

SECONDARY PORTS TABLE

| No.         | Port                                   | Lat.<br>° | S.<br>'   | Long.<br>° | E.<br>'   | Time Differences<br>High Water |                | Time Differences<br>Low Water |                | Mean Spring, Neap and Sea Level Heights<br>(metres) |      |      |      |      | Range<br>Ratio |   |
|-------------|--|-----------|-----------|------------|-----------|--------------------------------|----------------|-------------------------------|----------------|---|------|------|------|------|----------------|---|
|             |  |           |           |            |           | Mean                           | Range          | Mean                          | Range          | MHWS  | MHWN | MLWN | MLWS | MSL  |                |   |
|             |  |           |           |            |           | hhmm                           | hhmm to hhmm   | hhmm                          | hhmm to hhmm   | 3.3   | 2.8  | 1.0  | 0.4  | 1.91 |                |   |
| <b>6400</b> | <b>AUCKLAND</b>                        | <b>36</b> | <b>51</b> | <b>174</b> | <b>46</b> |                                |                |                               |                |   |      |      |      |      |                |   |
| 6399c       | Devonport Naval Base                   | 36        | 50        | 174        | 47        | 0000                           | -0007 to +0003 | 0000                          | -0007 to +0004 | 3.2   | 2.7  | 0.9  | 0.4  | 1.8  | 0.97           |   |
| 6399e       | Hobsonville                            | 36        | 47        | 174        | 40        | +0008                          | -0013 to +0036 | +0003                         | -0028 to +0033 | 3.6   | 3.1  | 1.1  | 0.6  | 2.1  | 1.03           |   |
| 6402        | Maraetai                               | 36        | 52        | 175        | 03        | -0015                          | -              | -0015                         | -              | -   | -    | -    | -    | -    | -              | * |
| 6399d       | Onetaunga Bay                          | 36        | 49        | 174        | 42        | +0004                          | -              | -0007                         | -              | 3.4   | 2.9  | 0.9  | 0.5  | 2.0  | 1.00           | * |
| 6401b       | Pine Harbour                           | 36        | 53        | 174        | 59        | -0012                          | -0033 to +0006 | 0000                          | -0025 to +0021 | 3.2   | 2.7  | 0.9  | 0.3  | 1.8  | 1.00           |   |
| 6399f       | Whau River                             | 36        | 52        | 174        | 39        | +0010                          | -0042 to +0031 | +0007                         | -0040 to +0029 | 3.6   | 3.1  | 1.1  | 0.6  | 2.1  | 1.03           |   |
|             | <b>Coromandel Peninsula</b>            |           |           |            |           |                                |                |                               |                |   |      |      |      |      |                |   |
| 6405        | Coromandel Harbour - Whanganui Island  | 36        | 47        | 175        | 27        | -0021                          | -0044 to +0011 | -0015                         | -0048 to +0011 | 2.9   | 2.5  | 0.7  | 0.2  | 1.6  | 0.93           |   |
| 6404        | Thames                                 | 37        | 08        | 175        | 31        | -0017                          | -0027 to -0009 | -0010                         | -0017 to +0003 | 3.6   | 3.0  | 1.0  | 0.4  | 2.0  | 1.10           |   |
|             | <b>Hauraki Gulf / Tikapa Moana</b>     |           |           |            |           |                                |                |                               |                |   |      |      |      |      |                |   |
| 6396b       | Leigh                                  | 36        | 17        | 174        | 48        | -0012                          | -0033 to +0013 | -0001                         | -0031 to +0022 | 2.6   | 2.2  | 0.8  | 0.3  | 1.5  | 0.79           |   |
| 6398        | Mahurangi Harbour                      | 36        | 29        | 174        | 43        | +0002                          | -              | +0012                         | -              | -   | -    | -    | -    | -    | -              | * |
| 6396a       | Mangawhai Heads                        | 36        | 05        | 174        | 36        | +0005                          | -              | +0005                         | -              | -   | -    | -    | -    | -    | -              | * |
| 6397a       | Matakana River - Sandspit              | 36        | 24        | 174        | 44        | -0006                          | -0018 to +0015 | +0001                         | -0013 to +0014 | 2.9   | 2.5  | 0.9  | 0.5  | 1.7  | 0.83           |   |
