the other hand may be assumed as practically the same at the same instant of *absolute* time over the whole of such an area as that of Maryland, for example. And so may the secular variation for a period of time covering a few years be taken as practically the same over the whole of Maryland. At present the westerly declination is increasing at the rate of about 3′ per year.

The magnetic survey of Maryland was fortunate in that the Washington Magnetic Observatory was so close by. Unfortunately, however, the sphere of usefulness of the latter in this respect was somewhat diminished partly by the fact of the electric car disturbance which affects the work of this Observatory and partly by the inadequacy of the working force of the Observatory.

In consequence it has not been possible as yet to make an accurate reduction of the observations of the magnetic survey for diurnal variation and disturbance variation. The data called for that, was necessary for this purpose the Washington Magnetic Observatory has up to date failed to supply.

As it was highly essential that this first part be issued this year, I had to content myself, for the present, with the following method of procedure. I determined the mean diurnal variation for the months of the survey from the four years of observation 1887-91 made by the Washington Magnetic Observatory before its unfortunate removal to the new (and disturbed) site. The quantities are given in a later chapter. This was applied and regarded as the normal diurnal variation. I next obtained the permission of Commander Phythian, in whose charge the Magnetic Observatory is placed, to make a personal inspection of the magnetograph traces during the period of the survey and by a mere superficial inspection made a list of the more or less disturbed days. The list of magnetically disturbed days kindly furnished by the Director of the Toronto Observatory, Professor Stupart, practically agreed with the list prepared from the Washington traces. I next inspected the hourly readings, such as were tabulated, and formed the hourly means where this was possible. I assumed that these hourly readings for any particular month would give practically the same diurnal variation as