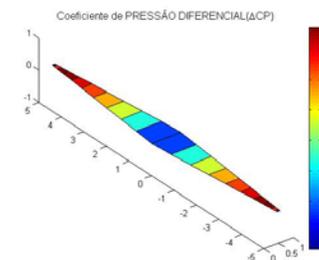
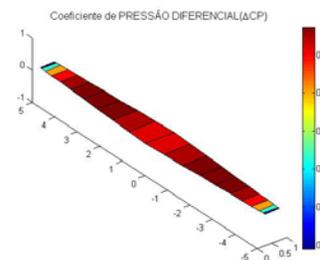
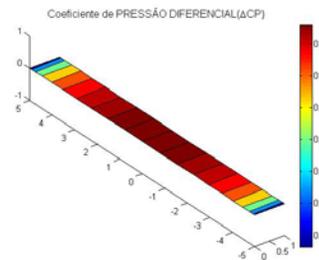
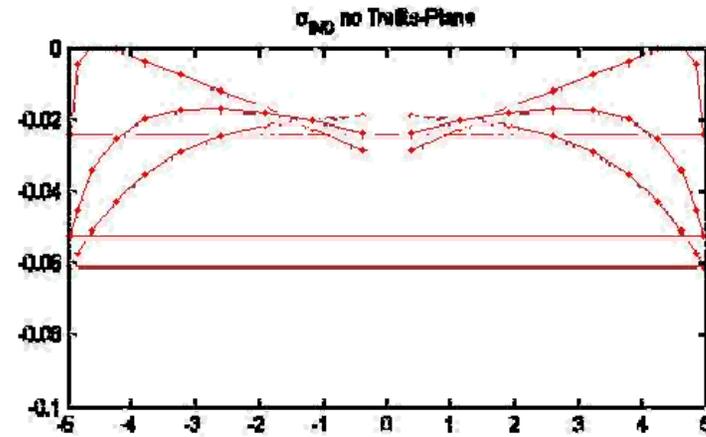
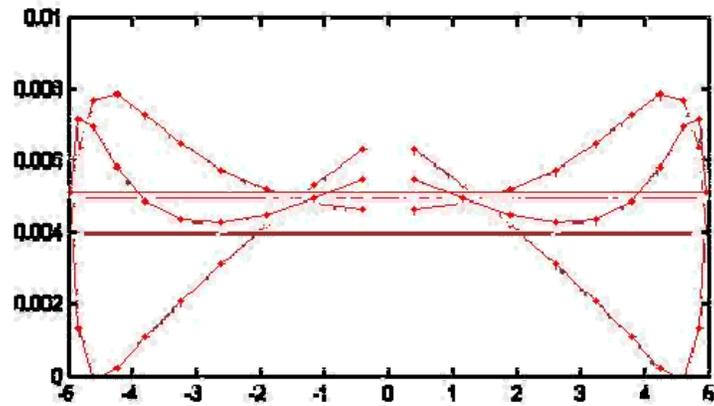
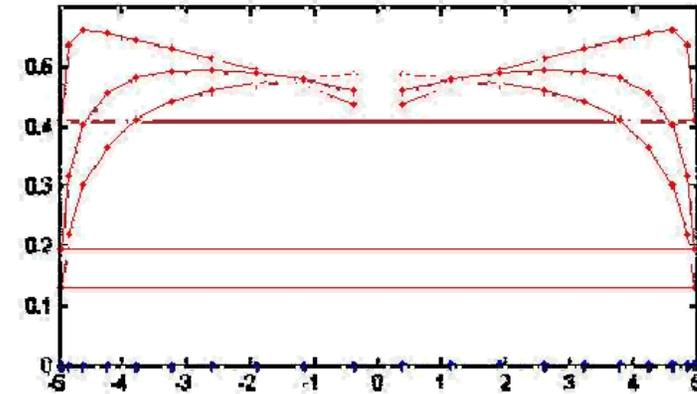
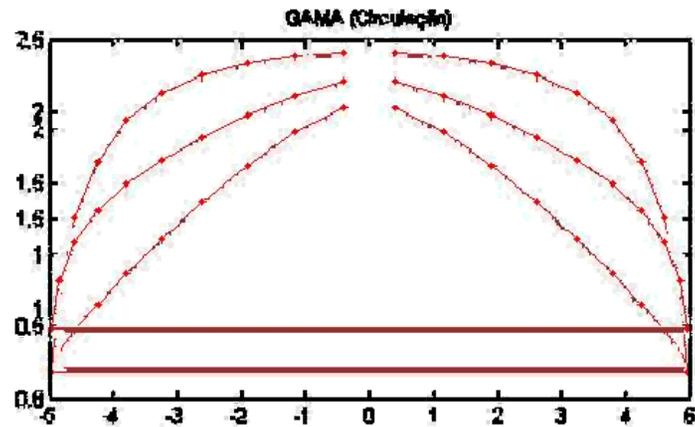


