Abstract

Wind tunnel tests were conducted to study the effect of roll and protuberances on the aerodynamic characteristics of ASLV in the Mach Number range of 0.4 to 4.0 and incidence range -6 to 6 degrees. Study included the effects of spring housing and absence of boosters from the Core Vehicle. Results of the study showed significant effect of protuberances on the aerodynamic derivatives and variation of rolling moment with the roll. Noticeable drag contribution of spring housing and a change in the aerodynamic characteristic in the absence of booster were also observed.