



Orbis Flying Eye Hospital

INTRODUCTION

The Orbis Flying Eye Hospital® medical service has been uniting medicine and aviation since 1982 and is the world's only fully accredited ophthalmic teaching hospital on board an MD-10 aircraft. Now in its third generation, this remarkable aircraft is unlike any plane ever seen before, featuring a state-of-the-art teaching facility complete with an operating room, classroom, and recovery room. The Orbis Flying Eye Hospital is equal parts teacher, advocate, and envoy in the global effort to end avoidable blindness.

"WE TOOK ADVANTAGE OF THE FLYING EYE HOSPITAL'S REGULAR MAINTENANCE CHECK TO REFRESH THE TECHNOLOGY ON BOARD. THE UPDATED TECHNOLOGY ALLOWS OUR TEAM TO CONTINUE PROVIDING HIGH-QUALITY TRAINING FOR EYE CARE PROFESSIONALS AROUND THE WORLD SO THEY CAN SAVE SIGHT IN THEIR COMMUNITIES."

Bruce Johnson

*Director of Aircraft Operations and Maintenance,
Orbis International*



THE CHALLENGE

On board the Orbis Flying Eye Hospital, Orbis's Volunteer Faculty (medical professionals) and clinical staff travel worldwide to share their knowledge and expertise with local eye care teams.

Orbis requires the most effective and reliable technology solutions to provide the best training opportunities to eye care professionals in communities around the world that need it most. To ensure training participants are able to build their skills to provide quality care to patients in their own communities, Orbis is dedicated to keeping the plane in prime condition and updating the equipment on the aircraft when necessary. The latest maintenance check prompted the Orbis team to explore upgrading the Crestron equipment on board.

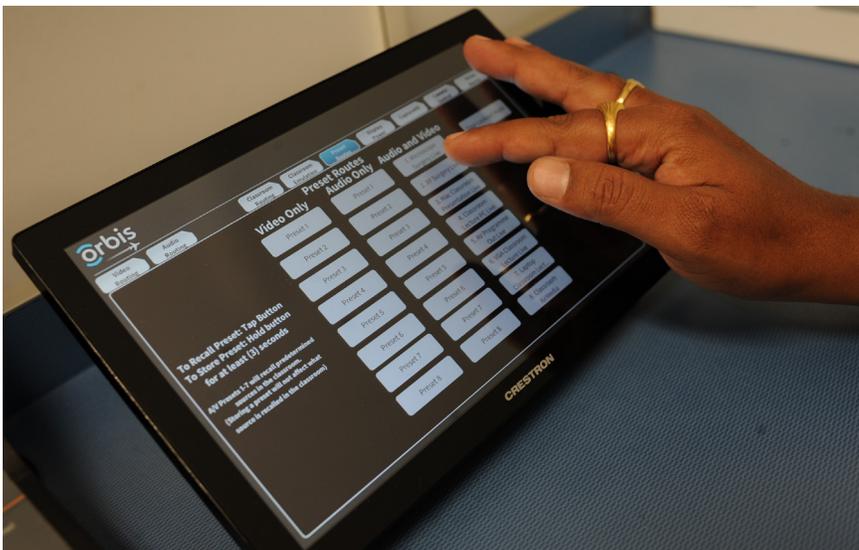
"ORBIS AND CONTROLWORKS FELT THIS WAS A GREAT OPPORTUNITY TO REFRESH THE AUDIOVISUAL TECHNOLOGY ON BOARD. TECHNOLOGIES LIKE 4K AND 3D - BOTH OF WHICH HAVE FOUND USES IN THE FLYING EYE HOSPITAL - WERE MUCH LESS MATURE IN 2014 WHEN THE TECHNOLOGY WAS ORIGINALLY SELECTED. CRESTRON WAS ABLE TO HELP US ENSURE WE HAD THE BEST NEW TECHNOLOGY GOING INTO THE UPDATE."

