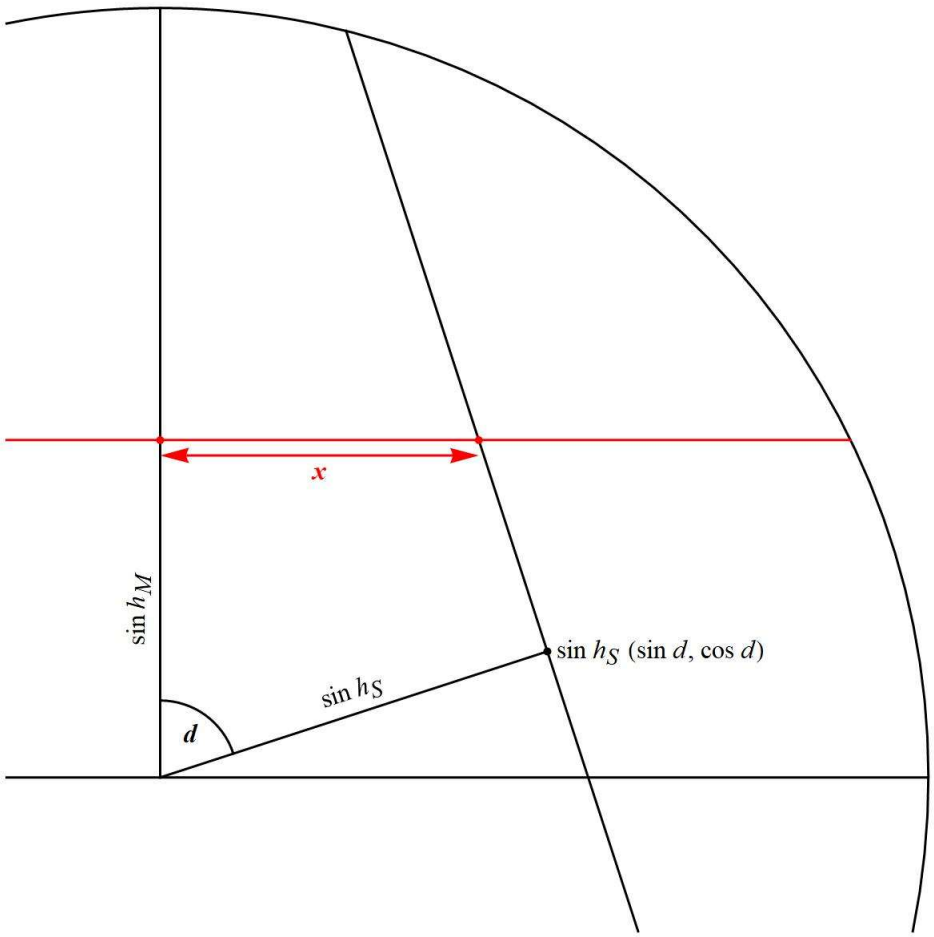

d is the Apparent Distance (corrected for Semi-Diameter)

h_S is Moon's Altitude, (corrected for Semi-Diameter and Dip)

h_S is Sun's Altitude, corrected for Semi-Diameter, Dip and Refraction)

$$x = 60\frac{\sin h_S - \sin h_M \cos d}{\sin d}$$ in minutes of arc.

The standard correction to the lunar distance would be

$$\cos\theta_M dh_M = \frac{\sin h_S - \sin h_M \cos d}{\cos h_M \sin d} dh_M$$

If the observed horizontal parallax is P, then its effect is $x\frac{P}{60\cos h_M} = x\frac{HP}{60}$ where HP is the geocentric horizontal parallax which Saxby refers to as "Horizontal Parallax (reduced)". The Spherograph No.4 has a table that approximates HP/60 but differs from it. Presumably this is supposed to account – but how?