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REPUBLIC OF THE PHILIPPINES

THE STUDY
ON
FLOOD CONTROL AND DRAINAGE PROJECT
IN METRO MANILA

VOLUME 3
DATA BOOK (I)

MARCH 1990

JAPAN INTERNATIONAL COOPERATION AGENCY



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DATA BOOK (1)

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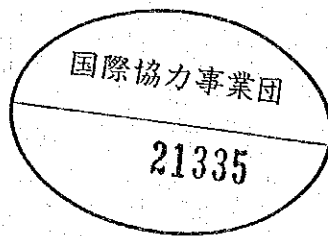


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MARCH 1990

JAPAN INTERNATIONAL COOPERATION AGENCY



DATA BOOK (1)

A. HYDROLOGICAL DATA

B. RESULTS OF GEOTECHNICAL INVESTIGATION

**C. PRELIMINARY STUDY ON THE OPTIMUM SHAPE
FOR THE LAKESHORE DIKE**

A. HYDROLOGICAL DATA

A-1 RAINFALL DATA

A-1-1 MONTHLY RAINFALL

Table Monthly Rainfall at Angat Dam Gage (NPC 1/2)

(unit : mm)

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1924	---	---	---	---	---	---	---	---	---	570	511	88	---
1925	59	108	101	21	158	1030	777	623	39	411	189	125	3641
1926	29	6	17	149	207	863	603	698	382	472	249	70	3745
1927	25	4	58	166	515	549	893	1076	336	532	73	55	4282
1928	78	56	22	78	295	546	338	277	753	89	280	90	2902
1929	91	9	0	136	440	418	948	485	821	360	207	179	4094
1930	71	0	24	15	666	800	1141	559	396	149	388	296	4505
1931	94	4	42	52	245	427	328	1153	394	260	323	208	3530
1932	5	12	18	6	235	698	947	286	453	366	543	159	3528
1933	86	4	3	17	172	423	629	452	574	462	190	64	3076
1934	14	34	1	70	626	250	791	494	968	429	609	108	4394
1935	---	---	---	---	---	---	---	---	---	---	---	---	---
1936	21	36	5	46	57	346	633	585	376	280	59	142	2586
1937	18	15	75	1	339	333	1056	885	521	377	430	231	4281
1938	65	1	84	125	219	347	395	393	440	307	337	75	2788
1939	26	3	22	50	359	403	526	669	407	229	272	359	3325
1948	23	24	2	163	186	299	563	1128	573	215	254	103	3533
1949	15	0	11	32	22	483	236	298	276	229	263	136	2001
1950	28	11	65	21	280	431	731	414	616	418	108	183	3306
1951	12	48	0	55	198	452	318	685	287	183	374	96	2708
1952	4	37	0	18	141	601	309	800	420	469	44	156	3019
1953	1	21	13	101	277	384	385	868	462	478	226	259	3475
1954	8	14	43	60	60	242	254	539	403	131	387	28	2169
1955	22	1	0	15	139	235	426	487	393	229	308	41	2296
1956	12	53	16	103	164	143	409	611	788	160	260	228	2947
1957	85	1	84	110	31	574	503	1146	557	295	139	2	3527
1958	36	5	125	2	45	490	597	390	895	212	43	1	2841
1959	31	1	25	16	163	129	362	1109	413	192	368	47	2856
1960	26	81	14	84	360	406	204	1273	604	636	85	10	3783
1961	6	1	102	94	129	782	469	623	714	342	155	9	3426

Table Monthly Rainfall at Angat Dam Gage (NPC 2/2)

(unit : mm)

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1962	3	3	23	39	141	272	1628	473	610	78	286	9	3565
1963	0	8	9	0	1	1197	304	290	446	55	13	70	2393
1964	15	13	17	20	166	630	332	626	289	182	330	353	2973
1965	9	0	0	92	264	436	658	329	408	89	257	83	2625
1966	0	17	0	0	665	372	464	476	508	---	---	---	---
1967	52	3	0	56	246	773	489	763	374	161	289	5	3211
1968	8	0	6	72	149	222	---	751	325	222	52	2	---
1969	18	0	4	26	107	160	989	597	414	290	77	100	2782
1970	22	2	24	3	103	345	484	756	448	354	365	111	3017
1971	4	4	119	2	486	563	523	258	158	537	443	242	3339
1972	52	5	56	31	428	385	2226	991	387	132	176	50	4919
1973	8	---	0	0	122	247	428	519	283	670	277	89	---
1974	0	10	0	137	106	522	439	1387	53	604	904	209	4371
1975	35	7	19	59	84	341	161	762	336	291	113	357	2565
1976	14	4	26	26	1834	421	328	188	649	189	100	81	3860
1977	50	11	12	1	151	165	338	390	190	12	106	0	1426
1978	0	0	7	6	364	457	867	322	451	341	149	38	3002
1979	0	0	0	95	944	407	515	311	211	270	92	---	---
1980	3	0	35	---	115	133	338	108	451	177	227	50	---
1981	2	1	0	11	281	772	177	543	395	219	370	124	2895
1982	2	11	3	9	7	102	120	137	182	70	13	89	745
1983	1	6	21	4	76	44	127	---	55	---	---	---	---
1984	20	3	---	---	---	554	---	792	198	343	163	1	---
1985	0	11	13	114	41	1205	241	344	440	544	127	3	3083
1986	2	3	0	29	179	220	812	759	468	524	360	61	3417
1987	14	3	8	115	86	441	216	452	222	80	267	216	2120
Mean	25	14	26	53	262	453	557	610	430	301	246	113	3090

Table Monthly Rainfall at Novaliches Reservoir Gage (MWSS)

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1960	33	83	0	140	166	370	164	800	378	720	46	2	2901
1961	---	---	---	---	---	---	---	---	---	---	---	---	---
1962	---	0	0	2	55	117	487	---	---	35	83	5	---
1963	---	0	0	---	24	458	341	---	---	---	---	---	---
1964	---	2	18	0	241	604	287	---	309	---	---	84	---
1965	0	0	15	19	283	297	313	159	308	72	152	45	1684
1966	9	7	15	4	380	85	396	352	550	148	243	110	2299
1967	34	0	1	41	58	696	367	530	297	131	152	0	2307
1968	0	0	1	1	3	199	498	611	---	---	---	---	---
1969	0	0	0	0	116	---	314	529	246	190	38	69	1503
1970	15	0	9	105	15	214	306	257	402	76	107	---	1507
1971	1	17	51	5	158	308	394	186	111	340	258	141	1970
1972	---	---	---	---	---	---	---	---	---	---	---	---	---
1973	4	0	0	0	100	297	598	422	318	422	190	35	2386
1974	0	1	1	13	63	---	---	---	---	---	---	---	---
1975	---	---	---	---	---	---	135	593	170	271	63	203	---
1976	36	0	1	0	1071	339	390	261	783	79	44	42	3047
1977	31	4	1	45	218	218	478	655	575	46	38	2	2310
1978	---	---	---	---	---	---	---	---	---	---	---	---	---
1979	4	0	0	33	260	133	428	643	314	157	76	12	2060
1980	---	---	---	---	---	---	---	---	---	---	---	---	---
1981	0	1	0	37	73	548	625	401	327	383	199	76	2670
1982	0	0	39	145	65	278	822	344	415	149	77	44	2378
1983	29	3	1	0	68	287	714	288	288	220	9	1	1908
1984	19	0	80	132	306	528	385	704	194	299	64	0	2711
1985	0	4	21	154	14	664	302	182	346	285	73	9	2054
1986	0	0	0	20	249	103	600	655	385	382	214	35	2643
1987	3	0	0	27	18	235	208	72	308	144	83	113	1211
Mean	11	5	11	42	174	332	415	432	351	227	110	51	2161

(unit : mm)

Table Monthly Rainfall at Science Garden Gage

(unit : mm)

