

THE YEAR.

$$\Psi_3 = -\cdot 0021 + \cdot 0237 \sin (\theta + 144^\circ 46') + \cdot 0040 \sin (2 \theta + 174^\circ 17') \\ + \cdot 0026 \sin (3 \theta + 15^\circ 39')$$

PRESSURE OF VAPOUR.

The average changes in the pressure of vapour in two hours that accompany winds from the eight principal points, and the formulæ for finding the most probable change, with the wind blowing from any intermediate point, are given below :

APRIL TO SEPTEMBER.

$$\begin{array}{cccccccc} \text{N.} & \text{N.E.} & \text{E.} & \text{S.E.} & \text{S.} & \text{S.W.} & \text{W.} & \text{N.W.} \\ -\cdot 0057 & -\cdot 0034 & +\cdot 0020 & +\cdot 0035 & +\cdot 0042 & +\cdot 0001 & -\cdot 0073 & -\cdot 0039 \end{array}$$

OCTOBER TO MARCH.

$$\begin{array}{cccccccc} \text{N.} & \text{N.E.} & \text{E.} & \text{S.E.} & \text{S.} & \text{S.W.} & \text{W.} & \text{N.W.} \\ -\cdot 0025 & +\cdot 0009 & +\cdot 0037 & +\cdot 0031 & +\cdot 0017 & -\cdot 0013 & -\cdot 0032 & -\cdot 0039 \end{array}$$

THE YEAR.

$$\begin{array}{cccccccc} \text{N.} & \text{N.E.} & \text{E.} & \text{S.E.} & \text{S.} & \text{S.W.} & \text{W.} & \text{N.W.} \\ -\cdot 0041 & -\cdot 0012 & +\cdot 0025 & +\cdot 0034 & +\cdot 0034 & -\cdot 0007 & -\cdot 0046 & -\cdot 0054 \end{array}$$

APRIL TO SEPTEMBER.

$$\Psi_1 = -\cdot 00169 + \cdot 00607 \sin (\theta + 305^\circ 49') + \cdot 00096 \sin (2 \theta + 88^\circ 48') \\ + \cdot 00110 \sin (3 \theta + 181^\circ 2')$$

OCTOBER TO MARCH.

$$\Psi_2 = -\cdot 00018 + \cdot 00595 \sin (\theta + 330^\circ 26') + \cdot 00034 \sin (2 \theta + 287^\circ 6') \\ + \cdot 00022 \sin (3 \theta + 243^\circ 26')$$

THE YEAR.

$$\Psi_3 = -\cdot 00084 + \cdot 00479 \sin (\theta + 312^\circ 43') + \cdot 00035 \sin (2 \theta + 86^\circ 44') \\ + \cdot 00037 \sin (3 \theta + 216^\circ 15')$$

If in the nine foregoing formulæ, the variable angle (θ) be made equal in succession to $0, 11^\circ 15' (11^\circ 15') \times 2, (11^\circ 15') \times 3$, &c. &c. $(11^\circ 15') \times 31$, the changes of pressure will be found which would most probably occur if the wind were to blow steadily for two hours from each of the thirty-two points of the compass.

The results are given in the annexed Table.