

# speedflying

Bill Morris outlines the current state of the speedflying art



Bill Morris at Rushup Edge on his own Little Cloud Spiruline 18 PHOTO: SIMON TOMLINSON

It seems a long time since I first wrote about the beginnings of speedflying in an article called *Ride the wild, wild wind* (Skywings, February 2007). At that time the sport of speedriding, the launching of small 10 - 14m<sup>2</sup> wings on skis, had begun to be established. This has now grown into the current established enterprise, with well-attended competitions and assaults on many mountains.

Of course few pilots were going to stick to short bounces on tiny slopes, and soon these wings were spending more time not in contact with the ground. This desire, and the physics of needing stronger winds to stay up in local soaring, led to a realisation that the smaller wing could provide more flying days and more airtime, as well as exciting ground-hugging descents. Prior to this, for want of dedicated wings, many of us were flying very small paragliders well above their certification weights.

Many of these early speedriding wings, like the Niviuk Nooky (reviewed here in June 2007) and the Gin Nano (Jan 2008), are still around in revamped versions. Noticeable also over the last five years has been the demand for lighter weight wings. This led to the production of hiking or alpine wings, which cheated a little on the weight issue by reducing wing size. Few went to the extremes of the epic Ozone Ultralite (April 2008), but a drop in up to 15g/m<sup>2</sup> in wing material weight, rope risers and the loss of some wing area are now common features.

So speedflying started to get the wings it needed by design rather than chance. But an early confusion emerged over names: where did speedriding end and speedflying begin, for

example? In addition, manufacturers differed in what they called this new discipline: speedriding, speedflying, alpine, hike, lightweight, crossover. You name it... well, they did! Chuck in skydivers using their jump chutes to "groundlaunch" and "bladerun" through gates and, apart from a serious dose of déjà vu from the early days of paragliding, you might find yourself a bit confused.

So to make sense of this, here's a speedrun through the story so far. The wing that really made many sit up and take notice of speedflying was the Gin Bobcat (Feb 2009), still present and, in its Yak derivative forms (Oct 2010), a UK best seller. When a firm like Gin leads off with such commitment, notice is taken.

Ozone, another major player, had enjoyed success with their smaller Bullet range and went on to the crossover XT16 (June 2009), but have stayed strangely inactive in speed circles since then. However their major breakthrough developments in paragliders must filter down soon, probably linked with their obsession with reducing weight.

Though some of the early models like the Nervures Swoop (August 2007) were more parachute looking

and rectangular in profile. The obvious development into more paraglider looking small wings didn't take long, using modern computer-design scaling techniques. The Nova IbeX (October 2008) is probably being the best example of taking a current paraglider and making it smaller. Other early paraglider looking designs like the ITV Awak and Pro-Design Lamna (May 2010) showed that these wings could easily be soared on the days paragliders were up.

Some firms, like the French company Little Cloud, were so convinced that small wings had a future that they made nothing else. Their Spiruline (January 2010) has been an enormous success, and they have continued to plough this lone furrow with innovative designs like the Ginseng (September 2011) and their yet-to-be-seen-in-the-UK, high-aspect-ratio Atypik.

Most major manufacturers now build some form of speedwing. Niviuk have enjoyed considerable success by leading into the miniwing gap with their Zion series (July 2011), while newcomers like Aska have branched into speedflying, naturally enough, from speedriding, in this case with the Aska 17 (Dec 2011).

What has been learnt? Much news has been bad: incidents, injuries and fatalities. On a small wing you are going very fast. Groundspeeds over 80km/h are common and, as our hang gliding brethren have told us, are not to be messed with. From the same source comes a similar lesson: strong winds produce strong effects, and there is still much debate about whether higher wing loading, counter-intuitively, makes you more stable.

Another lesson is that if you lose the same percentage of your speedwing, compared to the same area lost on a paraglider, you are not under much of anything. Close to the ground, without much time, gravity really sucks. The message, surely not a new one, is that pilot knowledge and skill make all the difference. There may have been a belief that it was what was between your legs that defined your participation in speedflying. In truth it's what's between your ears.

On the plus side, speedfliers have discovered an increased number of flyable days, made descents from virtually every mountain going, and created another market to keep the hard-pressed manufacturers going. The major work still to be done is on certification. Though the majority of speedwings are load tested, usually to the EN926.1 standard, very few are able to fulfil certification by completing the flight tests. Most manufacturers have gone through their own flight test routines, but though informative these lack the transparency and independence of the test houses.

