

VESTIBULAR ILLUSION DEMONSTRATOR (VID)

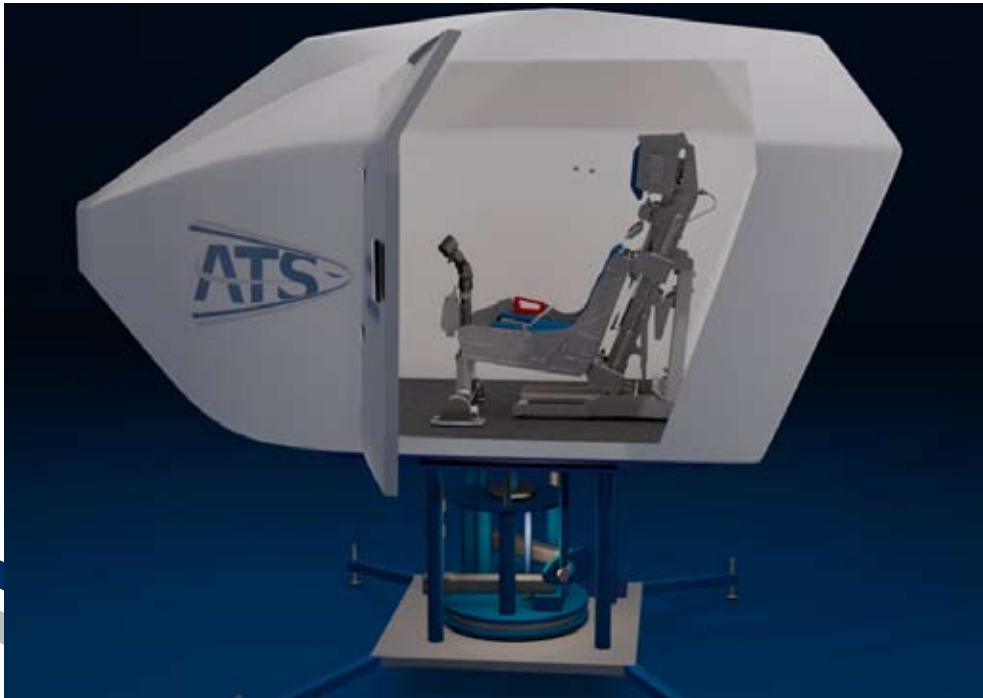
BARANY CHAIR

During daytime flights, many pilots tend to rely on visual cues to maintain positive spatial orientation. At night or in inclement weather, with the loss of these visual cues, aircrew may tend to rely on vestibular senses in an attempt to maintain their flight orientation. However, the reliance on visual or vestibular feedback fails to accurately detect real changes in altitude, attitude or motion, thereby leading to episodes of spatial disorientation.

The Vestibular Illusion Demonstration (VID) – Barany Chair is an excellent device for introducing pilots to spatial disorientation training and maintaining spatial disorientation training requirements for more seasoned aircrew.

This basic, motion based trainer allows aircrew to experience the loss of visual cues and a variety of spatial disorientation profiles firsthand, thus emphasizing the inherent susceptibility of all pilots, regardless of their experience, to spatial disorientation.

For clinical or human research applications, the Vestibular Illusion Demonstrator (VID) - Barany Chair's medical monitoring capabilities facilitate the collection, and storage of medical data for pulse/heart rate, blood pressure and ECG for motion sickness or other physiological studies.



AIRCREW TRAINING SYSTEMS

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BARANY CHAIR

APPLICATIONS

Training

- New Pilot Candidate Training
 - Spatial Disorientation
- Pilot Refresher Training
 - Spatial Disorientation

Research

- Various Research Applications

BASIC PERFORMANCE SPECIFICATIONS

- Single axis of motion – Yaw
- Bi-directional and Continuous 360 degree rotation
- Speed = 150 deg/sec (0 to 25 RPM)
- Controllable Rate of acceleration is 0.2 to 10 deg/sec²

- Generates five (5) standard Vestibular / Disorientation illusions including; autokinesis, coriolis (I-V), nystagmus, oculogyral, somatogyrol
- Standard Medical Monitoring System (BP, Heart Rate, etc.)
- Closed Circuit TV
- Fully Darkened Student Enclosure

ADVANTAGES

The Vestibular Illusion Device (VID) – Barany chair is an excellent device for introducing new aircrew to the spatial disorientation. Additionally, experienced aircrew can train to work through lingering motion sensitivity issue. The VID – Barany Chair is able to be utilized for a variety of research applications.

ADDITIONAL EQUIPMENT FEATURES

- Single, adjustable Seat
- Control stick
- Separate, Dedicated Operators Station
- Instructor and Medical Monitoring displays
- Two way communication system between student and instructor
- Complete motion control capability
- Flight profile editing capability
- Medical monitoring and data recording capability

Training with the VID is an excellent device for emphasizing the inherent susceptibility of all pilots to certain common forms of spatial disorientation and to experience these spatial disorientation sensation prior to flight.

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