



AMREF

Flying Doctors



Annual Report 2013

THE AFRICA CONNECTION



AMREF timeline



On the foothills of Mount Kilimanjaro, AMREF Flying Doctors is founded by three reconstructive surgeons: Michael Wood, Archibald McIndoe and Tom Rees.

AMREF forms what will become a long time partnership with Kenyatta National Hospital, taking medical specialists by air to Wajir, Garissa and Mandera in Kenya.



AMREF Flying Doctors Founder Sir Michael Wood receives a knighthood from Queen Elizabeth II.



Mobile Outreach Clinics are introduced to southern Kenya to treat nomadic Masai pastoralists.



1957

1961

1980

1985

2000

1957

1964

1978

1996

1997



AMREF's Outreach Programme is launched, initially servicing four hospitals in remote Kenya.



AMREF founder Dr Michael Wood publishes his book "Go an extra mile".



The first Cessna Grand Caravan is introduced into the AMREF Flying Doctors fleet.

Anne Spoerry, known as "Mama Daktari", joins AMREF Flying Doctors.



The hangar at Wilson Airport, Nairobi, is expanded to cater for our larger fleet.



AMREF Flying Doctors adds a second Cessna Grand Caravan to the fleet.

In partnership with Phoenix Aviation, AMREF Flying Doctors begins to operate a Cessna Citation Bravo Jet.



2003

AMREF Flying Doctors welcomed the third Cessna Citation Bravo jet to the fleet.



AMREF Flying Doctors extends fleet capability with the new Beechcraft Super King Air B200.

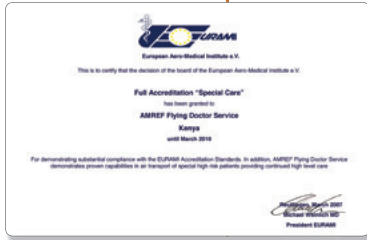


AMREF Flying Doctors receives the ITIJ 2011 Air Ambulance Provider of the Year award.



2009

2007



AMREF Flying Doctors becomes the first operator outside of Europe to receive 'Full Accreditation – Special Care' from the European Aeromedical Institute (EURAMI).

2007

2013

2011

AMREF Flying Doctors celebrates the opening of its Visitors Centre by founder Tom Rees.



2007

2007



AMREF's Outreach Programme continues to expand, visiting 150 hospitals in Kenya, Tanzania, Uganda, Rwanda, Ethiopia, Somalia and Southern Sudan, training more than 6,200 doctors and nurses and undertaking over 26,000 consultations.

2010

New Advanced Life Support Ground Ambulance introduced



2012

2012



AFD continues 'Full accreditation special care' with Eurami.

2013



AMREF Flying Doctors acquires a third Cessna Grand Caravan.



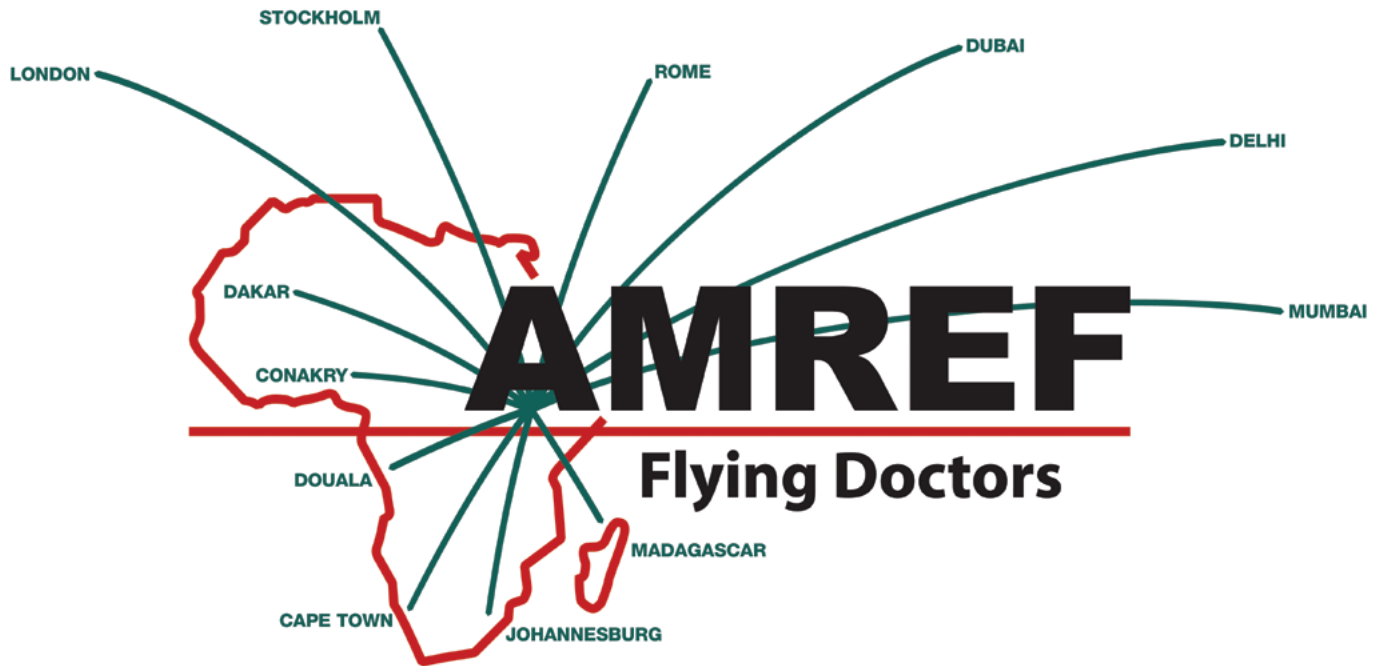
Maisha Air evacuation subscription Scheme launched.



Dr Thomas Rees

AMREF Flying Doctors co-founder

1927 - 2013



Vision

To be the most outstanding aero-medical provider for Africa and beyond, focusing on remote areas.

Mission

To provide excellence in aero-medical services across the region. We are committed to saving lives and relieving sickness and injury in the best and fastest way possible. We are available to all and extend our services free of charge where there is need.



Contents



12

Wajir Case study



16

New Super King Air B200



22

The international conference scene



52

AMREF's outreach programme

Fold out sections:

AMREF Flying Doctors Timeline

Air Ambulance Services - Nationalities Evacuated

Full Contents

Vision and Mission Statements	2
From the Management	4
Our Board Members	6
Background	7
Air Ambulance Services	8
Objectives	10
Charity Evacuations	11
Case Study: Wajir to Nairobi	12
Case Study: Kisii to Nairobi	14
Aircraft Available	16
Medical Standby Coverage	18
Medical Advice and Communication	20
The 24-Hour Control Centre	21
International Marketing	22
Local and Regional Events	23
Maisha Annual Air Evacuation Scheme	24
Media Activities	25
ITIJ & Waypoint Magazine	26
Visitors Centre	27
Volunteer Physician Programme	28
Flying Doctors – A Day in the Life	29
Assistance Services	34
Royal Flying Doctors Service	35
Quality	36
Professional Medical Training	37
First Aid Training	38
AMREF Germany	39
Donations	40
Professional Partners	42
AMREF Outreach Programme	52
Accounts	54



From the Chairman



Anthony Durrant

I am happy to report that AMREF Flying Doctors' aeromedical unit has made, in the past year, further improvements and efficiencies in the services we provide in Africa. Our dedicated and professional team have successfully navigated difficult economic conditions and focused the limited resources entrusted to us where they can add most value. The successful commissioning of our first King Air, the decision to outsource our engineering maintenance and the expansion of our Volunteer Physician Programme, at no cost and with valuable training benefits, were notable steps in the implementation of our strategic plan. We are delighted to have been able to increase significantly the overall contribution of AMREF's work with the most deprived and needy communities. I should note AMREF's decision to disengage completely from the Flying Doctors Society of Africa (FDSA) following unsuccessful attempts over the past three years to negotiate a sensible and acceptable ongoing basis for collaboration. AMREF Flying Doctors no longer provide emergency evacuation services through FDSA but only through our Maisha

programme, which is proving an attractive and competitive product open to all.

I have been very lucky as Chairman to have the support of a Board of Directors with the range of skills and commitment that inspire confidence in our ability to set the strategic direction for the unit and support and oversee its implementation and management. I would congratulate Ms Raychelle Omamo, who has served as a Director since 2012, on her appointment to the Cabinet of the Government of Kenya as Minister of Defence. Also, Scott Griffin retired this year after many years of extraordinary work for AMREF and AMREF Flying Doctors and we thank him sincerely for his enormous contribution. Finally, we never lose sight of our commitment to providing the highest quality and reliability of service and believe that, in all that we do, we are contributing to the outstanding work that AMREF does bringing better health to those who need it most in Africa. Our heartfelt thanks to our partners, donors, staff and customers for their continuing support.

Anthony (Tony) Durrant

Chairman of the Board, AMREF Flying Doctors

From the CEO

2013 was an eventful year, the highlight being the arrival of our newly acquired Beechcraft King Air 5Y-FDE in Nairobi at the end of April, which increased the fleet owned



by AMREF Flying Doctors to three. With the additional aircraft provided to us by Phoenix Aviation on a contractual lease basis, this now puts our fleet of available air ambulance aircraft to a total of 18, ranging from Cessna Caravans, Beechcraft King Airs to Citation Bravo and Excel jets. As a consequence, we had to strengthen our aircrew and employed two highly experienced pilots who add significant value to our existing crew. 5Y-FDE performed its maiden evacuation flight in July 2013 and has since been flying an average of 48 hrs per month. The total miles flown this

year by all the aircraft amounted to 953,250 – a 9% increase from last year – and the number of patients evacuated increased to 923, a slight increase over last year's total. Our Maisha Air Ambulance cover scheme continued to grow, with 17,465 new annual subscriptions in 2013, culminating in a Maisha membership base of close to 30,000 members at the end of the year. In spite of the tragic attack on one of Kenya's prestigious shopping malls in September 2013 with a consequent knock on effect on tourism, we counted an impressive 52,626 tourists who had registered with our service for medical emergency evacuations throughout the year. AMREF Flying Doctors was able to close the financial year with a surplus of US\$846,277 of which US\$100,000 was used for charity evacuations. The remaining profits supported AMREF's noble humanitarian work in Africa, including the legendary Outreach Programme. Other highlights included another successful re-accreditation with EURAMI (European Aeromedical Institute) at the highest level of 'special care' and the receipt of a brand new transport incubator, which was generously donated to us by Dräger Ltd, one of the world's leading companies for transport medical equipment. At AMREF Flying Doctors, we remain committed to building a business that is durable for the long term; one which acts

responsibly in the interests of the African communities in which we operate and that increases the financial support for AMREF steadily, helping to achieve AMREF's mission of lasting health change in Africa. Our success is rooted in our longstanding experience of working in Africa. We have built our capabilities over many years and believe that the unique way in which we combine our professional service with a deep understanding and commitment for local communities is fundamental to our growth. We differentiate ourselves from our competitors by focusing on quality, professionalism and a sincere commitment to go the extra mile when others do not. As always, none of this could be achieved without the people who support us. Our dedicated staff are vital to our mission and every one of our 39 colleagues plays their part. Our partners, donors and customers are important to us and we thank each one of them for their support. Last but not least, I want to thank our Board of Directors for their trust and the professional guidance they have provided throughout the year.

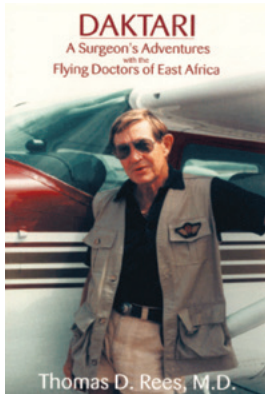
Dr Bettina Vadera

Chief Executive Officer & Medical Director
AMREF Flying Doctors



Obituary Tom Rees 1927 – 2013

Right: The cover of Tom's book, *Daktari: A Surgeon's Adventures with the Flying Doctors of East Africa*.
Below: Tom with his wife, Nan. **Below middle:** Tom with Lady Susan Wood. **Bottom:** Tom and Michael Wood.



Dr. Thomas D. Rees, an innovative plastic surgeon and co-founder of AMREF, died on Nov. 14 2013, at his home in Santa Fe, New Mexico, of liver cancer. He was 86. New York Magazine once referred to Tom as "one of the fathers of aesthetic surgery in New York," and he is credited with helping to elevate cosmetic surgery from something one did not really discuss to almost a status symbol. "Teenagers were given a 'Rees nose' for Christmas," he wrote in 1993. But it was in Africa that he found his neediest patients, an endeavor inspired by a trip he took there in 1956 while on fellowship in London. While there, as he related in a memoir, he found himself treating a warrior holding his intestines in place with an old blanket after being gored by a charging rhino. Dr. Rees had few instruments with him and no general anesthetic, no antibiotics and no blood plasma. He also had no choice but to operate on the man immediately; there was to be no aeroplane service for a medical evacuation until the next day. The man survived.

"I wasn't sure why, but I knew my life's direction had been permanently altered" by the experience, Tom wrote in the memoir, *Daktari: A Surgeon's Adventures With the Flying Doctors of East Africa*, published in 2002.

He went on to join Dr. Michael Wood and Dr. Archibald McIndoe in 1957 to found the East African Flying Doctor Service and later the African Medical & Research Foundation (AMREF.)

In an interview, Dr. Sherrell Aston, the chairman of the plastic surgery department of Manhattan Eye, Ear and Throat Hospital, called Dr. Rees "one of the true giants in the specialty."

"There was a time when cosmetic surgery was looked at as being rather frivolous," Dr. Aston said. Despite this, Tom himself, a former chairman of the hospital's plastic surgery department, was one of the first to "openly teach plastic surgery to other plastic surgeons" in the late 1960s and '70s. To polish his profession's image, he also seized opportunities to speak to the news media, an activity more conservative physicians disdained.

Thomas Dee Rees was born in Nephi, Utah, on Feb. 3, 1927. His father, Don, was head of the biology and zoology departments at the University of Utah, which Thomas entered at 16. He graduated in an accelerated course when he was 19 and earned his medical degree two years later.



He served two stints as a Navy officer, one in 1945 and the other in 1957-58.

He trained in general and plastic surgery at the Genesee Hospital in Rochester and New York Hospital-Cornell Medical Center in Manhattan. He was then chosen for a prestigious fellowship in London with Dr. McIndoe, who had advanced plastic surgery with ingenious treatments for injured British airmen during World War II.

It was during his fellowship in 1956 that Dr. McIndoe said he was planning his annual visit to Africa, where he had a farm near Mount Kilimanjaro. "Archie said it was time to escape the beastly English winter and feel the warmth of the African sun," Dr. Rees wrote. There, they met up with Dr. Michael Wood, a colleague from London, who was just starting a plastic surgery practice covering a huge section of East Africa by air. Within five years, the organisation they founded had drawn support from Albert Schweitzer, the Aga Khan, Edward R. Murrow and Arthur Godfrey, the radio and television personality, who donated its first plane. For many years after, Tom spent a month in Africa every year.

Tom was a professor at the New York University School of Medicine and a former president of the American Society of Aesthetic Plastic Surgery. He organised an annual symposium that now attracts more than 1,000 plastic surgeons from around the world. He also wrote 140 medical articles and six medical texts, including *Aesthetic Plastic Surgery*, a two-volume standard. Tom's wife of 63 years, the former Natalie Bowes, an early fashion model with the Ford agency known as Nan Rees, died in 2012. His son David died in 1990. He is survived by his daughter S. Elizabeth Rees, his son Thomas Jr. and his brother, J. Richard. Tom Rees retired to Santa Fe in the mid-1980s because of osteoarthritis. He became a sculptor, finding inspiration in African people and animals.



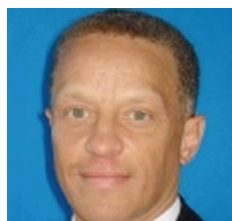
Our Board Members



Anthony Durrant



Teguest Guerma



Nicholas Nesbitt



Terry Martin



Raychelle Omamo



Clyde Spence Thomson



Irene-Odera Kitinya

Anthony Durrant (Chair)

Anthony P.W. Durrant is a lawyer and senior finance executive with global experience in investment banking and business with a strong background in strategic business development, funding and public private partnerships in emerging markets, particularly in Africa.

Mr Durrant worked for over 25 years with investment bank S.G. Warburg & Co Ltd, latterly as part of Swiss UBS Group, in Europe, Australasia and the USA and since 2005 he has been a Director of AMREF.

