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Title : A CLOSED LOOP CONTROL SYSTEM FOR THE FORCED OSCILLATION MECHANISM FOR PITCH-YAW DERIVATIVES		Document No. PD AE 8703  Date of issue: January 1987
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Abstract :  <p>The design and development of a closed loop control system for the forced oscillation mechanism for the dynamic stability tests in the 1.2m trisonic wind tunnel is discussed in detail. The control system design is based on individual closed loop control for phase tracking/control and amplitude control and the amplitude control loop being switched into action once the system has tracked and locked on to its natural or resonant frequency of oscillations. The control system is integrated with the tunnel control logic for an automatic operation for setting the model into an initial reference frequency of oscillations and for switching in the phase control loop after a preset delay. A brief discussion on the bench tests and wind tunnel tests along with some typical test results are also presented.</p>		