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1971				36	200	256	436	239	113	387	235	160	-----
1972	40	3	40	42	177	493	1885	584	257	45	101		-----
1973	5	2	1	1	23	387	285	262	349	199	193	70	1777
1974	0	42	2	35	90	456	278	1135	60	301	372	108	2879
1975	16	11	1	29	72	291	137	551	243	508	70		-----
1976	61	2	19	7									-----
1977	84	4	26	5	69	160	399	540	502	54	337	48	2228
1978	2	7	0	31	168	163	231	706	577	598	91	48	2622
1979	3	0	0	72	213	158	579	544	280	139	29	23	2040
1980	0	0	91	0	157	162	431	256	522	347	205	25	2196
1981	0	9	0	29	82	589	403	342	262	274	181	87	2258
1982	2	1	79	48	76	191	612	424	321	107	109	52	2022
1983	35	2	0	0	28	132	307	576	257		26	0	-----
1984	15	2	23	61	134			614	253	433	101	4	-----
1985	1	11	63	103	28	790	271	249	374	325	101	43	2359
1986	0	3	0	25	242	162	797	796	617	650	242	75	3609
1987	4	0	0	13	94	282	164						-----
Sum	268	99	345	537	1853	4672	7215	7818	4987	4367	2393	743	
N	16	16	16	17	16	15	15	15	15	14	15	13	
Mean	17	6	22	32	116	311	481	521	332	312	160	57	2367

Table Monthly Rainfall at Camarin Gage

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1974	---	---	0	47	158	597	334	1357	108	408	450	122	---
1975	12	2	7	30	151	219	145	431	374	208	56	238	1873
1976	13	2	27	0	1125	354	379	438	709	202	51	67	3367
1977	65	14	8	33	81	239	296	549	347	27	206	6	1871
1978	1	5	0	30	310	175	321	847	568	771	84	17	3129
1979	8	13	17	121	176	178	619	569	365	166	81	33	2346
1980	18	0	91	14	230	245	577	348	789	283	256	29	2880
1981	0	0	0	22	69	658	602	241	241	234	211	84	---
1982	3	11	35	177	123	315	246	411	290	79	82	42	1814
1983	20	2	2	0	57	136	763	763	350	216	55	1	---
1984	75	0	45	88	356	375	316	658	256	437	86	0	2692
1985	0	7	42	238	24	1185	312	298	449	379	89	59	3082
1986	2	5	1	45	235	167	806	756	487	477	320	66	3367
1987	2	0	31	34	55	390	378	273	273	95	134	---	---
Sum	219	61	306	879	3150	5233	5331	7698	5606	3982	2161	764	---
N	13	13	14	14	14	14	13	13	14	14	14	13	---
Mean	17	5	22	63	225	374	410	592	400	284	154	59	2605

(unit : mm)

Table Monthly Rainfall at Mabolo Gage

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1975	---	---	---	---	---	---	211	565	175	225	146	201	---
1976	15	0	5	0	493	221	164	570	363	16	46	71	1964
1977	18	7	2	0	24	161	454	490	548	25	215	12	1959
1978	0	2	0	9	142	203	178	840	458	439	96	31	2398
1979	0	0	0	71	214	169	573	511	239	149	46	36	2008
1980	0	0	32	0	89	163	408	240	384	168	259	0	1743
1981	0	21	0	0	22	420	294	233	219	207	219	51	1686
1982	24	0	0	53	26	181	766	276	307	49	0	72	1754
1983	14	0	0	0	85	---	---	311	629	145	4	0	---
1984	10	2	0	0	221	430	92	725	152	410	32	4	2078
1985	0	0	9	27	6	1171	342	179	168	319	94	20	2335
1986	0	14	0	13	79	84	499	656	399	549	215	0	2508
1987	---	---	---	---	---	---	---	---	---	---	119	---	---
Sum	81	46	48	179	1401	3203	3981	5599	4041	2701	1491	498	---
N	11	12	12	12	11	10	11	12	12	12	13	12	---
Mean	7	4	4	15	127	320	362	467	337	225	115	42	2025

(unit : mm)

5604

Table Monthly Rainfall at Mamuyao Gage (MWSS)

(unit : mm)

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1979	---	1	0	228	292	216	480	604	349	274	161	83	2688
1980	10	13	253	5	426	305	692	249	539	390	579	115	3576
1981	7	22	8	47	83	591	579	541	295	392	533	321	3419
1982	11	22	110	25	230	208	694	749	405	112	137	82	2785
1983	80	8	11	7	64	118	530	715	346	371	80	30	2360
1984	27	14	34	102	235	431	239	642	199	669	125	2	2719
1985	0	32	45	83	79	867	380	328	430	608	158	82	3092
1986	24	65	0	70	363	172	695	801	675	659	510	149	4183
1987	52	9	14	61	182	270	359	479	400	167	242	234	2469
Mean	23	21	53	70	217	353	516	568	404	405	281	122	3033

Table Monthly Rainfall at Laiban Dam Gage (MWSS)

(unit : mm)

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1983	---	---	---	---	54	40	578	330	259	571	87	42	1961
1984	72	20	28	155	207	321	343	585	137	650	180	50	2748
1985	29	49	55	37	74	820	---	198	329	---	48	57	1696
1986	---	11	1	85	213	144	306	325	275	465	321	60	2206
1987	91	20	4	---	62	245	220	534	371	162	470	105	2284
Mean	64	25	22	92	122	314	362	394	274	462	221	63	2415

Table Monthly Rainfall at Science Garden Gage

Year	(unit : mm)												
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1971				36	200	256	436	239	113	387	235	160	---
1972	40	3	40	42	177	493	1885	584	257	45	101	---	---
1973	5	2	1	1	23	387	285	262	349	199	193	70	1777
1974	0	42	2	35	90	456	278	1135	60	301	372	108	2879
1975	16	11	1	29	72	291	137	551	243	508	70	---	---
1976	61	2	19	7									---
1977	84	4	26	5	69	160	399	540	502	54	337	48	2228
1978	2	7	0	31	168	163	231	706	577	598	91	48	2622
1979	3	0	0	72	213	158	579	544	280	139	29	23	2040
1980	0	0	91	0	157	162	431	256	522	347	205	25	2196
1981	0	9	0	29	62	589	403	342	262	274	181	87	2258
1982	2	1	79	48	76	191	612	424	321	107	109	52	2022
1983	35	2	0	0	28	132	307	576	257		26	0	---
1984	15	2	23	61	134			614	253	433	101	4	---
1985	1	11	63	103	28	750	271	249	374	325	101	43	2359
1986	0	3	0	25	242	162	797	796	617	650	242	75	3609
1987	4	0	0	13	94	282	164						---
SUM	268	99	345	337	1853	4672	7215	7818	4987	4367	2393	743	
N	16	16	16	17	16	15	15	15	15	14	15	13	
Mean	17	6	22	32	116	311	481	521	332	312	160	57	2357

Table Monthly Rainfall at Bagumbayan Gage

Year	(unit : mm)												
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1975									167	383	118	150	---
1976	13	0	2	0	328	175	128	295	336	28	37	76	1418
1977	30	8	4	0	89	98	160	164	157	35	62	0	807
1978	0	0	21	8	114	100	172	127					---
1979	0	0	0	54	38	76	187	287	167	44	26	0	881
1980	0	1	49	0	94	182	88	21	37	28	2	0	502
1981	0	0	2	3	7	374	91	28	287	132	93	82	1099
1982	0	0	2	17	156	46	317	143	208	41	24	0	954
1983	11	5	0	0	18	1	177	37	133	21	0	0	403
1984	0	4	3	24	2	278	6	775	15	948	5	0	2060
1985	0	2	0	44	63	303	57	6	49	226	3	22	775
1986	0	0	0	1	28	40	102	151		177		0	---
1987	3	7			7	31	91	44		12	44		---
SUM	57	27	83	151	944	1704	1576	2078	1556	2075	416	335	
N	12	12	11	11	12	12	12	12	10	12	11	12	
Mean	5	2	8	14	79	142	131	173	156	173	38	28	949

Table Monthly Rainfall at Manila Gage (PAGASA 1/5)

