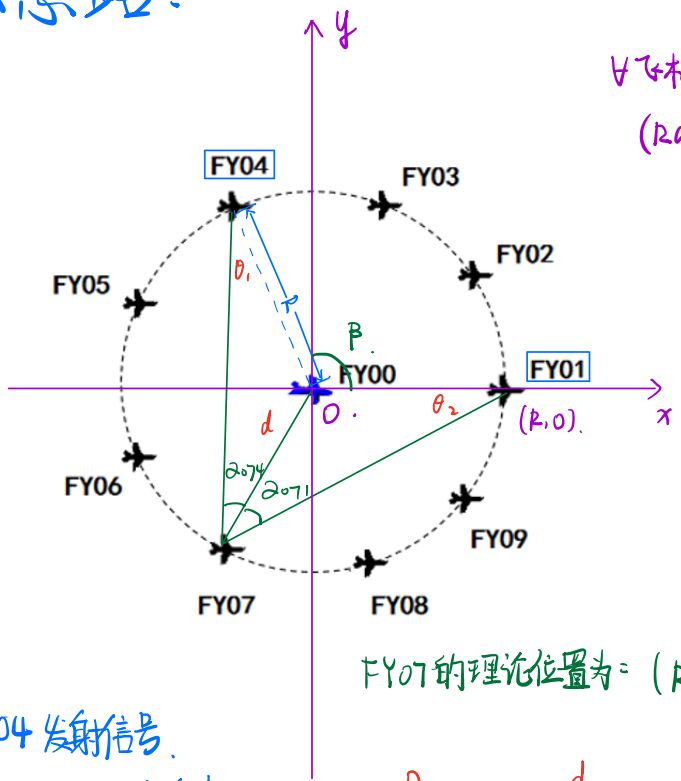
基本思路：



∀飞机坐标可表示为

$(R\cos\theta, R\sin\theta)$

FY07的理论位置为：$(R\cos\frac{4\pi}{3}, R\sin\frac{4\pi}{3})$.

00、01、04发射信号.

07接收到的位置信息为：

$2\varphi_{71}$ $2\varphi_{74}$.

设未知量 θ_1, θ_2, d

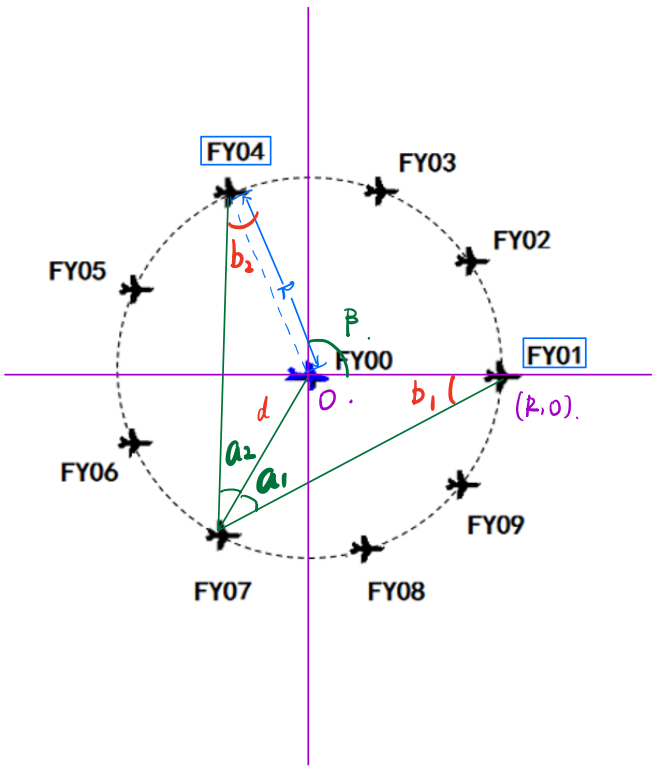
由正弦定理 ⟹ ($\beta = 2\pi \times \frac{3}{4}$)

$$\begin{cases} \dfrac{R}{\sin 2\varphi_{74}} = \dfrac{d}{\sin\theta_1} \\ \dfrac{R}{\sin 2\varphi_{71}} = \dfrac{d}{\sin\theta_2} \\ 2\varphi_{71} + 2\varphi_{74} + \theta_1 + \theta_2 = 2\pi - \beta \end{cases}$$

解出 θ_1, θ_2 之后，由于FY01 FY04位置固定，可确定FY07位置

Base case 1 (位于优弧且信息角无重叠)

