

Airwave Sport

REPORT BY STEVE UZOUKURU, PHOTOS: AIRWAVE

The Sport is a new entrant into the top end of the DHV1-2 section of the market, where competition is fiercer than ever before. Every month new gliders appear and the benchmark against which they are judged is raised. The Sport sets out to offer the intermediate pilot looking for a second or third wing a glider with cross-country potential and good performance. For the more experienced pilot the object is to provide easy, stress-free flying and agile handling. The Sport completes the Airwave paraglider range, sitting between the Magic (DHV2-3 and Serial class) and the DHV1 Logic.

The first Sport became available just before the St Hilaire Festival last September in the medium (80 - 100kg) size and in November in the large (95 - 120kg) size, the model flown for this review. The XL was certified in December and the S and XS are undergoing certification as I write. The full range of sizes should cover 50 - 140kg all-up weights. The review glider was flown at an all-up weight of about 106kg, just below the middle of the weight range for the L model.

Airwave's long history in paragliding goes back to 1989 and the Black Magic. Bruce Goldsmith, Airwave's current designer, started up the paragliding side of the company having previously worked on hang glider design, at which Airwave had excelled since the beginning of the 1980s, securing two World Championships with John Pendry and Robbie Whittall. In 1997 the Bruce Goldsmith-designed XXX took John Pendry to a second World Championship win. Bruce himself has won the British Nationals, twice on hang gliders and twice again on paragliders. At the end of the 1990s Airwave fell on hard times but a takeover by Markus Villinger, former boss of Wills Wing Europe, resulted in a rejuvenation of hang glider and paraglider design and manufacture. Bruce designs and test flies from a base near Nice in France, in an area renowned for the high number of possible test flying days in any one year.

The Sport uses a combination of suppliers and materials for the sail. The top surface is Gelvenor; a material known for its resistance to abrasion and to UV, achieved partly with the use of a silicon-based coating. Ribs and undersurface are Porcher Marine Skytex. The glider has some closed cells and elliptical leading-edge entries to the open cells, designed to evenly spread the load from the line attachment points and to optimise tension in the leading edge. A small velcroed opening in the tip cell at the trailing edge aids removal of stones and other debris that get into the wing.

The glider has a four-riser system with split A-risers. The risers are made from 20mm black woven nylon webbing, with nylon wrapped hang loops to prevent riser wear at the clip-in point. Brake handles are soft, allowing the handle to be held in any orientation. The brakes are parked with magnetic keepers and the speed system attachment uses Brummel hooks for easy harness

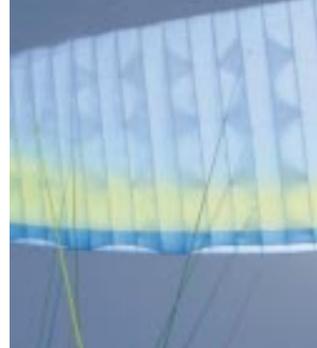
removal. The glider is supplied with a speed bar, bag, manual and a set of special repair patches with the correct adhesive for Gelvenor repairs. The bag is generously cut but with a full range of adjusting straps to reduce the size of the packed glider if need be. A single zip goes straight up the back and a separate large helmet pocket sits on top.

The speed system is worthy of comment as it is very sophisticated. The inner A-risers are 'accelerated' by 2cm more than the outer ones so the centre section flies at a lower angle of attack than the tips. This improves resistance to asymmetric collapses when using the speed bar. The B-risers are initially pulled down by 2/3 of the travel of the As, but then get locked into moving with the As once the distance apart reaches 4cm. The Cs pull down half the distance of the Bs.

The first stage of any review involves getting to know how the glider ground handles and to fine tune your technique to make the most of it. The Sport is one of the easiest ground handling high-end DHV1-2s. In anything above a hint of a breeze the glider inflates from a number of open cells and can be persuaded to lay itself out neatly before a proper pull up is attempted. Forward inflation is also very easy, but the split A-risers must be velcroed together for this and the launch done with all the A-lines pulling the glider up. The closed cells towards the tip ensure the glider inflates evenly from the centre. Translucent sail fabric reveals the diagonal rib and compression strap detail through the undersurface.