Mr Durrant holds an LLB (Hons) from the University of London and is a Solicitor of the Supreme Court of England and Wales. He was raised in Kenya and retains close connections in the country.

Dr Teguest Guerma

Dr Teguest Guerma, an Ethiopian national with an extensive career in public health, is the Director General of AMREF. Dr Guerma, who was previously the Associate Director of HIV/AIDS for the World Health Organisation (WHO), began her career as a medical practitioner in Burundi in the mid-1980s. Along with her wider public health work, she has been involved in the fight against AIDS throughout her career.

Nicholas Nesbitt

Nicholas Nesbitt is Chief Executive of KenCall, the leading international BPO/call centre outsourcing company in East Africa. KenCall outsources customer service and sales and technical support for American, UK and East African companies.

Dr Terry Martin

Dr Terry Martin is an Associate Professor of intensive care medicine and anaesthesia, with strong background in emergency medicine, aviation physiology and pre-hospital care. He is also a helicopter pilot. Terry is considered to be an expert in the field of aero-medicine and has received many accolades and awards for his work, which demonstrates his passion for the safe and efficient resuscitation, optimisation and transport of patients by air.

Muthoni Kuria

Muthoni Kuria is a general management practitioner with expertise in finance. She is a Certified Public Accountant (K) and holds a Master of Business Administration from Leicester University. She left the banking industry in 2009 having held positions of Managing Director in Southern Credit Bank, Executive Director and Chief Accountant, Senator Cards. She is presently on the Boards of a number of companies, including AMREF.

Raychelle Omamo

Raychelle Omamo, newly appointed Kenya Cabinet Secretary for Defense, is an advocate of the High Court of Kenya of 27 years standing. In addition, she is the Vice-President of the East African Law Society, Kenya's Ambassador Representative to UNESCO, as well as the current Director of Mo-Consult Ltd, a consultancy forum, providing conflict resolution services as well as governance and public policy advice.

Clyde Spence Thomson GM

Clyde Thomson is the Executive Director of the Royal Flying Doctor Service of Australia (RFDS), South Eastern Section. RFDS is a not-for-profit charitable service providing aero-medical emergency and primary healthcare services to people who live, work and travel in regional and remote Australia. Clyde is also currently on the University of Sydney Department of Rural & Remote Health, Broken Hill and Dubbo Rural Campuses Advisory Committee, as well as the Maari Ma Aboriginal Health Committee.

Irene-Odera Kitinya

Irene Kitinya holds a Bachelor of Arts degree in Economics and French, a Masters in Strategic Management from the University of Nairobi, Higher Diploma from the Institute of Human Resources and is a trained mentor and coach for leadership development accredited by Senn Delaney Consultants UK. Irene is currently the Human Resources Director at Airtel Networks Kenya Ltd.

Further details of our Board Members are available via:
www.flydoc.org/about-us/our-board



Background



We now provide emergency air evacuations with state-of-the-art technology

AMREF Flying Doctors has committed itself to providing world-class medical services to the people of Africa for the past 56 years, and remains Africa's leading air ambulance service provider. Originally providing 'under-the-wing' clinics in the 1950s, we now provide emergency air evacuations with state-of-the-art technology, including an incubator to transport newborns. Operating a fleet of three aircraft of their own, and leasing a further 14, our pilots are highly trained and experienced in flying across East Africa through rugged terrain to remote locations and landing on bush airstrips. Areas of operation have now spread to include the whole of Africa, Europe, the Middle East, Asia and beyond.

AMREF Flying Doctors also provides medical escorts on commercial airlines worldwide and repatriates patients across the globe by private air ambulance. Our organisation currently employs one

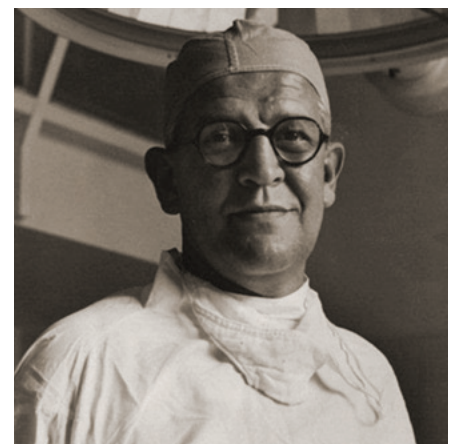
physician and 12 flight nurses on a full-time basis, all of whom are cleared to be deployed at short notice. Additionally, nine physicians are employed on an on-call arrangement to ensure that appropriate cover for emergency flights is available 24 hours a day, 365 days a year.

The 24-hour Control Centre at Wilson Airport is staffed with qualified medical personnel at all times, ready to provide emergency medical advice.

AMREF Flying Doctors continues to ensure that our air evacuation services are available to people in disadvantaged and marginalised communities across East Africa by providing a Charity Evacuation programme to those in need. To do this, we provide emergency evacuations free of charge in special circumstances, with a number of emergency evacuation flights per year taking place on a humanitarian basis.

AMREF Flying Doctors also provides medical and logistical assistance for international health insurance companies.

Clockwise from top: Michael Wood in front of an early aircraft; Archibald McIndoe; Tom Rees and Ron Moss in the 1970s.



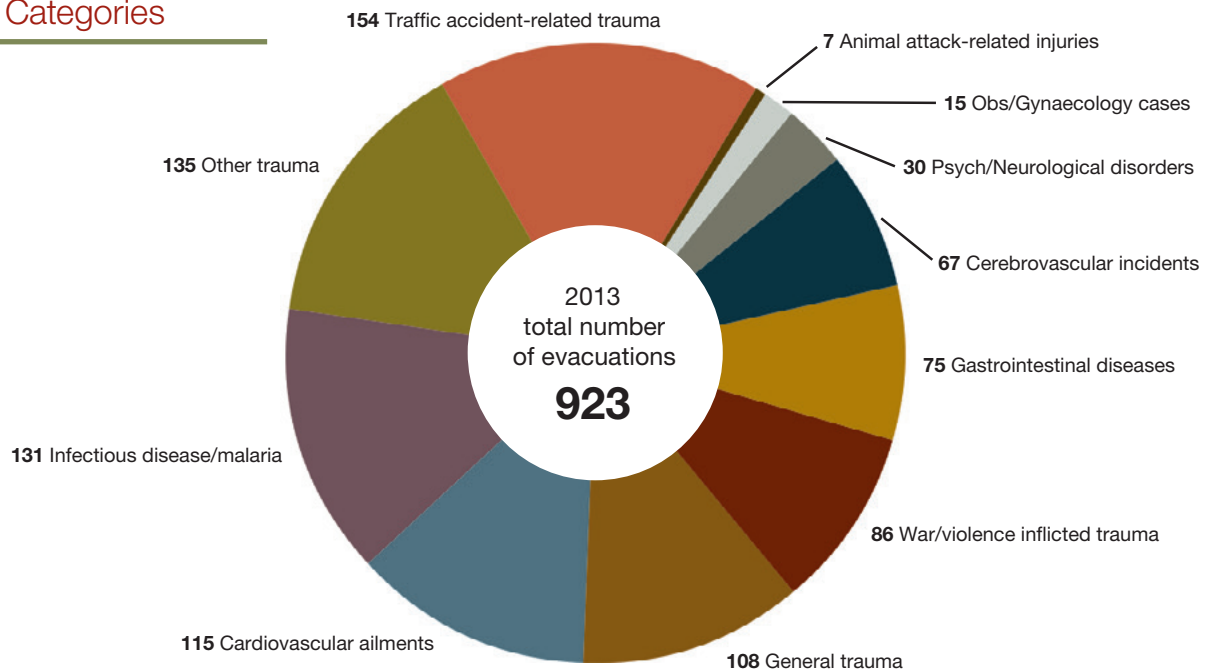


Air Ambulance Services

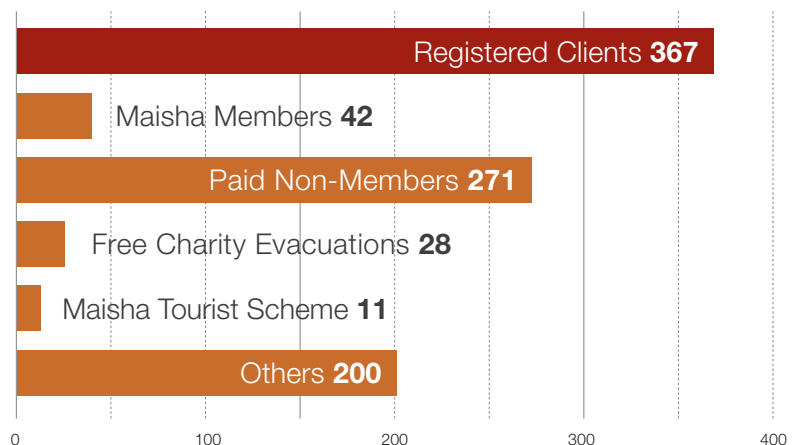
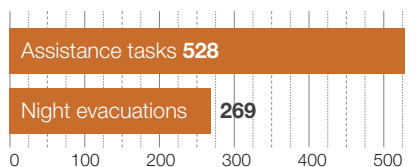
The air ambulance service continues to cover the countries of East Africa (Kenya, Tanzania, and Uganda) stretching to Ethiopia, Eritrea, Rwanda, Burundi, Somalia, DRC, South Sudan and other neighbouring countries. Increasingly, the coverage has extended over the past few years to the whole of Africa, the Middle East, India, Europe and beyond. In 2013, AMREF Flying Doctors evacuated a total of 923 patients by air and/or

ground ambulance. This represented a very minor rise on last year's figures. The type of clients evacuated included 271 paid Non-Member evacuations, 367 AMREF Flying Doctors registered clients, 42 AMREF Flying Doctors Maisha subscription clients, 11 AMREF Flying Doctors Maisha Tourist scheme clients, 28 free charity evacuations and over 200 others. During 2013, a total of 953,250 miles were flown on 584 evacuation flights, a 9% increase on distance covered from 2012.

Evacuation Categories



Air Ambulance Services



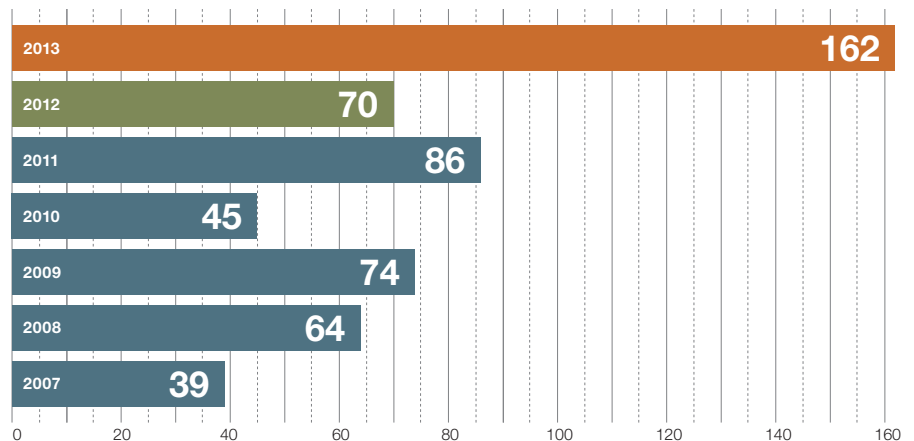


International Evacuations

In 2013, AMREF Flying Doctors provided a total of 162 long distance evacuation flights to destinations in Europe, South Africa, West & Central Africa and to the Middle East /Asia using the Citation Bravo Jets. This was a significant increase (131%) over 2012 and reflects the growing intercontinental activities of AFD, supporting a number of UN and other peacekeeping missions throughout Africa. There was a slight decrease in flights to Europe, but a marked increase in requests for flights to West, Central and Southern African destinations. In addition, AMREF Flying Doctors provided 26 international medical escorts on commercial flights to South Africa, West Africa, Europe and the USA, a 52% increase on last year's figures. The increased international marketing

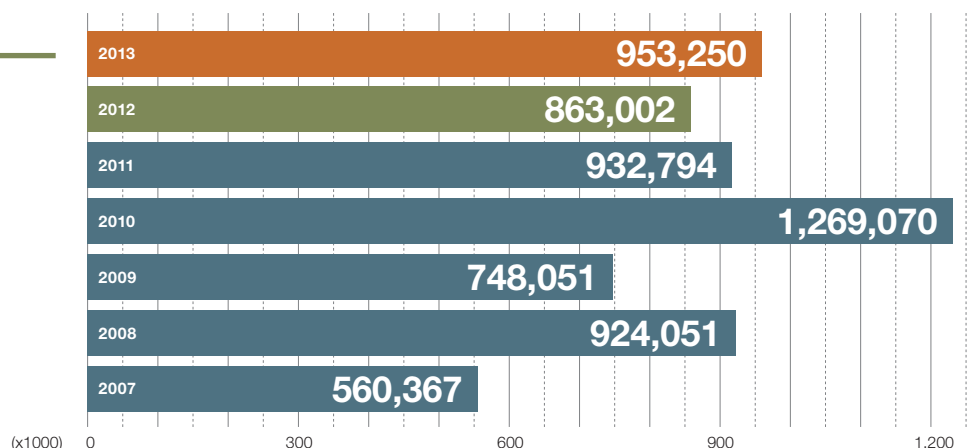
and raising of the AFD profile has led to a number of exceptionally long distance evacuation flights from Africa to the USA. These have been done in partnership with several European and USA-based air ambulance companies, with transfer of the patient at a pre arranged rendezvous in Europe. Wing-to-wing transfers require extensive medical and operational input to ensure the patient's condition is the primary concern. The safe and speedy movement of the patient to their country of origin for further medical treatment adds weight to the reputation of AFD worldwide. A total of 7 such flights were carried out during 2013. Partners in these wing-to-wing operations were MARS (Zimbabwe), REGA (Switzerland), Latitude (Canada) and ADAC (Germany).

International Flights



Flying Miles

Despite the drop in the actual number of flights during the year, there was a 10.45 % increase in flying hours during 2013, from 3,061 to 3,235 hours. This reflected an increase in utilisation of both the Cessna Caravans and the new AFD Beechcraft King Air, especially for evacuations of clients covered by the Maisha scheme. The increase in the jet flying hours can also be attributed to more international and long-distance flying.





Objectives



We share our story

Our 56 year history is captured in our Visitors' Centre. Since its opening, over 4,500 schoolchildren have shared the experiences of AMREF Flying Doctors.



We go the extra mile

Complex medical problems and logistical constraints are a regular occurrence for our staff. Together they work as a team, confident in the commitment they share.



We embrace change

Our new King Air Beechcraft B200 is our first owned twin-engine, pressurised aircraft that will enable us to go further and faster.



We go where no one else goes

The challenging environment of Africa with conflict zones, cross border operations, politics and bureaucracy are major hurdles to air evacuations.



We partner with local communities

The AMREF Outreach Programme supports 150 hospitals in seven different countries.



We care for the uncared

Our Charity Evacuation Programme transports patients free of charge from the most remote locations in Kenya, flying them to medical facilities where their lives can be saved.



We are innovative

The cockpit of a Citation Bravo C550. There are four of these aircraft available to AFD.



Charity Evacuations

Under special circumstances, AMREF Flying Doctors provides a Charity Evacuation service, whereby we will evacuate a patient in a serious medical condition free-of-charge.

28 such evacuations were carried out free of charge in 2013. This was a continued rise from the figure of 25 carried out in 2012 and the 21 flown in 2011. It reflects the increasingly vital need for such humanitarian support to the local population.

The patients who benefited from this charity work were in serious medical conditions at the time the request was made. AMREF Flying Doctors evacuated these patients to medical facilities where they received appropriate medical care. None of the patients would have been able to afford such a service and consequently their lives could have been lost.

AMREF Flying Doctors is extremely appreciative of members of the community across the globe that fundraises for us so we can keep doing what we do best – saving lives.

An Overview of Charity Evacuation Considerations and Guidelines

1. Medical

Is the patient in a life-threatening condition, and does the patient have a good chance of surviving the evacuation flight?
Is the prognosis for the patient likely to be significantly improved by air ambulance intervention?



2. Social

Is the patient a supporter of dependants, especially children?
Will the patient have the means to return home after the treatment?
Will the event of death at a location far from home create an irrevocable burden to the family/relatives?



