

FLIGHTDECK

SOLUTIONS



FDS-B737NG-FTD
FDS-B737MAX-FTD
Level 4/MCC/AATD Compliant

Version: EN2021.03.01

FDS-B737

Welcome!

Who is Flightdeck Solutions

Flightdeck Solutions (FDS) is a global provider to the aerospace and aviation industry for a wide range of flight simulation products and services. FDS is trusted for producing high quality, immersive and full tactile FTD trainers.

Aligning your training with airlines

FDS is the go to supplier for producing highly capable and realistic advanced fixed-base flight training devices to enhance your high quality pilot training program. FDS simulators are the solution of choice for companies and educational institutions around the world for providing excellence in quality while maintaining financial responsibility.

A few of our customers

Flightdeck Solutions' client base is broad, and includes Aerospace Companies, Aircraft Manufacturers, Airlines, Flight Training Facilities, Simulator Manufacturers, Research and Development Institutes, Education Facilities, and Entertainment.





“Leading Academic Institutions and Universities have placed their trust in our professional trainers.”

Our FDS-B737NG and FDS-B737MAX FTDs

Cockpit Familiarization
 FMS/Automation Training
 Basic and Advanced Procedures
 Cockpit Resource Management (CRM)
 Recurrent training preparation
 Introduction to Glass Cockpit
 Interview/Cadet Selection
 Jet orientation courses

Training Capabilities

Designed with the pilot in mind FDS simulators were constructed to accurately replicate and expose the pilot to all flight maneuvers as they would experience it in the real aircraft. Authentic hardware meets highly capable software - a truly beautiful thing.

The FDS- B737- FTD is the ideal device for the following requirements:

- Cockpit familiarization
- Crew resource management (CRM)
- Jet transition
- Multi crew cooperation (MCC)
- FMS/ Autoflight training
- Basic and Advanced Procedures
- Interview / Cadet selection
- Human Factors
- Systems familiarization
- Procedures and SOPs
- Aircraft maintenance engineer (AME) training

Who uses these trainers

Leading Academic Institutions and Universities such as Auburn University, Trident Technical College, Cypress College and others have placed their trust in our professional trainers to propel their students towards the goal of making it to the ‘Big Leagues.’



Fully tactile training

No more touch screen

Designed with the pilot in mind and powered by highly accurate avionics software, Flightdeck Solutions training devices take you leaps and bounds closer to the real aircraft than any "IPT" or Touch Screen device.

It's highly beneficial for cadets to "feel" the aircraft and make that physical, spacial connection to the environment they will ultimately be working in.

Proper procedural training demands no shortcuts.

Fully tactile. No touch screen LCDs!

Primary Flight Display (PFD)
Capt and F/O

Navigation Display (ND) – Capt and F/O

Main Panel and Lower DU Selectors – Capt and F/O

Engine Display Units (DU)

