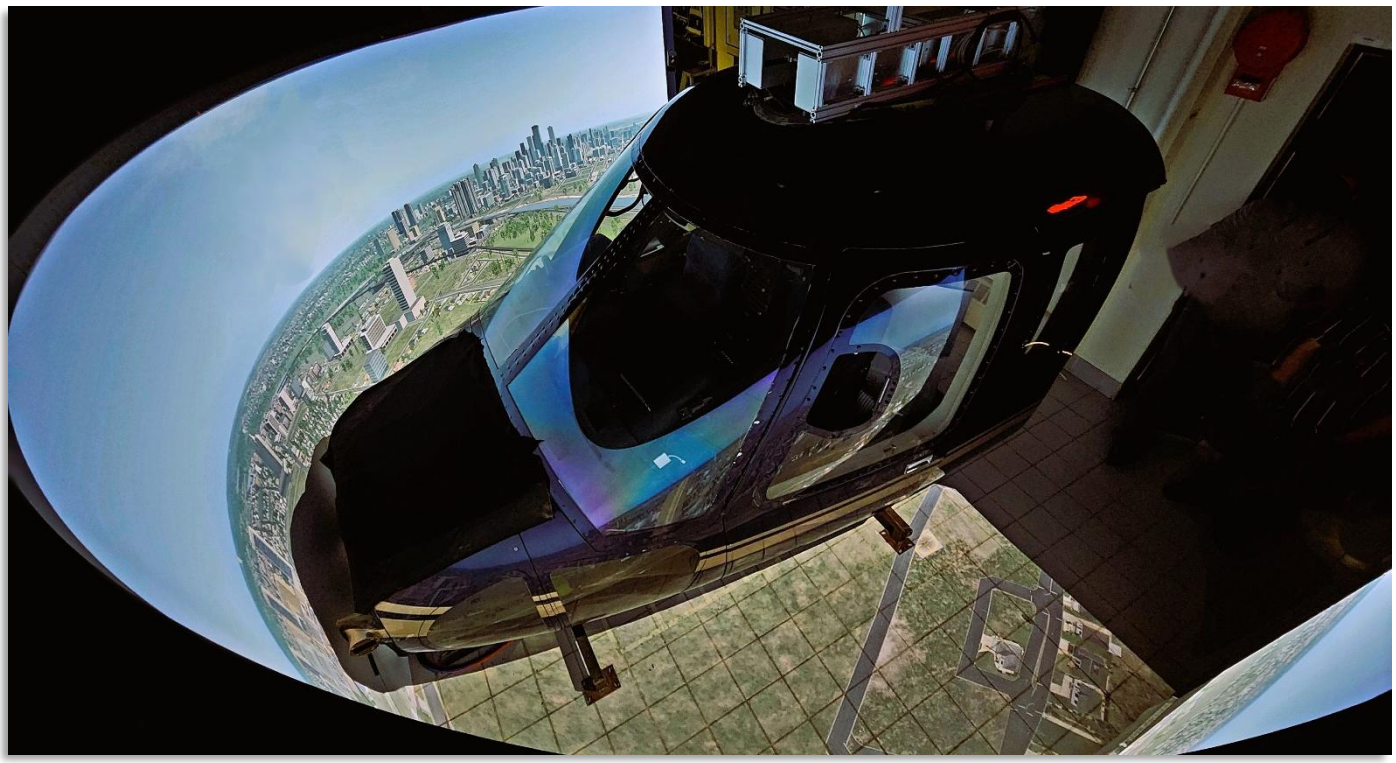
SimVIS

Simulator Visual Systems

MaxVIEW 220 x 80FOV eVTOL/Rotary Visual System



Shown above: FAA S76 5-Channel 4K Visual System with Floor Projection

EXPERIENCE THAT COUNTS. SOLUTIONS THAT WORK.

