	380.5	383.4	518.5	284.4	366.0	241.2	4.8	0.0	2194.8
1963	0.0	0.0	0.0	1.8	127.9	411.9	842.5	471.8	389.5	246.8	12.8	37.9	2542.9
1964	0.0	0.0	28.7	0.0	315.0	402.9	362.2	333.4	349.7	323.3	67.1	0.0	2742.3
1965	0.0	2.8	0.0	0.0	361.6	615.3	427.8	410.7	290.6	324.0	16.0	37.9	2486.7
1966	8.0	0.0	0.0	0.0	149.0	456.1	578.8	476.4	272.6	169.8	0.5	36.0	2149.0
1967	53.0	0.0	0.0	0.0	295.3	242.9	483.5	567.5	410.2	158.2	45.0	0.0	2300.6
1968	4.0	0.0	0.0	29.0	212.8	578.3	520.5	507.4	270.7	344.7	12.0	7.0	2486.3
1969	0.0	0.0	0.0	0.0	232.1	457.2	436.4	440.3	335.4	276.6	49.0	0.0	2227.3
1970	0.0	0.0	0.0	0.0	313.1	337.7	565.2	522.0	360.1	242.1	15.0	2.0	2357.2
1971	0.0	0.0	0.0	7.0	182.8	587.5	582.1	517.4	201.3	222.9	6.0	0.0	2307.0
1972	0.0	0.0	0.0	3.0	165.8	226.2	528.9	489.6	252.2	183.5	117.0	0.0	2066.2
1973	0.0	0.0	17.0	0.0	348.5	506.6	468.0	444.1	352.4	236.7	51.0	0.0	2424.4
1974	0.0	0.0	0.0	86.0	298.4	447.2	545.9	661.6	251.5	206.7	85.0	0.0	2622.2
1975	49.0	0.0	0.0	0.0	491.7	383.2	334.7	580.6	274.5	238.3	79.0	0.0	2340.0
1976	0.0	0.0	0.0	0.0	313.1	494.3	452.6	363.2	202.3	262.2	53.0	0.0	2240.6
1977	17.0	0.0	0.0	5.0	234.4	385.5	549.8	471.1	257.6	165.0	12.0	57.0	2154.4
1978	0.0	26.0	0.0	0.0	264.0	555.5	470.5	661.8	441.2	56.0	3.5	0.0	2518.5
1979	0.0	0.0	0.0	20.0	56.2	391.5	436.7	627.4	279.0	120.8	0.0	0.0	1931.6
1980	0.0	0.0	0.0	0.0	97.0	504.7	521.1	525.7	368.1	219.0	18.5	0.0	2254.1

Table 3B-5 (1) Correlation Matrix of Rainfall

1978--1980

(1) HMAWBI
(2) THARRAWADDY
(3) TAIKKYI
(4) KYAUPYINTHA

		<u>Daily</u>			
STATION	---> X	(1)	(2)	(3)	(4)
(1)	R	1.000	0.377	0.479	0.150
	A	1.000	0.368	0.467	0.167
	B	0.0	12.721	9.918	15.548
(2)	R	0.377	1.000	0.388	0.297
	A	0.386	1.000	0.387	0.347
	B	12.150	0.0	11.418	12.996
(3)	R	0.479	0.388	1.000	0.193
	A	0.491	0.390	1.000	0.240
	B	12.451	14.870	0.0	17.080
(4)	R	0.150	0.297	0.193	1.000
	A	0.134	0.255	0.155	1.000
	B	17.361	15.904	17.033	0.0

Y / X

R : CORRELATION COEFFICIENT

REGRESSION LINE : $Y = A \cdot X + B$

		<u>5 day average</u>			
STATION	---> X	(1)	(2)	(3)	(4)
(1)	R	1.000	0.637	0.706	0.439
	A	1.000	0.699	0.733	0.499
	B	0.0	4.713	2.883	6.564
(2)	R	0.637	1.000	0.544	0.521
	A	0.591	1.000	0.515	0.543
	B	5.050	0.0	5.482	5.590
(3)	R	0.706	0.544	1.000	0.500
	A	0.679	0.574	1.000	0.587
	B	5.709	7.818	0.0	7.328
(4)	R	0.439	0.521	0.500	1.000
	A	0.387	0.499	0.425	1.000
	B	8.421	7.611	7.363	0.0

Y / X

R : CORRELATION COEFFICIENT

REGRESSION LINE : $Y = A \cdot X + B$

(2)

1978--1980

		<u>10 day average</u>			
STATION	---> X	(1)	(2)	(3)	(4)
(1)	R	1.000	0.669	0.807	0.629
	A	1.000	0.627	0.744	0.666
	B	0.0	5.346	2.556	3.938
(2)	R	0.669	1.000	0.661	0.654
	A	0.712	1.000	0.652	0.714
	B	3.141	0.0	3.018	3.009
(3)	R	0.807	0.661	1.000	0.692
	A	0.874	0.670	1.000	0.814
	B	2.742	6.202	0.0	3.828
(4)	R	0.629	0.654	0.692	1.000
	A	0.595	0.599	0.587	1.000
	B	5.145	5.664	4.258	0.0

Y / X

R : CORRELATION COEFFICIENT
REGRESSION LINE : $Y = A \cdot X + B$

		<u>Monthly total</u>			
STATION	---> X	(1)	(2)	(3)	(4)
(1)	R	1.000	0.818	0.893	0.826
	A	1.000	0.720	0.810	0.797
	B	0.0	119.101	44.104	61.290
(2)	R	0.818	1.000	0.812	0.824
	A	0.929	1.000	0.874	0.882
	B	6.309	0.0	-5.606	25.797
(3)	R	0.893	0.812	1.000	0.884
	A	0.985	0.755	1.000	0.964
	B	29.667	147.499	0.0	54.288
(4)	R	0.826	0.824	0.884	1.000
	A	0.856	0.771	0.812	1.000
	B	44.264	101.042	29.808	0.0

Y / X

R : CORRELATION COEFFICIENT
REGRESSION LINE : $Y = A \cdot X + B$

(3)

1954--1980

		<u>Daily</u>		
STATION	---> X	(1)	(2)	(3)
(1)	R	1.000	0.255	0.358
	A	1.000	0.266	0.347
	B	0.0	17.132	12.598
(2)	R	0.255	1.000	0.259
	A	0.227	1.000	0.230
	B	12.974	0.0	12.812
(3)	R	0.358	0.259	1.000
	A	0.370	0.261	1.000
	B	14.514	16.939	0.0

Y / X

R : CORRELATION COEFFICIENT
REGRESSION LINE : $Y=A \cdot X+B$

		<u>5 day average</u>		
STATION	---> Y	(1)	(2)	(3)
(1)	R	1.000	0.554	0.643
	A	1.000	0.644	0.601
	B	0.0	6.318	5.260
(2)	R	0.554	1.000	0.546
	A	0.477	1.000	0.434
	B	5.183	0.0	5.591
(3)	R	0.643	0.546	1.000
	A	0.680	0.686	1.000
	B	4.958	6.690	0.0

Y / X

R : CORRELATION COEFFICIENT
REGRESSION LINE : $Y=A \cdot X+B$

(4)

1954--1980

		<u>10 day average</u>		
STATION	---> Y	(1)	(2)	(3)
(1)	H	1.000	0.648	0.730
	A	1.000	0.755	0.673
	B	0.0	4.598	3.889
(2)	F	0.648	1.000	0.632
	A	0.556	1.000	0.486
	B	3.752	0.0	4.418
(3)	H	0.720	0.632	1.000
	A	0.703	0.823	1.000
	B	3.094	4.614	0.0

Y / X

R : CORRELATION COEFFICIENT
REGRESSION LINE : $Y=A*X+B$

		<u>Monthly total</u>		
STATION	---> X	(1)	(2)	(3)
(1)	H	1.000	0.847	0.883
	A	1.000	0.938	0.805
	B	0.0	64.663	57.218
(2)	F	0.847	1.000	0.819
	A	0.766	1.000	0.667
	B	27.716	0.0	50.353
(3)	H	0.883	0.819	1.000
	A	0.969	1.006	1.000
	B	18.615	63.652	0.0

Y / X

R : CORRELATION COEFFICIENT
REGRESSION LINE : $Y=A*X+B$

Table 3B-6 Mean Daily Temperature at Tharrawaddy

(Unit: °C)

<u>Year</u>	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>Apr.</u>	<u>May</u>	<u>Jun.</u>	<u>Jul.</u>	<u>Aug.</u>	<u>Sep.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>
1968	23.1	23.6	28.8	30.1	29.9	*	27.4	27.1	27.8	26.7	26.9	24.5
1969	22.6	25.3	28.7	31.9	30.9	27.9	27.5	29.4	27.5	28.4	26.4	23.7
1970	23.3	25.0	29.1	31.3	29.4	27.9	27.3	27.4	27.7	27.5	25.7	23.6
1971	22.8	24.2	28.8	*	*	27.0	26.9	26.8	28.1	27.2	24.2	*
1972	*	*	*	*	*	28.0	27.4	27.2	28.3	28.7	26.7	24.8
1973	23.5	26.5	28.9	31.5	28.0	28.4	27.5	27.0	27.6	28.0	25.5	24.5
1974	20.9	24.4	28.1	28.8	29.1	26.9	26.7	27.0	27.4	28.2	26.8	23.4
1975	23.5	25.1	28.6	30.5	29.2	27.4	27.2	27.3	27.5	27.8	26.0	22.1
1976	22.1	24.1	28.2	30.7	28.4	27.6	27.2	26.9	27.5	28.3	27.3	23.1
1977	22.0	25.4	29.3	30.7	29.8	27.9	27.9	27.3	27.8	27.5	26.2	23.8
1978	22.9	25.5	28.2	31.4	30.7	27.9	27.6	27.0	27.6	27.7	26.5	23.8
1979	23.9	25.6	29.0	31.6	31.1	28.5	28.2	27.0	28.4	28.0	27.0	24.7
1980	23.1	25.0	29.7	32.7	31.7	27.6	27.1	27.1	27.5	27.9	27.2	*
Mean	22.8	25.0	28.8	31.0	29.8	27.8	27.4	27.3	27.7	27.8	26.3	23.8

Table 3B-7 Mean Monthly Wind Velocity at Tharrawaddy

Year	(Unit: mile/hour)										
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Total
1970	3.0	2.0	2.4	3.0	2.9	3.6	3.7	2.3	2.6	2.6	395
1971	2.8	2.4	2.5	2.6	2.7	2.8	1.8	1.3	1.0	1.6	302
1972	1.9	2.0	2.8	3.1	3.3	2.2	2.2	2.1	1.7	1.2	299
1973	1.8	2.4	2.7	3.7	2.8	2.2	3.0	2.6	1.8	1.9	304
1974	1.3	1.9	2.8	2.4	2.9	2.6	2.7	2.6	2.1	1.6	286
1975	3.0	1.7	2.2	2.9	3.3	4.5	1.9	2.2	1.8	2.3	313
1976	2.0	2.3	3.1	3.5	2.4	2.0	2.1	2.1	2.0	1.4	274
1977	1.9	1.8	1.9	3.0	2.8	2.3	2.7	2.6	2.0	1.9	277
1978	2.4	2.2	2.5	3.1	3.1	2.9	2.7	3.1	2.6	1.9	340
1979	4.5	3.4	3.8	4.3	4.2	4.1	3.8	3.5	2.7	2.4	435
1980	3.6	3.1	3.8	4.2	4.9	2.9	2.3	1.9	1.6	1.3	325
Mean	2.6	2.3	2.8	3.3	3.2	2.9	2.6	2.4	2.0	1.8	3550/2.7

Table 3B-8 Mean Daily Relative Humidity at Imaubi

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	(Unit: %)											
1961	65	64	53	57	79	88	93	94	92	88	80	72
1962	64	59	55	61	76	90	92	91	90	84	74	70
1963	63	60	56	54	66	90	93	92	93	86	78	79
1964	66	52	43	53	83	90	88	92	91	88	80	71
1965	63	53	50	52	78	92	89	90	90	87	78	79
1966	70	49	56	57	81	90	92	92	90	85	85	71
1967	61	54	55	60	74	87	86	93	89	86	76	69
1968	61	55	48	58	76	91	92	94	88	85	71	69
1969	58	57	54	57	73	89	92	93	89	78	74	66
1970	60	50	53	54	83	90	85	93	90	84	78	77
1971	65	53	56	49	70	93	92	94	87	81	74	72
1972	61	55	56	62	71	90	93	93	85	83	78	77
1973	66	63	59	57	85	90	93	93	92	83	83	72
1974	59	53	58	57	81	86	91	93	87	83	83	74
1975	73	64	65	54	84	91	90	91	88	88	66	67
1976	63	50	57	61	86	88	90	87	89	84	78	74
1977	69	57	63	52	75	85	88	90	87	81	74	70
1978	67	58	60	55	72	86	87	92	88	81	72	63
1979	56	53	51	57	76	88	89	90	85	80	72	62
1980	56	48	60	55	63	90	93	88	91	78	78	68
Mean	63	55	55	56	77	89	90	92	89	84	77	71

Table 3B-9 Mean Monthly Sunshine Time at Hmawbi

Year	(Unit: hour/day)												
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1963	9.0	8.4	8.3	9.5	8.5	3.1	1.5	2.7	3.1	6.7	9.0	8.4	782
1964	9.9	9.7	8.2	9.7	5.2	2.3	4.2	2.6	3.7	6.0	8.2	*	697
1965	*	*	*	*	*	*	*	*	*	*	*	*	*
1966	*	*	*	*	*	*	*	*	*	*	*	*	*
1967	0	0	0	0	0	1.8	2.9	1.2	3.4	6.2	9.4	9.2	541
1968	9.4	9.8	8.8	9.6	8.4	3.1	2.4	2.3	4.7	6.5	9.0	9.7	837
1969	8.7	9.9	8.2	9.6	6.4	2.6	2.0	2.7	4.8	8.0	8.4	9.9	812
1970	9.7	9.5	9.1	9.7	4.7	2.7	1.8	2.9	4.0	6.7	8.4	7.7	769
1971	9.2	10.1	8.3	10.4	7.2	2.2	2.0	2.2	5.0	7.1	9.1	9.2	820
1972	9.5	10.0	8.6	8.7	7.2	3.5	2.0	2.8	4.9	8.2	6.8	5.6	778
1973	9.7	9.6	8.2	10.0	5.2	3.7	2.0	2.0	3.5	8.2	6.8	9.3	782
1974	9.7	10.0	8.3	9.2	6.7	2.5	2.6	3.5	5.3	6.5	6.7	9.7	807
1975	8.0	9.4	8.2	8.7	5.0	2.5	3.1	2.4	4.0	5.5	9.2	8.9	749
1976	9.1	9.6	8.9	8.8	5.2	4.3	1.9	3.0	4.1	7.1	8.3	8.2	785
1977	8.8	9.7	8.0	9.4	9.1	3.8	0	0	4.3	7.4	0	0	605
1978	0	0	0	0	0	0	1.7	1.9	3.1	4.3	9.2	9.4	296
1979	9.2	9.3	9.5	9.0	5.5	3.0	1.1	2.2	5.8	7.4	0	8.6	706
1980	9.4	9.7	9.2	9.6	7.1	3.4	2.2	3.5	3.5	6.6	7.6	8.8	806
Mean	8.1	8.4	7.5	8.2	5.7	2.8	2.1	2.4	4.2	6.8	7.3	7.7	5.9/11372

Table 3B-10 Monthly Total Evaporation at Tharrawaddy

Year	(Unit: mm)										
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Total
1966	*	*	*	*	*	117	105	95	111	116	*
1967	139	140	217	243	84	45	43	*	110	122	*
1968	133	160	233	240	192	114	96	90	117	121	1,770
1969	146	168	223	*	189	114	112	118	117	140	*
1970	123	153	204	246	156	109	*	155	121	113	*
1971	129	163	220	243	216	123	144	150	167	196	2,017
1972	130	165	228	194	203	111	112	121	119	122	1,702
1973	114	134	189	238	188	144	115	119	118	126	1,695
1974	115	160	202	222	187	108	122	122	137	180	1,914
1975	140	157	223	233	173	123	125	151	146	161	1,922
1976	119	153	217	228	129	98	84	99	118	148	1,750
1977	*	*	261	*	*	52	59	52	74	122	*
1978	151	175	231	259	163	72	61	42	80	103	1,596
1979	146	183	221	209	145	96	82	65	109	151	1,674
1980	167	178	241	245	224	41	31	20	38	110	1,536
Mean/month	135	161	222	233	173	98	92	100	112	135	1,730
Mean/day	4.4	5.7	7.2	7.8	5.6	3.3	3.0	3.2	3.7	4.5	4.4

Note: * no data

Runoff Analysis by the Multiple Regression Method

This method is applied to analyze the rainfall-runoff, in placing the catchment area as black box, by solving the response function of input-output by multiple regression analysis. Herein, the method developed by Shiraishi, Onishi and Ito of the Agricultural Engineering Research Station, Ministry of Agriculture, Forestry and Fisheries, Japan, was applied, although there is a variety of approaches available.

The method used herein is to explain the runoff by linear part of the rainfall and the non-linear second order terms on the part that cannot be given by the linear expression, and no higher terms than the third order shall be out of consideration. In particular, the runoff will be given in a statistical unit hydrograph when only the linear part is obtained.

1. Theory of Runoff Analysis by Multiple Regression Method

When the observation values of runoff (Q) and rainfall (R) are available, the runoff (Q) in general can be given as function of the rainfall (R).

$$Q_i = f(R_{i1}, R_{i2}, R_{i3}, \dots, R_{in}) \quad (1)$$

Where, R_{i1} = Rainfall on the day when runoff takes place

R_{i2} = Rainfall one day before runoff takes place

R_{i3} = Rainfall two days before runoff takes place

If runoff can be given as the first order combination of rainfall, the equation (1) can be expressed as follows;

$$Q_i = \beta_0 + \beta_1 R_{i1} + \beta_2 R_{i2} + \dots + \beta_n R_{in} + \epsilon_i \quad (2)$$

Where, $\beta_0, \beta_1, \dots, \beta_n$ = Unknown parameters

ϵ_i = The residues that cannot be expressed by $R_{i1} \dots R_{in}$

The multiple regression analysis is to obtain the best available universal estimates of these known parameters, $\beta_0, \beta_1, \dots, \beta_n$, by the method of the least squares.

In order to obtain the b_0, b_1, \dots, b_n as the estimates of $\beta_0, \beta_1, \dots, \beta_n$, the quadratic sum of the residues,

$$E = \sum \{Q_i - (b_0 + b_1 R_{i1} + \dots + b_n R_{in})\}^2 \quad (3)$$

shall be minimized. In other words, the following equation can be obtained.

$$\left. \begin{aligned} \frac{\partial E}{\partial b_0} &= -2 \sum \{Q_i - (b_0 + b_1 R_{i1} + \dots + b_n R_{in})\} = 0 \\ \frac{\partial E}{\partial b_1} &= -2 \sum R_{i1} \{Q_i - (b_0 + b_1 R_{i1} + \dots + b_n R_{in})\} = 0 \\ \frac{\partial E}{\partial b_n} &= -2 \sum R_{in} \{Q_i - (b_0 + b_1 R_{i1} + \dots + b_n R_{in})\} = 0 \end{aligned} \right\} \quad (4)$$

These equations shall be arranged to obtain a first order simultaneous equation, so-called normal equation, with b_0, b_1, \dots, b_n as unknowns.

$$\left. \begin{aligned} n b_0 + (\sum R_{i1}) b_1 + (\sum R_{i2}) b_2 + \dots + (\sum R_{in}) b_n &= \sum Q_i \\ (\sum R_{i1}) b_0 + (\sum R_{i1}^2) b_1 + (\sum R_{i1} R_{i2}) b_2 + \dots + (\sum R_{i1} R_{in}) b_n &= \sum R_{i1} Q_i \\ (\sum R_{i2}) b_0 + (\sum R_{i1} R_{i2}) b_1 + (\sum R_{i2}^2) b_2 + \dots + (\sum R_{i2} R_{in}) b_n &= \sum R_{i2} Q_i \end{aligned} \right\} \quad (5)$$

$$(\sum R_{in})b_0 + (\sum R_{i1}R_{in})b_1 + (\sum R_{i2}R_{in})b_2 + \dots + (\sum R_{in}^2)b_n = \sum R_{in} Q_i$$

The second order term expressing the non-linear runoff shall be given by the following second order regression model so as to express the residue (e) between observation values and the linear estimated discharges.

$$\begin{aligned} e_i &= Q_i - EQ_i \\ &= \alpha_0 + \sum_{j=1}^{i+n} \sum_{k=j}^{i+n} \alpha_{jk} R_j R_k + \epsilon_i \end{aligned} \quad (6)$$

In the same manner that was applied to the case of the linear part of runoff, the quadratic sum of the residues shall be minimized to determine α_0 , α_{ij} . When the best available universal estimates are taken as a_0 and a_{ij} , the quadratic sum of the residues which can be expressed by

$$E = \sum \{e_i - (a_0 + \sum_{j=1}^{i+n} \sum_{k=j}^{i+n} a_{jk} R_j R_k)\}^2 \quad (7)$$

requires to establish the following equation for minimizing the value of the equation (7).

$$\frac{\partial E}{\partial a_0} = -2 \sum \{e_i - (a_0 + \sum_{j=1}^{i+n} \sum_{k=j}^{i+n} a_{jk} R_j R_k)\} = 0 \quad (8)$$

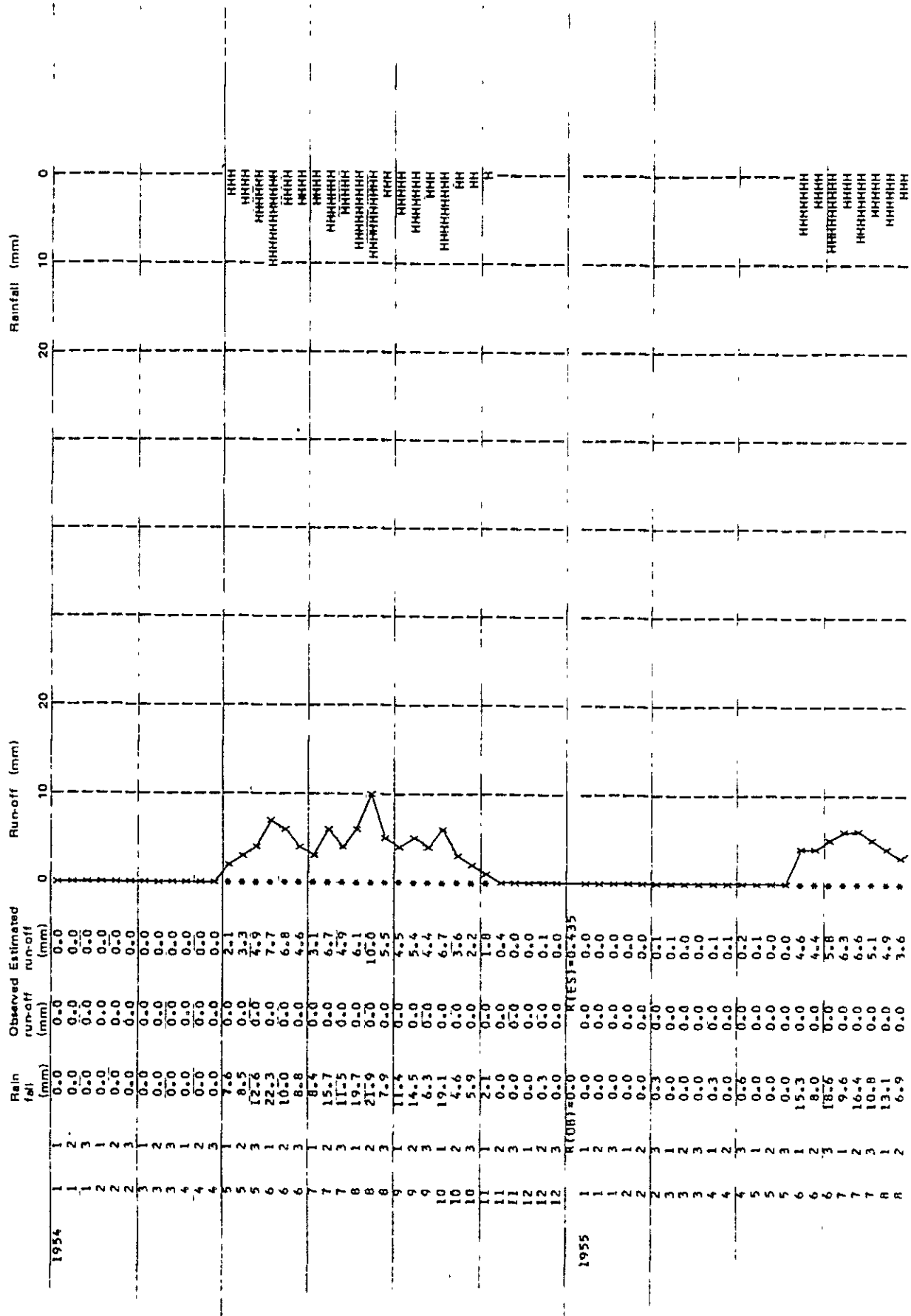
$$\frac{\partial E}{\partial a_{em}} = -2 \sum R_e R_m \{e_i - (a_0 + \sum_{j=1}^{i+n} \sum_{k=j}^{i+n} a_{jk} R_j R_k)\} = 0$$

The above is a simultaneous equation with a_0 and a_{jk} as unknowns, and this is arranged to give the following equations.

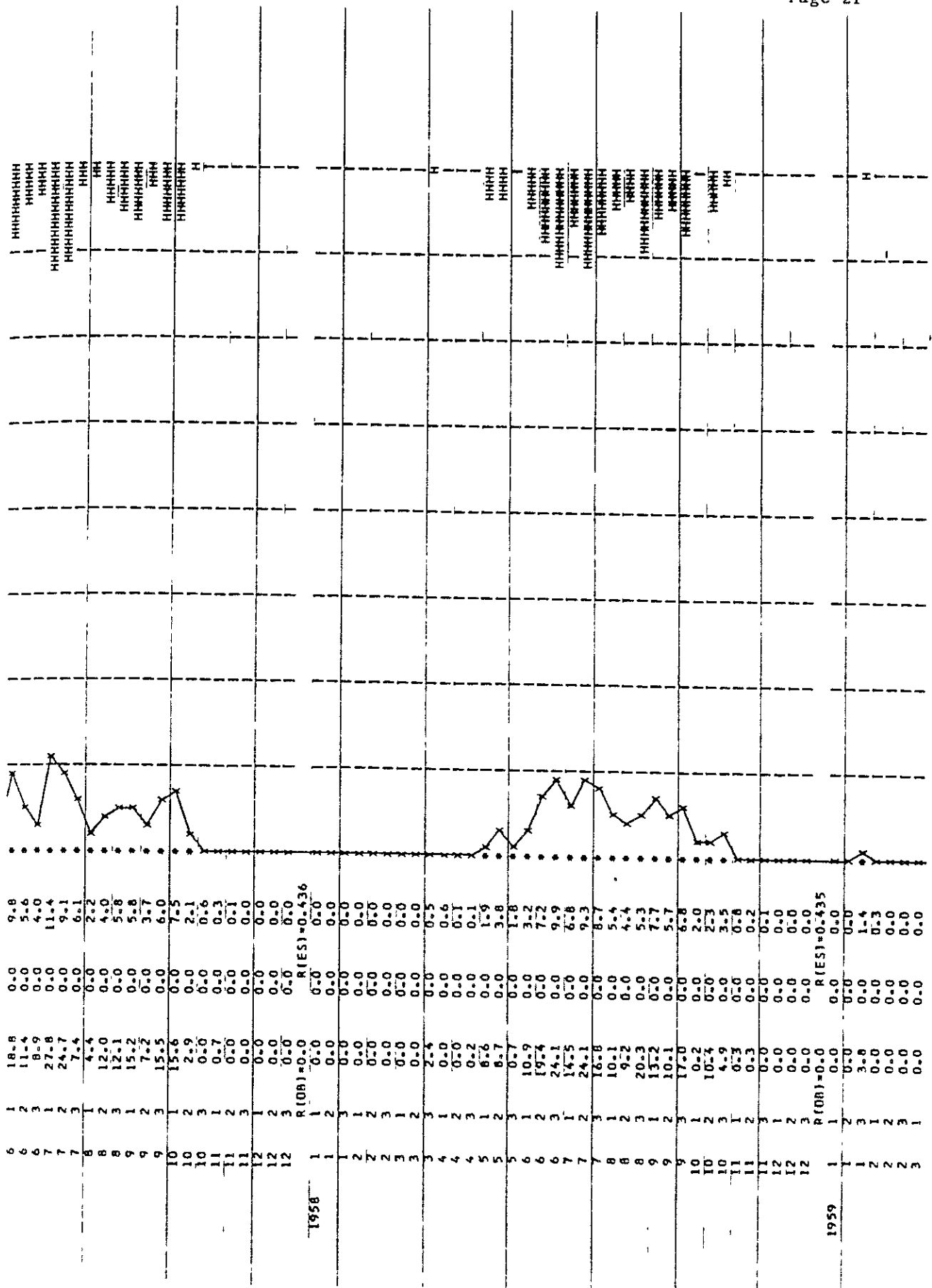
$$na_o + \sum_{j=i}^{i+n} \sum_{k=j}^{i+n} a_{jk} R_j R_k = \sum e_i$$

