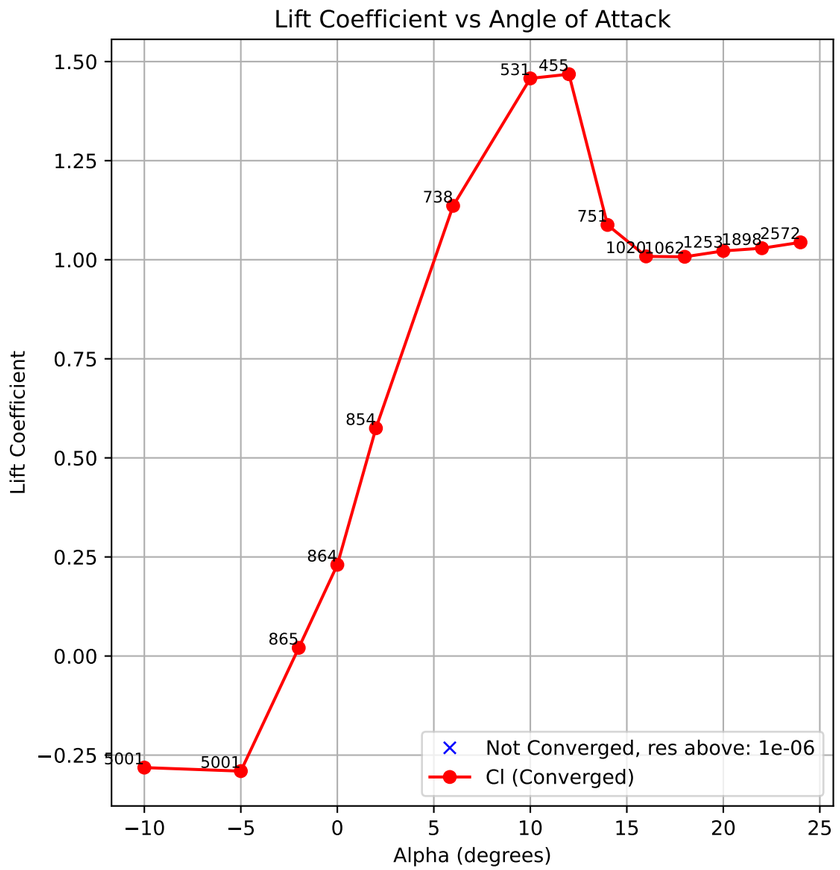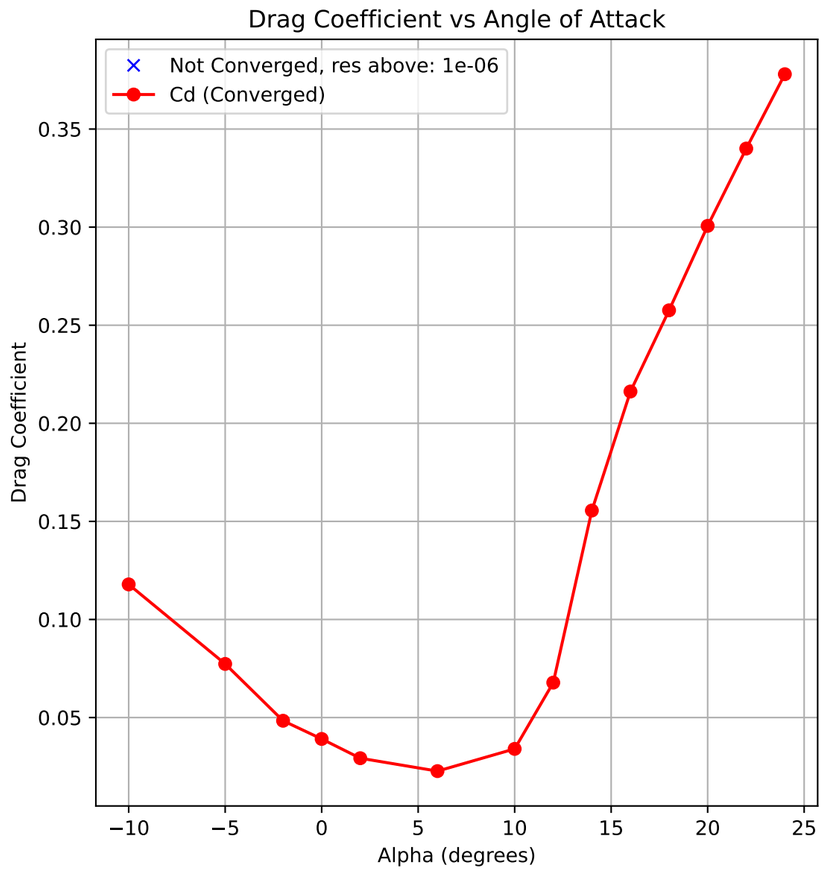