

PX



POSITION REPORT



In This Issue:

ORBIS...a noble idea that helps those who cannot see

Photos of the 2019 RAPCAN FLY-IN

Electric powered airplanes?

...and much more

October 2019

Volume XVI

Number 3

A Vision in the Sky:

Orbis International Brings Together Aviation and Ophthalmology to End Avoidable Blindness



By Kristin Taylor for Orbis International

Photo by Paul McKelvey

Orbis, a leading global non-governmental organization that has been a pioneer in the prevention and treatment of avoidable blindness for over 30 years, operates the world's only Flying Eye Hospital, a fully accredited ophthalmic teaching hospital on board an MD-10 aircraft.

Can you imagine being unable to see because you did not have a local doctor who could give you a routine eye screening, perform a common procedure like removing a cataract, or prescribe you a pair of glasses? Globally, hundreds of millions of people are blind or have vision impairment – and for 75% of them, it would be completely avoidable if they could access quality eye care.

When one thinks of innovative ways to tackle a crisis like this, an airplane isn't the first thing that would come to mind for most. But here at Orbis International, we have been bringing together the fields of ophthalmology and aviation for more than three decades.

Our founder, Dr. David Paton, a renowned US ophthalmologist and faculty member of The Wilmer Eye Institute at John Hopkins University, came up with the unprecedented model

when he noticed an alarming trend after extended experiences abroad. The vast majority of people with avoidable blindness and vision impairment were living in low- and middle-income countries, where there was a severe lack of eye care and ophthalmic training. But the high costs of tuition, international travel and accommodations prevented most doctors from getting the training they needed.

Dr. Paton believed that if someone could bring training where it was needed most, local ophthalmologists could build the skills they needed to provide quality eye care in their communities for generations to come. Thus, the idea of outfitting an aircraft with an ophthalmic teaching hospital was born and, with it, Orbis and our Flying Eye Hospital.



Dr. Asim Ali, Associate Professor of Ophthalmology and Vision Sciences at the University of Toronto, completes an operation onboard the Flying Eye Hospital, during a recent program in Vietnam.

Photo by Geoff Oliver Bugbee



Taking Eye Care around the World

Orbis – Latin for “of the eye” and Greek for “around the world” – encapsulates Dr. Paton’s novel vision. As he shared that vision with others, he found many supporters who not only believed in it, but also helped to make it a reality. Among them was United Airlines, which donated the DC-8 that became our first-generation Flying Eye Hospital. A grant from USAID and funds from private donors enabled us to successfully convert the plane to its new purpose. Dr. Paton also recruited 100 Volunteer Faculty (medical experts) from 22 countries who volunteered to serve onboard our Flying Eye Hospital and share their skills with ophthalmologists around the world.

In 1982, our Flying Eye Hospital took flight for its first program, in Panama, and over the next two years, we flew to and led hands-on training programs in 24 countries. It did not take long for Dr. Paton’s hypothesis about the long-term impact of training local ophthalmologists to begin bearing out. In South America, just two weeks after Peru’s former President witnessed a corneal transplant conducted onboard the Flying Eye Hospital, he had created the country’s first eye bank and enacted legislation to facilitate donations of all necessary organs and tissues. Just four years later, 150 corneal transplants were being performed annually in Lima, the nation’s capital.

Across the Atlantic, in Africa, we found that only two ophthalmologists

were serving a population of 7 million in Malawi. During the Flying Eye Hospital’s visit there, Volunteer Faculty offered training not just to that pair of ophthalmologists, but also to more than three dozen nurses and ophthalmic assistants. This was a transformational program that led to an even more expansive vision that still drives our work at Orbis today: if entire eye care teams – not just ophthalmologists – could receive training, even more people could access the care they so desperately need and live lives free from avoidable blindness.

Fast forward through the decades, and we went on to launch in-country programs in which we now work with local partners in 18 countries to build and strengthen sustainable eye care systems in communities worldwide.

As for the Flying Eye Hospital, we went on, in 1994, to launch our second-generation plane, a DC-10, thanks to donations from three very generous individuals, and in 2016, our current Flying Eye Hospital, an MD-10 donated by FedEx.

Since its first flight in 1982, the Flying Eye Hospital has visited more than 90 countries, and the number of Volunteer Faculty sharing their skills worldwide has now surpassed 400.

The Flying Eye Hospital: A Hub of Innovation

The Flying Eye Hospital has always been a hub of innovation, and a physical manifestation of our drive to constantly move the needle on clinical training. We have long been experimenting with how to expand the number of eye care professionals who can observe and learn from surgeries happening on the plane. After all, an operating room is only so large! As early as 1989, during a Flying Eye Hospital visit in China, we set up audiovisual equipment to screen a live operation to a “classroom” in the nearby airport.

The concept turned out to be a precursor to the classroom on today’s Flying

Eye Hospital, where local eye health teams watch from another section of the plane as Volunteer Faculty perform and narrate live surgeries from the operating room. In turn, the eye health teams can ask questions about operations in real time. The surgeries, as well as any lectures delivered on the plane, are also live-streamed via our award-winning telemedicine platform, Cybersight, to partner hospitals and classrooms around the globe, including in remote communities and areas of conflict.

