

PHOTOS: AIRBORNE

My mobile rang whilst stuck in yet another traffic jam on the famous Magic Roundabout or world's biggest car park, aka the M25. "Hi Garry, I've got a new glider that you've just got to try. I think you'll love it. It has great handling and it's an absolute toy to fly." So went the conversation when Johnny Carr called me a few weeks ago, asking if I wanted to try the new Sting 3 advanced intermediate from Airborne.

It sounded interesting and I respect Johnny's judgement, but would it really perform as he suggested or was it just yet another pleasant but rather dull and "dumbed-down" intermediate?

Why the jaded view of intermediates? Well, if truth be told I have realised recently (anno domini) that I have only a few years left of carrying a heavy topless up a large, Lakeside fell. There are no roads to the top round these parts - you've got to be tough if you want to fly hang gliders oop north!

To be honest, the intermediates that I have flown to date, whilst perfect for their target market, are less than inspiring for a more experienced pilot as a replacement for a wonderful wing such as my Avian Evo (or other great topless models such as the Airborne C4, Wills Wing T2, and the great new generation of rigid wings).

With some really great luck with the weather, after the worst summer flying weather in living memory, I was soon to find out just what the Sting 3 was like to fly. It proved to be something very special indeed and worthy of an old git's attention after all!

It is billed by Airborne as a recreational glider, but with a much-improved glide and performance compared to their Sting 2. Having also tested this glider four years ago (Skywings July 2004) I concur!

Build and design

The general standard of workmanship is excellent and it drew both admiring glances and comments when I rigged it on various flying sites in Cumbria and Yorkshire this autumn. It is constructed from 7075 tubing with an aerofoil kingpost, uprights and base tube.

At the heart of the new design is a completely reshaped sail cut, improved airfoil section, extra double surface and an improved luff-line design with more efficient line attachment points. The major improvement has been to move the luff-line attachment points from the very end of the trailing edge, as found on older hang glider designs, to a few inches inboard.

The various catches and attachments are simple and well made. The only (very minor) areas where improvements are required are the VG cleat and the hang point. The VG cleat is the same low-rent pressed steel affair used on other Airborne gliders and throughout the Wills Wings range. I cannot understand why such a fitting is used on such a high quality glider (the same comment also applies to Wills Wing). It chews up the VG rope in no time and is easily caught when trying to release the VG quickly. This is a minor issue on this glider due to its very small length of VG travel and lower performance level, but is much more relevant on higher-performance designs with longer-travel VGs. The VG cleat is also in the "wrong" place if you want to fit wheels and it proved to be a bit of an irritation all round.

The other minor annoyance is the hang loop. It required a twist and loop in the webbing to achieve a suitable hang height with my Tenax harness. Note: my Tenax fits pretty much every modern glider that I have ever flown in recent years without any adjustment. Johnny Carr also has the same problem with his Nene Rotor harness so it is definitely an Airborne issue and not related to either Johnny's harness or mine. Both of us like to hang very low in the A-frame so it is not a personal preference issue either. Without the twist/extra loop I would have been hanging with some of my weight on the bar!

The glider is very light, weighing 26kg (57lb), with a sail area of 14.33m² (154ft²). There are just 22 battens in total within a span of only 9.1 m (29ft 8in). It has a wide hook-in range of 50 - 90kg (110 - 198lb). The VNE is 53mph with a rough-air maximum of 46mph. This is easily achievable and highly useable.

Flying - the interesting bit

The glider is very quick and easy to assemble both flat and on the A-frame. Ground handling is simplicity itself. The glider is light, with a very short overall span. The side wires are a little slack but the short span means that Johnny's description of it as a toy are very apt and the loose wires proved irrelevant.

For new and experienced pilots alike, ground handling prior to take-off is simplicity itself. Compared to many other intermediates it is far better in strong winds. It does not suffer from excessive pitch-up, due to the luff lines being better placed inboard from the trailing edge. This avoids an excessive bending up of the trailing edge causing drag and poor ground handling in stronger winds.

Take-off is easy and straightforward... and then it is time for a true revelation. Most intermediate gliders are very damped in roll and pitch and accordingly are often rather dull to fly. They are aimed at less experienced pilots who may inadvertently mishandle a glider. Conversely, most more advanced intermediates that I have flown have tended to be rather stiff in roll or to wind in during turns.

Airborne have recognised that if a glider is light, responsive and predictable in handling it will give most pilots a far better flying experience. Whilst the Sting 3 would not be ideal for a newly-qualified pilot (unless particularly competent), it will suit almost

PHOTO GARRY HUME



all pilots with a few hours flying under their belts.

The handling in both roll and pitch is delightfully light and yet very precise, helped in no small part by the kingpost hang point. The Sting 3 feels much more like high-end topless gliders such as my own Avian Evo or the Airborne C4, Wills Wing T2, etc.

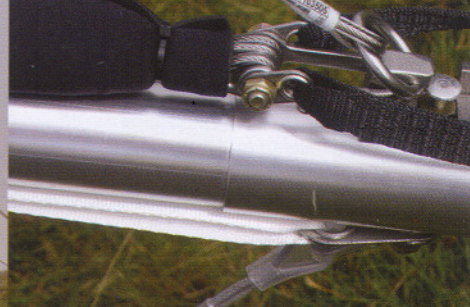
At high speeds this glider flies as if on rails. The straight-line stability is exceptional and I expect would be perfect for aerotowing (Johnny has aerotowed this glider and confirms it is exceptionally easy to aerotow).

