



SIMNEST

Simulator manufacturing

FNPT II MCC simulator

BUDAPEST, HUNGARY

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Powered by



Dear
Williams

SIMNEST

SIMNEST is a brand name for our simulator solutions, the company behind it is PearWilliams and we are aviation professionals who pay attention to detail and training trends.

Our **vision** is to create **high quality and affordable flight simulator solutions** for the continuously growing pilot training market. Our belief is that FNPT II MCC simulators and **MCC trainings are not just a course to do. MCC training is a base that an airliner pilot can rely on, can build on, can evolve from.**

In case you use the right tool for this training – like our FNPT II MCC certified SN.A32 simulator – **your cadets will** benefit the most of this part of their studies and it will assist them a lot when they get to an A320 family type rating at an Airline. You can train them to **be real Airline ready material.**

Our simulator is **not only FNPT II MCC certified, but also APS ready** (Airline Pilot Standards - new EASA training category to be introduced*).

“... I can say that even though it is a small part of a full modular flight training, the MCC and JOC course was the biggest help for me regarding my preparation for an airline interview and simulator assessment. Now I'm hired by an A320 operator and the first trainings seemed easier for me than for others...”

V. G. former MCC cadet



HOW DO WE KNOW THAT OUR SIMULATOR IS GOOD FOR YOU?

To have a first-hand experience on our simulator **we launched an ATO**. We continuously use our SN.A32 simulator and our **instructors are active A320 captains, TRIs, TREs**. They provide continuous feedback; this helps us to continuously improve components. We know, that **FNPT II MCC** is a generic large jet category, and since the flight model is not from Airbus we cannot call it an A320 simulator, BUT **visit us in Budapest and try it for yourself, then tell us how generic it is...**

WHY SHOULD YOU CONSIDER THIS SIMULATOR?

Airbus A320 family aircrafts are very popular single aisle aircrafts that have the FBW logic, the ECAM messages and everything that makes them what they are. You can love it, you can hate it, but **in case your cadets will join an A320 family operator Airline the best MCC training can be delivered on a simulator that includes these logics.**

FACT

After training on our FNPT II MCC simulator your cadets' life on a type rating will be easier.

"Pilots ATO's MCC and JOC courses are the best option if you are preparing for your airline interview and planning a career flying the Airbus family. Their simulator looks and works just like an A320..."

V. G. former MCC cadet



SIMNEST

ARE YOU AN ATO? ARE YOU AN FSTD OPERATOR? DO YOU DO MCC TRAININGS?

No problem if your answer is NO to any of the questions above!

SIMNEST SOLUTION IS HERE TO HELP WITH YOUR GOALS!

WHAT YOU WILL NEED TO OPERATE THIS SIMULATOR:

- Space: 600 cm width × 550 cm length × 320 height
- Power: 3 phases, 3 × 16 A, 230 V, 50 Hz
- Staff: 3 people (AM, SM, CM – this can be 2 ppl (not FTE) + one technician)

SIMNEST WILL HELP WITH THE REST

As an extra benefit you will receive assistance on obtaining the certification for FSTD operator, for ATO and a syllabus sample for JOC and MCC trainings.

The operation of this simulator is not only easy but it also has low operating costs.

MPL

The Simnest A32 FNPT II MCC matches IATA's recommendations for best practices for MPL implementation. This states, that a modern twin Engine multi-crew transport category aeroplane based FNPT should be used for training.



WOULD YOU LIKE TO MAKE YOUR CADETS LIFE EASIER? PREPARE THEM FOR THE TYPE RATING, FOR ASSESSMENT? DO ALL OF THIS COST EFFECTIVELY?

With our trainer friendly A32 FNPT II MCC simulator you will be able to provide A320 specific trainings. It replicates accurately the A320 cockpit and its flight characteristics: properly simulates the aircraft logic, the FBW characteristics.

It has a working PFD/ND/FMA, well simulated ELEC/HYD/BLEED aircraft systems and a fully functional FMGS/FCU/ECAM.