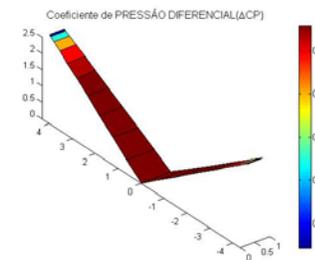
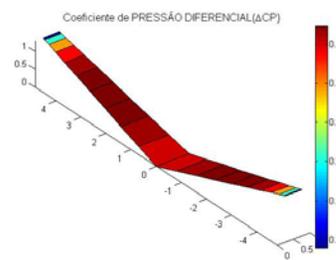
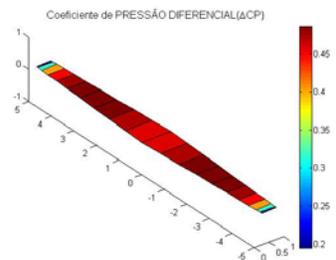
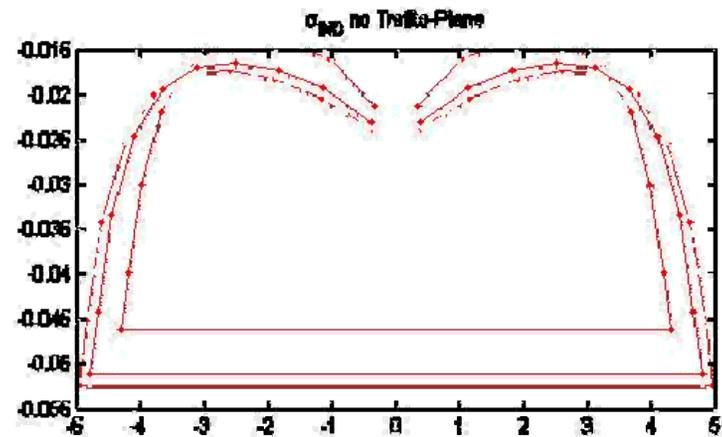
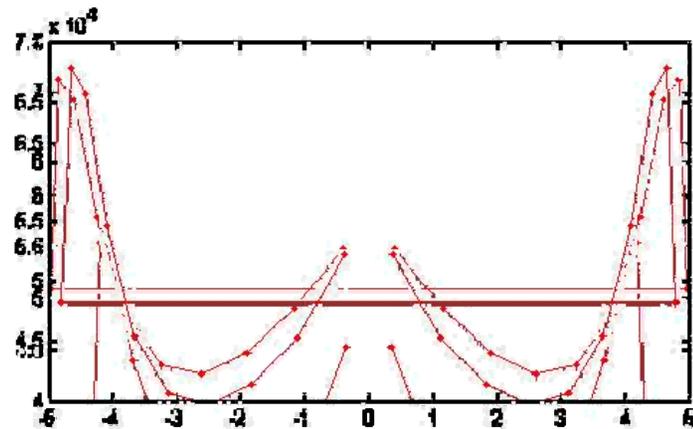
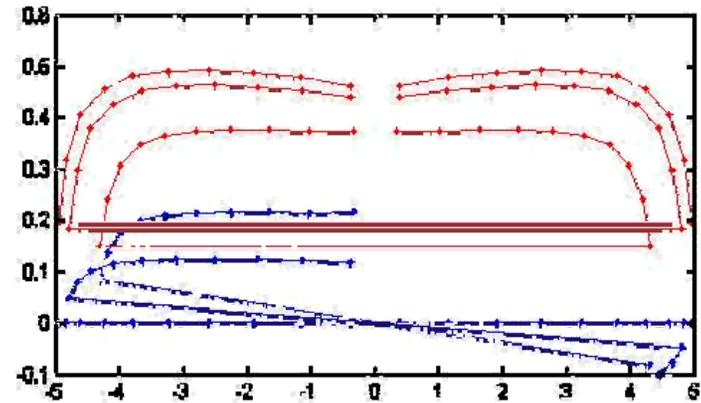
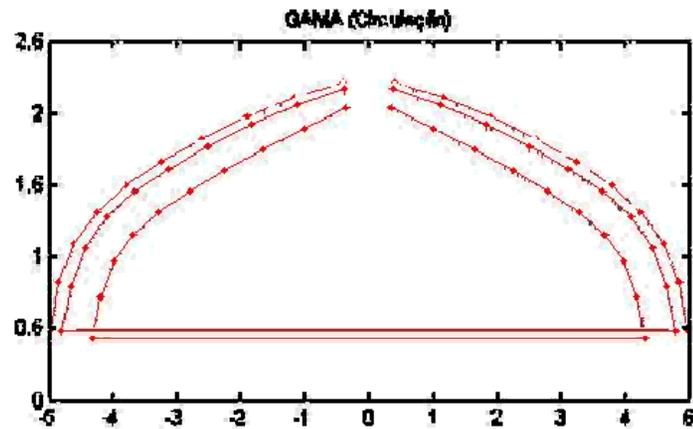
# Efeito da forma em planta de uma asa finita

- Efeito do afilamento
- Efeito do diedro
- Efeito do enflechamento
- Efeito do alongamento
- Efeito da torção geométrica
- Efeito da torção aerodinâmica