| 6399a       | Murrays Bay                            | 36        | 44        | 174        | 45        | -0011                          | -0030 to +0008 | 0000                          | -0021 to +0022 | 3.1   | 2.6  | 0.9  | 0.3  | 1.7  | 0.97           |   |
| 6398a       | Tiritiri Matangi Island                | 36        | 36        | 174        | 53        | -0013                          | -0031 to +0007 | -0001                         | -0023 to +0022 | 2.9   | 2.5  | 0.8  | 0.3  | 1.7  | 0.90           |   |
| 6399        | Weiti River Entrance                   | 36        | 39        | 174        | 44        | +0001                          | -0020 to +0022 | +0007                         | -0023 to +0025 | 3.0   | 2.5  | 0.8  | 0.2  | 1.7  | 0.97           |   |
| 6396c       | Whangateau Harbour                     | 36        | 19        | 174        | 47        | -                              | -              | -                             | -              | 2.7   | 2.3  | 0.6  | 0.2  | 1.5  | 0.86           | * |
|             | <b>Kawau Island</b>                    |           |           |            |           |                                |                |                               |                |   |      |      |      |      |                |   |
| 6397        | Bon Accord Harbour - Mansion House Bay | 36        | 26        | 174        | 49        | -0010                          | -0038 to +0012 | 0000                          | -0030 to +0023 | 2.9   | 2.4  | 0.9  | 0.4  | 1.7  | 0.86           |   |
|             | <b>Waiheke Island</b>                  |           |           |            |           |                                |                |                               |                |   |      |      |      |      |                |   |
| 6401        | Man o'War Bay                          | 36        | 47        | 175        | 09        | -0015                          | -0033 to -0001 | -0004                         | -0023 to +0014 | 3.2   | 2.6  | 0.9  | 0.3  | 1.8  | 1.00           |   |
| 6401a       | Matiatia Bay                           | 36        | 47        | 174        | 59        | -0011                          | -0028 to +0005 | -0002                         | -0021 to +0016 | 3.1   | 2.6  | 0.9  | 0.4  | 1.7  | 0.97           |   |
| <b>6504</b> | <b>BLUFF</b>                           | <b>46</b> | <b>36</b> | <b>168</b> | <b>21</b> |                                |                |                               |                |   |      |      |      |      |                |   |
| 6506        | Colac Bay / Ōraka                      | 46        | 22        | 167        | 54        | -                              | -              | -                             | -              | 2.3   | 1.8  | 0.9  | 0.4  | 1.3  | 0.83           | * |
| 6503        | Dog Island                             | 46        | 39        | 168        | 25        | -0017                          | -0028 to -0002 | -0035                         | -0047 to -0015 | 2.8   | 2.3  | 1.0  | 0.5  | 1.7  | 1.00           |   |
| 6506a       | Kawakaputa Bay                         | 46        | 23        | 167        | 49        | -0115                          | -0148 to -0035 | -0119                         | -0148 to -0048 | 2.8   | 2.3  | 0.9  | 0.4  | 1.6  | 1.04           |   |
| 6505        | New River Entrance                     | 46        | 32        | 168        | 15        | -0022                          | -              | -0022                         | -              | 2.8   | 2.5  | 0.7  | 0.4  | 1.6  | 1.04           | * |
| 6500        | Nugget Point                           | 46        | 27        | 169        | 49        | +0107                          | +0012 to +0213 | +0108                         | +0019 to +0200 | 2.4   | 2.1  | 1.0  | 0.5  | 1.5  | 0.83           | * |
| 6510c       | Port Craig                             | 46        | 13        | 167        | 22        | -0203                          | -0236 to -0138 | -0205                         | -0230 to -0142 | 3.1   | 2.6  | 1.3  | 0.7  | 1.9  | 1.04           |   |
| 6505a       | Riverton / Aparima                     | 46        | 22        | 168        | 01        | -0054                          | -0135 to -0033 | -0052                         | -0114 to -0034 | 2.9   | 2.4  | 1.2  | 0.7  | 1.8  | 0.96           |   |
| 6503a       | Ruapuke Island                         | 46        | 47        | 168        | 30        | -0011                          | -0035 to +0018 | -0019                         | -0040 to +0009 | 2.7   | 2.3  | 0.9  | 0.5  | 1.6  | 0.96           |   |
| 6501        | Waikawa Harbour                        | 46        | 39        | 169        | 10        | +0122                          | +0057 to +0138 | +0114                         | +0057 to +0128 | 2.5   | 2.2  | 0.9  | 0.5  | 1.5  | 0.87           |   |
