







We pride ourselves in accuracy and functionality. And when it comes to components we use the best, our encoders are made by Grayhill for longevity and feel, the PFD/MFD displays are high resolution for clarity, the chassis are made of aluminum and molded components, molded backlit buttons panel graphics are backlit for night operations and our printed circuit boards are built to exceed industry standards.

T.A.A. FLIGHT DECK

Enjoy the spacious cockpit powered by the latest Technically Advance Avionics. Our PFC100 NXi avionics is a fully integrated avionics suite loaded with tons of technology.

- Pilot and Copilot Primary Flight Displays (PFD)
- Multifunction Display (MFD)
- Dual Attitude and Heading Reference System (AHRS)
- Single Audio System with Integrated Marker Beacon Receiver
- ADS-B Out Transponder
- Relative Terrain/Obstacles
- Flight Charts
- Safe Taxi
- Integrated VFR Sectional Charts
- FR High and Low Altitude Charts









LEGACY FLIGHT DECK

Enjoy a spacious cockpit powered by EFIS legacy technology.

The Caravan is a totally immersive Type Specific Flight Training Device offered in two configurations, the Legacy and G1000 Technically Advanced configurations.

The Caravan Flight Decks are ergonomically laid out so training in the simulator will make the transition to the aircraft straight forward.

All instruments and avionics are type specific and backlit for night operations, And aircraft systems are fully functional for "no" excuse training.

The high resolution flight instruments are representative of what you would typically find in the aircraft and the performance and systems have been faithfully replicated.

A three axis control loading system (pitch, roll and yaw) provides the proper control feel throughout the range of flight.

A high resolution integrated 220 degree by 45 degree visual system with the ability to "look over your shoulder", perfect for pattern work and flying unusual approaches when visual cuing is critical (Circle to Land).

The devices utilizes a powerful high performance computer rack system offering the best quality performance and reliability.

The Caravan is currently approved as an FAA AATD but could easily be certified to FTD Level 5/6 and FNPTII.



6 DOF MOTION

NEXT BEST THING TO A LEVEL D SIMULATOR
"FEEL THE DIFFERENCE"



6DOF Axes:

Pitch: Tilts Forward and Backward

Roll: Pivots Side to Side

Heave: Moving Up and Down Sway: Moving Left and Right

Surge: Moving Forward and Backward

Yaw: Swivels Left and Right

Although motion is not a requirement for FAA AATD's, FTD's or FNPTII flight training devices many manufactures do not offer a motion option, the good news is, we do! Our °DOF motion systems have been in operation for over 10 years with little to no maintenance.

The Motion Platform has been developed under the most stringent academic and professional design guidelines, to offer the highest fidelity motion system, at the best value.

Real-time Reverse Kinematics, Forward Kinematics and Full featured Washout Cueing Filters all completely "on-board" is one of the many key elements for proper cueing. The "DOF electric, high fidelity synergistic motion platform. These units are the "no compromise — no nonsense" solution to any motion simulator application, providing more reliability, performance and features than those available on motion systems costing many times the price.

Note: Only Full Flight Simulators (FFS Level D) require ⁶DOF motion systems and type specific airframes. "Motion platforms have been proven to enhance the simulation experience". In the interest of obtaining information pertinent to the issue of simulator-motion fidelity requirements for recurrent training, the FAA has convened two workshops comprised of recognized experts in aeromodeling, and in platform-motion cueing, respectively (Transcripts, 1996; Longridge, Ray, Boothe, & Bürki-Cohen, 1996). It was generally concluded from these meetings that while certain economies in existing simulator qualification standards could be achieved without significantly degrading the cueing effectiveness of such equipment, an absence of platform-motion cueing is likely to have a detrimental effect on pilot control performance in fixed-base devices, particularly in manoeuvres entailing sudden motion-onset cueing, such as loss of engine during initial segment climb, where visual references are limited. It was also noted, however, that there is no evidence that training conducted in such an equipment configuration would lead to degraded control performance in the aircraft. It was observed that pilots readily adapt their control strategies to the equipment at hand, whether in the direction of simulator to aircraft, or vice versa.







INSTRUCTOR'S OPERATING STATION

At the heart of any good simulator is the "Instructor's Operating Station" (commonly know as the IOS). We take it to the next level by offering our Enhanced Instructor's Station with limitless capabilities. With three large high resolution monitors and pre-programmed Instructor's Interface Console (I.I.C.) the Instructor

The IOS is designed to assist the instructor in controlling the simulation training environment and monitoring all aspects of pilot/crew performance in the simulator. The instructor can control, via this software, all functions such as aircraft position and systems, meteorological, environmental, and situational parameters.

One monitor is dedicated to the IOS map that provides a "birds eye view" or situational awareness at a glance. It also allows for interfacing with the flight in progress and can pause or freeze the simulation by the press of a key at any time. The second monitor can view the Pilot's instrument panel and the third monitor is attached to an in cockpit video recording system.

Also included is our Instructor's Interface Console that can be operated inside our outside the flight deck. Change the weather, fail systems and much more with the touch of a button!

The simulator comes with a worldwide navigational and visual data base with over 36,000 airports to choose from.



VISUAL SYSTEM

Take a Look Around with our 220° X 45° Integrated Visual System



Five 40" 4k monitors are integrated into the flight deck. Both the left and right monitors are tucked back into the visual enclosure providing a "look "over your shoulder view" for pattern work while keeping the runway in site. Because of the wide viewing capability you can practice demanding procedures in all types of weather conditions including: ILS, RNAV, NDB, Circle to Land, LOC and more.

Maintaining an acceptable "Frame Rate" is a fine balance of computer power, video card power and software tuning. Our high performance computer system delivers fluid frame rates even when the graphics load is extremely demanding. Since we have been building computers for over 30 years we spec out only the best brand name components for our systems

