

INFORME DE APOYO PARA EL CAPÍTULO 3

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CONDICIONES NATURALES DEL DELTA DEL RÍO ORINOCO

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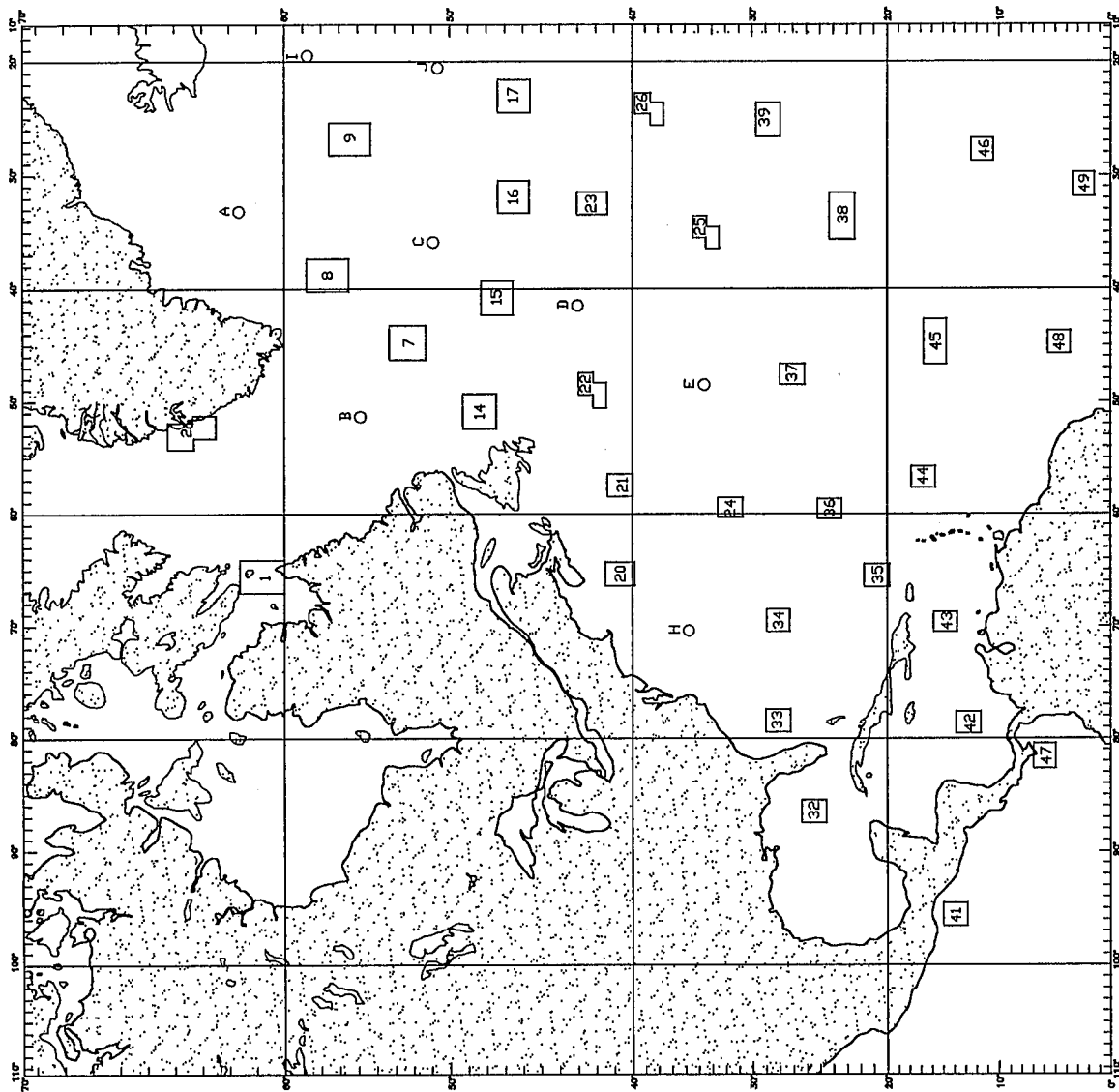


Fig. 3-3-1 Posición de las Estaciones de Observación

Tabla 3.3.1 Datos de Viento en Estación 44

Wind direction & speed for the month of January, St. 44(%)

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	0.3	1	1	1	0.1						3.3
NE	0.3	3	9	16	8	3	1				40.3
E	0.3	4	10	17	12	3	0.1				46.3
SE	0.3	1	1	2	1		0.1				5.3
S	0.4	0.3	0.2	1	0.1						1.95
SW		0.3	0.2		0.1						0.5
W	0.3	0.3	0.1	0.1							0.7
NW	0.3	0.3	0.1	0.1							0.7
Calm	1										1
Total	2.9	10	22	37	21	6	1.1	0	0	0	839

Wind direction & speed for the month of January, St. 44

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	2	8	8	8	0	0	0				28
NE	2	25	76	134	67	25	8				338
E	2	34	84	143	101	25	0				388
SE	2	8	8	17	8	0	0				44
S	3	2	2	8	1	0	0				16
SW	0	2	2	0	0	0	0				4
W	2	2	1	1	0	0	0				6
NW	2	2	1	1	0	0	0				6
Calm	8	0	0	0	0	0	0				8
Total	24	84	181	312	178	50	9				839

Wind direction & speed for the month of April, St. 44 (%)

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N			1	0.2	0.2						1.4
NE	0.2	3	10	10	3						26.2
E	1	4	18	25	6	1					55
SE	1	1	6	3	1						12
S	0.2	0.2	1	0.2							1.6
SW	0.2		0.2								0.4
W	0.2	0.4		0.2							0.8
NW	0.2		0.2	0.2							0.6
Calm	2										2
Total	5	8.6	36	39	10	1					100

Wind direction & speed for the month of April, St. 44

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	0	0	8	2	2	0					11
NE	2	23	77	77	23	0					201
E	8	31	138	192	46	8					423
SE	8	8	46	23	8	0					92
S	2	2	8	2	0	0					12
SW	2	0	2	0	0	0					3
W	2	3	0	2	0	0					6
NW	2	0	2	2	0	0					5
Calm	15	0	0	0	0	0					15
Total	38	66	280	298	78	8					769

Wind direction & speed for the month of July, St. 44 (%)

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N											0
NE	0.2	0.2	4	10	8	2	0.5				24.9
E	0.2	2	12	28	22	3	0.5	0.1			67.8
SE	0.2	0.2	2	3	1			0.1			6.5
S			0.2	0.2							0.4
SW				0.2			0.2				0.4
W											0
NW											0
Calm											0
Total	0.6	2.4	18	41	31	5	1.2	0.2			100

Wind direction & speed for the month of July, St. 44

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	0	0	0	0	0	0					0
NE	2	2	31	77	62	15					191
E	2	15	92	215	169	23					521
SE	2	2	15	23	8	0					50
S	0	0	2	2	0	0					3
SW	0	0	0	2	0	0					3
W	0	0	0	0	0	0					0
NW	0	0	0	0	0	0					0
Calm	0	0	0	0	0	0					0
Total	5	18	140	318	238	38					769

Wind direction & speed for the month of October, St. 44 (%)

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	1	0.4	0.2								1.6
NE	1	3	6	7	2	0.4					19.4
E	1	7	21	21	5	1	0.2				56.2
SE	1	3	6	3	1	0.4	0.2				14.6
S	0.4	0.4	2	1							3.8
SW	0.4	0.4	0.2	0.2							1.2
W	0.4	0.4	0.3								1.1
NW	0.4	0.4	0.3								1.1
Calm	1										1
Total	6.6	15	36	32	8	1.8	0.4				100

