



Stock Code: 838476

CNFSimulator®

Simulator Product Brochure

中仿智能科技（上海）股份有限公司
Shanghai CnTech Co. Ltd.



About CnTech

CnTech is an international High-Tech company which is founded in 2007, we have the flight simulation business started and grown up in Shanghai China. CnTech specializes in advanced simulation technology, and has become the professional development specialist in the flight simulator industry.

CnTech employs more than 70 engineers and have own 3,000 m² manufacturing factory and machines. Quality is our priority. To give the best simulator product, we have developed more than 20 diversified flight simulator series products CNFSimulator[®]. Delivery speed is our superiority. Based on our manufacture capacity, we can ensure faster to meet important and urgent needs.

We focus on our customers, CNFSimulator[®] is establishing and serving an international network of sales and services with dozens of customers. We will respond quicker to our customers. By using our special online management system, we can provide remote maintenance services anytime and anywhere.

Providing excellent simulators is our quality object, and this is also our mission to help customers obtain maximum benefits at the lowest cost.

01 Certified Simulator 03-12

■ CAAC ■ FAA ■ FTD Level 5 ■ EASA FNPT II MCC ■ Generic/Type AATD ■ Airlines ■ Flight Schools ■ Training Center

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■ University & Engineering Research ■ Specialized Training ■ Design ■ New Technology Demonstration ■ Semi-Physical Simulation

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01

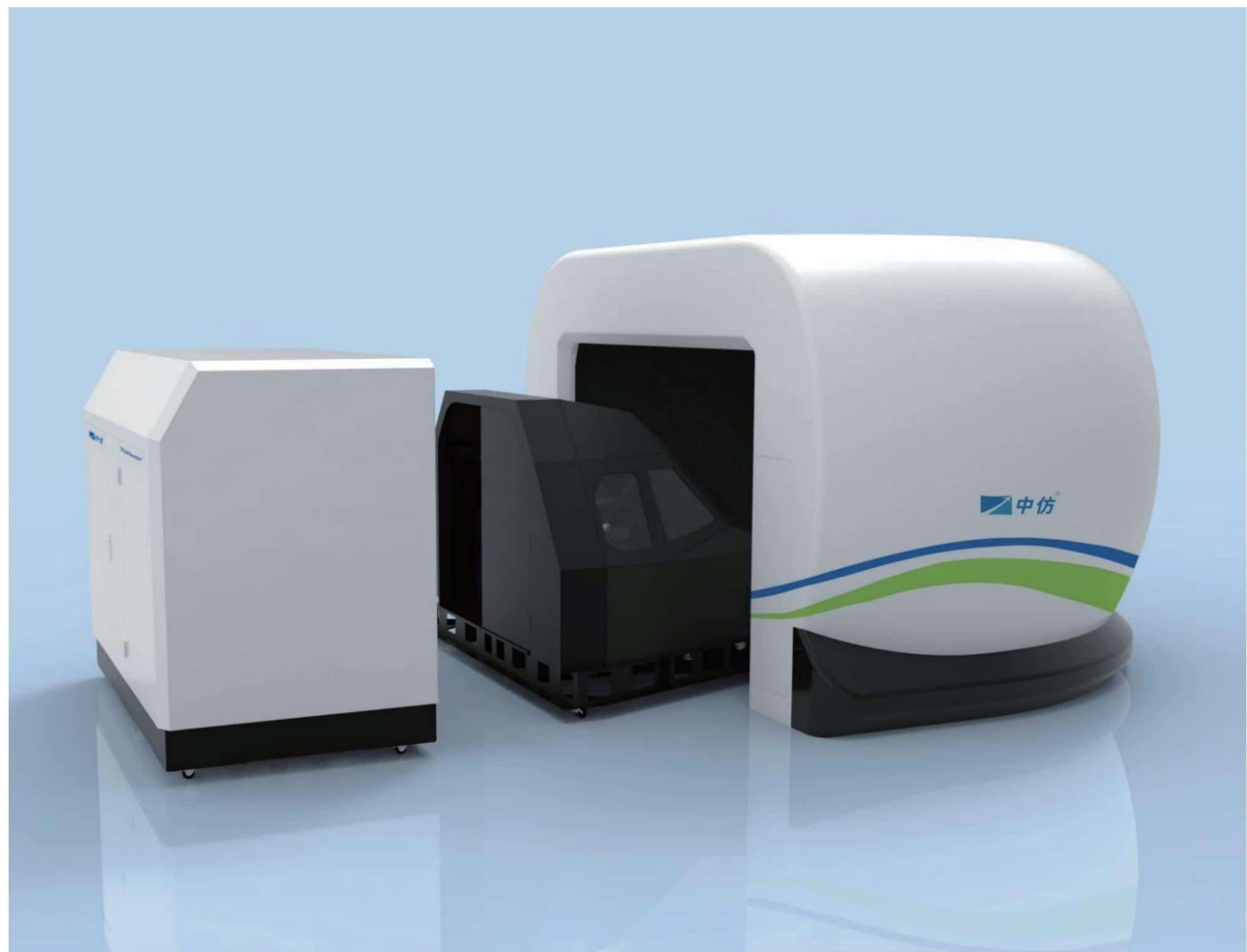
Certified Simulator



CNFSimulator.FTD.A32

Airbus A320 Level 5 FTD

- ◇ Complies with CAAC FTD Level 5/FAA FTD Level 5 standards;
- ◇ Based on Airbus OEM data package and FMGC Rehost software;
- ◇ Identical to real cockpit, control loading driven by electrical motors, low cost solution;
- ◇ Enclosed cockpit and instructor room, build by glass fiber reinforced plastics;
- ◇ 180° spherical visual system, HD laser projector;
- ◇ Customized airport and training management systems to meet flexible and diverse training needs.