Fire Warning/Master Caution switches – Capt and F/O

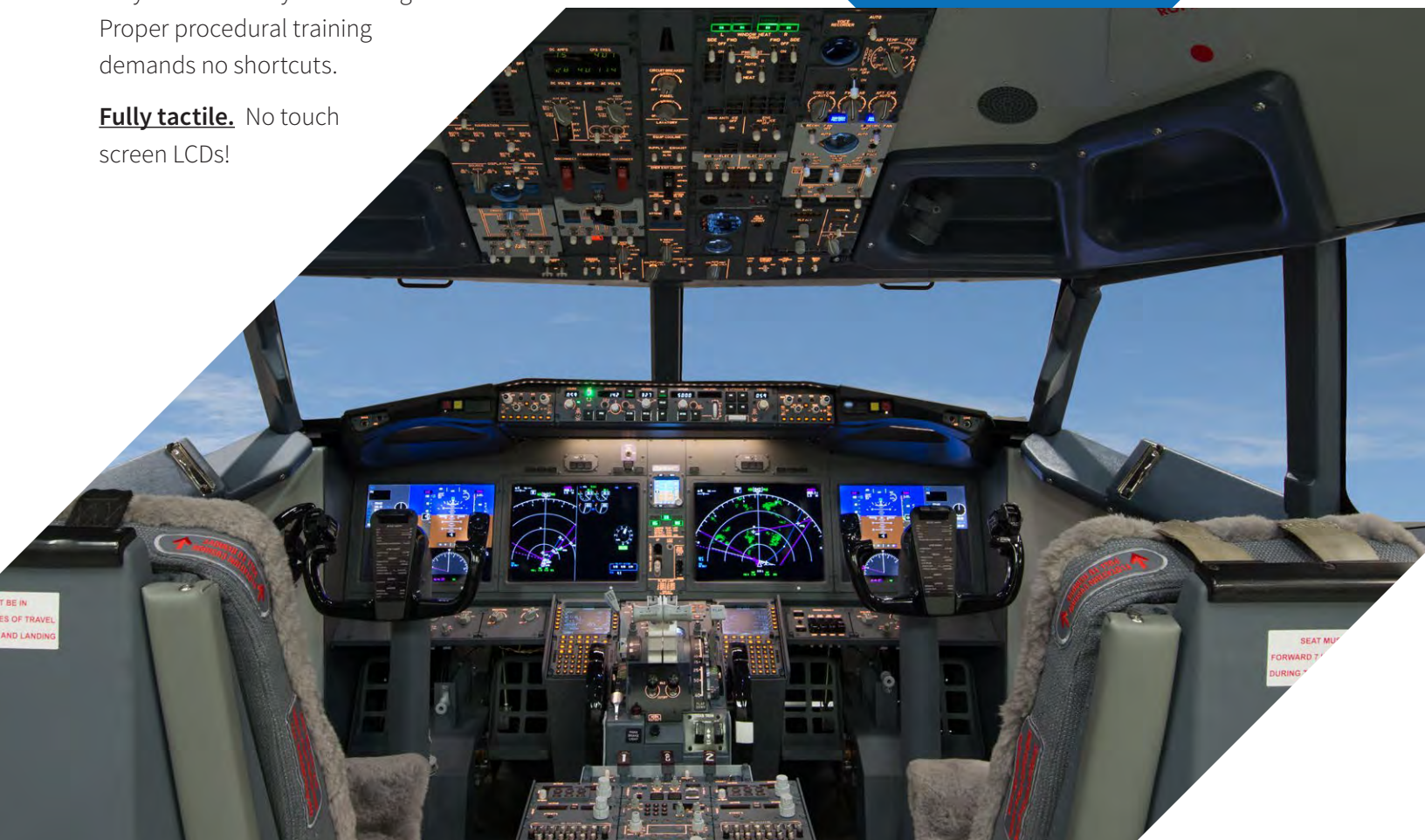
Recall Annunciator Panel – Capt and F/O

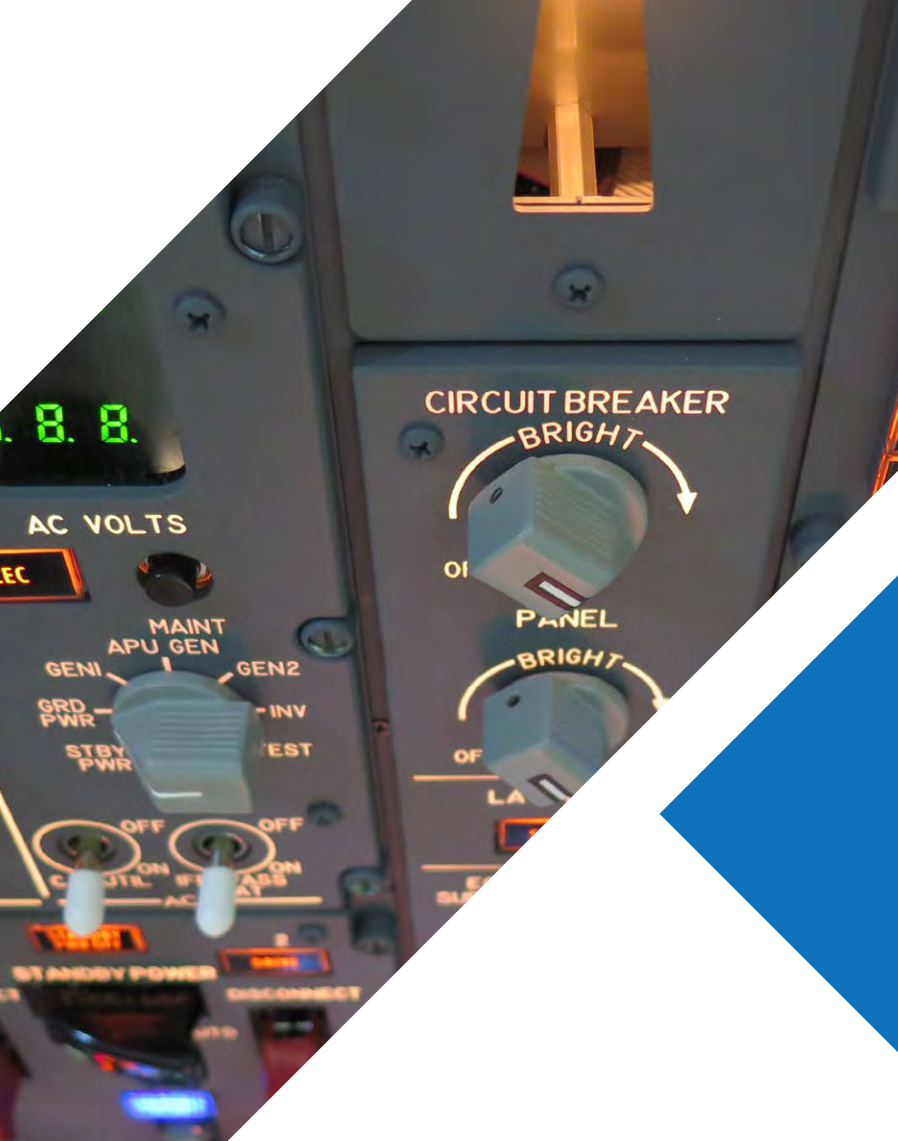
Standby Flight Instruments:
Integrated Standby Flight Display (ISFD) and RMI

Gear Lever and Indicators

Flap Indicator and LE Lights

Autobrake Selector





Accurate
B737NG/MAX Layout

Real Aircraft DZUS Rails

Real Aircraft DZUS Fasteners

Real Aircraft Locking Toggles

Mechanical Gauges

Backlit Knobs

True Scale



Primary Overhead

Scaled for accuracy and utilization of actual real aircraft parts or FDS-engineered components.

“Our devices emulate the real environment, offering 100% tactile presentation and functionality!”

Center Pedestal

Spatially correct, and designed with exceptional attention to detail encompassing a full tactile design. No more finger trouble with touchscreens - our devices emulate the real environment!



Scale Pedestal
Base/Control Stand

MCOMM Radios

Single Channel NAV Radios

Low or High Level ACPs Available

Accurate Rudder Trim Panel

Functional Trim Gauge

WX System Panel with Tilt/Gain

High Level
Fire Control Panel

FMS Training