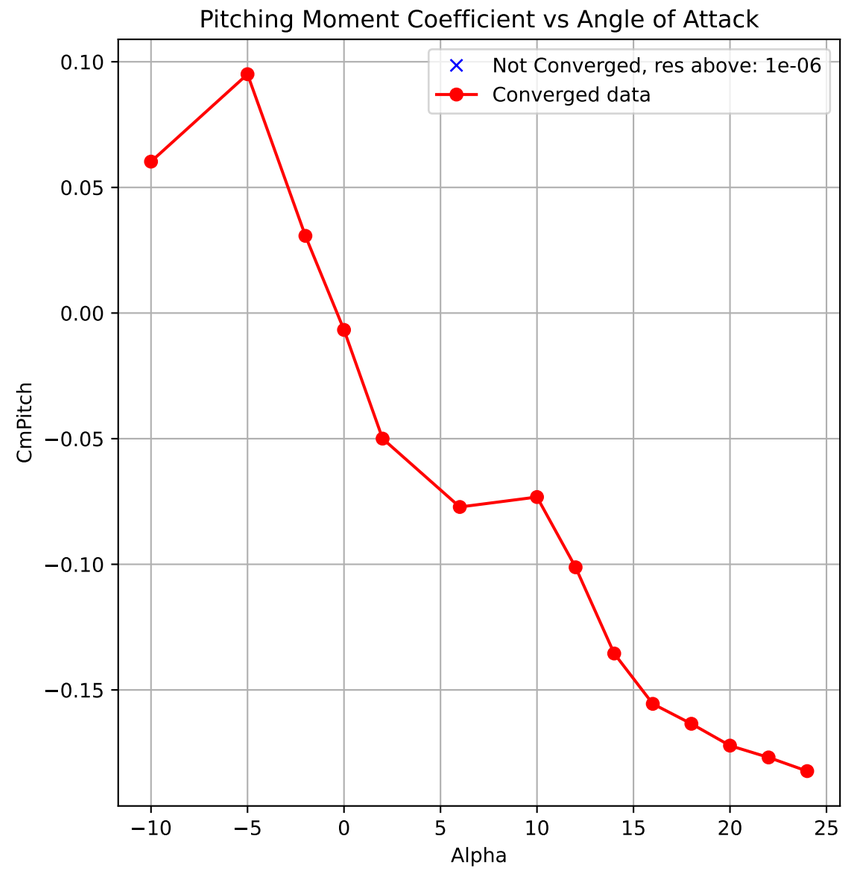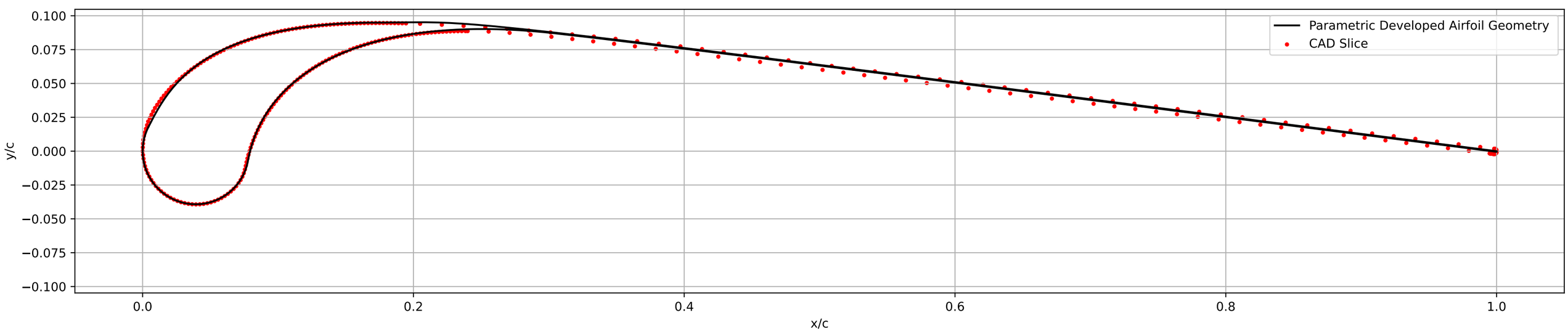Profile 2 Analysis (Re = 5e5)