CNFSimulator.FNPT.A32

Airbus A320 FNPT II MCC Simulator

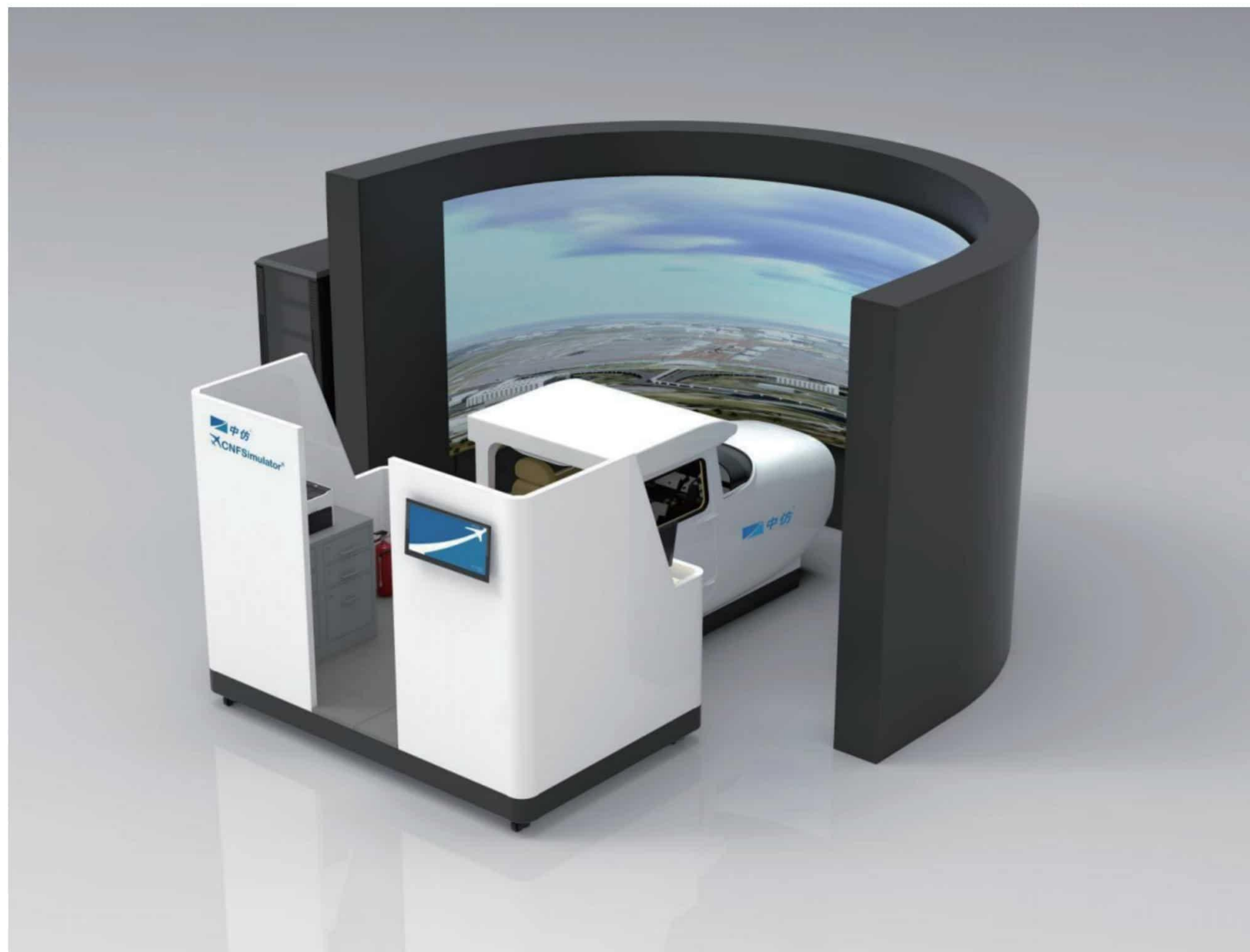
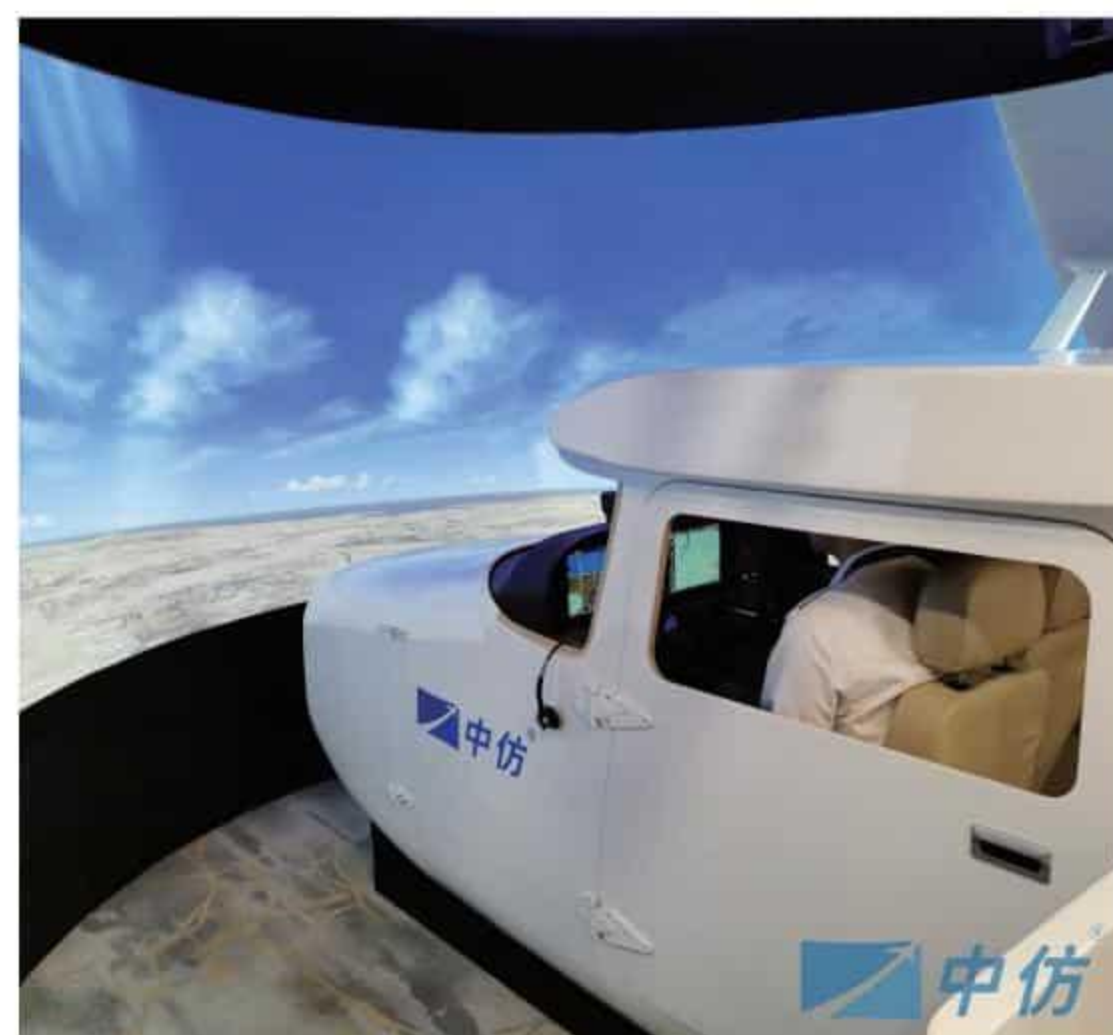
- ◇ Complies with EASA FNPT II MCC standards;
- ◇ Based on the CnTech engineering data package;
- ◇ Identical to real cockpit, control loading driven by electrical motors, low cost solution;
- ◇ Enclosed cockpit and instructor room, build by aluminum;
- ◇ 180° circular screen visual system, HD laser projector;
- ◇ Customized airport and training management systems to meet flexible and diverse training needs.



CNFSimulator.FTD.C17

Cessna C172 Level 5 FTD

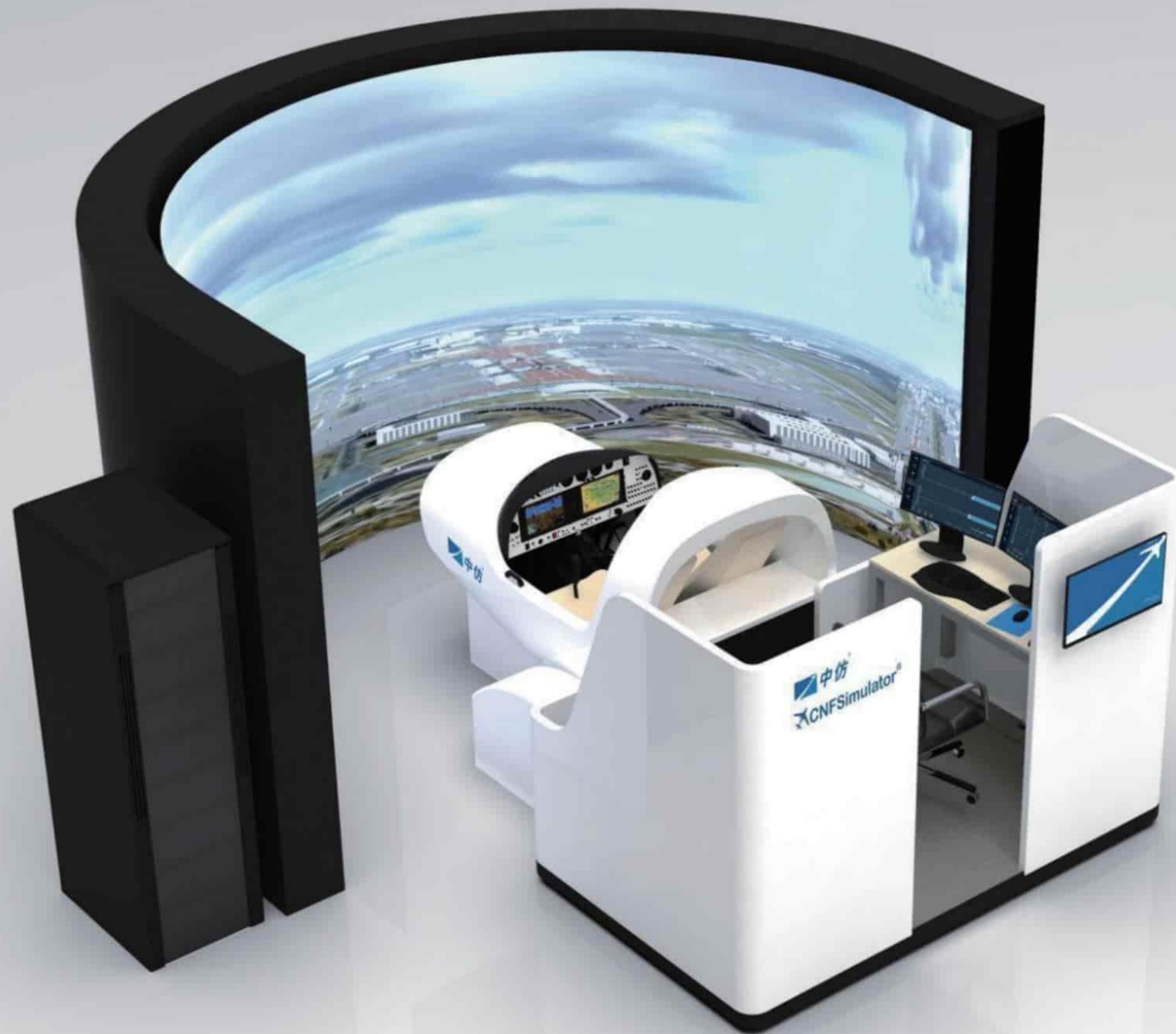
- ◇ Certified as FTD Level 5 by CAAC, complies with FAA FTD Level 5 and EASA FNPT II standards;
- ◇ G1000 integrated avionics simulation system, support flight management system and PBN operations;
- ◇ Cockpit structure based on real aircraft scan data, glass fiber reinforced plastics cockpit shell;
- ◇ Flight dynamics modeling based on CnTech flight test data, accurate simulation;
- ◇ Three-channel electric direct-drive control loading system, more accurate force feedback and real-time adjustment;
- ◇ HD laser projector, to meet the requirements of use and low-cost maintenance;
- ◇ The teaching and training process can be recorded and replayed to support instructor evaluation.