(unit : mm)

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1865	11	38	0	0	91	266	249	219	688	266	95	20	1943
1866	44	0	60	20	106	355	134	303	363	404	138	131	2058
1867	22	18	13	22	169	206	358	340	1470	280	69	13	2980
1868	9	0	0	0	75	394	286	287	462	162	267	2	1944
1869	36	11	0	41	129	277	369	408	446	590	201	42	2550
1870	83	25	3	21	194	199	390	423	274	134	211	46	2003
1871	10	7	11	0	13	376	270	249	351	189	141	8	1625
1872	15	10	28	40	89	169	207	799	257	198	133	32	1977
1873	20	13	14	101	59	354	262	388	146	318	38	1	1714
1874	14	5	2	18	37	110	284	422	116	138	46	15	1207
1875	99	28	24	2	0	49	330	401	487	134	99	33	1686
1876	28	4	9	30	186	222	470	340	520	58	62	62	1991
1877	3	0	0	0	200	234	602	1096	94	239	50	7	2525
1878	2	8	11	6	76	207	239	221	400	100	122	90	1482
1879	55	40	11	120	104	97	143	291	316	147	398	5	1727
1880	42	12	16	136	21	206	810	500	350	173	106	36	2408
1881	4	0	9	7	174	433	487	441	256	156	65	91	2123
1882	10	28	31	41	132	235	574	306	328	320	177	105	2287
1883	195	15	23	75	124	213	755	257	353	162	73	3	2248
1884	1	0	6	0	96	298	721	328	194	48	149	62	1903
1885	2	0	3	23	1	170	314	171	51	112	58	4	909
1886	3	17	0	31	107	220	226	248	233	364	64	89	1602
1887	13	5	100	27	257	136	379	143	738	211	142	117	2268
1888	16	0	19	14	28	265	681	355	138	200	54	37	1807
1889	98	11	5	4	0	168	293	339	118	199	153	347	1735
1890	14	16	16	77	70	256	499	131	537	225	210	45	2096
1891	19	2	4	4	98	656	643	276	478	40	307	59	2586
1892	44	17	27	14	76	114	231	151	377	78	101	53	1283
1893	14	6	18	21	185	25	234	277	475	84	94	9	1442
1894	10	3	62	22	108	281	210	190	399	225	60	109	1679
1895	27	2	11	6	247	540	179	349	464	78	168	15	2086

Table Monthly Rainfall at Manila Gage (GAGASA 2/5)

(unit : mm)

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1896	1	8	11	5	167	157	222	650	425	109	30	0	1785
1897	12	0	22	26	36	96	246	264	263	122	74	143	1304
1898	54	10	66	36	167	330	286	414	325	245	278	14	2227
1899	42	3	30	70	65	217	1191	340	385	80	228	143	2794
1900	3	4	15	2	49	415	187	771	288	176	149	67	2126
1901	0	10	16	12	72	155	227	342	152	84	311	97	1478
1902	27	1	8	7	51	311	289	300	523	225	71	58	1871
1903	25	9	0	13	15	100	267	181	150	78	46	149	1033
1904	35	27	11	31	70	437	268	220	382	109	81	20	1691
1905	0	3	1	174	24	362	594	213	240	122	11	28	1772
1906	13	13	9	5	358	155	310	362	472	245	206	45	2193
1907	21	2	7	5	62	147	504	474	279	80	44	74	1699
1908	19	30	65	0	477	157	291	645	226	176	219	119	2424
1909	47	14	59	35	98	166	562	71	358	457	136	125	2128
1910	6	11	16	94	193	79	214	275	499	70	185	110	1752
1911	8	9	10	107	132	117	699	419	193	76	6	8	1784
1912	22	5	3	1	21	102	529	657	227	140	165	14	1886
1913	65	0	16	130	41	196	571	349	366	174	31	38	1977
1914	4	7	6	53	84	368	399	492	888	323	41	53	2718
1915	6	4	3	1	50	127	276	414	479	222	208	182	1972
1916	38	24	29	46	40	225	180	202	373	239	107	76	1579
1917	18	7	48	58	54	271	606	359	263	165	229	76	2154
1918	3	2	28	10	84	225	622	484	338	245	12	29	2082
1919	7	11	2	1	144	266	810	1983	176	10	139	26	3575
1920	2	25	2	11	141	347	703	323	328	170	124	118	2294
1921	0	45	9	28	60	328	433	1001	337	120	289	55	2705
1922	19	23	7	24	246	146	549	132	419	40	91	134	1830

Table Monthly Rainfall at Manila Gage (PAGASA 3/5)

(unit : mm)

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1923	8	7	34	14	388	472	276	1148	381	165	596	73	3562
1924	57	1	15	9	174	243	511	654	119	379	306	73	2541
1925	5	18	19	9	122	607	554	547	324	244	71	9	2529
1926	11	1	2	1	86	661	219	325	214	269	51	37	1877
1927	8	2	13	76	272	326	472	588	137	234	81	52	2258
1928	9	41	10	33	103	335	309	202	455	89	118	14	1718
1929	20	0	5	7	181	116	774	402	348	255	171	41	2320
1930	47	12	4	12	364	300	459	185	269	87	59	52	1850
1931	14	6	2	37	99	301	180	1466	330	171	249	96	2951
1932	0	3	8	0	165	316	724	189	589	236	151	43	2424
1933	47	9	12	0	86	130	504	241	586	188	87	33	1923
1934	10	33	14	79	488	107	461	374	411	396	281	38	2692
1935	2	39	52	60	411	229	822	528	340	253	29	96	2861
1936	47	1	1	2	118	264	367	365	557	242	177	168	2309
1937	36	21	42	43	149	288	689	568	364	312	365	151	3028
1938	31	2	16	63	173	417	404	249	157	204	200	58	1974
1939	4	6	3	66	159	248	577	462	189	76	197	267	2254
1946	0	0	14	15	96	310	445	274	4522	223	33	76	6008
1947	6	1	13	117	159	197	389	738	248	139	145	187	2369
1948	2	6	6	60	96	132	421	560	372	108	58	81	1902
1949	4	0	14	0	5	212	152	263	324	222	146	114	1456
1950	30	19	27	53	105	231	351	298	299	282	40	96	1831
1951	2	3	0	30	122	325	225	439	211	107	272	117	1853
1952	14	2	10	7	91	433	212	1376	153	352	43	132	2825
1953	5	7	14	45	146	415	250	594	411	295	36	138	2416
1954	2	3	39	8	114	249	246	569	251	166	253	21	1921

1969

Table Monthly Rainfall at Manila Gage (PAGASA 4/5)

(unit: mm)

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1958													
1959													
1960													
1961	0	0	0	74	152	614	387	438	329	225	295	6	3562
1962	3	0	14	64	50	108	999	352	562	31	91	8	2541
1963	1	1	0	1	16	547	379	226	492	101	54	98	2529
1964	9	1	43	21	102	438	241	482	245	209	272	103	1877
1965	11	9	2	68	221	206	404	398	286	131	93	40	2258
1966	4	15	0	0	169	96	271	365	714	77	274	85	1718
1967	34	4	0	2	39	725	226	362	344	134	86	6	2320
1968	6	0	7	0	46	110	0	468	312	100	13	0	1850
1969	6	0	15	6	15	169	335	385	390	219	0	86	2951
1970	6	0	3	12	45	164	425	359	885	259	97	7	2424
1971	3	4	45	32	117	303	333	211	95	310	210	145	1923
1972	39	0	42	2	163	418	1743	535	212	93	75	15	2892
1973	9	3	5	0	54	189	303	320	124	276	171	75	2861
1974	1	0	0	57	61	411	288	1188	36	320	353	130	2309
1975	17	3	1	28	58	196	100	506	261	311	101	114	3028
1976	0	2	1	1	923	168	0	0	0	0	83	88	1974
1977	69	8	4	3	266	191	0	526	821	0	0	6	2254
1978	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	481	0	179	0	191	151	74	1902
1982	5	5	6	28	83	183	429	353	276	0	0	61	1456
1983	23	0	0	1	0	37	177	410	250	139	28	3	1831
1984	25	0	8	13	169	373	218	500	140	311	66	10	1853
1985	1	1	7	76	8	367	239	0	291	300	133	45	2825
1986	1	48	0	17	254	149	672	711	542	251	53	4	2416
1987	2	0	0	0	0	224	0	0	0	171	95	0	1821
Mean	21	10	15	30	129	260	412	435	357	189	137	67	2064

Handwritten notes and calculations on the right side of the page, including a vertical list of numbers (1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987) and a total of 2026. There are also some scribbles and other markings.