| 6502        | Waipapa Point                          | 46        | 39        | 168        | 51        | -                              | -              | -                             | -              | 2.7   | 2.5  | 0.9  | 0.6  | 1.7  | 0.91           | * |

\* Data Approximate - No Data

| No.         | Port  | Lat.<br>° | S.<br>'   | Long.<br>° | E.<br>'   | Time Differences<br>High Water |                | Time Differences<br>Low Water |                | Mean Spring, Neap and Sea Level Heights<br>(metres) |            |            |            |             | Range<br>Ratio |   |
|-------------|---|-----------|-----------|------------|-----------|--------------------------------|----------------|-------------------------------|----------------|---|------------|------------|------------|-------------|----------------|---|
|             |   |           |           |            |           | Mean                           | Range          | Mean                          | Range          | MHWS  | MHWN       | MLWN       | MLWS       | MSL         |                |   |
|             |   |           |           |            |           | hhmm                           | hhmm to hhmm   | hhmm                          | hhmm to hhmm   | 2.8   | 2.4        | 1.0        | 0.5        | 1.75        |                |   |
| <b>6504</b> | <b>BLUFF continued</b>                                | <b>46</b> | <b>36</b> | <b>168</b> | <b>21</b> |                                |                |                               |                |   |            |            |            |             |                |   |
|             | <i>South Offshore Islands</i>                         |           |           |            |           |                                |                |                               |                |   |            |            |            |             |                |   |
| 6535        | Antipodes Island                                      | 49        | 40        | 178        | 48        | +0210                          | -              | -                             | -              | 1.8   | -          | -          | -          | 1.1         | -              | * |
| 6534        | Auckland Island - Carnley Harbour                     | 50        | 50        | 166        | 03        | -0042                          | -0103 to -0027 | -0040                         | -0055 to -0019 | 1.9   | 1.4        | 0.7        | 0.2        | 1.1         | 0.74           | * |
| 6532        | Campbell Island / Motu Ihupuku - Perseverance Harbour | 52        | 33        | 169        | 08        | +0013                          | -              | +0020                         | -              | 1.7   | 1.4        | 0.9        | 0.6        | 1.2         | 0.48           |   |
| 6510b       | Snares Islands / Tini Heke - North East Island        | 48        | 01        | 166        | 36        | -0140                          | -0226 to -0117 | -0143                         | -0217 to -0124 | 1.9   | 1.6        | 0.7        | 0.3        | 1.2         | 0.70           |   |
| 6510a       | Solander Island (Hautere)                             | 46        | 35        | 166        | 53        | -0206                          | -0254 to -0144 | -0207                         | -0243 to -0146 | 2.3   | 2.0        | 0.9        | 0.4        | 1.4         | 0.83           |   |
|             | <i>Stewart Island / Rakiura</i>                       |           |           |            |           |                                |                |                               |                |   |            |            |            |             |                |   |
| 6509a       | Easy Harbour  | 47        | 09        | 167        | 34        | -0200                          | -0235 to -0140 | -0201                         | -0225 to -0143 | 2.6   | 2.2        | 0.9        | 0.4        | 1.6         | 0.96           |   |
| 6510        | Ernest Islands  | 46        | 58        | 167        | 41        | -0200                          | -0226 to -0131 | -0203                         | -0224 to -0134 | 2.2   | 1.8        | 0.7        | 0.2        | 1.2         | 0.87           | * |
| 6509        | Flour Cask Bay  | 47        | 17        | 167        | 29        | -0124                          | -0146 to -0110 | -0136                         | -0145 to -0128 | 2.8   | 2.4        | 1.0        | 0.5        | 1.7         | 1.00           |   |
| 6507        | Golden Bay  | 46        | 54        | 168        | 07        | -0001                          | -0022 to +0022 | -0012                         | -0031 to +0014 | 2.7   | 2.2        | 1.1        | 0.6        | 1.7         | 0.91           |   |