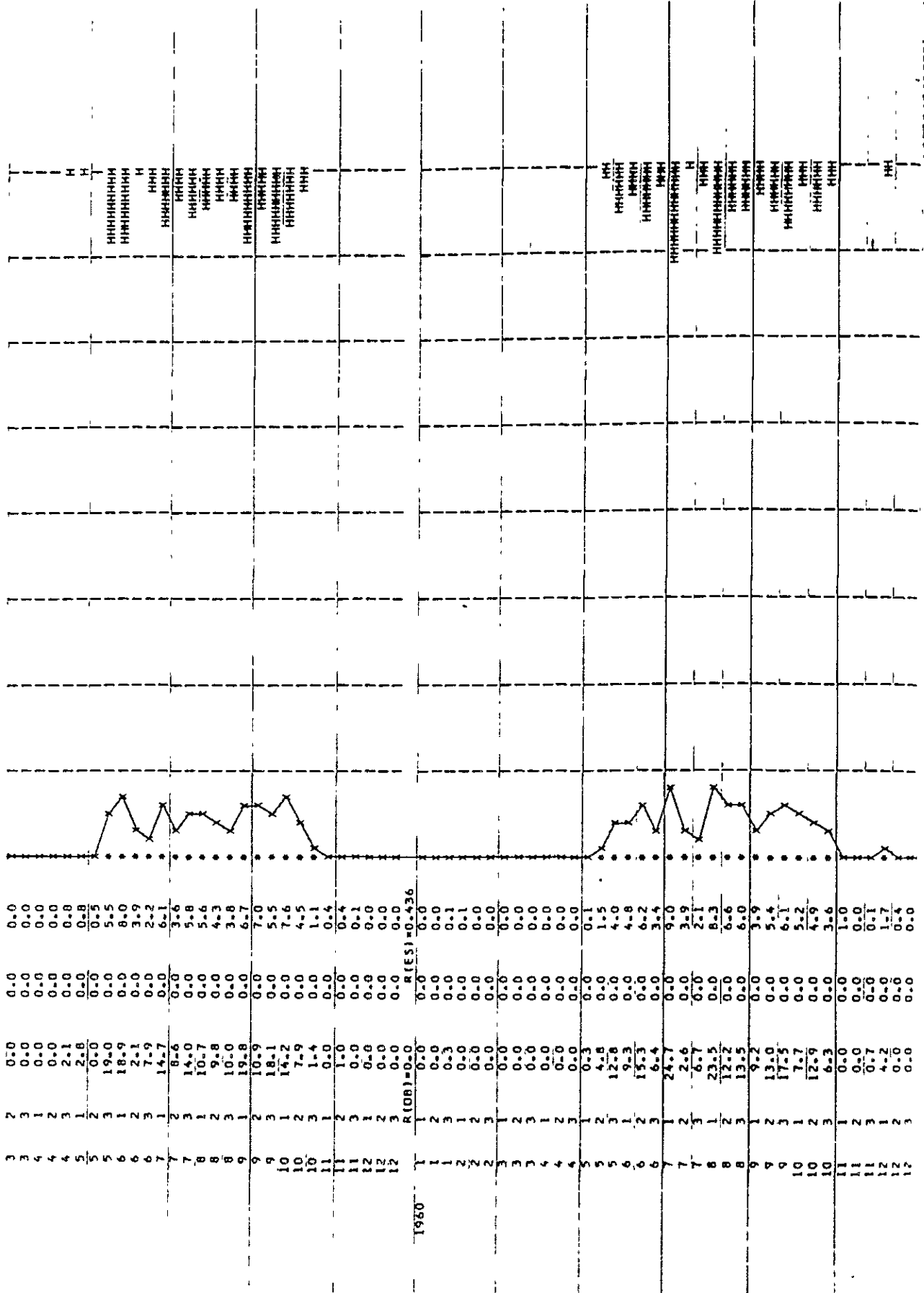
$$(\sum Re R_m) a_o + \sum_{j=i}^{i+n} \sum_{k=j}^{i+n} a_{jk} R_j R_k = \sum Re R_m e_i$$

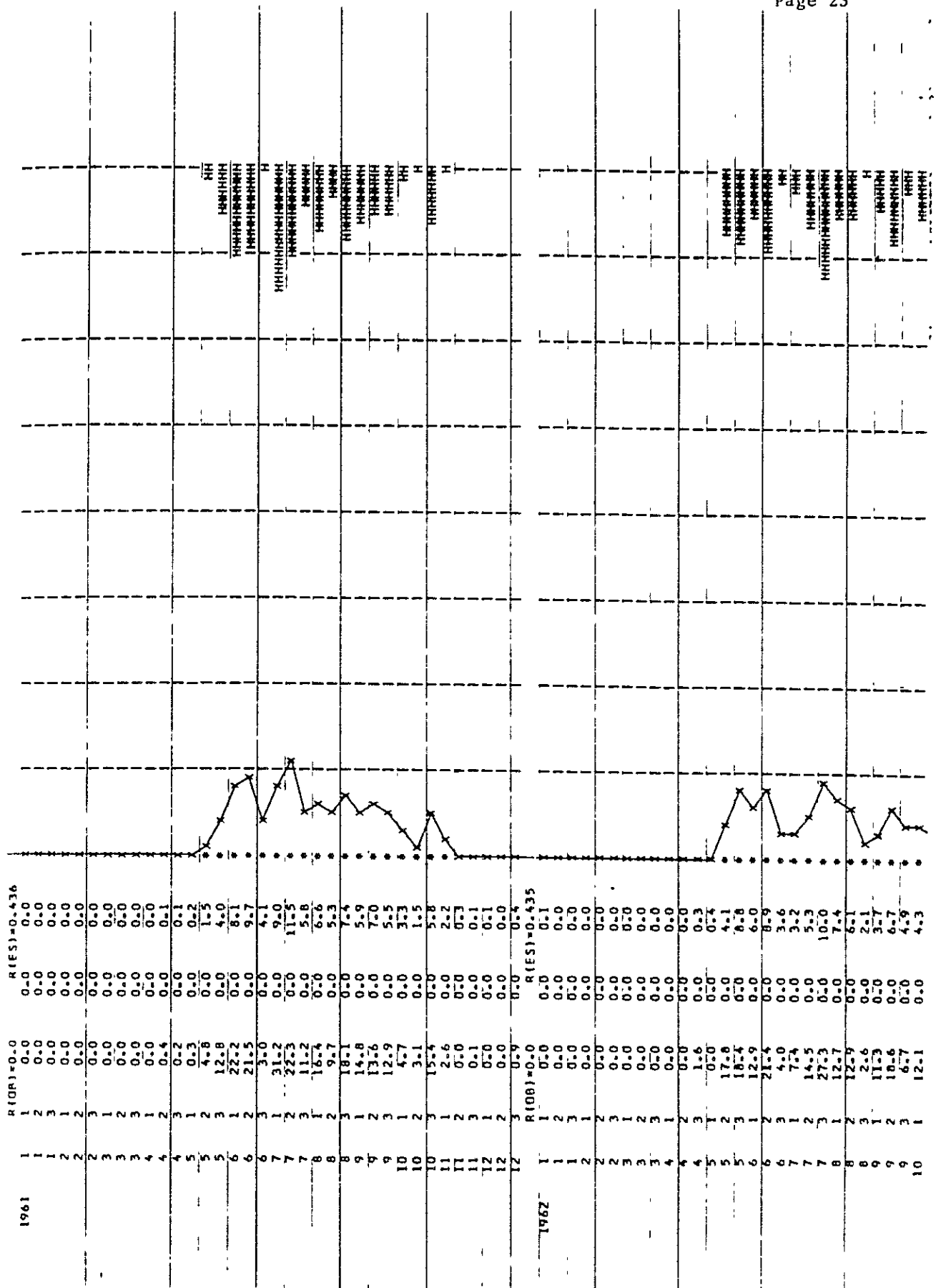
Table 3B-11 (1) Run-off Analysis by Multiple Regression Method