Wind direction & speed for the month of October, St. 44

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	8	3	2	0	0	0					12
NE	8	23	46	54	15	3					149
E	8	54	161	161	38	8					432
SE	8	23	46	23	8	3					112
S	3	3	15	8	0	0					29
SW	3	3	2	2	0	0					9
W	3	3	2	0	0	0					8
NW	3	3	2	0	0	0					8
Calm	8	0	0	0	0	0					8
Total	51	115	277	248	62	14					769

%Annual distribution of wind direction & speed at St. 44

W(kt) Direction	2	5.5	9	14	20	25	31	38	45	>45	Total
N	0	0	1	0	0	0	0	0	0	0	2
NE	0	2	7	11	5	1	0	0	0	0	28
E	1	4	15	23	11	2	0	0	0	0	56
SE	1	1	4	3	1	0	0	0	0	0	10
S	0	0	1	1	0	0	0	0	0	0	2
SW	0	0	0	0	0	0	0	0	0	0	1
W	0	0	0	0	0	0	0	0	0	0	1
NW	0	0	0	0	0	0	0	0	0	0	1
Calm	1	0	0	0	0	0	0	0	0	0	1
Total	4	9	28	37	18	4	0	0	0	0	100

Annual distribution of wind direction & speed at St. 44

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	10	11	18	10	2	0	0	0	0	0	51
NE	13	73	229	342	167	44	8	0	0	0	880
E	19	134	476	712	354	64	0	0	0	0	1765
SE	19	41	116	86	31	3	0	0	0	0	299
S	8	7	26	19	1	0	0	0	0	0	61
SW	5	5	5	3	0	0	0	0	0	0	20
W	7	8	3	2	0	0	0	0	0	0	20
NW	7	5	5	2	0	0	0	0	0	0	19
Calm	31	0	0	0	0	0	0	0	0	0	31
Total	118	284	878	1176	556	110	9	0	0	0	3146

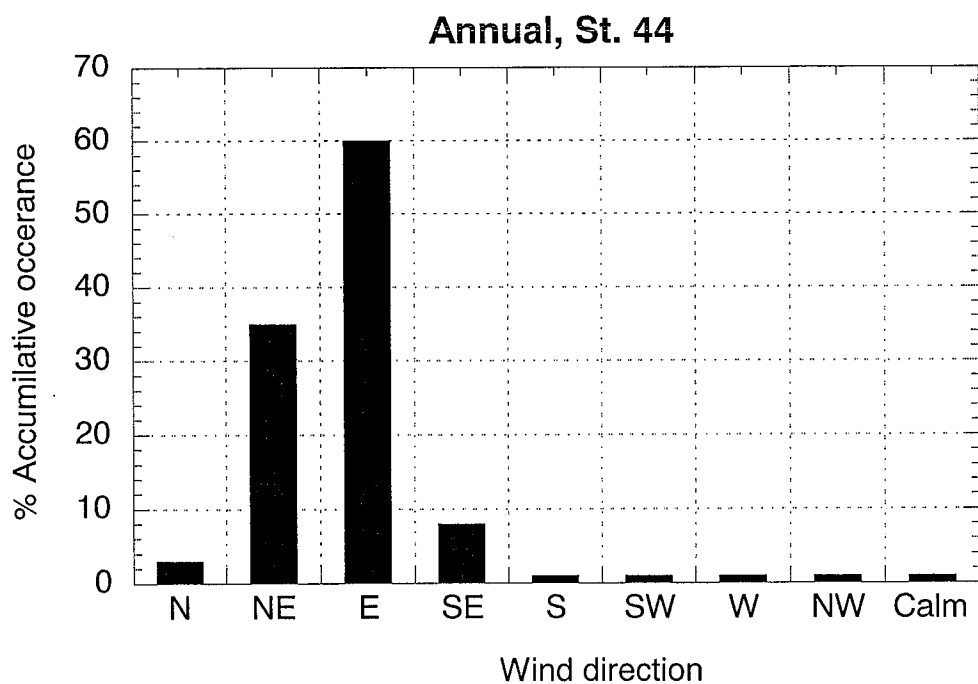
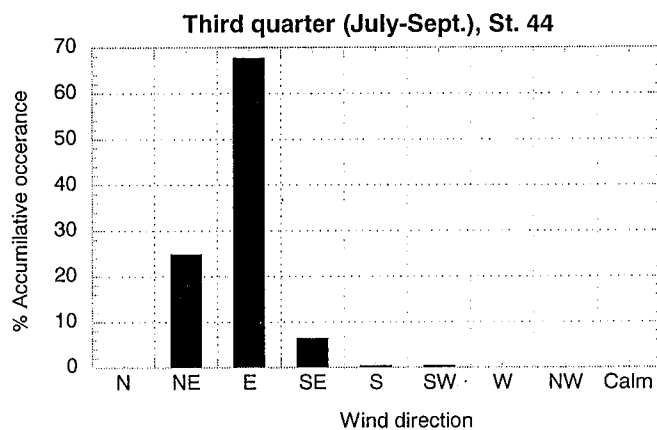
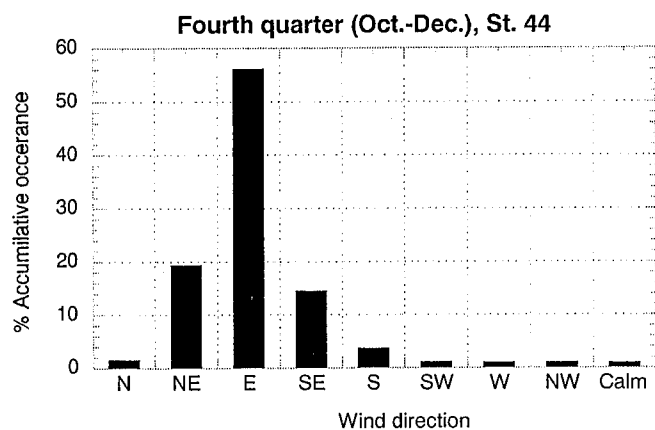
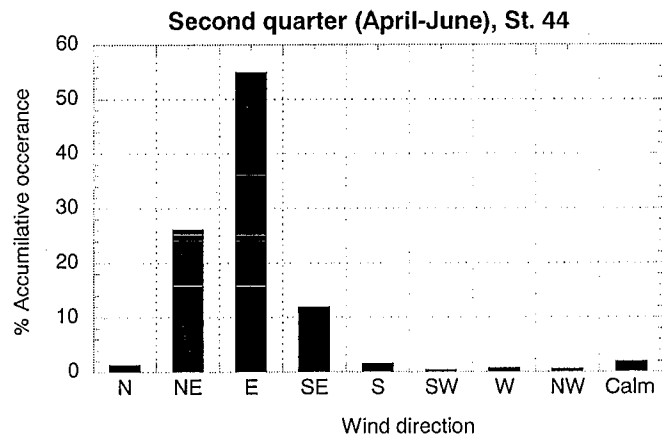
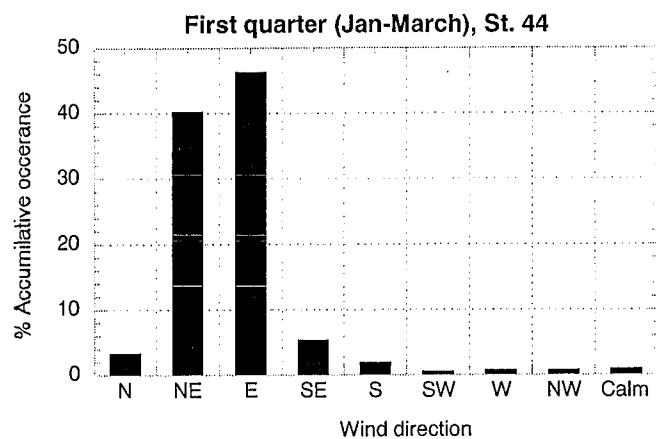