Table Monthly Rainfall at Montalban Gage (PAGASA)

Year	(unit : mm)												
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1912	1	8	0	0	144	141	404	1049	374	326	179	295	2921
1913	131	0	11	122	64	197	1065	516	626	300	412	274	3718
1914	0	0	0	61	155	717	723	947	1212	21	53	76	3965
1915	3	2	13	0	226	69	271	642	519	218	257	319	2539
1916	44	29	19	82	86	320	107	545	611	226	132	56	2257
1917	19	30	65	110	237	198	773	486	403	383	406	166	3276
1918	5	0	16	17	120	260	446	469	465	409	14	55	2276
1919	33	20	0	65	185	265	558	2222	198	399	161	56	4162
1920	1	24	3	12	191	402	1053	240	196	197	336	117	2772
1921	0	45	24	8	81	201	719	1106	---	84	478	31	---
1922	5	0	1	34	411	203	610	432	694	263	36	153	2902
1923	21	61	117	29	423	773	458	1285	476	182	722	57	4584
1934	67	7	13	21	365	387	807	756	446	573	251	88	3791
1925	35	63	12	41	147	739	714	690	567	265	59	12	3344
1926	5	2	7	14	176	678	592	563	438	231	153	50	2909
1927	18	7	48	267	577	489	589	754	271	422	424	75	3941
1928	25	65	19	88	260	584	695	307	769	68	143	31	3054
1929	55	8	3	85	302	318	896	408	---	---	101	54	---
1930	11	2	20	15	473	504	935	641	358	131	118	43	3251
1931	25	0	3	67	293	212	451	1472	437	505	370	182	4017
1932	2	7	7	1	172	478	921	361	597	236	238	93	3113
1933	59	3	3	38	134	205	641	464	709	445	132	35	2868
1934	53	24	11	106	328	173	636	633	677	508	504	68	3821
1935	15	56	19	58	481	177	1132	602	543	300	51	86	3520
1936	39	3	5	23	98	389	395	572	714	448	225	226	3138
1948	10	0	---	142	322	332	603	1003	616	240	90	58	3449
1949	28	9	31	2	16	441	280	398	393	378	161	143	2280
1950	27	16	81	77	224	427	576	520	540	367	85	163	3103
1951	20	26	0	89	209	414	432	905	436	249	285	133	3198
1952	7	1	11	43	164	699	240	1063	580	592	49	175	3624
1953	1	20	14	44	145	341	339	1089	461	334	133	265	3186
1954	6	8	49	84	62	217	408	617	518	220	433	23	2645
1955	23	0	---	0	112	256	326	364	225	197	238	46	---
1956	0	0	0	85	187	117	338	625	893	185	188	236	2854
1957	28	0	0	6	60	193	445	829	330	---	115	---	---
Mean	23	16	19	55	218	358	588	731	524	299	225	116	3172

Table Monthly Rainfall at VSS Navotas BLBD Gage

(unit : mm)

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1972					146	538	1657	842	218	90	130	20	3641
1973	2	10	1			19	213	390	608	224	326	60	1853
1974													0
1975													0
1976											48	63	111
1977	65	9	23	13	29	333	386	561	569	82	322	1	2393
1978	0	10	1	10	362	195	256	767	485	643	86	28	2843
1979	6	0	0	55	139	335	465	565	231	211	45	16	2068
1980	11	0	116	0	64	161	399	226	405	238	215	20	1855
1981	0	2	0	15	21	558	239	121	235	154	105	4	1454
1982	0	0	3	13					346	104	25	97	588
1983	40	0	4	9	15	169	384	908	238	282	11	4	2064
Sum	124	31	148	115	776	2308	3999	4380	3335	2028	1313	313	
N	9	8	8	7	7	8	8	8	9	9	10	10	
Mean	14	4	19	16	111	289	500	548	371	225	131	31	2259

Table Monthly Rainfall at Tipasa Gage

(unit : mm)

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1975								77	186	641	126	186	1216
1976	29	0	7	0	1056	165	198	782	344	95	56	55	2787
1977	73	6	10	0	78	62	360	376	585	76	287	17	1930
1978	0	0	8	14	140	186	272	740	375	163	79	8	1985
1979	0	0	0						185	70	12	9	276
1980	1	0	34	0	121	89	224	378	228	161	126	24	1386
1981	1	0	0	1	129	495	376	283	295	231	211	111	2133
1982	0	1	3	58	43	108	427	354	416	148	89	19	1666
1983	22	0	4	2	12	97	311	391	285	362	18	0	1504
1984	5	8	11	3	160	449	116	530	134	361	57	35	1869
1985	0	7	18	41	11	690	323	166	296	294	58	36	1940
1986	5	0	0	3	138	81	635	802	293	698	231		2886
1987	0	0	0	2	8	208	229	135					582
Sum	136	22	95	124	1896	2630	3471	5014	3622	3300	1350	500	1923
N	12	12	12	11	11	11	11	12	12	12	12	11	
Mean	11	2	8	11	172	239	316	418	302	275	113	45	1912

Table Monthly Rainfall at Conception Gage

(unit : mm)

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1975									206	284	132	182	---
1976	31	18	27	0	1263	307	265	590	556	115	61	70	3303
1977	81	1	12	0	105	229	280	179	371	43	248	0	1549
1978	0	0	0	7	119	87	250	285	64	168	0	0	980
1979	0	0	0	5	7	2	74	166	211	108	2	0	575
1980	0	0	0	0	24	44	227	128	105	3	87	0	618
1981													---
1982	0	0	39	0	32	144	470	335	156	128	19	11	1334
1983													---
1984	0	0	69	109	252	437	116	357	207	194	0	122	1863
1985	0	8	46	182	54	992	1309	275	408	295	90	48	3707
1986	0	0	0	28	246	143	731	787	397	287	315		---
1987													---
Sum	112	27	193	331	2120	2548	3722	3102	2581	1625	954	433	1923
N	9	10	10	9	10	10	9	9	10	10	10	9	
Mean	12	3	19	37	212	255	414	345	258	163	95	48	1871

STA. ID. 04RF143212MW001
 LATITUDE 14° 39.41'
 LONGITUDE 121° 21.68'

MONTHLY RAINFALL AT MAMUYAO, TANAY, RIZAL (mm)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEPT.	OCT.	NOV.	DEC.	ANNUAL TOTAL
1979	-	1.0	0.30	227.7	292.1	215.5	480.1	604.2	348.6	274.3	161.0	82.9	2,687.7
1980	10.3	12.8	252.8	5.2	426.1	305.2	691.8	249.2	539.2	389.8	579.2	114.8	3,576.4
1981	7.0	22.4	7.8	47.2	82.8	590.8	579.4	540.6	294.6	392.0	532.6	321.4	3,418.6
1982	11.4	22.0	110.2	25.4	230.4	208.2	694.0	749.4	405.2	111.6	136.8	81.8	2,786.4
1983	79.8	7.6	11.4	7.4	63.8	118.4	529.8	715.0	345.6	370.8	79.6	29.8	2,359.0
1984	27.2	14.0	33.8	102.4	235.2	431.0	239.0	642.0	198.6	669.0	125.2	2.2	2,719.6
1985	0.0	31.6	45.4	82.6	79.2	867.0	379.8	328.4	429.8	608.0	158.0	81.8	3,091.6
1986	23.6	64.6	0.0	70.2	363.4	171.8	695.2	800.8	674.6	659.2	509.6	149.0	4,182.0
1987	52.2	9.2	13.6	61.0	182.0	269.8	358.6	479.2	400.2	166.8	241.8	234.2	2,468.6
1988	175.6	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Mean	43.01	20.58	52.81	69.90	217.22	353.08	516.41	567.64	404.04	404.61	280.42	121.99	3,032.21
S.D.	55.746	18.874	82.56	67.81	128.94	240.77	165.93	188.14	138.21	205.24	200.37	100.46	593.58

xxx - Indicates incoming data
 S.D. - Standard Deviation
 Start of Record: February 15, 1979