Lincoln King-Cliby
Commercial Market Director,
ControlWorks



THE SOLUTION

While removing modules on the aircraft for regularly scheduled maintenance, the Orbis team decided it was the perfect opportunity to refurbish and upgrade the plane's AV systems. With the donation of Crestron technology, and the help of ControlWorks Consulting, the Orbis team began to upgrade the Orbis Flying Eye Hospital. Crestron technology and innovation have continued to permeate training activities on board the Orbis Flying Eye Hospital. With Crestron technology, the aircraft's team can focus on its goal to train eye care professionals in areas with the greatest need.



"DIGITALMEDIA LENDS ITSELF VERY WELL TO THE NEEDS OF THE FLYING EYE HOSPITAL, WHERE SIGNALS FROM CAMERAS, MICROSCOPES, AND OTHER DEVICES ALL COME TOGETHER FOR SEAMLESS DISTRIBUTION WITHOUT NEEDING TO RELY ON EXTERNAL INFRASTRUCTURE. THAT'S WHAT MAKES DIGITALMEDIA VERY COMPELLING."

Lincoln King-Cliby
Commercial Market Director,
ControlWorks

THE TECHNOLOGY

Unique factors such as weight were a consideration in this project since cutting even a few pounds could result in fuel savings. The compact size and light weight of the Digital Graphics Engines combined with the LED backlighting on the touch screens made Crestron an easy choice. The many Crestron Digital Graphics Engines combined with the large format Crestron touch screens allow for hybrid use as digital signage when tours are being given.

The Orbis Flying Eye Hospital is powered up in the morning and powered off at the end of each day, so resilience and time-to-ready are more

sensitive concerns than in other projects routed by DigitalMedia™ technology. The Crestron control system and DigitalMedia content distribution provide an integrated system that allows the focus to remain on education, with the technology being a tool rather than a distraction. DigitalMedia gives the Orbis Flying Eye Hospital the ability to accept and route a variety of video formats – such as SDI, HDMI®, DVI, HDBaseT®, and even legacy analog video formats – in a single self-contained chassis, without the need for outboard converters and adapters.

Crestron AirMedia® wireless technology is integrated into the 46-seat classroom, operating room, and recovery area for further ease when it comes to sharing content. Crestron AirMedia has reduced stress and friction for presenters onsite. Having this technology on the Orbis Flying Eye Hospital allows surgeons and training participants to communicate more efficiently, enhancing learning opportunities.

"ALL STAFF ON THE FLYING EYE HOSPITAL HAVE BECOME EDUCATED ON HOW TO USE CRESTRON SOLUTIONS. WE FOUND CRESTRON TO BE USER-FRIENDLY AND RELIABLE OVER THE PAST DECADE."

Jangaiah Chalamala
*Audio Visual Specialist,
Orbis International*





RESULTS

The need to function reliably anywhere on the planet, including less-technologically developed locations, is not part of the scope for a typical AV/Control project, but Crestron solutions help the Orbis Flying Eye Hospital achieve this task. Having the first ever Mobile Simulation Training Center outfitted for an aircraft, Orbis needed to integrate the best technology Crestron has to offer — and the technology has delivered.

Photo Credit: Geoff Oliver Bugbee/Orbis International.

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"THE VARIETY OF SOLUTIONS AVAILABLE IN THE PRODUCT PORTFOLIO COMBINED WITH THE DEPTH OF SUPPORT CRESTRON IS ABLE TO OFFER REALLY MAKES CRESTRON A GREAT PARTNER, COMBINED, OF COURSE, WITH THE GENEROUS PRODUCT SUPPORT TO ORBIS, WHICH HAS MADE THESE UPGRADES POSSIBLE."

Jangaiah Chalamala
*Audio Visual Specialist,
Orbis International*

Featured Products

4-Series™ Control System
CP4

DigitalMedia 8G+® 4K60 4:4:4 HDR Receiver and Room Controller with Scaler
DM-RMC-4KZ-SCALER

Digital Graphics Engine 200 with 4K DM 8G+® Input
DM-DGE-200

AirMedia® Series 3 Receiver 200
AM-3200

7 in. Wall Mount Touch Screen
TSW-770

21.5" HD Touch Screen Display
TSD-2220