Fig. 3-3-2 Distribución de la Dirección del Viento en la Estación 44

Tabla 3.3.2 Datos de Viento en Estación 45

Wind direction & speed for the month of January, St. 45(%)

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	0.1	1	1	1	0.05						3.15
NE	1	2	8	15	7	2	1				36
E	0.1	4	8	20	11	6	1				50.1
SE	0.1	1	2	1	0.1						4.2
S	0.3	0.1	0.1	0.1							0.6
SW		0.1	1	0.1							1.2
W	0.1	1	1	0.1	0.1						2.3
NW	0.25	1	0.1		0.1						1.45
Calm	1										1
Total	2.95	10.2	21.2	37.3	18.4	8	2	0	0	0	100

Wind direction & speed for the month of January, St. 45

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	0	4	4	4	0	0	0				14
NE	4	9	36	67	31	9	4				161
E	0	18	36	89	49	27	4				224
SE	0	4	9	4	0	0	0				19
S	1	0	0	0	0	0	0				3
SW	0	0	4	0	0	0	0				5
W	0	4	4	0	0	0	0				10
NW	1	4	0	0	0	0	0				6
Calm	4	0	0	0	0	0	0				4
Total	13	46	95	167	82	36	9				447

Wind direction & speed for the month of April, St. 45 (%)

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	0.4		0.1	0.1							0.6
NE	1	3	7	11	11	1					34
E	0.4	3	13	22	15	2					55.4
SE	0.4	2	3	2	1	0.1					8.5
S		0.4				0.1					0.5
SW			0.2								0.2
W											0
NW	0.4										0.4
Calm	0.4										0.4
Total	3	8.4	23.3	35.1	27	3.2					100

Wind direction & speed for the month of April, St. 45

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	2	0	0	0	0	0					3
NE	5	14	32	50	50	5					156
E	2	14	60	101	69	9					254
SE	2	9	14	9	5	0					39
S	0	2	0	0	0	0					2
SW	0	0	1	0	0	0					1
W	0	0	0	0	0	0					0
NW	2	0	0	0	0	0					2
Calm	2	0	0	0	0	0					2
Total	14	39	107	161	124	15					459

Wind direction & speed for the month of July, St. 45 (%)

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	0.2										0.2
NE	0.2	1	6	15	9	2	1				34.2
E	0.2	2	14	19	22	4	1				62.2
SE		0.2	2		1						3.2
S											0
SW			0.2								0.2
W											0
NW											0
Calm											0
Total	0.6	3.2	22.2	34	32	6	2	0	0	0	100

Wind direction & speed for the month of July, St. 45

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	1	0	0	0	0	0					1
NE	1	4	25	63	38	8					144
E	1	8	59	80	92	17					261
SE	0	1	8	0	4	0					13
S	0	0	0	0	0	0					0
SW	0	0	1	0	0	0					1
W	0	0	0	0	0	0					0
NW	0	0	0	0	0	0					0
Calm	0	0	0	0	0	0					0
Total	3	13	93	143	134	25					420

Wind direction & speed for the month of October, St. 45 (%)

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N		0.1	0.1	0.1							0.3
NE		2	6	13	4	1					26
E	1	4	14	24	10	0.2					53.2
SE	0.1	3	5	4	2	0.2					14.3
S	1	1	1	0.1	0.1						3.2
SW	0.1	0.1	1	0.2							1.4
W			0.1								0.1
NW		0.2	0.3								0.5
Calm	1										1
Total	3.2	10.4	27.5	41.4	16.1	1.4	0				100

Wind direction & speed for the month of October, St. 45

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	0	0	0	0	0	0					1
NE	0	9	28	61	19	5					122
E	5	19	66	113	47	1					251
SE	0	14	24	19	9	1					67
S	5	5	5	0	0	0					15
SW	0	0	5	1	0	0					7
W	0	0	0	0	0	0					0
NW	0	1	1	0	0	0					2
Calm	5	0	0	0	0	0					5
Total	15	49	130	195	76	7					471

%Annual distribution of wind direction & speed at St. 45

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	0	0	0	0	2	0					3
NE	1	2	7	15	8	2					35
E	0	4	13	23	16	3					60
SE	0	2	3	2	1	0					8
S	0	0	0	0	0	0					1
SW	0	0	1	0	0	0					1
W	0	0	0	0	0	0					1
NW	0	0	0	0	0	0					1
Calm	1	0	0	0	0	0					1
Total	3	9	25	40	20	3					100

Annual distribution of wind direction & speed at St. 45

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	3	5	5	5	0	0	0	0	0	0	19
NE	10	36	121	242	138	27	4	0	0	0	583
E	8	59	220	383	258	54	4	0	0	0	990
SE	3	29	55	32	19	1	0	0	0	0	139
S	6	7	5	1	0	0	0	0	0	0	20
SW	0	1	11	1	0	0	0	0	0	0	14
W	0	4	5	0	0	0	0	0	0	0	11
NW	3	5	2	0	0	0	0	0	0	0	11
Calm	11	0	0	0	0	0	0	0	0	0	11
Total	45	147	424	666	416	82	9	0	0	0	1797