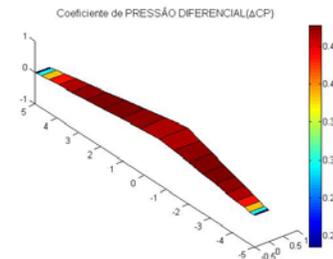
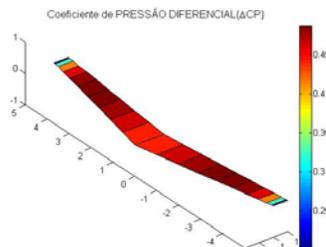
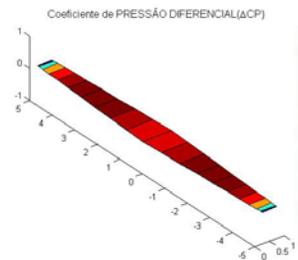
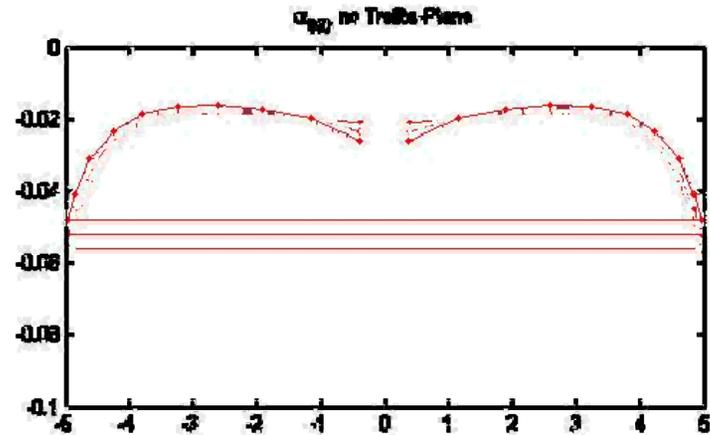
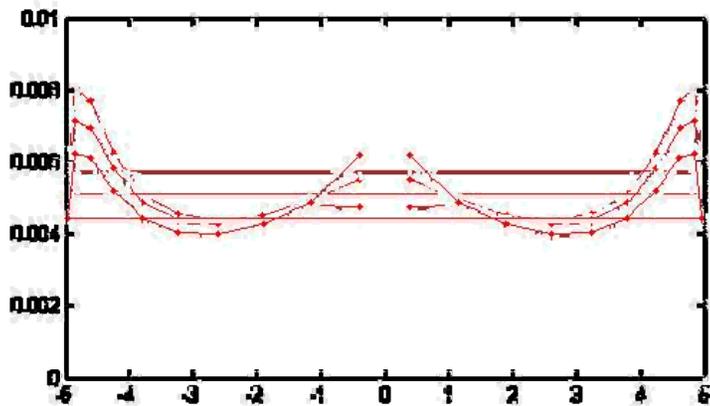
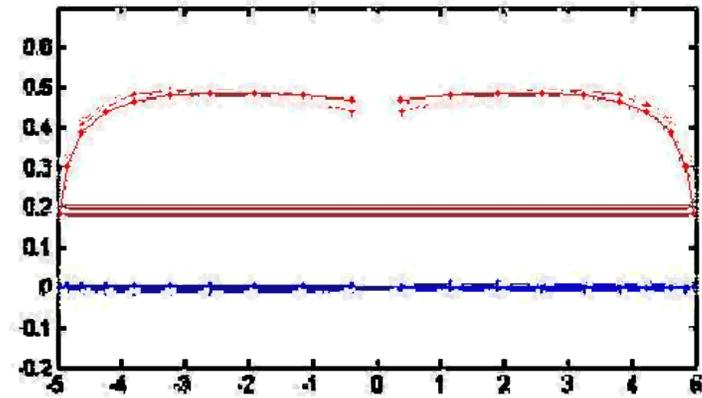
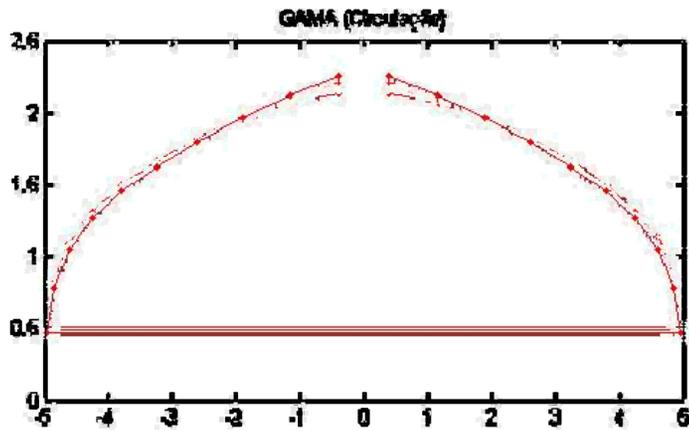
# Efeito do Afilamento