STA. ID. 04RF143212MM002
 LATITUDE 14° 36.47'
 LONGITUDE 121° 25'

MONTHLY RAINFALL AT LAIBAN DAMSITE, TANAY, RIZAL

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEPT.	OCT.	NOV.	DEC.	ANNUAL TOTAL
1983	~	~	~	~	54.0	39.6	578.1	330.4	258.6	571.4	87.1	42.3	1,961.5
1984	71.7	20.0	27.7	154.8	206.6	320.9	342.5	585.2	137.2	649.9	179.6	50.0	2,746.1
1985	28.5	48.5	54.5	37.4	74.3	819.6	424.2	198.4	328.8	***	48.3	56.9	1,695.2
1986	22.2	11.4	1.0	85.4	212.6	144.4	306.1	325.1	274.6	464.5	321.2	60.4	2,206.7
1987	90.6	19.5	4.2	22.2	61.8	244.8	220.4	534.0	371.0	162.3	469.9	104.6	2,283.1
1988	142.4	23.8	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Mean	83.3	24.64	21.85	92.53	121.86	313.86	361.78	394.62	274.04	462.03	221.22	62.84	2,178.52
S.D.	47.20	14.082	24.81	59.02	80.45	301.88	153.03	160.63	88.55	213.78	174.255	24.357	391.974

* - No data available.
 Start of Record: May, 1983

A-1-2 DAILY RAINFALL

Table DAILY RAINFALL in 1961, S.E.P. FLOOD

Unit: mm

Rain Gauge	Sep. 17	Sep. 18	Sep. 19	Sep. 20	Sep. 21	Sep. 22
1 Angat Dam	7.7	7.7	4.4	61.5	156.0	35.8
2 Matbid						
3 Ipo dam						
4 Camarim	*	*	*	*	*	*
5 La Mesa Dam						
6 Navetas	*	*	*	*	*	*
7 Concepcion	*	*	*	*	*	*
8 Science Garden	*	*	*	*	*	*
9 Kaliwa dam						
10 Diliman						
11 Port Area	0	0	7.4	2.8	85.1	66.5
12 Pasig	*	*	*	*	*	*
13 Tipas	*	*	*	*	*	*
14 Tabak	*	*	*	*	*	*
15 Basoboso	*	*	*	*	*	*
16 Antipolo						
17 MIA	10.5	0	T	T	88.9	52.5
18 Mabolo	*	*	*	*	*	*
19 Bagumbayan	*	*	*	*	*	*
20 Muntinlupa	*	*	*	*	*	*
21 San Pedro	*	*	*	*	*	*
22 Ambulong	0.13	0	3.68	0	9.65	2.77
23 Los Bautos	*	*	*	*	*	*
24 Tayabas	*	*	*	*	*	*
25 Macabild	*	*	*	*	*	*

63.0
16
7

Table DAILY RAINFALL in 1962, July, FLOOD

Unit: mm

	Jul 17	Jul 18	Jul 19	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25
Rain Gauge									
1 Angat Dam	19.3	14.0	10.9	339.1	350.5	129.2	53.3	70.1	7.6
2 Matlisid									
3 Ipo dam									
4 Camarin	*	*	*	*	*	*	*	*	*
5 La Mesa Dam									
6 Navotas	*	*	*	*	*	*	*	*	*
7 Concepcion	*	*	*	*	*	*	*	*	*
8 Science Garden	*	*	*	*	*	*	*	*	*
9 Kaliwa dam									
10 Diliman	6.60	7.04	19.10	10.26	5.33	2.44	17.20	6.73	0.46
11 Port Area	20.6	53.1	112.5	90.2	92.7	57.7	195.8	80.5	22.1
12 Pasig	*	*	*	*	*	*	*	*	*
13 Tipas	*	*	*	*	*	*	*	*	*
14 Tabak	*	*	*	*	*	*	*	*	*
15 Basoboso	*	*	*	*	*	*	*	*	*
16 Antipolo									
17 MIA	24.4	3.51	8.81	4.50	6.38	19.5	175.7	42.0	18.5
18 Mabolo	*	*	*	*	*	*	*	*	*
19 Bagumbayan	*	*	*	*	*	*	*	*	*
20 Muntinlupa	*	*	*	*	*	*	*	*	*
21 San Pedro	*	*	*	*	*	*	*	*	*
22 Ambulong	T	3.81	4.57	6.86	11.35	1.68	11.40	2.41	1.75
23 Los Baños	*	*	*	*	*	*	*	*	*
24 Tayahas	*	*	*	*	*	*	*	*	*
25 Macabud	*	*	*	*	*	*	*	*	*

1058

1058

Table DAILY RAINFALL in 1963, J.M. FLOOD

Unit: mm

Rain Gauge	Jan 3	Jan 4	Jan 5	Jan 6	Jan 7	Jan 8	Jan 9	
1 Amgat Dam	20.6	2.4	113.5	296.7	187.1	38.7	2.0	
2 Metlid								
3 Ipo dam								
4 Camarin	*	*	*	*	*	*	*	*
5 La Mesa Dam								
6 Navetas	*	*	*	*	*	*	*	*
7 Concepcion	*	*	*	*	*	*	*	*
8 Science Garden	*	*	*	*	*	*	*	*
9 Kalina dam								
10 Diliman	0.1	0	0	0	0	0	0	
11 Port Area	6.4	19.3	1.8	49.5	27.4	33.3	10.7	0.6
12 Pasig	*	*	*	*	*	*	*	*
13 Tibas	*	*	*	*	*	*	*	*
14 Tabat	*	*	*	*	*	*	*	*
15 Basoboso	*	*	*	*	*	*	*	*
16 Antipolo								
17 MIA	3.0	35.4	0.0	42.0	28.5	19.2	6.1	0.6
18 Mabolo	*	*	*	*	*	*	*	*
19 Bagumbayan	*	*	*	*	*	*	*	*
20 Muntinlupa	*	*	*	*	*	*	*	*
21 San Pedro	*	*	*	*	*	*	*	*
22 Ambulong	0.05	0.56	0	0.13	0	0	0	0
23 Los Bantos	*	*	*	*	*	*	*	*
24 Tayabas	*	*	*	*	*	*	*	*
25 Macabud	*	*	*	*	*	*	*	*

Table DAILY RAINFALL in 1964, JUN. FLOOD

Unit: mm

Rain Gauge	Tum	2am	7am	12m	2pm	7pm	12n	2am	7am	12m	2pm	7pm	12n	2am	7pm	12m
1 Angat Dam	0.0	25.4	3.6	8.4	222.3	20.3	0.0									
2 Metlob																
3 Ipo dam																
4 Camarin	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5 La Mesa Dam																
6 Navotas	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
7 Concepcion	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
8 Science Garden	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
9 Kaliwa dam																
10 Diliman	0.03	0	19.8	5.6	193.4	66.1										
11 Port Area	0.5	45	34.5	2.8	200.9	23.1										
12 Pasig	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13 Tipas	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14 Tabak	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15 Basoboso	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16 Antipolo																
17 MIA	0.2	5.1	5.8	3	277.9	19.4										
18 Makala	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19 Bagumbayan	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20 Muntinlupa	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21 San Pedro	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22 Ambulong	0	0.2	2	0.4	233	28	38									
23 Los Banos	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
24 Tayahar	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
25 Ma. Cabud	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Table DAILY RAINFALL in 1965, 2.4.6. FLOOD