The small wings that have been certified show a reluctance to collapse, savage reopening if closed and a lot of stored energy in any resulting turn, putting them in the EN C category. There has been some talk of looking again at the tests, but don't hold your breath.

Associated equipment like harnesses and reserves have received great benefit from lightweight developments elsewhere in the industry. Again, learning is still going on about how much "seat" for what sizes is good or bad.

At this stage in the history, where are we? The slightly manic initial phase is over and a more stable period is setting in. In terms of definitions, which do seem to have stabilised, wings below 12m<sup>2</sup> are generally speedriding wings. Those between 14 and 17m<sup>2</sup> are speedflying wings, and above that we have the miniwings - the 19 to sometimes 22m<sup>2</sup> range that penetrates into the XS paraglider domain. We are also seeing the start of complete ranges from speedwing to XL paraglider under the same name, based around the ability to scale or zoom with computer design. However this process is rarely as simple as just shrinking or enlarging a wing.

But these gliders are really about what you do with them. My flying season has completely changed, the time between flying has shrunk and my take on what is a blown-out day completely altered. But I have still had to get my decision making right, to both fly safely and save another walk down to change the wing.

What is the future now for speedriding? Has the appearance of both a speedrider and speedflier on the cover of Skywings (Dec 2010 and April 2011) signified arrival into the mainstream? The BHPA discipline format splits the route to speedflying proficiency into two, modelled on existing long-established practice. The paraglider-qualified CP+ pilot using a smaller wing simply converts over, albeit with the advice to find someone with experience to guide them. Ab-initios or novices to any sort of paraglider flying can either train to CP level on paragliders or, if they wish only to plummet,

go to an approved BHPA school. A BHPA training scheme covers this side of the discipline.

Most major manufacturers have a speedflying product. Some who have waited may be pleased with themselves as others have done much of the learning for them. With the closing of the size gap between the speedwings and normal paragliders (incorporating the trimmer approach to glide angle), higher loadings, lighter materials and lighter wings due to smaller size, we are now hearing the word "hybrid" more and more. This is becoming the common term for a paraglider that fulfils many roles, typically a speedwing, a mountain wing, a hiking wing and a high-wind soaring wing.

Though the term describes the versatility of such wings, it refers more their flexibility of use than their ability to be radically different in each role. Beyond the hybrid lies the truly multi-purpose wing, smaller and with a higher loading than the current paraglider, with a large trimmer giving a range of more than three points in glide down from a best figure close to 8:1. A wing for all seasons. Pilots who faff about which size paraglider to buy will find the loading decisions even more complex!

Some challenges remain, particularly in terms of certification, understanding the effects of higher wing loading and the conditions that are both suitable and safe. Nevertheless speedflying is here to stay, and gradually settling into the paragliding spectrum. Whatever it is called, the time is already here when a pilot can look at the flying day and decide which site to go to and what wing to use.

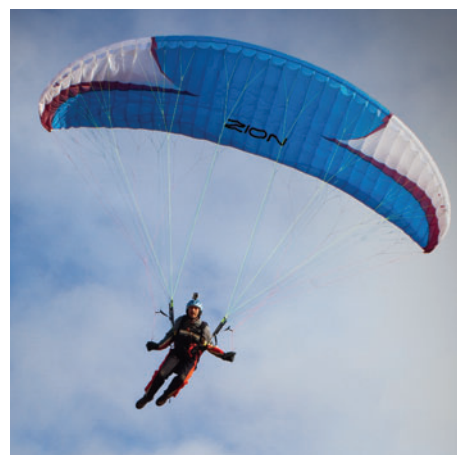
A philosopher once noted that novel ideas go through three stages of adversity. Firstly ridicule, then violent opposition, and finally acceptance as being self-evident. We are nearly there!



One of the first - Gin's Nano PHOTO: GIN



Ozone's Bullet that led to the crossover XT16 PHOTO: OZONE



Niviuk's Zion, also tending to a miniwing PHOTO: ROB GRANGE



The long-lived Yak, descendant of the Bobcat PHOTO: GIN



SKP S'Lide - really a miniwing PHOTO: ALAN CLARKE



Aska's 17 enters the speedflying arena by way of speed-riding PHOTO: ASKA-SPORTS/FABRICE LAUDIN/SKY GRAFF