

PD AC 0405

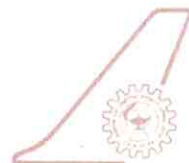
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Test Report for the Structural Static Testing of LCA Modified Rudder upto Ultimate Load

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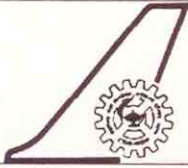
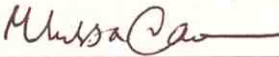
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Title : TEST REPORT FOR THE STRUCTURAL STATIC TESTING OF LCA MODIFIED RUDDER UPTO ULTIMATE LOAD		
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Abstract: Structural static test up to ultimate load was conducted on the Environmentally conditioned (70 C &85% RH) CFRP composite co cured Modified Rudder for LCA to demonstrate the structural integrity of the Rudder and to experimentally determine the deflections at selected locations and to correlate the test values with those obtained by theoretical values The Rudder was loaded up to the ultimate load of 41338N and a ultimate reaction load of 10991N was also simultaneously applied .The load vs deflection behavior was obtained. The Rudder successfully withstood the ultimate load without any failure and the corresponding maximum tip deflection was 61.43 mm . It was therefore concluded that the structural behavior of the Rudder is satisfactory and it was cleared for flight trials. This report deals with the results of the static testing of the door		