

Table I. 3-1 (I) Wave Data

Date: 10th Sep. 1988  
St. : I

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0										( )		SE	2.0	72
2										( )		SE	1.0	138
4										( )		ESE	0.0	200
6										( )		SE	0.0	220
8										( )		ESE	0.0	214
10										( )		NE	0.0	188
12	54	2.5	36	3.4	29	3.3	21	3.0	150	S (173)	0.447	S	2.0	174
14	65	3.0	51	3.0	41	3.2	28	2.9	165	S (171)	0.407	SSE	4.5	156
16	79	3.5	63	3.2	50	3.4	34	3.1	153	S (177)	0.404	SE	4.0	144
18	62	2.5	49	3.1	40	3.3	27	3.0	153	S (178)	0.268	SE	2.0	122
20	77	3.5	52	3.5	42	3.4	28	3.1	153	S (178)	0.263	SE	2.0	86
22	56	4.0	49	3.6	39	3.5	27	3.0	156	S (172)	0.331	SE	2.0	64
D.max.	79	3.5	63	3.2	50	3.4	34	3.1	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	66	3.2	50	3.3	40	3.3	28	3.0	3	( S )	0.353	SE	1.6	148

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (2) Wave Data

Date: 11th Sep. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	56	3.5	47	4.3	38	4.0	25	3.3	143	S (179)	0.338	SE	2.0	78
2	70	5.0	56	4.5	46	4.4	31	3.6	132	S (177)	0.303	SE	5.7	134
4	80	4.0	58	4.5	45	4.1	30	3.5	133	S (174)	0.265	SE	4.0	186
6	77	6.0	62	4.3	54	4.0	37	3.4	143	S (173)	0.263	ESE	2.0	218
8	80	4.0	58	4.4	49	4.1	33	3.4	138	S (174)	0.264	E	1.0	208
10	94	4.0	65	4.0	52	4.1	34	3.5	139	S (172)	0.266	ENE	0.0	186
12	86	4.0	69	4.3	55	4.0	36	3.4	141	S (173)	0.225	E	2.0	172
14	107	3.5	80	4.1	63	3.9	41	3.4	144	S (172)	0.236	SSE	4.0	160
16	78	4.0	69	4.4	56	4.3	37	3.8	129	S (173)	0.312	SSE	6.0	142
18	89	3.0	76	3.6	60	3.8	40	3.4	142	S (180)	0.252	SE	5.0	138
20	110	4.0	79	4.2	60	4.3	39	3.7	131	S (176)	0.298	SE	4.0	108
22	90	4.0	62	4.5	51	4.1	34	3.5	139	S (176)	0.279	SE	3.0	86
D.max.	110	4.0	80	4.1	63	3.9	41	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	85	4.1	65	4.3	52	4.1	35	3.5	3	( S )	0.275	SE	3.2	151

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (3) Wave Data

Date: 12th Sep. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	79	3.5	63	4.5	50	4.6	33	3.9	127.	S (178)	0.253	SE	2.0	82
2	64	4.5	58	4.8	47	4.6	32	3.8	126	S (178)	0.305	SSE	2.0	132
4	56	5.0	49	4.8	41	4.5	28	4.0	127	S (179)	0.266	SSE	3.0	178
6	60	4.5	47	4.8	39	4.6	26	3.9	126.	S (173)	0.282	S	2.5	210
8	55	5.0	50	5.0	41	4.8	28	4.3	116	S (174)	0.186	SSE	2.0	200
10	63	3.5	43	4.3	35	4.3	22	3.7	134	S (175)	0.257	SSE	2.0	184
12	52	4.0	46	4.2	40	4.3	26	3.5	136	S (178)	0.247	SE	2.0	168
14	56	5.0	42	4.0	34	4.1	24	3.6	136	S (173)	0.322	ENE	0.0	146
16	67	4.5	54	5.3	45	4.4	29	4.0	124	S (175)	0.283	SSE	0.0	133
18	65	4.0	56	4.2	45	4.2	30	3.7	133	S (176)	0.260	SSE	2.0	145
20	58	5.5	52	4.6	44	4.7	29	4.0	124	S (182)	0.304	SSE	0.0	121
22	74	5.0	62	4.8	51	4.7	32	4.1	122	S (174)	0.257	NW	0.0	101
D.max.	79	3.5	63	4.5	51	4.7	33	3.9	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	62	4.5	52	4.6	43	4.5	28	3.9	4	( S )	0.268	SSE	1.5	150

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (A) Wave Data

Date: 13th Sep. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	82	4.0	62	4.7	48	4.5	32	4.1	122	S (181)	0.279	NW	1.8	91
2	65	4.0	52	4.1	40	4.3	26	4.0	126	S (179)	0.317	NW	1.8	133
4	60	4.0	46	4.1	38	4.2	26	4.0	126	S (173)	0.466	WNW	0.0	168
6	50	4.0	40	4.3	32	4.1	20	4.0	126	S (181)	0.363	NE	1.0	201
8	45	4.0	40	4.2	33	4.3	22	4.0	127	S (179)	0.428	NNE	1.0	195
10	51	4.0	38	4.1	29	4.2	19	3.8	132	S (176)	0.315	NNE	2.0	178
12	49	4.0	41	4.1	32	3.8	21	3.1	140	S (179)	0.375	ESE	0.0	158
14	54	4.0	45	4.2	37	4.2	25	3.8	130	S (175)	0.360	SSW	2.0	148
16	74	3.5	56	4.0	45	4.0	29	3.5	142	S (181)	0.301	S	4.0	135
18	85	3.0	66	4.1	53	4.0	35	3.4	142	S (182)	0.351	SSE	5.0	147
20	97	4.5	79	4.4	65	4.1	41	3.5	138	S (176)	0.305	SSE	4.0	142
22	80	3.5	69	4.0	56	4.0	37	3.4	141	S (174)	0.319	SSE	5.0	123
D.max.	97	4.5	79	4.4	65	4.1	41	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	66	3.9	53	4.2	42	4.1	28	3.7	4	( S )	0.348	SSE	2.3	152

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (5) Wave Data

Date: 14th Sep. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	81	3.0	68	3.8	53	3.8	35	3.4	141	S (177)	0.333	SSE	5.0	116
2	100	4.0	68	4.4	54	4.2	34	3.5	139	S (178)	0.330	SSE	4.0	147
4	75	3.0	63	3.6	51	3.6	34	3.2	152	S (179)	0.283	SSE	4.0	167
6	88	4.0	68	3.7	53	3.6	35	3.3	148	S (176)	0.273	SSE	4.0	193
8	105	3.0	74	3.7	59	3.9	39	3.3	144	S (183)	0.422	SE	2.0	182
10	80	3.5	69	4.1	56	4.0	37	3.5	139	S (174)	0.411	E	1.0	159
12	80	3.5	67	4.4	54	4.2	37	3.5	141	S (177)	0.296	ESE	2.0	137
14	93	5.5	79	5.1	66	4.6	43	4.0	121	S (176)	0.202	SSE	4.0	135
16	120	5.5	87	5.1	70	5.1	45	4.2	118	S (180)	0.208	SSE	4.0	118
18	99	5.5	82	4.6	66	4.9	42	3.9	125	S (179)	0.180	SE	4.0	138
20	114	5.0	81	4.8	63	4.8	40	3.8	127	S (178)	0.202	SE	2.0	163
22	90	4.5	71	4.8	57	4.8	36	3.9	122	S (179)	0.211	SE	2.0	156
D.max.	120	5.5	87	5.1	70	5.1	45	4.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	94	4.2	73	4.3	59	4.3	38	3.6	4	( S )	0.279	SSE	3.2	151

[Note]

- W.H : Wave Height
- W.P : Wave Period
- Wave No. : Wave Countered
- D.W.D : Dominant Wave Direction
- R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge
- T.L : Tidal Level
- D.max. : Daily max.
- D.mean : Daily mean
- M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (6) Wave Data

Date: 15th Sep. 1988  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	76	4.5	67	5.2	51	4.4	36	3.8	129	S (180)	0.168	E	0.0	145
2	68	5.0	58	4.4	47	4.4	31	3.8	128	S (178)	0.198	NE	0.0	151
4	68	4.0	50	4.9	40	4.5	27	3.7	130	S (176)	0.203	SW	0.0	160
6	65	5.5	53	4.6	41	4.5	28	3.8	129	S (180)	0.238	NW	0.0	180
8	71	4.5	53	4.7	41	4.9	27	4.1	123	S (180)	0.256	SSW	0.0	173
10	62	5.5	50	4.8	42	4.6	29	4.1	123	S (173)	0.257	E	0.0	140
12	55	5.0	47	5.0	37	4.8	24	4.2	119	S (173)	0.209	S	1.0	112
14	42	5.0	36	4.8	29	4.5	20	3.8	124	S (174)	0.353	S	3.2	114
16	89	4.0	78	3.8	64	3.7	43	3.3	139	S (175)	0.288	SSE	6.0	113
18	113	3.5	81	3.7	66	3.7	46	3.4	142	S (172)	0.231	SE	4.0	127
20	79	3.5	65	3.9	55	4.1	37	3.3	145	S (174)	0.223	SE	2.0	169
22	77	4.5	58	4.3	47	4.2	32	3.5	131	S (174)	0.254	SE	1.0	176
D.max.	113	3.5	81	3.7	66	3.7	46	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	72	4.5	58	4.5	47	4.4	32	3.7	4	( S )	0.240	SE	1.4	147

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (7) Wave Data

Date: 16th Sep. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	59	4.0	51	3.9	43	3.8	30	3.3	143	S (173)	0.254	ESE	2.0	163
2	74	2.5	55	3.4	43	3.4	28	3.0	159	S (173)	0.250	ESE	0.0	168
4	70	3.5	59	3.5	49	3.5	33	3.2	148	S (174)	0.357	ESE	0.0	168
6	71	3.0	65	3.5	54	3.5	36	3.3	145	S (178)	0.367	SW	1.0	165
8	80	3.5	66	3.7	52	3.6	35	3.3	146	S (183)	0.426	ESE	0.0	162
10	80	3.5	65	3.8	54	3.8	36	3.4	143	S (185)	0.437	S	2.0	128
12	83	3.5	59	4.1	46	3.8	31	3.3	146	S (180)	0.436	SSW	2.0	100
14	76	3.0	65	3.6	51	3.6	33	3.2	150	S (173)	0.364	SSE	5.0	90
16	84	3.5	72	3.6	58	3.6	40	3.1	152	S (176)	0.378	SE	6.0	92
18	115	4.5	86	3.9	67	3.6	44	3.1	153	S (175)	0.314	SE	4.0	116
20	79	3.5	70	3.6	59	3.7	41	3.4	138	S (176)	0.323	SE	3.0	170
22	102	3.5	74	3.7	60	3.7	39	3.2	147	S (177)	0.363	SE	2.0	187
D.max.	115	4.5	86	3.9	67	3.6	44	3.1	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	81	3.5	66	3.7	53	3.6	36	3.2	3	( S )	0.356	ESE	2.3	142

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max.: Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (8) Wave Data

Date: 17th Sep. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	69	3.5	59	3.5	47	3.6	31	3.2	146	S (179)	0.395	ESE	0.0	186
2	69	3.5	53	4.0	42	3.6	27	3.1	154	S (172)	0.353	ESE	0.0	187
4	64	3.5	51	3.4	41	3.6	27	3.3	141	S (174)	0.624	E	0.0	173
6	60	3.5	53	3.5	44	3.3	31	3.1	153	S (177)	0.386	ENE	0.0	159
8	67	3.5	53	2.9	42	3.1	29	3.0	163	S (177)	0.447	NE	0.8	154
10	69	3.5	48	3.9	38	3.8	25	3.5	142	S (174)	0.304	NE	2.0	131
12	69	4.5	57	4.2	45	4.0	30	3.9	127	S (174)	0.287	S	2.0	101
14	89	4.0	59	4.1	47	4.2	31	3.8	131	S (174)	0.253	S	3.0	77
16	99	4.0	75	3.9	60	3.9	39	3.5	140	S (170)	0.279	S	3.7	70
18	106	3.5	72	3.6	59	3.7	40	3.1	151	S (177)	0.309	SE	4.0	90
20	115	4.0	90	3.8	74	3.8	50	3.4	142	S (173)	0.297	ESE	3.6	159
22	87	3.0	74	3.6	60	3.6	40	3.3	147	S (174)	0.311	ESE	2.0	198
D.max.	115	4.0	90	3.8	74	3.8	50	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	80	3.7	62	3.7	50	3.7	33	3.3	3	( S )	0.354	ESE	1.8	140

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table 1. 3-1 (9) Wave Data

Date: 18th Sep. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	114	4.0	73	3.6	58	3.6	39	3.3	143	S (172)	0.387	ESE	2.0	213
2	81	3.5	63	3.3	51	3.4	34	3.1	152	SSE (162)	0.540	ESE	2.8	211
4	82	3.0	72	3.6	58	3.7	37	3.2	150	S (173)	0.485	ESE	2.0	192
6	74	3.5	64	3.5	53	3.5	36	3.1	152	S (175)	0.382	SE	2.0	177
8	55	3.5	48	3.3	39	3.2	25	3.0	161	S (176)	0.398	ESE	1.8	166
10	100	3.0	67	3.5	52	3.4	34	3.2	150	S (172)	0.394	S	2.0	149
12	79	4.0	61	3.5	48	3.6	33	3.2	147	S (170)	0.451	S	3.6	113
14	105	4.0	84	3.8	70	4.0	46	3.6	139	S (175)	0.386	SSE	6.0	88
16	121	3.5	107	4.0	85	4.1	58	3.8	129	S (175)	0.285	SSE	5.8	71
18	100	3.5	85	3.8	71	3.9	46	3.4	143	S (170)	0.345	SE	5.8	71
20	107	4.0	90	3.7	75	4.0	50	3.4	141	S (170)	0.351	SE	3.8	135
22	108	4.0	79	3.5	61	3.7	40	3.3	148	S (180)	0.375	SSE	4.0	198
D.max.	121	3.5	107	4.0	85	4.1	58	3.8	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	94	3.6	74	3.6	60	3.7	40	3.3	3	( S )	0.398	ESE	3.5	149

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1(10) Wave Data

Date: 19th Sep. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	86	3.0	72	3.5	57	3.6	38	3.3	145	S (173)	0.396	SSE	4.5	235
2	80	3.5	64	3.5	49	3.5	32	3.2	153	S (177)	0.389	ESE	2.0	233
4	81	3.0	56	3.5	45	3.3	30	3.0	159	S (177)	0.416	SE	2.0	208
6	76	3.5	64	3.8	50	3.6	32	3.3	149	S (177)	0.328	ESE	3.0	182
8	81	3.0	68	3.2	55	3.5	37	3.1	157	S (178)	0.405	ESE	2.0	163
10	84	3.5	65	3.7	54	3.5	38	3.3	147	S (171)	0.337	E	0.0	146
12	69	4.0	57	3.9	46	4.0	30	3.5	142	S (175)	0.292	SSE	2.0	118
14	76	3.0	56	3.4	44	3.5	29	3.3	147	S (169)	0.303	S	4.0	85
16	103	3.5	79	3.9	63	3.9	41	3.6	138	S (173)	0.346	NNE	2.0	63
18	90	3.0	66	3.5	52	3.5	34	3.1	154	S (173)	0.341	NNW	0.0	47
20	84	3.0	70	3.4	59	3.2	41	3.0	154	SSE (164)	0.339	SE	4.0	80
22	104	2.5	62	3.3	49	3.4	33	3.0	159	( )		E	0.0	171
D.max.	104	2.5	79	3.9	63	3.9	41	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	85	3.2	65	3.5	52	3.5	35	3.2	3	( S )	0.354	ESE	2.1	144

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table J. 3-1 (II) Wave Data

Date: 20th Sep. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	65	2.5	51	2.9	42	3.1	29	3.0	159	S (178)	0.555	ENE	0.0	225
2	50	5.5	39	4.1	33	3.8	24	3.3	141	S (173)	0.341	NNE	1.0	240
4	69	3.0	48	3.9	40	3.8	27	3.4	142	SSE (168)	0.378	NW	1.8	224
6	66	3.0	52	4.5	41	4.3	28	3.4	139	S (171)	0.276	NW	2.0	192
8	55	3.5	46	4.2	39	4.2	25	3.7	135	S (170)	0.340	NNE	0.0	167
10	50	4.0	38	4.5	30	4.1	20	3.5	141	SSE (164)	0.400	S	0.0	161
12	56	3.0	38	4.2	32	4.2	21	3.8	131	SSE (166)	0.383	SSW	2.0	139
14	158	7.5	85	4.0	61	3.8	41	3.5	136	( )		S	3.0	100
16	83	3.5	75	3.7	64	3.6	43	3.2	153	S (170)	0.407	S	5.0	67
18	106	3.0	88	3.5	70	3.6	47	3.3	149	SSE (167)	0.377	SE	5.0	52
20	84	3.5	70	3.5	56	3.5	37	3.1	152	S (174)	0.344	SSE	5.0	64
22	89	3.0	71	3.2	60	3.3	41	3.0	151	S (169)	0.435	SSE	5.0	147
D.max.	158	7.5	88	3.5	70	3.6	47	3.3	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	78	3.8	58	3.8	47	3.8	32	3.3	3	( S )	0.385	S	2.5	148

1-1  
CT  
CS

[Note]  
W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table L. 3-1 (12) Wave Data

Date: 21th Sep. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	82	3.0	60	3.3	49	3.2	33	3.0	153	SSE (169)	0.425	SE	4.0	225
2	100	3.0	66	3.5	53	3.4	35	3.1	157	S (170)	0.319	ESE	1.0	252
4	66	3.5	55	3.2	43	3.2	29	2.9	156	SSE (168)	0.442	ESE	1.0	241
6	64	4.0	52	3.4	42	3.3	28	3.0	156	S (178)	0.407	ESE	2.0	200
8	62	3.0	52	3.2	43	3.2	29	2.9	154	S (175)	0.299	E	0.0	176
10	70	3.0	57	3.6	46	3.6	30	3.1	157	S (173)	0.291	ENE	0.0	166
12	72	3.5	63	3.5	49	3.2	32	3.0	159	S (174)	0.337	SW	0.0	157
14	85	3.0	77	3.6	60	3.7	39	3.3	149	S (174)	0.303	SSE	4.5	122
16	103	4.0	88	3.8	71	3.7	48	3.6	139	S (171)	0.426	SSE	5.8	83
18	124	4.0	87	3.9	74	3.9	50	3.4	144	SSE (166)	0.368	SE	6.5	60
20	95	3.5	79	3.5	68	3.5	46	3.2	150	S (170)	0.377	SE	5.5	47
22	114	4.0	79	3.8	64	3.6	43	3.2	150	S (173)	0.325	SE	4.0	103
D.max.	124	4.0	88	3.8	74	3.9	50	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	86	3.5	68	3.5	55	3.5	37	3.1	3	( S )	0.360	SE	2.9	153

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (B) Wave Data

Date: 22th Sep. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	94	3.5	74	3.5	58	3.5	39	3.2	150	SSE (165)	0.344	SE	5.0	193
2	115	3.0	74	3.2	59	3.5	39	3.2	152	S (177)	0.666	ESE	2.5	248
4	96	3.5	69	3.3	55	3.4	37	3.2	150	S (171)	0.387	ESE	2.0	251
6	105	3.0	70	3.3	54	3.4	36	3.3	150	S (175)	0.349	SE	2.5	222
8	80	4.0	63	3.5	52	3.7	35	3.3	143	S (179)	0.327	SSE	4.0	182
10	70	3.5	64	3.8	52	3.9	35	3.5	136	S (178)	0.367	SSE	4.0	164
12	85	3.5	73	3.7	60	3.7	40	3.2	150	S (172)	0.355	SSE	4.5	163
14	98	3.0	71	3.6	59	3.7	40	3.2	149	S (169)	0.341	SSE	5.8	141
16	90	3.0	75	3.5	61	3.6	40	3.3	150	S (176)	0.336	SSE	5.0	97
18	90	3.5	72	3.5	59	3.6	40	3.4	139	S (176)	0.367	SE	4.0	64
20	86	3.0	68	3.6	54	3.7	37	3.2	149	S (173)	0.367	SE	4.0	46
22	85	3.5	61	3.9	50	3.6	33	3.2	149	S (173)	0.334	SE	3.0	62
D.max.	115	3.0	75	3.5	61	3.6	40	3.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	91	3.3	70	3.5	56	3.6	38	3.3	3	( S )	0.378	SE	3.9	153

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (H) Wave Data

Date: 23th Sep. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	95	3.5	67	4.0	53	3.9	35	3.5	141	S (169)	0.372	SE	2.0	154
2	64	4.0	53	4.1	43	3.9	29	3.4	144	S (170)	0.364	ESE	2.0	227
4	62	4.0	44	3.6	36	3.8	24	3.3	148	S (177)	0.317	ESE	0.8	249
6	47	3.5	41	3.6	33	3.6	21	3.2	143	S (182)	0.462	NE	0.8	228
8	49	4.5	35	3.8	28	3.7	19	3.3	150	S (177)	0.349	NE	2.0	183
10	37	5.0	34	3.9	28	3.9	18	3.5	143	S (185)	0.392	NE	2.0	159
12	40	4.0	34	3.6	28	3.9	18	3.6	140	S (179)	0.492	ENE	0.0	153
14	50	2.5	43	3.6	37	3.5	25	3.1	158	SSE (168)	0.352	SSE	5.5	152
16	74	3.0	59	3.3	46	3.3	30	3.1	154	S (169)	0.435	SSE	4.0	114
18	81	3.0	63	3.2	51	3.3	34	3.0	161	S (176)	0.508	SSE	4.5	70
20	71	3.0	61	3.3	48	3.2	32	2.9	158	S (174)	0.393	SE	3.8	47
22	56	3.0	44	3.0	35	3.1	24	2.8	159	S (169)	0.414	SE	4.0	44
D.max.	95	3.5	67	4.0	53	3.9	35	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	61	3.6	48	3.6	39	3.6	26	3.2	3	( S )	0.404	NE	2.6	148

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (15) Wave Data

Date: 24th Sep. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	56	3.5	41	3.3	33	3.3	23	3.1	153	S (172)	0.604	ESE	0.0	117
2	39	2.5	33	3.5	26	3.2	18	2.9	157	S (173)	0.633	E	0.0	200
4	37	2.5	29	3.2	24	3.1	17	2.8	153	S (179)	0.455	E	0.0	248
6	40	3.5	30	3.6	24	3.5	17	3.2	147	SSE (165)	0.410	NNW	0.0	239
8	37	4.0	27	4.5	22	4.1	15	3.4	131	S (179)	0.444	NNE	2.0	193
10	39	3.5	30	3.8	25	3.7	16	3.1	128	S (178)	0.390	NNE	2.0	161
12	49	5.0	39	4.9	29	4.7	19	3.8	117	S (174)	0.254	ESE	3.0	161
14	42	4.0	35	4.3	27	4.3	18	3.7	129	S (174)	0.313	S	3.5	164
16	59	3.0	50	3.7	40	3.5	27	3.2	152	S (172)	0.354	SE	2.0	143
18	41	3.5	35	3.6	29	3.8	20	3.3	145	S (172)	0.446	SE	1.0	91
20	38	4.5	30	4.5	25	4.6	16	3.7	129	S (176)	0.285	E	0.0	58
22	47	4.5	34	4.4	28	4.4	18	3.9	127	S (173)	0.347	ENE	1.0	44
D.max.	59	3.0	50	3.7	40	3.5	27	3.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	44	3.7	34	3.9	28	3.8	19	3.3	3	( S )	0.411	E	1.2	152

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (16) Wave Data

Date: 25th Sep. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	51	4.5	40	4.6	34	4.4	23	3.7	127	S (177)	0.371	NE	2.0	83
2	56	4.5	45	4.0	37	4.2	24	4.0	127	S (171)	0.394	ENE	1.8	165
4	57	4.0	44	4.2	36	4.3	24	3.8	130	S (177)	0.259	ESE	0.8	237
6	50	4.5	39	4.4	32	4.1	21	3.6	136	S (172)	0.329	E	0.8	237
8	48	5.5	42	4.9	34	4.7	22	3.9	126	S (174)	0.299	ENE	1.0	195
10	34	4.0	28	4.0	23	3.9	15	3.3	148	S (181)	0.300	E	0.0	155
12	39	3.5	32	3.9	26	4.1	17	3.7	133	S (177)	0.429	SSW	2.0	148
14	54	4.0	45	3.3	37	3.4	24	3.0	160	S (176)	0.398	SSE	2.0	159
16	85	3.5	63	3.4	50	3.5	34	3.1	150	S (177)	0.410	E	0.0	155
18	82	3.0	64	3.3	52	3.3	36	3.1	154	S (178)	0.394	ESE	1.0	127
20	77	5.0	68	3.9	56	3.9	35	3.3	145	S (171)	0.478	ESE	2.5	81
22	70	4.5	56	3.5	48	3.4	33	3.1	148	S (181)	0.497	ESE	2.0	55
D.max.	85	3.5	68	3.9	56	3.9	36	3.1	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	59	4.2	47	3.9	39	3.9	26	3.5	3	( S )	0.380	ESE	1.3	150

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table 1. 3-1 (17) Wave Data

Date: 26th Sep. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	65	3.0	55	3.6	45	3.6	32	3.2	148	S (174)	0.312	ESE	2.0	83
2	64	4.5	55	4.1	45	4.1	32	3.5	137	S (170)	0.289	N	1.0	153
4	68	6.0	57	4.5	47	4.4	31	3.6	133	S (178)	0.316	W	0.8	223
6	68	5.0	56	4.7	47	4.5	31	3.5	137	S (169)	0.255	NNW	0.0	242
8	68	4.0	53	4.5	43	4.4	30	3.6	132	S (170)	0.287	NE	1.8	198
10	70	4.5	49	4.4	38	4.4	26	3.7	133	S (180)	0.311	SSW	1.0	152
12	55	4.0	42	4.2	36	4.3	24	3.8	131	S (175)	0.309	SSW	4.0	142
14	93	4.0	84	3.8	71	4.0	47	3.6	136	S (174)	0.268	NNE	2.0	149
16	93	3.5	77	3.9	61	3.8	38	3.4	140	S (178)	0.278	ESE	0.0	166
18	107	4.0	78	4.0	65	4.1	42	3.4	141	S (171)	0.285	SE	4.0	161
20	87	3.0	73	3.8	61	3.9	41	3.4	142	S (172)	0.320	SE	4.0	124
22	95	4.0	82	4.2	64	4.3	43	3.8	128	S (176)	0.270	SE	4.0	98
D.max.	107	4.0	84	3.8	71	4.0	47	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	78	4.1	63	4.1	52	4.1	35	3.5	4	( S )	0.292	SE	2.0	158

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (B) Wave Data

Date: 27th Sep. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	95	5.0	82	5.0	66	4.4	44	3.8	126	S (176)	0.232	SE	4.5	110
2	105	4.0	80	4.9	65	4.5	43	3.8	129	S (177)	0.183	SE	4.0	142
4	74	4.5	57	3.9	47	3.9	31	3.4	142	S (178)	0.264	SE	3.0	196
6	66	6.0	51	4.3	42	4.1	29	3.4	138	S (173)	0.240	E	0.0	227
8	100	3.5	58	4.0	46	3.8	31	3.3	146	S (173)	0.251	ESE	0.0	195
10	81	4.5	67	4.2	57	3.9	40	3.6	134	S (175)	0.284	SSE	4.0	137
12	99	3.5	80	3.8	64	3.9	43	3.4	146	S (174)	0.267	SSE	5.6	122
14	130	4.0	86	3.7	68	3.7	46	3.5	144	S (177)	0.330	SSE	6.0	131
16	117	3.5	97	3.7	77	3.7	52	3.4	144	S (169)	0.390	SE	6.0	150
18	101	4.0	78	3.6	64	3.8	42	3.4	145	S (174)	0.363	SE	6.0	180
20	110	4.5	83	4.3	66	4.0	43	3.4	147	S (172)	0.268	SE	4.0	161,
22	95	4.0	81	4.0	63	4.3	41	3.7	133	S (176)	0.282	SE	2.0	137
D.max.	130	4.0	97	3.7	77	3.7	52	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	98	4.3	75	4.1	60	4.0	40	3.5	4	( S )	0.279	SE	3.8	157

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (19) Wave Data

Date: 28th Sep. 1988  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	86	4.0	66	4.7	54	4.3	36	3.6	136	S (181)	0.289	SE	2.0	132
2	70	4.0	61	4.2	49	4.3	33	3.6	135	S (175)	0.416	ESE	2.0	147
4	80	4.0	62	3.6	50	3.8	33	3.2	146	S (177)	0.413	ESE	1.0	181
6	67	3.5	53	3.7	42	3.8	28	3.2	145	S (175)	0.491	ENE	0.0	211
8	52	3.0	44	3.4	37	3.7	25	3.3	147	S (174)	0.358	ESE	0.0	184
10	58	3.5	44	3.9	36	3.6	24	3.2	149	S (169)	0.334	SSE	3.0	119
12	79	3.0	60	3.4	48	3.5	32	3.2	151	S (177)	0.273	S	2.5	91
14	91	4.0	77	3.7	64	3.6	43	3.3	151	S (176)	0.311	S	5.0	97
16	105	3.5	90	3.6	70	3.7	46	3.3	150	S (174)	0.367	S	6.0	128
18	160	3.5	96	3.6	76	3.9	52	3.4	144	SSE (166)	0.416	SSE	6.0	176
20	131	4.0	93	3.9	72	3.9	47	3.5	139	S (173)	0.370	SSE	6.0	194
22	97	3.5	85	3.8	70	3.8	44	3.4	145	S (178)	0.319	SSE	5.8	188
D.max.	160	3.5	96	3.6	76	3.9	52	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	90	3.6	69	3.8	56	3.8	37	3.3	3	( S )	0.363	SSE	3.3	154

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table I. 3-1 (20) Wave Data

Date: 29th Sep. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	130	3.5	94	4.2	76	4.1	50	3.7	130	S (180)	0.269	SSE	5.0	182
2	101	4.0	81	3.8	63	3.9	41	3.4	144	S (178)	0.353	SE	4.0	176
4	94	4.0	70	3.6	56	3.8	37	3.3	145	S (179)	0.480	ESE	2.0	170
6	68	4.0	54	3.6	44	3.6	30	3.3	146	S (178)	0.630	SE	2.5	188
8	59	3.5	50	4.0	42	3.6	29	3.1	151	S (177)	0.374	ESE	1.0	165
10	56	3.5	48	3.3	40	3.5	27	3.2	148	S (177)	0.351	S	2.0	115
12	74	3.5	53	3.4	43	3.5	29	3.4	141	S (177)	0.433	SSW	2.0	70
14	69	3.5	54	3.4	44	3.3	29	3.0	160	S (178)	0.412	SSW	4.0	56
16	84	3.5	69	3.4	56	3.5	38	3.2	151	S (184)	0.458	S	5.5	86
18	86	3.0	71	3.4	58	3.4	39	3.0	160	S (180)	0.447	SSE	5.8	141
20	106	3.0	77	3.6	62	3.5	42	3.1	154	S (180)	0.578	SSE	6.0	201
22	97	4.0	79	3.7	63	3.4	43	3.2	154	S (173)	0.670	SSE	6.0	220
D.max.	130	3.5	94	4.2	76	4.1	50	3.7	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	85	3.6	67	3.6	54	3.6	36	3.2	3	( S )	0.455	SSE	3.8	148

[Note]

- W.H : Wave Height
- W.P : Wave Period
- Wave No.: Wave Countered
- D.W.D : Dominant Wave Direction
- R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge
- T.L : Tidal Level
- D.max. : Daily max.
- D.mean : Daily mean
- M.F.D : Most Frequency Wind Direction

Table I. 3-1 (2) Wave Data

Date: 30th Sep. 1988  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	103	3.0	75	3.6	60	3.4	39	3.2	154	S (176)	0.480	SE	5.0	216
2	93	3.0	75	3.5	61	3.6	41	3.3	149	S (172)	0.345	SSE	4.5	204
4	81	3.5	70	3.5	58	3.5	39	3.3	146	S (177)	0.371	SSE	4.0	177
6	96	3.5	76	3.8	59	3.7	39	3.3	146	S (177)	0.424	SE	4.0	166
8	90	4.0	65	3.9	51	3.9	34	3.4	139	S (172)	0.352	ESE	0.0	166
10	76	4.0	58	3.9	45	3.8	29	3.4	145	SSE (167)	0.304	SSE	1.0	119
12	69	3.5	52	3.7	41	3.7	28	3.3	146	S (172)	0.281	SSE	3.0	78
14	76	4.0	58	3.6	48	3.5	33	3.3	149	S (171)	0.389	S	4.5	51
16	93	3.5	78	3.5	62	3.6	41	3.2	153	S (175)	0.371	S	5.8	51
18	83	3.0	65	3.5	51	3.5	34	3.1	151	S (173)	0.360	SSE	5.0	97
20	85	3.0	69	3.4	56	3.4	37	3.1	157	S (172)	0.425	SE	4.5	178
22	102	3.0	67	3.3	53	3.3	36	3.3	146	S (172)	0.649	SE	4.0	233
D.max.	103	3.0	78	3.5	62	3.6	41	3.3	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	87	3.4	67	3.6	54	3.6	36	3.3	3	( S )	0.396	SSE	3.8	145

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (22) Wave Data

Date: 1st Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	75	3.0	57	3.0	46	3.3	31	3.0	159	S (180)	0.533	SE	2.0	242
2	51	3.0	41	3.3	34	3.2	24	3.0	160	S (171)	0.585	SE	3.0	234
4	64	3.5	52	3.4	41	3.5	27	3.2	147	S (181)	0.423	ESE	2.0	190
6	64	3.5	48	3.4	40	3.4	27	3.1	154	S (177)	0.576	NNE	0.0	164
8	56	3.5	46	3.4	36	3.2	24	2.8	163	S (172)	0.446	E	0.8	152
10	57	3.5	43	3.8	35	3.5	23	3.2	142	S (169)	0.429	NE	2.0	133
12	49	4.5	38	3.9	29	4.0	19	3.9	129	S (179)	0.397	E	0.0	93
14	42	4.0	31	3.9	25	4.0	17	3.7	134	S (178)	0.455	S	2.5	59
16	82	3.0	68	3.3	54	3.4	35	3.1	155	S (171)	0.481	SSE	5.0	47
18	100	3.5	77	3.4	63	3.4	43	3.1	152	S (171)	0.407	SE	4.0	66
20	89	3.0	65	3.5	53	3.3	36	3.1	154	SSE (169)	0.317	ESE	3.0	150
22	55	3.5	46	3.6	38	3.4	26	3.1	153	S (170)	0.482	NE	1.8	225
D.max.	100	3.5	77	3.4	63	3.4	43	3.1	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	65	3.5	51	3.5	41	3.5	28	3.2	3	( S )	0.461	SE	2.2	146

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table I. 3-1 (21) Wave Data

Date: 2nd Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	54	3.5	45	3.7	36	3.8	24	3.3	148	S (172)	0.343	NW	1.0	247
2	34	4.0	30	4.1	25	4.0	17	3.5	137	S (175)	0.397	NW	1.0	239
4	38	4.0	30	4.2	25	4.0	16	3.5	140	S (181)	0.530	NNW	1.0	200
6	35	3.0	28	4.0	22	4.0	14	3.4	139	S (175)	0.558	E	0.0	166
8	35	4.0	28	3.9	22	4.0	15	3.6	139	S (177)	0.495	NE	2.0	143
10	34	4.5	28	4.2	23	4.2	16	4.1	122	S (171)	0.391	SSE	0.0	137
12	31	4.5	25	4.6	20	4.4	13	4.0	125	S (180)	0.358	SSW	3.0	108
14	32	2.5	28	3.1	23	3.2	16	2.9	160	S (175)	0.544	SSW	2.0	69
16	55	2.5	43	2.5	35	2.7	23	2.7	165	S (170)	0.615	S	6.0	48
18	82	3.0	67	2.9	55	3.1	37	3.1	155	S (171)	0.582	S	6.0	45
20	73	3.0	54	3.0	44	2.9	31	2.8	161	S (173)	0.554	SSE	5.8	115
22	65	3.0	55	2.7	44	2.8	29	2.7	167	S (176)	0.739	SSE	5.0	211
D.max.	82	3.0	67	2.9	55	3.1	37	3.1	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	47	3.5	38	3.6	31	3.6	21	3.3	3	( S )	0.509	SSE	2.7	144

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (2A) Wave Data

Date: 3rd Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	79	3.0	64	3.0	51	3.0	34	2.8	164	S (173)	0.540	SSE	5.0	263
2	70	3.5	54	3.0	46	3.0	32	3.1	155	SSE (168)	0.505	SSE	5.0	261
4	64	3.5	54	3.2	44	3.3	30	3.1	158	S (179)	0.480	SSE	4.0	227
6	74	3.5	61	3.3	48	3.3	32	3.1	154	S (175)	0.453	SSE	5.0	182
8	75	3.0	46	3.2	36	3.3	24	3.1	153	S (174)	0.613	SSE	4.0	150
10	55	3.5	45	3.3	35	3.4	23	3.1	157	S (177)	0.465	SSE	4.0	138
12	57	3.5	49	3.4	39	3.5	27	3.3	146	S (183)	0.535	SSW	1.9	124
14	72	3.5	61	3.3	48	3.3	31	3.0	160	S (175)	0.525	SSW	4.0	91
16	79	3.5	66	3.3	54	3.3	37	3.1	159	S (176)	0.467	S	6.0	64
18	99	3.0	70	3.3	55	3.3	37	3.0	162	SSE (166)	0.416	S	6.0	48
20	71	3.0	58	3.1	48	3.0	33	2.8	168	S (171)	0.636	SSE	4.3	80
22	70	2.5	60	3.0	49	3.1	33	2.9	157	S (176)	0.632	SSE	4.3	176
D.max.	99	3.0	70	3.3	55	3.3	37	3.1	3	most D.W.D	mean	M:F.D	mean	mean
D.mean	72	3.3	57	3.2	46	3.2	31	3.0	3	( S )	0.522	SSE	4.5	150

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table J. 3-1 (25) Wave Data

Date: 4th Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	66	3.5	56	3.4	47	3.3	32	3.2	151	S (180)	0.612	SSE	4.0	253
2	75	4.0	62	3.6	52	3.6	35	3.3	148	S (177)	0.356	ESE	2.0	263
4	65	3.5	51	3.4	44	3.6	30	3.2	149	S (179)	0.436	ESE	1.0	240
6	67	4.0	51	3.6	41	3.6	26	3.3	149	S (181)	0.341	NE	1.0	185
8	43	3.0	37	3.3	32	3.7	22	3.4	137	S (182)	0.379	NE	2.0	150
10	51	4.0	34	4.1	28	3.9	18	3.6	141	( )		NE	1.0	138
12	42	4.0	32	3.9	24	4.1	16	3.7	139	SSE (168)	0.361	SSW	1.0	136
14	49	4.5	41	3.6	34	3.4	23	3.2	151	S (185)	0.397	SSW	1.0	109
16	83	4.0	68	3.6	57	3.6	38	3.3	148	S (177)	0.390	SSW	5.0	78
18	79	4.0	64	3.7	53	3.7	36	3.4	141	S (180)	0.292	S	5.2	54
20	85	5.0	65	4.1	53	3.7	35	3.2	147	S (171)	0.389	SSE	4.4	58
22	63	2.5	52	3.6	42	3.5	28	3.1	153	SSE (168)	0.408	SSE	4.1	137
D.max.	85	5.0	68	3.6	57	3.6	38	3.3	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	64	3.8	51	3.7	42	3.6	28	3.3	3	( S )	0.396	SSW	2.6	150

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (26) Wave Data

Date: 5th Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	61	4.0	51	4.0	43	3.8	29	3.2	150	S (171)	0.505	SSE	3.3	226
2	62	3.0	45	3.4	37	3.6	25	3.2	149	S (170)	0.335	S	3.0	260
4	50	4.0	39	3.9	32	3.8	22	3.3	142	SSE (168)	0.340	S	3.0	249
6	41	4.0	36	3.7	30	3.9	20	3.3	140	S (177)	0.767	S	2.0	206
8	90	3.5	64	3.3	48	3.4	32	3.3	147	S (170)	0.378	SSE	3.0	171
10	41	5.0	33	3.9	28	3.7	18	3.2	150	S (171)	0.480	NE	0.0	138
12	72	3.0	51	2.8	39	2.9	27	2.7	166	S (179)	0.510	SSE	5.0	151
14	59	4.5	50	3.9	39	4.1	25	3.6	137	S (178)	0.375	WSW	1.0	125
16	80	4.5	64	4.5	52	4.5	34	4.2	118	S (180)	0.286	SW	2.0	91
18	96	5.0	71	4.9	54	4.7	35	4.1	120	S (183)	0.322	SSW	2.0	61
20	90	4.0	71	4.3	56	4.2	36	3.6	137	S (173)	0.382	SSW	2.2	52
22	86	4.0	72	3.9	57	4.0	38	3.5	140	S (172)	0.459	SSE	4.1	115
D.max.	96	5.0	72	3.9	57	4.0	38	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	69	4.0	54	3.9	43	3.9	28	3.4	3	( S )	0.428	SSE	2.5	154

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (27) Wave Data

Date: 6th Oct. 1988  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	82	4.0	63	3.8	53	3.7	35	3.3	144	SSE (167)	0.416	SSE	4.0	198
2	85	3.5	60	3.7	48	3.9	32	3.4	144	S (178)	0.343	SSE	4.0	246
4	74	4.0	53	4.5	43	4.1	29	3.5	136	S (174)	0.344	SSE	4.0	246
6	64	4.5	54	3.9	42	3.7	28	3.2	148	S (171)	0.369	E	1.0	215
8	59	3.5	48	3.8	40	4.0	27	3.5	142	S (182)	0.528	ENE	1.0	166
10	70	3.5	48	4.0	40	3.8	26	3.5	139	S (187)	0.552	ESE	0.0	135
12	64	4.0	52	3.9	42	3.8	28	3.3	145	S (187)	0.436	S	4.1	140
14	76	4.0	59	3.7	49	3.5	33	3.1	151	SW (225)	0.725	S	2.0	141
16	102	3.0	68	3.7	55	3.6	37	3.2	151	SSW (192)	0.532	S	5.0	114
18	91	3.0	73	3.8	60	4.0	39	3.4	140	S (183)	0.351	S	5.2	77
20	101	4.5	76	4.0	57	3.9	38	3.4	145	S (171)	0.315	SSE	4.0	58
22	91	4.0	66	4.0	53	4.1	34	3.6	135	S (173)	0.321	SSE	3.4	96
D.max.	102	3.0	76	4.0	60	4.0	39	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	80	3.8	60	3.9	49	3.8	32	3.4	3	( S )	0.436	SSE	3.1	153

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (28) Wave Data

Date: 7th Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	70	5.0	59	4.2	47	4.1	31	3.6	133	S (170)	0.375	SSE	3.0	173
2	51	6.0	46	4.1	37	3.8	25	3.3	147	S (178)	0.381	SSE	3.0	229
4	51	5.0	43	3.8	36	3.5	25	3.2	148	S (179)	0.472	S	5.0	244
6	69	4.5	57	3.6	45	3.8	31	3.5	138	S (175)	0.456	SSW	2.0	224
8	65	4.0	52	3.2	43	3.4	31	3.1	153	S (188)	0.539	E	0.0	177
10	50	5.5	45	3.5	37	3.6	25	3.2	148	S (187)	0.538	NE	0.0	141
12	50	3.5	44	4.1	37	3.8	24	3.3	147	SSW (192)	0.579	NE	1.0	130
14	59	2.5	47	3.3	38	3.3	26	2.9	164	SSW (195)	0.653	E	1.0	134
16	55	4.0	40	3.7	31	3.8	20	3.3	143	SW (216)	0.735	ESE	1.0	120
18	48	4.5	39	4.2	34	4.1	23	3.5	136	S (188)	0.555	SE	2.0	88
20	74	4.0	59	4.1	46	4.1	30	3.4	142	S (180)	0.363	NW	2.0	67
22	82	4.0	65	4.1	52	4.1	34	3.6	133	S (178)	0.297	NW	2.0	93
D.max.	82	4.0	65	4.1	52	4.1	34	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	60	4.4	50	3.8	40	3.8	27	3.3	3	( S )	0.495	NW	1.8	152

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table I. 3-1 (20) Wave Data

Date: 8th Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	66	4.0	57	3.8	46	4.1	29	3.4	137	S (174)	0.303	N	2.0	153
2	72	4.5	51	3.8	40	3.6	27	3.1	152	S (172)	0.356	NE	2.0	206
4	45	4.0	36	4.3	30	3.9	21	3.3	132	S (180)	0.475	NE	2.0	231
6	52	4.0	35	3.9	27	3.9	18	3.3	129	S (186)	0.652	NE	2.0	213
8	34	3.5	27	4.7	22	4.6	15	4.0	120	S (176)	0.599	NE	2.0	176
10	34	5.0	29	4.5	24	4.6	16	4.4	115	S (185)	0.584	ESE	1.4	147
12	43	4.0	36	4.4	29	4.2	19	3.8	125	S (186)	0.493	SSE	2.0	129
14	31	4.5	28	4.2	23	4.2	16	3.9	126	S (184)	0.467	S	2.0	135
16	40	3.5	33	4.3	26	4.1	17	3.6	129	SSW (197)	0.640	S	4.0	132
18	42	3.5	36	4.0	29	3.9	19	3.1	149	S (176)	0.508	S	4.0	116
20	67	5.0	51	4.0	43	3.6	30	3.2	146	S (179)	0.463	SE	3.0	95
22	75	3.0	57	3.9	46	4.2	29	3.5	137	S (183)	0.349	SSE	4.0	97
D.max.	75	3.0	57	3.8	46	4.1	30	3.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	50	4.0	40	4.1	32	4.1	21	3.5	4	( S )	0.491	NE	2.5	153

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No. : Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table I. 3-1 (30) Wave Data

Date: 9th Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	74	5.5	59	4.3	47	4.1	31	3.5	139	S (177)	0.411	SSE	4.0	143
2	75	4.0	53	4.4	42	4.2	27	3.6	134	S (171)	0.389	SSE	3.3	192
4	64	4.5	50	3.7	39	3.6	27	3.3	139	S (174)	0.352	SSE	4.0	218
6	59	5.0	45	3.8	36	3.8	23	3.3	142	S (172)	0.433	ESE	1.0	202
8	63	4.0	49	3.6	39	4.0	26	3.3	143	S (183)	0.550	SE	2.0	167
10	59	3.0	45	3.0	38	3.2	26	3.0	164	S (178)	0.691	SSE	4.0	137
12	78	3.5	55	3.2	44	3.3	30	3.0	162	S (178)	0.457	SSE	5.3	131
14	77	4.5	66	3.5	56	3.4	38	3.1	155	S (179)	0.481	S	5.0	140
16	124	2.5	84	3.4	68	3.6	46	3.4	145	S (179)	0.399	S	6.0	157
18	100	3.0	85	3.5	71	3.7	47	3.4	143	S (172)	0.432	SSE	6.0	155
20	92	3.5	78	3.6	63	3.6	43	3.4	146	S (182)	0.448	SSE	5.8	128
22	89	4.0	75	3.8	63	4.0	43	3.6	139	S (171)	0.332	SSE	5.0	123
D.max.	124	2.5	85	3.5	71	3.7	47	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	80	3.9	62	3.6	51	3.7	34	3.3	3	( S )	0.448	SSE	4.3	158

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (3) Wave Data

Date: 10th Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	97	4.0	67	4.2	54	3.9	36	3.5	137	S (179)	0.515	SSE	4.0	147
2	85	4.5	60	3.6	47	3.7	31	3.2	146	S (169)	0.471	E	4.0	174
4	60	4.0	52	3.7	43	3.8	29	3.4	139	S (170)	0.383	ENE	1.0	202
6	62	4.0	46	4.4	36	4.3	24	3.7	129	S (175)	0.529	NE	2.0	187
8	49	5.0	37	4.5	29	4.4	20	3.9	126	S (182)	0.427	NNE	2.1	148
10	49	3.5	37	4.2	28	4.1	18	3.6	132	S (182)	0.434	NE	2.0	126
12	38	4.5	27	4.3	22	4.5	14	4.0	124	S (172)	0.413	S	3.0	125
14	41	4.0	28	4.0	23	4.1	16	3.5	137	S (182)	0.601	SE	1.0	132
16	49	2.0	38	3.3	33	3.2	23	3.0	152	SSW (194)	0.554	S	4.0	150
18	49	3.0	37	2.9	29	3.1	20	2.8	165	S (175)	0.676	SSE	4.0	163
20	45	3.5	31	3.2	25	3.3	17	3.0	151	S (176)	0.603	SE	2.0	144
22	48	3.0	37	3.4	30	3.6	20	3.3	144	S (177)	0.549	SE	2.0	132
D.max.	97	4.0	67	4.2	54	3.9	36	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	56	3.8	41	3.8	33	3.8	22	3.4	3	( S )	0.513	SE	2.6	153

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1.3-1 (32) Wave Data

Date: 11th Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	51	4.5	41	4.2	35	4.1	24	3.5	135	S (178)	0.442	ENE	1.0	150
2	47	3.5	37	4.0	31	4.1	21	3.7	134	S (179)	0.437	NNW	1.4	164
4	54	4.5	41	4.1	33	4.1	23	3.9	130	S (172)	0.521	N	1.0	180
6	46	3.5	39	4.3	30	4.2	19	3.8	130	S (177)	0.457	ENE	1.0	175
8	44	3.5	34	3.6	28	3.6	19	3.2	138	S (182)	0.531	NE	2.0	132
10	45	3.5	30	3.4	24	3.3	16	3.2	151	S (181)	0.539	S	1.0	107
12	51	2.5	42	2.8	35	2.8	23	2.7	174	SSE (166)	0.837	S	4.0	115
14	72	3.0	55	3.3	44	3.3	31	3.0	154	S (182)	0.734	SSW	5.0	132
16	98	3.5	81	3.5	64	3.5	43	3.1	155	SSE (164)	0.540	SSW	6.0	163
18	90	4.5	73	3.5	55	3.3	36	3.1	154	S (171)	0.533	S	5.0	188
20	72	3.0	59	3.4	49	3.4	33	3.1	152	S (178)	0.495	S	5.0	176
22	70	4.0	52	3.8	43	3.5	30	3.3	142	S (176)	0.408	SSE	4.2	171
D.max.	98	3.5	81	3.5	64	3.5	43	3.1	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	62	3.6	49	3.7	39	3.6	27	3.3	3	( S )	0.539	S	3.0	154

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction



Table I. 3-1 (33) Wave Data

Date: 12th Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	54	5.5	48	3.7	40	3.7	26	3.2	150	S (174)	0.339	SSE	3.0	174
2	53	3.5	43	4.2	37	4.2	25	3.4	138	S (175)	0.376	SE	1.0	172
4	51	4.0	41	4.2	34	4.4	23	3.7	133	S (172)	0.336	NE	0.2	177
6	51	3.5	43	4.0	34	4.1	23	3.5	132	S (177)	0.476	NNE	2.0	167
8	41	4.0	35	4.3	29	4.0	20	3.4	125	S (172)	0.436	NE	3.0	122
10	30	4.0	25	3.9	21	4.2	14	3.6	130	S (170)	0.640	NE	2.0	90
12	25	4.0	20	4.0	17	4.1	11	3.8	129	S (177)	0.507	ENE	1.0	90
14	21	3.5	18	4.2	15	4.1	10	3.5	121	SSE (161)	0.971	S	4.0	113
16	65	2.5	41	2.6	33	2.7	22	2.6	170	S (170)	0.784	S	6.0	154
18	73	3.0	60	3.0	48	3.0	33	2.8	159	S (173)	0.608	SSE	5.0	192
20	82	3.0	64	3.0	52	3.0	34	2.9	160	S (184)	0.625	SE	4.0	192
22	63	3.0	55	3.1	44	3.1	30	2.9	163	SSE (168)	0.461	SE	2.0	187
D.max.	82	3.0	64	3.0	52	3.0	34	2.9	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	51	3.6	41	3.7	34	3.7	23	3.3	3	( S )	0.547	NE	2.8	153

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (M) Wave Data

Date: 13th Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	59	3.5	50	3.2	39	3.4	27	3.2	144	S (170)	0.599	ENE	0.0	186
2	45	4.0	37	3.4	31	3.5	21	3.0	156	S (174)	0.416	NNW	2.0	176
4	49	4.5	40	4.0	31	3.9	21	3.4	139	S (170)	0.309	NNW	1.0	165
6	47	5.0	38	4.5	31	4.2	21	3.7	127	S (169)	0.348	N	2.0	167
8	55	3.5	44	4.3	35	4.3	24	3.5	123	S (171)	0.344	NE	2.0	124
10	45	4.0	39	4.4	31	4.5	20	3.6	123	S (169)	0.334	NE	3.0	87
12	37	5.5	32	4.2	25	3.7	17	3.2	127	SSE (162)	0.413	NE	2.0	73
14	25	5.0	22	4.4	18	4.5	12	3.8	122	S (177)	0.424	NE	2.0	95
16	24	5.0	20	4.8	16	4.6	10	4.0	117	SSE (167)	0.541	SW	2.0	136
18	29	4.0	25	4.7	20	4.1	14	3.3	132	S (175)	0.624	S	2.2	183
20	40	3.0	32	4.4	25	4.0	17	3.2	138	SSE (166)	0.473	ENE	0.2	210
22	37	5.5	33	4.2	26	4.1	17	3.4	140	SSE (166)	0.378	E	1.0	214
D.max.	59	3.5	50	3.2	39	3.4	27	3.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	41	4.4	34	4.2	27	4.1	18	3.4	3	( S )	0.434	NE	1.6	151

[Note]

- W.H : Wave Height
- W.P : Wave Period
- Wave No. : Wave Countered
- D.W.D : Dominant Wave Direction
- R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge
- T.L : Tidal Level
- D.max. : Daily max.
- D.mean : Daily mean
- M.F.D : Most Frequency Wind Direction

Table I. 3-1 (35) Wave Data

Date: 14th Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	44	4.5	36	3.8	29	3.9	20	3.1	141	S (171)	0.385	NE	3.0	201
2	53	4.0	38	3.6	31	3.5	21	2.9	153	S (171)	0.525	NNW	2.0	180
4	37	4.5	29	4.1	24	3.9	16	3.3	120	SSE (168)	0.359	N	1.0	161
6	37	4.0	28	3.2	23	3.0	15	2.7	134	SSE (167)	0.449	NNE	2.0	158
8	31	2.0	27	2.7	23	2.7	16	2.6	136	NNE ( 14)	0.492	NNE	3.0	123
10	22	4.5	19	4.3	16	4.1	11	3.4	123	S (182)	0.477	NNE	3.0	84
12	23	4.0	19	4.2	15	4.2	10	3.5	127	( )		ENE	1.0	62
14	25	4.0	21	4.5	17	4.7	12	4.3	141	SSE (164)	0.671	SW	2.0	75
16	60	2.5	45	2.8	37	2.7	26	2.6	167	SE (143)	0.507	SSE	5.0	119
18	52	3.0	44	3.0	36	3.0	25	2.8	164	SE (133)	0.648	SSE	3.0	160
20	47	3.0	37	2.7	32	2.7	22	2.6	161	SSE (151)	0.583	SE	4.0	207
22	45	3.0	34	2.8	27	2.7	19	2.6	168	SSE (162)	0.491	SE	4.0	233
D.max.	60	2.5	45	2.8	37	2.7	26	2.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	40	3.6	31	3.5	26	3.4	18	3.0	3	(SSE)	0.508	NNE	2.8	147

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table I.3-1 (36) Wave Data

Date: 15th Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	36	2.5	29	2.8	25	2.8	17	2.7	162	NNW (340)	0.651	NNW	2.0	227
2	66	2.5	52	2.4	41	2.5	27	2.5	183	NNW (327)	0.860	NW	3.0	206
4	117	4.0	96	3.7	77	3.8	49	3.4	146	WSW (242)	0.352	NW	3.0	177
6	64	2.5	56	3.1	47	2.9	32	2.9	161	N (350)	0.937	NNW	1.0	149*
8	51	2.5	36	3.0	30	3.2	21	2.9	155	SSE (161)	0.831	NE	2.0	127
10	44	3.0	33	2.4	28	2.6	19	2.5	161	NNW (328)	0.501	NE	3.0	89
12	25	3.5	21	3.6	18	3.6	12	3.2	146	SSE (152)	0.541	ENE	1.0	71
14	29	3.0	22	3.5	17	3.6	11	3.2	152	SSE (150)	0.534	SW	2.0	68
16	26	2.0	22	2.9	18	2.9	12	2.7	155	SSE (162)	0.613	SW	2.0	89
18	39	2.0	30	2.3	25	2.3	17	2.4	175	SE (138)	0.576	SW	2.0	152
20	91	2.5	70	2.9	51	2.8	33	2.8	168	WSW (251)	0.616	NW	2.3	225
22	163	4.0	126	3.8	103	3.8	68	3.5	140	SW (232)	0.586	NW	2.0	260
D.max.	163	4.0	126	3.8	103	3.8	68	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	63	2.8	49	3.0	40	3.1	27	2.9	3	(SSE)	0.633	NW	2.1	153

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table J. 3-1 (37) Wave Data

Date: 16th Oct. 1988  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir. (m/s)	vel. (m/s)	
0	125	4.5	97	3.9	74	3.8	50	3.6	138	SW (217)	0.727	NNE	2.0	229
2	96	4.5	74	4.3	59	4.1	39	3.6	132	SSW (201)	0.857	NE	3.0	200
4	70	4.0	57	4.1	46	3.9	31	3.3	144	SSE (149)	0.579	NNE	2.0	165
6	60	2.5	47	3.4	38	3.5	26	3.1	147	S (187)	0.761	NE	2.0	152
8	64	5.0	40	3.8	32	3.7	23	3.2	143	S (188)	0.549	NNE	3.0	132
10	40	4.5	36	3.4	30	3.2	20	2.8	143	S (188)	0.639	NNE	2.0	94
12	29	5.0	23	4.2	18	4.1	12	3.5	128	SSW (193)	0.544	NE	2.0	71
14	21	4.0	19	4.2	16	4.5	11	4.0	124	SSW (195)	0.609	SW	2.0	57
16	29	5.0	21	4.2	17	4.0	11	3.5	126	S (181)	0.618	SW	2.0	60
18	24	3.5	20	3.7	17	3.4	11	3.0	136	SW (219)	0.567	S	2.0	118
20	29	3.0	21	3.6	17	3.5	11	2.9	144	SSW (210)	0.613	SSW	2.0	204
22	21	3.5	18	3.5	15	3.5	10	3.1	145	SSW (212)	0.699	S	1.0	258
D.max.	125	4.5	97	3.9	74	3.8	50	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	51	4.1	39	3.9	32	3.8	21	3.3	3	(SSW)	0.647	NNE	2.1	145

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (38) Wave Data

Date: 17th Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	20	3.5	15	3.3	12	3.6	8	3.2	144	SSW (197)	0.769	NE	2.0	258
2	24	2.0	19	3.2	16	2.8	11	2.6	140	N ( 4)	0.760	NE	2.0	227
4	25	2.0	17	2.6	14	2.7	9	2.5	156	NNE ( 18)	0.480	NE	1.0	184
6	15	2.0	13	3.0	10	3.0	7	2.8	103	SSE (167)	0.838	NE	2.0	152
8	16	5.0	14	3.2	11	3.3	8	2.9	113	SSE (147)	0.853	NNE	2.0	136
10	13	4.0	10	2.8	8	2.8	6	2.7	120	NNE ( 19)	0.767	NE	2.0	108
12	14	2.5	10	2.8	8	2.9	5	2.8	139	NNE ( 20)	0.763	NE	2.0	83
14	11	3.5	9	3.3	7	3.5	5	3.2	156	SSW (191)	0.814	ENE	2.0	60
16	10	5.0	8	3.7	6	3.4	5	3.1	113	S (171)	0.702	S	3.0	52
18	10	4.0	8	2.8	7	3.0	5	2.7	128	WSW (239)	0.754	WNW	0.1	73
20	30	2.5	24	2.1	19	2.1	13	2.2	173	SE (146)	0.628	SSE	3.0	167
22	40	2.0	31	2.3	24	2.3	16	2.3	170	NE ( 45)	0.871	SE	2.0	249
D.max.	40	2.0	31	2.3	24	2.3	16	2.3	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	19	3.2	15	2.9	12	2.9	8	2.8	3	(NNE)	0.750	NE	1.9	146

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (39) Wave Data

Date: 18th Oct. 1988  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	39	2.0	31	2.4	24	2.3	16	2.4	172	NE ( 46)	0.905	ESE	0.1	273
2	32	2.0	25	2.2	20	2.3	13	2.4	176	SE (137)	0.821	SE	1.0	253
4	90	3.0	74	3.1	61	3.1	40	3.0	160	SSW (193)	0.941	SW	2.0	215
6	76	3.5	65	3.4	52	3.4	36	3.3	149	SW (228)	0.542	S	2.0	165
8	69	3.5	55	3.4	45	3.6	29	3.3	152	SW (228)	0.531	ESE	1.0	153
10	50	3.5	38	3.3	32	3.2	21	3.1	153	SW (229)	0.522	S	0.1	128
12	44	4.0	33	3.1	26	3.2	18	2.9	165	SW (220)	0.553	S	2.0	105
14	41	2.5	29	2.8	23	3.0	16	3.0	159	SW (225)	0.727	S	4.0	77
16	35	2.0	30	2.7	24	2.7	16	2.5	170	SW (230)	0.715	SW	2.2	58
18	54	3.0	43	2.7	36	2.7	24	2.6	176	NE ( 55)	0.713	E	0.2	57
20	55	2.5	38	2.5	30	2.5	19	2.5	184	ENE ( 68)	0.726	E	0.1	138
22	36	2.5	28	2.4	23	2.5	16	2.5	172	ESE (121)	0.704	E	1.0	233
D.max.	90	3.0	74	3.1	61	3.1	40	3.0	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	52	2.8	41	2.8	33	2.9	22	2.8	3	( SW)	0.700	S	1.3	155

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (40) Wave Data

Date: 19th Oct. 1988  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	31	2.5	24	2.4	20	2.3	14	2.4	182	WSW (247)	0.878	WNW	6.0	282
2	85	3.0	68	3.3	54	3.2	37	3.0	154	W (267)	0.559	SW	4.0	291
4	90	3.0	73	3.6	61	3.6	41	3.3	147	SW (220)	0.450	W	2.0	224
6	119	2.5	86	3.3	68	3.3	44	3.0	165	SW (215)	0.530	W	2.0	188
8	105	3.0	86	3.8	66	3.8	43	3.4	139	SW (228)	0.523	NNW	0.1	163
10	116	3.0	77	4.0	62	3.9	39	3.5	143	SW (236)	0.526	WSW	2.0	156
12	74	3.5	59	3.7	47	3.4	30	3.1	155	SW (222)	0.535	SSW	2.0	132
14	81	3.5	65	3.5	53	3.5	36	3.3	147	SW (218)	0.659	SSW	2.0	99
16	81	3.5	64	3.8	52	3.5	35	3.2	150	SW (216)	0.529	SSW	2.0	72
18	78	4.0	68	3.8	54	3.4	36	3.3	149	SSW (213)	0.528	S	4.0	55
20	83	3.0	68	3.3	55	3.3	37	3.1	154	S (169)	0.777	S	4.0	104
22	76	3.5	56	3.2	45	3.2	30	3.0	156	SE (143)	0.439	S	4.0	219
D.max.	119	2.5	86	3.3	68	3.3	44	3.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	85	3.2	66	3.5	53	3.4	35	3.1	3	( SW)	0.578	S	2.8	165

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table 1. 3-1 (M) Wave Data

Date: 20th Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	66	2.5	55	2.9	45	3.0	30	2.8	167	WSW (243)	0.779	S	3.0	286
2	114	3.0	81	3.3	64	3.4	45	3.3	150	SSW (192)	0.800	SW	2.0	294
4	124	3.5	97	3.6	73	3.7	49	3.4	142	SW (216)	0.596	NW	2.0	240
6	106	4.0	86	4.2	69	4.2	46	3.7	132	SW (223)	0.554	NNW	1.0	181
8	105	3.0	77	3.6	63	3.6	42	3.4	147	SW (224)	0.575	NNW	2.0	158
10	84	4.0	74	4.2	63	4.1	42	3.7	134	SSW (203)	0.534	WSW	1.0	153
12	88	4.5	77	4.0	61	4.1	39	3.8	129	SSW (209)	0.410	SW	1.0	150
14	81	3.5	66	4.3	54	4.2	36	3.9	129	SSW (210)	0.468	SW	2.0	119
16	106	4.0	73	4.1	59	4.2	39	3.8	129	SSW (204)	0.383	SW	2.0	86
18	81	3.5	67	3.5	50	3.5	33	3.3	148	SW (218)	0.635	SW	2.0	65
20	55	3.0	47	3.4	38	3.4	26	3.1	151	S (188)	0.549	SW	2.0	77
22	67	3.5	55	3.5	45	3.5	32	3.2	153	SSE (157)	0.827	SW	2.0	177
D.max.	124	3.5	97	3.6	73	3.7	49	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	90	3.5	71	3.7	57	3.7	38	3.4	3	(SSW)	0.592	SW	1.8	166

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (42) Wave Data

Date: 21th Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	78	3.0	60	3.4	47	3.4	31	3.1	154	S (182)	0.877	SW	2.0	267
2	71	3.5	60	3.5	48	3.4	32	3.1	150	S (177)	0.736	SW	2.0	287
4	60	3.5	53	3.2	43	3.2	29	3.1	155	SSE (159)	0.729	SW	1.0	263
6	55	3.0	45	3.2	38	3.3	26	3.1	155	S (174)	0.738	S	2.0	206
8	40	3.0	35	3.1	30	3.3	19	3.1	161	SE (145)	0.864	NE	0.0	156
10	37	3.5	32	3.4	26	3.5	17	3.3	148	SSW (202)	0.752	SSW	0.0	147
12	41	3.5	35	3.3	28	3.3	19	3.2	155	W (263)	0.736	WSW	2.0	151
14	53	3.0	42	3.0	34	3.0	22	2.8	171	SSW (196)	0.797	S	2.0	148
16	63	3.0	40	2.9	34	2.8	23	2.7	176	SSW (198)	0.647	S	4.0	110
18	51	3.0	46	3.0	38	3.0	25	2.8	163	SW (222)	0.832	S	4.0	78
20	61	2.5	46	2.6	37	2.7	25	2.7	170	SSW (198)	0.863	S	4.0	64
22	60	3.0	40	2.9	32	2.9	21	2.6	170	SE (138)	0.820	SSE	3.0	133
D.max.	78	3.0	60	3.4	48	3.4	32	3.1	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	56	3.1	45	3.1	36	3.1	24	3.0	3	(SSW)	0.783	S	2.2	168

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (43) Wave Data

Date: 22th Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	45	3.0	35	3.2	28	3.1	19	2.9	162	SE (141)	0.676	ESE	1.0	232
2	36	2.5	31	2.9	25	3.0	17	2.8	169	SSE (149)	0.716	SE	2.0	274
4	37	3.0	25	3.0	21	3.1	14	2.9	165	SSW (206)	0.758	E	0.0	257
6	36	3.5	31	3.3	24	3.3	16	3.1	142	SE (143)	0.455	ENE	2.0	207
8	31	3.5	27	3.1	22	2.8	16	2.7	145	N ( 5)	0.770	NE	2.0	150
10	33	3.5	22	3.4	18	3.5	12	3.1	146	SE (144)	0.535	SE	0.0	130
12	37	3.5	25	3.2	20	3.3	14	3.1	150	WSW (243)	0.879	SSW	2.0	148
14	44	2.5	32	2.6	26	2.8	18	2.7	166	SW (215)	0.708	SSW	2.0	161
16	70	3.0	57	3.2	46	3.2	32	3.1	153	W (267)	0.992	SSW	2.0	137
18	64	3.5	52	3.1	41	3.1	28	3.0	156	SSW (210)	0.739	SSW	2.0	99
20	54	3.0	40	3.2	32	3.0	22	2.8	161	SW (224)	0.585	SSW	2.0	77
22	42	2.5	34	2.7	28	2.7	19	2.7	163	SW (217)	0.747	SSW	2.0	122
D.max.	70	3.0	57	3.2	46	3.2	32	3.1	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	44	3.1	34	3.1	28	3.1	19	2.9	3	( SE)	0.713	SSW	1.6	166

[Note]  
W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (M) Wave Data

Date: 23th Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	37	2.0	30	2.5	24	2.8	16	2.7	168	SE (138)	0.907	S	3.0	193
2	37	2.5	27	2.9	21	3.0	14	2.7	170	SW (229)	0.709	S	2.0	253
4	28	2.5	22	2.9	19	2.9	13	2.8	157	SSW (192)	0.892	SE	0.0	254
6	32	2.5	23	2.8	20	2.7	14	2.6	157	SSW (202)	0.741	S	3.0	211
8	31	2.5	27	2.7	22	2.9	15	2.8	157	SSE (167)	0.735	SSE	2.0	152
10	36	3.0	24	2.6	19	2.6	13	2.6	174	SSW (202)	0.951	SSE	2.0	127
12	36	3.0	27	3.1	22	2.9	15	2.7	171	SSW (193)	0.861	SSW	2.0	138
14	32	2.5	28	2.5	23	2.6	16	2.5	173	SE (141)	0.586	SSW	2.0	168
16	72	2.5	50	2.7	39	2.7	26	2.6	177	SSE (155)	0.814	SSW	4.0	161
18	59	3.5	48	3.0	40	3.0	28	3.0	158	SE (144)	0.797	S	5.0	126
20	51	2.5	45	2.7	37	2.7	25	2.7	167	SE (145)	0.740	SSE	4.0	101
22	51	3.0	40	2.6	33	2.7	22	2.7	172	SSE (149)	0.822	SSE	4.0	125
D.max.	72	2.5	50	2.7	40	3.0	28	3.0	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	42	2.7	33	2.8	27	2.8	18	2.7	3	( SE)	0.796	S	2.8	167

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (45) Wave Data

Date: 24th Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	44	2.5	35	2.5	29	2.6	19	2.5	171	SSE (149)	0.811	SSE	3.4	178
2	46	3.0	37	2.8	29	2.8	19	2.7	165	SSE (148)	0.637	S	3.4	236
4	41	2.5	36	3.3	30	3.2	20	2.9	163	SSE (154)	0.320	S	3.0	246
6	49	4.5	37	3.4	30	3.1	21	2.9	161	SSE (151)	0.429	NE	0.0	206
8	53	3.0	40	3.1	33	3.0	22	2.7	165	SE (137)	0.781	E	0.0	140
10	46	2.5	32	2.9	26	2.9	17	2.7	173	SSE (158)	0.680	SSE	2.0	108
12	45	3.0	31	2.8	24	2.9	17	2.8	155	SE (135)	0.644	SSW	2.0	116
14	46	3.5	39	2.8	32	2.7	21	2.7	164	W (264)	0.735	SSW	2.0	162
16	50	2.5	42	2.5	34	2.7	23	2.7	175	SSE (149)	0.586	SSW	3.0	187
18	54	2.5	38	2.6	31	2.8	22	2.7	171	SSW (195)	0.928	SW	2.0	168
20	40	2.5	34	2.7	27	2.6	19	2.7	162	SSE (150)	0.722	S	4.0	147
22	41	2.5	32	2.6	26	2.7	18	2.6	178	SSE (167)	0.710	S	3.0	152
D.max.	54	2.5	42	2.5	34	2.7	23	2.7	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	46	2.9	36	2.8	29	2.8	20	2.7	3	(SSE)	0.665	S	2.3	171

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (46) Wave Data

Date: 25th Oct. 1988  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	37	3.0	31	2.7	25	2.8	18	2.6	177	SSE (166)	0.732	S	1.4	172
2	40	3.0	29	2.8	23	2.8	16	2.7	165	SSE (165)	0.775	S	2.0	205
4	31	2.5	25	3.3	21	3.3	15	3.0	157	SSE (154)	0.740	ESE	0.0	229
6	31	2.5	25	3.0	21	3.2	14	2.9	157	SSE (151)	0.613	E	0.0	197
8	33	3.0	26	2.9	22	3.0	15	2.8	171	SSE (160)	0.745	NE	0.0	128
10	34	3.0	26	2.8	21	3.0	15	2.9	168	S (178)	0.659	SSE	0.0	87
12	30	3.5	26	3.1	22	3.0	15	2.9	161	SSE (148)	0.739	SSW	1.0	80
14	46	2.5	37	3.1	31	3.0	21	2.8	158	SSE (161)	0.633	SW	2.0	140
16	56	3.5	47	3.1	38	3.1	25	2.9	161	S (184)	0.768	SSW	4.0	196
18	53	3.0	41	3.0	34	3.1	23	2.9	153	SSW (192)	0.547	S	4.0	208
20	42	2.5	37	2.8	32	3.0	22	2.9	155	SW (214)	0.683	S	4.0	197
22	44	3.0	33	3.3	27	3.2	19	2.9	160	SSW (209)	0.734	S	2.0	190
D.max.	56	3.5	47	3.1	38	3.1	25	2.9	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	40	2.9	32	3.0	26	3.0	18	2.8	3	(SSE)	0.697	S	1.7	169

[Note]

W.H : Wave Height  
W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table I. 3-1 (A) Wave Data

