



getting people moving

## **What is 500 miles?**

500 miles is a young Scottish charity which supports the delivery of prosthetic and orthotic (“P&O”) services and other mobility/function promoting services such as orthopaedic and plastic surgery to disabled people in deprived areas of the world. In other words, we get people moving! We are also trying to develop the capacity of these services in poor countries for the benefit of future generations.

Prosthetics are substitutes for missing body parts and orthotics are supports (like splints) for weak or malfunctioning body parts.

## **Who are we?**

Jamie Andrew and I set up 500 miles. We are both quadruple amputees. Our prosthetic needs are met by the NHS very well and we are both acutely aware of the power of surgery and simple P&O devices to give people with mobility difficulties the chance to live normal, productive lives - and sometimes even the chance to live.

## **Where are we operating?**

500 miles is focusing initially on Malawi and Zambia. These are peaceful countries so investment through training, construction and purchase of equipment is unlikely to be destroyed or dissipated by conflict. They are also among the poorest countries in the world. The national health systems are vastly under-funded and within these health services, rehabilitation is a very low priority. Less than 5% of people who could use prostheses and orthoses get them.

## **Why are we doing this?**

Our work is highly effective in terms of (1) impact per pound, (2) numbers of disabled people who will benefit and (3) the huge transformation in the quality of people’s lives. For a relatively small, one-off sum, P&O support and orthopaedic and plastic surgery can have a life transforming effect for a disabled individual giving that person the chance to be mobile and so get an education, earn a living, support a family and generally participate in social activity. Disability and immobility and therefore dependence can often lead to untimely but easily avoidable death. An operation to correct club feet on a child living in rural Zambia would cost only about £100 and the full cost of purchasing one adult below knee prosthesis and having it fitted is on average just £60 in Malawi and Zambia.

## **Our project in Malawi**

We have established a new workshop in Lilongwe for the production of prostheses and orthoses with the cooperation of the Malawian Ministry of Health. Glasgow City Council donated the workshop building. We are paying for the training of all of the new prosthetists/orthotists who will be needed and we will be supporting the management and running costs of the workshop until it can become self sustaining.

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## Our projects in Zambia

It is our work in Zambia which we are asking Morningside United Church to help us with. 500 miles supports both a small P&O workshop at the Zambian Italian Orthopaedic Hospital (“ZIOH”) in Lusaka and an airborne medical service called **FlySpec**.

### ZIOH

ZIOH is managed by Franciscan nuns. Adult private practice pays for a charitable service for children. The P&O workshop is tiny and was understaffed. 500 miles is paying the salary of an additional qualified technician and is paying for one year’s training for one of the two original members of staff. We have also supplied a computer and printer for the workshop. Partly as a result of 500 miles’ support, the International Committee of the Red Cross is going to begin supporting the workshop with materials and components from April 2009. Due to the increased work recently generated through 500 miles and FlySpec, the workshop is well placed to expand and move towards improved self sufficiency. We are therefore very keen to begin training a new young technician.

### FlySpec

FlySpec is run by a British orthopaedic surgeon called John Jellis (68). It takes orthopaedic and plastic/reconstructive surgery to disabled people in towns and rural communities in Zambia where such services are not otherwise available. The surgeons fly the planes themselves. The kind of operations they carry out are the treatment of congenital and acquired deformities, often from neglected trauma and bone infections (including cleft palate work, club foot correction, release of burns contractures and amputation). Since its inception in 1982, over 25,000 patients have been seen and treated in distant parts of the country. Over 60% of all patients operated upon are physically disabled children.