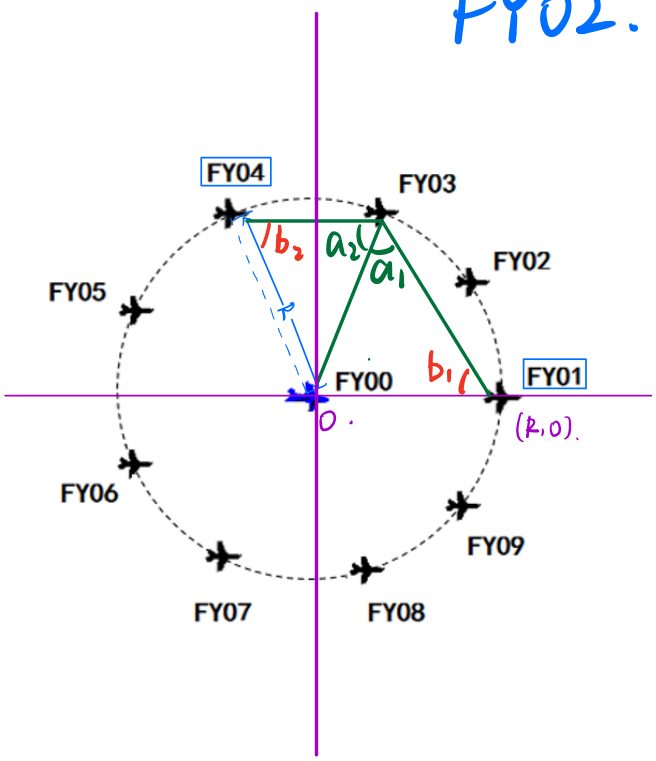
FY06、FY07、FY08



$$a_1+a_2+b_1+b_2=\frac{2\pi}{3}$$

Base case 2 (位于劣弧)

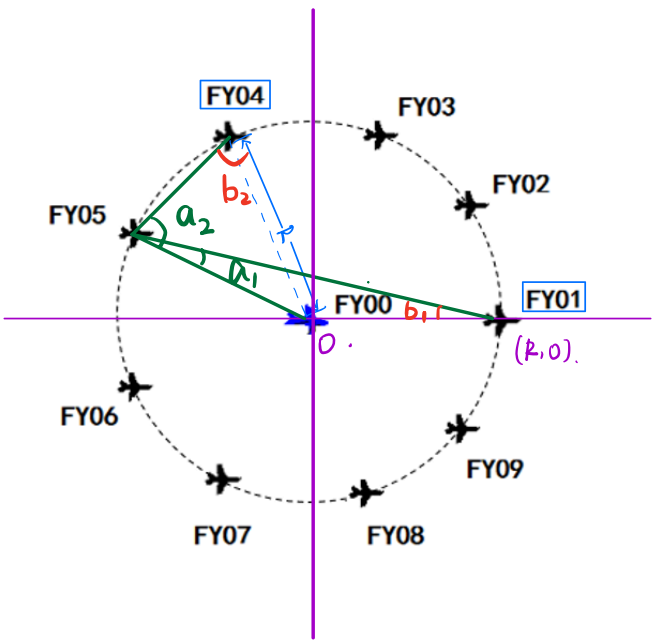
FY02. FY03



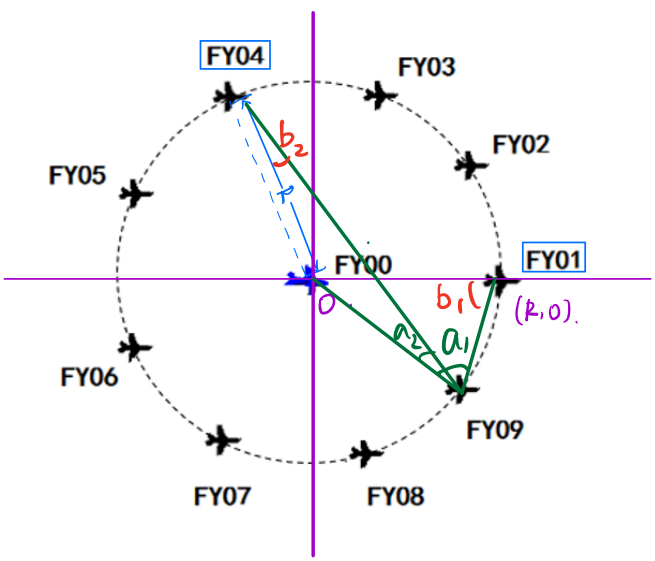
$$a_1+a_2+b_1+b_2=\frac{4\pi}{3}$$

Special Case

FY01 . FY09



$$a_2 + b_2 - a_1 - b_1 = \frac{2\pi}{3}$$



$$a_1 + b_1 - a_2 - b_2 = \frac{2\pi}{3}.$$

基准飞机

FY04、FY07

两相互迭代调整.