# Efeito do Diedro

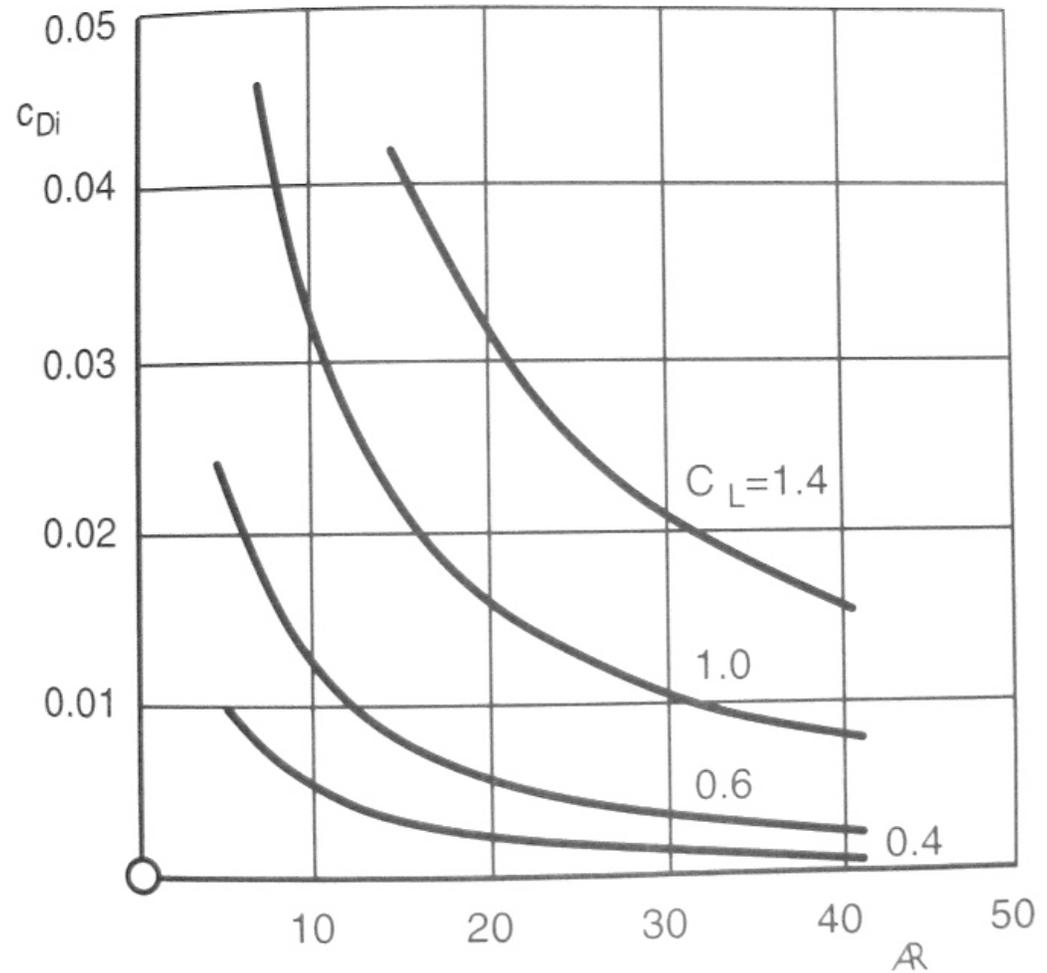


# Efeito do Enflechamento

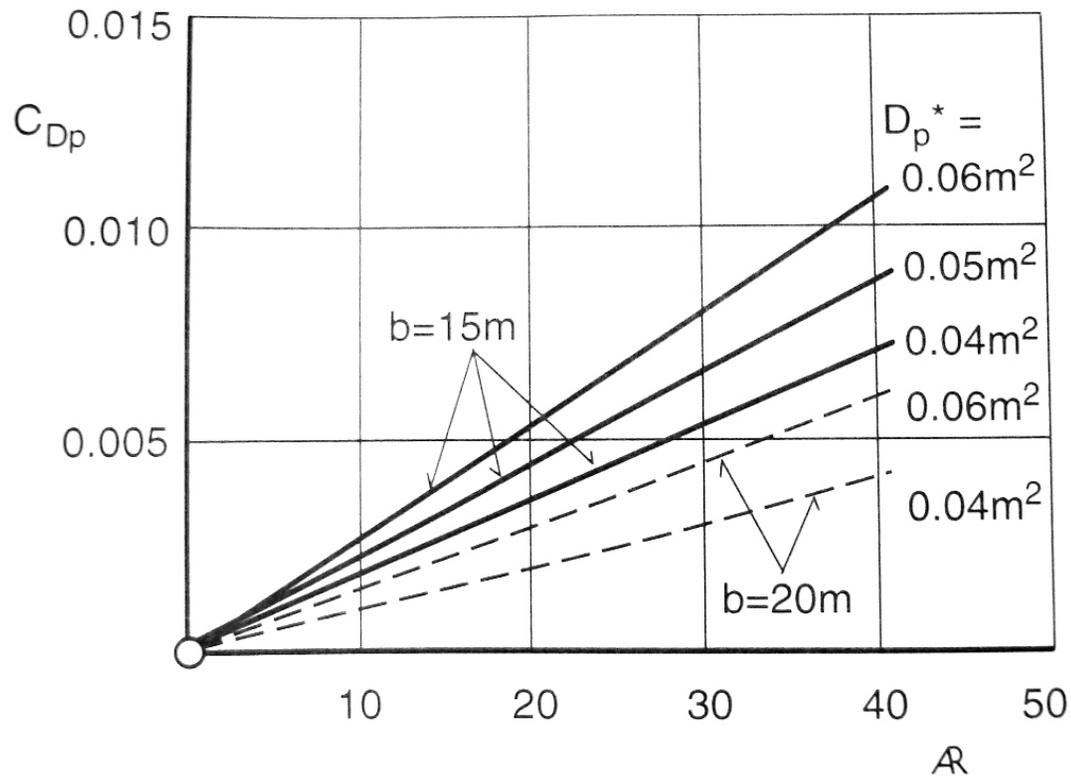


# Efeito do Alongamento

$$C_{Di} = k \frac{C_L^2}{\pi AR}$$



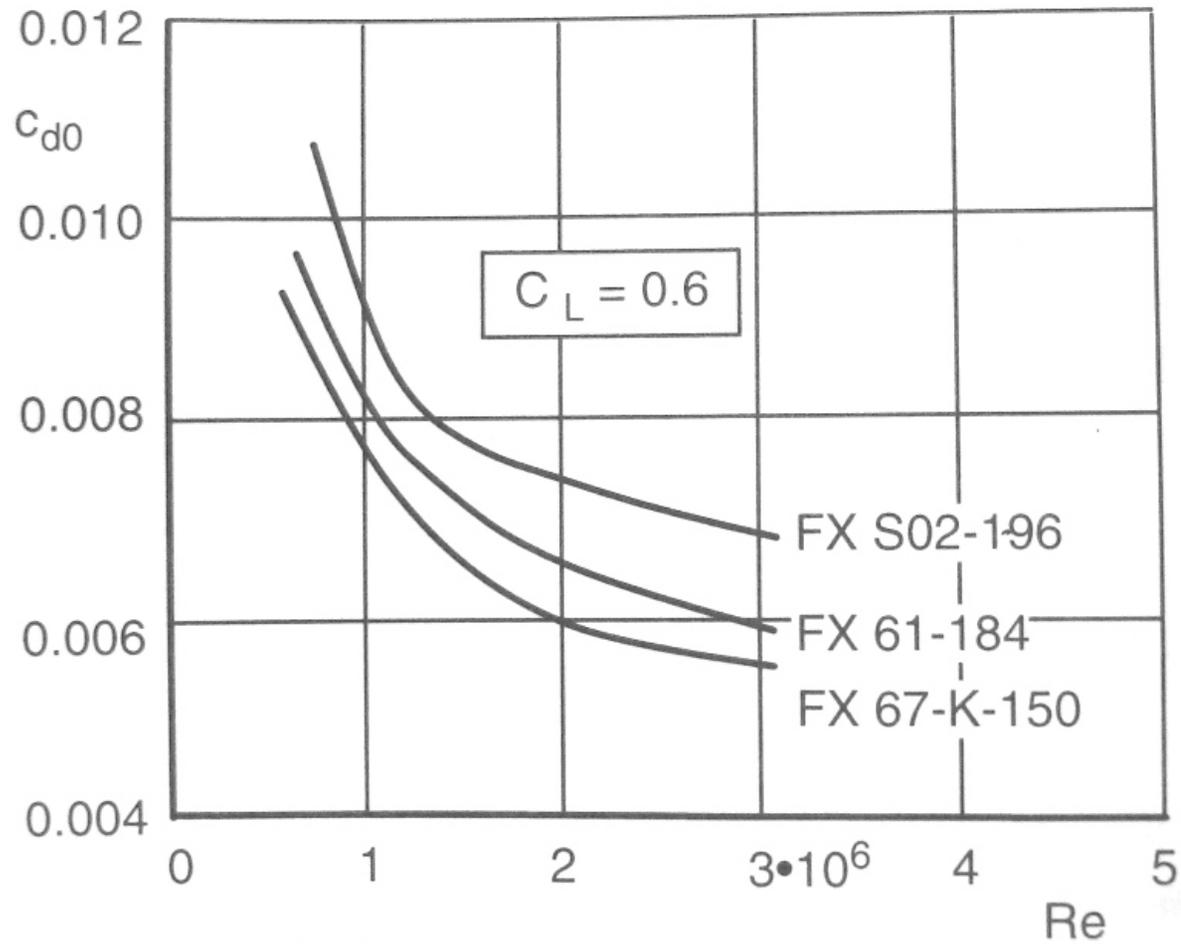
# Efeito do Alongamento



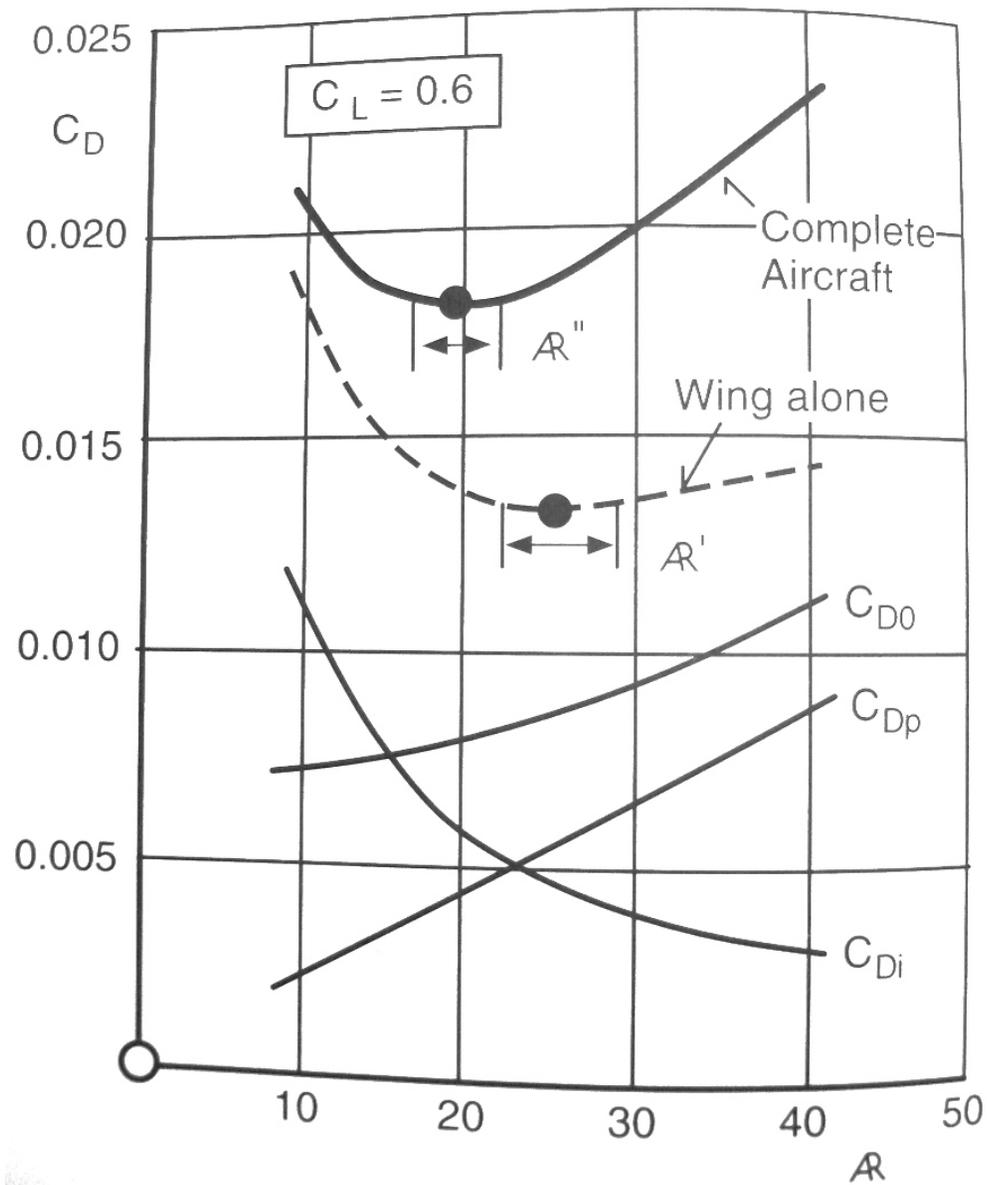
$$D_p = C_{Dp} qS$$

