Fancy title

To calculate the horizontal position the kinematic differential equations are needed:

$$\dot{n} = u\cos\psi - v\sin\psi \tag{1}$$
$$\dot{e} = u\sin\psi + v\cos\psi \tag{2}$$

For small angles the following approximation can be used:

$$\dot{n} = u - v\delta_\psi \tag{3}$$
$$\dot{e} = u\delta_\psi + v \tag{4}$$