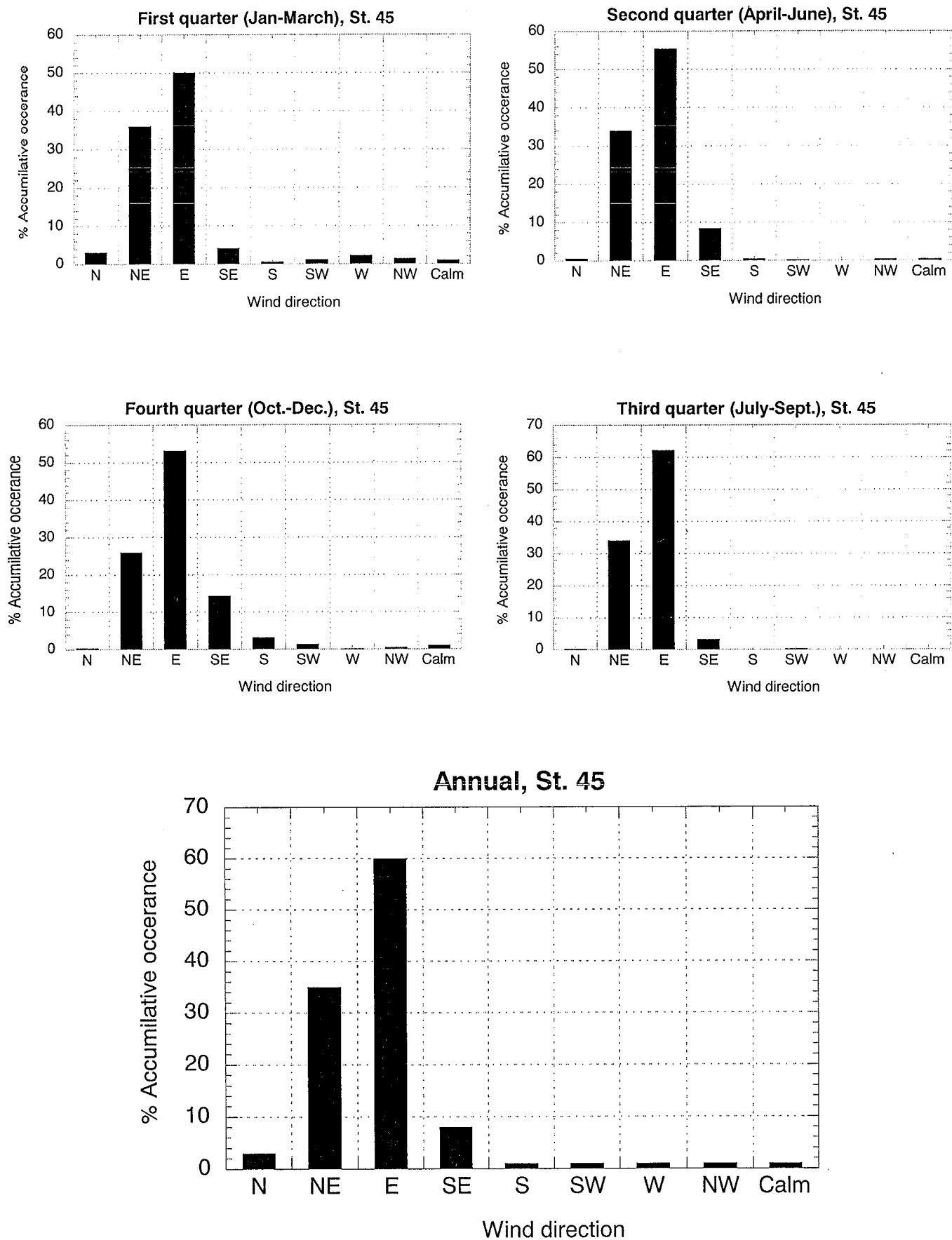


Fig. 3-3-3 Distribución de la Dirección del Viento en la Estación 45

Tabla 3.3.3 Datos de Viento en Estación 48

Wind direction & speed for the month of January, St. 48 (%)

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	0.1	0.3	1	3	1	0.1					5.5
NE		1	9	23	16	7	1				57
E		2	5	14	11	1	0.1				33.1
SE		0.3	0.1	2	1						3.4
S	0.3			0.1							0.4
SW	0.1										0.1
W		0.3									0.3
NW		0.2									0.2
Calm											0
Total	0.5	4.1	15.1	42.1	29	8.1	1.1	0	0	0	100

424

Wind direction & speed for the month of January, St. 48

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	0	1	4	13	4	0	0				23
NE	0	4	38	98	68	30	4				242
E	0	8	21	59	47	4	0				140
SE	0	1	0	8	4	0	0				14
S	1	0	0	0	0	0	0				2
SW	0	0	0	0	0	0	0				0
W	0	1	0	0	0	0	0				1
NW	0	1	0	0	0	0	0				1
Calm	0	0	0	0	0	0	0				0
Total	2	17	64	179	123	34	5				424

Wind direction & speed for the month of April, St. 48 (%)

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N		0.2	0.1	0.1	0.1		0.1				0.6
NE		2	9	31	17	4					63
E	1	1	7	15	9	1					34
SE		0.4	0.1	0.1	0.1						0.7
S		0.4	0.4								0.8
SW		0.3									0.3
W		0.3									0.3
NW		0.3									0.3
Calm											0
Total	1	4.9	16.6	46.2	26.2	5	0.1	0	0	0	100

447

Wind direction & speed for the month of April, St. 48

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	0	1	0	0	0	0					3
NE	0	9	40	139	76	18					282
E	4	4	31	67	40	4					152
SE	0	2	0	0	0	0					3
S	0	2	2	0	0	0					4
SW	0	1	0	0	0	0					1
W	0	1	0	0	0	0					1
NW	0	1	0	0	0	0					1
Calm	0	0	0	0	0	0					0
Total	4	22	74	207	117	22					447

Wind direction & speed for the month of July, St. 48 (%)

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	0.1	1	0.1								1.2
NE	1	2	3	1	1						8
E	2	11	9	6							28
SE	4	12	14	14	3						47
S	1	3	4	2							10
SW	0.1	0.1	0.1	0.1							0.4
W	0.1	1	0.1								1.2
NW		0.1	0.1								0.2
Calm	4										4
Total	12.3	30.2	30.4	23.1	4	0	0	0	0	0	100

436

Wind direction & speed for the month of July, St. 48

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	0	4	0	0	0	0					5
NE	4	9	13	4	4	0					35
E	9	48	39	26	0	0					122
SE	17	52	61	13	13	0					205
S	4	13	17	9	0	0					44
SW	0	0	0	0	0	0					2
W	0	4	0	0	0	0					5
NW	0	0	0	0	0	0					1
Calm	17	0	0	0	0	0					17
Total	54	132	133	101	17	0					436

Wind direction & speed for the month of October, St. 48 (%)

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N			0.1								0.1
NE	1	2	3	3	0.1						9.1
E	1	8	18	16	4						47.1
SE	1	5	17	12	3	0.1					39
S	0.1	1	1.4	1							3.5
SW	0.1										0.1
W		0.1									0.1
NW											0
Calm	1										1
Total	4.2	16.1	39.5	32	7.1	1.1	0				100

481

Wind direction & speed for the month of October, St. 48

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	0	0	0	0	0	0					0
NE	5	10	14	14	0	0					44
E	5	38	87	77	19	0					227
SE	5	24	82	58	14	5					188
S	0	5	7	5	0	0					17
SW	0	0	0	0	0	0					0
W	0	0	0	0	0	0					0
NW	0	0	0	0	0	0					0
Calm	5	0	0	0	0	0					5
Total	20	77	190	154	34	5					481

%Annual distribution of wind direction & speed at St. 48

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	0	0	0	1	0	0				0	2
NE	1	2	6	14	8	3				0	34
E	1	6	10	13	6	1				0	36
SE	1	4	8	4	2	0				0	23
S	0	1	1	1	0	0				0	4
SW	0	0	0	0	0	0				0	0
W	0	0	0	0	0	0				0	0
NW	0	0	0	0	0	0				0	0
Calm	1	0	0	0	0	0				0	1
Total	4	14	26	36	16	3				0	100

Annual distribution of wind direction & speed at St. 48

W(kt) Direction	2	5.5	9	14	19.5	25	31	37.5	44.5	>45	Total
N	1	7	6	13	5	0	0	0	0	0	32
NE	9	32	106	255	149	48	4	0	0	0	602
E	18	99	178	230	106	9	0	0	0	0	641
SE	22	79	144	80	32	5	0	0	0	0	410
S	6	20	26	14	0	0	0	0	0	0	66
SW	1	2	0	0	0	0	0	0	0	0	4
W	0	7	0	0	0	0	0	0	0	0	8
NW	0	3	0	0	0	0	0	0	0	0	3
Calm	22	0	0	0	0	0	0	0	0	0	22
Total	80	248	461	640	292	62	5	0	0	0	1788

