



AT-802 Flight Training Device



CATI Training Systems is proud to add the Air Tractor 802 (AT-802) to its line of simulator training platforms. The AT-802 is a highly adaptable small single engine air tanker. Originally developed as an agricultural aircraft, many AT-802s have been converted and utilized in firefighting, counter-insurgency operations, counter-drug operations, intelligence, surveillance, and reconnaissance.

CATI's AT-802 Flight Training Device was developed specifically for Delta State University's Aerial Applicator Pilot Training Certification Program. The fully immersive device will provide an extra layer of safe, realistic, on-the-ground training, better preparing students for training flights in the live aircraft. CATI worked closely with OEM manufacturers, agricultural pilots, and Delta State University Instructors to customize aircraft handling, flight controls, avionics, malfunctions, and the contents of the visual database.



Designed around SGB Enterprises' proven CAPTE-VCS Single Seat device, CATI and SGB teamed to deliver a custom FAA Level 5/6 equivalent Flight Training Device. The cockpit represents Form/Fit/Function of an Air Tractor 802 with SATLOC Falcon and G4 guidance system with Transland, LLC application equipment. Control loading realistically mimics the handling and flight characteristics of an Air Tractor 802.

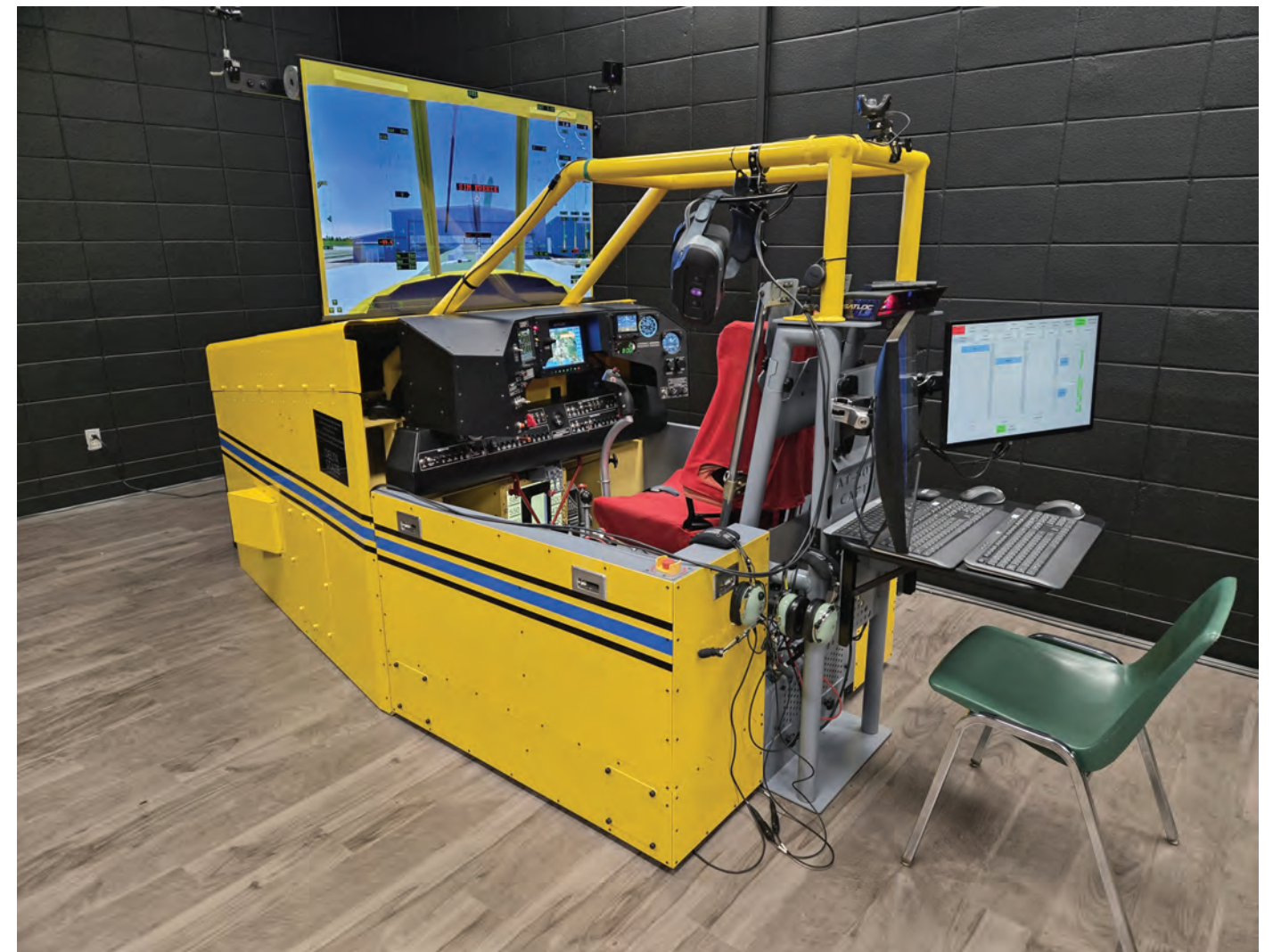
The device supports training tasks centered around aircraft startup and shutdown procedures, aircraft taxiing, takeoff and landing procedures, aerial product application using wet and dry product with both the SATLOC Falcon and G4, and various examples of malfunctions and emergency procedure training. The device utilizes a mixed reality Head Mounted Display (HMD), active flight controls and Inter-communication System & Aural cueing.