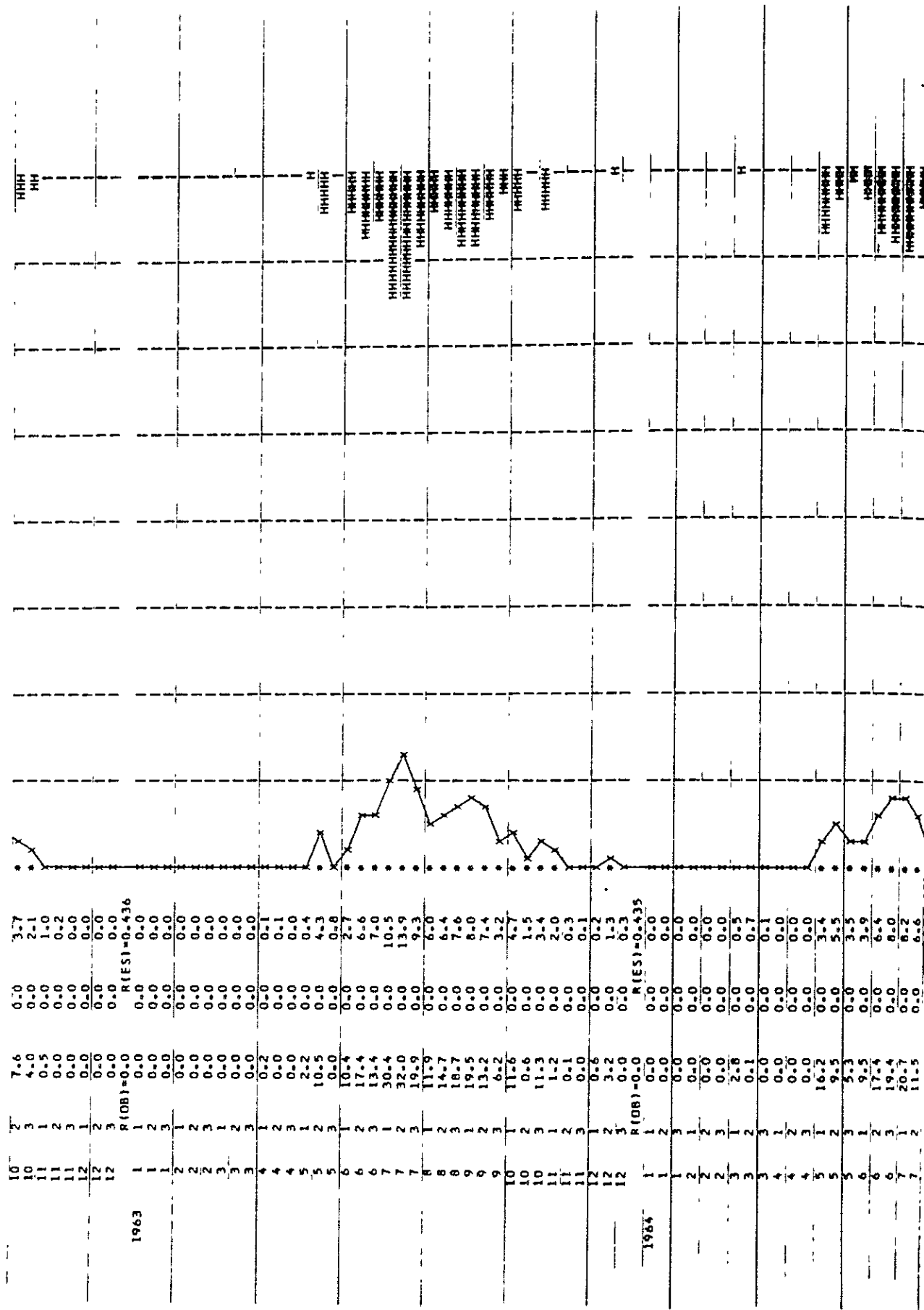


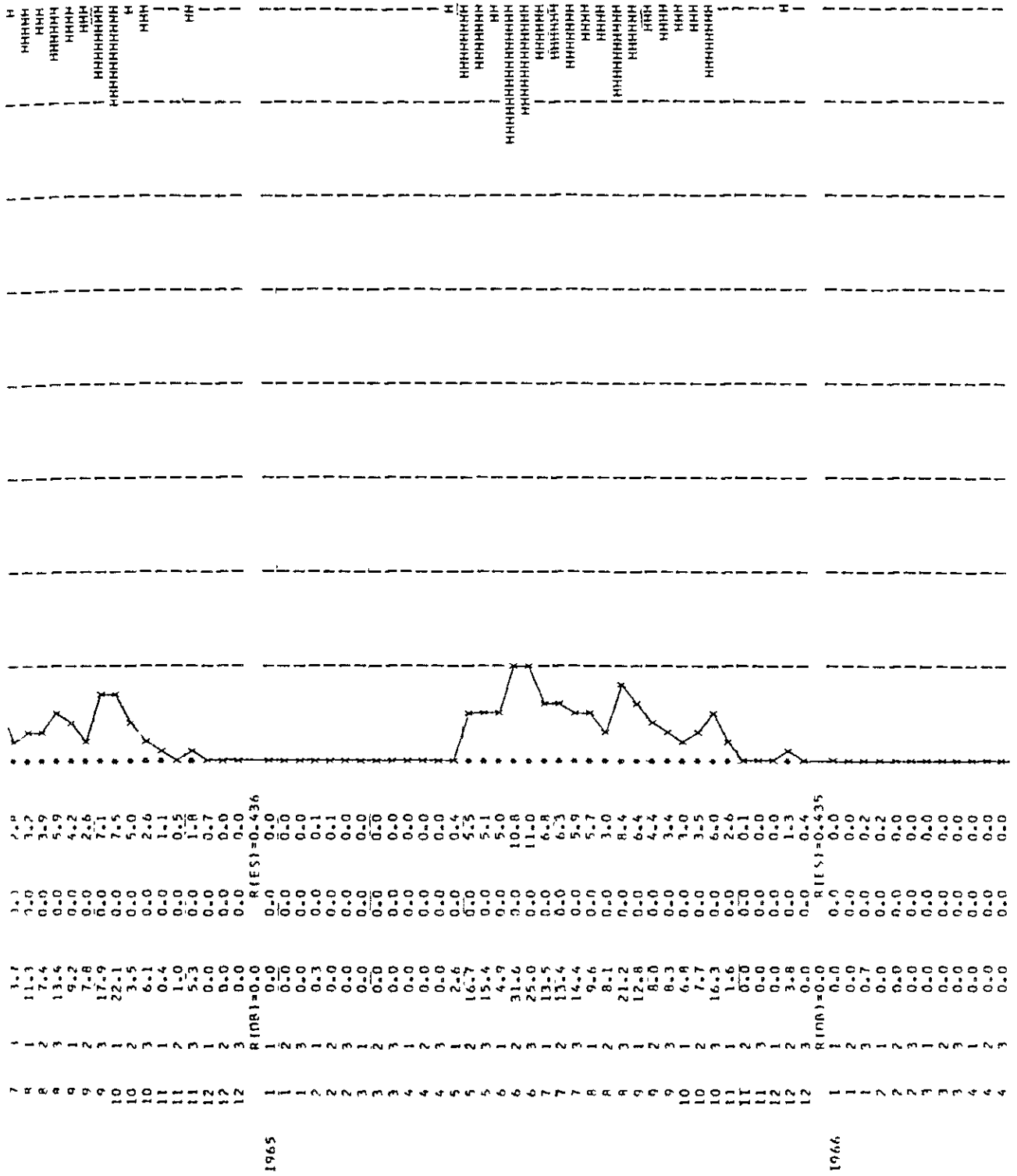




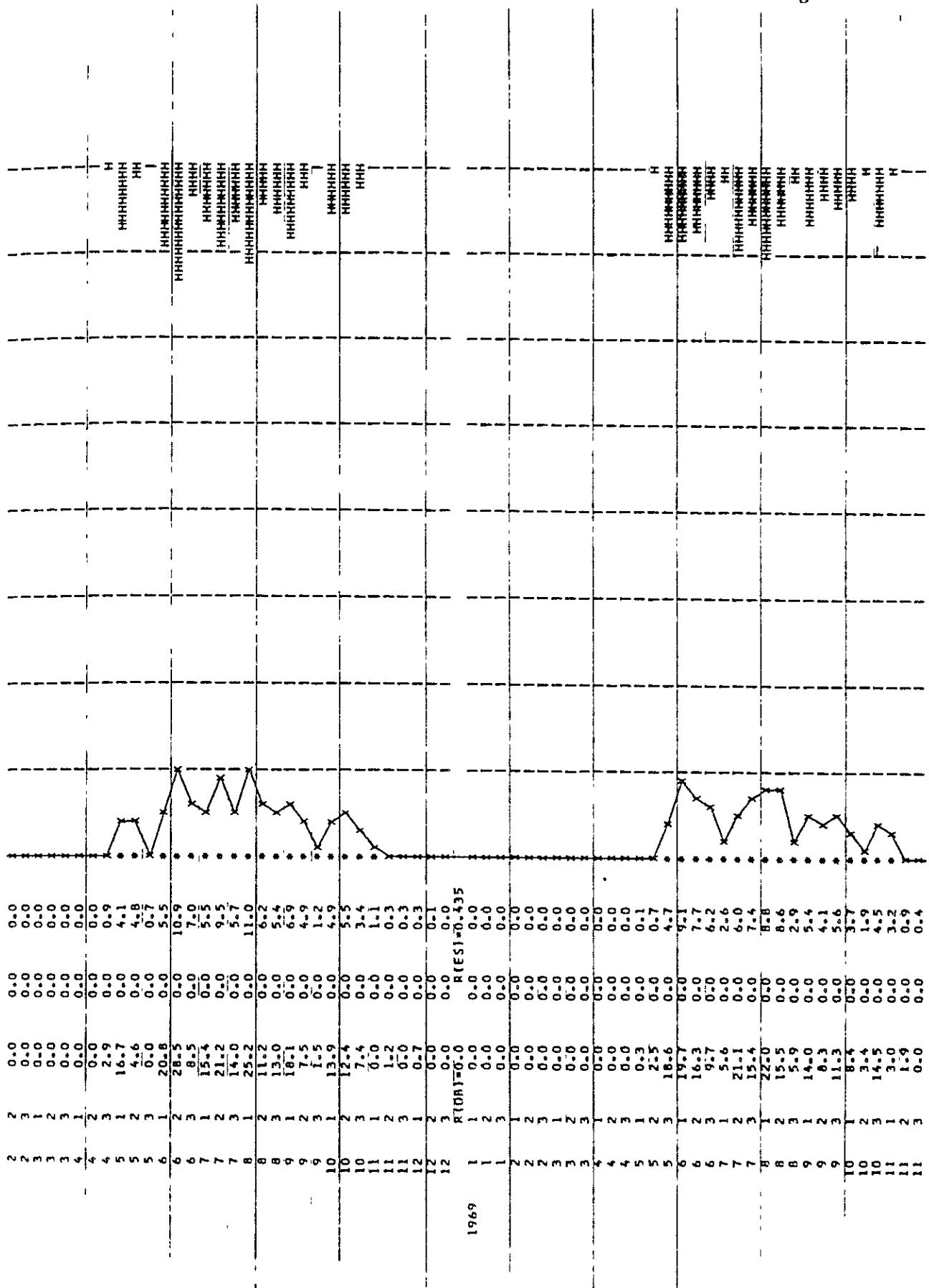


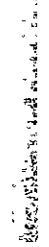


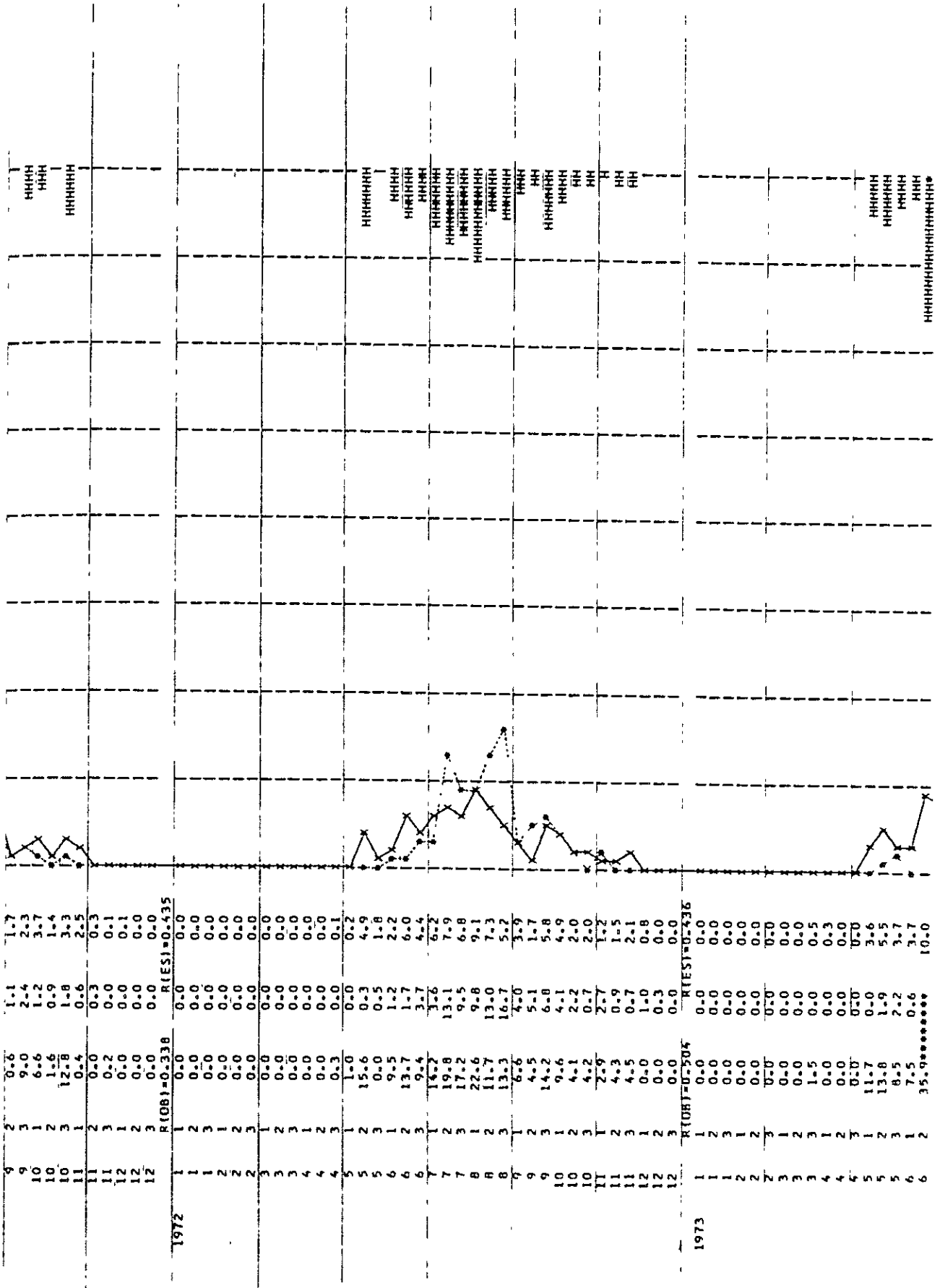


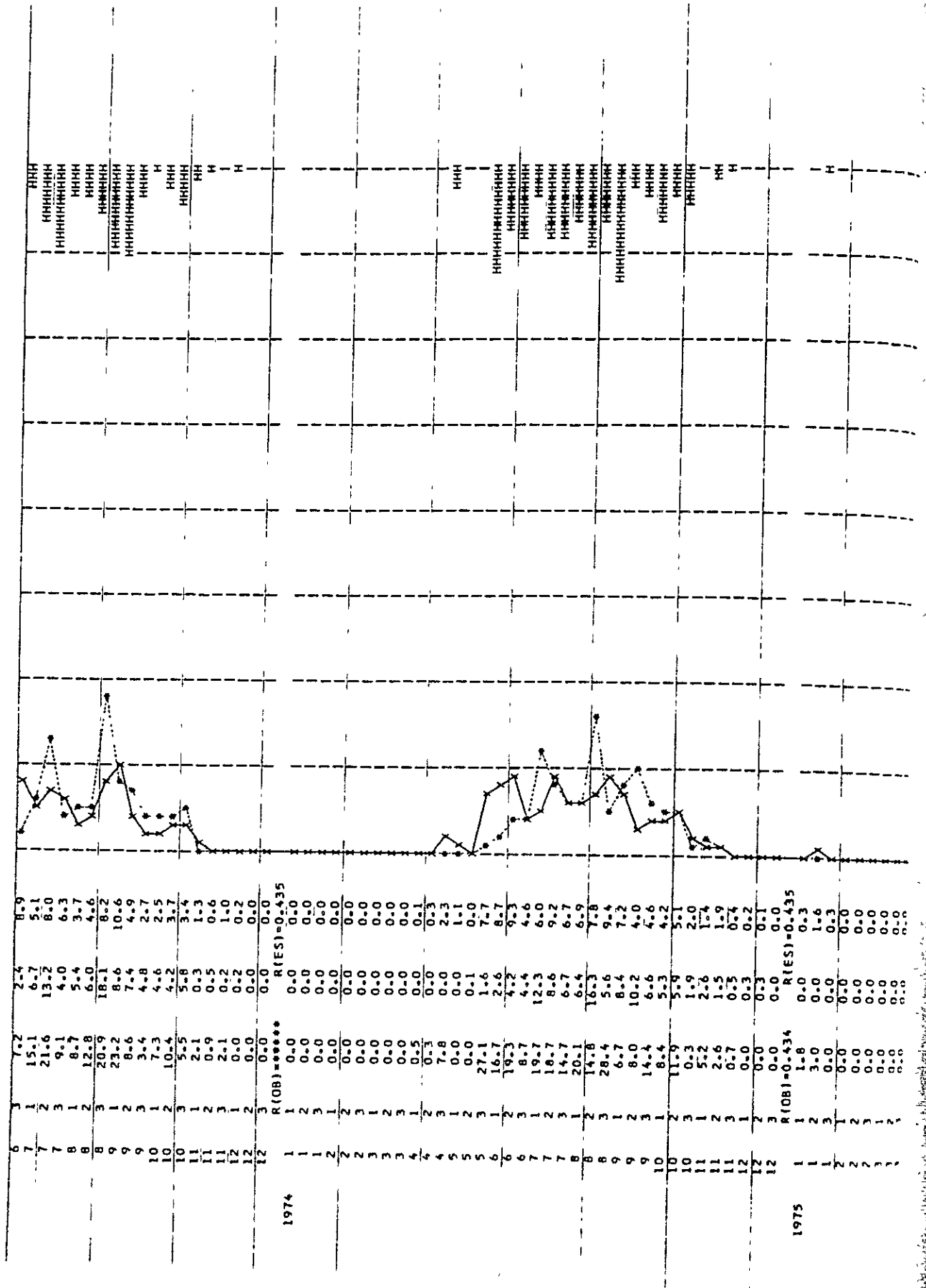


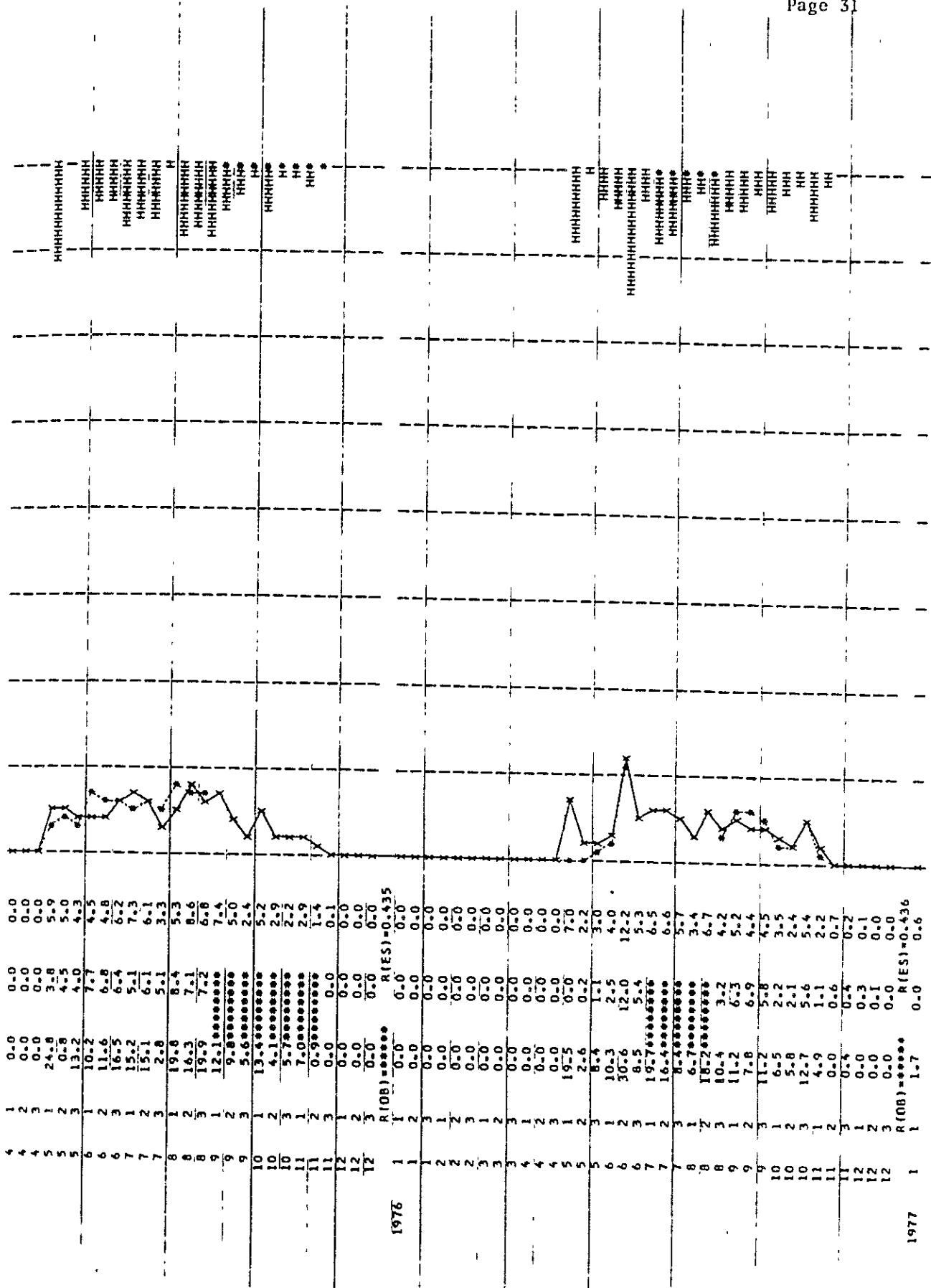


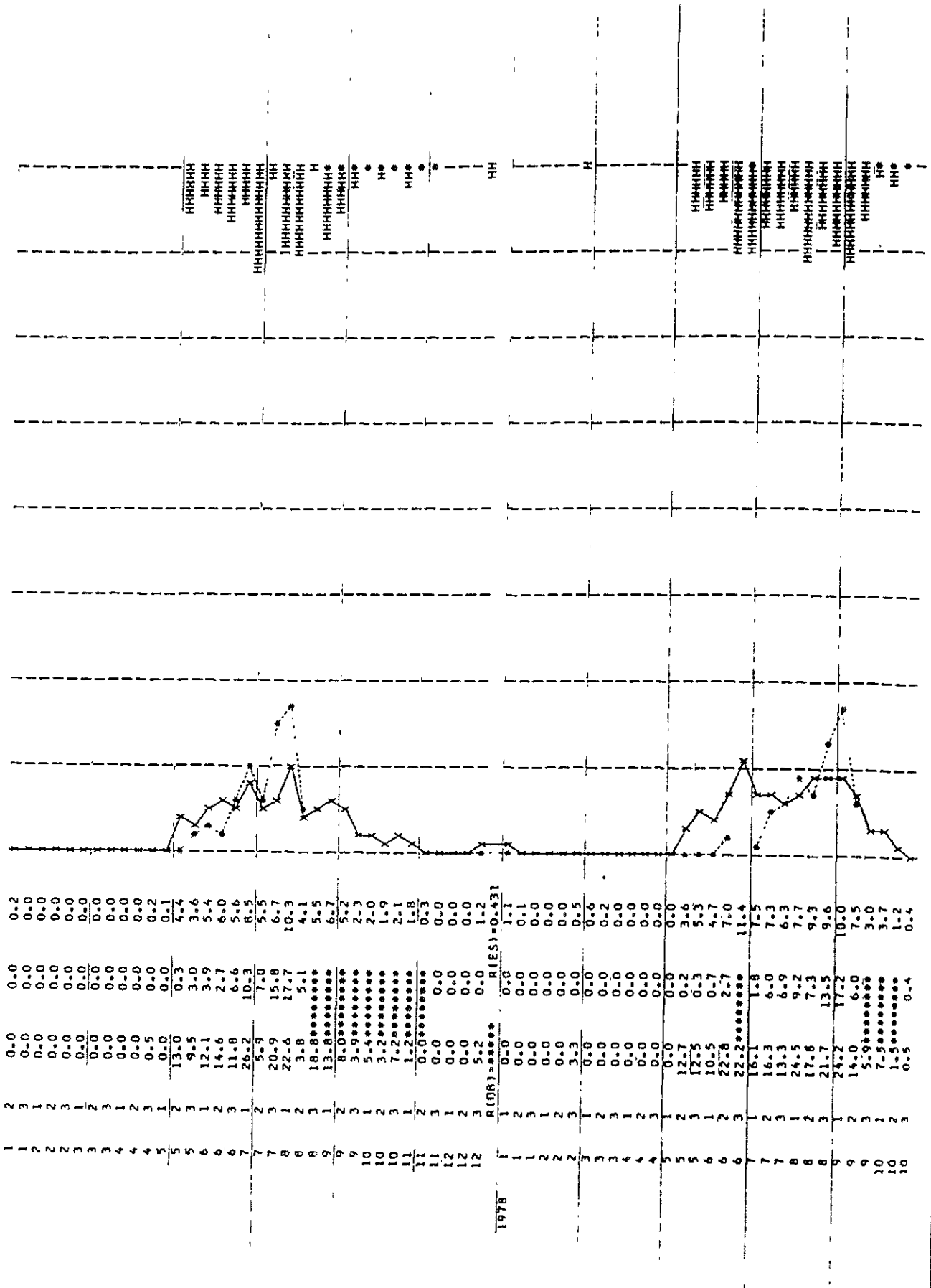


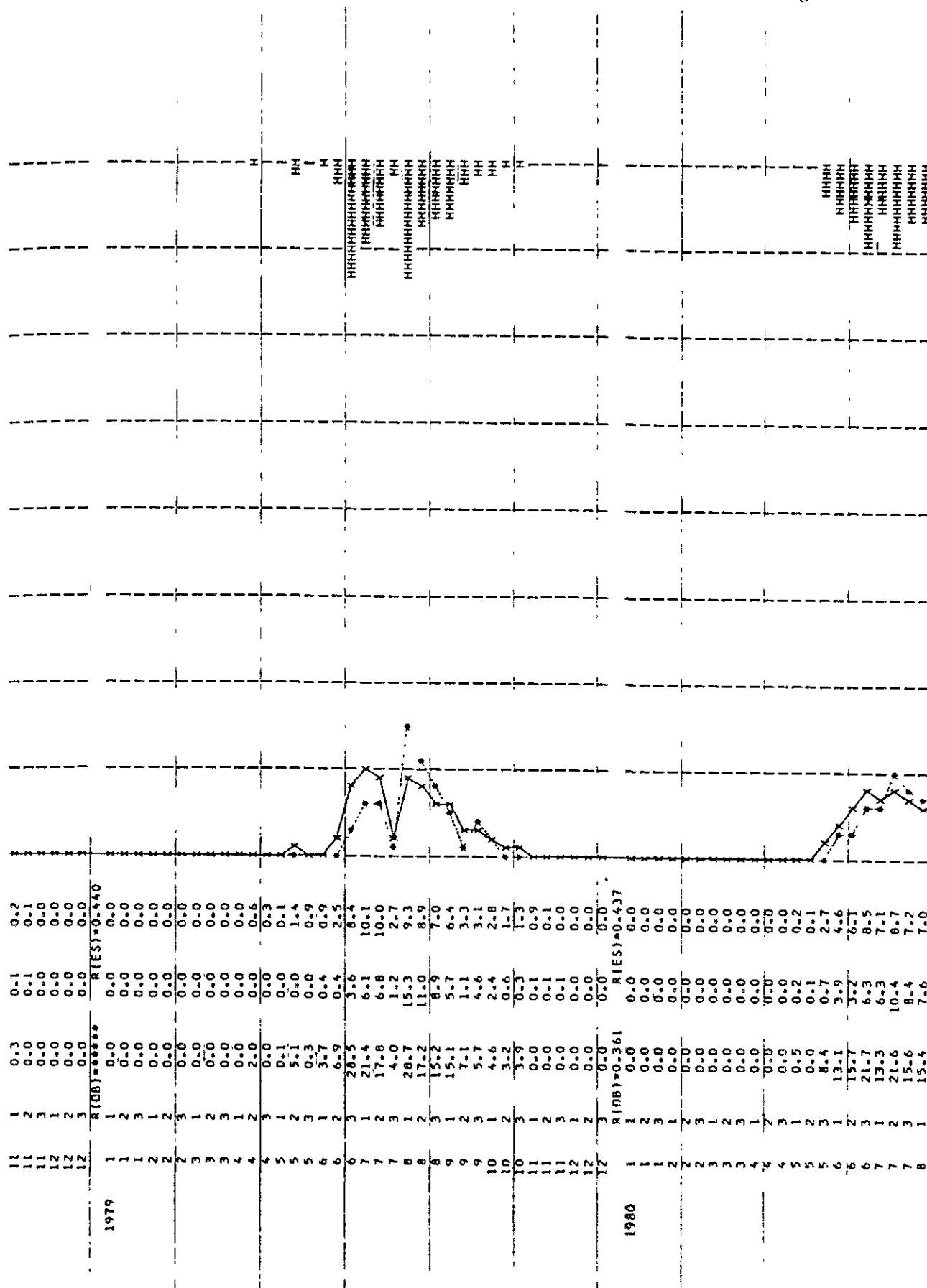












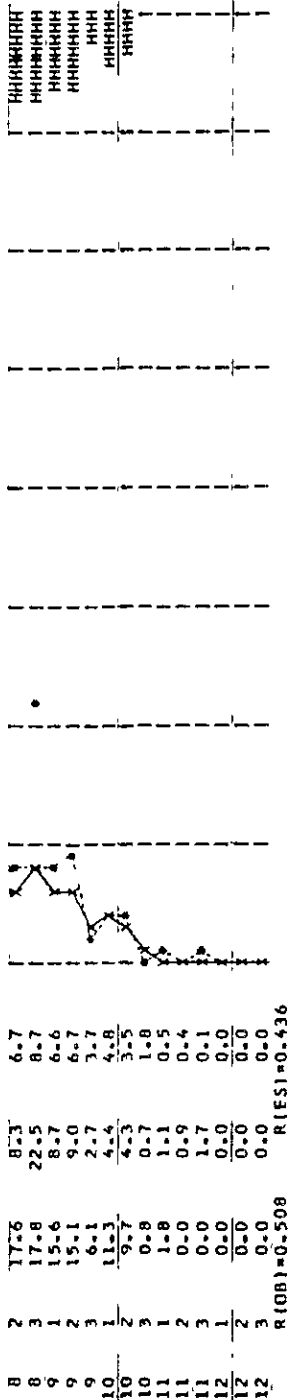


Table 3B-12 (1) Run-off of the Okkan Chaung at Main Dam Site

STATION OKKAN DAM SITE (CA=225 SC.M)

MONTHLY DISCHARGE (CUM/SEC)

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL
1954	0.0	0.0	0.0	0.0	282.7	497.0	395.0	577.7	271.7	330.7	57.0	4.5	2516.3
1955	0.0	2.9	1.2	9.5	2.9	385.9	490.8	341.0	401.8	201.5	53.4	0.0	1881.0
1956	0.0	6.3	0.0	5.9	470.2	446.8	460.8	493.0	453.1	289.7	10.2	0.0	2636.0
1957	0.0	2.6	0.0	0.0	81.4	504.9	707.4	327.0	403.4	266.1	10.7	0.0	2303.5
1958	0.0	0.0	13.4	18.8	198.7	529.1	665.0	409.2	526.0	212.8	28.6	0.0	2605.6
1959	39.6	8.4	0.0	20.7	193.3	367.0	420.3	368.8	501.3	347.5	22.9	0.0	2289.8
1960	2.5	2.8	0.0	0.0	156.9	376.9	395.0	561.1	491.4	368.9	28.5	53.7	2347.7
1961	0.0	0.0	0.0	6.3	158.7	570.7	698.0	521.7	476.3	289.8	67.5	11.1	2800.1
1962	2.4	0.0	0.0	6.3	368.8	491.1	507.1	412.1	400.0	269.7	30.0	0.0	2477.3
1963	0.0	0.0	0.0	3.3	145.2	424.0	905.0	539.1	485.9	258.7	62.1	44.4	2867.7
1964	0.0	0.0	33.8	0.0	332.6	476.3	466.3	352.3	363.8	358.8	68.8	19.0	2531.7
1965	0.0	4.5	0.0	0.0	300.1	656.5	512.6	465.9	368.2	340.5	71.3	44.3	2803.9
1966	5.4	4.9	0.0	0.0	130.3	474.2	595.3	594.8	339.6	222.0	6.5	41.6	2424.6
1967	46.2	0.0	0.0	0.0	304.3	245.9	539.2	652.0	458.3	249.8	79.5	0.0	2595.4
1968	5.8	0.0	0.0	22.3	251.6	610.3	551.6	603.6	337.8	369.6	42.7	9.6	2805.0
1969	0.0	0.0	0.0	0.0	154.9	557.9	437.3	536.1	393.5	276.4	115.9	0.2	2512.2
1970	0.0	0.0	0.0	0.0	306.2	372.4	608.2	573.0	440.3	286.4	68.5	3.6	2658.5
1971	0.0	0.0	0.0	0.0	0.0	284.7	777.5	631.4	209.4	105.2	22.4	0.0	2030.5
1972	0.0	0.0	0.0	0.0	22.2	171.1	706.3	1073.7	413.3	183.3	110.7	32.6	2713.1
1973	0.0	0.0	0.0	0.0	111.7	249.0	633.9	813.1	540.7	353.4	27.5	5.7	2775.0
1974	0.0	0.0	0.0	0.0	47.9	291.2	737.5	750.0	656.2	345.4	121.6	13.6	2963.4
1975	0.0	0.0	0.0	0.0	330.2	543.9	435.9	611.4	386.2	352.1	175.0	0.0	2834.8
1976	0.0	0.0	0.0	0.0	36.2	517.1	520.2	350.6	496.1	271.7	55.6	12.5	2259.9
1977	0.0	0.0	0.0	0.0	93.4	343.4	903.0	884.0	370.5	162.8	51.8	0.0	2809.0
1978	0.0	0.0	0.0	0.0	16.0	200.8	400.4	816.6	730.7	163.1	5.1	0.2	2333.0
1979	0.0	0.0	0.0	0.0	2.8	113.8	368.6	939.7	248.1	86.1	7.3	0.7	1817.1
1980	0.0	0.0	0.0	0.0	27.6	350.5	674.8	1057.9	531.6	245.1	95.2	0.0	2982.8

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1954 (CUM/SEC)

CAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	0.0	0.0	0.0	0.0	0.768	15.224	3.374	5.792	8.835	12.336	8.421	0.0
2	0.0	0.0	0.0	0.0	0.375	13.592	3.984	13.123	2.766	17.907	1.345	0.0
3	0.0	0.0	0.0	0.0	0.199	22.817	8.774	7.934	19.103	8.702	8.195	0.0
4	0.0	0.0	0.0	0.0	0.355	13.462	14.929	7.944	10.647	19.952	2.185	0.0
5	0.0	0.0	0.0	0.0	1.891	12.748	9.641	6.417	11.600	26.813	0.495	0.0
6	0.0	0.0	0.0	0.0	17.418	24.104	7.069	5.824	9.216	19.520	3.167	0.0
7	0.0	0.0	0.0	0.0	17.158	25.266	7.576	14.886	18.097	24.860	7.211	0.0
8	0.0	0.0	0.0	0.0	7.717	13.541	5.281	18.878	17.754	16.843	6.108	0.0
9	0.0	0.0	0.0	0.0	3.329	20.330	4.001	51.721	13.539	14.773	7.271	0.0
10	0.0	0.0	0.0	0.0	6.470	39.247	15.893	27.373	5.356	12.368	1.360	0.0
11	0.0	0.0	0.0	0.0	4.622	21.921	13.184	25.456	6.879	13.388	2.317	1.176
12	0.0	0.0	0.0	0.0	6.437	17.871	14.224	31.428	6.705	5.960	0.822	0.544
13	0.0	0.0	0.0	0.0	4.890	21.815	27.008	30.272	6.461	11.405	2.341	0.263
14	0.0	0.0	0.0	0.0	1.749	27.118	30.551	31.301	22.200	6.733	1.066	0.153
15	0.0	0.0	0.0	0.0	10.891	13.452	24.540	31.340	13.812	13.130	0.299	0.453
16	0.0	0.0	0.0	0.0	5.629	22.394	16.714	18.391	8.415	10.909	0.928	0.145
17	0.0	0.0	0.0	0.0	4.551	16.533	14.603	17.571	11.971	6.103	0.363	0.449
18	0.0	0.0	0.0	0.0	18.644	14.122	11.495	29.016	25.539	8.816	0.641	0.185
19	0.0	0.0	0.0	0.0	20.645	12.415	13.583	16.628	15.335	12.382	1.714	0.111
20	0.0	0.0	0.0	0.0	7.089	10.022	8.652	30.189	22.190	3.905	0.570	0.228
21	0.0	0.0	0.0	0.0	7.476	8.940	7.418	24.474	10.379	5.097	0.130	0.113
22	0.0	0.0	0.0	0.0	6.654	19.820	7.033	10.482	9.132	3.044	0.0	0.180
23	0.0	0.0	0.0	0.0	4.825	18.687	11.271	13.507	18.945	1.883	0.0	0.341
24	0.0	0.0	0.0	0.0	8.524	20.139	17.654	14.018	15.159	2.950	0.0	0.125
25	0.0	0.0	0.0	0.0	17.691	11.130	11.250	21.058	16.433	2.204	0.0	0.0
26	0.0	0.0	0.0	0.0	15.518	8.227	17.001	23.740	13.030	1.263	0.0	0.0
27	0.0	0.0	0.0	0.0	9.943	6.289	23.537	8.672	11.169	2.835	0.0	0.0
28	0.0	0.0	0.0	0.0	22.888	11.725	12.777	8.427	3.559	25.639	0.0	0.0
29	0.0	0.0	0.0	0.0	20.683	7.477	11.092	11.929	11.614	10.971	0.0	0.0
30	0.0	0.0	0.0	0.0	14.016	6.510	12.305	9.686	5.846	5.376	0.0	0.0
31	0.0	0.0	0.0	0.0	12.826		7.940	9.633		2.579		0.0
TOTAL	0.0	0.0	0.0	0.0	282.665	457.050	354.952	571.748	371.685	330.685	57.020	4.465

TOTAL FOR YEAR= 2516.274 CUM/SEC

STATION CKKAN DAM SITF (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1955 (CUM/SEC)

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	CCT	NOV	DEC
1	0.0	0.0	0.175	0.0	0.194	0.0	10.882	6.455	13.507	6.208	6.959	0.0
2	0.0	0.0	0.109	0.0	0.803	1.780	20.902	6.277	31.518	4.384	2.255	0.0
3	0.0	0.0	0.214	0.0	0.274	3.568	21.685	11.562	18.556	14.790	0.734	0.0
4	0.0	0.0	0.111	0.0	0.127	22.165	22.945	8.627	15.637	6.716	3.380	0.0
5	0.0	0.0	0.171	0.0	0.362	18.158	13.046	4.410	11.740	19.203	0.859	0.0
6	0.0	0.0	0.315	1.291	0.131	16.895	21.859	21.942	10.684	7.563	3.078	0.0
7	0.0	0.0	0.122	0.592	0.265	12.096	17.325	30.886	8.098	7.032	2.397	0.0
8	0.0	0.0	0.0	0.281	0.587	14.554	8.209	12.295	43.937	20.264	0.452	0.0
9	0.0	0.0	0.0	0.159	0.155	14.556	11.958	10.915	23.380	16.408	1.039	0.0
10	0.0	0.0	0.0	0.491	0.0	15.223	15.256	12.728	18.662	11.233	4.546	0.0
11	0.0	0.0	0.0	0.150	0.0	16.490	6.156	8.813	12.959	9.726	2.450	0.0
12	0.0	0.0	0.0	0.487	0.0	10.414	8.324	10.797	20.951	9.345	6.165	0.0
13	0.0	0.0	0.0	0.194	0.0	9.538	37.803	9.629	15.333	2.516	2.254	0.0
14	0.0	0.0	0.0	0.113	0.0	6.371	28.186	3.650	22.640	9.708	3.351	0.0
15	0.0	0.0	0.0	0.243	0.0	16.668	18.956	5.921	8.689	4.725	1.009	0.0
16	0.0	0.0	0.0	0.115	0.0	15.904	8.757	5.239	8.004	3.242	2.872	0.0
17	0.0	0.0	0.0	0.189	0.0	12.782	15.648	2.885	10.919	5.230	0.678	0.0
18	0.0	0.0	0.0	0.367	0.0	12.910	13.141	22.250	7.021	0.977	2.076	0.0
19	0.0	0.0	0.0	0.128	0.0	7.571	22.465	11.738	6.902	3.424	1.102	0.0
20	0.0	0.0	0.0	0.0	0.0	6.281	10.770	11.698	14.371	8.224	0.684	0.0
21	0.0	0.0	0.0	0.0	0.0	15.250	12.412	13.226	6.263	2.965	0.996	0.0
22	0.0	1.060	0.0	0.0	0.0	9.251	15.934	11.807	5.198	1.849	1.233	0.0
23	0.0	0.456	0.0	0.0	0.0	5.771	12.906	3.898	10.317	0.851	0.668	0.0
24	0.0	0.245	0.0	0.0	0.0	8.947	16.743	10.846	10.258	1.281	1.042	0.0
25	0.0	0.146	0.0	0.0	0.0	6.550	20.150	6.540	8.066	0.686	0.321	0.0
26	0.0	0.415	0.0	2.256	0.0	4.038	15.970	6.213	5.173	7.302	0.389	0.0
27	0.0	0.139	0.0	0.993	0.0	14.987	10.817	11.113	4.333	2.881	0.168	0.0
28	0.0	0.411	0.0	0.430	0.0	44.045	13.352	7.888	4.510	1.238	0.0	0.0
29	0.0	0.0	0.0	0.210	0.0	22.987	11.363	17.702	16.898	0.855	0.119	0.0
30	0.0	0.0	0.0	0.811	0.0	19.740	10.874	21.108	7.280	2.237	0.165	0.0
31	0.0	0.0	0.0	0.0	0.0	5.452	5.452	11.577		8.473		0.0
TOTAL	0.0	2.912	1.217	9.560	2.898	385.889	480.822	341.032	401.802	201.537	53.441	0.0

TOTAL FOR YEAR= 1881.050 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1956 (CUM/SEC)

CAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	0.0	0.0	0.0	0.0	0.371	23.769	3.445	14.765	7.004	27.446	0.572	0.0
2	0.0	0.0	0.0	0.0	1.596	37.496	6.141	11.265	14.090	17.046	0.259	0.0
3	0.0	0.0	0.0	0.0	5.599	27.305	7.154	12.958	16.583	12.328	1.114	0.0
4	0.0	0.0	0.0	0.0	2.193	21.961	8.222	10.396	12.512	5.478	0.236	0.0
5	0.0	0.0	0.0	0.0	19.009	28.901	5.928	34.346	9.448	11.105	1.103	0.0
6	0.0	0.0	0.0	0.0	24.605	34.839	7.473	33.136	6.824	3.642	1.431	0.0
7	0.0	0.0	0.0	0.0	20.065	20.270	3.473	33.186	15.404	9.944	0.589	0.0
8	0.0	0.0	0.0	0.0	9.374	23.915	22.806	15.874	15.479	3.863	0.836	0.0
9	0.0	0.0	0.0	0.0	10.245	27.020	12.035	17.069	29.665	15.275	0.284	0.0
10	0.0	0.0	0.0	0.0	7.501	28.796	9.733	9.901	32.473	10.306	0.725	0.0
11	0.0	0.983	0.0	0.0	12.709	24.437	16.130	18.216	31.801	13.650	0.855	0.0
12	0.0	1.930	0.0	0.0	18.087	17.577	15.409	10.816	13.729	10.270	0.598	0.0
13	0.0	0.842	0.0	0.0	14.915	12.393	5.096	9.469	17.908	13.109	0.194	0.0
14	0.0	0.370	0.0	0.0	11.564	12.811	10.733	6.989	20.324	6.795	0.174	0.0
15	0.0	0.467	0.0	0.311	16.799	10.937	7.525	7.143	18.716	10.162	0.244	0.0
16	0.0	0.621	0.0	0.143	12.490	8.833	4.040	10.942	28.936	30.036	0.116	0.0
17	0.0	0.453	0.0	0.113	11.239	7.830	9.561	19.914	15.836	15.393	0.204	0.0
18	0.0	0.649	0.0	0.0	23.709	16.102	16.561	15.899	12.250	12.042	0.344	0.0
19	0.0	0.230	0.0	0.133	15.370	8.329	40.348	20.932	11.499	3.869	0.140	0.0
20	0.0	0.226	0.0	0.0	6.731	8.210	41.347	14.459	17.520	12.659	0.139	0.0
21	0.0	0.251	0.0	0.133	12.542	6.710	17.853	16.637	28.158	5.367	0.0	0.0
22	0.0	0.189	0.0	0.105	23.796	7.618	30.724	14.622	21.143	11.190	0.0	0.0
23	0.0	0.412	0.0	0.0	26.870	2.297	23.992	27.504	10.005	5.368	0.0	0.0
24	0.0	0.453	0.0	0.109	17.589	6.424	18.046	22.552	4.110	2.617	0.0	0.0
25	0.0	0.136	0.0	0.0	9.901	7.278	17.977	14.462	10.056	3.958	0.0	0.0
26	0.0	0.0	0.0	0.104	8.599	1.870	23.299	11.235	4.349	1.373	0.0	0.0
27	0.0	0.0	0.0	0.121	18.855	4.044	10.751	12.272	10.183	2.778	0.0	0.0
28	0.0	0.0	0.0	0.0	9.609	2.297	17.749	10.018	10.128	6.153	0.0	0.0
29	0.0	0.0	0.0	1.870	25.156	2.311	12.045	10.235	3.309	1.119	0.0	0.0
30	0.0	0.0	0.0	0.832	37.473	7.241	13.100	16.867	3.703	3.933	0.0	0.0
31	0.0	0.0	0.0	0.0	34.471	22.060	8.919			1.465		0.0
TOTAL	0.0	8.752	0.0	3.876	470.230	446.815	460.801	452.998	453.142	285.740	10.156	0.0

TOTAL FOR YEAR= 2636.011 CUM/SEC

STATION CKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1957 (CUM/SEC)

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	CCT	NEV	DEC
1	0.0	0.0	0.0	0.0	0.0	24.047	44.151	11.493	22.110	25.850	0.931	0.0
2	0.0	0.0	0.0	0.0	0.0	13.912	53.043	4.853	22.391	28.418	0.197	0.0
3	0.0	0.0	0.0	0.0	0.0	10.254	36.476	3.919	10.375	27.270	2.951	0.0
4	0.0	0.0	0.0	0.0	0.0	54.083	30.165	4.241	10.244	16.021	1.281	0.0
5	0.0	0.0	0.0	0.0	0.0	30.287	23.601	4.212	19.926	24.679	0.538	0.0
6	0.0	0.0	0.0	0.0	0.0	41.590	15.498	5.110	9.463	12.233	0.247	0.0
7	0.0	0.0	0.0	0.0	0.0	21.844	33.553	6.059	9.228	23.116	1.041	0.0
8	0.0	0.0	0.0	0.0	0.0	17.242	21.078	9.275	12.312	15.100	0.226	0.0
9	0.0	0.0	0.0	0.0	0.0	15.796	18.366	4.096	20.419	14.527	1.031	0.0
10	0.0	0.0	0.0	0.0	0.0	25.419	20.373	3.384	14.342	7.366	0.332	0.0
11	0.0	0.0	0.0	0.0	0.0	14.619	34.477	3.328	11.862	8.598	0.137	0.0
12	0.0	0.0	0.0	0.0	0.0	25.631	24.103	5.554	6.531	5.251	0.448	0.0
13	0.0	0.597	0.0	0.0	0.0	21.679	26.119	8.401	10.314	7.989	0.143	0.0
14	0.0	0.303	0.0	0.0	0.0	9.134	13.843	22.283	7.813	5.575	0.319	0.0
15	0.0	0.173	0.0	0.0	0.0	7.932	19.302	9.212	6.770	4.507	0.745	0.0
16	0.0	0.122	0.0	0.0	0.0	12.915	14.673	5.206	5.950	2.843	0.174	0.0
17	0.0	0.261	0.0	0.0	0.0	13.648	12.868	4.618	5.493	2.943	0.0	0.0
18	0.0	0.118	0.0	0.0	0.0	9.675	23.726	8.427	21.553	7.775	0.0	0.0
19	0.0	0.259	0.0	0.0	0.0	11.781	34.055	14.011	10.174	4.309	0.0	0.0
20	0.0	0.137	0.0	0.0	0.0	20.002	33.637	23.205	9.525	5.156	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	10.755	24.971	16.731	15.373	2.258	0.0	0.0
22	0.0	0.157	0.0	0.0	0.0	5.320	18.544	14.166	13.228	2.968	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	5.212	31.200	21.327	7.510	0.746	0.0	0.0
24	0.0	0.135	0.0	0.0	0.0	8.650	21.368	20.025	9.789	3.525	0.0	0.0
25	0.0	0.209	0.0	0.0	0.0	6.424	16.182	16.433	13.730	0.819	0.0	0.0
26	0.0	0.109	0.0	0.0	0.0	11.095	9.199	19.223	27.600	1.398	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	5.746	13.087	17.211	25.770	1.227	0.0	0.0
28	0.0	0.0	0.0	0.0	2.943	25.639	5.960	11.892	15.575	0.260	0.0	0.0
29	0.0	0.0	0.0	0.0	17.325	14.775	8.857	11.337	10.870	1.075	0.0	0.0
30	0.0	0.0	0.0	0.0	11.716	9.805	13.812	9.633	17.126	1.679	0.0	0.0
31	0.0	0.0	0.0	0.0	49.417	10.596	10.596	8.147		0.570		0.0
TOTAL	0.0	2.580	0.0	0.0	81.401	504.900	707.402	327.010	403.404	266.050	10.740	0.0

TOTAL FOR YEAR= 2303.487 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1958 (CUM/SEC)

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	CCT	NCV	DEC
1	0.0	0.0	0.0	2.439	0.203	3.475	18.639	19.091	34.120	5.585	5.562	0.0
2	0.0	0.0	0.0	0.936	0.132	0.636	10.544	9.697	18.646	12.790	4.060	0.0
3	0.0	0.0	0.0	2.653	0.325	1.138	21.541	18.527	13.067	8.854	2.543	0.0
4	0.0	0.0	0.0	1.398	2.015	17.321	19.943	13.692	19.661	3.043	1.259	0.0
5	0.0	0.0	0.0	2.606	1.107	8.129	7.263	14.424	14.387	6.908	0.941	0.0
6	0.0	0.0	0.0	1.658	0.446	5.431	7.342	19.734	25.305	2.740	1.190	0.0
7	0.0	0.0	0.0	0.445	0.206	5.814	20.239	20.526	16.407	3.098	0.586	0.0
8	0.0	0.0	0.0	1.034	13.821	19.739	24.349	8.130	9.212	6.637	2.101	0.0
9	0.0	0.0	0.0	0.578	14.364	7.038	28.157	10.177	29.693	1.593	1.845	0.0
10	0.0	0.0	0.0	0.714	16.003	15.512	19.471	6.588	19.493	1.008	0.514	0.0
11	0.0	0.0	0.0	1.976	14.868	10.641	19.105	7.237	15.929	0.973	0.367	0.0
12	0.0	0.0	0.0	0.963	9.504	11.768	12.427	21.102	17.819	0.315	0.900	0.0
13	0.0	0.0	0.0	0.176	5.643	14.128	25.948	16.506	21.139	0.282	0.324	0.0
14	0.0	0.0	0.0	0.0	8.410	31.250	22.185	17.560	16.088	0.126	0.429	0.0
15	0.0	0.0	0.0	0.0	7.424	14.917	26.006	11.642	14.703	0.176	0.302	0.0
16	0.0	0.0	0.0	0.0	5.843	19.000	23.613	9.317	15.933	7.546	1.415	0.0
17	0.0	0.0	0.0	0.0	9.714	10.942	23.828	6.063	10.902	6.371	0.749	0.0
18	0.0	0.0	0.0	0.0	12.221	29.361	26.505	11.351	11.968	2.805	0.356	0.0
19	0.0	0.0	0.0	0.0	6.639	18.824	30.059	6.381	10.925	19.390	0.245	0.0
20	0.0	0.0	0.0	0.0	18.721	27.005	31.868	8.345	12.518	21.024	0.767	0.0
21	0.0	0.0	0.0	0.0	10.099	19.099	25.114	12.102	24.561	15.766	0.268	0.0
22	0.0	0.0	0.0	0.0	8.230	45.260	28.360	10.171	14.230	12.487	0.523	0.0
23	0.0	0.0	0.0	0.0	4.646	23.472	29.748	10.302	15.594	11.248	0.201	0.0
24	0.0	0.0	0.0	0.0	7.336	21.196	28.126	8.206	12.693	7.153	0.114	0.0
25	0.0	0.0	0.0	0.0	1.493	19.183	22.842	6.176	15.833	10.624	0.252	0.0
26	0.0	0.0	0.0	0.0	4.646	22.028	21.678	6.301	31.966	7.499	0.116	0.0
27	0.0	0.0	0.0	0.0	2.240	32.021	20.395	8.082	23.454	7.987	0.195	0.0
28	0.0	0.0	0.0	0.0	1.252	23.923	20.129	8.529	14.573	10.965	0.385	0.0
29	0.0	0.0	0.0	0.790	3.277	20.655	18.097	15.829	9.381	4.814	0.130	0.0
30	0.0	0.0	7.351	0.384	5.091	19.388	16.461	19.391	15.785	3.789	0.0	0.0
31	0.0	0.0	6.041		2.432		18.956	48.051		9.186		0.0

