

show that a near approach to uniformity has been attained. Below is given a list of stations observed this year, with their latitudes and longitudes, and also tables showing the various values obtained for the secular variation of the magnetic inclination, horizontal force, and declination, as found from the seven repeated stations. These values will enable the results of observations made in 1901 and previously to be corrected for secular change, and so reduced to the epoch of the survey. The value (+ 1.91' per annum) found for the secular change of inclination is in the same direction but slightly larger than that (+ 1.41' per annum) found from the observations in various New Zealand ports made by Captain Stokes in the middle of last century. At Rotorua the change of magnetic declination has been remarkably small compared with that at the other stations. The mean resulting value for the annual change of declination in the North Island is approximately the same as that found for the South Island by observations at the Magnetic Observatory. Again, the value found for the secular change per annum of the horizontal magnetic force in the North Island is identical with that previously found in the South Island.

By the courtesy of the Telegraph Department we were enabled to receive telegraphic time-signals from Wellington Observatory at many stations, serving as valuable checks on the local observations.

That the value of the survey to science is recognised in scientific circles is shown by the following extract from a letter written by Dr. Glazebrook, Director of the British National Physical Laboratory, to the Agent-General for New Zealand. In it he says, "I have the honour to inform you that Mr. C. Coleridge Farr's statement of his work on the magnetic survey of New Zealand was laid before the Committee of the Laboratory at their last meeting, and I was instructed to convey to you for transmission to the proper quarter an expression of the high value which the Committee attach to Mr. Farr's work. It has been carried out with great care and skill, and at the present moment, when the antarctic expedition is at work in the extreme South, the results arrived at are of very real value to science. I gathered from a letter from Mr. Farr that he was anxious that the loan of the instruments should be continued beyond the period already fixed. In view of the value of the results, the Committee have great pleasure in continuing the loan on the same terms as heretofore for two years from June 30, 1902. The Committee would wish the instruments to be completely at Mr. Farr's disposal for the further period." Further on in the same letter Dr. Glazebrook suggests that when the work is completed the full report should be communicated to the Royal Society. It is hoped to observe at a number of stations in the interior of the South Island before July, 1904. When the field-work of the survey is completed, the reduction of the values obtained to the epoch of the survey will take a considerable time.

At the request of the Nautical Adviser to the Government, a copy of the report forwarded to Dr. Glazebrook has been sent to him also, and he is using the corrected values of the magnetic elements in the compilation of course instructions for navigators, for incorporation in the New Zealand Almanac.

In conclusion, it is a pleasure to acknowledge the unfailing courtesy and kindly interest invariably shown by officers of the Lands and Survey Department.

MAGNETIC STATIONS IN THE NORTH ISLAND, 1902-3.

Station.	Latitude S.	Longitude E.	Station.	Latitude S.	Longitude E.
	° ' "	° ' "		° ' "	° ' "
Featherston ...	41 06 45	175 19 45	Tahora ...	38 06 19	177 29 46
Maerterton ...	40 57 05	175 40 04	Motu ...	38 15 27	177 33 06
Tenui ...	40 52 42	176 04 12	Poututu ...	38 25 38	177 44 28
Whakataki ...	40 52 01	176 13 14	Morere ...	38 59 14	177 48 15
Pahaoa ...	41 23 13	175 44 42	Wairoa ...	39 02 08	177 25 45
Cape Palliser ...	41 36 46	175 18 50	Waikaremoana ...	38 45 07	177 10 05
Eketahuna ...	40 38 47	175 43 01	Waikari ...	39 08 06	177 00 30
Woodville ...	40 20 15	175 52 07	Pohui ...	39 15 06	176 41 06
Dannevirke ...	40 12 23	176 07 29	Tarawera ...	39 02 29	176 34 37
Pahiatua ...	40 27 07	175 51 03	Rangitaiki ...	38 52 35	176 22 23
Makuri ...	40 31 43	176 03 53	Taupo ...	38 41 17	176 04 15
Takapau ...	40 01 47	176 21 50	Waiotapu ...	38 21 17	176 22 10
Waipawa ...	39 56 34	176 36 21	Galatea ...	38 27 22	176 41 58
Porangahau ...	40 18 08	176 37 24	Atiamuri ...	38 23 27	176 01 42
Pourerere ...	40 05 46	176 52 53	Waihora ...	38 41 47	175 47 21
Kereru ...	39 40 28	176 27 21	Tokaanu ...	38 58 20	175 46 22
Petane ...	39 26 30	176 54 12	Okahukura ...	39 05 05	175 33 09
Napier ...	39 28 45	176 55 11	Waiouru ...	39 28 43	175 40 05
Hastings ...	39 38 49	176 51 11	Ohakune ...	39 24 56	175 23 49
Kuripapanga ...	39 23 40	176 21 03	Taihape ...	39 40 41	176 48 12
Gisborne ...	38 39 43	178 01 19	Rangitikei ...	39 25 59	175 02 29
Tolago Bay ...	38 22 08	178 17 56	Apiti ...	39 59 41	175 52 26
Tokomaru Bay ...	38 07 54	178 18 57	Hunterville ...	39 56 15	175 33 58
Tuparoa ...	37 55 12	178 23 21	Wanganui ...	39 55 29	175 02 08
Port Awanui ...	37 49 46	178 27 01	Whangamomona ...	39 08 38	174 44 20
East Cape ...	37 40 59	178 32 13	Te Kuiti ...	38 20 16	175 10 05
Hick's Bay ...	37 35 22	178 17 42	Ongarue ...	38 43 12	175 16 52
Whangaparaoa ...	37 34 29	178 00 05	Taumaranui ...	38 53 13	175 15 31
Te Kaha ...	37 44 21	177 40 31	Pipiriki ...	39 28 38	175 02 30
Hawai ...	37 55 02	177 32 32	Foxton ...	40 27 28	175 16 10