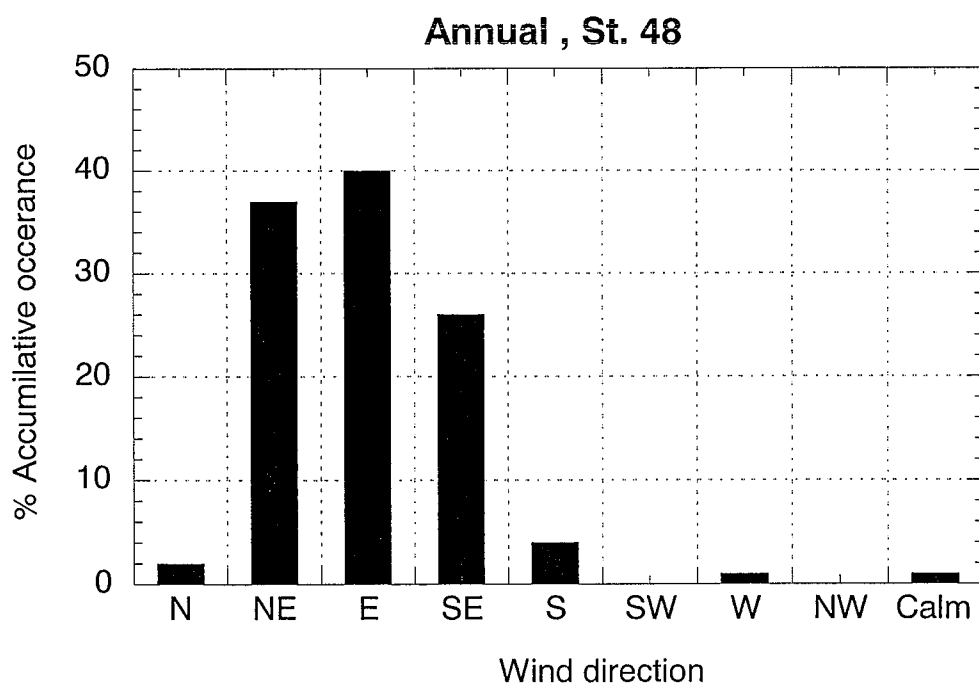
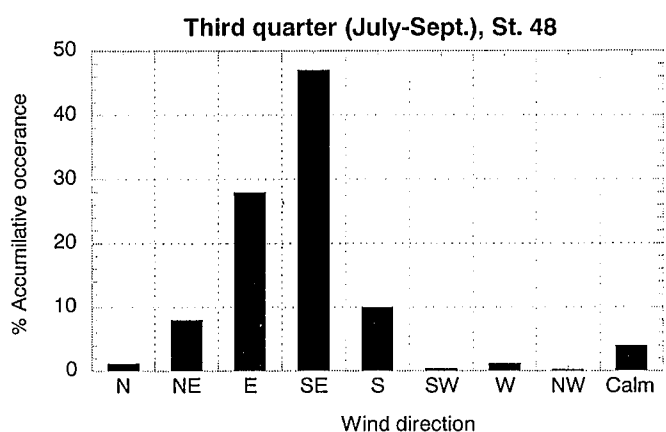
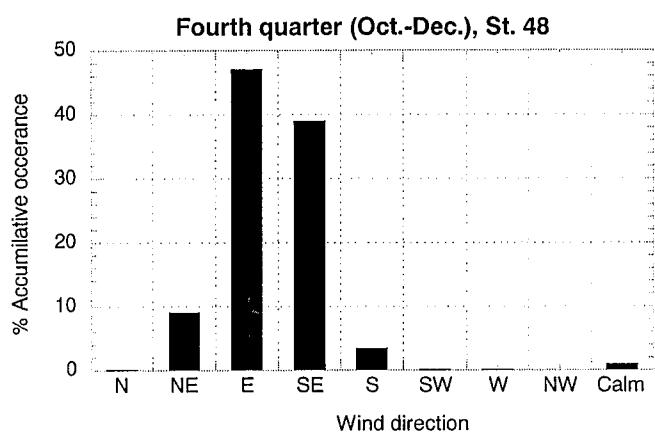
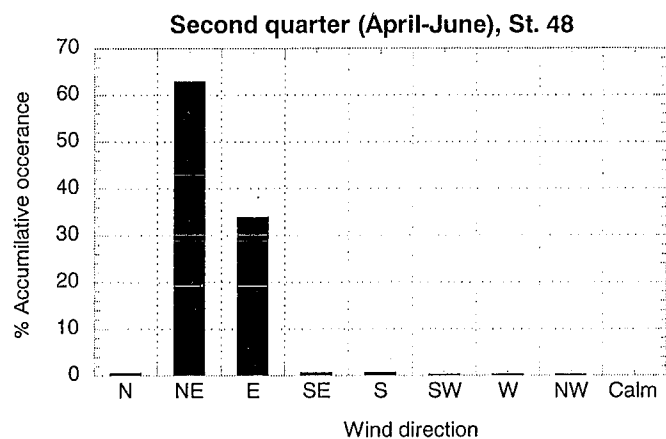
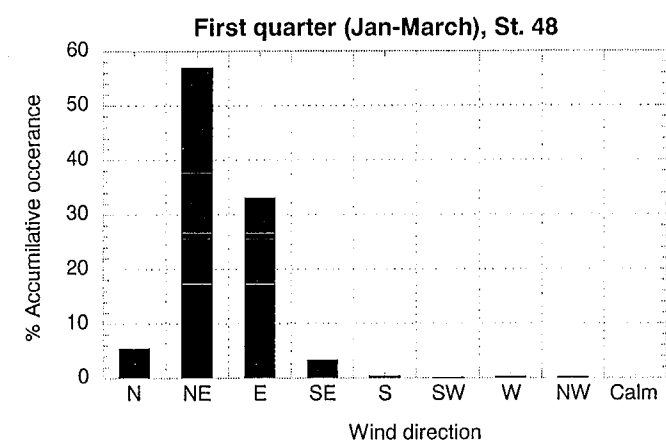


Fig. 3-3-4 Distribución de la Dirección del Viento en la Estación 48

Tabla 3.3.4 Datos de Oleaje en Estación 44

Wave height & period for the month of January, St. 44 (%)

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	9	1	0.1	1			5	16.1
1.25	13	18	6	2	2.5		5	46.5
2.25	2	13	8	1	2.5	0.9	2	29.4
3.25	1	2	1	1		0.9	1	6.9
4.75	0.1						1	1.1
6.75								0
8.75								0
>10								0
Total	25.1	34	15.1	5	5	1.8	14	100

301

Wave height & period for the month of January, St. 44

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	27	3	0	3	0	0	15	48
1.25	39	54	18	6	8	0	15	140
2.25	6	39	24	3	8	3	6	88
3.25	3	6	3	3	0	3	3	21
4.75	0	0	0	0	0	0	3	3
6.75	0	0	0	0	0	0	0	0
8.75	0	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0	0
Total	76	102	45	15	15	5	42	301

Wave height & period for the month of April, St. 44 (%)

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	10	1	1	0.1			4	16.1
1.25	19	24	9	2	0.5		8	62.5
2.25	2	8	6	0.1	0.5	0.6	1	18.2
3.25	1	0.1	1	1				3.1
4.75			0.1					0.1
6.75								0
8.75								0
>10								0
Total	32	33.1	17.1	3.2	1	0.6	13	100

319

Wave height & period for the month of April, St. 44

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	32	3	3	0	0	0	13	51
1.25	61	77	29	6	2	0	26	199
2.25	6	26	19	0	2	2	3	58
3.25	3	0	3	3	0	0	0	10
4.75	0	0	0	0	0	0	0	0
6.75	0	0	0	0	0	0	0	0
8.75	0	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0	0
Total	102	106	55	10	3	2	41	319