Date: 26th Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	49	3.0	28	2.9	24	3.0	17	3.0	151	SSW (213)	0.568	ENE	0.0	190
2	27	4.0	24	3.0	20	3.0	14	2.8	165	SW (235)	0.899	NE	1.0	190
4	31	3.0	24	3.1	19	3.1	13	2.9	162	SW (217)	0.686	NE	0.0	216
6	30	2.5	25	2.5	20	2.7	14	2.7	169	NNW (349)	0.752	NE	2.0	193
8	35	3.0	27	3.0	22	2.9	16	2.7	155	N (360)	0.798	NE	2.0	125
10	24	3.0	19	3.2	15	3.1	10	2.9	158	WSW (243)	0.957	SE	0.0	77
12	25	3.5	19	3.4	16	3.1	11	2.9	160	SW (221)	0.829	SW	1.0	57
14	56	3.0	44	2.8	35	2.9	24	2.7	165	SSE (158)	0.787	E	3.0	107
16	67	3.5	55	2.9	44	3.1	30	2.9	156	SE (140)	0.746	S	2.0	178
18	63	2.5	50	3.1	41	2.9	29	2.8	163	SE (145)	0.652	S	5.0	228
20	61	2.5	50	3.0	42	3.1	29	3.0	160	SE (141)	0.795	SSE	4.2	232
22	60	3.0	46	2.7	37	2.8	24	2.7	165	S (169)	0.873	SSE	4.2	226
D.max.	67	3.5	55	2.9	44	3.1	30	2.9	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	44	3.0	34	3.0	28	3.0	19	2.8	3	( SE)	0.778	NE	2.0	168

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (48) Wave Data

Date: 27th Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	56	3.0	45	2.6	37	2.8	25	2.7	170	SSE (156)	0.556	SSE	2.0	209
2	50	3.0	40	3.1	33	3.1	23	2.8	165	SSE (151)	0.876	SE	2.0	189
4	54	3.0	39	2.9	31	2.8	21	2.7	172	SSE (157)	0.541	ESE	0.0	188
6	54	3.0	40	3.2	31	3.3	21	3.0	154	S (171)	0.573	SE	0.0	184
8	42	3.5	36	3.8	30	3.7	20	3.4	139	SSE (166)	0.501	NE	0.0	128
10	35	3.0	28	3.5	22	3.5	14	3.2	154	SSE (156)	0.494	E	0.0	77
12	30	3.0	26	4.6	22	4.0	15	3.4	125	SSE (166)	0.780	SW	0.0	52
14	59	3.5	48	3.6	39	3.7	26	3.3	139	SSE (154)	0.369	SSW	2.0	68
16	82	3.5	67	3.8	57	3.6	37	3.2	148	SSE (149)	0.495	SSW	3.0	148
18	95	3.0	65	3.1	51	3.3	34	3.2	148	SE (142)	0.584	SSE	5.0	233
20	74	4.0	55	3.4	46	3.3	31	3.0	157	SSE (156)	0.447	SE	4.0	252
22	89	3.0	59	2.9	48	3.0	31	2.9	163	SSE (161)	0.481	ESE	1.0	251
D.max.	95	3.0	67	3.8	57	3.6	37	3.2	3	most D.W.D	mean	M.F.D	mean	
D.mean	60	3.2	46	3.4	37	3.3	25	3.1	3	(SSE)	0.558	SE	1.6	165

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table 1.3-1 (48) Wave Data

Date: 28th Oct. 1988  
St. : I

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	68	3.5	50	3.0	40	2.9	28	2.8	164	NNW (339)	0.637	ENE	0.0	229
2	59	4.5	49	3.7	40	3.5	28	3.1	148	SSE (157)	0.471	ESE	0.0	194
4	54	2.5	47	3.4	38	3.4	25	2.9	157	SSE (161)	0.853	NNE	1.0	179
6	56	4.5	42	4.0	34	4.2	23	3.6	134	SSE (165)	0.358	NNE	2.0	173
8	51	3.5	40	4.3	34	4.1	23	3.8	120	SSE (164)	0.301	NE	2.0	133
10	45	4.0	35	4.6	28	4.5	19	4.2	120	SSE (164)	0.280	NE	0.0	83
12	39	4.5	29	4.2	23	4.3	15	4.0	126	SSE (161)	0.328	S	1.0	53
14	42	3.5	34	4.1	27	4.2	18	3.7	127	SSE (148)	0.433	S	4.2	40
16	63	3.0	54	3.4	44	3.6	29	3.1	153	SSE (154)	0.448	SE	6.0	92
18	74	2.5	52	3.1	43	3.0	30	2.9	163	SSE (150)	0.438	E	2.0	182
20	68	3.0	52	2.8	40	2.9	27	2.8	165	SSE (148)	0.378	ESE	2.2	247
22	80	3.5	62	3.3	49	3.2	33	3.0	157	SSE (154)	0.364	SE	1.0	268
D.max.	80	3.5	62	3.3	49	3.2	33	3.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	58	3.5	46	3.7	37	3.6	25	3.3	3	(SSE)	0.441	S	1.8	156

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (50) Wave Data

Date: 29th Oct, 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	89	3.0	64	3.1	50	3.3	32	3.1	153	SSE (151)	0.386	NE	0.0	251
2	51	4.5	43	4.0	36	4.0	25	3.5	137	SSE (150)	0.475	NE	2.0	211
4	44	3.5	37	3.8	31	3.8	21	3.2	147	SSE (148)	0.445	NNE	2.0	177
6	56	4.0	43	3.9	32	4.1	21	3.6	138	SSE (154)	0.579	N	1.0	152
8	42	3.5	34	4.4	27	4.3	18	3.6	116	SSE (148)	0.330	NE	2.0	135
10	32	4.5	28	4.4	23	4.6	15	4.0	120	SSE (153)	0.328	NE	2.0	95
12	22	4.0	21	4.5	18	4.5	12	4.3	116	SSE (151)	0.387	S	2.0	61
14	37	2.0	26	3.0	22	3.0	15	2.6	155	SE (144)	0.507	SSE	5.0	45
16	46	2.5	40	2.9	32	3.0	22	2.8	167	SE (143)	0.428	S	4.0	52
18	51	3.0	42	3.4	34	3.3	23	3.0	153	SSE (152)	0.778	S	3.0	143
20	66	2.5	51	2.7	42	2.8	28	2.8	169	NNW (337)	0.569	NW	0.0	237
22	41	3.0	35	3.3	27	3.3	18	3.1	159	SE (144)	0.900	SE	2.0	276
D.max.	89	3.0	64	3.1	50	3.3	32	3.1	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	48	3.3	39	3.6	31	3.7	21	3.3	3	(SSE)	0.509	NE	2.1	153

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (5) Wave Data

Date: 30th Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	39	2.5	34	2.4	27	2.5	19	2.5	169	NNW (332)	0.675	NE	2.0	270
2	25	2.5	21	3.0	17	3.0	12	2.7	155	SE (146)	0.553	NE	1.0	235
4	46	2.0	36	2.4	28	2.4	19	2.4	184	NNW (327)	0.615	NE	2.2	180
6	37	2.0	25	2.2	20	2.3	13	2.3	150	NNW (338)	0.549	NNE	2.0	146
8	33	2.0	26	2.1	20	2.2	14	2.3	152	NW (318)	0.742	NNE	4.0	133
10	39	2.0	29	2.1	22	2.1	15	2.2	153	NNW (346)	0.812	NNE	3.0	108
12	19	2.0	13	2.5	10	2.4	7	2.5	124	N (357)	0.806	NE	2.0	75
14	9	4.5	8	4.1	6	3.9	4	3.4	132	SSE (166)	0.712	E	0.0	54
16	35	2.5	27	2.2	23	2.3	16	2.3	178	ESE (121)	0.647	SSE	3.4	41
18	28	2.0	20	2.3	16	2.4	12	2.4	152	SW (221)	0.807	SSE	2.2	96
20	14	4.0	12	3.6	10	3.4	6	3.0	144	SSE (160)	0.834	SSE	0.0	210
22	16	3.5	13	3.4	10	3.3	7	3.0	118	SW (215)	0.873	S	2.3	278
D.max.	46	2.0	36	2.4	28	2.4	19	2.5	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	28	2.6	22	2.7	17	2.7	12	2.6	3	(NNW)	0.719	NE	2.0	152

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (52) Wave Data

Date: 31th Oct. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	17	3.5	14	2.6	12	2.7	8	2.6	130	SE (138)	0.714	SSE	2.0	284
2	32	2.0	25	2.3	20	2.4	15	2.4	161	SSE (166)	0.892	SSE	2.0	258
4									0	SW (236)	0.430	WNW	2.0	214
6	78	3.0	70	3.5	58	3.4	39	3.1	151	SW (217)	0.455	N	1.0	163
8	71	3.0	60	3.5	50	3.4	33	3.1	156	SSW (208)	0.418	N	1.4	136
10	55	3.5	42	3.6	35	3.5	23	3.1	151	SSW (207)	0.545	NE	1.0	119
12	38	4.0	33	3.6	27	3.6	18	3.2	142	SSW (210)	0.453	NE	2.0	90
14	35	4.5	30	3.8	24	3.8	16	3.6	140	SSW (203)	0.558	ESE	0.0	66
16	30	4.0	26	3.8	22	3.7	15	3.4	145	S (183)	0.808	SW	1.0	49
18	31	4.0	25	3.5	21	3.5	15	3.0	149	SSE (152)	0.630	WSW	1.0	76
20	24	3.5	22	3.0	18	3.0	13	2.9	151	SSE (166)	0.825	SSW	2.0	180
22	24	3.0	21	2.9	17	3.0	11	2.9	157	SW (219)	0.843	W	1.0	270
D.max.	78	3.0	70	3.5	58	3.4	39	3.1	4	most D.W.D	mean	M.F.D	mean	
D.mean	40	3.5	33	3.3	28	3.3	19	3.0	3	(SSW)	0.631	N	1.4	159

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table L 3-1 (S) Wave Data

Date: 1st Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	22	3.5	18	2.8	14	2.9	10	2.7	145	WNW (296)	0.776	WNW	0.0	292
2	24	2.0	15	2.7	12	2.7	8	2.6	154	W (275)	0.713	NNW	0.0	266
4	19	3.0	14	2.8	12	2.8	8	2.6	165	E ( 93)	0.542	NE	2.0	212
6	30	2.0	21	2.3	17	2.4	12	2.5	159	ESE (119)	0.677	NE	2.0	166
8	18	2.5	15	2.6	12	2.5	8	2.5	141	E ( 90)	0.571	NNE	2.0	143
10	14	3.0	12	3.0	10	3.0	7	2.8	156	SW (233)	0.470	SSE	0.0	141
12	16	3.5	12	3.1	9	3.1	6	2.8	167	SW (218)	0.489	SSW	1.0	124
14	18	2.0	13	2.6	11	2.5	7	2.5	131	WSW (240)	0.825	SW	2.0	87
16	34	2.5	26	2.2	21	2.2	14	2.3	187	W (277)	0.876	SSW	2.3	66
18	36	2.5	25	2.2	20	2.2	13	2.3	181	SSW (203)	0.668	S	3.2	68
20	33	2.0	24	2.3	19	2.1	13	2.2	187	WSW (250)	0.915	SSW	2.0	153
22	29	2.0	24	2.1	19	2.2	13	2.3	170	WSW (239)	0.772	SSW	1.8	253
D.max.	36	2.5	26	2.2	21	2.2	14	2.3	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	24	2.5	18	2.6	15	2.5	10	2.5	3	(WSW)	0.691	SSW	1.5	164

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (5M) Wave Data

Date: 2nd Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	28	2.0	20	2.1	16	2.2	11	2.3	170	SW (236)	0.781	WSW	2.0	289
2	26	2.5	20	2.3	16	2.2	11	2.3	177	NW (320)	0.455	NNW	1.0	270
4	34	2.0	21	2.2	17	2.2	12	2.3	180	NNE ( 22)	0.914	NNW	1.8	225
6	38	2.0	30	2.3	24	2.4	16	2.3	162	WNW (302)	0.910	N	0.8	173
8	24	2.5	20	2.4	17	2.5	12	2.5	174	ENE ( 58)	0.710	N	1.8	138
10	28	2.0	23	2.3	18	2.4	12	2.5	166	NE ( 40)	0.680	N	2.0	133
12	24	3.0	17	2.5	15	2.5	10	2.6	185	SW (226)	0.773	S	2.0	138
14	29	2.5	23	2.4	18	2.4	12	2.5	181	SW (214)	0.579	SW	2.0	111
16	48	2.5	36	2.5	28	2.5	19	2.6	177	WSW (247)	0.813	SSW	2.0	81
18	45	2.5	36	2.5	29	2.5	20	2.5	186	SW (223)	0.678	SSW	3.2	71
20	50	2.5	42	2.7	35	2.7	23	2.6	177	SSW (208)	0.743	SSW	2.3	138
22	51	3.0	40	2.8	33	2.8	22	2.7	171	SW (225)	0.793	SSW	2.2	230
D.max.	51	3.0	42	2.7	35	2.7	23	2.6	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	35	2.4	27	2.4	22	2.4	15	2.5	2	( SW)	0.736	SSW	1.9	166

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (55) Wave Data

Date: 3rd Nov. 1988  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	49	3.0	37	2.8	28	2.7	19	2.7	170	SSW (205)	0.454	SSW	2.0	277
2	38	2.5	34	2.6	28	2.7	18	2.7	169	SW (216)	0.401	SW	2.0	270
4	36	2.5	29	2.5	22	2.8	15	2.7	168	SSW (214)	0.491	SW	1.8	229
6	43	3.0	34	2.7	27	2.6	18	2.6	172	NNE ( 30)	0.462	N	1.2	178
8	46	3.0	36	3.0	29	2.9	19	2.8	168	NE ( 36)	0.756	NE	2.0	142
10	63	2.5	47	2.9	36	2.9	24	2.8	156	SW (218)	0.833	W	0.0	133
12	54	3.0	39	2.8	31	2.7	22	2.7	169	SW (224)	0.687	WSW	3.0	145
14	64	2.5	55	2.9	44	2.9	29	2.8	167	SW (219)	0.828	WSW	3.0	135
16	75	3.5	61	3.2	50	3.1	34	3.0	160	W (270)	0.530	WSW	4.0	108
18	95	3.5	82	3.6	69	3.5	47	3.4	147	W (280)	0.584	WSW	2.2	96
20	124	3.5	93	3.8	73	3.8	50	3.4	146	W (274)	0.507	WSW	2.8	133
22	119	4.0	91	4.0	76	3.9	51	3.6	137	WNW (287)	0.514	WSW	3.0	212
D.max.	124	3.5	93	3.8	76	3.9	51	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	67	3.0	53	3.1	43	3.0	29	2.9	3	( SW)	0.587	WSW	2.3	172

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (56) Wave Data

Date: 4th Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel: (m/s)	
0	121	3.5	94	4.1	76	4.0	48	3.5	140	W (273)	0.768	WSW	2.3	270
2	107	4.0	87	4.2	70	4.1	46	3.6	136	MSW	0.698	WSW	2.2	274
4	91	3.5	81	3.8	63	3.8	41	3.3	148	W (261)	0.714	WSW	2.4	240
6	106	4.0	80	4.1	64	4.1	43	3.6	135	W (265)	0.518	NE	2.2	187
8	74	4.5	63	3.8	54	3.7	38	3.5	141	W (263)	0.623	NE	2.2	140
10	94	3.5	69	3.9	55	3.9	36	3.5	141	W (265)	0.589	WSW	2.0	124
12	86	3.0	68	3.6	55	3.5	37	3.1	157	W (268)	0.408	WSW	4.2	153
14	113	3.5	84	3.6	66	3.6	43	3.3	148	W (273)	0.664	SW	4.0	164
16	96	3.5	86	3.8	75	3.8	50	3.5	140	W (277)	0.512	SW	4.0	143
18	100	3.5	83	3.7	68	3.9	46	3.4	141	W (274)	0.460	SW	2.0	121
20	100	3.5	83	3.7	67	3.7	45	3.5	142	W (264)	0.528	SW	3.0	136
22	100	4.0	83	3.7	65	3.6	41	3.2	149	W (263)	0.518	WSW	2.2	196
D.max.	121	3.5	94	4.1	76	4.0	50	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	99	3.7	80	3.8	65	3.8	43	3.4	3	( W )	0.583	WSW	2.7	179

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table 1. 3-1 (57) Wave Data

Date: 5th Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	101	4.0	71	4.1	58	4.0	39	3.5	141	W (262)	0.659	WSW	3.0	249
2	97	4.5	81	4.0	64	4.0	43	3.4	144	W (270)	0.731	SW	2.0	260
4	114	4.0	77	3.8	61	3.7	41	3.4	148	W (275)	0.726	WSW	2.4	234
6	87	3.5	72	3.8	59	3.7	40	3.4	145	W (270)	0.671	NW	2.0	187
8	194	7.5	103	4.2	77	4.0	50	3.5	139	W (269)	0.521	NW	2.0	144
10	111	4.0	91	3.8	72	3.8	47	3.6	137	W (267)	0.579	NNW	2.4	126
12	105	3.0	88	3.5	70	3.6	46	3.5	138	W (268)	0.665	W	2.0	143
14	95	4.0	77	3.9	60	4.0	40	3.5	139	W (263)	0.685	SW	2.0	167
16	113	3.5	83	3.9	67	4.0	46	3.5	138	W (271)	0.493	W	3.0	165
18	117	3.5	95	4.0	78	4.0	53	3.7	135	W (274)	0.514	W	2.2	147
20	135	4.5	100	4.2	80	4.1	53	3.8	130	W (270)	0.487	SSW	2.0	140
22	110	3.5	90	3.9	73	3.9	46	3.6	137	WSW (257)	0.648	SW	2.0	181
D.max.	194	7.5	103	4.2	80	4.1	53	3.7	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	115	4.1	86	3.9	68	3.9	45	3.5	4	( W )	0.615	SW	2.2	179

[Note]  
W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (38) Wave Data

Date: 6th Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	104	4.0	85	3.9	70	3.9	46	3.5	136	WNW (288)	0.670	SW	2.0	225
2	121	4.5	96	4.4	78	4.1	51	3.6	135	W (267)	0.654	SW	2.2	246
4	191	4.0	126	4.2	98	4.2	62	3.8	133	W (265)	0.802	WSW	2.0	226
6	132	5.0	113	4.1	91	4.2	59	3.8	132	W (279)	0.585	WSW	2.3	185
8	135	4.0	119	4.0	100	4.2	64	3.7	133	WSW (254)	0.543	WSW	2.9	148
10	175	4.5	151	4.6	121	4.7	79	4.1	124	WSW (255)	0.670	SSW	5.2	135
12	159	4.0	127	4.6	106	4.5	70	4.0	125	W (260)	0.563	SSW	4.0	141
14	130	4.5	118	4.4	97	4.6	65	4.0	124	WSW (241)	0.610	SW	2.0	165
16	120	4.0	100	4.5	80	4.4	51	3.8	131	WSW (250)	0.548	SW	1.3	186
18	144	4.5	107	4.5	86	4.3	56	3.9	129	SW (224)	0.675	SW	2.0	176
20	122	4.0	83	4.4	66	4.3	43	3.5	141	WSW (242)	0.741	SW	2.0	169
22	80	3.5	68	4.0	56	4.1	38	3.7	135	WSW (249)	0.506	SW	2.1	187
D.max.	191	4.0	151	4.6	121	4.7	79	4.1	4	most D.W.D	mean	M.P.D	mean	mean
D.mean	134	4.2	108	4.3	87	4.3	57	3.8	4	(WSW)	0.631	SW	2.5	182

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table I. 3-1 (59) Wave Data

Date: 7th Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	93	4.0	76	4.2	61	4.2	41	3.9	130	SW (229)	0.530	N	2.0	213
2	104	4.0	66	4.6	53	4.5	35	3.8	132	SW (235)	0.513	NNW	1.0	224
4	87	4.0	68	4.6	56	4.5	37	3.8	131	SW (222)	0.410	NNW	2.0	214
6	82	4.5	70	4.9	53	4.7	35	4.2	117	SW (220)	0.611	NNE	2.0	170
8	63	5.0	51	4.8	40	4.7	26	3.9	126	SW (219)	0.610	NE	2.0	126
10	64	4.5	43	4.5	36	4.5	24	4.2	118	SW (219)	0.475	NE	2.0	103
12	45	5.0	39	4.8	32	4.5	21	4.1	122	SSW (204)	0.761	S	2.0	115
14	51	5.0	44	4.4	34	4.6	23	4.3	117	WSW (236)	0.694	S	2.0	152
16	54	3.5	41	4.3	33	4.3	21	3.9	126	SW (229)	0.668	S	2.2	185
18	44	4.5	35	4.3	28	4.2	19	3.8	128	SW (219)	0.386	SSW	3.0	188
20	48	5.0	41	5.0	33	4.8	21	4.0	126	SW (219)	0.508	W	2.0	181
22	40	5.5	36	4.8	30	4.6	20	3.9	125	SSW (213)	0.379	SSW	4.2	193
D.max.	104	4.0	76	4.2	61	4.2	41	3.9	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	65	4.5	51	4.6	41	4.5	27	4.0	4	( SW)	0.545	S	2.2	172

(Note)

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (M) Wave Data

Date: 8th Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	56	4.5	44	4.7	34	5.0	22	4.1	118	SW (217)	0.532	SE	1.0	199
2	41	4.5	34	4.5	27	4.4	17	3.9	128	SW (222)	0.498	NE	2.0	206
4	36	5.0	31	4.4	24	4.5	16	3.8	126	WSW (243)	0.595	NNW	1.9	201
6	39	4.0	33	4.5	26	4.5	17	4.1	121	WSW (238)	0.674	NE	2.0	164
8	41	4.5	33	4.7	28	4.6	18	3.9	122	WSW (251)	0.571	NE	1.8	116
10	36	5.5	31	4.5	26	4.4	16	3.7	121	SW (220)	0.585	SSE	2.0	87
12	43	5.0	40	4.5	31	4.3	22	3.6	129	SW (235)	0.906	S	2.4	88
14	46	4.0	37	3.9	29	3.9	20	3.5	138	WSW (244)	0.878	SW	2.0	144
16	44	4.0	38	3.9	31	3.7	21	3.1	148	S (191)	0.786	S	3.9	195
18	54	3.0	34	3.3	27	3.4	19	3.0	150	SW (226)	0.674	S	4.0	204
20	37	2.5	29	3.3	23	3.2	16	2.8	156	SSW (210)	0.598	S	4.0	201
22	46	3.0	34	3.0	28	2.9	19	2.8	166	SW (222)	0.643	S	3.1	207
D.max.	56	4.5	44	4.7	34	5.0	22	4.1	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	43	4.1	35	4.1	28	4.1	19	3.5	4	( SW)	0.662	S	2.5	168

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table I. 3-1 (6I) Wave Data

Date: 9th Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	43	3.0	34	3.7	26	3.3	18	2.9	156	SSW (213)	0.602	SE	2.0	209
2	39	3.0	31	3.6	25	3.3	17	3.0	142	SW (217)	0.591	SSE	3.0	203
4	51	3.5	41	3.3	32	3.2	22	2.9	156	SW (216)	0.584	ESE	2.0	190
6	45	2.5	38	2.7	32	2.9	22	2.9	154	WSW (237)	0.613	NNW	2.0	155
8	62	3.5	49	3.3	39	3.3	26	3.1	152	SW (218)	0.580	WSW	2.0	105
10	46	3.5	38	3.4	31	3.5	21	3.2	151	SW (230)	0.524	SW	2.8	72
12	69	3.0	49	3.0	40	3.1	27	2.8	166	SSW (204)	0.867	WSW	2.0	78
14	39	3.0	32	3.1	26	3.2	17	2.9	159	SW (232)	0.907	WSW	1.8	134
16	29	3.5	25	3.4	21	3.4	15	3.0	141	WSW (239)	0.667	WSW	2.0	195
18	31	3.5	26	3.3	21	3.4	14	3.1	145	WSW (244)	0.619	W	2.0	225
20	35	3.5	30	3.4	25	3.3	17	2.8	157	W (262)	0.641	SW	1.0	232
22	41	2.5	35	2.9	29	2.8	21	2.7	166	WSW (247)	0.654	S	5.0	231
D.max.	69	3.0	49	3.3	40	3.1	27	2.8	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	44	3.2	36	3.3	29	3.2	20	2.9	3	( SW)	0.654	WSW	2.3	169

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (62) Wave Data

Date: 10th Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	30	2.5	26	3.1	22	3.1	15	3.0	160	SW (235)	0.500	NNW	2.0	200
2	36	3.0	31	3.1	25	3.2	17	3.0	159	SW (216)	0.542	NNW	2.0	183
4	52	3.0	43	2.9	35	3.0	24	2.9	167	WSW (250)	0.687	NNW	2.1	178
6	44	3.5	34	3.1	28	3.2	19	2.8	156	WSW (239)	0.687	NNW	1.9	150
8	34	3.0	28	3.4	22	3.8	15	3.3	146	SW (226)	0.532	ENE	0.2	100
10	47	2.5	32	2.6	27	3.0	18	2.8	160	WSW (240)	0.656	SE	0.9	68
12	42	3.5	35	3.2	28	3.1	18	2.9	160	SW (221)	0.640	S	1.0	65
14	29	4.5	24	3.3	19	3.2	13	2.9	156	( )		S	2.0	116
16	28	4.0	23	3.4	19	3.6	13	3.3	151	SW (221)	0.718	S	2.2	183
18	28	4.0	24	3.6	20	3.6	14	3.3	144	SSW (213)	0.722	S	2.4	240
20	37	3.0	30	2.7	25	2.8	17	2.7	161	NE ( 45)	0.783	SE	2.0	247
22	51	2.5	35	2.9	28	2.6	20	2.6	168	NNE ( 33)	0.897	ESE	2.0	242
D.max.	52	3.0	43	2.9	35	3.0	24	2.9	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	38	3.3	30	3.1	25	3.2	17	3.0	3	( SW)	0.669	S	1.7	164

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (B) Wave Data

Date: 11th Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	45	2.0	32	2.6	25	2.7	17	2.5	166	NNE (31)	0.675	NE	1.0	224
2	23	3.0	19	3.1	15	2.9	11	2.6	158	NE (39)	0.588	N	2.0	190
4	24	4.5	20	3.1	16	3.0	11	2.7	134	SW (221)	0.768	N	1.0	168
6	24	4.0	20	3.9	16	3.6	11	3.0	111	SSW (213)	0.586	N	0.9	145
8	23	4.0	19	4.4	15	4.0	10	3.2	107	SW (218)	0.449	N	2.0	105
10	26	5.5	19	4.1	16	3.5	11	2.9	151	SSW (214)	0.904	NE	2.0	68
12	18	3.0	13	4.4	11	3.8	7	3.2	129	SW (216)	0.635	NE	1.9	52
14	18	5.0	16	5.0	13	4.6	8	3.9	124	S (169)	0.857	SSW	2.0	80
16	35	2.5	25	3.8	19	3.6	12	3.0	97	SW (227)	0.925	SSE	4.8	163
18	54	3.5	43	3.1	36	3.2	26	2.9	156	S (191)	0.851	SSE	3.0	235
20	45	3.0	27	2.9	22	2.9	15	2.8	167	WSW (242)	0.805	WNW	1.0	254
22	35	3.0	31	3.3	26	3.2	17	3.1	158	WSW (252)	0.934	ESE	2.0	259
D.max.	54	3.5	43	3.1	36	3.2	26	2.9	4	most D.W.D	mean	M.F.D	mean	
D.mean	31	3.6	24	3.6	19	3.4	13	3.0	3	( SW)	0.748	N	2.0	162

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (6M) Wave Data

Date: 12th Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	37	2.5	32	3.1	27	3.0	19	2.8	158	SSE (167)	0.861	SSE	2.0	242
2	34	2.0	29	2.8	23	2.8	16	2.8	167	SW (225)	0.930	SSE	2.0	201
4	30	3.0	24	3.2	19	3.1	13	2.9	158	S (175)	0.671	E	1.0	177
6	30	3.0	24	3.3	20	3.2	14	3.0	143	S (171)	0.644	NE	1.0	153
8	31	2.0	27	2.6	23	2.6	16	2.4	135	N (11)	0.460	NNE	2.0	109
10	40	2.0	35	2.3	29	2.3	20	2.3	168	NNW (333)	0.688	NNE	2.0	74
12	43	2.5	34	2.1	27	2.3	19	2.3	172	NE (37)	0.537	NNE	2.0	53
14	26	4.0	23	2.8	18	2.8	13	2.6	164	NE (44)	0.839	N	2.0	51
16	20	2.5	15	2.8	13	3.0	9	2.7	159	WSW (252)	0.601	N	2.0	124
18	24	2.5	20	2.5	16	2.7	11	2.6	147	N (352)	0.902	NE	2.0	211
20	78	3.0	56	2.6	46	2.6	30	2.6	180	NE (43)	0.819	NW	2.0	260
22	102	4.0	79	4.0	63	4.0	43	3.6	136	WSW (254)	0.396	NNW	2.0	267
D.max.	102	4.0	79	4.0	63	4.0	43	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	41	2.8	33	2.8	27	2.9	19	2.7	3	( NE)	0.696	NNE	1.8	160

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table I. 3-1 (65) Wave Data

Date: 13th Nov. 1988  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	54	3.5	51	4.0	44	3.8	31	3.5	138	WSW (243)	0.537	NNW	2.0	244
2	65	2.5	50	3.6	39	3.7	27	3.2	143	WSW (236)	0.480	NNW	2.0	215
4	61	3.0	49	2.9	39	3.0	27	2.8	165	SW (229)	0.378	N	2.0	188
6	49	3.0	40	2.9	34	3.0	23	2.8	157	SW (229)	0.456	N	2.0	158
8	44	3.5	35	2.9	30	3.0	21	2.9	153	SW (225)	0.530	N	2.0	120
10	43	3.5	35	3.1	29	3.2	20	2.9	155	SW (223)	0.664	N	2.0	81
12	55	3.5	41	3.5	32	3.3	21	3.0	156	SW (215)	0.496	W	2.0	59
14	53	3.0	44	3.4	36	3.4	24	3.1	150	SW (220)	0.591	WSW	1.0	50
16	90	3.0	65	3.3	51	3.4	34	3.2	154	WSW (249)	0.594	SSW	2.0	92
18	72	3.5	56	3.8	47	3.8	31	3.3	147	SW (231)	0.699	S	2.0	187
20	55	3.0	48	3.8	39	3.8	26	3.5	144	SW (236)	0.620	SSE	2.0	251
22	55	4.0	47	4.3	38	4.1	25	3.5	136	WSW (239)	0.582	NNE	2.0	281
D.max.	90	3.0	65	3.3	51	3.4	34	3.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	58	3.3	47	3.5	38	3.5	26	3.1	3	( SW)	0.552	N	1.9	161

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (66) Wave Data

Date: 14th Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	52	5.0	46	4.4	37	4.3	24	3.8	129	SW (216)	0.515	NNE	2.0	265
2	54	4.5	48	3.9	39	3.6	27	3.0	151	SW (218)	0.499	NNE	2.0	222
4	68	5.5	44	3.7	36	3.5	25	2.9	158	SW (217)	0.509	NNE	2.0	188
6	55	4.0	47	3.4	37	3.2	26	2.8	165	SSW (210)	0.394	NNE	2.0	167
8	54	3.5	41	4.0	35	3.6	24	3.0	147	SSW (208)	0.543	NNE	2.0	139
10	45	2.0	36	3.2	29	2.9	21	2.7	151	NE (41)	0.739	NNE	2.0	96
12	41	5.5	34	4.8	27	3.9	18	3.1	126	SSW (212)	0.583	NNE	2.0	67
14	41	5.5	31	6.2	24	5.6	16	4.0	111	SSW (205)	0.377	NE	2.0	53
16	29	5.5	25	5.5	19	5.3	12	4.1	111	SSW (200)	0.538	ENE	2.0	60
18	25	5.0	23	5.6	20	5.5	13	4.9	100	SSW (210)	0.668	ESE	2.0	148
20	29	5.0	25	5.0	21	5.3	14	4.7	106	SW (224)	0.525	SE	2.0	248
22	50	3.5	39	4.1	30	4.0	20	3.5	142	SW (219)	0.616	NE	2.0	283
D.max.	68	5.5	48	3.9	39	3.6	27	3.0	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	45	4.5	37	4.5	30	4.2	20	3.5	4	(SSW)	0.542	NNE	2.0	161

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (67) Wave Data

Date: 15th Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	55	4.0	45	4.2	37	4.0	25	3.6	141	SSW (211)	0.503	ESE	2.0	284
2	43	5.0	35	4.4	30	4.1	20	3.5	141	SW (215)	0.407	NNW	2.0	246
4	70	3.5	54	3.0	45	3.0	31	2.9	165	SW (236)	0.607	N	2.0	203
6	55	2.5	43	3.0	35	2.6	24	2.7	162	NE ( 36)	0.369	NE	2.0	168
8	46	2.5	36	2.8	30	2.8	21	2.6	159	NNE ( 33)	0.593	NE	2.0	142
10	55	2.0	39	2.3	31	2.4	21	2.4	160	NNE ( 27)	0.388	NNE	2.0	109
12	39	4.5	30	2.5	25	2.4	17	2.4	154	NNE ( 29)	0.735	NNE	2.0	79
14	38	3.0	31	3.0	25	2.8	17	2.6	146	NE ( 43)	0.473	NNE	1.0	61
16	26	4.0	22	4.8	18	4.5	11	3.4	131	SSW (202)	0.450	N	1.0	56
18	41	5.0	23	5.1	18	5.1	11	4.3	113	SSW (203)	0.766	NNE	0.0	123
20	24	5.0	20	5.0	16	5.1	10	4.6	109	S (182)	0.587	NE	0.1	237
22	46	2.5	37	2.4	29	2.5	20	2.7	162	NE ( 46)	0.799	NE	2.0	278
D.max.	70	3.5	54	3.0	45	3.0	31	2.9	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	45	3.6	35	3.5	28	3.4	19	3.1	3	(NNE)	0.556	NNE	1.5	166

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (ES) Wave Data

Date: 16th Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	52	4.5	37	3.8	29	3.3	20	2.9	155	SW (218)	0.462	NE	0.3	280
2	34	5.0	26	4.4	21	3.9	15	3.2	136	SSW (210)	0.489	NE	0.2	245
4	26	5.0	24	4.8	20	4.9	13	4.3	107	SSW (211)	0.510	NE	0.2	209
6	60	2.0	51	2.9	42	3.0	30	2.8	164	SW (216)	0.421	NNW	2.0	165
8	65	5.0	53	4.6	43	4.5	29	3.9	128	SW (216)	0.468	NNW	2.0	145
10	54	4.5	39	5.2	33	5.0	21	4.0	122	SW (219)	0.503	ENE	1.0	145
12	39	5.0	27	5.1	23	4.9	15	4.0	120	SSW (202)	0.537	ENE	0.1	100
14	31	4.5	29	5.3	23	5.4	15	4.8	104	SSW (214)	0.575	NE	0.8	71
16	38	5.0	31	5.3	25	5.3	17	4.6	108	SSW (208)	0.503	S	2.1	60
18	46	5.0	40	5.0	32	4.9	21	4.0	117	SSW (205)	0.612	SSW	2.0	82
20	51	4.0	44	4.6	36	4.4	23	3.5	132	SSW (208)	0.861	SSW	3.0	198
22	53	5.5	46	4.8	36	4.5	25	3.8	128	SW (221)	0.725	S	3.8	280
D.max.	65	5.0	53	4.6	43	4.5	30	2.8	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	46	4.6	37	4.6	30	4.5	20	3.8	4	(SSW)	0.555	NE	1.5	165

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (B) Wave Data

Date: 17th Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	59	5.0	51	4.8	42	4.9	27	3.9	121	SW (220)	0.531	S	3.2	294
2	57	4.5	47	4.8	40	4.8	26	4.0	123	SSW (195)	0.467	SW	3.0	268
4	64	5.5	48	4.5	39	4.2	26	3.4	136	SW (215)	0.365	NNW	0.9	209
6	114	4.0	87	4.0	66	4.1	44	3.6	138	SW (230)	0.436	W	2.0	190
8	96	3.5	79	3.8	64	3.7	44	3.6	135	SW (230)	0.438	W	2.1	136
10	114	4.5	91	4.2	71	4.2	46	3.7	136	SSW (210)	0.387	WSW	2.0	129
12	97	4.0	68	4.3	56	4.1	38	3.7	134	SW (215)	0.401	NW	2.0	131
14	70	5.0	54	4.1	46	4.1	32	3.5	134	SW (216)	0.300	SW	1.0	105
16	72	4.5	55	4.4	45	4.2	31	3.7	135	SSW (213)	0.367	SW	2.2	74
18	74	3.5	59	4.2	46	4.2	30	3.7	135	SSW (210)	0.533	WSW	2.0	70
20	59	4.0	50	4.3	41	4.1	28	3.5	139	SW (216)	0.732	WNW	2.0	168
22	95	4.0	82	3.6	67	3.8	47	3.5	138	SW (234)	0.506	WNW	2.0	269
D.max.	114	4.0	91	4.2	71	4.2	47	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	81	4.3	64	4.3	52	4.2	35	3.6	4	( SW)	0.455	SW	2.0	170

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table J. 3-1 (70) Wave Data

Date: 18th Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	144	4.0	122	4.0	98	4.0	64	3.7	133	SSW (202)	0.632	WSW	5.0	315
2	165	5.0	127	4.8	103	4.7	68	4.1	124	SW (233)	0.393	SW	2.1	275
4	142	3.5	120	4.2	93	4.2	60	3.7	136	SW (220)	0.557	WNW	1.0	228
6	135	5.0	103	4.2	83	4.1	54	3.6	133	SW (225)	0.579	WNW	2.9	174
8	130	3.5	103	4.5	82	4.1	56	3.8	132	SW (226)	0.416	WSW	5.0	168
10	107	4.5	97	4.3	81	4.3	56	3.8	130	SW (228)	0.342	W	5.0	153
12	125	4.5	98	4.7	78	4.6	51	4.1	122	SW (225)	0.373	WSW	3.0	170
14	112	4.0	100	4.4	82	4.2	54	3.7	136	SW (225)	0.562	WSW	4.2	160
16	222	4.0	162	4.7	130	4.9	85	4.3	117	SSW (209)	0.333	WSW	3.0	159
18	157	5.0	139	4.8	111	4.7	75	4.2	119	SW (215)	0.397	SW	4.0	114
20	134	4.0	121	4.5	104	4.7	71	4.2	120	SSW (212)	0.351	SSW	4.0	134
22	116	4.5	91	5.0	77	4.6	53	4.2	121	SW (214)	0.564	WSW	1.0	232
D.max.	222	4.0	162	4.7	130	4.9	85	4.3	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	141	4.3	115	4.5	94	4.4	62	3.9	4	( SW)	0.458	WSW	3.3	190

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (71) Wave Data

Date: 19th Nov. 1988  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	140	5.0	120	4.5	99	4.5	68	4.1	122	SW (221)	0.419	WSW	4.2	301
2	174	4.5	146	4.7	119	4.9	75	4.3	118	SW (214)	0.525	WSW	4.2	288
4	171	4.5	138	4.7	115	4.8	75	4.3	116	SW (228)	0.481	W	2.1	245
6	142	4.5	116	4.5	97	4.5	64	4.0	124	SW (235)	0.487	N	2.0	187
8	134	4.5	113	4.9	87	4.9	55	4.5	111	SW (225)	0.349	N	2.1	154
10	110	4.0	91	4.8	74	4.6	49	3.9	127	SW (226)	0.385	NNW	1.0	158
12	125	4.5	98	4.4	83	4.3	57	3.8	129	SW (223)	0.428	W	4.0	178
14	145	4.0	111	4.2	87	4.4	56	3.8	129	SW (216)	0.493	WSW	4.3	180
16	125	4.5	100	4.4	78	4.1	53	3.6	139	SSW (209)	0.516	SW	2.1	144
18	106	4.0	97	4.3	81	4.1	54	3.5	138	SSW (198)	0.518	SE	2.2	112
20	99	5.0	79	4.2	64	4.3	42	3.9	127	SSW (197)	0.438	SE	1.0	138
22	103	4.0	76	4.4	60	4.5	39	3.9	129	SSW (200)	0.488	ENE	0.2	203
D.max.	174	4.5	146	4.7	119	4.9	75	4.3	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	131	4.4	107	4.5	87	4.5	57	4.0	4	( SW)	0.461	WSW	2.4	191

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (72) Wave Data

Date: 20th Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	80	4.5	66	4.8	54	4.8	36	4.1	118	SSW (209)	0.379	NNW	2.0	260
2	77	4.0	56	4.9	45	4.6	31	3.8	123	SSW (207)	0.541	N	1.0	271
4	72	4.5	53	5.3	42	5.0	27	4.2	115	SSW (206)	0.534	N	2.0	231
6	59	5.5	48	5.2	40	5.3	27	4.2	112	SSW (202)	0.477	NNE	2.4	170
8	65	5.0	54	5.6	43	5.4	28	4.4	109	SSW (200)	0.432	NNE	2.2	122
10	60	5.5	43	5.0	32	5.1	21	4.2	112	S (190)	0.557	NE	2.0	113
12	40	5.0	34	5.1	28	5.5	19	4.9	99	SSW (206)	0.523	NE	2.0	153
14	38	4.5	33	5.4	26	5.6	17	5.1	97	SSW (205)	0.385	SSW	1.9	176
16	39	5.5	34	5.2	27	5.3	16	4.4	111	SW (218)	0.462	SW	2.0	156
18	32	4.5	29	4.9	25	5.1	16	4.5	110	SSW (210)	0.426	WSW	0.4	135
20	41	4.5	34	4.7	26	4.9	17	3.9	121	SW (218)	0.395	NNW	1.0	156
22	47	4.0	40	4.6	32	4.2	21	3.4	139	SW (217)	0.624	WNW	0.4	205
D.max.	80	4.5	66	4.8	54	4.8	36	4.1	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	54	4.8	44	5.1	35	5.1	23	4.3	4	(SSW)	0.478	NNW	1.6	179

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table I. 3-1 (73) Wave Data

Date: 21th Nov. 1988  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	51	4.5	40	4.3	32	4.2	22	3.6	132	SW (222)	0.557	WNW	1.0	246
2	50	4.5	40	3.8	32	3.7	21	3.3	143	SW (219)	0.456	NW	0.2	260
4	39	3.5	33	3.9	26	3.9	18	3.6	132	SW (229)	0.801	N	0.0	230
6	40	5.0	35	4.7	30	4.5	20	3.9	125	SW (223)	0.772	NNE	2.0	156
8	39	4.0	30	4.2	25	4.0	17	3.4	131	WSW (244)	0.614	NNE	2.0	104
10	31	4.5	25	4.1	20	3.9	13	3.2	135	SW (219)	0.794	NE	0.9	84
12	30	5.0	25	4.5	20	4.4	13	3.9	125	SW (217)	0.712	ENE	0.0	139
14	43	4.0	28	4.6	23	4.5	15	4.1	123	WSW (250)	0.712	SW	1.8	191
16	35	3.5	29	3.9	23	4.2	16	3.5	129	SW (217)	0.614	SW	1.9	198
18	44	4.5	34	4.0	27	3.8	19	3.2	139	SW (225)	0.441	SSW	2.5	183
20	46	2.5	32	3.3	27	3.3	19	3.1	149	SW (223)	0.449	SSW	2.0	191
22	33	2.5	28	4.4	24	4.0	16	3.4	137	SW (224)	0.510	S	1.0	214
D.max.	51	4.5	40	4.3	32	4.2	22	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	40	4.0	32	4.1	26	4.0	17	3.5	4	( SW)	0.619	SSW	1.3	183

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1.3-1 (71) Wave Data

Date: 22th Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	32	4.5	29	4.7	22	4.5	15	3.5	134	SW (230)	0.448	ENE	0.0	228
2	28	5.0	24	4.4	19	4.3	13	3.5	131	SW (216)	0.457	NNE	1.0	239
4	28	4.0	22	4.5	18	4.5	12	3.7	127	SW (221)	0.588	NNE	0.6	214
6	26	5.0	20	5.1	16	4.8	11	4.2	119	SW (222)	0.586	NE	2.0	147
8	25	4.5	20	4.7	16	4.7	10	4.0	127	SSW (208)	0.621	NE	2.0	95
10	24	5.0	20	4.8	16	5.0	11	4.5	110	SW (223)	0.954	NE	1.0	69
12	23	4.5	20	4.9	16	4.8	10	4.2	119	SSW (204)	0.841	SSW	1.0	110
14	35	4.5	27	4.3	21	4.3	14	3.8	120	SSW (204)	0.740	SSW	1.0	194
16	31	5.0	27	4.5	23	4.2	16	3.4	130	SSW (199)	0.651	SSE	2.0	220
18	31	4.5	26	4.4	21	3.8	14	3.2	140	SW (229)	0.433	SSE	2.0	219
20	34	4.5	27	4.1	22	4.5	14	3.5	134	S (182)	0.563	ENE	0.0	228
22	39	5.0	27	4.1	22	4.0	15	3.3	141	SSW (192)	0.523	NE	2.2	234
D.max.	39	5.0	29	4.7	23	4.2	16	3.4	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	30	4.7	24	4.5	19	4.4	13	3.7	4	( SW )	0.617	NE	1.2	183

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (75) Wave Data

Date: 23th Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	64	2.0	38	2.4	31	2.6	22	2.6	165	N ( 5)	0.603	NW	2.0	230
2	56	2.5	43	3.0	35	3.0	24	2.9	157	SSW (205)	0.620	W	2.0	227
4	50	3.5	43	3.6	36	3.4	24	3.0	157	SSW (210)	0.398	NW	0.3	213
6	67	2.5	55	2.8	45	2.9	31	2.8	169	SW (229)	0.661	NW	1.0	158
8	66	3.0	47	3.5	39	3.6	26	3.3	150	SSW (208)	0.436	NW	2.0	93
10	62	4.5	44	4.7	35	4.5	23	3.7	132	SSW (204)	0.374	NE	1.0	66
12	45	5.5	37	4.7	29	4.4	20	4.0	124	SSW (204)	0.597	N	2.5	60
14	47	4.5	41	4.3	34	4.3	22	3.6	132	SSW (213)	0.701	NE	2.0	145
16	53	4.0	41	4.1	32	4.0	22	3.4	138	WSW (237)	0.687	W	0.3	229
18	42	4.0	39	4.2	31	4.2	21	3.5	136	SSW (212)	0.502	WNW	0.0	243
20	40	4.0	32	4.2	25	4.1	17	3.7	134	SSW (203)	0.457	S	0.0	252
22	53	4.0	42	4.3	36	3.9	24	3.5	130	SSW (210)	0.406	NE	0.0	252
D.max.	67	2.5	55	2.8	45	2.9	31	2.8	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	54	3.7	42	3.8	34	3.7	23	3.3	3	(SSW)	0.537	NW	1.1	181

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (76) Wave Data

Date: 24th Nov. 1988  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	51	4.0	39	3.9	32	3.5	23	3.1	146	SW (227)	0.476	WSW	2.3	239
2	88	4.0	74	3.7	59	3.7	39	3.3	149	SW (216)	0.494	NNE	2.1	211
4	85	4.0	63	3.8	50	4.1	33	3.5	134	SW (221)	0.401	N	1.0	192
6	68	3.5	53	3.6	43	3.6	30	3.1	146	SW (217)	0.385	N	2.0	157
8	81	4.0	56	3.7	45	3.5	31	3.3	139	SSW (194)	0.499	NNE	2.1	99
10										( )		NE	2.0	68
12	54	4.0	42	3.8	34	3.8	22	3.5	140	SSE (158)	0.477	NE	2.0	56
14	56	4.5	41	4.2	32	4.2	21	3.7	133	SSE (158)	0.617	ENE	2.0	103
16	45	3.5	38	4.1	30	4.1	19	3.6	138	SSE (150)	0.635	S	2.0	217
18	100	4.5	74	4.2	60	4.0	40	3.6	137	SSE (153)	0.356	SW	2.0	264
20	112	3.5	83	4.5	66	4.3	42	3.7	129	SSE (152)	0.397	NNW	0.1	269
22	105	4.5	80	4.7	66	4.4	43	3.8	127	SSE (162)	0.442	N	1.0	261
D.max.	112	3.5	83	4.5	66	4.3	43	3.8	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	77	4.0	58	4.0	47	3.9	31	3.5	3	(SSE)	0.471	N	1.7	178

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table I. 3-1 (77) Wave Data

Date: 25th Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	87	4.5	67	4.1	57	4.2	38	3.7	130	SSE (155)	0.385	NNW	1.0	242
2	75	3.5	61	4.4	48	4.3	32	3.9	124	SSE (153)	0.332	NNW	1.0	207
4	75	4.5	61	4.1	48	3.9	33	3.3	141	SSE (151)	0.498	NW	0.9	194
6	70	5.0	58	3.8	48	4.0	33	3.3	140	SSE (150)	0.450	N	2.1	159
8	64	4.5	55	4.0	45	4.0	31	3.4	137	SSE (153)	0.483	N	2.0	108
10	57	4.5	46	4.2	37	4.1	24	3.4	141	SSE (152)	0.373	N	2.1	76
12	46	4.5	39	4.4	31	4.2	20	3.7	132	SSE (148)	0.462	NNW	2.1	59
14	50	4.0	36	4.0	28	4.0	18	3.5	134	SSE (156)	0.563	SSW	3.0	78
16	53	4.0	44	4.3	35	4.2	23	3.9	125	SSE (152)	0.712	NW	0.3	188
18	149	4.0	129	3.9	103	3.9	67	3.5	142	SSE (160)	0.431	W	5.0	294
20	177	4.5	142	4.6	118	4.6	75	4.1	122	SE (141)	0.542	WNW	0.4	300
22	149	4.0	102	4.6	84	4.5	56	4.1	121	SSE (158)	0.660	N	0.9	280
D.max.	177	4.5	142	4.6	118	4.6	75	4.1	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	88	4.3	70	4.2	57	4.2	38	3.6	4	(SSE)	0.491	N	1.7	182

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (78) Wave Data

Date: 26th Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	105	4.5	81	4.6	68	4.7	46	4.0	123	SSE (154)	0.449	N	1.0	240
2	105	5.0	90	4.8	71	5.0	46	4.1	119	SSE (154)	0.310	N	1.0	213
4	81	5.5	69	4.8	58	4.6	39	3.8	130	SSE (148)	0.377	N	2.0	181
6	98	4.5	77	4.5	64	4.8	42	3.9	123	SE (144)	0.353	N	2.0	174
8	90	4.5	79	4.8	63	4.8	42	4.3	114	SE (136)	0.361	NNE	2.0	122
10	101	4.0	74	4.5	56	4.6	35	4.3	117	SE (135)	0.411	NNW	0.4	86
12	67	3.5	53	4.2	44	4.4	31	3.8	129	SE (136)	0.606	WSW	3.9	65
14	75	4.5	57	4.4	46	4.3	31	3.8	130	SE (144)	0.470	SW	3.8	59
16	113	3.5	100	3.7	83	3.8	54	3.4	141	SSE (148)	0.700	SSW	6.1	153
18	153	4.5	126	4.4	104	4.4	66	3.9	126	SSE (158)	0.495	NW	1.9	248
20	131	4.0	107	4.8	88	4.8	57	4.0	123	SE (139)	0.341	N	1.0	278
22	135	5.0	102	4.8	81	4.7	52	4.0	124	SE (143)	0.474	NNE	0.1	287
D.max.	153	4.5	126	4.4	104	4.4	66	3.9	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	105	4.4	85	4.5	69	4.6	45	3.9	4	( SE)	0.446	N	2.1	176

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (79) Wave Data

Date: 27th Nov. 1988  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	96	5.0	73	5.3	60	4.9	40	4.2	120	SSE (157)	0.489	NNE	1.0	257
2	109	4.5	82	5.1	68	5.0	44	4.3	115	SSE (148)	0.460	NNE	2.0	225
4	90	5.0	75	4.9	62	4.9	41	4.3	115	SE (140)	0.346	NNE	2.0	195
6	90	5.0	70	4.7	56	4.7	36	4.2	120	SE (139)	0.428	NNE	2.0	177
8	80	5.0	69	4.7	56	4.9	35	4.3	117	SE (139)	0.385	N	1.0	137
10	96	4.5	72	4.8	59	4.8	39	4.3	115	SE (136)	0.318	WNW	2.0	102
12	94	3.0	82	4.1	65	4.2	43	3.5	134	SE (146)	0.339	W	4.8	80
14	169	4.5	118	4.3	97	4.2	65	3.7	133	SSE (159)	0.409	WSW	4.9	97
16	237	5.0	217	5.5	178	5.5	113	4.6	107	SE (143)	0.529	WSW	7.9	144
18	268	6.5	216	5.7	172	5.8	111	4.8	104	SE (133)	0.462	WSW	5.1	210
20	242	5.0	175	5.0	139	5.4	89	4.4	112	SE (139)	0.515	WSW	4.0	274
22	181	5.5	156	5.5	126	5.3	82	4.4	114	SE (144)	0.515	WSW	4.5	281
D.max.	268	6.5	217	5.5	178	5.5	113	4.6	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	146	4.9	117	5.0	95	5.0	62	4.3	4	( SE)	0.433	WSW	3.4	182

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (80) Wave Data

Date: 28th Nov. 1988  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	220	5.0	147	5.0	120	4.6	79	4.2	119	SE (143)	0.555	WSW	4.5	272
2	174	5.5	152	5.8	128	5.3	86	4.6	109	SSE (151)	0.563	WNW	6.0	255
4	171	4.5	148	4.5	116	4.7	75	4.2	120	SE (143)	0.643	WSW	3.0	208
6	182	5.0	139	5.5	116	5.1	74	4.1	122	SE (140)	0.594	S	3.5	181
8	148	5.0	127	4.8	104	4.7	68	4.0	123	SSE (149)	0.558	NW	0.0	148
10	139	4.0	116	4.8	94	4.8	62	4.0	122	SE (137)	0.642	WNW	1.0	110
12	156	4.5	124	4.5	94	4.8	61	4.2	119	SSE (159)	0.576	SW	2.0	90
14	214	5.5	159	4.8	127	4.7	81	4.0	123	SSE (159)	0.568	WSW	5.0	83
16	159	4.5	133	4.8	105	4.7	67	4.0	123	SSE (153)	0.510	WSW	4.0	94
18	144	4.5	119	4.7	94	4.8	58	4.0	124	SSE (149)	0.604	WSW	2.0	172
20	161	4.5	117	4.4	95	4.5	62	3.9	127	SSE (154)	0.656	SW	2.0	256
22	199	5.5	145	4.9	106	4.8	67	4.2	119	SE (134)	0.672	WSW	2.5	309
D.max.	220	5.0	159	4.8	128	5.3	86	4.6	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	172	4.8	136	4.9	108	4.8	70	4.1	4	(SSE)	0.595	WSW	3.0	182

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction



Table I. 3-1 (81) Wave Data

Date: 29th Nov. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	147	4.5	111	4.9	90	4.8	60	4.1	123	SSE (157)	0.544	NW	1.0	284
2	126	4.5	102	4.4	81	4.4	53	3.9	128	SE (143)	0.561	NNW	0.0	246
4	103	4.5	84	4.3	63	4.4	42	3.7	134	SSE (148)	0.547	N	1.0	201
6	92	4.0	80	4.2	62	4.2	41	3.8	126	SSE (149)	0.599	N	2.0	183
8	88	5.5	64	4.8	51	4.5	34	3.9	123	SSE (159)	0.542	NNE	2.0	162
10	74	4.5	56	4.5	46	4.5	31	4.2	119	SE (135)	0.519	ENE	2.0	139
12	60	3.5	51	4.0	43	4.3	28	4.0	126	WNW (298)	0.451	WSW	1.0	114
14	85	3.5	71	3.9	59	4.0	41	3.6	137	SE (143)	0.567	WSW	3.0	100
16	84	4.0	64	4.0	51	3.9	34	3.4	143	SE (132)	0.672	SSW	3.0	93
18	81	3.5	67	4.0	57	3.9	38	3.6	135	SE (136)	0.718	WSW	3.0	147
20	90	4.0	66	3.8	54	3.9	36	3.4	142	SE (144)	0.833	WSW	2.4	239
22	96	3.5	74	3.7	55	3.7	36	3.2	150	SSE (159)	0.632	WSW	2.4	294
D.max.	147	4.5	111	4.9	90	4.8	60	4.1	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	94	4.1	74	4.2	59	4.2	40	3.7	4	( SE)	0.599	WSW	1.9	184

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (82) Wave Data

Date: 30th Nov. 1988  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	97	3.5	78	4.3	62	4.2	42	3.5	136	SSE (151)	0.491	WSW	2.8	292
2	72	4.0	64	4.3	54	4.0	36	3.4	143	SE (144)	0.523	NNW	0.0	256
4	90	4.0	76	4.1	67	4.3	46	3.9	128	SSE (149)	0.558	NNW	0.5	203
6	104	5.0	83	4.5	68	4.5	44	3.9	126	SE (140)	0.434	N	1.0	173
8	91	4.0	77	4.5	62	4.7	39	3.7	133	SE (145)	0.435	N	2.0	149
10	82	4.5	67	4.6	54	4.7	37	4.1	119	SE (145)	0.490	N	2.0	147
12	100	4.5	75	4.7	61	4.7	39	3.9	128	SE (142)	0.704	SSW	3.8	135
14	107	3.5	83	4.6	63	4.6	40	4.0	124	SE (142)	0.437	WSW	4.0	107
16	101	4.5	83	4.5	67	4.7	44	3.9	125	SE (137)	0.420	SSW	2.0	96
18	109	5.0	88	4.3	69	4.3	45	3.9	128	SE (133)	0.496	WSW	1.8	127
20	115	5.5	81	4.8	65	4.4	45	4.0	122	SE (131)	0.700	NW	1.0	203
22	90	4.0	79	4.3	63	4.3	40	3.6	137	SE (141)	0.678	NW	1.0	274
D.max.	115	5.5	88	4.3	69	4.3	46	3.9	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	97	4.3	78	4.5	63	4.4	41	3.8	4	( SE)	0.530	WSW	1.8	180

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (83) Wave Data

Date: 1st Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir. (m/s)	vel. (m/s)	
0	78	4.5	63	4.5	52	4.4	34	3.5	137	SSE (166)	0.525	N	2.0	285
2	72	4.5	62	4.7	49	4.7	31	3.9	123	SSE (157)	0.545	N	2.0	250
4	66	4.5	55	4.9	46	4.9	31	4.1	118	ESE (123)	0.793	N	1.0	205
6	76	4.5	61	4.6	50	4.8	31	4.4	113	SE (139)	0.554	NNE	2.4	162
8	60	4.0	49	4.5	41	4.1	28	3.3	136	SE (134)	0.756	N	2.4	138
10	62	5.5	56	5.5	45	5.7	31	4.5	105	SE (129)	0.441	NNE	3.0	134
12	63	5.0	48	5.7	40	5.2	26	4.1	116	SE (127)	0.518	WNW	3.8	139
14	70	5.0	63	3.5	52	3.7	37	3.4	142	SE (141)	0.480	WSW	5.8	135
16	165	5.0	133	4.0	107	4.0	70	3.6	137	SSE (166)	0.594	W	7.8	123
18	208	4.5	153	4.5	119	4.7	75	3.9	126	SSE (166)	0.551	W	5.0	138
20	169	4.5	149	4.4	118	4.7	75	3.9	127	S (176)	0.618	NW	2.0	182
22	133	5.5	105	4.5	89	4.5	59	3.9	130	SSE (156)	0.584	NW	0.2	242
D.max.	208	4.5	153	4.5	119	4.7	75	3.9	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	102	4.8	83	4.6	67	4.6	44	3.9	4	( SE)	0.580	N	3.1	178

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (8M) Wave Data

Date: 2nd Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	120	4.5	107	4.9	91	4.7	62	4.2	120	SSE (157)	0.486	NNW	1.0	261
2	104	6.0	88	5.0	70	4.8	46	4.0	123	SE (144)	0.559	NNW	1.0	242
4	94	4.0	76	4.3	64	4.2	44	3.6	134	SSE (159)	0.709	NW	2.0	211
6	93	4.5	83	4.2	66	4.2	44	3.5	139	SE (143)	0.691	NW	2.0	173
8	94	3.0	76	4.3	64	4.2	43	3.6	133	SSE (156)	0.576	NNW	2.0	141
10	91	4.5	74	4.3	60	4.2	41	3.7	130	SSE (149)	0.416	NNW	2.0	128
12	84	4.5	67	4.3	54	4.2	37	3.8	129	SE (145)	0.559	N	2.2	139
14	70	4.0	53	4.0	41	4.3	26	3.7	133	SSE (164)	0.408	NNW	2.0	139
16	60	4.5	49	4.4	40	4.2	26	3.9	128	SE (139)	0.527	NNW	0.0	124
18	49	4.0	40	4.5	33	4.2	22	3.9	129	SSE (150)	0.690	S	1.2	122
20	40	4.0	37	4.3	31	4.3	20	4.1	122	ESE (122)	0.712	SSW	0.0	178
22	59	4.0	50	4.3	38	4.3	24	3.9	130	S (175)	0.881	N	0.0	246
D.max.	120	4.5	107	4.9	91	4.7	62	4.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	80	4.3	67	4.4	54	4.3	36	3.8	4	(SSE)	0.601	NNW	1.3	175

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (85) Wave Data

Date: 3rd Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	68	4.5	52	4.2	40	4.1	25	3.8	135	S (180)	0.527	N	0.4	271
2	66	2.5	47	3.3	39	3.3	27	3.0	156	S (170)	0.700	NNW	1.8	254
4	67	4.0	49	3.3	40	3.3	27	2.9	162	W (281)	0.697	NW	2.0	218
6	51	3.5	41	3.6	33	3.7	23	3.3	138	WNW (283)	0.546	NNW	1.0	165
8	65	4.0	46	3.7	37	3.8	24	3.5	143	SE (128)	0.581	NNE	1.0	138
10	47	3.5	40	3.7	32	3.8	21	3.6	138	SE (136)	0.640	E	0.0	129
12	60	3.5	41	3.6	33	3.8	22	3.6	137	SSE (151)	0.683	WSW	0.1	151
14	49	2.0	35	3.3	28	3.2	20	2.9	146	SSW (195)	0.683	SW	2.0	175
16	70	2.5	54	2.8	44	2.8	30	2.7	175	NNW (337)	0.715	NW	2.0	165
18	72	3.0	59	2.9	49	3.0	34	2.9	161	SSE (160)	0.776	SW	2.0	160
20	100	3.0	81	3.5	64	3.5	42	3.1	157	SSE (166)	0.550	WNW	2.5	199
22	107	3.5	92	3.8	76	3.8	51	3.6	136	S (182)	0.425	SW	4.1	227
D.max.	107	3.5	92	3.8	76	3.8	51	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	69	3.3	53	3.5	43	3.5	29	3.2	3	(SSE)	0.627	SW	1.6	188

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (86) Wave Data

Date: 4th Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	80	3.0	68	3.6	56	3.8	38	3.5	138	SE (135)	0.603	N	1.9	255
2	99	5.0	70	4.3	58	4.1	39	3.5	137	WNW (285)	0.708	N	2.0	232
4	86	4.5	62	4.3	48	4.1	31	3.4	133	SE (134)	0.764	N	0.2	194
6	81	4.5	64	4.6	52	4.5	33	4.0	122	SE (125)	0.442	N	1.0	148
8	51	5.0	46	4.3	38	4.1	25	3.7	135	SE (146)	0.541	NE	0.1	120
10	56	4.0	45	4.3	36	4.1	23	3.7	135	SSE (147)	0.565	N	1.1	109
12	59	3.5	44	4.0	37	4.2	25	3.8	129	SE (144)	0.535	SSW	1.0	145
14	56	4.0	46	4.2	39	4.1	26	3.7	134	SSE (156)	0.454	WSW	2.0	177
16	66	4.0	48	3.9	40	3.7	27	3.5	139	SSE (150)	0.620	SW	2.0	192
18	62	4.0	51	3.8	42	3.9	29	3.3	144	SSE (158)	0.458	SW	2.0	180
20	61	4.0	48	4.0	39	3.8	26	3.4	142	SE (142)	0.504	SW	1.0	193
22	55	4.0	48	3.9	40	3.9	26	3.4	145	SSE (150)	0.663	NNW	0.2	228
D.max.	99	5.0	70	4.3	58	4.1	39	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	68	4.1	53	4.1	44	4.0	29	3.6	4	( SE)	0.571	N	1.2	181

[Note]

- W.H : Wave Height
- W.P : Wave Period
- Wave No.: Wave Countered
- D.W.D : Dominant Wave Direction
- R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge
- T.L : Tidal Level
- D.max. : Daily max.
- D.mean : Daily mean
- M.F.D : Most Frequency Wind Direction

Table I. 3-1 (87) Wave Data

Date: 5th Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	60	5.0	48	3.9	39	3.9	26	3.4	140	SSE (148)	0.455	NW	1.0	250
2	71	2.5	55	3.4	44	3.5	29	3.1	151	SSE (163)	0.721	NW	2.0	237
4	77	4.5	66	3.5	54	3.7	35	3.3	138	SE (135)	0.520	NNW	1.0	187
6	76	3.5	60	3.9	49	3.8	32	3.3	142	SE (141)	0.410	NNW	2.0	143
8	56	3.0	47	3.6	39	3.9	26	3.4	144	SSE (152)	0.490	N	2.0	109
10	50	3.0	41	3.5	34	3.7	23	3.3	144	SSE (148)	0.524	NW	1.0	100
12	41	3.0	36	3.4	30	3.3	20	3.0	151	SSE (147)	0.869	WSW	2.5	146
14	49	4.0	42	3.4	35	3.4	23	3.0	152	SSE (151)	0.674	WSW	4.0	192
16	62	3.0	50	3.3	41	3.1	28	2.9	159	S (175)	0.702	WSW	4.1	215
18	78	2.5	62	3.3	50	3.3	34	2.9	157	SE (141)	0.755	WSW	4.0	214
20	80	2.0	63	3.2	51	3.2	35	2.8	166	WNW (296)	0.607	WSW	6.0	233
22	104	4.0	88	3.8	71	3.8	48	3.3	150	SSE (155)	0.542	WNW	2.3	244
D.max.	104	4.0	88	3.8	71	3.8	48	3.3	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	67	3.3	55	3.5	45	3.5	30	3.1	3	(SSE)	0.606	WSW	2.7	189

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (88) Wave Data

Date: 6th Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	111	4.0	97	4.3	84	4.2	59	3.9	126	SSE (169)	0.406	WNW	2.0	249
2	126	4.0	93	4.1	74	4.1	48	3.5	140	S (180)	0.480	W	3.0	233
4	110	3.0	80	4.0	63	4.0	43	3.6	136	SSE (155)	0.826	NNW	1.0	191
6	107	4.0	85	4.3	68	4.3	45	3.7	132	SSE (153)	0.666	W	2.0	150
8	156	10.0	113	4.8	85	4.4	52	3.6	137	SSE (147)	0.319	SSW	2.0	121
10	187	4.5	155	4.5	128	4.4	87	4.3	116	SSE (163)	0.456	WSW	5.0	122
12	183	5.0	145	4.6	117	4.8	75	4.3	118	SSE (159)	0.443	WSW	4.0	133
14	180	4.5	128	4.5	101	4.6	68	4.2	120	SSE (150)	0.511	WSW	4.0	203
16	166	3.5	138	4.5	114	4.4	77	4.2	119	SSE (155)	0.361	WSW	6.0	234
18	177	5.5	134	4.7	112	4.7	75	4.1	120	SSE (157)	0.539	WSW	6.5	236
20	203	4.5	148	4.9	129	4.7	85	4.1	122	SSE (153)	0.664	WSW	6.0	237
22	227	5.5	171	5.0	143	5.1	90	4.4	114	SE (146)	0.498	W	2.0	253
D.max.	227	5.5	171	5.0	143	5.1	90	4.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	161	4.8	124	4.5	102	4.5	67	4.0	4	(SSE)	0.514	WSW	3.6	197

[Note]

- W.H : Wave Height
- W.P : Wave Period
- Wave No.: Wave Countered
- D.W.D : Dominant Wave Direction
- R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge
- T.L : Tidal Level
- D.max. : Daily max.
- D.mean : Daily mean
- M.F.D : Most Frequency Wind Direction



Table I. 3-1 (89) Wave Data

Date: 7th Dec. 1988  
 St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	206	5.0	169	5.3	137	5.1	85	4.1	121	SSE (151)	0.496	W	4.0	251
2	232	5.0	170	4.8	129	4.8	81	4.1	119	SSE (159)	0.559	WNW	4.0	227
4	189	5.0	140	5.0	113	5.0	77	4.3	115	SSE (164)	0.536	NNW	1.0	193
6	151	4.0	120	4.6	94	4.5	61	4.0	123	SSE (160)	0.512	NW	1.0	142
8	124	4.0	102	4.5	83	4.6	55	3.9	125	SE (142)	0.356	WSW	3.0	109
10	118	4.0	99	4.5	77	4.4	49	3.8	129	SSE (147)	0.358	WSW	3.0	92
12	127	4.0	95	4.5	74	4.3	48	3.7	129	SE (143)	0.425	WSW	4.2	114
14	139	4.5	92	4.3	74	4.3	49	3.8	132	SE (146)	0.518	WSW	3.0	189
16	133	4.5	111	4.1	96	4.5	66	4.1	119	SSE (148)	0.459	SW	6.0	246
18	141	5.0	114	4.6	92	4.6	61	3.8	130	SSE (148)	0.411	SSW	6.0	265
20	191	12.5	133	5.4	101	4.7	66	4.0	123	SSE (147)	0.522	WSW	4.0	259
22	151	4.5	112	4.5	92	4.5	61	4.1	121	SSE (153)	0.455	SW	4.0	248
D.max.	232	5.0	170	4.8	137	5.1	85	4.1	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	159	5.2	121	4.7	97	4.6	63	4.0	4	(SSE)	0.467	WSW	3.6	195

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (90) Wave Data

Date: 8th Dec. 1988  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	124	4.5	100	4.8	84	4.6	57	4.0	122	SSE (148)	0.413	NW	3.0	240
2	134	4.0	106	4.5	84	4.5	56	3.8	128	SE (144)	0.412	WNW	2.5	217
4	96	3.5	80	4.1	67	4.1	44	3.6	134	SE (143)	0.477	NNW	3.0	183
6	177	4.5	124	4.5	95	4.1	60	3.5	139	SSE (154)	0.427	WNW	2.0	175
8	118	4.5	88	4.5	74	4.4	47	3.8	130	SSE (148)	0.406	WNW	1.0	103
10	93	4.5	77	4.3	62	4.3	41	3.7	133	SE (146)	0.491	WSW	3.0	80
12	89	4.5	79	4.0	62	4.3	42	3.5	138	SE (144)	0.546	WSW	4.0	81
14	139	7.0	100	4.9	82	4.2	57	3.7	131	S (186)	0.792	SW	3.0	173
16	164	5.0	132	4.9	112	4.9	74	4.1	118	SSE (151)	0.376	WSW	6.0	235
18	145	4.5	116	5.0	87	4.7	56	4.0	124	SE (142)	0.403	WSW	3.0	256
20	144	4.5	112	4.8	87	4.6	58	4.0	126	SE (140)	0.374	WNW	3.0	265
22	116	4.0	96	4.8	77	4.6	51	3.9	127	SSE (160)	0.586	NW	2.0	252
D.max.	177	4.5	132	4.9	112	4.9	74	4.1	4	most D.W.D	mean	M.F.D	mean	
D.mean	128	4.6	101	4.6	81	4.4	54	3.8	4	( SE)	0.475	WSW	3.0	188

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (91) Wave Data

Date: 9th Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	107	3.0	88	4.3	75	4.4	50	3.7	134	SSE (152)	0.358	NW	3.0	234
2	145	4.0	92	4.0	73	4.0	48	3.4	143	SSE (152)	0.463	W	2.0	207
4	100	4.5	84	5.0	70	4.7	46	4.0	120	SSE (149)	0.542	NNW	2.0	176
6	100	4.0	74	4.3	58	4.4	39	3.6	134	SSE (148)	0.490	NW	1.0	156
8	91	4.0	76	4.3	63	4.3	41	3.7	132	SSE (150)	0.470	WSW	4.0	125
10	178	5.0	153	4.5	127	4.6	86	4.0	124	SE (146)	0.285	WSW	6.0	96
12	196	5.0	159	5.4	132	5.3	86	4.2	119	SE (144)	0.383	WSW	4.5	80
14	173	4.5	153	5.4	126	5.2	81	4.3	117	SE (132)	0.412	WSW	4.5	98
16	146	4.5	125	5.4	101	5.2	67	4.2	117	SE (133)	0.499	SW	3.0	183
18	170	5.0	133	4.9	100	4.8	66	4.3	117	SE (139)	0.413	WSW	3.0	252
20	178	3.5	106	5.0	88	5.5	60	4.8	103	SE (135)	0.311	NNW	1.0	270
22	106	5.0	88	5.0	71	5.0	46	4.1	121	SE (136)	0.488	NNW	1.0	274
D.max.	196	5.0	159	5.4	132	5.3	86	4.0	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	141	4.3	111	4.8	90	4.8	60	4.0	4	( SE)	0.426	WSW	2.9	179