Learning a complex FMS system in a full flight simulator at thousands of dollars per session is as logical as using a real aircraft to train engine start up procedures!

High level Sim-Avionics FMS software mirrors the real aircraft and brings the pilot an exact physical layout to learn in.

Our high level **aircraft-quality** tactile switches and a high resolution LCD Display with super crisp OpenGL Graphics deliver the accuracy.

Instructors have the ability to teach student pilots interact and explore the FMS system to its fullest.



**Dual CDUs
(Control Display Units):
Capt and F/O**

Functional Pages:
IDENT, POS INIT, ROUTE, CLB, CRZ, DES, LEGS, DEPARR, HOLD, PROG, N1 LIMIT, FIX, PERF INIT, MENU, MAINT

Global, updated Navdata/AIRAC FMS data incl:
Airways, SIDS, STARS and approaches

**All buttons, controls and displays on
the FMC are functional, incl:**
Colour Display Screen,
Line Select Keys
Function Keys

Control Dynamics

Tactile training means “hands on” for the pilots. While system training is critical, some hands on control flying helps push the curriculum well past standard IPT/Touch screen devices.

Flightdeck Solutions uses **real aircraft yokes and columns** coupled to proprietary static loading devices. Developing finely tuned muscle memory means having everything in its place. Precisely.