Wave height & period for the month of July, St. 44 (%)

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	5	0.4		0.3			0.4	6.1
1.25	19	18	9	0.2			5	51.2
2.25	2	16	12	4			3	37
3.25	1	1	2		0.1			4.1
4.75		0.4	1	0.1	0.1			1.6
6.75								0
8.75								0
>10								0
Total	27	35.8	24	4.6	0.2	0	8.4	100

299

Wave height & period for the month of July, St. 44

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	15	1	0	1	0	0	1	18
1.25	57	54	27	1	0	0	15	153
2.25	6	48	36	12	0	0	9	111
3.25	3	3	0	0	0	0	0	12
4.75	0	1	3	0	0	0	0	5
6.75	0	0	0	0	0	0	0	0
8.75	0	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0	0
Total	81	107	72	14	1	0	25	299

Wave height & period for the month of October, St. 44 (%)

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	15	1.8					5	21.8
1.25	26	25	7	3		1	2	64
2.25	1	6	5	0.1	1		1	14.1
3.25				0.1				0.1
4.75								0
6.75								0
8.75								0
>10								0
Total	42	32.8	12	3.2	1	1	8	100

292

Wave height & period for the month of October, St. 44

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	44	5	0	0	0	0	15	64
1.25	76	73	20	9	0	3	6	187
2.25	3	18	15	0	3	0	3	41
3.25	0	0	0	0	0	0	0	0
4.75	0	0	0	0	0	0	0	0
6.75	0	0	0	0	0	0	0	0
8.75	0	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0	0
Total	123	96	35	9	3	3	23	292

%Annual distribution of wave height & period at St. 44

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	10	1	0	0	0	0	4	15
1.25	19	21	8	2	1	0	5	56
2.25	2	11	8	1	1	0	2	25
3.25	1	1	1	1	0	0	0	4
4.75	0	0	0	0	0	0	0	1
6.75	0	0	0	0	0	0	0	0
8.75	0	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0	0
Total	31	34	17	4	2	1	11	100

Annual distribution of wave height & period at St. 44

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	118	13	3	4	0	0	44	182
1.25	232	258	94	22	9	3	61	679
2.25	21	130	94	16	12	5	21	298
3.25	9	9	6	7	0	3	3	43
4.75	0	1	3	0	0	0	3	8
6.75	0	0	0	0	0	0	0	0
8.75	0	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0	0
Total	381	411	207	48	22	10	132	1211

Tabla 3.3.5 Datos de Oleaje en Estación 45

Wave height & period for the month of January, St. 45 (%)

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	6	1		1			2	10
1.25	21	16	7	2		1	2	49
2.25	3	11	9	2		2	1	28
3.25	2	3	2	3	1		1	12
4.75		1						1
6.75								0
8.75								0
>10								0
Total	32	32	18	8	1	3	6	100

120

Wave height & period for the month of January, St. 45

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	7	1	0	1	0	0	2	12
1.25	25	19	8	2	0	1	2	59
2.25	4	13	11	2	0	2	1	34
3.25	2	4	2	4	1	0	1	14
4.75	0	1	0	0	0	0	0	1
6.75	0	0	0	0	0	0	0	0
8.75	0	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0	0
Total	38	38	22	10	1	4	7	120

Wave height & period for the month of April, St. 45 (%)

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	9							9
1.25	35	27	5		1	2		70
2.25	2	11	1		1	2	1	18
3.25			1	2				3
4.75								0
6.75								0
8.75								0
>10								0
Total	46	38	7	2	2	4	1	100

131

Wave height & period for the month of April, St. 45

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	12	0	0	0	0	0	0	12
1.25	46	35	7	0	1	3	0	92
2.25	3	14	1	0	1	3	1	24
3.25	0	0	1	3	0	0	0	4
4.75	0	0	0	0	0	0	0	0
6.75	0	0	0	0	0	0	0	0
8.75	0	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0	0
Total	60	50	9	3	3	5	1	131

Wave height & period for the month of July, St. 45 (%)

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	2	1					2	5
1.25	30	18	5					53
2.25	7	13	17	2				39
3.25				1	1			2
4.75	1							1
6.75								0
8.75								0
>10								0
Total	40	32	22	3	1	0	2	100

109

Wave height & period for the month of July, St. 45

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	2	1	0	0	0	0	2	5
1.25	33	20	5	0	0	0	0	58
2.25	8	14	19	2	0	0	0	43
3.25	0	0	1	1	1	0	0	2
4.75	1	0	0	0	0	0	0	1
6.75	0	0	0	0	0	0	0	0
8.75	0	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0	0
Total	44	35	24	3	1	0	2	109

Wave height & period for the month of October, St. 45 (%)

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	9	1					0.5	10.5
1.25	29	25	5	1	0.5		1	61.5
2.25	4	12	6	3			0.5	25.5
3.25			1	1	0.5			2.5
4.75								0
6.75								0
8.75								0
>10								0
Total	42	38	12	5	1	0	2	100

141

Wave height & period for the month of October, St. 45

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	13	1	0	0	0	0	1	15
1.25	41	35	7	1	1	0	1	87
2.25	6	17	8	4	0	0	1	36
3.25	0	0	1	1	1	0	0	4
4.75	0	0	0	0	0	0	0	0
6.75	0	0	0	0	0	0	0	0
8.75	0	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0	0
Total	59	54	17	7	1	0	3	141

%Annual distribution of wave height & period at St. 45

T(sec) H(m)	< 6	6.5	8.5	11	13	>13	U.K	Total
0.25	7	1	0	0	0	0	1	9
1.25	29	22	5	1	0	1	1	59
2.25	4	12	8	2	0	1	1	27
3.25	0	1	1	2	1	0	0	5
4.75	0	0	0	0	0	0	0	0
6.75	0	0	0	0	0	0	0	0
8.75	0	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0	0
Total	40	35	14	4	1	2	3	100

Annual distribution of wave height & period at St. 45

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	34	4	0	1	0	0	5	44
1.25	145	109	27	4	2	4	4	295
2.25	19	59	39	9	1	5	3	136
3.25	2	4	6	9	3	0	1	24
4.75	1	1	0	0	0	0	0	2
6.75	0	0	0	0	0	0	0	0
8.75	0	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0	0
Total	201	177	72	23	6	9	14	501

Tabla 3.3.6 Datos de Oleaje en Estación 48

Wave height & period for the month of January, St. 48 (%)

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	3	2					2.6	7.6
1.25	18	18	7	1	1	0.1	3	48.1
2.25	6	11	15	3	1	0.1	1	37.1
3.25		3	3	1				7
4.75			0.1	0.1				0.2
6.75								0
8.75								0
>10								0
Total	27	34	25.1	5.1	2	0.2	6.6	100

219

Wave height & period for the month of January, St. 48

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	7	4	0	0	0	0	6	17
1.25	39	39	15	2	2	0	7	105
2.25	13	24	33	7	2	0	2	81
3.25	0	7	7	2	0	0	0	15
4.75	0	0	0	0	0	0	0	0
6.75	0	0	0	0	0	0	0	0
8.75	0	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0	0
Total	59	74	55	11	5	0	14	219

Wave height & period for the month of April, St. 48 (%)

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	4	0.1					0.1	4.2
1.25	20	29	6	1			1	57
2.25	5	18	7	2		0.1	1	33.1
3.25	0.1	2	1	1		0.8		4.9
4.75						0.8		0.8
6.75								0
8.75								0
>10								0
Total	29.1	49.1	14	4	0	1.7	2.1	100