In the air the glider feels very agile, but refined. Brakes and weight shift go together well, with feedback indicating in detail what the air is doing without the feeling of being tossed about. The glider is quick into turns, the brakes being responsive without excessive travel. Flying with half a wrap places the brakes between head and shoulder height, with brake pressure building up linearly as they are pulled. The centre cell dimensions have been tailored specifically to get the sensitivity to weight shift correct, and this seems to have succeeded.

Figures-of-eight and turn reversals done close to hillsides and rock faces in strong thermal lift show how easy it is to place the glider accurately, with the wing very obedient to controls and not



specification

Model	XS	S	M	L	XL
No of cells	77 - 51	77 - 51	77 - 51	77 - 51	77 - 51
Area (flat, m ²)	22.59	24.98	27.11	29.32	31.62
Aspect ratio	5.21:1	5.21:1	5.21:1	5.21:1	5.21:1
Root chord (m)	2.62	2.74	2.85	2.96	3.08
All-up weight range (kg)	50 - 70	65 - 85	80 - 100	95 - 120	110 - 140
DHV certification	1-2 (pending)	1-2 (pending)	1-2	1-2	1-2
Guarantee	Lifetime workmanship and materials guarantee				
Price	£1,895	£1,945	£1,995	£2,045	£2,095

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showing any tendency to get tipped out of thermal cores. This accuracy of control and ability to cut into strong thermals inspires confidence and allows climb rates to be optimised easily. Rough air behaviour also inspires confidence - only one minor tuck on an approach having flown in air that gave 4 - 5m/s up in places. Pitch damping seems to take care of itself - intervention isn't necessary except when exiting or entering strong lift or turbulence.

Big ears are very easy with the split A-risers. At mid weight range they stay in but come out easily on pumping. Casual observation also shows that any slight movement by the pilot in the harness, especially weight shifting away from an ear, causes it to pop out quite quickly all by itself.

Despite its agility the glider tracks straight without intervention when flown hands-up at trim. Getting on or off the speed bar doesn't cause undue pitching; speed bar travel is smooth and the glider accelerates quite fast to a stable top

speed. There is quite a range on the speed bar, the manufacturer claiming 50km/h flat out. Independent figures do not yet exist for the Sport at time of writing, and in any case are dependent on total flying weight and other factors. In the fullness of time those with a yen for polar curves may plot, compare and print them off at www.expandingknowledge.com/Jerome/PG/Perf/Cmpare_English.htm when the relevant data has been added to the database there.

Landing is simplicity itself. A deep, full flare seems to be ideal and when this is done in anything other than nil wind a no-step landing should result. Less experienced pilots will need to allow for some energy retention when landing.

The Sport seems to have a persona that simply says: thermalling. To paraphrase an old political saying, the glider is for turning. The ease of turn reversal, the feedback that signals what the surrounding airmass is doing without getting out of hand and the response to brake or weight shift

inputs all make for a glider that excels at turning and climbing in lift.

For the pilot upgrading, the Sport is a refined and very capable machine, and accessible as long as heavy-handed control is avoided. The simplicity of ground handling, forward launching and landing make it a very good choice amongst the top end 1-2s and an easy upgrade path. To get the best out of the Sport the upgrading pilot will need to be comfortable with using weight shift and have a harness suitable for the same.

For the pilot downgrading from a higher level canopy the Sport proves that good handling, agility and responsiveness don't have to be sacrificed to enjoy DHV 1-2 levels of passive safety. Whilst the stall point requires a good pull to achieve like all DHV 1-2s, the actual travel of the brakes to achieve a decent rate of turn, and their position in everyday flying, is similar to gliders with much higher certification. The well-rounded nature of the

Sport means there will only be the very shortest of acclimatisation periods.

Airwave's new Sport is an excellent benchmark for this category of glider, in much the same way as the Samba was in its day. It faces stiff competition from a host of gliders just released or waiting in the wings, but with excellent finish and handling to match it looks as if the rejuvenated Airwave have a wing that can take on all comers.

importer's comment

The new Airwave Sport has been getting rave reviews around the world as the first gliders have made their way into the skies. The Sport has been enticing so many pilots with its all-round accessibility and fine flying characteristics that supply is only now starting to catch up with demand - I am sorry to all those that have had to wait. Now is the time to try the Sport and see what the fuss is about!

PATRICK HOLMES, UK AIRSPORTS