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Title BUFFET TESTS ON 1/20 SCALE LCA MODEL WITH LEADING EDGE SLATS AT TRANSONIC SPEEDS

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External Participation

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Approval Remarks

BUFFET CHARACTERISTICS, TRANSONIC MANOEUVERABILITY Keywords Abstract Buffet measurements have been made on the 1/20 scale LCA model

(stage 6.45 V 35) with full leading edge slat at transonic speeds in the 1.2m

tunnel. Unsteady signals from wing-root strain gauges have been measured and the response at the first wing bending frequency has been utilized for the determination of buffet characteristics. Mabey's technique has been employed to estimate buffeting coefficients at different Mach numbers. Significant reductions in the maximum buffet levels have been found in the presence of leading edge slats, confirming the results obtained from Calspan tests.