HAVE YOU HEARD OF EBT AND CBT?

Evidence Based Training and Competency Based Training are the future of aviation; they will be more important than the collection of hours.

Even EASA knows it is time for a change! The devices of today far exceed the qualification of anything that is in the low-level regulations, and you can't necessarily get credits for them if you go by what's in the regulatory documents.

Fixed base trainings can provide equally effective training at a lower cost.

Qualification harmonisation, updated FTD regulations, global competency-based training standards ... all will inevitably happen. The question is when?

THE MOST IMPORTANT QUESTION IS: ARE YOU READY?

WE FOCUS ON EASA REGULATION CHANGES, NPA'S

ICAO launched a task force last year which will, by 2020, "facilitate the effective implementation of competency-based training and assessment in all aviation disciplines," said Captain Miguel Marin, ICAO's Chief of the Operational Safety Section. EASA wants to implement the „performance based“ FSTD model in the coming regulation. The plan is to create a so called training matrix that matches a training chapter with a simulator capability. If a simulator has an extra capability above it's category (example: smoke in a cockpit of an FNPT) a method will be introduced how to approve this function for the particular device for appropriate training/checking.

THIS WILL OPEN NEW POSSIBILITIES FOR YOU!

TRAIN MORE, TRAIN BETTER!

COCKPIT, FLIGHT CONTROLS AND SYSTEMS

- Dual MCDU
- ECAM, Engine Display, PFD, ND, etc.
- FCU with dual EFIS
- Glareshield
- Sidesticks, pedals and nose steering wheel with Fly by Wire Operation
- TCAS, Radar
- Flaps, Speedbrake
- Overhead Fwd panel
- Full Backlight Systems and Throttle
- Fully adjustable pilot seats
- Two observer seats behind the two pilots and the instructor

INSTRUMENTS

- EIS 1
- EIS 2

ENGINES

- IAE
- CFM

FMGS

- Thales

QTG

- The simulator is delivered with a “Qualification Test Guide” (QTG)
- based on NORMAL and DIRECT laws

SIMULATED FAILURES

- Truly degrading the affected component, with all the side effects
- All failures can be triggered manually or preprogramed
- All failures have their ECAM procedures rigorously implemented
- More than one failure can be combined (level 1 or level 2), with ECAM priority
- Scenarios with armed failures can be saved to speed up the training
- All failures can be reset in flight without further consequences
- All electrical buses are modelled (so, by example an electrical failure may lead to the loss of panel backlight on the appropriate panels)
- All hydraulic failures have their feedback to the flight model, enabling the instruction of the degraded modes



3 CHANNEL CYLINDRICAL VISUAL 210° × 45°

- 3 Full HD Projectors
- Total immersion during exercise
- Warping and edge blending included

TERRAIN, NAVIGATION & AIRPORT DATABASE

- Worldwide terrain database
- Easily recognizable geographical features: mountains, coastlines and urban areas
- The navigation database includes en-route and approach nav aids
- SIDs / STARs
- 5 Reference airports

IOS WITH TOUCH SCREEN AND SPEED BUTTONS

- Failures
- Weight and balance, fuel quantity, ZFW, etc.
- Atmospheric and visual conditions can be changed in real time
- Track plots available and printable
- Flight pause, reposition and freeze
- Approach Plates available for selected airports
- QTG tests can be run directly from the IOS

DOCUMENTATION PROVIDED

- **Qualification Test Guide (QTG):** contains all the information from a technical point of view
- **Flight Manual:** describes the systems and emergency procedures of the simulator
- **Quick Reference Handbook:** contains all the procedures applicable for abnormal and emergency conditions in an easy-to-use format
- **Maintenance Manual:** It describes all the required maintenance actions on the simulator
- **Instructor Station Manual:** It describes how to operate the instructor station