We have also applied innovations in aviation training to eye care training. Just as pilots learn to fly planes through simulation, we adapted simulators for building ophthalmological skills, thanks to a project we launched on the Flying Eye Hospital last year. Now local eye health teams are using the latest technology – like virtual reality, artificial eyes and life-like mannequins – to learn about surgery, nursing and anesthesiology, building their skills and their confidence in a controlled environment before applying them to patients.



Dr. Brian Leonard, Retina Specialist at the Ottawa Eye Institute and Orbis Volunteer Faculty, gives Canadian Space Agency Astronaut Dave Williams a demo of the Flying Eye Hospital’s simulation training equipment, during the plane’s recent Goodwill Tour in Ottawa.

Photo by Tom Knowlton

A Community of Supporters

Over the past three-plus decades, we have attracted a number of avid supporters in the aviation sector. Perhaps the most notable is Captain John “Jack” Race, the pilot from the 9th Air Force in Europe during World War II who flew German Staff General Jodl from Luneberg, Germany, to Rheims, France, where General Jodl signed the unconditional surrender of Germany in May 1945. Decades later, Race served as Chief Pilot for our first-generation Flying Eye Hospital and later flew the same path as Charles Lindbergh through 48 states, using only a compass and aerial maps, to promote Orbis’s work.

Today, our corporate partners include FedEx, Collins Aerospace, and Boeing. We also have a cadre of volunteer pilots from FedEx who donate their free time to help the Flying Eye Hospital reach communities in need.

Canadian supporters also have a claim to fame in the annals of Orbis. To

name a few: Orbis Canada became our first-ever fundraising office. Canadian eye health professionals account for more than 20% of our global cadre of Volunteer Faculty – the highest number of volunteers per capita of any Orbis-affiliated country. Ottawa’s Dr. Brian Leonard, the longest-serving Orbis Volunteer Faculty, has donated his time and expertise to more than 70 programs spanning more than four decades; he also serves on Orbis International’s Emeritus Board. And Vancouver’s

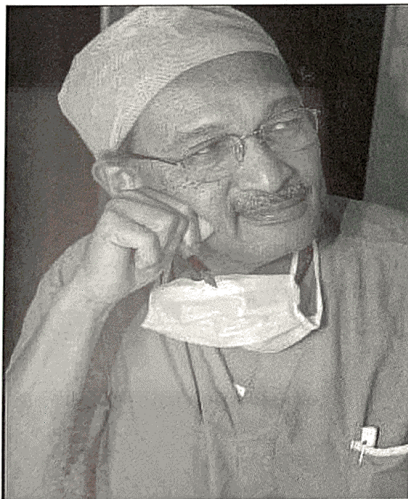
Dr. Simon Holland was the first-ever Medical Director of the first-generation Flying Eye Hospital.

With new innovations ever on our horizon, and thanks to our generous partners and supporters, the future of sight is always taking flight at Orbis. We hope you’re inspired by our vision. We rely on donations to carry out our work to end avoidable blindness. To learn more or become a supporter, please visit can.orbis.org.



Orbis’s second- and third-generation Flying Eye Hospitals, a DC-10 and an MD-10, respectively. The latter was donated by FedEx.

Photo by Geoff Oliver Bugbee



Dr. Garth A. Taylor
*Renowned Ophthalmologist
and Orbis volunteer*

Canada is blessed with many who go beyond their immediate horizons to share their knowledge and skill with those who can benefit. Many RAPCAN members qualify for this distinction, but it is valuable occasionally, to think beyond

our professional group and honour those outside it. Ophthalmologist, Doctor Garth Taylor, is one of those giants in his field who deserves our respect and admiration.

Dr. Taylor was born in Jamaica in 1944. Eventually, he spent his secondary education at Jamaica’s Cornwall College. After graduation, he worked as an operations clerk at Pan Am in Montego Bay for 18 months, during which time he had the opportunity to travel the world. He left Pan Am in 1964 on a Canadian Scholarship to study Biochemistry in Ottawa.

He attended the Civic Hospital in Ottawa and Queen’s University in Kingston, Ontario where he passed the Royal College Examination in Ophthalmology in 1976.

Sadly, Dr. Taylor died far too early at the age of 61. His widow, Beverley Taylor tells us the rest of his story.

“Academically, he spent his professional life teaching residents in Ophthalmology at Queen’s University where he was an Associate Professor, as well as at Hunan Medical University in Hunan Province, China, where he was an Honorary Professor.

In 1982 he joined ORBIS International as a Volunteer Surgeon. Garth often said his time with ORBIS was one of the most professionally rewarding projects of his life. He served on more than 110 missions with ORBIS, a number no other volunteer surgeon has surpassed. He was a past Volunteer Medical Director on the DC-10 Flying Eye Hospital, a member of the Medical Advisory Board of ORBIS, and was a Past President and then Vice President of ORBIS Canada.”