TOTAL 0.0 0.0 13.392 18.750 198.749 529.092 669.014 405.229 525.980 212.781 28.637 0.0

TOTAL FOR YEAR= 2605.023 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1959 (CUM/SEC)

CAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NCV	DEC
1	0.0	0.332	0.0	0.0	1.238	11.923	11.375	17.642	11.034	20.064	1.688	0.0
2	0.0	2.082	0.0	0.0	0.822	20.552	21.702	18.690	8.397	20.013	1.753	0.0
3	0.0	0.362	0.0	0.0	0.612	14.435	31.353	13.252	7.752	19.957	0.643	0.0
4	0.0	1.360	0.0	0.0	1.429	21.286	15.121	26.945	3.584	20.533	1.795	0.0
5	0.0	3.755	0.0	0.0	1.206	19.282	9.558	18.138	31.487	24.189	0.786	0.0
6	0.0	0.541	0.0	0.0	0.260	22.185	10.564	9.048	26.787	29.709	0.540	0.0
7	0.0	0.0	0.0	0.0	0.270	30.287	17.032	11.037	28.921	12.722	0.694	0.0
8	0.0	0.0	0.0	0.0	0.138	27.984	15.643	9.586	13.840	19.530	0.293	0.0
9	0.0	0.0	0.0	0.0	10.520	20.839	16.993	8.203	22.064	16.836	0.549	0.0
10	0.0	0.0	0.0	0.0	4.485	18.709	10.218	14.152	21.016	14.586	1.119	0.0
11	0.0	0.0	0.0	0.0	1.720	22.679	9.708	13.744	26.733	16.158	4.316	0.0
12	0.0	0.0	0.0	0.0	0.690	15.963	6.526	14.915	21.068	12.665	1.921	0.0
13	0.0	0.0	0.0	0.0	3.662	12.440	7.311	13.215	24.897	6.009	0.714	0.0
14	0.0	0.0	0.0	0.0	0.586	13.001	9.581	17.656	27.799	26.757	0.298	0.0
15	0.0	0.0	0.0	0.0	3.508	6.989	7.164	14.835	15.215	13.790	1.360	0.0
16	0.0	0.0	0.0	0.0	0.959	7.388	3.362	11.191	14.046	8.500	0.270	0.0
17	0.0	0.0	0.0	0.0	0.248	7.179	7.976	6.254	13.816	8.010	1.347	0.0
18	0.0	0.0	0.0	0.0	1.381	5.524	10.136	8.102	15.217	11.019	0.412	0.0
19	0.0	0.0	0.0	0.0	0.268	6.617	15.937	3.706	13.923	2.089	0.151	0.0
20	0.0	0.0	0.0	0.0	0.914	4.706	15.514	9.435	9.175	13.121	0.567	0.0
21	0.0	0.0	0.0	0.0	2.464	2.166	8.883	11.261	14.997	3.941	0.159	0.0
22	0.0	0.0	0.0	4.611	0.384	1.773	5.822	5.276	8.497	1.938	0.395	0.0
23	0.0	0.0	0.0	5.482	22.587	1.637	10.622	5.309	8.581	4.022	0.964	0.0
24	16.189	0.0	0.0	2.447	9.435	0.795	20.890	4.690	5.044	1.812	0.201	0.0
25	6.778	0.0	0.0	0.460	18.977	2.329	17.520	11.724	8.139	2.074	0.0	0.0
26	2.552	0.0	0.0	1.807	12.814	5.313	21.552	14.359	5.690	5.960	0.0	0.0
27	0.951	0.0	0.0	1.475	13.771	15.741	13.486	14.967	25.920	1.100	0.0	0.0
28	5.424	0.0	0.0	1.799	4.226	12.062	11.906	8.711	21.986	0.540	0.0	0.0
29	0.811		0.0	1.629	34.203	8.814	24.146	8.425	24.288	4.709	0.0	0.0
30	5.368		0.0	0.516	19.114	6.432	20.875	14.167	21.353	2.800	0.0	0.0
31	1.430		0.0	20.436		11.796	10.156			2.348		0.0
TOTAL	39.563	8.432	0.0	20.726	193.326	367.029	420.252	368.791	501.264	347.500	22.934	0.0

: TOTAL FOR YEAR= 2289.818 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1960 (CUM/SEC)

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	0.0	0.381	0.0	0.0	0.0	12.102	8.921	10.335	10.876	19.992	5.577	1.034
2	0.0	0.322	0.0	0.0	0.0	11.096	21.396	25.309	14.664	9.819	1.326	16.730
3	0.0	0.374	0.0	0.0	0.0	5.718	35.662	32.468	7.775	18.793	6.687	7.275
4	0.0	0.349	0.0	0.0	0.0	16.062	17.032	29.998	7.218	12.643	1.620	3.374
5	0.0	0.154	0.0	0.0	1.034	9.998	21.839	18.671	7.825	15.798	1.092	1.263
6	0.0	0.199	0.0	0.0	0.485	14.100	41.861	18.669	6.956	16.823	3.478	6.212
7	0.0	0.179	0.0	0.0	0.554	12.752	23.426	16.462	11.786	6.994	0.526	1.057
8	0.0	0.165	0.0	0.0	0.275	14.120	23.672	18.925	11.429	10.355	1.241	5.538
9	0.0	0.316	0.0	0.0	0.455	15.827	21.516	19.438	15.675	19.445	3.413	1.746
10	0.0	0.248	0.0	0.0	0.155	13.885	18.769	26.038	7.313	5.607	0.499	0.424
11	0.0	0.111	0.0	0.0	0.506	9.573	12.047	20.566	20.795	7.546	0.0	2.400
12	0.0	0.0	0.0	0.0	0.187	16.634	17.641	12.435	12.646	7.532	0.0	0.861
13	0.0	0.0	0.0	0.0	0.211	26.681	7.577	15.571	10.912	3.652	0.0	1.433
14	0.0	0.0	0.0	0.0	0.237	13.069	18.875	27.138	11.985	4.161	0.0	3.808
15	0.0	0.0	0.0	0.0	2.682	20.462	14.959	24.117	18.168	3.278	0.0	0.573
16	0.0	0.0	0.0	0.0	17.364	18.477	4.672	24.388	6.840	45.151	0.0	0.0
17	0.0	0.0	0.0	0.0	7.394	18.921	6.922	13.501	27.445	24.345	0.0	0.0
18	0.0	0.0	0.0	0.0	2.779	10.460	10.955	10.377	15.756	11.797	0.0	0.0
19	0.0	0.0	0.0	0.0	1.872	13.509	2.224	8.601	8.534	4.678	0.0	0.0
20	0.0	0.0	0.0	0.0	5.549	14.271	5.212	15.245	8.010	16.439	0.0	0.0
21	0.0	0.0	0.0	0.0	1.672	12.184	2.305	17.022	15.552	4.423	0.0	0.0
22	0.0	0.0	0.0	0.0	5.580	9.209	2.987	16.810	5.654	19.698	0.0	0.0
23	0.0	0.0	0.0	0.0	1.468	5.780	6.368	13.771	17.741	6.755	0.0	0.0
24	0.0	0.0	0.0	0.0	2.402	7.949	4.010	28.085	14.922	3.618	0.0	0.0
25	0.0	0.0	0.0	0.0	7.798	6.717	3.494	20.905	6.633	13.202	0.0	0.0
26	0.0	0.0	0.0	0.0	18.292	5.278	5.808	18.388	8.037	5.653	0.0	0.0
27	0.0	0.0	0.0	0.0	16.212	6.723	3.815	14.474	33.578	5.185	0.0	0.0
28	0.867	0.0	0.0	0.0	11.411	6.590	3.117	15.004	17.057	26.928	0.0	0.0
29	0.995	0.0	0.0	0.0	20.353	20.439	6.298	6.666	14.746	10.975	0.674	0.0
30	0.455	0.0	0.0	0.0	16.071	8.360	12.880	11.045	24.849	3.779	2.381	0.0
31	0.226	0.0	0.0	0.0	13.890	8.713	10.721			3.786		0.0

TOTAL 2.543 2.800 0.0 0.0 156.885 376.942 394.562 561.141 401.375 368.851 28.513 53.727

TOTAL FOR YEAR= 2347.740 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1961 (CUM/SEC)

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	0.0	0.0	0.0	0.0	0.563	18.736	12.414	17.056	16.481	9.454	5.578	0.285
2	0.0	0.0	0.0	0.0	0.176	22.049	13.929	13.787	18.870	8.080	9.966	0.143
3	0.0	0.0	0.0	0.0	0.325	11.860	17.450	16.770	24.448	7.458	10.195	0.0
4	0.0	0.0	0.0	0.0	0.127	19.392	19.490	10.771	11.182	16.226	6.841	0.167
5	0.0	0.0	0.0	0.0	1.262	11.282	27.188	11.531	14.626	11.739	10.488	0.105
6	0.0	0.0	0.0	0.0	0.543	17.231	27.661	13.661	12.683	8.533	4.452	0.141
7	0.0	0.0	0.0	0.0	0.564	39.146	33.633	17.417	8.767	6.541	2.488	0.227
8	0.0	0.0	0.0	0.0	0.361	25.201	21.150	36.915	7.000	5.771	3.633	0.111
9	0.0	0.0	0.0	0.0	0.466	15.720	19.522	21.978	8.100	4.462	2.899	0.0
10	0.0	0.0	0.0	0.0	0.209	30.812	41.870	11.159	30.334	6.521	0.598	0.0
11	0.0	0.0	0.0	0.0	0.664	20.936	33.357	10.873	33.147	3.560	2.652	0.0
12	0.0	0.0	0.0	0.0	0.207	11.372	30.672	15.197	32.007	4.600	1.055	0.0
13	0.0	0.0	0.0	0.0	0.211	15.355	28.094	9.408	17.920	8.277	0.698	0.0
14	0.0	0.0	0.0	0.0	0.237	14.265	29.589	19.003	16.976	3.945	1.508	0.0
15	0.0	0.0	0.0	0.0	2.682	64.035	24.112	13.889	13.005	2.129	0.273	0.0
16	0.0	0.0	0.0	0.0	17.364	43.738	45.610	8.852	22.193	3.965	0.605	0.0
17	0.0	0.0	0.0	0.0	7.394	16.549	46.527	17.055	13.153	5.485	1.570	0.0
18	0.0	0.0	0.0	0.0	2.779	21.292	25.669	12.606	16.342	2.781	0.275	0.0
19	0.0	0.0	0.0	1.677	1.872	32.759	20.031	14.758	9.924	2.442	0.0	0.0
20	0.0	0.0	0.0	0.752	5.549	12.945	15.136	15.739	6.900	2.244	0.0	0.0
21	0.0	0.0	0.0	0.341	1.672	25.664	19.356	22.482	15.329	1.942	0.0	0.0
22	0.0	0.0	0.0	0.179	5.580	16.724	24.632	22.583	19.607	29.006	0.0	0.0
23	0.0	0.0	0.0	0.619	1.468	4.816	16.709	13.185	13.746	32.197	0.0	2.951
24	0.0	0.0	0.0	0.167	2.402	12.696	8.803	21.597	11.966	21.190	0.0	2.169
25	0.0	0.0	0.0	0.613	7.758	4.954	7.546	32.133	20.277	8.805	0.674	0.907
26	0.0	0.0	0.0	0.226	18.292	6.542	9.137	20.471	8.266	12.336	0.335	0.385
27	0.0	0.0	0.0	0.118	16.212	16.579	8.981	11.683	14.856	18.178	0.185	1.088
28	0.0	0.0	0.0	0.290	11.411	5.507	29.425	16.440	16.443	16.671	0.126	0.520
29	0.0	0.0	0.0	0.816	20.353	2.758	15.721	14.508	14.162	11.290	0.287	1.071
30	0.0	0.0	0.0	0.508	16.071	9.743	8.915	20.239	7.619	4.981	0.122	0.623
31	0.0	0.0	0.0	13.890	13.890		15.654	17.965		9.031		0.211
TOTAL	0.0	0.0	0.0	6.309	158.701	570.655	697.979	521.709	476.327	289.840	67.501	11.101

TOTAL FOR YEAR= 2800.122 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1962 (CUM/SEC)

CAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NCV	DEC
1	0.461	0.0	0.0	0.0	2.659	24.998	7.778	23.783	5.820	19.167	5.593	0.0
2	0.252	0.0	0.0	0.0	1.053	9.267	9.143	25.830	10.123	14.288	2.560	0.0
3	0.334	0.0	0.0	0.0	0.424	6.785	4.789	20.360	12.301	8.456	3.586	0.0
4	0.814	0.0	0.0	0.0	2.140	10.411	17.101	21.708	5.423	3.316	2.708	0.0
5	0.376	0.0	0.0	0.0	0.378	7.311	11.180	20.417	4.207	5.741	3.528	0.0
6	0.120	0.0	0.0	0.0	2.118	14.838	5.832	22.627	9.288	21.430	2.777	0.0
7	0.0	0.0	0.0	0.0	0.607	39.261	4.687	12.454	25.336	12.502	1.307	0.0
8	0.0	0.0	0.0	0.0	0.186	20.699	9.168	15.289	12.135	5.927	1.173	0.0
9	0.0	0.0	0.0	0.0	0.857	15.312	6.249	12.278	7.497	2.712	0.987	0.0
10	0.0	0.0	0.0	0.0	0.198	8.068	8.428	17.538	4.876	18.192	0.956	0.0
11	0.0	0.0	0.0	0.0	0.580	35.711	13.145	14.502	9.882	7.799	2.142	0.0
12	0.0	0.0	0.0	0.0	4.498	24.959	9.441	17.638	7.988	17.412	1.814	0.0
13	0.0	0.0	0.0	0.0	1.511	25.003	21.574	25.337	11.859	9.112	0.685	0.0
14	0.0	0.0	0.0	0.0	0.560	14.345	18.703	25.837	27.360	6.686	0.146	0.0
15	0.0	0.0	0.0	0.0	3.861	19.444	11.972	11.504	25.304	4.092	0.0	0.0
16	0.0	0.0	0.0	0.0	15.348	27.583	10.606	17.334	12.137	6.442	0.0	0.0
17	0.0	0.0	0.0	0.0	30.848	21.646	16.749	13.578	7.705	23.218	0.0	0.0
18	0.0	0.0	0.0	0.0	13.546	17.983	10.094	14.927	17.016	15.445	0.0	0.0
19	0.0	0.0	0.0	0.0	6.664	19.930	9.488	10.662	25.004	5.668	0.0	0.0
20	0.0	0.0	0.0	0.0	30.361	24.284	15.763	8.100	21.065	1.685	0.0	0.0
21	0.0	0.0	0.0	0.0	20.620	10.373	18.557	4.271	28.337	8.680	0.0	0.0
22	0.0	0.0	0.0	0.0	10.292	14.012	17.459	10.124	11.845	6.294	0.0	0.0
23	0.0	0.0	0.0	0.0	11.173	11.974	29.627	6.900	20.364	9.000	0.0	0.0
24	0.0	0.0	0.0	0.0	19.638	9.544	22.340	8.673	8.913	5.421	0.0	0.0
25	0.0	0.0	0.0	0.0	20.412	7.569	24.624	7.135	18.703	1.345	0.0	0.0
26	0.0	0.0	0.0	0.0	70.453	5.766	31.249	4.674	10.693	3.687	0.0	0.0
27	0.0	0.0	0.0	0.0	28.375	9.202	34.042	6.255	11.897	0.628	0.0	0.0
28	0.0	0.0	0.0	0.0	17.010	13.782	38.684	4.970	5.498	3.032	0.0	0.0
29	0.0	0.0	0.0	0.0	18.382	6.754	28.985	2.512	4.301	4.939	0.0	0.0
30	0.0	0.0	0.0	6.270	22.149	4.359	21.951	2.551	7.141	7.919	0.0	0.0
31	0.0	0.0	0.0	0.0	12.475	17.693	1.941	1.941	9.449	9.449	0.0	0.0
TOTAL	2.357	0.0	0.0	6.270	368.812	481.069	507.100	412.055	400.018	269.684	29.961	0.0

TOTAL FOR YEAR= 2477.325 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1963 (CUM/SEC)

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	0.0	0.0	0.0	0.0	0.0	0.0	11.811	16.209	12.922	6.006	11.435	0.0
2	0.0	0.0	0.0	0.0	0.0	1.514	20.531	11.735	15.691	7.516	5.605	0.0
3	0.0	0.0	0.0	0.0	0.0	0.685	32.500	17.892	22.565	3.370	5.962	0.0
4	0.0	0.0	0.0	0.0	0.0	0.512	21.184	15.240	11.471	26.528	4.775	0.0
5	0.0	0.0	0.0	0.0	0.0	10.858	41.941	15.722	8.171	24.144	1.712	0.0
6	0.0	0.0	0.0	0.0	1.513	12.609	29.833	10.778	30.809	10.971	5.625	0.0
7	0.0	0.0	0.0	0.0	0.684	14.005	32.513	18.563	30.429	8.060	6.093	1.291
8	0.0	0.0	0.0	0.0	0.315	11.324	22.409	13.701	32.194	12.727	3.159	1.673
9	0.0	0.0	0.0	0.790	0.171	9.001	29.193	21.494	21.830	10.854	3.795	0.729
10	0.0	0.0	0.0	0.384	7.797	9.942	22.684	18.504	22.854	11.095	4.474	0.326
11	0.0	0.0	0.0	0.203	12.523	21.847	24.602	14.411	16.540	7.768	1.819	0.549
12	0.0	0.0	0.0	0.132	22.161	13.157	47.017	10.713	36.097	1.970	1.174	1.087
13	0.0	0.0	0.0	0.325	8.940	8.894	57.452	17.541	32.989	5.501	0.528	8.611
14	0.0	0.0	0.0	0.127	20.331	12.633	44.630	11.281	19.669	3.189	1.169	7.828
15	0.0	0.0	0.0	0.323	10.707	16.917	34.409	17.907	15.037	3.616	0.505	3.083
16	0.0	0.0	0.0	0.153	10.658	17.623	32.437	22.921	12.645	7.013	1.055	1.478
17	0.0	0.0	0.0	0.105	5.417	23.497	33.322	23.982	13.222	6.004	0.565	3.078
18	0.0	0.0	0.0	0.181	11.620	19.997	29.762	19.485	15.273	2.042	0.469	2.059
19	0.0	0.0	0.0	0.107	3.216	14.457	30.796	17.778	21.833	1.088	0.580	3.247
20	0.0	0.0	0.0	0.150	6.447	20.003	28.238	10.414	10.415	0.683	0.276	2.322
21	0.0	0.0	0.0	0.253	4.091	43.945	21.778	22.334	5.953	6.243	0.320	0.638
22	0.0	0.0	0.0	0.114	2.968	26.656	16.413	15.747	5.676	2.374	0.725	1.130
23	0.0	0.0	0.0	0.0	5.548	16.079	28.030	8.204	9.823	1.620	0.239	0.757
24	0.0	0.0	0.0	0.0	4.373	11.642	34.950	9.204	8.450	0.561	0.0	0.908
25	0.0	0.0	0.0	0.0	1.714	16.174	23.406	13.116	15.173	6.897	0.0	2.202
26	0.0	0.0	0.0	0.0	3.449	11.491	26.938	16.636	11.692	20.503	0.0	1.207
27	0.0	0.0	0.0	0.0	0.504	18.457	17.575	45.795	8.280	12.992	0.0	0.204
28	0.0	0.0	0.0	0.0	0.0	9.929	27.594	39.925	7.509	18.363	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	14.946	36.657	19.813	5.754	13.231	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	12.193	23.629	13.145	4.921	10.637	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0		10.760	14.469		5.084		0.0
TOTAL	0.0	0.0	0.0	3.345	145.186	424.037	904.951	539.056	485.923	258.651	62.057	44.408

TOTAL FOR YEAR= 2867.654 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1964 (CUM/SEC)

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	0.0	0.0	0.0	0.0	0.0	5.821	10.421	2.340	13.631	13.021	2.382	4.132
2	0.0	0.0	0.0	0.0	0.0	14.765	30.329	3.446	17.049	9.729	4.661	1.789
3	0.0	0.0	0.0	0.0	0.0	13.707	15.347	2.721	17.457	34.819	3.546	4.866
4	0.0	0.0	0.0	0.0	0.0	12.407	18.790	5.563	10.164	21.589	3.970	1.480
5	0.0	0.0	0.0	0.0	0.0	6.546	30.359	7.475	8.698	20.014	3.644	1.214
6	0.0	0.0	0.0	0.0	0.0	9.108	22.635	15.068	4.950	11.176	2.623	1.495
7	0.0	0.0	1.291	0.0	0.533	4.694	11.233	9.098	6.944	14.665	1.855	0.282
8	0.0	0.0	1.673	0.0	15.654	11.446	26.007	9.302	16.426	5.219	1.450	0.913
9	0.0	0.0	1.308	0.0	45.454	14.424	25.583	12.459	9.495	11.935	1.093	2.465
10	0.0	0.0	8.401	0.0	26.562	7.756	23.046	16.332	4.200	53.533	4.438	0.409
11	0.0	0.0	4.278	0.0	10.375	19.180	17.319	11.976	2.358	33.400	2.313	0.0
12	0.0	0.0	1.914	0.0	8.940	12.943	11.006	11.277	6.011	15.736	0.572	0.0
13	0.0	0.0	1.205	0.0	16.235	14.748	26.961	14.233	3.212	5.208	1.771	0.0
14	0.0	0.0	3.189	0.0	12.172	20.486	23.130	8.980	7.131	19.428	1.276	0.0
15	0.0	0.0	0.878	0.0	15.545	24.501	19.730	11.466	6.809	11.157	0.413	0.0
16	0.0	0.0	2.891	0.0	6.709	14.489	15.164	7.815	2.765	18.151	0.698	0.0
17	0.0	0.0	1.033	0.0	24.528	12.920	26.285	7.799	4.101	10.181	0.750	0.0
18	0.0	0.0	0.426	0.0	23.484	12.962	9.672	6.362	1.521	6.191	0.191	0.0
19	0.0	0.0	1.434	0.0	13.692	16.070	14.012	6.971	13.489	7.884	2.468	0.0
20	0.0	0.0	0.597	0.0	11.292	18.827	9.488	13.770	21.200	2.474	1.714	0.0
21	0.0	0.0	0.879	0.0	17.596	17.094	17.526	18.704	14.975	4.793	6.417	0.0
22	0.0	0.0	1.923	0.0	7.246	29.361	14.150	19.139	19.716	12.722	3.182	0.0
23	0.0	0.0	0.400	0.0	8.778	32.503	9.694	18.917	17.359	3.945	5.831	0.0
24	0.0	0.0	0.106	0.0	11.234	15.970	6.194	26.952	23.627	1.704	2.596	0.0
25	0.0	0.0	0.0	0.0	5.256	14.306	8.309	16.130	24.968	8.211	3.539	0.0
26	0.0	0.0	0.0	0.0	6.230	19.639	5.009	16.130	19.848	3.600	1.009	0.0
27	0.0	0.0	0.0	0.0	5.364	14.371	6.247	14.463	9.783	3.963	13.792	0.0
28	0.0	0.0	0.0	0.0	16.570	28.147	4.002	11.621	18.660	1.622	5.395	0.0
29	0.0	0.0	0.0	0.0	11.718	24.138	3.766	8.480	23.335	13.904	3.337	0.0
30	0.0	0.0	0.0	0.0	7.715	13.047	2.539	11.131	13.878	11.134	1.848	0.0
31	0.0	0.0	0.0	0.0	3.239		2.314	6.183		7.687		0.0
TOTAL	0.0	0.0	33.828	0.0	332.560	476.327	466.305	352.302	363.762	358.794	88.773	19.044

TOTAL FOR YEAR= 2531.694 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1965 (CUM/SEC)

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	0.0	0.0	0.0	0.0	0.0	21.121	30.423	25.604	18.025	11.901	11.625	0.0
2	0.0	0.0	0.0	0.0	0.0	12.692	18.868	19.592	18.098	6.643	12.419	0.0
3	0.0	0.0	0.0	0.0	0.0	7.901	13.861	18.089	14.280	4.955	6.829	0.0
4	0.0	1.176	0.0	0.0	0.0	19.271	20.183	8.559	29.584	5.697	5.574	0.0
5	0.0	0.544	0.0	0.0	0.0	13.076	11.577	6.109	15.302	6.792	10.177	0.0
6	0.0	0.263	0.0	0.0	0.0	22.524	12.194	19.447	8.029	7.179	7.680	0.0
7	0.0	0.153	0.0	0.0	0.0	10.469	9.570	12.169	18.825	9.226	5.726	0.0
8	0.0	0.453	0.0	0.0	0.0	7.172	16.136	15.785	19.490	14.396	4.039	0.0
9	0.0	0.145	0.0	0.0	0.0	9.121	17.475	11.461	11.683	6.557	1.714	0.211
10	0.0	0.449	0.0	0.0	9.964	7.346	28.071	10.374	12.342	4.169	2.770	0.143
11	0.0	0.185	0.0	0.0	13.649	23.951	21.352	7.511	13.462	2.658	0.423	0.113
12	0.0	0.111	0.0	0.0	16.661	41.025	17.708	7.809	9.035	19.363	0.580	0.0
13	0.0	0.228	0.0	0.0	6.700	27.182	9.650	4.467	22.074	9.147	1.499	0.133
14	0.0	0.113	0.0	0.0	5.589	19.950	17.596	5.909	12.086	9.013	0.266	10.482
15	0.0	0.180	0.0	0.0	4.268	22.447	14.812	7.437	10.105	7.837	0.0	4.444
16	0.0	0.341	0.0	0.0	24.534	30.431	19.815	8.124	14.257	14.330	0.0	5.845
17	0.0	0.125	0.0	0.0	11.619	31.667	18.395	6.320	10.977	7.307	0.0	2.364
18	0.0	0.0	0.0	0.0	33.124	26.719	17.749	4.076	6.399	9.767	0.0	4.187
19	0.0	0.0	0.0	0.0	14.950	31.063	11.009	7.025	9.769	5.554	0.0	0.792
20	0.0	0.0	0.0	0.0	11.648	25.773	17.132	19.792	6.962	6.441	0.0	4.873
21	0.0	0.0	0.0	0.0	4.701	25.355	12.576	42.069	1.999	4.393	0.0	1.172
22	0.0	0.0	0.0	0.0	17.463	39.737	12.823	32.890	9.674	3.581	0.0	1.604
23	0.0	0.0	0.0	0.0	6.305	33.548	9.745	18.188	11.366	2.566	0.0	1.719
24	0.0	0.0	0.0	0.0	11.634	23.432	8.418	25.421	12.248	20.056	0.0	0.328
25	0.0	0.0	0.0	0.0	5.089	31.791	4.247	20.768	12.805	34.544	0.0	1.421
26	0.0	0.0	0.0	0.0	2.458	28.446	20.331	14.386	10.474	18.183	0.0	2.525
27	0.0	0.0	0.0	0.0	13.402	22.717	16.762	16.174	6.874	21.528	0.0	0.707
28	0.0	0.0	0.0	0.0	8.346	29.547	38.209	19.568	6.380	16.848	0.0	1.034
29	0.0	0.0	0.0	0.0	10.272	21.563	21.086	18.403	5.799	21.426	0.0	0.210
30	0.0	0.0	0.0	0.0	19.881	29.418	16.950	15.580	9.783	12.442	0.0	0.0
31	0.0	0.0	0.0	0.0	47.875		7.896	16.833		15.980		0.0
TOTAL	0.0	4.465	0.0	0.0	300.136	656.456	512.618	465.938	368.224	340.480	71.320	44.307

TOTAL FOR YEAR= 2803.945 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1966 (CUM/SEC)

CAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	0.0	1.117	0.0	0.0	0.0	12.324	13.858	28.396	28.263	14.089	0.517	13.989
2	0.0	0.236	0.0	0.0	0.0	14.164	8.089	15.443	21.436	10.546	0.652	5.865
3	0.0	1.107	0.0	0.0	0.0	26.532	14.440	15.821	30.932	30.544	1.456	2.251
4	0.0	0.351	0.0	0.0	0.0	11.438	19.930	26.770	21.637	17.021	0.365	0.834
5	0.0	0.141	0.0	0.0	0.0	6.993	9.760	31.020	19.048	9.174	0.918	4.695
6	0.0	0.476	0.0	0.0	0.0	10.226	20.214	44.584	10.241	10.426	0.363	0.731
7	0.0	0.146	0.0	0.0	3.110	10.180	9.702	25.104	14.000	17.170	0.167	4.647
8	0.0	0.338	0.0	0.0	1.347	7.901	8.351	28.835	8.922	6.485	0.461	1.248
9	0.0	0.757	0.0	0.0	0.563	11.018	7.279	22.478	11.149	21.809	0.169	0.300
10	0.0	0.181	0.0	0.0	0.255	3.666	19.211	20.890	15.219	11.142	0.339	1.810
11	0.0	0.0	0.0	0.0	1.093	2.240	12.913	16.372	8.191	15.603	0.676	0.326
12	0.0	0.0	0.0	0.0	0.233	6.213	11.862	23.225	6.661	11.431	0.165	1.187
13	0.0	0.0	0.0	0.0	2.271	3.287	8.856	7.262	10.956	8.849	0.110	3.255
14	0.0	0.0	0.0	0.0	0.838	10.356	9.390	9.666	8.151	5.698	0.139	0.480
15	0.0	0.0	0.0	0.0	0.324	23.784	10.049	7.052	12.534	12.060	0.0	0.0
16	0.0	0.0	0.0	0.0	0.530	21.621	12.937	17.812	7.454	3.523	0.0	0.0
17	0.0	0.0	0.0	0.0	0.538	19.084	15.738	14.046	13.415	3.221	0.0	0.0
18	0.0	0.0	0.0	0.0	5.503	18.652	34.949	12.748	5.232	2.736	0.0	0.0
19	0.0	0.0	0.0	0.0	6.309	15.181	28.032	12.639	6.630	1.835	0.0	0.0
20	0.0	0.0	0.0	0.0	7.622	10.379	27.096	11.745	1.836	2.134	0.0	0.0
21	0.0	0.0	0.0	0.0	6.068	30.118	14.700	4.142	6.469	2.836	0.0	0.0
22	0.0	0.0	0.0	0.0	7.185	29.837	23.738	9.644	5.483	3.697	0.0	0.0
23	0.0	0.0	0.0	0.0	4.262	15.672	23.122	27.446	7.704	2.842	0.0	0.0
24	0.0	0.0	0.0	0.0	13.901	23.924	22.627	21.015	7.388	0.636	0.0	0.0
25	0.0	0.0	0.0	0.0	7.114	17.971	14.265	10.926	7.626	0.222	0.0	0.0
26	0.0	0.0	0.0	0.0	4.792	13.073	30.770	10.341	4.980	0.826	0.0	0.0
27	0.0	0.0	0.0	0.0	7.053	26.423	21.494	20.904	6.145	0.195	0.0	0.0
28	3.183	0.0	0.0	0.0	23.742	30.743	27.577	25.165	4.053	0.769	0.0	0.0
29	1.377	0.0	0.0	0.0	9.555	17.231	38.431	25.489	10.427	0.486	0.0	0.0
30	0.574	0.0	0.0	0.0	7.943	24.005	39.937	20.925	17.418	2.642	0.0	0.0
31	0.259	0.0	0.0	0.0	7.762		35.977	17.849		1.390		0.0
TOTAL	5.393	4.890	0.0	0.0	130.313	474.733	595.294	554.750	339.600	232.037	6.498	41.616