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (92) Wave Data

Date: 10th Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	116	6.0	87	5.3	67	5.3	44	4.0	124	SE (144)	0.436	NW	1.0	241
2	96	4.0	74	4.7	61	4.6	39	3.7	134	SE (137)	0.561	N	1.0	214
4	90	5.5	66	4.6	56	4.7	39	4.4	112	SE (132)	0.460	NNW	1.0	190
6	91	4.0	79	4.3	64	4.5	42	3.9	126	SSE (148)	0.471	N	2.0	162
8	90	5.5	73	4.6	58	4.6	38	4.0	116	SE (137)	0.451	N	3.0	104
10	68	5.5	61	4.9	48	4.8	30	4.2	119	SE (126)	0.513	NNE	3.0	76
12										( )		SSE	2.0	64
14	63	5.0	51	4.3	43	4.6	30	4.1	122	W (263)	0.468	SW	3.0	93
16	98	4.0	69	4.4	55	4.1	35	3.5	137	W (272)	0.427	SW	4.0	210
18	85	4.5	75	3.9	63	4.0	44	3.6	133	WNW (284)	0.885	SW	3.0	272
20	100	4.0	83	3.9	67	3.9	45	3.5	143	SSE (157)	0.357	W	2.0	285
22	111	4.5	83	4.5	66	4.5	44	3.6	133	SSE (161)	0.460	NW	6.0	278
D.max.	116	6.0	87	5.3	67	5.3	45	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	92	4.8	73	4.5	59	4.5	39	3.9	4	( SE)	0.499	SW	2.6	182

[Note]

- W.H : Wave Height
- W.P : Wave Period
- Wave No.: Wave Countered
- D.W.D : Dominant Wave Direction
- R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge
- T.L : Tidal Level
- D.max. : Daily max.
- D.mean : Daily mean
- M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (88) Wave Data

Date: 11th Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	154	5.5	120	4.8	96	4.6	64	4.1	119	SSE (157)	0.608	NNW	2.0	260
2	131	4.0	115	4.5	87	4.6	57	4.0	119	SSE (160)	0.576	NNW	3.0	226
4	150	5.0	101	4.5	79	4.1	51	3.5	137	SSE (157)	0.329	NNW	2.0	200
6	104	5.0	84	5.1	72	4.9	50	4.1	121	SSE (160)	0.365	N	2.0	161
8	112	5.0	84	4.8	65	4.4	43	3.9	129	SSE (167)	0.600	NW	2.0	113
10	75	4.0	66	4.2	57	4.4	40	4.1	122	SE (144)	0.450	E	1.0	84
12	79	4.0	65	4.3	52	4.2	35	3.4	144	SSE (147)	0.387	SSW	3.0	68
14	185	4.0	128	4.3	101	4.4	65	3.7	134	SE (128)	0.735	WSW	4.5	93
16	222	5.0	152	4.8	122	5.0	79	4.1	123	SSE (157)	0.660	WSW	7.0	175
18	202	5.0	156	4.6	120	5.0	75	4.2	119	S (176)	0.436	WSW	5.0	247
20	151	5.0	128	5.1	96	5.0	59	4.1	123	SSE (153)	0.538	SW	2.8	272
22	91	4.5	82	5.0	68	4.7	44	4.0	125	SSE (161)	0.516	SW	2.0	266
D.max.	222	5.0	156	4.6	122	5.0	79	4.1	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	138	4.7	107	4.7	85	4.6	55	3.9	4	(SSE)	0.517	WSW	3.0	180

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (94) Wave Data

Date: 12th Dec. 1988  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	87	4.5	74	4.8	63	4.5	42	3.9	126	SSE (158)	0.429	WNW	2.0	248
2	85	5.0	71	4.8	59	4.6	40	3.9	126	SE (144)	0.610	NNW	2.0	210
4	86	4.0	70	4.2	54	4.4	36	3.8	128	SSE (150)	0.442	N	2.0	192
6	90	4.5	75	4.9	59	4.6	39	4.2	119	SSE (150)	0.521	NNE	2.0	172
8	66	5.0	59	4.6	48	4.5	30	4.1	122	SE (125)	0.667	NE	2.0	135
10	65	5.5	56	4.7	43	4.6	28	4.2	121	SE (133)	0.594	S	0.5	95
12	68	4.5	56	4.7	44	4.8	30	4.2	120	SE (138)	0.579	SW	2.0	72
14	63	4.0	53	4.8	43	4.6	29	4.1	120	SE (127)	0.506	S	2.5	71
16	95	4.5	83	4.5	68	4.6	44	4.0	124	SE (127)	0.679	SSW	3.0	127
18	129	5.0	101	4.8	78	4.8	53	4.2	117	WNW (289)	0.631	SSW	3.0	219
20	111	4.5	103	4.4	83	4.7	54	4.2	117	SSE (151)	0.411	WSW	3.0	287
22	109	5.0	89	4.7	72	4.7	48	3.9	123	SE (146)	0.487	WSW	3.0	293
D.max.	129	5.0	103	4.4	83	4.7	54	4.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	88	4.7	74	4.7	60	4.6	39	4.1	4	( SE)	0.546	S	2.3	177

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (95) Wave Data

Date: 13th Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	85	3.0	72	4.2	61	4.2	43	3.5	139	SSE (147)	0.562	W	3.0	271
2	110	3.5	87	4.3	70	4.4	48	3.8	128	SSE (165)	0.459	WNW	2.0	231
4	123	4.5	97	4.5	79	4.5	53	3.9	128	SSE (157)	0.434	NNW	2.0	190
6	100	4.5	81	4.8	68	4.8	46	4.0	122	SSE (157)	0.434	NNW	2.0	178
8	98	4.5	75	4.8	63	4.9	42	4.2	116	SE (146)	0.384	N	2.5	147
10	91	4.5	67	4.8	53	5.1	35	4.4	113	SSE (158)	0.506	NW	2.3	106
12	70	4.5	58	4.6	49	4.5	33	3.9	127	SSE (157)	0.622	WSW	4.0	83
14	91	4.0	68	4.5	57	4.3	39	3.7	136	SE (145)	0.447	WSW	4.0	78
16	90	3.5	79	4.0	67	3.9	45	3.4	142	SE (142)	0.625	WSW	3.8	108
18	107	4.5	85	4.1	70	4.1	48	3.9	124	WNW (282)	0.924	W	3.0	187
20	104	3.5	78	4.6	61	4.4	39	3.7	132	SE (134)	0.645	W	2.0	269
22	121	4.5	86	4.9	71	4.8	48	4.1	120	SE (145)	0.652	W	2.6	293
D.max.	123	4.5	97	4.5	79	4.5	53	3.9	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	99	4.1	78	4.5	64	4.5	43	3.9	4	(SSE)	0.558	W	2.8	178

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (86) Wave Data

Date: 14th Dec. 1988  
 St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	109	6.0	87	5.5	67	5.2	42	4.1	120	SSE (160)	0.434	NW	2.8	278
2	97	4.0	79	5.2	61	5.1	39	4.1	122	SSE (156)	0.412	NW	2.5	234
4	100	4.0	79	4.2	62	4.4	43	3.6	137	SSE (155)	0.422	NNW	2.0	212
6	84	3.5	75	4.2	61	4.4	40	3.8	130	SE (144)	0.371	NNE	2.0	166
8	79	4.5	68	4.2	55	4.5	38	3.8	130	SSE (154)	0.499	NNW	2.8	151
10	97	5.0	78	5.3	65	5.3	43	4.4	114	SSE (157)	0.396	NNW	3.0	123
12	82	6.0	71	5.5	58	5.5	38	4.6	107	SE (141)	0.390	NW	3.0	99
14	86	4.5	67	5.0	53	4.5	35	3.7	131	SE (144)	0.360	NW	2.0	80
16	91	3.0	83	4.1	69	4.2	47	3.7	130	SE (132)	0.484	NNE	3.0	82
18	131	5.0	118	4.3	91	4.2	61	3.9	129	SSE (151)	0.517	NW	3.0	160
20	118	5.0	93	4.9	79	4.7	52	4.0	120	SSE (159)	0.650	N	2.0	240
22	125	5.0	101	5.0	79	5.0	51	4.3	114	SSE (161)	0.299	NNE	2.0	269
D.max.	131	5.0	118	4.3	91	4.2	61	3.9	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	100	4.6	83	4.8	67	4.7	44	4.0	4	(SSE)	0.436	NW	2.5	175

[Note]

- W.H : Wave Height
- W.P : Wave Period
- Wave No.: Wave Countered
- D.W.D : Dominant Wave Direction
- R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge
- T.L : Tidal Level
- D.max. : Daily max.
- D.mean : Daily mean
- M.F.D : Most Frequency Wind Direction



Table 1.3-1 (97) Wave Data

Date: 15th Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	96	5.0	72	5.3	58	5.1	38	4.5	109	SSE (154)	0.416	NNE	2.0	261
2	84	5.0	70	5.2	56	5.3	37	4.7	106	SSE (156)	0.437	NE	1.0	221
4	82	4.5	65	5.0	50	5.0	32	4.3	115	SE (143)	0.443	NE	2.0	214
6	117	5.0	92	4.5	73	4.4	48	3.8	129	SSE (158)	0.682	S	3.6	185
8	104	5.0	87	4.5	69	4.6	45	4.0	122	SSE (150)	0.460	WNW	2.0	165
10	95	5.0	77	5.4	63	5.2	42	4.4	114	SSE (153)	0.399	N	1.0	127
12	72	5.0	65	4.8	52	5.0	33	4.1	121	SSE (149)	0.439	NE	2.0	113
14	73	5.5	60	5.5	49	5.0	33	4.2	113	SSE (153)	0.536	WNW	2.6	91
16	75	6.0	61	5.6	48	4.9	31	3.8	128	SSE (149)	0.336	SW	2.0	98
18	67	4.5	62	4.7	52	4.8	34	4.1	123	SE (138)	0.485	W	1.0	110
20	129	4.0	97	4.6	78	4.7	51	4.1	122	SE (138)	0.404	W	2.0	211
22	93	5.0	84	5.0	70	4.7	47	4.0	125	SSE (158)	0.448	NE	1.0	286
D.max.	129	4.0	97	4.6	78	4.7	51	4.1	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	91	5.0	74	5.0	60	4.9	39	4.2	4	(SSE)	0.457	NE	1.8	174

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (98) Wave Data

Date: 16th Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	100	5.0	85	4.9	69	5.0	47	4.1	120	SSE (163)	0.420	NE	1.0	266
2	89	5.0	77	5.0	60	4.8	40	3.8	127	SSE (151)	0.417	N	1.8	217
4	85	6.0	74	5.0	58	4.4	39	3.6	135	SSE (156)	0.423	N	2.0	175
6	93	5.0	73	4.7	59	4.7	38	3.8	128	SSE (164)	0.667	N	2.0	156
8	91	5.5	75	4.7	61	4.7	40	3.8	127	SSE (148)	0.623	N	2.0	156
10	97	4.0	66	4.4	55	4.5	37	3.9	125	SSE (150)	0.495	NNW	3.0	161
12	74	4.0	65	4.3	53	4.2	35	3.6	137	SE (140)	0.403	N	3.0	154
14	102	4.5	70	5.0	56	4.9	38	4.2	118	SSE (158)	0.435	WNW	2.5	109
16	85	4.0	76	5.3	61	5.1	42	4.4	114	SE (146)	0.406	SSW	2.0	86
18	93	5.0	76	5.1	60	5.0	38	4.2	119	SE (143)	0.504	ESE	1.0	110
20	80	5.0	72	5.3	57	5.1	38	4.5	112	SSE (148)	0.608	ESE	1.0	191
22	89	5.0	73	5.1	59	4.8	37	4.0	122	SSE (153)	0.488	NE	2.0	274
D.max.	102	4.5	85	4.9	69	5.0	47	4.1	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	90	4.8	74	4.9	59	4.8	39	4.0	4	(SSE)	0.491	N	1.9	171

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (99) Wave Data

Date: 17th Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	59	7.0	55	5.2	47	5.2	31	4.4	113	SSE (164)	0.523	NE	1.0	285
2	61	3.5	54	5.0	42	5.1	29	4.2	118	SSE (149)	0.644	SE	1.0	244
4	64	4.5	48	4.6	38	5.1	25	4.4	113	SSE (156)	0.596	N	1.0	177
6	52	4.0	47	4.8	35	4.8	23	4.4	114	SSE (156)	0.388	N	1.8	148
8	54	4.0	43	4.5	34	4.8	22	4.4	114	SSE (155)	0.447	NE	2.0	131
10	57	3.5	46	4.7	34	4.6	22	4.3	117	SSE (155)	0.363	NE	2.0	146
12	52	5.0	41	4.7	33	4.9	21	4.3	117	SSE (151)	0.545	SSE	2.8	153
14	56	3.5	42	4.4	33	4.5	22	3.9	127	SE (145)	0.395	S	2.8	140
16	45	5.0	37	4.1	29	4.7	18	4.1	124	SSE (150)	0.614	SW	1.0	118
18	54	5.0	43	4.7	34	5.0	22	4.1	116	S (189)	0.591	NW	2.0	130
20	50	4.0	46	4.3	39	4.6	26	4.2	119	SE (142)	0.624	NW	1.0	186
22	51	4.0	46	4.3	37	4.3	25	3.9	127	S (170)	0.783	ESE	0.8	255
D.max.	64	4.5	55	5.2	47	5.2	31	4.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	55	4.4	46	4.6	36	4.8	24	4.2	4	(SSE)	0.543	NE	1.6	176

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1(100) Wave Data

Date: 18th Dec. 1988  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir. (m/s)	vel. (m/s)	
0	55	6.0	46	4.7	39	4.6	27	4.1	122	SSE (153)	0.638	ESE	0.8	281
2	59	5.0	47	4.8	38	4.9	25	4.1	121	SSE (149)	0.447	SE	1.0	253
4	55	4.5	48	5.1	39	4.8	25	3.8	128	SE (142)	0.565	WNW	2.0	191
6	114	3.5	91	4.0	74	3.9	50	3.6	138	S (179)	0.610	W	1.0	139
8	65	3.0	49	4.2	39	3.9	26	3.5	139	S (186)	0.687	NE	1.0	103
10	68	4.0	53	3.8	44	4.1	30	3.7	133	SSE (152)	0.652	NE	1.0	108
12	65	4.0	45	4.3	36	4.1	24	3.6	138	SSW (205)	0.742	NE	2.0	160
14	49	5.0	40	4.7	32	4.5	21	4.0	125	SSE (152)	0.620	ESE	1.0	176
16	56	5.0	42	4.9	33	4.7	21	4.2	120	SE (143)	0.439	E	1.0	156
18	53	4.5	44	4.8	34	4.8	22	4.3	116	SE (144)	0.545	SE	2.0	155
20	64	5.0	41	5.1	32	4.9	21	4.4	115	SSE (147)	0.701	ESE	1.0	194
22	53	5.0	43	4.9	36	4.7	23	4.3	116	SE (145)	0.460	SSE	0.8	256
D.max.	114	3.5	91	4.0	74	3.9	50	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	63	4.5	49	4.6	40	4.5	26	4.0	4	(SSE)	0.592	NE	1.2	181

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (101) Wave Data

Date: 19th Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	66	4.0	55	4.3	45	4.0	31	3.3	150	SSE (156)	0.424	WNW	2.0	263
2	70	3.5	60	3.5	50	3.3	34	3.0	162	SSE (156)	0.536	W	4.0	238
4	61	4.0	51	3.8	39	3.9	27	3.3	148	SSE (158)	0.411	W	2.0	170
6	50	4.5	40	3.7	32	3.6	22	3.2	151	SSE (154)	0.479	W	2.0	119
8	54	4.5	40	4.3	32	4.1	21	3.4	141	S (170)	0.501	WNW	1.0	86
10	47	4.0	40	4.5	33	4.3	22	3.7	131	SE (145)	0.480	SW	2.0	93
12	58	3.5	48	4.6	38	4.5	25	3.5	135	SSW (198)	0.749	SW	2.0	153
14	60	4.0	47	4.5	38	4.2	25	3.5	140	SSE (155)	0.556	WSW	4.0	195
16	46	4.0	44	4.1	37	4.0	25	3.4	139	SSE (160)	0.303	SSW	3.0	200
18	74	2.5	61	3.5	46	3.7	31	3.2	152	SSE (156)	0.388	NNW	3.0	208
20	57	3.5	48	3.9	39	3.9	26	3.4	139	SSE (153)	0.390	NNW	1.0	203
22	56	3.5	48	4.2	38	4.3	25	3.9	130	SSE (162)	0.454	SE	1.0	221
D.max.	74	2.5	61	3.5	50	3.3	34	3.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	58	3.8	49	4.1	39	4.0	26	3.4	3	(SSE)	0.473	W	2.3	179

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (102) Wave Data

Date: 20th Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	86	5.5	71	4.1	58	3.9	38	3.5	142	SSE (162)	0.372	S	5.0	247
2	65	3.5	54	4.3	43	4.4	30	3.8	129	SSE (151)	0.440	SE	2.0	231
4	61	4.5	50	4.8	40	5.0	25	4.1	121	SE (141)	0.431	NE	1.0	173
6	53	5.0	39	4.9	32	4.9	21	4.2	119	SSE (154)	0.445	NW	5.0	114
8	110	2.5	81	3.4	64	3.2	44	3.0	158	SSW (211)	0.580	NW	2.0	85
10	93	4.0	72	3.7	56	3.8	36	3.4	144	SSE (163)	0.636	ESE	1.0	73
12	66	4.0	46	3.8	37	4.0	24	3.5	142	SW (221)	0.725	WSW	0.5	108
14	51	4.0	42	4.2	34	4.1	23	3.7	133	S (186)	0.818	WSW	2.0	193
16	59	5.0	45	4.6	35	4.6	23	4.1	118	S (184)	0.704	NNW	1.0	230
18	42	5.0	38	4.7	29	4.8	19	4.3	117	S (176)	0.559	N	0.5	234
20	50	4.0	42	4.6	33	4.7	22	4.4	114	SSE (154)	0.669	WNW	0.5	232
22	50	4.5	37	4.4	30	4.3	20	4.3	118	SSE (150)	0.547	NNW	1.0	231
D.max.	110	2.5	81	3.4	64	3.2	44	3.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	66	4.3	51	4.3	41	4.3	27	3.9	4	(SSE)	0.577	WSW	1.8	179

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (103) Wave Data

Date: 21th Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	46	4.5	37	4.4	31	4.4	21	4.2	118	SSE (155)	0.458	N	1.0	233
2	53	4.5	46	4.6	35	4.5	21	4.0	124	SSE (163)	0.622	N	1.0	214
4	50	4.0	43	4.5	34	4.5	21	4.0	124	SE (146)	0.599	NE	2.0	179
6	76	4.0	57	3.9	47	3.7	30	3.5	142	SE (139)	0.597	NE	1.0	117
8	69	4.0	59	4.0	48	4.0	30	3.5	140	ESE (121)	0.558	NNE	3.0	81
10	67	4.5	53	4.0	43	4.0	29	3.8	131	SSE (157)	0.606	NE	3.0	65
12	79	4.0	69	4.3	54	4.2	36	4.0	125	SE (135)	0.469	NNE	2.0	90
14	71	4.5	57	4.5	47	4.3	32	4.0	126	SE (139)	0.455	ESE	1.0	200
16	79	4.5	67	4.4	57	4.0	38	3.6	134	SSE (156)	0.558	SSE	2.0	246
18	83	4.0	70	4.1	60	4.1	41	3.6	135	SSE (163)	0.614	WSW	3.8	263
20	107	4.0	77	4.3	58	4.1	38	3.6	136	SE (125)	0.836	SW	2.0	252
22	80	4.0	70	4.5	55	4.4	38	3.8	127	SE (138)	0.449	WSW	3.0	242
D.max.	107	4.0	77	4.3	60	4.1	41	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	72	4.2	59	4.3	47	4.2	31	3.8	4	( SE)	0.568	NE	2.1	182

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (10M) Wave Data

Date: 22th Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	114	3.5	78	4.4	62	4.1	43	3.6	135	SE (139)	0.522	WSW	4.0	232
2	96	3.0	77	4.3	61	4.1	41	3.5	139	SE (141)	0.419	WSW	2.8	219
4	89	4.5	74	4.1	60	4.0	42	3.5	139	SSE (148)	0.392	WNW	2.8	184
6	111	4.5	93	3.9	74	3.8	49	3.4	147	SSE (148)	0.385	WNW	4.0	127
8	120	4.5	92	4.2	73	4.1	47	3.7	135	SE (141)	0.525	S	3.0	90
10	169	4.0	121	4.1	95	4.2	61	3.7	134	SSE (162)	0.564	SW	4.0	72
12	141	4.0	106	4.6	88	4.4	59	3.7	130	SSE (155)	0.471	WSW	3.0	85
14	125	4.5	111	4.8	93	4.7	60	3.9	130	S (179)	0.653	WNW	2.0	168
16	141	5.0	124	4.4	102	4.5	67	3.9	128	S (176)	0.641	W	2.0	240
18	121	5.5	109	4.8	94	4.6	62	4.0	125	S (170)	0.543	W	4.0	271
20	120	5.0	105	4.6	83	4.7	53	3.8	131	SSE (149)	0.491	NNW	1.0	269
22	131	4.5	90	4.8	72	4.5	49	3.8	130	SSE (154)	0.521	NNW	1.0	246
D.max.	169	4.0	124	4.4	102	4.5	67	3.9	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	123	4.4	98	4.4	80	4.3	53	3.7	4	(SSE)	0.511	WSW	2.8	184

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table I. 3-1 (105) Wave Data

Date: 23th Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	117	4.0	97	4.6	75	4.4	48	3.7	131	SSE (153)	0.579	NNW	1.0	230
2	116	4.5	91	4.4	74	4.6	49	3.9	127	SSE (159)	0.481	N	1.0	209
4	90	4.0	77	4.0	61	4.4	41	3.8	126	S (171)	0.490	WNW	2.0	183
6	106	5.0	90	3.9	73	3.9	47	3.5	141	SSE (158)	0.502	NNW	2.0	145
8	122	4.0	78	4.2	60	4.2	39	3.9	127	SSE (146)	0.516	NNW	2.0	96
10	124	4.0	84	3.9	67	4.2	43	3.8	133	SSE (149)	0.431	WNW	2.0	70
12	93	4.0	75	4.1	61	4.0	41	3.6	136	ESE (123)	0.617	W	2.0	58
14	95	4.0	78	3.9	63	4.1	43	3.6	138	SSE (168)	0.523	WSW	4.0	128
16	102	4.5	88	4.3	74	4.3	50	3.8	131	S (172)	0.636	WSW	2.6	235
18	99	4.0	73	4.2	59	4.5	39	3.6	135	SSE (166)	0.529	WSW	2.0	268
20	96	5.0	78	5.1	63	4.6	41	3.8	124	S (173)	0.655	SW	3.0	275
22	99	4.5	74	4.3	61	4.5	41	3.7	130	SSE (167)	0.573	WSW	4.0	268
D.max.	124	4.0	97	4.6	75	4.4	50	3.8	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	105	4.3	82	4.2	66	4.3	44	3.7	4	(SSE)	0.544	WSW	2.3	180

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (106) Wave Data

Date: 24th Dec. 1988  
 St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	101	4.5	91	4.4	76	4.2	49	3.6	134	S (185)	0.619	WSW	4.0	240
2	125	4.0	96	4.3	77	4.3	50	3.6	134	S (172)	0.616	NW	2.5	210
4	111	4.5	96	4.0	76	4.2	49	3.6	136	SSE (161)	0.433	N	2.0	183
6	93	4.0	82	4.5	69	4.5	45	3.9	127	SSE (162)	0.522	N	2.0	152
8	88	4.5	71	4.4	58	4.5	38	4.0	126	SE (144)	0.427	NW	1.8	105
10	119	4.0	96	4.2	73	4.1	46	3.8	131	SSE (161)	0.379	S	4.0	76
12	113	4.0	100	4.5	77	4.3	48	3.7	134	SSE (153)	0.830	SW	2.0	60
14	136	3.5	99	4.1	79	3.8	52	3.5	140	SE (141)	0.682	WSW	5.0	77
16	109	4.0	91	4.1	72	4.1	48	3.6	140	SSE (160)	0.660	W	3.0	194
18	116	4.5	91	4.5	72	4.4	47	3.7	132	S (183)	0.517	WSW	2.0	268
20	119	4.5	81	4.2	63	4.2	42	3.6	136	SSE (165)	0.503	WNW	2.0	281
22	90	5.5	77	4.6	63	4.5	42	3.9	127	SSE (162)	0.364	NNE	2.0	268
D.max.	136	3.5	100	4.5	79	3.8	52	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	110	4.3	89	4.3	71	4.3	46	3.7	4	(SSE)	0.546	WSW	2.7	176

[Note]

W.H : Wave Height  
 W.P : Wave Period  
 Wave No.: Wave Countered  
 D.W.D : Dominant Wave Direction  
 R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
 D.max. : Daily max.  
 D.mean : Daily mean  
 M.F.D : Most Frequency Wind Direction

Table I. 3-1 (107) Wave Data

Date: 25th Dec. 1988  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	80	4.5	61	4.3	50	4.3	33	4.0	122	SSE (161)	0.445	ENE	2.0	241
2	68	5.5	58	4.4	49	4.6	32	3.9	126	SSE (155)	0.512	NNE	2.0	202
4	76	4.0	57	4.4	44	4.3	29	3.8	130	SSE (162)	0.430	NNE	2.0	189
6	85	4.0	61	4.3	47	4.3	30	4.2	121	SSE (152)	0.713	N	2.0	165
8	81	4.0	68	4.3	57	4.4	38	4.2	120	SSE (160)	0.380	WNW	2.0	118
10	103	4.5	81	4.4	63	4.3	39	3.8	132	SSE (151)	0.304	WNW	4.0	81
12	132	4.0	98	4.1	76	3.9	48	3.4	140	SSE (154)	0.494	WSW	4.0	64
14	100	4.5	85	4.2	69	3.9	46	3.4	141	SSW (191)	0.850	WSW	4.5	71
16	115	3.5	91	3.8	72	4.1	48	3.5	139	S (173)	0.789	WSW	4.5	167
18	198	5.0	165	4.5	130	4.6	83	4.2	118	SSE (161)	0.516	SW	5.0	261
20	149	4.5	99	4.6	78	4.5	51	3.8	132	SSE (167)	0.373	WSW	4.0	294
22	133	4.5	112	4.7	94	4.9	58	4.0	124	SSE (167)	0.530	W	3.0	283
D.max.	198	5.0	165	4.5	130	4.6	83	4.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	110	4.4	86	4.3	69	4.3	45	3.8	4	(SSE)	0.528	WSW	3.3	178

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (108) Wave Data

Date: 26th Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	152	4.0	107	4.8	81	4.5	51	4.0	124	SSE (153)	0.492	NW	3.0	241
2	115	5.0	95	4.7	76	4.4	49	3.7	134	SSE (163)	0.657	NW	3.0	204
4	107	3.5	85	4.6	63	4.2	40	3.5	135	SSE (163)	0.517	NNW	2.7	180
6	83	4.5	75	4.4	61	4.2	41	3.7	133	SSE (159)	0.578	N	2.7	170
8	82	5.0	74	4.3	61	4.3	40	4.1	124	SE (142)	0.435	NNE	2.7	127
10	80	4.0	63	4.5	51	4.4	32	4.0	125	SSE (150)	0.459	NNW	2.7	88
12	84	4.0	70	3.9	58	3.7	39	3.5	143	SE (144)	0.409	WSW	3.6	69
14	101	3.5	84	3.9	68	3.9	45	3.5	139	SE (136)	0.669	SW	3.5	66
16	98	4.0	69	4.1	56	3.9	37	3.4	146	ESE (120)	0.698	SW	2.5	124
18	71	4.5	60	3.8	49	4.0	34	3.5	139	SSE (157)	0.570	SW	2.5	225
20	85	3.5	66	4.0	52	3.8	35	3.4	140	SSE (165)	0.440	SSW	2.5	275
22	84	3.0	69	4.2	55	4.4	37	3.7	132	SSE (163)	0.483	WSW	2.5	284
D.max.	152	4.0	107	4.8	81	4.5	51	4.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	95	4.0	76	4.3	61	4.1	40	3.7	4	(SSE)	0.534	SW	2.8	171

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (100) Wave Data

Date: 27th Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	76	3.5	60	4.4	50	4.3	33	3.7	131	SSE (161)	0.302	WSW	2.5	268
2	87	4.5	73	4.0	59	3.9	38	3.3	147	SSE (158)	0.490	WSW	2.5	226
4	121	4.0	84	4.2	66	4.1	44	3.6	137	SSE (161)	0.509	WSW	2.5	185
6	94	4.0	76	4.0	62	4.0	42	3.5	138	SSE (168)	0.517	NW	2.5	168
8	84	4.5	68	3.9	55	3.9	37	3.4	143	S (169)	0.658	WNW	2.8	146
10	84	3.5	70	3.7	57	3.7	38	3.3	149	SSE (161)	0.496	N	1.0	107
12	87	4.0	64	3.9	52	3.9	36	3.6	135	SSE (160)	0.529	W	3.0	81
14	140	4.0	106	3.7	84	3.7	55	3.5	143	SSE (151)	0.692	SW	2.5	79
16	163	4.5	118	4.1	90	4.1	57	3.6	135	SE (134)	0.756	SW	4.0	117
18	117	3.0	88	4.2	71	4.1	48	3.6	135	SSE (151)	0.551	SW	4.0	205
20	112	4.0	86	4.3	71	4.4	47	3.8	127	SSE (154)	0.489	W	2.1	262
22	105	4.5	77	4.7	63	4.6	43	4.2	120	SSE (159)	0.454	NW	1.9	278
D.max.	163	4.5	118	4.1	90	4.1	57	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	106	4.0	81	4.1	65	4.1	43	3.6	4	(SSE)	0.537	SW	2.6	177

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (110) Wave Data

Date: 28th Dec. 1988  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	72	4.0	60	4.6	51	4.4	35	4.0	123	SSE (157)	0.469	N	1.9	262
2	72	4.0	55	4.5	44	4.6	29	4.1	122	SSE (161)	0.532	NNE	1.0	225
4	66	4.0	55	4.2	46	4.4	31	4.0	126	SSE (161)	0.427	N	1.3	176
6	76	3.5	54	4.2	42	4.2	26	3.8	133	SSE (161)	0.374	NE	2.0	158
8	57	4.0	48	4.5	37	4.5	23	4.0	125	S (171)	0.392	ENE	0.9	141
10	52	4.5	43	4.3	33	4.3	20	3.8	127	SE (131)	0.790	NE	2.0	112
12	40	4.0	31	4.2	26	4.6	18	4.2	120	SSE (162)	0.684	SSE	2.0	85
14	44	4.5	35	4.3	29	4.2	18	3.8	130	SSE (166)	0.444	SSW	2.0	76
16	46	4.0	39	3.9	31	3.6	22	3.2	144	SSE (165)	0.715	SW	2.0	105
18	56	3.5	41	3.6	34	3.6	23	3.2	152	S (171)	0.665	SW	2.0	180
20	50	4.0	42	3.4	34	3.6	23	3.1	149	SSE (165)	0.636	SSW	2.1	255
22	64	3.0	52	3.1	41	3.2	27	3.0	159	SSE (163)	0.509	SSW	4.0	272
D.max.	76	3.5	60	4.6	51	4.4	35	4.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	58	3.9	46	4.1	37	4.1	25	3.7	4	(SSE)	0.553	SSW	1.9	171

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (III) Wave Data

Date: 29th Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	86	2.5	56	3.2	45	3.1	30	3.0	157	SSE (161)	0.569	S	4.0	254
2	65	3.0	51	3.3	39	3.3	25	3.0	158	SSE (159)	0.525	S	3.9	227
4	53	3.5	44	3.2	37	3.3	26	3.0	160	S (181)	0.819	S	3.9	181
6	47	4.0	42	3.5	34	3.3	22	3.0	156	SSE (162)	0.431	S	3.9	157
8	54	3.0	41	3.3	34	3.5	23	3.1	152	SSE (157)	0.435	SE	2.1	148
10	59	3.5	46	3.4	36	3.3	24	3.1	157	SSE (156)	0.420	SSE	3.0	126
12	52	4.0	47	3.1	38	3.2	26	3.1	159	SSE (163)	0.537	S	3.9	110
14	67	3.0	55	2.8	46	2.9	32	3.0	161	S (170)	0.495	SW	0.9	99
16	74	3.0	64	3.3	53	3.2	38	3.1	157	SSE (153)	0.470	W	4.1	128
18	118	4.0	94	4.0	79	4.0	53	3.6	137	S (190)	0.378	WSW	3.8	158
20	118	4.0	92	3.8	77	4.0	51	3.6	135	S (179)	0.380	WNW	3.0	225
22	91	3.5	71	3.8	59	3.8	40	3.4	139	S (170)	0.451	NNW	2.9	270
D.max.	118	4.0	94	4.0	79	4.0	53	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	74	3.4	59	3.4	48	3.4	33	3.2	3	(SSE)	0.492	S	3.3	174

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (112) Wave Data

Date: 30th Dec. 1988  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	76	4.0	61	4.0	51	4.0	34	3.4	141	S (180)	0.394	NW	2.9	257
2	85	5.0	68	4.0	54	4.2	37	3.9	127	S (170)	0.398	NNE	2.9	218
4	71	4.5	55	4.1	43	4.2	28	3.7	131	SSE (168)	0.328	NNW	2.9	161
6	59	4.5	49	4.3	40	4.2	28	4.0	125	SSE (166)	0.414	N	2.9	136
8	46	4.5	41	3.9	33	3.9	21	3.3	146	SSE (168)	0.366	N	2.8	125
10	44	4.5	38	3.9	31	4.2	21	3.6	135	SSE (165)	0.360	ENE	2.4	124
12	56	4.0	35	4.2	28	4.0	18	3.7	131	SSE (160)	0.282	WSW	2.4	117
14	44	4.0	36	4.0	29	4.0	19	3.7	134	SSE (167)	0.438	WSW	2.2	108
16	41	3.5	34	3.5	27	3.6	18	3.1	147	SSE (163)	0.298	WSW	2.1	114
18	53	3.0	44	3.1	35	3.2	24	3.0	157	SSE (161)	0.570	SW	2.1	162
20	48	3.0	42	3.3	35	3.3	23	3.1	152	S (171)	0.535	NW	2.1	220
22	52	3.5	39	3.5	31	3.5	20	3.2	151	SSE (164)	0.471	NW	2.1	255
D.max.	85	5.0	68	4.0	54	4.2	37	3.9	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	56	4.0	45	3.8	36	3.9	24	3.5	3	(SSE)	0.404	WSW	2.5	166

[Note1

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table 1. 3-1 (113) Wave Data

Date: 31th Dec. 1988  
 St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	51	3.5	36	3.7	29	3.7	20	3.4	140	S (171)	0.361	NE	2.1	251
2	40	4.5	32	3.8	27	3.9	19	3.5	140	SSE (155)	0.663	ENE	2.0	211
4	45	3.5	39	3.9	32	3.9	22	3.4	138	SSE (161)	0.334	NNE	2.0	165
6	35	4.5	30	3.7	27	3.6	19	3.3	132	SSE (159)	0.439	NE	2.0	132
8	36	4.5	31	4.0	26	3.9	18	3.4	132	SSE (156)	0.427	NE	2.1	114
10	45	4.0	31	4.0	24	4.1	16	3.7	134	SSE (160)	0.344	ENE	2.1	120
12	32	3.0	29	3.6	24	3.5	16	3.1	151	SSE (167)	0.419	W	2.1	133
14	51	3.0	37	2.7	30	2.9	19	2.8	165	SSE (161)	0.304	WSW	2.1	141
16	42	2.5	34	3.1	28	3.1	19	2.9	149	SSE (161)	0.420	SW	2.1	137
18	40	3.5	27	3.0	22	3.0	16	2.7	154	SSE (162)	0.373	SW	2.1	162
20	42	3.5	31	3.0	25	3.2	17	2.9	143	SSE (158)	0.562	SW	2.1	218
22	44	4.0	35	3.1	28	3.3	19	3.0	154	SSE (166)	0.300	WSW	2.1	251
D.max.	51	3.5	39	3.9	32	3.9	22	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	42	3.7	33	3.5	27	3.5	18	3.2	3	(SSE)	0.412	SW	2.1	170

[Note]

W.H : Wave Height  
 W.P : Wave Period  
 Wave No.: Wave Countered  
 D.W.D : Dominant Wave Direction  
 R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
 D.max. : Daily max.  
 D.mean : Daily mean  
 M.F.D : Most Frequency Wind Direction

Table I. 3-1 (HM) Wave Data

Date: 1st Jan. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	55	4.0	42	4.0	34	4.1	23	3.6	137	SSE (161)	0.250	NNW	2.1	243
2	40	5.0	33	4.3	27	4.2	18	3.5	140	SSE (167)	0.288	NW	2.2	204
4	45	5.0	34	4.5	26	4.2	18	3.7	129	SSE (163)	0.257	N	2.2	159
6	40	4.0	30	3.5	25	3.8	17	3.4	140	SSE (163)	0.244	NW	2.2	122
8	40	3.5	32	3.7	27	3.8	18	3.3	144	SSE (159)	0.277	NNW	2.2	98
10	49	3.5	32	3.4	24	3.6	16	3.2	147	SSE (164)	0.322	ENE	2.2	110
12	31	4.0	27	3.8	22	3.7	15	3.3	148	SSE (161)	0.441	SW	2.2	146
14	36	4.0	29	3.4	25	3.3	17	3.0	144	SSE (166)	0.319	WSW	2.2	166
16	53	3.5	41	2.9	32	2.9	23	2.8	159	SSE (159)	0.471	WSW	2.2	165
18	60	3.5	47	2.9	37	2.9	25	2.7	166	SSE (162)	0.392	WSW	2.3	178
20	50	3.0	39	2.9	32	2.9	22	2.8	163	SSE (167)	0.350	WSW	2.3	210
22	46	3.5	39	3.2	32	3.2	22	3.1	155	SSE (168)	0.312	WSW	2.3	241
D.max.	60	3.5	47	2.9	37	2.9	25	2.7	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	45	3.9	35	3.5	29	3.5	20	3.2	3	(SSE)	0.327	WSW	2.2	170

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (JIS) Wave Data

Date: 2nd Jan. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	56	3.0	42	3.5	34	3.4	23	3.3	151	S (172)	0.372	N	2.3	240
2	46	4.0	36	3.7	30	3.5	20	3.2	150	S (170)	0.354	N	2.4	199
4	42	3.5	37	3.6	30	3.4	21	3.1	147	SSE (166)	0.355	NE	2.4	154
6	52	3.5	43	3.3	33	3.3	23	2.9	154	SSE (163)	0.387	N	2.4	117
8	51	4.5	36	3.5	29	3.3	19	2.9	158	SSE (168)	0.402	NNW	2.4	91
10	43	3.0	28	3.2	21	3.3	15	3.1	161	SSE (165)	0.321	NE	2.4	97
12	31	3.5	28	3.5	23	3.4	15	3.1	148	S (172)	0.349	SW	3.6	154
14	53	3.5	35	3.5	28	3.5	19	3.3	143	SSE (168)	0.295	WSW	2.0	187
16	45	3.5	37	3.6	30	3.5	20	3.1	145	SSE (162)	0.248	WSW	2.0	191
18	55	3.0	48	3.5	39	3.6	26	3.3	144	SSE (168)	0.227	SW	2.0	186
20	64	3.0	46	3.5	38	3.5	26	3.4	142	SSE (162)	0.343	NE	2.0	208
22	55	4.0	47	3.2	39	3.2	25	3.0	147	SSE (164)	0.271	NE	2.4	230
D.max.	64	3.0	48	3.5	39	3.6	26	3.3	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	49	3.5	39	3.5	31	3.4	21	3.1	3	(SSE)	0.327	NE	2.4	171

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (116) Wave Data

Date: 3rd Jan. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	44	3.5	37	3.6	32	3.7	21	3.4	140	SSE (164)	0.395	N	1.0	221
2	47	4.0	35	3.9	28	3.8	19	3.5	140	SSE (165)	0.283	NNE	2.0	184
4	34	3.5	28	3.8	23	3.8	15	3.3	147	SSE (168)	0.394	N	2.0	137
6	27	3.5	23	3.9	19	3.8	13	3.5	137	SSE (165)	0.467	NNE	2.3	101
8										SSE (160)	0.260	NE	2.0	76
10										SSE (164)	0.343	NE	3.8	74
12										SSE (165)	0.523	NE	2.5	141
14										SSE (164)	0.319	NE	1.0	203
16										SSE (166)	0.384	SSE	3.8	214
18										SSE (167)	0.403	SSE	3.8	202
20										S (169)	0.345	N	3.0	208
22										S (169)	0.370	WSW	1.0	225
D.max.	47	4.0	37	3.6	32	3.7	21	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	38	3.6	31	3.8	26	3.8	17	3.4	3	(SSE)	0.374	NE	2.3	166

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (H7) Wave Data

Date: 4th Jan. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0										S (170)	0.290	SW	0.5	221
2										S (172)	0.321	NW	2.0	188
4										S (174)	0.301	NE	1.0	139
6										SSE (168)	0.277	NE	2.0	95
8										S (172)	0.256	NE	1.0	67
10										S (170)	0.242	S	4.0	62
12										SSE (168)	0.450	SW	2.0	131
14										S (172)	0.271	SSW	3.0	205
16										S (174)	0.321	SW	3.0	231
18										SSE (169)	0.293	NE	2.2	225
20										SSE (168)	0.338	ENE	1.0	220
22										SSE (167)	0.434	NE	0.5	218
D.max.										most D.W.D	mean	M.F.D	mean	mean
D.mean										( S )	0.316	NE	1.8	167

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (118) Wave Data

Date: 5th Jan. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0										SSE (168)	0.256	NNW	2.0	210
2										S (169)	0.467	WSW	1.0	181
4										SSE (167)	0.246	ENE	1.0	136
6										SSE (168)	0.263	NW	1.8	92
8										SSE (164)	0.298	NW	2.0	64
10										SSE (167)	0.310	NNE	2.0	51
12										S (173)	0.466	NE	2.0	89
14										S (173)	0.262	N	2.0	189
16										S (172)	0.193	NNW	2.0	239
18										SSE (168)	0.279	WNW	2.0	245
20										S (169)	0.410	WNW	2.0	238
22										SSE (167)	0.242	NNW	2.0	231
D.max.										most D.W.D	mean	M.F.D	mean	mean
D.mean										(SSE)	0.308	NNW	1.8	164

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (119) Wave Data

Date: 6th Jan. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0										S (170)	0.304	NE	2.0	206
2										S (169)	0.264	ENE	2.0	179
4										SSE (168)	0.368	ENE	2.0	139
6										SSE (165)	0.283	NW	2.0	100
8										SSE (167)	0.210	E	2.0	64
10										S (169)	0.289	SW	2.0	47
12										SSE (167)	0.414	SSW	2.0	72
14										S (170)	0.413	SSW	2.0	170
16										S (174)	0.294	SSW	2.0	234
18										S (170)	0.411	SSW	2.0	257
20										S (173)	0.298	SSE	2.5	257
22										S (171)	0.214	SE	2.5	235
D.max.										most D.W.D	mean	M.F.D	mean	mean
D.mean										( S )	0.313	SSW	2.1	163

[Note] W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-J (120) Wave Data

Date: 7th Jan. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0										SSE (167)	0.341	SE	2.5	206
2										S (170)	0.228	ESE	2.5	186
4										SSE (166)	0.362	NE	2.5	155
6										S (171)	0.326	NNE	2.5	113
8										S (171)	0.251	ENE	2.0	73
10										SSE (169)	0.172	SSE	1.0	51
12										S (173)	0.292	S	2.0	43
14										S (175)	0.354	SSW	2.4	125
16										S (178)	0.227	S	4.0	224
18										S (183)	0.233	SSE	3.8	265
20										S (177)	0.235	E	2.0	272
22										S (173)	0.398	ENE	2.0	253
D.max.										most D.W.D	mean	M.F.D	mean	mean
D.mean										( S )	0.285	S	2.4	164

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table 1.3-1 (I21) Wave Data

Date: 8th Jan. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0										S (172)	0.276	ENE	2.0	218
2										S (170)	0.253	NNE	2.5	187
4										S (171)	0.274	NE	2.5	167
6										S (169)	0.285	ENE	2.0	125
8										S (173)	0.259	NE	2.0	68
10										S (169)	0.218	NE	2.0	49
12										S (173)	0.261	NE	1.0	45
14										S (179)	0.319	SSW	2.0	140
16										S (184)	0.194	SSE	4.8	236
18										S (182)	0.221	SSE	4.0	274
20										S (173)	0.386	ESE	4.0	273
22										S (176)	0.308	NE	1.8	247
D.max.										most D.W.D	mean	M.F.D	mean	mean
D.mean										( S )	0.271	NE	2.5	169

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table J. 3-1 (122) Wave Data

Date: 9th Jan. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir. (m/s)	vel. (m/s)	
0										S (171)	0.264	E	1.0	206
2										S (171)	0.289	NE	0.5	186
4										S (172)	0.246	E	0.5	163
6										S (172)	0.218	ENE	1.8	120
8										S (175)	0.318	NE	2.5	77
10										S (173)	0.236	NE	3.0	54
12										SSE (168)	0.393	NE	2.0	44
14										S (183)	0.231	NNE	4.0	62
16										S (182)	0.172	SSE	3.0	152
18										S (172)	0.219	S	2.0	252
20										S (173)	0.202	SSE	2.0	265
22										S (175)	0.217	NW	2.0	275
D.max.										most D.W.D	mean	M.F.D	mean	mean
D.mean										( S )	0.250	NE	2.0	155

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (123) Wave Data

Date: 10th Jan. 1989  
 St. : 1.

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0										S (174)	0.283	NW	2.0	247
2										S (172)	0.245	NW	1.0	202
4										S (170)	0.194	N	1.0	184
6										S (170)	0.274	N	1.0	167
8										S (172)	0.296	NE	2.0	118
10										S (172)	0.218	ESE	0.8	76
12										S (178)	0.254	SSW	2.0	55
14										S (171)	0.289	SW	1.0	47
16										S (169)	0.358	S	3.5	119
18										S (171)	0.322	SSE	2.5	213
20										S (173)	0.244	SE	1.7	269
22										S (173)	0.187	ESE	0.2	281
D.max.										most D.W.D	mean	M.F.D	mean	mean
D.mean										( S )	0.264	NW	1.6	165

[Note]  
 W.H : Wave Height  
 W.P : Wave Period  
 Wave No.: Wave Countered  
 D.W.D : Dominant Wave Direction  
 R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.I : Tidal Level  
 D.max. : Daily max.  
 D.mean : Daily mean  
 M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (121) Wave Data

Date: 11th Jan. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0										S (177)	0.314	NE	0.1	254
2										S (172)	0.240	NE	0.7	208
4										S (171)	0.195	ENE	1.0	182
6										S (173)	0.185	NE	2.0	170
8										S (171)	0.287	NE	1.9	141
10										S (170)	0.822	NE	1.6	88
12	6	3.0	5	3.1	4	3.1	3	3.0	157	WSW (244)	0.633	SSE	0.3	63
14	8	5.5	6	3.1	5	3.1	4	2.8	149	W (271)	0.702	SSW	1.8	52
16	17	2.0	14	2.2	11	2.2	8	2.4	97	SSW (196)	0.859	SSE	3.8	100
18	18	2.0	13	2.1	10	2.3	7	2.4	143	NE ( 48)	0.735	E	0.3	181
20	19	2.0	12	2.5	10	2.3	7	2.4	118	N ( 4)	0.827	ENE	1.0	258
22	41	2.5	32	2.3	25	2.3	16	2.3	182	NE ( 51)	0.944	NE	2.5	279
D.max.	41	2.5	32	2.3	25	2.3	16	2.3	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	18	2.8	14	2.6	11	2.6	8	2.5	3	( S )	0.562	NE	1.4	165

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (125) Wave Data

Date: 12th Jan. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	27	2.0	23	2.0	18	2.1	13	2.2	167	NE ( 35)	0.914	NNE	3.1	255
2	34	2.0	22	2.1	17	2.1	11	2.2	147	NE ( 46)	0.434	NNE	2.5	202
4	16	2.5	12	2.1	10	2.2	7	2.3	116	NNE ( 14)	0.976	NNE	1.8	168
6	28	2.0	20	2.0	16	2.1	12	2.2	133	NNE ( 29)	0.543	N	2.0	165
8	64	2.5	45	2.1	33	2.1	21	2.3	182	NNW (348)	0.861	NNW	1.0	150
10	32	2.0	27	2.4	22	2.5	16	2.4	155	NNE ( 15)	0.896	NW	0.8	101
12	44	2.5	36	2.6	29	2.6	20	2.6	172	E ( 85)	0.826	N	2.1	73
14	36	3.0	30	2.6	24	2.7	17	2.7	171	WSW (254)	0.959	SW	1.5	62
16	36	2.5	29	2.8	23	2.8	16	2.8	161	SSE (165)	0.807	SSE	2.5	93
18	31	3.5	26	3.2	22	3.3	15	3.1	152	S (189)	0.837	S	2.0	149
20	34	4.0	29	3.5	24	3.5	15	3.1	154	SSW (198)	0.782	SSW	2.0	245
22	34	3.5	28	3.4	22	3.5	15	3.3	143	WSW (240)	0.694	SSE	0.9	277
D.max.	64	2.5	45	2.1	33	2.1	21	2.3	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	35	2.7	27	2.6	22	2.6	15	2.6	3	(NNE)	0.794	NNE	1.8	162

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (125) Wave Data

Date: 13th Jan. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	36	4.0	28	3.3	23	3.4	16	3.0	139	SW (236)	0.614	S	1.8	261
2	29	3.0	23	3.0	20	3.2	14	3.1	147	SW (230)	0.870	S	2.0	212
4	26	3.5	21	3.5	17	3.4	11	3.2	148	SW (226)	0.805	ESE	0.8	161
6	80	3.5	63	3.1	51	2.9	34	2.9	164	WSW (241)	0.748	WNW	1.5	149
8	43	2.0	28	2.6	23	2.6	16	2.6	164	SSW (211)	0.661	W	1.0	149
10	42	2.0	31	2.3	24	2.6	16	2.5	175	SW (216)	0.712	SW	0.9	127
12	61	2.5	50	2.6	42	2.6	29	2.6	172	SW (229)	0.710	NW	2.2	96
14	56	2.5	43	2.9	36	3.1	25	3.0	164	WSW (249)	0.675	SE	1.2	81
16	59	3.0	37	3.1	30	3.1	21	2.9	158	WSW (244)	0.681	S	3.8	92
18	32	3.0	26	2.9	20	3.0	13	2.8	167	SW (224)	0.954	NE	1.0	128
20	32	3.0	23	2.7	18	2.6	12	2.5	160	NNE ( 20)	0.733	NNE	2.0	215
22	31	2.5	22	2.6	18	2.5	13	2.5	163	NE ( 48)	0.838	E	0.7	271
D.max.	80	3.5	63	3.1	51	2.9	34	2.9	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	44	2.9	33	2.9	27	2.9	18	2.8	3	( SW)	0.750	S	1.6	162

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (127) Wave Data

Date: 14th Jan. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	25	3.0	17	3.5	14	3.2	9	2.9	141	W (266)	0.944	NE	1.2	262
2	16	2.5	14	3.3	11	3.4	7	3.1	154	SSE (149)	0.771	N	0.0	197
4	15	3.5	12	3.2	9	3.2	7	3.3	150	SW (218)	0.695	N	0.3	146
6	16	3.0	11	3.2	9	3.5	6	3.4	144	SSW (192)	0.215	NE	0.8	126
8	11	3.5	8	3.5	7	3.3	5	3.2	147	SW (229)	0.707	ENE	0.0	125
10	7	4.0	7	3.5	5	3.5	4	3.2	154	S (169)	0.636	ENE	0.1	131
12	42	3.5	24	3.7	14	4.0	7	3.7	131	WSW (249)	0.750	NE	1.7	123
14	8	4.0	6	3.6	5	3.7	3	3.4	143	SW (216)	0.551	SSE	0.8	129
16	8	3.5	6	3.7	5	3.8	3	3.4	139	SSE (156)	0.871	S	2.0	131
18	18	2.0	13	2.4	11	2.5	7	2.4	106	S (182)	0.801	SSE	4.0	150
20	48	2.5	39	2.3	29	2.4	20	2.4	171	SSW (199)	0.828	SE	4.2	217
22	52	3.0	44	2.8	34	2.6	23	2.6	173	NNW (329)	0.888	NE	2.0	257
D.max.	52	3.0	44	2.8	34	2.6	23	2.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	22	3.2	17	3.2	13	3.3	8	3.1	3	( SW)	0.721	NE	1.4	166

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (128) Wave Data

Date: 15th Jan. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	35	2.0	25	2.2	20	2.3	14	2.4	171	NNW (337)	0.753	NW	1.4	252
2	14	2.5	12	2.4	10	2.4	7	2.4	167	NNW (333)	0.811	NW	0.0	193
4	16	2.0	12	2.4	9	2.5	6	2.6	183	ENE ( 77)	0.666	NE	1.9	145
6	14	2.5	11	2.6	9	2.5	6	2.5	133	NNE ( 14)	0.713	NE	1.9	111
8	16	2.0	11	2.2	9	2.4	6	2.4	113	N (354)	0.840	NE	0.6	99
10	13	2.0	10	2.1	8	2.3	5	2.3	98	NNE ( 14)	0.764	NE	2.0	122
12	10	2.0	8	2.3	6	2.8	4	2.8	138	E ( 99)	0.799	E	0.6	156
14	9	2.5	8	2.6	7	2.8	5	2.8	84	SW (229)	0.719	S	3.3	179
16	25	2.0	20	2.1	16	2.1	11	2.2	174	S (190)	0.954	S	3.9	177
18	60	2.5	43	2.6	35	2.6	23	2.6	173	SE (135)	0.798	S	3.8	177
20	56	3.0	45	2.6	38	2.7	25	2.7	165	NNW (339)	0.823	ENE	2.8	213
22	38	2.0	28	2.2	22	2.3	15	2.4	180	NE ( 44)	0.847	NNW	1.8	256
D.max.	60	2.5	45	2.6	38	2.7	25	2.7	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	26	2.3	19	2.4	16	2.5	11	2.5	3	(NNW)	0.791	NE	2.0	173

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table 1. 3-1 (120) Wave Data

Date: 16th Jan. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	19	2.5	15	2.3	12	2.3	8	2.4	156	NE ( 42)	0.844	NNW	1.5	244
2	26	3.5	20	2.7	15	2.6	10	2.5	108	NNE ( 15)	0.940	NW	1.0	189
4	10	2.5	9	2.5	7	2.5	5	2.5	118	NNW (345)	0.959	NNW	0.9	129
6	14	2.5	10	2.4	8	2.4	5	2.3	79	N (353)	0.691	N	1.2	95
8	16	2.0	10	2.0	9	2.1	6	2.3	112	NNW (332)	0.652	NE	1.8	77
10	9	2.5	7	2.5	6	2.3	4	2.4	121	ENE ( 63)	0.672	NE	2.0	98
12	8	2.0	6	2.3	5	2.4	4	2.4	135	ENE ( 70)	0.678	N	2.3	169
14	8	3.0	6	3.0	5	3.2	3	2.9	138	SSW (209)	0.675	ENE	1.2	204
16	7	2.0	6	2.2	5	2.5	4	2.6	148	SW (236)	0.790	S	1.5	197
18	69	3.0	53	3.0	43	3.0	29	2.9	161	WNW (294)	0.780	SE	4.3	194
20	11	2.0	10	2.1	9	2.4	6	2.3	140	ENE ( 64)	0.767	N	2.0	210
22	18	2.0	14	2.0	11	2.2	8	2.3	108	NNE ( 31)	0.881	N	2.6	230
D.max.	69	3.0	53	3.0	43	3.0	29	2.9	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	18	2.5	14	2.4	11	2.5	8	2.5	2	(ENE)	0.777	N	1.9	170

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (130) Wave Data

Date: 17th Jan. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	35	2.5	27	2.2	22	2.2	15	2.2	192	WSW (243)	0.793	WNW	2.0	236
2	29	2.0	20	2.2	16	2.3	11	2.3	163	WSW (247)	0.464	W	1.8	190
4	34	2.5	27	2.6	21	2.6	14	2.5	180	WSW (245)	0.672	S	2.0	127
6	49	2.5	35	2.5	28	2.5	19	2.6	185	WSW (250)	0.620	S	2.5	87
8	79	3.5	62	3.2	50	3.3	33	3.0	152	SSW (212)	0.807	S	3.9	68
10	71	3.0	56	3.2	47	3.4	33	3.2	146	SSE (166)	0.743	SSW	2.5	83
12	39	3.0	29	2.7	24	2.6	17	2.6	178	SW (236)	0.944	SW	2.2	162
14	32	3.0	26	2.9	20	2.8	13	2.7	175	WSW (246)	0.828	SSW	2.0	218
16	29	3.0	23	2.7	19	2.8	13	2.7	158	WSW (247)	0.352	S	2.0	232
18	21	2.0	18	2.5	14	2.5	10	2.4	139	WSW (249)	0.400	S	2.2	219
20	40	2.0	26	2.1	19	2.2	13	2.3	157	ENE ( 68)	0.272	SE	2.3	211
22	24	2.0	19	2.0	16	2.1	10	2.3	143	ENE ( 68)	0.370	SE	2.2	217
D.max.	79	3.5	62	3.2	50	3.3	33	3.0	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	40	2.6	31	2.6	25	2.6	17	2.6	3	(WSW)	0.605	S	2.3	171

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (B) Wave Data

Date: 18th Jan. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	25	2.0	17	2.0	14	2.1	10	2.1	136	ENE ( 68)	0.639	ESE	2.1	218
2	22	2.0	19	2.1	15	2.1	10	2.2	170	ENE ( 67)	0.358	NNE	2.0	197
4	17	2.5	14	2.4	11	2.4	7	2.5	193	ENE ( 75)	0.628	N	2.1	133
6	15	2.5	11	2.6	9	2.8	6	2.8	174	ENE ( 67)	0.489	NNE	2.1	89
8	9	3.0	6	3.0	5	2.9	4	2.8	160	ENE ( 67)	0.452	NE	2.0	63
10	8	3.0	7	3.2	6	3.1	4	2.8	137	WSW (252)	0.501	NE	2.1	53
12	10	2.5	8	2.8	6	2.9	4	2.9	162	SW (236)	0.590	SSW	0.7	129
14	15	2.5	12	2.5	9	2.6	6	2.6	163	WSW (246)	0.492	S	3.8	183
16	30	2.0	22	2.1	17	2.1	12	2.3	184	WSW (248)	0.624	S	4.0	237
18	29	2.0	21	2.2	17	2.4	12	2.4	170	WSW (247)	0.650	S	2.9	244
20	34	2.0	20	2.1	17	2.3	12	2.4	149	WSW (247)	0.626	S	3.0	229
22	26	2.5	21	2.4	17	2.4	11	2.4	166	WSW (243)	0.689	SSE	2.8	213
D.max.	34	2.0	22	2.1	17	2.1	12	2.3	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	20	2.4	15	2.4	12	2.5	8	2.5	3	(WSW)	0.561	S	2.5	166

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (132) Wave Data

Date: 19th Jan. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	20	2.5	17	2.4	14	2.5	10	2.5	161	SW (233)	0.743	S	2.7	210
2	20	2.5	16	2.3	12	2.5	8	2.4	168	WSW (242)	0.438	SSW	2.2	201
4	23	2.5	17	2.3	14	2.5	9	2.5	178	SW (234)	0.592	W	2.2	149
6	17	2.5	14	2.5	11	2.7	8	2.7	174	ENE ( 63)	0.737	N	2.0	95
8	14	2.5	11	2.5	9	2.7	6	2.7	164	NE ( 41)	0.923	NE	1.9	64
10	14	2.5	10	2.6	9	2.7	6	2.6	164	E ( 92)	0.769	NE	1.7	48
12	11	2.5	10	2.7	8	2.7	5	2.6	178	SW (230)	0.783	SSW	1.8	90
14	16	2.5	12	2.3	10	2.5	7	2.5	149	SSW (203)	0.933	SW	1.9	169
16	21	2.0	18	2.1	15	2.2	10	2.2	148	SW (222)	0.709	WSW	2.1	241
18	41	2.0	33	2.3	26	2.3	18	2.3	178	WSW (255)	0.869	SW	2.4	249
20	39	3.0	31	2.4	25	2.5	17	2.4	180	WSW (245)	0.812	SSW	2.6	255
22	36	2.5	28	2.6	22	2.6	15	2.6	165	S (189)	0.690	SSW	2.0	227
D.max.	41	2.0	33	2.3	26	2.3	18	2.3	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	23	2.5	18	2.4	15	2.5	10	2.5	3	( SW)	0.750	SSW	2.1	167

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (133) Wave Data

Date: 20th Jan. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	25	2.5	23	2.4	19	2.6	13	2.5	163	SW (235)	0.855	S	1.9	208
2	25	2.5	19	2.6	15	2.5	10	2.5	170	NNW (341)	0.756	W	0.5	193
4	30	3.0	22	2.6	17	2.6	12	2.6	178	NE ( 36)	0.950	N	2.0	165
6	41	3.0	28	2.5	23	2.5	16	2.5	148	NE ( 50)	0.971	NNE	2.2	115
8	29	2.0	23	2.6	19	2.6	14	2.6	154	N (355)	0.883	N	1.9	74
10	24	2.5	18	2.7	15	2.7	11	2.7	167	WSW (241)	0.683	S	1.0	53
12	29	2.0	21	2.3	17	2.4	12	2.5	168	SW (214)	0.961	SSW	2.1	53
14	24	2.0	19	2.5	16	2.5	11	2.6	157	SW (219)	0.840	WNW	1.9	132
16	36	2.0	27	2.6	23	2.4	16	2.4	167	SSE (150)	0.856	SW	2.0	163
18	47	2.5	33	2.7	27	2.6	19	2.7	166	WSW (244)	0.885	WSW	2.0	210
20	31	2.5	27	2.8	21	2.8	14	2.7	167	WSW (246)	0.732	SSW	2.0	237
22	41	3.0	32	3.0	26	2.9	18	2.8	162	WSW (252)	0.632	SSW	2.0	239
D.max.	47	2.5	33	2.7	27	2.6	19	2.7	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	32	2.5	24	2.6	20	2.6	14	2.6	3	(WSW)	0.834	SSW	1.8	154

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (RM) Wave Data

Date: 21th Jan. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	42	3.0	32	3.0	25	2.8	17	2.8	165	WSW (259)	0.580	S	2.0	210
2	35	3.0	26	2.8	22	3.0	15	2.9	159	WSW (249)	0.487	SW	1.7	194
4	42	2.0	33	2.6	27	2.7	19	2.6	176	WSW (246)	0.239	SSW	2.3	174
6	35	3.0	30	3.0	25	2.8	17	2.7	169	ENE ( 66)	0.359	NNE	1.9	130
8	39	4.0	31	2.8	25	2.9	17	2.8	167	ENE ( 72)	0.196	NNE	1.9	86
10	51	3.0	38	2.8	31	2.9	22	2.8	171	SW (226)	0.615	NW	2.8	61
12	72	3.0	47	2.9	38	3.0	25	2.9	167	WSW (240)	0.862	SSE	4.8	54
14	67	3.0	50	2.8	41	2.8	29	2.8	162	S (182)	0.920	W	2.2	136
16	79	3.5	68	3.3	53	3.3	36	3.1	153	WSW (241)	0.618	WSW	2.5	185
18	74	3.0	58	3.3	48	3.4	33	3.3	147	WSW (239)	0.533	WSW	2.2	256
20	56	2.5	46	3.2	38	3.3	26	3.1	150	WSW (244)	0.268	WSW	2.3	276
22	56	3.0	47	3.7	39	3.5	26	3.1	151	WSW (253)	0.380	WSW	1.9	257
D.max.	79	3.5	68	3.3	53	3.3	36	3.1	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	54	3.0	42	3.0	34	3.0	24	2.9	3	(WSW)	0.505	WSW	2.4	168

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (135) Wave Data

Date: 22th Jan. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	75	4.0	52	3.3	42	3.4	28	3.1	150	WSW (245)	0.363	WSW	2.0	228
2	57	3.0	45	3.3	37	3.5	25	3.2	151	WSW (251)	0.391	N	1.0	198
4	65	3.5	49	3.3	38	3.3	25	3.2	149	SW (232)	0.535	NNW	2.2	183
6	55	3.5	45	3.4	38	3.5	26	3.2	150	SW (233)	0.494	SE	2.4	158
8	103	3.5	83	3.6	65	3.6	42	3.2	151	SW (220)	0.758	NW	2.0	109
10	87	3.5	67	4.0	55	4.0	37	3.6	134	SW (229)	0.598	NNE	1.8	74
12	73	3.5	58	4.1	47	4.0	31	3.6	136	SW (219)	0.463	N	2.0	56
14	66	4.5	50	3.9	41	3.8	27	3.4	144	W (266)	0.854	N	1.6	90
16	60	3.0	42	3.7	33	3.9	23	3.7	132	SW (228)	0.828	SW	1.7	179
18	59	4.0	51	3.6	42	3.9	30	3.5	140	SW (231)	0.500	SW	1.5	223
20	69	3.5	60	3.5	48	3.7	32	3.2	148	SW (226)	0.386	SW	2.2	261
22	85	4.5	69	3.9	54	3.9	35	3.4	140	SW (219)	0.568	SSW	1.7	266
D.max.	103	3.5	83	3.6	65	3.6	42	3.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	71	3.7	56	3.6	45	3.7	30	3.4	3	( SW)	0.561	SW	1.8	169

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (136) Wave Data

Date: 23th Jan. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	102	4.5	71	4.3	56	4.2	37	3.6	136	SW (233)	0.537	WSW	2.0	237
2	99	4.5	80	4.0	64	4.0	43	3.5	138	SSW (210)	0.519	NW	2.1	193
4	99	4.5	85	4.5	69	4.5	45	3.9	128	SW (221)	0.402	WNW	2.2	171
6	124	4.0	98	3.8	79	3.9	53	3.5	139	SW (217)	0.529	WNW	2.5	154
8	132	3.5	108	4.3	85	4.2	57	3.6	137	SW (229)	0.383	W	2.1	124
10	111	4.5	88	4.2	69	4.3	48	3.8	129	SW (224)	0.501	WNW	2.0	84
12	106	4.5	85	4.4	71	4.4	45	3.9	127	SW (225)	0.482	ENE	1.5	66
14	91	3.5	76	4.2	61	4.1	40	3.8	132	SSW (207)	0.664	SSW	0.7	89
16	97	3.5	80	4.3	61	4.5	40	4.1	122	SSW (211)	0.524	NNE	0.0	173
18	71	3.5	59	4.0	49	3.9	35	3.7	133	SW (224)	0.597	WNW	1.8	247
20	98	4.0	77	3.8	59	3.8	38	3.3	142	SW (215)	0.389	WNW	2.0	276
22	113	4.0	86	3.9	72	3.8	48	3.4	142	SW (216)	0.502	WNW	2.5	272
D.max.	132	3.5	108	4.3	85	4.2	57	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	104	4.0	83	4.1	66	4.1	44	3.7	4	( SW)	0.502	WNW	1.8	174

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table I. 3-1 (137) Wave Data

Date: 24th Jan. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	117	5.5	98	4.3	82	4.1	55	3.7	131	SW (222)	0.437	NNW	1.5	231
2	125	4.5	111	4.7	89	4.7	59	4.0	123	SW (220)	0.415	N	1.6	206
4	101	5.5	89	4.8	73	4.9	46	4.1	120	SW (220)	0.430	NNE	1.8	169
6	88	4.0	79	4.5	64	4.6	45	3.8	124	SW (221)	0.478	NNW	2.1	156
8	105	5.5	75	4.5	62	4.2	43	3.6	132	SW (220)	0.436	NW	3.0	141
10	108	3.5	90	3.7	72	3.6	48	3.3	141	SSW (213)	0.658	WNW	2.2	96
12	138	4.5	117	4.9	93	4.8	64	4.2	116	SW (219)	0.464	WNW	3.3	80
14	141	5.0	111	4.9	86	4.5	55	3.7	132	SW (222)	0.521	SW	2.8	76
16	126	4.5	96	4.4	77	4.7	49	3.8	129	SSW (212)	0.490	SW	3.8	146
18	141	4.5	104	4.3	83	4.2	53	3.7	134	SSW (208)	0.680	SW	3.0	224
20	134	5.5	97	4.3	77	4.2	53	3.7	136	SSW (212)	0.396	WNW	2.8	266
22	109	4.0	95	4.0	79	4.2	53	3.7	133	SW (215)	0.581	NW	0.9	266
D.max.	141	5.0	117	4.9	93	4.8	64	4.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	119	4.7	97	4.4	78	4.4	52	3.8	4	( SW)	0.499	SW	2.4	171

[Note]  
W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (138) Wave Data

Date: 25th Jan. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir. (m/s)	vel. (m/s)	
0	134	4.0	100	4.0	82	4.1	56	3.6	136	SW (220)	0.498	NNW	1.8	246
2	219	6.5	182	6.3	150	5.7	98	4.7	106	SW (220)	0.411	WNW	3.0	240
4	159	5.0	142	5.2	119	5.2	80	4.3	116	SW (216)	0.446	NW	2.0	148
6	142	4.5	114	5.0	94	4.9	64	4.3	113	SW (215)	0.516	NNW	2.0	148
8	155	4.5	102	4.7	79	4.7	52	3.8	129	SSW (208)	0.434	NW	2.0	125
10	113	5.0	83	4.6	68	4.5	49	3.9	127	SSW (200)	0.474	NW	2.0	100
12	92	3.5	74	4.5	64	4.4	42	3.7	131	S (188)	0.449	WNW	2.0	78
14	88	4.0	71	4.6	57	4.5	39	4.0	126	S (189)	0.515	WNW	2.0	81
16	76	4.5	65	4.3	54	4.5	35	3.8	127	SSW (204)	0.472	WSW	1.7	133
18	74	5.0	59	4.3	50	4.3	34	3.8	131	SSW (197)	0.426	SW	1.9	208
20	76	4.0	66	4.5	52	4.4	33	3.9	126	SSW (212)	0.380	WNW	0.8	254
22	85	5.0	68	4.9	51	4.7	33	4.0	125	SW (224)	0.463	WNW	0.8	260
D.max.	219	6.5	182	6.3	150	5.7	98	4.7	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	118	4.6	94	4.7	77	4.7	51	4.0	4	(SSW)	0.457	WNW	1.8	168

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1.3-1 (139) Wave Data

Date: 26th Jan. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	97	4.5	71	4.9	58	4.8	39	4.0	121	SW (223)	0.465	NW	1.6	228
2	81	4.5	65	3.7	51	4.0	35	3.4	139	SW (217)	0.411	NW	0.9	198
4	89	4.5	68	4.2	56	4.0	37	3.6	135	SW (221)	0.386	N	1.5	170
6	77	4.0	65	4.5	54	4.2	36	3.8	134	SSW (204)	0.591	N	1.2	155
8	76	4.5	63	4.5	52	4.4	33	3.8	130	SW (214)	0.350	NNE	1.0	139
10	84	4.5	62	4.3	48	4.4	31	4.1	122	SW (214)	0.454	SW	0.8	121
12	75	5.0	64	4.4	50	4.2	33	3.8	125	SW (216)	0.378	WSW	3.0	99
14	74	3.5	61	3.8	50	3.6	34	3.3	143	SSW (209)	0.498	WSW	2.5	115
16	99	4.5	74	4.0	57	3.9	38	3.3	144	SW (216)	0.578	SW	3.3	141
18	90	3.0	80	3.6	68	3.7	47	3.4	142	SW (232)	0.640	SW	3.8	196
20	87	4.0	76	3.4	63	3.7	43	3.3	140	SW (221)	0.448	SW	2.7	249
22	120	4.0	92	4.2	74	4.2	48	3.6	138	SW (229)	0.504	SW	3.8	254
D.max.	120	4.0	92	4.2	74	4.2	48	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	87	4.2	70	4.1	57	4.1	38	3.6	4	( SW )	0.475	SW	2.2	172

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (140) Wave Data

Date: 27th Jan. 1989  
 St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	94	4.0	85	4.0	71	4.1	47	3.5	141	SW (221)	0.546	SW	2.2	232
2	112	3.5	92	3.7	77	3.8	50	3.4	145	SW (217)	0.571	WSW	3.7	194
4	179	4.0	115	4.0	91	4.1	61	3.7	133	SW (216)	0.448	SW	2.8	167
6	155	4.5	131	4.5	108	4.6	69	3.9	127	SW (218)	0.452	SW	2.8	156
8	152	5.0	112	4.2	92	4.2	61	3.8	130	SW (218)	0.475	SW	3.4	150
10	134	4.5	106	4.7	86	4.4	57	3.9	126	SW (220)	0.405	WSW	3.3	136
12	135	4.0	107	4.4	85	4.3	56	3.9	128	SW (219)	0.447	WSW	4.1	122
14	135	4.5	96	4.0	78	4.2	53	3.7	132	SW (226)	0.516	WSW	4.2	119
16	118	4.5	94	4.1	74	4.1	50	3.8	132	SSW (209)	0.495	WSW	4.0	135
18	105	4.5	88	3.8	70	4.0	48	3.7	135	SSW (207)	0.696	WSW	2.8	174
20	96	4.0	73	3.7	60	3.7	40	3.3	149	SW (233)	0.587	WSW	2.8	231
22	102	3.5	87	3.9	73	3.9	49	3.5	140	SW (219)	0.446	WSW	2.2	250
D.max.	179	4.0	131	4.5	108	4.6	69	3.9	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	126	4.2	99	4.1	80	4.1	53	3.7	4	( SW)	0.507	WSW	3.2	172

[Note]

W.H : Wave Height  
 W.P : Wave Period  
 Wave No.: Wave Countered  
 D.W.D : Dominant Wave Direction  
 R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
 D.max. : Daily max.  
 D.mean : Daily mean  
 M.F.D : Most Frequency Wind Direction

