

The Centennial, 1940.—This Department is entrusted with the publication of an atlas for the Centennial year, and work was commenced midway through the year on the drawing of the plates. Briefly, the volume will be threefold: (a) historical, portraying the progress through the century; (b) physical and economic, showing the present position; and (c) consisting of a sectional modern map on a 10 miles to 1 in. scale. The National Historical Committee are providing the data for section (a), various Departments those for (b), and this Department for (c). A fuller description is given in the report appended.

Town Schemes.—An analysis of the 242 schemes approved during the year appears in the report of the Assistant Surveyor-General appended.

One point brought out by this analysis is worthy of attention—the very low ratio of the area of new roads to the total area. This is shown as slightly under 6 per cent. In a developed town this ratio would be about 33 per cent., while in suburban areas (to which these schemes approximate) the ratio would be about 25 per cent. It must be admitted that a number of these schemes are in fact re-subdivisions of previous schemes and therefore would not require new roading. Even after discounting for this, the figures show that at least two-thirds of the new lots front existing roads; in other words, “ribbon development,” which in the case of arterial roads constitutes a grave danger to traffic. At the present time when new and more direct highways are being laid out on the outskirts of the large cities the question of permitting their usefulness to be impaired by creating conditions likely to give rise to dangerous congestion should be considered.

Warrants for Title, &c.—The following summarises the number of Warrants and Proclamations issued for the year ended 31st March, 1938:—

Number of Warrants for issue of certificates of title	204
Number of Proclamations of road-lines under the Native Land Act, 1931	11

PROPOSED OPERATIONS, 1938–39.

Surveys.—The work in sight for the coming year is set out in Table 3. In addition to that shown, it is anticipated that much further work will be forthcoming during the year, especially as regards housing, roading, and probably Native surveys. The year promises to be a particularly busy one for the field and office staffs.

Geodetic Triangulation.—This work will be continued and observations in Marlborough, Nelson, and North Canterbury, including a base net, should be completed during the year. As already stated, a Geodetic Tavistock theodolite will be available in addition to the present Wild theodolite. It is hoped that a relieving officer can be placed on this work to allow much needed relief being given to the officer in charge, Mr. T. W. Preston, and his assistant, Mr. J. P. Arthurs.

Owing to the stations being high and remote from any means of communication, and the work being executed at night with small lights, there is a difficulty experienced in imparting instructions to the various light-keepers. To avoid the delays due to this, it is proposed to install a portable transmitting wireless set at the main camp and equip the light-keepers with appropriate receivers. This equipment is now under final test and should this prove satisfactory, as may be expected from the preliminary ones, the equipment should be in use this spring.

Triangulation.—Some years ago rural standard traverses were laid down in Taranaki, but it has been found impossible to make complete use of these owing to lack of control, the existing triangulation not being adequate for this purpose. It is proposed, therefore, to throw over the more settled areas a network of second and third order triangles based upon the geodetic work.

Precise Levelling.—It is anticipated that better progress will be made with this work during the year, although the increase in urgent current work may again interfere with continuous work upon it.

Aerial Survey Mapping.—This branch is to be increased both in staff and equipment, but it will probably be late in the year before sufficient accommodation is available to house the staff. The completion of the ground control in Hawke's Bay, work on which was interrupted last year, should be attained early this year.

Office Work.—The routine work for the coming year promises to be considerable, and present staffs will find difficulty in coping with it without dropping other essential, but not so urgent, services. In addition to this, the activities connected with the Centennial are calculated to make demands upon the draughting staff.

STAFF.

I regret to have to record the death of Mr. W. J. Johnson, Draughtsman, Native Branch, Auckland, Messrs A. J. Wicks, Assistant Surveyor-General, and C. H. Morison, Chief Surveyor, Hokitika, retired during the year. Mr. S. F. Baird, Surveyor, resigned to take up survey work overseas, and several draughtsmen have been transferred to other Departments. The numerical strength of the technical branch has, however, been maintained by further appointments both to the field and office.

APPRECIATION.

The Chief Surveyors in their reports speak highly in praise of their staffs both in the field and the office, and I would also add my appreciation of the manner in which they carry out the duties allotted to them.

H. E. WALSH, E.
Surveyor-General.