$$C_{Dp} = \frac{D_p}{qS} = \frac{D_p b^2}{qSb^2} = \frac{D_p}{qb^2} AR$$

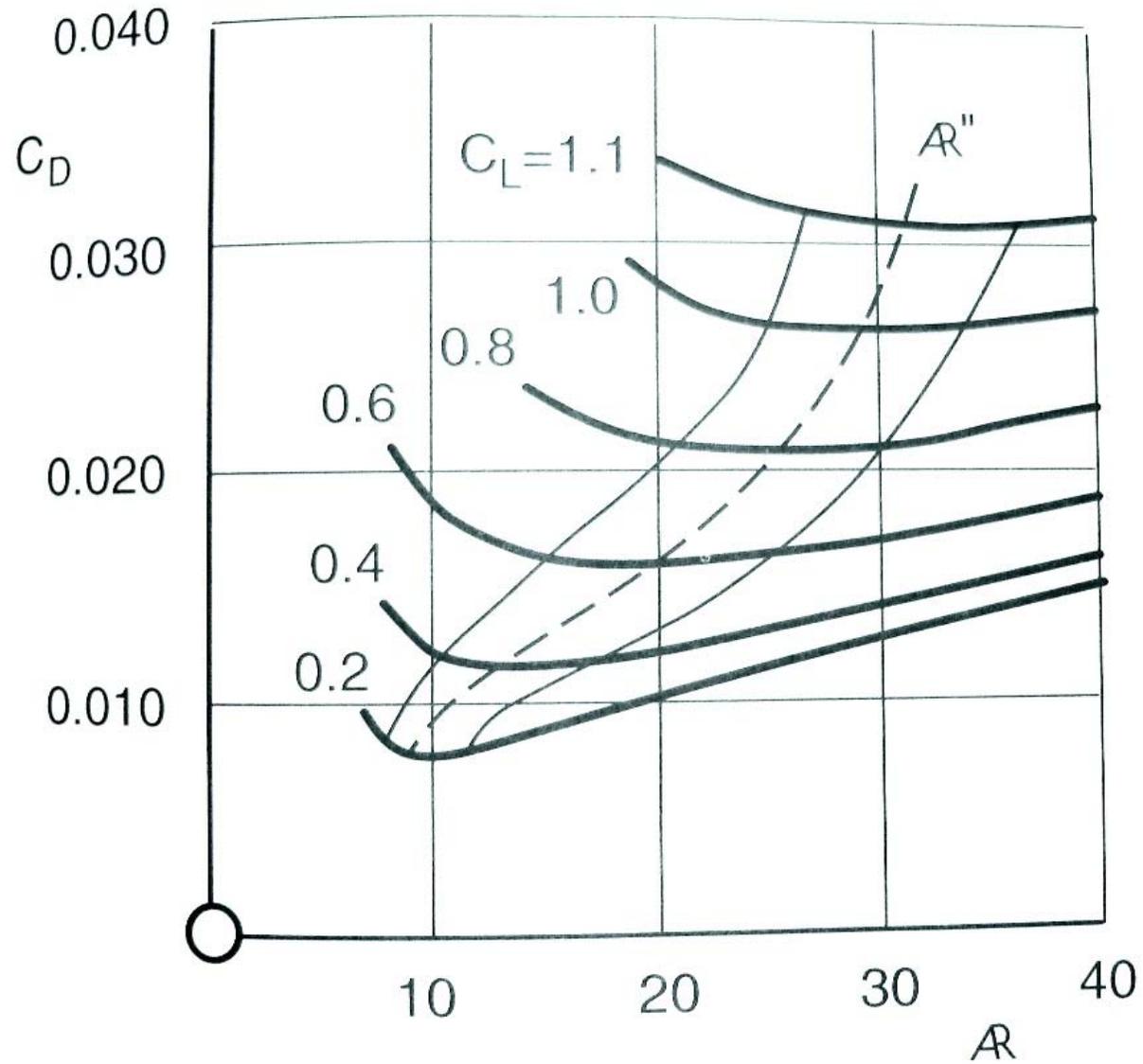
# Efeito do Alongamento



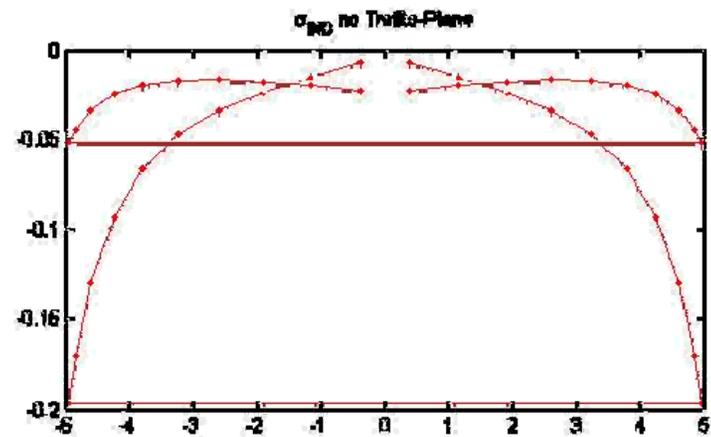