TURNKEY SOLUTION

- 24 months' warranty
- Shipping, installation, insurance & testing on customer premises
- Maintenance technicians and instructors training
- MQTG, Instructor Manual, Maintenance manual, Flight Manual is provided
- Spare part set according to the EASA regulations
- Ensuring educational syllabus for ATOs, suitable for
- EASA authorization
- In addition to the standard set of documentation, ensuring operational syllabus for ATOs and FSTD operators

OPTIONAL MAINTENANCE SERVICES

- Yearly support for recurrent certification assistance and system check
- Remote maintenance
- Telephone assistance
- Navigation database quarterly updates

ON-SITE ASSISTANCE TO THE INITIAL CERTIFICATION AT CUSTOMER'S PREMISES

- We will provide on-site assistance in the customer premises during the days that the Civil Aviation Authority performs the initial certification to support the process.

SPARE PARTS

- Simnest will provide the spare parts package, need for the authorization.



10:18

HA-LYZ

UNIT	STATUS
WIND	2.0 m
TEMP	15.0 °C
REL. HUM.	65%
PRECIP.	0.0 mm
WIND DIR	180°
WIND SPD	2.0 m
TEMP	15.0 °C
REL. HUM.	65%
PRECIP.	0.0 mm
WIND DIR	180°
WIND SPD	2.0 m



118 100

ROOM DIMENSIONS & REQUIREMENTS

The total width of the device is determined primarily by the width of the projection screen.

- The width of the projection wall is 600 cm
- The total length including the wall, the cockpit, IOS and observer seats is 550 cm
- The height of the projection wall is 320 cm

In case you would have different room dimensions available let us know and we can make calculations for you.

POWER CONSUMPTION

The power consumption of the device is around 4700W - excluding the air conditioner.

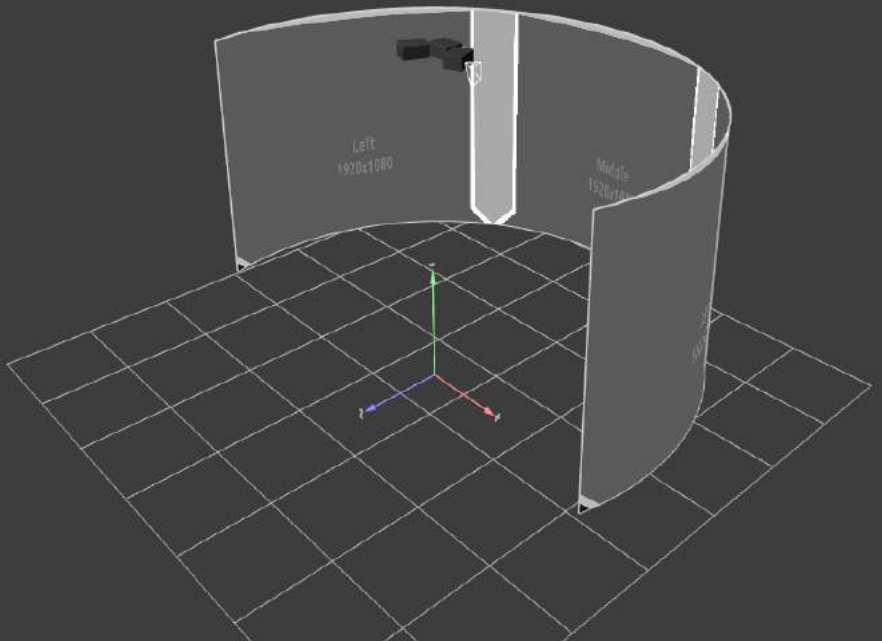
Main consumers are:

- the 3 projectors
- the main PC
- the control loading system - can draw around 12A on one phase for short periods

The best is to have are 3 phases, 16 Amps/phase with slow blowing fuses.

COOLING & HEATING

The device's temperature should not go below 15 degrees Celsius. This can be achieved with using a heater/cooler air conditioning system or by any other means. A non-condensing environment is required.



