

MINOR TRIANGULATION.

The work under this heading was principally in connection with rural standard surveys in the Hawke's Bay District.

TOPOGRAPHICAL SURVEYS.

Some 72,000 acres, principally in the Auckland District, was surveyed during the year.

SETTLEMENT SURVEYS.

There was a considerable falling-off in the area of Crown lands and land-for-settlement surveys during the year. The areas are set out in Table 1 under their appropriate headings for each land district.

NATIVE-LAND SURVEYS.

The greater proportion of this work was carried out by private surveyors and was chiefly in the Auckland Land District.

GEODETIC TRIANGULATION.

No work under this head was carried out during the past year.

HAWKE'S BAY RE-ESTABLISHMENT OF SURVEYS.

Very good progress was made with the controlling rural standard survey work in Hawke's Bay, a distance of 344 miles being completed during the year by Staff Surveyors at an average cost of £21 9s. per mile.

The field-work of the standard survey of Napier Borough has been completed and plan work is well in hand. Good progress has been made with the standard survey of Hastings Borough, the field-work of which will probably be completed by the end of March next.

A total of 471 reproduced plans (Land Transfer and Native) were examined and approved during the year, and a considerable amount of other survey data was received and recorded.

The copying of essential matter from old Crown grants has been taken in hand, and the preparation of new tenure and record maps is making good progress.

Accuracy of Field-work.—In the ordinary rural traverses the calculations show the circuit closures to average 0.4 link to 1 mile or 1 in 20,000. In the standard traverses the closures are of the order 1 in 50,000, while it has been demonstrated in the field that with little extra precaution an accuracy of 1 in 250,000 or equal to geodetic standard can be maintained.

STANDARD SURVEYS.

With the exception of the standard survey work in connection with the re-establishment surveys in Hawke's Bay District and the maintenance of existing standards, no work was carried out under this heading during the year.

FIELD INSPECTIONS.

Only where necessary for title purposes were field inspections made.

TIDAL SURVEY.

The tide-tables for the year 1935 for the seven standard ports (Auckland, New Plymouth, Wellington, Lyttelton, Dunedin, Bluff, and Westport) for which predictions are published were received from the Hydrographer to the Admiralty. The work of measuring the times and heights of high and low water was performed by the Tidal Institute, University of Liverpool.

PROPOSED OPERATIONS, 1934–35.

Hawke's Bay Re-establishment of Surveys.—The control traversing of the principal roads will be continued in the field. The adjustment of these traverses into harmony with the triangulation and the collection and compilation of outstanding survey data will be the principal office work.

Triangulation.—It is anticipated that certain necessary geodetic work will be undertaken next field season.

Standard Surveys.—No work of this class is proposed to be done though it will be necessary to carry out the usual maintenance and inspection of existing standards.

PRECISE LEVELLING.

Requests have been made that work to co-ordinate various blocks of levelling already made for different purposes be carried out and these separate works placed in terms of mean sea-level as determined by automatic tide-gauges. It is anticipated that this will be put in hand during the coming season.

Town Section Surveys.—A total area of 56 acres is proposed to be subdivided during the coming year, principally in the Taranaki and Canterbury Districts.

Rural Settlement.—A total area of 57,000 acres is in hand for survey during the coming year, Auckland and Hawke's Bay accounting for the greater part of this total.

Native Land Court Surveys.—Under 3,000 acres are at present in sight, but it is expected that at least five times this area will be brought forward during the year and surveyed.

Office Work.—The routine examination and recording of plans, photo-lithographic drawings, Gazette notices, &c., will be continued during the year. The publication of maps as present editions become obsolete will also be done. In the computing branch further harmonic constants for the standard ports will be evaluated as well as the readjustment of triangulation as it becomes necessary.