



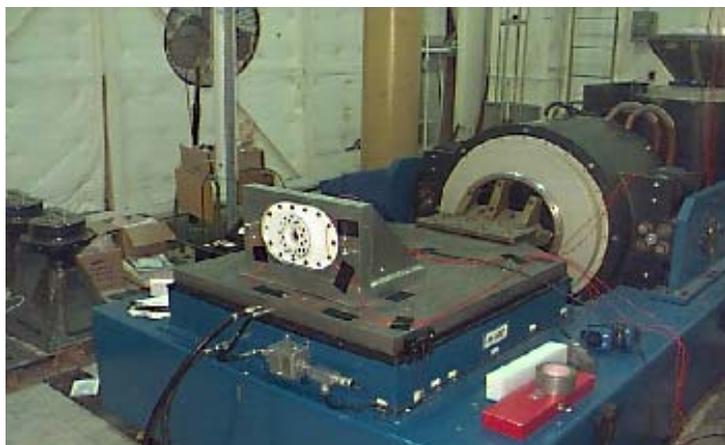
## VIBRATION TEST FACILITY

### Purpose:

To provide experimentally derived dynamic loads that simulate the launch and on-orbit environments to which flight hardware is exposed.

The Vibration Test Facility is comprised of two separate test cells located adjacent to high bay structures. A total of eight electrodynamic exciters and five amplifiers are dedicated to development and certification vibration testing of flight and ground support hardware. Dynamic excitation controlled up to 40,000 force-pounds is available through the use of five digital vibration control systems. Two of the control systems provide sine sweep, broadband random, sine on random, random on random classical shock and shock response spectrum (SRS) control functions.

Other control features include 80 dB dynamic range, real time 32 channel control, tolerance limited spectra, test article response limitation,



and real time signal analysis. Shaker head expanders allow mounting surfaces up to 5 x 5 ft. Acceleration data can be acquired in real time up to 32 channels in both time and frequency domains and formatted to conventional and specified test article requirements. An additional 48 channel recording capability can be utilized for post processing of dynamic response data. Customized vibration fixture design and manufacture can be provided through in-house organizational resources.

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