

## SECONDARY PORTS TABLE

Port	Lat.	S.	Long.	E.	Mean Time Differences		Mean Spring, Neap and Sea Level Heights (metres)					Range Ratio
					HW	LW	MHWS	MHWN	MLWN	MLWS	MSL	
					hhmm	hhmm	3.3	2.7	0.9	0.4	1.86	
<b>AUCKLAND</b>	<b>36</b>	<b>51</b>	<b>174</b>	<b>46</b>								
Devonport Naval Base	36	50	174	47	-0002	0000	3.2	2.7	0.9	0.4	1.8	0.97
Maraetai	36	57	175	03	-0015	-0015	-	-	-	-	-	*
Onetaunga Bay	36	49	174	42	+0004	-0007	3.4	2.9	0.9	0.5	2.0	1.00 *
<b>Coromandel Peninsula</b>												
Coromandel Harbour - Whanganui Island	36	47	175	27	-0021	-0015	2.9	2.5	0.7	0.2	1.6	0.93
Thames – Rocky Point	37	06	175	31	-0017	-0010	4.0	3.1	1.2	0.3	2.2	1.28
<b>Hauraki Gulf</b>												
Mahurangi Harbour	36	29	174	43	+0002	+0012	-	-	-	-	-	*
Mangawhai Heads	36	05	174	36	+0005	+0005	-	-	-	-	-	*
Matakana River – Sandspit	36	24	174	44	+0005	+0005	2.7	2.4	0.9	0.5	1.6	0.76
Murray Bay	36	44	174	45	-0025	-0003	2.9	2.6	0.7	0.5	1.7	0.83 *
Tiritiri Matangi Island	36	36	174	53	+0010	-0003	3.0	2.5	0.8	0.3	1.6	0.93
Weiti River Entrance	36	39	174	44	+0001	+0007	3.0	2.5	0.8	0.2	1.7	0.97
Whangateau Harbour	36	19	174	47	-	-	2.7	2.3	0.6	0.2	1.5	0.86 *
<b>Kawau Island</b>												
Mansion House Bay – Bon Accord Harbour	36	26	174	49	-0015	-0004	2.7	2.3	0.8	0.3	1.5	0.83
<b>Waiheke Island</b>												
Man o'War Bay	36	47	175	09	-0018	-0018	3.0	2.5	0.7	0.2	1.6	0.97
Matiatia Bay	36	47	174	59	0000	+0010	2.9	2.4	0.7	0.2	1.5	0.93
<b>BLUFF</b>	<b>46</b>	<b>36</b>	<b>168</b>	<b>21</b>			<b>2.8</b>	<b>2.4</b>	<b>1.0</b>	<b>0.5</b>	<b>1.74</b>	
Colac Bay/Ōraka	46	22	167	54	-	-	2.3	1.8	0.9	0.4	1.3	0.83 *
Dog Island	46	39	168	25	-0017	-0035	2.8	2.3	1.0	0.5	1.7	1.00
Kawakaputa Bay	46	23	167	49	-0115	-0119	2.8	2.3	0.9	0.4	1.6	1.04
New River Entrance	46	32	168	15	-0022	-0022	2.8	2.5	0.7	0.4	1.6	1.04 *
Nugget Point	46	27	169	49	+0107	+0108	2.4	2.1	1.0	0.5	1.5	0.83 *
Port Craig	46	13	167	22	-0203	-0205	3.1	2.6	1.3	0.7	1.9	1.04
Riverton/Aparima	46	22	168	01	-0054	-0052	2.9	2.4	1.2	0.7	1.8	0.96
Ruapuke Island	46	47	168	30	-0011	-0019	2.7	2.3	0.9	0.5	1.6	0.96
Waikawa Harbour	46	39	169	10	+0122	+0114	2.3	2.0	1.0	0.4	1.4	0.87