Unit: mm

Rain Gauge	Jul 10	Jul 11	Jul 12	Jul 13	Jul 14	Jul 15
1 Angat Dam	2.5	0.0	109.0	56.1	22.1	0.0
2 Matlisid						
3 Ipo dam						
4 Camarin	*	*	*	*	*	*
5 La Mesa Dam						
6 Navotas	*	*	*	*	*	*
7 Concepcion	*	*	*	*	*	*
8 Salencia Garden	*	*	*	*	*	*
9 Kaliwa dam						
10 Diliman	1.5	0	12.2	26.7	14.5	4.6
11 Port Area		8.4	12.2	13.2	21.6	0.5
12 Pasig	*	*	*	*	*	*
13 Tipas	*	*	*	*	*	*
14 Tabak	*	*	*	*	*	*
15 Base boso	*	*	*	*	*	*
16 Antipolo						
17 MIA	T	5.9	2.4	11.3	10.7	0.3
18 Mabolo	*	*	*	*	*	*
19 Bagumbayan	*	*	*	*	*	*
20 Muntinlupa	*	*	*	*	*	*
21 San Pedro	*	*	*	*	*	*
22 Ambulong	*	*	*	*	*	*
23 Los Bamos	*	*	*	*	*	*
24 Tayabas	*	*	*	*	*	*
25 Macabid	*	*	*	*	*	*

Table DAILY RAINFALL in L.I.G.S., JULY, FLOOD

unit: mm

Rain Gauge	Jul 24	Jul 25	Jul 26	Jul 27	Jul 28	Jul 29
1 Angat Dam	4.3	2.5	53.9	48.5	6.1	10.1
2 Matild						
3 IPO dam						
4 Camarin	*	*	*	*	*	*
5 La Mesa Dam						
6 Navotas	*	*	*	*	*	*
7 Concepcion	*	*	*	*	*	*
8 Salencia Garden	*	*	*	*	*	*
9 Kaliwa dam						
10 Diliman	0	6.6	159.8	79.5	0.8	16.8
11 Port Area	4.1	4.3	112.1	64.4	2.8	5.1
12 Pasig	*	*	*	*	*	*
13 TiPas	*	*	*	*	*	*
14 Tabak	*	*	*	*	*	*
15 Base base	*	*	*	*	*	*
16 Antipolo						
17 MIA	0	17.3	65.3	47.2	T	1.5
18 Makolo	*	*	*	*	*	*
19 Bagumbayan	*	*	*	*	*	*
20 Muntinlupa	*	*	*	*	*	*
21 San Pedro	*	*	*	*	*	*
22 Ambulong	0.2	21.7	44	13.2	0	0.5
23 Los Banos	*	*	*	*	*	*
24 Tayabas	*	*	*	*	*	*
25 Macabud	*	*	*	*	*	*

Table DAILY RAINFALL in 1965, JUN. FLOOD

Unit: mm

Rain Gauge	Jun. 21	Jun. 22	Jun. 23	Jun. 24	Jun. 25	Jun. 26	Jun. 27	Jun. 28
	1 Angat Dam	0.0	17.8	73.7	127.3	9.1	0.0	0.0
2 Matbid								
3 IPO dam								
4 Camarin	*	*	*	*	*	*	*	*
5 La Mesa Dam								
6 Navotas	*	*	*	*	*	*	*	*
7 Concepcion	*	*	*	*	*	*	*	*
8 Science Garden	*	*	*	*	*	*	*	*
9 Kaliwa dam								
10 Diliman	T	104.1	44.5	46.7	0	0	0	0
11 Port Area	2.0	5.5	16.2	49.8	T	0	0	0
12 Pasig	*	*	*	*	*	*	*	*
13 Tipas	*	*	*	*	*	*	*	*
14 Tabak	*	*	*	*	*	*	*	*
15 Basoboso	*	*	*	*	*	*	*	*
16 Antipolo								
17 MIA	T	24.4	13.5	41.7	0	0	0	0
18 Mabolo	*	*	*	*	*	*	*	*
19 Bagumbayan	*	*	*	*	*	*	*	*
20 Muntinlupa	*	*	*	*	*	*	*	*
21 San Pedro	*	*	*	*	*	*	*	*
22 Ambulong	1.3	0	0.8	9.2	0	0	0	0
23 Los Bantos	*	*	*	*	*	*	*	*
24 Tayabar	*	*	*	*	*	*	*	*
25 Macabud	*	*	*	*	*	*	*	*

Table DAILY RAINFALL in 1966, MAY. FLOOD

Unit: mm

Rain Gauge	May 14	May 15	May 16	May 17	May 18	May 19	May 20	May 21
1 Angat Dam	0.0	0.0	15.2	21.8	23.7	125.5	122.3	4.8
2 Matbid								
3 Ipo dam								
4 Camarin	*	*	*	*	*	*	*	*
5 La Mesa Dam								
6 Navotas	*	*	*	*	*	*	*	*
7 Concepcion	*	*	*	*	*	*	*	*
8 Science Garden	*	*	*	*	*	*	*	*
9 Kaliwa dam								
10 Diliman	26.1	0	15.2	6.9	42.4	116.3	146.0	0
11 Port Area	T	0	13.5	7.7	59.5	104.3	52.3	0
12 Pasig	*	*	*	*	*	*	*	*
13 Titas	*	*	*	*	*	*	*	*
14 Tabak	*	*	*	*	*	*	*	*
15 Basoboso	*	*	*	*	*	*	*	*
16 Antipolo								
17 MIA	T	0	27.4	51.1	173.5	229.1	161.0	0
18 Mabolo	*	*	*	*	*	*	*	*
19 Bagumbayan	*	*	*	*	*	*	*	*
20 Muntinlupa	*	*	*	*	*	*	*	*
21 San Pedro	*	*	*	*	*	*	*	*
22 Ambulong	1.5	0	26.4	52.9	70.5	42.1	2.4	0
23 Los Bamos	T	0	61.0	29.5	39.4	39.4	6.6	0.2
24 Tayabar	*	*	*	*	*	*	*	*
25 Macabud	*	*	*	*	*	*	*	*

Table DAILY RAINFALL in L. 9. 66, N.P.V. FLOOD

unit : mm

Rain Gauge	Nov. 19		Nov. 20		Nov. 21		Nov. 22		Nov. 23		Nov. 24	
	*	*	*	*	*	*	*	*	*	*	*	*
1 Angat Dam	x	*	*	*	*	*	*	*	*	*	*	*
2 Matbid												
3 Ipo dam												
4 Camarin	*	*	*	*	*	*	*	*	*	*	*	*
5 La Mesa Dam												
6 Navotas	*	*	*	*	*	*	*	*	*	*	*	*
7 Concepcion	*	*	*	*	*	*	*	*	*	*	*	*
8 Science Garden	*	*	*	*	*	*	*	*	*	*	*	*
9 Kalina dam												
10 Diliman	6.4	169.9	3.3	0	41.2	0						
11 Port Area	2.0	107.0	3.9	T	0	0						
12 Pasig	*	*	*	*	*	*	*	*	*	*	*	*
13 Titas	*	*	*	*	*	*	*	*	*	*	*	*
14 Tabak	*	*	*	*	*	*	*	*	*	*	*	*
15 Basoboso	*	*	*	*	*	*	*	*	*	*	*	*
16 Antipolo												
17 MIA	3.5	94.0	6.4	T	0	0						
18 Mabolo	*	*	*	*	*	*	*	*	*	*	*	*
19 Bagumbayan	*	*	*	*	*	*	*	*	*	*	*	*
20 Muntinlupa	*	*	*	*	*	*	*	*	*	*	*	*
21 San Pedro	*	*	*	*	*	*	*	*	*	*	*	*
22 Ambulong	10.5	9.30	7.9	0	20.1	10.7						
23 Los Bantós	*	*	*	*	*	*	*	*	*	*	*	*
24 Tayahas	*	*	*	*	*	*	*	*	*	*	*	*
25 Macabud	*	*	*	*	*	*	*	*	*	*	*	*

