Latitude of Hawera.

Inst. 12in. Altazimuth. Observer, T. Humphries. Trig.-station LV.

Date.	Pairs.		Latitude.	Diff. from Mean.	Nightly Mean.
1884.			° ′ ″		° ′ ″
May 2 ..	443	430	39 35 41·50	·11	
	468	459	42·25	·64	
	468	469	42·20	·59	
	474	469	39·30	2·31	
	474	479	39·30	2·31	
	521	530	41·15	·46	
	554	540	41·85	·24	39 35 41·25
	554	559	41·75	·14	
	567	559	40·25	1·36	
	585	595	41·00	·61	
	585	628	39·40	2·21	
	639	622	40·70	·91	
	654	657	42·05	·44	
	660	657	44·80	3·19	
5 ..	567	595	42·40	·79	
	585	595	45·35	3·74	
	608	613	42·00	·39	
	639	622	43·45	1·84	39 35 42·73
	654	622	40·75	·86	
	660	689	43·00	1·39	
	677	689	42·20	·59	
	435	438	39·90	1·71	
	443	459	42·90	1·29	
	468	459	44·05	2·44	
	474	479	41·20	·41	
	474	488	39·55	2·06	
	491	507	41·35	·26	
	493	498	41·55	·16	
	493	496	41·60	·11	
	505	496	42·15	·54	39 35 41·37
	521	530	42·05	·44	
	554	530	39·90	1·71	
	567	559	40·20	1·41	
	567	595	40·90	·71	
	608	595	41·45	·16	
	608	613	39·75	1·86	
	655	628	39·85	1·76	
	660	689	43·80	2·19	
	677	689	42·60	·99	
12 ..	468	469	42·45	·84	
	474	469	40·55	1·06	
	474	479	40·95	·66	
	493	488	43·80	2·19	
	493	496	40·90	·71	
	505	496	41·65	·04	
	521	530	43·85	2·24	
	521	540	44·10	2·49	
	554	540	43·15	1·54	
	554	559	39·90	1·71	
	585	595	42·85	1·24	39 35 41·67
	608	595	42·55	·94	
	608	613	40·90	·71	
	639	657	38·90	2·71	
	660	657	40·60	1·01	
	677	689	41·40	·21	
	692	689	39·55	2·06	
	692	695	43·05	1·44	
	705	700	40·35	1·26	
	705	695	43·60	1·99	
	712	743	39·95	1·66	
			60) 2496·40	73·84	
			39 35 41·61	1·23	

Probable error of final result ± ″·13

Patea Observatory.

Inst. 12in. Altazimuth. Observer, T. Humphries.

Date.	Pairs.		Latitude.	Diff. from Mean.	Nightly Mean.
1884.			° ′ ″		° ′ ″
June 2 ..	774	766	39 45 35·80	2·20	
	774	770	35·40	1·80	
	783	789	33·75	0·15	
	791	789	31·50	2·10	
	797	810	32·20	1·40	39 45 33·67
	804	789	36·10	2·50	
	818	820	32·50	1·10	
	818	824	32·65	0·95	
	834	789	33·10	0·50	
3 ..	567	559	34·25	0·65	
	585	595	33·25	0·35	
	608	613	35·10	1·50	
	608	622	33·65	0·05	
	639	622	34·05	0·45	
	654	657	32·30	1·30	
	660	657	33·30	0·30	
	677	689	36·60	3·00	
	692	695	30·40	3·20	
	705	695	32·05	1·55	
	705	700	32·80	0·80	
	712	700	33·20	0·40	39 45 33·51
	712	723	32·65	0·95	
	705	732	33·10	0·50	
	746	736	33·25	0·35	
	746	754	36·35	2·75	
	774	766	33·40	0·20	
	783	789	33·45	0·15	
	791	789	32·05	1·55	
	797	810	32·95	0·65	
	804	789	35·55	1·95	
	818	820	33·45	0·15	
	818	824	33·55	0·05	
4 ..	639	622	35·10	1·50	
	639	628	35·15	1·55	
	654	657	32·25	1·35	
	660	657	32·40	1·20	
	677	657	32·90	0·70	
	677	689	36·75	3·15	
	692	695	30·80	2·80	
	705	695	34·55	0·95	
	712	700	35·10	1·50	
	712	723	36·15	2·55	
	727	732	34·70	1·10	
	746	736	34·25	0·65	39 45 33·68
	766	770	35·20	1·60	
	774	770	31·05	2·55	
	783	770	33·65	·05	
	783	789	36·70	3·10	
	791	789	34·00	·10	
	797	810	31·30	2·30	
	804	789	34·95	1·35	
	818	820	31·45	2·15	
	818	824	32·45	1·15	
	834	838	30·05	3·55	
			54) 194·60	72·70	
			39 45 33·60	1·35	

Mean error of single observation 1″·35
Probable error of final result ″·15

Standard.—The true bearings have now been carried to Mokau, the northern boundary of the district, and eastward from Pukearuhe to the Wanganui River. The bearing has been thrown direct to Mokau from Marsland Hill, New Plymouth, a distance of forty miles, and this without the aid of heliostats. Our major triangulation, embracing 120,000 acres, has been extended by Mr. H. M. Skeet across to the Wanganui River; and next season we hope to complete all in that direction, closing on to several stations in the Auckland District. We have already connected with one of the points, but not to a side, consequently have as yet no comparison. Topography has been combined as far as it can be achieved in a densely-wooded and rugged country with triangles ranging from seven- to ten-mile sides. Thus we have most valuable information as to the general lay and character of a portion of the district which hitherto was unexplored and unknown.

Minor Triangulation.—This has also been forest-work, and covers 79,000 acres. It extends northward to Mokau, and then fifteen miles into the Auckland District. This latter portion was done in connection with the settlement surveys we are undertaking for that district. Topography has been combined, as is usual here.

Settlement Surveys.—The completed work under this head is low, viz., 13,725 acres. This is