AIR Atos VQ

Garry Hume is carried away by AIR's ultimate ATOS!

ALL PHOTOS:AIR

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I was lucky enough to be one of the first pilots in the UK to fly the original Atos when I tested it a few years ago (Skywings February 2001). I have since flown the Atos V with a conventional A-frame and the Atos C with a carbon frame and no front wires. I have flown three models of the basic Atos on the hills in Derbyshire and via aerotow in Scotland and Spain, and had the occasional flight on a few other rigids including the Ghostbuster and Stalker (early version of the Aeros Phantom).

Whilst very impressed with the basic Atos (and I really wanted to own one at the time), I was not so absolutely smitten as to give up my first love of high-end flexwings. When I had the chance to buy a new glider three years ago (thanks to my ever-helpful bank manager and his kind agreement to fund my much-needed "home improvements"), I could only afford one glider and I chose an Avian Cheetah. I was just not fully convinced by the handling and "comportment" of the Atos in thermals, or sufficiently confident in the landing characteristics on rough ground to spend the money required. The standard Atos can drop a wing slightly if the flare is not perfect. No big deal on a flat field, but there is more of a risk of breaking something on rough ground where a full flare is required and running it out is difficult. The same personal feelings applied to the other models of rigid wing: great on the aerotow field but just not quite instinctive enough in busy air on a hill.

Later, the Atos VR and VX were interesting options but far too heavy to be of interest to me, especially as I live in the Lake District, land of massive carry-ups (800ft is the norm on Lakeland sites and it's 1,860ft to a good launch on Coniston Old Man!). I have not had the chance to fly either model though.

However, as soon as I heard about the planned Atos VQ I knew it would be far closer to what I have always wanted in a glider. Polyhedral should improve the "sit" in smaller, tight thermals and possibly improve the landing characteristics due to greater overall dihedral. The tapered leading edge extensions (the outer panels are tapered in planform and depth, as seen on the VR and VX but not the Atos V) and the extra sail area should soften the flare window. I just knew that this would be a great glider, but it proved difficult to get the chance to fly it, what with the appalling summer weather. And I needed to try it in very light conditions so that the real difference between it and both flexwings and paragliders could be fully appreciated.

Having recently had the privilege to fly an Atos VQ I am still absolutely buzzing! I am willing to say this is probably the greatest glider that I have ever flown in my hang gliding career - and I first flew a bog-rog in 1974! Yes, I know every flight test (including many of my own) suggests the glider is great, better than the predecessor, etc. However in this case the Atos VQ is truly a quantum step forward, offering a performance envelope that just a few years ago could only be dreamt about.

Design and build

Begin to set up this glider and it will create interest and draw admiring glances and comments. AIR suggests the VQ can be assembled in ten minutes. This is probably possible if put together with practice and without splitting the two wing halves. The test glider was in two pieces as it had to be carried up Rushup in the Peak District, and rigging took 29 minutes in total. Steve Elkins assembled the glider slowly and methodically, and we stopped on several occasions to take pictures of the sequence, so 20 minutes is probably realistic... with plenty of practice and in ideal conditions.

Carrying the glider was a revelation compared to a topless flexwing. Even carrying my harness and the heavier half of the wing (circa 22kg), I was easily keeping pace with paraglider pilots carrying full-size wings and harnesses up the hill. Going back for the remaining half and the tail was even easier. The reduction in stress loading on the back is dramatic compared to a 38kg topless, and is a far better option on a big carry-up.

The build quality is superb but joining the wings is definitely more of a fiddle than the standard Atos V, requiring lacing up of a string that will eventually draw the sail together and so pull most of the ribs into place. Once this is done, and with the outer leading edge and three ribs pulled into place, pulling the string amazingly pulls the rest of the ribs into place in an instant.

Flying

My chance to fly this glider was on a late November day on Rushup Edge. This is a small (300ft) southerly ridge that gets a bit higher and steeper further along. Paraglider pilots walking past made several admiring comments and hinted that I would soon be high in the sky. I was less convinced as the wind was 4 - 6mph and 20 degrees or more off the hill to the west. The paragliders were barely maintaining and it did not look like an ideal day to try the glider.