TOTAL FOR YEAR= 2424.625 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1967 (CUM/SEC)

CAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	0.0	0.0	0.0	0.0	0.0	18.731	21.906	13.605	25.113	11.204	1.968	0.0
2	0.0	0.0	0.0	0.0	0.0	20.359	31.988	15.645	44.023	8.731	5.672	0.0
3	0.0	0.0	0.0	0.0	0.0	6.568	14.650	34.188	26.451	22.661	1.729	0.0
4	0.0	0.0	0.0	0.0	0.0	5.617	15.581	24.701	21.346	13.686	9.806	0.0
5	0.0	0.0	0.0	0.0	0.0	12.777	9.620	29.219	15.068	5.005	5.662	0.0
6	0.0	0.0	0.0	0.0	0.0	3.192	19.194	37.637	17.642	5.743	1.302	0.0
7	0.0	0.0	0.0	0.0	1.504	8.157	14.041	43.106	11.420	8.589	1.901	0.0
8	0.0	0.0	0.0	0.0	27.985	21.398	10.273	37.491	17.937	3.056	1.809	0.0
9	0.0	0.0	0.0	0.0	15.264	6.379	12.400	39.066	10.821	29.087	1.304	0.0
10	0.0	0.0	0.0	0.0	34.399	5.615	17.461	35.266	8.969	12.253	4.402	0.0
11	0.0	0.0	0.0	0.0	14.532	1.912	11.237	20.099	16.756	4.230	1.183	0.0
12	0.0	0.0	0.0	0.0	13.777	15.709	17.597	21.668	9.644	3.118	0.202	0.0
13	0.0	0.0	0.0	0.0	4.643	9.487	15.821	19.779	19.786	7.640	0.571	0.0
14	0.0	0.0	0.0	0.0	37.733	7.026	18.853	17.678	16.414	2.631	0.159	0.0
15	0.0	0.0	0.0	0.0	12.751	1.972	15.744	16.977	10.242	10.070	0.398	0.0
16	22.480	0.0	0.0	0.0	13.301	10.108	14.673	11.353	8.368	2.349	14.481	0.0
17	9.391	0.0	0.0	0.0	6.903	4.462	28.896	12.566	8.507	0.425	5.811	0.0
18	3.568	0.0	0.0	0.0	7.844	4.505	27.873	12.202	3.610	2.718	2.191	0.0
19	1.286	0.0	0.0	0.0	7.085	3.241	14.145	19.918	9.650	11.982	0.814	0.0
20	7.507	0.0	0.0	0.0	13.299	5.197	8.534	20.713	6.548	6.554	4.568	0.0
21	1.119	0.0	0.0	0.0	5.485	7.227	14.260	22.012	17.751	6.717	0.713	0.0
22	7.429	0.0	0.0	0.0	6.956	4.386	8.907	14.126	15.277	1.297	4.520	0.0
23	1.952	0.0	0.0	0.0	3.229	2.503	14.166	21.942	13.219	7.556	1.216	0.0
24	0.425	0.0	0.0	0.0	8.100	3.322	18.757	20.193	9.839	11.848	0.294	0.0
25	2.858	0.0	0.0	0.0	4.781	6.359	15.239	17.739	24.589	8.472	1.762	0.0
26	0.467	0.0	0.0	0.0	5.608	2.364	16.689	9.610	9.876	2.753	0.319	0.0
27	1.854	0.0	0.0	0.0	27.264	3.442	29.685	11.611	20.967	1.987	1.156	0.0
28	5.186	0.0	0.0	0.0	13.535	15.787	23.073	13.056	19.121	4.901	3.167	0.0
29	0.715		0.0	0.0	4.517	8.004	26.046	10.919	11.502	14.672	0.469	0.0
30	0.0		0.0	0.0	4.010	20.598	18.029	12.696	7.824	11.601	0.0	0.0
31	0.0		0.0		9.419		13.897	15.264		6.312		0.0
TOTAL	66.235	0.0	0.0	0.0	304.323	245.942	539.232	652.042	458.275	249.846	79.550	0.0

TOTAL FOR YEAR= 2595.445 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ-KM)

DAILY DISCHARGE FOR 1968 (CUM/SEC)

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	0.0	0.0	0.0	0.0	0.549	0.0	19.209	21.652	8.856	21.139	7.999	0.358
2	0.0	0.0	0.0	0.0	6.225	10.551	9.144	32.922	11.956	10.167	3.841	2.829
3	0.0	0.0	0.0	0.0	2.720	4.437	12.015	20.704	35.579	4.636	1.300	1.217
4	0.0	0.0	0.0	0.0	3.132	3.520	10.191	59.023	19.975	15.633	3.019	0.514
5	0.0	0.0	0.0	0.0	0.884	17.264	13.485	36.301	16.786	13.320	1.502	0.239
6	0.0	0.0	0.0	0.0	16.057	35.664	10.962	26.458	12.675	19.647	2.717	0.990
7	0.0	0.0	0.0	0.0	7.272	15.775	10.026	16.987	12.498	14.877	5.693	0.219
8	0.0	0.0	0.0	0.0	12.113	13.381	10.958	27.127	20.893	8.682	1.958	0.980
9	0.0	0.0	0.0	0.0	23.560	14.882	23.315	18.716	24.427	5.998	0.247	0.319
10	0.0	0.0	0.0	0.0	35.032	28.707	22.748	26.321	15.690	14.357	0.0	0.135
11	0.0	0.0	0.0	0.0	25.205	29.924	14.088	14.686	18.506	8.317	0.0	0.429
12	0.0	0.0	0.0	0.0	22.047	22.496	16.536	13.995	21.393	30.395	0.0	0.140
13	0.0	0.0	0.0	0.0	13.238	14.625	40.189	27.879	12.462	18.088	0.0	0.307
14	0.0	0.0	0.0	0.0	12.555	31.252	36.826	14.393	15.582	16.628	0.0	0.710
15	0.0	0.0	0.0	0.0	14.116	22.228	39.600	17.346	17.952	12.028	0.0	0.170
16	0.0	0.0	0.0	0.0	10.584	15.312	25.894	30.794	10.057	12.458	0.0	0.0
17	1.639	0.0	0.0	0.0	8.491	25.746	19.602	14.660	11.467	5.073	3.569	0.0
18	0.736	0.0	0.0	0.0	8.881	51.855	18.363	10.478	6.946	23.659	1.537	0.0
19	0.335	0.0	0.0	0.0	4.465	41.748	20.474	10.102	5.470	8.520	1.792	0.0
20	0.177	0.0	0.0	0.0	5.430	29.546	15.146	6.964	7.375	7.329	0.761	0.0
21	0.666	0.0	0.0	3.954	6.932	24.733	14.360	14.732	6.103	5.243	1.425	0.0
22	0.166	0.0	0.0	1.698	6.057	23.014	11.498	21.876	3.408	4.001	0.316	0.0
23	0.601	0.0	0.0	0.694	3.864	24.407	5.986	16.767	4.568	5.402	1.616	0.0
24	0.223	0.0	0.0	0.300	1.600	22.010	9.280	10.750	3.663	8.398	0.436	0.0
25	0.118	0.0	0.0	1.373	0.236	19.110	20.011	16.043	1.340	6.523	0.526	0.0
26	0.286	0.0	0.0	0.272	0.0	11.981	12.771	12.193	1.689	26.849	0.620	0.0
27	0.121	0.0	0.0	1.359	0.0	11.476	13.395	14.026	1.326	16.774	0.170	0.0
28	0.216	0.0	0.0	7.748	0.0	7.115	13.901	19.327	3.753	6.547	0.511	0.0
29	0.446	0.0	0.0	3.197	0.0	17.386	23.608	11.290	3.296	3.962	0.904	0.0
30	0.138	0.0	0.0	1.709	0.0	20.183	16.637	11.540	2.084	10.146	0.282	0.0
31	0.0	0.0	0.0	0.0	0.0	0.0	21.402	7.566	0.0	4.778	0.0	0.0

TOTAL 5.807 0.0 0.0 22.305 251.647 610.329 551.619 603.614 337.772 369.573 42.738 9.555

TOTAL FOR YEAR= 2604.957 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1969 (CUM/SEC)

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	0.0	0.0	0.0	0.0	0.0	35.691	6.316	28.320	6.771	12.448	9.445	0.202
2	0.0	0.0	0.0	0.0	0.0	22.072	8.777	25.833	5.267	19.947	15.882	0.0
3	0.0	0.0	0.0	0.0	0.0	11.038	16.060	21.111	3.885	10.850	13.912	0.0
4	0.0	0.0	0.0	0.0	0.0	18.601	10.582	17.631	33.832	12.127	10.003	0.0
5	0.0	0.0	0.0	0.0	0.0	20.321	5.439	11.598	24.682	9.442	6.464	0.0
6	0.0	0.0	0.0	0.0	0.0	30.285	2.757	13.753	13.968	6.479	5.685	0.0
7	0.0	0.0	0.0	0.0	0.0	22.894	3.995	19.284	8.371	8.916	6.790	0.0
8	0.0	0.0	0.0	0.0	1.149	19.452	3.427	37.283	12.437	7.909	6.812	0.0
9	0.0	0.0	0.0	0.0	0.533	30.816	3.920	28.900	11.756	4.912	3.085	0.0
10	0.0	0.0	0.0	0.0	0.259	25.131	7.411	26.330	19.732	3.418	4.283	0.0
11	0.0	0.0	0.0	0.0	0.151	25.748	3.826	16.481	12.946	3.888	4.557	0.0
12	0.0	0.0	0.0	0.0	0.444	24.018	2.374	29.988	5.932	5.258	1.301	0.0
13	0.0	0.0	0.0	0.0	0.143	16.318	7.043	24.779	7.783	12.731	0.858	0.0
14	0.0	0.0	0.0	0.0	0.440	12.730	12.971	37.779	5.728	6.943	2.653	0.0
15	0.0	0.0	0.0	0.0	0.183	15.883	12.598	33.260	4.557	6.626	0.810	0.0
16	0.0	0.0	0.0	0.0	0.111	18.993	18.328	20.119	12.917	4.479	3.634	0.0
17	0.0	0.0	0.0	0.0	1.279	16.261	16.403	15.257	31.539	2.879	1.728	0.0
18	0.0	0.0	0.0	0.0	8.981	21.422	17.583	14.273	14.345	2.400	4.519	0.0
19	0.0	0.0	0.0	0.0	3.843	24.252	37.635	15.388	6.953	4.488	2.004	0.0
20	0.0	0.0	0.0	0.0	1.699	24.610	26.931	15.514	3.359	1.089	2.195	0.0
21	0.0	0.0	0.0	0.0	1.449	33.027	15.642	13.192	11.217	2.402	0.502	0.0
22	0.0	0.0	0.0	0.0	3.681	26.948	13.431	10.080	26.130	15.754	2.511	0.0
23	0.0	0.0	0.0	0.0	2.181	23.916	15.118	7.028	35.255	10.319	0.560	0.0
24	0.0	0.0	0.0	0.0	17.193	12.104	10.747	7.193	15.057	5.663	1.411	0.0
25	0.0	0.0	0.0	0.0	6.865	16.529	24.648	4.074	8.481	2.894	0.844	0.0
26	0.0	0.0	0.0	0.0	5.364	10.099	21.896	7.099	12.809	23.830	0.210	0.0
27	0.0	0.0	0.0	0.0	10.899	13.382	13.580	4.530	8.329	10.442	0.844	0.0
28	0.0	0.0	0.0	0.0	11.226	10.231	23.892	3.584	11.271	7.965	0.949	0.0
29	0.0	0.0	0.0	0.0	14.412	6.880	29.622	6.063	14.491	15.215	0.495	0.0
30	0.0	0.0	0.0	0.0	20.953	8.238	19.716	5.339	3.709	24.656	0.973	0.0
31	0.0	0.0	0.0	0.0	41.456		24.621	15.045		10.045		0.0
TOTAL	0.0	0.0	0.0	0.0	154.892	597.887	437.288	536.107	393.505	276.413	115.918	0.202

TOTAL FOR YEAR= 2512.212 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SO.KM)

DAILY DISCHARGE FOR 1970 (CUM/SEC)

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	CCT	NOV	DEC
1	0.0	0.0	0.0	0.0	0.0	11.692	16.006	15.763	23.424	20.269	8.476	0.867
2	0.0	0.0	0.0	0.0	0.0	6.199	15.208	16.130	19.178	8.974	9.407	0.416
3	0.0	0.0	0.0	0.0	0.0	4.450	7.354	18.739	14.817	4.212	6.936	0.215
4	0.0	0.0	0.0	0.0	0.0	9.917	7.980	12.244	9.020	13.507	6.123	0.136
5	0.0	0.0	0.0	0.0	0.0	9.603	13.160	26.176	10.841	7.519	2.585	0.351
6	0.0	0.0	0.0	0.0	0.0	15.944	13.170	22.783	11.036	8.363	3.233	0.130
7	0.0	0.0	0.0	0.0	15.033	7.154	9.604	16.432	10.562	4.619	2.219	0.348
8	0.0	0.0	0.0	0.0	17.282	12.072	7.747	14.683	21.890	2.895	3.435	0.159
9	0.0	0.0	0.0	0.0	9.171	7.856	32.415	22.610	11.749	3.201	4.177	0.106
10	0.0	0.0	0.0	0.0	5.264	12.746	39.684	21.819	7.455	4.054	2.012	0.190
11	0.0	0.0	0.0	0.0	6.696	17.234	48.213	21.773	17.717	4.565	2.144	0.108
12	0.0	0.0	0.0	0.0	4.805	22.042	23.499	12.922	13.336	8.360	5.139	0.156
13	0.0	0.0	0.0	0.0	6.312	7.884	34.159	17.013	6.851	4.079	2.662	0.271
14	0.0	0.0	0.0	0.0	5.615	9.364	21.783	14.437	13.237	1.136	1.037	0.116
15	0.0	0.0	0.0	0.0	2.026	14.819	37.955	13.445	12.619	7.631	0.911	0.0
16	0.0	0.0	0.0	0.0	2.859	13.319	22.455	14.204	4.934	4.867	1.357	0.0
17	0.0	0.0	0.0	0.0	4.074	14.795	23.469	11.523	17.248	1.901	1.015	0.0
18	0.0	0.0	0.0	0.0	28.144	12.464	13.662	5.725	27.927	20.294	1.396	0.0
19	0.0	0.0	0.0	0.0	15.532	9.645	15.965	12.300	30.758	11.107	0.659	0.0
20	0.0	0.0	0.0	0.0	21.339	15.589	15.965	8.698	21.763	5.289	0.401	0.0
21	0.0	0.0	0.0	0.0	10.716	16.178	17.667	9.367	11.724	14.073	0.561	0.0
22	0.0	0.0	0.0	0.0	13.762	9.263	17.889	23.528	13.132	15.072	0.369	0.0
23	0.0	0.0	0.0	0.0	3.780	18.848	12.075	11.353	19.557	9.859	0.732	0.0
24	0.0	0.0	0.0	0.0	36.494	12.376	10.753	15.154	13.039	12.497	0.988	0.0
25	0.0	0.0	0.0	0.0	15.684	8.422	24.014	22.292	11.612	6.816	0.367	0.0
26	0.0	0.0	0.0	0.0	15.482	12.841	16.019	31.398	7.624	3.511	0.116	0.0
27	0.0	0.0	0.0	0.0	9.170	14.502	11.005	42.302	6.523	18.861	0.0	0.0
28	0.0	0.0	0.0	0.0	16.847	13.878	15.407	37.496	7.626	19.511	0.0	0.0
29	0.0	0.0	0.0	0.0	9.484	15.021	14.221	18.429	13.341	17.169	0.0	0.0
30	0.0	0.0	0.0	0.0	16.679	16.238	22.262	13.180	29.781	11.640	0.0	0.0
31	0.0	0.0	0.0	0.0	13.576		27.402	29.078		10.597		0.0

TOTAL 0.0 0.0 0.0 0.0 0.0 306.227 372.352 608.167 572.956 440.321 286.448 68.458 3.569

TOTAL FOR YEAR= 2658.537 CUP/SFC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1971 (CUM/SEC)

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	0.0	0.0	0.0	0.0	0.0	0.0	36.270	48.395	14.433	6.055	3.911	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	39.035	47.455	7.143	4.115	2.446	0.0
3	0.0	0.0	0.0	0.0	0.0	1.481	19.096	50.777	7.143	3.911	1.595	0.0
4	0.0	0.0	0.0	0.0	0.0	2.446	11.692	27.908	17.853	3.911	4.508	0.0
5	0.0	0.0	0.0	0.0	0.0	3.289	13.909	57.788	6.464	2.446	2.446	0.0
6	0.0	0.0	0.0	0.0	0.0	4.508	23.965	25.576	30.256	1.595	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	5.637	7.895	35.427	15.505	1.481	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	6.464	9.098	28.661	7.895	1.350	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	9.090	10.808	11.242	7.895	0.998	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	9.090	42.357	31.893	3.911	4.115	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	7.143	48.395	23.056	2.725	11.652	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.712	31.484	23.056	3.011	4.885	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.712	43.323	27.908	2.725	1.595	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	1.882	12.968	12.101	2.446	1.350	1.882	0.0
15	0.0	0.0	0.0	0.0	0.0	1.481	9.098	12.101	1.595	1.882	1.595	0.0
16	0.0	0.0	0.0	0.0	0.0	0.998	9.098	12.101	3.011	0.712	1.882	0.0
17	0.0	0.0	0.0	0.0	0.0	4.508	29.635	9.491	2.160	0.565	0.712	0.0
18	0.0	0.0	0.0	0.0	0.0	6.464	26.403	6.956	6.856	0.466	0.712	0.0
19	0.0	0.0	0.0	0.0	0.0	7.143	16.159	7.519	1.595	0.376	0.712	0.0
20	0.0	0.0	0.0	0.0	0.0	9.098	35.427	5.261	2.160	0.278	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	6.856	44.273	5.261	2.160	0.229	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	7.143	57.788	10.358	1.595	1.350	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	20.356	10.808	12.101	2.446	0.278	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	23.965	16.724	8.681	2.160	0.278	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	30.256	13.909	9.098	1.481	0.229	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	31.484	24.766	12.968	15.505	0.147	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	17.288	13.435	15.505	6.856	8.272	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	18.475	17.853	16.724	10.358	12.968	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	32.310	28.661	10.808	15.505	14.433	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	14.433	27.908	9.098	4.508	7.143	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0		45.295	16.724		6.055		0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	284.710	777.482	631.396	209.356	105.161	22.402	0.0

TOTAL FOR YEAR= 2030.507 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1972 (CUM/SEC)

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	0.0	0.0	0.0	0.0	0.0	0.0	12.682	22.042	8.681	6.881	3.944	0.491
2	0.0	0.0	0.0	0.0	0.0	0.0	8.681	15.488	8.681	7.650	2.823	0.867
3	0.0	0.0	0.0	0.0	0.0	0.0	18.327	15.971	8.681	9.507	1.857	0.565
4	0.0	0.0	0.0	0.0	0.0	0.0	16.535	54.687	14.474	5.449	34.879	0.565
5	0.0	0.0	0.0	0.0	0.0	2.823	10.996	23.907	10.334	26.591	13.475	0.565
6	0.0	0.0	0.0	0.0	0.0	5.825	6.881	18.327	7.650	11.561	4.696	0.491
7	0.0	0.0	0.0	0.0	0.0	0.0	5.449	21.445	15.971	6.521	2.365	0.491
8	0.0	0.0	0.0	0.0	0.0	0.0	4.656	27.213	13.287	7.855	2.365	0.565
9	0.0	0.0	0.0	0.0	0.0	0.0	3.567	33.267	7.650	6.161	1.857	17.026
10	0.0	0.0	0.0	0.0	0.0	21.445	6.161	23.907	7.650	18.327	1.350	3.944
11	0.0	0.0	0.0	0.0	0.0	3.944	3.060	34.077	6.881	6.521	0.695	1.481
12	0.0	0.0	0.0	0.0	0.0	7.445	7.445	20.201	6.521	9.507	0.695	1.031
13	0.0	0.0	0.0	0.0	0.0	2.127	17.738	56.291	6.161	8.681	0.565	0.695
14	0.0	0.0	0.0	0.0	0.0	7.855	28.473	25.184	6.161	6.881	0.565	0.695
15	0.0	0.0	0.0	0.0	0.0	1.595	61.945	28.473	6.881	14.343	0.491	0.695
16	0.0	0.0	0.0	0.0	0.0	0.491	48.052	57.895	6.161	5.073	1.031	0.867
17	0.0	0.0	0.0	0.0	0.0	0.303	31.140	32.572	6.161	3.944	0.695	0.695
18	0.0	0.0	0.0	0.0	7.233	3.944	49.295	15.971	10.996	1.481	1.031	0.565
19	0.0	0.0	0.0	0.0	0.335	9.507	57.379	7.233	36.458	1.031	12.125	0.0
20	0.0	0.0	0.0	0.0	0.0	7.445	35.705	20.823	41.719	0.565	6.161	0.0
21	0.0	0.0	0.0	0.0	0.0	1.857	42.603	48.053	41.719	0.565	5.073	0.0
22	0.0	0.0	0.0	0.0	0.0	3.567	10.334	17.141	11.561	0.565	2.823	0.0
23	0.0	0.0	0.0	0.0	0.0	6.521	57.379	74.986	7.855	0.565	2.127	0.0
24	0.0	0.0	0.0	0.0	0.0	7.233	7.855	74.986	7.233	0.565	2.365	0.0
25	0.0	0.0	0.0	0.0	4.696	11.561	7.650	50.875	15.488	0.491	1.595	0.0
26	0.0	0.0	0.0	0.0	0.434	11.561	24.488	58.467	25.184	0.434	0.867	0.188
27	0.0	0.0	0.0	0.0	2.127	17.738	17.738	23.326	13.287	0.376	0.565	0.090
28	0.0	0.0	0.0	0.0	6.881	12.125	18.941	10.996	22.042	0.335	0.565	0.0
29	0.0	0.0	0.0	0.0	0.491	15.488	17.738	52.683	20.201	0.335	0.565	0.0
30	0.0	0.0	0.0	0.0	0.0	8.681	16.535	52.683	11.561	7.650	0.491	0.0
31	0.0	0.0	0.0	0.0	0.0	50.875	14.474			6.881		0.0
TOTAL	0.0	0.0	0.0	0.0	22.197	171.082	706.342	1073.681	413.287	183.289	110.700	32.572

TOTAL FOR YEAR= 2713.149 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1973 (CUM/SEC)

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	0.0	0.0	0.0	0.0	0.0	2.823	2.127	58.467	48.093	13.893	2.823	0.335
2	0.0	0.0	0.0	0.0	0.0	0.867	4.696	11.561	48.093	6.881	1.481	0.335
3	0.0	0.0	0.0	0.0	0.0	0.695	21.445	7.650	21.445	16.535	1.031	0.303
4	0.0	0.0	0.0	0.0	0.0	0.695	16.535	10.596	20.201	10.996	0.695	0.262
5	0.0	0.0	0.0	0.0	0.0	2.365	16.535	6.881	11.561	6.521	0.565	0.188
6	0.0	0.0	0.0	0.0	0.0	0.695	31.140	7.233	14.981	5.449	0.434	0.0
7	0.0	0.0	0.0	0.0	0.0	0.867	26.591	5.449	17.738	12.682	0.434	0.0
8	0.0	0.0	0.0	0.0	0.0	1.857	13.287	17.738	12.125	12.125	0.434	0.0
9	0.0	0.0	0.0	0.0	0.0	0.695	31.140	9.507	16.535	17.738	0.434	3.060
10	0.0	0.0	0.0	0.0	0.0	3.060	10.334	5.073	13.893	16.535	0.376	0.695
11	0.0	0.0	0.0	0.0	0.0	12.125	10.334	5.449	23.326	9.507	0.376	0.491
12	0.0	0.0	0.0	0.0	0.0	3.060	14.981	5.825	15.971	10.996	0.335	0.0
13	0.0	0.0	0.0	0.0	0.0	5.825	11.561	6.161	18.941	14.981	0.335	0.0
14	0.0	0.0	0.0	0.0	0.0	5.073	10.996	19.145	15.971	10.996	0.335	0.0
15	0.0	0.0	0.0	0.0	3.944	6.881	15.971	29.806	19.563	10.996	0.491	0.0
16	0.0	0.0	0.0	0.0	0.565	8.681	54.687	29.806	27.835	10.996	0.491	0.0
17	0.0	0.0	0.0	0.0	6.881	10.334	72.360	9.507	24.488	16.535	2.823	0.0
18	0.0	0.0	0.0	0.0	12.125	100.963	58.467	14.981	13.993	12.125	2.823	0.0
19	0.0	0.0	0.0	0.0	5.449	15.488	56.291	17.141	15.488	6.881	2.823	0.0
20	0.0	0.0	0.0	0.0	19.563	2.823	39.093	17.141	16.535	4.320	1.857	0.0
21	0.0	0.0	0.0	0.0	7.650	6.881	23.326	23.326	10.334	23.907	1.375	0.0
22	0.0	0.0	0.0	0.0	2.365	4.696	12.682	36.458	13.893	18.327	0.867	0.0
23	0.0	0.0	0.0	0.0	1.031	2.127	11.561	23.907	13.893	9.507	0.695	0.0
24	0.0	0.0	0.0	0.0	0.303	22.737	7.650	20.201	14.474	27.213	0.565	0.0
25	0.0	0.0	0.0	0.0	6.881	6.521	12.682	50.089	12.125	12.682	0.565	0.0
26	0.0	0.0	0.0	0.0	1.350	3.305	12.125	23.326	7.650	24.488	0.491	0.0
27	0.0	0.0	0.0	0.0	6.881	3.944	6.881	20.201	19.563	10.996	0.434	0.0
28	0.0	0.0	0.0	0.0	5.449	3.944	5.073	33.267	13.287	12.682	0.434	0.0
29	0.0	0.0	0.0	0.0	13.287	3.567	7.855	38.225	10.996	10.334	0.335	0.0
30	0.0	0.0	0.0	0.0	12.125	5.449	7.650	122.686	7.855	8.681	0.335	0.0
31	0.0	0.0	0.0	0.0	5.825		7.855	125.918		6.881		0.0
TOTAL	0.0	0.0	0.0	0.0	111.673	249.046	633.908	813.123	540.741	353.389	27.491	5.670

TOTAL FOR YEAR= 2775.042 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1974 (CUM/SEC)

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	0.0	0.0	0.0	0.0	0.0	5.302	27.548	22.516	9.565	12.927	5.973	4.664
2	0.0	0.0	0.0	0.0	0.0	5.637	24.603	16.805	11.913	21.837	1.162	1.857
3	0.0	0.0	0.0	0.0	0.0	2.275	21.158	17.984	8.272	9.115	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	2.504	13.983	15.635	21.837	9.115	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	7.462	19.865	11.913	19.865	6.333	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	8.272	19.865	15.071	21.158	7.462	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	19.227	95.588	19.227	26.051	11.913	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	6.693	33.079	17.984	23.907	10.939	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	4.664	21.158	15.071	28.301	11.430	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	5.973	43.748	14.531	46.645	37.342	61.396	0.0
11	0.0	0.0	0.0	0.0	0.0	5.302	20.520	23.212	48.641	40.934	11.405	0.0
12	0.0	0.0	0.0	0.0	0.0	6.333	15.071	26.804	16.805	11.913	3.715	0.0
13	0.0	0.0	0.0	0.0	0.0	8.681	35.615	18.605	54.843	14.531	6.333	0.0
14	0.0	0.0	0.0	0.0	0.0	7.462	23.907	13.435	40.934	11.430	2.970	0.0
15	0.0	0.0	0.0	0.0	0.524	6.693	11.913	10.898	21.837	15.635	5.621	7.069
16	0.0	0.0	0.0	0.0	0.524	19.227	15.071	28.301	16.805	9.998	3.755	0.0
17	0.0	0.0	0.0	0.0	0.524	23.212	8.681	80.755	15.635	7.855	0.0	0.0
18	0.0	0.0	0.0	0.0	0.524	9.998	10.939	167.457	16.200	23.907	3.232	0.0
19	0.0	0.0	0.0	0.0	0.524	8.681	61.356	28.301	11.430	12.927	1.857	0.0
20	0.0	0.0	0.0	0.0	0.524	13.983	21.158	26.051	23.212	3.780	0.0	0.0
21	0.0	0.0	0.0	0.0	0.524	7.855	15.071	19.865	11.913	4.058	0.0	0.0
22	0.0	0.0	0.0	0.0	0.524	11.913	17.386	15.071	16.200	2.970	0.0	0.0
23	0.0	0.0	0.0	0.0	0.524	23.907	21.837	17.984	11.430	2.741	3.494	0.0
24	0.0	0.0	0.0	0.0	19.227	10.939	20.520	10.465	17.386	2.741	0.0	0.0
25	0.0	0.0	0.0	0.0	4.345	15.635	28.301	11.430	21.158	4.345	0.0	0.0
26	0.0	0.0	0.0	0.0	2.741	10.939	19.865	16.805	16.805	2.970	6.333	0.0
27	0.0	0.0	0.0	0.0	1.162	9.998	17.386	10.465	16.805	14.531	2.504	0.0
28	0.0	0.0	0.0	0.0	2.970	6.693	13.983	19.227	10.939	7.462	1.857	0.0
29	0.0	0.0	0.0	0.0	2.741	8.681	11.913	9.565	12.404	4.958	0.0	0.0
30	0.0	0.0	0.0	0.0	4.664	7.085	16.805	9.998	37.342	3.780	0.0	0.0
31	0.0	0.0	0.0	0.0	5.302		9.565	18.605		3.494		0.0

