

Second and Third Order Triangulation.—Except for the erection of a few signals in the Southland District, no work has been carried out under this heading.

Precise Levelling

No precise levelling has been undertaken during the year. Instructions have been received from the Public Works Department to establish permanent mean sea-level datums in the Bay of Plenty district. It is anticipated that tide gauges will be set up at two or three convenient stations to be connected by precise levelling traverse and extended to provide accurate datum levels for drainage and river control. This work will be put in hand early in the coming year.

Topographical Mapping

Two small mapping parties have been operating in the Thames (Auckland) and in Central Otago on 1:63360 mapping.

No field-work has been carried out on the 1:25000 series. Six map sheets of the Wellington area have been drawn and are awaiting publication.

The following schedules show the present position in respect to the 1:25000 and 1:63360 series:—

1:25000 Series

—				Area (Square Miles).	Number of Sheets.
Maps published as at 31st March, 1945	..			1,100	28
Maps published during year	..	..		..	..
Mapping on hand	..	..	..	1,330	26
Totals	..	..	..	2,430	54

1:63360 Series (Provisional)

—	North Island.		South Island.		Total.	
	Area (Square Miles).	Sheets.	Area (Square Miles).	Sheets.	Area (Square Miles).	Sheets.
Published at 31st March, 1945	16,123	65	22,825	72	38,948	137
Published during year ..	1,327	4	1,275	5	2,602	9
Drawings completed ..	586	2	1,046	4	1,632	6
Mapping in hand (completed)	6,145	21	3,842	12	9,987	33
Totals	24,181 (22,255)	92	28,988 (27,770)	93	53,169 (50,025)	185

Last year's totals are shown in parentheses.

Mapping parties were reduced during the year to two small parties. A total area of 3,144 square miles was mapped on the 1:63360 scale. The field-work on a number of map sheets has been completed and are awaiting drawing.

The Department is carrying out a number of detailed topographical surveys of special areas required by the State Hydro-electric Department, the Forestry Department, the Public Works Department, and the Mines Department for special development purposes. The work carried out will in many instances be incorporated subsequently in the published topographical map series.