

# WHIRLWIND

## Wheelchair



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## Dear Friends and Supporters,

Once again, Whirlwind has had another eventful year.

In this Newsletter you will read about the development of four wheelchair designs: the power RoughRider, an aluminum RoughRider, the OmniRider and the EasyRider. The power RoughRider is now in its final testing phase, the Aluminum RoughRider and the OmniRider now have a scheduled production date of June 1, 2019 and the EasyRider is now undergoing intensive laboratory testing. See page 3 for more information.

Two planned projects have picked up a considerable head of steam. We are expecting to receive funding from the U.S. State Department/IREX for our Morocco project. In addition, a major foundation in the United Kingdom has committed to financing the establishment of a wheelchair production factory in Ethiopia modeled on the factory in Tbilisi, Georgia that we helped set up 6 years ago. The Ethiopia project is expected to start construction of the factory building in February 2019.

We are also serving as consultants to Emory University of Atlanta on a USAID-funded project in the Republic of Georgia, which you can read about on page 5.

This year also saw Whirlwind once again play a key role in shaping World Health Organization (WHO) policy around the provision of manual wheelchairs in developing countries. You can read about Whirlwind's participation in a WHO international conference in Bangalore, India in February 2018 and the results of our policy efforts on page 6.

This will be my last Annual Newsletter as Whirlwind's Executive Director. I will be stepping down as of April 2019. It's been a good ride.

Importantly, another 5,000 plus wheelchair riders gained improved independence and mobility through their new RoughRider wheelchairs. None of this would have happened without your financial support. Please consider making a sizable donation this year so we can remain in the forefront of efforts to promote the inclusion of people with disabilities into their communities around the world. Remember, *As you support Whirlwind, You help change the world.*

Sincerely,

**Marc Krizack**, Executive Director

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## Four Wheelchair Designs

**Electric RoughRider** — Whirlwind's design efforts on four innovative products are now nearing fruition. The first is a power add-on to the RoughRider. In September 2018, the disabled-owned factory in the Republic of Georgia sold their first electric RoughRider wheelchair to an American, Don Haynie, a long time RoughRider user and Whirlwind supporter. Don and his wife divide their time between Hawaii and upstate New York. Don, who is in his early 60s, wanted an electric RoughRider so that he can continue his gardening and active outdoor life as he grows older.

Whirlwind has been closely monitoring the usage of the electric RoughRider wheelchair in the Republic of Georgia since it was first introduced by Whirlwind four years ago. During the first three years, there were ongoing problems with the Chinese-made hub motors and joystick electronics. There have not been any problems now for almost one year. Since 2015, the Coalition for Independent Living, our Georgian partner, has manufactured and distributed over 250 electric RoughRiders for severely disabled adults and children, all of them paid for by the Georgian government.

**The OmniRider** is designed to function like the RoughRider outdoors but be extremely maneuverable in tight quarters. The rider can adjust the seat forward and back 6 inches to get closer to tables, toilets, bathtubs etc. She will also be able to go up and down steep hills and ramps safely. The goal is to maximize indoor and outdoor access in a single chair.

**Aluminum RoughRider** — In the last year we have been working on developing an aluminum version of the RoughRider that should be more than 6 pounds lighter than the RoughRider, which is made from mild steel. Previously, we rejected aluminum because of its tendency to fatigue and crack and because to weld it requires a special type of welding (TIG) that has not been readily available throughout the developing world. But for sales in the advanced countries like the US and Europe, and now in cities throughout the developing world, TIG welding has become much more widely available. This makes it possible to provide an aluminum RoughRider that has the stability and safety of the steel Roughrider but in a lighter and easier to push package. Both the OmniRider and the Aluminum RoughRider are now on schedule to be in production by June 2019.

**EasyRider** — Our final product in development is the EasyRider. It has a reversible front end so that the rider can have a short wheelbase for sports activities and a long wheelbase for stability in rough terrain. The EasyRider is being developed initially for small shop production. It has been enthusiastically received by test riders in the Republic of Georgia and will undergo further field and laboratory testing to ensure the chair is durable and fully functional.



## Whirlwind Advocacy Leads to Improved Quality of Wheelchair Provision



Whirlwind is pleased to note that our global advocacy efforts ahead of last January's international Wheelchair Stakeholders Meeting in Bengaluru, India have led to increased transparency and more objective and professional procedures for selecting mobility products for inclusion in the USAID-funded CLASP project.

