

FLIGHTDECK

SOLUTIONS



FDS-A320-FTD

Level 4/MCC/AATD Compliant

Version: EN2021.07.03

FDS-A320

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.



Honeywell



Commercial Training Solutions



AIR CANADA



SOUTHWEST



OAI
Omni Air International



GLOBAL



Cranfield
University



NASA



FEDERAL AVIATION
ADMINISTRATION



GE

Aviation

MITRE



EMBRY-RIDDLE
Aeronautical University

EMBRY-RIDDLE
Aeronautical University



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gables
FLIGHT TRAINING



AirVenture
FLIGHT CENTER



Atlantic
AirVenture
FLIGHT TRAINING



iPILOT
FLIGHT SIMULATOR EXPERIENCE
www.flypilot.com



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LONDON

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Our FDS-A320-FTD

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-A320-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 (see image on pg 4), 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.'



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

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

Upper ECAM and Engine Warning Display

Lower ECAM and Systems Display

Master Warning Caution light — Capt and F/O

Autobrake / Anti Skid Control

Flap Indicator and LE Lights

Landing Gear Control Lever

Brake Pressure Indicators

Clock

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



Accurate
A320 Systems Layout

Fire Controls, Hydraulics
Fuel, Electrics, Air Conditioning,
Anti Ice & Ext Lights

FDS-EM1 High Fidelity Aircraft Quality Switches

Quad Illuminated and Heavy Tactile Feel

FDS exclusive
"IBL" Series Panels
featuring real aircraft
bulbs



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!



A320 Complete Pedestal

Dual FDS-A320-PRO-MX-MCDU

A320 IBL Series Panels

FDS-A320-PRO-MX-THRUST Levers

Switching Panel, ECAM Control,
Dual RMP, Dual ACP, Lighting Controls

Functional Rudder Trim gauge

Weather Radar with Tilt/Gain

Flap Lever and Speed brake

Parking brake



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 MCDUs

(Multi Function Control Display Units): Capt and F/O

Functional Pages:

INIT, PERF, DATA, F-PLN, RAD NAV, FUEL PRED, DIR, PROG, SEC F-PLN, ATC COMM, MCDU MENU, AIRPORT

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

All buttons, controls and displays on the MCDU are functional, incl:

Annunciator Display,
Line Select Keys,
Alpha/Numeric
Keypad



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 PRO-MX series A320 Capt and F/O Sidestick control "Force" is designed to replicate the real aircraft part modelled.

The included Hall Effect Sensors deliver highly detailed data and years of service.

Higher level requirements can include optional control loading rudder pedals that can further enhance the variable forces experienced in the real aircraft.