Table DAILY RAINFALL in 1967, June FLOOD

unit : mm

Rain Gauge	June 1	June 2	June 3	June 4	June 5	June 6	June 7	June 8	June 9
1 Angat Dam	90.2	98.3	76.7	34.5	0.0	25.4	193.9	32.6	4.3
2 Metlob									
3 IPO dam									
4 Camarim	*	*	*	*	*	*	*	*	*
5 La Mesa Dam									
6 Navotas	*	*	*	*	*	*	*	*	*
7 Concepcion	*	*	*	*	*	*	*	*	*
8 Science Garden	*	*	*	*	*	*	*	*	*
9 Kaliwa dam									
10 Diliman	74.4	183.1	116.6	15.0	5.1	4.6	334.5	15.5	7.6
11 Port Area	84.7	129.3	86.4	0.8	1.8	16.3	213.2	34.8	3.3
12 Pasig	*	*	*	*	*	*	*	*	*
13 Titas	*	*	*	*	*	*	*	*	*
14 Tabak	*	*	*	*	*	*	*	*	*
15 Baseboso	*	*	*	*	*	*	*	*	*
16 Antipolo									
17 MIA	92.0	68.7	39.9	0.8	2.3	15.0	31.0	48.0	4.3
18 Mabolo	*	*	*	*	*	*	*	*	*
19 Bagumbayan	*	*	*	*	*	*	*	*	*
20 Muntinlupa	*	*	*	*	*	*	*	*	*
21 San Pedro	*	*	*	*	*	*	*	*	*
22 Ambulong	16.8	17.6	21.8	8.6	51.0	0	0.12	49.6	0.8
23 Los Baños	*	*	*	*	*	*	*	*	*
24 Tayahar	*	*	*	*	*	*	*	*	*
25 Macabud	*	*	*	*	*	*	*	*	*

Table DAILY RAINFALL in 1967, Nov. FLOOD

Unit: mm

Rain Gauge	Nov 2	Nov 3	Nov 4	Nov 5	Nov 6
1 Angat Dam	0.0	22.6	213.1	0.3	0.0
2 Matbid					
3 IPO dam					
4 Camarin	*	*	*	*	*
5 La Mesa Dam	*	*	*	*	*
6 Navotas	*	*	*	*	*
7 Concepcion	*	*	*	*	*
8 Science Garden	*	*	*	*	*
9 Kaliwa dam					
10 Diliman	0	35.6	121.4	0	0
11 Port Area	T	12.1	66.3	0	T
12 Pasig	*	*	*	*	*
13 TiDas	*	*	*	*	*
14 Tabak	*	*	*	*	*
15 Basoboso	*	*	*	*	*
16 Antipolo					
17 MIA	T	21.8	100.4	0	T
18 Mabolo	*	*	*	*	*
19 Bagumbayan	*	*	*	*	*
20 Muntinlupa	*	*	*	*	*
21 San Pedro	*	*	*	*	*
22 Ambulong	0	52.1	202.5	1.0	0
23 Los Bamos	T	82.6	257.8	T	0
24 Tayabar	*	*	*	*	*
25 Macabud	*	*	*	*	*

Table DAILY RAINFALL in 1968, Aug. FLOOD

Unit: mm

Rain Gauge	Aug	Aug	Aug	Aug	Aug	Aug	Aug
	16	17	18	19	20	21	21
1 Angat Dam	0.0	2.5	10.2	162.0	28.9	11.2	
2 Matbid							
3 Ipo dam							
4 Camarin	*	*	*	*	*	*	*
5 La Mesa Dam							
6 Navotas	*	*	*	*	*	*	*
7 Concepcion	*	*	*	*	*	*	*
8 Salencia Garden	*	*	*	*	*	*	*
9 Kaliwa dam							
10 Diliman	0.5	5.6	15.2	137.8	9.9	4.3	
11 Port Area	0.8	44.3	7.3	77.5	4.1	2.0	
12 Pasig	*	*	*	*	*	*	*
13 TiPas	*	*	*	*	*	*	*
14 Tabak	*	*	*	*	*	*	*
15 Basoboso	*	*	*	*	*	*	*
16 Anti polo							
17 MIA	T	7.1	17.4	55.4	4.1	0	
18 Mabolo	*	*	*	*	*	*	*
19 Bagumbayan	*	*	*	*	*	*	*
20 Muntinlupa	*	*	*	*	*	*	*
21 San Pedro	*	*	*	*	*	*	*
22 Ambulong	20.6	3.6	7.7	29.2	24.9	0	
23 Los Banos	7.5	2.5	7.6	17.3	14.2	T	
24 Tayabar	*	*	*	*	*	*	*
25 Macabud	*	*	*	*	*	*	*

Table DAILY RAINFALL in 1968, AUG. FLOOD

unit : mm

Rain Gauge	Aug 25	Aug 26	Aug 27	Aug 28	Aug 29	Aug 30
1 Angat Dam	9.7	12.7	47.5	107.0	91.7	5.1
2 Matlab						
3 Ipo dam						
4 Camarin	*	*	*	*	*	*
5 La Mesa Dam						
6 Navotas	*	*	*	*	*	*
7 Concepcion	*	*	*	*	*	*
8 Science Garden	*	*	*	*	*	*
9 Kaliwa dam						
10 Diliman	48.0	18.0	54.4	145.5	36.6	0
11 Port Area	15.3	37.8	9.4	106.6	36.6	0
12 Pasig	*	*	*	*	*	*
13 Tadas	*	*	*	*	*	*
14 Tabak	*	*	*	*	*	*
15 Basobaso	*	*	*	*	*	*
16 Anti polo						
17 MIA	40.3	32.5	3.6	75.6	9.8	0
18 Habelo	*	*	*	*	*	*
19 Bagumbayan	*	*	*	*	*	*
20 Muntinlupa	*	*	*	*	*	*
21 San Pedro	*	*	*	*	*	*
22 Ambulong	0.5	0	9.7	47.0	1.5	0
23 Los Baños	T	0	1.0	52.6	1.8	T
24 Tayahar	*	*	*	*	*	*
25 Macabud	*	*	*	*	*	*

Table DAILY RAINFALL in 1969, J.W.E. FLOOD

unit: mm

Rain Gauge	Jul. 25	Jul. 26	Jul. 27	Jul. 28	Jul. 29	Jul. 30	Jul. 31
1 Angat Dam	7.2	40.7	152.9	64.5	91.7	289.0	6.7
2 Matbid							
3 Ipo dam							
4 Camarim	*	*	*	*	*	*	*
5 La Mesa Dam							
6 Navotas	*	*	*	*	*	*	*
7 Concepcion	*	*	*	*	*	*	*
8 Science Garden	*	*	*	*	*	*	*
9 Kaliwa dam							
10 Diliman	12.8	15.9	22.4	10.9	5.1	20.1	1.0
11 Port Area	4.8	103.4	41.0	11.7	2.5	24.5	2.8
12 Pasig	*	*	*	*	*	*	*
13 Titas	*	*	*	*	*	*	*
14 Tabak	*	*	*	*	*	*	*
15 Basoboso	*	*	*	*	*	*	*
16 Antipolo							
17 MIA	*	*	*	*	*	*	*
18 Habelo	*	*	*	*	*	*	*
19 Bagumbayan	*	*	*	*	*	*	*
20 Muntinlupa	*	*	*	*	*	*	*
21 San Pedro	*	*	*	*	*	*	*
22 Ambulong	2.8	*	33.0	0	1.3	32.3	2.8
23 Los Bantos	0.5	0.3	2.8	5.8	38.9	1.3	0.8
24 Tayabas	*	*	*	*	*	*	*
25 Macabud	*	*	*	*	*	*	*