Higher level requirements can include optional **control loading** elements to even further enhance the variable forces experienced in the real aircraft.



Real Aircraft Yokes (B737)

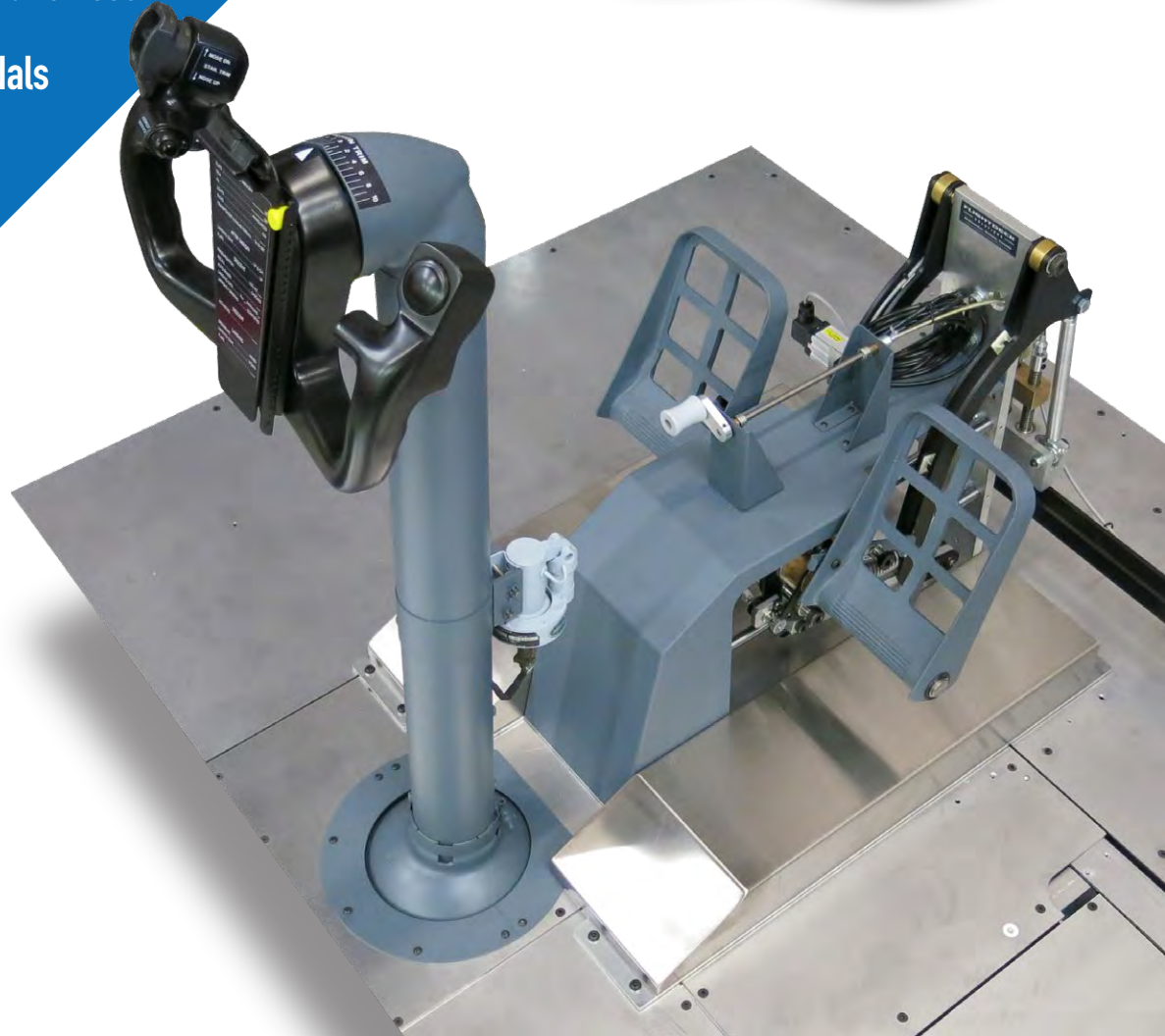
Real Aircraft Columns

Real Aircraft Stick Shakers

Proprietary Mechanical Devices

Adjustable Rudder Pedals

Accurate Steering Tiller

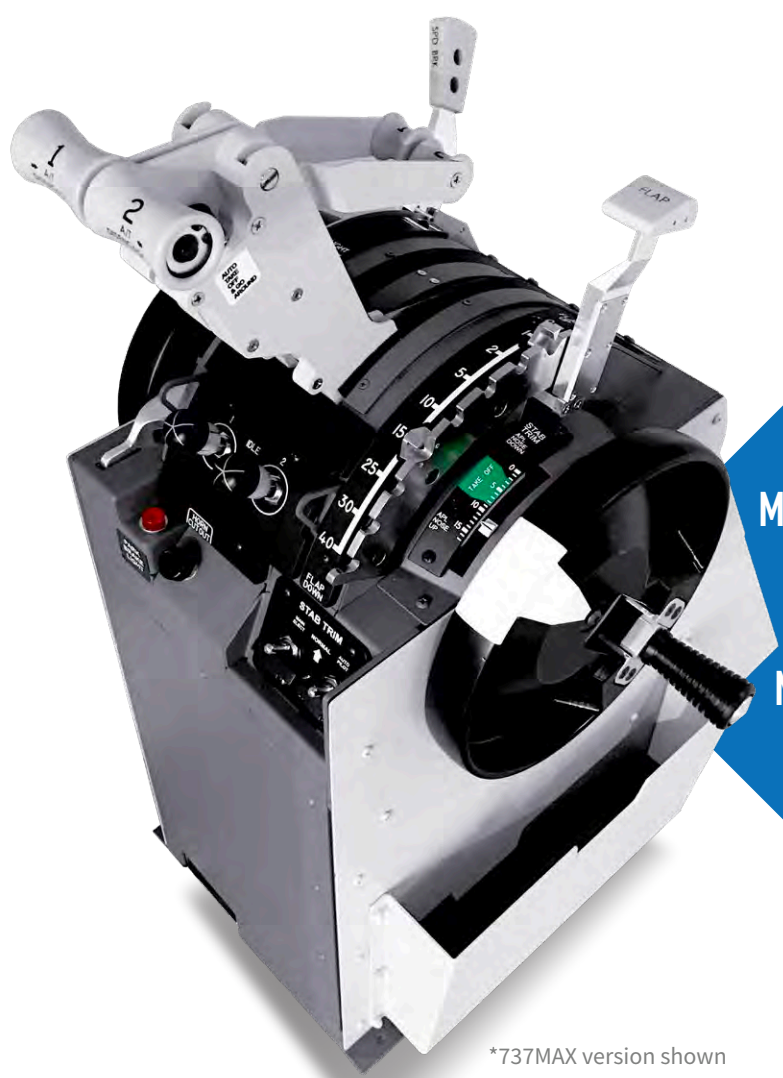


B737NG/MAX Throttle Quadrant

In keeping with the 100% tactile approach FDS takes with all of our devices, the 737 Throttle Quadrant becomes a critical element.

Pilots are very “Hands On” with certain elements in the flightdeck and the TQ is certainly one of them.

The FDS-B737NG/MAX TQ was designed to deliver near perfect to the real aircraft and features fully motorized levers with ultra-smooth movement across the levers full range, motorized trim wheels with variable speeds and retractable handle, full scale IBL panel set and accurate flap detents and tactile feel in the flap lever.



- Motorized Levers
- Auto Throttle Override
- Motorized Trim Wheels w/ Variable Speeds
- Variable and Full Reverse Thrust Levers
- Motorized/Auto Lifting Speed Brake Lever
- Accurate Flap Detents with proper guarded positions
- High-Speed Ethernet Interface

*737MAX version shown

Seating & Shell

Crew Seats

The FDS-B737NG-FTD and FDS-B737NG-FTD are designed to accommodate **FDS manufactured** Aircraft Crew Seats. One pair of Aircraft Crew Seats are included with all of our FDS-FTD devices.

Cockpit entry is made easy via a J-Rail rail system. The system allows the seat to slide back and off to the side giving the pilot extra space for entry.

