# 737NG Advanced Training System



The 737NG ATS provides High-Fidelity Flight Training using Low-Cost COTS PC-Based technology.





The Advanced Training System (ATS) has a Gel Coat enclosure, fully functional Pilot/Co-Pilot PFD (Primary Flight Display) and ND (Navigation Display), Mode Control Panel (MCP), Dual EFIS Controls, Center Pedestal Console, Dual CDU/FMS, Upper and Lower EICAS displays, Throttle Quadrant and much more.

The main instrument panel (P1/P2/P3) includes the Landing Gear Panel, Brake Panel, EFIS Panel, Digital Clock/Timer, Upper and Lower DU controls. In addition, a Flight Director button is provided for both pilots which allows for individual selection of Dual Cue or V-Bar.

The ATS is designed to provide maximum flight simulation fidelity at minimum cost. Using the latest in COTS PC-Based simulation technology, the ATS provides:

- Upgrade path for full motion, 6 Degree of Freedom (DOF) platform
- Real-time weather download from the National Weather Service
- Jeppessen World-Wide database



Boeing Aircraft selected Flight-Dynamix, LLC to provide a 737NG-based FTD (Flight Training Device) as part of the Airborne Early Warning and Control (AEW&C) program for the Royal Australian Air Force, Project Wedgetail



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# Cockpit

The ATS cockpit is an exact 1:1 copy of the Boeing 737-800, including functional EFIS, FMC, MCP, EICAS, and flight controls.

#### **Environment**

The ATS is designed to work in a standard office environment.

Length: 96in. (244cm) Width: 96in. (244cm) Height: 90in. (229cm)

Weight: 1200lbs. (544.32kg)

### **Simulation Software**

The flight simulation subsystem is responsible for rendering the aircraft simulation model as well as the Out The Window (OTW) display. The software uses the latest in COTS technology to provide accurate scenery and weather simulation.

A complete world-wide Jeppessen database of airports and navaids is included. In addition, each pilot has the ability to add navaids, waypoints, and specific scenery details.

Using a standard high-speed Internet connection, the simulation software provides real-time weather data which is not only presented on the OTW display, but also on the pilot/copilot radar displays.

# **Network Compatibility**

The ATS supports both military and commercial networks including IPX, Direct-Play, UDP, DIS, and HLA. In addition, PTS can be networked with other high-fidelity OFT, WST, UTD, or PTT training

devices in typical Distributed Mission Operations (DMO) environments.

## **Visual Display**

PC-IG technology delivers software-based tiled, soft-edge-blended, super-high resolution (2 meters per pixel) visuals at 60-85Hz, composed of 2048 x 1536 pixels overall.

# **Computer Systems**

The ATS computer system is comprised of multiple high-performance TCP/IP networked computers. Six individual computers are used to drive the flight simulation, OTW display, flight displays, and cockpit controls.

## **Center Console**

The Center Flight Console is a full-featured backlit avionics package with bright LEDs and high resolution encoders for a professional look and feel. The throttle section is equipped with throttle handles and integrated TO/GO/ AT switches, speed brake lever, and thrust reversers lever.

The Avionics console includes a Comm radio, Dual Nav radios, DME, Transponder, ADF, Rudder, and Aileron trim control. Just below the throttle levers are the Parking Brake switch, Fuel Cut Off Switches, and Flap switch.

# **Instructor Operator Station**

The IOS is designed to make mission setup, control, and post flight debriefing user-friendly. The IOS presents a God's-eye view of the pilot's aircraft. The instructor can create scenarios including changing weather conditions and systems failures before or during any mission.