

gizmo

THE TETRA SOCIETY OF NORTH AMERICA: CUSTOM ASSISTIVE DEVICES

Kayak paddler gets a grip on her favorite pastime

By Caspar Ryan

SAN FRANCISCO: After rheumatoid arthritis in her hands had worsened to the point where she could no longer hold a paddle, it seemed that Doreen Miao would never kayak again.

Although she could grab hold of an oar, the muscles in her hands had lost their strength, meaning she could not grip for long. Miao, of San Francisco, had failed on several occasions to adapt her kayak, so she gave it to a friend.

“It’s a great pleasure being on the water,” she would reminisce. “I used to go kayaking in a group and we watched the Orcas swimming in the sea. I’m glad I did it when I could.”

Fortunately, Miao never let go of her dream. On a trip to Japan she learned about the Tetra Society of North America from long-time volunteer Roy Hamaguchi. The only problem was that the nearest chapter, Los Angeles, was at least an eight hours’ drive away.



PADDLE DEMONSTRATION: DOREEN MIAO SHOWING SHE CAN HOLD, BUT NOT GRIP FOR LONG.

And the story may have ended there were it not for Lana Zotman, a former IT manager who launched a Tetra chapter in San Francisco.

“Two years ago I was diagnosed with a severe repetitive strain injury,” explained Zotman. “Since I was not able to work as an IT manager, I found opportunities to explore other areas in life where I could apply my technical knowledge, managerial skills and my passion for helping people with disabilities to maintain their independence.”

Lana and her husband, Michael, launched the San Francisco Tetra chapter in June, and

immediately began work on the kayak paddle project.

With a few heavy-duty custom Velcro straps and a pair of gardening gloves, the Zotmans had the answer—although this simplicity masks a great deal of work. The adapted kayak paddle was completed for July, and Miao was back on the water within a matter of weeks.

“I was blown away,” says Miao about Lana and Michael. “I can’t say enough for their kindness. They visited me, took a look at my troubles and then went shopping all over the city. My new paddle even works in the wind.”

Tetra Society takes to the skies

VANCOUVER: A gliding program for people with physical disabilities is reaching new levels of accessibility, thanks to Tetra engineers.

The Easy Gliders program uses Hope Gliding Centre, 150 km east of Vancouver, allowing participants to fly with an experienced pilot for between 45 minutes and one hour.

Organizer James Willetts went through depression after becoming quadriplegic in a 2003 auto accident, but now hopes to install the belief among people in the same situation that “there is life after becoming a quadriplegic or paraplegic.”

He flew a glider for the first time in 2006, and the following year he joined forces with the

British Columbia Mobility Opportunities Society—a sister non-profit to Tetra—to launch Easy Gliders. However, it soon became apparent that a particular group of people were being grounded.

“We were having problems with clients with cerebral palsy and multiple sclerosis that would clench their legs together,” he explained. “There is no option to disengage the joystick, so if you touch it, you’re flying the glider.”

Willetts turned to Tetra to create a simple mechanism to act as a barrier between the client’s legs and the controls. Abbotsford/Mission volunteer John Connor started



DOWN TO EARTH: GLIDING AT HOPE AIRSTRIP, NEAR VANCOUVER, B.C.

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Tetra Society: Coast-to-coast innovation for people with disabilities

REGINA: Tetra volunteers are currently looking into ways to enable people with disabilities make different, but equally important, journeys.

The Regina chapter has been asked to enable a new mom, who is paraplegic, to carry her baby in her power wheelchair, and also to devise a way to enable a ventilator-dependent client to fly to Ottawa for a conference. Each request is to enable people to live independent lives, says chapter coordinator Terri Sleevea.

The first, says Sleevea, gives the new mom, who only has the use of one arm, a great deal of freedom.

“It was a high-risk pregnancy, but she had a beautiful little girl, Anika,” explained Sleevea. “She loves to go swimming, and to exercise, but the transit service would not be able to carry the baby on the bus.

“She asked us for a baby carrier, that would take the baby on her lap, and which would grow with her child. This project isn’t completely finished yet, but the client is pleased at the freedom it will give her.”

The other project is for an 18-year-old, who needs to take a flight to Ottawa.

“He needs a more structured seat, and a way to secure his respirator. He wants to travel by March 2009.”

The chapter’s volunteers are currently in discussion with Canadian carrier WestJet, to see what modifications are permissible, and then, if they get the go-ahead for the project, to determine the space and weight restrictions.

Sleevea has a very capable team, built around a core of three active volunteers: Chris Penniston, Brooke Kyle and Dave de Mountney. The trio was recently featured on Regina television, on both CTV and Access Communications, said Sleevea.

“We weren’t getting many projects in,” she said. “But since they were on TV talking about Tetra, this Spring, seven requests came in.”



