



project: syntropy (Germany / KSA / Sweden / Singapore)
 creates dvLED- / projection-based visual technologies and solutions for professional simulation and training environments, immersive XR environments, XR-CAVEs, media based attractions and much more.



Project

Airbus H145 Level D Full Flight Helicopter Simulator for ADAC HEMS

Customer

Reiser Simulation and Training GmbH, Berg-Hoehenrain/Germany, for the end user ADAC HEMS (Helicopter Emergency Medical Service) Academy, Skt. Augustin/Germany.

Project

Visual Display Solution for EASA / LBA Level D certified Helicopter H145 Full Flight Simulator (FFS) based on a 240° x 80° field of view dome display using 15 dual-channel (daytime + stimulated NVG) high resolution LED IR projectors and domeprojection.com autocalibration.



Project Details

The new “Made in Germany” Level D simulator is “ready for training” at ADAC HEMS (Helicopter Emergency Medical Service) Academy starting January 10, 2018 – the same day it received its Level D certification from the German Federal Aviation Office (Luftfahrt-Bundesamt LBA).

The simulator comprises a 6 DOF-electric motion and vibration system, a directly projected moving imagery using 15 two channel WUXGA LED video projectors on dome screen having a field of view of 240° by 80° and an intuitive on-board instructor operating station (IOS) guarantee the highest level of realistic flight experience.

Following extensive evaluation of European Visual Display System providers, Reiser Simulation and Training has selected project: syntropy to design and commission the visual display system of the H145 FFS. It was not only the expertise in visual system design, but also its track record in high-end simulation visuals and advanced in-house design tools that convinced our customer.

Since NVG training is a core feature of the simulator, demanded by the customer, project: syntropy’s extensive research and development effort in managing blending and black level of a 15 channel visual system in RGB but also in the IR channel convinced Reiser of project: syntropy being the right partner for the project.



Leading Provider of Next Generation Visual Display Systems

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In close collaboration with the customer's visual team project: syntropy managed to deliver a system for NVG and night scene training without optical blend masks. It allows training scenarios where the pilot is flying in to the night without any need for a manual change to a night scenario. Realtime control of the projectors' LED profiles was one of the requirements to achieve this feature. Thus, the H145 FFS offers pilots the opportunity to gain experience in night vision goggles (NVG) flight, making use of the NVGs the operators use during their missions.

Once again, project: syntropy has proven to be able to deliver visual solutions for simulation and training, which are on the forefront of the technically feasible and is always prepared to push any boundaries.

Because of the success of the ADAC project we have been contracted to realize a second system for the Norwegian Competence Center Helicopter (NCCH), which has received a Level D certification as well.

The ADAC HEMS (Helicopter Emergency Medical Service) Academy

HEMS (Helicopter Emergency Medical Service) is the world's first integrated training centre for helicopter pilots, emergency doctors and rescue paramedics in air rescue services. The ADAC HEMS Academy is committed to provide a H145 Level D FFS with the highest level of simulation training with the best fidelity. The latest technologies and the highest degree of customization can be expected in order to enhance the quality of the training even more for national and international customers.

Videolinks: <https://youtu.be/BwrDGZu31Qk>
https://youtu.be/r_9SyMSP5UU
https://youtu.be/Qw6N_w_XQKk



project: syntropy's visual display solutions for

- FMS FULL-MISSION-SIMULATORS
- FFS FULL-FLIGHT-SIMULATORS (EASA Level D)
- CT COCKPIT SIMULATORS
- HELICOPTER FLIGHT SIMULATORS
- FNPT / FTD TRAINING SIMULATORS
- COMBAT SIMULATION
- JFST ACTION TRAINERS
- JTAC TRAINERS
- ATM TOWER SIMULATORS
- DRIVING SIMULATORS
- SHIPS BRIDGE SIMULATORS
- INDUSTRIAL SIMULATORS
- RESEARCH SIMULATORS

full-service for S&T visual display solutions

project: syntropy offers turnkey solutions and full-service throughout your entire project:

- CONSULTING
- CONCEPT AND DESIGN
- APPLICATION DEVELOPMENT
- CONSTRUCTION, MANUFACTURING, INSTALLATION
- ADVANCED SOLUTIONS FOR NVG STIMULATION
- FULLDOME SYSTEMS
- tailor-made dvLED-/Projection-based VISUAL DISPLAY SYSTEMS
- AFTER SALES SERVICES
 - training
 - maintenance and support
 - tailored service-level-agreements (SLA)
 - spareparts supply

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