

Greymouth: Work proceeded on the extensions. All the ring-holding bank has been placed, and the dredged filling is nearing completion. A small area has been topsoiled.

Hokitika: Improvements to the surface, including the metalling of runways and an extension of the subsoil drainage system, were completed. A radio-transmitting-station was brought into operation and the building erected, with power laid on for the radio-receiving and direction-finding station.

Haast: The regrading and resowing of this field was completed and the ground brought into use.

Upper Okuru: The cross-landing strip has been regraded and is awaiting consolidation.

Jackson's Bay: A landing-strip, 500 yards by 50 yards, was formed and grassed, and the formation of a similar cross strip is nearing completion. A permanent radio-station was provided.

Maintenance: The Department undertook maintenance on the following fields: (a) As fields under development—Westport and Hokitika; (b) as fields in remote localities—Inchbonnie, Wataroa, Waiho, Weheka, Mahitahi, Haast, Upper Okuru, and Mussel Point.

Otago-Southland District.—A site was investigated at Tuatapere.

Waianakarua Emergency-landing Ground: This field of 67 acres was completed, sown in grass, boundary marked, and brought into use.

Taieri: The bituminous apron was replaced by a concrete one, and the vicinity drained. A building for the radio-receiving and direction-finding station was erected and power laid on, while a radio beacon with two marker beacons was installed and is operating experimentally. A wooden hangar for use by the R.N.Z. Territorial Air Force is under construction, and proposals are under consideration for the extension of the aerodrome.

Frankton (Queenstown): This field of 72 acres was graded, levelled, and sown in grass. It was opened for use during the period.

Gore: The whole of the field was smoothed off and rolled. Improvements were effected by deepening ditches, placing subsoil drains, and providing rabbit-proof fencing.

Invercargill: A large ring-drain is nearing completion, and subsoil drainage has been commenced. A commencement has been made with extensions. The original field should be available this coming summer.

Minor improvements were carried out on the following fields: Cromwell, Glenorchy, Ranfurly, and Balclutha.

The Department undertook the maintenance of the following fields: Waitaki, Glenorchy, Frankton, and Waianakarua.

GENERAL.

Removal of Obstructions surrounding Aerodromes.—Close watch is being maintained to ensure that the air approaches to all aerodromes are being kept clear of obstructions, and steps are being taken, under existing legislation, to cause the removal of existing obstructions. Much still remains to be accomplished in this direction.

"Air Pilot" and "Notices to Airmen."—The Department has continued its service to airmen in compiling amendments and additions to the *Air Pilot*. A new edition was published during the year. In addition, information is collected regarding the condition of all aerodromes and landing-grounds, and pilots are advised immediately by "Notices to Airmen," issued by the Air Department, of all alterations and changes, especially those affecting the safe use of any particular field.

Aerial Surveys.—The Department supervises and places orders for all aerial survey work on behalf of Government Departments, and during the year many square miles of country were photographed for purposes of irrigation, drainage, river and erosion control, road location, forestry, soil survey and mapping.

Meteorological Service.—Regular observations of winds and meteorological phenomena are taken at many aerodromes and analysed in conjunction with the Meteorological Section of the Department of Scientific and Industrial Research.

Meteorological and Aeradio Station, Raoul, Island, Kermadecs.—During the year the temporary aeradio station was maintained and operated on this island and the personnel served with supplies and equipment. Owing to difficulty in arranging transport, a commencement of the erection of the permanent station had to be postponed, but arrangements are now finalized for the work to be undertaken in the present year.

Investigations in the Pacific.—During the year the Department was charged with making an investigation into matters pertaining to aviation among the islands of the Pacific. Preliminary surveys were undertaken and are now being followed up by engineering surveys.

PLANT AND MECHANICAL EQUIPMENT.

For the period under review the mechanization of all suitable construction works throughout New Zealand was completed, and the expenditure on plant has now reached a maximum, unless further major construction works are initiated; but even in that event some plant could be made available from some works now nearing completion. There is, of course, the necessity for replacing some items of plant that have operated over a period of only two to three years, working three shifts per day. This continuous service has had the effect of shortening the total life of the plant, necessitating gradual replacement of those items that are worn out through fair wear-and-tear. These replacements would ordinarily absorb some capital expenditure during the ensuing year, but as the Department has instituted plant-repair depots to take care of the maintenance of its modern machines, and as the maintenance efficiency of the depots throughout New Zealand develops, expenditure on replacement plant will be comparatively light. This arrangement should tend further to reduce the cost of operating the machines and obviate the need for early replacement.