

FLIGHT PLAN

Adrenaline junkie, skydiving expert, adventurer and entrepreneur Jari Kuosma tells Farhan Hasan how he defied the odds so that he and other extreme sports enthusiasts could revolutionise man's relationship with flight. Images: Jussi Laine and Mark Lichtle

Hospital ERs are often graced with visits from boys, or would-be stuntmen, with broken limbs. For them, balloons and bedsheets are happily substituted for parachutes. Sometimes a simple cape suffices: Superhero costumes are probably responsible for the bulk of such calamities (to the extent that most manufacturers print "do not attempt to fly" warnings on the packaging).

Childhood shenanigans aside, history shows that grown men, having taken more scientific approaches to the same endeavour, have fared worse. The result of the majority of these experiments? Death by gravity. Having learnt from the mistakes of these misguided adventurers, Finnish skydiver Jari Kuosma has succeeded in making it possible for us to experience flight in its purest form with the invention of his 'wingsuit'.

GET SUITED UP

The wingsuit is an outfit that resembles the anatomy of a flying squirrel. The space between the arms and legs is webbed, with a parachute-like fabric acting as your 'wings.' The wings inflate in such a way that the body becomes aerodynamically streamlined: the entire back of the suit becomes curved, and the front (facing down) remains flat. Conventional science tells us that this shape accounts for higher air pressure below the suit, giving it upward lift, working in much the same manner as the wing of an airplane.

After jumping out of a plane, the

wingsuit enables a half dive and half glide, finished with a parachute landing. Jari explains: "Normally, a skydiver falls basically straight down, descending at speeds of 200 to nearly 400 km/h, for maybe 40 to 60 seconds. Now, when a person wears a wingsuit, and has the hang of it, he can soar horizontally easily for many kilometres (the record being up to 20 kilometres), travelling forward at speeds of 160 km/h and falling to maybe 50 to 60 km/h. What is evident is that freefall time can be prolonged to more than three times that of a normal skydive."

Since this sounds like, for short bursts, what Superman must experience, what does it feel like? "My first time using the wingsuit, I was very aware that I could die. But it flew, right away, and all the wait and anticipation, all the dreams, wishes and fears transferred into something that I can only describe as the happiest moment of my life. The smile on my face must have been stupidly wide and I screamed for joy. I was not just falling, I was translating gravity into flight, controlling it, turning, banking and driving forward with amazing speed. I could see

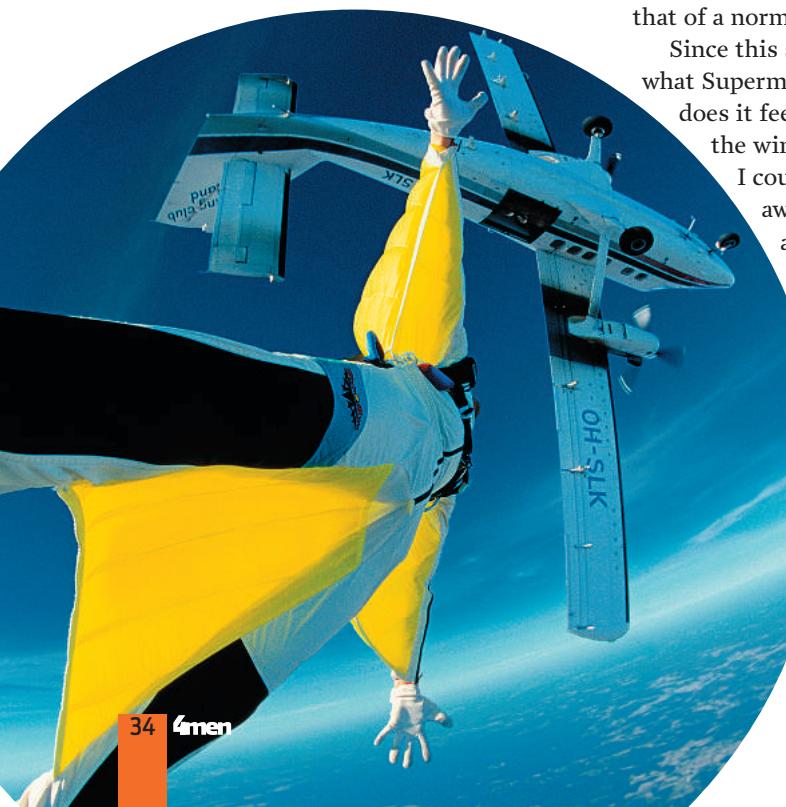
myself moving against the ground, I found myself looking at my altimeter several times in amazement; it didn't seem to come down at all. The freefall seemed to last forever. I was in love with life, air and flying," Jari says.

Now let's take it a step further. What about the possibility of ditching the parachute altogether? According to Jari, "There have been a few cases when a jumper survived the fall when their chute either didn't open or they didn't have a chute at all, but they were all very lucky. So, that tells us that it is possible to survive an impact. Landing a wingsuit therefore, in theory, is possible. It is not safe to attempt it with the current suit however."