223

Wave height & period for the month of April, St. 48

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	9	0	0	0	0	0	0	9
1.25	45	65	13	2	0	0	2	127
2.25	11	40	16	4	0	0	2	74
3.25	0	4	2	2	0	2	0	11
4.75	0	0	0	0	0	2	0	2
6.75	0	0	0	0	0	0	0	0
8.75	0	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0	0
Total	65	109	31	9	0	4	5	223

Wave height & period for the month of July, St. 48 (%)

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	16	1	1	0.1			2	20.1
1.25	28	25	5	2	0.8		6	66.8
2.25	2	3	5	1	0.8		1	12.8
3.25		0.1	0.1		0.1			0.3
4.75								0
6.75								0
8.75								0
>10								0
Total	46	29.1	11.1	3.1	1.7	0	9	100

243

Wave height & period for the month of July, St. 48

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	39	2	2	0	0	0	5	49
1.25	68	61	12	5	2	0	15	162
2.25	5	7	12	2	2	0	2	31
3.25	0	0	0	0	0	0	0	1
4.75	0	0	0	0	0	0	0	0
6.75	0	0	0	0	0	0	0	0
8.75	0	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0	0
Total	112	71	27	8	4	0	22	243

Wave height & period for the month of October, St. 48 (%)

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	16	1					2	19
1.25	28	28	7	1	1		3	68
2.25	2	4	4	1	0.3	0.3		11.6
3.25		0.4	1					1.4
4.75								0
6.75								0
8.75								0
>10								0
Total	46	33.4	12	2	1.3	0.3	5	100

260

Wave height & period for the month of October, St. 48

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	42	3	0	0	0	0	5	49
1.25	73	73	18	3	3	0	8	177
2.25	5	10	10	3	1	1	0	30
3.25	0	1	3	0	0	0	0	4
4.75	0	0	0	0	0	0	0	0
6.75	0	0	0	0	0	0	0	0
8.75	0	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0	0
Total	120	87	31	5	3	1	13	260

%Annual distribution of wave height & period at St. 48

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	10	1	0	0	0	0		13
1.25	24	25	6	1	1	0		60
2.25	4	9	8	2	1	0		23
3.25	0	1	1	0	0	0		3
4.75	0	0	0	0	0	0		0
6.75	0	0	0	0	0	0		0
8.75	0	0	0	0	0	0		0
>10	0	0	0	0	0	0		0
Total	38	36	15	3	1	1		100

Annual distribution of wave height & period at St. 48

T(sec) H(m)	< 6	6.5	8.5	10.5	12.5	>13	U.K	Total
0.25	96	10	2	0	0	0	16	124
1.25	225	238	59	12	7	0	31	572
2.25	34	82	71	16	5	1	7	216
3.25	0	12	11	5	0	2	0	31
4.75	0	0	0	0	0	2	0	2
6.75	0	0	0	0	0	0	0	0
8.75	0	0	0	0	0	0	0	0
>10	0	0	0	0	0	0	0	0
Total	355	342	144	33	12	5	54	945