CNFSimulator.FTD.D40/D42

Diamond DA40/DA42 switchable level 5 FTD

- ◇ Certified as FTD Level 5 by CAAC, complies with FAA FTD Level 5 and EASA FNPT II standards;
- ◇ G1000 integrated avionics simulation system, support flight management system and PBN operations;
- ◇ Cockpit structure based on real aircraft scan data, glass fiber reinforced plastics cockpit shell;
- ◇ Flight dynamics modeling based on CnTech flight test data, accurate simulation;
- ◇ Three-channel electric direct-drive control loading system, more accurate force feedback and real-time adjustment;
- ◇ HD laser projector, to meet the requirements of use and low-cost maintenance;
- ◇ DA40/DA42 switchable , through the hardware panel and software replacement, can complete the DA40/DA42 model shifting;
- ◇ The teaching and training process can be recorded and replayed to support instructor evaluation.



CNFSimulator.G-AATD

Generic Advanced Aviation Training Device

- ◇ Designed and manufactured in accordance with CAAC AATD, FAA AATD standards;
- ◇ Software is consistent with FTD Level 5 to ensure excellent training effect;
- ◇ The hardware configuration covers single and twin-engine multiple models without shell, it combines low cost and easy maintenance;
- ◇ The software can be arbitrarily switched between C172, DA40, DA42 and other models, covering a wide range of models and all kinds of training needs at a lower cost.





CNFSimulator.AATD.C17

Type Specific Advanced Aviation Training Device

- ◇ Designed and manufactured in accordance with CAAC AATD, FAA AATD standards;
- ◇ Identical panels, instruments, switches, yokes and rudders;
- ◇ Shell optional, it combines low cost and easy to maintain;
- ◇ Instructor station software runs on Microsoft Surface tablets, making it easy for instructor to use.



CNFSimulator.AATD.D42

Type Specific Advanced Aviation Training Device

- ◇ Designed and manufactured in accordance with CAAC AATD, FAA AATD standards;
- ◇ Identical panels, instruments, switches, yokes and rudders;
- ◇ No shell required, low cost and easy to maintain;
- ◇ Instructor station software runs on Microsoft Surface tablets, making it easy for instructor to use.



CNFSimulator.Trainer.A32FMS

Airbus A320 Flight Management System Desktop Trainer

- ◇ Modular and lightweight flight training solution;
- ◇ Specialized software, compliant with FAA FTD 5 and EASA FNPT II MCC software;
- ◇ Rehost FMGC data package available;
- ◇ Requires only 1 Windows laptop, learning and training can be done regardless of space and time constraints;
- ◇ Quick IOS, easy to use, one-button start and pause, interactive interface designed for specialized training;
- ◇ Optional hardware equipment such as sidestick, throttle, etc., supporting visual display;
- ◇ Highly reliable hardware and software design, barley operation and maintenance costs;
- ◇ CnTech professional team constantly upgrades and improves the design, continuously providing users with more convenient functions and application expansion.



CNFSimulator.Trainer.G1K

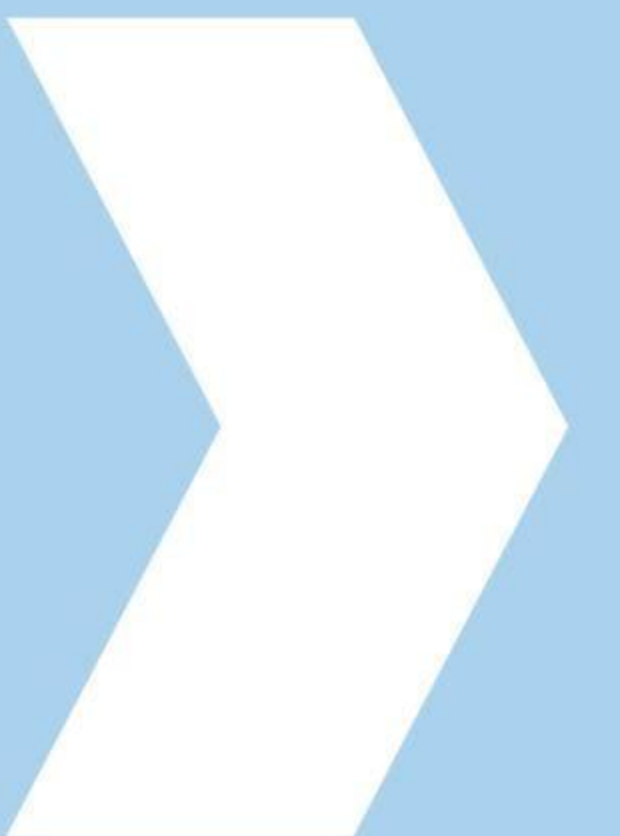
G1000 Integrated Avionics Desktop Trainer

- ◇ USB, plug and play;
- ◇ Compatible with Prepar3D, X-plane, and support user-developed visual modules;
- ◇ Global navigation, altitude and geographic information database which is updated on a regular basis;
- ◇ Various instrument programs, covering the operational characteristics of different airports and the operational standards of different regions;
- ◇ Multi-device networking available, controllable teaching and training process, and instructor evaluation support.



02

Advanced Simulator



CNFSimulator.C91PRO

C919 professional flight simulator

- ◇ Based on the engineering data of COMAC C919 program, it can be used for engineering research, operation training and educational teaching;
- ◇ 1:1 full physical cockpit with complete functions;
- ◇ High-quality hardware such as high accuracy active sidestick, pedals, throttle and electric seats;
- ◇ Modular, flexible, open hardware and software architecture and interface, providing platform support for engineering research.



CNFSimulator.C91IPT C919 Professional Simulator with Touch Screen



- ◇ Based on the engineering data of COMAC C919 program, it can be used for engineering research, operation training and educational teaching;
- ◇ HD touch screen structure with motorized angle adjustment, low-cost solution;
- ◇ Modular, flexible, open source hardware and software with interface, providing platform support for engineering research.



CNFSimulator.A32PRO

Airbus A320 Professional Flight Simulator

- ◇ Exceeds CAAC FTD Level 4, FAA FTD Level 4 standards;
- ◇ CnTech's self-developed data package and flight control system that can be used for professional training;
- ◇ Improved by four times iterations, still keeping update, higher simulation, low-cost solution;
- ◇ Complete simulated hardware, metal structure cockpit, easy to disassemble and transport, small space requirement;
- ◇ A variety of visual systems are available to meet different application requirements.





CNFSimulator.A32RIPT

Airbus A320 Real Cockpit IPT

- ◇ A new generation of professional flight trainer products based on CAAC FTD Level 4 and EASA FNPT II MCC standards;
- ◇ Based on Airbus OEM data package and FMGC Rehost software;
- ◇ Based on the Airbus OEM data package, combining the application effect of traditional IPT and Level 5 FTD, higher cost performance;
- ◇ Fully physical hardware, providing panels, instruments and control systems required for multiple crews control;
- ◇ 180° HD visual and sound system, compared with the traditional IPT can provide a better sense of immersion;
- ◇ Variable failures simulation, failure setting to aircraft systems, weather and other more than 110 abnormal procedures and emergency procedures simulation.