3. Funding

Is the patient covered by insurance or any other means by which the flight can be paid for by a third party?
Does the patient or family appear to have adequate funds to pay for the flight in part or full? Will the patient be able to contribute to the cost of treatment at the hospital?



4. Other

Does AMREF have a suitable aircraft available? AMREF will not normally charter aircraft for a free evacuation.
Does the weather allow an immediate response?



J W S E A G O N

Charity evacuations are supported from various sources: internationally by the staff of IBM Sweden and AMREF Italia and locally by the companies such as JW Seagon, a Nairobi-based insurance company that makes regular donations throughout the year, particularly to this programme.



Charity Evacuations

Case Study Wajir to Nairobi

Tribal Clash Victim

14 June 2013



PILOT: **CAPT. MATTHEW BROWN**

DOCTOR: **DR. RUEBEN OKIOMA**

FLIGHT NURSE: **FESTUS NJUGUNA**

AIRCRAFT: **CESSNA CARAVAN 5Y-FDB**

TOTAL COST:
US\$6,180

As described in the following accounts, Charity Evacuations require a rapid response and provision of the high-level medical care that has become the cornerstone of AMREF Flying Doctors' assistance services.



At 10:40 hrs a distress call was received by the AMREF Flying Doctors Control Room from Wajir. Wajir is a town located in North Eastern Kenya. It is a generally hot and dry area. The call conveyed that a 20-year-old girl had been attacked by bandits and suffered a gunshot wound, with a bullet wound still lodged in her chest, and two fractures: her right knee and left femur (thigh bone). Furthermore, her 22-week old unborn child had died. Regardless of the fact that AMREF Flying Doctors receive unreliable information from the radio calls, more so in charity cases, any gunshot wound is a serious injury, especially in a place medically unequipped to deal with it. Therefore, after confirming the call, a team was quickly gathered and was wheels up at 12:10 hrs. In two hours, the team had safely landed in Wajir airport, which surprisingly resembled a mini-Wilson airport, populated by UN airplanes and World Food Programme tents. The team began to set up the equipment on the ground as they awaited the ambulance's arrival, which took longer than expected. As we waited, one of the airport employees came up to the crew and asked if they were the Flying Doctors, to which the crew answered yes. You could clearly see

the approval that registered on his face. Evidently the reputation of the 'healers that ride on wings' had spread far and wide.

After finally being cleared to access the tarmac, the patient, Qalo Edin, was brought to the aircraft, in an actual ambulance on an actual stretcher, seated as she was incapable of lying down due to difficulty in breathing. Edin appeared remarkably calm and completely aware of her surroundings, as she watched the team and the newly congregated crowd of on-lookers.

The flight doctor and nurse, also very calm, began their arduous task while the accompanying doctor from Wajir Hospital explained her condition to the team in indecipherable medical terms. What was more riveting was his account of the events that led up to this moment. Late on Wednesday night, 12/06/13, the few huts which comprised Edin's family settlement was surrounded by opposing tribesmen armed with guns; all in the name of tribal clashes. Without restraint, and some might add, remorse, they proceeded to shoot the inhabitants of the small settlement, located on the border of Mandera and Wajir; virtually in the middle of nowhere.

Few managed to flee and hide out until



the safety of daylight arrived. Edin's close family was not so lucky. Her 16-year-old brother was killed as well as her older sister who, while carrying her baby, was shot in the back, killing both her and her baby. Edin's husband had also fled the scene and his whereabouts were still unknown. To add insult to injury, the bandits then torched the huts, burning everything to the ground.

It is simply a miracle, a true case of divine intervention, that Edin survived the long hours before she was finally found by Good Samaritans, after the lucky few who escaped gained enough courage to return.

Edin, holding on to life, despite having spent hours amongst the dead, was transported by mkokoteni (hand-cart), along with the bodies of her brother, sister and sister's child, to the nearest town. By this time Edin's uncle was on scene. They acquired a truck and drove seven hours to the nearest hospital, Wajir.

The hospital however, was not equipped to handle such a case and thus referred to AMREF Flying Doctors.

Back to the present:

The team by now had taken her out of the ambulance and put her on another stretcher. Edin was now in a full body cast and ready to be loaded onto the plane for further treatment.

Once on the plane, she became very restless, even fighting the oxygen mask and full body cast off. One couldn't fault her. Considering her physical condition, the traumatic experience she had just undergone, her bewilderment at the strange men attending to her as well as

the strange place she was in and the fact that she had probably never been in a hospital. She had every right to be uncooperative.

Thus, she was given painkillers with sedative effect to assist in treatment as the doctor looked at the x-rays that had been handed over to him. Right off the bat, he saw that her left lung was not normal. After examining her chest using a stethoscope, he found that air had been trapped between her left lung and rib cage. This called for an immediate, minor surgery so as to insert a tube into the left side of her chest cavity to ease her breathing.

Finally, she was stable enough for the flight back to Nairobi, where a bed awaited her at Kenyatta National Hospital. Take-off time was 15:40 hrs preceding a smooth two hour flight, after which we landed in rainy Nairobi, a contrast to the heat of Wajir.

Edin arrived at Kenyatta National Hospital, transported by the Advanced Life Support Ground Ambulance, at 18:20 hrs and on Tuesday, 18/06/13, a report reached us that her fractures had been attended to and she was being induced to deliver the stillborn baby. Another life had been saved, but for Edin, despite getting another chance at life, thanks to AMREF Flying Doctors, she has months of recovery to face in a strange place where she is unable to communicate with anyone except her uncle. Afterwards, when she is discharged, she still must deal with the loss of her siblings and even more painful, her child. Back home, with her house and all therein burnt to ashes, she has nothing to go back to.



"Flying to remote destination for the purpose of saving lives, makes it all worth it."

JAMES NGATI
PILOT



Charity Evacuations

Case Study Kisii to Nairobi

Bus Crash

17 June 2012



PILOT:
CAPT. MATTHEW BROWN

DOCTOR:
DR. WANGARI NYAGA

FLIGHT NURSES:
**JANE MUNYUA,
ANTONY KIHARA**

AIRCRAFT:
CESSNA CARAVAN 5Y-FDB

TOTAL COST:
US\$3,810

Perhaps because of the chaos that the Kisii bus crash, according to Kenyan local media reports, had wrought over the area, it did not come as a surprise when a call from Kisii county came through to the control room at 09:00 hrs. However, amidst confusing, conflicting and inadequate information from both the media and those at the ground at Kisii County, it was not until 10:00 hrs that the call was confirmed. Even then, preparing for a flight to evacuate patients whose exact condition, other than the fact that they were critical, was unknown, is difficult.

At 11:30 hrs, a team consisting of a doctor, two flight nurses and a pilot took off more or less into the unknown. The flight from Wilson Airport was peaceful but the four stretchers occupying the back of the craft, not to mention the usual mountain of equipment, did nothing for comfort. The aircraft touched down at Suneka at 12:40 hrs, where we were met by numerous police and county officials gathered by a fleet of cars. Suneka, a small town adjacent Kisii, was a sight to behold. Rich, beautiful, green, rolling hills in a rural setting with its inhabitants huddled at the airstrip's gate to admire the 'big bird'.

Time is a crucial matter in these evacuations. Thus with minimal debate, one of the trucks was loaded with the necessary medical equipment, the team bundled inside it, with the exception of the pilot, and we were soon roaring down to Kisii Level Five Hospital.

The hospital was about 8 kilometres away but with speed bump after speed bump, it

felt closer to 20. Then again, in the wake of such a tragic road accident, perhaps the bumps were for the best.

Sometimes, the news anchor never really relays the actual degree of a disaster, or maybe we are immune and detached to the news reported. This is because no amount of news coverage could have adequately conveyed the chaos and disaster that had struck Kisii County. We were met by a wave of people, policemen and county officials at the hospital, too thick for our truck to get through. A senior policeman was assigned to us quickly to help us navigate the crowd using a circuitous route.

During the short time with the policeman, the team tried to find out the details concerning the crash. His answer, a surprising and strongly worded statement, described the 'impunity', 'negligence' and 'incompetence' of the driver and school officials. The actual story was that in the wake of the worst teachers strike in the history of Kenya since 1997, a bus that would otherwise sit 50 was loaded with about 87 students and teachers.

The students, from three or four different schools, were headed to Nyamwacha from Itumbwe for a sports competition organised by the county education office. The driver lost control and the bus crashed, killing eight people on the spot, including an innocent bystander who was crushed by the bus when it fell on him. Tragedy was an understatement.

Once the truck got through the throng at the hospital, the team quickly began to organise themselves and their equipment. We shoved our way quickly to the room



where three of the four patients to be evacuated were being kept. It was something right out of a hospital drama show. There were medical personnel everywhere, buzzing around the three young patients. The AMREF Flying Doctors team was appraised on the status of each patient before attempting any procedures. Vivian Onyengo, 16 years old, had a spinal injury and was therefore paralysed from the waist down. Her left arm was also fractured. Fridah Momanyi, 17 years old, had a case similar to that of Vivian, with the exception of her left wrist being fractured rather than her arm. Lastly, Eric Nyakundi, 18 years old, had a head injury, a torn ligament in his right hand and jaw fractures. These young teenagers were the most critical of all the victims of the bus crash.

The team, having processed the information, began their work, often calling to each other, making notes and moving from one patient to another with ease. In no time, there was a sense of calm and order in the otherwise congested room. Progress towards making the patients comfortable and stable was evident.

Once wounds were dressed, necks immobilised and pain eased, the doctor headed over to the fourth and last patient, Nicholas Munge, 16 years old, who was in an ambulance outside the hospital building. He had right-sided weakness, which led the doctor to infer that he had a brain bleed, which turned out to be right. He was also given the same treatment; immobilisation, pain control and IV fluids.

With the first phase complete, the only thing standing in the way of the team was the logistics of loading the patients and equipment onto ambulances and setting off for the airstrip. However, with so much press attention and equally as many important government officials, there was a brief interval in the operations for a flagging off of the ambulances.

This time, the speed bumps were not as

comforting as before in the hurry to get the patients to the hospital. However, nothing could stand in our way now, not even when one of the ambulances had to stop for petrol.

At the airstrip, the people of Suneka were still crowded by the gate and fences, now in the hundreds. Even here, the seemingly simple task of loading patients onto the craft was not as straight forward as one would imagine. Patients' conditions had to be considered seriously and a certain order had to be followed to enable better care for them while in the air.

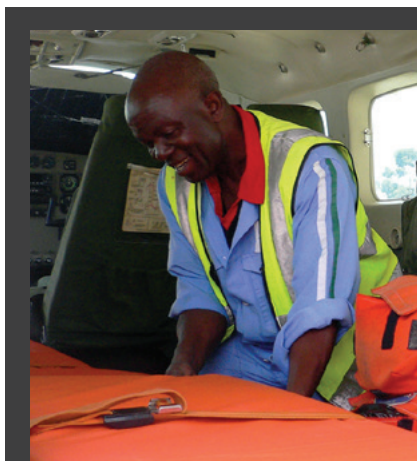
Vivian and Fridah went in first, followed by Eric and Nicholas, thanks to help from other medical personnel. The aircraft was now full, with patients and medics as comfortable as the space could afford and ready to go. We took off at 16:00 hrs, with the children waving after us, for a smooth 55-minute flight.

As usual, the flight was no prelude to whatever waited for us on the ground. We were met by a lot of media and even more government officials. The AMREF team unloaded the patients into the ambulances under the scrutiny of the press as calmly and efficiently as they possible. Finally, after what seemed to be eternity, the four patients were on their way to Kenyatta National Hospital, where they arrived at 17:45 hrs.

Regardless of how much one would like to only relay happy tales, fate constantly has other plans in mind. Vivian passed away on Saturday, 13th July 2013 while in surgery. The next day, in the quiet of night, Fridah also passed away.

Eric and Nicholas, as per 17th July 2013, were doing well.

The efforts of AMREF Flying Doctors did not end there. On Saturday, 13th July 2013, Rachel Bosibori, 16 years old, also a victim of the same bus crash, was evacuated from Kisumu, where she had been transferred to earlier. She was suffering from a head injury and was critical.



It's a joy to ensure the aircraft is clean and well prepared for an evacuation.

SOSPETER SHISANYA
GROUND STAFF



Cessna 208 B Grand Caravan



CAPACITY: **13 PASSENGERS OR
4 STRETCHERS**

MAX RANGE: **1,700 KM**
SPEED: **260 KM/H**

Beechcraft



CAPACITY: **10 PASSENGERS
OR 2 STRETCHERS**

Aircraft Available

Beechcraft Super King Air B200



CAPACITY: **10 PASSENGERS OR 2 STRETCHERS**

MAX RANGE: **2,025 KM**

SPEED: **420 KM/H**



Super King Air B350



MAX RANGE: **2,400 KM**
SPEED: **475 KM/H**

Cessna 550 Citation Bravo



CAPACITY: **7 PASSENGERS OR 2 STRETCHERS**

MAX RANGE: **3,750 KM**
SPEED: **690 KM/H**

AMREF Flying Doctors recently took delivery of a new aircraft in a bid to bolster the growing demand for evacuation services. The new Beechcraft King Air B200 aircraft, acquired at a total cost of US\$2,350,000, is a part of the investments that AMREF Flying Doctors is starting to make since its incorporation as a not-for-profit company – part of and wholly owned by AMREF.

The unveiling ceremony, held at the AMREF Flying Doctors premises at Wilson Airport, was presided over by the Governor of Nairobi County. Speaking at the ceremony, Dr Bettina Vadera, AMREF Flying Doctors' Chief Executive Officer and Medical Director, said that the aircraft "opens a new chapter in the firm's history...and can only mean good news for the growing list of subscribers as the bigger aircraft will provide the extra speed and range necessary for improving AMREF Flying Doctors' evacuation services."

The aircraft has been fitted with two Spectrum Aeromed 2200-016 medical stretchers, medical equipment walls and manual patient loaders, the first of its kind in the region.

Thomas Redder, Spectrum Aeromed account representative, said: "AMREF Flying Doctors is a great organisation dedicated to helping others that are less fortunate in remote areas of East Africa. We learned about their mission, their needs and wanted to help this great philanthropic organisation."

Cessna 560 Citation Excel



CAPACITY: **8 PASSENGERS OR 2 STRETCHERS**

MAX RANGE: **3,750 KM**
SPEED: **750 KM/H**

Eurocopter Ecureuil AS 350 B3



CAPACITY: **4 PASSENGERS OR 1 STRETCHER**

MAX RANGE: **600 KM**
SPEED: **185 KM/H**



Medical Standby Coverage

During events with high-risk involvement for participants or the public, AMREF Flying Doctors offers medical coverage by ground ambulance, helicopter or fixed-wing aircraft. Typical Kenyan sports events include the famous Safari Rally, the Lewa Downs Safaricom Marathon and regular horse shows in Nairobi or upcountry. The income generated through this service contributes towards AMREF Flying Doctors' overhead costs.

Safaricom Lewa Marathon

The Safaricom Lewa Marathon, held at the Lewa Wildlife Conservancy in Kenya in June, is one of the 10 'must do marathons' in the world. This 21-kilometre jog involving dry heat, high altitude, tough terrain and a host of indigenous wildlife through some of the most spectacular scenery in the world, attracts more than a thousand participants.

For the fourth year running, AMREF Flying Doctors provided medical coverage, attending to a number of minor injuries as well as two participants who collapsed due to the strain. Since its inception in 2000, the



Safaricom Marathon has raised more than US\$3,800,000, from which thousands of Kenyans have benefited through school, hospital, community and conservancy projects.



Horse of the Year Show

The Horse of the Year Show, held in December 2013, drew competitors from Kenya, Uganda and Tanzania. AMREF Flying Doctors not only sponsored the event, but was on standby to assist in case of emergency. One competitor, following an accident where he crashed into a tree, was evacuated using the ground ambulance service for his head injury.

2013 East African Safari Classic Rally

AMREF Flying Doctors once again was on standby to provide medical evacuations as needed during the 2013 East African Safari Classic motor rally, which took place in November 2013. The event is considered to be the toughest and most demanding motor rally in the world. Competitors drive classic rally cars, all pre-1978 vintage, for nine of the 10 days over the rugged roads of Kenya and Tanzania, with a day of rest in the middle of the event.

This year, two evacuations of a competitor and his navigator, who were involved in an accident, were performed.