Table DAILY RAINFALL in 1962, Aug. FLOOD

Unit: mm

Rain Gauge	Aug. 1	Aug. 2	Aug. 3	Aug. 4	Aug. 5	Aug. 6	Aug. 7
1 Angat Dam	36.8	85.6	69.1	59.9	55.9	37.6	21.6
2 Matbid							
3 Ipo dam							
4 Camarim	*	*	*	*	*	*	*
5 La Mesa Dam							
6 Navetas	*	*	*	*	*	*	*
7 Concepcion	*	*	*	*	*	*	*
8 Science Garden	*	*	*	*	*	*	*
9 Kaliwa dam							
10 Diliman	*	*	*	*	*	*	*
11 Port Area	89.4	54.1	27.0	4.6	15.2	68.8	27.0
12 Pasiq	*	*	*	*	*	*	*
13 Tadas	*	*	*	*	*	*	*
14 Tabak	*	*	*	*	*	*	*
15 Basoboso	*	*	*	*	*	*	*
16 Antipolo							
17 MIA	35.4	47.2	22.1	0.5	27.5	81.4	11.4
18 Mabolo	*	*	*	*	*	*	*
19 Bagumbayan	*	*	*	*	*	*	*
20 Muntinlupa	*	*	*	*	*	*	*
21 San Pedro	*	*	*	*	*	*	*
22 Ambulong	1.8	19.7	7.4	0.3	3.3	35.3	12.7
23 Los Baños	1.0	18.0	2.5	0.2	2.0	16.5	10.7
24 Tayabas	*	*	*	*	*	*	*
25 Macabud	*	*	*	*	*	*	*

Table DAILY RAINFALL in L.I.L.C., A.G.A. FLOOD

Unit: mm

Rain Gauge	Aug 27	Aug 28	Aug 29	Aug 30	Aug 31	Sep 1	Sep 2	Sep 3
1 Angat Dam	7.1	11.4	13.5	108.5	180.3	127.3	22.9	73.1
2 Matild								
3 IPO dam								
4 Camarin	*	*	*	*	*	*	*	*
5 La Mesa Dam								
6 Navotas	*	*	*	*	*	*	*	*
7 Concepcion	*	*	*	*	*	*	*	*
8 Salencia Garden	*	*	*	*	*	*	*	*
9 Kaliwa dam								
10 Diliman	6.9	10.4	69.1	14.4	576.5	120.1	166.1	78.7
11 Port Area	4.8	24.1	67.1	13.5	1403.1	67.6	183.7	64.2
12 Pasig	*	*	*	*	*	*	*	*
13 Titas	*	*	*	*	*	*	*	*
14 Tabak	*	*	*	*	*	*	*	*
15 Basoboso	*	*	*	*	*	*	*	*
16 Antipolo								
17 MIA	9.7	10.0	*	*	195.0	72.5	198.5	34.0
18 Mabolo	*	*	*	*	*	*	*	*
19 Bagumbayan	*	*	*	*	*	*	*	*
20 Muntinlupa	*	*	*	*	*	*	*	*
21 San Pedro	*	*	*	*	*	*	*	*
22 Ambulong	3.3	1.8	2.0	6.6	32.3	135.6	49.6	1.8
23 Los Banos	0.8	4.6	0.2	1.0	75.6	128.5	47.5	1.3
24 Tayabas	T	7.8	T	0	1.3	43.0	5.2	T
25 Macabud	*	*	*	*	*	*	*	*

Table DAILY RAINFALL in L.P.Z.L., FEB. FLOOD

Unit: mm

Rain Gauge	Jan 10	Jan 11	Jan 12	Jan 13	Jan 14	Jan 15	Jan 16	Jan 17
1 Angat Dam	8.4	9.7	89.2	5.3	10.9	223.5	14.2	2.8
2 Matbid								
3 Ipo dam								
4 Camarim	*	*	*	*	*	*	*	*
5 La Mesa Dam								
6 Navotas	*	*	*	*	*	*	*	*
7 Concepcion	*	*	*	*	*	*	*	*
8 Science Garden	14.2	3.6	28.5	11.4	1.0	82.1	15.2	0.5
9 Kaliwa dam								
10 Diliman	*	*	*	*	*	*	*	*
11 Port Area	0	5.6	20.6	4.8	T	69.6	16.0	0
12 Pasig	*	*	*	*	*	*	*	*
13 Tibas	*	*	*	*	*	*	*	*
14 Tabak	*	*	*	*	*	*	*	*
15 Basoboso	*	*	*	*	*	*	*	*
16 Antipolo								
17 MIA	0	19.5	27.5	4.5	T	119.0	12.5	T
18 Habelo	*	*	*	*	*	*	*	*
19 Bagumbayan	*	*	*	*	*	*	*	*
20 Muntinlupa	*	*	*	*	*	*	*	*
21 San Pedro	0	4.6	43.9	6.9	3.0	101.6	11.2	0
22 Ambulong	*	*	*	*	*	*	*	*
23 Los Bantos	1.3	34.8	44.7	16.5	0.5	72.9	8.9	19.0
24 Tayabas	T	11.4	37.9	9.4	6.1	60.7	28.2	0
25 Macabud	*	*	*	*	*	*	*	*

Table DAILY RAINFALL in 1971, JULY FLOOD

Unit: mm

Rain Gauge	Jul 7	Jul 8	Jul 9	Jul 10	Jul 11
1 Angat Dam	T	T	123.5	14.1	0.0
2 Matlid					
3 Ipo dam					
4 Camarim	*	*	*	*	*
5 La Mesa Dam					
6 Navotas	*	*	*	*	*
7 Concepcion	*	*	*	*	*
8 Science Garden	1.8	0.6	75.9	T	0.5
9 Kaliwa dam					
10 Diliman	*	*	*	*	*
11 Port Area	0.3	0.3	58.7	11.0	0
12 Pasig	*	*	*	*	*
13 TiPas	*	*	*	*	*
14 Tabak	*	*	*	*	*
15 Basoboso	*	*	*	*	*
16 Antipolo					
17 MIA	0.5	1.0	50.0	1.0	0
18 Mabolo	*	*	*	*	*
19 Bagumbayan	*	*	*	*	*
20 Muntinlupa	*	*	*	*	*
21 San Pedro	0.5	0.5	30.7	T	0
22 Ambulong	*	*	*	*	*
23 Los Bantos	0	11.9	26.3	14.7	4.6
24 Tayabar	14.0	9.4	24.1	39.1	48.5
25 Macabud	*	*	*	*	*

Table DAILY RAINFALL in In. L., S.E.I. FLOOD

Unit: mm

Rain Gauge	Oct 8	Oct 9	Oct 10	Oct 11	Oct 12	Oct 13	Oct 14
1 Angat Dam	T	80.3	63.8	13.8	102.4	0.0	13.3
2 Matlisid							
3 Ipo dam							
4 Camarin	*	*	*	*	*	*	*
5 La Mesa Dam							
6 Navotas	*	*	*	*	*	*	*
7 Concepcion	*	*	*	*	*	*	*
8 Science Garden	0	53.1	36.9	19.3	84.6	0	T
9 Kaliwa dam							
10 Diliman	*	*	*	*	*	*	*
11 Port Area	0	27.5	33.8	17.0	73.1	T	3.1
12 Pasig	*	*	*	*	*	*	*
13 Tadas	*	*	*	*	*	*	*
14 Tabak	*	*	*	*	*	*	*
15 Basoboso	*	*	*	*	*	*	*
16 Antipolo							
17 MIA	0.5	36.0	36.5	15.0	109.0	0	0
18 Mabolo	*	*	*	*	*	*	*
19 Bagumbayan	*	*	*	*	*	*	*
20 Muntinlupa	T	27.9	36.0	18.8	108.4	0	0
21 San Pedro	T	25.2	34.1	20.5	82.6	0	T
22 Ambulong	*	*	*	*	*	*	*
23 Los Bamos	T	18.0	14.0	12.4	31.2	T	2.0
24 Tayabas	Z.1	13.2	12.3	18.0	10.2	9.9	8.9
25 MOCABUD	*	*	*	*	*	*	*