Despite the fact that the wingsuit may reduce the force of impact with the ground, the forward speed while landing still makes it nearly impossible to hit the ground running. What if Jari had the kind of massive wings Batman had in *The Dark Knight*? In all likelihood, the wind-force on wings those size would tear his arms clean off. Let's not try that then.

BIRDMAN INC

Jari was only 21 when he began skydiving in 1991 whilst working full-time for an



IT company. Six years later, he became an Accelerated Free Fall (AFF) Instructor, and in 1998 he set out to turn his passion into his career. Now, at the age of 40, as the CEO and head of design at Birdman Inc., Jari has succeeded in doing just that. "I had a good thing going, but I was about to turn 30 and I guess I thought I was missing something. My dreams were elsewhere. I quit my job, sold all the things I could not carry in two bags (which was not very much, since one was for my parachute) and bought a one-way ticket to Florida. I wanted to start my own business doing something in skydiving but I didn't know what exactly."

Teaming up with industrial designers from the University of Art and Design and aerodynamic engineers from the Helsinki University of Technology, Jari set out to perfect the wing suit design of Patrick De Gayardon, the last true 'birdman', who developed a nearly ideal blueprint for the suits used today. De Gayardon's suit was the closest man had ever come to a functional model, but it lacked the emergency cutaway systems for the wings, which, sadly, lead to his untimely death. "By the winter of 1999, I had jumped all sorts of different prototypes, changing and tweaking the design, learning new tricks and writing a manual on how to fly with one," says Jari. "Many people at the drop zone thought I was crazy, they reminded me that even the best of the best had died doing it and I was really a 'nobody'. But I had over 1,000 regular parachute jumps and I was a professional skydiving instructor, so they had to let me try it. There was no law against it in Florida."

He started up his company, Birdman Inc, in Helsinki in May 1999. Despite the company's success, the unpleasant side of the corporate world provided for some hiccups. "I hired one of the guys I started testing the suit with to work for me. Later, I found out he was selling suits behind our backs. Taking with him the secrets of the trade he started his own company, and he is one of our main competitors today. So, it's not such a nice story in the end, but that's business sometimes."

Despite the setbacks, Birdman Inc., is now the most prestigious skydiving brand

and commercial wing suit manufacturer in the world, with a growing clientele of professional skydivers, base jumpers, stuntmen, rocketfliers, and adrenaline junkies spread over five continents. The products are sold in skydiving and extreme sports stores worldwide.

GETTING INTO A WINGSUIT

The price of Jari's suits range from about Dh2,500 to Dh4,500, but in order to own one, you need to 'earn your wings'. A minimum of 200 skydive jumps are required to become eligible to try the suit in tandem (500 to ditch the instructor). It's essential to get comfortable in the air beforehand, as it can be extremely dangerous for those who aren't. Out of the 6,000 or so experienced skydivers who own wingsuits in the world, about 20 have had fatal accidents. Statistically speaking, that's a one in 300 risk of death, and probably better odds than you'd get if you were riding a moped down Shaikh Zayed Road on a rainy night. Before the modern suit came into production, over 90 per cent of those who attempted to fly in a wingsuit died.

So what accounts for the fatalities? "In most cases, people simply could not control their wings, they could not open the chute, or when they did, they went into an uncontrolled spin and thus got entangled with their parachute," Jari explains. "It still happens, but very rarely. This is why our suit has safety mechanisms that allow a jumper to free his arms." The wingsuits come with cut-away systems for the wings in case of emergencies, as well as zippers to open the wing between the legs for landing after the parachute has been opened.

SAFETY MEASURES

Jari himself has used his reserve parachute five times in his 4,500 jumps he has made. One particularly close call was during a BASE jump where his chute did not open properly as he hurtled toward a rock face. "I had less than a second until impact and was absolutely sure that that would be it. Just when I thought it was over, the chute caught air, I was saved."

As well as being the original wing suit manufacturer, Birdman Inc., was the first company to

offer training for its prospective wingsuit owners. The course, which is known as the First Flight Programme, has now been adopted by several national organisations as a guideline for wingsuit safety and is copied and distributed globally by other wingsuit manufacturers.

"Wingsuit flying used to be considered one of the most dangerous acts of man and one that only elite daredevils would do. There was a good reason for that. Over 90 per cent of the pioneers died while developing the sport (including 72 of the 75 people who tested wingsuits between 1930 and 1960). It was only after the introduction of the Birdman suit that the sport started to evolve to the level we see it at today," adds Jari.

Jari best summed up his infatuation with flying by basically letting on that for him the experience is near indescribable. "So what does the wingsuit mean for a skydiver? Well, it means that he is literally flying; he has that omnipotent feeling that man has only dreamt of for thousands of years."

- For information on the company and wingsuit products: www.bird-man.com
- To skydive in Dubai, Jari Kuosma recommends Umm Al Quwain Aero Club: "They have a friendly and professional staff, with some stunning scenery on offer." They operate daily and tandem jumps start from Dhs,000.

To find out more, call 06-768-1447 or visit www.horizonuae.ae/uaqaeroclub.

