*Sheet classification* : Restricted

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| *Title* : MEASUREMENT OF PITCH-DAMPING DERIVATIVES ON PRITHVI MODEL IN THE NAL 1.2m TUNNEL | | *Document No.* PD EA 9012<br>*Date of issue*: August 1990 |
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*Abstract* :

Pitch damping derivatives were measured on a 1/12.5 scale Prithvi model using the forced oscillation technique in the NAL 1.2m tunnel. The tests were made in the Mach number range of 1.5 to 3.0 and at angles of attack 0, 3 and 6 deg. The tests were conducted for two axes of oscillation located at 3.8 and 4.05 times the body diameter from the nose. While a majority of the tests were conducted on the 'plus' configuration, a few tests were also conducted on the 'into' configuration to study the effect of roll orientation of the model. Both configurations exhibited positive damping over the range of test parameters. Effects of angle of attack and model roll orientation were found to be small.