CNFSimulator.A32IPT

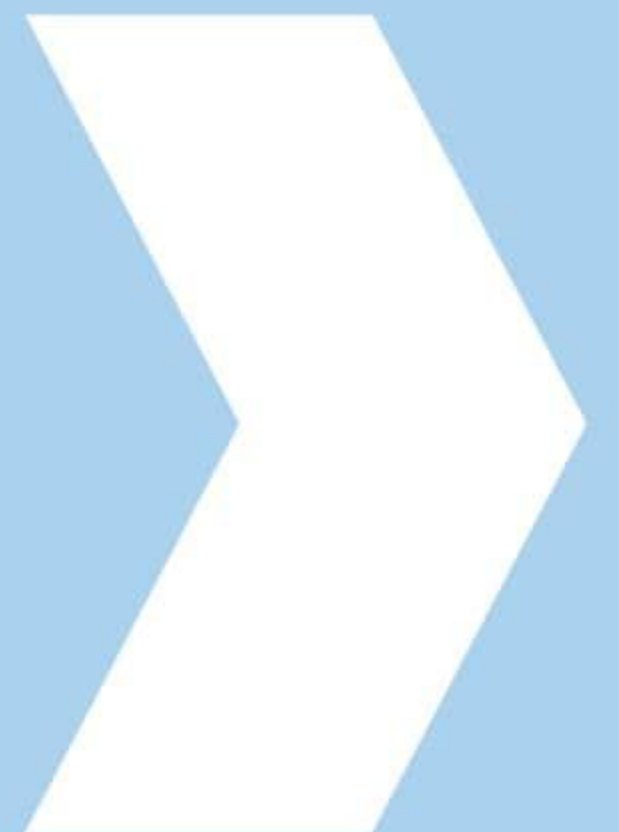
Airbus A320 Integrated Procedure Trainer

- ◇ Same software as professional trainers, exceeds IPT standard requirements;
- ◇ Full touchscreen instrument, physical glareshield/ sidesticks/pedals;
- ◇ Open source hardware and software with interfaces that provide an excellent platform for technical research and innovative training.



03

Educational Simulator



CNFSimulator.C91EDU

C919 Educational Simulator

- ◇ Specially designed to popularize aviation science education for teenager users, it can be used for flight experience and popularization of aviation knowledge;
- ◇ Developed according to the data of the real C919 aircraft, brand guarantee;
- ◇ 1:1 simulation the size of the real aircraft , fiberglass molding, excellent appearance;
- ◇ Simplified hardware, considering the reliability, maintainability and safety from the beginning of the design;
- ◇ Providing learning tutorials, simple and reliable operation, low maintenance and operation cost.





CNFSimulator.C17EDU General Aviation Educational Simulator

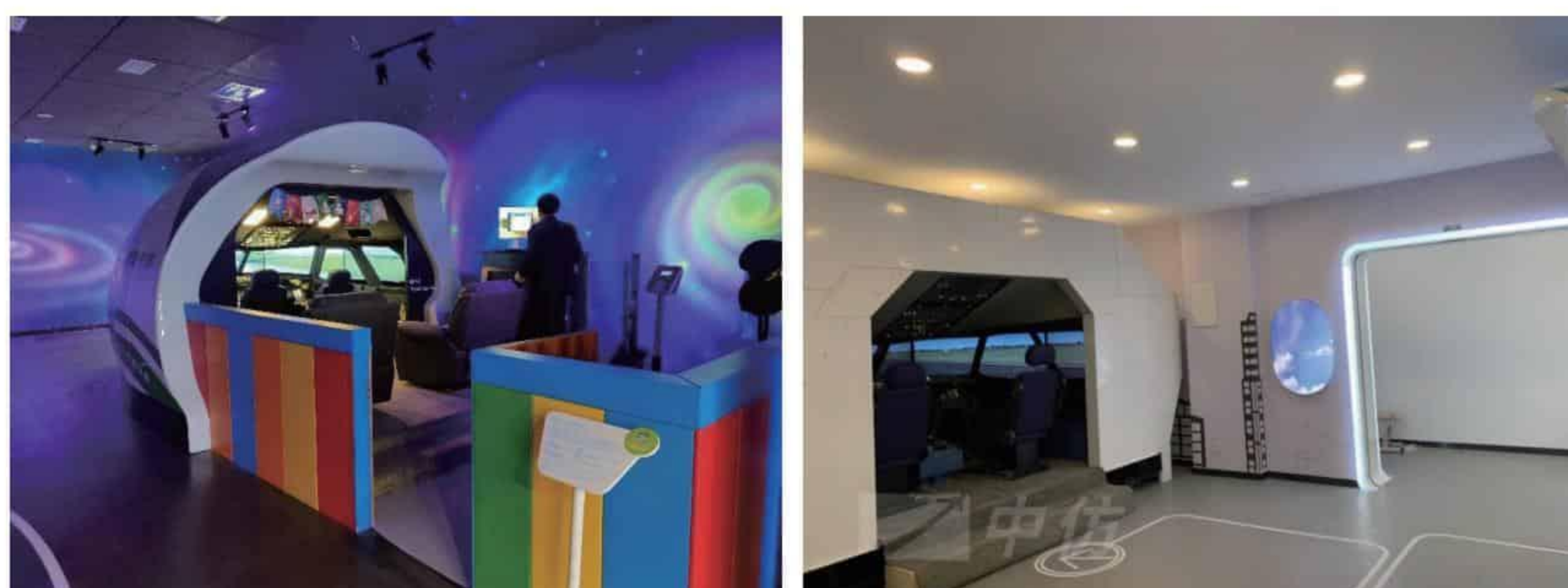
- ◇ Classic flight training model designed specifically for teenager users, providing an immersive flight simulation experience while enhancing basic general aviation knowledge and skills;
- ◇ 3D reverse engineering 1:1 simulation cockpit, ABS mold structure;
- ◇ Simplified hardware, easy to use and highly reliable;
- ◇ The software system is similar to that of professional simulators, accurately reproducing the aircraft's operation performance and instrument display.



CNFSimulator.A32EDU

Civil Aviation Educational Simulator

- ◇ Specially designed to popularize aviation science education for teenager users, it can be used for flight experience and popularization of civil aviation knowledge;
- ◇ 1:1 simulation the size of the real aircraft , fiberglass molding, excellent appearance;
- ◇ The cockpit is consistent with the professional version, ensuring the same degree of simulation as the real aircraft;
- ◇ Providing learning tutorials, simple and reliable operation, low maintenance and operation cost.





CNFSimulator.TowerEDU

ATC Tower Educational Simulator

- ◇ Networking with CNFSimulator available, can be used to learn RTF, air traffic control;
- ◇ Continuously updated software system to provide users with a more professional learning experience;
- ◇ Friendly interaction, simple and easy to learn, easy to be recognized and accepted by students in aviation science education;
- ◇ Multi-channel HD laser projector, large scene, meeting the needs of multi-person learning;
- ◇ Providing learning tutorials, simple and reliable operation, low maintenance and operation cost.



CNFSimulator.C17BATD

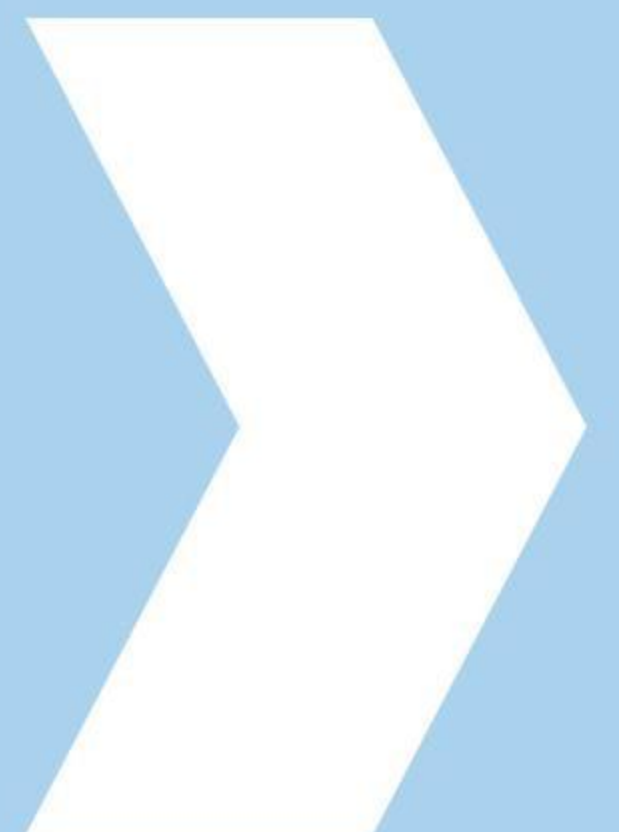
Basic Aviation Training Device

- ◇ Designed according to FAA BATD certification standards;
- ◇ Similar hardware and software configurations to professional simulators, accurate simulation and guaranteed learning results;
- ◇ All-new version specifically designed for teenager;
- ◇ Providing learning tutorials, simple and reliable operation, low maintenance and operation cost.



