

GEODETIC SYSTEM OF SURVEY.

A return showing the nature and cost of the operations carried on under the Geodetic System of Survey in this colony up to the present date:—

GEODETIC SURVEY.

This survey was commenced in September, 1858. The first work was the astronomical determination of the standard meridian. This was completed about the middle of October.

The meridian was then traced, cleared, and measured as far as the intersection of the 37th parallel of latitude, and the intersection astronomically determined. This occupied until March, 1859. It then became necessary, in order to facilitate future operations, to determine the geographical positions of some of the trigonometrical stations;—those of Mount Macedon, Warrenheip, as well as the second chief meridian (144th), were determined astronomically, and a portion of the second chief meridian cleared and traced.

In April, the measurement of the first standard parallel was commenced, this being one of the most important and difficult portions of the whole work, and the foundation on which all the meridians are erected.

The parallel was started from the first standard meridian at Flemington, and has been carried on as far as the intersection of the second standard meridian. Along this parallel a most careful triangulation has been carried on, to fix the intersection of all the secondary meridians.

In addition to the fixing and marking of the parallel, a good deal of work to forward the trigonometrical survey has been done.

For the expeditions carrying out of the survey the main triangulation has been diligently prosecuted, as both are inseparably connected.

The first standard meridian is now carried through to the Murray, and the laying out some large blocks of country in that district by geodetic lines is in progress.

The 37th parallel has been carried through a portion of Anglesey, and blocks of land are being laid out in a similar manner.

The 5th and 6th secondary meridians have also been run from the first standard parallel as far as the dividing ranges, and are being pushed forward to the northern boundary of the colony.

To obtain all the expedition possible in carrying out the survey, it is very desirable that as many points as possible should be established geographically throughout the colony.

As a great deal had been done in previous years in clearing the tops of mountains for a trigonometrical survey, the primary triangulation was commenced some months since, and observations have been made at many stations, as will be seen by reference to the accompanying map.

The measurement of the base line for the triangulation is also in hand.

Altogether, rather over 300 miles of geodetic lines have been run, including the fifth and sixth standard meridians.

These will form the ground-work of a large portion of the survey.

The following are the officers employed:—

From August 1, 1858, to present date.—Robert L. J. Ellery, superintendent.

From August 20, 1858, to present date.—R. Petty, assistant.

From April, 1859, to present date.—A. C. Allan, assistant; E. De Verdon, assistant.

From July, 1859, to present time.—Messrs. P. Chauncy, district surveyor, Heathcote, and T. W. Pinniger, district surveyor, Kilmore, have been occasionally engaged in carrying the geodetic lines through their respective districts; and—

P. Crenion, from April 1, 1859, to present date, computer for both geodetic and trigonometrical surveys.

CHAR. W. LIGAR, Surveyor-General.
Crown Lands Office, Melbourne, December

CHAR. W. LIGAR, Surveyor-General.
Crown Lands Office, Melbourne, December 13, 1859.

Return showing the expenditure incurred upon the Geodetic Survey of Victoria, from August 1, 1858, to October 31, 1859.

FROM 1ST AUGUST TO 31ST DECEMBER, 1858.

Salaries and wages of staff	£742 11 0
Contingencies:—	
Purchase of horses	£56 14 0
Forage for horses	44 1 8
Waggon and harness	94 17 0
Construction of portable observatory	80 7 0
Stores, equipment, and incidental expenses.. .. .	20 8 6
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	261 8 2

Total for 1858 £1,003 19 2

FROM 1ST JANUARY TO 31ST OCTOBER, 1859.

Salaries and wages of staff	£3,003 4 6
Contingencies:—	
Purchase of horses	£30 0 0
Forage for horses	100 12 4
Purchase and hire of drays, bullocks, &c.	287 14 0
Purchase and repair of instruments	72 14 0
Observatory tents	44 13 2
Fitting intersectional stations	45 17 0
Travelling expenses	60 11 7
Stores, equipment, and incidental expenses	75 14 1
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	783 17 2

Total for 1859 £4,447 1 8

FROM 1ST AUGUST, 1858, TO 31ST OCTOBER, 1859.

Salaries and wages of staff	4,405 15 6
Contingencies	1,945 5 4
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Total expenditure	£5,451 0 10

MEMORANDUM.

This return does not include the expense of occasional assistance rendered by surveying parties engaged in laying out lands for sale, who may have in the course of their duties carried the geodetic lines through their districts.

CHAR. W. LIGAR, Surveyor-General.
Crown Lands Office, Melbourne, Dec. 13, 1859.