From January 15 to 18, 2018, the International Wheelchair Stakeholders' Meeting convened 56 participants and several representatives from the United States Agency for International Development (USAID) to evaluate wheelchair sector priorities. Whirlwind's Bruce Curtis, Chair of the Board of Directors; Salam Hassan, Wheelchair Engineer; and Sara Tanzakkine, Executive Administrative Assistant, attended the meeting.

Prior to the meeting, Whirlwind broadly circulated a letter describing a number of concerns about the CLASP project that had been raised by NGOs working in the field of wheelchair provision.

Significant improvements in the field of wheelchair provision in developing/low resource countries have occurred since the 2006 Bengaluru International Conference on the Provision of Manual Wheelchairs. At that time, The beneficiaries usually showed up at a mass distribution to get whatever wheelchair was available even if it was without a good cushion or needed postural support.

To remedy these problems, WHO issued guidelines on wheelchair provision services. One of the important advances was to encourage the purchase of a variety of wheelchairs in one shipping container, by offering mixed product containers through CLASP. The purchasing of mixed containers has led to a greater availability of a variety of wheelchairs and other products in several countries.

Unfortunately, a number of problems with CLASP had arisen, which limited the benefits of CLASP to wheelchair users in developing/low resource countries and thus did not meet USAID's original objectives. These problems included:

- A lack of public transparency about CLASP marketing and supply operations, including quantities and models of mobility and other products sold annually;
- No publicized objective criteria for establishing quality standards and for determining which products were selected to be offered through CLASP and featured on its website. (e.g. ISO tested, already proven markets, desired features, price, etc.);
- No new innovative products introduced to market;
- An apparent conflict of interest for the CLASP managing organization, which was selling its own products through CLASP;
- A CLASP monopoly on distribution of mixed product containers, eliminating the potential benefits from competition in price, quality and product variety available to wheelchair users and providers;
- No apparent mechanism for verifying that a purchaser of a CLASP container had the ability to provide the wheelchairs in accordance with WHO Guidelines and that the wheelchairs actually had been properly distributed.

Those of us who are involved with the development of innovative wheelchair products had expected CLASP to become an effective and transparent conduit for individual providers of quality appropriate equipment to access the market in low resource countries. This expectation had only been partially met, and there appeared to be no transparent and impartial mechanism for opening up the market to quality products not yet offered through CLASP. Following the Bengaluru meeting, at which there was a vigorous and healthy debate, the CLASP program initiated significant changes in how they operate. Whirlwind salutes all those in the international wheelchair community who together with us or on their own initiative, have worked to improve the quantity, quality and variety of wheeled mobility devices available to people with disabilities in developing countries and to promote the professionalization of wheelchair services in line with the WHO Guidelines on Wheelchair Provision in Less Resourced Environments.



## Advocating for New Wheelchair Procurement Policy in Morocco

Whirlwind has submitted a project for U.S. State Department funding in order to build the capacity of Moroccan Disabled People's Organizations (DPOs) to effectively advocate for a wheelchair procurement policy that meets the needs of the country's wheelchair users.

Each year, Moroccan city councils and the Ministry of Health purchase and distribute to citizens of all ages, thousands of institutional model wheelchairs made in China. However, like many other government provided wheelchair programs in the world, the government authorities are not aware of the proper provision of wheelchairs according to World Health Organization (WHO) Guidelines for Wheelchair Provision, which recommends evaluation and body measurements for each wheelchair recipient. Therefore, city governments may provide hundreds of wheelchairs for adults and children but the lack of trained professionals in WHO Guidelines results in many Moroccans with disabilities receiving wheelchairs that do not correctly fit their bodies.

Moroccan DPOs, that are led and staffed by persons with disabilities (PWDs), possess experiences and perspectives that make them uniquely equipped to understand, communicate, and address the various needs of persons with disabilities.

Whirlwind will work with two local Moroccan partners, disability social enterprise *Peace Wheels* and the disability NGO *White Dove*, in order to mobilize DPOs and local and national media actors to effectively advocate for wheelchair procurement policy reform in two Moroccan cities. The project will proactively seek input from and build the organizational capacity of DPOs throughout the project life cycle, including design, outreach, recruitment and direct advocacy with community leaders and government authorities. While this project aims to improve city government policies for purchasing and providing wheelchairs for local residents, the inclusive education and advocacy process, which it utilizes for city governments, would establish advocacy channels and public education approaches that could be replicated and leveraged by other disability activists who want to improve their city government's procurement and provision of appropriate wheelchairs. The project will train 12 medical professionals on implementing the WHO Guidelines for Wheelchair Provision and 40 wheelchair users through 2 active rehabilitation and wheelchair skills camps in order to develop a cadre of trainers who will be able to replicate the project's activities into the future.