The device has both OEM stimulated and simulated avionics integrated with CATI's X-Tended Reality® Visual System and incorporating the Varjo XR-4 HMD. This setup provides the most immersive training experience available while reducing the amount of physical space dedicated to hosting the device. Requiring only two (2) 20 AMP 120 VAC for power, its small footprint and modular transportable design make the AT-802 Flight Training Device an efficient and versatile training solution.

AT-802 Flight Training Device (Specifications)



- Avionics
 - Stimulated
 - SATLOC Falcon GPS
 - SATLOC G4 GPS
 - SATLOC L8 Lightbar
 - Electronics International Inc., MVP-50T Engine
 - Instrument Display
 - Simulated
 - Garmin G5 PFD and HSI displays
 - Standby compass
 - Airspeed indicator
 - Barometric altimeter
 - REABE hopper gauge
- Instructor Operator Station (IOS)
- Host Computer running OTW channel of X-IG® 5.0 and CATI X-Sim™ License
 - Two monitor configuration
 - Monitor 1 - Touchscreen
 - Connected directly to Host/IOS computer
 - IOS UI pages, chart map, IG virtual map & IG stealth view
 - Monitor 2
 - Connected directly to XR4 IG computer
 - Varjo Base & X-IG® BLIT
 - IOS Pages:
 - Sim control: start/stop monitor simulation
 - Initial Conditions (IC) sets
 - Current Conditions
 - Flight - A/C state information
 - Aircraft - Fuel, Dispersal, and parameter freeze settings
 - Crop Layout - Per-field crop type and age controls
 - Environment - Weather, Time of Day,
 - Lighting - Database and airfield lighting controls
 - Malfunctions
 - Engine, Flight Controls, Aircraft systems, Environment, and SATLOC Dispersal Malfunctions
 - Ability to “pop” CBs from IOS display and view their hardware status
 - Maps
 - Approach plates
 - Chart Maps
 - X-IG® v5.0 Virtual Map



- Stealth
 - X-IG® v5.0 configurable stealth channel
- Playback
 - XSim™ XHost record and playback controls
- Systems
 - Electrical buses, power, wet and dry product dispersal system, cockpit and realistic aircraft lighting for nighttime non-NVG operations
 - Simulated instruments for altitude indicator and compass
 - Commercial navigation database
 - Sound & Audio System
 - Makes use of pre-recorded sound files for:
 - Engine start, stop
 - Engine inflight, prop/engine speed changes, etc.
 - Aural tones
 - Ambient noise
 - Visual System
 - X-TENDED Reality® mixed reality visual system, incorporating the Varjo XR-4 HMD
 - X-IG® OTW display on cockpit-mounted 55-inch TV
 - X-IG® stealth view channel at IOS
 - 6 DOF Flight Dynamics Model
 - 6 DOF Flight Dynamics model representing the AT-802 performance and handling characteristics
 - Turboprop PT6A-65AG and 67AG engine model
 - Propeller Governor model with accurate blade feathering
 - Active Flight Controls for Ailerons, Elevator and Rudder
 - Simulated SATLOC lightbar display
 - Cockpit structure, canopy, form, fit and function of the AT-802
 - Full simulation of the dispersal and hopper system
 - Special effects for product dispensing
 - Custom Visual Database

