REPORT OF THE SUPERINTENDENT OF THE OBSERVATORY, 1899-1990.

To THE CORPORATION OF MCGILL UNIVERSITY,

GENTLEMEN,—The series of Meteorological Observations commenced on January 1st, 1875, was closed on December 31st last. The means for the twenty-five year period afford values which may be accepted as well established normals for the place. The bi-hourly temperature series, commenced in 1884, was also discontinued at the close of last year. Commencing with 1900, the temperature and pressure observations have been replaced by readings from Richard recording instruments, which are standardized by eye observations at 7.40 a.m., 3 p.m., and 7.40 p.m. The first and last of these eye observations also serve for the daily telegraphic reports to the Central Meteorological Office.

The time service has been continued as in former years, standard time signals having been distributed by telegraph, and the noon time-ball dropped, during the navigation period, as described in former reports.

The results of the soil temperature observations, made in cooperation with the Physics Building during the three past years, were in May last presented in a brief paper to the Royal Society of Canada, and will appear in the transactions of that Society. These observations have now covered a term of five years, and valuable data have been obtained in connection with the transmission of temperature by the soil.

The automatic record of differences of air temperature between the summit of Mount Royal and the College Grounds, commenced by the aid of a Grant from the British Association for the Advancement of Science, has proved successful during dry weather. Imperfections in the insulation of the lines have, however, made it impossible to obtain reliable results in wet weather. To completely overcome this difficulty a lead covered cable enclosing the conductors will be necessary. This Sir William Macdonald has, with his characteristic generosity, ordered to be erected at his expense.

Photographs of the sun during the eclipse on May 28th last were successfully made.

The Observatory site on Westmount hill has recently been enclosed by a good carriage road, and much work has been done in improving the appearance of the grounds. The former has been carried out at the expense of the town of Westmount, and the cost of the latter has been met by Sir William Macdonald.

The Osbervatory is greatly indebted to Mr. C. S. Blackman, B.A., for volunteer assistance during the past two years. Respectfully submitted.

C. H. McLEOD.

Superintendent.