Westgate Mall attack

Certainly the worst terrorist attack to hit Kenya since the '98 bombing of the US Embassy in the city centre, the Westgate mall terror attack rocked the nation of Kenya. The three-day siege on one of the largest malls in Kenya resulted in 72 deaths; 62 civilians, six soldiers and four attackers, not to mention the over 200 hundred people that were injured and the property damage incurred.



AMREF Flying Doctors was on medical standby at the site throughout the entire event to support the government medical teams by assisting in first aid and ground evacuation of casualties to various hospitals.



“As critical as it may look, it’s always reassuring to be in safe professional hands.”

MAURICE SIJENYI
AERO MEDICAL
COORDINATOR

Tusker Air Show

The Tusker Air Show took place at Wilson Airport in December. The two-day event, the first of its kind, was the biggest air show there in the last decade, hosting more than 15,000 spectators and a myriad of participants, in celebration of Kenya’s 50th anniversary. Sensational performances from the Kenya Air Force, helicopters, skydivers and private and commercial pilots, offered a unique and unforgettable experience. AMREF Flying Doctors attended to various minor

injuries throughout the event, mostly children, including evacuating a twelve year old with a broken arm and stabilising another child with a broken knee.





Medical Advice & Communication



AMREF Flying Doctors, through its Control Centre at Wilson Airport, Nairobi, is staffed 24-hours a day with qualified medical staff to provide emergency medical advice. Once a call is taken about a patient who requires emergency evacuation, staff start planning, with the assistance of the aviation team, the time for take-off and which aircraft to use, depending on the airstrip, the weather and the patient's condition. All of our aircraft are equipped as flying intensive care units, carrying high-tech medical equipment to deal with whatever emergency may have arisen. Our medical staff may have to work alone,

and are therefore highly trained with additional skills you may not find in the average GP or nurse. Doctors have critical care skills and all our flight nurses have a critical care background. Motor vehicle accidents, broken bones, heart attacks, respiratory failure and animal attacks are just some of the medical emergencies our teams commonly encounter. After collecting the patient, the pilot relays the medical report to the Control Centre. Control Centre staff book the hospital, ensure medical staff there are briefed and make sure an AMREF Flying Doctors ground ambulance is ready to transport the patient to a medical facility without delay.

Clockwise from top: The interior of the new ALS ambulance being loaded with the new incubator; Preparing the Cessna Caravan for an evacuation; The Drager-donated incubator with the ALS ambulance.





The 24-Hour Control Centre – Co-ordination & Communication

Health facilities in remote areas can also contact AMREF Flying Doctors' Emergency Control Centre 24 hours a day for medical advice. On several occasions during the reported period, AMREF's emergency physician or the nurse in our control centre were able to give medical advice over the radio or telephone to rural medical centres, mission and district health facilities or remote tourist lodges. As a consequence, patients' conditions were improved and unnecessary evacuations could be avoided. Medical advice can be obtained at our Control Centre by anyone in need at no fee and irrespective of membership subscription.



"Working with AMREF Flying Doctors is a dream come true, a thrilling story that needs to be told."

HELLEN MUCHAI
FLIGHT NURSE



International Marketing

International events are important platforms to AMREF Flying Doctors for networking, strengthening international working relationships and participating in international discussions on the standard and quality of global air ambulance provision. Conferences bring together a worldwide clientele from the insurance/assistance industry, as well as air ambulance operators and service providers



To raise revenue and maintain growth of activities, which in turn leads to a greater income for AMREF, it remains vital for AMREF Flying Doctors to market and promote the services we offer. Our goal in the use of marketing and PR is to raise the profile of AMREF Flying Doctors to emphasise the quality of the service available and to drive the growth of donations. During 2013, AMREF Flying Doctors participated in a number of conferences, in some cases giving presentations to over 600 delegates at a time. The elevation of the status of AMREF Flying Doctors within the International Assistance Group (IAG) to that of Assistance Partner gave AFD the opportunity to attend and present at the IAG Conference in Morocco and again at the IAG International Forum in Vienna. In addition, the continued support from the Voyageur Group gave AFD access to the International Travel Insurance Conferences in the United Kingdom, Malaysia and Vienna

during 2013.

As one of these conferences clashed with the Air Med South Africa conference, AFD was fortunate that Dr Matt Edwards, a recent Visiting Volunteer Physician, was able to represent AFD, giving both a presentation and a Poster Session covering our activities. Other activities included presentations to leading NGOs, embassies and other organisations regionally, creating awareness of our service and strengthening existing relationships. Assessment visits to the main hospitals were also carried out with a review of the current medical facilities available in several locations.

The relationship with the AMREF UK office in particular grew during 2013, with the CEO & COO visiting in May to make a number of presentations to donors and corporates as well as the COO taking part in the Annual Christmas carol concert and Appeal, organised by AMREF UK, at which over £1,200 was raised for Flying Doctors and the Outreach Programme.

International Travel Insurance Conference (ITIC)





Local and Regional Events

This year's local and regional marketing efforts were geared towards marketing the Maisha Annual Air Evacuation Scheme.

This involved detailed presentations to various companies as well as attending various events.

One such event was the Magical Kenya Travel Expo held in October 2013 at the KICC and organised by the Kenya Tourism Board, whose aim is to raise Kenya's profile as a tourist destination by allowing participants, both local and foreign, to interact with the industry's stakeholders.

The event provided a useful and powerful platform for AMREF Flying Doctors to network with prospective buyers.

This year also saw AMREF Flying Doctors

sponsoring a number of sporting events. AMREF Flying Doctors hosted a Golf Maisha club night at the Nanyuki Sports Club on 28th February 2013, as well as the Mount Kenya 10 A Side Rugby Tournament on the 28th and 29th September 2013, also held at the Nanyuki Sports club, in an effort to create awareness of the new product, Maisha.



Above right: Catherine Ochola of AFD with a customer at the Karibu Fair in Arusha, Tanzania.

Bottom right: Bettina Vadera, CEO and Medical Director of AFD, speaking at Nanyuki Golf Club.

Regional marketing events included the Arusha Community Christmas Fair, which was held in November and featured unique, handmade, creative works of art and craft from all over East Africa.

AMREF Flying Doctors once again

participated in the annual Karibu fair in Arusha, Tanzania. The three day event, organized by the Tanzania Association of Tour Operators, featured many tourism products, services and delegates from Tanzania, Kenya, Uganda and Rwanda.



"I have worked for AMREF many years but each day is never the same. It's a joy to assist those in need of medical assistance. AMREF surely makes a difference in Africa."

KILDA BEGISEN
AERO MEDICAL
COORDINATOR





Maisha Annual Air Evacuation Scheme

2013 marked the first full year of operation for AMREF Flying Doctors since its incorporation into a company, limited by guarantee, wholly owned by AMREF. Since the launch of Maisha, the objective of helping AMREF achieve its fundraising, financial and outreach obligations is becoming real for AMREF Flying Doctors.



Above: Catherine Ochola with a Maisha client

Maisha, an annual air ambulance subscription scheme, offers different levels of subscription depending on the area of coverage. This product is designed to offer peace of mind to customers, especially tourists.

The increasingly popular Tourist Scheme allows tourists, through tour operator companies, to access Maisha for the period of their stay. Tourists are covered for a period of 30 days, with the tour operator being invoiced at the end of every month. All that is required from tour operators is a list of the names of their clients, arrival and departure dates, and the insurance details of the clients (if available at the time of registration).

Tour operators that are not subscribed to the Tourist Evacuation Scheme risk delays in evacuations as AMREF Flying Doctors requires a 100% upfront payment prior to evacuation.

Unused funds raised by this scheme help to support AMREF's Outreach Programme and

AMREF Flying Doctors' Charity Evacuations. After a first year of rigorous advertising, the marketing strategies started bearing fruit across the board, with most facets presenting notable improvements by the end of the year. The strategies employed included partnerships with Kenyan media groups so as to run sponsor boards on television as well as radio.

Also, live interviews on KTN TV and Citizen TV went a long way to create awareness for Maisha. Events such as trade fairs, sports competitions and charity evacuations offered a platform for AMREF Flying Doctors to showcase its new products.

Overall, the campaign has been very effective, with the level of engagement with the target audience improving significantly in just two months – providing a better platform for driving the various campaign messages in the future. An independent survey by a media monitoring agency point at exposure valued at about KES100 million despite an actual expenditure of less than 20% of the figure. The increased number of inquiries following each campaign also pointed at a better informed/convinced audience, as does the ever-increasing number of subscriptions.

Future plans for Maisha include continuing to engage our audiences with targeted and appropriate information to smooth the conversion process, as well as expansion to other geographical areas.

Kenya, Tanzania and Zanzibar

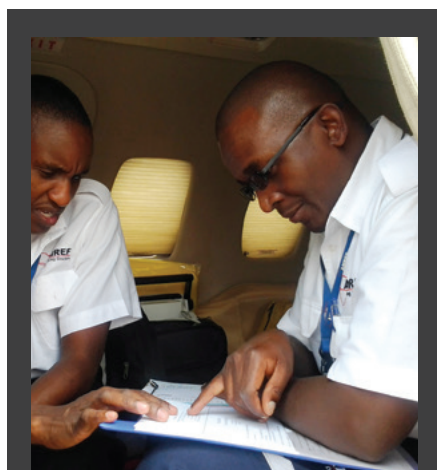
KATO and TATO Members
US\$5 per person for 30 days

Non-KATO and TATO Members
US\$10 per person for 30 days

Kenya, Tanzania, Uganda, Rwanda and Burundi

KATO and TATO Members
US\$9 per person for 30 days

Non-KATO and TATO Members
US\$18 per person for 30 days



"I always feel fulfilled and rewarded whenever I give a needy person new hope, thanks to AMREF Flying Doctors."

FESTUS NJUNGUNA
FLIGHT NURSE





Media activities

2013 saw a surge in media activity for AMREF Flying Doctors. With the need to promote the new product, Maisha, AMREF Flying Doctors was featured on many instances in the media. Local media television and radio stations hosted AMREF Flying Doctors for live interviews as well as running advert campaigns for Maisha. Various events such as the King Air launch and the charity evacuation of four victims of the Kisii bus crash generated more media attention for AMREF Flying Doctors.



Top: AFD television advertisement campaign.
Right: Bettina Vadera, CEO and Medical Director of AFD, in an interview on local television. **Below:** Display advertisements for the Maisha card.



Contact us via on Twitter twitter.com/AMREFFlyingDocs
@AMREFFlyingDocs



The number of AMREF Flying Doctors' followers and likes on Twitter and Facebook respectively has risen considerably this past year.

Major events including charity evacuations are usually posted on the social media pages for our supporters' benefit. AMREF Flying Doctors is now also using Google Plus and YouTube as communication platforms.



See our facebook page:

www.facebook.com/amrefflydoc

Go to our website for regular updates and information:
www.flydoc.org



International Travel & Health Insurance Journal



In order to be successful in the competitive world of travel insurance and international air ambulance activities, we need an acknowledged expert in the field to guide and support us, given our limited budget. The International Travel Insurance Journal (ITIJ) has been just that to us for the last 11 years.



“As publishers of the flagship industry magazines ITIJ (International Travel Insurance Journal) and Waypoint AirMed&Rescue, we are immensely proud to have been working with AMREF Flying Doctors for more than a decade. “From the beginning, our relationship has

proven to be both mutually beneficial and inspiring; whether we are publishing case studies on the incredible work performed by AMREF Flying Doctors, running features that draw on their expertise, or designing marketing campaigns to help them reach our worldwide audience, it has always been a pleasure to help them in any way we can,” said David Fitzpatrick, group sales manager.

In terms of international exposure over the years, ITIJ was key in creating AMREF's increased reach in the repatriation market place. It allowed the organisation to be seen by, and then keep, the attention of insurance providers and medical assistance companies across the globe and draw specific interest in the high-quality service delivered under challenging conditions. ITIJ is the original and only dedicated monthly trade journal for the travel insurance community. With a global audience of more than 20,000 readers, the Journal continues to be used as a guide to the industry and as a key reference point for the foremost organisations involved in the design, delivery and implementation of travel insurance products. The readership covers the entire chain of travel insurance delivery, all the way from underwriters and intermediaries through to the air ambulance crews saving lives every day.

waypoint
AirMed&Rescue

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Waypoint AirMed & Rescue Magazine

Waypoint AirMed&Rescue is the world's only monthly international trade magazine for the aeromedical and rescue communities. With more than 25,000 readers worldwide, Waypoint is the first publication of its kind to cover all forms of aeromedicine, from fixed-wing international patient transfers via commercial carriers and air ambulances, to HEMS, SAR and CSAR. Giving readers from across the globe a regular and comprehensive monthly digest of international developments in the aeromedical community, Waypoint also contains in-depth features, analysis and

technical presentations. The magazine is aimed primarily at both medical and flight personnel with an emphasis towards senior staff across HEMS, fixed-wing, military and public bodies.





Visitors Centre

TO ARRANGE A TOUR,
PURCHASE AMREF FLYING
DOCTORS MERCHANDISE,
OR IF YOU HAVE ANY
QUERIES, PLEASE CONTACT
THE VISITORS CENTRE.

TEL:
+254 20 699 2000
EMAIL:
info@flydoc.org

VISITORS CENTRE OPENING
HOURS:
MONDAY TO FRIDAY
09:00–13:00 & 14:00–17:00



“The transfer of evacuated patients to hospital is essential and part of the process of offering professional care to our clients.”

SHABAN YUSUF
AMBULANCE DRIVER

AMREF Flying Doctors' Visitors Centre showcases AMREF's history and raises awareness and support for AMREF Flying Doctors with members of the public. Since its opening in 2007 by Dr. Tom Rees, the Centre has attracted a large number of visitors, including more than 4,500 school children. The children are inspired by what has been achieved, and it often encourages many to consider a career in medical, engineering or aviation fields. Commencing with a 15-minute DVD, visitors follow the story of AMREF Flying Doctors from its foundation in 1957 to its impressive achievements today. Visitors tour the museum and then go to where the action takes place – the 24-hour Control Centre, where dedicated

nurses take all of the calls. To finish the tour, visitors go into the hangar to view the aircraft. Tours must be arranged in advance and run for 45 minutes.





Volunteer Physician Programme

This programme was started in 1997 to enable physicians from all over the world to work with the Flying Doctors on a voluntary basis. At the same time, it makes experienced emergency physicians from other countries available to update AMREF's aero-medical staff on developments in emergency care practices and to exchange experiences and skills. Each Volunteer Physician is required to provide at least one teaching lesson to AMREF staff. This year, AMREF Flying Doctors had seven volunteer physicians from Germany, the United Arab Emirates, Canada and the United Kingdom, who participated in the programme over a period of 3-4 weeks each, with the exception of Dr Edwards, who remained for three months. During the year, the VVPs covered almost 250,000 miles in AFD aircraft. After returning to their home countries, AMREF Flying Doctors keeps in contact with the volunteer physicians and at different occasions in the past, AMREF National Offices were able to make use of these contacts for fundraising purposes or otherwise.

Further details are available at:
www.amref.org/flying-doctors/volunteer-physician-programme/



Dr Harold Shim



Dr Achim Roper



Dr Anil N. Karmali



Dr Andreas Lutgen



Dr Matt A. Edwards



Dr Simon Forrington





Flying Doctors A Day in the Life

During Dr Forrington's time here, he kept a blog. This is an extract from it...



Top right: Dr Simon Forrington receiving the patient at the airstrip.

Dr. Forrington, a second-time volunteer with AMREF Flying Doctors, kept a blog during his time here. Here is an extract from it...

I pushed open the door of our twin-prop King Air and stepped out into the heat. Dadaab was smouldering in the midday sun and the open, dusty expanse of desert felt like the base of a fire pit. The airstrip was deserted, save for a decaying UN World Food Programme aircraft, its engines missing and windows broken. Scattered thorn bushes clung to the dry red earth, their roots fighting to soak up any last vestiges of water, sheltering deep underground from the devil sun. We waited in the heat, squinting out at the desert landscape through the shimmering air. Eventually, the ubiquitous Toyota Land Cruiser drew up and I climbed into the back. Our patient, a large middle-aged African woman with severe malaria, groaned a reply to my Swahili greeting. With difficulty, we lifted her into the back of the aircraft; it was hot inside, but mercifully out of the direct sunlight from above. Vital signs showed that she was pyrexial, tachycardic and very dehydrated. An IV line was fixed, fluid administered and oxygen delivered before we started the engines. A blast of air conditioning bathed the cabin and dried the sweat on our brows.