04

Simulator Components



Visual Display System Products



Spherical visual system with specialized eye point and viewing angle design;
 Glass fiber reinforced plastics manufacturing;
 High-end painting process, high brightness appearance, better display effect;
 Professional light path design solution, diameter 2m~8m optional;
 Customized appearance painting acceptable.



- ◇ High gain and high contrast, excellent display effect;
- ◇ Made by resin, metal layers;
- ◇ Customized sizes according site dimensions, quick manufacturing.



HD point-to-point display, smooth and no distortion picture;
 Circumferential viewing angle design, high sense of immersion;
 Minimum 0.8mm gap , better picture continuity;
 Customized bracket, convenient installation and maintenance.



- ◇ The latest LED display technology has replaced traditional projection displays;
- ◇ No need for multiple projectors and visual computers, simple structure and low cost;
- ◇ Various spacing specifications of 0.7mm~1.5mm, customized shapes and sizes according to actual needs.

Control Loading System Products

- ◇ 10~180NM electric control, a large number of successful applications in civil aviation level 5 FTD trainer and other engineering simulator products;
- ◇ Board-level FPGA embedded operation system combined with customized high-precision direct-drive motors for better operation effect;
- ◇ Simulate different linear lever force/lever moving characteristics, starting force characteristics, "stick shaking" and "trim control" of the control system;
- ◇ Allow subjective dynamic characteristic parameter adjustment, provide parameter adjustment tool to change sidestick force under dynamic response;
- ◇ The product is continuously upgraded to meet the needs of higher quality products.



Active Sidestick



Motion Platform Products

- ◇ Specially designed for simulation training use, high performance, quick response and high precision;
- ◇ 500Kg~2000Kg multiple loads are optional to meet the needs of small simulators;
- ◇ Uses 220V power supply, no increase in power distribution requirements;
- ◇ With perfect protection function to ensure the safety of personnel and equipment in emergency situations.

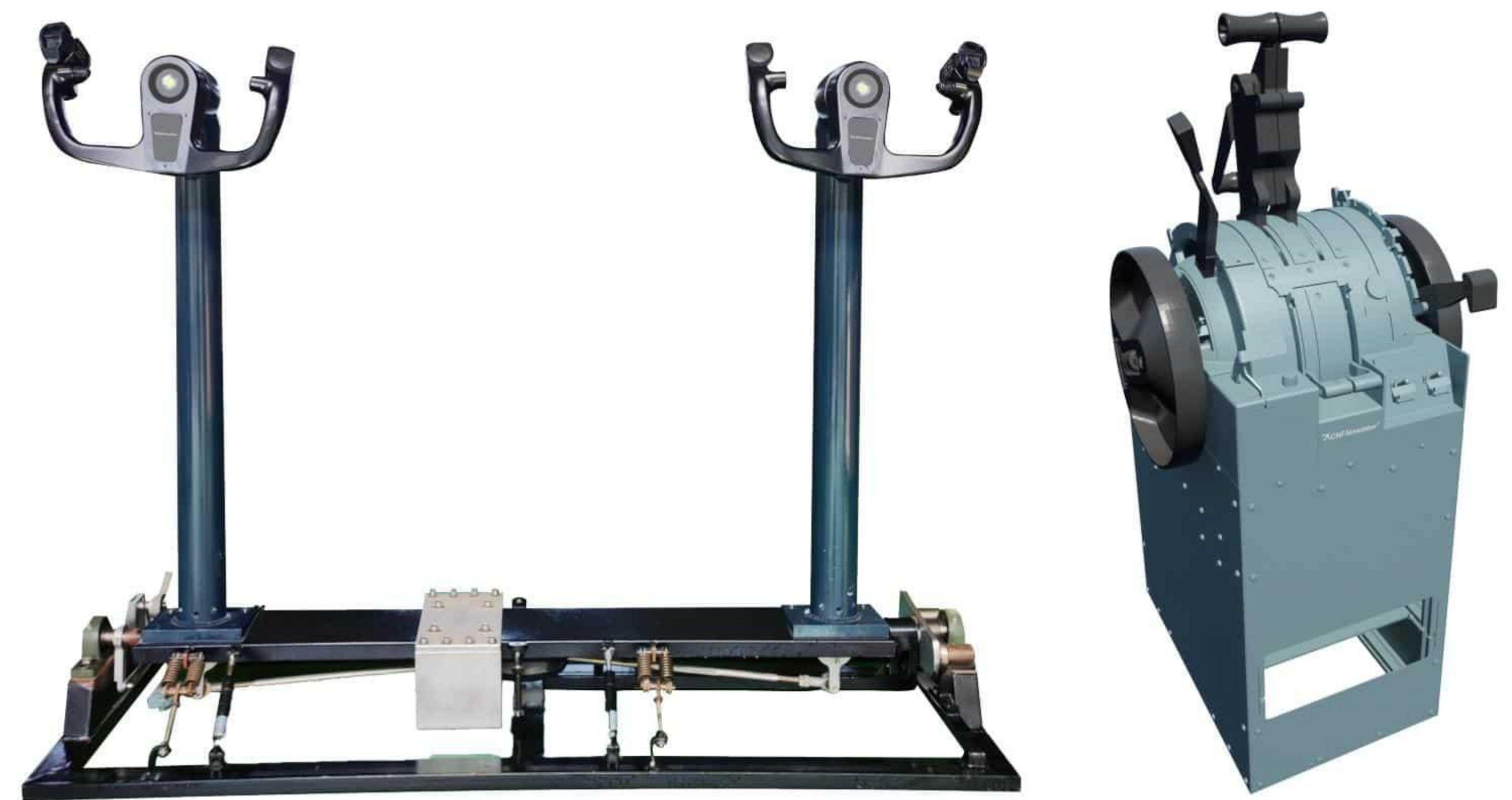


Civil Aviation Simulator Component Products

— for initial training & home builders



◇ A320 Components: Cockpit, FCU, MCDU, Electric Pilot Seat.



◇ B737 Components: Throttle Quadrant, Yoke.

Flight Simulation Component Products

— for initial training & home builders



- ◇ Desktop C172 instrument panel;
- ◇ The main switch components are designed with aviation materials, which are consistent with the real aircraft feel;
- ◇ Modular instrument panel for easy maintenance;
- ◇ Simulate G1000 system with high-quality backlight design;
- ◇ Compatible with various simulation software and joy sidestick control available.



- ◇ High precision simulation of circuit breakers;
- ◇ Adopting electromagnetic thrust for smooth ejection;
- ◇ Automatic reset;
- ◇ General parameters, applicable to all normal models.



- ◇ Desktop DA40/42 instrument panel;
- ◇ Simulate G1000 system with high-quality backlight design;
- ◇ Graphic instrument design;
- ◇ Full circuit breaker panel;
- ◇ Modular instrument panel for easy maintenance;
- ◇ Compatible with various simulation software and joy sidestick control available.



- ◇ High-precision simulation of G1000 components, including PFD, MFD, and audio panels;
- ◇ High-quality light guide plate design;
- ◇ Realistic touch sense, with backlight;
- ◇ Depending on the requirements, you can choose to use various types of avionics software, or your own developed software.

05

Virtual Simulation





VSIM3D.VMT.VRsim

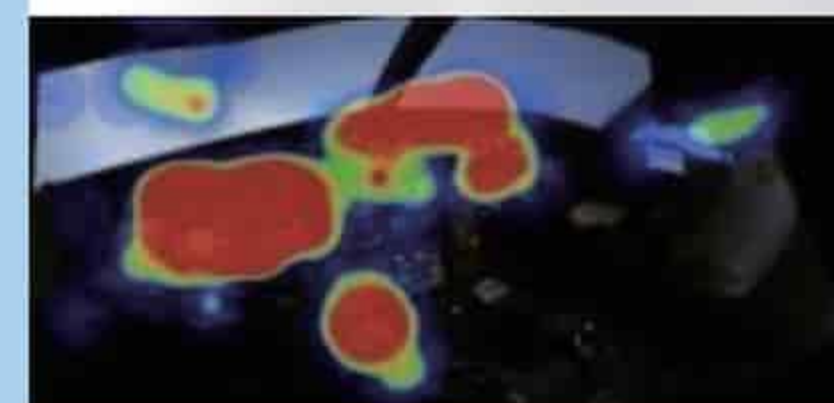
Virtual Flight Training System

- ◇ Consists of flight simulation modeling module, virtual equipment interaction module and system control software;
- ◇ Based on VR hardware platform, it can realize VR flight under various aircraft types and missions, including long time flight, night flight, high altitude flight, sea flight, plateau flight and complex weather flight;
- ◇ Containing online flight software, it can realize single, dual and formation training by online.

