



SUPPLEMENT  
TO THE  
**NEW ZEALAND GAZETTE**  
OF THURSDAY, MAY 16, 1878.  
Published by Authority.

WELLINGTON, MONDAY, MAY 20, 1878.

**SIR,**— I have the honor to transmit copy of a letter which I have received from Mr. J. T. Thomson, Surveyor-General of New Zealand, covering notes on the longitude of the Survey Observatory of Wellington, New Zealand; and also the computations of corrections of moon's distances, by Sir George Airey. I have no doubt the Government will recognize the expediency of complying with Mr. Thomson's request to have this technical information inserted in the *New Zealand Gazette*.

7, Westminster Chambers,  
London, S.W., 27th February, 1878.

I have, &c.,  
**JULIUS VOGEL,**  
Agent-General.

The Hon. the Colonial Secretary, Wellington.

[COPY.]

**SIR,**— I have the honor to forward to you a note on the longitude of the Survey Observatory of Wellington, New Zealand, which, if you think fit, you will forward to the Government of the colony for publication in the *Gazette*. The technical importance of the subject consists in the Survey Observatory being the initial station of the general surveys now going on. While soliciting your attention to the above, I beg to cordially acknowledge the favour of your assistance in moving the authorities at Greenwich Observatory, by whom my wants were immediately and most courteously attended to. Appended to my note are the computations of corrections of moon's distances, by Sir George Airey.

I have, &c.,  
**J. T. THOMSON,**  
Surveyor General of New Zealand.

The Agent-General for New Zealand, London.

LONGITUDE of SURVEY OBSERVATORY, Mount Cook, Wellington, New Zealand.

	H.	M.	S.
Longitude of Rockside Observatory, Dunedin, by J. T. Thomson. (See Parliamentary Reports, 1871, 7, G.—23, 6) ... ..	11	22	06 19 E.
Correction of moon's positions by Astronomer Royal, 2nd February, 1878 ... ..			—6 58
Rockside Observatory corrected ... ..	11	21	59 61
Electric difference, Rockside and Hutt. (See Parliamentary Reports, 1871, G.—23, 10) ... ..			+17 44 52
Hutt Observatory ... ..	11	39	44 13
Trigonometrical difference, Hutt and Pipitea Point. (See Parliamentary Reports, 1871, G.—23, 4) ... ..			—32 53
Pipitea Point ... ..	11	39	11 60*
Trigonometrical difference, Pipitea Point, and Survey Observatory, Wellington ... ..			1 68
Longitude of Survey Observatory, Wellington ... ..	11	39	09 92

**J. T. THOMSON,** Surveyor General.

\* Admiralty determination (See *New Zealand Pilot*) ... H. M. S.  
11 39 11 53 E.

COMPUTATION of CORRECTION to OBSERVED LONGITUDE of ROCKYSIDE OBSERVATORY, Otago, New Zealand.

Date.	Errors of Tabular R.A. of Moon.		Adopted Mean Error of K.A.	Adopted Error of Tabular R.A. on Day of Observation of Longitude.	Variations of Moon's R.A. in lh. of Longitude.	Correction to observed Difference of Longitude.
	T.C.	Altaz.				
1869.	s	s.	s.	s.	s.	s.
September 13	...	+0.52	+0.52	...	...	...
" 15	+0.44	+0.52	+0.47	+0.39	136.1	-10.32
" 16	...	+0.11	+0.11	+0.39	131.2	-10.70
" 17	...	...	...	+0.28	126.0	-8.00
" 19	+0.34	+0.41	+0.36	...	...	...
" 20	+0.23	+0.15	+0.20	...	...	...
November 18	+0.25	+0.15	+0.22	...	...	...
" 19	+0.36	+0.27	+0.33	...	...	...
" 20	+0.30	+0.12	+0.24	+0.29	136.7	-7.64
" 22	...	...	...	+0.29	145.3	-7.19
" 26	+0.39	+0.31	+0.36	...	...	...
December 14	+0.20	+0.24	+0.21	...	...	...
" 15	+0.24	+0.00	+0.16	...	...	...
" 17	...	...	...	+0.26	135.7	-6.90
" 19	+0.16	+0.34	+0.22	+0.37	147.4	-9.04
" 20	+0.48	+0.37	+0.44	...	...	...
" 25	+0.43	+0.48	+0.45	...	...	...
1870.						
January 10	+0.10	+0.12	+0.11	...	...	...
" 12	+0.12	+0.07	+0.10	...	...	...
" 14	+0.04	-0.04	+0.01	...	...	...
" 15	...	...	...	+0.07	146.3	-1.72
" 16	...	...	...	+0.10	151.2	-2.38
" 17	...	...	...	+0.10	152.7	-2.36
" 18	...	...	...	+0.20	150.9	-4.77
" 25	+0.76	+0.26	+0.59	...	...	...
February 10	+0.15	-0.03	+0.09	...	...	...
" 11	+0.10	+0.12	+0.11	...	...	...
" 15	...	...	...	+0.25	152.1	-5.92
" 21	+0.52	+0.62	+0.55	...	...	...
March 12	-0.04	+0.38	+0.10	...	...	...
" 13	+0.09	+0.30	+0.16	...	...	...
" 14	+0.28	+0.09	+0.22	...	...	...
" 17	...	...	...	+0.30	145.3	-7.43
" 18	...	...	...	+0.30	142.8	-7.56
" 19	...	...	...	+0.30	141.8	-7.62
" 23	+0.72	+0.68	+0.71	...	...	...
April 15	+0.26	-0.05	+0.16	...	...	...
" 16	+0.18	+0.35	+0.24	...	...	...
" 17	...	...	...	+0.23	154.8	-5.35
" 18	+0.43	+0.11	+0.32	...	...	...
" 19	+0.22	+0.18	+0.21	...	...	...
" 20	+0.30	+0.87	+0.49	...	...	...
" 21	+0.42	+0.47	+0.44	+0.46	146.4	-11.31
May 8	+0.14	-0.24	+0.01	...	...	...
" 9	-0.01	+0.44	+0.14	...	...	...
" 10	+0.18	+0.07	+0.14	+0.14	140.5	-3.59
" 11	...	...	...	+0.15	141.2	-3.82
" 12	+0.12	+0.23	+0.16	+0.16	143.6	-4.01
" 13	+0.17	+0.36	+0.23	...	...	...
" 14	+0.36	+0.26	+0.33	...	...	...
1871.						
May 24	+0.26	+0.25	+0.26	...	134.9	...
" 26	+0.10	+0.33	+0.18	...	...	...
" 27	...	+0.08	+0.08	+0.19	129.6	-5.28
" 28	+0.25	+0.12	+0.21	...	...	...
" 29	+0.22	+0.06	+0.17	...	...	...
" 30	-0.04	+0.42	+0.11	...	...	...
" 31	+0.31	+0.31	+0.31	+0.24	142.5	-6.06
June 1	+0.41	+0.08	+0.30	+0.32	151.9	-7.53
" 2	+0.55	-0.04	+0.35	+0.37	161.8	-8.23
" 3	+0.41	+0.55	+0.46	...	...	...
" 4	+0.49	+0.14	+0.37	+0.46	171.6	-9.65
" 5	+0.64	+0.37	+0.55	...	...	...
					25	-164.43
Correction to Mean Longitude (East)						-6.53

NOTE.—Double weight is given to the observations with the Transit Circle. The adopted errors have been formed by combining observations on the days immediately preceding and following.  
1878, February 2nd.

G. B. AIREY.