Table I. 3-1 (M) Wave Data

Date: 28th Jan. 1989.  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	111	3.5	92	3.6	74	3.8	49	3.5	141	SW (228)	0.624	WSW	2.2	231
2	131	3.5	107	4.0	89	4.1	59	3.7	135	SW (233)	0.505	WSW	2.3	195
4	147	4.0	106	4.0	88	4.3	57	3.8	128	SW (226)	0.519	W	2.5	164
6	115	4.0	100	4.2	84	4.3	55	3.8	131	SW (222)	0.471	N	1.8	149
8	105	5.0	95	4.3	75	4.2	48	3.9	127	SSW (209)	0.403	NNW	0.9	128
10	95	4.5	81	4.2	65	4.2	42	3.9	126	SSW (212)	0.418	NNW	1.3	132
12	87	3.5	74	4.2	58	4.3	37	3.9	128	SSW (205)	0.425	WSW	2.1	157
14	109	5.0	80	4.6	59	4.5	37	3.8	129	SSW (207)	0.466	SW	2.2	151
16	89	4.0	75	4.0	60	4.1	38	3.6	136	SSW (207)	0.414	WSW	2.5	159
18	77	4.0	68	4.3	56	4.2	38	3.8	127	SSW (203)	0.356	SSW	2.4	171
20	69	4.0	60	4.2	49	4.0	32	3.5	138	SSW (198)	0.430	W	2.0	218
22	71	4.0	58	3.9	48	3.9	31	3.4	140	SSW (205)	0.559	WNW	1.5	245
D.max.	147	4.0	107	4.0	89	4.1	59	3.7	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	101	4.1	83	4.1	67	4.2	44	3.7	4	(SSW)	0.466	WSW	2.0	175

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table J. 3-1 (102) Wave Data

Date: 29th Jan. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	80	3.5	63	4.1	52	4.0	36	3.6	130	SSW (211)	0.664	NW	0.8	217
2	72	4.0	61	4.0	51	4.0	34	3.6	133	SSW (211)	0.576	NNE	0.9	170
4	69	4.0	59	4.1	48	4.3	30	3.8	130	SW (232)	0.550	N	1.0	144
6	59	5.0	51	4.2	41	4.3	27	3.9	128	SSW (206)	0.403	N	2.0	126
8	88	4.0	65	4.3	51	4.3	33	3.6	133	SSW (193)	0.519	N	1.8	130
10	74	4.5	61	4.8	51	4.6	35	4.3	113	SSW (213)	0.528	SE	9.9	147
12	139	4.5	99	4.5	81	4.6	52	4.0	125	SSW (209)	0.595	WSW	0.2	161
14	120	5.0	83	4.8	63	4.8	40	4.2	119	SSW (210)	0.500	WNW	1.0	172
16	100	4.5	69	4.8	59	5.0	38	4.4	113	SSW (204)	0.462	NW	1.3	165
18	111	5.0	75	4.9	58	5.0	39	4.4	111	SSW (211)	0.467	N	1.8	171
20	69	5.0	60	5.0	48	5.0	31	4.2	115	SSW (197)	0.512	NNE	1.0	207
22	74	5.0	66	5.1	52	5.1	35	4.2	114	SSW (209)	0.363	NE	2.4	227
D.max.	139	4.5	99	4.5	81	4.6	52	4.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	88	4.5	68	4.5	55	4.6	36	4.0	4	(SSW)	0.512	N	2.0	170

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (143) Wave Data

Date: 30th Jan. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	62	4.5	53	4.7	42	4.7	28	4.1	117	SSW (206)	0.442	SSE	0.3	206
2	71	5.5	52	4.8	41	5.1	27	4.1	115	SSW (213)	0.369	W	2.3	157
4	73	3.5	56	4.6	46	4.3	30	3.5	137	SSW (201)	0.425	NNW	0.2	130
6	58	5.0	49	5.2	42	5.0	28	4.4	113	SSW (213)	0.540	E	0.0	104
8	68	5.0	55	5.1	43	5.1	28	4.7	108	SSW (210)	0.403	N	1.0	105
10	60	4.5	51	4.6	45	4.8	30	4.3	114	SSW (207)	0.413	WNW	0.5	134
12	78	5.0	64	4.4	51	4.6	33	3.7	133	SSW (212)	0.438	W	2.2	168
14	78	3.5	59	4.1	48	4.1	32	3.3	144	SW (223)	0.514	W	2.3	204
16	97	4.5	80	3.8	61	3.8	40	3.4	140	SSW (209)	0.474	W	2.2	194
18	84	3.5	70	3.9	57	3.9	38	3.4	142	SSW (213)	0.497	W	1.0	180
20	77	3.5	67	3.4	55	4.0	38	3.6	136	SW (216)	0.547	NNW	1.0	208
22	86	4.0	67	4.3	55	4.2	36	3.6	136	SW (219)	0.397	NNW	0.5	227
D.max.	97	4.5	80	3.8	61	3.8	40	3.4	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	74	4.3	60	4.4	49	4.5	32	3.8	4	(SSW)	0.455	W	1.1	168

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (M) Wave Data

Date: 31th Jan. 1989  
 St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	91	4.5	67	4.3	54	4.1	37	3.6	133	SSW (205)	0.471	NNW	1.5	204
2	104	3.0	69	3.3	56	3.6	38	3.2	150	SW (216)	0.397	NW	1.3	153
4	102	3.5	81	3.5	65	3.7	42	3.2	150	SSW (209)	0.526	NW	2.0	129
6	104	4.0	87	4.1	70	4.3	48	3.8	131	SW (232)	0.481	NW	1.8	108
8	110	4.5	88	4.5	71	4.2	48	3.9	124	SSW (206)	0.417	N	0.7	95
10	106	4.0	84	4.3	68	4.7	44	4.0	122	SW (216)	0.449	NNW	1.2	117
12	87	4.0	70	4.3	56	4.3	37	3.7	130	SSW (211)	0.439	ESE	0.3	166
14	98	4.5	80	5.0	65	4.8	42	4.0	124	SSW (212)	0.430	ESE	0.6	216
16	81	4.5	68	4.8	56	4.8	37	4.2	119	SSW (214)	0.387	WSW	2.0	208
18	85	4.0	72	4.6	58	4.5	38	3.9	127	SSW (211)	0.493	WSW	1.9	195
20	79	4.5	64	4.3	54	4.7	36	3.8	129	SW (215)	0.440	SW	1.0	206
22	91	4.0	70	4.1	57	4.2	37	3.8	125	SW (214)	0.435	WNW	1.7	217
D.max.	110	4.5	88	4.5	71	4.2	48	3.8	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	95	4.1	75	4.3	61	4.3	40	3.8	4	(SSW)	0.447	NW	1.3	168

[Note]

W.H : Wave Height  
 W.P : Wave Period  
 Wave No.: Wave Countered  
 D.W.D : Dominant Wave Direction  
 R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
 D.max. : Daily max.  
 D.mean : Daily mean  
 M.F.D : Most Frequency Wind Direction



Table I. 3-1 (M5) Wave Data

Date: 1st Feb. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	69	4.5	57	4.4	47	4.4	31	3.7	134	SSW (204)	0.449	WNW	1.8	198
2	82	5.0	65	4.3	52	4.4	37	4.0	124	SSW (210)	0.419	NW	1.4	166
4	110	3.5	72	4.3	57	4.1	39	3.6	132	SW (223)	0.397	NW	1.8	114
6	165	4.0	133	4.3	104	4.2	69	3.9	126	SW (221)	0.301	NW	2.6	94
8	186	5.0	158	5.0	131	5.2	81	4.3	117	SW (229)	0.400	W	3.9	87
10	211	6.0	168	5.1	139	5.0	92	4.5	110	SW (226)	0.528	WNW	3.0	107
12	169	4.5	138	4.5	109	4.9	73	4.3	117	SW (224)	0.420	WNW	3.0	164
14	131	4.5	114	4.9	96	4.9	64	4.2	120	SW (217)	0.414	W	2.0	218
16	100	4.0	85	4.7	69	4.5	48	3.9	124	SW (221)	0.512	WSW	2.0	218
18	104	5.5	85	4.5	68	4.6	45	4.0	125	SW (224)	0.482	W	0.5	204
20	91	3.5	76	4.5	61	4.6	41	4.0	126	SW (216)	0.459	WSW	0.2	200
22	99	4.5	77	4.7	64	4.5	42	3.8	131	SW (231)	0.541	SW	2.5	226
D.max.	211	6.0	168	5.1	139	5.0	92	4.5	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	126	4.5	102	4.6	83	4.6	55	4.0	4	( SW)	0.443	W	2.1	166

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (1/6) Wave Data

Date: 2nd Feb. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	79	3.0	67	4.1	55	3.8	36	3.3	146	SW (229)	0.372	SW	1.0	217
2	127	4.0	80	4.2	67	4.0	45	3.5	138	SSW (210)	0.391	WSW	3.0	182
4	122	4.5	77	4.8	61	4.4	41	3.8	131	SW (217)	0.474	NW	1.0	114
6	84	4.0	71	4.5	61	4.2	41	3.9	127	SW (221)	0.405	WNW	1.0	88
8	157	4.5	126	4.3	100	4.3	63	3.9	125	SW (228)	0.365	WSW	4.0	78
10	140	4.5	109	4.4	88	4.5	60	4.0	123	SW (220)	0.482	W	4.0	95
12	150	4.5	128	4.2	104	4.4	70	3.9	127	SW (224)	0.531	W	5.0	170
14	172	6.0	155	5.1	124	4.9	78	4.2	117	WSW (237)	0.528	W	4.0	223
16	159	4.0	131	4.8	97	4.7	64	4.1	123	SW (236)	0.456	WSW	3.5	239
18	137	4.5	112	4.3	90	4.7	60	4.0	123	SW (224)	0.497	W	2.5	228
20	125	5.5	108	4.8	85	4.6	57	3.8	128	SSW (214)	0.493	W	1.8	220
22	130	5.0	98	4.5	79	4.4	52	4.0	122	SW (224)	0.442	WNW	1.0	216
D.max.	172	6.0	155	5.1	124	4.9	78	4.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	132	4.5	105	4.5	84	4.4	56	3.9	4	( SW)	0.453	W	2.6	173

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table I. 3-1 (M7) Wave Data

Date: 3rd Feb. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	119	5.0	92	4.4	72	4.2	48	3.5	138	SW (224)	0.481	NW	1.8	201
2	99	4.0	84	4.5	67	4.6	43	3.8	129	SW (218)	0.396	NNW	0.8	159
4	87	3.5	73	4.1	60	4.1	40	3.4	145	SW (218)	0.473	NNW	1.0	128
6	94	4.0	79	4.6	63	4.4	40	3.6	136	SSW (212)	0.415	NNW	1.0	89
8	103	4.0	84	4.1	69	4.3	45	4.0	124	SSW (213)	0.515	NW	1.0	63
10	89	5.0	72	4.4	60	4.3	40	3.9	126	SSW (211)	0.485	SW	2.8	54
12	74	5.5	65	4.8	55	4.2	37	3.6	138	SSW (203)	0.479	SW	2.5	124
14	89	3.5	74	4.2	61	4.5	44	3.9	129	SSW (206)	0.588	SW	3.8	225
16	117	4.0	89	4.7	72	4.6	49	3.9	128	SSW (209)	0.446	SW	2.0	259
18	122	4.5	87	4.1	72	4.1	48	3.5	142	SSW (209)	0.463	SSW	2.0	244
20	97	5.0	83	4.2	69	4.2	46	3.7	133	SSW (206)	0.438	SSW	2.5	224
22	102	4.0	76	4.3	62	4.3	42	3.9	129	SSW (202)	0.593	SW	2.0	226
D.max.	122	4.5	92	4.4	72	4.2	49	3.9	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	99	4.3	80	4.4	65	4.3	44	3.7	4	(SSW)	0.481	SW	1.9	166

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (148) Wave Data

Date: 4th Feb. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	90	5.0	74	4.8	61	4.8	40	4.1	121	SSW (209)	0.361	WSW	1.0	219
2	80	3.5	73	4.8	63	4.6	40	3.9	127	SW (219)	0.527	WSW	2.5	195
4	105	4.5	74	4.3	58	4.3	39	3.6	136	SSW (194)	0.537	WNW	2.0	146
6	102	3.0	81	4.2	66	4.1	45	3.7	133	SSW (205)	0.539	NNE	1.0	105
8	108	4.0	85	3.4	67	3.5	44	3.3	149	SSW (210)	0.438	NNW	1.0	71
10	92	4.5	77	4.2	61	4.2	41	3.9	128	SSW (205)	0.376	WNW	0.5	53
12	86	4.0	67	4.2	53	4.0	35	3.5	137	SSW (205)	0.554	SW	2.0	101
14	79	4.5	66	4.2	55	4.2	36	3.7	134	SSW (202)	0.626	SSW	2.0	198
16	94	5.0	74	4.3	59	4.4	39	4.0	123	SW (215)	0.422	SW	2.0	261
18	77	5.0	70	4.7	61	4.4	41	3.7	129	SSW (212)	0.490	S	3.5	266
20	95	3.5	75	4.1	63	4.4	42	3.6	135	SW (223)	0.404	S	4.0	248
22	84	3.0	73	3.8	59	3.7	40	3.3	150	SW (217)	0.525	S	4.0	227
D.max.	108	4.0	85	3.4	67	3.5	45	3.7	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	91	4.1	74	4.3	61	4.2	40	3.7	4	(SSW)	0.483	S	2.1	174

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1(149) Wave Data

Date: 5th Feb. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	104	4.0	86	4.2	65	3.9	42	3.5	139	SSW (214)	0.485	SSW	4.0	214
2	88	4.0	80	4.0	65	4.2	43	3.7	132	SSW (207)	0.442	SSW	2.0	198
4	77	5.0	68	4.2	57	4.2	38	3.7	134	SSW (211)	0.494	NE	0.5	157
6	81	4.0	60	4.2	49	4.3	32	3.9	128	SSW (211)	0.604	NE	0.5	118
8	100	3.5	69	4.5	54	4.5	34	4.0	122	SSW (208)	0.425	NE	0.5	80
10	65	5.0	56	4.5	47	4.5	32	4.1	123	SSW (197)	0.427	NE	2.0	57
12	71	4.0	58	4.7	46	4.7	29	4.2	120	SSW (202)	0.522	NE	2.0	51
14	77	5.0	64	4.8	50	4.5	33	4.0	124	SSW (197)	0.408	S	2.2	157
16	94	4.0	65	4.6	50	4.6	34	4.0	123	SW (215)	0.445	S	2.0	253
18	83	4.5	65	5.0	55	4.7	37	4.1	119	SSW (213)	0.324	S	2.5	245
20	80	4.0	64	4.5	51	4.6	33	3.9	125	SSW (209)	0.404	NE	1.0	233
22	69	4.5	57	4.6	46	4.4	31	4.1	119	SW (214)	0.353	E	0.2	220
D.max.	104	4.0	86	4.2	65	3.9	43	3.7	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	82	4.3	66	4.5	53	4.4	35	3.9	4	(SSW)	0.444	NE	1.6	165

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1(150) Wave Data

Date: 6th Feb. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	88	5.0	78	5.2	60	5.5	38	4.8	105	SSW (209)	0.433	NE	0.2	219
2	80	5.0	62	5.6	48	5.4	32	4.7	106	SW (218)	0.443	ESE	0.8	205
4	70	5.0	54	5.1	42	5.1	27	4.4	114	SW (221)	0.504	ESE	1.0	182
6	72	6.0	54	5.1	42	4.9	26	4.1	121	SW (234)	0.681	SSE	1.8	131
8	53	6.5	43	5.0	36	5.0	23	4.2	119	S (185)	0.777	ESE	0.2	84
10	51	5.0	39	4.7	29	4.7	19	3.8	129	S (182)	0.679	SE	0.5	55
12	44	4.0	38	4.6	31	4.7	21	4.3	117	S (191)	0.404	S	1.8	50
14	51	4.0	41	4.6	32	4.6	22	4.1	122	S (191)	0.391	SSW	2.0	125
16	52	3.5	44	4.2	36	4.5	24	3.8	129	SSW (200)	0.494	SSW	2.5	220
18	81	3.5	62	4.3	51	4.2	33	3.5	135	SW (228)	0.580	SSW	2.5	259
20	79	4.0	60	4.2	44	4.4	29	3.8	129	SW (224)	0.364	S	2.0	257
22	63	4.5	49	4.8	40	4.8	28	4.1	120	SSW (205)	0.490	S	2.5	238
D.max.	88	5.0	78	5.2	60	5.5	38	4.8	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	65	4.7	52	4.8	41	4.8	27	4.1	4	( SW)	0.520	S	1.5	169

[Note] W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1(151) Wave Data

Date: 7th Feb. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	65	5.5	56	4.9	46	4.9	29	4.2	118	SW (215)	0.453	S	2.5	219
2	57	4.5	49	4.8	40	4.5	26	3.6	132	SSW (211)	0.458	SSW	2.5	209
4	67	4.5	55	3.9	43	4.2	28	3.5	138	SSW (208)	0.494	SSW	3.0	197
6	61	4.0	49	4.2	39	4.1	26	3.5	144	SSW (203)	0.532	S	2.0	155
8	45	4.5	40	4.3	35	4.1	23	3.5	142	S (184)	0.679	S	2.5	103
10	61	4.0	47	4.1	40	4.0	26	3.5	141	SSW (202)	0.654	SSW	3.0	66
12	68	4.5	59	3.6	49	3.4	33	3.1	152	SW (225)	0.657	WSW	5.0	53
14	144	3.0	103	4.0	84	4.0	57	3.7	135	SSW (203)	0.644	WSW	4.2	112
16	134	4.0	116	4.0	97	4.2	65	3.9	126	SW (225)	0.523	WSW	4.0	198
18	137	4.0	117	4.5	93	4.4	62	3.9	126	SW (225)	0.471	W	2.5	252
20	161	5.0	105	4.4	84	4.5	55	4.0	121	SW (217)	0.516	SSW	1.0	255
22	112	4.5	94	4.6	73	4.5	49	4.0	126	SSW (200)	0.427	S	4.0	245
D.max.	161	5.0	117	4.5	97	4.2	65	3.9	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	93	4.3	74	4.3	60	4.2	40	3.7	4	(SSW)	0.542	S	3.0	172

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1(152) Wave Data

Date: 8th Feb. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave NO.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	106	4.5	85	4.7	70	4.5	46	3.8	129	SSW (204)	0.373	S	4.0	226
2	107	4.5	79	4.5	65	4.6	42	3.8	130	SSW (200)	0.436	SSW	2.0	200
4	91	4.5	74	4.0	62	4.1	42	3.5	141	SSW (201)	0.367	S	2.5	192
6	107	4.0	77	4.0	61	4.0	40	3.5	141	SSW (207)	0.510	SW	2.0	176
8	81	4.0	72	4.0	61	4.0	40	3.5	140	SSW (201)	0.523	SW	2.0	132
10	91	4.0	75	3.6	62	3.8	42	3.5	139	SSW (206)	0.601	WSW	3.0	85
12	109	4.0	75	4.1	59	4.0	40	3.6	136	SSW (213)	0.676	SW	3.0	61
14	103	4.0	76	3.6	59	3.8	38	3.4	145	SSW (207)	0.613	SW	4.0	91
16	108	4.0	87	3.9	71	3.9	47	3.4	142	SW (216)	0.588	WSW	4.0	178
18	115	3.5	92	3.9	73	3.9	50	3.5	137	SW (236)	0.602	WSW	4.0	256
20	120	4.5	98	3.7	82	3.9	53	3.7	134	SW (219)	0.380	SW	3.5	272
22	144	4.5	99	4.3	75	4.2	49	3.7	129	SW (217)	0.538	SW	2.8	251
D.max.	144	4.5	99	4.3	82	3.9	53	3.7	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	107	4.2	82	4.0	67	4.1	44	3.6	4	(SSW)	0.517	SW	3.1	177

[Note] : Wave Height  
W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table 1.3-1(153) Wave Data

Date: 9th Feb. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	106	4.0	97	4.4	80	4.4	53	3.9	127	SSW (211)	0.581	SW	2.5	209
2	114	3.5	80	4.2	63	4.2	43	3.6	136	SSW (208)	0.518	SW	3.0	184
4	86	4.0	80	4.3	66	4.2	44	3.5	141	SSW (196)	0.556	NNW	2.0	181
6	126	4.5	98	4.7	77	4.4	51	3.8	128	SSW (201)	0.551	WNW	2.0	190
8	115	4.5	88	4.6	72	5.1	48	4.4	114	SSW (197)	0.454	N	1.8	159
10	101	4.5	85	4.3	72	4.4	46	3.9	129	SSW (197)	0.456	SSW	2.0	101
12	114	4.0	88	4.7	71	4.5	45	3.8	128	SSW (200)	0.395	SW	2.0	70
14	88	4.0	71	4.4	57	4.4	37	3.7	131	SSW (199)	0.439	WNW	1.0	86
16	85	3.5	71	4.3	60	4.4	40	3.8	129	SSW (206)	0.603	WSW	3.0	148
18	79	4.0	66	4.1	56	4.0	37	3.4	143	SSW (206)	0.446	WSW	2.0	226
20	90	4.0	79	4.1	62	4.1	40	3.5	139	SW (218)	0.521	WSW	2.2	266
22	79	4.0	67	3.9	55	3.7	38	3.4	143	SW (234)	0.674	NW	1.5	251
D.max.	126	4.5	98	4.7	80	4.4	53	3.9	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	99	4.0	81	4.3	66	4.3	44	3.7	4	(SSW)	0.516	SW	2.1	173

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1(154) Wave Data

Date: 10th Feb. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	112	4.0	95	4.3	75	4.3	49	3.6	134	SW (225)	0.635	NNW	2.0	214
2	101	4.5	85	4.3	69	4.3	48	3.7	135	SSW (204)	0.584	NNW	4.0	173
4	101	3.5	81	3.6	67	3.8	44	3.4	145	SSW (200)	0.949	NNW	2.5	152
6	100	4.5	70	4.3	56	4.3	35	3.7	133	SSW (213)	0.831	N	0.3	165
8	75	3.5	60	4.4	49	4.4	33	3.8	127	SSW (198)	0.815	N	1.0	159
10	64	4.0	57	4.5	48	4.7	32	3.8	128	SSW (197)	0.707	NNE	2.0	118
12	55	4.5	46	4.2	36	4.2	24	3.8	131	S (178)	0.804	NE	1.0	93
14	70	4.5	47	4.2	36	4.3	23	3.9	128	SSW (192)	0.460	SW	2.0	110
16	54	3.5	46	4.1	38	4.1	26	3.7	133	SSW (201)	0.492	SW	2.5	144
18	65	4.0	50	3.4	41	3.6	29	3.2	150	SSW (202)	0.547	S	3.8	202
20	74	3.5	58	3.5	47	3.7	32	3.3	143	SW (234)	0.514	SSW	2.2	247
22	70	3.5	55	3.5	45	3.7	31	3.5	140	SSW (214)	0.654	SW	0.2	242
D.max.	112	4.0	95	4.3	75	4.3	49	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	78	4.0	63	4.0	51	4.1	34	3.6	4	(SSW)	0.666	SW	2.0	168

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1.3-1(155) Wave Data

Date: 11th Feb. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	64	3.5	47	3.7	39	3.8	26	3.3	140	SW (228)	0.728	NW	0.4	212
2	57	3.5	49	3.4	41	3.4	27	3.1	144	SSW (202)	0.559	NNW	1.0	163
4	69	3.5	50	3.3	41	3.4	28	3.1	150	SSW (196)	0.852	NNE	2.0	127
6	54	3.0	43	3.4	35	3.5	23	3.2	145	SSW (197)	0.783	NE	2.0	140
8	57	3.5	43	3.8	36	3.8	25	3.5	141	SW (225)	0.605	ENE	0.2	154
10	65	3.5	54	3.6	44	3.7	29	3.5	143	SW (214)	0.799	E	0.1	154
12	84	3.5	57	3.6	46	3.7	30	3.4	142	SW (222)	0.536	NW	0.2	143
14	72	4.0	61	3.3	49	3.2	33	2.9	161	W (271)	0.681	W	3.0	143
16	95	3.5	77	3.6	62	3.8	40	3.3	144	WSW (242)	0.586	WSW	2.5	173
18	115	4.5	87	4.4	69	4.2	45	3.8	129	SW (221)	0.612	SW	2.5	195
20	111	3.5	89	3.9	70	3.9	44	3.4	145	WSW (239)	0.558	SW	3.0	236
22	127	3.5	95	4.5	75	4.4	52	4.1	121	WSW (244)	0.734	NW	2.2	236
D.max.	127	3.5	95	4.5	75	4.4	52	4.1	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	81	3.6	63	3.7	51	3.7	34	3.4	3	( SW)	0.669	NW	1.6	173

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1(156) Wave Data

Date: 12th Feb. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	95	3.0	74	4.6	60	4.4	40	3.8	128	SSW (202)	0.478	NW	1.8	199
2	86	4.5	62	4.1	51	3.9	33	3.3	140	SSW (193)	0.512	NNW	2.0	149
4	96	3.0	76	3.4	61	3.8	40	3.3	145	S (176)	0.775	WNW	3.0	122
6	153	4.5	123	4.3	95	4.4	62	3.9	128	SSW (200)	0.465	NNW	2.0	117
8	134	4.5	93	4.8	76	4.8	51	4.2	117	SSW (201)	0.575	NNE	2.0	124
10	84	5.5	78	4.6	64	4.8	42	4.2	118	SSW (205)	0.492	NE	1.0	162
12	95	4.5	72	4.7	58	5.1	37	4.2	119	SSW (213)	0.517	NW	2.5	186
14	80	4.0	65	5.1	51	5.1	33	4.4	115	SSW (199)	0.319	SW	0.8	187
16	75	4.5	60	4.5	48	4.9	32	4.2	120	SSW (197)	0.279	SSW	2.0	184
18	91	5.0	78	5.1	65	5.2	41	4.5	113	SSW (207)	0.341	S	2.5	176
20	118	5.0	94	4.7	77	4.6	49	4.1	122	SSW (208)	0.530	S	3.0	207
22	81	6.0	67	5.0	57	4.9	38	4.4	114	SW (217)	0.413	S	0.5	222
D.max.	153	4.5	123	4.3	95	4.4	62	3.9	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	99	4.5	79	4.6	64	4.7	42	4.0	4	(SSW)	0.475	S	1.9	170

[Note]  
W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1(157) Wave Data

Date: 13th Feb. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	80	4.5	69	4.8	57	5.1	37	4.5	111	SSW (205)	0.280	NNW	1.5	188
2	70	4.0	52	4.0	42	3.8	29	3.1	149	SSE (163)	0.810	NNW	2.0	137
4	62	5.0	49	4.9	39	4.5	26	3.7	128	NW (326)	0.607	NNE	2.2	96
6	50	4.0	41	4.8	34	4.8	22	3.8	126	S (178)	0.810	NE	2.2	78
8	51	4.0	39	4.8	31	4.7	21	3.8	125	SSW (197)	0.352	NE	2.0	101
10	44	4.5	40	5.0	33	4.8	23	3.9	117	SSE (154)	0.547	NE	2.0	156
12	46	4.5	37	4.9	32	5.1	22	4.5	107	SSW (198)	0.410	ENE	2.0	195
14	43	5.5	36	5.5	29	5.2	18	4.6	109	SSW (202)	0.371	SSW	2.0	212
16	40	5.5	36	5.2	31	5.1	21	4.4	108	SSW (204)	0.341	S	3.0	208
18	50	5.0	44	4.3	37	3.9	26	3.2	147	SSW (209)	0.399	SSW	2.2	197
20	56	2.5	47	3.8	39	3.6	27	3.1	150	SSW (213)	0.637	S	2.5	204
22	60	2.5	46	3.4	37	3.4	26	3.1	155	SSW (198)	0.440	SW	0.2	214
D.max.	80	4.5	69	4.8	57	5.1	37	4.5	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	54	4.3	45	4.6	37	4.5	25	3.8	4	(SSW)	0.500	NE	2.0	166

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.N.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1(158) Wave Data

Date: 14th Feb. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	50	3.5	41	4.0	33	3.9	22	3.3	138	SSW (194)	0.463	SE	3.0	191
2	46	5.5	39	4.0	34	4.1	23	3.4	131	S (191)	0.333	SSE	3.0	147
4	56	6.0	50	4.4	42	4.3	28	3.6	136	S (186)	0.606	S	2.0	101
6	88	3.0	73	3.9	56	3.8	35	3.3	149	SSW (200)	0.419	WSW	4.2	72
8	74	4.0	59	4.3	47	4.1	32	3.4	138	S (189)	0.552	WNW	2.0	71
10	101	4.0	67	4.0	53	4.1	35	3.6	138	SSW (204)	0.541	NW	1.0	132
12	131	4.0	90	4.2	71	4.3	44	3.7	134	SSW (208)	0.408	WSW	2.2	209
14	150	4.5	118	4.3	95	4.5	65	4.0	126	SSW (206)	0.344	SW	3.5	248
16	148	5.0	111	4.8	91	4.5	58	3.8	129	SSW (207)	0.428	WSW	5.0	233
18	126	4.5	101	4.6	85	4.5	60	3.9	127	SSW (200)	0.409	W	2.0	203
20	114	4.0	86	4.5	70	4.6	45	4.1	120	SSW (199)	0.371	N	1.0	191
22	117	5.0	91	4.7	68	4.6	44	4.1	123	SSW (203)	0.436	NNW	0.8	206
D.max.	150	4.5	118	4.3	95	4.5	65	4.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	100	4.4	77	4.3	62	4.3	41	3.7	4	(SSW)	0.442	WSW	2.5	167

[Note] W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1(159) Wave Data

Date: 15th Feb. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	117	4.5	98	4.8	81	4.8	52	3.9	127	SSW (200)	0.434	NW	2.0	193
2	104	4.0	79	4.2	65	4.2	46	3.8	126	S (183)	0.656	WNW	1.8	149
4	88	3.5	80	4.4	68	4.4	45	3.8	126	S (187)	0.739	NNW	1.0	99
6	98	3.5	78	4.3	61	4.5	40	3.7	132	S (189)	0.730	NNW	1.0	70
8	94	4.5	77	3.9	65	4.2	43	3.7	134	SSW (197)	0.741	NNW	1.0	52
10	106	4.0	79	4.3	66	4.4	45	3.9	127	SSW (200)	0.484	NW	2.0	104
12	101	4.5	78	4.3	65	4.5	42	3.8	124	SSW (198)	0.389	NNW	2.0	198
14	105	3.5	87	4.3	71	4.6	47	4.0	124	SW (216)	0.552	N	1.0	247
16	93	5.0	75	4.5	58	4.4	37	3.9	125	SW (218)	0.556	WSW	1.0	242
18	80	4.5	58	4.4	48	4.2	32	3.7	131	SSW (209)	0.623	WSW	1.0	220
20	65	4.0	55	4.6	45	4.4	30	3.8	128	SW (217)	0.511	SSW	0.2	195
22	46	4.5	40	4.3	33	4.1	22	3.6	139	SSW (199)	0.583	WSW	0.2	195
D.max.	117	4.5	98	4.8	81	4.8	52	3.9	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	91	4.2	74	4.4	61	4.4	40	3.8	4	(SSW)	0.583	NNW	1.2	164

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1(160) Wave Data

Date: 16th Feb. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	65	4.5	44	4.2	34	4.4	22	3.9	127	SSW (204)	0.454	WNW	1.0	189
2	42	4.0	35	4.4	28	4.5	19	4.0	123	S (188)	0.509	NNW	1.0	155
4	40	4.5	31	4.2	25	4.1	16	3.6	135	NW (312)	0.699	N	1.5	106
6	38	4.0	30	4.2	25	4.3	17	3.7	126	WNW (294)	0.733	NNE	2.0	70
8	34	4.5	29	4.2	24	3.7	16	3.0	132	ENE ( 67)	0.898	NE	2.5	47
10	27	4.0	23	4.1	19	3.8	13	3.2	126	N (351)	0.635	ENE	1.0	53
12	28	4.0	21	4.3	17	4.0	11	3.4	139	SSW (192)	0.437	SSW	0.2	147
14	32	3.0	28	4.0	23	3.8	15	3.1	143	SSW (202)	0.649	SSW	2.2	199
16	34	4.0	28	3.4	22	3.3	15	3.0	156	SSW (191)	0.732	S	3.5	230
18	41	3.0	35	3.3	28	3.2	19	2.9	153	SSW (196)	0.552	SSW	4.0	246
20	50	4.5	35	3.8	28	3.4	19	3.0	155	SSW (202)	0.593	SW	2.0	211
22	44	4.0	37	3.5	31	3.6	21	3.1	146	SSW (197)	0.611	S	4.0	195
D.max.	65	4.5	44	4.2	34	4.4	22	3.9	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	40	4.0	31	4.0	25	3.8	17	3.3	3	(SSW)	0.625	SSW	2.1	154

[Note]  
W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table 1.3-1(161) Wave Data

Date: 17th Feb. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	60	4.0	45	3.4	36	3.3	24	3.0	153	SSW (205)	0.589	SSE	3.5	188
2	50	3.5	39	3.6	32	3.5	22	3.2	150	SSW (203)	0.542	SSE	2.0	165
4	44	3.5	31	3.5	24	3.7	16	3.3	150	S (176)	0.581	SSW	2.0	120
6	38	3.5	30	3.6	24	3.5	16	3.2	153	SSW (192)	0.537	WNW	0.2	78
8	34	2.5	27	3.0	22	3.0	14	3.0	157	N (10)	0.755	N	0.2	53
10	34	3.0	27	2.9	23	3.1	15	2.9	156	S (178)	0.583	NW	2.0	45
12	85	3.5	70	3.4	54	3.6	35	3.4	145	( )		WNW	2.0	130
14	56	3.5	49	3.8	41	3.7	28	3.4	146	( )		NNE	0.8	214
16	54	3.5	44	3.7	37	3.7	25	3.5	140	( )		ENE	0.1	254
18	54	4.0	42	3.7	34	3.7	22	3.4	145	( )		SSE	0.2	254
20	49	4.0	39	3.9	30	3.9	19	3.5	142	( )		E	0.1	222
22	44	4.0	34	3.9	27	3.9	18	3.6	137	( )		ENE	1.0	184
D.max.	85	3.5	70	3.4	54	3.6	35	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	50	3.5	40	3.5	32	3.5	21	3.3	3	(SSW)	0.598	SSE	1.2	159

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (162) Wave Data

Date: 18th Feb. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	51	4.0	42	3.9	32	4.0	21	3.8	131	( )		N	1.0	177
2	49	4.5	40	4.0	34	4.1	23	3.7	127	( )		N	1.0	164
4	51	4.0	38	3.8	31	3.4	21	3.0	130	( )		N	1.0	132
6	31	3.5	26	4.0	21	3.9	15	3.6	130	( )		NNE	2.0	88
8	34	3.5	25	3.8	21	3.9	15	3.5	131	( )		NNE	2.0	57
10										( )		SE	0.8	43
12	59	4.0	43	4.1	33	4.2	21	3.9	129	SW (228)	0.619	SW	2.2	75
14	50	3.5	40	3.7	34	3.8	24	3.6	135	SW (219)	0.830	WSW	3.0	175
16	60	4.0	48	3.7	40	3.8	28	3.3	140	SW (219)	0.475	SW	3.5	248
18	81	3.0	58	3.4	47	3.2	31	2.9	163	SW (221)	0.367	SW	3.5	267
20	101	3.0	72	3.7	56	3.7	36	3.2	148	SW (222)	0.601	WSW	3.0	246
22	96	3.5	69	3.8	55	3.8	37	3.4	145	SW (224)	0.580	SW	2.5	221
D.max.	101	3.0	72	3.7	56	3.7	37	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	60	3.7	46	3.8	37	3.8	25	3.4	3	( SW)	0.579	SW	2.1	158

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (18) Wave Data

Date: 19th Feb. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	100	3.0	79	3.7	62	3.8	41	3.5	139	SW (217)	0.465	WSW	3.0	193
2	90	3.5	72	3.6	61	3.8	42	3.4	137	SW (215)	0.361	WNW	2.5	175
4	104	4.5	89	3.8	72	3.9	47	3.5	143	SW (218)	0.552	NNW	2.0	158
6	114	3.0	85	4.0	70	3.8	46	3.4	142	SW (219)	0.349	N	2.1	118
8	100	4.0	77	4.1	62	4.2	40	3.6	137	SW (218)	0.382	N	2.0	80
10	88	3.0	77	3.7	64	3.9	43	3.4	149	SW (221)	0.402	W	2.1	60
12	118	4.0	92	4.1	71	4.1	46	3.5	141	SSW (213)	0.455	W	4.0	66
14	180	5.0	145	4.7	115	4.6	75	4.1	120	SSW (213)	0.370	WSW	3.8	159
16	187	4.0	148	4.7	121	4.9	81	4.2	117	SW (226)	0.470	W	5.0	219
18	173	5.0	139	4.9	113	4.8	75	4.3	116	SW (236)	0.494	W	3.0	253
20	139	4.0	120	4.9	100	5.0	65	4.1	120	SW (226)	0.470	W	3.0	243
22	157	3.5	97	4.6	77	4.7	50	4.0	125	SW (217)	0.340	WNW	2.7	225
D.max.	187	4.0	148	4.7	121	4.9	81	4.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	129	3.9	102	4.2	82	4.3	54	3.8	4	( SW)	0.426	W	2.9	162

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (161) Wave Data

Date: 20th Feb. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	111	5.0	87	4.3	70	4.4	46	3.8	130	SW (223)	0.414	WNW	2.5	202
2	99	4.0	79	4.0	63	4.3	43	3.7	131	SW (218)	0.373	N	2.4	174
4	85	4.0	71	4.2	57	4.3	37	3.6	132	SW (215)	0.334	N	2.4	163
6	91	4.0	65	4.3	53	4.0	36	3.3	136	SW (221)	0.448	N	2.4	135
8	76	4.0	60	4.3	46	4.3	30	3.6	130	SW (219)	0.561	N	2.2	99
10	73	4.0	53	4.4	42	4.3	28	3.7	131	SW (222)	0.363	NNE	2.4	70
12	66	4.0	46	3.9	38	3.7	26	3.5	140	SSW (205)	0.547	SW	2.8	57
14	73	3.5	55	3.8	46	3.7	32	3.2	150	SW (222)	0.741	WSW	3.8	120
16	129	3.5	92	3.6	76	3.8	50	3.4	143	SW (225)	0.477	WSW	4.0	228
18	163	4.5	141	4.6	115	4.4	77	4.0	125	SW (233)	0.513	WNW	4.0	277
20	224	5.5	158	5.0	127	4.8	83	4.3	116	SW (224)	0.414	NW	2.5	238
22	129	4.5	119	4.9	101	5.2	70	4.6	109	SW (224)	0.509	NW	2.2	196
D.max.	224	5.5	158	5.0	127	4.8	83	4.3	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	110	4.2	86	4.3	70	4.3	47	3.7	4	( SW)	0.474	N	2.8	163

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1.3-1 (165) Wave Data

Date: 21th Feb. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	109	6.0	98	5.4	78	5.3	49	4.2	118	SW (217)	0.457	N	2.1	185
2	106	4.5	82	5.2	65	5.0	42	4.0	120	SSW (210)	0.372	N	2.1	166
4	84	5.0	73	4.6	58	5.2	39	4.2	115	SSW (213)	0.568	N	2.1	159
6	109	4.5	73	5.0	59	4.7	40	3.7	125	SSW (206)	0.307	N	2.1	142
8	85	5.5	63	4.8	52	4.8	34	3.8	124	SSW (213)	0.605	NNE	2.0	107
10	78	4.0	60	4.8	48	4.7	33	3.8	127	SSW (204)	0.429	N	2.0	75
12	68	5.5	54	4.6	44	4.8	29	3.9	128	SSW (203)	0.342	N	3.0	65
14	63	4.5	53	5.3	43	5.2	28	4.2	118	SSW (204)	0.418	NNW	2.2	107
16	72	4.5	55	5.0	42	4.9	27	4.2	117	SW (215)	0.611	SW	1.0	181
18	59	5.5	50	4.7	40	5.0	26	4.3	115	SW (221)	0.519	WSW	1.0	240
20	72	4.5	53	4.4	42	4.8	26	4.0	122	SSW (210)	0.395	SSW	3.0	254
22	83	4.5	58	4.5	46	4.3	32	3.6	134	SW (227)	0.522	SW	2.0	236
D.max.	109	6.0	98	5.4	78	5.3	49	4.2	4	most D.W.D	mean	M.F.D	mean	
D.mean	82	4.9	64	4.9	51	4.9	34	4.0	4	(SSW)	0.462	N	2.0	160

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (166) Wave Data

Date: 22th Feb. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	79	3.0	59	4.4	49	4.2	32	3.4	142	SW (216)	0.461	WSW	2.2	203
2	75	4.0	59	3.8	48	3.7	32	3.3	148	SW (223)	0.543	W	2.0	175
4	74	3.0	61	3.9	51	3.9	34	3.3	143	SSW (213)	0.338	N	0.2	165
6	77	3.5	64	4.1	52	4.2	34	3.5	141	SSW (207)	0.395	WSW	0.2	159
8	80	4.0	63	4.5	50	4.3	34	3.7	134	SSW (209)	0.373	NNE	0.2	129
10	91	4.0	64	4.6	54	4.6	35	3.7	131	SW (221)	0.559	NW	2.0	95
12	81	4.0	63	4.2	52	4.2	35	3.5	136	SW (217)	0.529	WNW	2.2	84
14	85	4.0	71	4.1	58	4.4	39	3.7	132	SW (220)	0.435	WSW	3.0	123
16	104	4.5	76	4.2	60	4.5	38	3.8	128	SW (224)	0.532	SW	2.8	177
18	83	4.0	69	4.4	57	4.2	39	3.7	132	SW (216)	0.399	S	1.0	226
20	82	3.5	65	4.0	52	4.1	34	3.4	139	SW (218)	0.510	SSW	2.0	240
22	79	5.5	63	4.1	51	3.7	36	3.2	149	SW (230)	0.588	S	3.5	233
D.max.	104	4.5	76	4.2	60	4.5	39	3.7	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	83	3.9	65	4.2	53	4.2	35	3.5	4	( SW)	0.472	WSW	1.8	167

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (187) Wave Data

Date: 23th Feb. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	104	3.0	80	3.1	62	3.3	41	3.0	161	SW (226)	0.518	WSW	2.0	210
2	104	4.0	69	4.0	56	3.8	38	3.5	141	SW (227)	0.577	WSW	1.0	175
4	68	4.0	58	4.4	45	4.3	31	3.5	139	SW (223)	0.568	E	0.2	154
6	71	5.0	54	4.2	43	3.7	29	3.2	146	SW (224)	0.494	NE	2.0	157
8	63	4.5	45	4.1	36	4.0	25	3.4	141	SW (221)	0.579	WNW	0.1	140
10	71	4.5	53	4.5	46	4.4	31	3.7	133	SW (217)	0.463	N	2.0	122
12	75	4.5	59	4.5	47	4.3	31	3.4	136	SSW (208)	0.388	NNE	3.0	101
14	76	6.0	61	4.6	48	4.4	32	3.6	131	SSW (208)	0.474	NE	3.0	123
16	65	2.5	49	4.1	39	3.6	26	3.0	151	SW (219)	0.690	ENE	2.0	144
18	76	3.0	49	4.0	38	4.0	25	3.4	135	SW (219)	0.475	NE	0.5	176
20	52	5.0	45	5.0	38	5.1	25	4.4	110	SW (217)	0.407	NE	2.0	224
22	50	5.0	38	4.7	32	5.0	22	4.4	110	SSW (208)	0.493	E	0.1	206
D.max.	104	3.0	80	3.1	62	3.3	41	3.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	73	4.3	55	4.3	44	4.2	30	3.5	4	( SW)	0.510	NE	1.5	161

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (168) Wave Data

Date: 24th Feb. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	56	4.5	43	4.7	35	4.9	23	4.4	111	SW (218)	0.395	NE	2.0	191
2	66	5.0	51	4.8	37	4.8	21	4.2	116	SSW (214)	0.384	NE	2.0	166
4	55	4.5	39	4.5	30	4.7	20	4.5	111	SW (218)	0.383	NNE	1.0	139
6	56	5.0	47	4.7	37	4.9	24	4.3	110	SSW (209)	0.440	NNE	2.0	149
8	67	4.5	59	3.6	49	3.5	32	3.1	145	SW (214)	0.499	N	2.0	154
10	55	5.0	43	4.6	36	4.5	24	3.7	128	SSW (202)	0.574	NE	1.0	134
12	43	5.0	37	4.7	30	4.8	20	4.2	116	SSW (206)	0.411	E	0.1	127
14	40	4.0	35	4.4	29	4.6	20	4.3	117	SW (214)	0.419	SSE	1.0	138
16	51	4.5	44	4.7	35	4.6	23	4.0	122	SW (218)	0.373	WSW	2.8	165
18	58	5.0	46	4.4	36	4.0	24	3.4	142	SW (218)	0.449	SW	2.0	205
20	60	3.5	52	4.1	43	4.1	29	3.6	138	SW (215)	0.439	WSW	1.0	228
22	64	4.0	48	4.3	38	4.0	26	3.5	141	SSW (213)	0.486	NNW	0.1	211
D.max.	67	4.5	59	3.6	49	3.5	32	3.1	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	56	4.5	45	4.5	36	4.4	24	3.9	4	( SW)	0.438	NE	1.4	167

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No. : Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction



Table I. 3-1 (163) Wave Data

Date: 25th Feb. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	61	2.5	52	3.5	44	3.8	30	3.2	132	SW (220)	0.415	NW	2.0	184
2	62	5.0	55	4.1	45	4.1	29	3.3	142	SW (225)	0.389	NNW	2.0	147
4	78	3.0	60	4.1	47	4.0	32	3.6	135	SW (223)	0.511	N	1.0	139
6	99	3.5	72	4.2	56	4.1	36	3.3	139	SW (230)	0.487	NNE	3.0	134
8	71	5.0	59	4.3	48	3.8	33	3.2	143	SW (226)	0.399	NE	3.0	154
10	57	4.5	51	4.8	43	4.4	29	3.8	123	SSW (214)	0.341	NNE	2.8	157
12	60	5.0	45	4.7	35	4.7	23	3.6	129	SW (219)	0.517	NE	2.0	146
14	59	5.0	45	4.9	36	5.0	22	4.2	118	SSW (209)	0.396	NE	1.0	154
16	49	5.0	40	5.2	31	5.2	20	4.6	110	SW (217)	0.501	S	0.2	162
18	50	4.0	38	4.7	30	4.8	19	4.3	115	SSW (207)	0.579	S	2.0	183
20	52	5.0	43	5.2	36	5.2	24	4.8	104	SW (216)	0.401	SSW	0.2	207
22	50	4.5	41	4.7	32	4.7	22	4.1	120	SW (219)	0.393	NW	3.5	202
D.max.	99	3.5	72	4.2	56	4.1	36	3.3	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	62	4.3	50	4.5	40	4.5	27	3.8	4	( SW)	0.444	NE	1.9	164

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (170) Wave Data

Date: 26th Feb. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	62	3.5	51	3.7	41	3.7	28	3.3	139	SW (218)	0.439	N	1.0	172
2	72	4.0	49	4.5	39	4.2	27	3.3	135	SW (219)	0.611	N	0.5	135
4	68	5.0	55	4.8	44	4.8	29	4.0	125	SW (216)	0.433	ESE	1.0	131
6	72	4.5	59	4.2	47	4.2	31	3.7	134	SSW (198)	0.509	SE	0.4	121
8	68	4.5	51	4.8	40	4.6	25	3.8	129	SW (220)	0.395	N	1.0	166
10	49	4.5	39	4.5	34	4.5	22	3.8	127	SSW (212)	0.386	NE	1.0	187
12	56	5.5	50	4.9	41	4.6	27	4.1	117	SSW (212)	0.353	S	2.0	182
14	68	5.0	52	4.7	41	4.6	27	3.9	127	SW (214)	0.482	SSW	3.0	167
16	72	3.5	55	4.2	44	4.3	30	3.6	133	SSW (211)	0.504	SSW	2.0	165
18	74	3.0	58	3.5	48	3.6	32	3.2	149	SW (229)	0.840	WSW	2.0	182
20	74	4.0	59	3.7	46	3.7	31	3.4	140	SSW (210)	0.643	SW	2.0	211
22	65	3.5	54	3.3	42	3.6	28	3.2	145	SSW (197)	0.558	SW	1.0	203
D.max.	74	3.0	59	4.2	48	3.6	32	3.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	67	4.2	53	4.2	42	4.2	28	3.6	4	(SSW)	0.513	N	1.4	169

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (171) Wave Data

Date: 27th Feb. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	71	3.0	54	4.0	44	3.6	29	3.2	144	SSW (209)	0.614	SSW	1.0	160
2	75	4.0	57	4.0	46	4.0	31	3.5	137	SSW (208)	0.564	SW	0.2	129
4	85	3.5	68	3.9	53	3.9	34	3.3	150	SW (214)	0.480	W	2.0	127
6	130	3.5	83	4.0	68	3.9	47	3.5	139	SW (225)	0.590	N	1.0	123
8	97	4.0	77	4.0	62	4.3	43	3.7	134	SW (222)	0.529	NNW	1.0	159
10	88	4.0	69	4.0	58	3.8	40	3.4	146	SW (217)	0.646	N	2.0	190
12	80	4.0	68	4.1	55	4.0	34	3.6	133	SSW (210)	0.497	N	0.8	199
14	70	4.5	57	4.4	44	4.3	29	3.9	127	SSW (213)	0.484	S	0.8	201
16	89	4.5	78	4.2	65	4.3	42	3.7	132	SSW (200)	0.498	S	3.2	194
18	117	4.0	91	4.3	73	4.2	48	3.7	133	SSW (212)	0.480	WSW	3.5	184
20	192	4.5	141	4.5	115	4.7	75	4.0	124	SW (233)	0.461	WSW	2.2	221
22	137	4.0	111	4.3	88	4.4	59	3.9	129	SW (219)	0.513	WSW	4.0	199
D.max.	192	4.5	141	4.5	115	4.7	75	4.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	103	4.0	80	4.1	64	4.1	43	3.6	4	(SSW)	0.530	WSW	1.8	174

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (172) Wave Data

Date: 28th Feb. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	119	5.0	97	4.3	77	4.3	50	3.8	129	SW (216)	0.453	W	2.0	162
2	99	5.0	91	4.0	75	4.0	50	3.5	141	SSW (207)	0.584	WNW	2.3	135
4	153	4.0	107	4.4	87	4.4	58	4.0	123	WSW (239)	0.485	NNW	1.0	122
6	150	4.5	127	4.4	98	4.3	62	3.6	135	SW (221)	0.501	WNW	4.0	91
8	161	4.0	113	4.5	93	4.6	62	4.0	123	SW (218)	0.624	WNW	2.0	135
10	164	5.0	116	4.7	91	4.8	60	4.2	119	SW (226)	0.466	NW	0.7	188
12	116	4.5	107	4.5	90	4.7	57	3.8	127	SW (218)	0.517	W	4.5	218
14	112	5.5	95	5.2	80	4.8	53	4.1	120	SW (219)	0.501	WSW	4.0	210
16	121	4.5	97	4.8	77	4.6	50	4.2	118	SSW (209)	0.509	WSW	2.7	199
18	99	4.5	81	4.2	67	4.1	45	3.5	136	SW (215)	0.467	WSW	4.0	175
20	168	3.5	92	4.2	71	4.1	47	3.6	134	SW (222)	0.447	WNW	2.0	197
22	109	4.0	85	4.2	69	4.3	46	3.6	132	SW (221)	0.441	WSW	4.0	200
D.max.	168	3.5	127	4.4	98	4.3	62	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	131	4.5	101	4.4	81	4.4	53	3.8	4	( SW)	0.500	WSW	2.8	169

[Note]

- W.H : Wave Height
- W.P : Wave Period
- Wave No.: Wave Countered
- D.W.D : Dominant Wave Direction
- R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge
- T.L : Tidal Level
- D.max. : Daily max.
- D.mean : Daily mean
- M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (173) Wave Data

Date: 1st Mar. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	124	5.0	96	4.5	75	4.5	50	4.0	125	SW (216)	0.424	WSW	3.0	170
2	99	4.5	81	4.2	66	4.1	44	3.5	138	SW (214)	0.587	W	3.0	128
4	92	4.5	76	3.9	61	4.2	40	3.6	135	SSW (207)	0.488	W	2.8	99
6	100	4.0	74	4.2	62	3.9	42	3.6	136	SSW (211)	0.536	NW	2.5	83
8	115	3.5	79	4.2	63	4.0	42	3.5	137	SSW (195)	0.622	NNW	2.0	119
10	84	4.0	74	4.2	59	4.0	39	3.5	139	S (190)	0.705	ENE	2.0	182
12	73	3.5	66	4.2	56	4.0	38	3.5	137	SW (214)	0.453	WSW	4.2	235
14	85	4.5	70	3.8	58	3.8	40	3.5	138	SW (226)	0.494	WSW	3.0	245
16	89	3.5	72	4.1	60	3.7	39	3.4	142	SW (220)	0.522	SW	2.5	221
18	97	3.5	84	4.1	63	4.0	41	3.4	141	SW (221)	0.374	SSW	3.0	199
20	107	3.5	87	3.8	70	3.8	47	3.4	144	SW (224)	0.443	SW	3.0	197
22	101	4.0	82	3.7	66	3.9	45	3.5	140	SW (229)	0.447	WSW	4.0	199
D.max.	124	5.0	96	4.5	75	4.5	50	4.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	97	4.0	78	4.1	63	4.0	42	3.5	4	( SW)	0.508	WSW	2.9	173

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (17A) Wave Data

Date: 2nd Mar. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	134	4.0	101	4.2	76	4.1	50	3.6	138	SW (234)	0.593	WSW	2.8	179
2	140	4.0	108	4.2	86	4.2	56	3.7	136	SW (226)	0.452	W	2.5	139
4	162	4.0	120	4.3	94	4.4	61	3.8	128	SW (226)	0.354	WNW	4.0	111
6	169	4.5	138	4.7	109	4.4	70	3.9	125	SW (220)	0.465	NW	3.0	83
8	198	4.0	133	4.7	104	4.5	69	4.0	125	SW (222)	0.323	W	3.8	94
10	146	4.5	121	4.9	98	4.9	64	4.1	120	SW (227)	0.445	NNW	2.2	145
12	126	5.0	104	4.9	82	4.6	55	4.2	118	SSW (212)	0.542	WSW	0.6	222
14	113	4.5	86	4.6	65	4.7	42	4.2	118	SW (220)	0.354	WSW	0.8	250
16	91	4.0	74	4.8	58	4.6	37	3.9	127	SW (215)	0.464	W	2.0	234
18	94	5.5	71	4.7	54	4.3	34	3.7	134	SW (218)	0.321	SW	0.8	195
20	100	4.0	76	4.4	59	4.5	37	4.0	124	SSW (213)	0.361	S	1.8	188
22	65	4.0	59	4.1	48	4.5	31	3.9	127	SW (220)	0.365	NNE	1.5	186
D.max.	198	4.0	138	4.7	109	4.4	70	3.9	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	128	4.3	99	4.5	78	4.5	51	3.9	4	( SW )	0.420	WSW	2.1	169

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (175) Wave Data

Date: 3rd Mar. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	75	4.5	56	4.6	44	4.8	31	4.2	118	SW (219)	0.430	N	1.0	173
2	55	4.0	47	4.2	38	4.2	25	3.9	128	SW (216)	0.429	NW	1.5	140
4	66	3.5	53	3.9	41	4.0	25	3.7	138	SSW (214)	0.445	N	1.8	100
6	70	3.5	57	4.0	44	4.0	28	3.7	137	SSW (214)	0.412	N	1.9	75
8	84	3.5	58	3.8	48	3.7	31	3.3	142	SSW (209)	0.569	N	2.0	62
10	62	4.0	45	3.9	38	3.9	26	3.6	137	SSW (209)	0.739	N	2.5	120
12	89	3.5	71	3.9	59	3.8	38	3.5	141	SSW (211)	0.707	NW	2.5	222
14	129	3.5	92	3.9	78	3.8	51	3.4	142	SW (221)	0.456	WSW	3.8	271
16	70	3.5	59	4.2	49	4.0	32	3.5	136	SW (217)	0.608	SW	1.0	253
18	68	4.0	62	3.9	50	4.0	32	3.6	140	SW (234)	0.573	N	1.0	212
20	65	4.0	57	4.2	46	4.3	31	3.8	126	SW (230)	0.332	NE	2.0	194
22	53	4.0	43	4.1	35	4.1	23	3.4	144	SW (214)	0.416	NNE	2.5	192
D.max.	129	3.5	92	3.9	78	3.8	51	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	74	3.8	58	4.0	48	4.0	31	3.6	4	( SW)	0.510	N	2.0	168

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (176) Wave Data

Date: 4th Mar. 1989

St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	64	3.5	49	4.3	41	4.4	27	3.9	121	SW (218)	0.352	NNE	2.0	186
2	56	4.0	46	3.6	37	3.9	24	3.3	128	SSW (202)	0.329	N	2.5	159
4	53	3.5	48	2.9	40	3.0	27	2.8	155	SW (216)	0.582	NNW	3.0	104
6	63	3.0	52	3.2	42	3.1	29	2.9	160	WSW (238)	0.642	NNW	2.0	75
8	74	3.5	61	3.7	48	3.8	34	3.5	140	SW (228)	0.446	NW	2.0	56
10	77	4.0	69	4.0	55	4.1	38	3.5	138	SW (218)	0.512	WSW	3.8	62
12	124	3.0	95	3.9	77	4.0	52	3.5	136	WSW (242)	0.648	W	4.0	176
14	139	5.0	123	4.3	101	4.5	67	4.0	125	WSW (237)	0.477	WSW	4.5	254
16	126	4.5	105	4.6	82	4.5	55	3.8	128	SW (225)	0.442	WSW	3.0	266
18	92	4.0	78	4.2	63	4.2	43	3.5	139	SW (217)	0.482	WSW	3.0	234
20	84	4.0	70	4.3	57	4.2	38	3.7	134	SW (227)	0.521	W	2.0	200
22	84	3.5	68	4.4	53	4.3	35	3.6	135	SW (216)	0.462	NW	2.0	186
D.max.	139	5.0	123	4.3	101	4.5	67	4.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	86	3.8	72	3.9	58	4.0	39	3.5	4	( SW)	0.491	WSW	2.8	163

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No. : Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction



Table 1.3-1 (177) Wave Data

Date: 5th Mar. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	88	3.5	69	4.3	55	4.1	38	3.6	136	SW (216)	0.385	NW	2.0	184
2	96	3.5	73	4.1	56	3.8	37	3.3	143	SW (217)	0.419	NNW	2.0	167
4	94	4.0	68	4.2	54	4.1	35	3.4	136	SSW (209)	0.355	N	2.5	123
6	77	6.0	59	4.4	50	4.2	35	3.6	130	SW (215)	0.336	NNE	2.4	84
8	76	4.0	52	4.0	42	4.0	28	3.5	132	SSW (205)	0.536	NE	3.6	60
10	68	4.0	42	4.5	33	4.3	22	3.5	131	SSW (208)	0.606	NE	3.2	52
12	50	4.0	41	4.1	34	4.3	23	3.6	133	SSW (200)	0.887	SW	2.0	122
14	68	4.0	48	4.3	39	4.2	26	3.7	132	SSW (203)	0.698	SW	2.0	226
16	79	5.0	59	4.1	46	4.2	30	3.7	131	SSW (208)	0.656	SW	2.0	268
18	56	3.5	51	4.2	43	4.2	28	3.8	128	SSW (214)	0.666	S	2.0	261
20	49	4.0	43	4.7	36	4.5	24	3.9	129	SSW (212)	0.412	S	1.0	218
22	59	4.5	49	4.4	38	4.4	24	3.9	128	SW (217)	0.343	ENE	0.8	191
D.max.	96	3.5	73	4.1	56	3.8	38	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	72	4.2	55	4.3	44	4.2	29	3.6	4	(SSW)	0.525	SW	2.1	163

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (178) Wave Data

Date: 6th Mar. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	51	4.0	45	4.0	36	4.1	24	4.0	126	SSW (207)	0.538	NW	1.0	196
2	60	4.0	50	4.2	39	4.4	25	4.0	125	SSW (212)	0.362	N	2.0	182
4	49	4.0	41	4.1	32	4.2	22	3.9	126	SSW (201)	0.346	NNW	1.8	139
6	65	3.0	51	3.4	40	3.2	28	3.0	157	SSW (211)	0.476	NW	2.2	101
8	96	3.5	66	3.5	52	3.4	33	3.1	151	SW (225)	0.598	N	2.0	74
10	93	4.0	70	4.0	57	3.9	39	3.6	135	SW (222)	0.482	W	3.5	58
12	77	4.0	66	3.9	52	3.8	34	3.5	140	SSW (210)	0.745	SW	2.8	90
14	83	4.5	64	3.8	52	3.9	34	3.6	136	SSW (208)	0.601	WSW	3.6	187
16	90	4.0	66	3.9	52	4.0	34	3.5	140	SW (217)	0.389	WSW	2.2	256
18	81	4.0	63	4.3	49	4.2	32	3.6	136	SSW (213)	0.481	SW	2.5	269
20	66	4.0	50	4.4	41	4.5	27	3.9	126	SW (217)	0.559	SW	2.0	241
22	62	4.5	48	4.5	39	4.6	25	4.0	125	SW (219)	0.422	WSW	2.0	206
D.max.	96	3.5	70	4.0	57	3.9	39	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	73	4.0	57	4.0	45	4.0	30	3.6	4	(SSW)	0.500	SW	2.3	167

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (179) Wave Data

Date: 7th Mar. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	54	4.5	40	4.5	34	4.3	23	3.7	132	SW (222)	0.505	WSW	2.0	190
2	61	4.0	45	4.5	37	4.3	24	3.7	133	SW (216)	0.416	N	2.0	198
4	53	4.0	43	3.8	36	4.0	24	3.3	142	SSW (213)	0.484	N	2.0	171
6	66	2.5	49	3.2	39	3.3	27	3.1	151	SW (216)	0.522	NNE	2.5	130
8	61	3.5	52	3.2	43	3.3	30	3.2	149	SSW (202)	0.591	NE	2.2	87
10	103	3.5	72	3.8	58	3.9	39	3.7	136	SSW (192)	0.506	SW	3.0	72
12	114	3.5	73	3.9	55	4.0	34	3.6	140	S (182)	0.495	W	3.0	76
14	76	4.0	57	3.6	47	3.5	33	3.2	150	S (188)	0.813	WSW	3.0	163
16	77	3.5	67	3.7	56	3.8	38	3.5	138	SSW (213)	0.521	WNW	3.8	252
18	86	3.0	77	3.4	66	3.6	45	3.3	148	SW (233)	0.662	WNW	3.0	272
20	95	3.5	68	3.8	54	3.7	36	3.3	150	SW (232)	0.619	NNW	2.2	242
22	108	2.5	66	3.7	51	3.6	33	2.9	149	WSW (236)	0.499	N	2.5	196
D.max.	114	3.5	77	3.4	66	3.6	45	3.3	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	80	3.5	59	3.8	48	3.8	32	3.4	3	( SW)	0.553	N	2.6	171

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-I (180) Wave Data

Date: 8th Mar. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	93	4.5	73	3.8	56	3.7	35	3.2	148	WSW (240)	0.565	N	2.2	180
2	76	4.0	60	3.7	47	3.3	32	2.9	161	SW (233)	0.401	N	2.5	184
4	73	3.5	65	3.5	51	3.5	34	3.0	158	WSW (241)	0.403	N	2.8	187
6	71	3.5	54	3.5	43	3.4	29	3.0	146	SW (231)	0.393	NNE	2.8	152
8	57	4.0	47	3.6	38	3.3	26	2.9	144	SW (225)	0.558	NNE	3.8	104
10	66	4.0	47	4.0	36	3.6	24	3.0	143	SW (229)	0.421	NNE	3.4	78
12	36	4.0	31	4.2	25	3.9	16	3.3	141	SW (231)	0.685	NNE	2.8	78
14	37	4.5	31	4.3	25	4.3	16	3.5	138	SW (218)	0.678	W	4.0	148
16	50	2.5	39	3.5	33	3.7	22	3.2	145	SW (226)	0.736	WSW	2.5	232
18	89	3.0	72	3.5	59	3.4	40	3.2	151	WSW (238)	0.621	W	1.8	266
20	142	4.0	117	4.3	92	4.2	59	3.6	135	WSW (237)	0.355	NW	2.0	232
22	115	4.5	100	4.0	85	4.0	58	3.5	141	SW (236)	0.432	NNW	2.1	193
D.max.	142	4.0	117	4.3	92	4.2	59	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	75	3.8	61	3.8	49	3.7	33	3.2	3	( SW)	0.521	NNE	2.7	170

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (181) Wave Data

Date: 9th Mar. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	135	4.5	107	4.7	85	4.4	55	3.8	129	SW (231)	0.428	N	2.2	153
2	104	4.5	80	4.1	64	4.2	41	3.5	141	SW (226)	0.443	NW	2.0	164
4	90	5.0	80	4.1	63	4.0	42	3.4	141	SW (227)	0.406	NNW	2.0	183
6	99	4.5	78	4.2	60	4.1	38	3.5	136	SW (225)	0.375	N	2.2	191
8	94	4.0	74	4.3	61	4.4	41	3.9	125	SW (214)	0.365	N	2.0	151
10	81	3.5	65	4.3	52	4.4	35	3.6	133	SW (218)	0.429	N	2.8	108
12	60	4.5	53	4.5	42	4.3	28	3.9	128	SW (222)	0.510	NE	3.0	92
14	75	4.0	55	4.3	45	4.2	29	4.0	124	SSW (211)	0.549	N	2.0	137
16	71	4.0	56	4.6	45	4.5	29	4.1	124	SW (216)	0.626	ENE	2.0	211
18	72	5.0	61	4.9	50	4.8	33	4.3	117	SW (214)	0.428	SE	1.2	260
20	90	5.0	69	5.2	54	5.3	35	4.7	107	SSW (193)	0.410	W	1.0	241
22	111	5.0	74	4.7	56	5.1	36	4.7	107	SSW (206)	0.411	N	1.8	203
D.max.	135	4.5	107	4.7	85	4.4	55	3.8	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	90	4.5	71	4.5	56	4.5	37	3.9	4	( SW)	0.448	N	2.0	175

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (182) Wave Data

Date: 10th Mar. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	69	4.0	64	4.4	54	4.3	36	3.8	130	SW (217)	0.382	N	1.0	169
2	72	4.5	59	4.5	48	4.5	32	4.0	124	SSW (214)	0.394	W	1.2	137
4	90	4.0	68	4.8	53	4.8	34	4.1	121	SSW (211)	0.536	N	1.0	158
6	75	5.0	64	5.5	54	5.2	35	4.2	118	SW (215)	0.322	N	2.0	188
8	74	5.0	62	5.1	52	5.1	35	4.5	111	SSW (212)	0.418	NE	2.8	186
10	69	6.0	56	5.4	45	5.5	28	4.5	111	SSW (212)	0.352	ENE	2.0	146
12	60	4.5	46	5.4	38	5.1	24	4.5	112	SSW (201)	0.529	SE	1.0	138
14	60	5.5	49	5.6	38	5.4	24	4.7	107	SSW (209)	0.452	SSW	2.1	167
16	67	4.5	52	4.8	42	5.0	27	4.4	113	SSW (209)	0.445	NE	2.5	200
18	72	5.5	56	4.9	47	5.1	33	4.5	110	SSW (213)	0.337	NNE	2.0	230
20	66	4.0	54	4.7	44	4.8	29	4.1	119	SSW (206)	0.596	NW	1.8	236
22	60	5.5	52	4.9	44	5.0	31	4.4	113	SSW (212)	0.458	WSW	1.0	180
D.max.	90	4.0	68	4.8	54	4.3	36	3.8	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	70	4.8	57	5.0	47	5.0	31	4.3	4	(SSW)	0.435	N	1.7	178

[Note]

- W.H : Wave Height
- W.P : Wave Period
- Wave No.: Wave Countered
- D.W.D : Dominant Wave Direction
- R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge
- T.L : Tidal Level
- D.max. : Daily max.
- D.mean : Daily mean
- M.F.D : Most Frequency Wind Direction

Table I. 3-1 (183) Wave Data

Date: 11th Mar. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	55	5.5	49	4.7	40	4.6	27	4.0	123	SW (217)	0.386	WSW	1.0	141
2	67	4.0	50	4.9	41	4.9	29	4.4	114	SW (215)	0.363	W	1.9	121
4	71	4.5	60	5.1	48	5.2	30	4.3	116	SSW (207)	0.371	NE	1.9	129
6	85	5.0	69	5.5	54	5.7	35	4.8	106	SSW (209)	0.347	NNE	1.9	179
8	85	5.5	69	5.0	54	5.1	36	4.5	112	SSW (209)	0.357	NE	2.0	195
10	69	5.0	60	5.3	50	5.1	33	4.5	110	SSW (212)	0.412	ENE	0.9	179
12	60	5.0	56	5.0	46	5.4	30	4.5	112	SSW (205)	0.435	SSW	2.2	179
14	68	5.0	53	5.4	43	5.1	30	4.4	114	SSW (201)	0.409	SW	2.5	180
16	85	5.0	69	4.8	53	4.5	35	3.8	129	SSW (211)	0.427	WSW	3.0	192
18	99	4.5	76	4.5	60	4.3	41	3.7	132	SW (216)	0.521	WSW	3.0	224
20	102	5.5	81	4.6	66	4.4	45	3.8	129	SSW (202)	0.495	SW	2.5	232
22	110	5.0	96	4.0	77	4.2	51	3.5	139	SSW (211)	0.559	SW	3.0	187
D.max.	110	5.0	96	4.0	77	4.2	51	3.5	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	80	5.0	66	4.9	53	4.9	35	4.2	4	(SSW)	0.423	SW	2.1	178

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (BM) Wave Data

Date: 12th Mar. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	132	5.0	107	4.4	86	4.3	58	3.8	133	SSW (208)	0.498	NW	2.2	144
2	159	4.5	126	4.5	93	4.3	59	3.9	126	SSW (212)	0.395	W	3.0	118
4	111	5.0	98	4.4	84	4.5	57	4.0	122	SSW (192)	0.491	NNW	1.9	108
6	139	4.5	106	4.8	82	4.8	51	4.1	120	SSW (205)	0.446	NNW	2.0	148
8	115	5.5	92	5.0	72	4.9	47	4.2	117	SSW (204)	0.422	NNW	2.0	194
10	115	5.0	96	4.8	80	4.5	52	3.9	127	SSW (208)	0.530	WNW	4.5	200
12	126	6.0	93	4.3	76	4.6	49	3.6	135	SW (218)	0.439	W	5.0	200
14	128	4.5	92	4.8	76	4.5	50	3.7	132	SSW (212)	0.458	SW	3.9	201
16	110	4.5	97	4.3	81	4.4	56	3.8	132	SSW (213)	0.501	WSW	3.5	200
18	117	5.5	90	4.5	73	4.3	50	3.5	141	SSW (211)	0.445	W	2.0	212
20	145	4.0	109	4.2	88	4.4	58	3.8	130	SW (214)	0.486	W	3.0	219
22	115	4.5	101	4.2	85	4.2	57	3.8	130	SW (217)	0.519	WSW	4.0	182
D.max.	159	4.5	126	4.5	93	4.3	59	3.9	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	126	4.9	101	4.5	81	4.5	54	3.8	4	(SSW)	0.469	W	3.1	177

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table 1. 3-1 (185) Wave Data

Date: 13th Mar. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	155	4.5	105	4.3	82	4.2	53	3.8	130	SSW (214)	0.540	W	3.5	139
2	113	4.0	99	4.4	75	4.4	49	3.8	129	SW (228)	0.563	WNW	3.0	106
4	97	4.5	82	4.3	67	4.3	45	3.6	134	SSW (208)	0.706	NNW	2.0	95
6	121	4.5	98	4.3	77	4.5	51	3.8	130	SSW (207)	0.500	N	2.0	102
8	100	4.5	85	4.5	70	4.6	48	4.0	122	SSW (201)	0.642	NNW	2.0	169
10	114	5.0	93	4.7	72	4.5	47	3.9	125	SW (214)	0.597	W	2.0	217
12	110	4.5	91	4.9	77	4.5	51	3.9	127	SW (216)	0.574	WSW	3.8	240
14	120	4.0	96	4.8	76	4.4	52	3.9	128	SW (221)	0.552	WSW	4.5	225
16	129	5.0	97	4.3	80	4.2	53	3.6	134	SSW (210)	0.614	WSW	3.9	206
18	121	4.5	89	4.6	72	4.4	47	3.7	132	SW (218)	0.644	WSW	4.5	192
20	150	4.5	103	4.3	83	4.2	56	3.7	134	SW (220)	0.645	WNW	2.4	204
22	153	3.5	114	4.1	88	4.1	58	3.6	138	SW (227)	0.546	NW	2.0	181
D.max.	155	4.5	114	4.1	88	4.1	58	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	124	4.4	96	4.5	77	4.4	51	3.8	4	( SW)	0.594	WSW	3.0	173