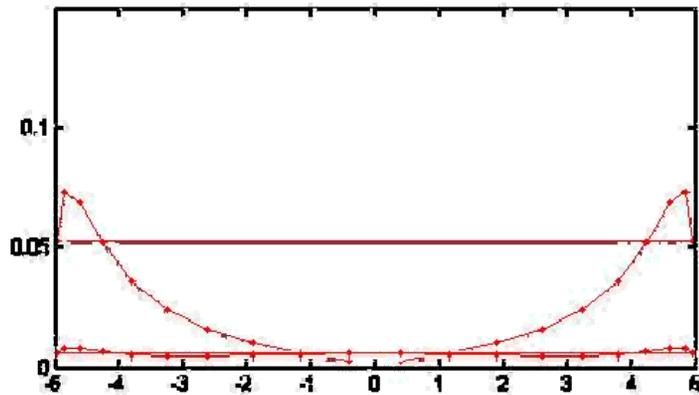
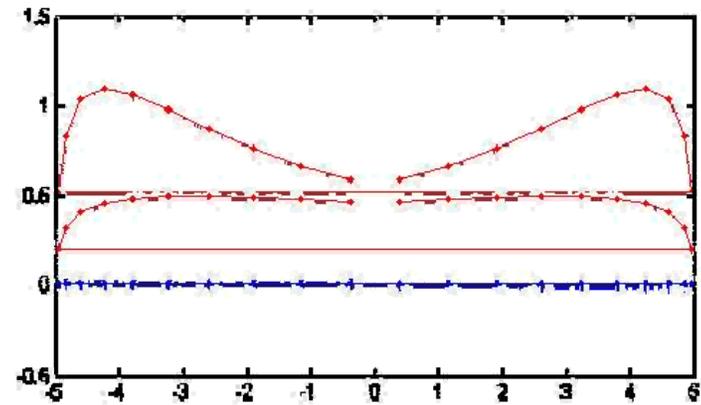
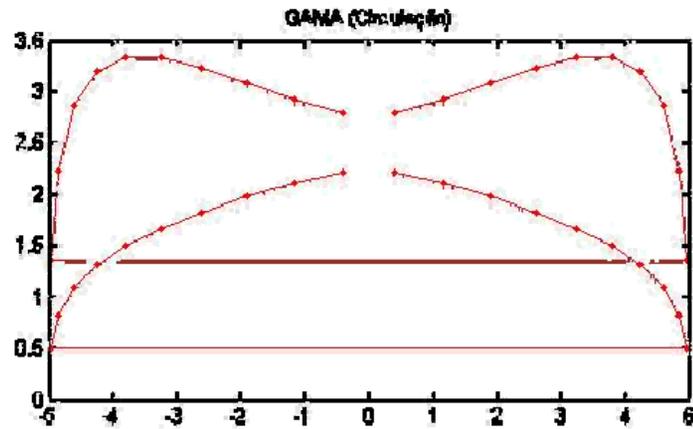
# Efeito do Alongamento



