



**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**

**2 Fulldome projection systems for Joint Fire Support Team (JFST) Training Simulators**

**Customer**

Hensoldt AG, Fuerstenfeldbruck near Munich/Germany, for German Army.

**Project**

2 Turnkey fulldome projection systems for Joint Fire Support Team (JFST) Training Simulator, each comprising of a 5m dome (HFOV 220°, VFOV -30° / +90°), 7-channel WUXGA visual display system including domeprojection.com® auto-alignment for end user Artillereschule in Idar-Oberstein.

**Project Details**

The Joint Fire Support Team (JFST) Training Simulator is a product developed by Hensoldt AG for their client German Army.

project: syntropy has delivered the complete visual display system for both JFST action trainers: each is equipped with a 5m dome screen, 7 WUXGA projectors and auto-calibration for maximum low maintenance. The system is located at the Artillereschule in Idar-Oberstein/Germany.

**The Joint Fire Support Team (JFST) Training Simulator**

At Hensoldts training area at the Artillereschule in Idar-Oberstein they operate a JFST Training Simulator.

The JFST training simulator consists of a **Process Trainer**, a **Joint Command and Evaluation Centre**, a **Briefing and Debriefing Station** and the **Action Trainer**, for which we have delivered two turnkey visual display solutions. Within the action trainer the Joint Terminal Attack Controller (JTAC) as part of the JFST calls for air support from its position at the front, coordinates its deployment and directs fire against targets. The JFST is the connecting element between combat troops on the ground and fire support from the air, land and sea. In the simulators' action trainer mounted and dismounted teams can train how the crews cooperate with each other and the interaction of a team of two vehicles. The simulation is controlled and the training monitored from the trainer station.



Leading Provider of Next Generation Visual Display Systems

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With the pilot station aircraft can be flown manually or close air support can be planned and carried out automatically.

In the simulation combat area the driver drives the vehicles across virtual terrain. The crew measures targets in the simulation with realistic simulations of air equipment. Through a hatch the trainee submerges himself in a virtual world of the simulation events with a helmet mounted display in a 360° panoramic view. In dismounted operations the air-to-ground team with JTAC makes realistic use of replicas of devices that they know in the dome with 220° FOV. The same applies to the ground-to-ground team and its specific equipment.

The use of the helmet mounted display provides a 360° panoramic view in the dome. In the process trainer the interaction of the crew is trained in all situations at computer workstations using a virtual simulation of all the equipment available in the team.

As in the action trainer the VBS3 simulation software with extended modules is also used in the process trainer. In two JFSTs with two vehicles each all joint tactical fire support procedures can be represented.

The command and evaluation centre is responsible for the preparation, creation and execution of the exercise with interactive control of the simulation events for the action and process trainers. The briefing and debriefing stations finally offer extensive options of preparation and follow-up of individual exercises and missions.



#### 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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