

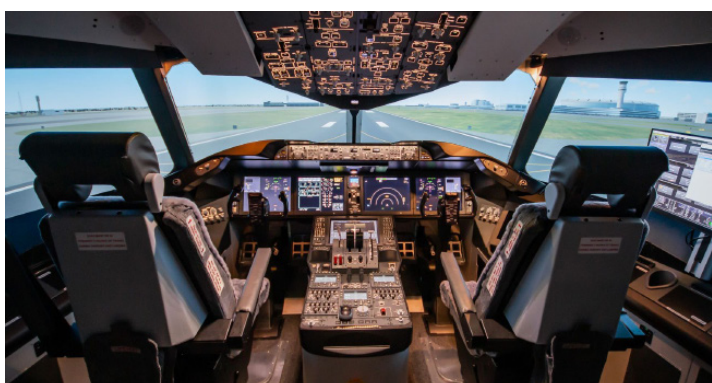
CASE STUDIES

NatVIS Simulator Visual Systems - ITPS B787 Simulator

Introduction

NatVIS are an OEM (original equipment manufacturer) supplier to leading simulator manufacturers. Using projector technology together with other tools and techniques, NatVIS build natural looking, real world view, geometrically correct flight simulator visual systems.

NatVIS was appointed to create a new visual system for their partner Flightdeck Solutions, for the International Test Pilots School in London, ON, Canada. Flightdeck Solutions produce High-Fidelity Flight Simulation products for customers around the world.



Project requirement

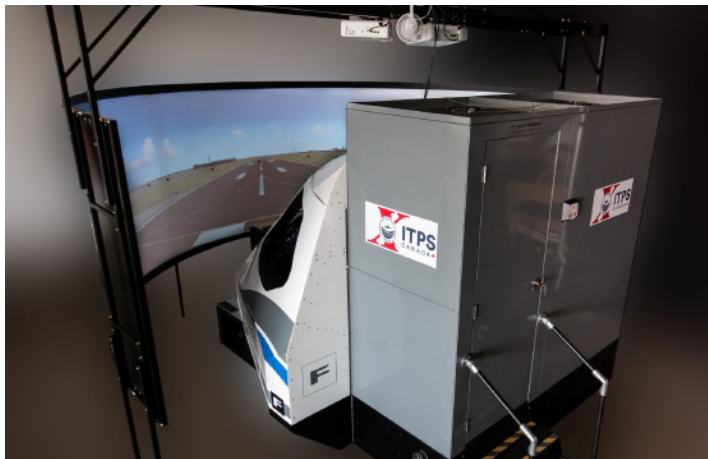
NatVIS was contracted to provide a 4K UHD visual system with up to 220FOV (Field of View) with the ability to run on one Computer with one 30Hz graphic card and a maximum 10-degree parallax for each pilot.

Product selected

The Optoma 4K550ST UHD Short Throw 4500 Lumens (OP-4K550ST) was selected for its 4K UHD resolution (3840 x 2160) and short throw lens.

With 4500 lumens and a 10,000:1 contrast ratio, the Optoma 4K550ST can project a bright 100-inch image from several feet away, making it well suited for the simulation system.

The system has three Optoma 4K550ST UHD projectors running on a single Prepar3D Image Generator.



Key Project Results

Rigid criteria including 220FOV and maximum 10-degree parallax for each pilot was successfully satisfied, which resulted in this UHD 220 FOV Display with integrated Gantry.

This is the first 4K front-projected simulator visual system in the world using three 4K projectors warped and blended into one seamless image using one computer.

A specially designed gantry is used to cross-project onto a five metre 220-degree screen.

The project design and implementation successfully reduced the typical three channel (computer) system to one IG (Image Generator), saving initial and ongoing maintenance costs.

Designed and installed by NatVIS Simulator Visual Systems

www.natvis.com.au
+61419103304
sales@natvis.com.au

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www.flightdecksolutions.com