

Jump on Board the World's Only Flying Eye Hospital

Ismael Cordero and Joao Carlos Langanke Pedroso

What if you can help save someone's eyesight and travel the world at the same time? The staff and volunteers of the world's only flying eye hospital do just that. Aboard a DC-10 converted into a state-of-the-art medical facility, ophthalmologists, anesthesiologists, nurses, and biomedical equipment engineers and technicians board the flying eye hospital to help developing nations provide comprehensive eye care training.

The flying eye hospital has conducted training programs in 73 countries. ORBIS is a nonprofit, humanitarian organization dedicated to saving sight and eliminating avoidable blindness worldwide.

From the Ground Up

The idea for the flying eye hospital was conceived in the mid-1970s by Dr. David Paton, a Houston ophthalmologist. During his travels around the world, he observed that the high costs of tuition, international travel, and accommodations prevent the majority of doctors and nurses in developing countries from participating in overseas training programs.

Dr. Paton's solution was a mobile teaching eye hospital. With a fully equipped airplane, American doctors trained in the latest techniques could teach doctors in developing countries their surgical knowledge and skills through hands-on training and lectures.

In 1980, a DC-8 aircraft was donated by United Airlines and converted into a modern eye hospital equipped with state-of-the-art medical equipment. It flew its first program to Panama in 1982.

In the early 1990s, it became clear that a newer, larger aircraft was needed. In 1992, with donations from three generous patrons, ORBIS purchased a wide-body DC-

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Joao Carlos Langanke Pedroso joined the ORBIS flying eye hospital as healthcare technology trainer in July 2004. Previous jobs held include Vice-President and co-founder of Brazilian Association of Clinical Engineering and Chief Clinical Engineer at Hospital de Coracao in Sao Paulo, Brazil.



An ORBIS volunteer ophthalmologist carries donated corneas to the flying eye hospital.

10, doubling the amount of space available for training and surgery. In 1994, the aging DC-8 was formally retired, and the newly renovated DC-10 took off for its inaugural mission in Beijing, China.

Facilities

The flying eye hospital facilities include a flight deck, classroom, audio-visual room, laser/examination room, conference room, operating room, sub-sterile and scrub room, recovery room, and a technical training and maintenance center.

The flight deck is perhaps the only conventional area of the flying eye hospital. Volunteer pilots from FedEx and United Airlines donate their time to fly the ORBIS aircraft to and from each country. Located in the belly of the plane, the Biomedical & Technical Training Center is used for training in the repair and maintenance of ophthalmic equipment.

Many people remain needlessly blind in developing countries because broken equipment cannot be used to restore sight. Rather than simply repairing this equipment, the two ORBIS biomedical engineers teach their counterparts how to repair their equipment and how to manage it properly.

The center is also used for maintenance of the flying eye hospital's equipment including lasers, operating microscope, anesthesia unit, patient monitors, phacoemulsification machines, vitrectomy machines,

and ophthalmic ultrasound units. All medical equipment is packed in shipping cases and secured with nets to the floor of the aircraft in preparation for flight.

Training and Public Awareness Program

The flying eye hospital travels to about 10 developing countries per year with a team of 25 professional employees and volunteers representing some of the world's leading eye care institutions. Together, they conduct surgical, nursing and biomedical engineering training on board the plane and at nearby hospitals. The program is customized to the needs of the host country so the length and scope of a training program varies. A typical plane program ranges from 2 to 4 weeks. Only about 4 surgeries per day are performed since the

emphasis of the program is on teaching and not on volume of surgeries.

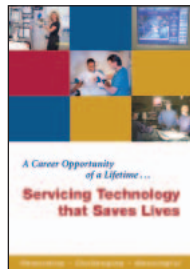
The impact of an ORBIS training program is felt long after the airplane departs. The skills, equipment, resources, and motivation left behind dramatically increase local capacities to prevent and cure blindness. Doctors, nurses, and engineers trained during an ORBIS program go on to train their peers, multiplying the program's impact many times over. All programs are followed up with surgical case reviews and most programs are followed up with hospital based training programs. The plane is a powerful symbol of cross-cultural humanitarian partnership, as well as the life-affirming possibilities of aviation.

For more information about the Flying Eye Hospital, visit www.ORBIS.org. ■

Inside AAMI

Career Brochure Promotes Biomed Field

AAMI has created a new brochure to encourage more students to consider the biomedical field as a career option. The brochure is designed to help healthcare facilities, schools, biomedical societies, manufacturers, and recruiters attract more biomed to the field. If you would like to obtain copies of the brochure, please e-mail Steve Campbell, AAMI's vice president of communications, at scampbell@aami.org.



BI&T Expands Online, New Features Added

BI&T will soon be available online for the first time, enabling AAMI members to view the current issue online and search for archived articles as well. The online version of the journal includes archived articles dating back to 2002 and all current editorial content of the print version, which AAMI members will continue to receive in the mail. To access BI&T online, visit www.aami-bit.org.

Company News

Hologic Expands Intellectual Property

Hologic, Inc., provider of diagnostic imaging and digital imaging systems, has acquired Fischer Imaging Corporation's intellectual property relating to its mammography business and products. The acquisition includes rights to Fischer's SenoScan digital mammography and MammoTest stereotactic breast biopsy systems. Fischer Imaging designs, manufactures, and markets medical imaging systems for the screening and diagnosis of breast cancer.

GE Acquires Healthcare IT Provider

GE Healthcare and IDX Systems Corp. have entered into a definitive merger agreement for GE to acquire IDX, a healthcare information technology (IT) provider. The merger will create a healthcare IT vendor, offering suites of clinical, imaging, and administrative information systems. According to Vishal Wanchoo, president and CEO of GE Healthcare Information Technologies, "IDX's administrative, clinical, and imaging information systems complement GE's rich clinically-focused Centricity® information technology offerings."