OFF-ROAD MODIFICATION: HALIFAX VOLUNTEER BILL RUDOLF, WHOSE IDEAL TETRA PROJECT IS “ANYTHING WITH WHEELS,” CREATED THIS OFF-ROAD WHEELCHAIR FOR A CLIENT THAT WANTED SOMETHING TO NEGOTIATE ROUGH TERRAIN.

INTERVIEW WITH THE VOLUNTEER:

Ross Morrow, Tetra Guelph, ON

TETRA HAS MORE THAN 200 VOLUNTEERS ACROSS NORTH AMERICA, WORKING ON A VAST RANGE OF PROJECTS. THIS ACCOUNT IS FROM JUST ONE.

BY WINNIE CHEUNG

Tetra’s newest chapter is being steered in the right direction by an enthusiastic coordinator.

Ross Morrow launched the Guelph chapter in June, with an instinctive grasp of what lies behind the most successful chapters: hard work, networking, enthusiasm . . . and a willingness to pick up a phone and introduce the Tetra concept.

Having worked in manufacturing for 35 years, Ross is experienced at designing and building devices of all kinds, and confident in his ability to generate solutions to clients’ requests.

Ross wanted to volunteer his professional skills to help others, and found out about the Tetra Society of North America through an internet search. Tetra’s philosophy appealed to him, descriptions of assistive devices further appealed to him, and he figured he would take as much out as he put in—learning new skills and experiencing fulfillment.

“This is something I had missed since my retirement,” Ross recalls thinking when he looked at Tetra’s website.

An injury to his hip a few years ago had bothered Ross, and he recalls the feeling of helplessness. “I remember struggling to get on my feet one morning to get something just out of reach, or simply opening the blinds,” he said. It felt uncomfortable having to rely on his family, for even the easiest of tasks.

Ross understands the significance of simple assistive devices—to enable individuals with disabilities to overcome challenges they encounter, both physically and psychologically. “That’s why I decided to take on the task of establishing a new Tetra chapter in Guelph,” he said.

Aware that the key to Tetra’s success comes through establishing strong relationships with local community groups and healthcare organizations, Ross is running presentations and meetings with a variety of service providers to promote Tetra and the benefits of customized assistive devices.

And, along the way, he has approached a number of potential funders and has begun attempting to attract clients. He has been talking to the University of Guelph engineering department, seeking potential volunteers and possible additional technical support.

Tetra’s assistive devices can lead to greater degree of independence and freedom for people with significant physical disabilities. If you, or anyone you know of, are in need of a device in Guelph, contact chapter coordinator Ross Morrow at tetraguelph@gmail.com.

GLIDING PROGRAM

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work on the project in May, created and modified a prototype, and was making final changes to the final design at press time.

The hardest part was creating a mold, once he had the final prototype. His initial Styrofoam mold was “eaten through” by the resin used in the fiberglass process, so he then had to make a polyurethane mold. This means, however, that if other adaptive gliding clubs come across the same issue, he has a mold ready for use.

“It was a bit of work, but worthwhile,” he said.

The final version is expected to be used for the concluding flights of this year’s season.

For more information about the gliding program, see: www.disabilityfoundation.org/bcmos/gliding.php.



HIGH LIFE: (FROM LEFT) LINDA MCGOWAN, DOUG REID AND THE TETRA CAMERA MOUNT THAT WILL BE USED ON THEIR HIMALAYAN TREK; (MAIN PICTURE) PIPPA BLAKE, WHO COMPLETED THE EVEREST BASE CAMP TREK NOVEMBER 2007, ACCOMPANIED BY SONS OLLIE AND JASPER.

Tetra Society elevates hopes for Everest expedition

BY VINNIE YUEN

With a little help from the Tetra Society, two adventurers will begin their challenging expedition to the world's highest mountain.

Linda McGowan and Douglas Reid aim to trek to Everest Base Camp in October. McGowan has had multiple sclerosis for 25 years and Reid has been a quadriplegic for over 30 years.

"I am always keen to entertain challenges that are presented before me," said McGowan, of New Westminster. "It's the highest mountain in the world. It's an incredible hope and dream for anybody, but for somebody with a disability to have the opportunity to actually get there is absolutely amazing."

McGowan has visited many places that would be considered impossible or inaccessible to people with or without a disability, including: Machu Picchu, the Galapagos Islands, Iceland, Greenland, Denali National Park, China's Great Wall and various countries in Africa.

During his 30 years in the airline industry, Reid travelled extensively throughout the world, including Asia and the Orient. He has always enjoyed outdoor activities, and his dream of visiting Tibet and Nepal to see Mount Everest began well before his injury.

"I've always dreamed of climbing the mountains of the Nepal and Tibetan Himalaya and that dream will be realized when I finally trek up Mt. Kala Pattar and gaze at the summit of Everest," he said.

They will first travel to Kathmandu, Nepal, and then proceed to fly to the remote airstrip at Lukla. Afterward, they will embark on their trek through the hills of Solu up to the 5950-metre (19,500-ft) level of Mt. Kala Patthar. At this altitude, McGowan and Reid will be 600-meters (2000-ft) above the Everest Base Camp, able to observe the entire south face of Everest.