The Sting 3 is unbelievably forgiving to fly, even when deliberately mishandled by the tester. I tried pushing out excessively in turns. Nothing happened other than the sink rate increasing. Next I tried the same but then tried to reverse the turn whilst flying far too slowly. This replicates a beginner trying to scratch too slowly, then needing to turn quickly to avoid another glider. The Sting 3 remained predictable and responded with no hint of an incipient spin. Health warning: this is not recommended piloting behaviour and was only carried out with plenty of spare height.

Trying to induce a stall from level flight without the VG full on proved impossible. All that happened was the sink rate went up and the roll rate went down. It was just possible to induce a mild stall with the VG full on. The roll is light, predictable and precise and the pitch is the same. This glider has absolutely great handling.

I was lucky to be able fly this glider in a wide range of conditions, from strong-wind coastal soaring to

PHOTO GARRY HUME



wave above the clouds and strong thermals, in winds from nil to 25+ mph.

My first flight was in a fresh wind on Black Coombe, a 1,000ft hill about two miles back from a small, 30ft petrified sand dune coastal site called Silecroft. I could quite happily almost keep up with a first-generation topless glider, a Solar Wings XKR

"just a low-performance glider".

When landing, as you slow down, the pitch feedback suddenly goes a bit dead. This is a fantastic signal to flare. As you receive this obvious signal, just push out and up and the glider will instantly come to a full stop, with no risk of ballooning up and then dropping the nose. If you are too late with the flare the glider can still be easily run out and stopped with more of a push-out.

Put simply, this is a very, very easy to land hang glider. My last three flights involved very light wind top landings in a restricted area. The last was in a total nil wind (having taken off with low winds when no hang glider was willing to give it a go) and demanded a full and maximum flare over rough ground very near other

parked gliders. OK - so I overshot my intended

spot! On most higher-performance gliders it would have been a very stressful manoeuvre, but on the Sting 3 it proved easy despite the distinct lack of overshoot options! Johnny's verdict was right - this glider is an absolute toy.

Summary

For a soon-to-be old git this glider was a revelation. Silence at the back to those shouting that I already

paraglider would be unsafe, yet still retaining a good glide - something many intermediate hang gliders are not so good at.

For the very-low-airtime, just-qualified pilot I would suggest building safe and easy flying hours on the now excellent range of high-performance, single-surface gliders, and then moving onto this glider. It may then be all the glider you will ever need (or want) to fly. For more experienced pilots, the Sting 3 would also be a great choice when trading down, or if coupled with a rigid wing for strong wind coastal soaring.

This is without doubt the best top-end intermediate glider that I have ever flown - period!

Importer's comment

I would like to thank Gary for doing such an exhaustive set of tests on this glider. I know he really put it through its paces. As the importer of Airborne gliders it is my job to answer any criticisms no matter how minor they might be. Regarding the hang loop, I agree with Gary on this. I have queried this with Airborne and they are looking into it and it will be rectified. Regarding the VG cleat, Airborne's Ricky Duncan says, "I am open to suggestions for alternate cleats but we have used this one for a long period of time. It is the most effective one we have sourced and it does not damage the VG rope!" I will suggest an option of using the plastic jaw tooth type cleat that was used on earlier gliders. Although these do wear out after a while they are perceived to be kinder on the VG rope. [JOHNNY CARR]

flowed by my flying buddy Matt Doncaster. We then top landed and swapped gliders. Matt too was most impressed with the Sting 3. I was less impressed with the Scandal XKR - its oil-tanker handling may help explain why this model is no longer made! More importantly, I could fly the Sting 3 forward the two miles to the coast, float over the paragliders scratching the dunes far below, then scoot back to the hill to top up, and then do it again and again. The wind was far too strong for the paragliders to risk flying on the main hill. Pretty damn impressive for an

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Specification

Model	Sting 154*
Sail area (m ²)	14.33
Span (m)	9.1
Nose angle (°)	121
Aspect ratio	5.7:1
Packed length (m)	5.5
Short-packed length (m)	3.9
% double surface	75
No. of battens	22
Airframe material	7075 T6
Flying weight (kg)	26
Certificated pilot weight (kg)	50 - 90
Certification	DHV2*
Price	£3,295

* A 15.6m²/168ft² model is under development.

** UK gliders should have an Airborne or DHV sticker to confirm certification.



intermediate then! On most gliders of this level this just would not have been possible. I hate to admit feeling rather smug looking down at paragliders stuck scratching on the dunes and small cliffs 1,000ft below me when I flew over three miles up the coast in weak, wavy lift.

Another flight, in strengthening winds on the Skiddaw/Blencathra massif, saw me maximising the conditions, jumping gaps and flying in close company with a sailplane, long after the last paraglider had been forced to land. All this is on

am an old git. The Sting 3 is light to carry, quick to rig, very precise in handling and with performance similar to an Airwave Magic III but with the handling and ease of use of something much more basic. What more could one ask for?

This is perhaps the best glider yet launched for the lower-airtime but aspiring pilot, or the very experienced flier looking for something suitable when unable to stay as current as they would like. It is also an ideal tool for the crossover paraglider pilot. It is capable of flying in strong winds when a

Summary

Excellent performance for its class
Brilliant thermalling characteristics
Exceptionally wide flare window
Build quality
Light weight
Ease of rigging



VG cleat
Overlong hang loop (and, er, absolutely nothing else!)