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (186) Wave Data

Date: 14th Mar. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	146	4.0	101	4.3	81	4.4	54	3.9	128	SSW (213)	0.700	NNW	1.9	142
2	134	4.0	99	3.9	80	4.0	55	3.6	136	SW (221)	0.600	NNW	2.0	107
4	112	4.0	94	4.2	76	4.3	50	3.9	123	SW (218)	0.458	NW	2.2	82
6	124	3.5	94	4.1	72	4.3	46	3.8	129	SSW (201)	0.625	NW	2.0	70
8	91	6.0	75	4.5	65	4.3	43	3.7	130	S (188)	0.741	WNW	2.5	134
10	105	4.5	83	4.7	65	4.4	42	3.6	136	S (179)	0.708	WNW	4.1	213
12	102	4.0	82	4.5	66	4.5	44	3.8	129	SSW (197)	0.740	W	3.8	255
14	106	4.5	90	4.7	72	4.3	47	3.6	137	SW (223)	0.588	W	3.8	251
16	100	5.5	78	4.3	62	4.2	42	3.5	139	SSW (204)	0.576	WSW	4.0	226
18	91	4.0	82	4.4	66	4.2	44	3.6	135	SW (219)	0.514	WSW	3.2	193
20	83	3.0	72	4.5	58	4.5	38	3.6	133	SSW (203)	0.578	WSW	3.0	189
22	98	4.0	79	4.0	64	4.3	41	3.5	139	SSW (193)	0.452	WSW	2.4	188
D.max.	146	4.0	101	4.3	81	4.4	55	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	108	4.3	86	4.3	69	4.3	46	3.7	4	(SSW)	0.607	WSW	2.9	171

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (187) Wave Data

Date: 15th Mar. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	104	3.5	77	4.1	59	4.1	38	3.6	139	SSW (212)	0.524	W	2.1	155
2	97	4.0	76	4.1	59	3.8	38	3.6	137	SW (214)	0.441	W	2.0	111
4	91	5.5	72	4.1	58	4.0	40	3.5	139	SSW (214)	0.475	NW	2.0	82
6	70	4.0	61	3.6	52	3.8	36	3.4	142	SSW (209)	0.504	NW	1.8	67
8	68	3.5	58	3.8	48	3.8	33	3.5	142	SSW (195)	0.682	NE	1.8	103
10	71	3.5	58	3.7	49	3.8	33	3.5	140	SSW (197)	0.675	WSW	2.0	196
12	65	2.5	55	3.8	46	3.8	32	3.3	149	SW (227)	0.552	WSW	3.8	255
14	75	3.0	60	3.9	50	4.0	34	3.4	140	SW (226)	0.460	WSW	3.8	272
16	83	4.0	66	4.3	53	4.1	35	3.4	136	SW (232)	0.522	WSW	3.5	245
18	85	3.5	68	3.8	52	3.7	35	3.3	146	SW (228)	0.444	WSW	3.5	210
20	89	4.0	68	3.9	56	3.9	39	3.5	138	SW (231)	0.331	WSW	2.5	185
22	82	4.0	66	3.9	53	4.0	35	3.4	143	SW (225)	0.380	WSW	2.7	182
D.max.	104	3.5	77	4.1	59	4.1	40	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	82	3.8	65	3.9	53	3.9	36	3.4	3	( SW )	0.499	WSW	2.6	172

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (188) Wave Data

Date: 16th Mar. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	77	3.0	56	3.4	44	3.9	29	3.4	140	SW (229)	0.372	SW	1.8	168
2	59	4.5	49	4.0	41	4.0	27	3.5	142	SW (223)	0.483	WSW	2.0	130
4	67	3.0	52	3.8	42	3.8	28	3.4	140	SW (214)	0.393	NNE	1.9	92
6	56	4.5	43	3.7	36	3.8	24	3.5	142	SW (221)	0.437	NE	2.0	69
8	60	4.5	48	3.8	38	3.8	25	3.4	145	SW (216)	0.622	NE	2.0	65
10	46	3.5	39	3.6	33	3.8	23	3.4	147	S (180)	0.700	SSW	2.0	148
12	49	3.5	39	3.9	31	3.8	21	3.4	146	SSW (208)	0.853	SW	2.0	237
14	51	4.0	38	3.8	31	3.7	20	3.5	141	SW (224)	0.621	SW	2.2	271
16	42	3.5	36	3.5	31	3.5	21	3.0	148	SW (224)	0.613	SW	2.9	259
18	50	2.5	43	3.1	36	3.1	24	3.0	157	SW (233)	0.476	WSW	3.0	220
20	59	3.0	46	3.0	39	3.0	26	2.8	168	SW (230)	0.645	SW	3.0	190
22	66	4.0	57	3.2	46	3.2	30	3.0	156	SW (223)	0.476	SW	2.9	185
D.max.	77	3.0	57	3.2	46	3.2	30	3.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	57	3.6	46	3.6	37	3.6	25	3.3	3	( SW )	0.558	SW	2.3	170

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (189) Wave Data

Date: 17th Mar. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	66	4.0	56	3.4	49	3.4	34	3.1	154	SW (235)	0.516	WNW	2.1	184
2	85	3.5	58	3.7	49	3.6	33	3.2	151	WSW (238)	0.402	NW	2.0	145
4	96	3.0	69	3.6	58	3.9	40	3.5	142	WSW (236)	0.526	NNW	2.0	108
6	95	3.5	69	3.6	57	3.8	38	3.4	143	SW (228)	0.408	N	2.0	79
8	74	3.5	60	3.8	49	3.7	33	3.4	139	SW (227)	0.572	N	2.0	63
10	62	4.0	53	4.0	43	3.8	30	3.4	142	SW (235)	0.897	NNW	2.2	102
12	65	3.5	51	3.5	43	3.5	30	3.3	147	SW (221)	0.720	WSW	4.0	204
14	59	4.5	49	3.7	40	3.6	27	3.1	150	SW (234)	0.392	WSW	4.0	265
16	84	2.5	58	3.1	47	3.2	31	3.0	158	SW (234)	0.549	WSW	4.9	267
18	90	3.0	65	3.3	53	3.4	34	3.1	155	WSW (241)	0.551	WSW	4.2	238
20	75	3.0	60	3.4	50	3.3	34	3.1	155	WSW (239)	0.443	WSW	2.2	196
22	90	3.5	71	3.8	55	3.7	37	3.5	138	SW (235)	0.455	WSW	2.2	181
D.max.	96	3.0	71	3.8	58	3.9	40	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	78	3.5	60	3.6	49	3.6	33	3.3	3	( SW)	0.536	WSW	2.8	169

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table I. 3-1 (100) Wave Data

Date: 18th Mar. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	75	4.0	66	3.9	55	4.1	38	3.7	133	SW (233)	0.352	WSW	2.0	179
2	69	3.5	55	4.0	45	3.8	30	3.4	142	WSW (238)	0.565	WSW	2.0	162
4	61	4.0	54	3.9	45	4.0	31	3.7	134	SW (227)	0.479	SSW	2.0	119
6	107	4.0	85	3.8	67	3.9	44	3.5	140	SW (227)	0.455	W	3.0	93
8	84	3.5	62	3.6	48	3.6	33	3.4	147	SW (233)	0.565	NNE	0.9	71
10	70	3.5	45	3.9	35	3.8	23	3.4	148	WSW (236)	0.647	NNE	2.2	87
12	50	3.0	40	3.9	32	3.8	21	3.2	148	SW (235)	0.820	NNW	2.5	167
14	55	4.5	46	3.7	38	3.8	25	3.3	139	SW (232)	0.378	SW	2.0	247
16	49	4.0	42	4.1	34	4.0	24	3.6	137	SW (230)	0.403	SSW	1.9	261
18	65	4.0	46	4.0	37	3.9	24	3.3	146	SW (232)	0.355	SW	2.0	242
20	66	3.5	47	3.8	36	3.7	24	3.3	142	SW (225)	0.321	SW	1.0	203
22	51	3.5	40	4.1	33	3.8	22	3.4	142	SW (225)	0.469	NE	2.1	176
D.max.	107	4.0	85	3.8	67	3.9	44	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	67	3.8	52	3.9	42	3.8	28	3.4	3	( SW)	0.484	SW	2.0	167

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3--1 (191) Wave Data

Date: 19th Mar. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	46	4.5	39	4.0	32	3.9	22	3.5	142	SW (231)	0.334	NE	2.0	172
2	55	3.5	42	3.9	34	3.9	21	3.5	142	SW (230)	0.485	N	1.9	167
4	41	3.5	31	4.0	25	3.7	16	3.5	140	SW (223)	0.499	NNE	1.0	138
6	43	4.5	36	3.9	28	4.1	19	3.7	133	SW (230)	0.391	NNE	1.9	103
8	41	4.0	33	4.0	25	3.9	17	3.5	139	SW (234)	0.507	NNE	2.0	77
10	35	3.0	29	3.6	23	3.6	15	3.5	142	S (186)	0.558	ENE	1.9	75
12	31	3.5	26	3.5	21	3.7	13	3.4	146	W (275)	0.680	SSE	1.0	145
14	39	3.0	28	3.4	21	3.4	14	3.2	146	S (173)	0.582	WSW	1.5	215
16	31	3.5	26	3.4	22	3.1	15	2.9	146	WSW (242)	0.630	SW	2.0	250
18	40	3.0	30	3.3	24	3.0	17	2.8	168	SW (234)	0.424	SW	2.0	248
20	33	3.0	26	3.4	22	3.4	16	3.1	154	WSW (237)	0.573	S	3.0	215
22	41	3.0	32	3.1	24	3.3	16	2.9	159	SW (234)	0.479	S	2.4	182
D.max.	55	3.5	42	3.9	34	3.9	22	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	40	3.5	32	3.6	25	3.6	17	3.3	3	( SW)	0.512	NNE	1.9	166

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table I. 3-1 (192) Wave Data

Date: 20th Mar. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	46	2.5	31	3.0	26	3.1	17	3.1	151	SW (230)	0.629	S	3.0	165
2	39	3.5	29	3.9	24	3.7	17	3.3	138	WSW (239)	0.468	SSW	3.0	164
4	39	4.5	34	3.8	28	3.5	19	3.2	149	SW (232)	0.472	S	3.0	149
6	46	3.5	34	3.6	27	3.5	18	3.1	159	SW (226)	0.562	S	2.5	118
8	32	4.0	28	3.6	23	3.6	15	3.1	156	WSW (237)	0.430	E	1.2	92
10	34	4.5	28	3.4	22	3.3	15	3.2	147	SW (219)	0.559	S	2.0	79
12	34	4.0	28	3.3	23	3.4	16	3.1	146	SSW (200)	0.735	WSW	2.0	121
14	38	3.0	28	3.3	23	3.3	15	3.0	154	SW (231)	0.661	SSW	2.2	195
16	35	3.0	29	3.5	23	3.4	15	3.2	148	SW (230)	0.584	WSW	2.2	241
18	29	3.5	26	3.3	22	3.5	15	3.2	150	SW (236)	0.452	WNW	1.0	237
20	27	4.0	23	3.4	19	3.3	13	3.1	149	SW (234)	0.565	N	2.0	213
22	30	3.0	24	3.1	20	3.4	14	3.0	140	SW (233)	0.557	NNE	2.0	184
D.max.	46	2.5	34	3.8	28	3.5	19	3.2	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	36	3.6	29	3.4	23	3.4	16	3.1	3	( SW)	0.556	S	2.2	163

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table 1. 3-1 (103) Wave Data

Date: 21th Mar. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	36	2.5	30	2.5	24	2.6	17	2.4	150	NE ( 37)	0.619	NNE	2.2	169
2	45	2.0	33	2.3	27	2.3	19	2.4	173	NE ( 50)	0.583	NE	3.0	157
4	26	2.5	23	2.4	18	2.4	13	2.4	160	NE ( 47)	0.784	NNE	2.2	161
6	31	2.0	26	2.3	21	2.4	14	2.4	138	NE ( 54)	0.475	NNE	3.0	139
8	27	3.0	22	2.6	17	2.7	11	2.5	123	NE ( 55)	0.552	NNE	3.0	111
10	19	3.5	15	3.8	12	3.6	8	3.1	131	SSW (213)	0.773	NE	3.0	84
12	20	4.0	18	2.9	15	2.8	10	2.5	149	E ( 95)	0.697	NE	3.9	88
14	27	3.0	23	2.9	19	2.9	13	2.7	170	WSW (248)	0.804	SW	2.0	163
16	22	3.5	18	3.6	15	3.7	10	3.3	142	SW (223)	0.643	NW	2.0	227
18	36	3.5	28	4.0	24	3.9	16	3.4	134	SSW (197)	0.548	WNW	1.5	229
20	35	4.0	29	3.7	23	3.7	16	3.3	140	S (190)	0.684	N	2.0	210
22	37	4.0	29	3.8	24	3.9	16	3.5	135	SSW (200)	0.629	NNE	2.0	174
D.max.	45	2.0	33	2.3	27	2.3	19	2.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	30	3.1	25	3.1	20	3.1	14	2.8	3	( NE)	0.649	NNE	2.5	159

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (198) Wave Data

Date: 22th Mar. 1989  
St. : I

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	41	3.5	34	3.7	27	3.7	18	3.5	138	SSW (193)	0.714	NE	2.2	161
2	59	4.0	40	3.8	32	3.7	21	3.4	141	SW (216)	0.632	N	1.8	152
4	46	4.0	38	3.8	30	3.9	19	3.5	136	SSW (210)	0.422	NNE	2.0	158
6	50	4.0	41	4.1	32	4.0	21	3.7	135	SW (216)	0.530	NE	3.0	157
8	55	3.5	49	4.0	40	4.2	27	3.6	127	SW (219)	0.383	NE	3.8	126
10	50	4.0	45	4.5	39	4.5	26	4.0	122	SW (217)	0.286	WSW	2.0	107
12	70	5.0	52	4.7	40	4.5	26	4.0	124	SW (214)	0.334	SW	1.8	123
14	55	4.0	41	4.2	33	4.1	22	3.6	137	SSW (213)	0.578	N	2.0	163
16	84	4.0	68	3.6	51	3.7	33	3.2	155	SW (216)	0.449	W	2.8	213
18	81	3.5	60	3.7	49	3.6	33	3.2	150	SW (227)	0.373	NW	2.6	238
20	84	3.0	55	3.3	43	3.2	30	3.0	155	SW (225)	0.511	NNW	2.0	201
22	64	4.5	50	3.5	42	3.4	28	3.1	148	SW (230)	0.550	NNW	2.0	167
D.max.	84	4.0	68	3.6	51	3.7	33	3.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	62	3.9	48	3.9	38	3.9	25	3.5	3	( SW)	0.480	NE	2.3	164

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table I. 3-1 (195) Wave Data

Date: 23th Mar. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	65	3.0	50	3.0	41	3.3	28	2.9	157	SW (230)	0.432	NNE	2.0	149
2	45	4.0	41	3.5	35	3.3	25	3.0	153	SW (223)	0.479	NNE	3.0	143
4	50	3.0	44	3.4	36	3.4	25	3.0	153	SW (234)	0.355	N	2.0	154
6	62	3.5	43	3.5	34	3.3	23	2.8	163	SW (234)	0.588	N	2.0	165
8	43	4.0	37	3.3	31	3.2	22	3.0	150	SW (230)	0.524	NE	3.0	148
10	43	3.5	32	3.3	26	3.3	18	2.9	140	WSW (238)	0.463	NE	3.0	125
12	30	3.0	24	3.3	20	3.2	14	2.8	142	W (270)	0.615	NE	2.2	128
14	21	4.0	19	4.1	16	4.1	11	3.3	136	SW (225)	0.590	ENE	0.2	162
16	22	4.0	19	4.3	17	4.1	11	3.7	121	SW (224)	0.599	SSW	2.5	196
18	50	2.5	33	3.0	27	2.8	18	2.6	171	SW (227)	0.494	SW	2.0	217
20	41	3.5	35	2.8	29	2.9	20	2.8	168	SW (218)	0.592	SW	2.0	197
22	44	2.5	39	3.1	33	2.9	22	2.9	162	SW (223)	0.445	WSW	2.2	169
D.max.	65	3.0	50	3.0	41	3.3	28	2.9	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	43	3.4	35	3.4	29	3.3	20	3.0	3	( SW )	0.515	NE	2.2	163

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (196) Wave Data

Date: 24th Mar. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	37	2.5	33	3.3	28	3.1	19	2.8	160	SW (221)	0.545	WSW	2.0	150
2	37	3.5	30	3.2	25	3.2	17	2.9	156	SW (217)	0.528	NNW	1.9	132
4	45	3.0	34	3.2	27	3.3	19	2.8	162	SW (215)	0.494	N	1.0	152
6	49	3.5	39	3.6	33	3.7	22	3.3	151	SW (228)	0.487	NNW	2.0	177
8	54	3.0	37	3.6	30	3.6	20	3.2	149	SW (219)	0.605	N	2.0	173
10	49	3.0	38	3.0	31	3.3	21	3.1	146	SW (216)	0.591	NNW	2.3	155
12	44	2.5	33	3.5	27	3.5	19	3.1	157	SSW (199)	0.473	WSW	1.9	154
14	53	3.5	36	3.6	28	3.6	19	3.3	146	SW (225)	0.513	SE	2.0	162
16	46	4.0	37	3.4	30	3.3	20	3.0	155	SW (236)	0.523	NE	0.8	174
18	42	3.5	32	3.5	25	3.7	17	3.3	146	WSW (236)	0.602	SE	0.3	190
20	39	3.0	31	3.7	25	3.6	17	3.2	151	WSW (248)	0.602	S	0.9	172
22	34	4.0	25	3.8	20	3.6	14	3.4	139	SSW (211)	0.559	NE	2.0	142
D.max.	54	3.0	39	3.6	33	3.7	22	3.3	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	44	3.3	34	3.4	27	3.5	19	3.1	3	( SW)	0.544	NNW	1.6	161

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (197) Wave Data

Date: 25th Mar. 1989  
 St.: 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	28	3.0	25	3.5	21	3.4	15	2.7	138	S (184)	0.611	NE	2.2	121
2	26	4.5	22	4.4	19	4.2	13	3.6	129	SSW (206)	0.554	NE	2.0	124
4	27	4.0	21	4.3	18	4.4	12	3.9	125	SSW (203)	0.595	NE	1.0	141
6	22	4.0	18	4.3	15	4.4	10	4.0	126	SW (227)	0.938	NNW	1.6	178
8	27	3.5	18	4.1	15	4.3	10	3.9	123	SSW (193)	0.679	NNE	1.0	201
10	20	4.0	18	4.1	15	4.0	9	3.9	131	S (181)	0.492	NE	2.0	186
12	21	4.0	16	4.2	13	4.2	9	4.0	125	S (169)	0.771	S	1.2	171
14	17	4.0	15	4.1	13	4.3	9	4.0	127	S (182)	0.595	S	2.9	175
16	22	3.5	18	3.9	14	3.8	9	3.4	126	S (184)	0.566	SSW	3.0	170
18	19	3.0	16	3.5	13	3.5	9	3.1	135	S (174)	0.591	SSW	3.0	179
20	29	2.5	21	2.5	17	2.7	12	2.5	167	SSW (201)	0.614	SSE	3.0	170
22	34	2.5	27	2.3	21	2.4	14	2.4	170	S (179)	0.506	SE	2.2	137
D.max.	34	2.5	27	2.3	21	3.4	15	2.7	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	24	3.5	20	3.8	16	3.8	11	3.4	3	( S )	0.626	NE	2.1	163

[Note]

W.H : Wave Height  
 W.P : Wave Period  
 Wave No.: Wave Countered  
 D.W.D : Dominant Wave Direction  
 R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
 D.max. : Daily max.  
 D.mean : Daily mean  
 M.F.D : Most Frequency Wind Direction

Table I. 3-1 (198) Wave Data

Date: 26th Mar. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	33	2.0	27	2.2	23	2.3	15	2.3	179	S (173)	0.688	E	1.0	107
2	28	2.0	24	2.3	20	2.5	13	2.4	174	NE (36)	0.639	NNW	1.0	113
4	23	2.0	18	2.9	15	2.6	11	2.5	160	NNE (12)	0.715	N	2.0	132
6	16	3.5	14	3.4	11	3.3	8	2.8	133	SSW (201)	0.823	N	2.0	179
8	21	2.0	16	2.7	13	2.9	9	2.6	144	N (359)	0.939	NNE	3.0	211
10	25	2.0	20	2.6	17	2.5	12	2.4	144	NNE (33)	0.798	NE	2.5	201
12	19	2.0	15	2.4	12	3.0	9	2.7	129	SSW (196)	0.738	NE	2.0	185
14	13	4.5	11	4.5	9	4.2	6	3.6	130	SW (224)	0.717	ESE	1.0	184
16	16	4.5	12	4.4	9	4.2	6	3.8	128	SW (235)	0.753	S	3.0	173
18	23	4.0	18	2.4	15	2.4	10	2.3	157	SSW (209)	0.724	S	4.0	172
20	45	2.0	38	2.5	32	2.5	21	2.5	176	SSW (210)	0.681	S	5.5	173
22	60	2.5	43	2.7	35	2.7	24	2.6	171	SSE (154)	0.895	SSE	5.0	142
D.max.	60	2.5	43	2.7	35	2.7	24	2.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	27	2.8	21	2.9	18	2.9	12	2.7	3	(SSW)	0.759	S	2.7	164

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (199) Wave Data

Date: 27th Mar. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	59	3.0	43	2.6	34	2.6	24	2.6	167	S (174)	0.737	SSE	5.0	104
2	54	2.5	32	2.5	27	2.5	18	2.5	171	SSW (201)	0.627	SSE	4.5	96
4	35	2.5	32	3.1	27	3.2	19	2.9	151	SSW (208)	0.389	SE	2.5	110
6	36	4.0	32	3.8	27	3.6	19	3.1	143	SSW (204)	0.709	ENE	2.0	150
8	36	2.5	27	3.1	23	3.3	16	2.9	143	SW (214)	0.781	NW	3.0	213
10	71	3.0	44	2.8	34	2.8	23	2.7	180	NE (40)	0.804	N	3.8	221
12	46	3.5	38	3.2	31	3.1	22	2.9	158	SSE (154)	0.649	NNE	4.0	214
14	36	3.0	26	3.1	20	3.0	14	2.7	168	SSE (159)	0.775	NNW	3.0	193
16	51	3.0	41	2.8	33	2.8	22	2.7	164	N (3)	0.804	NNW	4.0	172
18	36	2.5	30	2.5	24	2.5	16	2.5	163	NNW (341)	0.837	NW	2.0	160
20	24	3.0	19	2.6	15	2.5	11	2.5	170	SSE (155)	0.810	ESE	2.0	163
22	34	3.0	25	2.9	20	3.0	13	2.9	169	WSW (246)	0.937	ESE	1.0	136
D.max.	71	3.0	44	2.8	34	2.6	24	2.6	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	43	3.0	32	2.9	26	2.9	18	2.7	3	(SSE)	0.738	NW	3.1	161

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (20) Wave Data

Date: 28th Mar. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	24	2.5	18	2.8	14	2.9	9	2.8	167	ENE ( 72)	0.823	NE	1.0	102
2	24	2.5	18	2.6	14	2.7	9	2.6	184	NNW (340)	0.897	NW	2.0	80
4	24	2.0	19	2.3	15	2.3	11	2.5	172	NNW (337)	0.648	NW	2.0	85
6	21	2.5	15	2.4	13	2.5	9	2.5	172	NNW (334)	0.220	NNW	2.0	130
8	21	2.5	15	2.3	12	2.4	9	2.4	156	ENE ( 77)	0.719	NNE	2.5	198
10	25	2.0	18	2.1	14	2.2	10	2.3	148	NNW (341)	0.884	NE	2.0	230
12	12	2.5	10	2.3	8	2.4	5	2.4	133	NNW (333)	0.878	NE	1.0	235
14	9	2.5	6	2.7	5	2.7	4	2.8	164	NNW (339)	0.921	NE	2.0	219
16	8	3.0	7	2.6	6	2.7	4	2.6	138	S (183)	0.813	SW	2.0	190
18	50	2.5	39	2.5	31	2.5	21	2.6	183	SE (144)	0.788	S	2.0	165
20	33	2.5	25	2.3	21	2.3	14	2.4	165	SSE (160)	0.700	SSE	2.2	164
22	39	2.0	29	2.2	25	2.3	17	2.3	190	SSE (153)	0.872	SSE	4.0	154
D.max.	50	2.5	39	2.5	31	2.5	21	2.6	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	24	2.4	18	2.4	15	2.5	10	2.5	3	(NNW)	0.764	NE	2.1	163

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No. : Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction



Table 1.3-1 (201) Wave Data

Date: 29th Mar. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	49	2.5	39	2.5	31	2.5	21	2.5	174	S (174)	0.840	ESE	2.2	118
2	65	2.5	42	2.6	33	2.6	23	2.6	172	NNW (340)	0.880	NE	2.0	80
4	32	3.0	25	2.6	20	2.6	14	2.6	178	NNW (333)	0.744	NW	2.0	71
6	29	2.0	25	2.6	21	2.6	14	2.6	180	NNW (330)	0.776	NW	2.0	102
8	33	3.0	26	2.5	22	2.5	15	2.5	175	N (356)	0.723	NNW	1.8	
10	64	3.0	52	3.1	43	3.1	31	2.9	164	SSW (202)	0.759	SW	2.2	
12	43	2.5	37	3.0	30	3.0	21	2.9	164	SSW (212)	0.771	SSW	2.0	
14	49	3.0	37	2.9	29	3.0	20	2.9	155	S (169)	0.721	WSW	2.2	
16	41	2.5	32	2.5	27	2.6	18	2.6	170	S (186)	0.933	S	4.0	
18	40	2.5	29	2.5	23	2.6	16	2.5	167	SE (146)	0.828	SSE	2.0	180
20	28	2.5	21	2.3	17	2.5	11	2.5	167	E ( 80)	0.915	SSE	2.1	164
22	25	3.0	16	2.6	13	2.6	9	2.6	169	NNW (347)	0.303	NE	2.0	165
D.max.	65	2.5	52	3.1	43	3.1	31	2.9	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	42	2.7	32	2.6	26	2.7	18	2.6	3	(NNW)	0.766	NW	2.2	126

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (202) Wave Data

Date: 30th Mar. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	19	2.5	15	2.6	12	2.7	8	2.6	176	NNE ( 26)	0.680	N	2.0	130
2	20	2.0	16	2.6	13	2.5	9	2.4	154	NNW (347)	0.997	NW	2.0	95
4	24	2.0	22	2.3	17	2.3	12	2.4	140	NE ( 54)	0.836	NNE	2.0	75
6	20	2.0	16	2.2	12	2.2	8	2.3	129	NNW (346)	0.966	NNE	2.4	85
8	36	2.5	25	2.3	19	2.2	13	2.3	177	N ( 3)	0.743	NNE	2.2	155
10	44	2.5	33	2.4	26	2.4	17	2.4	187	NE ( 49)	0.655	N	2.2	234
12	27	2.0	21	2.2	17	2.2	11	2.3	189	SE (141)	0.773	ESE	2.0	261
14	26	3.0	18	2.6	14	2.7	9	2.7	157	W (281)	0.948	SSW	2.8	255
16	25	2.0	18	2.2	16	2.4	11	2.4	139	WSW (246)	0.800	SSW	3.0	215
18	50	2.0	36	2.3	29	2.4	19	2.4	184	W (273)	0.801	SSW	5.0	182
20	42	3.0	30	2.5	24	2.6	17	2.6	182	SW (227)	0.986	S	3.8	165
22	45	3.0	33	2.6	25	2.6	17	2.6	173	WSW (256)	0.956	SSW	3.0	175
D.max.	50	2.0	36	2.3	29	2.4	19	2.4	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	32	2.4	24	2.4	19	2.4	13	2.4	2	( NE)	0.845	SSW	2.7	169

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (288) Wave Data

Date: 31th Mar. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	51	2.5	30	2.6	23	2.7	16	2.7	172	WSW (236)	0.924	NW	2.0	135
2	41	2.5	33	2.9	27	2.9	18	2.9	170	NNW (335)	0.818	NNW	2.0	95
4	33	3.0	28	2.9	23	2.9	15	2.9	164	ENE ( 67)	0.728	N	2.0	72
6	25	2.0	21	2.8	17	2.7	12	2.6	142	E ( 82)	0.567	NNE	2.0	62
8	38	2.0	24	2.2	19	2.3	13	2.3	169	E ( 79)	0.643	NE	2.8	105
10	18	3.0	15	2.8	12	2.7	8	2.6	163	ENE ( 74)	0.874	NE	2.1	208
12	16	3.0	13	2.9	10	2.9	7	2.8	150	E ( 87)	0.894	ENE	2.0	260
14	15	2.5	11	3.0	9	3.0	6	2.8	161	W (277)	0.799	SW	2.0	255
16	11	3.5	10	3.2	8	3.1	6	2.8	143	W (262)	0.751	WSW	2.2	230
18	36	2.5	27	2.1	21	2.2	14	2.3	172	SSW (210)	0.720	SW	2.0	190
20	47	2.5	30	2.5	23	2.6	16	2.6	163	SSW (212)	0.783	W	2.0	169
22	46	3.5	37	3.1	30	3.1	21	2.9	155	SW (223)	0.596	NW	2.1	170
D.max.	51	2.5	37	3.1	30	3.1	21	2.9	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	31	2.7	23	2.8	19	2.8	13	2.7	3	( E )	0.758	SW	2.1	163

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (2M) Wave Data

Date: 1st Apr. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	42	2.5	37	3.3	30	3.3	20	3.0	157	S (178)	0.719	S	5.8	160
2	70	3.5	57	3.0	47	3.1	31	2.9	161	SW (228)	0.878	SSW	3.0	
4	59	3.0	49	2.9	40	2.9	27	2.8	169	NE ( 56)	0.569	NNW	2.0	
6	59	3.0	46	3.1	37	3.2	24	3.0	159	WSW (238)	0.659	NNW	2.0	
8	46	3.0	36	3.1	30	3.2	21	2.9	160	SSW (195)	0.940	WNW	2.0	
10	47	3.0	40	2.9	32	3.0	21	2.9	162	W (274)	0.846	SSE	2.0	
12	51	3.0	38	3.0	30	2.9	20	2.7	165	NNW (341)	0.754	WNW	2.0	
14	45	3.0	35	2.9	29	3.0	19	2.8	159	SW (222)	0.902	WSW	2.8	
16	35	2.5	29	2.9	23	2.8	16	2.7	159	SSW (193)	0.616	SSW	2.0	
18	57	3.0	36	3.4	29	3.5	20	3.3	145	SSW (203)	0.609	NNE	2.0	
20	55	3.5	43	3.6	35	3.7	23	3.3	149	SW (229)	0.458	S	3.2	
22	44	3.5	36	4.0	29	4.0	21	3.6	135	SW (222)	0.341	E	2.0	
D.max.	70	3.5	57	3.0	47	3.1	31	2.9	4	most D.W.D	mean	M.F.D	mean	
D.mean	51	3.0	40	3.2	33	3.2	22	3.0	3	( SW)	0.691	S	2.6	160

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (205) Wave Data

Date: 2nd Apr. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	45	3.5	30	3.7	24	3.7	16	3.3	150	SW (224)	0.520	NE	2.0	
2	49	3.0	35	3.5	27	3.6	18	3.4	145	SW (228)	0.485	NNE	2.0	
4	28	4.0	24	3.9	21	3.6	14	3.4	147	SW (227)	0.423	NE	3.2	
6	29	4.0	26	3.8	21	3.6	14	3.3	138	SSW (200)	0.430	NE	3.0	
8	34	4.0	26	3.8	22	3.8	15	3.3	132	WSW (248)	0.608	NNE	3.0	
10	28	3.0	22	3.7	18	3.5	12	3.1	148	S (188)	0.839	NE	2.0	
12	21	3.5	18	3.4	14	3.5	10	3.4	145	WSW (254)	0.534	S	2.0	
14	28	3.5	19	3.5	15	3.8	10	3.4	142	SSW (211)	0.907	SW	2.0	
16	32	3.5	22	3.8	17	3.5	11	3.1	129	SW (215)	0.810	SSW	3.0	
18	32	4.5	27	3.4	22	3.5	16	3.0	149	SW (224)	0.519	S	4.0	
20	48	2.5	35	2.9	29	3.0	19	2.8	160	SW (219)	0.484	ENE	1.9	
22	45	3.5	37	3.3	30	3.0	21	2.8	160	SW (233)	0.485	ESE	1.7	
D.max.	49	3.0	37	3.3	30	3.0	21	2.8	3	most D.W.D	mean	M.F.D	mean	
D.mean	35	3.5	27	3.6	22	3.5	15	3.2	3	( SW)	0.587	NE	2.5	

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (206) Wave Data

Date: 3rd Apr. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	39	2.5	30	2.9	24	2.8	16	2.8	163	NE ( 53)	0.473	SE	2.0	
2	39	4.0	25	3.6	20	3.5	14	3.0	154	SW (227)	0.454	NNW	1.8	
4	27	3.5	22	3.5	18	3.3	12	3.1	150	SW (232)	0.431	N	1.6	
6	28	2.5	22	3.4	17	3.1	12	3.0	159	SW (225)	0.489	ENE	1.9	
8	19	4.0	15	4.2	13	3.9	9	3.2	143	SW (228)	0.562	ENE	1.9	
10	16	4.5	14	4.2	11	3.9	7	3.2	136	S (182)	0.773	S	1.9	
12	14	4.0	12	4.1	9	4.0	6	3.4	141	S (179)	0.665	SSW	2.0	
14	25	2.5	22	2.6	18	2.5	13	2.5	162	WSW (239)	0.904	SW	2.0	
16	49	2.5	34	2.7	29	2.6	20	2.6	166	NNW (329)	0.564	WNW	0.6	
18	51	2.5	41	2.7	34	2.7	23	2.6	167	SW (215)	0.755	W	3.9	
20	59	3.5	51	3.2	43	3.1	29	3.1	158	W (269)	0.657	NNW	2.0	
22	54	2.5	47	2.9	38	2.9	27	2.9	160	NNW (338)	0.871	W	3.0	
D.max.	59	3.5	51	3.2	43	3.1	29	3.1	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	35	3.2	28	3.3	23	3.2	16	2.9	3	( SW)	0.633	W	2.0	

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (207) Wave Data

Date: 4th Apr. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	56	3.0	45	3.1	37	3.2	24	3.0	165	WNW (290)	0.723	NW	2.0	
2	55	3.0	45	3.1	37	3.3	25	3.1	157	WSW (252)	0.744	NNW	2.0	
4	66	3.0	55	3.0	45	3.1	30	3.0	158	SW (232)	0.712	NNW	2.9	
6	46	3.0	41	3.1	34	3.2	22	3.0	157	SW (228)	0.855	NNE	2.2	
8	62	2.5	50	2.7	40	2.8	27	2.7	174	WSW (245)	0.636	WNW	2.0	
10	45	2.5	40	3.0	33	3.0	22	2.8	171	SSW (202)	0.852	SSW	2.0	
12	40	2.5	34	3.0	28	3.1	19	2.9	156	W (270)	0.548	N	2.0	162
14	56	3.0	37	2.8	31	2.8	21	2.7	169	SSW (205)	0.877	WSW	3.6	227
16	42	2.5	37	2.9	30	2.9	21	2.8	168	NNE ( 34)	0.667	NW	2.0	261
18	40	3.5	34	3.2	28	3.4	20	3.1	151	SW (232)	0.781	N	2.0	240
20	37	3.5	30	3.0	25	2.9	17	2.8	164	NE ( 56)	0.818	NE	2.8	190
22	42	2.0	34	2.8	25	2.9	17	2.8	160	ENE ( 63)	0.727	NNW	1.8	165
D.max.	66	3.0	55	3.0	45	3.1	30	3.0	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	49	2.8	40	3.0	33	3.0	22	2.9	3	( SW)	0.745	NNW	2.3	208

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (208) Wave Data

Date: 5th Apr. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	29	3.5	24	3.1	20	3.2	13	3.1	155	WSW (249)	0.896	N	2.8	153
2	35	2.5	25	2.7	21	2.8	15	2.6	158	ENE ( 56)	0.985	NE	3.2	173
4	36	2.0	25	2.5	19	2.7	13	2.6	146	NNE ( 30)	0.604	N	2.0	152
6	21	2.0	17	2.9	15	2.9	10	2.8	141	NE ( 35)	0.819	N	2.0	120
8	26	2.0	23	2.4	19	2.5	14	2.5	124	NNE ( 18)	0.940	N	2.0	94
10	28	2.0	21	3.0	17	2.8	12	2.7	154	N ( 10)	0.758	NE	2.0	82
12	21	3.0	16	2.8	12	2.8	8	2.7	156	W (262)	0.758	S	2.0	131
14	16	3.0	13	2.9	11	3.0	7	2.9	167	SSW (201)	0.939	SSW	1.8	192
16	20	3.5	16	2.9	14	2.8	10	2.7	135	SSW (200)	0.822	S	3.0	246
18	48	2.5	38	2.5	31	2.5	21	2.6	172	SW (215)	0.803	SW	2.0	241
20	58	2.5	45	2.9	37	3.0	25	2.8	161	SW (225)	0.643	SSW	4.0	198
22	49	3.0	40	2.8	34	2.9	23	2.8	165	S (190)	0.770	SSW	2.8	150
D.max.	58	2.5	45	2.9	37	3.0	25	2.8	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	32	2.6	25	2.8	21	2.8	14	2.7	3	(NNE)	0.811	N	2.5	161

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table I. 3-1 (200) Wave Data

Date: 6th Apr. 1989  
St. : I

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	52	2.5	41	2.8	35	2.9	25	2.9	151	SW (230)	0.914	S	3.0	133
2	56	3.0	50	3.0	40	3.0	28	2.9	156	SSW (213)	0.880	NE	1.0	152
4	55	3.0	42	2.8	33	2.9	22	2.9	164	NE ( 54)	0.759	N	1.9	181
6	41	3.0	33	3.0	27	2.9	18	2.7	161	NE ( 54)	0.563	NE	2.0	173
8	36	3.0	29	3.1	23	3.1	16	2.9	159	SW (220)	0.861	NNE	2.5	137
10	26	4.0	21	3.5	18	3.4	13	3.0	140	SW (232)	0.870	NE	2.8	111
12	38	2.5	29	2.6	23	2.7	16	2.7	156	WSW (250)	0.720	WSW	3.2	134
14	59	3.0	49	3.3	39	3.3	26	2.9	162	WSW (256)	0.819	WSW	2.5	178
16	42	2.5	35	3.0	28	2.9	19	2.7	166	SW (232)	0.766	WSW	2.2	227
18	37	3.5	31	2.8	25	2.8	17	2.6	169	ENE ( 61)	0.909	NNW	2.0	234
20	35	3.0	28	3.0	23	3.0	17	2.8	147	SW (225)	0.653	NE	2.0	173
22	35	3.5	27	2.9	22	2.8	15	2.7	147	NE ( 51)	0.769	NNE	2.2	124
D.max.	59	3.0	50	3.0	40	3.0	28	2.9	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	43	3.0	35	3.0	28	3.0	19	2.8	3	( SW)	0.790	NE	2.3	163

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (210) Wave Data

Date: 7th Apr. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	27	2.5	20	2.9	17	3.0	13	2.8	135	SSW (206)	0.780	NE	2.2	112
2	28	3.0	21	2.7	17	2.7	12	2.6	149	NE (38)	0.831	NNE	2.5	135
4	25	2.0	20	2.6	16	2.6	11	2.6	152	NE (47)	0.910	N	2.1	170
6	36	2.0	30	2.2	24	2.3	17	2.4	165	NE (49)	0.832	NNE	3.0	193
8	24	2.5	19	2.4	16	2.4	11	2.4	145	NE (40)	0.933	NE	2.9	172
10	21	3.0	15	3.3	12	3.1	8	2.8	143	WSW (251)	0.900	NE	2.0	153
12	16	4.0	11	4.2	9	3.8	6	3.4	131	SW (215)	0.876	S	2.1	149
14	14	4.0	11	3.9	9	3.8	6	3.6	131	SSW (201)	0.825	N	2.0	167
16	20	2.0	15	3.0	12	2.9	9	2.7	126	NNE (27)	0.833	NW	2.0	196
18	24	2.5	21	2.4	17	2.4	12	2.4	166	ENE (61)	0.712	NNE	1.8	217
20	30	2.5	26	2.5	22	2.5	15	2.5	163	NE (39)	0.806	ESE	2.0	170
22	54	2.5	45	2.8	38	2.8	25	2.8	173	SE (144)	0.798	SSE	3.8	109
D.max.	54	2.5	45	2.8	38	2.8	25	2.8	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	27	2.7	21	2.9	17	2.9	12	2.8	3	( NE)	0.836	NNE	2.4	162

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (21) Wave Data

Date: 8th Apr. 1989  
 St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	36	2.5	30	2.6	25	2.7	17	2.6	178	ENE ( 64)	0.779	ENE	1.9	85
2	44	2.5	32	2.9	26	3.0	18	2.9	165	SSW (199)	0.784	ENE	2.0	105
4	30	3.0	26	3.1	21	3.1	15	3.0	160	SW (232)	0.803	NE	2.0	150
6	44	2.5	33	2.6	26	2.7	18	2.6	170	WNW (282)	0.853	N	3.0	207
8	84	3.0	63	3.0	52	2.9	35	2.8	162	W (270)	0.629	NW	3.5	208
10	57	2.0	44	3.0	37	3.0	25	2.9	155	W (266)	0.507	NE	2.2	197
12	33	3.0	28	3.2	23	3.2	15	3.0	152	WSW (256)	0.517	S	1.8	190
14	26	3.5	20	3.2	15	3.4	10	3.1	152	WSW (242)	0.680	S	2.2	174
16	30	3.5	23	3.3	18	3.4	12	3.3	150	WSW (236)	0.842	SSW	2.1	183
18	28	3.5	19	3.4	16	3.3	11	3.0	138	SW (234)	0.765	SW	2.0	201
20	37	2.5	30	2.3	25	2.3	17	2.4	160	SW (226)	0.909	WSW	2.0	172
22	47	3.0	40	2.8	34	2.7	24	2.7	169	WSW (243)	0.666	SSW	2.0	115
D.max.	84	3.0	63	3.0	52	2.9	35	2.8	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	41	2.9	32	2.9	27	3.0	18	2.9	3	(WSW)	0.728	S	2.2	166

[Note]

W.H : Wave Height  
 W.P : Wave Period  
 Wave No. : Wave Countered  
 D.W.D : Dominant Wave Direction  
 R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
 T.L : Tidal Level  
 D.max. : Daily max.  
 D.mean : Daily mean  
 M.F.D : Most Frequency Wind Direction

Table I. 3-1 (212) Wave Data

Date: 9th Apr. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	42	2.0	35	2.6	28	2.7	19	2.6	177	SW (224)	0.833	W	2.0	80
2	84	3.0	72	2.9	57	2.8	38	2.7	169	W (260)	0.525	W	4.5	81
4	155	3.5	121	4.0	96	3.9	63	3.5	140	W (266)	0.319	WNW	3.2	117
6	178	4.5	138	4.6	108	4.6	72	4.1	121	W (266)	0.441	NNE	2.0	191
8	144	4.5	120	4.2	101	4.3	66	3.8	130	WSW (247)	0.459	NNW	2.0	239
10	116	4.5	91	4.3	73	4.3	48	3.8	130	SW (235)	0.407	W	2.3	243
12	128	4.0	97	4.0	78	3.9	51	3.6	133	WSW (242)	0.597	SW	2.4	245
14	125	4.0	88	4.2	70	4.2	46	3.8	130	WSW (239)	0.508	WSW	2.1	214
16	94	3.5	73	4.2	60	4.1	40	3.7	130	SW (235)	0.378	WSW	2.6	185
18	82	5.0	72	4.5	57	4.3	38	3.6	138	SW (234)	0.322	W	2.6	191
20	79	3.0	60	4.0	49	4.2	33	3.6	136	SW (222)	0.397	WNW	2.0	169
22	69	3.5	60	3.8	48	3.9	32	3.5	142	WSW (244)	0.542	NNE	2.1	118
D.max.	178	4.5	138	4.6	108	4.6	72	4.1	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	108	3.8	86	3.9	69	3.9	46	3.5	4	( SW)	0.477	W	2.5	173

[Note]

- W.H : Wave Height
- W.P : Wave Period
- Wave No.: Wave Countered
- D.W.D : Dominant Wave Direction
- R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge
- T.L : Tidal Level
- D.max. : Daily max.
- D.mean : Daily mean
- M.F.D : Most Frequency Wind Direction

Table I. 3-1 (2B) Wave Data

Date: 10th Apr. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	74	5.0	52	4.0	42	4.3	27	3.7	137	WSW (237)	0.524	NE	2.0	80
2	47	4.0	40	4.3	34	4.5	22	3.9	127	SW (216)	0.384	NE	2.4	61
4	49	4.0	43	4.3	35	4.3	24	4.0	125	SW (214)	0.584	NE	2.0	66
6	55	4.5	46	4.3	36	4.3	25	4.0	121	WSW (249)	0.732	NNE	2.0	150
8	46	3.5	38	3.8	32	4.0	21	3.5	137	WSW (242)	0.754	N	2.0	234
10	49	4.0	39	4.5	32	4.4	20	3.5	135	SW (227)	0.619	NE	3.2	254
12	46	4.5	34	4.3	27	4.4	18	3.8	131	SW (226)	0.485	NE	2.2	245
14	38	4.0	31	4.6	26	4.6	18	4.5	112	WSW (238)	0.559	SSE	2.0	220
16	44	4.5	30	4.7	23	4.7	15	4.3	116	SW (230)	0.436	SE	2.0	187
18	37	4.5	31	4.6	24	4.4	17	3.7	125	SW (232)	0.762	SSE	3.8	167
20	30	5.0	27	4.4	23	4.4	15	3.7	127	WSW (245)	0.474	E	2.0	169
22	31	4.0	25	4.0	20	4.0	13	3.5	138	SW (230)	0.537	SE	2.0	137
D.max.	74	5.0	52	4.0	42	4.3	27	3.7	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	46	4.3	36	4.3	30	4.4	20	3.8	4	( SW)	0.571	NE	2.3	164

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (2M) Wave Data

Date: 11th Apr. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	33	4.0	26	3.5	21	3.7	14	3.5	140	SW (228)	0.581	NE	2.0	90
2	27	4.0	21	3.8	16	3.9	11	3.3	141	SW (235)	0.480	N	2.0	64
4	19	4.0	17	4.3	15	4.0	10	3.7	132	SW (223)	0.503	NNW	1.8	55
6	21	4.0	17	4.1	14	4.2	9	3.8	129	W (264)	0.730	NNW	2.0	100
8	20	4.0	17	3.8	14	3.8	10	3.5	136	W (276)	0.795	NW	2.0	212
10	33	2.0	22	3.4	18	3.4	12	3.0	146	SW (232)	0.826	NE	2.0	265
12	25	3.0	20	3.3	16	3.2	11	3.0	151	SW (223)	0.731	SW	2.0	271
14	31	3.0	24	2.9	19	3.1	13	2.9	144	SW (232)	0.900	WSW	2.9	251
16	27	3.0	20	3.0	17	3.0	11	2.8	152	WSW (239)	0.655	SW	1.8	211
18	25	3.0	21	3.0	16	2.9	11	2.8	161	SW (233)	0.656	S	2.4	170
20	22	2.5	19	2.9	16	3.0	11	2.8	154	SW (225)	0.784	NE	1.8	164
22	40	2.5	32	2.4	25	2.5	17	2.6	174	SW (231)	0.709	SSW	2.2	141
D.max.	40	2.5	32	2.4	25	2.5	17	2.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	27	3.3	21	3.4	17	3.4	12	3.1	3	( SW)	0.696	NE	2.1	166

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (215) Wave Data

Date: 12th Apr. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	39	2.5	32	2.7	26	2.8	17	2.7	175	ENE ( 57)	0.485	NNE	1.8	103
2	61	2.5	38	2.8	30	2.8	19	2.8	176	SSW (213)	0.623	S	1.0	73
4	36	3.0	29	2.9	25	2.8	18	2.8	174	NE ( 37)	0.795	NNE	2.0	58
6	23	2.0	20	2.4	17	2.4	11	2.5	183	NNE ( 25)	0.815	ENE	1.9	67
8	51	2.5	40	2.4	32	2.4	22	2.5	170	SSE (166)	0.683	SSE	3.8	171
10	41	2.5	31	2.5	24	2.6	16	2.6	166	SW (220)	0.928	S	2.9	252
12	30	2.5	25	2.8	20	2.7	14	2.7	168	SW (223)	0.537	SW	2.0	274
14	27	3.0	23	3.6	19	3.3	13	3.0	154	SW (224)	0.718	WSW	3.2	266
16	32	4.5	27	3.9	22	4.0	14	3.4	141	SW (236)	0.473	S	2.0	220
18	30	4.5	26	4.2	22	4.1	16	3.4	131	SW (226)	0.495	SE	2.0	170
20	36	2.0	30	2.8	25	3.0	17	2.6	164	SW (221)	0.434	NE	2.0	156
22	29	4.0	22	4.0	18	3.8	12	3.2	135	SW (235)	0.526	N	2.8	151
D.max.	61	2.5	40	2.4	32	2.4	22	2.5	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	36	3.0	29	3.1	23	3.1	16	2.8	3	( SW)	0.626	S	2.3	163

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (2/6) Wave Data

Date: 13th Apr. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	34	2.0	25	3.1	21	3.2	15	2.7	139	SW (228)	0.429	N	2.4	122
2	28	4.0	21	4.3	16	4.0	11	3.1	132	SW (229)	0.530	N	2.0	86
4	19	5.5	16	4.5	12	4.2	8	3.4	139	SW (232)	0.403	N	2.0	64
6	19	4.0	15	4.3	12	4.3	8	3.2	131	SW (232)	0.788	N	2.0	57
8	30	2.0	19	3.0	15	3.1	11	2.8	154	SSW (198)	0.764	NNE	2.0	117
10	23	5.0	18	3.8	15	3.8	10	3.2	139	WSW (242)	0.896	NE	2.4	218
12	21	4.0	18	4.1	14	3.8	9	3.3	138	S (190)	0.806	ENE	1.0	269
14	19	3.5	15	4.2	13	4.4	9	3.6	117	SW (229)	0.641	SW	2.0	273
16	56	2.5	43	2.6	35	2.6	24	2.7	175	SW (216)	0.743	SSW	3.0	230
18	67	3.0	50	2.8	41	3.0	27	2.9	166	SW (226)	0.371	S	3.8	178
20	54	4.5	45	3.4	36	3.2	24	3.0	156	SW (218)	0.328	S	3.8	152
22	53	3.0	39	3.1	32	3.2	22	2.9	159	SSW (204)	0.685	SE	4.0	145
D.max.	67	3.0	50	2.8	41	3.0	27	2.9	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	35	3.6	27	3.6	22	3.6	15	3.1	3	( SW)	0.615	N	2.5	159

[Note]

- W.H : Wave Height
- W.P : Wave Period
- Wave No.: Wave Countered
- D.W.D : Dominant Wave Direction
- R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge
- T.L : Tidal Level
- D.max. : Daily max.
- D.mean : Daily mean
- M.F.D : Most Frequency Wind Direction



Table 1. 3-1 (217) Wave Data

Date: 14th Apr. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	39	4.0	35	3.7	28	3.2	19	2.9	157	SW (221)	0.414	SSE	1.9	142
2	35	3.0	30	3.4	24	3.5	16	3.1	155	SW (218)	0.443	WNW	2.0	108
4	31	3.5	25	4.5	21	4.1	14	3.2	142	SW (218)	0.306	W	1.8	79
6	29	2.5	23	3.9	18	3.5	12	3.0	157	SW (223)	0.484	N	2.0	63
8	31	2.5	27	3.3	23	3.5	16	2.9	147	SW (225)	0.823	N	2.0	78
10	28	4.5	25	4.4	21	3.7	14	3.1	149	S (183)	0.895	NE	2.0	183
12	35	5.0	28	4.4	22	4.5	15	3.7	128	SW (233)	0.661	SE	2.0	260
14	65	2.5	43	3.1	35	3.0	24	2.8	161	WSW (240)	0.601	ESE	1.9	272
16	38	3.5	32	3.6	26	3.7	18	3.1	152	SW (233)	0.781	E	0.9	235
18	33	4.0	26	4.2	21	4.3	14	3.9	126	WSW (236)	0.353	N	1.8	184
20	31	4.0	24	4.2	19	4.3	14	3.7	125	SW (225)	0.454	N	2.0	149
22	31	4.5	27	4.3	21	4.3	14	3.8	124	SW (222)	0.676	NE	2.3	139
D.max.	65	2.5	43	3.1	35	3.0	24	2.8	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	36	3.6	29	3.9	23	3.8	16	3.3	3	( SW)	0.574	N	1.9	158

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (218) Wave Data

Date: 15th Apr. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	28	4.0	21	4.3	17	4.3	12	4.0	123	S (171)	0.657	NE	2.0	148
2	20	5.0	18	4.4	14	4.4	10	4.0	125	SSW (214)	0.666	N	2.0	125
4	29	5.0	19	4.6	14	4.8	9	4.4	115	SSW (212)	0.427	N	2.0	93
6	24	4.0	19	4.9	16	4.9	11	4.1	104	SSW (202)	0.402	N	2.0	69
8	20	5.5	19	5.1	16	4.6	11	3.9	107	SSW (203)	0.736	NE	2.8	71
10	21	4.5	17	4.1	14	4.1	10	3.3	137	S (175)	0.734	NE	2.0	151
12	19	6.0	16	4.8	13	4.9	9	4.5	111	S (188)	0.791	SSW	2.0	224
14	23	4.5	18	4.8	14	4.8	10	4.6	109	S (179)	0.890	SW	2.0	255
16	20	4.5	17	4.5	14	4.4	10	3.9	106	SSW (208)	0.536	SSW	2.9	246
18	30	2.5	25	3.3	20	3.0	14	2.8	147	SSW (208)	0.569	SSW	2.0	197
20	33	3.0	29	2.9	23	3.1	16	2.8	158	SSW (199)	0.505	SSW	2.0	157
22	34	2.5	28	2.6	23	2.8	15	2.6	157	SSW (198)	0.713	SSW	2.0	134
D.max.	34	2.5	29	2.9	23	3.1	16	2.8	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	25	4.3	21	4.2	17	4.2	11	3.7	4	(SSW)	0.635	SSW	2.1	156

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table J. 3-1 (219) Wave Data

Date: 16th Apr. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	40	2.5	28	2.6	23	2.7	15	2.6	170	NE ( 44)	0.871	E	2.0	144
2	27	2.5	23	2.8	19	2.9	13	2.7	162	NNE ( 32)	0.646	NNE	2.0	139
4	29	3.0	23	2.9	19	3.0	13	2.9	165	SW (223)	0.650	SW	1.9	107
6	34	3.0	24	3.3	19	3.2	13	3.1	160	SW (224)	0.443	N	2.0	81
8	24	2.5	21	3.0	18	3.1	13	2.9	147	SSW (212)	0.745	NE	2.2	73
10	43	2.5	31	2.5	25	2.5	17	2.5	181	NE ( 36)	0.797	NNE	3.2	124
12	26	3.0	20	3.1	17	3.1	12	2.9	152	SW (226)	0.833	ENE	2.0	199
14	21	4.0	18	3.7	15	3.7	10	3.4	140	SW (225)	0.652	SSE	2.0	244
16	21	3.5	17	3.8	14	3.9	9	3.5	140	SW (223)	0.854	SSW	2.0	247
18	25	2.0	23	2.9	20	3.1	15	2.8	139	SW (223)	0.796	SSW	1.8	214
20	35	3.5	25	2.6	21	2.7	15	2.6	175	SW (225)	0.472	S	2.9	169
22	29	3.5	25	2.7	21	2.9	15	2.7	157	NE ( 47)	0.629	NE	1.8	141
D.max.	43	2.5	31	2.5	25	2.5	17	2.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	30	3.0	23	3.0	19	3.1	13	2.9	3	( SW)	0.699	SSW	2.1	157

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (20) Wave Data

Date: 17th Apr. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	29	2.5	23	2.8	20	3.0	14	2.8	163	SW (223)	0.635	NW	2.0	144
2	27	3.0	20	3.3	17	3.2	12	2.9	157	SW (223)	0.519	WNW	1.9	147
4	24	3.0	20	3.5	16	3.4	11	2.9	150	SW (219)	0.616	NNW	3.8	134
6	39	2.5	32	2.8	25	2.7	17	2.5	163	N ( 11)	0.806	NE	2.2	106
8	32	2.0	28	2.6	23	2.7	16	2.6	148	NE ( 52)	0.456	NNE	3.7	92
10	34	3.0	25	3.0	19	3.1	13	2.8	158	WSW (237)	0.669	NE	2.0	123
12	22	3.0	17	3.5	15	3.4	10	3.0	151	SW (232)	0.766	S	1.9	180
14	17	4.0	15	3.6	13	3.5	9	3.1	142	S (172)	0.929	WSW	2.0	228
16	20	4.5	18	2.9	16	3.0	11	2.8	138	SSW (211)	0.807	SW	1.9	234
18	37	3.5	33	2.7	27	2.8	19	2.7	162	SW (215)	0.801	SW	1.9	208
20	40	3.0	33	2.7	28	2.8	20	2.8	162	SW (220)	0.723	WSW	1.8	166
22	44	3.0	34	2.6	29	2.7	21	2.6	171	SW (227)	0.703	WSW	2.0	139
D.max.	44	3.0	34	2.6	29	2.7	21	2.6	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	30	3.1	25	3.0	21	3.0	14	2.8	3	( SW)	0.702	WSW	2.3	158

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (22) Wave Data

Date: 18th Apr. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	44	2.5	38	2.7	30	2.8	21	2.7	168	SW (225)	0.764	SSE	2.4	136
2	70	2.5	53	2.8	42	2.7	28	2.6	172	ENE ( 59)	0.639	NNE	2.1	148
4	64	3.0	50	3.2	41	3.2	28	3.0	162	SW (233)	0.762	N	2.0	145
6	49	3.0	39	3.2	31	3.3	21	3.2	154	SSW (211)	0.733	NNE	2.8	130
8	51	3.0	42	3.3	35	3.2	24	2.9	150	SSW (210)	0.703	NNE	3.9	111
10	41	2.5	33	3.3	26	3.1	18	2.9	143	SW (224)	0.578	NNE	2.3	132
12	33	3.5	29	3.6	24	3.5	16	3.2	145	SW (228)	0.560	E	1.8	168
14	34	2.5	28	3.3	22	3.4	14	3.2	141	SW (225)	0.628	SW	0.2	213
16	34	2.5	27	3.3	22	3.2	15	3.0	154	SW (224)	0.711	SW	0.5	226
18	35	3.5	28	3.2	22	3.0	15	2.9	153	SSW (196)	0.869	SW	0.0	203
20	31	3.0	23	2.7	18	2.9	13	2.9	163	S (177)	0.939	SSW	0.0	159
22	36	3.0	25	3.1	19	3.1	12	2.9	160	SW (233)	0.707	W	0.0	135
D.max.	70	2.5	53	2.8	42	2.7	28	2.6	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	44	2.9	35	3.1	28	3.1	19	2.9	3	( SW)	0.716	NNE	1.5	159

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (222) Wave Data

Date: 19th Apr. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	24	2.5	20	2.9	17	2.9	12	2.9	165	WSW (242)	0.674	WNW	0.0	129
2	34	2.5	29	2.7	23	2.7	15	2.6	167	SW (233)	0.770	WNW	0.0	153
4	40	2.5	34	2.8	28	2.8	19	2.8	169	N ( 5)	0.884	NNW	0.0	165
6	72	2.5	58	2.8	47	3.0	31	2.8	168	SW (226)	0.803	NW	0.0	163
8	64	3.0	51	3.4	39	3.2	26	3.0	159	WSW (242)	0.781	WNW	0.0	145
10	49	4.0	42	3.3	35	3.4	24	3.0	145	WSW (241)	0.646	WNW	1.0	141
12	60	3.5	46	3.5	38	3.5	26	3.2	151	SW (235)	0.583	SW	2.0	174
14	67	3.5	54	3.7	46	3.6	32	3.4	137	SW (234)	0.442	WSW	2.0	200
16	79	3.5	62	3.4	49	3.6	33	3.1	151	WSW (243)	0.593	SW	2.0	214
18	71	3.5	62	3.6	50	3.4	34	3.3	146	WSW (238)	0.583	WSW	2.1	195
20	89	3.0	69	3.2	57	3.5	38	3.2	149	SW (222)	0.562	WSW	2.0	155
22	77	3.0	69	3.4	56	3.4	37	3.1	151	SW (226)	0.701	WSW	2.0	126
D.max.	89	3.0	69	3.2	57	3.5	38	3.2	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	61	3.1	50	3.2	40	3.2	27	3.0	3	( SW)	0.668	WSW	1.1	163

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (223) Wave Data

Date: 20th Apr. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	82	3.5	67	3.5	55	3.5	36	3.2	152	S (170)	0.767	NE	1.8	128
2	79	3.5	66	3.8	54	3.8	36	3.3	145	SSW (194)	0.745	NNW	1.8	136
4	89	3.5	69	3.9	55	3.9	36	3.5	139	SSW (200)	0.668	NNW	0.9	174
6	79	4.5	66	3.9	53	4.0	36	3.5	135	SSW (203)	0.621	NNW	1.8	185
8	70	4.5	53	4.3	44	3.8	30	3.4	137	SSW (210)	0.671	NNW	2.0	165
10	59	3.5	55	4.0	45	3.9	31	3.3	144	SW (221)	0.708	WNW	2.2	163
12	75	3.5	57	3.5	46	3.6	31	3.2	144	WSW (242)	0.572	W	2.5	174
14	82	3.5	67	3.5	53	3.6	36	3.2	149	SW (236)	0.436	W	3.0	191
16	91	3.5	75	3.4	60	3.5	40	3.3	144	SW (235)	0.349	WSW	3.0	200
18	95	3.5	72	3.7	55	3.6	37	3.1	152	WSW (241)	0.426	WSW	2.2	181
20	74	4.0	66	3.5	56	3.6	37	3.3	148	WSW (237)	0.449	W	2.1	144
22	108	3.0	68	3.8	55	3.6	37	3.3	149	SW (235)	0.553	NW	2.0	119
D.max.	108	3.0	75	3.4	60	3.5	40	3.3	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	82	3.7	65	3.7	53	3.7	35	3.3	3	(SSW)	0.580	NNW	2.1	163

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3--1 (2M) Wave Data

Date: 21th Apr. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	82	3.0	72	3.4	58	3.5	38	3.1	150	SW (234)	0.520	WNW	2.0	115
2	110	3.5	76	3.5	61	3.5	41	3.2	152	WSW (246)	0.524	NW	2.0	140
4	96	3.5	74	4.0	57	3.7	37	3.2	151	SW (230)	0.907	NW	2.0	172
6	102	4.5	81	4.3	64	4.1	42	3.5	137	SW (232)	0.629	NW	2.0	202
8	102	3.5	88	4.1	71	4.0	48	3.7	132	WSW (242)	0.407	N	2.1	195
10	101	4.0	87	3.9	69	3.9	46	3.4	141	SW (233)	0.369	WNW	3.4	186
12	141	3.5	90	4.5	73	4.3	48	3.6	133	WSW (242)	0.471	W	3.0	184
14	126	4.5	98	4.3	83	4.4	55	3.7	131	WSW (246)	0.379	WSW	3.0	183
16	125	4.5	102	4.2	83	3.9	54	3.5	141	WSW (247)	0.631	WSW	3.0	190
18	115	4.0	96	3.8	78	3.9	50	3.5	140	WSW (241)	0.472	WSW	3.5	176
20	109	3.5	88	4.2	73	4.1	51	3.7	132	SW (235)	0.380	WNW	2.5	143
22	98	4.0	80	4.1	63	4.3	40	3.7	132	SW (229)	0.358	N	2.0	107
D.max.	141	3.5	102	4.2	83	4.4	55	3.7	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	109	3.8	86	4.0	69	4.0	46	3.5	3	( SW)	0.504	WSW	2.5	166

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table 1.3-1 (225) Wave Data

Date: 22th Apr. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	100	4.0	72	4.3	59	4.0	40	3.5	136	WSW (238)	0.447	NNW	2.0	95
2	95	4.5	65	4.3	53	4.3	37	3.7	130	SW (236)	0.479	N	2.0	121
4	89	4.5	71	4.2	57	4.1	38	3.5	139	SW (235)	0.543	N	2.0	161
6	86	4.0	70	4.5	56	4.2	38	3.5	138	SW (236)	0.551	N	2.0	208
8	124	5.0	82	4.5	65	4.5	42	3.7	132	SW (225)	0.326	NW	2.1	216
10	99	4.5	80	4.6	65	4.5	44	4.0	121	SW (236)	0.351	WSW	2.1	204
12	102	5.0	78	4.9	64	4.3	42	3.6	132	SW (222)	0.399	WSW	3.5	198
14	116	5.5	80	4.5	62	4.6	42	3.8	130	SW (222)	0.321	WSW	3.0	184
16	96	3.5	82	3.8	66	3.9	43	3.5	137	SW (232)	0.380	WSW	2.2	180
18	96	3.5	76	3.6	64	3.9	43	3.4	141	SW (224)	0.401	WNW	2.2	171
20	81	3.5	68	3.9	57	4.1	38	3.4	142	SW (227)	0.384	WSW	2.0	131
22	113	4.0	77	3.7	61	3.8	41	3.3	146	SW (216)	0.529	NNW	2.3	101
D.max.	124	5.0	82	4.5	66	3.9	44	4.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	100	4.3	75	4.2	61	4.2	41	3.6	4	( SW)	0.426	WSW	2.3	164

[Note] W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (226) Wave Data

Date: 23th Apr. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	90	3.5	70	4.0	56	4.1	36	3.5	137	SW (233)	0.421	NE	2.4	82
2	75	4.0	58	4.1	47	4.2	32	3.7	132	SW (218)	0.529	NE	2.0	106
4	66	4.0	51	4.4	40	4.3	26	3.7	134	SSW (208)	0.480	NNE	2.0	151
6	60	5.0	49	4.6	41	4.7	27	4.0	125	SW (216)	0.364	NE	2.0	205
8	66	4.0	50	4.7	40	4.8	27	4.2	119	SW (221)	0.383	NE	2.0	231
10	75	5.5	59	5.0	47	4.9	29	4.4	114	SW (224)	0.316	ENE	1.9	228
12	70	5.0	59	4.5	47	4.7	30	4.3	116	SW (226)	0.329	SW	2.2	216
14	61	4.5	52	4.8	43	4.8	28	4.3	116	SW (224)	0.352	SSW	2.1	195
16	83	5.0	60	4.5	49	4.3	32	3.6	136	SW (226)	0.324	SSW	2.0	176
18	70	4.0	49	3.9	39	4.0	26	3.5	140	SW (227)	0.412	S	2.2	158
20	54	4.0	44	4.0	36	4.1	25	3.4	141	SW (227)	0.396	S	2.0	126
22	59	4.5	41	4.3	34	4.0	22	3.5	137	SW (224)	0.390	SW	0.5	92
D.max.	90	3.5	70	4.0	56	4.1	36	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	69	4.4	54	4.4	43	4.4	28	3.8	4	( SW )	0.391	NE	1.9	164

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table I. 3-1 (27) Wave Data

Date: 24th Apr. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir. (m/s)	vel. (m/s)	
0	59	4.0	36	4.0	28	4.0	19	3.5	139	SW (217)	0.420	S	1.5	76
2	44	4.5	35	4.2	28	4.1	19	3.4	141	SW (225)	0.409	ESE	1.4	84
4	42	3.5	36	4.5	30	4.1	20	3.4	133	SW (220)	0.449	SE	2.0	124
6	48	4.5	37	4.0	31	4.0	22	3.5	136	SW (227)	0.528	SSE	3.0	201
8	50	4.0	39	3.9	32	3.7	22	3.3	143	SW (228)	0.395	ESE	1.0	244
10	46	3.5	37	4.1	28	4.0	18	3.4	143	SW (227)	0.399	SSE	2.0	249
12	42	4.0	31	4.2	25	4.0	16	3.6	137	SW (227)	0.383	S	2.5	235
14	38	4.0	30	4.3	24	4.3	16	3.6	130	SW (229)	0.346	SSW	2.1	207
16	40	4.5	31	4.2	25	4.3	17	3.5	134	SW (222)	0.398	SSW	2.0	171
18	40	5.0	34	5.0	27	4.6	18	3.6	132	SW (223)	0.404	SW	1.0	160
20	46	4.5	33	4.4	27	4.2	18	3.4	135	SW (225)	0.426	SW	0.8	130
22	41	5.0	32	4.0	24	3.7	17	3.0	146	SW (228)	0.325	SSE	3.0	96
D.max.	59	4.0	39	3.9	32	3.7	22	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	45	4.3	34	4.2	27	4.1	19	3.4	3	( SW)	0.407	SSE	1.9	165

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (228) Wave Data

Date: 25th Apr. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	34	5.0	25	3.9	20	3.8	14	3.3	142	SW (226)	0.429	ESE	2.0	74
2	30	4.5	23	3.8	19	3.8	13	3.2	124	SW (228)	0.402	NE	1.0	71
4	30	4.0	23	4.4	18	4.4	12	3.7	130	SW (231)	0.245	N	2.0	99
6	24	3.5	21	4.2	18	4.0	12	3.4	136	SW (230)	0.443	NNE	2.0	170
8	44	2.5	28	2.9	22	2.8	15	2.7	165	NE ( 55)	0.512	NE	2.0	235
10	24	3.0	19	3.6	16	3.4	11	2.9	147	SW (226)	0.637	NNE	0.5	256
12	21	4.0	16	3.9	13	3.9	9	3.4	137	SW (233)	0.697	NE	2.0	249
14	35	4.0	25	4.0	20	4.0	13	3.5	138	SW (216)	0.619	SW	2.0	213
16	37	2.5	32	2.9	26	2.7	18	2.7	168	WSW (242)	0.727	WSW	2.2	175
18	41	2.5	32	3.1	26	3.1	18	2.8	166	SW (229)	0.511	S	2.5	163
20	39	3.0	30	2.6	24	2.8	16	2.6	182	E ( 95)	0.937	S	1.0	142
22	44	3.0	30	2.7	24	2.7	17	2.7	167	NE ( 50)	0.532	NE	1.0	110
D.max.	44	2.5	32	2.9	26	2.7	18	2.7	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	34	3.5	25	3.5	21	3.4	14	3.1	3	( SW)	0.558	NE	1.7	163

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-I (229) Wave Data

Date: 26th Apr. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	45	2.5	34	2.6	27	2.6	18	2.6	184	NNE ( 13)	0.937	N	2.0	79
2	18	2.5	15	2.9	13	3.0	9	2.9	154	SW (224)	0.590	WSW	1.8	68
4	23	3.0	19	2.7	16	2.7	11	2.7	167	NE ( 50)	0.514	E	1.3	73
6	23	3.0	15	2.9	12	2.9	8	2.8	171	NE ( 51)	0.748	NNW	2.0	138
8	18	2.5	15	2.7	12	2.9	8	2.6	132	NE ( 51)	0.562	N	2.0	216
10	22	2.0	20	2.2	16	2.4	11	2.4	162	ENE ( 61)	0.939	NNE	2.1	253
12	15	3.0	12	3.3	10	3.4	7	3.0	146	SW (219)	0.873	NNE	2.4	260
14	30	2.5	22	2.4	17	2.7	12	2.6	172	NE ( 40)	0.743	NW	2.0	225
16	26	3.0	23	2.6	18	2.7	13	2.6	160	SW (227)	0.673	WNW	2.0	181
18	12	4.0	10	3.2	9	3.2	6	2.8	155	SW (234)	0.383	E	1.7	159
20	11	2.5	10	2.9	8	3.2	6	3.0	154	SW (227)	0.698	NW	1.7	142
22	9	4.0	8	3.7	6	3.6	4	3.2	143	SW (227)	0.584	NE	2.0	117
D.max.	45	2.5	34	2.6	27	2.6	18	2.6	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	21	2.9	17	2.8	14	2.9	9	2.8	3	( SW)	0.687	NW	1.9	159

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1.3-1 (230) Wave Data

Date: 27th Apr. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	14	3.5	10	2.5	8	2.5	6	2.5	130	NNE ( 32)	0.733	ENE	2.0	84
2	9	3.5	7	3.2	6	3.3	4	3.2	131	SW (220)	0.753	N	2.0	68
4	14	2.5	11	2.3	9	2.4	6	2.4	113	NE ( 50)	0.722	N	2.0	65
6	22	2.0	10	2.3	7	2.6	5	2.6	147	NE ( 47)	0.834	N	1.9	99
8	15	2.0	12	2.2	10	2.4	7	2.4	149	NE ( 49)	0.766	NNE	2.0	183
10	30	2.5	22	2.3	17	2.3	12	2.4	183	NE ( 49)	0.817	ENE	2.0	248
12	22	2.5	16	2.4	13	2.4	9	2.4	180	S (172)	0.878	SE	1.8	268
14	16	4.0	14	3.2	12	3.1	8	2.9	159	WNW (287)	0.895	NNW	1.9	244
16	16	3.5	11	3.5	9	3.4	6	3.1	145	WSW (240)	0.969	NNW	1.9	195
18	21	2.0	14	2.9	12	2.9	8	2.6	143	NE ( 39)	0.695	NW	1.8	162
20	23	2.5	15	2.7	12	2.6	9	2.6	156	NE ( 41)	0.774	NNE	2.1	147
22	21	2.5	18	2.6	16	2.6	11	2.6	134	N ( 1)	0.872	NE	2.0	131
D.max.	30	2.5	22	2.3	17	2.3	12	2.4	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	19	2.8	13	2.7	11	2.7	8	2.6	3	( NE)	0.809	N	2.0	158

