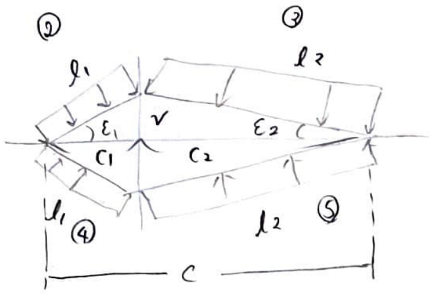

$$N' = -P_2 \underbrace{l_1\cos(\varepsilon_1)}_{c_1} + P_4 \underbrace{l_1\cos(\varepsilon_1)}_{c_1} - P_3 \underbrace{l_2\cos(\varepsilon_2)}_{c_2} + P_5 \underbrace{l_2\cos(\varepsilon_2)}_{c_2}$$

$$A' = P_2 \underbrace{l_1\sin(\varepsilon_1)}_{V} + P_4 \underbrace{l_1\sin(\varepsilon_1)}_{V} - P_3 \underbrace{l_2\cos(\varepsilon_2)}_{V} - P_5 \underbrace{l_2\cos(\varepsilon_2)}_{V}$$

$$q_\infty = \frac{\gamma P_1 M_1^2}{2}$$

note: $c_1 + c_2 = c$

$c_2 = c - c_1$

$\tan(\varepsilon_1) = \frac{V}{c_1} \rightarrow V = c_1 \tan(\varepsilon_1)$

$\tan(\varepsilon_2) = \frac{V}{c_2} \rightarrow V = c_2 \tan(\varepsilon_2)$

$\Downarrow$

$$c_1 = \frac{\tan(\varepsilon_2)}{\tan(\varepsilon_1)+\tan(\varepsilon_2)} c$$

$$c_2 = \frac{\tan(\varepsilon_1)}{\tan(\varepsilon_1)+\tan(\varepsilon_2)} c$$

$$V = \frac{\tan(\varepsilon_1)\tan(\varepsilon_2)}{\tan(\varepsilon_1)+\tan(\varepsilon_2)} c$$

$$C_n = \frac{N'}{q_\infty c}$$

$$= \frac{2}{\gamma P_1 M_1^2 c}\left[\frac{\tan(\varepsilon_2)}{\tan(\varepsilon_1)+\tan(\varepsilon_2)} c(P_4 - P_2) + \frac{\tan(\varepsilon_1)}{\tan(\varepsilon_1)+\tan(\varepsilon_2)} c(P_5 - P_3)\right]$$

$$\boxed{C_n = \frac{2}{\gamma M_1^2(\tan(\varepsilon_1)+\tan(\varepsilon_2))}\left[\left(\frac{P_4}{P_1} - \frac{P_2}{P_1}\right)\tan(\varepsilon_2) + \left(\frac{P_5}{P_1} - \frac{P_3}{P_1}\right)\tan(\varepsilon_1)\right]}$$

$$C_a = \frac{A'}{q_\infty c}$$

$$= \frac{2V}{\gamma M_1^2 P_1 c}\left(P_2 + P_4 - P_3 - P_5\right)$$

$$\boxed{C_a = \frac{2}{\gamma M_1^2}\left(\frac{\tan(\varepsilon_1)\tan(\varepsilon_2)}{\tan(\varepsilon_1)+\tan(\varepsilon_2)}\right)\left(\frac{P_2}{P_1} + \frac{P_4}{P_1} - \frac{P_3}{P_1} - \frac{P_5}{P_1}\right)}$$

$$C_l = C_n\cos(\alpha) - C_a\sin(\alpha)$$

$$C_d = C_n\sin(\alpha) + C_a\cos(\alpha)$$