VITAL 1100

Visual Simulation Systems

Reality Simulated for Superior Training Performance

FlightSafety international

VITAL 1100

More Than Four Decades of VITAL Excellence

FlightSafety VITAL visual systems set the standard for simulation technological innovation, superior performance and timely logistics support. And we've been an industry leader since 1972, when the first VITAL system went live. Enhancing safety through superior simulation fidelity, VITAL visuals meet and exceed the needs of the global aviation community, including business, commercial and military applications.

A Legacy of Firsts – VITAL was the first Computer Generated Imagery (CGI) visual system to receive FAA certification for airline training. First to deliver high-quality military training using low-cost CGI. First to deliver certified Enhanced Vision System (EVS) simulation to the commercial market. First to deliver realistic night vision goggle (NVG) stimulation.

Image generation

Databases

High Performance, Low Cost

VITAL 1100, our current state-of-the-art visual system, provides high-performance, low-cost training solutions for both civil and military applications. VITAL 1100 incorporates Commercial-Off-The-Shelf (COTS) PC graphics hardware, advanced PC Graphics Processor Unit (GPU) and a comprehensive Display Management System. These components dramatically reduce initial and recurring system costs, maximize system performance, improve scene fidelity, optimize display quality and enhance system flexibility. The system replicates real-world scenes with satellite imagery and unique, high-resolution rendering techniques.

Superior NVG Simulation That Stimulates User's Real-World Goggles

Night Vision Goggle (NVG) training constitutes an increasingly important element of the pilot training syllabi. VITAL 1100 effectively stimulates actual goggles for realistic, simulation-based training with scenarios difficult or impossible to replicate in actual flight.

Highest Fidelity, Greatest Versatility, Best Value

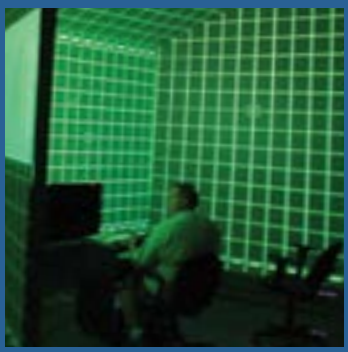
Providing Display Solutions for Nearly 30 Years

A pioneer in the development, application, service and support of simulation displays, FlightSafety International delivers a wide range of collimated and real image solutions as well as engineering services and upgrades. We offer nearly three decades of experience producing the highest-quality display components, with the industry's best value, fidelity and versatility.

We specialize in providing solutions to the most challenging requirements, from NASA shuttle simulators to robust containerized systems to ultra-wide-angle and fast-jet displays.

A Full Range of Simulation Technology

FlightSafety is a world leader in aviation training technology equipment design, engineering, manufacturing and support. We provide proven and complete training device solutions that include high-fidelity full flight simulators, and advanced flight training devices, part-task trainers, interactive classrooms, visual systems and displays. We have the capabilities to efficiently deliver highly integrated and robust training equipment that meets commercial and military aviation requirements worldwide.



Crewview Collimated Displays

Our advanced collimated displays meet the most demanding applications and requirements, suitable for any requirement or budget. We offer fully motion-compatible systems, ideal for use with electric motion systems, and a wide range of containerized designs for deployable, transportable and re-locatable applications. Our projector-independent solutions integrate with all major projector technologies and projectors – from high-end simulation-specific projectors down to professional-grade COTS projectors. Crewview designs delivered to date serve a variety of aircraft platforms and performance requirements, including CH-47F, CH-53E, VH-71, MH-65D, E-2D and E-2C.

- NVG compatible
- Customized field of view options
- More than 30 systems delivered worldwide

Wide Angle Displays for Fast Jet Training

Our Wide Angle Single Pilot (WASP) Real Image Displays deliver unmatched fidelity and performance for fast jet training applications. We optimize each design to meet program-specific requirements such as resolution, brightness, contrast, eye relief and more. We can provide a field of view in excess of 360°x135° to match the aircraft, and offer options to meet budget and program

needs, from low-cost COTS projectors to advanced solutions offering eye-limited resolution. Our designs can be customized to meet the most challenging packaging and facility requirements, and our systems are compatible with both helmet-mounted cueing and night vision goggles. We have delivered more than 30 systems around the world to support a range of fast jets, including the F-5, F-16, F-18, F-22, JSF/F-35, BAE Hawk, Bell V-22 and MiG 21.

Dedicated to Customer Service and Support

Whether you're looking to maintain or update a legacy FlightSafety system or upgrade another simulation trainer, we will provide expert service and support. We offer engineering services and upgrades for legacy systems, including mirror and beam splitter refurbishments and replacements; Monitor Replacement Devices using current projector technologies to replace obsolete CRT monitors; projector replacements to enhance system capabilities and reduce maintenance and life-cycle costs; and display system relocations.

We also offer system troubleshooting and repair to help extend the useful life of existing devices and save the cost of replacement. And we can provide expert assistance to identify your training system needs and evaluate your technology capabilities.

Advantage: Glass

For nearly 30 years, FlightSafety has pioneered and advanced the use of glass mirrors to improve collimated display performance. Glass mirrors provide multiple benefits.

Extended Fields of View

Up to 60° x 300° (continuous) – well beyond traditional limits of 220°. Extended fields of view fill more of the aircraft's windows, improving realism and enhancing training capabilities.

Superior Optical Performance

Glass eliminates boundary-area distortions and image compression. The result: more realistic scenes, without distracting artifacts caused by distortions. Images appear brighter and more crisp, further increasing realism.

Support for Augmented or Expanded Displays

Glass allows extended side down-look and chin windows to enhance brownout training. Extended windows expand capabilities by offering more training cues and greater situational awareness.

Durable, Cleanable, Maintainable

Robust glass mirrors can be cleaned and maintained, eliminating re-skin costs and resulting lost downtime. Greater durability extends the useful life of simulators and produces more reliable training availability.

Suitable for a Range of Critical Uses

- Motion-based and containerized applications
- Meets or exceeds commercial regulatory and military requirements
- Trimmable to follow cockpit interference
- Composite backing for added stiffness and safety
- Modular design lends itself to varying configurations and multiple field of view options
- In use for Army, Navy, Marine Corps, Coast Guard and commercial applications

ThinkSafety®

FlightSafety International is the world's premier professional aviation training company and supplier of flight simulators, visual systems and displays to commercial, government and military organizations. The company provides more than 1.3 million hours of training each year to pilots, technicians and other aviation professionals from 167 countries and independent territories. FlightSafety operates the world's largest fleet of advanced full flight simulators at Learning Centers and training locations in the United States, Australia, Brazil, Canada, China, France, Japan, the Netherlands, Norway, South Africa and the United Kingdom.

Visual Simulation Systems
5695 Campus Parkway
St. Louis, MO 63042

Business Development
314.551.8400
visuals@flightsafety.com

flightsafety.com

FlightSafety® international

A Berkshire Hathaway company

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