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1.3-1 (21) Wave Data

Date: 28th Apr. 1989  
 St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	33	2.5	23	2.2	18	2.3	13	2.4	150	SW (228)	0.666	W	1.8	100
2	87	2.5	63	3.1	49	3.1	33	3.0	158	SW (225)	0.562	WSW	2.1	82
4	60	2.5	50	3.0	40	3.0	27	2.9	158	SW (232)	0.460	N	2.0	61
6	57	2.5	40	3.4	34	3.3	23	3.0	152	SW (235)	0.876	N	2.0	70
8	51	3.0	41	2.8	35	2.9	24	2.8	165	NE ( 49)	0.858	NNE	2.0	162
10	61	4.0	52	3.6	42	3.7	29	3.4	145	WSW (237)	0.723	NE	2.0	240
12	68	4.0	55	3.9	42	4.1	29	3.6	137	SW (235)	0.503	NE	1.9	276
14	56	4.0	42	3.8	34	3.8	22	3.6	139	SW (235)	0.727	E	1.0	256
16	47	4.0	41	4.1	31	4.0	19	3.5	140	SW (228)	0.427	SW	2.0	216
18	70	4.0	57	3.9	48	3.7	32	3.3	144	SW (227)	0.339	SW	1.9	164
20	92	4.0	68	4.0	54	4.1	36	3.6	137	SW (226)	0.450	WSW	2.2	146
22	81	3.0	70	4.0	56	4.1	37	3.6	136	SW (223)	0.600	SSW	3.0	154
D.max.	92	4.0	70	4.0	56	4.1	37	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	64	3.3	50	3.5	40	3.5	27	3.2	3	( SW)	0.599	SW	2.0	161

[Note]

W.H : Wave Height  
 W.P : Wave Period  
 Wave No.: Wave Countered  
 D.W.D : Dominant Wave Direction  
 R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
 D.max. : Daily max.  
 D.mean : Daily mean  
 M.F.D : Most Frequency Wind Direction

Table 1.3-1 (222) Wave Data

Date: 29th Apr. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	127	3.5	116	4.0	92	4.1	60	3.6	138	SW (232)	0.488	SW	3.0	150
2	100	4.0	85	4.0	70	4.1	47	3.6	136	SW (223)	0.668	SSW	2.0	90
4	104	5.0	90	4.8	73	4.6	49	4.2	122	SW (216)	0.463	NNE	2.1	70
6	81	4.5	70	4.3	58	4.5	39	3.9	128	SW (218)	0.434	NNE	2.2	60
8	69	5.5	57	4.3	47	4.0	31	3.5	139	SW (216)	0.715	N	2.4	126
10	61	3.5	55	4.0	46	3.9	31	3.6	136	SE (141)	0.781	NNE	3.9	215
12	69	4.5	55	4.3	46	3.9	30	3.5	139	SE (137)	0.857	NNE	3.0	266
14	54	4.5	47	4.0	39	4.1	26	3.7	134	SW (216)	0.700	NE	1.9	265
16	49	3.5	44	4.3	38	4.4	26	4.1	120	SW (219)	0.494	SW	2.0	229
18	56	3.5	50	4.1	41	3.9	27	3.3	149	SW (219)	0.518	SW	2.0	180
20	56	4.0	45	4.1	37	3.9	25	3.4	144	SW (217)	0.571	SSW	1.9	138
22	86	3.5	52	4.1	38	4.0	25	3.4	144	SSW (204)	0.814	S	3.9	144
D.max.	127	3.5	116	4.0	92	4.1	60	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	76	4.1	64	4.2	52	4.1	35	3.6	4	( SW)	0.625	NNE	2.5	161

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction



Table 1. 3-1 (233) Wave Data

Date: 30th Apr. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	67	4.0	53	4.1	44	4.0	28	3.8	131	SW (219)	0.554	NNE	1.8	143
2	68	4.0	51	4.0	41	4.0	27	3.8	133	SSW (212)	0.549	N	2.0	107
4	55	4.0	40	4.1	33	3.9	22	3.5	141	SSW (199)	0.711	NE	2.0	81
6	52	4.0	40	4.0	32	4.1	22	3.8	128	SSW (210)	0.514	NNE	2.1	67
8	36	3.5	31	4.2	25	4.0	17	3.5	129	SSW (195)	0.774	N	2.0	98
10	35	3.5	29	4.0	24	4.2	16	3.7	129	WSW (238)	0.880	NE	2.0	196
12	30	3.5	24	4.2	21	3.9	14	3.5	137	SW (221)	0.644	E	1.8	270
14	31	4.0	29	4.0	22	4.1	14	3.9	126	WSW (242)	0.764	WSW	2.0	276
16	34	4.0	26	4.0	21	4.0	14	3.6	133	WSW (246)	0.933	WSW	2.0	232
18	34	3.0	28	3.6	24	3.8	16	3.2	143	SW (234)	0.498	NW	2.0	173
20	41	4.5	33	4.3	27	4.2	19	3.4	137	SW (232)	0.509	E	1.8	140
22	40	3.5	33	3.6	27	3.8	18	3.3	145	SW (236)	0.513	ENE	1.9	141
D.max.	68	4.0	53	4.1	44	4.0	28	3.8	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	44	3.8	35	4.0	28	4.0	19	3.6	4	( SW)	0.654	WSW	1.9	160

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (23A) Wave Data

Date: 1st May 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	37	4.5	28	3.6	24	3.8	16	3.4	147	WSW (239)	0.440	NE	1.9	149
2	31	4.0	28	4.2	23	4.2	15	3.7	134	SW (233)	0.339	NE	1.1	124
4	27	4.0	22	4.0	18	3.9	13	3.7	134	SW (230)	0.570	NE	1.9	90
6	25	4.5	21	4.2	17	4.1	11	3.8	132	SW (228)	0.437	N	2.0	67
8	29	4.0	20	4.1	16	3.8	11	3.2	134	SW (235)	0.663	NE	2.3	83
10	24	3.0	21	3.8	17	3.1	12	2.9	151	SSW (199)	0.802	NE	2.1	162
12	19	3.5	16	3.8	13	3.8	9	3.2	147	W (270)	0.762	ENE	2.0	239
14	24	4.0	16	4.1	13	3.8	8	3.5	139	SSE (154)	0.942	NE	2.0	264
16	15	4.5	13	3.7	11	3.8	7	3.7	132	WSW (238)	0.802	SSW	0.3	244
18	29	4.0	23	2.5	18	2.4	12	2.4	165	SW (226)	0.412	S	4.0	188
20	59	2.0	46	2.4	37	2.6	25	2.6	178	SW (231)	0.551	SSE	4.2	140
22	58	2.0	43	2.5	35	2.6	24	2.6	167	SW (227)	0.613	SSE	4.5	136
D.max.	59	2.0	46	2.4	37	2.6	25	2.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	31	3.7	25	3.6	20	3.5	14	3.2	3	( SW)	0.611	NE	2.4	157

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1.3-1 (25) Wave Data

Date: 2nd May. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	43	2.0	35	2.3	29	2.5	20	2.5	166	SW (228)	0.600	SSE	4.2	155
2	43	2.5	37	2.7	30	2.8	21	2.7	158	SW (220)	0.599	SE	2.0	153
4	56	3.0	42	3.0	35	3.2	23	3.0	162	SW (219)	0.392	SE	2.0	116
6	49	3.5	34	3.0	28	3.1	20	2.9	162	SW (223)	0.401	SE	2.3	88
8	46	4.0	34	3.1	28	3.1	19	2.7	158	S (182)	0.765	E	1.5	89
10	36	2.5	33	3.1	27	3.0	19	2.8	159	SW (231)	0.760	S	1.5	146
12	38	3.5	31	3.6	25	3.5	17	3.2	146	SSW (194)	0.577	S	2.0	213
14	36	4.0	30	3.5	23	3.6	16	3.2	155	S (177)	0.570	SSW	1.0	255
16	45	3.0	36	3.3	29	3.3	20	2.8	166	S (175)	0.427	S	4.0	245
18	65	3.0	53	3.1	44	3.1	30	2.9	164	S (169)	0.634	SSE	4.5	189
20	78	2.5	59	3.0	47	2.9	32	2.8	167	S (186)	0.625	SSE	5.0	135
22	90	3.0	68	2.9	53	3.0	36	2.9	163	S (181)	0.549	SSE	5.5	119
D.max.	90	3.0	68	2.9	53	3.0	36	2.9	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	52	3.0	41	3.0	33	3.1	23	2.9	3	( S )	0.575	SSE	3.0	159

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (236) Wave Data

Date: 3rd May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	79	3.0	64	3.2	50	3.1	33	2.9	164	S (186)	0.530	SSE	4.8	151
2	71	2.5	53	3.1	43	3.2	29	2.9	159	S (186)	0.342	ESE	2.0	165
4	61	2.5	48	2.8	39	3.0	26	2.8	161	S (190)	0.460	E	1.5	146
6	54	3.0	48	3.3	39	3.1	27	2.9	165	S (178)	0.336	ESE	1.9	117
8	55	3.5	48	3.1	39	3.0	26	2.9	163	S (182)	0.408	NE	1.8	110
10	50	3.0	40	3.7	32	3.6	22	3.2	149	S (179)	0.378	NE	2.1	140
12	42	3.0	34	3.4	28	3.6	19	3.3	149	S (188)	0.474	SE	1.0	194
14	44	3.0	38	4.1	32	4.1	20	3.6	134	S (187)	0.296	S	2.2	241
16	74	3.0	50	3.3	41	3.3	28	3.0	162	S (181)	0.303	S	3.5	239
18	60	2.5	46	3.3	38	3.5	26	3.1	153	S (185)	0.499	SSE	3.8	185
20	107	3.0	70	3.3	53	3.4	35	3.2	150	S (185)	0.466	SE	5.0	125
22	75	4.0	60	3.4	50	3.4	35	3.2	150	S (187)	0.270	SE	3.0	100
D.max.	107	3.0	70	3.3	53	3.4	35	3.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	64	3.0	50	3.3	40	3.4	27	3.1	3	( S )	0.397	SE	2.7	159

[Note]  
W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (237) Wave Data

Date: 4th May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	62	3.0	53	3.4	44	3.6	30	3.1	154	S (185)	0.337	SE	3.0	120
2	61	3.5	50	3.9	42	3.6	29	3.1	153	S (188)	0.294	SE	3.0	161
4	66	4.0	50	4.1	40	3.7	27	3.2	150	S (185)	0.276	N	2.0	179
6	50	3.0	42	3.6	33	3.7	22	3.2	150	S (181)	0.362	NNE	2.0	161
8	54	3.5	41	3.9	33	4.0	22	3.4	143	S (188)	0.294	NE	2.0	143
10	35	4.0	31	4.1	26	4.0	17	3.5	140	S (188)	0.385	NE	2.0	147
12	30	4.0	26	3.9	21	4.1	13	3.8	131	S (183)	0.457	NE	2.0	176
14	29	4.0	24	3.9	19	4.1	12	3.8	132	S (190)	0.403	SSW	2.0	221
16	37	4.0	31	3.6	25	3.4	17	3.0	150	SSW (192)	0.472	S	4.8	225
18	83	3.5	63	3.5	52	3.4	35	3.2	152	S (174)	0.648	SSE	4.8	181
20	78	3.0	65	3.2	53	3.4	35	3.1	154	S (173)	0.598	SSE	5.0	114
22	89	3.0	65	3.4	49	3.3	32	2.9	164	S (182)	0.584	SE	3.5	81
D.max.	89	3.0	65	3.2	53	3.4	35	3.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	56	3.5	45	3.7	36	3.7	24	3.3	3	( S )	0.426	NE	3.0	159

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (238) Wave Data

Date: 5th May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	69	3.5	43	3.3	34	3.1	22	2.9	163	S (183)	0.450	N	4.5	84
2	57	2.5	43	3.1	35	3.0	23	2.8	165	SSW (192)	0.559	WNW	2.5	138
4	35	4.5	30	3.5	24	3.6	16	3.2	149	S (188)	0.468	NE	2.0	191
6	36	3.5	28	3.8	21	3.6	15	3.1	147	SSW (196)	0.543	NE	2.5	196
8	35	3.5	30	3.5	24	3.5	17	3.1	135	S (186)	0.803	NNE	3.5	184
10	40	2.5	32	2.4	26	2.5	18	2.5	162	N ( 1)	0.784	NNE	3.9	176
12	28	2.0	21	2.8	18	2.9	13	2.7	154	NNE ( 13)	0.552	NE	3.0	182
14	21	2.5	16	3.0	14	3.0	10	2.8	118	SSW (194)	0.827	SSE	2.0	198
16	35	2.0	29	2.7	23	2.8	16	2.8	162	S (191)	0.634	SE	2.2	196
18	45	2.5	29	2.4	23	2.5	16	2.5	158	S (191)	0.842	SE	4.0	164
20	62	3.0	49	2.8	39	2.9	26	2.7	169	S (178)	0.610	SE	3.9	102
22	41	3.0	34	3.0	28	3.1	19	3.0	151	S (181)	0.754	WNW	1.5	63
D.max.	69	3.5	49	2.8	39	2.9	26	2.7	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	42	2.9	32	3.0	26	3.0	18	2.8	3	( S )	0.652	NE	3.0	156

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (239) Wave Data

Date: 6th May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	44	3.0	25	3.2	20	3.1	13	2.9	151	S (188)	0.655	NNW	2.0	50
2	23	3.0	18	3.2	15	3.0	10	2.8	158	S (188)	0.668	WSW	2.0	108
4	21	3.5	18	3.0	14	2.9	10	2.8	152	N ( 2)	0.613	NE	1.7	184
6	19	3.0	16	3.2	12	3.2	8	3.0	145	SW (236)	0.873	E	1.5	215
8	29	2.0	21	2.3	16	2.5	11	2.4	127	N ( 2)	0.888	NE	3.0	213
10	25	2.0	20	2.2	16	2.3	10	2.3	133	N ( 7)	0.658	NE	3.5	214
12	12	4.5	10	3.3	9	3.4	6	3.1	130	SSW (204)	0.717	NE	1.9	202
14	13	4.0	9	3.7	7	3.6	5	3.4	145	SSW (192)	0.752	NE	2.5	185
16	11	3.0	9	3.5	7	3.5	5	3.3	147	SSW (197)	0.991	SW	2.5	186
18	30	2.5	26	2.3	20	2.3	14	2.3	186	S (180)	0.843	S	4.7	171
20	69	3.5	58	3.0	47	3.0	33	3.0	161	SSE (166)	0.629	SSE	5.0	116
22	69	3.0	51	2.9	42	2.8	28	2.8	163	S (178)	0.645	SSE	4.0	67
D.max.	69	3.5	58	3.0	47	3.0	33	3.0	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	30	3.1	23	3.0	19	3.0	13	2.8	3	( S )	0.744	NE	2.9	159

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (20) Wave Data

Date: 7th May 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	58	2.5	41	2.6	32	2.7	22	2.7	163	S (182)	0.667	ESE	2.0	45
2	31	2.5	27	2.6	22	2.6	16	2.6	176	N (360)	0.912	NE	2.7	61
4	29	2.5	21	2.7	17	2.8	12	2.7	172	NNE ( 17)	0.756	NNE	3.7	154
6	36	2.5	30	2.5	24	2.5	16	2.5	169	ESE (104)	0.799	NE	3.0	226
8	42	2.0	30	2.4	24	2.3	17	2.4	186	N ( 10)	0.768	NE	3.8	245
10	22	2.0	20	2.4	17	2.4	11	2.5	156	E ( 99)	0.956	NE	2.0	252
12	18	3.5	13	3.8	11	3.6	8	3.3	129	SE (141)	0.611	S	2.0	232
14	53	2.5	36	2.6	30	2.6	22	2.6	163	N ( 5)	0.767	N	2.0	192
16	52	2.5	43	2.6	35	2.7	24	2.7	173	S (184)	0.750	S	3.8	177
18	63	3.5	55	3.3	42	3.4	28	3.2	151	SW (220)	0.555	SSE	4.5	167
20	61	3.5	52	3.3	42	3.4	29	3.1	153	SW (220)	0.726	SE	2.0	121
22	49	2.5	37	3.1	31	3.2	21	3.1	160	SSE (164)	0.741	SSE	3.0	76
D.max.	63	3.5	55	3.3	42	3.4	29	3.1	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	43	2.7	34	2.8	27	2.8	19	2.8	3	( N )	0.751	NE	2.9	162

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table 1. 3-1 (2M) Wave Data

Date: 8th May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	42	3.0	30	2.9	25	3.0	17	2.8	158	S (176)	0.658	SE	3.0	54
2	32	2.5	26	2.8	20	2.9	14	2.8	163	N (10)	0.630	NE	2.0	45
4	29	2.5	22	2.9	18	3.1	13	2.8	169	WNW (293)	0.725	NW	2.0	104
6	29	3.5	24	3.1	19	3.3	13	3.0	158	S (177)	0.605	WNW	2.0	213
8	30	3.0	25	3.3	20	3.3	13	3.1	159	SE (144)	0.913	NNW	2.3	258
10	29	2.5	21	2.7	18	2.9	12	2.7	157	NNE (21)	0.892	NE	3.0	269
12	29	2.5	21	2.9	17	3.0	12	2.8	160	SSE (158)	0.764	NE	2.0	265
14	25	3.5	19	3.2	16	3.2	11	3.1	152	WNW (292)	0.804	SW	2.0	203
16	29	3.5	24	2.9	20	2.7	14	2.6	160	SSW (200)	0.815	SSE	4.2	177
18	56	2.5	36	2.5	29	2.5	20	2.5	176	SE (132)	0.819	SSE	4.0	169
20	60	2.5	45	2.9	36	2.9	24	2.8	167	SE (129)	0.702	SSE	3.0	146
22	46	2.5	37	3.0	30	2.9	20	2.7	164	SSE (152)	0.653	SE	2.3	93
D.max.	60	2.5	45	2.9	36	2.9	24	2.8	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	36	2.8	28	2.9	22	3.0	15	2.8	3	( SE)	0.748	NE	2.6	166

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (202) Wave Data

Date: 9th May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	49	3.0	39	2.8	31	2.7	21	2.7	162	SSE (156)	0.526	SE	3.0	64
2	46	3.0	36	2.8	28	2.8	18	2.7	161	SSE (164)	0.812	ESE	2.0	49
4	36	2.0	29	2.4	24	2.4	17	2.5	167	NNE ( 24)	0.855	NNE	2.0	60
6	23	2.5	21	2.6	17	2.6	12	2.5	158	NNW (347)	0.726	N	2.0	161
8	25	2.5	18	2.8	15	2.7	10	2.6	171	N (351)	0.717	NE	2.0	247
10	25	3.0	18	2.9	14	3.0	10	2.8	155	S (177)	0.525	NE	2.1	276
12	16	3.0	14	3.3	11	3.3	8	3.1	155	SSE (163)	0.788	NE	2.0	271
14	23	3.5	18	3.4	14	3.4	9	3.0	144	S (174)	0.733	S	4.0	230
16	56	3.0	39	2.8	31	2.9	21	2.7	170	SE (133)	0.948	S	4.0	185
18	36	2.5	27	2.5	22	2.5	15	2.5	154	ESE (122)	0.804	SE	3.5	160
20	51	2.5	42	2.6	35	2.8	24	2.7	167	SSW (193)	0.876	ESE	2.0	152
22	54	3.0	39	3.0	31	3.0	20	2.9	169	S (173)	0.876	SE	3.0	114
D.max.	56	3.0	42	2.6	35	2.8	24	2.7	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	37	2.8	28	2.8	23	2.8	15	2.7	3	(SSE)	0.765	NE	2.6	164

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (2/3) Wave Data

Date: 10th May 1989  
 St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	40	3.0	30	2.8	24	2.9	16	2.7	160	SSE (151)	0.877	SE	3.2	77
2	44	2.5	34	2.8	28	2.8	19	2.7	167	SSE (164)	0.713	ESE	1.9	57
4	36	2.5	30	2.9	25	2.9	17	2.9	156	N (356)	0.665	WNW	2.0	52
6	31	3.5	25	3.1	20	3.0	14	2.7	155	SE (124)	0.653	NNE	2.5	120
8	32	3.5	26	3.2	21	3.1	14	2.9	163	SE (128)	0.711	NNE	2.5	223
10	33	2.5	27	3.2	21	3.4	14	3.1	156	SSE (168)	0.696	NE	2.0	272
12	38	10.0	27	4.2	21	3.9	14	3.4	144	S (178)	0.580	NE	2.0	281
14	32	4.5	26	4.0	21	4.0	14	3.6	138	SSE (166)	0.815	SSW	2.0	249
16	80	3.5	64	3.3	52	3.4	37	3.3	149	SSE (166)	0.581	S	2.0	193
18	95	3.5	86	3.5	70	3.5	45	3.3	149	SSE (159)	0.571	SSE	5.0	157
20	77	3.5	68	3.6	56	3.5	38	3.2	146	S (172)	0.386	SSE	5.0	151
22	74	2.5	60	3.4	49	3.5	33	3.3	144	S (172)	0.312	ESE	2.0	132
D.max.	95	3.5	86	3.5	70	3.5	45	3.3	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	51	3.8	42	3.3	34	3.3	23	3.1	3	(SSE)	0.630	NNE	2.7	164

[Note]

W.H : Wave Height  
 W.P : Wave Period  
 Wave No. : Wave Countered  
 D.W.D : Dominant Wave Direction  
 R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
 D.max. : Daily max.  
 D.mean : Daily mean  
 M.F.D : Most Frequency Wind Direction

Table 1.3-1 (2M) Wave Data

Date: 11th May 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	65	3.0	52	3.8	41	3.9	27	3.4	144	S (174)	0.411	N	2.0	88
2	45	3.5	38	4.0	32	4.2	21	3.7	136	S (178)	0.358	N	2.0	65
4	40	4.5	35	4.2	30	4.5	20	3.9	128	S (191)	0.385	NE	3.0	52
6	44	4.0	32	4.0	26	3.8	18	3.1	147	SE (135)	0.752	N	3.0	76
8	35	4.0	30	3.5	25	3.5	17	3.0	155	ESE (119)	0.664	NNE	3.8	181
10	26	4.5	23	3.8	18	3.5	12	3.1	155	SSE (149)	0.722	ENE	2.0	254
12	24	4.5	20	4.3	15	4.4	10	3.8	129	S (187)	0.606	ESE	1.9	272
14	26	5.0	19	4.5	16	4.5	10	3.8	126	SE (140)	0.667	SSW	2.0	255
16	28	2.0	22	3.8	17	3.8	12	3.3	137	SSE (150)	0.687	WSW	2.5	201
18	79	3.0	62	3.2	49	3.4	34	3.2	150	S (170)	0.607	S	2.8	161
20	82	3.0	64	2.9	53	3.1	35	3.0	158	SE (146)	0.733	SE	3.0	143
22	84	3.0	67	3.4	52	3.2	33	2.9	157	S (178)	0.497	SE	2.0	141
D.max.	84	3.0	67	3.4	53	3.1	35	3.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	48	3.7	39	3.8	31	3.8	21	3.3	3	( S )	0.591	N	2.5	157

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (245) Wave Data

Date: 12th May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	64	3.5	53	3.5	42	3.4	27	3.1	154	S (172)	0.436	SE	2.0	109
2	57	3.0	45	3.2	36	3.3	24	2.9	162	S (169)	0.391	NW	1.8	76
4	39	2.5	33	3.3	27	3.5	18	3.2	152	S (182)	0.372	NE	2.0	59
6	38	4.0	33	4.0	28	3.7	20	3.3	141	S (177)	0.426	E	2.0	69
8	41	4.5	35	3.5	29	3.3	20	2.9	159	SSE (161)	0.698	ENE	2.0	157
10	42	3.5	35	3.9	27	4.0	18	3.3	144	S (177)	0.702	NE	2.2	236
12	39	3.0	30	3.4	24	3.6	18	3.2	151	S (177)	0.506	ESE	2.0	273
14	46	3.5	40	3.0	33	3.0	23	2.9	164	SSE (169)	0.796	SW	2.6	266
16	63	3.0	44	3.1	34	3.0	23	2.9	164	SSE (169)	0.729	NW	2.0	214
18	49	3.0	34	3.0	28	3.2	20	3.0	153	SE (145)	0.734	ESE	1.9	162
20	47	3.5	36	3.3	30	3.0	20	2.8	159	S (178)	0.537	NW	2.0	128
22	34	4.5	26	3.8	22	3.9	14	3.3	146	SSW (199)	0.507	ENE	2.0	131
D.max.	64	3.5	53	3.5	42	3.4	27	3.1	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	47	3.5	37	3.4	30	3.4	20	3.1	3	( S )	0.569	NW	2.0	157

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (245) Wave Data

Date: 13th May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	25	4.0	23	3.6	19	3.6	13	3.1	140	S (176)	0.543	NE	1.8	126
2	28	4.0	22	3.7	18	3.8	13	3.4	134	S (183)	0.604	NE	2.0	93
4	21	4.0	17	3.8	14	3.9	9	3.6	140	S (180)	0.525	WNW	2.0	68
6	23	3.5	14	3.8	12	3.8	8	3.6	139	SSW (205)	0.691	NNW	2.0	66
8	20	3.0	17	3.7	13	3.8	9	3.4	145	SE (136)	0.650	NNE	2.0	138
10	21	3.5	19	3.6	15	3.5	10	3.3	142	SE (143)	0.757	NE	3.0	216
12	21	3.5	16	3.9	13	3.8	9	3.2	140	S (184)	0.937	NE	3.5	257
14	26	5.0	22	2.9	18	2.8	12	2.6	162	N (352)	0.604	NE	2.5	260
16	19	5.0	17	3.6	14	3.6	10	3.0	133	S (171)	0.695	SW	2.3	226
18	26	3.5	21	4.3	17	3.3	12	2.9	129	S (176)	0.764	SSW	3.0	171
20	44	2.0	37	2.2	30	2.3	20	2.4	189	S (177)	0.545	SSW	4.3	135
22	49	2.5	38	2.6	31	2.6	21	2.7	163	SSE (151)	0.713	S	4.0	131
D.max.	49	2.5	38	2.6	31	2.6	21	2.7	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	27	3.6	22	3.5	18	3.4	12	3.1	3	( S )	0.669	NE	2.7	157

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (2M) Wave Data

Date: 14th May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	42	2.0	33	2.5	27	2.6	19	2.5	177	S (185)	0.724	S	3.5	142
2	55	2.5	40	2.9	32	2.8	22	2.8	164	S (177)	0.673	SSE	3.8	119
4	51	3.5	37	2.9	30	3.0	20	2.9	167	S (175)	0.738	SE	2.8	89
6	37	3.0	30	3.0	24	2.9	17	2.8	161	S (177)	0.783	E	2.0	74
8	34	3.0	24	3.0	21	3.0	14	2.9	162	WNW (294)	0.519	NE	2.0	124
10	26	2.5	20	3.1	17	3.1	11	3.0	164	S (170)	0.703	E	1.8	201
12	24	2.5	19	3.1	15	3.0	10	3.0	164	S (177)	0.845	SE	3.0	246
14	21	3.0	19	2.7	16	2.9	11	2.9	157	S (174)	0.640	S	3.0	252
16	32	2.5	22	3.0	17	2.9	12	2.7	170	WNW (291)	0.889	WSW	3.0	226
18	53	2.0	46	2.8	37	2.7	24	2.6	177	SE (129)	0.841	SSW	3.5	175
20	76	3.0	52	3.0	42	3.0	28	2.8	165	S (176)	0.652	SSE	3.8	134
22	64	3.0	46	3.0	36	3.1	25	2.9	157	S (179)	0.505	SE	2.0	115
D.max.	76	3.0	52	3.0	42	3.0	28	2.8	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	43	2.7	32	2.9	26	2.9	18	2.8	3	( S )	0.709	SE	2.8	158

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (2/8) Wave Data

Date: 15th May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	39	3.0	34	3.3	28	3.3	19	3.1	146	S (178)	0.542	ESE	2.0	137
2	35	2.5	30	3.4	25	3.4	17	3.1	148	S (170)	0.435	ENE	1.9	141
4	31	3.5	26	3.5	20	3.4	14	3.2	151	S (188)	0.539	NNE	2.0	123
6	24	3.5	19	3.5	15	3.4	10	3.3	150	S (190)	0.520	N	2.0	98
8	25	4.0	21	3.4	17	3.6	11	3.3	146	S (191)	0.687	NNE	3.0	123
10	26	4.0	19	3.5	16	3.4	11	3.0	153	S (177)	0.748	NE	2.0	176
12	17	3.0	15	3.6	13	3.8	9	3.4	139	S (179)	0.845	NE	1.5	234
14	19	4.0	15	3.7	12	4.0	8	3.6	138	SSW (197)	0.712	SSW	2.0	243
16	40	2.0	29	2.4	24	2.5	16	2.5	173	SE (134)	0.653	S	3.5	224
18	142	3.0	80	3.6	62	3.4	40	3.1	158	SSE (159)	0.459	SSE	5.0	178
20	101	2.5	62	3.1	50	3.1	34	3.0	162	S (175)	0.515	SSE	4.5	129
22	74	3.0	49	2.9	41	2.8	28	2.7	170	S (169)	0.589	SSE	4.5	109
D.max.	142	3.0	80	3.6	62	3.4	40	3.1	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	48	3.2	33	3.3	27	3.3	18	3.1	3	( S )	0.604	SSE	2.8	160

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table I. 3-1 (209) Wave Data

Date: 16th May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	69	2.5	44	2.7	36	2.6	25	2.7	167	S (175)	0.637	SE	3.0	126
2	60	3.0	47	2.7	38	2.6	26	2.6	169	N ( 0)	0.720	E	2.0	150
4	56	2.5	40	2.7	32	2.9	22	2.8	162	N (360)	0.596	ENE	2.0	151
6	32	2.5	29	2.7	25	2.9	17	2.8	155	N ( 9)	0.667	E	1.3	131
8	33	3.5	23	3.1	18	3.1	12	2.9	158	S (190)	0.595	NE	2.0	135
10	22	3.0	17	3.2	13	3.2	9	3.2	153	S (188)	0.839	NE	1.0	178
12	21	3.5	17	3.3	13	3.3	8	3.1	156	S (189)	0.748	SSW	2.2	216
14	30	3.0	17	3.3	14	3.3	10	3.2	155	S (179)	0.787	S	2.2	231
16	24	3.5	21	3.1	17	3.1	12	3.1	140	WNW (293)	0.778	SSW	2.0	208
18	56	2.5	40	2.5	31	2.5	21	2.5	180	SE (127)	0.746	S	5.0	162
20	71	3.0	52	2.8	41	2.8	27	2.8	165	SSE (162)	0.580	SSE	4.8	119
22	61	2.5	48	2.6	39	2.7	26	2.6	179	SSE (161)	0.813	SSE	5.0	97
D.max.	71	3.0	52	2.8	41	2.8	27	2.8	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	45	2.9	33	2.9	26	2.9	18	2.9	3	( S )	0.709	S	2.7	159

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (20) Wave Data

Date: 17th May 1989  
 St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	57	2.5	48	2.7	40	2.8	27	2.8	170	S (176)	0.672	SSE	4.8	114
2	43	3.0	35	2.7	29	2.6	20	2.6	163	S (187)	0.952	SSE	4.3	154
4	35	2.0	27	2.3	22	2.5	15	2.5	161	SSE (163)	0.825	ESE	2.0	166
6	33	2.5	24	2.4	20	2.4	14	2.4	169	SSE (167)	0.618	E	1.5	164
8	28	2.5	22	2.5	17	2.4	12	2.4	159	SSE (152)	0.707	ENE	1.5	164
10	26	2.5	19	2.5	16	2.5	11	2.5	171	SSE (166)	0.678	SSW	2.5	179
12	21	2.5	19	2.2	15	2.3	11	2.3	160	SSE (164)	0.650	SSW	3.0	195
14	25	2.5	22	2.4	18	2.3	13	2.3	165	SSE (163)	0.668	SSW	3.8	207
16	48	2.5	33	2.6	27	2.6	18	2.5	179	SSW (192)	0.880	S	3.9	190
18	65	2.5	45	2.8	34	2.7	23	2.7	174	SE (140)	0.637	S	4.5	148
20	55	2.5	47	3.1	40	3.0	27	2.9	163	S (170)	0.671	SE	4.5	106
22	64	2.5	45	2.8	36	2.8	25	2.8	165	SE (134)	0.337	SSE	4.0	84
D.max.	65	2.5	48	2.7	40	2.8	27	2.8	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	42	2.5	32	2.6	26	2.6	18	2.6	3	(SSE)	0.691	SSW	3.4	156

[Note]

W.H : Wave Height  
 W.P : Wave Period  
 Wave No.: Wave Countered  
 D.W.D : Dominant Wave Direction  
 R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
 T.L : Tidal Level  
 D.max. : Daily max.  
 D.mean : Daily mean  
 M.F.D : Most Frequency Wind Direction

Table I. 3-1 (25) Wave Data

Date: 18th May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	46	3.0	36	2.7	30	2.7	21	2.7	170	ESE (102)	0.491	SSE	2.8	102
2	35	2.5	28	2.5	23	2.6	16	2.5	167	SE (136)	0.657	SE	2.2	153
4	29	2.5	22	2.4	18	2.5	12	2.5	165	SE (145)	0.924	ESE	2.0	184
6	26	2.0	21	2.4	17	2.4	12	2.4	168	NW (322)	0.748	N	2.0	194
8	20	2.0	17	2.4	14	2.4	9	2.5	178	NNW (327)	0.773	NE	2.5	194
10	13	2.5	12	2.6	10	2.5	7	2.4	159	SE (133)	0.629	SSW	2.0	195
12	18	2.0	13	2.2	11	2.3	7	2.4	155	SE (142)	0.817	SSW	2.2	191
14	31	2.5	27	2.3	22	2.4	14	2.5	174	WNW (301)	0.936	SW	2.0	199
16	70	2.5	43	2.8	33	2.7	22	2.7	174	SSE (151)	0.758	SSW	4.8	192
18	68	3.0	55	3.2	45	3.1	31	2.9	161	SSE (152)	0.612	S	5.0	144
20	84	3.0	60	3.0	49	3.0	34	3.0	162	SSE (168)	0.554	SSE	5.3	103
22	62	3.0	49	2.9	40	2.9	28	2.8	168	SSE (149)	0.787	SSE	5.7	76
D.max.	84	3.0	60	3.0	49	3.0	34	3.0	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	42	2.5	32	2.6	26	2.6	18	2.6	3	( SE)	0.724	SSW	3.2	161

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (282) Wave Data

Date: 19th May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	61	2.5	40	2.7	32	2.7	22	2.6	170	ESE (118)	0.766	SSE	5.0	91
2	51	3.5	42	2.8	36	2.8	25	2.7	167	ESE (111)	0.648	SE	3.0	140
4	53	2.5	43	2.9	36	2.7	25	2.7	173	N (350)	0.790	ENE	2.0	192
6	50	2.5	38	2.8	31	2.7	22	2.8	166	NNW (342)	0.764	NNE	2.0	213
8	30	3.0	26	2.8	21	3.0	14	2.8	169	SSE (155)	0.673	ESE	1.8	216
10	30	2.5	20	3.0	16	3.2	11	3.0	153	SSE (158)	0.636	SW	1.8	212
12	32	3.5	22	3.7	18	3.6	12	3.3	144	SSE (149)	0.792	SSW	1.8	196
14	47	2.5	31	2.9	25	2.9	17	2.8	161	SE (138)	0.597	SW	2.0	193
16	72	3.0	55	3.1	44	3.2	30	3.1	153	SE (146)	0.614	SSW	3.9	184
18	102	3.0	70	3.4	54	3.4	36	3.2	149	SSE (159)	0.478	SSE	5.6	149
20	86	4.0	67	3.6	55	3.4	38	3.3	147	SSE (161)	0.433	SSE	5.5	106
22	66	3.0	53	3.4	43	3.5	29	3.1	154	SSE (157)	0.375	SSE	4.0	77
D.max.	102	3.0	70	3.4	55	3.4	38	3.3	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	57	3.0	42	3.1	34	3.1	23	2.9	3	(SSE)	0.630	SSE	3.2	164

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table I. 3-1 (23) Wave Data

Date: 20th May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	65	3.0	55	3.4	44	3.4	30	3.1	150	SSE (163)	0.382	SE	3.0	70
2	56	3.5	47	3.5	37	3.2	25	2.9	158	SSE (156)	0.457	SE	2.0	130
4	63	3.5	50	3.5	40	3.5	28	3.2	146	SE (146)	0.633	ESE	1.9	198
6	64	4.5	49	3.7	40	3.3	28	2.9	160	SSE (163)	0.455	NNW	2.0	227
8	56	3.5	46	3.6	39	3.4	27	3.1	151	SSE (158)	0.423	NE	2.0	228
10	50	3.0	39	3.5	31	3.4	21	3.1	157	SSE (156)	0.289	SSW	2.0	225
12	52	3.5	41	3.5	33	3.5	22	3.3	148	SSE (153)	0.390	SW	2.0	207
14	67	3.0	51	3.3	40	3.3	26	3.0	163	SSE (150)	0.341	SSE	3.5	188
16	70	3.5	60	3.3	48	3.4	32	3.1	152	SSE (156)	0.460	SSE	4.5	168
18	90	3.5	75	3.5	56	3.6	36	3.2	145	SSE (154)	0.184	SSE	4.0	139
20	90	4.5	78	3.8	62	3.8	41	3.4	143	SSE (160)	0.221	SE	2.8	96
22	67	4.0	56	3.9	47	3.6	32	3.2	150	SSE (153)	0.257	ESE	1.9	67
D.max.	90	3.5	78	3.8	62	3.8	41	3.4	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	66	3.6	54	3.5	43	3.4	29	3.1	3	(SSE)	0.374	SE	2.6	162

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (25M) Wave Data

Date: 21th May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	58	3.5	52	3.8	42	3.5	29	3.2	148	SSE (157)	0.290	NE	2.0	59
2	61	4.0	45	3.5	36	3.4	24	3.1	151	SSE (153)	0.400	ENE	2.0	105
4	53	4.0	39	3.4	32	3.4	22	3.0	152	SSE (154)	0.542	ENE	1.9	175
6	40	4.0	33	3.0	26	2.9	17	2.6	165	NNW (329)	0.566	NE	2.5	223
8	35	3.0	26	3.1	21	3.2	14	2.9	148	SE (144)	0.480	NE	1.9	234
10	40	4.0	32	3.4	25	3.2	17	3.1	159	SE (146)	0.304	NE	1.8	234
12	30	3.5	27	3.6	22	3.6	15	3.3	150	SE (139)	0.410	SSW	2.0	215
14	35	3.5	26	4.0	22	4.0	14	3.7	136	SSE (148)	0.290	SSE	3.0	185
16	49	3.5	42	3.4	34	3.6	23	3.2	148	SSE (148)	0.309	S	4.1	163
18	73	3.5	55	3.3	45	3.3	31	3.1	153	SSE (156)	0.228	SSE	4.2	142
20	66	3.5	54	3.6	44	3.5	30	3.3	146	SSE (152)	0.399	NNE	2.1	104
22	60	4.0	42	3.7	34	3.6	24	3.2	139	SSE (153)	0.362	NNE	1.8	69
D.max.	73	3.5	55	3.3	45	3.3	31	3.1	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	50	3.7	39	3.5	32	3.4	22	3.1	3	(SSE)	0.382	NE	2.4	159

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (255) Wave Data

Date: 22th May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	48	3.0	39	3.7	31	3.8	22	3.7	134	SSE (159)	0.345	E	2.0	55
2	46	3.5	35	3.7	29	3.9	19	3.4	145	SSE (153)	0.432	NE	2.2	75
4	32	4.0	27	3.8	23	3.8	15	3.4	145	ESE (120)	0.588	E	1.7	154
6	26	3.0	22	3.7	18	3.7	12	3.4	148	SSE (158)	0.600	ESE	1.5	216
8	32	3.0	26	3.5	23	3.6	15	3.1	149	SSE (158)	0.621	E	1.5	246
10	39	3.0	33	3.8	26	4.0	17	3.3	144	SSE (159)	0.386	NE	2.0	251
12	42	3.5	34	3.7	26	3.8	17	3.5	141	SSE (165)	0.541	NE	2.0	234
14	32	5.0	29	5.0	24	4.6	15	3.9	128	SSE (163)	0.371	NNE	3.0	196
16	32	4.5	30	4.6	24	4.6	16	3.9	125	SSE (159)	0.468	NW	2.0	171
18	49	3.5	41	4.0	35	3.7	24	3.2	147	SSE (159)	0.297	ESE	4.0	149
20	53	3.5	44	3.8	35	3.9	24	3.4	140	SSE (151)	0.352	NW	4.5	111
22	39	3.5	33	3.8	27	3.4	18	3.0	146	SSE (162)	0.443	NE	2.3	77
D.max.	53	3.5	44	3.8	35	3.7	24	3.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	39	3.6	33	3.9	27	3.9	18	3.4	3	(SSE)	0.454	NE	2.4	161

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (236) Wave Data

Date: 23th May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	39	3.0	30	3.6	24	3.5	16	3.1	148	SSE (161)	0.538	SE	3.0	58
2	32	5.0	25	4.3	20	4.3	13	3.6	130	SE (145)	0.590	SE	2.0	55
4	25	4.0	22	4.3	18	4.2	12	3.7	129	SE (128)	0.648	ENE	2.0	117
6	30	4.0	24	3.6	20	3.5	14	3.0	147	SE (142)	0.612	E	2.0	202
8	24	4.0	21	3.3	17	3.4	12	3.1	153	SSE (147)	0.576	NNW	1.9	250
10	28	3.0	23	3.6	19	3.8	13	3.4	145	SSE (160)	0.567	E	2.0	264
12	24	4.0	19	4.0	16	4.0	10	3.6	140	SE (141)	0.688	S	2.0	250
14	25	4.5	19	4.2	16	4.3	10	3.7	132	SSE (163)	0.776	SSW	2.8	209
16	31	3.0	24	4.4	20	4.4	14	3.8	125	SSE (158)	0.471	SSW	4.0	179
18	68	3.5	56	3.2	45	3.1	29	3.0	160	SSE (155)	0.581	SSE	4.2	156
20	60	3.0	50	2.8	41	3.0	28	2.9	159	SSE (156)	0.339	SSE	4.8	125
22	55	3.5	44	3.5	35	3.2	24	2.9	164	SSE (160)	0.360	ESE	2.5	87
D.max.	68	3.5	56	3.2	45	3.1	29	3.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	37	3.7	30	3.7	24	3.7	16	3.3	3	(SSE)	0.562	SSW	2.8	163

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table 1.3-1 (257) Wave Data

Date: 24th May 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	69	3.0	47	3.1	37	3.1	24	2.9	162	S (171)	0.645	ESE	2.0	63
2	52	3.0	36	3.0	30	3.1	21	3.1	149	SSE (159)	0.462	NNE	1.8	55
4	43	3.0	30	3.3	24	3.2	16	3.1	154	SSE (158)	0.502	NNE	2.3	90
6	35	3.0	29	3.1	24	3.1	17	2.9	158	SE (137)	0.570	NNW	2.8	180
8	51	2.5	39	2.5	32	2.6	20	2.6	171	NW (311)	0.727	N	2.5	258
10	51	3.0	40	3.1	32	3.1	21	2.8	165	SSE (151)	0.497	W	2.0	261
12	49	2.5	39	2.6	32	2.7	22	2.7	164	WNW (285)	0.889	SSW	2.3	263
14	84	3.0	59	3.3	44	3.3	29	3.0	156	SE (125)	0.635	S	4.0	223
16	75	3.0	57	2.9	45	3.0	30	2.9	163	SE (131)	0.754	S	3.3	184
18	47	3.5	36	3.4	30	3.4	21	3.1	155	SSE (156)	0.504	SSE	2.0	145
20	39	2.5	32	2.9	27	3.0	19	3.0	149	SSE (151)	0.422	SE	2.8	128
22	48	3.0	37	2.9	29	2.9	19	2.8	169	SE (145)	0.520	ESE	2.0	92
D.max.	84	3.0	59	3.3	45	3.0	30	2.9	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	54	2.9	40	3.0	32	3.0	22	2.9	3	(SSE)	0.594	S	2.5	162

[Note]  
W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (28) Wave Data

Date: 25th May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	39	3.0	33	3.2	27	3.3	18	3.0	158	SSE (166)	0.597	ENE	2.2	66
2	55	3.0	36	2.8	29	2.8	19	2.7	160	SSE (165)	0.882	E	2.0	54
4	30	2.5	24	2.5	20	2.6	14	2.6	157	SE (137)	0.585	E	2.0	64
6	36	2.5	27	2.9	21	2.7	14	2.6	151	ESE (110)	0.549	SE	1.8	154
8	33	3.0	24	2.7	20	2.8	14	2.6	167	NW (315)	0.636	NW	1.8	231
10	34	2.5	25	2.8	21	2.6	14	2.6	166	SSE (148)	0.780	SSW	0.1	268
12	27	2.5	21	2.8	17	2.9	12	2.8	164	SSE (151)	0.519	SW	1.0	265
14	26	3.0	19	3.3	15	3.4	10	3.2	155	SE (143)	0.696	SW	1.2	226
16	19	3.0	16	3.2	13	3.3	9	3.3	148	SE (136)	0.516	SSW	1.5	188
18	35	2.0	29	2.5	23	2.7	16	2.7	163	SE (142)	0.743	SSW	1.7	161
20	41	3.0	34	2.6	27	2.7	19	2.6	172	SE (145)	0.546	S	2.8	140
22	46	3.0	37	2.7	30	2.8	20	2.7	172	SSE (159)	0.732	SSE	3.5	108
D.max.	55	3.0	37	2.7	30	2.8	20	2.7	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	35	2.8	27	2.8	22	2.9	15	2.8	3	( SE)	0.648	SSW	1.8	160

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (259) Wave Data

Date: 26th May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	47	3.0	36	2.8	29	2.8	20	2.7	170	SSE (163)	0.613	SSE	3.3	76
2	79	2.5	53	2.6	41	2.6	28	2.6	181	NW (318)	0.488	NNE	3.8	62
4	39	3.0	32	3.1	26	2.9	17	2.8	163	WNW (302)	0.571	W	2.0	61
6	34	2.5	28	2.6	23	2.6	15	2.6	171	NW (309)	0.538	N	1.5	125
8	24	3.0	22	2.6	18	2.6	12	2.7	172	SE (130)	0.622	NE	1.2	217
10										( )		E	0.6	260
12	28	2.5	25	2.2	21	2.2	14	2.3	179	SSE (155)	0.832	ENE	1.0	266
14	21	2.5	17	2.2	15	2.2	11	2.3	133	NW (323)	0.647	NE	2.0	225
16	13	2.0	11	3.0	9	2.7	7	2.7	136	ESE (110)	0.677	ESE	1.5	185
18	9	3.5	8	4.0	6	3.6	4	3.3	142	SSW (192)	0.852	NE	0.8	159
20	22	2.0	19	2.1	15	2.3	11	2.4	161	S (187)	0.892	SE	2.4	143
22	31	2.5	26	2.6	21	2.7	15	2.6	177	SSW (197)	0.865	ESE	1.2	122
D.max.	79	2.5	53	2.6	41	2.6	28	2.6	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	32	2.6	25	2.7	20	2.7	14	2.6	3	( NW)	0.691	NE	1.8	158

[Note]  
W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (200) Wave Data

Date: 27th May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	30	3.0	20	3.1	16	3.2	10	3.1	160	SSW (193)	0.831	NE	1.0	88
2	16	3.0	12	2.9	10	2.9	7	2.8	170	N ( 2)	0.750	NE	1.8	64
4	11	2.0	9	3.2	7	3.0	5	2.8	133	W (265)	0.788	NNE	2.1	55
6	10	2.0	8	2.7	7	2.8	5	2.7	149	N (354)	0.604	NE	2.0	93
8	16	2.0	14	2.3	11	2.3	8	2.3	129	ESE (105)	0.694	NNE	3.3	183
10	34	2.0	27	2.2	21	2.4	14	2.4	172	N (359)	0.837	NNE	3.2	250
12	50	2.5	28	2.2	23	2.2	15	2.3	185	N ( 5)	0.955	NE	3.0	264
14	16	2.0	15	2.1	12	2.2	8	2.3	150	E ( 94)	0.730	NE	2.4	246
16	9	3.0	8	3.2	6	2.9	4	2.8	134	ESE (102)	0.676	NE	1.7	202
18	42	2.5	26	2.2	21	2.2	13	2.3	205	E ( 96)	0.640	S	3.5	167
20	49	3.0	40	2.8	33	2.7	23	2.7	163	SSE (148)	0.703	SSE	4.5	143
22	57	2.0	45	2.8	37	2.8	26	2.7	170	SE (145)	0.800	SSE	5.0	135
D.max.	57	2.0	45	2.8	37	2.8	26	2.7	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	28	2.4	21	2.6	17	2.6	12	2.6	3	( N )	0.751	NE	2.8	158

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (281) Wave Data

Date: 28th May 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	45	2.5	37	2.7	30	2.8	20	2.7	172	SSE (153)	0.877	ESE	2.0	108
2	39	2.0	28	2.5	22	2.5	15	2.5	180	N ( 6)	0.935	NNE	1.0	75
4	22	2.5	18	2.4	14	2.6	10	2.6	181	S (181)	0.819	ESE	1.5	60
6	20	2.5	14	2.3	12	2.4	8	2.4	186	N (349)	0.783	NE	2.0	76
8	14	2.0	11	2.3	9	2.3	6	2.4	172	SE (131)	0.739	NE	2.0	159
10	13	2.5	11	2.6	9	2.5	6	2.4	139	E ( 85)	0.762	NNE	3.0	240
12	14	2.0	10	2.5	8	2.6	5	2.6	144	NNE ( 23)	0.605	NE	2.0	271
14	14	2.0	12	2.3	10	2.4	7	2.4	128	W (272)	0.882	SSW	2.0	257
16	20	3.0	15	2.2	12	2.2	8	2.3	157	WSW (241)	0.871	SSE	3.0	208
18	24	2.5	19	2.3	17	2.3	11	2.4	178	ENE ( 61)	0.823	NE	2.0	155
20	19	2.0	15	2.9	12	3.0	8	2.6	143	WSW (243)	0.556	N	2.0	133
22	19	3.0	14	3.0	12	3.1	8	3.0	160	WSW (241)	0.360	NW	1.5	130
D.max.	45	2.5	37	2.7	30	2.8	20	2.7	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	22	2.4	17	2.5	14	2.6	9	2.5	3	(WSW)	0.751	NE	2.0	156

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (202) Wave Data

Date: 29th May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	18	3.0	14	2.9	12	2.7	8	2.8	163	WNW (285)	0.904	NW	2.0	128
2	20	3.0	15	2.8	12	2.7	8	2.6	176	S (171)	0.693	ESE	1.6	98
4	22	3.0	15	2.7	12	2.6	9	2.6	150	NNE (33)	0.831	NE	2.5	72
6	19	2.5	12	2.5	10	2.5	7	2.5	163	ENE (70)	0.433	NNE	2.8	71
8	14	2.0	11	2.2	9	2.3	6	2.4	158	ENE (68)	0.637	NNE	2.5	133
10	19	3.0	13	2.7	11	2.7	8	2.7	160	ENE (60)	0.543	ENE	1.8	217
12	15	2.5	12	2.9	10	2.9	6	2.8	168	WSW (240)	0.382	S	2.2	255
14	14	3.0	10	3.0	8	3.2	5	3.0	162	WSW (246)	0.756	SSW	1.8	252
16	17	2.0	16	2.5	13	2.5	9	2.5	128	WSW (259)	0.821	S	2.2	202
18	39	2.0	34	2.3	27	2.3	18	2.4	177	WSW (243)	0.781	S	4.5	151
20	59	2.5	50	2.8	41	2.9	27	2.8	165	SSE (152)	0.695	SSE	5.0	126
22	82	2.5	61	2.9	48	2.8	31	2.7	171	WSW (245)	0.634	SSE	4.5	132
D.max.	82	2.5	61	2.9	48	2.8	31	2.7	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	28	2.6	22	2.7	18	2.7	12	2.6	3	(WSW)	0.676	S	2.8	153

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (283) Wave Data

Date: 30th May 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	53	2.5	46	2.9	39	2.8	26	2.7	166	SSE (154)	0.697	SE	2.8	146
2	76	3.0	51	2.8	41	2.9	28	2.8	165	SSE (164)	0.824	SSE	3.8	133
4	39	3.5	29	2.6	24	2.7	17	2.6	155	S (176)	0.641	ESE	4.0	105
6	51	2.0	36	2.4	28	2.4	19	2.5	175	NE ( 52)	0.663	ESE	2.0	98
8	34	2.5	27	2.4	22	2.5	15	2.5	164	NE ( 48)	0.810	NE	2.0	136
10	29	2.5	25	2.4	20	2.6	14	2.6	168	ENE ( 74)	0.768	E	1.8	200
12	26	3.5	21	2.7	17	2.8	12	2.7	168	SW (233)	0.657	S	2.2	249
14	20	3.0	17	2.9	13	2.9	9	2.8	162	S (171)	0.799	S	3.5	252
16	20	3.0	16	3.0	14	3.0	10	2.9	151	SSE (148)	0.626	SSE	2.8	214
18	49	2.5	39	2.7	31	2.8	21	2.7	174	NW (315)	0.686	WSW	2.3	151
20	69	3.0	54	3.2	44	3.1	29	3.0	156	SSE (165)	0.636	NNW	3.8	112
22	53	3.5	44	2.8	37	2.9	25	2.8	160	SSW (206)	0.684	SE	2.0	106
D.max.	76	3.0	54	3.2	44	3.1	29	3.0	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	43	2.9	34	2.7	28	2.8	19	2.7	3	(SSE)	0.708	S	2.8	159

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table I. 3-1 (2M) Wave Data

Date: 31th May 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir. (m/s)	vel. (m/s)	
0	66	3.0	48	3.0	38	2.9	27	2.8	164	SW (221)	0.721	SSE	3.0	140
2	65	3.0	51	2.9	42	2.9	29	2.7	170	SSE (165)	0.458	SE	3.0	162
4	71	3.0	53	2.8	42	2.8	29	2.9	162	SSE (163)	0.520	SE	3.8	148
6	85	3.0	65	3.2	54	3.1	36	2.9	160	SE (128)	0.705	SE	3.8	132
8	90	3.0	73	3.1	61	3.2	41	3.0	162	S (185)	0.812	NW	2.8	171
10	88	2.5	71	3.5	56	3.5	38	3.2	149	WSW (247)	0.635	WNW	2.4	187
12	69	3.0	55	3.0	43	3.1	28	3.0	157	SW (224)	0.803	NW	2.2	236
14	66	3.0	53	3.0	44	3.1	29	2.9	163	WSW (244)	0.774	NW	1.5	232
16	65	2.5	43	3.0	35	3.2	23	2.9	157	SSW (206)	0.874	NE	3.8	186
18	70	2.0	56	2.4	45	2.5	30	2.6	180	NNW (326)	0.715	NE	5.6	127
20	32	2.0	24	2.1	20	2.3	14	2.3	154	NNW (347)	0.740	NE	3.9	86
22	17	2.5	14	3.3	12	3.1	8	2.8	137	SW (219)	0.845	NW	2.2	80
D.max.	90	3.0	73	3.1	61	3.2	41	3.0	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	65	2.7	51	2.9	41	3.0	28	2.8	3	( SW)	0.717	NW	3.2	157

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table I. 3-1 (285) Wave Data

Date: 1st Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	36	2.5	22	2.4	19	2.4	13	2.3	181	NNE ( 25)	0.824	NW	2.6	125
2	21	2.5	16	2.4	13	2.3	9	2.4	163	NE ( 38)	0.859	N	2.0	170
4	31	2.0	26	2.1	20	2.1	13	2.2	161	N (354)	0.970	NNE	3.0	179
6	25	2.0	22	2.0	17	2.1	12	2.2	158	NE ( 37)	0.745	NNE	3.5	175
8	31	2.5	23	2.3	19	2.2	13	2.2	175	NE ( 48)	0.689	NNE	2.8	173
10	24	2.0	19	2.2	15	2.2	11	2.3	147	NE ( 47)	0.706	NE	1.0	187
12	11	2.0	10	2.4	8	2.9	6	2.6	134	NNE ( 18)	0.793	NE	0.2	216
14	11	3.5	7	3.7	6	3.6	4	3.4	137	SSW (207)	0.934	NE	0.1	231
16	6	4.0	6	4.2	5	4.2	3	3.6	128	SW (233)	0.683	NE	0.1	188
18	18	2.0	12	2.4	10	2.5	6	2.5	149	NW (323)	0.710	WSW	0.2	124
20	40	2.5	32	2.4	25	2.5	18	2.6	182	ESE (118)	0.649	S	3.4	79
22	39	2.5	32	2.4	26	2.4	18	2.5	178	S (175)	0.960	S	3.7	60
D.max.	40	2.5	32	2.4	26	2.4	18	2.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	24	2.5	19	2.6	15	2.6	11	2.6	3	( NE)	0.793	NE	1.9	159

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (206) Wave Data

Date: 2nd Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	37	2.5	31	2.4	25	2.5	18	2.5	173	SSE (169)	0.804	S	3.7	103
2	33	2.5	23	2.4	19	2.4	13	2.4	174	SSE (166)	0.822	SSE	3.0	180
4	27	2.5	20	2.2	17	2.2	11	2.3	184	SW (225)	0.631	SSE	2.0	209
6	19	2.0	16	2.2	13	2.4	9	2.4	152	S (176)	0.896	ESE	0.0	216
8	16	2.0	14	2.1	11	2.1	8	2.2	149	N ( 6)	0.798	NE	2.0	218
10	17	2.0	13	2.2	11	2.2	7	2.2	129	ENE ( 61)	0.858	NE	1.7	212
12	14	2.0	9	2.3	7	2.6	4	2.6	111	NE ( 54)	0.859	NE	0.1	218
14	7	4.0	5	3.6	4	3.7	3	3.3	141	SW (224)	0.738	S	1.8	220
16	24	2.0	19	2.0	15	2.1	10	2.2	143	SSE (154)	0.720	SSE	3.2	197
18	36	2.0	27	2.2	21	2.3	14	2.4	186	E ( 91)	0.688	ENE	0.1	130
20	37	2.0	25	2.2	19	2.3	13	2.4	192	S (190)	0.893	ESE	0.8	84
22	41	2.5	31	2.4	26	2.4	18	2.4	188	ESE (116)	0.879	SE	2.2	58
D.max.	41	2.5	31	2.4	26	2.4	18	2.5	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	26	2.3	19	2.3	16	2.4	11	2.4	2	(SSE)	0.799	NE	1.7	170

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table I. 3-1 (287) Wave Data

Date: 3rd Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	25	2.5	21	2.4	18	2.4	12	2.3	156	NE ( 37)	0.964	ESE	1.3	56
2	24	2.5	21	2.3	18	2.3	12	2.3	155	SSE (151)	0.345	ESE	0.1	142
4	24	2.5	18	2.4	14	2.4	10	2.4	148	ENE ( 59)	0.767	NNE	1.5	217
6	22	2.0	18	2.2	15	2.2	10	2.2	169	N (351)	0.830	N	1.0	240
8	14	5.0	12	2.4	10	2.4	7	2.4	107	NNE ( 24)	0.947	N	1.7	253
10	62	12.0	26	6.1	16	3.9	10	3.6	50	( )		NNE	2.0	241
12	53	4.0	39	3.5	23	3.6	12	3.2	128	S (170)	0.705	NE	1.0	220
14	7	3.5	6	3.3	5	3.2	3	3.0	157	WNW (284)	0.941	SSW	1.5	207
16	35	2.0	24	2.2	19	2.2	13	2.4	171	E ( 96)	0.689	S	4.5	192
18	65	3.0	41	2.7	32	2.7	22	2.7	172	E (101)	0.751	S	3.8	137
20	40	2.5	34	2.5	28	2.6	20	2.6	168	E ( 96)	0.601	SSE	3.0	86
22	41	3.0	35	2.4	28	2.4	20	2.4	177	E ( 91)	0.935	SE	2.7	58
D.max.	65	3.0	41	2.7	32	2.7	22	2.7	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	34	3.7	25	2.9	19	2.7	13	2.6	3	( E )	0.770	S	2.0	171

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (288) Wave Data

Date: 4th Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	42	2.5	33	2.5	26	2.6	18	2.4	176	ESE (112)	0.644	SE	1.0	45
2	25	2.0	21	2.3	17	2.4	12	2.4	174	ESE (102)	0.690	NE	0.8	103
4	24	2.5	17	2.2	13	2.5	9	2.5	165	NW (319)	0.656	N	0.8	198
6	18	2.5	14	2.4	12	2.7	8	2.5	157	NW (316)	0.873	N	1.5	244
8	29	2.0	24	2.3	20	2.4	13	2.4	165	NNW (337)	0.544	NNE	2.2	262
10	38	2.0	32	2.3	27	2.4	19	2.4	177	NNW (332)	0.690	NE	3.2	255
12	29	2.0	25	2.5	21	2.4	15	2.4	162	NNW (344)	0.798	NNE	2.5	221
14	19	4.0	16	4.3	13	3.6	9	2.9	107	SSE (161)	0.785	NE	1.5	203
16	16	5.0	13	5.0	10	5.0	6	4.1	112	S (170)	0.611	NE	1.0	183
18	55	3.0	39	2.5	31	2.6	21	2.6	178	E (95)	0.512	SSE	3.8	152
20	35	3.0	28	2.5	23	2.7	16	2.6	177	SSE (168)	0.855	S	3.7	95
22	31	2.5	26	2.4	21	2.5	14	2.5	178	SE (125)	0.678	SSE	2.6	62
D.max.	55	3.0	39	2.5	31	2.6	21	2.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	30	2.8	24	2.8	20	2.8	13	2.6	3	(NNW)	0.695	NE	2.0	169

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No. : Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (209) Wave Data

Date: 5th Jun. 1989

St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	24	2.5	19	2.4	15	2.5	10	2.5	179	SE (145)	0.813	SE	0.1	44
2	13	2.5	11	2.9	9	2.8	7	2.6	148	ESE (106)	0.683	ESE	0.0	54
4	13	3.0	11	3.0	9	3.0	7	2.8	158	WSW (257)	0.693	NNW	1.9	169
6	21	2.5	16	2.4	13	2.4	9	2.4	181	W (276)	0.711	N	1.8	244
8	16	2.5	13	2.5	11	2.6	8	2.5	171	N (360)	0.850	NW	1.0	267
10	17	4.0	16	2.8	12	2.8	9	2.6	146	NNW (331)	0.852	NNE	1.0	266
12	20	6.0	18	5.3	14	4.9	9	3.7	122	S (170)	0.681	NE	2.0	237
14	19	6.0	18	5.4	14	5.3	9	4.5	106	SSE (155)	0.798	N	0.3	206
16	79	3.0	53	2.5	41	2.6	27	2.6	183	NW (305)	0.887	W	2.3	200
18	68	2.5	58	2.9	48	3.0	33	2.9	167	S (184)	0.822	W	2.3	168
20	45	3.0	35	2.8	29	3.0	20	2.7	166	SE (125)	0.812	NNE	1.4	110
22	44	3.0	34	2.8	28	2.8	19	2.7	168	WSW (258)	0.774	NNW	0.3	72
D.max.	79	3.0	58	2.9	48	3.0	33	2.9	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	32	3.4	25	3.1	20	3.1	14	2.9	3	( SE)	0.781	W	1.2	170

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (270) Wave Data

Date: 6th Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	89	2.5	60	2.9	47	3.0	30	2.8	172	WNW (297)	0.745	SW	0.5	52
2	36	2.5	29	2.8	24	2.9	16	2.8	173	NNW (331)	0.992	NNW	1.3	43
4	27	3.0	22	3.1	17	3.2	12	3.0	158	SSE (152)	0.856	NE	2.0	121
6	34	2.5	25	2.8	20	2.9	13	2.7	161	WNW (302)	0.813	NNW	1.0	223
8	30	2.0	22	3.0	18	2.8	12	2.8	144	NNW (332)	0.863	NNE	0.8	271
10	24	3.5	18	3.3	14	3.4	10	3.0	150	S (169)	0.737	NE	2.0	285
12	18	3.5	14	3.6	11	3.8	7	3.4	142	SSE (149)	0.713	NE	0.8	263
14	16	4.0	14	4.2	12	4.2	8	3.7	133	S (171)	0.816	SW	1.0	215
16	16	5.5	14	4.0	12	3.8	8	3.2	128	SSE (165)	0.834	SW	1.0	188
18	21	4.5	17	3.8	14	3.3	10	2.9	125	S (174)	0.792	S	2.5	163
20	26	2.0	20	3.3	16	3.1	11	2.7	149	SSE (152)	0.605	SSE	3.0	130
22	39	2.5	31	2.8	25	3.0	17	2.9	168	SSE (149)	0.429	SE	1.9	87
D.max.	89	2.5	60	2.9	47	3.0	30	2.8	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	31	3.2	24	3.3	19	3.3	13	3.0	3	(SSE)	0.766	SW	1.5	170

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (21) Wave Data

Date: 7th Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	31	2.5	28	3.0	23	2.9	16	2.8	160	SE (141)	0.435	ESE	1.0	64
2	26	3.0	20	2.9	17	3.0	12	2.8	166	SSE (162)	0.529	NE	1.8	51
4	23	4.0	18	3.3	14	3.3	9	2.8	162	SSE (159)	0.794	NE	2.0	83
6	25	2.0	19	3.3	15	3.2	11	2.9	153	SSE (159)	0.765	N	1.0	187
8	19	2.5	15	2.8	13	3.2	9	2.9	154	SSE (161)	0.762	NE	1.9	257
10	17	4.0	15	3.9	12	3.4	8	2.9	141	SSE (158)	0.732	ENE	1.0	281
12	15	3.5	11	3.4	9	3.6	6	3.3	146	SSE (149)	0.825	S	1.9	273
14	14	3.0	11	3.4	9	3.5	6	3.2	138	SSE (162)	0.705	SW	1.9	230
16	34	2.0	27	2.1	21	2.2	14	2.3	176	SSE (153)	0.862	SW	2.0	194
18	52	2.0	37	2.5	31	2.6	21	2.6	179	SSE (148)	0.819	S	3.0	166
20	43	3.0	34	2.7	28	2.7	20	2.6	170	SSE (168)	0.782	SSE	3.5	146
22	44	2.5	39	2.6	31	2.7	21	2.7	174	SSE (156)	0.873	SE	2.0	103
D.max.	52	2.0	39	2.6	31	2.6	21	2.6	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	29	2.8	23	3.0	19	3.0	13	2.8	3	(SSE)	0.740	NE	1.9	170

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (272) Wave Data

Date: 8th Jun. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	40	2.5	26	2.6	22	2.6	15	2.5	175	SSE (152)	0.558	E	1.8	74
2	33	2.5	26	2.4	21	2.6	14	2.6	182	NNW (343)	0.524	ENE	0.1	59
4	20	2.5	16	2.5	13	2.5	9	2.5	163	NNW (339)	0.704	N	1.5	69
6	13	2.0	11	2.4	9	2.4	6	2.4	189	NNW (333)	0.727	N	1.0	158
8	30	2.0	24	2.3	19	2.4	13	2.5	183	WSW (256)	0.794	NNW	0.3	244
10	26	3.0	19	2.5	15	2.5	10	2.5	177	SSE (166)	0.745	SSE	0.1	281
12	19	2.5	15	2.6	11	2.6	8	2.6	183	NNW (345)	0.792	ENE	0.1	280
14	22	3.0	15	2.6	10	2.7	6	2.6	178	WSW (248)	0.763	SSW	1.2	245
16	15	2.0	11	2.0	9	2.2	6	2.4	119	E ( 90)	0.588	S	3.0	198
18	34	2.0	24	2.2	18	2.2	13	2.3	183	W (262)	0.471	S	3.7	163
20	35	3.0	23	2.3	19	2.3	13	2.4	184	SSE (163)	0.533	S	3.7	146
22	44	2.0	35	2.5	28	2.5	20	2.5	184	SE (140)	0.539	SSE	2.1	119
D.max.	44	2.0	35	2.5	28	2.5	20	2.5	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	28	2.4	20	2.4	16	2.5	11	2.5	2	(NNW)	0.645	S	1.5	170

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table I. 3-1 (2B) Wave Data

Date: 9th Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	53	4.0	42	3.7	34	3.8	23	3.2	147	SE (126)	0.469	SE	2.1	89
2	54	3.0	45	3.8	37	3.7	26	3.5	134	SE (135)	0.410	SE	1.9	69
4	49	4.0	36	3.8	29	3.7	19	3.4	144	SE (135)	0.503	ESE	0.1	69
6	35	3.0	31	3.6	25	3.6	16	3.3	147	SE (134)	0.818	NE	0.2	130
8	34	4.0	26	3.6	22	3.5	15	3.3	139	ESE (118)	0.692	ENE	0.2	215
10	29	3.0	23	3.3	19	3.3	12	3.0	154	SE (126)	0.754	SSE	2.0	265
12	25	2.5	21	3.0	18	3.1	12	2.9	136	W (272)	0.834	S	2.5	279
14	39	2.5	30	2.4	24	2.4	16	2.5	172	NW (315)	0.697	SW	2.0	252
16	44	2.5	36	2.7	30	2.6	21	2.6	172	WNW (291)	0.786	SSW	2.2	205
18	74	3.0	57	3.0	45	3.0	31	2.9	167	SE (124)	0.926	SSE	3.8	165
20	75	2.5	57	2.8	47	2.8	32	2.7	175	SSE (155)	0.790	SE	3.0	142
22	65	3.0	49	2.6	39	2.6	26	2.6	179	SSE (161)	0.823	ESE	1.0	125
D.max.	75	2.5	57	3.0	47	2.8	32	2.7	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	48	3.1	38	3.2	31	3.2	21	3.0	3	( SE)	0.708	SE	1.8	167

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (27A) Wave Data

Date: 10th Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	47	2.0	36	2.7	30	2.6	20	2.6	173	NNW (334)	0.696	NNW	0.8	103
2	29	2.5	22	2.7	18	2.7	12	2.7	172	SSE (148)	0.912	ENE	0.1	84
4	20	3.0	15	2.7	12	2.8	8	2.7	174	NNW (341)	0.445	NNE	1.2	78
6	14	3.0	10	2.8	8	2.9	5	2.9	160	NNW (335)	0.705	N	0.8	115
8	13	3.0	10	3.1	8	3.2	6	2.9	130	SE (132)	0.754	ENE	0.1	193
10	11	4.0	10	2.9	8	2.9	6	2.8	153	E (91)	0.893	NE	1.2	251
12	11	3.5	9	3.3	8	3.3	5	3.3	142	SW (230)	0.923	SE	0.5	265
14	11	4.0	9	3.5	7	3.4	5	3.2	153	SE (132)	0.807	S	1.0	244
16	25	2.0	18	2.3	14	2.4	9	2.5	131	ESE (114)	0.788	S	2.2	203
18	53	3.0	41	2.8	32	2.9	21	2.7	172	E (99)	0.840	S	3.0	165
20	62	2.5	50	2.9	39	3.0	26	2.8	160	SE (134)	0.887	SSE	4.2	140
22	58	2.5	48	2.9	38	2.9	26	2.7	173	SSE (153)	0.688	SSE	3.7	132
D.max.	62	2.5	50	2.9	39	3.0	26	2.8	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	30	2.9	23	2.9	19	2.9	12	2.8	3	( SE)	0.778	S	1.6	164

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (2/5) Wave Data

Date: 11th Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	52	2.5	42	2.6	34	2.7	23	2.6	173	E ( 97)	0.755	ESE	1.0	120
2	44	3.0	36	2.6	30	2.6	20	2.6	174	E ( 99)	0.827	ENE	0.1	103
4	40	3.5	28	3.0	23	2.9	15	2.8	172	SE (127)	0.763	NE	0.8	94
6	19	2.5	17	2.8	14	3.0	9	2.8	171	ESE (119)	0.832	NNE	2.0	110
8	38	3.0	27	2.5	21	2.6	14	2.6	175	NNW (329)	0.843	NE	2.3	174
10	29	2.5	22	2.4	17	2.5	12	2.4	158	NNW (338)	0.825	ENE	0.2	234
12	19	3.5	15	2.6	12	2.7	8	2.7	131	N ( 8)	0.899	NE	2.0	248
14	15	4.5	12	3.5	9	3.4	6	3.1	131	SSE (160)	0.831	SSE	1.0	236
16	17	3.0	14	2.9	11	2.9	8	2.7	128	ESE (119)	0.799	SSE	2.0	192
18	41	2.0	29	2.4	23	2.4	16	2.4	169	ESE (120)	0.748	ESE	1.0	146
20	41	2.5	34	2.5	28	2.5	19	2.5	173	SE (125)	0.833	E	0.1	122
22	33	3.0	24	2.8	19	2.7	12	2.7	174	NE ( 49)	0.856	NE	2.1	123
D.max.	52	2.5	42	2.6	34	2.7	23	2.6	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	32	3.0	25	2.7	20	2.7	14	2.7	3	(ESE)	0.818	NE	1.2	159