Dual
Function
Autopilot
Disconnect Switches

Communication
push-to-talk

Solenoid Locking Mechanism

Spring Centering Device

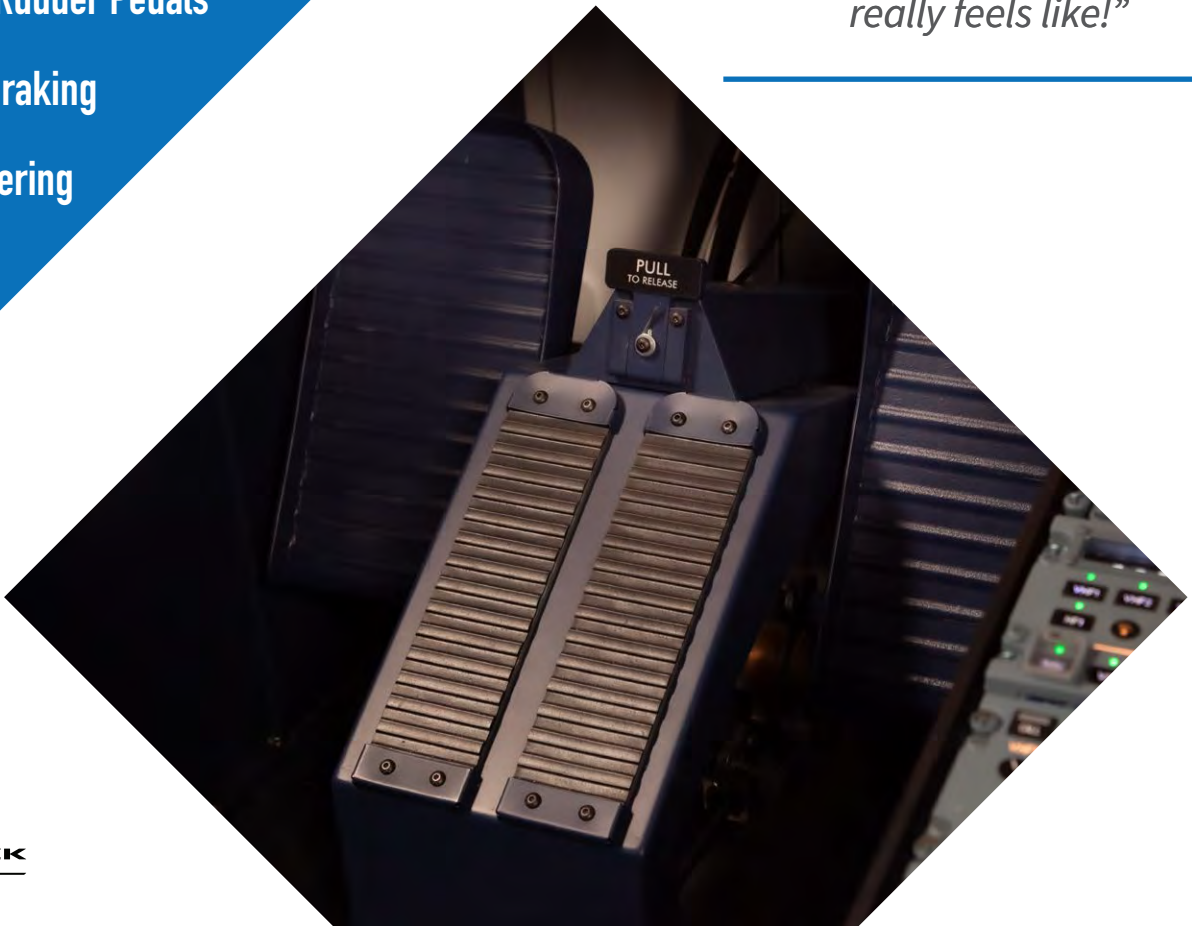
Dual Linked Rudder Pedals

Differential Braking

Accurate Steering
Tiller

— ”

“Designed to replicate what the aircraft does and what it really feels like!”



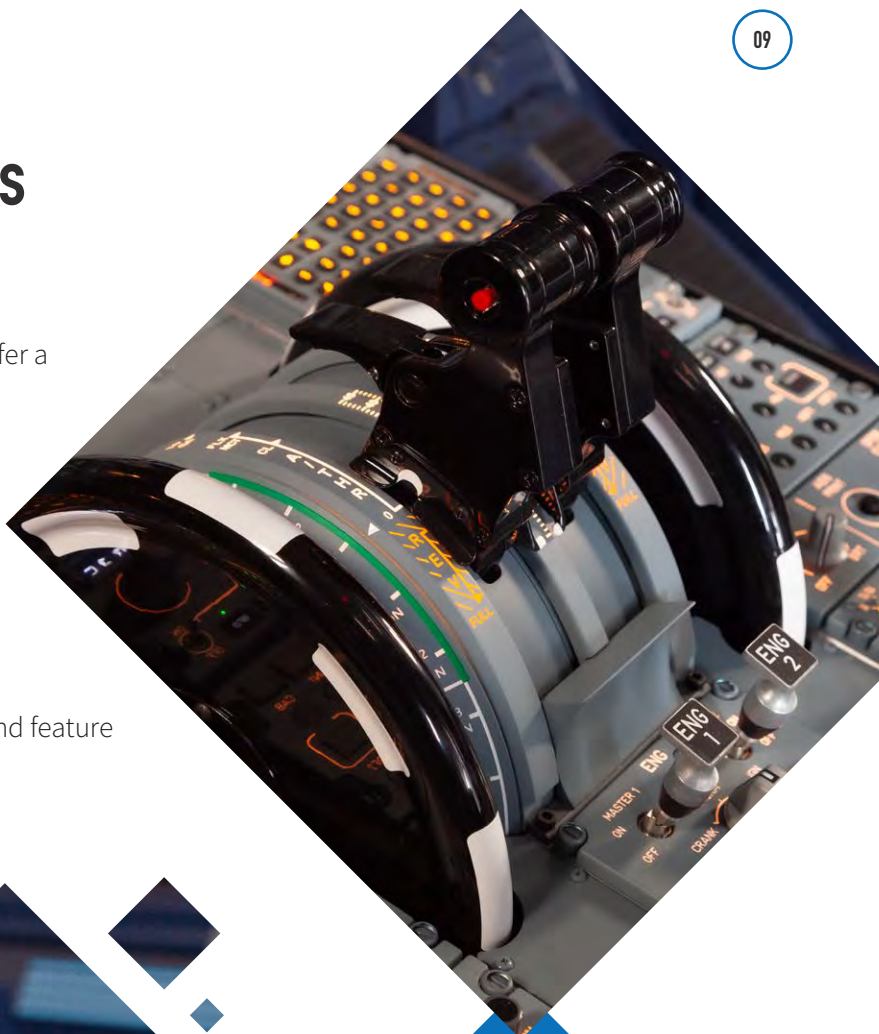
A320 Thrust Control Levers

The Flightdeck Solutions A320 Thrust Control levers offer a 100% tactile approach to training.

Communicating with the Aircraft FADEC system by way of six detent positions or stops

The FDS A320 thrust control levers are designed to deliver ultra smooth movement across the levers full range including perfectly modelled reverse thrust functionality.

The Solid Aluminum Trim wheels are fully motorized and feature trim horizontal stabilizer settings .



Gated Detents

**Idle and Full Reverse Thrust
functionality**

Motorized Horizontal Stabilizer Trim

Solid Aluminum Trim Wheels

**Precision Machined Metal
Components**



Seating & Shell

Crew Seats

The FDS-A320-FTD is 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 "A320" 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 A320 nose

Super accurate
A320 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)
- Flight Control Unit
- EFIS control panels
- Dual Pro-MX E-Series MCDU'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 fully tactile design
- FDS Thrust control levers , featuring
 - Precision machined metal components
 - Solid Aluminum Trim wheels
 - Motorized Horizontal Stabilizer Trim
 - A320 modelled Gated detents
- Capt and FO Sidesticks
- Dual Linked Rudder pedals
- Dual Steering Tillers
- Fully Enclosed Flight deck including rear Instructors station and observer's seats.

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

- ECAM displays for procedural training
- PFD and ND displays
- Comprehensive Autoflight Systems (AFS), including Inertial Systems, Radio Navigation, Electrical Flight Control System (EFCS), and Full Authority Digital Engine Control (FADEC)
- Comprehensive Aircraft Systems, including Fire Protection, Hydraulic, Fuel, Electrical, and Pneumatic
- TCAS
- Terrain EGPWS
- Weather Radar

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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