We bumped along the bush airstrip, finally lurching into the air and banking hard left, looking down on the huge UNHCR refugee camp spread out below. Home to a half-million displaced souls, this is largest refugee camp in the world and sits on the desert plain just south of the Somali-Kenyan border. With fluid, oxygen and medication,

the patient was beginning to improve during the one-hour flight back to Nairobi. At Wilson Airport we moved her into the back of our ground ambulance and sped off to Nairobi Hospital, where she would receive definitive care.

So ended my first rescue and retrieval mission of this placement with AMREF Flying Doctors (AFD). I had arrived the day before from the cold of a wintery Manchester to spend three weeks with my friends at AFD in the run-up to Christmas. As I write, I'm due to head back to England tomorrow after a busy second stint as a volunteer flight physician. The 14 missions on this trip have covered some 14,000 miles, more than halfway around the globe.

**14 missions on this trip
have covered some
14,000 miles**



"Quality performance and service starts with a positive attitude."

CAROL NJOGU
SALES AND MARKETING
ASSISTANT

We have treated patients ranging in age from 14 months to 68 years. I've now flown more than 50 missions for AFD and I'm beginning to feel like part of the furniture. A pale-skinned and reserved Englishman I may be, but when Africa gets in your bones, it stays there...

Today's evacuation saw us fly out to Voi National Park in a Cessna Caravan. The Kenya Wildlife Service who work in the bush do a difficult job trying to protect the animals from poachers and attempt to mitigate the inevitable conflict between humans wanting more land and animals needing space to live. An unfortunate accident had happened



Top: Dr Simon Forrington stabilising the patient in the aircraft before take-off.

there this morning, a so-called 'friendly fire' incident where one of the Rangers had been badly injured in a shooting incident with a colleague. The bullet had entered the left side of his abdomen, passed all of the way through, with a large exit wound on the right. The bullet had finally come to rest in his right forearm. He was in a bad way, with internal bleeding and a damaged bowel. He needed to get to the operating theatre urgently so we worked quickly, gaining IV access, administering ketamine analgesia, antibiotics, fluid and oxygen. His wounds were cleaned, packed and pressure dressings applied. He remained fairly stable during the flight, although very sick. After handing him over at Karen Hospital, he went to theatre and is now on the Intensive Care Unit where I hope he will make a good recovery. Between those two missions, I found

myself in Johannesburg during the Mandela memorial, evacuating a man from Tanzania following an acid attack in a bar. I was in the Central African Republic during the outbreak of ethnic violence, and saw hundreds of refugees taking shelter at the airport. We evacuated a Belgian man with a traumatic head injury, but it makes you shake your head at the world when rescuing a single European as we flew over the massed ranks of refugees, living in squalor below. Other destinations on this trip have included Rwanda, Burundi, Djibouti, Tanzania and various locations around Kenya. I could write a full blog about each but I'm running out of time before flying home and will leave it there for now. It's been a great 3 weeks and I'm already looking forward to coming back at some point.... Thanks to all at AFD. You do a great job.

Flying Doctors A Day in the Life

Dr. Matt Edwards, a blogger and filmmaker, also shared his first-hand account of his experience at AMREF Flying Doctors. Here are two of his blog posts.



Buffalo attack wakeup call

"Daktari... ..immediately... .. Buffalo attack... ..Magadi."

That's about as much information as filtered through into my brain as I answered the bleating phone at 05:00 this morning. Before I was really aware I was not dreaming I had my trousers on inside out and was ineffectually attempting to fight my way out of my mosquito net in the darkness. About 03:30 in the morning, a park ranger in a reserve close to Magadi, about 75km South West of Nairobi, was on patrol when a buffalo attacked him. I am now reliably informed by my friends here that 'Don't worry about lions and snakes. Buffalo are one of the only beasts around here that will attack you for no reason.' And they can cause some nasty damage. They are not as invariably lethal as the elephants, but they will charge and impale you with their horns. This poor chap in question was charged before any shots could be fired. Apparently the animal dragged and threw him to the ground, attacking him, then ran off into the night. The ranger was rushed back to the camp, where the nurse there tried her best to stem the bleeding from the huge wounds in his shoulder, his thigh and his head. She did a good job with little equipment and established IV access and gave him painkillers and a tetanus shot. Throughout the ordeal he never lost consciousness.

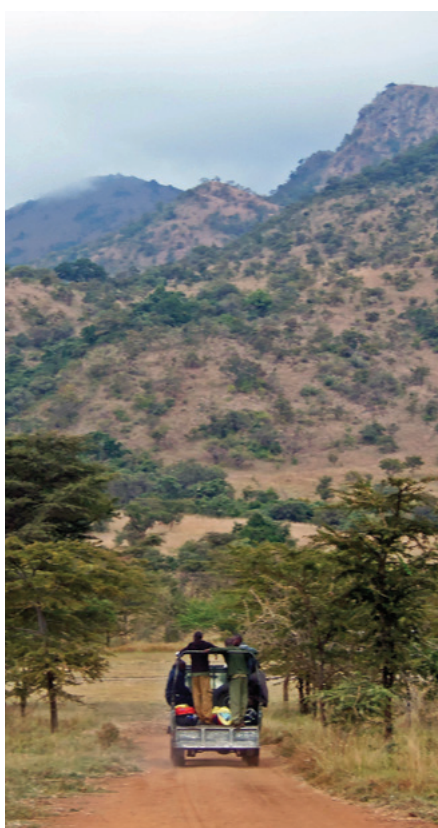
With the scanty information of 'buffalo attack, head injury, severe bleeding' we prepared for the worst (always a good bet for AMREF FD as I have said before). As we took off into the dawn, Phyllis and I drew up basic drugs ready for a critically ill patient and very soon we were circling over the remote little airstrip in the Rift Valley. On the ground, we were greeted by a group of concerned looking rangers and staff from the park. Some of them obviously very shook up by the previous night's events. Others less so. I suppose, in general, there isn't much to be worried about when you are carrying an absurdly massive gun. We were all driven with our equipment through the bush to their camp and we were relieved to find a young man, in pain and bleeding admittedly, but conscious and orientated. The buffalo had managed to leave him without critical head, spinal, chest, abdominal or pelvic injuries. He had a few minor head wounds and a large thigh wound without underlying fracture. It had stopped bleeding and exposing it showed how very close the buffalo's horn had come to tearing open his femoral artery. I doubt he would be alive if it had. His biggest problem was a horrendous right shoulder injury. The animal's horn had punctured through one side of the shoulder, shattering the proximal humerus bone as it went and torn through to the other side. Unfortunately he is right hand dominant. His pulse at the elbow was pretty weak but, amazingly, he had preserved sensation to his fingers and upper arm. The wounds



Above: Chief Pilot Captain Kefa Kihara assisting the medical crew.

Below: Transporting the patient to Magadi airstrip.

Bottom left: The curious zebra.



were still oozing profusely and the arm was at a horrible angle. It was time to introduce him to my good friend ketamine.

Ketamine is a fantastic drug for the pre-hospital environment and I think it would be one of your 'must have' drugs for remote medicine. It is 'remarkably safe and is certainly the safest anaesthetic if you are inexperienced', as one of my old bosses, Dr Sinclair, wrote in his book on basic bush anaesthesia for AMREF: 'Ketamine is particularly useful in developing countries'. It's a potent sedative, analgesic, bronchodilator and best thing about it is that you can give it to patients who had lost a lot of blood without their blood pressure plummeting. Most of the other strong analgesics and anaesthetics will do that, so you run a tightrope of cardiovascular instability if you use them in trauma. It has its side effects of course. Some of you may know it as Special K for its exciting hallucinatory effects that probably make clubbing vaguely interesting. Those waking from the sedative effects of high dose ketamine often have crazy 'emergence phenomenon' which affect different people very differently. Last chap I gave it to, to extricate him out the back of the Land Rover, stared at me and asked 'Are you God? I am dead. You are angels'. Kids often have fun with their hallucinations, but adults have a greater tendency to freak out. Children generally have an overactive imagination anyway, meaning that seeing a dragon at the end of your bed is quite cool, but as an adult you might start climbing the wall. The other stumbling block for using ketamine in trauma is that the majority of the medical world thinks it will make patients' heads explode. If you have sustained a head injury, due to a couple of case series written up in the 70s, ketamine is strictly not allowed as it was thought to detrimentally increase the pressure in the head. Making them explode! I'm not sure how many more review papers, head-to-head comparisons (excuse the pun) or research papers into its potential neuroprotective qualities in head injury need to be performed to revise the dogma. Doctors across the world are still far happier using drugs which dangerously drop blood pressure, an effect shown definitely to worsen outcomes in head injury, than use evil ketamine. It is so ingrained into medical culture that I still feel uneasy about giving it. Not because I think it's going to cause harm, but more because of the stern criticism I can expect from other colleagues, utterly convinced I have made the patient's

HEAD EXPLODE!

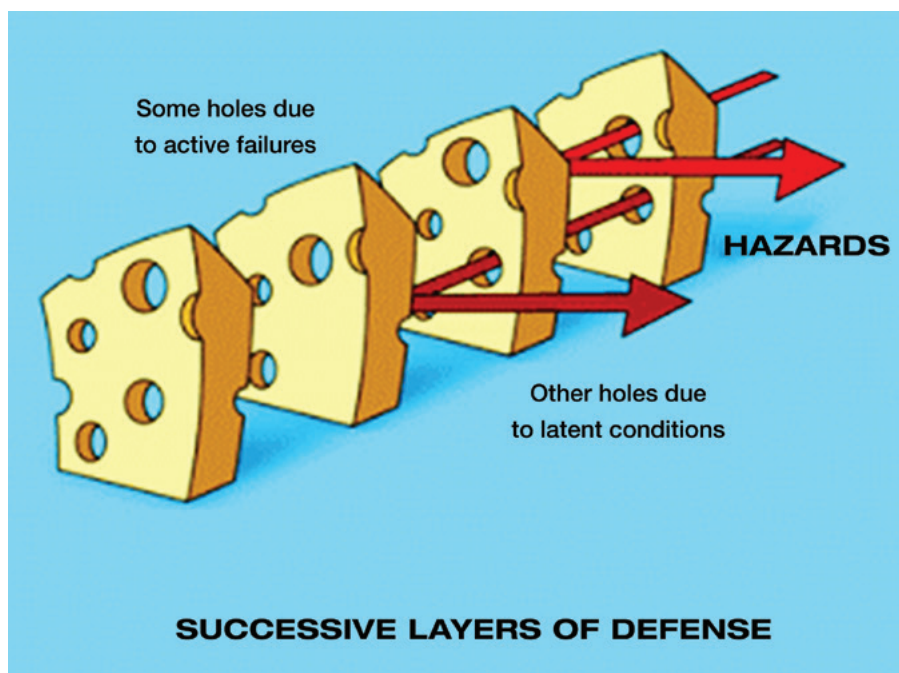
We popped in another IV line, attached him to monitors and I gave a mild dose of sedative in the vain hope that we wouldn't get emergency issues. Then something a bit weird happened...

There is an old medical proverb that goes 'if you hear hoofs coming down the corridor, don't assume it is a zebra'; which basically means think of the common stuff first before rushing to weird and wonderful diagnoses. Real medicine is not like House MD, more's the pity. So imagine my surprise as, having just administered the ketamine, I heard hoofs, turned round and was face to face with a curious zebra. It was watching me work as I knelt beside the patient. I did a double take, making sure I hadn't inadvertently given the hallucinogenic drug to myself. 'Nope, that's a zebra alright.' Now none of my medical mentors ever told me

none of my medical
mentors ever told me
what to do if there
is actually a zebra in
the corridor

what to do if there is actually a zebra in the corridor. I pondered this for a second as the zebra and I stared back at each other. The surreal but beautiful little moment was broken as he was shooed away by one the rangers and we carried on.

I gave traction to the horribly crunchy upper arm as Phyllis applied a battlefield style dressing, splintage and a sling. The patient didn't even flinch but I think his colleagues were slightly concerned by his fixed disembodied gaze at the sky. They do that. Soon we had control of the haemorrhage and the patient was packaged up and ready to move. We rang ahead to warn the receiving hospital that we had a limb threatening injury and to let their surgical teams know. With a 30 minute flight time we were in their emergency room in about an hour. The patient was taken for imaging and I understand he is now in theatre. Neither I nor the orthopaedic surgeon were particularly optimistic about the future function of that arm but, after all, stranger things have happened. Like zebras watching you at work for example.



The inverse Swiss cheese model of success by Dr. Matt Edwards

To see his short films on Dr. Matt Edwards' time with AMREF Flying Doctors, visit his YouTube channel 'mattdocfilms'. For more from his blog, please visit:

<http://mattdocflydoc.blogspot.com/2013/06/mattdocfilms-and-amref-fd.html>

I have been shown the Swiss cheese model for error or disaster many times in my career. But I wonder if there is a Swiss cheese model for success?

So instead of the multiple holes lining up to allow an environment for disaster, all the right holes line up allowing you to sail through against all the odds and come out the other side with a truly excellent result. If there is not such a model, I would like to propose it now and give you an example that happened just the other day.

I have written little about the staff and expertise that goes on behind the scenes allowing AMREF FD to do its job. They made those first layers of Swiss cheese line up, just in time.

Coming from a first world country and working at AMREF, you become very acutely aware of the different medical capabilities in the third world and how incredibly remote (geographically and logistically) some of these places are. And that's coming from someone who has worked in Antarctica! If taken ill in one of these places, you had better cross your fingers and hope your own body can sort it out. While out here I have often thought about one of my medical school colleagues, who tragically succumbed to a severe illness in the bush of Africa on her elective. I wonder if she would still be with us if AMREF FD had been there and able to pick her up in time.

We received word of a young man travelling in a remote area of Ethiopia who had

become extremely sick. They thought it was probably malaria but could not confirm. He had suffered a pretty classic malarial course with a few days of very high fevers, rigors and then started to develop dark urine and jaundiced skin. He seemed to improve on a dose of artemether (administered by another member of the group he was with) and then during the night became drowsy, confused and convulsed. He had not regained consciousness since. The doctors in the small clinic there had neither the supply of medication, nor the facilities to treat such a severe illness. Their experience of severe malaria in their local population is that it is invariably fatal. They just expect to watch people pass away.

When a distress emergency call like this comes into AMREF, a number of things need to happen before we can get going. One of the first things is getting confirmation from the insurance company that they will pay and the patient is covered for what we propose to do. Then we need to get the guys at Phoenix to work out how to get us there. That requires knowledge of the airspace, the airstrips in the region and, crucially in this case, their opening hours. Our operations team need to get immigration to agree to let the patient into the country and get clearance for our aircraft to enter the country's airspace and land. In this particular case, the challenge was that the call came through about lunchtime and the airstrip we were flying to could not support night flights. Lalibela is a site of considerable beauty and cultural heritage in Ethiopia, attracting a large amount of pilgrims and tourists alike, so the runway is tarmac and well maintained, allowing us to get there is a jet. But immigration dictates we cannot go straight there; we must first stop in the capital Addis Ababa to process the paperwork. Only in extremely rare circumstances is that waived in any country, not just Ethiopia. (For example, because of a prior agreement, we can fly straight to any airstrip in Tanzania without going to Dar Es Salaam). So given that it's two hours from Nairobi to Addis Ababa, then about 30 minutes until we can set off to Lalibela, which takes 45 minutes and shuts at 18:00, we were looking at a cut-off time of 14:30. If we missed it, we would have to wait until morning. The medical report strongly suggested that the patient would not survive such a delay.

As our Operations staff battled with Ethiopian immigration and badgered them to gain clearance for the flight, our radio



Left: The Swiss cheese model.
Above: Matt with his critical patient en route from Lalibela, Ethiopia.

room in desperation tried to charter a flight in Ethiopia to go get the patient and bring him to Addis, which is open 24 hrs. then we could pick him up there, but we couldn't get a doctor or nurse to do the escort. At 13:45 it was looking like this young man's life was slipping through our fingers. All we could do as the medical team was sit with our equipment, ready to go and hoping the operations team could pull it off in time. It just seemed crazy to me that this red tape can't be sorted out while we are on our way or even once we had picked him up, but that just isn't the way it works.

At 14:10 we got the call to say that clearance had been granted, the insurer had confirmed they were happy, the patient's travel documents had been found and we started up the jet. It was still going to be tight. It was entirely dependent on the immigration officials at Addis Ababa. Airport officials here seem to behave a little like 'Rheopectic liquids' i.e. they become 'slower and thicker over time when shaken, agitated, or otherwise stressed'. Utter deference to their lofty status and prostrated begging normally works better for the fluid dynamics of the situation.

