$V_i = V \cdot \sin\alpha_i \quad t_i = S_i / V \cdot \cos\alpha_i$

$d_h = \sum_{i=1}^{h} S_i \tan\alpha_i$

$$\begin{cases} \max = \sum_{i=1}^{n} S_i \tan\alpha_i \\ st \quad \sum_{i=1}^{n} (t_i - S_i / V\cos\alpha_i) \le T \end{cases}$$

$$L = \sum_{i=1}^{n} S_i \tan\alpha_i + \lambda \left(\sum_{i=1}^{n} S_i / V\cos\alpha_i - T \right)$$

$$\alpha_i = \begin{cases} \frac{\partial L}{\partial \alpha_i} = S_i (1 + \tan^2\alpha_i) + \frac{\lambda S_i \sin\alpha_i}{V\cos^2\alpha_i} = 0 \\ \frac{\partial L}{\partial \lambda} = \sum_{i=1}^{h} S_i / V\cos\alpha_i - T = 0 \end{cases}$$