SECONDARY PORTS TABLE – continued

	Lat.	S.	Long.	. E.	Mean Time Differences		Mean Spring, Neap and Sea Level Heights (metres)					Range Ratio	
Port				,	HW	LW	MHWS	MHWN	MLWN	MLWS	MSL		
ONEHUNGA	36	56	174	47	hhmm	hhmm	4.2	3.4	1.4	0.5	2.42		
Manukau Harbour													
Cornwallis	37	00	174	36	-0020	-0011	3.5	2.9	1.1	0.5	2.0	0.81	*
Papakura Channel - LPG Terminal	37	02	174	50	+0005	-0004	3.9	3.2	1.1	0.4	2.1	0.95	
Paratutae Island	37	03	174	31	-0031	-0020	3.1	2.5	1.0	0.4	1.8	0.73	
Waiuku	37	15	174	44	+0030	-	-	-	-	-	-	-	*
West Coast Beaches													
Muriwai Beach	36	50	174	26	-0040	-0030	-	-	-	-	-	-	*
Piha Beach	36	57	174	28	-0045	-0035	-	-	-	-	-	-	*
Te Henga (Bethells Beach)	36	53	174	27	-0040	-0050	-	-	-	-	-	-	*
PICTON	41	17	174	00	hhmm	hhmm	1.5	1.0	0.5	0.0	0.74		
Cook Strait													
Fishermans Rock	41	04	174	36	0000	0000	1.5	1.0	0.5	0.0	0.7	1.00	*
Queen Charlotte Sound													
(Totaranui)													
East Bay	41	14	174	80	-0012	-0019	1.4	1.0	0.4	0.0	0.7	0.93	*
Long Island	41	07	174	17	-0004	-0003	1.5	1.0	0.4	0.1	0.7	0.93	
Okiwa Bay	41	17	173	55	-0003	-0006	1.5	1.0	0.5	0.0	0.7	1.00	*
Tory Channel													
Okukari Bay	41	12	174	19	-0053	-0034	1.4	1.1	0.7	0.4	0.9	0.67	
Te Iro Bay	41	14	174	11	-0019	-0010	1.3	0.9	0.4	0.0	0.7	0.87	*
PORT CHALMERS	45	49	170	39	hhmm	hhmm	2.1	1.8	0.5	0.2	1.12		
Oamaru	45	06	170	59	+0002	+0002	2.3	1.9	0.8	0.5	1.4	0.95	
Otago Harbour Entrance – Spit	45	47	170	43	-0013	-0024	2.0	1.7	0.5	0.3	1.1	0.89	
Wharf													
PORT TARANAKI	39	04	174	02	hhmm	hhmm	3.5	2.7	1.1	0.3	1.94	1.10	
Ahipara Bay	35	10	173	07	-0015	-0015	3.6	2.9	1.1	0.4	2.0	1.00	*
Aotea Harbour	38	00	174	50	-0004	-0004	3.7	2.9	1.2	0.4	2.1	1.03	*
Cape Maria van Diemen	34	29	172	38	-0035	-0035	2.4	2.1	0.6	0.3	1.4	0.66	*
Karehana Bay - Plimmerton	41	04	174	51	-0013	-0022	1.5	0.9	8.0	0.2	8.0	0.41	*
Boating Club													
Kawhia	38	04	174	49	+0018	-0004	3.6	2.8	1.1	0.3	2.0	1.03	
Makara Beach	41	13	174	42	-0040	-0040	1.3	0.9	0.7	0.3	0.8	0.31	_
Manawatu River Entrance	40	28	175	13	-0020	-0020	2.4	1.8	0.9	0.2	1.3	0.69	*
Otaki River Entrance	40	45	175	06	-0020	-0020	-	-	-	-	-	-	*
Paraparaumu Beach	40	54	174	59	-0020	-0020	- 17	- 1.2	-	- 0.4	- 1.0		*
Porirua Harbour – Mana Cruising	41	06	174	52	0000	-0016	1.7	1.2	0.9	0.4	1.0	0.41	
Club	0.7	40	171	F 0	. 0000	. 0000	0.0	0.5	0.0	0.1	1.0	0.07	
Raglan	37	48	174	53	+0023	+0008	3.2	2.5	0.9	0.1	1.8	0.97	*
Waikanae River Entrance	40	52	175	00	+0008 -0004	+0004 -0004	3.7	3.0	- 1.2	0.5	- 2.1	1.00	*
Waitarora Basela	37	24	174	45	-0004	-0004	3. <i>1</i> -	3.0 -	1.2	0.5	2.1	1.00	*
Waitarere Beach	40	34	175	11	-0020	-0020	-	-	-	-	-	-	
Hokianga Harbour	35	22	170	32	10015	.0015	2.0	0.0	0.0	0.3	10	0.94	*
Kohukohu Opononi	35	30	173 173	24	+0015 +0005	+0015 +0002	3.3 2.9	2.8 2.3	0.8 0.7	0.3 0.1	1.8 1.5	0.94	
Opononi Rawene	35 35	30 24	173	30	+0005	+0002	2.9 3.3	2.3 2.7	1.0	0.1	1.9	0.00	
	J	4	1/3	30	+00∠0	+0010	0.0	۷.1	1.0	0.4	1.0	0.01	
Kaipara Harbour	0.5	56	170	EO	.0000	10046							*
Dargaville	35 36	56 40	173	52 27	+0228 +0222	+0346 +0249	-	-	-	-	-	-	*
Helensville Island Point	36	40 14	174 174	27 05	+0222	+0249	3.6	2.8	- 1.1	0.3	- 1.9	1.03	
Pouto Point	36 36	14 22	174	11	+0046	+0046	3.3	2.6 2.7	0.8	0.3	1.8	0.94	
Shelly Beach	36 36	34	174		+0039	+0050	3.8	2.7 3.1	0.8	0.3	2.0	1.16	
Te Kopuru	36	02	174	23 56	+0055	+0030	3.4	3.1	-	-	2.U -	-	*
Tikinui	36	07	173	58	+0138	+0250	3.8	2.9	0.8	0.1	2.0	1.16	
Tinopai	36	15	173	15	+0059	+0059	3.8	2.7	0.9	0.1	1.9	1.16	
Whakapirau	36	09	174	15	+0125	+0107	3.9	3.0	1.2	0.3	2.1	1.13	
Kapiti Island						• .					1		
Waiorua Bay	40	50	174	57	-0017	-0017	1.7	1.2	0.9	0.4	1.1	0.41	*
Manawatāwhi/Three Kings Islands													
Great Island – North West Bay	34	09	172	09	-0136	-0133	2.4	2.0	0.7	0.4	1.4	0.63	
North Taranaki Bight													
Waitara River Entrance	38	59	174	14	0000	0000	3.5	2.9	1.1	0.4	2.0	0.97	*
South Taranaki Bight	39	28	173	51	-0005	-0005	3.3	2.7	1.0	0.3	1.8	0.94	*
Opunake Bay Patea	39 39	28 47	173	29	-0005	-0005	3.3 2.5	2.7 1.9	0.8	0.3	1.3	0.94	*
Whanganui River Entrance	39	57	174	59	+0035	+0035	2.8	2.2	1.3	0.2	1.7	0.66	*
	50	٠.		- -	. 5555						•••	3.30	

^{*} Data Approximate - No Data