Abstract:

Preliminary Static Tests were conducted on the CFRP composite rudder for DO-228 aircraft developed under NAL/DLR collaborative project. The results are reported in PD ST-9002. These tests revealed, the necessity to reinforce some of the whiffle tree members, increase in canvas pad area, etc. Tests were carried out after incorporating these deficiencies. The composite rudder was loaded up to the ultimate load of 840 kgs, and the load Vs deflection behaviour was obtained. The rudder successfully withstood the design load without failure, and hence it has qualified for flight trials. This report presents the details.