

Immersive training and simulation domes

Professional solutions for flight training



Simulated training has become key to improve modern fast jet and helicopter pilot performance. The continuous need for greater realism and versatility in this field has led to the development of Barco's SEER (small environment-enhancing reality) mini-dome and LTSD (large training and simulation dome) system. By offering a seamless, spherical image with a high pixel fill factor, both systems meet the most stringent requirements for jet fighter and rotary wing training.

BARCO

Visibly yours

A recognized solution

With plenty of systems in use worldwide, Barco's dome solutions are tried and tested. They are low risk solutions that do not require further development. Furthermore, Barco engineers and technicians have designed the system for quick and easy installation.

Projectors in Barco's training and simulation domes can be realigned quickly and easily with Barco's user-friendly xRACU controller and AutoAlign toolsuite.



Barco's SIM 7 series projector



Barco's SIM 5 series projector

The highest levels of realism

Barco's dome simulators feature the latest in Barco projection technology. As a master in all current projection technologies, we offer both single- and three-chip DLP as well as LCoS (liquid crystal on silicon) platforms, specifically geared towards simulation.

- Barco's **SIM 7** series incorporates state-of-the-art LCoS technology. LCoS is widely recognized for its superior contrast levels, realistic colors and minimal pixel gaps. Unique Barco enhancements on its LCoS platform include smear reduction to realistically display fast-moving images with minimal latency, and a high dynamic contrast ratio of 2,000,000:1.
- Barco's single-chip DLP **SIM 5** platform and its three-chip DLP **Galaxy** series guarantee supreme reliability thanks to their durable projection technology and sealed optical engines. While the SIM 5 is the preferred entry-level choice for simulation, the Galaxy projector offers a robust brightness and deep, saturated colors.

Barco solutions are fully compatible with stimulated night vision goggle (NVG) technology, to guarantee a realistic training experience even in dusk and night scenarios.



A complete system

The SEER and LTSD systems are complete Barco solutions. This means that you only need one company for your entire design, installation and service. Because we have decades of experience in the field under our belt, each component has been designed with system integration in mind. This includes not only the projectors, but also the mechanical setup, screen and automated alignment tools that guarantee a longer uptime and shorten maintenance periods.

Networked training

Specifically, our SEER systems' space-saving size allows them to be situated in close proximity to one another in the same training area. This simplifies networking of domes, so pilots can train as a group in mission-based exercises.



Perfect multi-channel operation

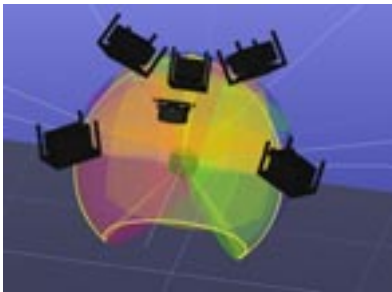
Barco projectors in dome simulators come equipped with several simulation-specific optimizations for use in multi-channel systems:

- **Edge blending**, whether electronic or optical, smoothens out overlap zones between projections to create one seamless image
- **DynaColor** and linked **Constant Light Output (CLO)** match color and brightness differences between projectors to give the composite image the same consistent image quality
- **Warping** makes the necessary geometry corrections for projection onto the domes' spherical surfaces

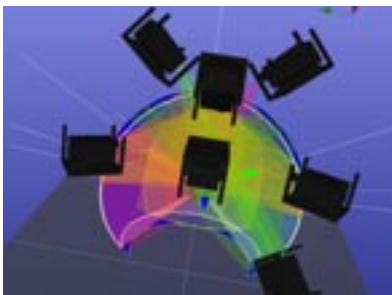


Dedicated customer involvement

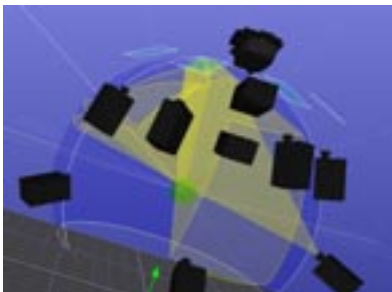
From system design, to pre- and full installation support, to full-service project management, Barco is ready to serve your entire system implementation needs. We also offer a complete portfolio of industry-leading maintenance contracts and spare parts programs. In addition, every Barco system is backed by an exclusive 3 yr warranty. Our global network for system support provides professional, accurate, and timely responses seven days a week, 24 hours a day, every day of the year.



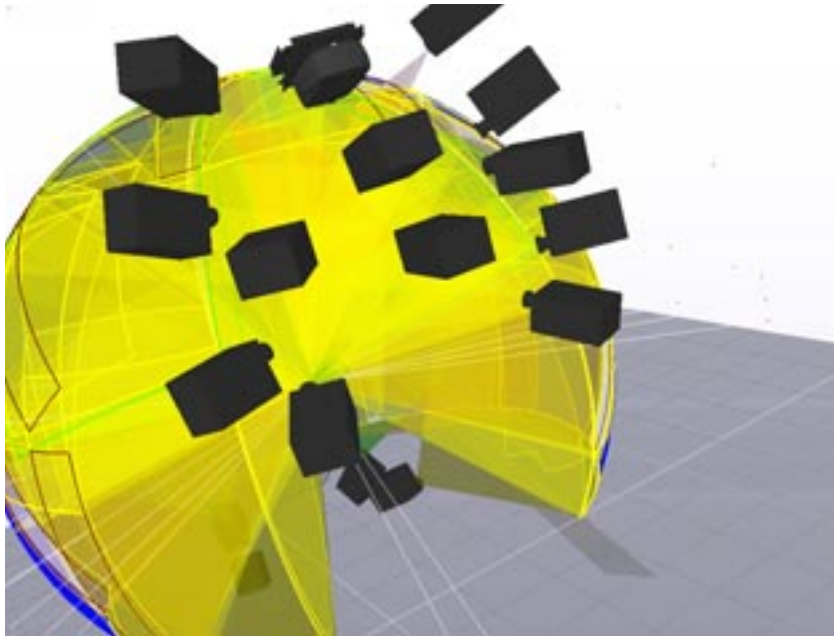
SEER-5



SEER-7



SEER-9



LTSD-13

Dome type with projectors and nominal cockpit cut out	Resolution average	Brightness average	System contrast	Field of view
SEER with 5x SIM 7	7-9 arcmin/OLP	> 5 Ft Lamberts	≥ 8:1	HFOV: +110°/-110° VFOV: +90°/-50°
SEER with 7x SIM 7	5-7 arcmin/OLP	> 6 Ft Lamberts	≥ 9:1	HFOV: +110°/-110° VFOV: +90°/-42°
SEER with 9x SIM 7	5-6 arcmin/OLP	> 5 Ft Lamberts	≥ 8:1	HFOV: 120°/-120° VFOV: +120°/-35°
LTSD with >9x SIM 7	Specifications available upon project requirements			

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