In Addis we were able to speak to the doctor treating this chap. He was worried. Really worried. He said his respiratory pattern was changing indicating he was not long for this world. This news came as the pilot did his calculations and worked out we would have about 30 minutes on ground. We told the doctor to get the patient to the airstrip, we couldn't come to him. He was reluctant, but it was the only way.

The flight into Lalibela was about 45 minutes. As Clement the flight nurse and I drew up drugs and set up the ventilator, I caught glimpses out the window of an incredible landscape. If the only pictures of Ethiopia you have ever seen have been from Oxfam adverts, the country has been rather misrepresented. This particular region is breath-taking, with vast undulating valleys, deep canyons and lush green cultivated fields. From that elevation I missed many of the famous temples carved out of the ground and canyon walls, but I could see the scattered village buildings resembling little mushroom plantations. Soon we were banking hard around a valley rim and on the final approach into Lalibela.

The patient had been brought to the airstrip and he looked worse than I imagined. His travelling companions were obviously incredibly worried and glad to see us. Like

any of these situations a little crowd of locals had gathered to watch. It's annoying and intrusive but you get used to it. There simply is no point telling them it isn't a spectator sport. Because it is really. You just have to get on with it and they can be useful on occasions as another pair of hands to help lift things.

Clement and I set to our resuscitation (being given our absolute max time of 45 minutes) and the pilots were incredibly helpful and just became members of the medical team. When rushed in a situation like this where there is no one to bail you out like in hospital, it is even more critical you keep your head, calm down and go through your checklists. Communication is key and despite not having worked with Clement for long (he is one of our newest flight nurses) we gelled and did a bloody good job if I do say so myself. Within our allotted 45 minutes we had more IV lines in him with improving oxygenation, a blood pressure, and had established him on the ventilator without any complications. We settled him into the plane with all our pumps, drips and machines and were taking off from the

when rushed in a situation like this ... it is even more critical you keep your head

beautiful Lalibela just as the light was fading. With all our kit we were able to invasively monitor his progress as we treated and correct his various issues. As he improved he started to require more sedation to help him cope with the ventilator which is a promising sign that his brain was coming back on line. By the time we arrived in the hospital in Nairobi we performed a blood gas test which showed he had massively improved and was even breathing for himself. I am told he is now stable and improving in intensive care and the doctors are very positive about his prognosis. Discussing the case, we all agree that had it not been for the actions of our dedicated operations team busting through that red-tape and our pilots 'pushing the envelope', the story would have been very different. But for this lucky young man, all the holes in the Swiss cheese lined up just in time.



"It's great to work with AMREF Flying Doctors and I love my job."

MICHAEL NJOGE
 AMBULANCE DRIVER



Assistance Services

AMREF Flying Doctors also provides medical and logistical assistance locally to international insurance and assistance organisations. This can range from the follow up of medical reports for in-hospital patients, assessment of hospital bills, provision of transport for patients or relatives, booking hotel accommodation or air tickets, to the actual guarantee of medical or other case related expenses. Furthermore, AMREF Flying Doctors assesses medical facilities on request and advises insurance companies when medical evacuation or repatriation for their clients is recommended. These services are provided against a handling fee and are only rendered to clients with whom AMREF Flying Doctors has signed a Service Provider Agreement. In 2013 the number of Service Provider Agreements signed with leading international insurance /assistance companies has reached a total of 375, under which many other regional companies and subsidiaries are covered. Over 450 individual cases were handled on behalf of those companies.

Top left: The AMREF Flying Doctors' Advanced Life Support ambulance with the Cessna Caravan 208B. Top right: Interior of the ALS ambulance.



Assistance services can include the following:

Funeral Assistance	To arrange a local coroner/undertaker to organise a funeral (burial or cremation), including the arrangement of necessary documentation. Special arrangements linked to the religion/cultural background of the client will be organised where possible.
Repatriation of human remains	To make all necessary arrangements for the transport of human remains. This includes: <ul style="list-style-type: none"> • Official documents • Preparation of the body and coffin for transport • Delivery to the airport.
Emergency Returns	To make flight and taxi arrangements to the airport in case the beneficiary has to return to his/her home country due to an unforeseen event.
Accommodation	To arrange hotel accommodation for the beneficiary in case of an unforeseen emergency such as an accident, illness, death or crime. The same can be arranged for the patient after discharge from hospital, or for a patient's relatives.
Assistance with lost or stolen documents/luggage	To assist the beneficiary with arrangement of local police formalities and renewal or substitution of documents.
Cash advance	To pay money to a beneficiary/patient in case of an unforeseen event such as an accident, illness, death or crime. <i>Only available through contractual agreement with AMREF Flying Doctors.</i>
Hospital guarantee	To guarantee payment of hospital charges and other medical expenses in Kenya. <i>Only available through contractual agreement with AMREF Flying Doctors.</i>

Additionally, AMREF Flying Doctors increased the number of Registration Agreements, usually formed between AMREF Flying Doctors and larger NGOs, para-statal, insurance firms or companies mostly outside the membership radius, from 165 in 2012 to 175 in 2013. Registration Agreements include an upfront Guarantee of Payment for evacuation flights and consequently give clients a fast access to our air ambulance service.



Royal Flying Doctor Service

In 2013, we joined in the celebration of the 85th birthday of the Royal Flying Doctor Service.

Since its inception in 1957, AMREF has had a very long and rewarding relationship with the world-renowned Royal Flying Doctor Service of Australia (RFDS) and AMREF Flying Doctors has always been able to call on the guidance, support and expertise of its Australian counterpart as it has developed into a fully fledged aero-medical service.

With its wealth of experience in Australia, the RFDS has been delighted to share its knowledge with AMREF Flying Doctors and in turn to learn about the particular challenges faced in Africa. Through more than 56 years, this special relationship

has evolved into one of mutual exchange and collaboration. Michael Wood turned to RFDS for advice when AFD was in its infancy, visiting Australia to learn about the similarities between its remote health systems and those in East Africa. In 1984, Nicky Blundell Brown from AMREF also visited the RFDS, in Broken Hill, NSW. There she met Captain Clyde Thomson, who would go on to become the Executive Director of RFDS, SE Section. As such, Clyde Thomson GM, now sits on the Board of AMREF Flying Doctors and has also been able to offer vital support in business planning and direction for AFD. We are very grateful for this support and it has contributed in no small way to our own development in recent years.



Clockwise from right: Early RFDS aircraft in the bush; Interior of a modern RFDS aircraft; Nicky Blundell Brown of AMREF during a visit to RFDS in 1984.





Quality

AMREF Flying Doctors continues its commitment to safety and quality.

Throughout the organisation, we promote a culture of safety, with an ongoing process of review and practice improvement following any incidents. Our goal is to improve processes and procedures within our working environment to protect the health and well-being of our staff and patients. Providing aero-medical emergency and primary healthcare in remote areas is an inherently challenging business. Maintaining the highest standards of

quality control is therefore essential to ensure safe operations.

Monthly quality control and safety meetings are held both internally and with our close working partner Phoenix Aviation Limited. These meetings ensure that all matters affecting operations – both aviation and medical – are brought forward, discussed and actioned. Part of that quest for quality is ensured by adherence to the strict accreditation requirements of EURAMI (European Aeromedical Institute (www.eurami.org), one of only two organisations in the world that can officially assess the standards of service provided by air ambulance organisations.

In 2007, AMREF Flying Doctors was the first non-European, non-US air rescue provider to receive an accreditation by EURAMI to the level of 'Full Accreditation - special care'. Reaccreditation was again granted in 2010 for a further three years and once again in July 2013.

The involvement of AMREF Flying Doctors in the precepts of EURAMI continued in 2009 and again in 2012 with the election and re-election of Dr. Bettina Vadera, AMREF Flying Doctors CEO and Medical Director, to the Board of EURAMI.

With over 900 evacuations annually, more than 4% of which are charitable, AMREF Flying Doctors will continue to pave the way for quality care in patient management outside the hospital set up in Africa and beyond.



This is to certify the decision of the board of the
European Aero Medical Institute e.V.

Full Accreditation Special Care

Has been granted to AMREF Flying Doctors in Nairobi, Kenya

Until 01st of August 2016

for demonstrating substantial compliance with Eurami e.V. Accreditation Standards. Special care accreditation testifies that AMREF Flying Doctors demonstrates it has proven capabilities in the air transport of special high-risk patients and providing high-level care.



Date: 01st of August 2013
Dr. Laurent Taymans
President Eurami e.V.





Professional Medical Training

AMREF Flying Doctors is frequently tasked with responding to emergencies in difficult and remote areas, presenting our pilots, flight nurses and doctors with challenging professional situations. Providing emergency and primary healthcare onboard an aircraft and in remote areas requires specialised and exceptional medical skills. Every AMREF Flying Doctors medical staff member is required to have an extremely high level of education and experience before joining us. They are also required to continually undergo further training to ensure they are able to provide the best care possible, both on the ground and in the air. Advanced professional development is an ongoing priority, and all AMREF Flying Doctors nursing staff underwent training this year in pre-hospital trauma life support and trauma nursing. One of our key opportunities for continuous medical education comes from the skills and resources of our Visiting Volunteer

Physicians. One of the requirements for the VVPs is that they give a series of lectures to our staff, based on their own experience and techniques from their own sphere of emergency medicine. This ensures that new practices or variations on existing ones are constantly reviewed, questioned, and shared. In 2013, Dr Matt Edwards taught and adjudicated at a Medical Services Training Competition, whereby first responders from all over the country worked on RTA scenarios. In addition, each year, two nurses are selected to attend the prestigious Clinical Considerations in Aeromedical Transport course in the UK. Taught by aviation physiology and retrieval medicine experts, the course covers relevant issues of the special physical, physiological and psychological stresses that are important in the flight environment and trains our staff in the conditions that are susceptible to this form of transport and how patients may be safely and efficiently carried.

Right and centre bottom: Volunteer physician Dr Matt Edwards training and evaluating participants at the Emergency Medical Services Training Festival and Competition held in May.
Bottom right: In-house training for flight nurses conducted by volunteering physician Dr Andreas Lutgen.



“As a Customer Service Agent, I’m dedicated to understanding the needs of clients and delivering excellent service.”

CAROLAYNE ACHIENG
CUSTOMER CARE





First Aid Training



AMREF Flying Doctors has designed a three day course in Emergency First Aid. Four of our flight nurses are assigned trainers for the First Aid Course and during the year, seven courses were conducted. One of the training sessions took place in Tanzania, where the team trained the staff of the African Court on basic lifesaving skills.



Engineering

Clockwise from below right: Maintenance staff cutting the cake during the farewell ceremony; Maintenance working on the Cessna 206 Super Skywagon, the first ever donated aircraft; Early days at the maintenance hangar.



In line with our proactive strategy to secure future profitable business growth, and in view of the recent change to becoming an independent not-for-profit organisation, solely owned by AMREF, AMREF Flying Doctors closed its maintenance unit in May last year. Some of the key challenges facing the continued operation of the maintenance unit were primarily regulation changes and the limited potential for financial growth in the performance of the unit. In 2007, the Ministry of Transport, through the Kenya Civil Aviation Authority (KCAA), introduced new regulations targeting all organisations engaged in the business of aircraft maintenance. These changes meant considerable additional investment in full-time personnel would have been required by the maintenance unit.



The financial performance of the maintenance unit also posed a challenge for the new business model, operating at a net loss of over 50% annually. Added to that fact, the unit's growth potential was low and would be unable in the future to handle maintenance of pressurised aircraft, which would occur once AMREF Flying Doctors began expanding its fleet. With AMREF Flying Doctors' commitment to drive efficiency and cost effectiveness across all business processes, the conclusion was the immediate discontinuation of the maintenance unit. Of the nine maintenance staff, however, two were retained to oversee the successful implementation of the new service level agreement with the external maintenance organisation that took over the maintenance of AFD aircraft.





AMREF Germany

5 0 years ago in 1963, Michael Wood, in an effort to raise funds for AMREF, travelled to Europe.

He met Leonore Semler, wife of Dr. Johannes Semler, a prominent politician within the European Community, and managed to convince her to start AMREF Germany as a local fundraising organisation. In only a few days with the help of Prince Constantine of Bavaria, AMREF Germany had its first donation of DM10,000. Not long afterwards, Mrs. Semler managed to convince Mr. Walter Scheel, the then Minister for Foreign Affairs, to pay the salary for a surgeon and pediatrician for AMREF and to donate an aeroplane.

During the next 50 years, Leonora worked tirelessly to spread the word on the activities of the Flying Doctors throughout Germany and Europe and to raise desperately needed funds so that its activities could continue. In that time, she has raised millions of euros in support of AMREF.

Today's AMREF Germany, at 50 years of age, is the result of Leonore Semler's dedication.

The German Government has conferred upon her one of Germany's highest orders for her social work, the Federal Cross of Merit 'Das Bundesverdienstkreuz der Bundesrepublik Deutschland'.



Top right to bottom right: Leonora Semler and Bettina Vadera, CEO and Medical Director of AFD at Leonora's home in Germany; Leonora Semler visiting AMREF projects in the early 1960s; (l-r) Susan Wood, Michael Wood, Leonora Semler and Tom Rees.



E.A.S. 10/3/65



Frau Leonora Semler of Munich, wife of a former German Govt. Minister in the West, who is the founder of the German branch of African Medical and Research Foundation, is visiting Nairobi to see for herself the Flying Doctor Service and other sections of the Foundation.

Bishops give plane to air doctors

East Africa's Flying Doctor Service is to receive a gift of a new aircraft from an association of German Roman Catholic bishops, Misereor, which has contributed £16,450 out of its Lenten Funds.

Announcing this at the weekend, the administrator of the African Medical and Research Foundation, which operates the service, Mr. W. F. Bunford, said the plane, a Cessna 206 Super Skywagon, was due next month. The gift would not only cover the cost of the plane but would allow for a few months' running expenses.

The plane would be fitted to carry two stretchers and an oxygen supply for emergencies, and it would materially increase the efficiency of the service. Up to now the service had been hampered by not having a plane which could carry two stretchers.

So far this year the foundation has received £2,270 from donations from East Africa and £1,800 from an appeal launched by its London branch on October 2. Also £1,020 has been contributed by patients who can afford to pay towards the cost of the Flying Doctor Service.

THE FLYING DOCTOR HAS NEW PLANE

THE East African Flying Doctor Service will soon have a new plane — the West German Association of Catholic Bishops, has given it a Cessna 206 Super Skywagon, and will provide initial running costs.

The plane will be delivered in Nairobi to the African Medical Research Foundation, which sponsors the Flying Doctor Service. Value of the gift is £16,450.

The aircraft has been adapted to carry two stretchers. It has a piped-in oxygen supply and large freight doors to make the loading of patients easier.

Flying doctor services have been hampered in the past by the lack of a plane that could carry two stretchers, or alternatively five passengers. The arrival of the new aircraft will greatly increase the efficiency of the service.

The gift was made to the African Medical and Research Foundation in recognition of its work in East Africa.

(Editorial comment — page 4)



Donations

Since its inception, AMREF's Flying Doctor service has relied on donations and gifts to survive. Funds have been raised by everything from high-profile social events for the rich and famous, to schoolchildren collecting and donating pocket money. Some of the earliest funds and support came from within the families of the

Founders, with special mention of Lady Susan Wood and Nan Rees. Long term supporters also include the staff of IBM Sweden, who contribute to the Charity Flight Programme from their personal donations.

2013 brought AMREF Flying Doctors the continued support of many, but also some new and very vital donations.

Dräger Incubator

During 2013, AFD was delighted and honoured to be given a Dräger Airshield Isolette T500 incubator by Dräger of Germany.

The Airshield Isolette is a self contained, mobile intensive care unit for neonates, with a double-wall design that reduces radiant heat loss from the infant during transport between hospitals or during air ambulance evacuations. The incubator has control features that are easy to read at any angle during transport, displaying air and skin temperatures, thus helping to maintain control and provide essential information about the infant's thermal support. Visual indicators like battery power status, power source and system alarm status are designed to keep our medical team in command. Its front access door makes accessing the infant easy and quick and an iris port and six tubing ports offer ventilator tubing support, ensuring there is no risk of tubes coming off while the incubator is used.

The Airshield Isolette T500 incubator operates on both AC or DC, using AC when available or switching to its internal battery when necessary. It also operates on external DC power found on board emergency transport vehicles.