TOTAL	0.0	0.0	0.0	0.0	0.0	47.864	291.223	737.498	750.033	656.237	345.369	121.606	13.590
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TOTAL FOR YEAR= 2963.419 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1975 (CUM/SEC)

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	0.0	0.0	0.0	0.0	0.622	18.327	13.565	41.907	17.273	21.810	81.810	0.0
2	0.0	0.0	0.0	0.0	0.622	14.130	14.695	31.516	24.020	8.294	3.264	0.0
3	0.0	0.0	0.0	0.0	0.622	21.559	13.565	17.084	35.725	27.041	1.084	0.0
4	0.0	0.0	0.0	0.0	5.261	24.259	10.841	17.084	20.536	23.288	4.590	0.0
5	0.0	0.0	0.0	0.0	22.893	20.242	3.044	21.559	20.827	10.322	1.042	0.0
6	0.0	0.0	0.0	0.0	4.868	23.547	15.300	20.242	14.242	9.895	27.016	0.0
7	0.0	0.0	0.0	0.0	22.230	20.242	14.130	14.695	14.507	13.299	14.437	0.0
8	0.0	0.0	0.0	0.0	7.871	15.881	17.084	21.559	22.768	11.684	4.582	0.0
9	0.0	0.0	0.0	0.0	3.044	19.604	17.084	16.478	15.603	13.772	1.969	0.0
10	0.0	0.0	0.0	0.0	30.011	22.893	13.565	17.084	8.217	15.168	10.501	0.0
11	0.0	0.0	0.0	0.0	52.437	22.230	17.705	22.230	17.958	12.551	5.668	0.0
12	0.0	0.0	0.0	0.0	8.836	22.230	25.675	17.084	31.483	10.449	10.493	0.0
13	0.0	0.0	0.0	0.0	4.475	13.565	20.896	18.327	14.165	5.230	2.955	0.0
14	0.0	0.0	0.0	0.0	6.087	19.604	17.084	14.695	15.610	6.263	1.253	0.0
15	0.0	0.0	0.0	0.0	11.373	19.604	17.894	15.300	11.172	13.512	4.375	0.0
16	0.0	0.0	0.0	0.0	3.044	16.478	17.705	16.478	8.547	8.463	0.0	0.0
17	0.0	0.0	0.0	0.0	9.319	11.373	14.130	14.130	5.736	5.409	0.0	0.0
18	0.0	0.0	0.0	0.0	7.421	18.965	11.373	28.546	10.000	6.220	0.0	0.0
19	0.0	0.0	0.0	0.0	10.841	14.695	6.087	23.588	4.614	4.316	0.0	0.0
20	0.0	0.0	0.0	0.0	4.099	18.327	9.810	14.130	10.366	3.197	0.0	0.0
21	0.0	0.0	0.0	0.0	7.871	21.559	9.319	7.421	5.440	2.387	0.0	0.0
22	0.0	0.0	0.0	0.0	9.319	17.705	8.836	5.678	3.047	4.025	0.0	0.0
23	0.0	0.0	0.0	0.0	9.319	17.705	9.810	4.868	4.446	5.862	0.0	0.0
24	0.0	0.0	0.0	0.0	17.084	13.009	15.881	22.893	7.028	3.945	0.0	0.0
25	0.0	0.0	0.0	0.0	7.871	18.965	17.084	7.871	1.876	1.531	0.0	0.0
26	0.0	0.0	0.0	0.0	4.868	23.588	14.130	23.588	11.713	15.687	0.0	0.0
27	0.0	0.0	0.0	0.0	8.836	19.604	9.319	38.602	8.500	8.815	0.0	0.0
28	0.0	0.0	0.0	0.0	16.478	15.881	18.327	15.300	8.827	3.255	0.0	0.0
29	0.0	0.0	0.0	0.0	10.334	9.810	16.478	14.130	4.443	5.011	0.0	0.0
30	0.0	0.0	0.0	0.0	6.971	8.345	14.695	20.242	7.513	7.420	0.0	0.0
31	0.0	0.0	0.0	0.0	15.300	10.841	10.841	47.078		3.961		0.0
TOTAL	0.0	0.0	0.0	0.0	330.225	543.925	435.949	611.384	386.201	352.078	175.039	0.0

TOTAL FOR YEAR= 2834.801 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1976 (CUM/SEC)

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	0.0	0.0	0.0	0.0	0.0	4.827	20.414	15.392	19.718	9.025	2.405	0.998
2	0.0	0.0	0.0	0.0	0.0	5.490	16.462	18.802	12.445	10.415	8.591	0.998
3	0.0	0.0	0.0	0.0	0.0	4.827	21.616	8.667	7.331	4.508	2.405	0.998
4	0.0	0.0	0.0	0.0	0.0	4.214	20.414	7.578	7.331	4.214	2.635	0.867
5	0.0	0.0	0.0	0.0	0.0	2.635	15.259	5.901	12.445	4.827	2.405	0.867
6	0.0	0.0	0.0	0.0	0.0	10.898	25.617	8.628	5.146	4.214	2.405	0.998
7	0.0	0.0	0.0	0.0	0.0	15.259	11.405	7.678	26.370	5.490	2.258	0.867
8	0.0	0.0	0.0	0.0	0.0	9.025	10.415	7.372	40.107	4.827	2.405	0.867
9	0.0	0.0	0.0	0.0	0.0	4.827	24.007	5.096	14.097	5.825	1.988	0.753
10	0.0	0.0	0.0	0.0	0.0	3.363	19.783	4.079	19.055	3.911	1.808	0.753
11	0.0	0.0	0.0	0.0	0.0	28.023	17.171	18.668	14.678	3.911	1.808	0.753
12	0.0	0.0	0.0	0.0	0.753	19.718	10.282	9.295	21.616	3.117	1.620	0.753
13	0.0	0.0	0.0	0.0	0.753	187.429	13.708	28.568	14.678	2.405	1.620	0.753
14	0.0	0.0	0.0	0.0	0.524	19.055	8.870	14.252	52.773	9.025	1.620	0.638
15	0.0	0.0	0.0	0.0	0.638	6.562	11.804	34.418	24.055	2.405	1.620	0.638
16	0.0	0.0	0.0	0.0	0.360	4.508	11.170	19.725	11.405	2.258	1.448	0.0
17	0.0	0.0	0.0	0.0	0.278	3.363	14.073	15.865	11.913	2.635	1.448	0.0
18	0.0	0.0	0.0	0.0	0.172	2.405	28.250	10.415	16.462	13.533	1.276	0.0
19	0.0	0.0	0.0	0.0	0.278	31.426	36.744	8.591	6.938	4.508	1.276	0.0
20	0.0	0.0	0.0	0.0	0.278	9.475	20.523	8.591	5.490	9.941	1.276	0.0
21	0.0	0.0	0.0	0.0	0.638	6.938	22.763	6.177	5.146	89.288	1.276	0.0
22	0.0	0.0	0.0	0.0	2.258	15.865	16.984	5.490	12.985	17.722	1.129	0.0
23	0.0	0.0	0.0	0.0	0.867	19.718	13.915	5.490	18.376	7.331	1.129	0.0
24	0.0	0.0	0.0	0.0	9.941	21.125	12.490	6.185	26.370	5.146	1.129	0.0
25	0.0	0.0	0.0	0.0	4.214	16.462	18.452	6.185	17.722	4.214	1.129	0.0
26	0.0	0.0	0.0	0.0	4.214	7.822	16.656	8.157	15.259	3.911	1.129	0.0
27	0.0	0.0	0.0	0.0	3.911	11.405	14.939	9.475	21.616	4.214	1.129	0.0
28	0.0	0.0	0.0	0.0	1.988	9.475	11.179	14.678	14.097	16.462	1.129	0.0
29	0.0	0.0	0.0	0.0	0.998	11.913	8.708	11.405	11.405	4.827	1.129	0.0
30	0.0	0.0	0.0	0.0	0.867	19.055	12.914	11.913	9.025	3.363	0.998	0.0
31	0.0	0.0	0.0	0.0	2.258		13.204	7.822		4.214		0.0

TOTAL 0.0 0.0 0.0 0.0 0.0 36.188 517.105 520.188 330.558 496.053 271.685 55.628 12.502

TOTAL FOR YEAR= 2259.906 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1977 (CUM/SEC)

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	0.0	0.0	0.0	0.0	0.0	34.748	17.386	31.443	17.301	8.879	5.905	0.0
2	0.0	0.0	0.0	0.0	0.0	8.272	23.155	32.253	13.466	6.705	7.912	0.0
3	0.0	0.0	0.0	0.0	0.0	5.973	15.071	29.847	10.180	3.632	6.925	0.0
4	0.0	0.0	0.0	0.0	0.0	4.958	29.847	57.698	14.422	3.007	5.900	0.0
5	0.0	0.0	0.0	0.0	0.0	5.621	35.599	43.748	12.568	4.846	3.340	0.0
6	0.0	0.0	0.0	0.0	0.0	10.465	21.837	149.375	30.157	2.021	4.705	0.0
7	0.0	0.0	0.0	0.0	0.0	15.071	29.847	37.342	16.985	2.621	3.066	0.0
8	0.0	0.0	0.0	0.0	0.0	7.257	41.875	38.225	14.459	10.955	3.761	0.0
9	0.0	0.0	0.0	0.0	0.0	4.958	32.253	23.907	21.527	5.969	3.543	0.0
10	0.0	0.0	0.0	0.0	0.0	4.664	21.158	17.386	24.203	4.032	0.799	0.0
11	0.0	0.0	0.0	0.0	0.0	4.664	15.635	12.927	22.184	2.213	1.136	0.0
12	0.0	0.0	0.0	0.0	0.0	7.069	12.404	9.998	27.969	16.606	2.771	0.0
13	0.0	0.0	0.0	0.0	0.0	6.333	6.333	5.973	13.377	7.956	0.544	0.0
14	0.0	0.0	0.0	0.0	0.0	4.664	9.548	14.506	8.587	6.056	0.689	0.0
15	0.0	0.0	0.0	0.0	0.622	4.664	37.342	14.506	10.605	2.114	0.840	0.0
16	0.0	0.0	0.0	0.0	0.622	4.664	33.905	13.983	12.668	4.675	0.0	0.0
17	0.0	0.0	0.0	0.0	0.622	4.664	21.158	13.435	15.314	1.880	0.0	0.0
18	0.0	0.0	0.0	0.0	2.504	6.693	19.227	13.983	12.695	4.471	0.0	0.0
19	0.0	0.0	0.0	0.0	0.622	11.405	14.506	17.984	5.418	1.958	0.0	0.0
20	0.0	0.0	0.0	0.0	3.232	14.506	10.939	14.506	7.234	2.503	0.0	0.0
21	0.0	0.0	0.0	0.0	2.275	19.865	19.865	31.443	7.148	2.275	0.0	0.0
22	0.0	0.0	0.0	0.0	2.725	13.983	42.791	17.386	10.046	2.818	0.0	0.0
23	0.0	0.0	0.0	0.0	2.570	9.548	34.748	14.506	13.534	2.037	0.0	0.0
24	0.0	0.0	0.0	0.0	4.664	24.603	26.804	14.506	6.474	6.314	0.0	0.0
25	0.0	0.0	0.0	0.0	14.506	13.983	32.253	21.158	2.667	1.832	0.0	0.0
26	0.0	0.0	0.0	0.0	11.913	8.681	29.847	16.781	3.112	1.334	0.0	0.0
27	0.0	0.0	0.0	0.0	9.998	29.847	78.185	17.386	2.980	11.875	0.0	0.0
28	0.0	0.0	0.0	0.0	2.275	17.386	32.253	40.034	3.582	9.715	0.0	0.0
29	0.0	0.0	0.0	0.0	7.069	16.781	29.847	70.740	6.260	4.254	0.0	0.0
30	0.0	0.0	0.0	0.0	5.621	17.386	64.841	19.665	3.391	2.542	0.0	0.0
31	0.0	0.0	0.0	0.0	21.158		62.550	27.360		14.704		0.0
TOTAL	0.0	0.0	0.0	0.0	93.395	343.374	903.049	883.990	370.511	162.797	51.837	0.0

TOTAL FOR YEAR= 2808.952 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1978 (CUM/SEC)

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	0.0	0.0	0.0	0.0	0.049	0.802	3.518	5.515	53.296	16.579	0.442	0.041
2	0.0	0.0	0.0	0.0	0.049	0.540	2.029	6.284	8.337	20.144	0.442	0.016
3	0.0	0.0	0.0	0.0	0.049	0.090	6.398	68.245	110.217	9.943	0.385	0.008
4	0.0	0.0	0.0	0.0	0.049	0.164	2.152	25.405	36.360	9.605	0.327	0.016
5	0.0	0.0	0.0	0.0	0.049	0.205	4.320	19.162	52.691	9.231	0.229	0.008
6	0.0	0.0	0.0	0.0	0.049	0.262	2.569	15.824	40.165	8.471	0.229	0.016
7	0.0	0.0	0.0	0.0	0.049	1.775	3.608	25.405	62.599	7.940	0.229	0.008
8	0.0	0.0	0.0	0.0	0.049	3.265	4.901	24.955	65.749	7.371	0.229	0.008
9	0.0	0.0	0.0	0.0	0.049	7.208	13.279	24.734	7.576	3.608	0.188	0.016
10	0.0	0.0	0.0	0.0	0.049	4.705	4.901	23.220	12.175	3.109	0.188	0.016
11	0.0	0.0	0.0	0.0	0.049	2.569	16.724	40.999	8.992	6.742	0.188	0.025
12	0.0	0.0	0.0	0.0	0.049	0.720	8.722	20.332	34.274	3.608	0.188	0.008
13	0.0	0.0	0.0	0.0	0.025	0.974	4.803	13.451	31.500	2.945	0.188	0.0
14	0.0	0.0	0.0	0.0	0.016	0.573	10.964	13.942	15.472	23.220	0.164	0.016
15	0.0	0.0	0.0	0.0	0.016	0.761	42.128	18.008	12.175	10.096	0.164	0.0
16	0.0	0.0	0.0	0.0	0.303	0.843	43.568	10.383	11.266	3.032	0.147	0.0
17	0.0	0.0	0.0	0.0	1.775	2.725	9.401	5.727	7.576	0.843	0.147	0.0
18	0.0	0.0	0.0	0.0	1.375	2.495	5.515	40.999	7.208	2.086	0.131	0.0
19	0.0	0.0	0.0	0.0	1.268	35.836	6.619	14.785	7.331	1.595	0.131	0.0
20	0.0	0.0	0.0	0.0	0.646	22.590	6.971	11.111	21.755	1.325	0.115	0.008
21	0.0	0.0	0.0	0.0	0.327	21.346	14.956	35.836	7.208	1.170	0.098	0.0
22	0.0	0.0	0.0	0.0	0.164	27.711	48.927	42.987	36.098	2.086	0.090	0.008
23	0.0	0.0	0.0	0.0	1.653	4.508	31.754	22.582	29.790	1.375	0.074	0.0
24	0.0	0.0	0.0	0.0	0.164	8.992	17.264	21.551	9.172	0.974	0.074	0.0
25	0.0	0.0	0.0	0.0	0.352	3.355	19.546	17.264	5.618	0.843	0.049	0.008
26	0.0	0.0	0.0	0.0	0.147	3.265	11.864	16.895	6.559	0.802	0.049	0.0
27	0.0	0.0	0.0	0.0	2.356	4.320	5.727	20.332	6.455	0.802	0.049	0.0
28	0.0	0.0	0.0	0.0	2.430	29.315	14.785	58.525	5.299	1.170	0.049	0.008
29	0.0	0.0	0.0	0.0	1.170	4.320	12.330	80.624	6.764	0.802	0.049	0.0
30	0.0	0.0	0.0	0.0	0.475	4.606	11.266	42.415	11.073	0.802	0.049	0.0
31	0.0	0.0	0.0	0.0	0.761	8.861	29.078			0.802		0.0

TOTAL 0.0 0.0 0.0 0.0 0.0 16.012 200.838 400.367 816.567 730.747 163.122 5.081 0.237

TOTAL FOR YEAR= 2332.971 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1979 (CUM/SEC)

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	0.0	0.0	0.0	0.0	0.065	0.065	1.964	22.925	4.525	7.699	0.524	0.033
2	0.0	0.0	0.0	0.0	0.065	0.065	19.964	30.134	29.405	5.891	0.417	0.033
3	0.0	0.0	0.0	0.0	0.065	0.131	3.199	13.582	11.610	4.525	0.327	0.033
4	0.0	0.0	0.0	0.0	0.065	0.286	1.375	20.536	25.486	3.256	0.311	0.033
5	0.0	0.0	0.0	0.0	0.065	3.256	1.563	12.715	11.880	8.894	0.278	0.033
6	0.0	0.0	0.0	0.0	0.065	1.055	1.375	153.369	14.645	3.502	0.278	0.074
7	0.0	0.0	0.0	0.0	0.065	0.810	4.165	22.115	13.582	2.430	0.278	0.025
8	0.0	0.0	0.0	0.0	0.065	0.736	13.435	50.523	13.287	12.715	0.278	0.033
9	0.0	0.0	0.0	0.0	0.065	0.376	54.901	18.671	15.514	7.495	0.278	0.033
10	0.0	0.0	0.0	0.0	0.065	2.479	16.920	13.435	7.601	4.827	0.278	0.033
11	0.0	0.0	0.0	0.0	0.065	1.031	44.640	7.192	4.983	2.479	0.278	0.033
12	0.0	0.0	0.0	0.0	0.065	0.974	46.555	13.124	3.567	2.103	0.254	0.033
13	0.0	0.0	0.0	0.0	0.074	0.262	14.956	20.929	2.692	2.536	0.254	0.016
14	0.0	0.0	0.0	0.0	0.123	0.491	17.092	29.896	2.585	2.585	0.229	0.008
15	0.0	0.0	0.0	0.0	0.082	0.344	12.567	25.045	1.964	0.974	0.213	0.008
16	0.0	0.0	0.0	0.0	0.065	0.509	7.699	39.469	1.964	1.178	0.205	0.008
17	0.0	0.0	0.0	0.0	0.065	4.025	12.428	17.959	1.522	0.998	0.205	0.008
18	0.0	0.0	0.0	0.0	0.278	1.375	9.466	22.115	1.677	0.810	0.205	0.016
19	0.0	0.0	0.0	0.0	0.311	0.565	5.891	55.662	3.755	0.671	0.205	0.016
20	0.0	0.0	0.0	0.0	0.164	1.432	5.425	15.431	5.056	0.646	0.172	0.016
21	0.0	0.0	0.0	0.0	0.123	0.589	5.056	33.431	2.283	0.565	0.172	0.016
22	0.0	0.0	0.0	0.0	0.098	1.244	2.013	12.715	2.692	0.565	0.205	0.016
23	0.0	0.0	0.0	0.0	0.098	1.285	5.719	8.779	6.521	0.565	0.123	0.016
24	0.0	0.0	0.0	0.0	0.098	1.563	1.694	11.610	2.905	0.565	0.205	0.016
25	0.0	0.0	0.0	0.0	0.082	3.199	7.962	7.805	24.611	0.548	0.205	0.016
26	0.0	0.0	0.0	0.0	0.065	4.975	1.448	23.662	18.131	0.458	0.205	0.008
27	0.0	0.0	0.0	0.0	0.065	5.809	0.916	77.547	7.699	0.417	0.172	0.008
28	0.0	0.0	0.0	0.0	0.065	29.405	1.448	44.959	10.440	1.579	0.172	0.016
29	0.0	0.0	0.0	0.0	0.065	16.920	5.637	18.851	15.758	2.962	0.172	0.016
30	0.0	0.0	0.0	0.0	0.065	28.456	3.379	9.237	29.315	0.998	0.205	0.008
31	0.0	0.0	0.0	0.0	0.065		2.798	6.251		0.695		0.008
TOTAL	0.0	0.0	0.0	0.0	2.839	113.793	368.646	539.670	258.055	86.130	7.298	0.671

TOTAL FOR YEAR= 1817.101 CUM/SEC

STATION OKKAN DAM SITE (CA=225 SQ.KM)

DAILY DISCHARGE FOR 1980 (CUM/SEC)

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	0.0	0.0	0.0	0.0	0.0	0.597	12.240	56.095	17.697	31.377	1.178	0.0
2	0.0	0.0	0.0	0.0	0.0	1.694	16.994	14.523	23.195	22.737	2.381	0.0
3	0.0	0.0	0.0	0.0	0.0	0.982	9.597	17.231	20.905	19.391	1.456	0.0
4	0.0	0.0	0.0	0.0	0.0	15.406	7.257	10.317	24.635	7.732	2.569	0.0
5	0.0	0.0	0.0	0.0	0.0	3.960	17.231	8.223	29.242	7.257	1.538	0.0
6	0.0	0.0	0.0	0.0	1.939	26.321	5.490	17.697	23.539	5.490	1.767	0.0
7	0.0	0.0	0.0	0.0	1.456	46.743	8.223	7.257	15.627	6.488	1.244	0.0
8	0.0	0.0	0.0	0.0	0.982	3.731	56.905	9.957	19.645	4.827	2.283	0.0
9	0.0	0.0	0.0	0.0	0.205	0.753	16.290	36.180	15.185	4.958	1.383	0.0
10	0.0	0.0	0.0	0.0	0.082	1.317	13.255	19.391	36.180	3.502	12.641	0.0
11	0.0	0.0	0.0	0.0	0.082	0.270	13.885	25.756	14.744	2.765	13.255	0.0
12	0.0	0.0	0.0	0.0	0.033	0.237	15.848	22.999	11.651	2.864	1.694	0.0
13	0.0	0.0	0.0	0.0	0.049	10.694	15.627	11.455	17.460	3.731	1.694	0.0
14	0.0	0.0	0.0	0.0	0.180	5.220	72.965	25.192	70.233	2.765	1.538	0.0
15	0.0	0.0	0.0	0.0	0.180	9.065	50.539	11.455	37.857	2.111	1.538	0.0
16	0.0	0.0	0.0	0.0	0.180	10.317	55.285	10.317	23.539	32.310	0.925	0.0
17	0.0	0.0	0.0	0.0	0.180	3.731	11.455	31.377	15.406	18.417	1.538	0.0
18	0.0	0.0	0.0	0.0	0.810	18.417	9.957	13.467	14.523	25.470	0.458	0.0
19	0.0	0.0	0.0	0.0	0.123	6.341	6.341	21.682	14.310	13.885	0.458	0.0
20	0.0	0.0	0.0	0.0	0.082	20.144	19.645	42.365	14.744	7.102	0.458	0.0
21	0.0	0.0	0.0	0.0	0.123	15.627	17.697	26.321	11.847	4.083	13.255	0.0
22	0.0	0.0	0.0	0.0	0.106	12.641	16.077	49.009	14.744	3.175	9.957	0.0
23	0.0	0.0	0.0	0.0	8.558	8.894	18.900	19.391	6.341	2.471	6.194	0.0
24	0.0	0.0	0.0	0.0	1.939	18.417	17.935	29.242	5.359	1.939	4.696	0.0
25	0.0	0.0	0.0	0.0	3.281	4.958	25.470	96.022	10.882	1.612	3.616	0.0
26	0.0	0.0	0.0	0.0	0.458	12.641	24.087	169.413	5.359	1.538	2.471	0.0
27	0.0	0.0	0.0	0.0	2.283	38.193	11.070	73.850	7.732	1.178	1.456	0.0
28	0.0	0.0	0.0	0.0	0.810	22.737	29.847	64.923	3.731	1.047	0.982	0.0
29	0.0	0.0	0.0	0.0	1.456	13.255	32.310	42.365	2.970	0.982	0.417	0.0
30	0.0	0.0	0.0	0.0	0.810	17.231	14.727	38.536	2.283	0.982	0.205	0.0
31	0.0	0.0	0.0	0.0	1.244		31.688	35.853		0.867		0.0
TOTAL	0.0	0.0	0.0	0.0	27.630	350.532	674.833	1057.898	531.562	245.053	95.244	0.0

TOTAL FOR YEAR= 2982.753 CUM/SEC

Table 3B-13

CALCULATION OF SUCCESSIVE RAINFALL AT KYALPYINTHA

YEAR	ANNUAL DAILY MAX	2-DAY	3-DAY	6-DAY
1954	113.74	137.77	159.86	257.49
DATE	221	220	219	221
1955	94.41	116.80	129.12	168.74
DATE	179	194	194	179
1956	83.18	134.54	168.37	229.04
DATE	200	200	199	149
1957	116.10	159.18	204.52	274.68
DATE	151	182	182	179
1958	100.37	132.75	163.10	210.95
DATE	243	242	242	239
1959	64.72	96.30	136.53	186.28
DATE	248	248	248	270
1960	112.17	120.83	137.56	214.64
DATE	289	289	214	182
1961	147.91	170.92	176.63	211.95
DATE	166	166	165	186
1962	133.64	169.33	189.91	225.32
DATE	146	145	144	204
1963	83.66	163.12	199.66	255.72
DATE	194	193	193	193
1964	123.03	142.99	161.19	166.98
DATE	283	283	128	128
1965	100.57	127.22	158.71	215.59
DATE	151	150	232	162
1966	67.16	109.89	132.36	230.34
DATE	199	217	210	207
1967	81.84	118.66	153.53	264.52
DATE	245	244	128	215
1968	114.56	133.60	171.37	244.37
DATE	216	169	214	212
1969	83.29	129.80	151.65	203.53
DATE	151	151	150	147
1970	78.86	137.07	205.61	254.43
DATE	192	191	190	190
1971	74.14	133.41	193.12	236.96
DATE	146	207	201	199
1972	81.60	113.66	145.82	173.46
DATE	216	216	194	193
1973	236.92	286.04	330.34	357.31
DATE	169	169	168	168
1974	119.52	132.47	142.43	244.79
DATE	162	162	160	238
1975	193.66	246.19	248.25	253.40
DATE	128	127	127	127
1976	179.29	232.59	282.01	309.15
DATE	164	163	163	160
1977	109.93	135.45	150.17	208.08
DATE	218	217	216	213
1978	86.40	163.40	206.80	280.00
DATE	172	171	170	170
1979	105.00	142.50	156.40	266.00
DATE	193	193	178	189
1980	74.00	110.50	136.50	196.30
DATE	196	195	194	233

Table 3B-14 (1) Probability Analysis of Daily Maximum Rainfall at Kaupynintha

***** THE PROBABILITY OF EXCEEDANCE ON CUKKAN DAM IRRIGATION PROJECT *****

X : ANNUAL DAILY MAX												
CRDEP	YEAR	X	LCC(X)	X+B	Y =	YY =	TFCMAS PLOT(%)	HAZEN PLOT(%)	X**2	X**3		
					LCC(X+B)	Y**2						
1	1973	236.900	2.37457	188.234	2.27470	5.17425	96.88	98.39	56121.61	13295207.00		
2	1975	193.700	2.28713	145.034	2.16147	4.67195	93.75	95.16	37519.69	7267563.00		
3	1976	179.300	2.25358	130.634	2.11606	4.47769	90.63	91.94	32148.48	5764222.00		
4	1961	147.900	2.16557	99.234	1.95666	3.98665	87.50	88.71	21874.41	3235224.00		
5	1962	133.600	2.1581	84.934	1.92506	3.72135	84.38	85.48	17848.56	2384620.00		
6	1964	123.000	2.08990	74.334	1.87119	3.50134	81.25	82.26	15129.00	1860867.00		
7	1953	119.800	2.07846	71.134	1.85208	3.43014	78.13	79.03	14352.04	1719373.00		
8	1974	119.500	2.07737	70.834	1.85024	3.42339	75.00	75.81	14280.25	1706489.00		
9	1957	116.100	2.06487	67.434	1.82888	3.34475	71.88	72.58	13479.21	1564935.00		
10	1968	114.600	2.05476	65.934	1.81911	3.30915	68.75	69.35	13133.16	1505059.00		
11	1954	113.700	2.05518	65.034	1.81314	3.28747	65.63	66.13	12927.69	1465878.00		
12	1960	112.200	2.04999	63.534	1.80300	3.25082	62.50	62.90	12588.84	1412467.00		
13	1977	109.900	2.04100	61.234	1.78699	3.19334	59.38	59.68	12078.01	1327372.00		
14	1979	105.000	2.02119	56.334	1.75077	3.06515	56.25	56.45	11025.00	1157625.00		
15	1965	100.600	2.00200	51.534	1.71545	2.94277	53.13	53.23	10120.36	1018107.63		
16	1958	100.400	2.00173	51.734	1.71377	2.93702	50.00	50.00	10080.16	1012047.63		
17	1951	95.600	1.98826	50.534	1.70701	2.91387	46.88	46.77	9920.16	988047.44		
18	1952	97.000	1.98677	48.334	1.68425	2.83670	43.75	43.55	9409.00	912673.00		
19	1955	94.400	1.97497	45.734	1.66024	2.75639	40.63	40.32	8911.36	841231.88		
20	1950	93.100	1.96895	44.434	1.64771	2.71496	37.50	37.10	8667.61	806953.94		
21	1978	86.400	1.93651	37.734	1.57673	2.48608	34.38	33.87	7464.96	644972.15		
22	1963	83.700	1.92272	35.034	1.54445	2.38544	31.25	30.65	7005.69	586376.00		
23	1969	83.300	1.92064	34.634	1.53950	2.37006	28.13	27.42	6938.89	578005.13		
24	1956	83.200	1.92012	34.534	1.53824	2.36619	25.00	24.15	6922.24	575930.19		
25	1967	81.800	1.91275	33.134	1.52027	2.31122	21.88	20.97	6691.23	547342.88		
26	1972	81.600	1.91169	32.934	1.51764	2.30324	18.75	17.74	6658.55	543338.00		
27	1970	78.900	1.89708	30.234	1.49049	2.19186	15.63	14.52	6225.21	491168.75		
28	1971	74.100	1.86982	25.434	1.40541	1.97518	12.50	11.29	5490.81	406868.81		
29	1930	74.000	1.86923	25.334	1.40370	1.97037	9.38	8.06	5476.00	405224.00		
30	1966	67.200	1.82737	18.534	1.26756	1.60773	6.25	4.84	4515.84	303464.13		
31	1959	64.700	1.81090	16.034	1.20504	1.45211	3.13	1.61	4186.09	270839.69		
TOTAL		3369.197	62.48068		52.98109	92.35857			409189.69	56603232.00		
MEAN		108.684	2.01551		YM = 1.70907	2.97931			13199.66	1825910.00		
					YM	Y*Y = Y*Y						