VSIM3D.ERGON

Visual and Operational Evaluation System

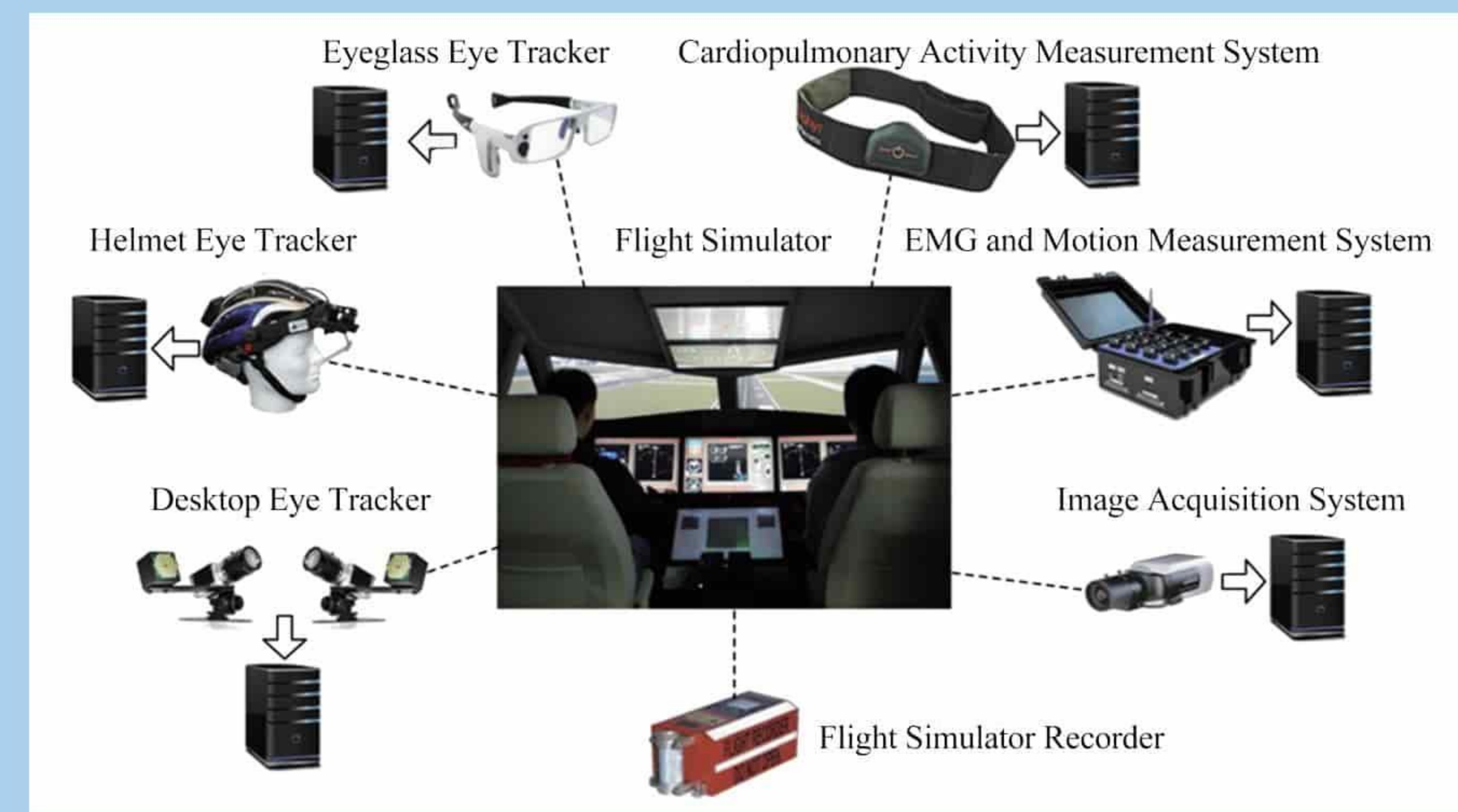
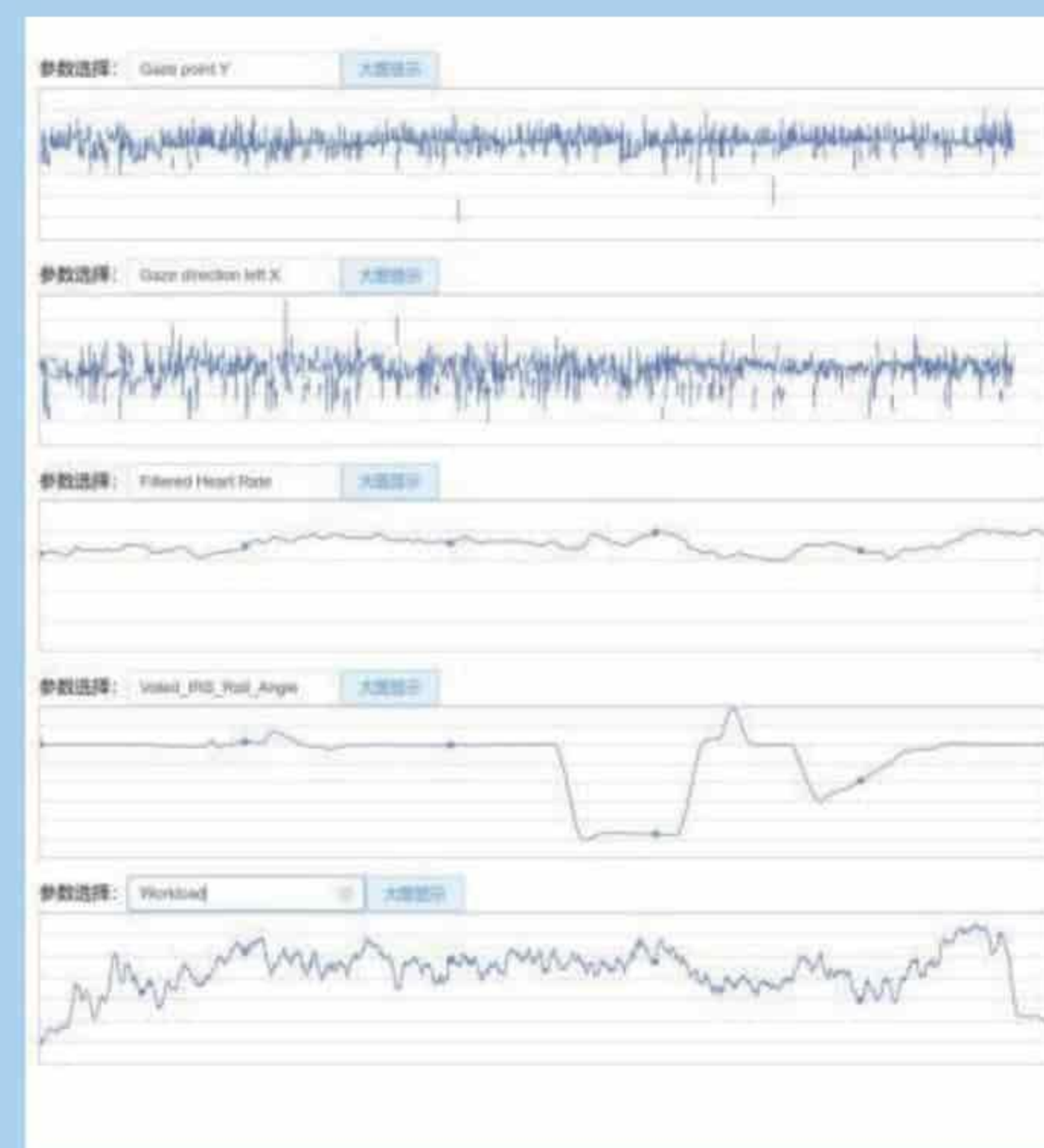
- ◇ System software for Human Factor interaction evaluation;
- ◇ It can import data from a variety of physiological measurement devices, able to analyze, process, and extract features from eye movement and physiological data collected during tasks, and can associate multi-source physiological characteristics and simulated flight mission state parameters to comprehensively evaluate Human Factor;
- ◇ The evaluation and analysis results can be visualized and displayed, providing an effective tool for cockpit design and evaluation.