| 6506c       | Halfmoon Bay - Oban                                   | 46        | 54        | 168        | 08        | -0006                          | -0033 to +0024 | -0019                         | -0039 to +0012 | 2.6   | 2.2        | 1.1        | 0.6        | 1.6         | 0.87           |   |
| 6508        | Port Adventure  | 47        | 05        | 168        | 11        | -0011                          | -0036 to +0038 | -0013                         | -0036 to +0027 | 2.9   | 2.4        | 1.1        | 0.6        | 1.8         | 1.00           |   |
| 6508a       | Small Craft Retreat                                   | 47        | 15        | 167        | 39        | -0100                          | -0123 to -0037 | -0102                         | -0118 to -0039 | 3.0   | 2.5        | 1.1        | 0.6        | 1.8         | 1.04           |   |
| 6506b       | Yankee River  | 46        | 41        | 167        | 53        | -0103                          | -0132 to -0031 | -0117                         | -0144 to -0044 | 2.3   | 1.9        | 0.9        | 0.5        | 1.4         | 0.78           |   |
| <b>6490</b> | <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>0.3</b> | <b>1.43</b> |                |   |
| 6485        | Cape Campbell   | 41        | 44        | 174        | 15        | +0050                          | +0024 to +0106 | +0057                         | +0041 to +0112 | 1.6   | 1.2        | 0.4        | 0.0        | 0.8         | 0.73           |   |
| 6487        | Kaikōura  | 42        | 25        | 173        | 42        | +0017                          | +0010 to +0025 | +0017                         | +0007 to +0029 | 2.0   | 1.6        | 0.5        | 0.2        | 1.1         | 0.82           |   |
| 6481        | Lucky Bay   | 41        | 16        | 174        | 17        | +0230                          | -              | +0230                         | -              | 1.3   | 1.2        | 0.5        | 0.4        | 0.9         | 0.41           | * |
| 6491a       | Rakaia River Mouth                                    | 43        | 54        | 172        | 13        | -0046                          | -              | -                             | -              | -   | -          | -          | -          | -           | -              | * |
| 6488        | Sumner  | 43        | 34        | 172        | 46        | +0001                          | -0002 to +0005 | +0001                         | +0002 to +0005 | 2.4   | 1.9        | 0.6        | 0.2        | 1.3         | 1.00           |   |
| 6482        | Te Whanganui / Port Underwood                         | 41        | 20        | 174        | 06        | +0142                          | +0050 to +0247 | +0148                         | +0057 to +0237 | 1.5   | 1.1        | 0.6        | 0.3        | 0.9         | 0.55           |   |
|             | <i>Akaroa Harbour</i>                                 |           |           |            |           |                                |                |                               |                |   |            |            |            |             |                |   |
| 6490a       | Akaroa  | 43        | 48        | 172        | 58        | -0044                          | -0126 to +0005 | -0042                         | -0122 to +0008 | 2.7   | 2.1        | 0.9        | 0.4        | 1.5         | 1.05           |   |
| 6491        | Tikao Bay   | 43        | 48        | 172        | 55        | -0043                          | -              | -0042                         | -              | 2.6   | 2.2        | 0.9        | 0.6        | 1.5         | 0.91           | * |
|             | <i>Chatham Island<sup>1</sup></i>                     |           |           |            |           |                                |                |                               |                |   |            |            |            |             |                |   |
| 6536a       | Kaingaroa   | 43        | 44        | 176        | 16W       | +0053                          | +0035 to +0108 | +0053                         | +0038 to +0108 | 1.4   | 1.1        | 0.3        | 0.0        | 0.7         | 0.64           |   |
| 6536b       | Owenga  | 44        | 02        | 176        | 22W       | +0022                          | +0007 to +0052 | +0021                         | +0009 to +0031 | 1.3   | 1.0        | 0.3        | 0.0        | 0.7         | 0.59           |   |
| 6536        | Waitangi  | 43        | 57        | 176        | 34W       | +0022                          | -0004 to +0052 | +0021                         | -0022 to +0101 | 0.9   | 0.6        | 0.2        | 0.0        | 0.4         | 0.41           |   |

<sup>1</sup> Add a further 45 minutes to NZST to obtain Chatham Island Standard Time  
 \* Data Approximate - No Data