With a track record spanning over 14 years, across 15 countries, and boasting more than 50 installations, SimVIS is the name you can trust. We collaborate with some of the most adaptable Simulator manufacturers, including Flightdeck Solutions, L3 Harris, and Elite, to deliver comprehensive "out the window" packages. These packages are based on Commercial Off-The-Shelf Image Generators (COTS IG's) such as Prepar3D, XPlane, and MFS2020. Our visual options encompass HD DLP/LASER and 4K UHD/Laser resolutions, custom screen sizes, and our potent yet efficient Single IG (Image Generator) computers to cater to every scenario.

RIGHT THE FIRST TIME, EVERY TIME.

SimVIS delivers a seamless experience with On-Site Installation included as a standard feature. Trust us to design, deliver, and install your next Simulator Visual System within your budget, on time, the first time.

SOME OF OUR RESPECTED CLIENTS:

JEPPESEN
A Boeing Company

L3HARRIS™

HONDA
The Power of Dreams

HRI
Honda Research Institute USA, Inc.

Federal Aviation Administration

eVTOL and Rotary Simulation.

At SimVIS Simulator Displays, we identified a demand for an efficient and cost-effective eVTOL/Rotary visual system that offers an unparalleled vertical field of view (VFOV). Our MaxVIEW system goes beyond the typical "chin-bubble" view, providing pilots with a comprehensive downward perspective.
In the context of eVTOL (Electric Vertical Take-Off and Landing) aircraft, a downward view refers to the pilot's ability to see directly beneath the aircraft. This is particularly important for eVTOL operations, where accurate perception of vertical distances and obstacles is crucial.

This MaxVIEW System provides a geometrically correct Field of View (FOV) and seamlessly blended visuals for a superior viewing experience.
The system has a compact footprint of 4.5m x 4.5m x 2.7m and can be easily relocated or rotated.

These simulators allow for safe testing and training scenarios, helping to advance the development and deployment of eVTOL technology. eVTOL simulators are primarily needed by the following groups:

1. **eVTOL Manufacturers**: Companies like Boeing, Honda, Airbus, SpaceX, and NASA, which are working on eVTOL technology, use simulators for testing and development.
2. **Pilot Training Programs**: Organizations like CAE Inc. and Aerospace Industries Ltd. use eVTOL simulators for pilot training.
3. **Research Institutions**: Universities and research institutions use eVTOL simulators to study the technology and develop new innovations.
4. **Simulator Manufacturers**: Companies like Quantum3D and HRi use eVTOL simulators to demonstrate their technology and provide immersive experiences.
5. **Flight Training Organizations**: Organizations use helicopter simulators for pilot training. These simulators are used to develop new skills and maintain existing ones.
6. **Helicopter Operators**: Large helicopter operators, such as those supporting offshore energy production, government contracts, and helicopter air ambulance missions, provide annual or semi-annual simulator training for all pilots.

The MaxVIEW Visual System.

An eVTOL (Electric Vertical Take-Off and Landing) visual system is a critical component of the aircraft's design and operation. It provides the pilot with necessary visual information about the aircraft's surroundings, which is crucial for safe and efficient operation.
Incorporating a total of **five HD/4K Laser Projectors**, three forward facing and two floor facing, the eVTOL/Rotary Visual System we offer is be designed specifically to provide an unmatched vertical field of view (FOV). This would be particularly useful in eVTOL operations, where the ability to accurately perceive vertical distances and obstacles is crucial. The "chin-bubble" view mentioned likely refers to a wide-angle view provided by the system, allowing the pilot to see directly downward from the aircraft. This could be particularly useful in landing or low-altitude flight scenarios.

As standard the entire visual system is designed to run from **only two IG's** (Image Generators).
COTS software such as Prepar3D, XPlane and MFS2020 are commonly used.
Multi-Channel Systems (five IG's) are available on request.