Waipapa Point	46	39	168	51	-	-	2.7	2.5	0.9	0.6	1.7	0.91 *
<b>South Offshore Islands</b>												
Antipodes Island	49	40	178	48	+0210	-	1.8	-	-	-	1.1	- *
Auckland Island – Carnley Harbour	50	50	166	03	-0036	-0043	1.1	0.8	0.3	0.1	0.6	0.43 *
Campbell Island/Motu Ihupuku – Perseverance Harbour	52	33	169	08	+0013	+0020	1.7	1.4	0.9	0.6	1.2	0.48 *
Snares Islands/Tini Heke	48	02	166	36	-0140	-0143	1.9	1.6	0.7	0.3	1.2	0.70
Solander Island (Hautere)	46	35	166	53	-0206	-0207	2.3	2.0	0.9	0.4	1.4	0.83
<b>Stewart Island/Rakiura</b>												
Easy Harbour	47	09	167	34	-0200	-0201	2.6	2.2	0.9	0.4	1.6	0.96
Ernest Islands	46	58	167	41	-0200	-0203	2.2	1.8	0.7	0.2	1.2	0.87 *
Flour Cask Bay	47	17	167	29	-0124	-0136	2.8	2.4	1.0	0.5	1.7	1.00
Golden Bay	46	54	168	07	-0001	-0012	2.7	2.2	1.1	0.6	1.7	0.91
Halfmoon Bay – Oban	46	54	168	08	-0006	-0009	2.6	2.2	1.1	0.6	1.6	0.87
Port Adventure	47	05	168	11	-0017	-0017	3.0	2.5	1.1	0.6	1.8	1.04
Small Craft Retreat	47	15	167	39	-0100	-0102	3.0	2.5	1.1	0.6	1.8	1.04
Yankee River	46	41	167	53	-0103	-0117	2.3	1.9	0.9	0.5	1.4	0.78
<b>LYTTELTON</b>	<b>43</b>	<b>36</b>	<b>172</b>	<b>43</b>			<b>2.5</b>	<b>2.0</b>	<b>0.7</b>	<b>0.2</b>	<b>1.38</b>	
Cape Campbell	41	44	174	15	+0050	+0050	1.7	1.6	0.5	0.4	1.1	0.57 *
Kaikoura	42	25	173	42	+0017	+0017	2.0	1.6	0.5	0.2	1.1	0.78
Lucky Bay	41	16	174	17	+0230	+0230	1.3	1.2	0.5	0.4	0.9	0.39 *
Port Underwood	41	20	174	06	+0142	+0148	1.5	1.1	0.6	0.3	0.9	0.52
Rakaia River Mouth	43	54	172	13	-0046	-	-	-	-	-	-	*
Sumner	43	34	172	46	+0001	+0001	2.4	1.9	0.6	0.2	1.3	0.96
<b>Akaroa Harbour</b>												
French Bay - Akaroa	43	48	172	58	-0044	-0042	2.7	2.4	1.2	0.6	1.7	0.91
Tikao Bay	43	48	172	55	-0043	-0042	2.6	2.2	0.9	0.6	1.5	0.87 *
<b>Chatham Island<sup>1</sup></b>												
Kaingaroa	43	44	176	16W	+0053	+0053	1.5	1.3	0.5	0.2	0.9	0.57
Owenga	44	02	176	22W	+0022	+0021	1.3	1.0	0.3	0.0	0.7	0.57
Waitangi	43	57	176	34W	+0022	+0021	0.9	0.6	0.2	0.0	0.4	0.39
<b>MARSDEN POINT</b>	<b>35</b>	<b>50</b>	<b>174</b>	<b>30</b>			<b>2.7</b>	<b>2.2</b>	<b>0.8</b>	<b>0.4</b>	<b>1.56</b>	
Mangonui	34	59	173	32	+0033	+0049	2.6	2.2	0.9	0.4	1.5	0.96

