



**National
Aeronautical
Laboratory**

Documentation Sheet

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Title : AIR MASS FLOW CALIBRATION OF THE 1 : 6
SCALE LCA INTAKE MODEL

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Abstract : This report provides details of the air mass flow calibration work carried out in respect of the 1:6 scale LCA intake model. An ejector with a constant area mixing tube was used to draw air through the intake model. A maximum of 0.72 kg/s of air flow could be drawn through the model, when both side inlets were open. Further increases in the quantity of air drawn through the model could not be achieved due to high total pressure losses in the system. However, in the range of intake air flow rates achieved, a linear relationship with measured data was observed which could be extrapolated to higher flow rates with minimum errors.