*top – sports wheelchair in development at Peace Wheels*

*bottom – Salam Hassan (left) and Mohammed Belal (right) at the Peace Wheels shop in Marrakesh*

## Active Rehabilitation In A Wheelchair Mobility Skills Training Camp



The Coalition For Independent Living (CIL) in the Republic of Georgia recently conducted in September 2018, a 5-day active rehabilitation and independent living skills training camps for 19 persons with spinal cord injury or who were amputees. Over five days, these participants received training in active wheelchair use, personal care and hygiene, maintenance, parenting with disability and in reproductive health issues of men and women with disabilities. The CIL trainers, who were active and high functioning male and female wheelchair users, delivered the training based on the methodology developed and provided by Prof. Tomasz Tasiemski, himself a wheelchair rider who is an international expert in active rehabilitation and wheelchair mobility. Prof. Tasiemski is also the author of the book “Rehabilitation after Spinal Cord Injury” and one of the contributors to the WHO/ISCOS publication “International Perspectives on Spinal Cord Injury”

Many wheelchair users throughout the world suffer from the lack of rehabilitation opportunities and mobility skills training, which is aggravated by inaccessible public transportation and rugged local physical environments. Various professionals and research literature indicate that facilitating the return of physical function and independence in daily activities is extremely important to achieving full potential and a dignified life. Active rehabilitation is a combination of activities of daily living (ADL) skills training; wheelchair mobility skills training;

and rehabilitation through sports. Its purpose is to eliminate the effects of a major life injury and to restore the individual's mobility functions to the highest degree possible. While Spinal Cord Injury (SCI) can be a significant life-changing health condition, people with SCI can still enjoy fulfilled lives if provided appropriate healthcare, rehabilitation, assistive technology and related skills training which also minimizes the risks of experiencing social exclusion and poverty.

The 5-day camp delivered by CIL was designed so that the participants were taught practical wheelchair skills and techniques on how to: handle restrictions in mobility and independent living; increase their daily functioning; and how to utilize theoretical knowledge in order to better understand the nature of their spinal cord injury and the coping mechanisms. Wheelchair users with a high level of functioning and independence, delivered the training activities in several key areas in order for the wheelchair users to:

- Improve, restore or maintain body functioning;
- Improve muscle strength and range of motion; reduce spasticity and associated physiological difficulties;
- Learn new strategies and techniques of carrying out normal daily activities (new dressing techniques using residual muscle function; learning to eat with different utensils; personal hygiene routines);
- Master wheelchair mobility skills for achieving greater independence;
- Learn how to better manage their bowel and bladder function.

The active rehabilitation camp not only improved the health and functioning condition of the participants but it also increased their opportunities to end social isolation and to be included in Georgian society even in the absence of accessible physical environment and public transportation.



## The Frank Barham Memorial Fund

Whirlwind has been known for providing high quality wheelchairs at a low cost to people in need in developing countries. Whirlwind has now received funding to provide a limited number of RoughRiders to Americans in need at a highly subsidized price.

The Frank Barham Memorial Fund at Whirlwind was set up to honor the memory of musician, wheelchair rider and disability activist Frank Barham, who died in a tragic road accident while raising funds for just this purpose. Barham was killed on May 20, 2015 during his 302-mile ADA 25th Anniversary roll from Atlanta to Savannah, Georgia.

Whirlwind Executive Director, Marc Krizack, described Frank as “the Johnny

Appleseed of wheelchairs. He wanted to help people in Georgia and then repeat what he was doing there around the country, so people who can't afford a good wheelchair could get one.” Frank had already raised more than \$10,000 through his Wheel2Live Project to purchase RoughRider wheelchairs to donate through Atlanta's Friend's of Disabled Adults and Children (FODAC), which has a statewide program to provide free and low cost wheelchairs and other equipment.

Frank was also an accomplished musician, playing chromatic harmonica in his band Brazilian Fusion. Frank was using his music to raise funds for the Wheel2Live project and for Whirlwind Wheelchair. [A short video about Frank](#) and his efforts can be viewed online. You can also find Frank's music [on YouTube](#).



Any adult who needs a RoughRider wheelchair and who is on public assistance, such as Social Security or SSDI, may apply to receive a RoughRider. Successful applicants will be required to contribute \$400. The applicant will receive the RoughRider wheelchair with all shipping and handling charges paid, a value of more than \$1100. To apply, you must [complete the online application form](#) and submit a copy of your public assistance determination letter.

*top – Frank Barham (center) playing harmonica in his band*

*bottom – Frank with his dogs*

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Recorded November 1, 2017—October 31, 2018

*All donations received or postmarked in 2018 are deductible in 2018*

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