

1888.
NEW ZEALAND.

SURVEYS OF NEW ZEALAND.

(REPORT FOR 1887-88.)

Presented to both Houses of the General Assembly by Command of His Excellency.

SIR,— General Survey Office, Wellington, 10th August, 1888.
I have the honour to report the operations of the Survey Department for the twelve months ended the 30th June, 1888. The survey year terminates on that date of each year, instead of with the financial year, on the 31st March. The former period is the end of the season of field-work, and therefore the most convenient time for reporting the years out-turn of work.

In the Appendix the reports of the supervising officers, and the tables and maps, give detailed information of the progress of the surveys, and of the road-works during the year.

The following statement gives a summary of the field-work and its cost under the various general classes of survey :—

	Area.	Rate per Acre.	Cost.
		£ s. d.	£ s. d.
Minor triangulation	136,591 acres	0 0 0·9	516 1 9
Topographical survey	335,154 "	0 0 0·35	491 3 10
Triangulation with topography	535,840 "	0 0 1·1	2,450 1 6
Surveyed for free selection	140,761 "	0 0 9·4	5,520 3 0
Rural and suburban	302,894 "	0 1 4½	20,954 7 9
Town survey (2,885 acres into 1,929 lots, at)	...	11 2	1,075 13 11
Native Land Court surveys	125,715 "	0 0 4·77	2,498 13 2
Native-land purchase surveys	171,095 "	Paid direct	
Gold-mining surveys	87,160 "	0 0 3·4	1,239 6 10
Roads, &c.	266,044 "	Paid direct	
Miscellaneous	10,700 "	0 6 8½	3,590 13 11
	316½ miles	11 5 7	3,570 4 8
			6,516 6 1
			<u>£48,422 16 5</u>

TRIANGULATION AND TOPOGRAPHY.

During the year an area of 1,059 square miles has been brought under minor triangulation. Of this an area of about 180 square miles in Auckland and Wellington districts was broken down from the major triangulation to afford starting- and closing-points for the settlement surveys. In Otago and Marlborough there were extensions of a few triangles to govern the revision of old surveys and for Land Transfer work.

The principal operations, however, have been conducted over the back-run country of Canterbury and Amuri, along the eastern slopes of the great mountain range of the Middle Island. From the great altitude of many of the trigonometrical stations in this country, the field-work can only be carried on for the six months of the year from the beginning of November to end of April or into May. In Canterbury there were four parties at work under Messrs. J. S. Welch, James Hay, T. W. Brodrick, and G. H. McClure respectively. They triangulated and topographically surveyed an area of 650 square miles, besides making a topographical reconnaissance of an additional area of 520 square miles—an amount of work most creditable to those officers—at a cost of only 1d. per acre for the trig. and topo. work and a third of a penny for the reconnaissance.

In Amuri district Mr. F. S. Smith, District Surveyor, Mr. F. A. Thompson, Assistant Surveyor, and Mr. Buckridge, cadet, completed the trigonometrical and topographical survey of 150 square miles of similar country, besides conducting road-surveys and the sectional surveys of some long-standing applications.