[Note] W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (276) Wave Data

Date: 12th Jun. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	45	2.5	31	2.3	23	2.4	16	2.4	162	ESE (112)	0.851	NE	0.5	126
2	24	2.5	18	3.2	14	3.1	10	2.8	138	WNW (285)	0.882	NNW	1.7	125
4	26	2.5	16	3.5	13	3.3	9	3.1	150	W (281)	0.598	N	1.0	112
6	32	4.5	26	3.6	22	3.4	15	2.9	133	W (277)	0.571	N	2.1	112
8	50	2.0	41	2.9	34	2.9	23	3.0	159	ESE (104)	0.704	NNE	2.0	160
10	40	4.5	30	3.6	25	3.4	17	2.9	151	W (277)	0.600	NE	2.7	216
12	37	2.5	28	3.0	23	3.0	16	2.7	163	WNW (297)	0.763	NNE	3.0	239
14	32	3.5	26	4.0	20	4.1	13	3.4	136	WNW (284)	0.512	NNE	2.2	224
16	30	5.0	23	4.5	19	4.2	12	3.4	125	W (272)	0.499	NE	2.0	176
18	18	4.5	15	4.2	12	4.4	8	3.6	132	WNW (289)	0.548	ENE	0.0	136
20	29	5.0	25	2.7	21	2.8	15	2.6	151	E ( 90)	0.670	SE	2.5	115
22	47	2.5	36	3.1	30	2.9	20	2.7	161	E ( 98)	0.506	ESE	0.8	115
D.max.	50	2.0	41	2.9	34	2.9	23	3.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	34	3.5	26	3.4	21	3.3	15	3.0	3	( W )	0.642	NNE	1.7	155

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1.3-1 (277) Wave Data

Date: 13th Jun. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	50	2.5	38	2.6	31	2.7	21	2.6	176	SE (127)	0.813	SE	2.0	137
2	51	3.0	35	2.7	29	2.6	20	2.6	164	SE (136)	0.871	SSE	3.0	150
4	41	2.0	32	2.5	27	2.6	19	2.5	164	ESE (108)	0.685	ESE	0.7	143
6	39	2.5	29	2.6	24	2.6	16	2.6	174	E (93)	0.827	ENE	0.1	136
8	29	2.0	23	2.6	19	2.6	14	2.6	177	ESE (104)	0.852	NNE	2.2	164
10	25	2.5	19	2.8	15	2.7	10	2.7	167	SE (134)	0.631	ESE	0.1	212
12	18	2.5	14	2.9	12	3.0	8	2.9	166	SSE (162)	0.567	ESE	0.1	234
14	14	2.5	11	3.2	9	3.5	6	3.2	153	W (274)	0.774	S	1.6	215
16	18	4.0	14	3.3	12	3.5	8	3.0	117	SSE (158)	0.711	SSW	1.0	176
18	26	2.5	22	2.5	18	2.7	13	2.6	153	E (91)	0.740	S	3.0	132
20	35	2.5	30	2.5	25	2.6	18	2.6	171	E (95)	0.559	S	2.1	101
22	54	3.0	40	2.8	33	2.6	23	2.6	165	NW (318)	0.678	WSW	1.9	105
D.max.	54	3.0	40	2.8	33	2.6	23	2.6	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	33	2.6	26	2.8	21	2.8	15	2.7	3	( E )	0.726	S	1.5	159

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (Z78) Wave Data

Date: 14th Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H. (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	29	2.5	23	2.7	18	2.8	12	2.7	168	ESE (117)	0.472	SSW	1.0	135
2	17	3.5	14	3.3	11	3.4	8	3.1	157	WNW (284)	0.665	SSW	0.1	167
4	15	3.0	13	3.2	11	3.3	7	3.1	157	W (269)	0.851	NNE	1.8	169
6	21	3.5	16	2.7	12	2.9	8	2.8	158	E ( 97)	0.653	NNE	0.8	167
8	14	2.0	10	2.8	8	3.2	6	2.9	166	ESE (122)	0.719	NNE	0.1	174
10	14	4.0	10	3.2	8	3.3	6	3.0	155	W (270)	0.411	SSE	0.3	208
12	12	2.5	8	3.8	7	3.5	5	3.2	140	SE (144)	0.841	SSW	1.3	230
14	16	2.0	14	2.3	11	2.4	8	2.3	125	WSW (258)	0.635	S	2.3	220
16	49	2.5	41	2.8	33	3.0	23	2.8	160	SSE (154)	0.610	WSW	1.8	173
18	46	2.5	37	2.5	30	2.6	22	2.6	172	WNW (299)	0.935	SW	2.5	123
20	61	3.0	42	2.6	32	2.6	21	2.6	180	NW (316)	0.738	WNW	2.7	95
22	44	2.5	37	2.8	30	2.7	20	2.7	180	NNW (335)	0.922	NW	0.3	81
D.max.	61	3.0	42	2.6	33	3.0	23	2.8	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	28	2.8	22	2.9	18	3.0	12	2.8	3	(ESE)	0.704	SSW	1.3	162

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (279) Wave Data

Date: 15th Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	51	2.5	40	2.8	33	2.8	22	2.7	179	NNW (333)	0.854	NW	2.0	131
2	40	3.0	32	2.6	27	2.7	19	2.7	177	ESE (123)	0.739	S	3.8	183
4	39	3.5	29	3.2	24	3.2	17	3.1	154	S (186)	0.593	NE	2.1	194
6	41	2.5	36	2.4	29	2.5	20	2.4	163	NE ( 51)	0.800	NNW	2.0	196
8	49	2.0	36	2.4	29	2.5	20	2.4	182	NE ( 52)	0.880	NE	3.0	196
10	37	3.0	32	2.2	26	2.4	17	2.4	178	E ( 83)	0.626	NE	2.0	211
12	29	2.5	20	2.7	15	2.8	10	2.7	147	NW (315)	0.695	NE	2.0	224
14	66	2.5	35	2.2	28	2.2	19	2.3	183	W (268)	0.769	WNW	2.0	211
16	76	3.5	59	3.3	47	3.5	32	3.1	154	S (173)	0.460	W	2.0	164
18	86	3.0	69	3.3	55	3.4	38	3.1	153	SSE (164)	0.429	W	2.1	123
20	186	4.0	119	4.1	93	3.9	63	3.6	135	S (171)	0.409	W	3.5	98
22	170	4.0	137	4.4	99	4.0	62	3.5	142	S (179)	0.459	WNW	3.0	80
D.max.	186	4.0	137	4.4	99	4.0	63	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	73	3.0	54	3.0	42	3.0	28	2.8	3	( S )	0.643	NE	2.5	168

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (280) Wave Data

Date: 16th Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	129	4.5	120	4.8	103	4.7	69	4.0	123	S (174)	0.433	NNW	2.0	128
2	156	4.5	115	4.7	94	4.5	63	4.0	123	S (170)	0.449	NNW	2.0	174
4	110	4.5	85	4.4	71	4.3	49	3.9	125	SSE (165)	0.360	N	1.0	212
6	145	3.5	97	4.5	78	4.6	51	4.1	121	SSE (162)	0.319	NNE	2.0	225
8	105	4.5	81	4.6	67	4.4	44	3.9	124	SSE (166)	0.400	NNE	2.1	222
10	96	4.5	76	4.9	60	4.6	41	4.0	120	SSE (159)	0.383	NE	1.8	227
12	77	4.5	65	4.8	53	4.8	34	4.1	117	SSE (160)	0.292	NE	0.1	223
14	91	5.0	80	4.8	60	4.9	38	4.0	123	SW (223)	0.450	SSW	4.2	196
16	156	4.5	131	4.4	107	4.7	67	4.0	123	SW (223)	0.378	SW	5.0	166
18	112	4.0	97	4.3	80	4.4	53	3.9	125	SW (222)	0.393	SW	2.2	107
20	117	3.5	85	4.5	65	4.4	43	3.8	127	SW (216)	0.405	N	0.5	78
22	89	5.0	74	5.3	59	4.5	40	3.8	130	SSW (212)	0.347	N	0.1	58
D.max.	156	4.5	131	4.4	107	4.7	69	4.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	115	4.4	92	4.7	75	4.6	49	4.0	4	(SSE)	0.384	N	1.9	168

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table 1.3-1 (281) Wave Data

Date: 17th Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	71	6.0	63	5.1	51	5.0	34	4.2	118	SW (216)	0.438	N	0.1	77
2	80	5.0	59	5.0	47	4.7	32	4.0	126	SW (216)	0.459	N	1.0	163
4	78	4.0	60	4.9	47	4.9	30	4.1	121	SW (218)	0.558	NE	2.0	228
6	69	5.0	58	5.0	48	4.8	33	3.8	123	SW (214)	0.509	NE	2.0	241
8	70	4.5	55	4.8	41	5.0	27	4.3	113	SW (223)	0.492	NNW	0.0	247
10	86	5.0	75	5.0	60	5.1	39	4.8	105	SW (220)	0.349	S	0.0	217
12	107	4.0	80	4.7	65	4.4	41	4.2	120	SW (225)	0.554	S	1.0	211
14	85	5.0	64	4.3	53	4.4	36	4.2	121	SW (222)	0.472	SSW	2.0	197
16	60	4.5	52	4.5	41	4.5	27	3.9	130	SW (218)	0.399	SSW	1.0	160
18	61	3.5	49	4.3	39	4.1	25	3.4	142	SW (218)	0.396	SSW	0.1	117
20	59	3.5	45	4.3	37	4.2	24	3.5	140	SW (219)	0.329	SW	0.0	80
22	186	4.0	121	4.0	95	4.0	63	3.7	133	WSW (245)	0.443	N	1.0	61
D.max.	186	4.0	121	4.0	95	4.0	63	3.7	5	most D.W.D	mean	M.F.D	mean	mean
D.mean	84	4.5	65	4.7	52	4.6	34	4.0	4	( SW)	0.450	SSW	0.8	167

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (282) Wave Data

Date: 18th Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	150	4.0	95	4.0	74	3.9	46	3.4	140	WSW (250)	0.546	NW	0.1	67
2	127	4.0	77	4.0	59	4.0	38	3.4	140	SW (228)	0.594	N	0.5	147
4	70	4.0	61	3.8	49	3.9	31	3.5	139	SW (232)	0.576	NE	2.0	216
6	75	4.0	60	3.9	47	3.8	30	3.4	142	SW (233)	0.463	N	0.9	244
8	81	3.5	62	3.8	51	4.0	36	3.5	134	WSW (237)	0.451	NNE	2.0	248
10	64	3.5	55	4.1	46	3.7	32	3.1	154	SW (229)	0.492	NNE	3.0	231
12	56	2.0	46	3.4	38	3.3	26	3.0	154	WSW (250)	0.525	NNE	2.8	204
14	51	4.5	37	4.0	30	3.8	20	3.2	133	SW (231)	0.475	NE	2.0	189
16	32	4.0	30	4.3	25	4.2	17	3.9	125	SW (235)	0.555	ENE	0.1	151
18	32	5.0	27	4.3	22	4.3	14	3.9	129	SW (219)	0.480	SE	1.0	121
20	33	4.5	27	3.9	21	4.0	14	3.9	130	SW (224)	0.460	E	0.0	81
22	39	4.0	29	4.2	24	4.2	15	3.9	125	SW (224)	0.456	NE	0.0	53
D.max.	150	4.0	95	4.0	74	3.9	46	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	68	3.9	51	4.0	41	3.9	27	3.5	4	( SW)	0.506	NNE	1.2	163

[Note]

- W.H : Wave Height
- W.P : Wave Period
- Wave No.: Wave Countered
- D.W.D : Dominant Wave Direction
- R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge
- T.L : Tidal Level
- D.max. : Daily max.
- D.mean : Daily mean
- M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (283) Wave Data

Date: 19th Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	34	4.5	29	4.2	24	4.0	16	3.9	128	SW (219)	0.768	ENE	0.0	44
2	34	4.0	32	4.0	26	4.0	17	3.8	131	SSW (207)	0.667	NNE	0.0	105
4	33	4.5	25	3.8	21	3.9	14	3.9	129	S (185)	0.730	ESE	0.0	195
6	29	3.5	24	3.7	20	3.9	13	3.6	140	SSW (212)	0.795	ENE	0.0	245
8	27	4.0	22	3.9	17	4.0	11	3.7	135	SW (223)	0.716	ENE	0.2	253
10	29	3.5	23	4.3	18	4.2	12	4.0	126	( )		NE	1.3	247
12	30	4.5	23	4.2	18	4.2	11	3.9	130	S (185)	0.765	S	0.0	224
14	30	4.0	22	4.3	18	4.0	12	3.9	129	SSW (207)	0.885	S	1.5	194
16	26	4.0	21	3.8	17	3.7	11	3.2	131	S (181)	0.765	S	2.0	165
18	40	2.5	25	2.8	21	2.8	15	2.6	161	WSW (240)	0.611	S	1.5	129
20	39	2.5	28.	2.5	22	2.5	15	2.5	177	SSW (209)	0.934	S	3.0	90
22	49	2.5	35	2.5	29	2.6	20	2.6	173	SSW (202)	0.756	SSE	4.0	60
D.max.	49	2.5	35	2.5	29	2.6	20	2.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	33	3.7	26	3.7	21	3.6	14	3.5	3	(SSW)	0.763	S	1.1	163

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (284) Wave Data

Date: 20th Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	36	2.5	30	2.4	24	2.5	16	2.5	183	SW (227)	0.886	SSE	2.7	46
2	29	2.0	23	2.3	19	2.4	13	2.4	154	SSW (206)	0.836	SSE	2.5	84
4	19	3.0	15	2.7	13	2.6	9	2.5	148	NE ( 38)	0.769	NNE	0.5	175
6	18	4.5	13	3.3	11	2.9	8	2.7	152	N ( 5)	0.787	E	0.0	244
8	16	4.5	14	3.7	11	3.4	8	2.9	141	S (189)	0.879	NE	0.3	264
10	19	2.5	15	3.0	13	3.3	9	2.9	148	S (175)	0.866	SE	1.0	262
12	18	2.5	14	3.1	12	3.2	8	2.8	165	SW (217)	0.718	SSE	3.0	235
14	22	2.0	19	2.5	16	2.9	11	2.8	132	S (174)	0.542	SSE	4.0	204
16	48	2.5	39	2.4	31	2.5	21	2.5	175	SW (215)	0.868	S	4.8	180
18	74	3.0	58	3.1	47	3.1	32	3.0	160	SSW (206)	0.757	S	4.2	151
20	70	3.0	59	3.2	44	3.2	29	3.0	158	SSW (193)	0.596	S	4.0	107
22	79	3.5	59	3.5	49	3.6	32	3.2	155	SSW (210)	0.632	S	4.0	72
D.max.	79	3.5	59	3.2	49	3.6	32	3.0	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	37	3.0	30	2.9	24	3.0	16	2.8	3	(SSW)	0.761	S	2.6	169

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (285) Wave Data

Date: 21th Jun. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	82	3.5	57	3.3	45	3.4	30	3.2	148	SSW (191)	0.539	N	1.9	51
2	63	3.5	46	3.3	38	3.2	26	3.1	154	SW (220)	0.616	NNE	0.9	58
4	64	3.5	56	3.8	44	3.8	29	3.4	144	SSW (197)	0.695	NNE	2.0	150
6	62	4.0	51	3.6	41	3.6	26	3.3	149	SSW (205)	0.581	N	2.0	222
8	62	4.0	52	3.5	44	3.2	29	2.9	166	SSE (168)	0.807	NW	2.5	257
10	46	3.0	41	3.3	33	3.2	22	3.0	153	SW (217)	0.694	WNW	2.0	266
12	90	3.5	75	3.3	61	3.3	41	3.2	151	SW (225)	0.742	WSW	3.8	245
14	71	3.0	60	3.7	49	3.6	33	3.3	151	WSW (251)	0.714	S	2.0	203
16	55	3.5	45	3.7	37	3.7	25	3.3	147	WSW (241)	0.585	SSE	2.5	181
18	54	4.5	47	3.8	39	3.7	26	3.2	153	SW (232)	0.670	SSE	4.0	157
20	59	3.5	46	3.7	38	3.5	25	3.1	154	SW (221)	0.716	ESE	2.0	116
22	66	3.5	53	3.4	44	3.6	29	3.2	150	S (185)	0.658	E	1.0	76
D.max.	90	3.5	75	3.3	61	3.3	41	3.2	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	65	3.6	52	3.5	43	3.5	28	3.2	3	( SW)	0.668	N	2.2	165

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (285) Wave Data

Date: 22th Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	44	3.0	35	3.7	27	3.7	18	3.4	142	SW (218)	0.582	NE	2.0	53
2	40	4.0	27	3.5	21	3.7	14	3.4	146	SW (219)	0.663	NNE	2.0	46
4	33	3.5	25	3.7	21	3.8	14	3.5	138	SSW (199)	0.654	MNW	1.5	107
6	34	4.0	24	3.7	19	3.7	12	3.5	142	SSW (200)	0.730	E	1.5	198
8	41	4.0	29	4.2	23	4.1	15	3.9	130	S (185)	0.563	NW	1.8	256
10	36	4.0	28	4.3	22	4.3	14	3.9	127	S (175)	0.601	ESE	1.8	271
12	34	4.0	28	4.3	22	4.3	14	3.9	129	S (181)	0.621	S	2.7	253
14	52	2.5	42	3.7	33	3.7	23	3.0	153	S (176)	0.561	S	4.0	216
16	69	3.0	54	3.3	44	3.3	31	3.0	151	S (185)	0.518	SSE	4.2	187
18	81	3.0	62	3.3	50	3.4	34	3.0	159	S (172)	0.476	SSE	5.3	165
20	88	3.0	62	3.2	50	3.3	34	3.0	161	SSE (168)	0.543	SE	4.5	134
22	58	3.0	44	3.3	37	3.1	25	2.9	151	S (171)	0.638	SE	3.2	91
D.max.	88	3.0	62	3.3	50	3.4	34	3.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	51	3.4	38	3.7	31	3.7	21	3.4	3	( S )	0.596	S	2.9	165

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (287) Wave Data

Date: 23th Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	46	4.5	42	3.4	33	3.3	23	2.9	157	S (169)	0.662	SE	2.1	61
2	51	3.0	36	3.5	29	3.2	20	2.9	158	S (184)	0.345	N	2.0	47
4	44	3.5	33	3.4	28	3.4	19	3.0	151	SSW (205)	0.497	E	1.8	84
6	48	5.0	44	4.3	37	4.2	24	3.3	147	SSW (205)	0.549	NNE	1.9	170
8	61	4.5	49	3.5	40	3.7	27	3.3	142	S (172)	0.379	NNW	2.0	240
10	51	5.0	42	4.6	34	4.7	22	4.0	125	S (172)	0.351	NE	2.3	263
12	47	6.0	39	5.0	32	5.1	21	4.2	121	S (181)	0.341	S	1.9	257
14	61	3.5	46	3.6	36	3.5	25	3.1	151	S (186)	0.505	SSE	3.9	227
16	76	2.5	54	3.4	42	3.3	29	3.1	152	S (190)	0.547	SE	3.2	192
18	81	3.0	56	3.4	45	3.2	31	2.9	163	S (187)	0.513	SE	3.8	164
20	71	4.5	58	4.1	46	3.7	31	3.2	147	S (174)	0.295	ESE	2.0	145
22	58	4.5	51	4.1	41	4.0	28	3.4	139	S (180)	0.388	NE	2.0	107
D.max.	81	3.0	58	4.1	46	3.7	31	2.9	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	58	4.1	46	3.9	37	3.8	25	3.3	3	( S )	0.448	SE	2.4	163

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (288) Wave Data

Date: 24th Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	50	4.5	42	3.9	34	4.2	22	3.5	137	S (177)	0.392	ENE	1.8	73
2	54	4.0	41	4.4	32	4.2	22	3.6	134	S (176)	0.317	E	7.0	56
4	44	5.0	38	4.0	33	4.0	23	3.4	139	S (181)	0.362	SE	2.2	71
6	50	4.5	40	4.7	31	4.5	21	3.9	128	SSW (196)	0.553	E	1.8	149
8	52	3.5	44	3.4	37	3.5	26	3.3	129	S (180)	0.528	ENE	4.0	226
10	67	4.5	55	4.5	45	4.3	30	3.5	136	S (177)	0.270	N	1.0	254
12	64	4.5	58	4.8	46	4.7	29	4.0	125	S (180)	0.377	E	1.0	258
14	63	4.5	53	4.4	41	4.5	28	4.3	118	S (177)	0.363	SSE	2.2	221
16	85	4.5	74	4.2	59	4.2	38	3.8	129	S (182)	0.236	S	2.5	186
18	108	4.5	86	3.9	71	3.9	48	3.5	139	S (178)	0.256	SE	4.0	165
20	97	4.0	80	4.2	64	4.0	43	3.5	136	S (180)	0.249	SE	3.9	147
22	79	4.0	63	4.2	49	4.1	33	3.5	140	S (179)	0.261	SE	3.0	123
D.max.	108	4.5	86	3.9	71	3.9	48	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	68	4.3	56	4.2	45	4.2	30	3.6	4	( S )	0.347	SE	2.9	161

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table I. 3-1 (289) Wave Data

Date: 25th Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir,	vel. (m/s)	
0	69	4.5	61	4.5	48	4.5	32	3.7	132	S (177)	0.238	ENE	1.5	89
2	67	4.5	50	4.5	40	4.5	26	3.8	130	S (181)	0.198	N	1.5	62
4	50	5.5	42	4.8	34	4.4	23	4.0	127	S (178)	0.262	NNW	2.0	65
6	65	4.5	45	4.2	34	4.3	23	4.0	124	S (178)	0.356	NNW	2.0	116
8	51	3.5	42	3.8	33	4.0	21	3.5	138	S (174)	0.325	NW	2.0	199
10	50	4.0	38	4.0	32	4.0	22	3.5	133	S (179)	0.396	NE	2.5	243
12	43	3.5	34	4.2	26	4.0	18	3.5	137	S (176)	0.385	NE	2.2	250
14	44	4.5	31	4.2	24	4.3	16	3.8	125	S (179)	0.443	SSW	2.0	222
16	56	4.0	43	3.7	36	3.6	24	3.0	160	S (173)	0.433	SSE	4.0	172
18	66	3.5	48	3.3	39	3.3	26	3.0	157	S (178)	0.495	SE	4.0	140
20	63	3.5	45	3.3	38	3.2	26	2.8	163	S (174)	0.344	ESE	2.0	127
22	55	3.5	47	3.7	39	3.5	26	3.0	151	S (183)	0.241	NE	2.0	128
D.max.	69	4.5	61	4.5	48	4.5	32	3.7	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	57	4.1	44	4.0	35	4.0	24	3.5	3	( S )	0.343	NE	2.3	151

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (20) Wave Data

Date: 26th Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	66	5.0	56	4.6	45	4.6	31	4.1	123	S (181)	0.212	NNE	2.0	112
2	59	4.0	46	4.6	38	4.4	24	3.9	130	S (181)	0.239	NNE	2.5	92
4	62	5.0	44	4.3	36	4.4	24	3.8	129	S (182)	0.263	NNE	1.9	82
6	41	5.0	36	4.4	30	4.5	21	4.1	118	S (177)	0.341	NE	1.9	108
8	50	5.0	36	4.6	28	4.4	18	4.0	124	S (173)	0.582	E	1.5	177
10	57	4.5	47	4.2	39	4.2	26	3.5	137	S (179)	0.400	NNE	2.0	232
12	59	3.5	47	4.1	38	4.2	25	3.7	133	S (179)	0.288	NNE	2.5	242
14	40	5.0	38	4.7	33	4.7	22	4.3	117	S (173)	0.377	N	2.2	219
16	44	5.0	35	4.9	28	4.6	18	4.2	120	S (171)	0.524	SSW	1.8	170
18	56	3.5	42	5.1	33	4.7	22	3.9	124	S (176)	0.540	S	2.0	134
20	64	3.5	46	3.8	37	3.7	25	3.3	137	S (180)	0.262	S	4.0	125
22	61	3.5	51	3.4	41	3.3	28	3.0	159	S (173)	0.380	ESE	3.7	137
D.max.	66	5.0	56	4.6	45	4.6	31	4.1	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	55	4.4	44	4.4	36	4.3	24	3.8	4	( S )	0.367	NNE	2.3	153

[Note]  
W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (29) Wave Data

Date: 27th Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	57	2.5	51	2.9	44	3.2	30	2.9	164	S (180)	0.482	ESE	1.9	127
2	57	3.0	47	3.3	38	3.3	27	3.0	158	SSE (166)	0.627	SE	2.0	111
4	60	4.0	44	3.7	36	3.6	24	3.2	148	SSE (157)	0.445	SE	1.8	98
6	34	3.0	29	3.3	24	3.4	16	3.0	160	S (173)	0.560	NE	2.0	107
8	38	4.5	26	3.7	21	3.5	14	3.2	153	S (171)	0.656	NE	2.3	162
10	26	3.5	21	3.6	16	3.6	11	3.2	149	S (172)	0.447	NE	2.3	221
12	20	5.0	17	4.5	14	4.4	9	3.7	132	S (170)	0.862	NE	2.1	237
14	20	4.5	16	4.0	14	4.2	9	3.8	130	S (172)	0.637	NE	2.0	216
16	50	2.5	40	2.5	32	2.7	21	2.6	176	( )		SE	5.0	166
18	64	3.0	52	2.9	41	3.1	28	2.9	164	SSE (164)	0.637	NNW	1.9	115
20	48	2.5	35	2.6	27	2.7	19	2.7	168	N (355)	0.594	NE	1.8	96
22	35	3.0	29	2.5	25	2.7	17	2.6	154	S (173)	0.648	ESE	2.2	97
D.max.	64	3.0	52	2.9	44	3.2	30	2.9	4	most D.W.D	mean	M.P.D	mean	mean
D.mean	42	3.4	34	3.3	28	3.4	19	3.1	3	( S )	0.600	NE	2.3	146

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.P.D : Most Frequency Wind Direction

Table 1. 3-1 (202) Wave Data

Date: 28th Jun. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir. (m/s)	vel. (m/s)	
0	56	2.5	38	2.8	31	2.8	23	2.7	170	NNW (333)	0.779	NE	1.9	139
2	31	3.0	27	3.0	23	3.1	16	2.9	154	S (184)	0.589	NNW	2.2	144
4	30	2.0	24	2.8	19	2.8	13	2.6	128	N (353)	0.610	NNE	4.0	133
6	47	2.5	34	2.3	27	2.4	19	2.5	165	NNE ( 16)	0.709	NNW	2.0	137
8	49	3.0	41	2.8	33	2.9	23	2.7	168	N (351)	0.618	N	2.0	177
10	74	3.0	49	3.5	39	3.7	27	3.3	147	SE (129)	0.903	NNE	2.5	210
12	75	4.0	53	4.5	40	4.1	26	3.6	128	WSW (241)	0.612	ENE	1.8	230
14	48	4.5	37	4.5	31	4.2	21	3.6	131	WSW (243)	0.728	NNE	2.2	202
16	36	4.0	30	3.7	23	3.8	15	3.5	135	S (170)	0.611	ESE	0.9	146
18	79	3.0	62	2.9	52	2.9	36	2.8	169	SSW (204)	0.800	WSW	2.5	108
20	54	3.5	46	2.9	39	2.9	25	2.8	160	S (179)	0.519	S	4.2	78
22	48	3.5	38	3.1	30	3.2	20	3.0	159	S (183)	0.671	SE	0.7	67
D.max.	79	3.0	62	2.9	52	2.9	36	2.8	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	52	3.2	40	3.2	32	3.2	22	3.0	3	( S )	0.679	NNE	2.2	148

[Note]

- W.H : Wave Height
- W.P : Wave Period
- Wave No.: Wave Countered
- D.W.D : Dominant Wave Direction
- R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge
- T.L : Tidal Level
- D.max. : Daily max.
- D.mean : Daily mean
- M.F.D : Most Frequency Wind Direction

Table I. 3-1 (23) Wave Data

Date: 29th Jun. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	37	3.0	32	2.9	26	3.2	18	2.9	152	SSE (150)	0.680	NE	1.8	137
2	31	2.5	28	3.3	23	3.1	15	2.9	161	S (179)	0.761	E	0.8	167
4	39	2.5	30	2.7	25	2.8	17	2.7	162	S (183)	0.570	SE	1.8	184
6	38	2.5	30	2.5	25	2.6	16	2.6	170	S (170)	0.692	SSE	2.0	191
8	33	4.5	23	3.5	20	3.3	14	2.9	157	S (190)	0.655	S	2.0	194
10	27	3.5	22	3.6	18	3.4	12	3.0	141	S (179)	0.787	ESE	1.6	209
12	32	4.0	26	4.0	21	3.7	14	3.4	142	S (179)	0.494	S	3.8	230
14	45	4.0	40	3.3	32	3.2	22	3.0	156	S (173)	0.558	SSW	2.2	212
16	90	3.0	64	3.3	50	3.2	33	3.1	158	SSE (169)	0.377	S	4.5	147
18	99	3.5	85	3.6	70	3.6	47	3.3	146	S (170)	0.385	SE	2.8	100
20	103	3.5	75	3.4	60	3.5	40	3.3	145	S (169)	0.445	ESE	1.8	70
22	77	3.0	58	3.3	46	3.4	31	3.1	153	SSE (165)	0.480	SE	2.3	59
D.max.	103	3.5	85	3.6	70	3.6	47	3.3	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	54	3.3	43	3.3	35	3.3	23	3.0	3	( S )	0.574	S	2.3	158

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (2M) Wave Data

Date: 30th Jun. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	64	2.5	47	3.1	38	3.2	26	2.9	158	SSE (154)	0.468	SE	3.2	120
2	66	2.5	53	3.1	43	3.0	30	2.8	163	S (180)	0.413	SE	2.0	187
4	49	3.5	40	3.0	34	2.8	23	2.7	170	N ( 1)	0.619	ENE	1.6	213
6	45	2.5	36	2.8	30	2.9	22	2.8	162	N (351)	0.422	NE	1.8	223
8	42	3.5	35	3.2	28	3.2	19	3.1	155	SSE (159)	0.672	NE	2.1	222
10	38	2.5	32	3.2	25	3.0	17	2.8	151	S (177)	0.614	NNE	2.8	214
12	30	2.0	25	2.9	19	2.9	13	2.7	150	N (359)	0.488	NNE	2.0	217
14	29	3.5	18	3.9	15	3.9	10	3.5	131	S (174)	0.572	SE	1.7	208
16	19	4.0	17	3.8	14	3.9	9	3.7	138	SSE (161)	0.521	NE	1.1	145
18	25	4.0	22	3.7	17	3.7	11	3.6	137	SSE (158)	0.595	SSW	1.5	99
20	23	3.5	18	3.9	15	3.7	10	3.3	142	S (172)	0.591	SW	1.8	64
22	24	3.5	20	3.3	16	3.3	11	3.1	139	SE (132)	0.657	S	2.8	45
D.max.	66	2.5	53	3.1	43	3.0	30	2.8	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	38	3.1	30	3.3	25	3.3	17	3.1	3	(SSE)	0.553	NE	2.0	163

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (25) Wave Data

Date: 1st Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	30	3.0	26	2.9	21	2.8	14	2.6	156	SE (139)	0.552	SE	2.8	79
2	25	3.0	20	3.0	17	3.0	12	2.8	161	S (186)	0.802	SE	2.0	174
4	27	3.0	21	2.8	17	2.6	12	2.5	153	NNE ( 25)	0.735	NE	2.0	229
6	25	2.0	21	2.4	18	2.5	12	2.5	155	S (171)	0.841	E	1.5	242
8	23	4.0	19	3.0	16	2.9	11	2.7	150	N (350)	0.709	NE	2.0	242
10	20	3.0	17	3.5	13	3.3	8	3.1	149	S (182)	0.585	E	0.8	221
12	50	3.5	29	3.7	18	3.7	11	3.6	137	S (180)	0.687	SSW	1.9	203
14	30	4.0	22	4.3	18	3.8	12	3.2	140	S (172)	0.458	SW	1.9	199
16	55	2.5	47	3.0	40	2.9	27	2.8	178	SSW (196)	0.655	SSW	4.5	166
18	77	3.0	58	3.2	48	3.3	32	3.1	154	SSE (168)	0.569	SSE	2.4	108
20	67	3.0	56	3.2	46	3.1	31	3.0	161	S (172)	0.423	SE	3.6	69
22	56	3.0	48	3.0	39	3.1	26	2.9	160	S (177)	0.433	SE	3.9	45
D.max.	77	3.0	58	3.2	48	3.3	32	3.1	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	40	3.1	32	3.2	26	3.1	17	2.9	3	( S )	0.621	SE	2.4	165

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (286) Wave Data

Date: 2nd Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	44	2.5	37	2.9	30	2.9	21	2.8	164	SE (130)	0.652	ESE	2.0	47
2	43	2.0	35	2.8	29	2.9	20	2.8	161	ESE (117)	0.557	ESE	2.3	142
4	49	3.5	38	3.2	31	3.0	22	2.9	157	SE (128)	0.652	ESE	2.1	219
6	54	3.0	38	3.3	31	3.2	21	2.9	152	S (186)	0.499	N	2.0	253
8	55	2.5	40	3.6	31	3.3	21	3.0	154	S (183)	0.617	WNW	1.9	262
10	47	4.0	35	3.9	29	3.7	19	3.4	142	S (179)	0.482	NE	2.0	240
12	33	4.5	28	4.0	23	3.9	16	3.4	147	S (182)	0.407	WSW	2.0	206
14	72	3.0	59	3.2	48	3.1	32	3.0	164	S (183)	0.694	S	4.6	194
16	80	3.5	67	3.4	56	3.4	38	3.1	151	( )		SE	3.8	173
18	87	3.0	62	3.5	50	3.6	34	3.3	143	( )		ESE	2.8	123
20	73	3.5	58	3.3	47	3.3	32	3.1	154	( )		ESE	2.0	83
22	56	2.5	45	3.2	37	3.4	25	3.1	155	( )		S	1.8	55
D.max.	87	3.0	67	3.4	56	3.4	38	3.1	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	58	3.1	45	3.4	37	3.3	25	3.1	3	( S )	0.570	ESE	2.4	166

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Counter  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table I. 3-1 (27) Wave Data

Date: 3rd Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	69	4.0	48	3.7	37	3.6	24	3.2	145	( )		NW	2.0	42
2	45	4.5	37	3.7	31	3.7	21	3.4	140	( )		N	2.4	91
4	44	3.5	39	4.0	32	3.9	22	3.4	139	SSE (162)	0.513	NNW	2.0	188
6	39	3.5	34	3.7	28	3.7	19	3.1	144	SSE (165)	0.533	N	2.7	242
8	40	4.5	31	3.8	26	3.4	18	2.8	155	SSE (168)	0.388	NNE	4.1	259
10	46	2.5	37	2.6	30	2.7	21	2.5	173	N ( 3 )	0.399	N	3.2	243
12	39	6.0	30	4.3	24	3.7	16	2.9	146	S (170)	0.404	NNE	2.8	210
14	32	5.0	24	5.2	19	5.2	13	4.3	112	S (179)	0.363	NE	2.3	181
16	29	5.0	25	5.0	20	5.0	13	4.1	117	S (179)	0.287	SE	1.8	163
18	36	2.5	28	3.3	23	3.0	16	2.7	160	S (174)	0.446	SSE	3.8	135
20	49	3.0	40	3.0	32	3.0	22	2.8	171	S (169)	0.710	SE	3.3	98
22	71	2.5	44	2.9	35	2.8	24	2.7	165	S (185)	0.619	ESE	1.9	61
D.max.	71	2.5	48	3.7	37	3.6	24	3.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	45	3.9	35	3.8	28	3.6	19	3.2	3	( S )	0.466	N	2.7	159

[Note] W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (238) Wave Data

Date: 4th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	54	2.5	44	2.7	35	2.9	24	2.8	163	E (93)	0.681	ESE	2.0	41
2	56	3.5	39	3.1	31	3.2	21	3.1	153	W (273)	0.487	NE	1.9	55
4	40	3.5	32	3.1	25	3.3	17	3.1	156	SE (129)	0.656	ENE	1.8	153
6	42	4.5	35	3.9	28	3.9	19	3.4	145	SE (143)	0.563	ENE	1.9	227
8	43	2.5	37	4.0	29	4.1	19	3.5	138	S (178)	0.406	ENE	2.0	260
10	40	3.5	30	4.2	24	4.1	16	3.3	144	S (173)	0.434	ESE	2.0	263
12	61	3.5	51	3.0	40	3.2	27	3.1	155	S (178)	0.355	SW	2.0	231
14	74	3.0	63	3.2	52	3.3	36	3.1	154	S (171)	0.367	SSE	3.8	194
16	98	3.0	80	3.5	68	3.6	47	3.4	146	S (170)	0.394	SSE	5.5	173
18	107	3.5	93	3.9	77	3.9	52	3.5	137	SSE (164)	0.314	SE	5.5	158
20	119	3.5	80	3.8	65	3.7	44	3.3	147	SSE (165)	0.322	ESE	2.6	112
22	91	3.0	75	3.5	61	3.5	42	3.2	147	S (172)	0.326	ESE	2.0	73
D.max.	119	3.5	93	3.9	77	3.9	52	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	69	3.3	55	3.5	45	3.6	30	3.2	3	( S )	0.442	ESE	2.8	162

[Note]  
W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (288) Wave Data

Date: 5th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	96	3.0	80	3.7	65	3.5	43	3.2	153	SSE (161)	0.438	SE	3.5	49
2	86	3.0	70	4.0	58	3.8	39	3.3	146	SE (125)	0.468	E	2.0	44
4	76	3.5	64	3.8	54	3.7	37	3.3	146	SE (127)	0.577	NE	2.0	129
6	124	3.5	78	3.8	61	3.7	42	3.5	141	WNW (288)	0.557	NNE	2.0	207
8	109	4.0	87	4.2	72	4.0	50	3.6	139	SSE (168)	0.409	SE	2.5	254
10	97	3.5	82	3.8	67	4.2	44	3.6	135	S (176)	0.276	SE	2.2	266
12	104	3.5	84	4.1	66	4.1	43	3.5	141	S (175)	0.238	SE	3.6	246
14	89	3.5	77	4.4	61	4.2	39	3.4	142	S (178)	0.291	SSE	4.2	212
16	141	4.0	99	3.8	77	3.8	52	3.4	143	SSE (169)	0.310	SE	4.8	184
18	135	4.5	90	3.8	71	3.7	47	3.3	148	SSE (166)	0.389	SE	5.5	153
20	115	3.5	92	4.1	77	4.0	52	3.5	139	SSE (169)	0.335	ESE	4.6	123
22	97	4.5	78	4.4	63	4.3	43	3.5	142	S (175)	0.375	ESE	1.9	82
D.max.	141	4.0	99	3.8	77	3.8	52	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	106	3.7	82	4.0	66	3.9	44	3.4	3	(SSE)	0.389	SE	3.2	162

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table I. 3-1 (300) Wave Data

Date: 6th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir. (m/s)	vel. (m/s)	
0	107	4.5	79	4.6	65	4.1	44	3.6	140	S (176)	0.348	NNE	1.8	58
2	71	3.5	63	4.5	53	4.3	35	3.4	144	S (172)	0.356	S	1.8	47
4	87	4.0	67	4.7	54	4.4	37	3.5	137	SSE (168)	0.393	ENE	1.9	99
6	68	5.5	61	3.8	52	4.2	35	3.4	142	SSE (156)	0.442	SE	2.0	176
8	79	4.5	67	4.2	54	3.9	35	3.5	137	SSE (168)	0.400	ESE	2.1	234
10	89	3.5	63	3.9	52	3.8	34	3.3	146	S (173)	0.285	SE	1.9	258
12	95	3.0	74	3.8	59	4.0	38	3.3	145	S (172)	0.259	SSW	1.9	248
14	89	3.5	71	3.9	57	3.8	38	3.5	139	S (175)	0.268	SSE	4.1	208
16	92	4.5	77	4.0	62	3.7	43	3.4	144	S (169)	0.362	SSE	2.0	174
18	125	3.5	95	3.9	76	3.8	52	3.6	139	SSE (166)	0.376	SE	4.2	148
20	110	3.5	85	4.0	68	3.9	45	3.4	142	SSE (166)	0.374	SE	4.5	139
22	126	4.0	90	4.1	70	4.2	46	3.6	135	S (171)	0.370	SE	4.0	101
D.max.	126	4.0	95	3.9	76	3.8	52	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	95	4.0	74	4.1	60	4.0	40	3.5	3	( S )	0.353	SE	2.7	158

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (301) Wave Data

Date: 7th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	87	3.5	72	3.6	56	4.0	36	3.4	145	S (173)	0.305	SE	3.0	70
2	84	3.5	69	3.4	54	3.6	37	3.3	150	SSE (166)	0.348	SE	3.2	54
4	96	4.0	64	3.4	53	3.5	35	3.2	151	SSE (169)	0.406	ESE	2.0	87
6	61	3.0	53	3.4	43	3.4	29	3.1	155	SSE (162)	0.469	NW	2.0	159
8	60	4.5	46	3.3	38	3.3	26	2.9	160	SSE (159)	0.503	NW	1.7	216
10	64	4.0	48	3.3	39	3.6	26	3.3	141	S (171)	0.407	SSE	1.9	247
12	84	3.0	57	3.2	47	3.3	31	2.9	163	S (172)	0.472	SSE	4.5	251
14	81	3.0	53	3.4	44	3.5	30	3.1	150	SSE (167)	0.314	SSE	6.2	214
16	84	3.0	64	3.4	49	3.5	34	3.3	148	S (173)	0.365	SSE	4.5	177
18	96	3.5	71	3.7	59	3.6	38	3.2	150	S (173)	0.420	SE	2.8	153
20	90	4.0	71	3.5	58	3.4	39	3.2	152	S (171)	0.332	ESE	3.2	138
22	68	3.5	55	3.6	46	3.6	32	3.1	148	S (175)	0.438	NNW	1.9	111
D.max.	96	4.0	72	3.6	59	3.6	39	3.2	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	80	3.5	60	3.4	49	3.5	33	3.2	3	( S )	0.398	SSE	3.1	156

[Note] W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (302) Wave Data

Date: 8th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	54	3.5	46	3.6	36	3.9	23	3.5	145	S (178)	0.325	N	2.0	76
2	55	4.5	42	4.0	33	4.3	22	3.8	129	S (170)	0.334	E	1.0	56
4	48	4.5	38	4.5	31	4.3	20	3.8	134	SSE (168)	0.399	NW	1.5	79
6	41	4.0	36	4.2	30	4.4	20	4.0	123	S (175)	0.530	NNW	1.9	137
8	48	4.5	38	4.7	29	4.3	19	3.6	133	S (172)	0.588	NNE	2.0	200
10	38	2.0	31	3.4	27	3.4	19	3.0	144	S (175)	0.422	NE	2.0	239
12	39	2.5	34	3.3	30	3.3	21	3.0	156	S (181)	0.482	NE	1.2	246
14	31	4.5	27	4.3	22	4.2	15	3.4	135	SSE (163)	0.448	SSE	2.0	218
16	35	5.0	27	4.8	22	4.4	14	3.8	128	SSE (166)	0.527	S	3.0	170
18	32	3.5	28	4.7	22	4.3	14	3.7	130	S (174)	0.385	S	3.5	136
20	42	2.5	35	3.6	29	3.1	21	2.8	161	S (177)	0.341	ESE	2.7	128
22	41	2.5	32	3.0	27	3.2	18	2.8	163	S (176)	0.427	ESE	1.9	124
D.max.	55	4.5	46	3.6	36	3.9	23	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	42	3.6	35	4.0	28	3.9	19	3.4	3	( S )	0.434	S	2.1	151

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (303) Wave Data

Date: 9th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	35	2.5	30	3.2	25	3.2	17	2.9	157	S (176)	0.336	SSE	3.0	103
2	29	4.0	25	3.7	20	3.6	14	3.2	152	S (174)	0.424	SE	2.1	83
4	36	3.5	32	4.0	25	4.0	17	3.6	135	SSE (166)	0.358	ESE	1.5	88
6	44	4.0	34	4.0	28	3.9	18	3.6	134	SSE (167)	0.449	SSE	1.5	144
8	39	4.0	33	3.8	27	3.9	18	3.6	138	SSE (165)	0.445	ESE	1.9	185
10	45	4.0	31	4.1	24	3.9	16	3.4	140	S (176)	0.373	SE	1.6	223
12	35	3.0	28	3.6	22	3.7	15	3.2	147	S (169)	0.403	S	3.2	238
14	52	3.0	46	2.9	40	3.0	28	3.0	164	SSE (159)	0.563	E	1.9	216
16	70	3.0	57	3.5	45	3.3	30	3.0	154	SSE (165)	0.427	SE	3.4	171
18	91	3.5	70	3.3	56	3.5	37	3.2	151	S (185)	0.505	SE	3.2	133
20	72	3.0	59	3.4	50	3.5	35	3.2	155	S (172)	0.279	SE	4.1	123
22	86	4.0	66	3.9	53	3.6	36	3.2	152	S (177)	0.302	SE	3.7	126
D.max.	91	3.5	70	3.3	56	3.5	37	3.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	53	3.5	43	3.6	35	3.6	23	3.3	3	( S )	0.405	SE	2.6	153

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (301) Wave Data

Date: 10th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	94	4.0	74	4.2	62	4.2	42	3.7	134	S (177)	0.179	SE	3.4	120
2	77	4.0	61	4.1	50	4.2	34	3.6	132	S (181)	0.201	E	1.9	114
4	82	4.5	66	4.4	52	4.2	35	3.7	135	S (178)	0.222	N	1.8	109
6	55	4.0	47	3.8	38	4.1	26	3.7	130	S (177)	0.298	N	2.0	135
8	48	4.5	38	4.1	32	4.1	21	3.7	131	SSE (164)	0.433	NE	2.8	181
10	52	4.5	40	4.8	34	4.8	23	3.8	127	S (176)	0.320	NE	2.0	225
12	44	5.0	33	4.7	27	4.7	18	4.1	121	S (176)	0.231	NE	1.8	228
14	51	4.5	33	4.5	27	4.8	17	4.2	120	S (171)	0.276	SSW	2.5	199
16	59	3.5	43	3.8	34	3.8	22	3.2	144	S (170)	0.361	SW	2.4	159
18	103	3.5	81	3.4	63	3.5	42	3.4	144	S (177)	0.352	SSE	5.4	126
20	86	3.0	68	3.2	54	3.2	36	3.0	162	S (176)	0.346	SE	5.3	111
22	64	3.0	53	3.2	45	3.3	31	3.1	152	S (174)	0.349	NE	2.2	107
D.max.	103	3.5	81	3.4	63	3.5	42	3.7	4	most	D.W.D	mean	M.F.D	mean
D.mean	68	4.0	53	4.0	43	4.1	29	3.6	4	( S )	0.297	NE	2.8	151

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table I. 3-1 (305) Wave Data

Date: 11th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	65	3.5	52	3.0	41	3.1	27	3.0	157	S (175)	0.316	ESE	3.0	118
2	55	4.0	44	3.3	36	3.2	24	2.9	160	S (175)	0.274	SE	0.8	128
4	54	3.5	43	3.1	36	3.1	24	3.0	162	S (177)	0.309	E	1.0	128
6	51	3.0	37	3.1	29	3.2	20	3.0	154	S (184)	0.534	ESE	0.8	143
8	39	2.5	33	2.7	27	2.7	19	2.6	166	NNW (348)	0.539	ENE	0.7	178
10	31	2.5	27	3.0	23	3.0	16	2.8	163	S (178)	0.711	NNE	2.0	215
12	30	4.0	21	3.5	18	3.6	12	3.1	149	S (174)	0.638	NE	2.1	221
14	23	5.0	19	4.2	15	4.0	10	3.5	137	S (177)	0.509	SSW	1.5	188
16	24	4.0	18	3.8	15	4.0	10	3.4	142	S (183)	0.686	S	1.2	143
18	21	5.0	17	4.0	14	4.1	10	3.6	135	S (182)	0.541	WSW	0.6	109
20	19	3.5	16	3.8	13	3.9	9	3.4	143	S (173)	0.529	N	1.0	85
22	24	4.0	20	3.0	17	2.9	12	2.7	139	NNW (347)	0.574	NE	2.4	90
D.max.	65	3.5	52	3.0	41	3.1	27	3.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	36	3.7	29	3.4	24	3.4	16	3.1	3	( S )	0.513	NE	1.4	146

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (306) Wave Data

Date: 12th Jul. 1989  
 St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	46	2.0	34	2.5	27	2.6	19	2.6	171	N (352)	0.720	NNE	2.0	129
2	40	2.0	29	2.4	23	2.5	16	2.6	161	NNE (25)	0.715	N	1.9	148
4	35	2.0	24	2.4	20	2.3	14	2.4	163	NE (35)	0.502	N	2.0	156
6	19	3.5	16	3.8	13	3.2	9	2.9	140	WSW (246)	0.693	NNW	1.9	156
8	15	2.0	15	3.1	13	3.1	9	2.7	127	SW (214)	0.884	NNE	2.2	175
10	15	5.0	12	4.1	9	3.6	6	3.0	128	S (187)	0.836	NNE	2.2	203
12	14	4.5	11	4.1	8	3.9	6	3.1	128	SW (223)	0.856	NE	2.5	208
14	11	3.5	9	3.7	7	3.6	5	3.2	138	SSW (204)	0.855	ENE	1.9	180
16	12	3.5	10	3.3	8	3.7	5	3.2	127	SSE (164)	0.735	NNE	1.8	136
18	54	2.0	41	2.6	34	2.6	23	2.7	176	SSW (202)	0.888	S	5.6	107
20	71	3.0	54	2.8	42	2.8	28	2.8	165	SSE (150)	0.676	SSE	5.0	82
22	65	3.0	52	2.8	42	2.8	28	2.7	169	SSE (149)	0.720	SE	3.8	91
D.max.	71	3.0	54	2.8	42	2.8	28	2.8	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	33	3.0	26	3.1	21	3.1	14	2.8	3	(SSE)	0.757	NNE	2.7	148

[Note] W.H : Wave Height  
 W.P : Wave Period  
 Wave No.: Wave Countered  
 D.W.D : Dominant Wave Direction  
 R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
 T.L : Tidal Level  
 D.max. : Daily max.  
 D.mean : Daily mean  
 M.F.D : Most Frequency Wind Direction

Table 1.3-1 (307) Wave Data

Date: 13th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	45	2.0	38	2.5	32	2.5	22	2.5	177	S (177)	0.544	SE	2.9	144
2	54	2.5	46	2.6	36	2.5	24	2.5	170	SSW (202)	0.853	ESE	1.7	173
4	71	3.0	54	2.9	41	2.9	27	2.8	161	N (351)	0.603	NE	2.4	188
6	40	2.0	32	2.8	25	2.8	17	2.7	168	N (349)	0.870	NNE	3.3	190
8	29	3.0	23	2.8	19	2.8	13	2.6	166	NNE ( 17)	0.716	NNE	2.1	191
10	20	2.0	15	2.9	13	2.9	9	2.8	159	NE ( 53)	0.838	NNE	2.2	197
12	19	3.0	16	3.1	13	3.3	9	3.2	152	SSW (201)	0.884	SW	1.6	199
14	21	3.0	15	2.9	12	3.1	9	2.9	133	SSW (198)	0.883	SW	2.0	177
16	34	2.0	25	2.3	21	2.4	14	2.4	173	SSE (169)	0.901	SSE	5.0	131
18	54	2.5	39	2.6	31	2.6	21	2.6	172	SW (234)	0.947	SSE	4.2	100
20	55	2.5	45	2.6	36	2.6	25	2.6	177	SSE (155)	0.908	SSE	4.7	70
22	40	3.0	30	2.5	25	2.5	18	2.5	163	S (184)	0.536	SSE	3.9	71
D.max.	71	3.0	54	2.9	41	2.9	27	2.8	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	40	2.5	32	2.7	25	2.7	17	2.7	3	(SSW)	0.790	SSE	3.0	153

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (308) Wave Data

Date: 14th Jul. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	35	2.5	28	2.8	24	2.7	17	2.7	163	SW (217)	0.942	SE	3.0	136
2	39	3.0	31	2.9	26	2.8	18	2.7	155	S (186)	0.886	ESE	2.0	187
4	40	2.5	30	2.6	26	2.6	18	2.6	173	NNW (334)	0.823	NE	1.2	210
6	33	2.0	27	2.4	21	2.5	15	2.6	167	S (172)	0.789	E	0.9	212
8	26	2.5	19	2.7	16	2.7	11	2.6	163	NNW (342)	0.729	NE	0.8	207
10	21	2.5	18	2.6	14	2.7	10	2.7	162	S (173)	0.748	ESE	1.9	203
12	19	3.0	15	3.4	12	3.2	8	3.0	163	S (171)	0.761	SW	1.8	200
14	31	2.5	26	2.4	21	2.5	15	2.5	169	( )		SE	1.5	182
16	42	3.0	31	3.0	24	2.8	16	2.7	161	( )		S	3.5	132
18	36	2.5	30	3.0	24	3.0	16	2.8	164	( )		SSE	2.5	102
20	36	3.5	32	3.4	26	3.3	17	3.0	156	( )		SSE	3.4	69
22	32	3.0	24	3.1	19	3.0	13	2.8	166	SSE (165)	0.745	SSE	3.5	56
D.max.	42	3.0	32	3.4	26	2.8	18	2.7	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	33	2.7	26	2.9	21	2.8	15	2.7	3	( S )	0.803	SSE	2.2	158

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (300) Wave Data

Date: 15th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	25	3.0	21	3.0	18	3.0	13	2.9	163	W (267)	0.484	S	3.2	121
2	21	2.5	17	2.8	14	2.9	9	2.8	169	E (93)	0.645	NNE	1.8	186
4	21	3.0	15	2.8	12	2.9	8	2.8	172	N (360)	0.916	NW	2.1	223
6	25	3.0	20	3.0	17	3.0	12	2.9	153	( )		N	1.5	229
8	18	4.5	15	2.9	12	2.8	9	2.7	119	( )		ENE	1.5	222
10	22	2.0	18	2.3	14	2.4	10	2.4	133	( )		NNE	2.9	207
12	51	3.5	31	3.0	22	2.9	14	2.6	154	( )		NNE	1.9	193
14	11	3.0	9	3.4	7	3.5	5	3.3	143	( )		NE	1.0	176
16	13	3.0	10	3.8	8	3.6	5	3.4	146	( )		WSW	1.5	137
18	19	2.5	13	2.2	11	2.5	7	2.5	159	( )		S	1.9	99
20	31	2.5	20	2.4	15	2.5	10	2.5	173	( )		S	2.9	66
22	37	2.0	26	2.4	20	2.5	14	2.5	166	SE (132)	0.865	S	1.8	47
D.max.	51	3.5	31	3.0	22	2.9	14	2.6	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	25	2.9	18	2.8	14	2.9	10	2.8	3	( N )	0.727	S	2.0	159

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (310) Wave Data

Date: 16th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	55	2.5	39	2.6	32	2.6	22	2.6	172	W (272)	0.589	WSW	4.4	92
2	88	3.0	68	2.9	53	2.9	36	2.9	160	W (266)	0.788	WNW	7.0	188
4	44	3.0	34	3.0	27	3.0	18	3.0	158	WSW (240)	0.868	SW	1.9	233
6	46	2.5	37	3.0	30	3.0	21	2.9	161	( )	( )	WSW	2.0	250
8	46	3.5	36	3.3	29	3.3	20	3.1	151	( )	( )	NNW	2.1	238
10	53	3.0	36	3.3	28	3.3	20	3.0	156	( )	( )	SW	2.0	218
12	45	3.0	33	3.2	26	3.1	19	2.9	164	( )	0.623	S	1.9	196
14	34	2.5	29	2.8	23	2.9	16	2.7	161	( )	0.867	S	2.2	172
16	39	2.5	31	2.7	26	2.8	18	2.7	172	( )	0.814	S	3.9	142
18	54	3.5	46	2.8	38	2.9	26	2.8	170	( )	( )	S	5.1	112
20	63	3.0	49	3.1	41	3.1	28	3.1	160	( )	0.468	SSE	4.0	77
22	45	3.0	36	3.3	30	3.1	21	3.0	160	SSW (209)	0.810	SSE	2.1	54
D.max.	88	3.0	68	2.9	53	2.9	36	2.9	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	51	2.9	40	3.0	32	3.0	22	2.9	3	( W )	0.728	S	3.2	164

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1(3II) Wave Data

Date: 17th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	36	4.5	31	3.5	26	3.3	18	3.0	156	WSW (256)	0.625	ESE	1.9	68
2	51	3.5	38	3.2	29	3.4	20	3.1	150	W (266)	0.635	SSE	2.1	163
4	44	4.0	35	3.7	28	3.6	19	3.3	150	SW (230)	0.672	SSE	2.0	233
6	51	4.0	40	4.2	32	4.0	21	3.6	136	( )	0.698	NW	2.0	261
8	70	3.0	50	3.5	41	3.3	28	3.1	151	W (262)	0.695	SW	4.4	267
10	52	3.5	43	3.9	35	3.7	23	3.3	144	WSW (239)	0.552	ENE	2.0	245
12	35	5.0	28	4.3	23	4.3	16	3.7	131	WSW (247)	0.699	SSW	2.0	219
14	39	4.5	31	4.3	26	4.3	18	3.7	128	SSW (209)	0.681	SW	3.0	192
16	53	3.0	42	3.8	34	3.5	23	3.0	155	SW (229)	0.675	SSW	3.2	167
18	74	3.0	59	3.2	47	3.1	32	3.0	160	W (270)	0.777	SW	3.5	124
20	75	3.5	55	3.3	45	3.2	31	3.0	161	SW (227)	0.776	SW	2.0	93
22	66	3.5	54	3.7	43	3.6	29	3.3	147	SSW (211)	0.655	SW	2.0	66
D.max.	75	3.5	59	3.2	47	3.1	32	3.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	54	3.8	42	3.7	34	3.6	23	3.3	3	( SW)	0.678	SW	2.5	175

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (312) Wave Data

Date: 18th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	68	4.0	54	3.8	43	3.7	28	3.5	140	SW (235)	0.738	WNW	2.2	51
2	48	3.5	42	3.8	35	3.8	25	3.6	136	WSW (258)	0.736	NE	2.2	134
4	61	2.0	53	3.2	43	3.3	29	2.9	156	W (263)	0.703	WNW	2.5	211
6	45	4.0	41	3.9	35	3.9	24	3.4	146	S (172)	0.628	NE	2.0	241
8	60	5.0	40	4.0	33	3.6	23	3.1	147	S (176)	0.620	NE	2.2	251
10	41	5.0	35	4.4	28	4.1	18	3.4	133	S (173)	0.777	NNE	2.8	242
12	41	5.0	33	4.2	26	4.0	18	3.4	127	S (175)	0.537	NE	3.5	214
14	29	4.0	27	4.3	22	4.4	14	4.1	118	SSW (195)	0.764	NE	3.2	189
16	30	5.0	21	5.0	16	4.7	10	4.0	123	SSW (207)	0.651	NNE	2.8	161
18	26	4.5	23	4.5	18	4.5	11	4.3	117	W (261)	0.661	NE	1.8	126
20	32	5.0	25	4.3	21	4.3	14	3.5	133	SW (231)	0.549	SSE	2.5	92
22	39	3.0	31	2.9	26	3.1	18	2.8	161	SSW (205)	0.548	ESE	1.9	63
D.max.	68	4.0	54	3.8	43	3.7	29	2.9	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	43	4.2	35	4.0	29	3.9	19	3.5	4	( S )	0.659	NE	2.5	165

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table 1.3-1 (3B) Wave Data

Date: 19th Jul. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	40	3.5	28	3.5	23	3.5	15	3.1	153	WSW (241)	0.718	N	2.2	46
2	25	5.0	21	4.5	17	4.4	12	3.4	130	W (271)	0.761	NNW	2.0	88
4	24	4.5	21	4.6	17	4.5	11	3.7	128	SW (220)	0.835	N	2.0	184
6	26	2.5	23	3.5	18	3.2	13	2.8	152	SW (229)	0.870	N	2.1	238
8	33	2.0	28	2.7	23	2.6	16	2.6	158	E (81)	0.888	NNE	2.2	256
10	31	5.0	23	4.5	19	4.0	13	3.2	133	SSW (207)	0.658	NNW	2.0	263
12	27	5.0	20	4.8	15	4.5	10	3.6	127	SW (218)	0.796	SSW	2.2	239
14	24	5.0	20	4.5	17	4.4	11	3.5	118	SW (232)	0.719	SW	2.4	204
16	28	3.0	25	2.8	21	3.0	15	2.7	150	SSW (204)	0.781	SW	2.2	178
18	50	2.5	40	2.7	32	2.6	22	2.6	172	SW (234)	0.764	S	2.5	149
20	84	3.0	57	3.0	42	2.9	28	2.8	173	W (266)	0.814	S	4.2	114
22	72	3.0	50	3.1	41	2.9	27	2.8	171	SSW (202)	0.644	S	4.4	76
D.max.	84	3.0	57	3.0	42	2.9	28	2.8	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	39	3.7	30	3.7	24	3.5	16	3.1	3	( SW)	0.771	S	2.5	170

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (3M) Wave Data

Date: 20th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	66	3.0	52	2.9	40	3.0	27	2.9	165	SSW (195)	0.755	S	3.9	55
2	74	3.0	53	2.9	41	3.0	27	2.9	166	SW (233)	0.852	NNE	1.8	66
4	115	3.0	76	2.9	59	2.9	39	2.8	173	E ( 87)	0.632	N	1.8	159
6	84	3.0	69	3.2	56	3.2	36	3.1	157	W (261)	0.610	SSE	4.5	221
8	69	3.0	55	3.2	47	3.3	33	3.2	152	SW (230)	0.861	ENE	1.7	252
10	55	4.0	42	3.2	34	3.3	23	3.0	158	WSW (238)	0.781	NE	2.0	258
12	59	4.5	41	3.7	33	3.5	22	3.3	147	SW (235)	0.774	S	2.0	248
14	63	3.0	54	3.6	44	3.5	29	3.2	149	SW (219)	0.596	SSE	2.0	199
16	66	3.0	50	3.6	40	3.6	26	3.3	148	SW (230)	0.719	S	2.5	168
18	55	5.0	39	4.8	32	4.2	21	3.3	144	SW (216)	0.619	NE	2.8	142
20	35	4.0	31	5.1	26	4.5	17	3.6	132	SW (218)	0.628	NE	2.0	108
22	39	3.5	29	3.8	24	3.9	17	3.4	136	SSW (210)	0.608	NNE	2.0	71
D.max.	115	3.0	76	2.9	59	2.9	39	2.8	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	65	3.5	49	3.6	40	3.5	26	3.2	3	( SW)	0.703	S	2.4	162

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (315) Wave Data

Date: 21th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	30	5.0	27	3.8	22	4.2	15	3.7	138	SW (220)	0.460	NNE	2.0	52
2	36	5.0	22	4.3	18	4.2	12	3.8	133	SW (232)	0.601	NNE	1.9	50
4	33	4.0	22	4.3	18	4.5	12	4.0	125	SW (223)	0.883	N	2.0	128
6	34	4.5	25	4.1	20	4.3	13	3.5	129	WSW (243)	0.621	NNE	2.0	209
8	28	4.5	20	4.4	16	4.3	11	3.6	131	SW (225)	0.658	NE	1.9	255
10	25	5.0	20	5.0	16	4.9	10	4.0	122	SW (232)	0.672	NE	1.9	259
12	16	6.0	15	4.8	12	4.6	8	4.1	122	WSW (237)	0.618	SSW	1.9	243
14	20	4.5	18	4.8	15	4.7	10	3.8	123	WSW (237)	0.606	S	3.2	206
16	80	3.0	60	3.1	51	3.1	34	3.0	161	SSE (160)	0.924	SW	2.5	184
18	98	3.5	71	3.2	56	3.3	39	3.2	151	S (171)	0.818	SSE	4.8	168
20	93	3.0	70	3.1	54	3.3	36	3.0	159	SSE (168)	0.726	SSE	5.2	128
22	60	2.5	46	2.9	36	3.0	24	2.8	167	SSW (209)	0.867	E	2.1	84
D.max.	98	3.5	71	3.2	56	3.3	39	3.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	46	4.2	35	4.0	28	4.0	19	3.5	4	( SW)	0.704	NNE	2.6	164

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table J. 3-1 (316) Wave Data

Date: 22th Jul. 1989  
 St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	42	2.0	35	2.7	28	2.8	20	2.7	164	N ( 8)	0.689	NE	2.0	60
2	25	3.0	19	2.9	16	3.0	11	2.8	152	S (175)	0.718	NE	2.0	53
4	21	3.5	19	3.3	16	3.1	11	2.9	152	WSW (245)	0.789	ENE	1.8	108
6	25	3.5	18	3.3	15	3.1	10	2.8	160	WSW (257)	0.711	E	1.8	196
8	40	2.5	35	2.2	28	2.4	19	2.4	169	NW (322)	0.900	N	0.8	251
10	38	2.5	29	2.6	23	2.7	16	2.6	168	ESE (109)	0.985	NE	1.9	257
12	43	3.5	34	3.1	26	3.1	17	2.9	167	W (270)	0.774	SSW	1.2	243
14	34	3.5	28	3.2	22	3.3	14	3.0	162	SSE (156)	0.874	SW	2.0	204
16	69	3.0	55	3.2	44	3.0	28	3.0	164	SSE (153)	0.650	SW	2.0	179
18	79	3.0	64	3.3	51	3.3	36	3.1	154	SSE (166)	0.497	SSE	5.0	162
20	106	3.0	71	3.1	57	3.3	38	3.1	154	SSE (161)	0.697	SSE	6.1	146
22	89	3.5	70	3.1	54	3.2	36	3.0	157	SSE (166)	0.652	SE	3.5	109
D.max.	106	3.0	71	3.1	57	3.3	38	3.1	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	51	3.0	40	3.0	32	3.0	21	2.9	3	(SSE)	0.745	NE	2.5	164

[Note]

W.H : Wave Height  
 W.P : Wave Period  
 Wave No.: Wave Countered  
 D.W.D : Dominant Wave Direction  
 R.W.E.D : Ratio of Wave Energy Density of  
 Direction on Wave Ridge

T.L : Tidal Level  
 D.max. : Daily max.  
 D.mean : Daily mean  
 M.F.D : Most Frequency Wind Direction

Table I. 3-1 (317) Wave Data

Date: 23th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	72	3.5	61	3.1	50	3.2	33	2.9	161	SSE (164)	0.473	ESE	2.0	77
2	58	3.0	44	3.6	36	3.4	24	3.1	154	S (181)	0.469	ESE	2.0	66
4	50	3.5	38	3.3	31	3.4	21	3.1	157	S (186)	0.796	NE	2.9	105
6	38	3.0	30	3.1	23	3.1	16	3.0	159	S (179)	0.758	NE	2.8	173
8	37	3.0	25	3.1	20	3.2	13	3.0	161	SE (133)	0.812	ENE	2.2	235
10	25	3.5	20	3.5	17	3.2	11	2.9	158	WSW (251)	0.922	NE	1.9	251
12	21	3.5	18	3.3	15	3.8	10	3.4	139	SSE (161)	0.664	ESE	1.9	236
14	23	3.5	19	4.2	16	4.1	10	3.5	137	SSE (161)	0.787	S	2.5	195
16	36	4.5	31	3.1	26	3.2	17	2.8	160	SSE (169)	0.682	SSW	3.8	160
18	76	3.5	60	3.1	48	3.3	32	3.0	160	SSE (153)	0.593	SE	3.9	146
20	76	2.5	63	3.1	53	3.0	36	2.8	172	SE (136)	0.580	ESE	3.8	147
22	81	2.5	65	3.2	51	3.2	33	3.0	159	SSE (169)	0.714	SSE	2.4	129
D.max.	81	2.5	65	3.2	53	3.0	36	2.8	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	49	3.3	40	3.3	32	3.3	21	3.0	3	(SSE)	0.687	ESE	2.7	160

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (38) Wave Data

Date: 24th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	64	3.5	53	3.5	43	3.4	29	3.1	151	SSE (146)	0.555	NE	2.1	100
2	50	3.0	41	3.5	34	3.7	22	3.3	144	SSE (149)	0.877	E	2.0	85
4	56	3.5	43	3.3	34	3.3	22	3.1	158	W (265)	0.728	ESE	2.5	107
6	37	3.5	31	3.3	26	3.4	17	3.2	154	WSW (240)	0.690	NE	2.8	159
8	39	3.5	29	3.3	22	3.4	15	3.1	158	S (175)	0.926	NE	4.0	217
10	33	3.5	23	3.4	18	3.5	12	3.1	151	SSW (206)	0.876	NE	3.2	241
12	26	3.0	21	3.9	16	3.7	11	3.4	139	SSE (149)	0.846	NE	2.0	225
14	22	4.5	19	4.5	15	4.2	10	3.7	128	SSE (154)	0.907	S	3.5	186
16	26	3.0	23	4.0	18	4.0	13	3.3	128	SE (124)	0.623	S	3.9	144
18	51	2.5	43	2.8	33	3.0	22	2.8	162	S (175)	0.934	SE	3.9	119
20	60	3.5	48	3.5	38	3.3	26	3.0	155	SSW (201)	0.804	SE	3.0	126
22	54	3.5	43	3.0	36	3.1	24	2.9	157	SE (127)	0.490	SE	4.1	140
D.max.	64	3.5	53	3.5	43	3.4	29	3.1	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	43	3.4	35	3.5	28	3.5	19	3.2	3	(SSE)	0.771	NE	3.1	154

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (319) Wave Data

Date: 25th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	47	3.0	41	3.0	33	3.1	23	2.9	164	SE (138)	0.646	NE	3.0	124
2	41	2.5	33	3.3	27	3.1	19	2.9	160	SSE (165)	0.801	NE	2.2	119
4	39	3.5	33	3.4	27	3.4	18	3.2	156	WSW (258)	0.798	N	2.0	134
6	39	3.5	29	3.4	24	3.4	16	3.1	160	SW (222)	0.856	NE	2.5	165
8	38	3.5	27	3.0	23	3.2	16	3.0	161	WNW (282)	0.931	NE	3.0	205
10	30	2.5	25	3.1	20	3.1	13	2.9	166	WNW (298)	0.589	SE	1.9	232
12	28	3.0	22	3.7	17	3.8	11	3.2	152	SSE (150)	0.781	S	3.6	216
14	29	3.5	22	3.6	18	3.7	12	3.4	142	SE (130)	0.768	S	3.5	170
16	34	2.5	26	2.5	21	2.7	14	2.6	156	SSE (147)	0.703	SSW	4.0	124
18	85	3.5	61	3.2	48	3.3	33	3.1	147	SE (139)	0.675	SSE	4.5	99
20	86	3.0	64	3.1	51	3.1	33	2.9	155	SSE (154)	0.775	SSE	6.0	107
22	74	3.0	55	3.0	44	3.1	30	2.9	158	SSE (153)	0.809	SE	4.0	148
D.max.	86	3.0	64	3.1	51	3.1	33	3.1	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	48	3.1	37	3.2	29	3.3	20	3.0	3	(SSE)	0.761	NE	3.3	154

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (320) Wave Data

Date: 26th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	55	3.0	46	3.1	37	3.1	26	2.9	149	ESE (121)	0.622	SSE	5.8	161
2	60	3.0	46	3.2	38	3.1	26	2.9	161	SE (135)	0.653	SSE	5.1	166
4	54	3.0	47	3.1	40	3.1	28	2.9	158	ESE (120)	0.551	SSE	4.5	174
6	65	2.5	51	3.0	41	2.8	27	2.7	164	ESE (110)	0.647	ESE	2.5	178
8	61	3.5	49	3.1	41	3.0	27	2.9	165	W (261)	0.827	NE	2.0	195
10	61	2.5	50	3.0	39	2.9	26	2.7	171	ESE (109)	0.915	NE	2.4	222
12	71	2.5	48	3.0	40	3.1	28	3.0	161	S (175)	0.508	SSW	2.5	208
14	68	3.5	57	3.2	47	3.2	32	3.1	155	SSE (163)	0.726	NE	2.5	153
16	89	3.5	64	3.8	53	3.6	35	3.4	146	S (172)	0.439	NE	2.0	98
18	72	3.0	58	3.7	47	3.6	32	3.2	150	SSE (168)	0.317	NNE	2.1	69
20	82	3.5	68	3.4	55	3.5	37	3.2	149	SSE (166)	0.412	S	2.1	69
22	81	3.5	59	3.3	48	3.4	32	3.2	151	S (173)	0.442	NE	2.6	133
D.max.	89	3.5	68	3.4	55	3.5	37	3.2	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	68	3.1	54	3.2	44	3.2	30	3.0	3	(ESE)	0.588	NE	3.0	152

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction



Table I. 3-1 (321) Wave Data

Date: 27th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	60	4.0	43	3.2	35	3.2	24	2.9	156	S (174)	0.585	NNW	2.8	172
2	44	3.5	36	3.0	28	3.3	18	3.1	153	S (178)	0.389	NNW	2.5	189
4	35	3.5	28	4.0	23	3.6	16	3.2	147	S (174)	0.498	N	3.0	197
6	39	5.0	31	4.3	26	3.9	18	3.3	134	SSE (168)	0.348	NNE	3.9	193
8	43	4.5	35	3.7	29	3.4	19	2.9	152	S (171)	0.551	N	3.0	191
10	34	4.0	29	4.0	23	3.4	16	2.9	145	S (175)	0.552	NE	3.3	209
12	25	4.0	22	4.4	18	4.2	13	3.6	126	S (174)	0.589	NE	3.5	204
14	20	5.0	17	4.0	14	4.1	9	3.6	138	SSE (163)	0.609	WSW	2.8	160
16	24	4.0	19	3.7	15	3.4	10	3.1	149	S (175)	0.781	SSW	3.0	98
18	36	2.0	27	3.3	22	3.2	15	2.8	156	SSE (165)	0.603	SSW	3.5	62
20	76	2.5	59	3.2	49	3.1	33	3.0	159	SSE (148)	0.543	SE	4.2	47
22	59	3.0	48	3.0	38	3.0	25	2.9	155	S (184)	0.735	SE	2.1	100
D.max.	76	2.5	59	3.2	49	3.1	33	3.0	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	41	3.8	33	3.6	27	3.5	18	3.1	3	( S )	0.565	SSW	3.1	152