TEST	MEAN	TOTAL
1	100	100
2	100	100
3	100	100
4	100	100
5	100	100
6	100	100
7	100	100
8	100	100
9	100	100
10	100	100
11	100	100
12	100	100
13	100	100
14	100	100
15	100	100
16	100	100
17	100	100
18	100	100
19	100	100
20	100	100
21	100	100
22	100	100
23	100	100
24	100	100
25	100	100
26	100	100
27	100	100
28	100	100
29	100	100
30	100	100
31	100	100
32	100	100
33	100	100
34	100	100
35	100	100
36	100	100
37	100	100
38	100	100
39	100	100
40	100	100
41	100	100
42	100	100
43	100	100
44	100	100
45	100	100
46	100	100
47	100	100
48	100	100
49	100	100
50	100	100
51	100	100
52	100	100
53	100	100
54	100	100
55	100	100
56	100	100
57	100	100
58	100	100
59	100	100
60	100	100
61	100	100
62	100	100
63	100	100
64	100	100
65	100	100
66	100	100
67	100	100
68	100	100
69	100	100
70	100	100
71	100	100
72	100	100
73	100	100
74	100	100
75	100	100
76	100	100
77	100	100
78	100	100
79	100	100
80	100	100
81	100	100
82	100	100
83	100	100
84	100	100
85	100	100
86	100	100
87	100	100
88	100	100
89	100	100
90	100	100
91	100	100
92	100	100
93	100	100
94	100	100
95	100	100
96	100	100
97	100	100
98	100	100
99	100	100
100	100	100

Table 3B-14 (2)

***** THE PROBABILITY OF EXCEEDANCE ON CUKAN DAM IRRIGATION PROJECT *****

X : ANNUAL DAILY MAX (MM)

***** B - V A L U E *****

CRDER	XI	XS	XI*XS	XI*XS-XC**2	XI+XS	2*XC-(XI+XS)	BI
1	236.900	64.700	15327.426	301.600	4587.281	-94.331	-48.630
2	193.700	67.200	13016.637	260.900	2276.492	-53.631	-42.448
3	179.300	74.600	13268.195	253.300	2528.051	-46.031	-54.921
						TOTAL BI =	-145.999
						MEAN B =	-48.666
						B =	-48.666

***** THE PROBABLE VALUES BY 'IMAI' METHOD *****

$$\text{LOG(X + -48.666)} = 1.70907 + 0.34740 * E$$

RETURN- PERIOD (YEAR)	F	R	E*E	A=YM+E*R	C=10**A	B	X=C-B
2	0.0	0.3474	0.0	1.7091	51.176	-48.666	99.842
5	0.5951	0.3474	0.2067	1.9158	82.377	-48.666	131.043
10	0.9062	0.3474	0.3148	2.0239	105.653	-48.666	154.319
20	1.1630	0.3474	0.4040	2.1131	125.746	-48.666	178.412
30	1.2967	0.3474	0.4505	2.1595	144.391	-48.666	193.058
50	1.4520	0.3474	0.5044	2.2135	163.491	-48.666	212.157
100	1.6450	0.3474	0.5715	2.2805	190.784	-48.666	239.450
200	1.8215	0.3474	0.6328	2.3419	219.714	-48.666	268.380
500	2.0350	0.3474	0.7070	2.4160	260.632	-48.666	309.298
1000	2.1850	0.3474	0.7591	2.4681	293.858	-48.666	342.524

FIGURE 3B-2 FLOOD HYDROGRAPH AT MAIN DAM SITE

(Probability 01, 02, 05, 10, 20, 100 Percent)

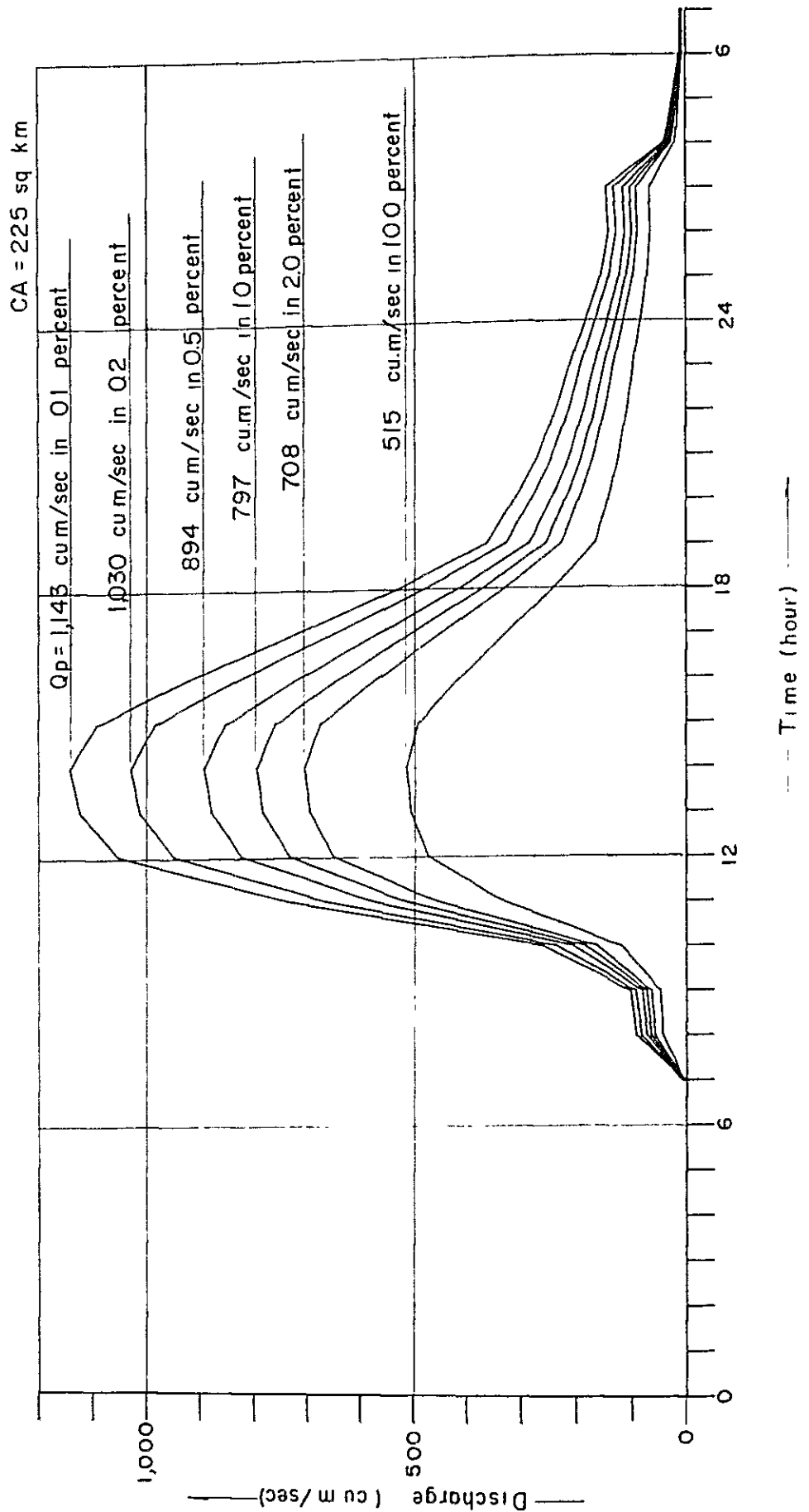
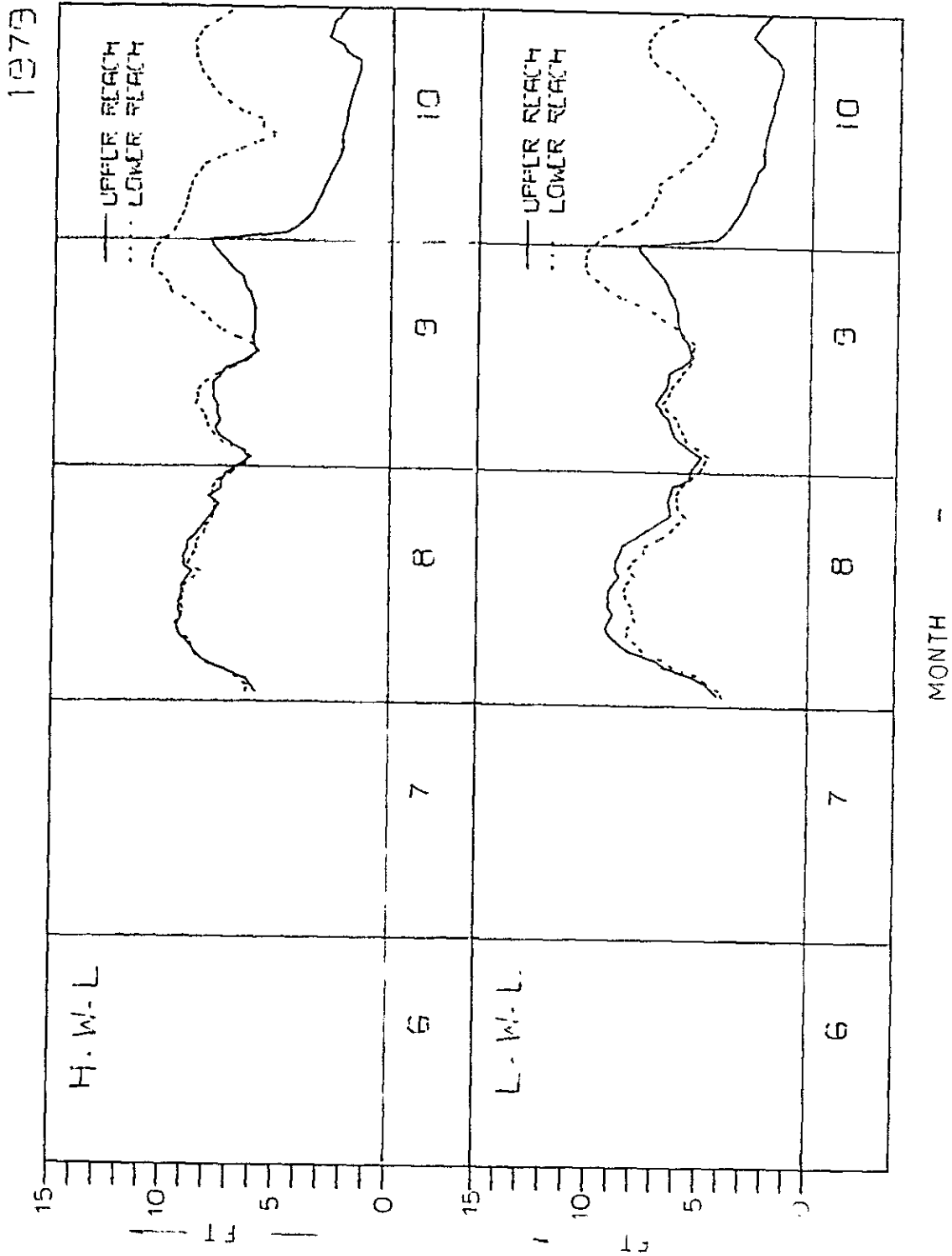
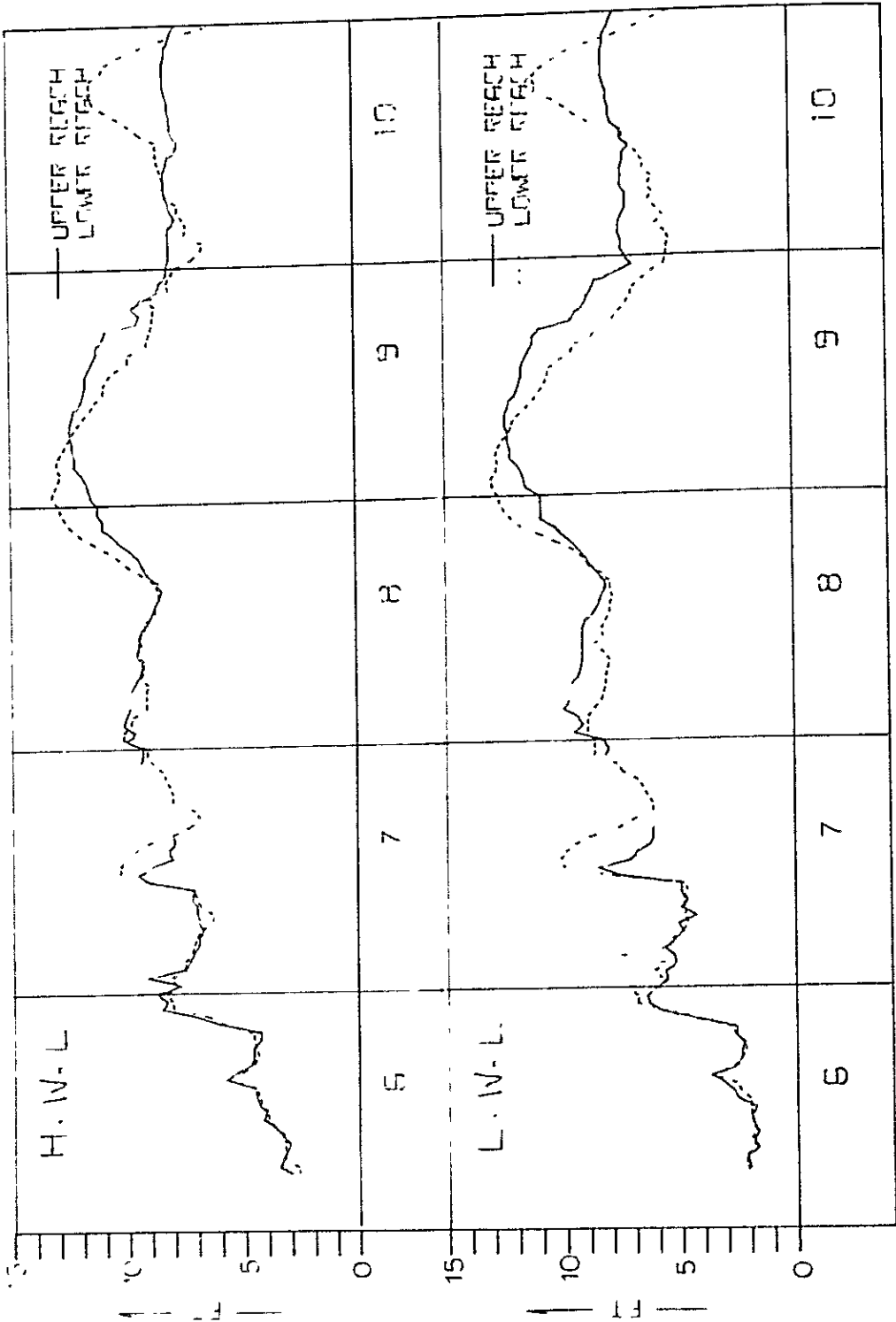


FIGURE 3B-5(1) HYDROGRAPH AT YOWA GATE

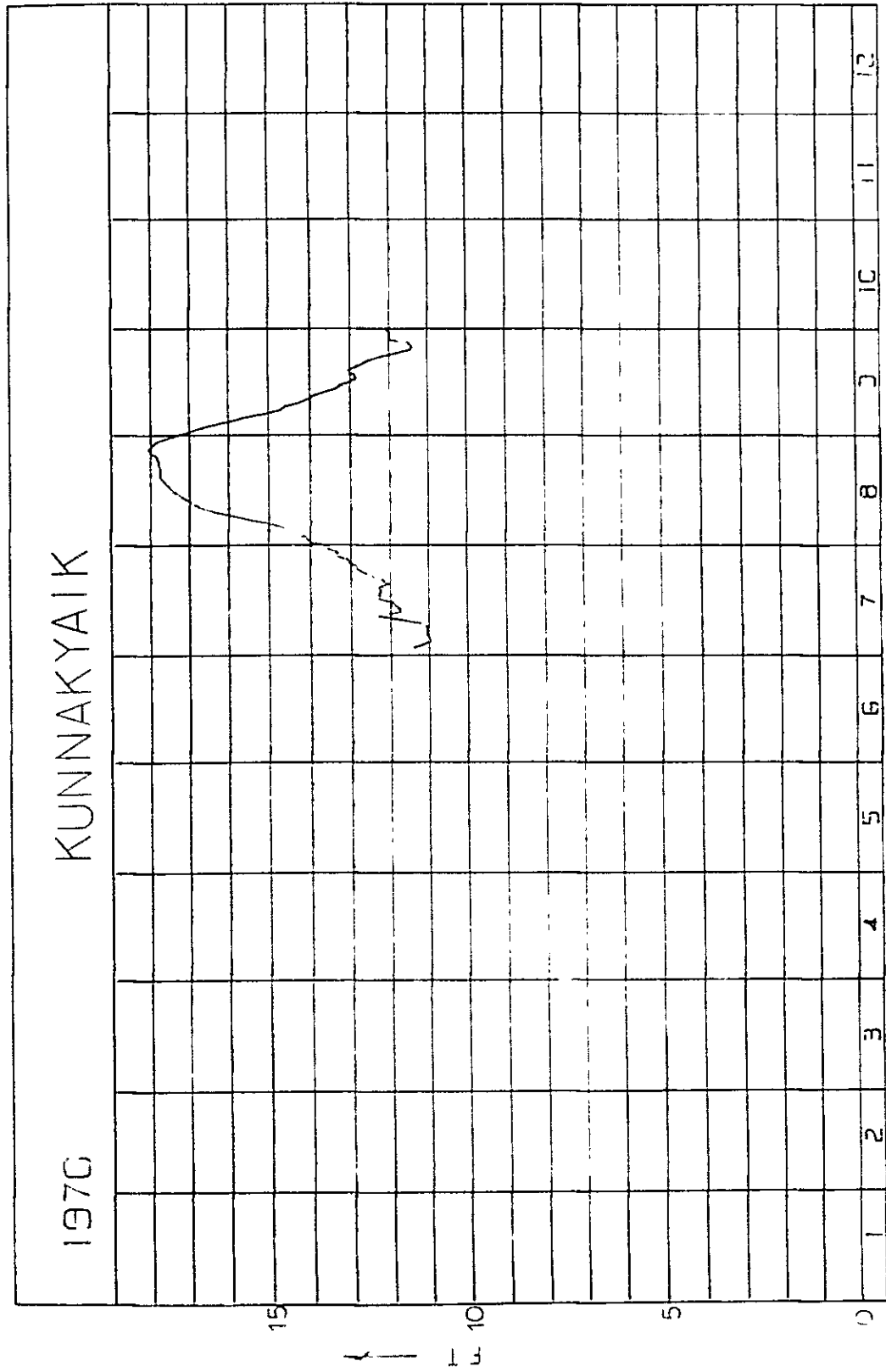


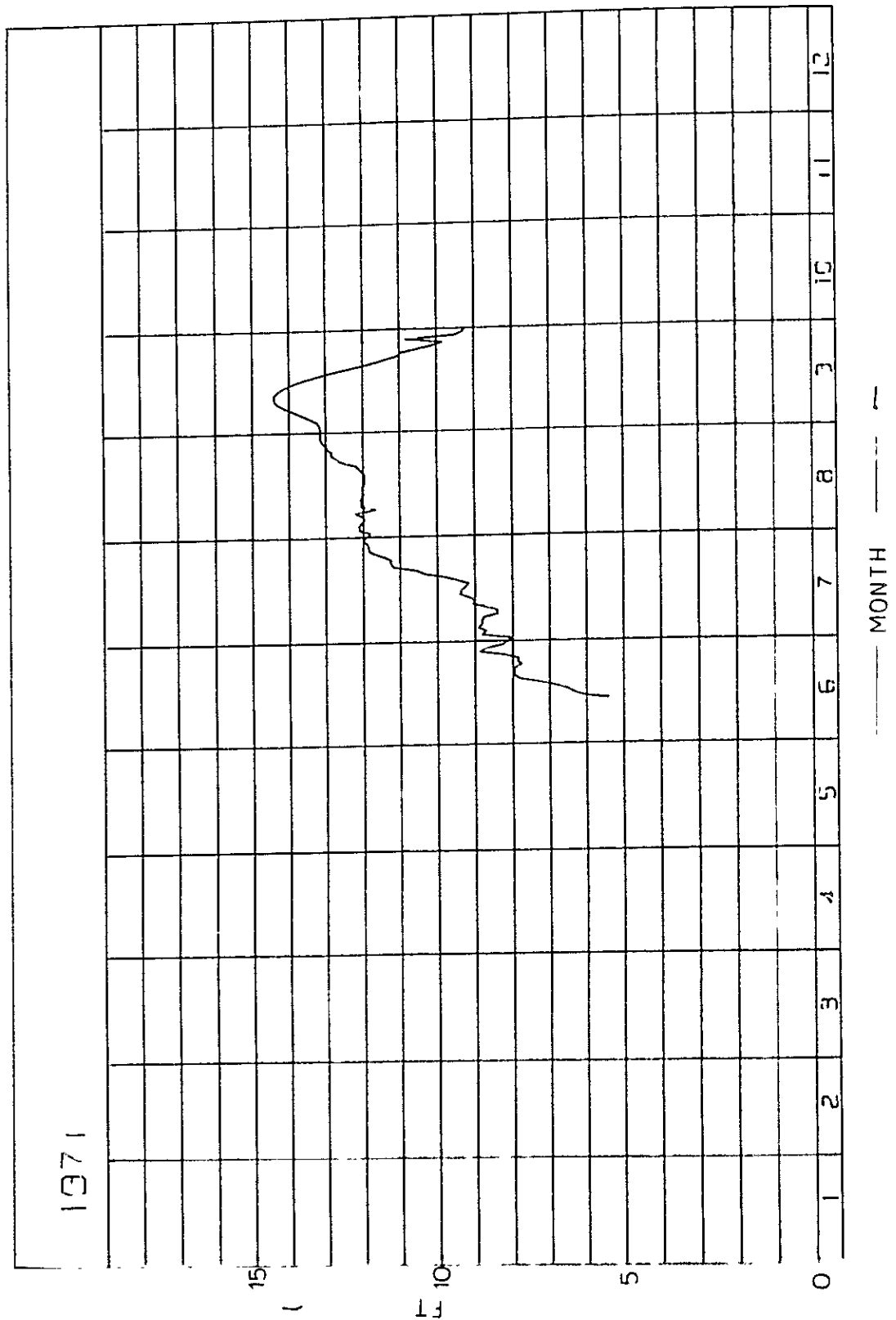
1980

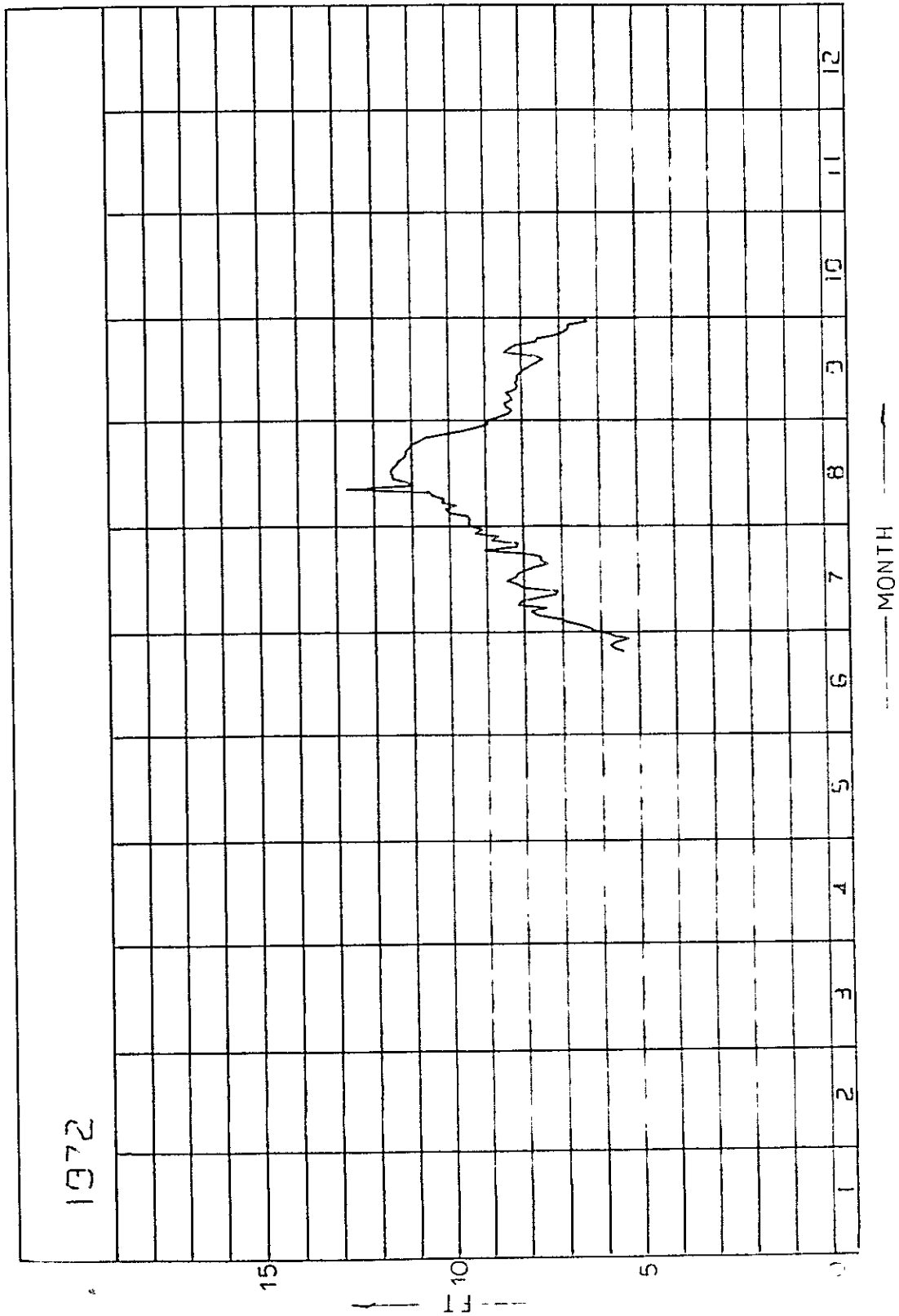


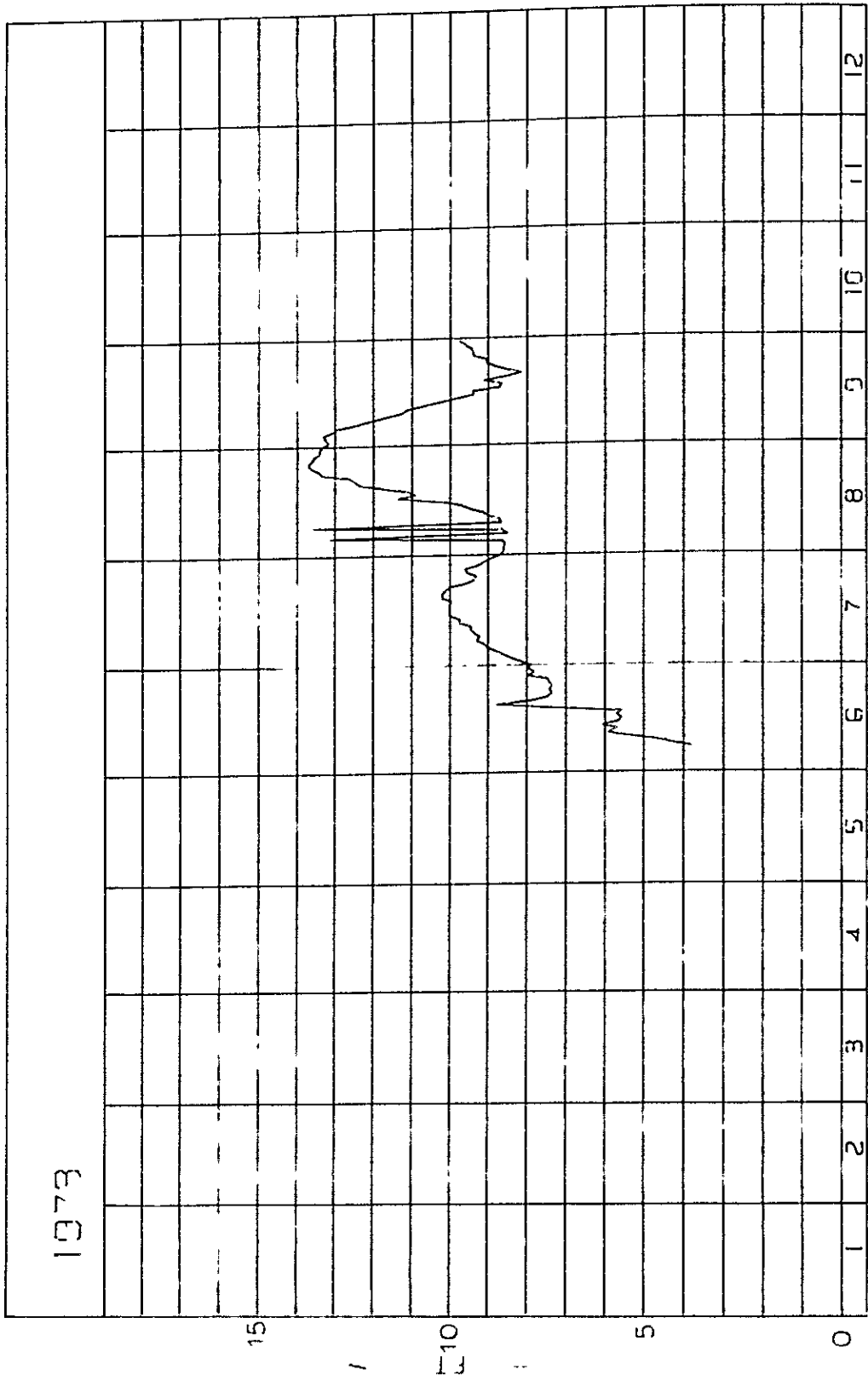
-- MONTH --

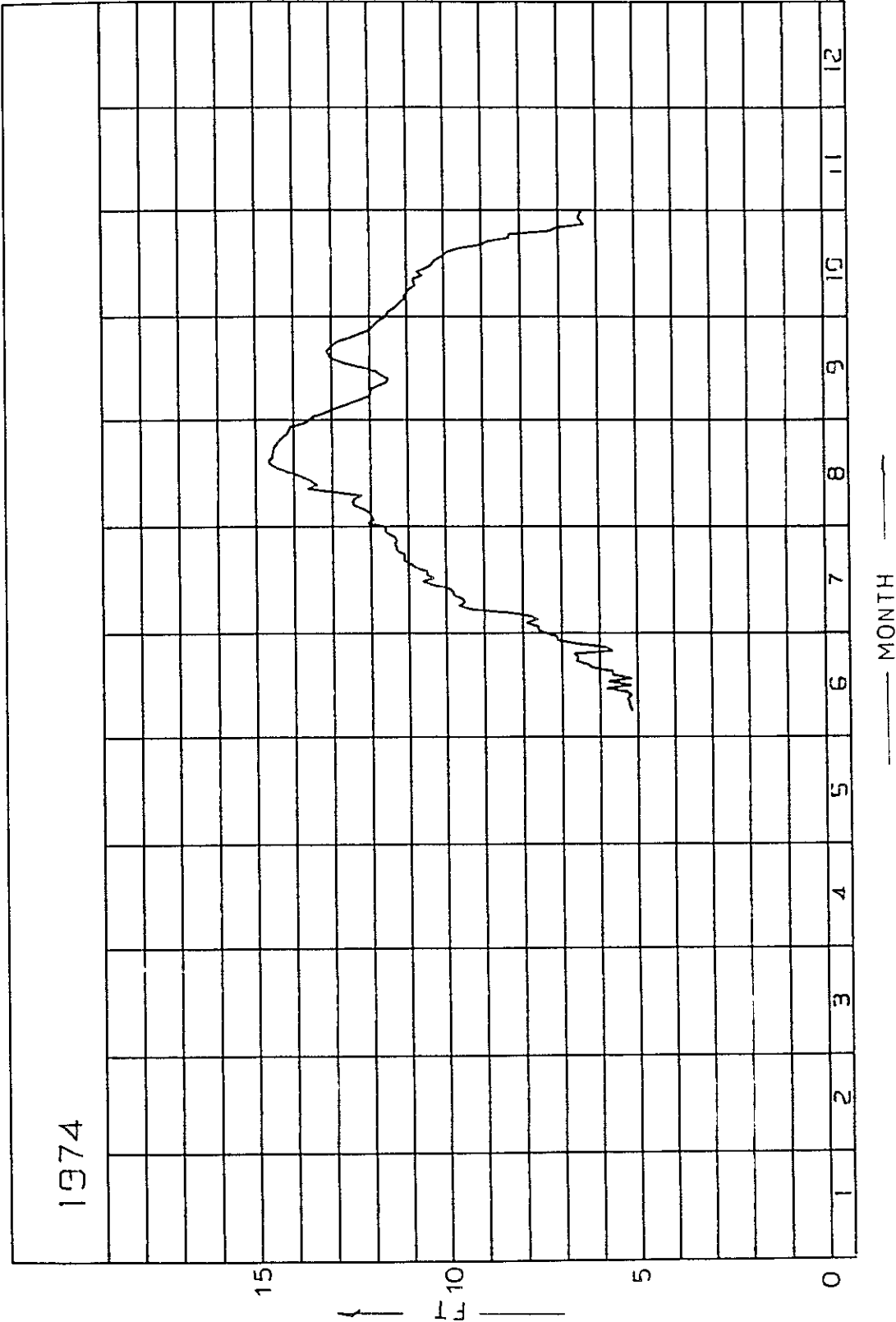
FIGURE 5B-4 (1) HYDROGRAPH AT KUNNAKATAIK

