



Akhter's LED Wall Solution

Defence Experimentation and Wargaming Hub

MoD Southwick Park



The UK Cyber & Specialist Operations Command (CSOC) officially launched the Defence Experimentation and Wargaming Hub (DEWH) on 21 March 2024 at Southwick Park in Portsmouth. The facility brings together military leaders, scientists from DSTL, and industry experts from BAE Systems Techmodal. Together, they aim to help UK Defence make faster, more confident tactical decisions through advanced experimentation, analysis, and wargaming activities.



As part of the hub's existing infrastructure, the main hall – measuring approximately 12 metres wide with a height of 14 metres – relied on four 98-inch mobile displays supplied by Akhter. Two screens were positioned side-by-side on the stage, while the remaining displays were located on the left and right sides of the hall.

Although effective as a temporary solution, the displays presented several limitations during larger events and presentations. Content was often difficult for attendees to view from across the room, and the screen arrangement did not provide the scale or flexibility required for high-profile wargaming sessions, briefings, and collaborative exercises. The modern wargaming requires the simultaneous analysis of massive, multi-layered data sets. Multi-domain operations require commanders to view live maps, troop movements, cyber telemetry, and satellite imagery at the same moment.

To support this with future operational requirements, the client sought a large-format display solution capable of covering the main stage area, with an approximate target size of 6 metres wide by 5 metres high. The new system also needed to support the simultaneous display of multiple content sources on a single screen in different viewing modes while ensuring excellent visibility for audiences seated up to 14 metres away.

The Solution

Following extensive consultations, multiple project meetings, and a comprehensive site survey, the Akhter team developed a tailored solution designed to meet both the operational and technical requirements of the DEWH.

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The proposed system is centred around a large-format LED video wall integrated seamlessly with the venue's existing AV infrastructure. Akhter installed a 5.7-metre-wide by 2.7-metre-high F1 M Series (P2) LED video wall, delivering an impressive 263-inch diagonal display.



The ultra-fine **2mm pixel pitch** guarantees that complex datasets, fine topographic text, and dense symbology remain perfectly crisp and sharp, removing the risk of misinterpretation.



Notes: The above image of the LED wall was taken from a position approximately 12 meters behind the rear seating area, facing the LED wall. Please note that the actual visual experience is significantly clearer and sharper than in the photograph.

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Massive Scale, Maintained Geometry: The **263-inch diagonal display** (5.7m wide x 2.7m high) spans the command stage, ensuring the image fills the screen perfectly while strictly maintaining the standard aspect ratio of incoming military data sources.

Multi-Domain Common Operational Picture (COP): The integrated AV processing system allows operators to simultaneously split and display multiple diverse data feeds onto a single screen, offering commanders a unified view of the entire battlespace.

Long-Range Readability: Visual assets remain completely legible and vibrant for an assembled group from standard desk distances all the way up to a **14-metre maximum range**.

Dynamic Acoustic Immersion: Akhter mounted two 1.1-metre modern dynamic long column speakers flanking both sides of the LED screen, working in tandem with two heavy-duty sub-woofers. This setup delivers immersive, room-fill sound that ensures speech clarity and simulation effects resonate uniformly across the hall. For seamless audio control, a tactile front-desk-mounted volume knob was integrated, giving the exercises coordinator instant control over audio levels without breaking the momentum of the event.

Akhter Professional Services

Consultancy and Design

Akhter Professional Services initiated the project with a comprehensive site survey, meticulously assessing the client's location for specific requirements, potential challenges, and ideal equipment placement. The survey laid the groundwork for a customised solution designed to meet the unique needs of the Ministry of Defence (MoD) environment.

Project Management

The installation was expertly coordinated by Akhter's project management team, guaranteeing an efficient and hassle-free process. With years of experience in MoD environments, the team developed a high-level technical design to address the unique challenges of the project, ensuring a smooth workflow from start to finish.

Installation

Akhter's SC and DV cleared are skilled installation team that carried out the installation with precision, seamlessly integrating every component of the AV system. Their deep understanding of MoD environments enabled them to tackle any unexpected challenges effectively, delivering a flawless final setup.

Training

After completing the installation, Akhter's engineers provided hands-on training to the client's team. This practical session demonstrated how to use the AV system, ensuring the personnel felt confident navigating its features and functionalities.

Tech Support, Warranty and Maintenance

To ensure the system operates smoothly for years to come, Akhter included seven years of onsite support, warranty, and maintenance. This proactive approach reflects their commitment to reliability and client satisfaction.

The Outcome

The installation has transformed the DEWH's main presentation space, providing a modern, large-scale visual solution that supports collaborative decision-making, experimentation, and wargaming.

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activities. The enhanced display capabilities ensure that content remains clear and visible throughout the hall, significantly improving audience engagement and operational effectiveness during events, briefings, and large-scale exercises.

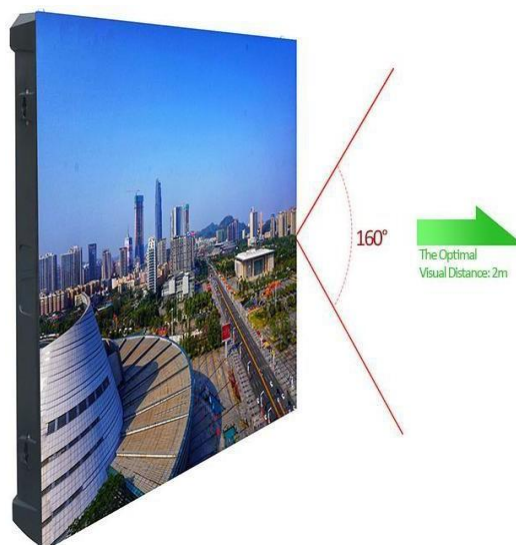
By combining advanced LED display technology with seamless integration into the existing AV environment, Akhter has delivered a future-ready solution that supports DEWH's mission of enabling UK Defence to make better decisions, faster, and with greater confidence.

"The new LED video wall has transformed our presentation environment, providing the scale, clarity, and flexibility needed for large-scale wargaming activities and events. Akhter worked closely with our team throughout the project, delivering a solution that integrates seamlessly with our existing infrastructure and significantly enhances collaboration, communication, and audience engagement."

— Jordan Perry, Information & Security Manager, Defence Experimentation and Wargaming Hub (DEWH), MoD Southwick Park

About the Series

The Akhter F1 M Series LED Display is a cutting-edge solution designed for ultra-lightweight, space-saving functionality and exceptional visual performance. Built with high-strength die-cast aluminium for durability, each cabinet is remarkably compact, weighing only 7.5kg with a thickness of just 80mm reduces the overall video wall footprint and makes it simpler to fit in more spaces compared to other video wall solutions. Its innovative design allows for dual maintenance access, with panels that are 100% rear and front accessible and can also be serviced from the rear. Magnetic LED panels can be removed from the front in just 5 seconds, streamlining maintenance and reducing costs. Additionally, the system supports versatile installation options, including 160-degree right-angle displays, making it ideal for specialised applications and unique architectural designs.



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