# Efeito do Alongamento

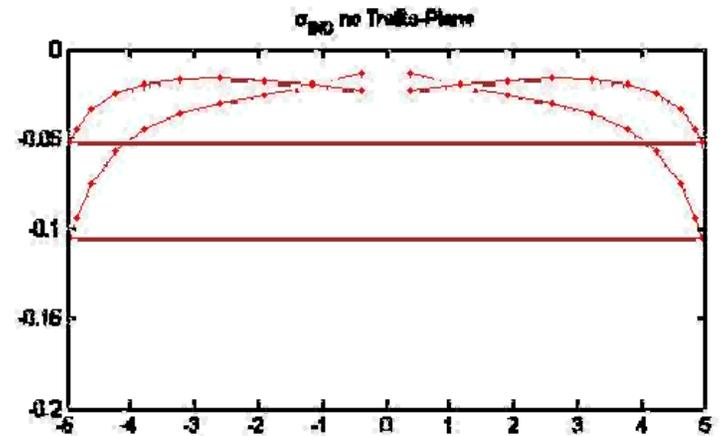
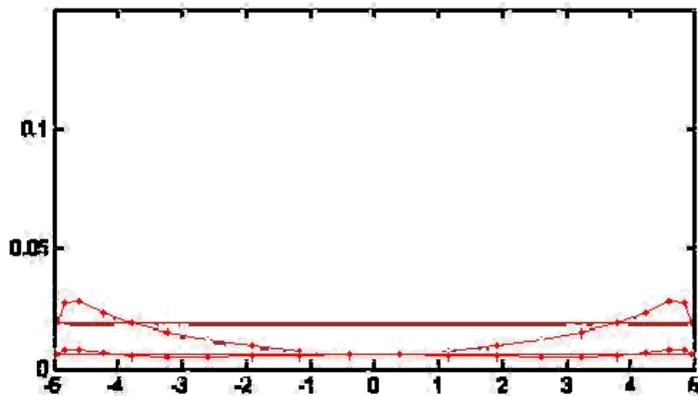
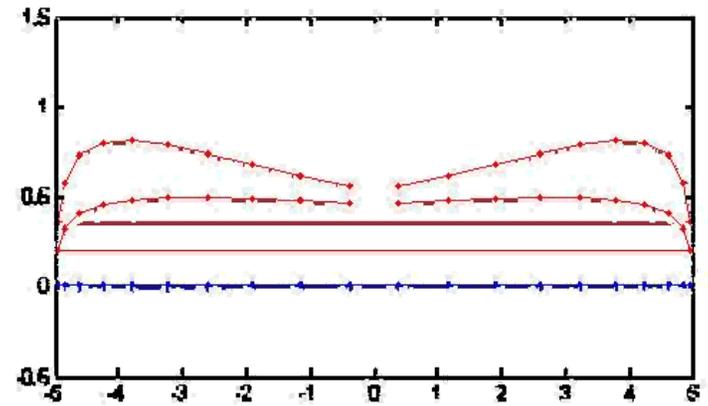
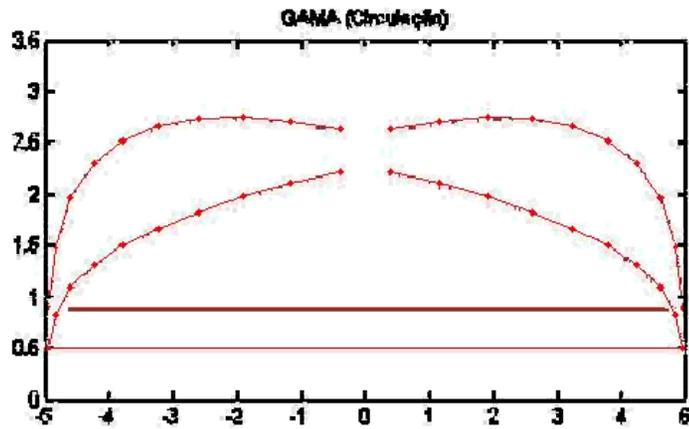


# Efeito do Torção geométrica



Perfil Simétrico na raiz e na ponta – ponta com +11.3°

# Efeito do Torção aerodinâmica



Perfil Simétrico na raiz e NACA 4415 na ponta