

PHOTOGRAMMETRIC BRANCH

The main work of this Branch has been the plotting and contouring of 1 : 25,000 topographical maps. A number of special topographical mapping jobs were also undertaken for other Departments.

During the year one Zeiss Multiplex unit was obtained from Norway and put into operation. A Wild A. 6 plotter was received from Switzerland. This also has been erected and adjusted and has been in use on special mapping projects. The Department has on order for delivery during 1949 two Zeiss Multiplex units from the United States of America and one A. 6 plotter from Switzerland. For some years this Branch has been restricted in its work due to lack of suitable plotting equipment, but the bringing into operation of the above machines should increase output.

(a) *Topographical Mapping*

A total of twenty-eight 1 : 25,000 sheets are in hand covering an area of 1,044 square miles. Three sheets were completed during the year.

(b) *Special Projects*

1. *State Hydro-electric Department*.—Contour maps of the Manapouri-Doubtful Sound area (17 square miles) and of storage basins on the Waikato River (17 square miles) were compiled during the year.

2. *State Forest Service*.—Timber-type boundaries and planimetry of three 1 : 25,000 sheets totalling 145 square miles were completed.

3. *Lands and Survey Department*.—A special contour map of the Rangitai River area was made for flood-control-investigation purposes (13 square miles).

(c) *Photo-Library Section*

1. The area covered by new photography was 7,237 square miles at a cost of £19,974, of which £1,392 was for other Departments.

2. A total of 34,798 prints of aerial photographs, of which 11,348 prints were an increase in the Library holding, 302 enlargements, and 232 copies of special mosaics were handled by this Section during the year. The return from sales to other Departments and to the public was £16,349, of which £10,604 was available for credit towards the initial cost of photography. Transactions incomplete at 31st March, 1949, will, on finality, result in further credits in reduction of initial cost of photography.

(d) *Photographic Section*

During the year 3,404 contact prints, 645 enlargements, 649 negatives, 74 Gestefilms, 178 diapositives, and 119 pin-up mosaics were made by this Section.

COMPUTING BRANCH

(a) *Geodetic Triangulation*

The first adjustment of the main North Island figure in the first-order triangulation was completed, and that of the other three main figures (one in the North Island, two in the South) was very near completion. The computations of astronomical latitudes were completed for the North Island stations, and a commencement was made with the South Island stations. Observations