Polar OH1



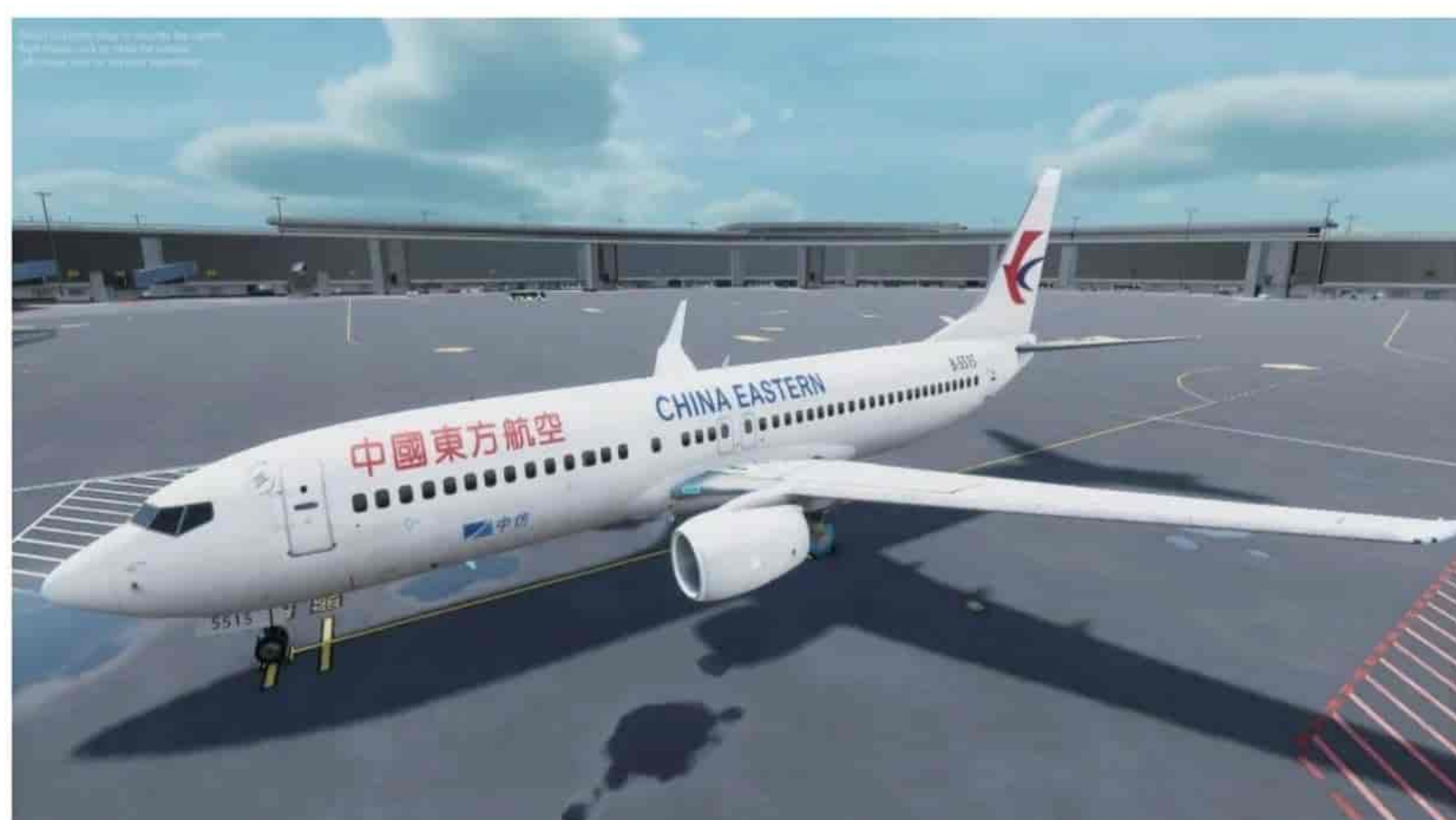
Polar Verity Sense



VSIM3D.VMT.A32VR

VR Pilot Exterior Walkaround VR Trainer

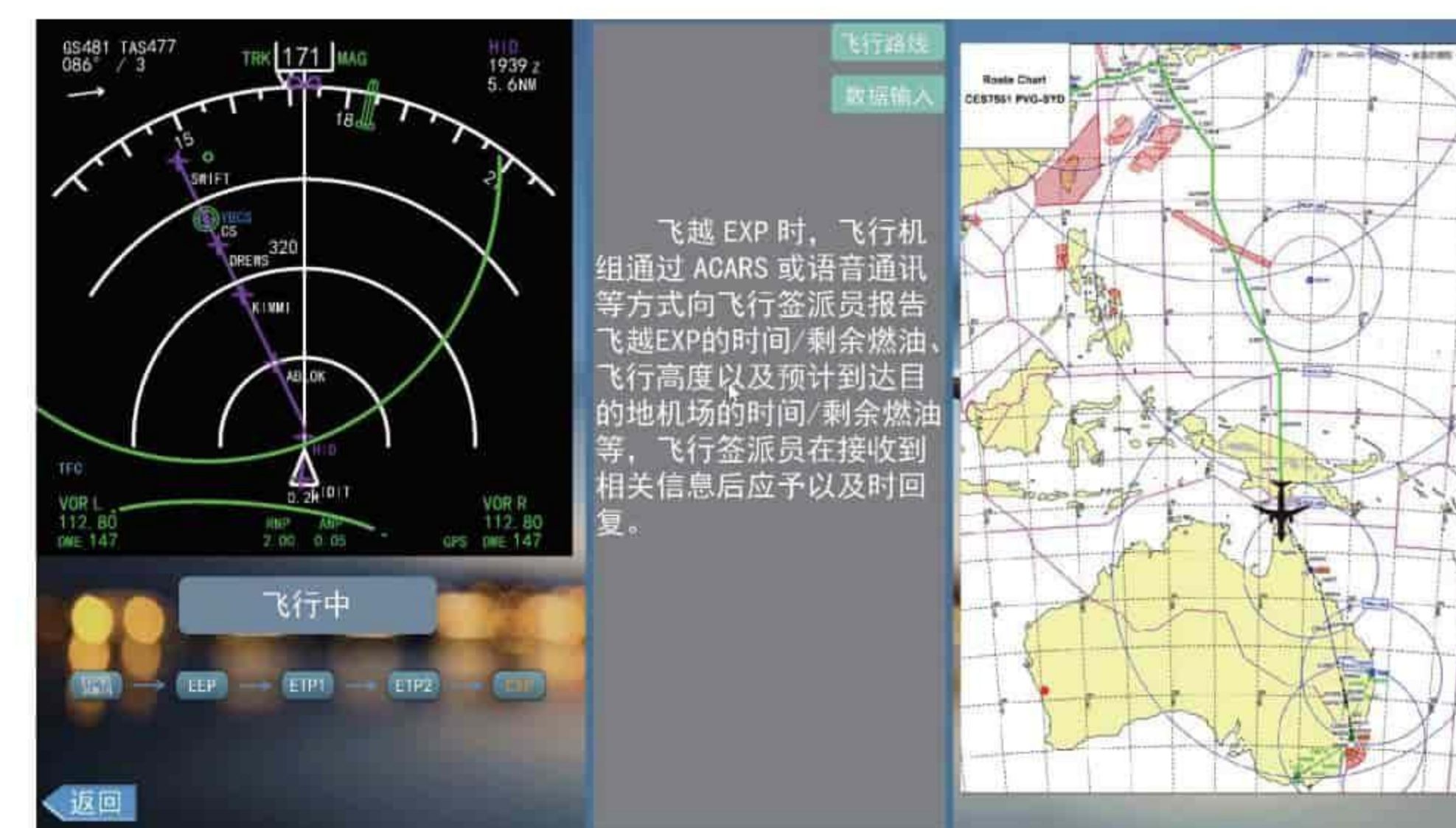
- ◇ 3D modeling and VR virtual technology to achieve an immersive simulation of the walkaround inspection, to meet the training requirements of the flight crew to perform various walkaround inspection tasks in accordance with the walkaround inspection procedures in the SOP;
- ◇ Providing a new simulation training mode for flight training, flight trainees can complete the walkaround inspection training in a more intuitive, efficient and cost-effective way;
- ◇ A set of computer, monitor and HTC professional helmet and handle can complete the training;
- ◇ Based on the actual measurement data of the aircraft, restore the Airbus A320 high-precision components modeling;
- ◇ The system includes VR exterior walkaround virtual maintenance training equipment and training course system.