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (322) Wave Data

Date: 28th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	40	2.5	34	2.9	28	3.1	19	2.8	160	SW (214)	0.915	NNE	2.0	170
2	37	3.0	31	3.2	24	3.1	16	2.9	148	S (174)	0.501	NE	2.5	205
4	35	3.0	29	3.5	24	3.5	15	3.2	146	S (180)	0.476	ESE	2.0	220
6	30	4.0	24	4.0	20	3.9	14	3.4	142	S (183)	0.762	NNE	2.5	218
8	35	4.5	27	3.3	22	3.7	15	3.1	143	S (169)	0.575	NE	2.8	201
10	28	2.5	20	4.1	17	3.9	12	3.3	145	S (177)	0.524	SSW	2.3	198
12	29	3.5	25	3.9	19	3.7	13	3.3	149	S (176)	0.412	SSW	2.4	197
14	34	3.5	29	3.6	24	3.6	16	3.3	138	S (179)	0.446	SSW	3.8	168
16	56	2.5	44	2.9	35	3.0	23	3.0	161	SSE (159)	0.679	S	4.2	107
18	75	3.5	59	3.2	48	3.3	32	3.2	149	S (177)	0.503	S	5.9	66
20	87	3.0	69	3.1	54	3.2	37	3.0	155	SSE (166)	0.621	SSE	6.0	42
22	92	3.0	60	2.9	48	3.0	33	2.8	160	S (186)	0.719	SSE	5.0	55
D.max.	92	3.0	69	3.1	54	3.2	37	3.0	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	48	3.2	38	3.4	30	3.4	20	3.1	3	( S )	0.594	SSW	3.4	154

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No. : Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (321) Wave Data

Date: 29th Jul. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	76	3.0	57	3.1	46	3.0	31	2.8	165	SSW (202)	0.761	SE	4.0	145
2	58	2.5	48	2.8	41	2.8	28	2.8	161	S (175)	0.825	SSE	5.3	216
4	72	3.0	59	3.1	47	2.9	32	2.9	165	SSW (200)	0.648	SSE	5.2	239
6	77	3.0	61	3.4	49	3.3	32	3.1	157	SSW (198)	0.739	SSE	6.0	241
8	80	3.0	62	3.3	50	3.2	33	3.0	160	S (185)	0.573	SSE	5.5	224
10	95	3.5	73	3.6	57	3.5	39	3.2	144	S (170)	0.569	SE	5.4	204
12	94	3.0	63	3.7	49	3.5	33	3.1	155	SSE (168)	0.570	SSE	5.2	204
14	104	4.0	83	3.5	66	3.7	43	3.3	147	SSE (167)	0.627	SSE	6.2	184
16	106	3.5	86	3.9	70	3.8	46	3.4	146	S (172)	0.370	SSE	5.9	127
18	145	3.5	109	4.0	82	3.9	53	3.6	136	S (171)	0.345	SE	6.1	83
20	107	4.0	87	4.1	72	4.2	48	3.7	135	S (173)	0.371	SE	5.3	51
22	96	3.0	81	3.7	65	3.7	43	3.3	145	S (171)	0.295	SSE	5.3	38
D.max.	145	3.5	109	4.0	82	3.9	53	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	93	3.3	72	3.5	58	3.5	38	3.2	3	( S )	0.558	SSE	5.4	163

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table L. 3-1 (324) Wave Data

Date: 30th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	96	4.0	74	3.7	62	3.7	41	3.4	139	SSE (167)	0.488	SSE	5.3	106
2	71	4.5	63	3.8	51	3.7	34	3.2	149	SSE (164)	0.522	SE	2.7	198
4	74	4.0	61	4.0	49	3.9	33	3.3	142	SSE (165)	0.461	SE	3.2	242
6	62	3.0	54	3.3	44	3.2	30	3.0	157	S (171)	0.494	SE	3.2	250
8	76	3.0	60	3.2	48	3.3	31	3.0	156	SSE (165)	0.457	ESE	2.6	233
10	62	3.0	51	3.6	41	3.7	27	3.1	151	S (169)	0.409	ESE	2.2	207
12	52	4.0	48	3.9	38	3.8	25	3.4	144	S (170)	0.444	S	2.9	198
14	77	3.5	54	3.6	40	3.3	27	3.0	158	SSE (158)	0.505	S	4.0	187
16	114	3.5	93	4.2	74	4.0	49	3.6	137	S (175)	0.459	SSE	6.0	146
18	120	3.0	91	4.0	73	4.1	48	3.5	140	S (172)	0.279	SSE	6.1	94
20	124	4.0	100	3.9	77	3.9	51	3.5	140	SSE (167)	0.372	SSE	5.9	58
22	99	4.5	86	4.1	70	4.2	47	3.7	135	S (170)	0.250	SSE	5.5	37
D.max.	124	4.0	100	3.9	77	3.9	51	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	86	3.7	70	3.8	56	3.7	37	3.3	3	(SSE)	0.428	SSE	4.1	163

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (325) Wave Data

Date: 31th Jul. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	114	3.5	93	4.3	74	4.4	48	3.7	130	S (173)	0.610	SSE	5.5	60
2	106	4.5	86	4.2	68	4.3	45	3.6	134	SSE (168)	0.422	SSE	5.5	159
4	81	4.0	64	4.5	53	3.9	37	3.3	145	SSE (168)	0.367	SE	4.0	227
6	74	5.5	64	4.3	51	4.2	35	3.6	136	S (175)	0.467	ESE	2.2	252
8	67	4.5	60	4.0	48	3.9	31	3.3	149	S (170)	0.387	ESE	3.8	252
10	72	4.0	57	3.4	47	3.4	33	3.1	155	S (174)	0.369	SE	4.0	222
12	94	4.0	67	3.9	54	3.8	37	3.5	142	S (175)	0.327	SSE	4.6	197
14	94	4.0	65	3.6	53	3.5	34	3.2	151	S (174)	0.471	SSW	5.0	185
16	84	4.0	68	3.4	55	3.5	36	3.1	153	S (174)	0.511	S	6.1	164
18	110	3.5	88	3.8	69	3.9	46	3.5	142	S (174)	0.331	SSE	6.1	114
20	106	3.5	84	3.9	68	3.7	46	3.4	141	S (177)	0.413	SSE	5.5	71
22	96	4.0	76	3.8	63	3.8	42	3.2	146	S (172)	0.406	SSE	6.0	46
D.max.	114	3.5	93	4.3	74	4.4	48	3.7	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	92	4.1	73	3.9	59	3.9	39	3.4	3	( S )	0.423	SSE	4.9	162

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (326) Wave Data

Date: 1st Aug. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	92	3.5	75	4.0	63	3.7	42	3.3	146	S (174)	0.448	SE	5.0	39
2	98	4.0	74	3.6	60	3.6	39	3.2	152	S (172)	0.643	SE	4.3	115
4	86	6.0	74	4.4	61	4.1	42	3.5	137	S (169)	0.421	SE	3.9	193
6	81	3.5	67	3.8	55	3.7	37	3.4	139	S (174)	0.436	SE	3.9	237
8	70	2.5	59	4.0	50	3.7	34	3.3	146	S (171)	0.409	ESE	2.5	247
10	76	3.0	57	3.3	45	3.4	31	3.2	150	S (175)	0.323	S	2.2	235
12	70	3.0	55	3.6	45	3.4	31	3.1	153	SSE (169)	0.444	NE	2.8	206
14	66	3.5	57	3.5	48	3.6	31	3.1	154	S (180)	0.414	SSW	3.3	188
16	84	4.0	66	3.9	56	3.8	38	3.5	144	S (181)	0.427	SSW	4.2	169
18	101	3.5	76	3.8	60	3.7	39	3.4	146	S (171)	0.456	SSE	5.6	128
20	76	3.5	67	3.5	57	3.6	38	3.2	150	S (183)	0.496	SE	5.0	83
22	90	3.5	66	3.8	55	3.6	37	3.3	145	S (178)	0.439	SE	3.8	52
D.max.	101	3.5	76	3.8	63	3.7	42	3.3	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	83	3.6	66	3.8	55	3.7	37	3.3	3	( S )	0.446	SE	3.9	158

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No. : Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table I. 3-1 (327) Wave Data

Date: 2nd Aug. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	71	3.5	65	3.8	55	3.6	39	3.2	145	S (169)	0.415	ESE	4.0	38
2	85	2.5	69	3.4	56	3.4	39	3.1	150	( )	0.467	SE	3.2	88
4	80	2.5	69	3.3	55	3.2	38	3.1	157	S (177)	0.560	ESE	3.7	176
6	90	3.0	64	3.3	49	3.4	33	3.0	156	S (184)	0.573	ESE	2.9	232
8	77	3.0	61	3.2	50	3.3	34	3.1	155	S (186)	0.530	ESE	3.0	244
10	70	3.5	57	3.4	46	3.3	30	3.0	159	S (174)	0.517	SE	2.0	238
12	63	3.5	49	3.3	39	3.3	26	3.1	154	S (172)	0.487	S	2.8	212
14	65	3.5	52	3.2	42	3.1	28	2.9	164	S (176)	0.547	WSW	3.0	184
16	131	3.5	79	3.5	63	3.4	42	3.2	152	SSE (166)	0.483	S	6.0	167
18	125	3.5	86	3.8	68	3.9	45	3.5	140	SSE (163)	0.429	S	6.0	142
20	84	3.0	67	3.4	56	3.4	38	3.2	149	S (176)	0.601	SSE	5.6	98
22	84	3.5	72	3.7	59	3.5	39	3.2	151	S (170)	0.529	SSE	6.0	64
D.max.	131	3.5	86	3.8	68	3.9	45	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	85	3.2	66	3.4	53	3.4	36	3.1	3	( S )	0.512	ESE	4.0	157

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (328) Wave Data

Date: 3rd Aug. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	74	4.0	63	3.2	53	3.2	36	3.1	158	S (186)	0.529	SSE	5.5	44
2	94	3.5	64	3.4	51	3.3	35	3.2	147	S (188)	0.676	SSE	5.6	75
4	65	3.0	57	3.0	48	3.1	32	3.0	157	S (190)	0.760	SSE	5.0	154
6	104	3.5	62	3.2	49	3.3	32	3.0	160	SSW (204)	0.643	SE	4.2	224
8	61	4.0	51	3.4	42	3.5	28	3.0	159	S (178)	0.523	NE	2.4	244
10	63	3.5	53	3.5	43	3.8	28	3.4	141	S (186)	0.537	NE	2.2	245
12	60	3.0	48	3.5	39	4.0	26	3.5	139	SSE (169)	0.416	S	3.0	221
14	61	4.5	43	3.9	35	3.9	23	3.6	139	S (172)	0.378	SSW	3.9	183
16	71	2.5	55	3.4	44	3.4	29	3.1	152	S (177)	0.469	NW	4.2	159
18	85	3.5	54	3.7	43	3.4	30	3.2	150	S (172)	0.375	NW	2.2	137
20	76	3.0	56	3.7	44	3.7	28	3.3	146	SSE (163)	0.410	E	2.6	112
22	70	3.5	48	3.5	38	3.6	24	3.2	154	SSE (166)	0.404	ESE	2.2	76
D.max.	104	3.5	64	3.4	53	3.2	36	3.1	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	74	3.5	55	3.4	44	3.5	29	3.2	3	( S )	0.510	SSE	3.6	156

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table 1. 3-1 (322) Wave Data

Date: 4th Aug. 1989  
St. : 1.1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	55	3.5	46	3.3	38	3.4	26	3.2	152	S (176)	0.451	NE	3.0	49
2	54	3.5	39	3.4	32	3.7	22	3.4	144	S (179)	0.412	NNE	3.5	65
4	34	3.5	28	3.4	23	3.5	16	3.2	150	S (178)	0.794	NW	2.0	129
6	34	3.5	27	3.3	22	3.3	15	3.0	154	SSW (197)	0.769	NNW	3.0	202
8	29	3.5	25	3.9	21	3.8	14	3.2	145	S (173)	0.506	NNE	2.5	233
10	30	4.5	25	4.2	20	4.0	14	3.4	133	SSE (164)	0.553	NE	2.8	234
12	30	4.5	22	4.6	17	4.4	11	3.8	128	S (170)	0.523	E	2.0	213
14	28	4.0	20	4.6	16	4.5	11	4.1	122	S (174)	0.588	SSW	2.5	178
16	30	4.5	23	3.4	19	3.4	13	3.0	131	S (171)	0.449	SSW	3.2	154
18	46	2.0	33	2.8	28	3.0	20	2.8	161	S (172)	0.480	SSE	5.9	146
20	97	2.5	71	2.9	55	3.2	37	3.2	155	S (174)	0.505	SSE	5.4	130
22	96	3.0	68	3.1	56	3.2	37	3.1	154	SSE (167)	0.523	SSE	4.8	94
D.max.	97	2.5	71	2.9	56	3.2	37	3.2	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	47	3.5	36	3.6	29	3.6	20	3.3	3	( S )	0.546	SSE	3.4	152

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (330) Wave Data

Date: 5th Aug. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	81	3.0	58	3.1	47	3.0	31	2.9	162	S (171)	0.461	SSE	5.0	65
2	46	2.5	40	2.8	32	2.8	22	2.7	169	NNE (28)	0.517	ESE	2.2	72
4	43	3.0	38	2.8	31	2.7	21	2.7	168	NNW (346)	0.734	NNW	2.1	127
6	71	3.0	58	2.6	47	2.6	31	2.5	185	NNW (346)	0.897	NW	4.9	193
8	91	4.0	77	3.7	62	3.7	41	3.4	142	WSW (258)	0.479	NW	3.0	212
10	57	3.0	49	3.6	39	3.6	26	3.2	149	WSW (256)	0.704	NNW	2.1	223
12	42	3.5	32	3.1	25	3.2	17	3.1	151	WSW (253)	0.944	NE	3.0	202
14	31	3.0	24	3.5	20	3.5	13	3.3	149	SW (215)	0.989	ENE	2.1	183
16	30	4.5	23	3.6	18	3.5	13	3.1	139	S (187)	0.689	SW	3.2	154
18	29	2.5	23	2.6	19	2.8	14	2.7	161	SSE (167)	0.727	S	4.2	138
20	56	2.5	38	2.4	30	2.6	20	2.6	181	S (174)	0.691	SSE	3.9	145
22	60	2.5	47	2.6	35	2.8	22	2.7	174	S (177)	0.844	SSE	4.1	110
D.max.	91	4.0	77	3.7	62	3.7	41	3.4	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	53	3.1	42	3.0	34	3.1	23	2.9	3	( S )	0.723	SSE	3.3	152

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (331) Wave Data

Date: 6th Aug. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	41	2.5	35	2.9	29	2.8	21	2.7	168	S (177)	0.599	SSE	3.9	80
2	38	2.5	32	2.7	26	2.7	17	2.6	173	SSW (201)	0.680	SE	2.6	83
4	32	2.5	26	2.4	21	2.7	15	2.6	177	NNE ( 17)	0.697	NE	2.2	124
6	29	2.5	22	2.7	17	2.8	12	2.7	170	NNE ( 27)	0.709	NE	3.0	172
8	26	2.5	21	2.9	17	2.9	12	2.7	144	N ( 0)	0.849	NE	4.1	205
10	66	2.5	49	2.6	38	2.5	24	2.5	188	NNE ( 23)	0.743	NE	3.7	205
12	39	2.0	31	2.3	25	2.2	17	2.3	191	ENE ( 67)	0.962	NE	3.6	203
14	27	3.5	21	2.2	17	2.4	12	2.4	140	N ( 1)	0.887	NE	3.4	176
16	15	3.5	13	3.6	11	3.2	7	2.9	121	S (178)	0.757	NE	2.2	137
18	15	4.5	11	4.6	9	4.1	6	3.5	128	SSE (149)	0.782	NNE	2.0	122
20	29	2.0	18	2.9	14	2.9	10	2.7	140	N (354)	0.966	N	1.2	137
22	61	3.0	46	2.9	37	2.9	25	2.8	160	SSE (168)	0.672	SSE	3.8	127
D.max.	66	2.5	49	2.6	38	2.5	25	2.8	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	35	2.8	27	2.9	22	2.8	15	2.7	3	( N )	0.775	NE	3.0	148

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (32) Wave Data

Date: 7th Aug. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	55	2.5	38	2.6	30	2.7	21	2.6	171	S (177)	0.680	SSE	4.5	114
2	49	2.5	37	2.5	30	2.6	21	2.7	166	S (186)	0.778	SSE	4.5	110
4	36	2.5	26	2.6	22	2.6	15	2.5	175	SW (230)	0.652	SSE	3.6	140
6	32	2.5	23	2.9	19	2.9	13	2.7	154	S (177)	0.775	E	1.8	170
8	31	3.5	22	3.0	18	2.9	12	2.7	145	S (174)	0.664	E	1.2	210
10	47	2.5	32	2.3	25	2.3	18	2.3	171	N (355)	0.712	ENE	1.5	205
12	27	2.0	21	2.3	17	2.6	11	2.5	162	S (191)	0.852	S	2.0	196
14	28	3.5	23	2.7	19	2.8	14	2.7	142	SW (227)	0.744	SSW	3.6	165
16	54	2.5	40	2.6	33	2.7	22	2.7	171	S (187)	0.886	SSE	4.9	131
18	79	3.0	58	3.0	48	3.1	32	2.9	161	SSE (168)	0.646	SSE	3.6	109
20	95	3.5	65	3.3	52	3.3	35	3.0	159	S (171)	0.358	SSE	4.5	122
22	86	3.0	61	3.2	50	3.1	34	3.0	157	S (170)	0.414	SE	3.5	130
D.max.	95	3.5	65	3.3	52	3.3	35	3.0	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	52	2.8	37	2.8	30	2.8	21	2.7	3	( S )	0.680	SSE	3.3	150

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (XX) Wave Data

Date: 8th Aug. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	69	2.5	54	3.1	44	3.0	29	2.9	162	S (174)	0.845	NE	1.5	130
2	46	2.5	37	2.9	30	3.0	20	2.7	165	S (175)	0.698	NE	1.8	129
4	37	2.5	32	3.0	25	3.1	17	3.0	156	S (178)	0.448	NE	1.9	150
6	36	3.0	29	2.9	24	3.1	17	2.8	156	S (172)	0.544	N	1.9	165
8	35	2.5	30	2.5	25	2.8	18	2.7	169	NNW (336)	0.758	NW	2.0	196
10	35	3.0	28	3.2	23	3.3	15	3.0	155	SSE (166)	0.733	NE	1.9	200
12	31	3.0	18	3.4	15	3.4	10	3.2	147	S (180)	0.610	SW	2.3	177
14	27	3.5	19	3.8	16	3.7	10	3.2	153	S (178)	0.534	S	3.9	145
16	54	2.5	37	2.8	30	2.8	21	2.8	168	S (176)	0.546	S	3.7	119
18	72	2.5	55	3.2	44	3.1	29	2.9	160	S (176)	0.519	ESE	2.0	98
20	56	3.5	49	3.0	42	3.0	28	2.9	162	S (172)	0.493	SE	3.5	102
22	105	3.0	62	3.1	48	3.0	32	2.9	162	S (174)	0.531	NE	1.9	133
D.max.	105	3.0	62	3.1	48	3.0	32	2.9	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	50	2.8	38	3.1	31	3.1	21	2.9	3	( S )	0.605	NE	2.4	145

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (3A) Wave Data

Date: 9th Aug. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	64	3.0	46	3.0	38	3.0	25	2.8	160	S (172)	0.395	NNE	2.0	150
2	45	3.5	39	3.2	30	3.1	20	2.9	157	S (175)	0.340	NW	2.5	169
4	45	4.0	33	3.4	26	3.5	18	3.1	158	S (179)	0.332	NW	2.0	178
6	36	4.0	30	4.0	25	3.8	17	3.4	139	S (172)	0.337	NNE	2.0	184
8	41	3.5	32	3.6	26	3.7	18	3.1	145	SSE (168)	0.329	NNE	2.1	196
10	75	3.5	48	3.2	40	3.4	29	3.2	146	S (176)	0.387	SSE	3.9	199
12	71	3.0	50	3.4	39	3.6	26	3.2	149	SSE (166)	0.495	S	4.8	166
14	64	3.0	44	2.9	35	2.9	24	2.8	164	NNW (348)	0.482	NNW	2.1	126
16	66	3.5	57	3.1	46	3.1	32	3.0	156	S (175)	0.559	S	3.7	102
18	81	4.0	65	3.7	52	3.6	35	3.2	153	S (172)	0.437	SE	3.0	87
20	80	4.0	67	3.7	55	3.6	36	3.3	145	S (172)	0.380	SE	3.9	89
22	89	4.0	69	3.6	55	3.6	37	3.3	143	SSE (166)	0.437	ESE	3.5	129
D.max.	89	4.0	69	3.6	55	3.6	37	3.3	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	63	3.6	48	3.4	39	3.4	26	3.1	3	( S )	0.409	NNE	3.0	148

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (335) Wave Data

Date: 10th Aug. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	71	4.5	55	3.5	44	3.4	30	3.0	156	S (172)	0.359	SE	4.0	157
2	61	2.5	48	3.7	39	3.4	26	3.0	155	S (172)	0.383	SE	3.7	173
4	74	3.5	56	3.6	46	3.8	31	3.3	144	S (174)	0.353	E	2.0	181
6	62	3.5	52	3.9	44	3.7	30	3.2	147	S (173)	0.431	SE	2.5	188
8	66	2.5	52	3.9	44	3.7	30	3.3	144	S (176)	0.368	SE	3.9	197
10	72	4.0	56	3.8	46	3.5	32	3.2	150	S (181)	0.463	ESE	3.5	195
12	106	4.5	80	4.0	65	3.9	44	3.5	140	S (180)	0.393	SSE	4.2	169
14	121	5.0	99	3.9	78	3.8	50	3.5	138	S (174)	0.320	SSE	6.2	131
16	129	4.0	100	4.2	86	4.2	58	3.7	134	SSE (167)	0.376	SE	5.4	98
18	121	4.5	101	4.1	81	4.0	54	3.5	139	S (171)	0.339	SE	4.0	77
20	103	4.5	89	4.3	73	4.1	48	3.5	139	S (172)	0.496	SE	3.9	75
22	96	4.0	72	4.0	60	3.7	41	3.3	148	S (170)	0.529	SE	3.3	120
D.max.	129	4.0	101	4.1	86	4.2	58	3.7	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	90	3.9	72	3.9	59	3.8	40	3.3	3	( S )	0.401	SE	3.9	147

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (386) Wave Data

Date: 11th Aug. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	79	4.0	63	3.5	54	3.4	36	3.2	150	S (177)	0.744	SE	3.9	165
2	75	4.0	60	3.6	50	3.6	35	3.3	148	S (182)	0.501	ESE	2.2	184
4	85	3.0	70	3.8	54	3.7	35	3.3	144	S (175)	0.493	E	1.6	189
6	66	3.5	57	3.6	47	3.5	31	3.3	151	S (185)	0.624	ENE	1.8	189
8	65	3.5	48	3.8	39	3.9	26	3.3	145	S (178)	0.606	ENE	1.9	181
10	57	3.5	48	4.1	39	3.9	26	3.3	141	S (172)	0.715	SSW	1.9	182
12	54	4.5	44	4.1	34	4.0	23	3.9	129	S (183)	0.745	SW	2.0	174
14	54	4.0	43	4.3	34	4.2	23	3.6	136	S (175)	0.596	SW	2.0	135
16	90	4.0	68	3.6	56	3.7	38	3.5	141	S (172)	0.420	SW	2.2	92
18	123	3.5	94	3.8	77	3.9	49	3.7	131	S (173)	0.407	SSE	5.3	63
20	117	4.5	94	4.1	75	4.1	50	3.4	142	S (169)	0.408	SSE	5.5	61
22	119	4.5	94	3.8	76	3.9	49	3.4	140	S (178)	0.407	ESE	2.1	105
D.max.	123	3.5	94	3.8	77	3.9	50	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	82	3.9	65	3.8	53	3.8	35	3.4	3	( S )	0.555	SW	2.7	143

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table 1.3-1 (337) Wave Data

Date: 12th Aug. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	108	3.5	79	3.9	64	3.7	44	3.4	144	S (174)	0.380	ESE	1.9	164
2	106	3.5	78	3.4	62	3.5	42	3.3	146	S (179)	0.464	NW	2.0	199
4	67	2.5	60	3.6	49	3.6	34	3.2	149	S (170)	0.481	NNW	0.7	205
6	64	4.5	56	3.6	47	3.7	33	3.1	150	S (174)	0.479	N	1.8	204
8	83	3.0	65	3.3	51	3.4	34	3.1	156	SSE (165)	0.337	S	1.5	192
10	82	3.0	65	3.3	50	3.4	32	3.1	153	S (171)	0.391	S	2.0	180
12	68	4.5	62	3.9	51	3.6	35	3.3	148	SSE (165)	0.319	S	3.6	175
14	115	3.5	92	3.8	73	3.9	45	3.4	145	SSE (168)	0.401	SSE	5.9	147
16	110	3.5	97	3.7	79	4.0	51	3.6	138	S (170)	0.304	SSE	5.3	102
18	108	3.0	89	4.2	70	4.2	48	3.7	129	SSE (168)	0.286	SE	4.2	70
20	120	4.0	90	4.1	72	4.0	47	3.5	142	S (173)	0.384	ESE	4.0	51
22	104	3.5	87	3.7	72	3.7	48	3.4	140	SSE (168)	0.592	SE	4.4	62
D.max.	120	4.0	97	3.7	79	4.0	51	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	95	3.5	77	3.7	62	3.7	41	3.3	3	( S )	0.401	S	3.1	146

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (338) Wave Data

Date: 13th Aug. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	118	3.5	88	3.6	67	3.6	44	3.2	145	S (176)	0.586	ESE	3.9	134
2	80	2.5	71	3.7	59	3.6	41	3.3	148	S (175)	0.641	SE	3.2	191
4	78	3.5	63	3.4	52	3.4	36	3.2	151	S (178)	0.499	NNW	2.0	217
6	61	3.5	53	3.5	43	3.8	29	3.3	147	SSE (168)	0.496	WNW	2.0	219
8	72	3.0	58	3.1	47	3.3	32	3.1	159	SSE (166)	0.541	WNW	1.0	207
10	66	3.5	54	3.3	43	3.4	29	3.1	155	S (183)	0.511	SSE	2.8	190
12	71	3.0	52	3.3	42	3.4	28	3.1	156	SSE (168)	0.617	SSW	2.1	181
14	98	4.0	69	3.4	57	3.5	37	3.3	148	S (169)	0.359	S	4.1	154
16	110	4.0	92	3.7	73	3.7	49	3.4	144	S (172)	0.412	S	6.4	115
18	131	4.0	102	3.9	78	4.0	50	3.5	140	S (172)	0.365	SSE	5.3	77
20	110	3.5	90	4.0	77	4.0	55	3.5	139	S (171)	0.494	SE	4.5	53
22	105	4.0	84	3.8	66	3.8	44	3.4	139	SSE (168)	0.547	SE	3.8	47
D.max.	131	4.0	102	3.9	78	4.0	55	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	92	3.5	73	3.6	59	3.6	40	3.3	3	( S )	0.506	SE	3.4	149

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (38) Wave Data

Date: 14th Aug. 1989  
St. : I

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	103	3.5	78	3.9	61	3.7	42	3.4	143	SSE (165)	0.501	SE	4.0	115
2	80	4.5	62	3.3	51	3.3	34	3.0	159	S (170)	0.636	ESE	2.1	190
4	75	4.0	63	3.3	51	3.3	36	3.1	154	S (171)	0.535	SSE	4.8	232
6	81	4.0	63	3.6	53	3.6	36	3.2	153	S (172)	0.422	SSE	5.7	239
8	73	4.0	61	3.6	49	3.6	33	3.2	153	S (173)	0.417	SSE	5.3	224
10	84	3.0	65	3.8	51	3.6	35	3.2	150	S (180)	0.549	SSE	4.6	205
12	96	4.0	81	3.6	63	3.6	42	3.3	149	S (175)	0.424	S	4.0	193
14	105	3.5	80	3.5	65	3.7	43	3.4	145	S (169)	0.469	S	5.5	170
16	138	3.5	104	3.8	79	3.8	52	3.5	138	SSE (169)	0.322	S	6.2	128
18	106	4.0	86	4.1	73	4.0	50	3.6	137	S (172)	0.275	SSE	5.9	86
20	117	4.0	84	3.5	70	3.6	47	3.3	150	S (172)	0.483	SSE	6.0	58
22	92	3.5	77	3.7	62	3.7	41	3.4	146	SSE (164)	0.341	SSE	3.9	41
D.max.	138	3.5	104	3.8	79	3.8	52	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	96	3.8	75	3.6	61	3.6	41	3.3	3	( S )	0.448	SSE	4.8	157

[Note]

- W.H : Wave Height
- W.P : Wave Period
- Wave No.: Wave Countered
- D.W.D : Dominant Wave Direction
- R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge
- T.L : Tidal Level
- D.max. : Daily max.
- D.mean : Daily mean
- M.F.D : Most Frequency Wind Direction

Table I. 3-1 (3M) Wave Data

Date: 15th Aug. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	78	3.0	60	3.5	49	3.7	33	3.3	145	S (173)	0.559	NE	2.0	78
2	63	4.0	52	4.2	44	4.2	29	3.5	140	S (173)	0.486	N	2.0	155
4	59	4.0	44	4.1	35	4.2	23	3.5	140	S (183)	0.737	N	2.1	230
6	43	4.0	35	4.2	29	4.3	20	3.5	139	S (177)	0.515	NE	2.5	245
8	36	5.0	33	4.0	27	4.1	19	3.6	131	S (175)	0.546	NE	2.3	230
10	39	3.5	30	4.2	25	4.4	17	3.8	125	S (183)	0.541	NNE	2.0	204
12	39	4.0	30	4.1	23	4.3	14	3.7	133	S (189)	0.476	SSW	2.3	190
14	50	2.5	41	3.1	34	3.1	23	2.9	165	S (185)	0.622	SW	2.0	171
16	101	3.0	67	3.4	53	3.3	34	3.1	158	SSE (167)	0.357	S	4.8	135
18	83	3.5	69	3.3	57	3.3	37	3.2	148	SSE (163)	0.327	SSE	5.0	95
20	91	3.5	75	3.5	62	3.6	43	3.4	145	S (172)	0.451	SSE	4.9	63
22	91	3.5	74	3.5	59	3.3	40	3.1	151	S (171)	0.365	SE	4.1	42
D.max.	101	3.0	75	3.5	62	3.6	43	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	64	3.6	51	3.8	41	3.8	28	3.4	3	( S )	0.498	NE	3.0	153

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (3M) Wave Data

Date: 16th Aug. 1989  
St. : I

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	65	2.5	58	3.3	47	3.3	33	3.0	154	S (173)	0.582	SE	3.6	52
2	71	2.5	62	3.0	52	3.2	34	2.9	157	SSW (191)	0.721	ESE	3.6	134
4	68	3.0	58	3.0	46	2.9	32	2.9	168	S (188)	0.894	ESE	2.0	207
6	77	3.5	64	3.3	52	3.1	34	3.0	160	S (186)	0.555	ESE	2.1	239
8	79	3.0	65	3.2	52	3.3	35	3.0	158	S (172)	0.509	ESE	2.5	241
10	80	3.5	71	3.5	58	3.4	39	3.1	150	S (187)	0.495	SE	4.3	224
12	99	3.5	77	3.6	60	3.6	39	3.2	152	S (171)	0.367	SSE	4.5	205
14	95	4.0	80	4.1	66	3.9	43	3.4	143	S (174)	0.315	SSE	4.6	184
16	117	3.5	96	3.8	78	3.9	52	3.6	135	S (170)	0.344	SSE	6.0	158
18	116	4.0	93	4.0	76	3.9	50	3.6	137	SSE (166)	0.332	SE	4.3	120
20	129	4.0	97	3.7	74	3.8	50	3.5	139	SSE (168)	0.423	SE	4.2	80
22	116	4.0	91	3.8	72	4.0	48	3.6	138	S (172)	0.386	SE	3.9	52
D.max.	129	4.0	97	3.7	78	3.9	52	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	93	3.4	76	3.5	61	3.5	41	3.2	3	( S )	0.494	SE	3.8	158

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (342) Wave Data

Date: 17th Aug. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	94	2.5	81	3.6	66	3.7	44	3.3	147	S (183)	0.544	SE	3.0	44
2	128	3.5	88	4.0	72	4.0	46	3.4	143	S (177)	0.506	ESE	3.9	108
4	103	3.5	84	3.6	68	3.9	46	3.4	143	SSE (167)	0.466	ESE	2.0	180
6	88	3.5	70	4.3	57	4.0	38	3.5	140	S (172)	0.506	NE	1.8	227
8	83	4.0	65	3.9	53	3.9	36	3.4	145	S (176)	0.310	SE	2.0	235
10	103	4.0	81	3.7	64	3.6	42	3.3	150	S (176)	0.328	SSE	4.8	227
12	95	3.0	78	3.5	66	3.7	45	3.5	141	S (176)	0.343	SSE	5.5	198
14	85	3.0	74	3.9	64	3.9	43	3.4	144	S (174)	0.306	S	4.2	179
16	102	3.5	81	3.8	68	3.9	47	3.5	140	SSE (169)	0.385	S	5.0	167
18	106	4.0	92	4.0	76	3.9	50	3.5	140	SSE (168)	0.345	SSE	6.0	136
20	119	4.0	88	3.9	67	3.8	45	3.4	141	SSE (169)	0.373	SSE	4.7	92
22	104	4.0	87	3.7	70	3.7	46	3.4	146	S (174)	0.344	SE	4.1	59
D.max.	128	3.5	92	4.0	76	3.9	50	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	101	3.5	81	3.8	66	3.8	44	3.4	3	( S )	0.396	SSE	3.9	154

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (303) Wave Data

Date: 18th Aug. 1989  
 St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	115	4.0	84	3.8	68	3.7	45	3.3	144	S (175)	0.504	SE	4.1	46
2	84	3.5	70	3.8	58	3.7	40	3.3	148	S (189)	0.562	SSE	5.2	92
4	120	3.5	76	3.5	62	3.5	42	3.2	150	S (178)	0.600	SSE	5.4	170
6	93	3.5	77	3.4	63	3.5	42	3.2	152	SSE (158)	0.338	SSE	5.0	233
8	88	4.0	66	3.8	53	3.6	36	3.3	148	S (170)	0.379	SSE	3.8	241
10	74	3.5	58	3.8	49	3.9	35	3.4	143	S (170)	0.288	SSE	5.0	221
12	113	3.0	74	3.6	60	3.5	39	3.1	153	S (171)	0.326	SSE	5.0	188
14	124	3.0	90	3.6	70	3.7	49	3.5	141	S (175)	0.443	SSE	4.8	174
16	111	4.0	84	3.8	67	3.9	44	3.3	145	SSE (166)	0.385	SSE	4.7	163
18	146	3.5	93	3.9	74	3.8	49	3.4	146	S (176)	0.353	SSE	6.0	145
20	119	3.5	95	3.9	74	3.8	48	3.4	144	S (171)	0.325	SSE	5.5	106
22	109	3.5	85	4.2	68	4.0	46	3.5	139	S (177)	0.441	SSE	4.3	69
D.max.	146	3.5	95	3.9	74	3.8	49	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	108	3.5	79	3.8	64	3.7	43	3.3	3	( S )	0.412	SSE	4.9	154

[Note]

W.H : Wave Height  
 W.P : Wave Period  
 Wave No. : Wave Countered  
 D.W.D : Dominant Wave Direction  
 R.W.E.D : Ratio of Wave Energy Density of  
 Direction on Wave Ridge

T.L : Tidal Level  
 D.max. : Daily max.  
 D.mean : Daily mean  
 M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (3M) Wave Data

Date: 19th Aug. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	85	4.0	72	3.5	58	3.5	37	3.1	154	SSE (163)	0.454	SE	3.5	50
2	79	3.0	66	3.4	52	3.4	34	3.0	156	S (189)	0.664	SE	3.3	83
4	72	3.0	63	3.4	49	3.4	33	3.1	152	SSW (193)	0.668	SE	3.5	138
6	74	3.5	55	3.3	43	3.3	29	3.0	155	SSW (193)	0.732	SE	2.8	206
8	64	3.5	57	3.7	49	3.5	33	3.1	151	S (180)	0.429	ESE	2.0	227
10	129	3.5	66	3.6	51	3.3	33	3.1	155	S (172)	0.409	ESE	3.2	212
12	97	3.5	72	3.4	57	3.3	37	3.1	154	S (170)	0.309	SSE	3.9	188
14	79	4.0	58	3.7	47	3.7	32	3.3	144	S (169)	0.317	SSE	4.3	172
16	71	4.5	59	3.9	50	3.6	34	3.2	150	S (169)	0.309	SSE	4.5	162
18	79	3.0	58	3.5	49	3.6	33	3.2	146	SSE (168)	0.496	SSE	4.8	156
20	74	4.0	63	3.7	52	3.5	34	3.1	156	S (173)	0.481	SSE	5.0	138
22	81	3.5	63	3.7	50	3.8	34	3.3	148	S (175)	0.323	SSE	4.8	91
D.max.	129	3.5	72	3.5	58	3.5	37	3.1	3	most D.W.D	mean	M.F.D	mean	mean
D.mean	82	3.6	63	3.6	51	3.5	34	3.1	3	( S )	0.466	SSE	3.8	152

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table I. 3-1 (35) Wave Data

Date: 20th Aug. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	92	4.5	74	3.7	58	3.5	39	3.2	154	S (181)	0.426	SE	4.2	65
2	109	3.5	82	3.9	65	3.9	43	3.4	143	S (178)	0.477	ESE	3.0	82
4	99	2.5	84	4.8	71	4.4	46	3.7	131	S (177)	0.450	SE	2.9	129
6	112	4.0	84	4.1	68	3.9	45	3.5	138	S (180)	0.565	ESE	1.8	191
8	108	3.0	84	3.7	66	4.0	44	3.5	138	S (172)	0.341	SE	2.4	223
10	92	4.0	69	3.8	58	3.8	40	3.4	142	S (174)	0.311	SSE	2.7	205
12	78	4.5	67	3.9	53	3.6	36	3.3	151	S (174)	0.314	SSW	2.0	180
14	96	4.0	75	3.7	64	3.7	44	3.5	142	S (170)	0.294	SSE	6.0	165
16	80	3.5	73	3.5	59	3.7	40	3.3	144	SSE (168)	0.264	SSE	5.8	159
18	109	3.5	81	3.3	64	3.6	43	3.3	147	S (176)	0.552	SSE	5.8	158
20	126	3.5	89	3.5	68	3.7	45	3.2	150	S (173)	0.403	SE	4.6	158
22	82	3.0	73	3.7	61	3.7	41	3.4	142	SSW (193)	0.473	SE	3.5	117
D.max.	126	3.5	89	3.5	71	4.4	46	3.7	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	99	3.6	78	3.8	63	3.8	42	3.4	3	( S )	0.406	SE	3.7	153

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-I (3/6) Wave Data

Date: 21th Aug. 1989  
 St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	102	3.0	77	3.5	62	3.6	41	3.2	148	S (184)	0.499	E	2.0	85
2	83	4.0	67	3.6	53	3.4	34	3.0	155	S (180)	0.605	NNE	2.0	88
4	87	4.0	64	3.5	52	3.4	34	3.0	156	S (169)	0.725	NNW	1.9	129
6	79	3.0	60	3.7	49	3.6	34	3.1	154	S (179)	0.598	N	2.0	177
8	74	3.5	63	3.8	50	4.2	34	3.4	144	S (172)	0.506	NW	1.0	219
10	98	4.0	79	3.5	63	3.7	42	3.4	141	S (170)	0.358	SSE	3.8	204
12	113	4.5	92	4.0	74	4.2	49	3.7	135	SSE (168)	0.271	SSE	5.9	164
14	109	3.5	86	3.8	69	3.7	46	3.6	138	S (171)	0.325	SSE	5.5	143
16	92	4.0	82	3.8	66	3.8	43	3.3	148	SSE (168)	0.297	SSE	5.5	130
18	104	3.5	86	3.6	71	4.0	48	3.4	146	SSE (167)	0.460	SE	4.5	124
20	125	3.5	90	4.0	74	4.0	50	3.4	142	SSE (161)	0.668	SE	5.0	149
22	111	3.5	94	4.1	76	3.9	51	3.4	142	SSE (165)	0.402	SE	4.0	146
D.max.	125	3.5	94	4.1	76	3.9	51	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	98	3.7	78	3.7	63	3.8	42	3.3	3	( S )	0.476	SSE	3.6	147

[Note]

- W.H : Wave Height
- W.P : Wave Period
- Wave No.: Wave Countered
- D.W.D : Dominant Wave Direction
- R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge
- T.L : Tidal Level
- D.max. : Daily max.
- D.mean : Daily mean
- M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (3M) Wave Data

Date: 22th Aug. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	92	3.5	81	3.8	68	3.8	46	3.4	145	S (174)	0.464	SE	2.8	134
2	109	4.0	88	4.2	73	3.9	50	3.5	142	SSE (163)	0.479	SE	3.2	127
4	94	4.0	82	3.5	66	3.6	44	3.2	152	SSE (168)	0.588	E	2.0	144
6	91	3.5	74	3.4	60	3.7	40	3.4	146	SSW (199)	0.620	NW	2.0	170
8	80	4.0	70	4.2	59	4.2	39	3.6	137	SSE (164)	0.515	NNW	2.0	210
10	91	4.0	76	3.8	63	3.9	42	3.5	138	S (170)	0.323	SSE	1.9	201
12	86	4.0	78	4.2	61	4.2	40	3.6	138	S (172)	0.332	SW	2.0	156
14	126	4.0	90	4.0	73	3.9	49	3.8	132	SSE (166)	0.285	S	4.6	120
16	126	4.0	96	3.7	77	4.0	51	3.7	132	SSE (164)	0.333	SSE	6.0	101
18	131	4.0	105	4.2	84	4.2	56	3.7	132	S (170)	0.260	SSE	6.0	98
20	140	4.0	108	4.0	82	4.0	55	3.5	138	S (172)	0.306	SSE	5.8	136
22	109	5.0	91	4.1	76	4.1	51	3.6	135	S (179)	0.455	SE	4.1	164
D.max.	140	4.0	108	4.0	84	4.2	56	3.7	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	106	4.0	87	3.9	70	4.0	47	3.5	4	( S )	0.413	SSE	3.5	147

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (388) Wave Data

Date: 23th Aug. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	114	4.5	88	4.4	72	4.0	50	3.5	139	SSE (168)	0.428	SE	5.2	172
2	124	4.0	93	3.9	77	3.9	51	3.6	137	S (171)	0.326	SE	3.8	169
4	134	3.0	90	3.9	71	3.8	46	3.4	143	S (171)	0.412	SE	3.0	175
6	94	3.0	81	3.6	67	3.6	44	3.3	148	S (178)	0.492	SE	2.1	176
8	111	4.5	88	4.1	71	4.0	48	3.6	134	S (172)	0.446	SSE	1.8	192
10	101	3.5	86	4.5	72	4.3	48	3.6	135	S (176)	0.406	SSE	2.9	194
12	134	4.0	81	3.9	62	4.0	40	3.5	139	S (176)	0.468	SSE	4.0	159
14	99	4.0	76	4.2	60	3.9	40	3.5	139	SSE (166)	0.487	S	4.6	116
16	115	4.0	87	4.0	69	3.9	45	3.5	141	S (173)	0.467	SSE	6.0	83
18	94	4.0	82	4.0	65	3.9	44	3.4	143	S (177)	0.323	SSE	4.0	63
20	108	4.5	90	4.2	75	3.9	53	3.7	133	S (171)	0.352	SE	4.0	103
22	110	4.5	90	4.1	72	3.8	49	3.3	148	S (176)	0.469	ESE	3.5	160
D.max.	134	3.0	93	3.9	77	3.9	53	3.7	4	most	mean	M.F.D	mean	mean
D.mean	112	4.0	86	4.1	69	3.9	47	3.5	3	( S )	0.423	SE	3.7	147

[Note] W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (30) Wave Data

Date: 24th Aug. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	122	3.5	88	4.0	71	4.0	48	3.5	139	S (182)	0.449	SE	3.9	188
2	103	4.5	73	4.0	60	4.1	40	3.5	139	S (177)	0.350	WNW	2.1	197
4	92	4.0	65	3.7	55	3.7	39	3.5	141	S (175)	0.362	ESE	2.3	202
6	70	4.5	58	3.8	46	3.8	32	3.3	142	S (181)	0.376	ESE	1.6	185
8	82	5.0	61	4.1	49	4.1	31	3.4	140	S (174)	0.446	SSE	2.0	187
10	82	5.0	61	4.2	52	3.9	36	3.4	145	S (175)	0.358	ESE	3.0	195
12	107	3.5	76	3.5	60	3.8	41	3.5	140	S (175)	0.299	SSE	5.2	173
14	106	4.5	93	4.0	78	4.2	52	3.7	135	SSE (167)	0.306	SSE	5.8	121
16	135	4.5	116	4.2	97	4.1	63	3.8	132	S (170)	0.205	SE	2.4	82
18	145	4.5	109	4.4	88	4.3	58	3.7	135	S (171)	0.296	SE	4.4	56
20	135	5.0	97	4.4	77	4.4	52	3.7	131	S (173)	0.298	N	2.8	57
22	79	4.0	67	4.4	55	4.4	37	3.7	131	S (174)	0.455	NNW	2.6	133
D.max.	145	4.5	116	4.2	97	4.1	63	3.8	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	105	4.4	80	4.1	66	4.1	44	3.6	4	( S )	0.350	ESE	3.2	148

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (330) Wave Data

Date: 25th Aug. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	68	4.0	54	4.1	43	3.9	28	3.4	143	S (174)	0.611	NNW	2.4	185
2	73	3.0	61	3.6	49	3.8	32	3.2	151	S (175)	0.274	WNW	2.0	212
4	72	3.5	62	4.0	50	3.9	33	3.4	145	S (169)	0.415	ESE	1.8	224
6	61	6.0	51	4.5	42	4.3	29	3.8	129	S (178)	0.439	E	1.9	195
8	54	3.5	45	4.8	37	4.9	25	3.9	124	S (176)	0.385	NE	2.4	170
10	43	4.5	39	4.5	32	4.7	21	3.9	118	S (178)	0.432	NE	2.1	174
12	55	4.5	40	4.4	30	4.6	19	4.0	124	S (173)	0.407	S	3.5	167
14	109	3.5	79	3.7	64	3.9	43	3.6	138	S (171)	0.300	WSW	2.8	125
16	115	3.5	90	4.0	71	3.6	48	3.4	143	S (173)	0.390	S	5.0	82
18	106	3.5	91	4.0	75	4.1	50	3.6	135	S (175)	0.254	SSE	5.3	54
20	147	3.5	103	4.0	83	4.0	56	3.5	139	S (177)	0.204	SE	5.5	42
22	106	5.0	83	3.9	68	3.8	46	3.4	140	SSE (168)	0.292	SE	4.2	99
D.max.	147	3.5	103	4.0	83	4.0	56	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	84	4.0	67	4.1	54	4.1	36	3.6	4	( S )	0.367	S	3.2	144

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (351) Wave Data

Date: 26th Aug. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	122	4.0	82	3.6	67	3.7	44	3.4	142	S (171)	0.444	SE	3.9	177
2	115	5.0	75	3.9	62	3.8	42	3.2	151	S (178)	0.539	ESE	2.1	225
4	94	3.5	70	3.4	57	3.8	38	3.5	141	S (173)	0.351	SE	1.9	237
6	85	3.5	62	3.5	50	3.8	34	3.4	143	S (177)	0.392	ESE	1.8	224
8	84	3.0	58	3.8	48	3.6	32	3.1	157	S (172)	0.308	N	1.9	190
10	59	4.0	49	3.7	40	3.8	28	3.4	145	S (176)	0.354	SSE	2.0	179
12	59	4.0	49	3.8	40	3.8	26	3.4	145	S (175)	0.372	SSW	2.1	177
14	64	3.5	55	3.4	46	3.4	30	3.2	152	S (176)	0.307	SSW	3.2	145
16	116	4.0	84	3.6	68	3.8	44	3.5	145	SSE (166)	0.388	S	5.0	97
18	96	3.0	77	3.7	62	3.6	41	3.4	145	S (173)	0.360	SSE	4.9	61
20	80	3.0	71	3.4	59	3.6	40	3.3	147	S (171)	0.360	SSE	4.1	40
22	81	3.5	66	3.5	55	3.5	38	3.2	150	SSE (168)	0.479	NE	3.2	54
D.max.	122	4.0	84	3.6	68	3.8	44	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	88	3.7	67	3.6	55	3.7	36	3.3	3	( S )	0.388	SSE	3.0	151

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (3E2) Wave Data

Date: 27th Aug. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	70	4.0	58	3.8	47	3.7	32	3.3	141	S (173)	0.566	SE	1.9	137
2	56	3.0	44	3.6	35	3.8	23	3.4	143	S (175)	0.799	N	2.9	210
4	51	4.0	37	4.5	30	4.0	20	3.4	139	SSE (160)	0.820	NNE	2.1	238
6	49	4.5	40	4.8	32	4.8	21	3.8	128	S (176)	0.380	E	2.0	238
8	42	5.0	34	4.8	30	5.0	21	4.3	114	S (174)	0.269	NNE	2.0	205
10	44	5.0	36	4.5	30	4.8	20	4.2	119	SSE (164)	0.564	NE	2.6	182
12	45	4.5	35	4.3	28	4.5	19	4.0	124	S (172)	0.293	SSW	3.0	175
14	68	3.5	48	3.4	39	3.5	26	3.2	151	S (171)	0.335	WNW	2.5	170
16	75	2.5	62	3.1	51	3.2	33	3.0	163	S (171)	0.597	S	4.8	120
18	91	3.5	72	3.5	58	3.5	39	3.4	146	SSW (196)	0.753	SE	3.1	74
20	68	3.5	50	3.1	42	3.3	28	3.0	154	S (178)	0.538	ESE	2.6	47
22	57	2.5	48	2.9	40	3.0	27	2.9	160	SSE (164)	0.631	ENE	2.6	36
D.max.	91	3.5	72	3.5	58	3.5	39	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	60	3.8	47	3.9	39	3.9	26	3.5	3	( S )	0.545	NNE	2.7	153

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table I. 3-1 (333) Wave Data

Date: 28th Aug. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	45	3.0	40	3.5	31	3.3	21	3.0	160	SSE (150)	0.656	NNE	3.1	104
2	43	4.0	35	3.5	28	3.4	19	3.2	155	SSW (197)	0.801	SSW	2.4	194
4	83	3.0	55	3.1	43	3.1	28	2.9	159	S (170)	0.457	SE	3.5	238
6	54	3.0	45	3.6	36	3.4	25	3.1	156	S (178)	0.505	N	2.2	245
8	41	2.5	35	4.3	30	4.0	21	3.4	138	S (179)	0.590	NE	3.0	220
10	40	4.0	35	4.3	28	4.2	19	3.7	128	SSE (166)	0.405	ESE	2.0	188
12	41	4.0	33	4.3	27	4.5	17	3.9	125	S (171)	0.448	S	3.1	166
14	42	4.5	36	4.7	30	4.6	20	4.0	121	SSE (166)	0.340	S	4.2	155
16	70	3.0	51	3.4	42	3.5	29	3.1	158	S (179)	0.367	SE	2.1	132
18	71	3.5	60	3.3	49	3.3	34	3.1	150	SSE (164)	0.745	SE	2.2	87
20	66	2.5	53	3.1	43	3.4	29	3.0	153	SSE (163)	0.457	ENE	2.0	56
22	69	2.0	53	3.2	42	3.2	29	3.0	156	S (185)	0.570	ESE	2.0	38
D.max.	83	3.0	60	3.3	49	3.3	34	3.1	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	55	3.3	44	3.7	36	3.7	24	3.3	3	( S )	0.528	SE	2.6	152

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (3M) Wave Data

Date: 29th Aug. 1989  
St. : I

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	50	3.0	42	3.4	35	3.3	24	3.1	157	S (174)	0.679	NE	2.1	69
2	47	3.5	35	3.5	28	3.6	18	3.1	155	S (182)	0.606	NE	2.0	159
4	39	5.5	33	4.4	27	4.3	18	3.5	140	S (179)	0.517	ENE	2.0	220
6	37	4.0	30	3.7	25	3.6	17	3.2	152	S (178)	0.416	N	2.2	239
8	30	4.5	23	4.5	19	4.2	14	3.7	133	S (178)	0.483	NE	2.5	229
10	29	4.5	23	4.2	20	4.1	13	3.4	130	S (178)	0.408	ENE	2.0	194
12	24	4.5	21	4.2	16	4.1	11	3.9	126	S (170)	0.367	SSW	2.3	174
14	36	4.0	30	4.1	25	4.0	17	3.5	132	SSE (165)	0.328	S	4.2	162
16	68	3.0	56	3.2	46	3.3	31	2.9	165	S (181)	0.456	S	6.0	141
18	118	4.0	86	3.8	71	3.8	47	3.4	144	S (172)	0.431	S	6.1	106
20	121	4.5	94	4.1	76	4.0	49	3.5	140	S (174)	0.405	SSE	6.5	72
22	116	3.5	78	3.7	64	3.7	44	3.2	151	S (174)	0.474	SSE	4.6	52
D.max.	121	4.5	94	4.1	76	4.0	49	3.5	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	60	4.0	46	3.9	38	3.8	25	3.4	3	( S )	0.464	S	3.5	151

[Note]

W.H : Wave Height

W.P : Wave Period

Wave No.: Wave Countered

D.W.D : Dominant Wave Direction

R.W.E.D : Ratio of Wave Energy Density of

Direction on Wave Ridge

T.L : Tidal Level

D.max. : Daily max.

D.mean : Daily mean

M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (355) Wave Data

Date: 30th Aug. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	107	4.0	84	3.7	68	3.6	45	3.4	144	SSE (168)	0.517	SSE	4.0	72
2	84	4.0	69	3.9	57	3.8	38	3.3	151	S (172)	0.576	SE	4.0	149
4	74	3.0	60	3.4	49	3.5	33	3.3	143	S (175)	0.666	NNE	3.5	221
6	99	3.0	66	3.3	54	3.2	36	2.9	164	SSE (168)	0.463	NW	3.5	251
8	141	3.5	116	4.1	93	4.0	60	3.6	136	W (267)	0.651	NW	2.8	232
10	104	3.5	83	3.6	67	3.9	45	3.5	141	WSW (245)	0.919	WNW	2.5	195
12	85	3.5	64	4.1	52	3.9	34	3.6	137	SSW (213)	0.715	SW	2.1	163
14	66	3.0	51	3.7	43	3.9	29	3.4	141	SW (216)	0.742	SW	2.8	149
16	62	3.5	49	3.6	40	3.7	27	3.2	147	SSW (192)	0.522	WNW	2.8	141
18	70	3.5	44	3.6	36	3.8	24	3.4	142	SSW (201)	0.673	SE	1.9	108
20	51	4.5	45	4.0	38	3.8	26	3.6	138	SSW (212)	0.731	SSE	2.0	74
22	66	5.0	45	4.5	35	4.4	23	3.7	135	SSW (194)	0.416	S	2.0	52
D.max.	141	3.5	116	4.1	93	4.0	60	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	84	3.7	65	3.8	53	3.8	35	3.4	3	(SSW)	0.633	SW	2.8	151

[Notel

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of  
Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (356) Wave Data

Date: 31th Aug. 1989  
 St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	43	4.0	35	4.3	29	4.2	18	3.7	132	SSW (196)	0.687	NNW	2.0	48
2	49	4.0	42	4.5	31	4.6	20	4.0	123	S (176)	0.602	NW	2.0	117
4	44	4.0	34	4.2	28	4.2	18	3.7	131	S (189)	0.796	N	2.2	190
6	41	4.0	32	4.5	26	4.3	17	3.7	129	S (178)	0.626	NE	2.0	229
8	39	5.0	25	4.6	20	4.4	14	3.6	125	S (181)	0.606	E	1.9	231
10	25	5.5	23	5.4	20	5.0	13	3.9	121	S (186)	0.607	S	2.0	208
12	29	4.5	22	5.2	18	5.1	11	4.3	116	S (180)	0.592	SSE	0.4	172
14	91	3.5	70	3.2	58	3.4	40	3.1	156	S (179)	0.509	S	4.2	157
16	109	3.0	90	3.5	72	3.7	47	3.3	146	S (174)	0.497	SSE	5.5	152
18	107	4.0	89	3.6	73	3.6	49	3.3	149	S (170)	0.472	SSE	5.9	141
20	71	3.5	63	3.6	51	3.5	34	3.1	155	S (172)	0.481	ESE	2.8	106
22	70	3.5	56	3.5	46	3.5	32	3.1	153	S (182)	0.388	ESE	1.8	71
D.max.	109	3.0	90	3.5	73	3.6	49	3.3	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	60	4.0	48	4.2	39	4.1	26	3.6	4	( S )	0.572	SSE	2.7	152

[Note]  
 W.H : Wave Height  
 W.P : Wave Period  
 Wave No.: Wave Countered  
 D.W.D : Dominant Wave Direction  
 R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
 D.max. : Daily max.  
 D.mean : Daily mean  
 M.F.D : Most Frequency Wind Direction

Table I. 3-1 (357) Wave Data

Date: 1st Sep. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	71	3.0	58	3.4	49	3.3	32	3.2	145	S (179)	0.402	SE	2.0	62
2	77	4.0	59	3.8	48	3.5	32	3.1	151	S (176)	0.413	E	0.9	113
4	69	3.5	55	3.9	44	3.7	30	3.2	148	S (181)	0.415	ESE	0.7	177
6	84	3.0	56	3.6	45	3.7	31	3.1	148	S (179)	0.243	NW	0.9	222
8	62	3.5	49	3.8	40	3.7	27	3.1	148	S (170)	0.344	SSE	1.9	222
10	70	3.0	59	3.6	48	3.6	33	3.2	152	S (173)	0.306	SSE	3.0	200
12	96	3.0	68	3.3	56	3.3	37	3.0	162	S (174)	0.254	SSE	4.3	178
14	114	3.5	86	3.6	70	3.5	46	3.3	146	S (179)	0.332	SSE	6.0	161
16	135	4.0	100	3.8	78	3.7	52	3.5	138	S (177)	0.597	SSE	6.0	147
18	151	3.5	106	3.8	80	3.9	52	3.4	140	S (175)	0.300	SE	6.3	147
20	133	4.0	88	4.0	69	3.8	45	3.3	144	SSE (168)	0.392	SE	4.2	126
22	109	4.0	93	4.0	80	4.1	53	3.6	139	S (176)	0.289	SE	5.9	98
D.max.	151	3.5	106	3.8	80	3.9	53	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	98	3.5	73	3.7	59	3.6	39	3.3	3	( S )	0.357	SSE	3.5	154

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No. : Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (333) Wave Data

Date: 2nd Sep. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	99	3.0	79	3.9	65	3.8	44	3.4	142	S (174)	0.343	SE	4.1	86
2	107	4.0	95	3.9	80	3.8	52	3.4	143	S (177)	0.531	ESE	4.0	107
4	97	3.5	76	3.7	60	3.6	39	3.3	146	S (172)	0.483	SE	4.4	160
6	87	3.5	79	3.8	66	3.6	44	3.3	149	SSE (166)	0.573	SE	3.8	206
8	101	3.5	81	3.6	65	3.5	42	3.2	149	S (177)	0.406	SE	4.2	212
10	86	4.0	78	3.5	65	3.8	43	3.4	143	S (171)	0.300	SSE	4.1	199
12	146	3.0	91	3.7	68	4.0	44	3.5	142	S (172)	0.293	SSE	5.5	182
14	115	4.5	89	3.8	72	4.0	47	3.4	143	S (174)	0.352	SSE	6.0	157
16	141	4.0	100	3.9	81	3.8	52	3.4	142	S (172)	0.414	SE	6.4	146
18	168	5.0	120	4.2	96	4.2	66	3.9	126	S (170)	0.506	SSE	6.0	147
20	94	3.0	80	4.2	68	4.3	46	3.6	135	S (170)	0.334	SE	5.0	144
22	100	3.5	81	4.3	61	4.0	39	3.4	145	S (176)	0.326	SE	5.2	121
D.max.	168	5.0	120	4.2	96	4.2	66	3.9	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	112	3.7	87	3.9	71	3.9	47	3.4	3	( S )	0.405	SE	4.9	156

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1.3-1 (388) Wave Data

Date: 3rd Sep. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	97	4.0	72	4.3	58	3.8	38	3.2	152	S (177)	0.321	SE	4.9	107
2	121	4.0	83	3.9	64	3.9	42	3.4	139	S (172)	0.394	SE	4.0	119
4	84	5.0	65	4.0	55	3.6	36	3.3	147	SSE (168)	0.401	ESE	3.9	156
6	113	3.5	75	3.5	60	3.4	40	3.1	155	SSE (164)	0.511	SE	4.3	197
8	81	5.5	69	4.7	55	4.3	36	3.6	136	S (173)	0.396	SE	5.6	200
10	97	3.0	73	4.0	59	4.1	40	3.4	141	S (177)	0.301	SSE	5.6	180
12	115	3.5	100	4.0	83	4.0	55	3.7	131	S (173)	0.327	SSE	5.7	165
14	135	4.5	99	4.1	81	4.2	55	3.8	129	S (174)	0.275	SSE	6.0	148
16	164	3.5	110	4.0	85	3.9	56	3.5	138	S (172)	0.319	SSE	7.0	139
18	137	4.5	106	4.2	86	4.1	57	3.7	134	S (173)	0.384	SE	5.2	148
20	92	4.0	79	4.2	68	4.3	46	3.7	130	S (173)	0.347	SE	4.0	145
22	83	5.0	72	4.3	60	4.2	40	3.5	139	S (177)	0.327	SE	3.9	128
D.max.	164	3.5	110	4.0	86	4.1	57	3.7	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	110	4.2	84	4.1	68	4.0	45	3.5	3	( S )	0.359	SE	5.0	153

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table 1. 3-1 (380) Wave Data

Date: 4th Sep. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	89	4.0	70	4.0	58	4.4	39	3.5	137	S (173)	0.338	SE	3.2	125
2	81	4.0	69	3.8	58	3.8	37	3.3	148	S (179)	0.391	SSE	4.1	136
4	96	4.5	76	4.0	60	4.0	39	3.4	144	S (175)	0.522	SE	4.2	162
6	97	4.5	69	4.0	57	4.0	38	3.5	145	S (178)	0.386	SSE	3.9	189
8	92	5.0	75	4.3	60	4.3	39	3.6	137	S (179)	0.353	SSE	3.2	186
10	110	4.0	83	3.9	64	4.1	40	3.3	148	S (180)	0.266	SSE	4.0	161
12	99	4.0	77	4.0	64	4.2	44	3.7	134	S (179)	0.357	SSE	5.0	144
14	131	3.0	90	3.9	71	3.8	46	3.3	145	S (173)	0.308	SE	4.0	133
16	104	3.0	84	3.7	69	3.6	46	3.2	151	S (172)	0.408	SSE	6.0	123
18	107	3.5	85	4.0	68	4.1	44	3.4	141	S (174)	0.494	SE	5.2	129
20	80	3.5	63	3.7	52	3.8	36	3.4	146	S (177)	0.478	SSE	4.8	153
22	83	4.0	64	4.1	52	3.9	35	3.3	145	S (177)	0.451	SE	4.8	143
D.max.	131	3.0	90	3.9	71	3.8	46	3.3	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	97	3.9	75	3.9	61	4.0	40	3.4	3	( S )	0.396	SSE	4.4	149

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge  
T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction



Table I. 3-1 (36I) Wave Data

Date: 5th Sep. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	95	4.0	66	4.1	52	4.0	36	3.5	140	S (181)	0.436	SE	3.5	135
2	76	5.0	61	3.4	52	3.4	36	3.3	151	S (177)	0.302	SE	3.5	143
4	82	4.0	65	3.9	53	3.8	35	3.4	143	S (177)	0.410	SE	3.9	157
6	92	5.0	70	4.1	57	3.9	38	3.5	141	S (174)	0.504	SE	3.8	177
8	84	4.5	57	3.6	49	3.6	33	3.3	146	S (176)	0.504	SE	3.9	183
10	99	4.5	79	3.9	62	3.8	40	3.3	148	S (172)	0.316	SE	3.3	159
12	107	4.0	83	3.7	68	3.6	46	3.5	141	SSE (168)	0.289	SSE	4.0	133
14	132	3.5	89	3.8	70	3.7	46	3.2	154	SSE (166)	0.374	SE	3.0	117
16	115	3.5	95	3.8	75	3.8	49	3.4	145	SSE (167)	0.333	SE	4.5	102
18	100	4.0	79	3.9	64	3.6	43	3.2	152	SSE (168)	0.600	SE	4.0	109
20	78	3.5	69	3.8	59	4.0	42	3.5	138	S (178)	0.777	SE	3.8	148
22	85	4.0	69	3.7	58	3.8	41	3.5	139	S (175)	0.418	SE	2.8	
D.max.	132	3.5	95	3.8	75	3.8	49	3.4	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	95	4.1	74	3.8	60	3.8	40	3.4	3	( S )	0.439	SE	3.7	142

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (332) Wave Data

Date: 6th Sep. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	104	4.0	68	4.0	56	3.7	37	3.2	150	S (181)	0.654	NNE	1.4	
2	70	4.5	59	3.9	50	3.8	34	3.2	152	S (174)	0.398	E	1.0	
4	80	4.0	65	3.6	51	3.5	35	3.2	149	S (178)	0.394	SE	2.1	
6	68	4.0	59	4.0	48	4.1	31	3.5	139	S (180)	0.448	ESE	2.0	
8	69	4.5	56	3.9	46	3.8	32	3.3	146	S (178)	0.444	NE	1.6	
10	71	3.5	58	3.8	46	3.9	30	3.5	137	S (169)	0.391	SSW	2.0	
12	93	3.0	77	3.8	65	3.9	44	3.4	145	S (170)	0.374	S	4.8	
14	124	4.5	110	3.9	88	4.1	57	3.8	132	S (175)	0.422	SSE	6.0	
16	125	3.5	105	4.3	87	4.1	53	3.5	142	S (169)	0.415	SSE	5.8	
18	132	4.0	104	4.1	80	4.0	52	3.6	137	S (172)	0.351	SSE	4.8	
20	109	3.5	93	3.6	74	3.7	49	3.4	146	S (173)	0.352	SSE	5.0	
22	125	4.5	92	4.1	72	4.1	47	3.5	144	S (178)	0.473	SSE	4.2	
D.max.	132	4.0	110	3.9	88	4.1	57	3.8	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	98	4.0	79	3.9	64	3.9	42	3.4	3	( S )	0.426	SSE	3.4	

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (333) Wave Data

Date: 7th Sep. 1989  
St. : 1

Item Time	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	113	3.5	83	4.1	67	4.1	45	3.7	137	S (172)	0.541	SSE	5.9	
2	105	3.5	90	3.7	74	3.8	50	3.6	135	S (169)	0.385	ESE	3.0	
4	134	3.5	98	3.8	75	4.0	48	3.5	139	S (174)	0.347	SE	2.2	
6	91	3.0	73	3.9	63	3.9	43	3.4	141	S (173)	0.369	NNE	2.0	
8	85	5.0	68	4.3	53	4.2	35	3.5	138	SSE (169)	0.438	NNE	3.5	
10	81	4.5	60	4.2	50	4.3	34	3.8	130	S (171)	0.351	NE	2.1	
12	61	3.5	50	4.2	40	4.4	27	3.8	132	S (170)	0.267	S	3.9	
14	64	5.0	51	3.9	42	4.1	28	3.5	137	S (170)	0.246	S	2.3	
16	94	3.5	71	4.0	57	3.9	38	3.4	141	S (173)	0.250	SSE	5.0	
18	141	3.5	85	3.9	69	4.0	48	3.5	140	S (171)	0.324	SE	4.1	
20	129	3.5	84	3.7	67	3.8	44	3.4	141	S (172)	0.357	SE	4.0	
22	101	4.0	80	4.0	67	3.8	45	3.3	146	S (173)	0.295	ESE	2.9	
D.max.	141	3.5	98	3.8	75	4.0	50	3.6	4	most D.W.D	mean	M.F.D	mean	mean
D.mean	100	3.8	74	4.0	60	4.0	40	3.5	4	( S )	0.347	SE	3.4	

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I: 3-1 (361) Wave Data

Date: 8th Sep. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir. (m/s)	vel. (m/s)	
0	100	3.5	73	3.6	59	3.8	38	3.3	143	SSE (166)	0.392	ESE	3.7	
2	93	3.5	73	3.8	57	3.9	39	3.4	139	S (176)	0.373	ESE	3.5	
4	101	3.0	67	3.8	53	3.7	35	3.4	140	S (172)	0.331	SE	2.5	
6	73	4.0	60	4.3	48	4.1	31	3.5	140	S (176)	0.358	NW	2.1	
8	65	4.5	48	4.1	39	4.2	26	3.8	130	SSE (166)	0.371	ENE	1.8	
10	69	3.5	55	4.3	45	4.2	29	3.8	130	S (174)	0.338	S	2.0	
12	97	4.0	81	3.8	64	3.9	42	3.5	140	S (170)	0.253	SW	2.0	
14	133	5.5	104	3.9	84	4.1	57	3.6	135	S (173)	0.248	S	2.2	
16	128	4.5	104	3.9	85	3.8	54	3.4	146	SSE (166)	0.352	SSE	6.2	
18	111	4.0	98	4.2	80	4.2	54	3.6	137	SSE (167)	0.298	SSE	6.0	
20	131	4.0	96	4.0	77	4.0	50	3.5	140	SSE (167)	0.370	SE	4.8	
22	134	3.0	94	3.6	76	3.8	49	3.5	140	SSE (167)	0.440	SSE	5.8	
D.max.	134	3.0	104	3.9	85	3.8	57	3.6	4	most D.W.D	mean	M.F.D	mean	
D.mean	103	3.9	79	3.9	64	4.0	42	3.5	4	(SSE)	0.344	SSE	3.5	

[Note]

- W.H : Wave Height
- W.P : Wave Period
- Wave No.: Wave Countered
- D.W.D : Dominant Wave Direction
- R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge
- T.L : Tidal Level
- D.max. : Daily max.
- D.mean : Daily mean
- M.F.D : Most Frequency Wind Direction

Table 1.3-1 (355) Wave Data

Date: 9th Sep. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	127	4.0	91	3.5	71	3.7	45	3.4	141	SSE (168)	0.487	SE	4.0	
2	110	4.0	78	3.8	61	3.9	40	3.4	145	S (173)	0.318	SE	3.5	
4	89	2.5	68	3.5	54	3.5	38	3.2	151	S (176)	0.374	SE	3.6	
6	89	4.5	74	4.0	61	3.9	41	3.4	145	S (174)	0.464	NE	1.0	
8	82	3.5	70	3.4	57	3.5	39	3.2	153	S (171)	0.398	SSE	0.9	
10	91	3.5	78	3.7	64	3.9	45	3.5	142	SSE (166)	0.481	SSE	2.5	
12	108	4.5	80	4.0	64	4.0	44	3.5	142	SSE (169)	0.297	SSE	3.0	
14	142	3.5	113	4.2	90	4.1	59	3.7	132	SSE (169)	0.251	S	3.0	
16	178	3.5	116	4.2	87	4.1	57	3.6	133	S (170)	0.440	SSE	6.2	
18	113	4.0	93	4.0	77	3.9	49	3.4	146	S (172)	0.353	E	3.5	
20	73	4.5	62	3.9	50	3.8	34	3.5	140	S (174)	0.418	W	1.8	
22	57	4.0	49	3.9	40	4.0	27	3.5	137	SSE (166)	0.652	ESE	1.7	
D.max.	178	3.5	116	4.2	90	4.1	59	3.7	4	most D.W.D	mean	M.F.D	mean	
D.mean	105	3.8	81	3.8	65	3.9	43	3.4	3	( S )	0.411	SSE	2.9	

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction

Table I. 3-1 (366) Wave Data

Date: 10th Sep. 1989  
St. : 1

Item	Hmax.		H1/10		H1/3		Hmean		Wave No.	D.W.D (deg.)	R.W.E.D	Wind		T.L (cm)
	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)	W.H (cm)	W.P (sec)				dir.	vel. (m/s)	
0	55	4.0	42	3.9	36	3.8	25	3.4	140	S (174)	0.829	NE	2.0	
2	50	5.5	37	4.3	30	4.3	20	3.5	133	S (172)	0.421	NNE	2.8	
4	41	4.5	32	4.4	27	4.5	18	3.6	129	SSE (164)	0.399	NNW	2.1	
6	35	4.0	31	4.3	25	4.3	17	3.4	128	S (175)	0.379	NNW	2.1	
8										S (171)	0.391	NNE	2.0	
10										( )		NE	2.0	
12										( )		SW	2.0	
14										( )				
16										( )				
18										( )				
20										( )				
22										( )				
D.max.	55	4.0	42	3.9	36	3.8	25	3.4	4	most D.W.D	mean	M.F.D	mean	
D.mean	45	4.5	36	4.2	30	4.2	20	3.5	3	( S )	0.484	NNW	2.1	

[Note]

W.H : Wave Height  
W.P : Wave Period  
Wave No.: Wave Countered  
D.W.D : Dominant Wave Direction  
R.W.E.D : Ratio of Wave Energy Density of Direction on Wave Ridge

T.L : Tidal Level  
D.max. : Daily max.  
D.mean : Daily mean  
M.F.D : Most Frequency Wind Direction