The key device in such a demanding journey is the TrailRider, co-designed by Tetra's first volunteer engineer, Paul Cermak, and founder, Sam Sullivan. It is a specially designed, single-wheel, wilderness access vehicle that allows the user, propelled by two able-bodied

helpers, to overcome tough terrain in the wilderness. This device was further modified in 2005 to make it lighter, stronger, and more compactable. In addition, Tetra Vancouver volunteer Dwight Atkinson will build a camera mount for this expedition, to enable Reid to document the amazing scenery.

This will be the third camera mount Atkinson has made for avid photographer Reid. He developed his first 10 years ago, after watching the process of milling metal. This requires a steady stream of cooling lubricant, delivered through a gooseneck hose – which Atkinson recognized as an ideal camera mount as it is both flexible and sturdy.

"I am always keen to entertain challenges presented before me."

"The gooseneck gives Reid the exact support he needs in order to operate the camera", said Atkinson, "I have simply adapted existing technology to create this device".

"I want to go now! I can hardly wait for October", Reid said. Though originally planned for this past April, they were forced to push back the date due to lack of funds. The entire journey will cost approximately \$30,000. Besides the heavy expenses, other challenges on this trek include stress on their respiratory systems due to the high altitude, adapting to the distinct foods of Nepal, and dealing with the extreme climate and unpredictable weather.

"If by doing this expedition I can motivate one other person with a disability to venture outside their circle of comfort and pursue a dream, I have accomplished one of my goals in life," McGowan stated. With Tetra's assistance, hopefully Linda McGowan and Doug Reid's dreams are closer to achievement.

If you want to aid their trek with a tax-deductible donation, visit www.disabilityfoundation.org/bcmos/extreme_hikes.php.

Rise Above Barriers

A TrailRider adventurer who completed the arduous Base Camp trek last year is letting this year's travellers know what is in store: an experience that is as amazing as it is tough.

Pippa Blake, of Victoria, BC, and her 14-strong Rise Above Barriers team trekked the route last November. She said: "The days were astounding. The air was crystal clear, and the view of the mountains was fantastic. When we went through villages, local people were just so excited for us.

"It was, however, tougher than we anticipated. The higher we got, the more rocky the trail became. There were huge boulders. They had to carry me 80 per cent of the time.

"The nights were poor. It was dark and cold. It gets dark around 5 p.m."

Blake, who has multiple sclerosis, struggled to keep warm at night, even using a series of hot water bottles. She says that her next trek will be in Spain—but that she would still do the Everest adventure if she got to live her life over again.

Reaching Base Camp, on Nov. 14, was, both literally and figuratively, the high point of the adventure. "It was exciting just to be there. It was quite an emotional day."

Blake had been all set to trek in Nepal 20 years ago, but work intervened. She figured another chance would come along, but was diagnosed with MS "and ended up in a wheelchair." Her grown-up sons intervened to make the dream reality.

As reported in the Winter 2007/08 edition of *Gizmo*, Salt Spring Island, BC Tetra coordinator Derek Emmerson made pre-trip modifications to ensure Blake's TrailRider was tougher, lighter and more comfortable.

In addition, Blake's resourceful team made additional on-the-spot alterations to make the device easier to move by their Nepalese Sherpas.

For more about Blake's trek, visit: www.riseabovebarriers.com.

A simple solution gives safety, dignity and independence

NANAIMO: Volunteers came up with a simple solution to enable an 11-year-old girl with a degenerative neurological condition use the stairs more safely.

Nanaimo Child Development Centre asked coordinator Martyn Kinsella-Jones to find a solution for the girl, Kaitlen. He worked on it with long-time volunteer Jon Hofman.

The solution, extra stair railings, might seem obvious, but it was not possible for the girl's family to make the necessary installations.

“Most of the problem with the current phase of Kaitlen's condition is difficulty with her balance whilst negotiating stairs,” explained Kinsella-Jones. “As an interim measure, we agreed to implement a simple solution that would allow Kaitlen as much independence as possible without being intrusive—hence the stair rails.”

The return on this investment of time and energy was instant, said Kinsella-Jones. “What was most gratifying about the project was the way Kaitlen took to using the new stair rails without any type of prompting of any kind while the volunteers were still putting in the last stair rail.

“The change in her confidence was quite sudden. From being hesitant and cautious, she went to almost running up and down the stairs while we were still clearing away our tools.”

Dino Tsembelis, a resource development worker with Nanaimo Child Development Centre, wrote a letter of thanks to Tetra Nanaimo after the project. It states: “Thank you for stepping up and completing such a worthwhile project.

“It is wonderful to know there is such fabulous community support! The family is thrilled with the results and the difference it will make in their lives.”

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Tetra Society of North America

CELEBRATING OUR 20TH ANNIVERSARY

Have an idea for a project?
Want to know what's possible?
Want to overcome a barrier?

Here's how to reach us...

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