Club foot and corrected club foot



Burn contracture

In 2002 the Royal Netherlands Embassy (“RNE”) began funding the operating costs of FlySpec. As a result, FlySpec’s work vastly increased. In 2008 3695 patients received consultations and 1121 of them were operated on at a total cost of only approximately 112,000 Euro. The momentum continues to increase with more patients queuing for FlySpec’s visits and more district hospitals requesting visits. RNE also put capital funding into FlySpec in 2007 which allowed the purchase of a second aircraft and the building of a new hangar. (Unfortunately in May 2008 the older aircraft was written off because the new engine failed.) RNE’s funding of FlySpec ceased at the end of 2008 because its aid programme has moved out of the health

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sector. In order to sustain FlySpec's current level of activity and to allow FlySpec to continue to expand, 500 miles has found the capital funding to purchase a replacement second plane and is now trying to amass funding for FlySpec's operating costs from 2009 onwards.

### **FlySpec's link with ZIOH**

FlySpec has always worked very closely with ZIOH in that it arranges for some of its patients who cannot be treated where they live to come to ZIOH for orthopaedic and plastic/reconstructive operations and sometimes for the prescription of P&O devices.

### **P&O with FlySpec**

There are no viable P&O services in Zambia outside of Lusaka. The size of the country and the difficult terrain mean that it is practically impossible for people in need of P&O devices who don't live in Lusaka to obtain them. Since May 2008 FlySpec and 500 miles have begun to take the P&O service offered by ZIOH into rural communities. The early results are promising with 36 devices being fitted by November. P&O on an outreach basis has not been done on a systematic basis like this before and so the results of this pilot, which will be carefully monitored and recorded as if it was a research project, should be of widespread interest.



Home made prosthesis



What we can supply

### **Chris Oliver**

We are asking Morningside United Church to support our work in Zambia because our introduction to you was through Chris Oliver, the Edinburgh orthopaedic surgeon who amputated my limbs. Chris has very kindly undertaken to attempt a 1000 mile sponsored biking challenge from Lands End to John O'Groats in August this year in support of 500 miles. This is a significant challenge for Chris: you may have read about his recent dramatic 53kg weight loss and return to fitness! (See Chris's amazing blog at [www.christopheroliver.blogspot.com](http://www.christopheroliver.blogspot.com)). With Chris's agreement, we are going to apply the money he raises towards FlySpec because of its orthopaedic surgery focus and because I would like the second chance that I got through Chris's surgery on me to result in support for another orthopaedic surgeon in Zambia who is delivering second chances for disabled people there.

### **The options for support**

We should be very grateful for any support that you could give to 500 miles. We would like to try to apply that support in the way which is most meaningful to you. Focusing on our work in

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Zambia, here are some different ways in which funds could be applied. If any of these appeals to you, I would be happy to provide more information.

### **1. FlySpec as a whole**

FlySpec's current level of activity can probably be maintained for around 130-135,000 Euro per year. 500 miles is seeking to fund FlySpec's activities for five years forward so unless any major donation is required in order to sustain activity in the immediate term, it will be divided into five and the unspent portion invested for future years.

### **2. FlySpec broken down**

On average, just £100 will pay for one disabled child or adult to:

be fitted by a trained technician with a good prosthesis or orthosis at a district hospital in rural Zambia

or

have a life transforming orthopaedic or reconstructive operation to improve mobility, function or comfort at the district hospital nearest to his or her home performed by an experienced FlySpec orthopaedic or plastic surgeon.

### **3. Training of a new P&O technician for ZIOH**

We are trying to persuade ZIOH to select a school leaver with aptitude and application to undertake a three year Diploma in Orthopaedic Technology at a respected international school called TATCOT in Tanzania. This person would be bonded to work for ZIOH for 5-10 years post qualification. The total cost of one year at TATCOT including travel and living allowance is approximately \$11,500.

### **4. The salary of a P&O technician at ZIOH**

500 miles has committed to pay the salary of Andrew Mussonda who holds a Diploma in Orthopaedic Technology at the workshop until at least September 2010 at a rate of approximately £350-£400 per month.

All money raised by 500 miles will be applied to its projects. There are no salary costs and for the time being, I am covering all overheads.

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