*Schedule of Harmonic Tidal Constants, Auckland, New Zealand.*

Latitude, 36° 50′ S.; longitude, 174° 49′ E.

$A_0$, 9·237 ft. above the zero of the tide-gauge.

| | | | | | |
|---|---|---|---|---|---|
| $S_1$ | H | 0·006 ft. | Q | H | 0·008 ft. |
| | κ | 50°·35 | | κ | 56°·64 |
| $S_2$ | H | 0·583 | L | H | 0·221 |
| | κ | 264°·36 | | κ | 209°·57 |
| $S_4$ | H | 0·018 | N | H | 0·797 |
| | κ | 340°·80 | | κ | 173°·55 |
| $S_6$ | H | 0·002 | ν | H | 0·236 |
| | κ | 27°·47 | | κ | 152°·81 |
| $M_1$ | H | 0·011 | μ | H | 0·126 |
| | κ | 143°·63 | | κ | 178°·00 |
| $M_2$ | H | 3·814 | R | H | 0·024 |
| | κ | 203°·73 | | κ | 237°·40 |
| $M_3$ | H | 0·052 | T | H | 0·058 |
| | κ | 202°·32 | | κ | 102°·91 |
| $M_4$ | H | 0·113 | MS | H | 0·169 |
| | κ | 126°·80 | | κ | 194°·56 |
| $M_6$ | H | 0·026 | 2SM | H | 0·064 |
| | κ | 282°·96 | | κ | 304°·96 |
| O | H | 0·059 | Mm | H | 0·127 |
| | κ | 148°·79 | | κ | 291°·98 |
| $K_1$ | H | 0·233 | Mf | H | 0·072 |
| | κ | 168°·93 | | κ | 204°·75 |
| $K_2$ | H | 0·145 | Msf | H | 0·075 |
| | κ | 255°·18 | | κ | 122°·80 |
| P | H | 0·068 | Sa | H | 0·091 |
| | κ | 166°·21 | | κ | 62°·55 |
| J | H | 0·017 | Ssa | H | 0·028 |
| | κ | 196°·39 | | κ | 56°·77 |

Values of H are in English feet, κ in degrees.

These values are corrected for errors made in the printed computation forms supplied by the Cambridge Scientific Instrument Company (see Proc. Roy. Soc., Series A, Vol. 84, No. A 572, "On a Mistake in the Instructions for Use of Certain Apparatus in Tidal Reductions," by Sir G. H. Darwin, K.C.B., F.R.S.).

*Other Values of the Harmonic Tidal Constants, Auckland, New Zealand.*

Latitude, 36° 50′ S.; longitude, 174° 49′ E.

| | | (1.) | (2.) | | | (1.) | (2.) |
|---|---|---|---|---|---|---|---|
| $A_0$ | | .. | 5·871 | P | H | 0·079 | 0·088 |
| $S_2$ | H | 0·626 | 0·633 | | κ | 169° | 169° |
| | κ | 265° | 266° | Q | H | 0·018 | |
| $M_1$ | H | 0·011 | | | κ | 85° | |
| | κ | 144° | | L | H | 0·144 | 0·164 |
| $M_2$ | H | 3·782 | 3·826 | | κ | 209° | 196° |
| | κ | 204°·8 | 205° | N | H | 0·760 | 0·778 |
| $M_4$ | H | 0·200 | | | κ | 174° | 175° |
| | κ | 74° | | ν | H | 0·147 | |
| $M_6$ | H | 0·100 | | | κ | 178° | |
| | κ | 67° | | μ | H | 0·091 | |
| O | H | 0·071 | | | κ | 144° | |
| | κ | 121° | | T | H | 0·037 | |
| $K_1$ | H | 0·241 | 0·265 | | κ | 265° | |
| | κ | 167° | 169° | Sa | H | 0·357 | 0·354 |
| $K_2$ | H | 0·171 | 0·172 | | κ | 88° | 139° |
| | κ | 265° | 266° | Ssa | H | 0·185 | 0·224 |
| | | | | | κ | 266° | 242° |

(1.) Tide-tables for year 1912, p. 460, U.S. Coast and Geodetic Survey, Washington: High and low waters for two calendar years, 1896 * and 1900 †.

(2.) Harmonic Tidal Constants for Certain Chinese and New Zealand Ports, by Thomas Wright, Proc. Royal Society, London, A Vol. 83, p. 127: Times and heights of high and low water for the year 1901.

* Service Hydrographique de la Marine, France. † The Admiralty, London, England.