



G-LAB MOTION PLATFORM

The G-LAB High Performance Human Centrifuge is designed to serve as a safe, economical research and training device to realistically demonstrate, and investigate the physiological effects of acceleration as experienced in high performance aircraft.

The G-LAB's capability of generating up to 15 Gz supports pilot high G training and human research and instrument testing up to and beyond the performance capability of most present day aircraft. The G-LAB is equipped for use in both civilian G research and military research and training applications.

Acceleration stresses can be produced under controlled conditions in the G-LAB via pre-programmed, accurately repeatable profiles to ensure consistent pilot exposures to varying G levels. This capability ensures repeatable training and research as well as proper and controlled aircrew screening.

The G-LAB utilizes a three-dimensional, high-resolution, computer-generated image system for real-time exercises and simulation of in-flight maneuvers. Since the G-LAB uses computer control for its profiles, individual scoring of students is possible. Additionally, instructors can program their own profiles to meet specific current and future training needs.

The G-LAB has the capability to perform rapid G-onsets and can sustain a commanded G level through either manual operation or during a pre-programmed training profile. This permits the practice of the Anti-G Straining Maneuver (AGSM) and/or positive pressure breathing (breathing techniques) while under dynamic or sustained high-G loads. In addition, an anti-G suit supply valve allows the demonstration as well as practice of the AGSM while the pilot is wearing a customer-supplied anti-G suit.



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APPLICATIONS

Training | Anti-G Straining Maneuver practice | G Tolerance | Introductory G Training | Refresher G training | Positive pressure breathing practice

Research | Acceleration research | Component and equipment G exposure |

BASIC PERFORMANCE SPECIFICATIONS

| Sustained G level up to 15 G radial acceleration | Maximum G Onset Rate (approximate) | 8 G/sec from 1.2 G (idle level) |

| Radius of rotation 6.1m (20 feet) | Payload capacity up to 318 kg (700 pounds) | Service Life of approximately 30 years |

ADVANTAGES

| Cost effective | Long life cycle |

