

$$R_{\max} = \frac{1}{2} \sqrt{h \cdot d} \quad \begin{matrix} 0,33 \\ \downarrow \\ 70\,000\text{ m} \end{matrix}$$

28,86 m

$$h = \frac{C}{F} = \frac{300\,000\,000}{900\,000\,000} = 0,33 \dots$$

$d = 50\text{ km}$   
 $F = 10\text{ GHz}$

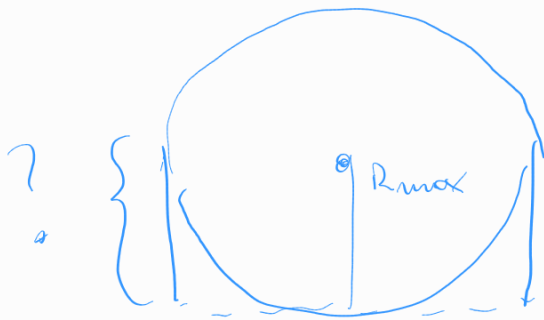
$$\frac{1}{2} \sqrt{h \cdot 50\,000 \cdot 1500}$$

$$\frac{300\,000\,000}{10\,000\,000\,000} = 0,03$$

Diamètre max

$$R_{\max} = 19,36\text{ m} \cdot 2 = 38,72$$

min  $R_{\max}$   
 $\downarrow$



40% de 38,72 m

$$= 15,48\text{ m}$$

$\Rightarrow$  on peut se contenter  
 de placer les antennes à  $R_{\max}$

$d = 65\text{ km}$   
 $F = 11\text{ GHz}$

$$\frac{1}{2} \sqrt{0,02727 \cdot 65\,000}$$

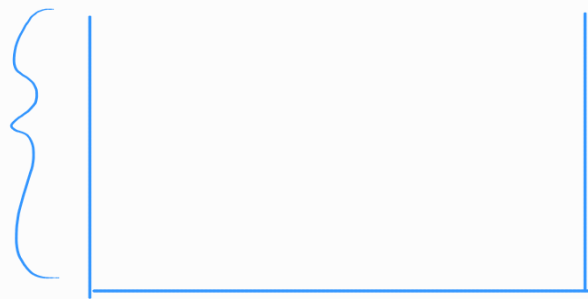
$$\downarrow$$

$$1772,7272$$

Visibilité = 100%  
 altitude 18 m

$$\frac{300\,000\,000}{47\,000\,000\,000} = 0,02727$$

$$R_{\max} = 21,05 \text{ m} + \text{taille d'arbre} (\pm 40 \text{ mm})$$



$$19 + 21,05 \\ = \underline{\underline{40,05 \text{ m}}}$$