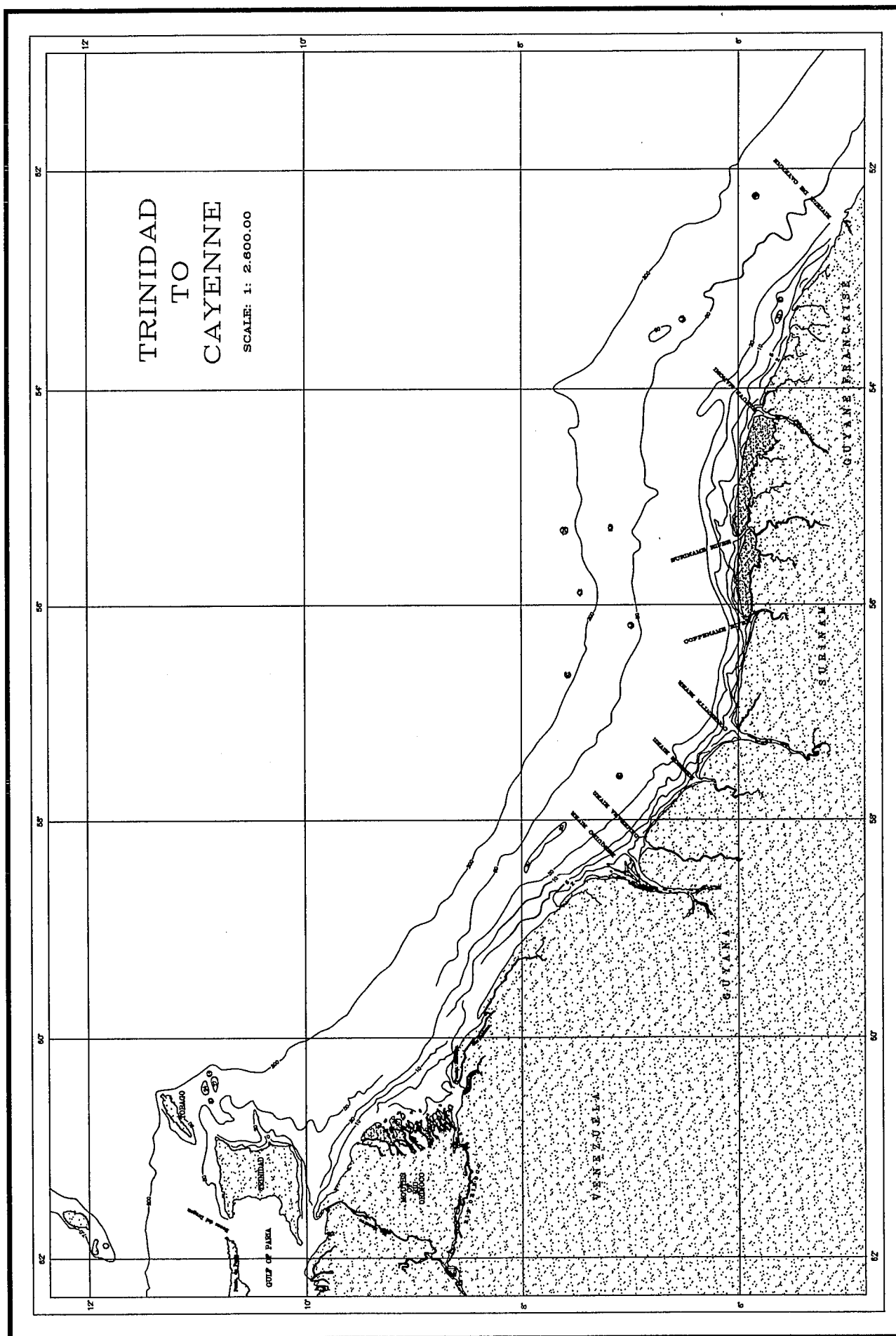


Fig. 3-3-5 Area Costera Digitalizada del Mapa No.517

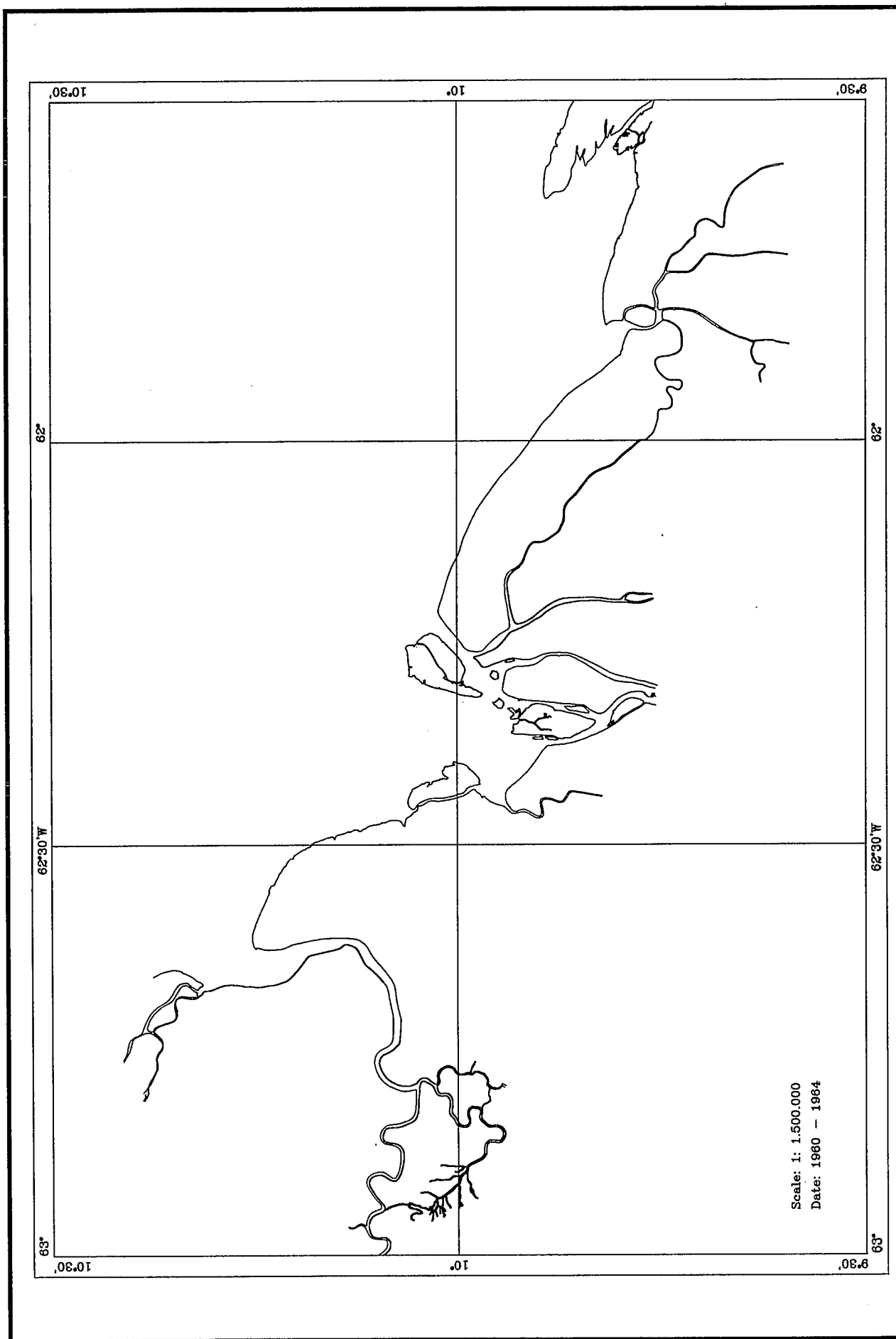


Fig. 3-3-6 Fotografia Aérea (1960-1964)

Date: febrero, 1984



Fig. 3-3-7 Fotografía Aérea (1983)

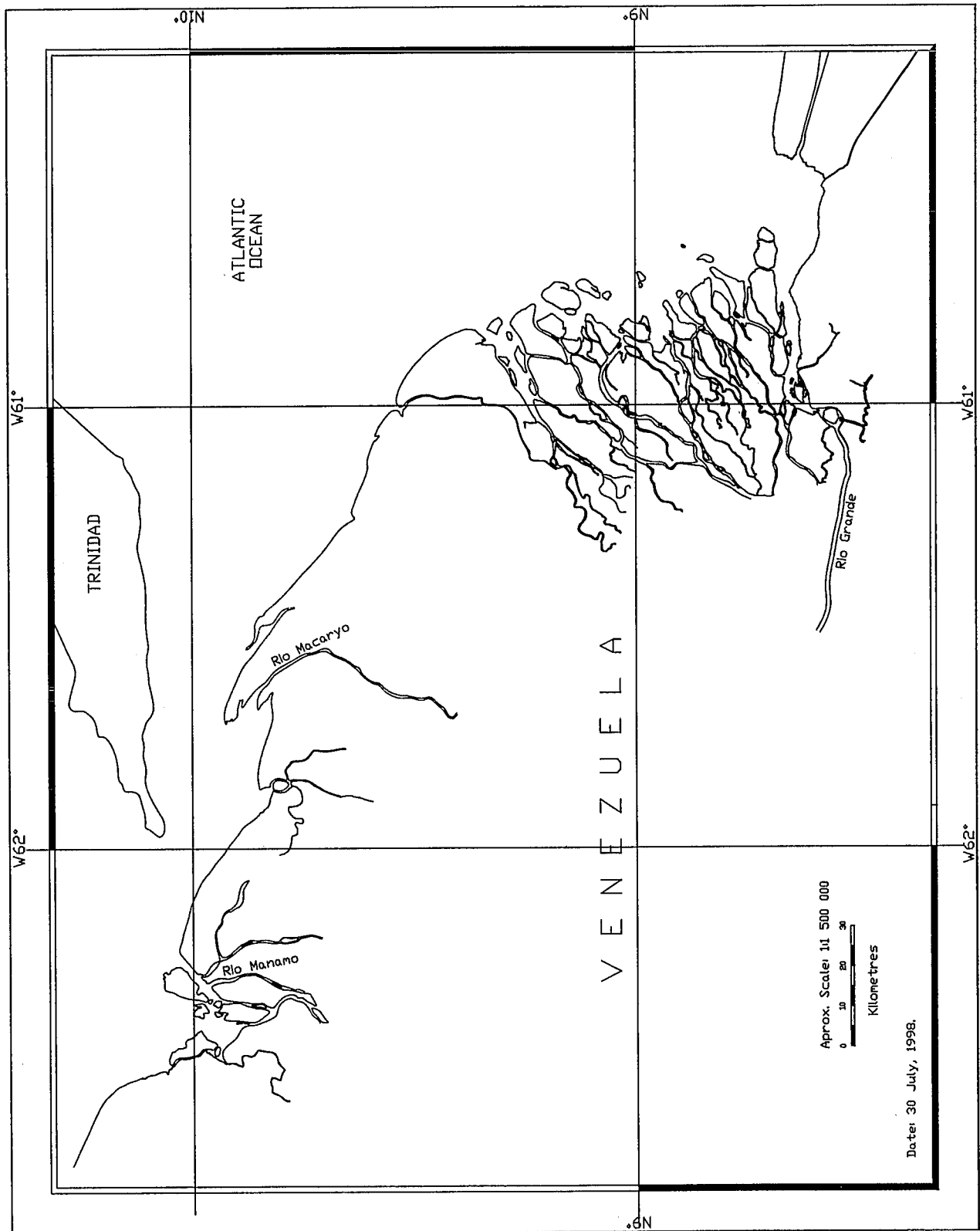


Fig. 3-3-8 Fotografía del Radar-Sat (1998)