An eVTOL (Electric Vertical Take-Off and Landing) visual system is a crucial component for the safe and efficient operation of the aircraft. Here are some key requirements for an eVTOL visual system:

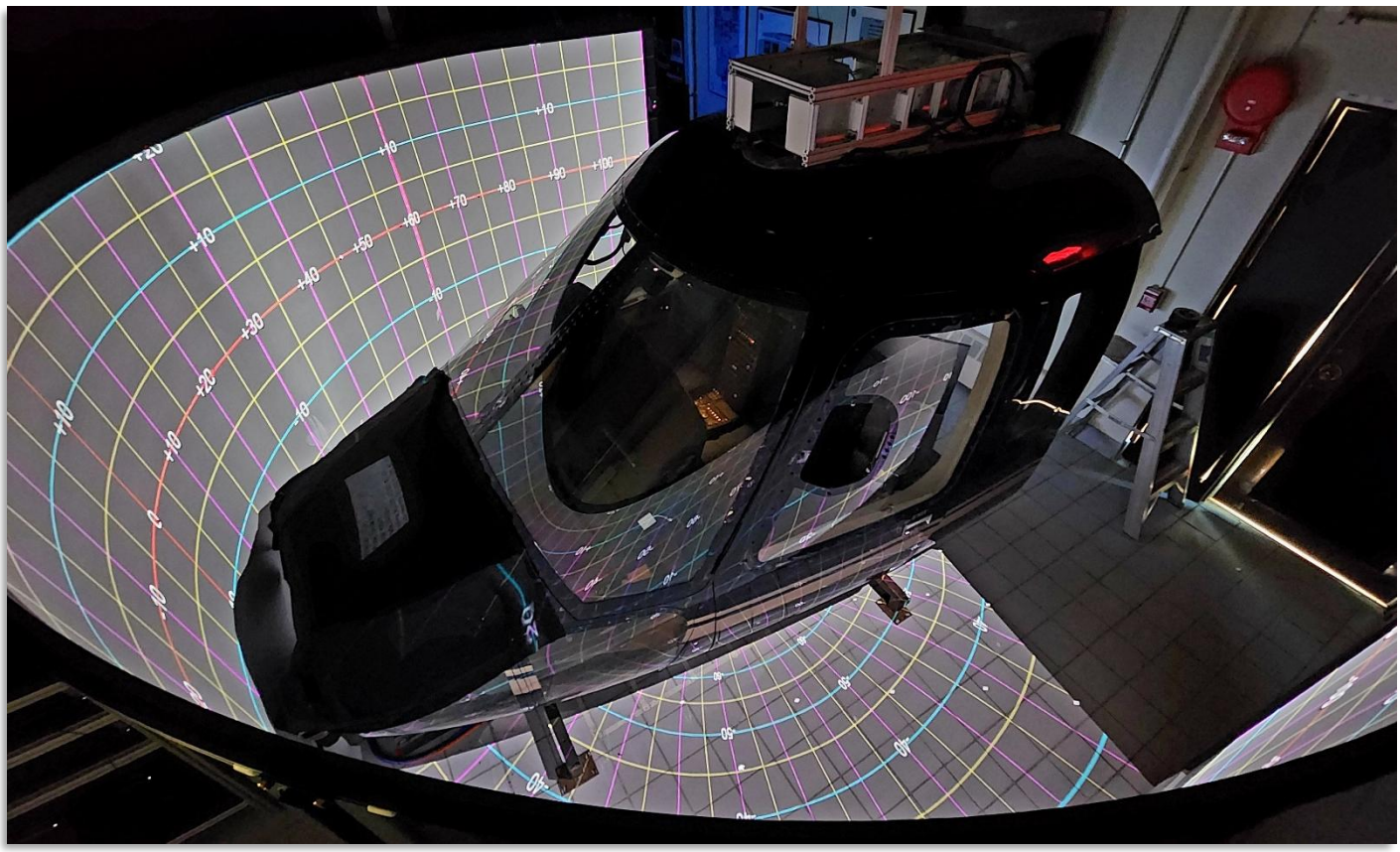
Real-Time Data: The visual system should be capable of providing real-time data about the aircraft's environment.

Wide Field of View (FOV): A wide FOV is crucial for eVTOL operations, especially during take-off and landing.

High-Resolution Visuals: The visual system should provide high-quality visuals to ensure the pilot can accurately perceive distances and obstacles.

Lightweight Design: Given the importance of weight in eVTOL design, the visual system should be lightweight and relocatable.