Headrests are included.



Electronic vertical seat adjustment to 4"

Built-in fully adjustable back support with pneumatic control

Genuine lambswool seat covers offer greater comfort & durability

Functional armrests that adjust for height

J-Rails (shown) make for easy entry into the cockpit

FDS "B737NG/MAX" Nose Section / Liners

Our Proprietary Modular Nose Section design has been a core part of our full FTDs for over a decade. Our nose sections are modular, allowing them to be set up in an average room, and be brought in through a normal sized door.

All Metal Design
(Aluminum)

Developed from a genuine B737NG/MAX nose

Super accurate B737NG/MAX window shapes for added realism

Precision-tooled liners accurate material to create the proper cosmetic look & feel



Certification

There are numerous reasons companies and individuals purchase flight simulators, from type rating pilots, cadet selection, procedure training and cockpit familiarization, all the way to experiential entertainment or personal hobby. Many of those do not require certified devices. If your application, however, requires a higher level device, we're here to help you obtain the necessary FAA or EASA certification.

Features And Specifications

Cockpit

- Aluminum construction of Main Instrument Panel (MIP)
- Mode Control Panel and EFIS
- Dual Pro-MX E-Series CDU's with one-piece Precision Machined Metal body
- Primary Overhead featuring OEM parts and specialized FDS engineered hardware
- Center Pedestal with exceptional attention to detail and full tactile design
- Throttle Quadrant, featuring:
 - motorized levers
 - variable speed trim wheels
 - full Reverse Thrust capability
 - detented flap lever
 - detented speedbrake with auto deploy / stow
- Engine start levers /fuel flow and trim pointers
- Dual Linked yokes
- Dual linked rudder pedals with toe brakes
- Steering Tillers
- Fully Enclosed Flightdeck including rear instructors station and observers seats
- NG and MAX versions available

Sound System

- Surround sound stereo including realistic HD engine and environment effects
- Cockpit environment warning alerts and cautions, configuration warnings , TCAS Alerts, weather and EGPWS warnings
- Floor bass shaker upgrade available

System Features

- Glass cockpit instrumentation
- PFD and ND
- Complete Autoflight systems
- Electrical , Pressurization , Hydraulic , Pneumatic , Fuel and Fire Protection Systems modelling
- Advanced autoflight capability - LNAV / VNAV / RNP / IAN approaches
- Weather Radar
- Terrain EGPWS
- TCAS

Seating

- FDS Manufactured Aircraft Crew seats
- Electronic vertical seat adjustment to 4"
- Built-in fully adjustable back support
- J-rails for ease of entry

Visual Display System

- Wide array of Visual Display System options available
- Common setups include a 1080HD, 2K, or 4K Seamless FOV Direct Projection system with 200°-220° wrap-around Professional Curved Screen*
- Other common choices include large single or multi-panel Flat Panel Display setups, or Collimated Display options

* subject to room dimensions

From Our Success Stories

Air Canada

“With a solid understanding of Air Canada's needs and end-objectives, FDS took up the task of developing authentic FMC replicas. The effort resulted in the creation of the PRO-MX-CDU as a portable independent training device capable of working with third-party software to meet the unique specifications of Air Canada.”

Svensk Pilotutbildning

“Svensk sought to enhance the training quality and industry recognition of its Multi-Crew Cooperation/Multi-Crew Pilot License Program (MCC/MPL) for the A320 using highly realistic training systems.

The FDS A320 flight trainer met airliner benchmarks, replicating the A320 cockpit, and integrated perfectly with Svensk's MCC/MPL program. Flightdeck Solutions built a fully tactile simulator that raised the cadet training experience.

EASA granted the A320 trainer installed at the client's Gothenburg City Airport training center the coveted FNPT 2/MCC certification.”

Southwest Airlines

“Southwest Airlines is the largest operator of Boeing 737 aircraft in the world. Their training department wanted to enhance its 737 training curriculum and maximize the exposure of aspiring pilots to complex aircraft systems. One of the components essential to this need was the Flight Management Computer (FMC). The team needed a device that would replicate the exact behaviour of their existing in-flight FMC's.”

Read more at flightdecksolutions.com/success-stories

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