Simulation Case Study
HIGHlite Laser WUXGA 3D projectors have been chosen as part of a hardware overhaul at one of the Bundeswehr's largest target simulation domes.

The Bundeswehr Technical Center for Information Technology and Electronics (WTD 81) recently upgraded the complex visual setup at its target simulation dome (ZSD) with the help of a collaborative team with members from project: syntropy, who was contracted to design, install and commission the new projection system consisting of 41 Digital Projection HIGHlite Laser WUXGA 3D projectors, and domeprojection.com.

The overhaul was undertaken on behalf of e.sigma Systems GmbH - a specialised supplier of integrated training solutions for international armed forces, security agencies and industrial clients.

During the project, the entire infrared projection system of the target simulation dome was renewed.

The dome at WTD 81, which is situated in Greding (Bavaria, Germany), is used by the Bundeswehr (the unified armed forces of Germany) to test the accuracy of weapon systems and individual components, from tanks to missiles, in realistic 3D simulations of battlefield scenarios, both in the optical and infrared spectral range.

The dome structure stands at an imposing 26m high and measures 46m in diameter, making it one of the world's largest self-supporting dome in prefabricated construction.

The projection area inside the dome is 40m in diameter, with a screen surface of 2,200 sqm. The surface itself is made of more than 94,000 thin polygon metal plates in different shapes, which asks a great deal of the projection system design, as well as the calibration.

“We were originally asked to help with the dome's colour calibration using our tools,” said domeprojection.com's Christian Steinmann. “We tried a calibration with the existing projectors, but it proved to be an impossible task. The projectors were dated, they didn't have enough brightness and there was no edge-blending capability, as the content was simply tiled.”

Despite results improving somewhat after domeprojection.com's initial calibrations, the WTD 81 decided a complete refurbishment was the best course of action.

**HIGHlite Laser Projectors**

**Key Features of the HIGHlite Laser series**

- WUXGA & 4K-UHD Resolution
- Laser Illumination
- 3-Chip DLP
- Up to 13,000 Lumens
- 20,000 hours illumination