With this Airshield incubator, AMREF Flying Doctors can now transport critically sick infants born prematurely with a mobile ICU/ Neonatal Intensive Care Unit (NICU) set up.



Dräger

On Call International



In 2013, On Call International made a donation of US\$2,500 aimed specifically at the Charity Flight Programme.

Mike Kelly of On Call International said: *"On Call International is proud to support AMREF Flying Doctors in their efforts to bring essential healthcare to some of the most impoverished and remote areas of Africa. We commend these dedicated individuals who are committed to providing world-class medical services — on a moment's notice — to the people of Africa."*

About On Call International:

When travelling, every problem is unique – a medical crisis, a common accident, even a missed flight. But every solution starts with customised corporate care that ensures employees are safe and protected. That's why for nearly 20 years, On Call International has provided fully-customised travel assistance plans protecting millions of travellers, their families, and the companies they work for.

Dr Katrina Mitchell

Dr Katrina Mitchell was a Visiting Volunteer Physician to AFD during 2010. Katrina stayed in touch with AFD since then, maintaining her interest in everything we do. In 2013 The American College of Surgeons gave a grant to Katrina which has very kindly donated straight to AFD.





Medsurge Healthcare Ltd – Alex Gikandi

Alex Gikandi used to be one of our Flight Nurses, leaving in 2008 to set up his own medical supply firm MedSurge Healthcare Ltd in Nairobi, Kenya. Since that time, Alex has been a staunch supporter of AMREF Flying Doctors, offering advice, equipment trials and making generous donations of both his time and his stock. Thank you Alex!



medsurge+



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J W Seagon



J W Seagon, a Nairobi-based insurance company with strong international connections, makes regular donations to AMREF Flying Doctors, specifically for the Charity flight programme. In 2013, JWS made exceptional efforts to support AFD and in this photo David Seagon, MD of JWS, is seen handing over a cheque for over Kes900,000 to Dr Bettina Vadera.



SPECTRUM Aeromed



In 2013, Spectrum Aeromed teamed with AMREF Flying Doctors to provide equipment for medical flights out of Nairobi on the new AFD King Air B200. Spectrum Aeromed provided to AMREF two 2200-016 medical stretchers, medical equipment walls and manual patient loaders at cost price. "AMREF Flying Doctors is a great organisation dedicated to helping others that are less fortunate in remote areas of East Africa," said Spectrum Aeromed Account Representative Thomas Redder. "We learned about their mission, their needs and wanted to do our part to help this great philanthropic organisation." AMREF Flying Doctors provides air ambulance services across many East African countries including Uganda, Kenya and Tanzania and most neighbouring countries including the Democratic Republic of Congo, Eritrea, Somalia, Ethiopia, Rwanda and Burundi. AMREF Flying

Doctors will also carry out evacuations from almost anywhere on the African continent. They also currently serve more than 150 hospitals through the AMREF Outreach Programme.

AMREF Flying Doctors also provides various support services, taking much of the burden off patients and their families in their time of need, as well as Assistance Services to international insurance providers.

"The key for our decision to deliver the new equipment at cost is because of what AMREF Flying Doctors does," said Spectrum Aeromed Chief Operating Officer Chad Kost. "Without the efforts of AMREF Flying Doctors, some people would not be able to afford the flights needed for essential medical treatment. They have great teams of doctors and volunteers and we wanted to help them by providing the best equipment." Additional information about Spectrum can be found at www.spectrum-aeromed.com.



Professional Partner

Phoenix Aviation
Kenya Ltd



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Phoenix Aviation Ltd.

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Email: flightops@phoenixaviation.co.ke

Website: www.phoenixaviation.co.ke



A Life-Saving Partnership

Phoenix Aviation and AMREF Flying Doctors formed a close working relationship more than a decade ago and together have created an unique and extraordinary service that is used by many of the world's leading Insurance and Assurance companies. Their combined efforts enables AMREF Flying Doctors to extend the capacity beyond that of their own aircraft, offering a 24- hour air ambulance service response locally, as well as longer-range international transfers. Phoenix brings to the partnership aircraft equipped with FAA approved Lifeport stretcher systems, which combined with the specialised modern aeromedical equipment, including monitors, ventilators and a neonatal incubator of AMREF Flying Doctors, which allows patients to receive intensive care whilst on the ground and in the air. Phoenix Aviation's highly experienced flight crew of 22 – who between them have flown over 584,000 statute miles and 384 medical evacuations in 2012 alone – carried out many of these medical evacuations under challenging circumstances and in difficult areas, such as Somalia and DRC. AMREF Flying

Doctors was the first non-European, non-US air rescue provider to receive full accreditation "Special Care Status" by EURAMI (European Aeromedical Institute), one of only two organisations in the world that can officially assess standards of service provided by Air Ambulance Organisations. Phoenix Aviation is proud to share this world-class air ambulance partnership and has further demonstrated their commitment to quality by earning the distinction of the independently audited award of ISO 9001-2008, as well as being one of only six air charter companies in Africa to receive the WYVERN Wingman designation. WYVERN provides one of the most rigorous on-site safety auditing packages in the world.

Jointly, this partnership brings operational and safety procedures together to ensure the best possible service for patients repatriated to South Africa, Europe, Asia, the Middle East and beyond.





Professional Partner

United Healthcare International

UnitedHealthcare International prides itself on helping clients in not only the developed areas of the world, but also in some of the most challenging locations across the globe. Assistance from UnitedHealthcare International mean quality, consistency and speed. Without partners like AMREF Flying Doctors we would not be able to deliver this level of service to clients. AMREF has been a trusted and respected partner of UnitedHealthcare International for nearly 15 years. They are key to us being able to assist clients in East Africa with acute medical emergencies. We respect and admire this organization not only for the fantastic work they do when evacuation

one of our members, but also for the incredible charity work they do. It is refreshing and rewarding to work with a partner that values the same things as UnitedHealthcare International: integrity, compassion and social responsibility. "If there was one air ambulance company in the world that would shine through their professionalism, the respect they inspire, their dynamic staff, AMREF Flying Doctors would come on everyone's minds. Not only are they key in assisting us manage very complex medical evacuations in this area, but they also provide incredibly important charity work. It is a truly essential organization with outstanding staff and leadership. We feel so blessed to be able to work with them."

Enabling companies to:

- Go where they can grow
- Successfully adapt to new operating environments
- Achieve their global ambitions safely and cost effectively



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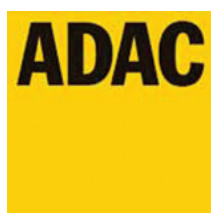
Unitedhealthgroup.com/global





Professional Partner

ADAC-AmbulanceService



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www.adac.de/ambulance

For urgent repatriation requests:

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As the needs of AMREF Flying Doctors extend beyond the continent of Africa to North America, Australia and the Far East, an increasing number of wing-towing patient transfer services are needed. On a particularly long journey it can be of immense benefit in time and cost to carry a patient part of the way with one air ambulance company and then transfer the patient to another air ambulance company's aircraft to complete the journey. It does mean, however, that both companies must adhere to a strict code of practice in both medical and operational procedures offering the same commitment to service, quality of patient care and flight safety standards. AMREF Flying Doctors is proud to be associated with ADAC Ambulance Service.

World-wide patient transports

ADAC Ambulance Service organizes and carries out patient transfers world-wide on ground and by air. The service ranges from the transfer by ground ambulances to the repatriation of intensive care patients in ADAC's own

ambulance jets. Highly qualified medical staff specialized in emergency medical assistance, intensive care and flight medicine accompany these transfers. The patients and their relatives are looked after personally and more than 40 ADAC physicians check the patient's medical condition with local attending physicians. ADAC Ambulance Service assists about 53,000 patients and transports more than 14,000 patients per year on ground and by air. Depending on the patient's diagnosis, air-bound transport may also involve additional transport options such as stretcher, sleeper and PTC.

The fleet

The ADAC fleet comprises Dornier-Fairchild 328-300 jets, Beechcraft Super King Air

A350 and several Lear jets. Equipped with state-of-the-art intensive care facilities, they are very quiet, stable aircraft with the highest hygiene standard specifically designed for patient transport. Thanks to their size and flexibility, particularly the Dornier-Fairchild 328-300 jets, they make it possible to transport not just the patient's but also their next of kin.

ADAC

**Our jobs are manifold.
So we have manifold solutions.**

ADAC Ambulance Service.

Customised solutions: a comprehensive portfolio of transport solutions allows us to consider any and all medical and economic requirements. For the better of our patients. World-wide.



Accredited by  EFAM

Check us out and contact us at:
info-ambulance@adac.de • www.adac.de/ambulance



Professional Partner

Healix International



Healix Travel Risk Management



Integrated Travel Risk Management service supports employers' duty of care

At Healix, we have extensive global experience in the medical treatment, repatriation and evacuation of people taken ill or injured whilst overseas. With a team of doctors and nurses available on the phone 24 hours a day, 365 days a year, we are able to evaluate the gravity of a case from the very first call.

To help employers fulfil their duty of care towards staff travelling and working abroad, Healix has partnered with a leading security company to develop an integrated travel risk management solution.

By co-ordinating all services needed for travel, health and security risk management through one central point, Healix is able to provide a first class service, ensuring that all employees get the most appropriate support and protection.

Communication is improved, employee

compliance with policies and procedures can be monitored and employers have a central record evidencing duty of care for each employee. Furthermore, employees have the benefit of liaising with just one central access point, instead of having to deal with several different departments. A bespoke service is provided according to requirements. For example, we are the international medical healthcare provider for the UK's Foreign and Commonwealth Office, as well as a number of other government departments. We're responsible for over 17,000 employees and their families in over 190 foreign destinations including most African countries and provide primary & secondary healthcare management, prescription services and emergency evacuation support with the invaluable support of Amref as local partner to help co-ordinate arrangements on our behalf. We are also involved in the Occupational Health assessment and preparation of FCO employees before they are posted abroad.

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Professional Partner

Rega



AMREF Flying Doctors staff displaying the donation from Rega

Contact:

Dr. med. Olivier Seiler, M.D.

Medical Director Fixed Wing

Rega, Swiss Air-Ambulance

P.O. Box 1414 CH-8058 Zurich-Airport

Meet us in the Web: www.rega.ch

Other partners help us out in some many ways. We receive a tremendous amount of support, advice and encouragement from one of the most professions air ambulance companies in the world, Rega Swiss Air Ambulance who recently made a donation to AMREF Flying Doctors of 5 Oxylog 1000 machines.

Dr. Olivier Seiler, Rega's Medical director for fixed wing operations says: "The history of good relations between Rega and Amref has been going on for decades. In difficult to handle cases in the East African region we were always very happy to be able to rely on the services of our partner. Their knowledge and professionalism is essential when dealing with medical emergencies in remote areas of this part of Africa. In most of the cases we ask Amref to bring the patients to the nearest adequate hospital for a first treatment and then organize their trip back to Switzerland by commercial airline together with our own medical escort, if needed. In more time critical cases we have very successfully used the method



of wing-to-wing operations. This helps to save precious time and the patient is being taken care of by a professional medevac-team throughout the journey. When we decided to replace the ventilators Oxylog 1000 we immediately thought of our partner: a phone call and the shipment of five ventilators was organized! We do hope that the devices will continue to be of good service in critical situations for many more years."

Professional Partner

AIMS



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Bernadette Breton

Managing Director

Alliance International Medical Services

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In a constantly changing African Continent, Alliance International Medical Services (AIMS) consistently strives to live up to the mission statement "HUMANITY, DIGNITY, RESPECT" in the day-to-day dealings with our clients and their members who become our patients. Based in Johannesburg, AIMS is well positioned not only for assistance within South Africa but also a high percentage of the countries held within the Sub-Saharan Basin. Naturally, in order to do

this well, one needs reputable professional associations which happily we have with AMREF Flying Doctors.

Alliance International Medical Services and AMREF Flying Doctors have enjoyed a working relationship which over a period of 10 years has grown from strength to strength and it is indeed comforting to know that once a patient is in the capable hands of AMREF Flying Doctors, our standard of "HUMANITY, DIGNITY, RESPECT" prevails.



Professional Partner

European Air Ambulance



EAA joins list of AMREF flying Doctors' professional partners

The services provided by AMREF Flying Doctors and European Air Ambulance are perfectly complementary, and already have many years of experience of working together. European Air Ambulance relies on AMREF Flying Doctors for medical evacuations out of remote areas to fly patients into an international airport, where EAA can perform a wing-to-wing transfer of the patient to one of its aircraft for transport back to Europe, North America or any other requested destination.

European Air Ambulance can rely on the expertise and decades of experience of its founding members, DRF Luftrettung and Luxembourg Air Rescue. Like AMREF, they were founded by people with vision and a burning desire to help improve the efficiency of emergency medical transport.

Over the years, EAA has proven itself to be a leader in providing global patient repatriation services. It is a commercial operation that provides a range of worldwide air ambulance repatriation services to insurance and assistance companies, governments and NGOs, corporations and individuals.

Its team of experienced multi-lingual medical experts includes specialists in neo-natal and paediatric care. EAA can organise the

complete transport of the patient - alerting the appropriate medical staff and flight crew, preparing the aircraft with all the necessary medical equipment and medicines, consulting with the physicians who have already treated the patient, planning the flight route, coordinating delivery of the patient to the pick-up airfield and ensuring ground transport at the other end.

EAA has a fleet of seven air ambulances fitted with state-of-the-art medical equipment and necessary medication to ensure outstanding patient care. It has recently been upgrading its fleet to include three fully equipped Learjet 45XR aircraft, which provide greater range, cabin configuration flexibility and improved comfort for passengers. The other four aircraft are Learjet 35A air ambulances.

"We greatly appreciate the professionalism, experience and flexibility of AMREF Flying Doctors. In our mind, AMREF has the best knowledge and expertise for Africa in general and East Africa in particular," says Patrick Schomaker, director sales and marketing at EAA.



Contact:

European Air Ambulance

24/7 Sales Department &

Mission Control Centre

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Fax: +49 711 7007 7009

Email: alert@air-ambulance.com

Website: www.air-ambulance.com



For quotes please contact:

T +49 711 7007 7007

alert@air-ambulance.com

www.air-ambulance.com

We provide

expertise and care

European Air Ambulance



European Air Ambulance (EAA) is one of the largest specialised air ambulance service providers in Europe offering **worldwide air ambulance repatriation** with outstanding end-to-end patient care.

EAA founders DRF Luftrettung and Luxembourg Air Ambulance have a combined record of over 65 successful years of experience in air ambulance services.

Both together operate 7 dedicated air ambulance aircraft and have performed medical repatriations from over 150 countries.



Proud to support the work of AMREF Flying Doctors

AMREF Flying Doctors would like to say a very special thank you to all our professional partners and supporting organisations. With their help and generosity, we have been able to produce our most comprehensive annual report to date.

A HUGE
THANK YOU
TO YOU ALL

ADAC



AIMS





marmassistance®

 **UnitedHealthcare®**
International


SOS
INTERNATIONAL

GLOBAL
JE+ CARE


OLYMPUS


tyrol air
ambulance


GLOBAL
RESPONSE
LIMITED

 **one**
here to help


SelectCare™
WORLDWIDE

healix⁷
INTERNATIONAL


PHOENIX
a · v · i · a · t · i · o · n

 **WTP**
ASSIST

 **InterGlobal**
International Private Medical Insurance

 **aviation**
redstar


EUROPEAN
AIR AMBULANCE


mso
medical services organisation
healthcare risk managers

rega 

 **mémora**
international



AMREF Outreach Programme

Healthcare in East Africa is underdeveloped and underfunded. Few patients can afford specialised medical treatment. There are few specialists, particularly surgeons, in most rural hospitals. Only 10-15% of patients referred from district hospitals to secondary or tertiary hospitals are able to travel for several reasons: poverty, poor transport systems, and no relatives to support them during recuperation, no housing, culture shock, ethnic factors and more. The AMREF Clinical Outreach Programme was established in 1957 to take essential medical and surgical services to remote district level hospitals. This includes performing surgeries, training staff and providing medical laboratory services. The Programme is regional, with six inter-related projects in nine countries in Eastern Africa, which, since the programme's establishment, has benefitted over 300 hospitals. The Programme is operated using AMREF Flying Doctors' light aircraft on planned, regular flights, commercial flights or road transport to visit 156 hospitals located in adjacent areas on 'circuits', between two and six times per year. Regular outreach visits are conducted in Kenya, Tanzania, Uganda, Ethiopia and South Sudan, with specialised

medical and surgical missions held in Senegal, Liberia, Chad, Niger, Rwanda and the Democratic Republic of Congo. Specialists for each hospital are selected on an annual basis according to the requests from these hospitals. Specialists available for visits cover 25 different specialties including General Surgeons, Gynaecologists, Reconstructive surgeons, Urologists, Ophthalmologists, Medical Engineers and Laboratory Technicians. During 2013, AMREF Medical Services Outreach Programme underwent a strategic planning process as part of the overall development of the Clinics & Diagnostics Programme Strategy 2013-2017. The aim was to review the current service delivery model, identify areas where improvements could be made, recognise emerging health trends and plan how to operate the programme in future. Successful Consultation and Planning Workshops were conducted in South Sudan, Ethiopia, Tanzania and Uganda to seek feedback from partners and stakeholders. The Specialist Outreach Project in South Sudan, funded by AMREF Spain, began in 2012, grew to full capacity in 2013, but suffered some setbacks as a result of the year end civil unrest.