<sup>1</sup> Add a further 45 minutes to NZST to obtain Chatham Island Standard Time

\* Data Approximate - No Data

## SECONDARY PORTS TABLE – *continued*

Port	Lat.	S.	Long.	E.	Mean Time Differences		Mean Spring, Neap and Sea Level Heights (metres)					Range Ratio
					HW	LW	MHWS	MHWN	MLWN	MLWS	MSL	
<b>MARSDEN POINT</b> <i>continued</i>	<b>35</b>	<b>50</b>	<b>174</b>	<b>30</b>	<b>hhmm</b>	<b>hhmm</b>	<b>2.7</b>	<b>2.2</b>	<b>0.8</b>	<b>0.4</b>	<b>1.56</b>	
North Cape (Otou)	34	25	173	03	+0013	+0017	2.4	1.9	0.8	0.3	1.4	0.91
Portland Wharf	35	48	174	21	+0019	+0013	3.1	2.6	1.1	0.4	1.8	1.17
Tutukaka Harbour	35	37	174	32	-0015	-0010	2.3	1.9	0.8	0.3	1.4	0.87
Whangamumu Harbour	35	15	174	18	+0014	+0031	2.1	1.9	0.6	0.2	1.2	0.83
Whangarei	35	46	174	21	+0021	+0014	3.0	2.6	1.0	0.5	1.8	1.09
<b>Awanui River</b>												
Ben Gunn Wharf	35	00	173	16	+0059	+0122	2.4	2.0	0.6	0.1	1.3	1.00
Dairy Factory Wharf	35	02	173	15	+0122	+0223	2.3	1.8	0.6	0.1	1.2	0.96
Unahi Jetty	35	00	173	15	+0102	+0129	2.3	1.9	0.6	0.2	1.3	0.91
<b>Bay of Islands</b>												
Doves Bay	35	12	174	02	-0002	-0002	2.4	2.2	0.8	0.6	1.5	0.78
Kerikeri	35	13	173	56	+0005	+0009	-	-	-	-	-	*
Opuia	35	19	174	07	+0002	+0006	2.5	2.1	0.8	0.4	1.4	0.91
Russell	35	16	174	07	+0006	+0006	2.4	2.0	0.8	0.3	1.4	0.91
Waitangi	35	16	174	05	+0022	+0022	2.3	2.0	0.6	0.4	1.4	0.83
<b>Coromandel Peninsula</b>												
Port Charles	36	31	175	28	-0039	-0035	2.7	2.0	0.9	0.3	1.5	1.04
Port Jackson	36	29	175	20	-0037	-0032	2.6	2.1	0.8	0.2	1.4	1.04
<b>Great Barrier Island (Aotea Island)</b>												
Nagle Cove	36	09	175	19	-0031	-0027	2.6	2.2	1.0	0.4	1.5	0.96
Tryphena	36	19	175	29	-0029	-0025	2.6	2.2	0.9	0.4	1.5	0.96
<b>Houhora Harbour</b>												
Houhora Harbour Entrance	34	50	173	09	+0039	+0032	2.2	1.9	0.7	0.3	1.3	0.83
Pukenui Wharf	34	49	173	07	+0042	+0035	2.1	1.9	0.3	0.1	1.1	0.87
<b>Kermadec Islands - Raoul Island</b>												
Fishing Rock	29	15	177	55W	-0027	-0015	1.8	1.6	0.8	0.5	1.2	0.57
Boat Cove	29	17	177	54W	-0034	-0027	1.7	1.5	0.7	0.4	1.1	0.57
<b>Mokohinau Islands</b>												
Burgess Island (Pokohinu)	35	54	175	07	-0024	-0020	2.5	2.1	0.9	0.4	1.5	0.91
<b>Motukawanui Island</b>												
Waiiti Bay	35	01	173	56	+0013	+0009	2.2	2.0	0.7	0.5	1.3	0.74
<b>Parengarenga Harbour</b>												
Ngatehe Point	34	31	172	57	+0140	+0145	2.5	2.1	0.7	0.4	1.4	0.91
<b>Rangaunu Harbour</b>												
Omaia Island	35	00	173	16	-	-	2.3	2.0	0.5	0.2	1.3	0.91
Scheigis Rock	34	54	173	18	+0015	-0003	2.3	1.9	0.6	0.2	1.3	0.91
<b>Whangaroa Harbour</b>												
Whangaroa	35	01	173	45	+0006	+0010	2.5	2.1	0.8	0.4	1.4	0.87
<b>Whangaruru Harbour</b>												
Rocky Point	35	22	174	21	-	-	2.2	2.0	0.6	0.3	1.3	0.83
<b>NAPIER</b>												
<b>Hawke Bay</b>	<b>39</b>	<b>29</b>	<b>176</b>	<b>55</b>	<b>hhmm</b>	<b>hhmm</b>	<b>1.8</b>	<b>1.4</b>	<b>0.3</b>	<b>0.0</b>	<b>0.93</b>	
Cape Kidnappers	39	38	177	05	-0020	-0020	-	-	-	-	-	*
Portland Island	39	17	177	52	-0015	-0015	-	-	-	-	-	*
Waikokopu	39	04	177	50	+0005	+0005	1.6	1.5	0.4	0.2	0.9	0.78
Wairoa River Mouth	39	03	177	26	0000	0000	1.6	1.5	0.3	0.2	0.9	0.78
<b>Wairarapa Coast</b>												
Akitio River Entrance	40	36	176	25	-0100	-0100	-	-	-	-	-	*
Bare Island (Motu o Kura)	39	50	177	02	-0017	-0017	-	-	-	-	-	*
Cape Turnagain	40	30	176	37	-0049	-0049	-	-	-	-	-	*
Castlepoint	40	55	176	13	-0018	-0018	1.7	1.2	0.3	0.0	0.8	0.94
Porangahau River Entrance	40	15	176	42	-0038	-0038	-	-	-	-	-	*
Punawaitai	40	06	176	52	-0030	-0030	-	-	-	-	-	*
<b>NELSON</b>												
Stephens Island (Takapourewa)	40	40	174	00	-0030	-0030	2.8	2.3	1.1	0.6	1.7	0.58
<b>Golden Bay</b>												
Collingwood	40	40	172	40	-	-	4.7	3.8	1.4	0.5	2.6	1.11
Motupipi Inlet	40	50	172	51	-	-	5.0	4.1	1.5	0.6	2.8	1.16
Tarakohe	40	49	172	54	+0002	+0008	4.0	3.0	1.3	0.3	2.1	0.97
<b>Marlborough Sounds</b>												
Catherine Cove	40	52	173	53	-0031	-0032	2.6	1.9	0.8	0.2	1.4	0.63
Current Basin	40	56	173	50	-	-	3.9	3.1	1.4	0.6	2.3	0.87
Elaine Bay	41	03	173	46	-0035	-0035	2.6	1.9	1.0	0.4	1.5	0.58
Elmslie Bay	40	56	173	51	-0033	-0032	3.1	2.2	1.4	0.6	1.8	0.66
Havelock	41	17	173	46	-0014	-0033	3.7	2.9	1.7	1.0	2.3	0.71
Pelorus Sound Entrance	40	55	173	59	-0100	-0120	2.8	2.2	1.1	0.5	1.6	0.61
Portage	41	12	174	02	-0028	-0028	3.1	2.4	1.2	0.4	1.8	0.71

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