

LIGHTNESS REVIEW

By Hugh Miller

I'm strapped into a Lightness harness, hanging in the Advance design office. Three Advance employees walk around me, prodding my thighs, making subtle adjustments to the harness, talking to each other in Swiss-German and scribbling notes on their clipboards. It's a little like being a patient in hospital.

Actually, I'm quite enjoying the experience. I've never been personally fitted out for a harness before and I'm feeling quite special.

"How does it feel now?" asks Marcel Lamprecht, Advance's harness designer.

"Great on my legs" I reply, but "but can I be a little more upright with my back?"

"Take a school harness," remarks test pilot Judith Zweithel, with a wry grin.

Advance, one of the world leaders in paragliding design, have invited me to Switzerland to check out the new Lightness harness. In 2009, Chrigel Maurer astonished the paragliding scene by winning the Red Bull X-Alps on entirely newly designed, specially crafted equipment. Pilots the world over drooled over the idea of his 2 kg pod harness. The X-Alps proto was refined over the last six months, and the outcome is the Lightness.

To be honest, I've never been a massive fan of lightweight harnesses. Sure I've appreciated their lack of weight during a long hike, but, often fat and bulky, their aesthetics let them down.

The Lightness is a world away. When I first saw it, I was stunned. It's one of the most beautiful pieces of paragliding equipment I've ever seen: sleek and agile, it looks like it'll slide through the air with minimum drag, and it feels incredible... so light. When you pick up most pod harnesses, you're wrestling with over eight kilograms. The Lightness weighs in at 2.05 kg. It has been developed as a performance lightweight concept, and as such comes complete with a reserve container (130 g) and Lightpack rucksack (600 g).

A simple hammock was the inspiration behind the design: something light and simple you can lie in for hours without effort. But the Lightness has been designed using 3D software. Marcel first took key ergonomic measurements of the human body and built the harness from there.

The Lightness doesn't have a seat plate, but as I lie in it, I'm struck by its sense of solidity and comfort. I can feel the 10 cm thick mouse bag under my lower back and legs. Marcel confirms that the Lightness's geometry makes for less effort on your legs than the Impress 2.

'The top line from the footplate goes diagonally higher to the karabiner, giving more support', he tells me.

Marcel jabs around my knees to check for muscle tension – there isn't any. The seat fabric runs almost down to under my knees, offering lots of support and security. He tells me that the key setting is to have your hip line centred under the karabiners.

I make to get out of the harness. As I push my knees up, the tension is released from the pod fabric, and it's easy to get your legs out. I wonder if a bit more protection would help prevent scuffing around the pod fabric as you pull your boots out through the gap. Marcel just remarks, 'I could show you ten places where you could put more material, but it'd just add to the weight.'

We head off to the mountains to fly. It's a 700 m hike up to launch, but with an Alpha Hike and the complete Lightness set-up on my back, I'm able to walk upright and with little effort.

I ask Marcel about how he achieved the impressive weight reduction in the harness. After all, the Impress 2+ weighs over 7 kg. 'There's no big difference between the webbing straps of the Impress 2 and the Lightness, they're just a bit lighter,' he replies.

'The big change is in the material used for the speed bag. The Lightness pod is built of a 207 g/m² synthetic fibre.'

Getting the harness out on launch, I check out the material again. It's slightly stretchy and is a wafer thin 0.5 mm wide. I wonder about its durability, and Advance make no claim that it's as resilient as other harnesses.

'Actually, it's almost as strong as the Impress 2's 1.5 mm thick neoprene,' says Marcel, before issuing a word of caution. 'If you hit a sharp rock, the Lightness won't be nearly as resistant as the Impress 2', he says.

There's a slight tailwind when we get to launch. The sun's last rays are shining across the Eiger ahead of us. I lay out the glider, and get into my harness. Front launching, the pod's carbon footplate bangs slightly against my calves, then we're off. I recline, and press my legs against the plate, and feel locked securely into position. Usually, I feel a harness more acutely in certain parts of my body – the small of my back, or under my bum. With this harness, I feel supported from my shoulders, down my back and right to the end of my thighs. I'm surprised especially by how solid it feels under me without a seat plate.

Weight shifting is easy through some wingovers, and although I'm only in the air for a short while, I'd imagine I'd feel at home in the air in this harness on much longer flights. Perhaps I might miss dropping my legs for a while to rest on a seat plate, but there's very little pressure on my legs anyway.

After landing, I ask Marcel about the aerodynamics. 'It's got much less volume than the Impress 2 and other harnesses, so probably is even more efficient,' he says.

I can believe it.

Packing away, I have to fold my glider reasonably tightly to squeeze it in the Lightpack bag. It has only 80 litres of volume, less than half that of a standard paragliding bag. Then again, it weighs only 600 grams, around a third of the weight of a normal bag, so perhaps a little more time packing is a fair compromise for the lower weight and increased comfort while hiking.

The Lightness is a brilliantly engineered piece of equipment. Like all great designs, it's simple, and just works.

Note: Hugh used to edit Cross Country and is now an independent consultant working for Red Bull and Advance among other clients