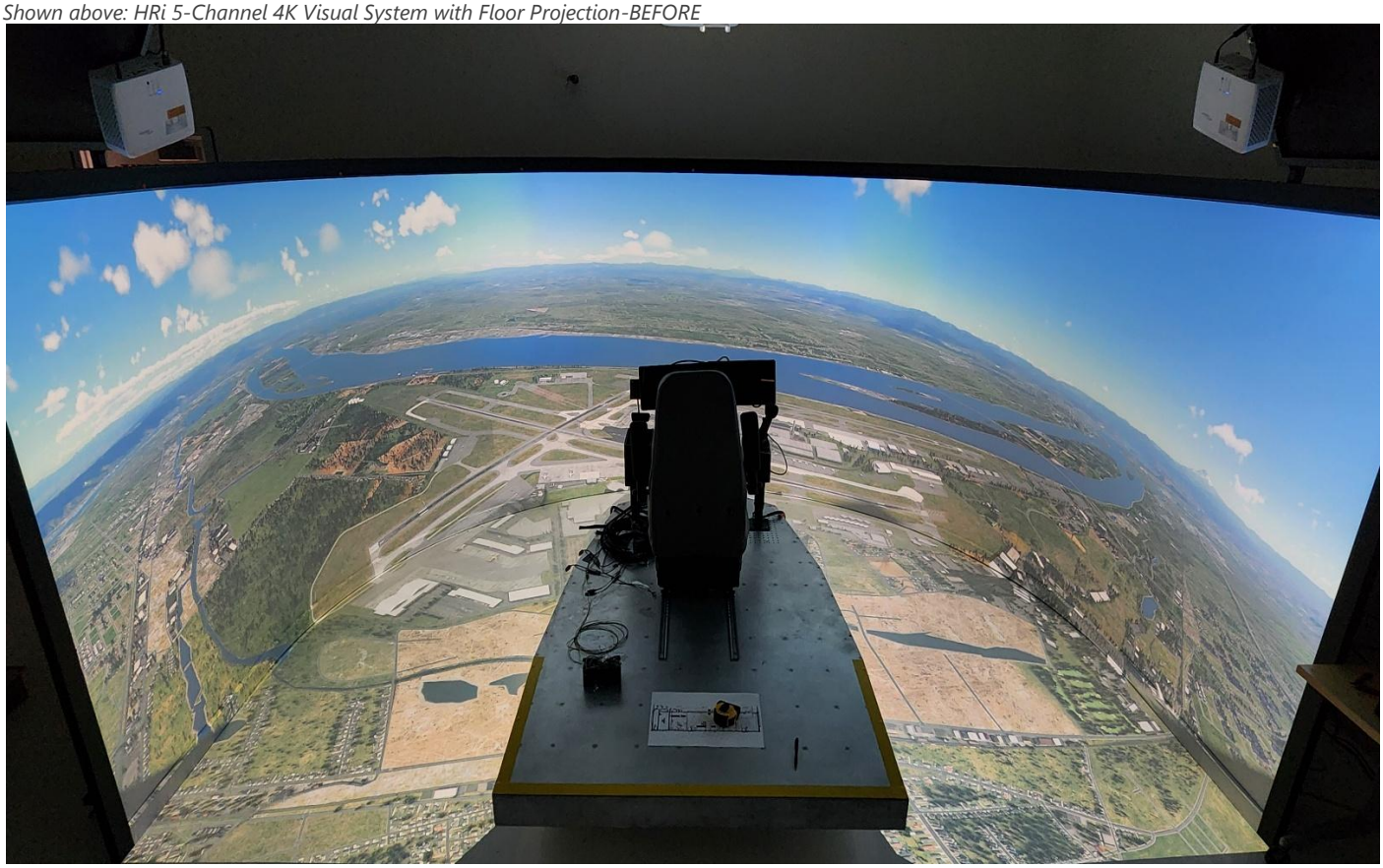
Economical. A traditional Dome visual system is large, heavy and available in limited fixed diameters.
The vertical FOV is usually limited to 50 degrees.



MaxVIEW vs Traditional Dome.

