

to Lyttelton from her long and very successful cruise on the 1st April, 1916, and her scientific staff immediately set about the necessary redetermination of instrumental constants at the Observatory. At this they were still busily engaged at the end of April. Valuable time-signals have been received from the Hector Observatory through the courtesy of the Department of Telegraphs of especial value to the work of the vessel.

The second event of great importance was the addition of sufficient insulation to the magnetograph-house at the Amberley sub-station, to enable the Eschenhagen magnetographs there to be put into continuous operation. The scientific value of this cannot be overestimated. Continuous records free from disturbances have been obtained from these instruments since the 17th February, 1916, under the care of the assistant in charge, Mr. R. H. Symington. An acknowledgment must also be made of the valuable services of Mr. Thomas Maben, assistant at the Observatory.

The detailed report of the Director, Mr. H. F. Skey, is published separately. It contains the tables of hourly values of the magnetic elements, tables of earthquakes recorded, reproductions of the principal magnetograms and seismograms, and vector and other diagrams of the diurnal magnetic variations for the seasons and months of the year 1915. The publication of the Magnetic Survey of New Zealand by the Department is an event towards which this Observatory has contributed not a little, in spite of its shortness in staff.

In the course of March last Mr. William C. Parkinson, a magnetic observer of the Department of Terrestrial Magnetism, C.I.W., made observations at a number of repeat stations occupied in the course of our magnetic survey. His provisional results yield values of the annual change agreeing very consistently with the values obtained previously by our Department.

HENRY F. SKEY.
Director.

APPENDIX II.—THE MAP OF ANZAC.

Now that the war operations at the Gallipoli Peninsula have been concluded it seems an appropriate time to record in our annual volume a memento, congruous with our function in the Government, in the shape of a map of Anzac, to mark our participation as a Department in the deeds of our soldiers there.

The word "Anzac" (meaning "Australian and New Zealand Army Corps") is now a household word throughout the Empire, and will always be associated with the thought of great deeds done by Australian and New Zealand troops on Gallipoli Peninsula.

The following notes will serve to illustrate the attached plan, which was prepared from information supplied by Private Waldo Thompson, of the Napier staff, who was present at the landing on the 25th April, 1915, and saw four months' service in the ensuing operations.

The portion called "Anzac" is contained by the New Zealand trenches and the Australian trenches as shown, from Fisherman's Hut to Gaba Tepe Point. The area is only about 1,000 acres, and the widest part from the front trenches to the sea is only about 1,100 yards, while the distance along the sea-front is about three miles.

In this area of hills and scrubby gullies the Australians and New-Zealanders held out against greatly superior Turkish forces, which periodically made desperate attempts to dislodge the colonials from their positions and drive them into the sea. The Australians from the 25th April to the 6th August repulsed, with great slaughter to the Turks, all attempts to break the front line, which, had it occurred, would have undoubtedly meant the loss of the whole position. The whole of Anzac lay exposed as a bird's-eye view to the Turks, who held all the higher ground inland, and consequently were able to keep up a relentless bombardment on the heroic defenders.

All the positions shown on the map, such as Steele's Post, Courtney's Post, Quinn's Post, Pope's Post, Walker's Ridge, Plugg's Plateau, &c., were named out of regard to the officers who were instrumental in seizing the positions in the initial rushes from the landing, and who in many cases lost their lives. The Lonesome Pine position was named because of a single tree which marked the spot, and is famous because of the skilful way it was captured from the Turks by the Australians.

The Chessboard is so named from the series of Turkish trenches which seamed the western slopes of Sari Bair ridge. Table Top was the position of the Turkish trenches on the north, and was a low flat ridge. Shrapnel Gully was the main means of communication between the beach and the front trenches, and received its name because of the amount of shrapnel shell thrown into it by the Turkish artillery, which was aware of its importance to our troops. Practically all movement from one place to another had to be done along big cuts or saps, and these provided a degree of safety from the incessant shell and rifle fire. Most movement was done under cover of night.

Bathing on the beach near the piers was the only recreation, but this involved the risk of being hit by the Turkish artillery, which was able to enfilade the beach from Anafarta Ridge on the north and from below Gaba Tepe Point. Very heavy casualties were caused by this shell-fire, which tried continuously to smash up the accumulated stores of rations, many hundreds of our men losing their lives here.

As the Australians and New-Zealanders did not have enough men to attempt an advance, an Army Corps (40,000) of "Kitchener's Army" under General Stopford, was sent from England to assist in a forward movement. This force on the night of the 6th August made a surprise landing in Sulva Bay, and on the same night the New-Zealanders assaulted and captured the