

The greatest intensity of the Sun's rays was $104^{\circ}3$ degrees, which is less by $6^{\circ}3$ degrees than the intensity for the year 1860, and is $12^{\circ}7$ degrees less than the intensity for the year 1859. The lowest point of the terrestrial radiation, was $-39^{\circ}4$ degrees (below zero.)

Dew.—The yearly amount of dew was below the usual mean or average; an apparatus has been used for a short time for the purpose of ascertaining the hour at which dew begins to fall and when it ends, and also the amount, and it is believed will lead to some interesting results in this department of research; the apparatus is self-registering and leaves a permanent impression.

Wind.—The most prevalent wind during the year was the N. E. by E. and the least so E. by N.; the next in frequency was the W. and W. S. W. and a good deal of S. E. winds prevailed; below is a table of the amount of horizontal miles of wind for each month giving a total for the year of 55296.78 miles linear,

	Miles.		Miles.		Miles.
January...	6380.10	May.....	4989.20	September.	3447.48
February..	5549.95	June.....	5067.93	October...	3664.29
March....	5437.69	July.....	4499.68	November.	4142.30
April.....	3565.12	August....	2736.05	December..	5816.99

which is 11083.26 miles more than the amount for the year 1860; the mean velocity for the year was 6.312 miles per hour, which shows an increased velocity of 1.270 miles per hour for 1861 over that of 1860. June was the calmest month last year and indicated only 2905.36 miles; a tornado passed over Montreal on the 9th of July, but was little felt here; on the 10th of August a very heavy hail storm passed near this place over St. Laurent and Montreal, doing considerable damage to crops and buildings; there were several storms of wind during the year preceded by rain and a low barometer.

The *Aurora Borealis*, was visible at observation hour on 42 nights; a bright display with considerable magnetic disturbance occurred on the night of the 1st of September, the same period that the splendid display which caused so much sensation over the world occurred last year.

The *Zodiacal Light* was frequently seen; it was generally bright and well defined.

Solar and Lunar Halos have been more than usually frequent during the year. A remarkable solar halo occurred on the 12th of August, when the temperature had fallen considerably during the night. The thermometer at 6 A.M. stood at $46^{\circ}07$ degrees. The terrestrial radiator had indicated a temperature of $41^{\circ}03$ degrees. The wind at 10 A.M., (mean local time) was from the N. E. by E., with a clear sky, from which time light *cirrus* clouds began to form in the higher region of the atmosphere, passing from W. to W. S. W., in a direction contrary to the lower current of wind (N.E. by E.) At 10h. 38m. a slight halo was seen round the sun, and at 10h. 45m. it presented a very rare and beautiful spectacle. The sun, bright and white, was in the centre of a halo or circle of 44 degrees in diameter, its lower or southern limb being about 37 degrees above the horizon; this circle was a bright halo of light, white and bright at its outer edge, and which was shaded inwardly and towards the sun of a pale orange colour, and an