Title: WIND TUNNEL TESTS ON 1/20 SCALE 6.45V35 CONFIGURATION  
PART I: LONGITUDINAL CHARACTERISTICS

Author(s): N GOPINATH, S N SESHADRI, H N V DUTT  
B SAMPATH RAO

Division: EXPERIMENTAL AERODYNAMICS

External participation:

Sponsor: AERONAUTICAL DEVELOPMENT AGENCY  
BANGALORE

Approval: HEAD, EXPERIMENTAL AERODYNAMICS DIVISION

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Abstract: Tests were conducted in the NAL 1.2m Trisonic Wind Tunnel on a 1/20th-Scale model of LCA stage 6.45V35 configuration. These tests were carried out in the Mach number range of 0.3 to 1.8 and over an angle of attack ranges of -2 to 24 deg (subsonic and transonic speeds) and -2 to 12 deg (supersonic speeds). The Reynolds number (based on wing mean aerodynamic chord) varied between 3 to 7.4 million depending on the Mach number. The results show that this configuration gives an increase in trimmed lift to drag ratio of 11.5% at a lift coefficient of 0.5 and Mach No. of 0.7 when the L.E. slats are deflected from zero to full angle. The L.E. slats also alleviate pitch-up for Mach number below 0.95. The addition of medium range missile increases both drag and pitch moment coefficient.