1. AIR ATA

- 1.1 PRESS SYS 1/2 FAULT
- 1.2 RAPID DECOMPRESSION
- 1.3 PACK 1/2 FAULT
- 1.4 PACK 1/2 OVHT

2. OXYGEN ATA

- 2.1 COCKPITOXYGENLOW PRESSURE

3. AUTOFLIGHT ATA

- 3.1 AP 1/2 FAIL
- 3.2 ATHR FAIL
- 3.3 FAC 1/2 FAIL
- 3.4 AUTOLAND FORCED FLASHING
- 3.5 NO LAND MODE
- 3.6 NOFLAREMODE
- 3.7 FCU 1/2 FAULTS

4. ELEC ATA

- 4.1 DC BUS 1/2/BAT FAULT
- 4.2 AC BUS 1/2 FAULT
- 4.3 TR 1/2 FAULT
- 4.4 GEN1/2 FAULT
- 4.5 IDG 1/2 OIL LO PR
- 4.6 IDG 1/2 OIL OVHT

5. FCTL ATA

- 5.1 ELAC1/2FAULTS
- 5.2 SEC 1/2/3 FAULTS
- 5.3 FLAPS/SLATS LOCKED

6. DOORS ATA

- 6.1 OPENING AND CLOSING OF ALL DOORS
- 6.2 ARMING OF SLIDES
- 6.3 IFDOORISOPENEDINFLIGHT, ECAM WARNING IS TRIGERRED

7. ENG ATA

- 7.1 ENG 1/2 FAIL (WITH OR WITHOUT DAMAGE)
- 7.2 ENG1/2STARTIGNFAULT
- 7.3 ENG 1/2 OIL HI TEMP
- 7.4 ENG1/2OILLOPR
- 7.5 ENG 1/2 FADEC HI TEMP

8. NAV ATA

- 8.1 RA1/2FAIL

8. NAV ATA...

- 8.2 ILS 1/2 RCVR FAIL
- 8.3 ADR1/2/3 FAIL
- 8.4 IR1/2/3 FAIL (WITH OR WITHOUT ATT MODE AVAILABLE)
- 8.5 BASIC TCAS EVENT
- 8.6 AND ALSO UNSELECT SPECIFIC NAVAIDS FROM THE DATABASE

9. LDG GEAR ATA

- 9.1 LDG NOT DOWN (N,L OR R GEAR)
- 9.2. NWS FAIL
- 9.3. BSCU 1+2 FAIL
- 9.4. ABRK FAIL
- 9.5. BRK HOT

10. EIS ATA

- 10.1 DMC 1/2/3 FAIL
- 10.2 FWC 1/2 FAIL
- 10.3 SDAC 1/2 FAIL
- 10.4 INDIVIDUALSCREENFAILURE

11. APU ATA

- 11.1 APU GEN FAIL
- 11.2 APU BLEED FAIL

12. HYD ATA

- 12.1 G/B/Y RESERVOIR OVHT
- 12.2 G/B/Y SYS LO PR
- 12.3 G/B/Y RESERVOIR LO LVL
- 12.4 G/B/Y PUMP LO PR
- 12.5 Y ELEC PUMP LO PR
- 12.6 B/Y ELEC PUMP OVHT

13. FUEL ATA

- 13.1 L/R/CTR TANK PUMP 1/2 LO PR
- 13.2 L/R/CTR TANK FUEL LEAK

14. FIRE ATA

- 14.1 ENG 1/2/APU FIRES WITH SELECTABLE ONE/TWO SQUIB(S) OR NOT EXTINGUISHABLE
- 14.2 CARGO AFT/FWD SMOKE WARNING
- 14.3 CARGO AFT/FWD SMOKE DETECTOR FAULT
- 14.4 CARGO AFT/FWD SMOKE SQUIB FAULT
- 14.5 LAVATORY SMOKE WARNING
- 14.6 LAVATORYSMOKEDETECTORFAULT

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