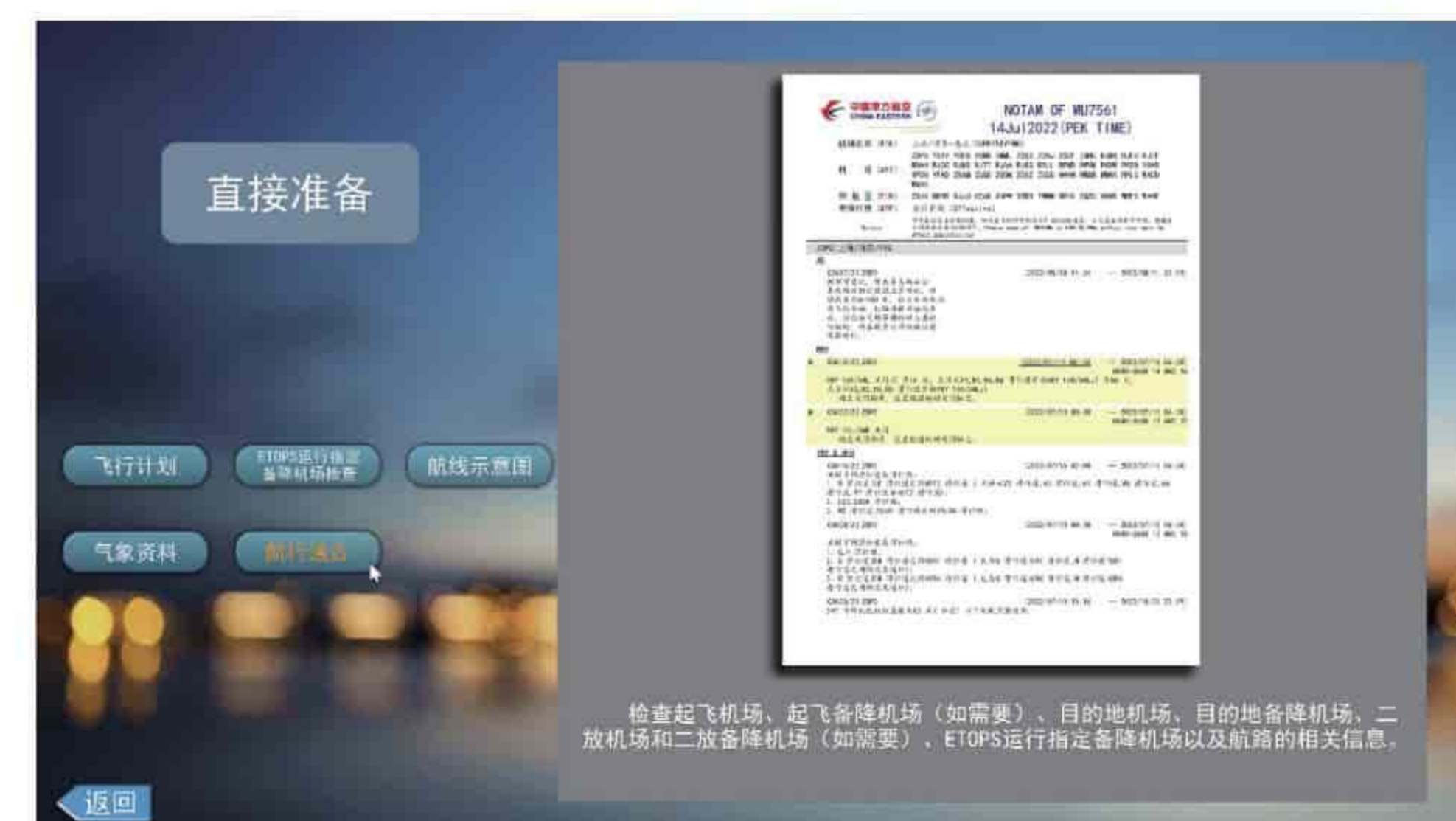
VSIM3D.VMT.ETOPS

Aircraft Route Simulation Flight Trainer

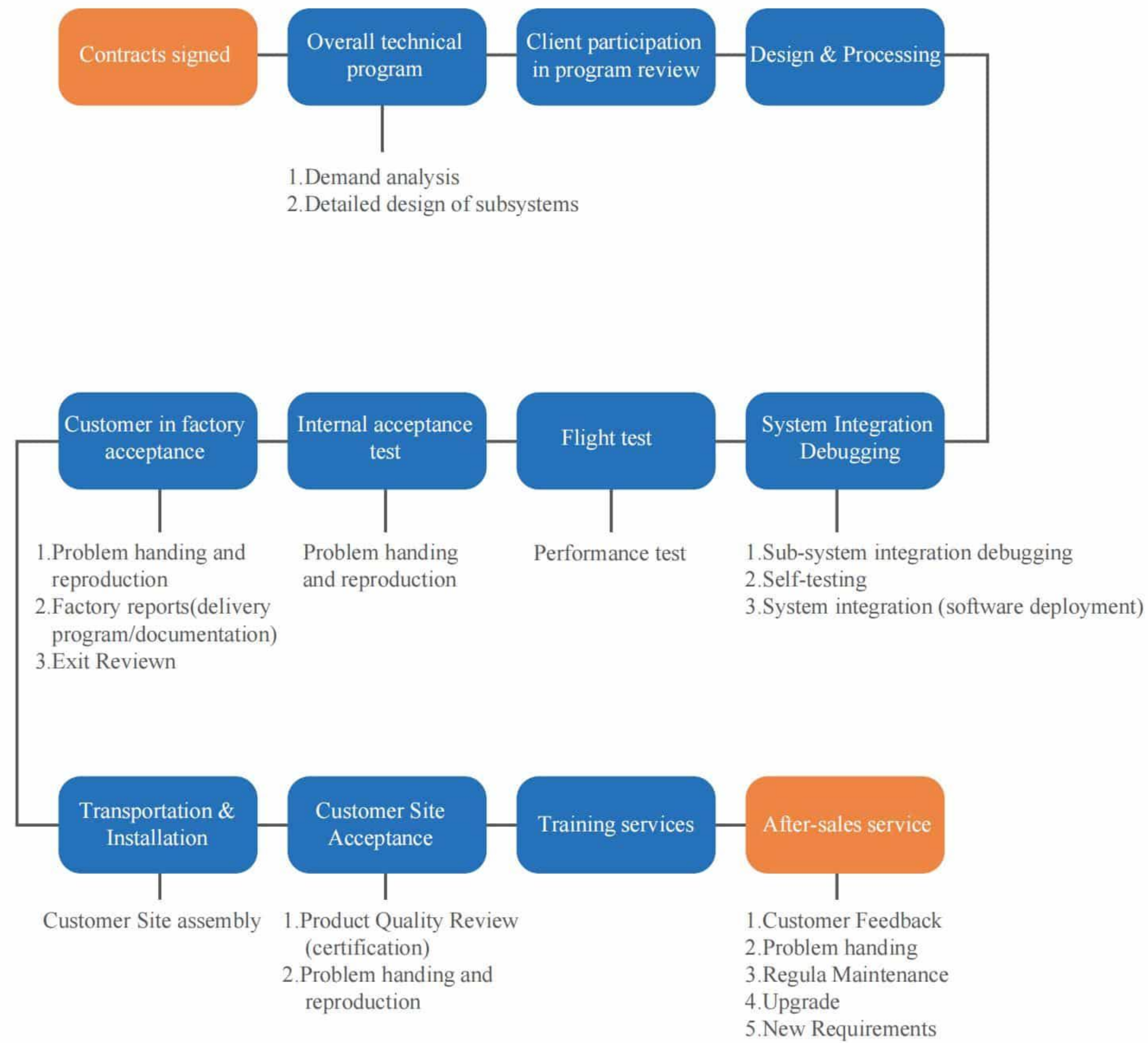
◇ Using PAD/PC as the operating platform, establish an ETOPS flight environment, simulate all ETOPS procedures of the crew during the entire process of a normal flight from cockpit preparation to final completion, provide detailed explanations of ETOPS definition/flight data/procedure, simulate the setting of possible risk or emergency decisions and evaluations, improving the safety level of ETOPS procedure for flight crew.



Multi-Models ETOPS Program



/Service Advantage-Quality System Guarantee



Strictly adhere ISO Quality System Standards to provide product quality inspection, shipping and after-sales service.



Shanghai

Wuhan

Beijing



Overall solution: Provide complete project planning and implementation solutions for different types of customers to meet user needs.



Turn-key project: A professional team is responsible for the entire process of product manufacturing, transportation, installation, and commissioning.



Maintenance and training: Provide complete operation manuals, train the end users for customer.



Rapid technical service: Remote maintenance and update, timely problem solving, and comprehensive service provision.



ISO9001 Quality Management System: Strictly guarantee the quality of products and services.





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