- **Customizable**: The MaxVIEW screen can be customized to suit the room, allowing for a flexible installation that fits the specific needs of the space. Fiberglass domes are usually only available in limited sizes and FOV.
- **Integrated Projector Gantry**: Standalone installation, independent of existing walls and ceilings.
- **Future-Proof**: The Screen/Gantry can be moved, rotated, or relocated without the need for major recalibration.
- **Vertical FOV**: 3 Channel Forward View, combined with a continuous matching Floor Projection, results in a substantial 80 degree vertical field of view (VFOV), critical for providing a comprehensive view below the aircraft.

Shown above: HRi 5-Channel 4K Visual System with Floor Projection-BEFORE



Shown Above: HRi 5-Channel 4K Visual System with Floor Projection-AFTER

TruVIEW Prepar3D/XPlane/MFS2020 IG.

Recent advancements in CPU processors, along with the development of Prepar3D, XPlane and MFS2020 software, have allowed us to generate seamless 200 x 80-degree views using just two computers.
This approach is not only cost-effective but also simplifies maintenance compared to multi-channel systems. With our XP/P3D/MFS Image Generator (IG), we can deliver a fluid visual system with frame rates of 30Hz at 4K resolution or 60Hz with Frame Interpolation.

TruVIEW WARP Software.

TruVIEW is the ultimate software package for geometric correction and soft-edge blending, compatible with DirectX, OpenGL, Windows 7, Windows 10/11. It leverages the proven image geometric correction and soft-edge blending technology from SimVIS Simulator Displays, designed for multi-projector projection on both regular and irregular screens, including cylindrical screens, full and partial domes, and other uniquely shaped projection surfaces.

TruVIEW's user-friendly interface allows for easy mapping of the projected output image onto any type of projection screen using the system's mouse and keyboard. Fine-grained controls and gamma functions enable precise adjustments of overlaps and soft-edge blending between projected images. Additionally, colour correction can be applied per projector to harmonize colour profiles across different projectors.

Supporting up to four projectors per PC, TruVIEW allows for various configurations in horizontal and vertical stacking. It's typically used in flight simulators, car racing simulators, projector-based home cinemas, and other first-person software packages in combination with multiple projectors and some form of omnidirectional projection screen.

eVTOL PACKAGE INCLUSIONS:	DELUXE: HD LASER	ULTRA: 4K LAMP	ULTIMATE: 4K LASER-New!
1/ PROFESSIONAL On-Site Installation: Screen + Gantry assembly, Projector Installation. 200x80FOV Tru-View Warp and Blending for seamless image.	✓	✓	✓
2/ Intel i9/Nvidia RTX Computer x 2 XPlane/Prepar3D/MFS2020 options	✓	✓	✓
3/ Custom made Professional 220FOV MaxVIEW Screen + Integrated Projector Gantry Included. ***Floor surface optional**	✓	✓	✓
4/ HD and 4K Projector Options:			
HD LASER 3600lm/10000:1 DLP Projector x 5* **30,000hr Laser*	✓		
4K-UHD 4000lm/10000:1 DLP Projector x 5* **10,000hr Replaceable Lamp*		✓	
4K-LASER 3700lm/10000:1 DLP Projector x 5* **30,000hr Laser *NEW FOR 2024**			✓
5/ Hardware and Cables: Heavy Duty Projector Mounts x 5 HDMI Cables + DP-HDMI connectors x 5	✓	✓	✓
6/ Tru-View Warp Software License x 2 SimVIS only uses and supplies Tru-View Warp with all our installations for a guaranteed result. SimVIS Tru-View WARP provides geometry correction and edge blending for curved screens.	✓	✓	✓
7/ Packaging/Pallet and DAP Shipping Included: (Local Duties not included)	✓	✓	✓

5-Channel HD System Package from USD $59,995

*Travel/Accommodation required for 1 x technician

Contact: sales@simulatorvisuals.com

50% Deposit Upon acceptance of quotation.
All Installation fees/ hardware supply/ Projector supply must be settled prior to installation.
Local Power boards and extension power cables not included.
Prepar3D/XP/MFS Commercial License not included (Demo licence installation included)
Prices Effective January 1st 2025.
Director: Nat Crea Ph:+61 419103304 E: sales@simulatorvisuals.com W: www.simulatorvisuals.com