

Accuracy.—The average close per mile as disclosed by staff surveyors' reports is 0.23 link for town surveys and 0.35 link for rural surveys, thus indicating a high degree of accuracy.

Other Work.—The amount of this item is £4,279 12s. 10d., and this may be subdivided as follows : Location of boundaries and pegs not amounting to a complete survey, £1,582 ; investigational surveys for title or check purposes, £544 ; maintenance of survey marks on roads under reconstruction and trig. stations, £793 ; surveys and plans of street accidents and for proceedings in Court, £350 ; and for office routine, reports, leave, &c., £1,011.

OFFICE.

Plan Examination and Recording.—The number of plans for examination and records shows a slight increase on the high total of the previous year, and the staff, therefore, has been very busy. It has been possible to keep this work up to date, but only by sacrificing other less-urgent work. The particular class of work which has suffered is the drawing for lithography of our standard 1 in. to 1 mile maps.

As forecast in last year's report, uniform systems of recording surveys and of drawing the standard publications have now been put into operation. The value of this will increase as time passes and more of the publications as redrawn become uniform in style.

Computing Branch.—The arrears of tidal analysis have been much reduced, this work being now practically up to date. The amount of triangulation now coming forward for computation and adjustment is more than the present staff can cope with, and there is an accumulation which it is hoped may be reduced during the coming year.

In accordance with usual custom, the times and heights of high and low waters for 1940 for the seven standard ports—Auckland, New Plymouth, Wellington, Lyttelton, Dunedin, Bluff, and Westport—were carried out on the tide-predicting machine at the Tidal Institute, Liverpool University, from the harmonic constants computed in this branch. Co-ordinate values for points along the coast of the North Auckland peninsula have been computed and supplied to the Admiralty survey ship, H.M.S. "Endeavour," now carrying out a hydrographic survey in those waters.

Map Publications.—Details of these are set out in the tables and report of the Assistant Surveyor-General (Mr. R. G. Dick). It may be noted that the sales to the public show a slight increase on the previous year, but this is more than offset by a diminished return from official sources. The extent to which departmental maps are used by private publishers may be gauged by the amount of the royalty fees collected, a sum of £487 for this year.

Aerial Mapping.—The progress of this work has been rather slow, due to want of trained staff and equipment, but it is anticipated that these will be overcome during the coming year and that a considerable speeding-up will result in that urgent work.

Town Schemes.—The analysis of the 259 schemes approved during the year shows that the reserves set aside equal approximately 7 per cent. of the total area of the lots, while new roads constitute about 9 per cent. of the total area, thus indicating a tendency towards ribbon development.

Warrants for Title, &c.—The number of Warrants for certificates of Title issued during the year was 242, and 13 proclamations of road-lines under the Native Land Act, 1931, were dealt with.

International Federation of Surveyors.—The sixth Congress of the Federation was held in Rome from 6th to 10th October, 1938. Mr. R. E. Gilmour, as the delegate of the Dominion, attended the meetings of Section 3, Town and Country Planning, and the exhibition of Photogrammetry (Section 2). An interesting account of the work of the Congress and of the tour through the Pontine Marshes, now reclaimed, with its new towns planned and built within the last few years, was supplied by Mr. Gilmour, as well as copies of the papers read at each of the five sections.

PROPOSED OPERATIONS, 1939-40.

Geodetic Triangulation.—This work will be extended southwards from the base net at Culverden to the base at Waitaki. The work on the Canterbury Plains will necessitate the use of high steel towers to raise the line of sight above plantations, &c. The height of the towers proposed to be used will be 90 ft.

A further base will be laid down in Southland to control the southern end of the triangulation, and it is anticipated that the three bases in the South Island will suffice for the geodetic work.

Triangulation.—Second- and third-order work is to be put in hand in the Auckland and North Auckland districts, enabling a complete revision of the old work based on Mount Eden ; and similar work is to be done in Wellington and Taranaki covering the closely settled area. That in Taranaki has been almost completed in the field, several tie lines being all that remains to be done.

Surveys.—Sufficient work is in sight to keep the present field staff fully occupied for the year, and with urgent work which will be forthcoming from time to time the staff will be kept busy.

Office-work.—This work continues to increase, but the staff, which of recent years has been largely junior, is assuming better proportions and should be able to cope with the additional work.

STAFF.

I regret to have to record the death of Mr. S. T. Kennerley, Draughtsman, of Auckland, a very promising young officer.

Mr. R. W. Collins, Senior Draughtsman, Wellington, retired after forty-four years' service. His great knowledge, especially of early survey and historical records, will be missed.

APPRECIATION.

I wish to express my appreciation of the manner in which the staff has carried out its duties, both great and small, during the year. In particular, I would commend those junior officers who, by diligent study and application, are making themselves worthy of the Service.

H. E. WALSHE, Surveyor-General.