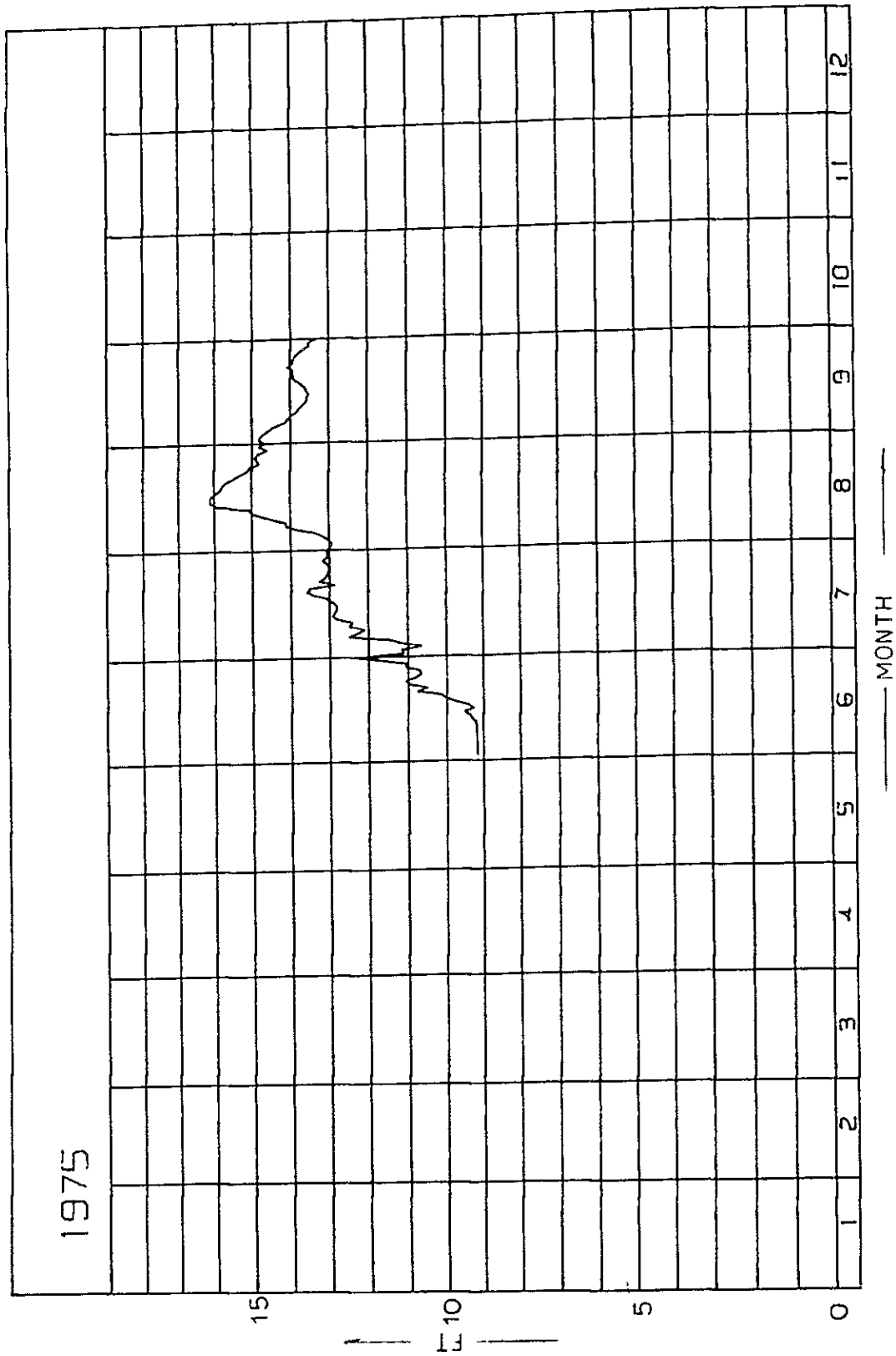


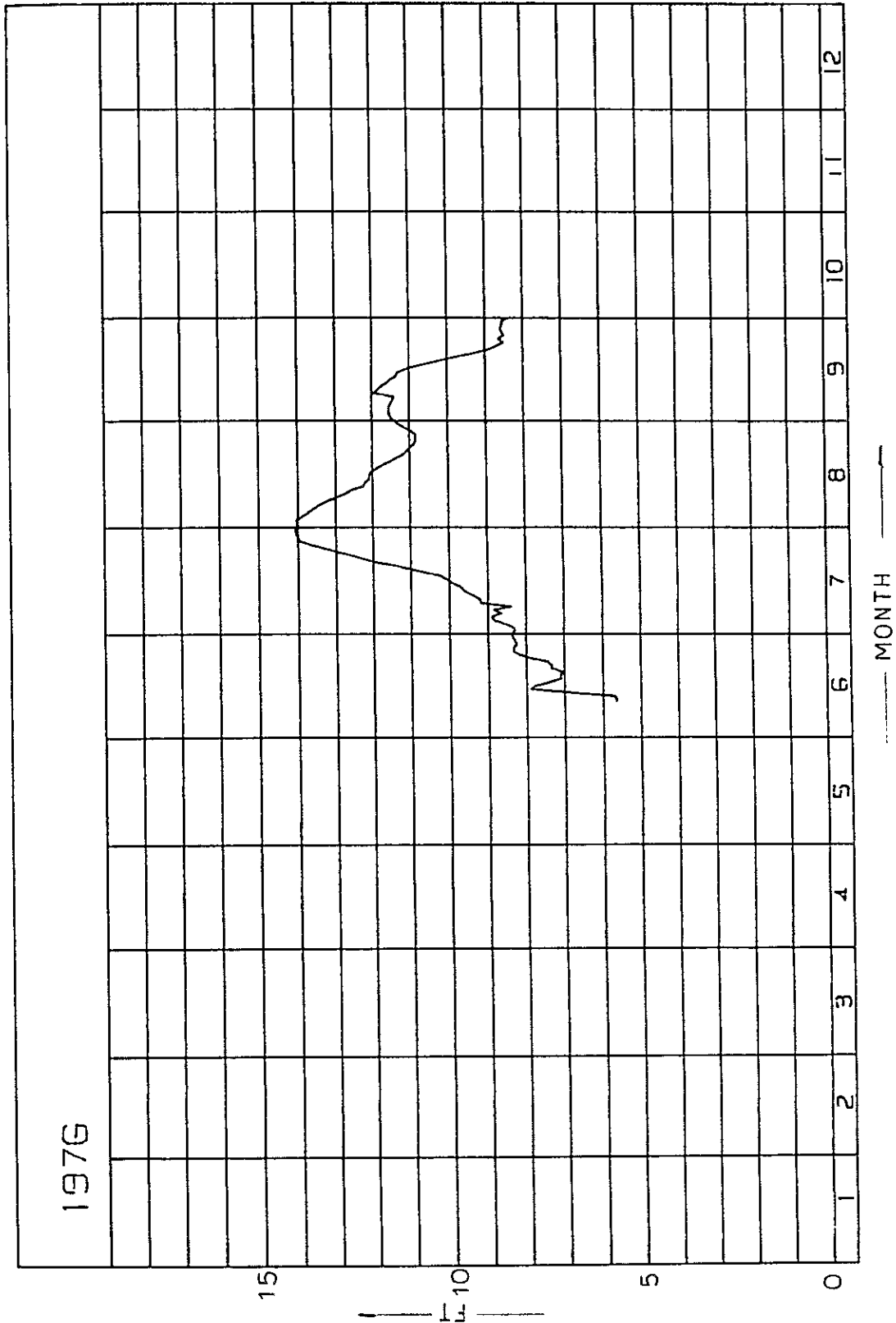


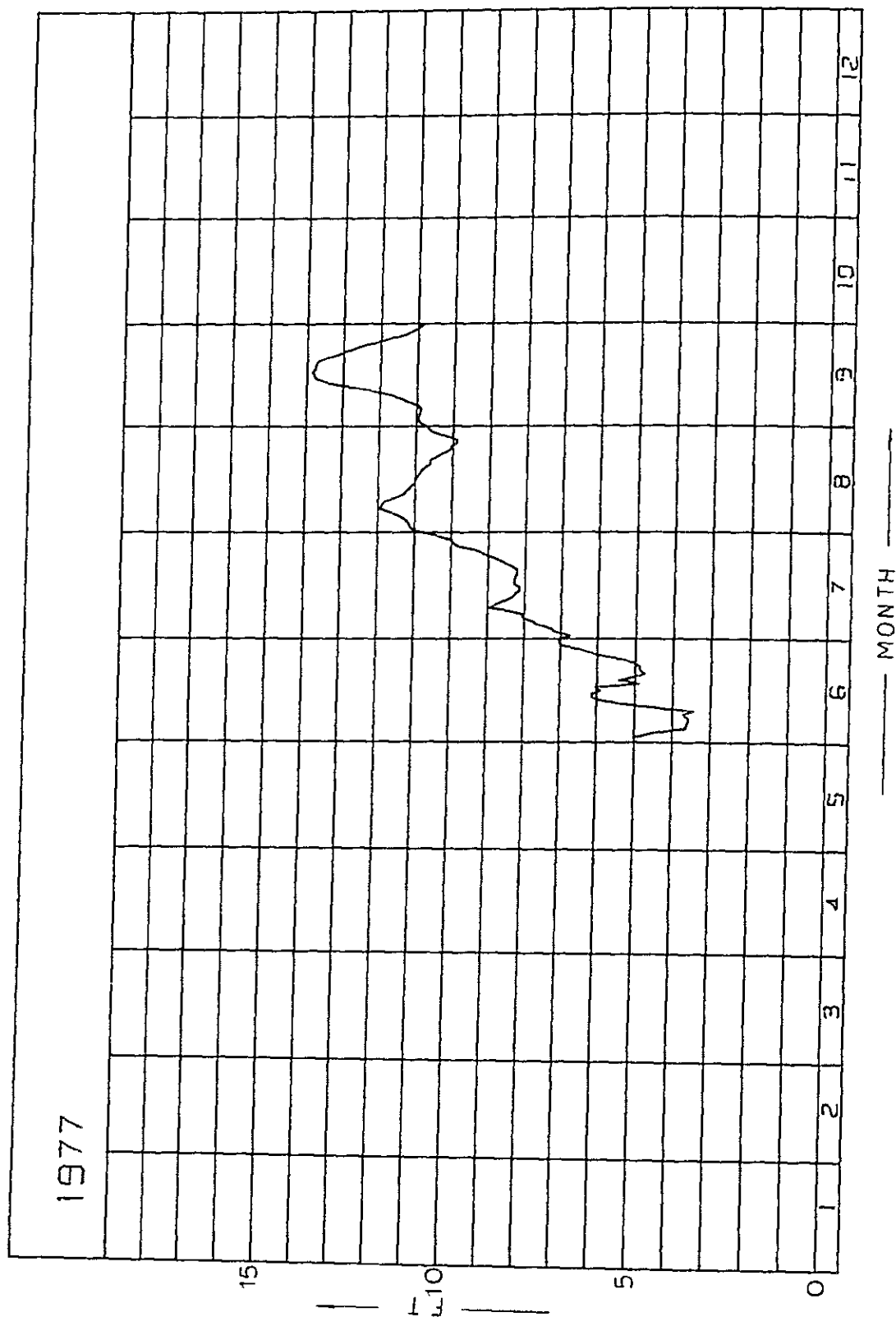












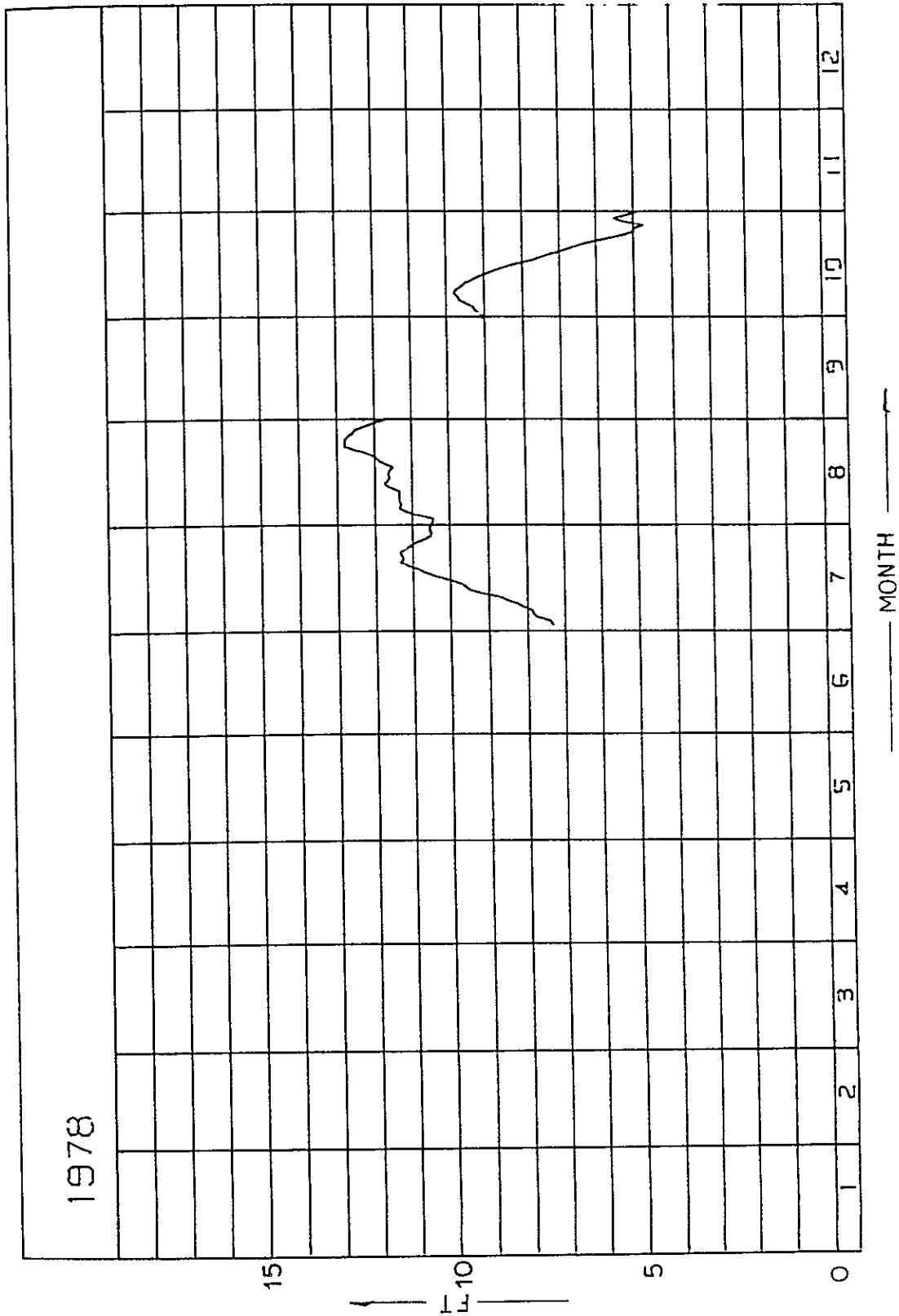
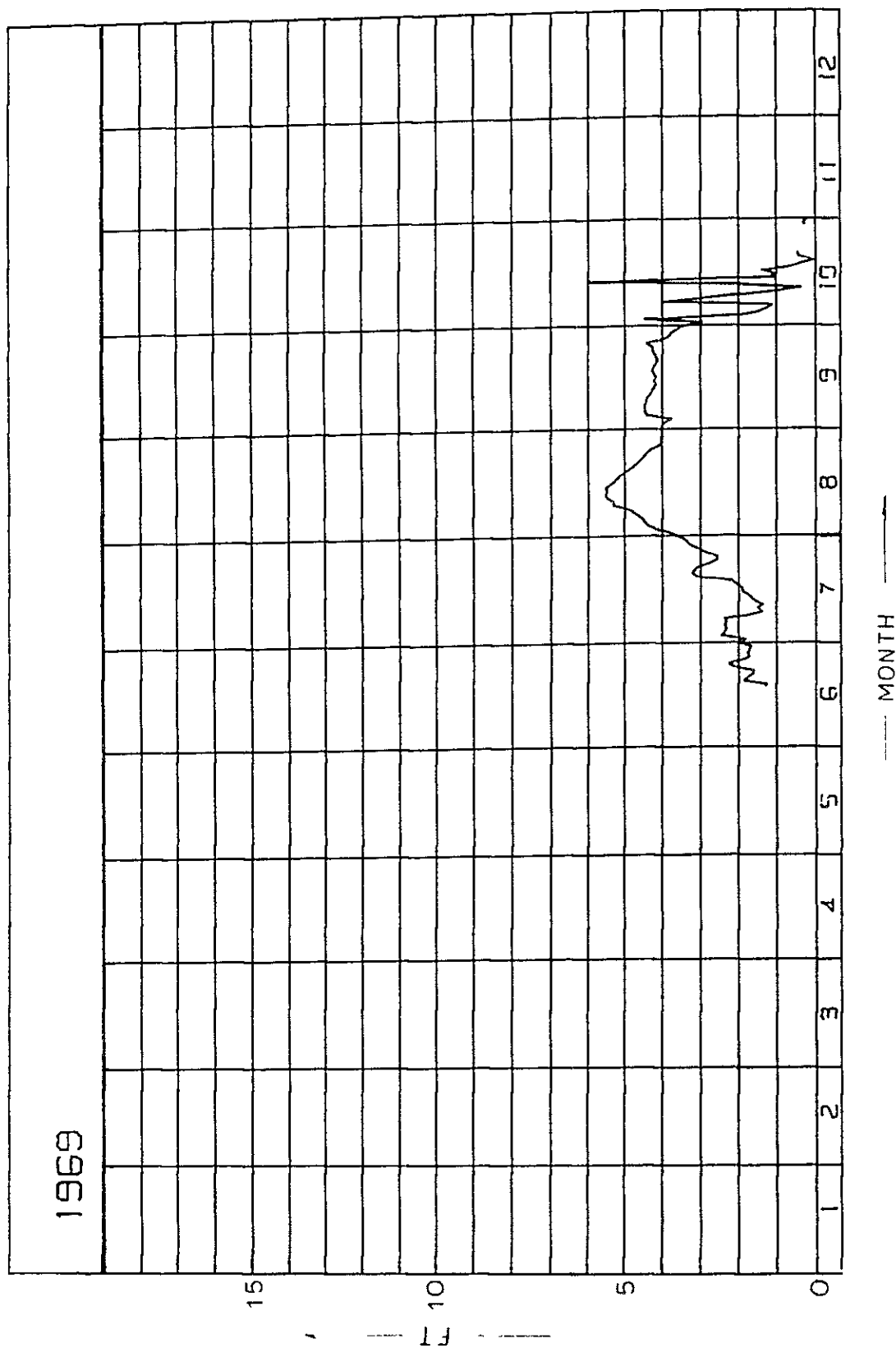
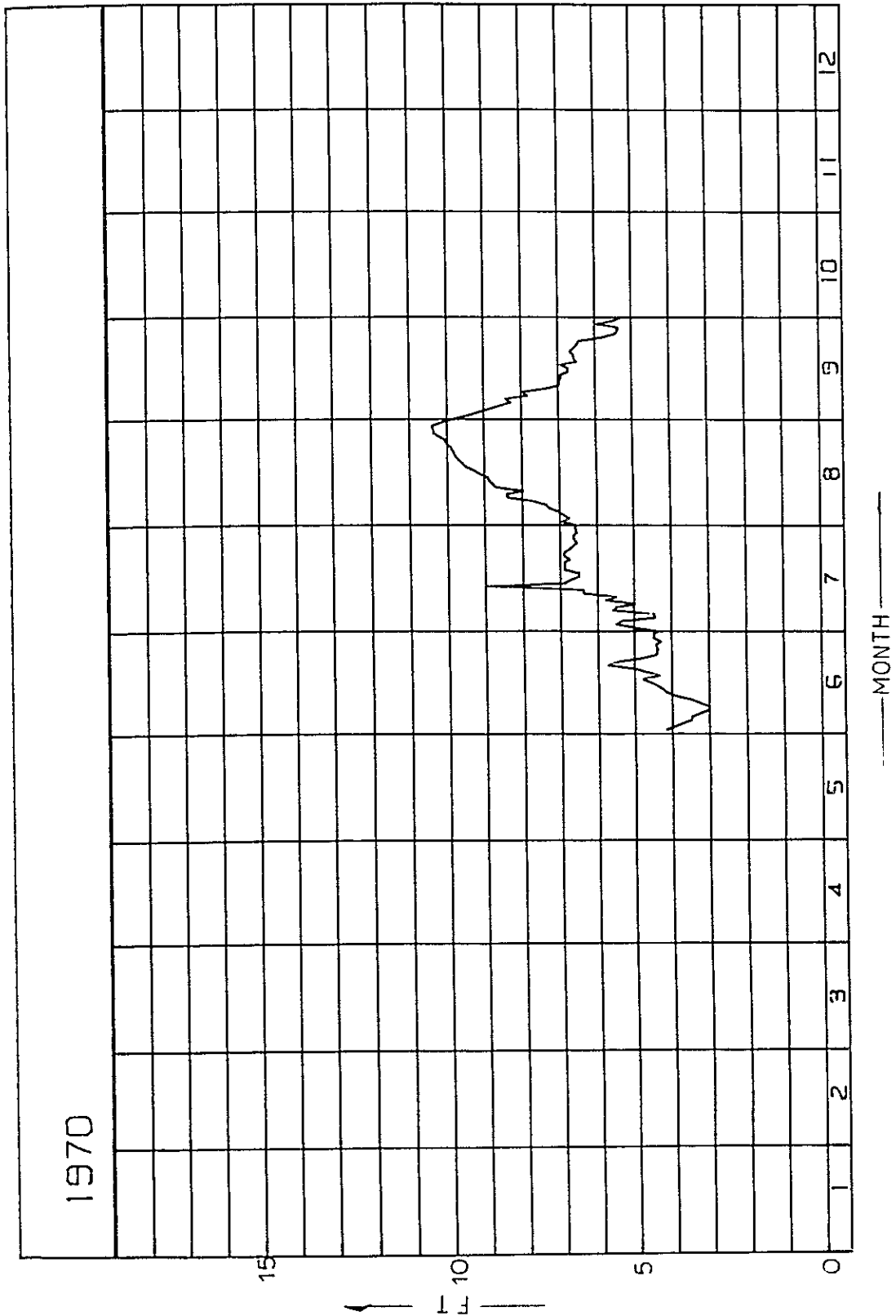
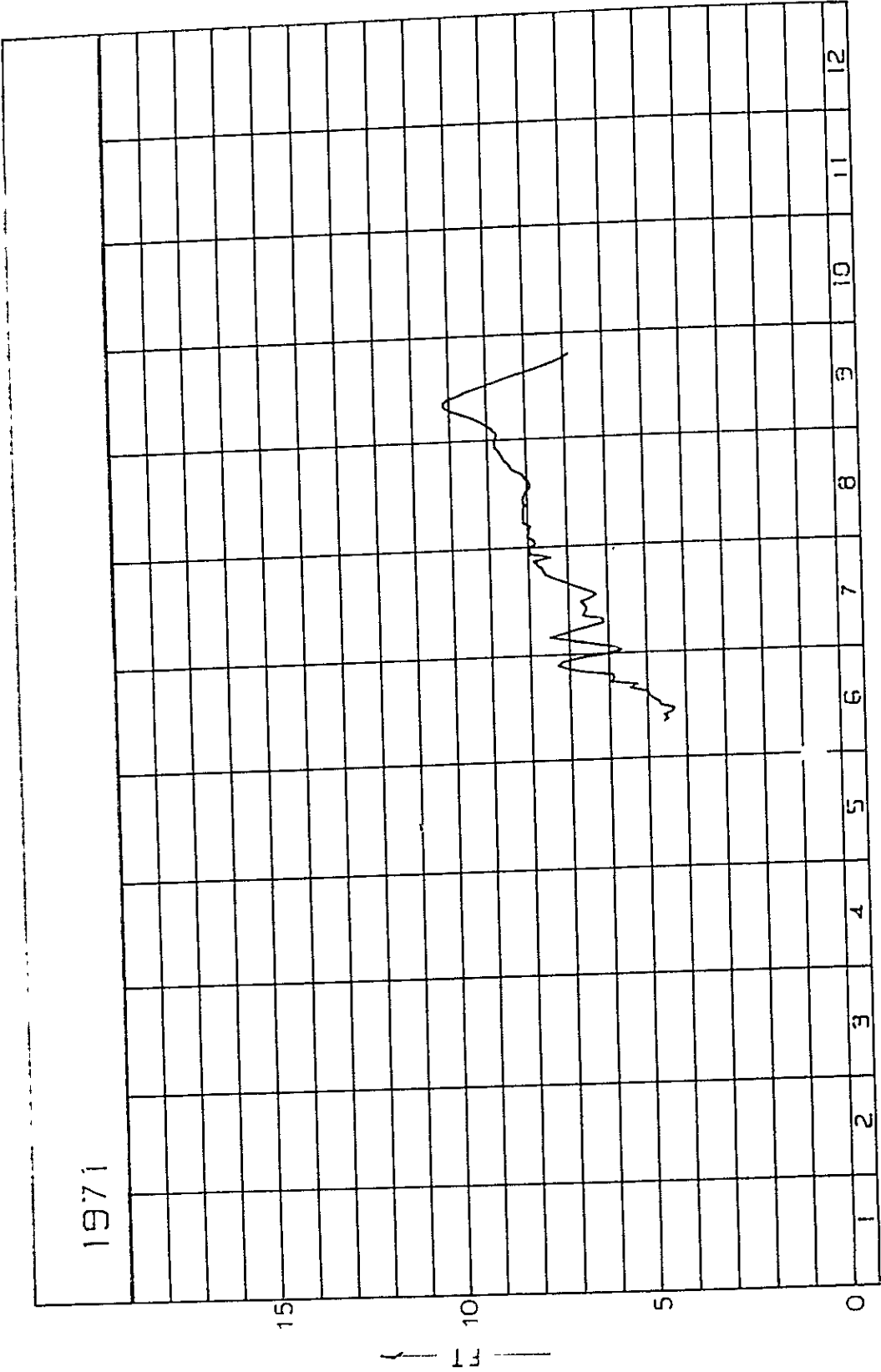


FIGURE 3B-5 (1) HYDROGRAPH AT TIAYATCHAUNG







— MONTH —→