After a ten-minute bout of indecision I decided to give it a go. Whilst waiting I realised that the static balance is better than on earlier rigids and ground handling was easy and positive. The launch was very straightforward with a good run and I set off up the ridge towards a patch of slightly better lift that two paragliders were working in a nick in the hill.

Caution ensured I flew well out from the ridge, and on my own topless I would have gone down for certain. I reached the paragliders at 40ft below take-off, but in that short beat I had already started to feel at home on this glider. Roll is more direct and "connected" compared to the earlier models I've flown, and I quickly adapted my inputs to avoid the classic flexwing pilot's A-frame wobble caused by constantly nudging roll input.

By the second turn this glider was already feeling part of me, and after a few more beats I was sitting 200ft above the nearest paraglider in very weak ridge lift. I tried 360 turns and fairly well-banked 180-degree roll reversals and the VQ just felt so right.

Later small thermals stated coming through and a cloud street set up. Then, damn it, the better paraglider pilots were coming up to me at cloudbase. They had an advantage in very small blobs but I could fly over a huge area of hill and valley searching for lift, and enjoyed flying out to the end of the street a couple of times.

A gentle search for the stall at cloudbase showed that there was plenty of warning. The light pitch quickly starts to get heavy and there is a feeling of feedback from the tail pushing back telling you not to be so stupid. I took it to the mush point and then the edge of the stall break but no further, and the feedback was there throughout telling me to speed up.

Releasing the flaps allows an already great glide to go on and on. The flaps are however heavier to operate than on the standard Atos. They are smaller and look like they pull on to a steeper angle.

After an hour and a half of pleasant soaring the lift suddenly switched off and it was down to the bottom for me. I misjudged the effectiveness of the flaps, landing shorter in the field than I had planned in absolutely nil wind, on a very slight upslope. The round-out was also far quicker than I am used to. It is probably more than three years since I last flew a rigid and all my reactions are currently tuned to flexwings. But with a quick, hard flare I was down easily; it felt softer and easier than on a standard Atos or similar earlier rigid.

Summary

Regrettably, this is the best and most delightful glider that I have ever flown. Why regrettably? Well any Atos was always very expensive for the average pilot, and now the collapse of Sterling against the Euro and other currencies means that it has gone up from £9k to around £12k. However it is incredible to fly, acceptably light, quick to rig, beautifully balanced and instinctive to control both in the air and on the ground. If AIR could make a lower-cost model, perhaps using more glass-fibre in the non-load-bearing parts of the structure and using the simpler (slower) rib and sail of the Atos, then it would indeed be a machine to covet. Right now I'm looking at what other toys I could sell to get a VQ. Offers would be appreciated for a white-water canoe, high-end mountain bike and assorted climbing gear! However, truth to tell, I will need to win the lottery or get a better-paid job.

However despite its price tag the VQ is a far better bet than some widely-flown competition flexwings. One well-known model costs £9k with all the racing extras and is reputedly stiff as a board! The Atos VQ is a far better option for the well-heeled with its delightful and positive roll and superior performance. I really do want one. Having tasted the high life I am totally spoilt.

Specification

Sail area	14.2m²
Span	13.4m
Nose angle	154°
Aspect ratio	12.64:1
Packed length	5.15m
% double surface	100
No. of ribs	18
Flying weight	39kg
Cert. all-up weight	85 - 142kg
Certification	DHV 3E* (no. 01-0422-07)
Price	From £12,499 + crating and shipping**

* DHV "E" denotes special briefing required because of unusual controls, etc. ** Prices vary due exchange-rate fluctuations.

- ***Excellent performance***
- ***Brilliant thermalling characteristics***
- ***Fast, positive roll control and a great "comportment" in turns***
- ***Wide flare window***
- ***Build quality***
- ***Light weight***
- ***Ease of rigging***

- ***The cost !***

Importer's comment

I agree with Gary. I was very much in love with the VR but I have to say within about five seconds of take-off on the VQ I thought, "Wow! This glider feels so much smaller." Compared to the VR it is only a few centimetres less in span but just feels far smaller. The sink rate seems to be the same as the VR, and the result is that you can stay up in far lighter conditions than anybody else! We really had to coax Gary to get him to take off; he was convinced it was too light to stay up and wanted to walk up the hill with the paragliders, but in the end he took off. The proof of the pudding may be that VQs are sold out until the end of May already!

STEVE ELKINS, AVIAN HANG GLIDERS