Below: Patients lining up for treatment at an Outreach Surgery. **Bottom:** Dr Asrat Mengiste with a young patient.



Outreach Achievements 2010-2013

	2013	2012	2011	2010
Number of Outreach Flights Made	98	120	137	146
Number of Hospitals Visited	156	150	150	150
Consultations Provided	21,934	27,033	27,665	26,184
Specialist Outreach	4,780	4,839	5,141	4,694
Surgical Outreach	146	232	388	432
Leprosy/Reconstructive Outreach	759	1,513	1,554	1,111
VVF & Safe Motherhood	132	416	823	1,201
Total Operations	5,817	7,000	7,906	7,438
Doctors Trained	1,295	1,551	1,542	1,519
Nurses & Clinical Officers Trained	4,353	6,280	4,893	4,756
Laboratory Staff Trained	440	1,338	301	303
Support Staff Trained	2,668	4,124	1,854	1,944
Joint Ward Rounds	1,358	1,358	1,584	1,632
Hours of Formal Training	6,586	4,902	1,785	1,437
Hours of Informal Training	1,274	-	9,617	9,226
Total Staff Trained	8,756	13,293	8,590	8,522



The Goals Of Outreach



The goal: **Better and improved surgical healthcare for communities living in remote rural areas of Eastern Africa.**

Top right: The Outreach surgeons teach as they operate. **Below right:** Patients are brought to the Outreach Clinics by any means

To achieve the project goal and objectives, the main activities of Surgical Outreach include:-

- **To provide** specialised surgical services including Endoscopic, Urological surgery and Vesico-Vaginal Fistula repair, to remote rural hospitals in East Africa through regular visits.
- **To enhance** the surgical skills of medical officers based in rural hospitals through training.
- **To improve** the skills of theatre staff and other hospital support staff in pre and post-operative management of surgical patients.
- **To give** morale and psychological support to staff in remote hospitals through regular contacts by radio, telephone and e-mail.
- **To operate** and give advice on complicated surgical cases presented by the medical officers.
- **To fly** regularly to remote hospitals using light aircraft.
- **To provide** emergency surgical care to complicated cases.
- **To train** postgraduate students from the University of Nairobi.
- **To supply** hospitals on Surgical Outreach with essential surgical supplies.
- **To collaborate** with University of Nairobi departments of Surgery & Obstetrics/Gynaecology, Kenyatta National Hospital, KEMRI & Nazareth Hospital in training and operational research.



"As customer service personnel, I'm determined to offer my assistance and offer the best customer service to our clients."

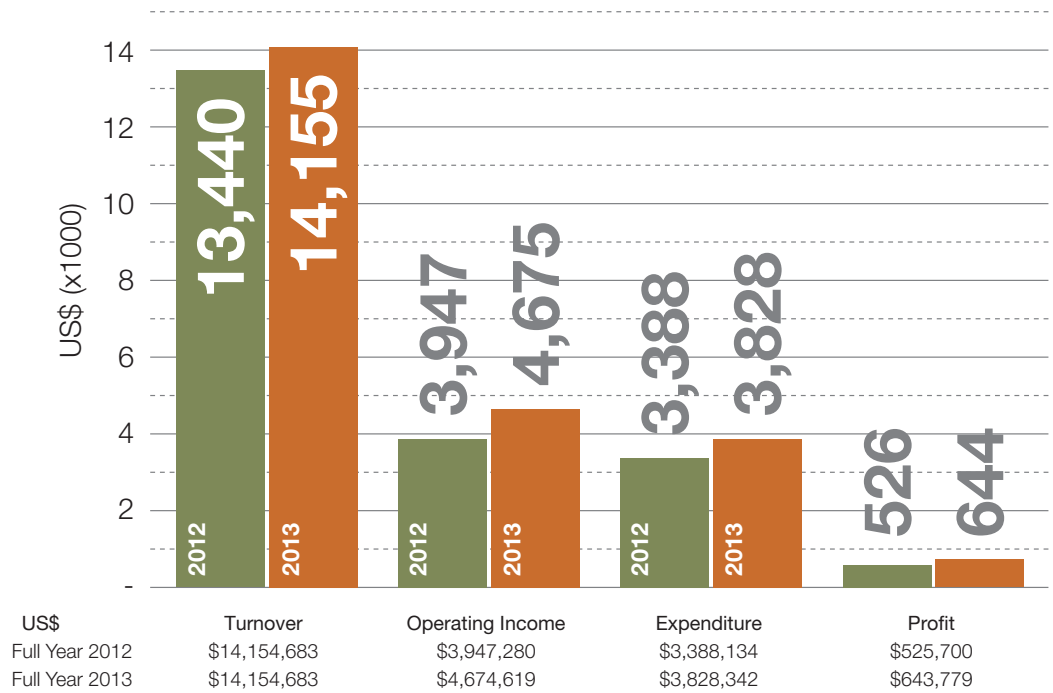
CAROL THIONG'O
CUSTOMER SERVICE
ASSISTANT





Accounts

Full Year Revenue, Cost & Surplus Trend



Cessna Caravan waiting for the patients in a multi-casualty evacuation





AMREF Flying Doctors
(A Company Limited by
Guarantee)

Note to the Financial Statements

Income Statement

Turnover grew by 3% during the year mainly driven by increased medical activity and increased flying hours. Profit after tax grew by 24% during the year; in addition the profit yield also improved from 4% in 2013 to 5% in 2013.

Balance Sheet

The balance sheet grew by 26% during the year. This was mainly driven by the addition of the new King Air B200 aircraft (5Y- FDE) to the company's assets and the continued generation of operating profits leading to increased accumulated reserve.



"Whatever we do here at AMREF Flying Doctors is very refreshing and satisfying. It brings a lot of joy and happiness to me while I serve others, knowing very well that my purpose in this universe is bigger than myself."

KEFA KIHARA
CHIEF PILOT

**STATEMENT OF COMPREHENSIVE INCOME FOR THE YEAR
ENDED 30 SEPTEMBER 2013**

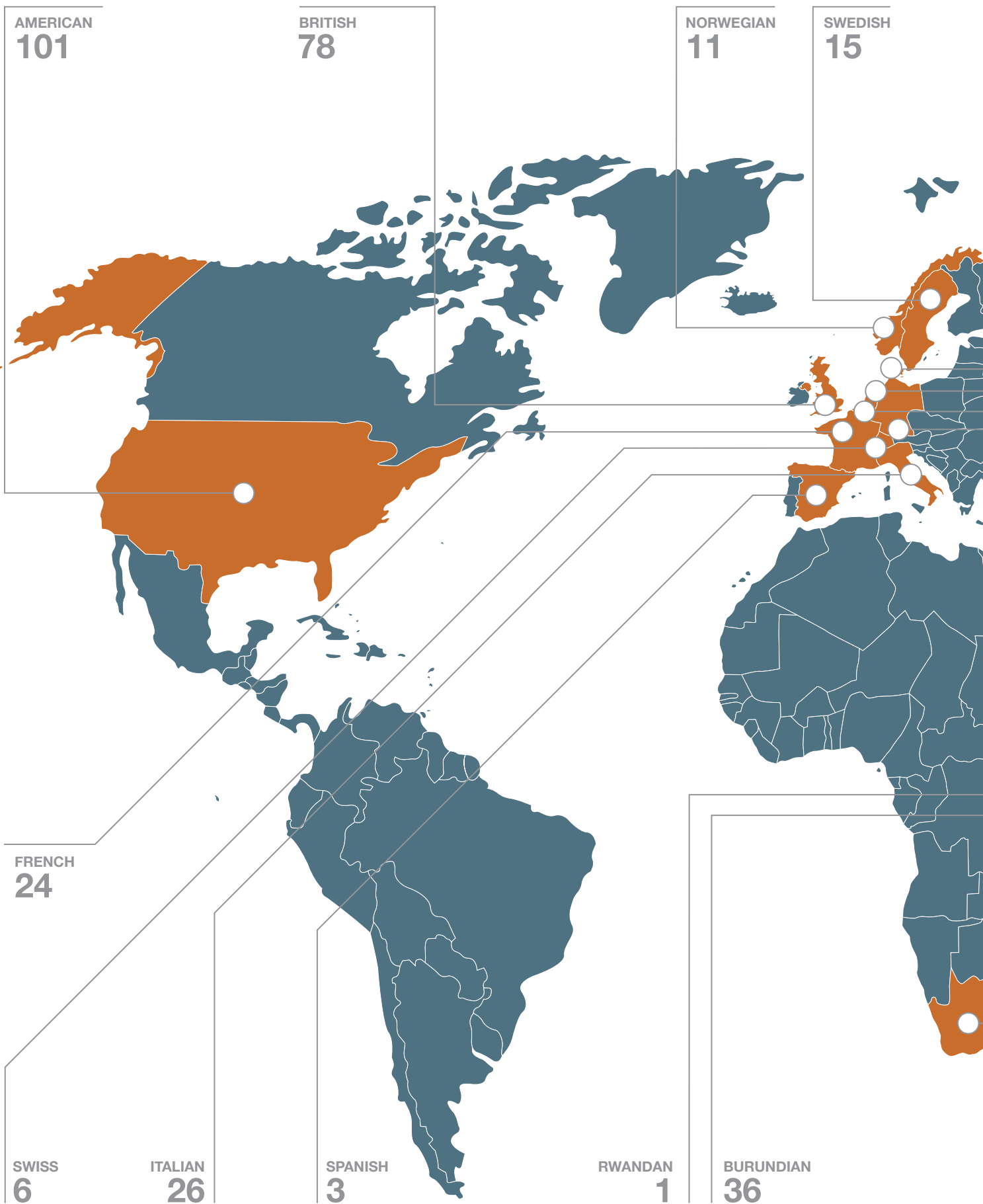
	2013 US\$	2012 US\$
CONTINUING OPERATIONS		
Turnover	14,154,683	13,440,259
Direct Cost	(9,694,145)	(9,854,362)
OPERATING PROFIT	4,460,538	3,585,897
Grant income	17,567	252,249
Investment/Interest income	89,976	108,426
Other income	106,538	708
TOTAL OPERATING INCOME	4,674,619	3,947,280
EXPENDITURE		
Staff costs	(1,901,197)	(1,907,982)
Other operating costs	(1,323,779)	(986,572)
Marketing costs	(379,981)	(241,035)
Depreciation	(223,385)	(252,545)
TOTAL EXPENDITURE	(3,828,342)	(3,388,134)
CONTINUING OPERATIONS (Profit for the year)	846,277	559,146
DISCONTINUED OPERATIONS (Less profit or loss for the year)	(202,498)	(33,446)
PROFIT FOR THE YEAR	643,779	525,700

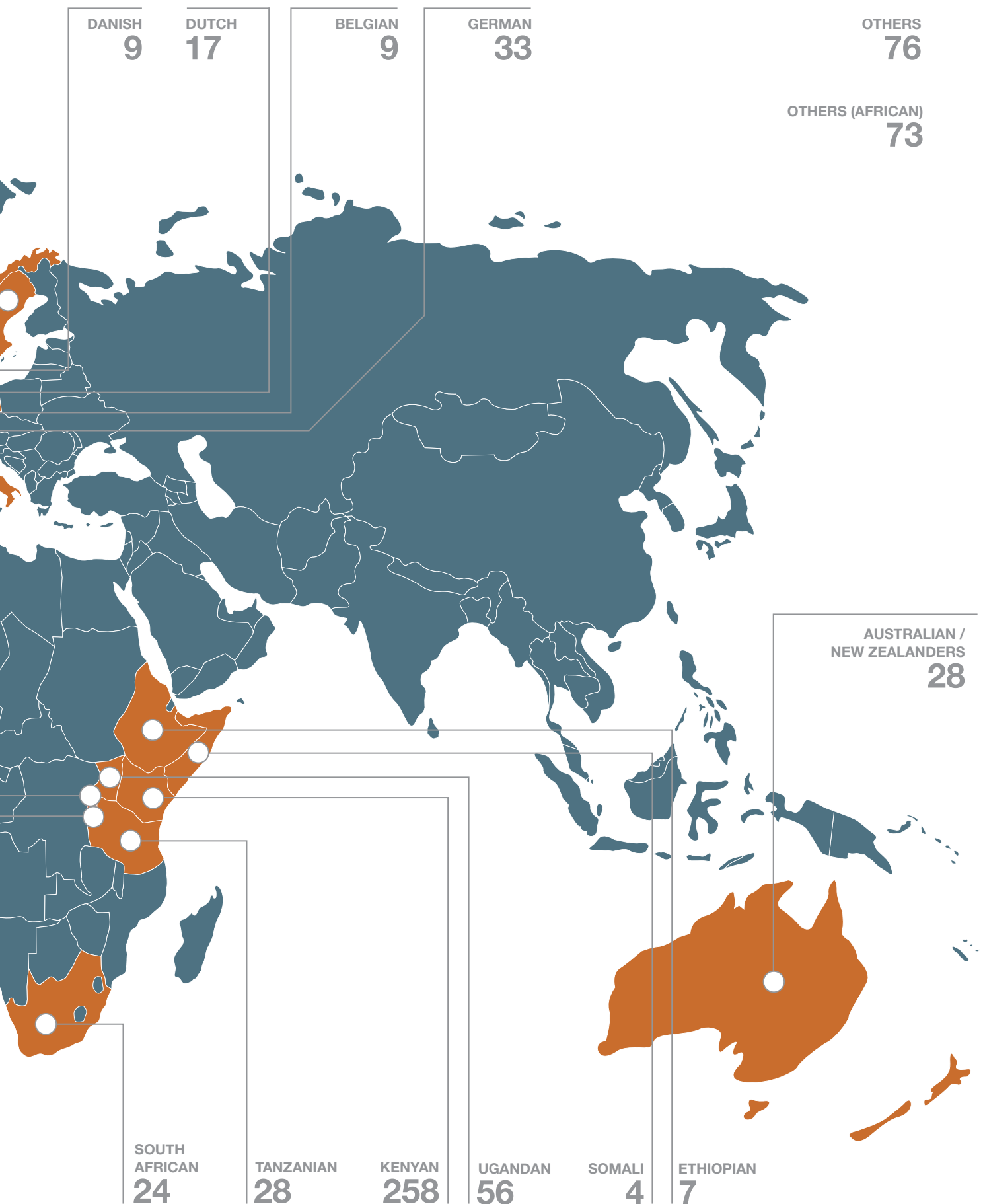


Early morning call-out

2013 Evacuations by Nationality

Of the 923 patients, the nationalities most frequently evacuated during the period of this report were:







AMREF National Offices

Fundraising for AMREF comes from many sources but the backbone of donor income is generated by the AMREF National Offices. These fundraising offices raise the profile of AMREF Flying Doctors throughout the world, talking to donors both large and small, organising fund raising events and improving the understanding of the work of AMREF wherever they go. Money donated to AMREF FLYING DOCTORS is spent on aircraft, medical equipment or health services.

AMREF in Europe

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We acknowledge with grateful thanks the tremendous support received from overseas and especially from the AMREF National Offices.

AMREF Flying Doctors 24 Hour Emergency Contacts

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Radio Frequencies: HF: 9116kHz LSB / 5796 kHz LSB

Email: emergency@flydoc.org

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Mobile: +254 (0)733 639088 / 722 314239 | **Fax:** +254 20 6000665 / 344170 | **Email:** info@flydoc.org

