flight test Sky Anakis Ian Grayland reports



Out of the bag

The wing is built from a state-of-the-art mix of Porcher Skytex fabrics in standard 40g weight. The leading edge strip is Porcher's latest double coated extra-durable Evolution E112. Top surface is water-repellent E77, bottom is E38A classic and the ribs are hard-finish E29A. So my first surprise came when I picked the wing up. Total weight is only 4.8kg, and that's for the Large size, with a meagre 4.6kg for the Medium. A look inside the cells soon revealed why - there's not much fabric wasted in here. Most of the internals are made out of air and daylight!

The 46 cells are grouped in pairs right across the span with line attachments every other cell. V tabs (finger ribs) are used throughout for diagonal bracing, giving high mechanical stability to the structure and a smooth airfoil section with minimal weight and a very free internal airflow. This type of construction is unusual for wings in this class, where the quicker assembly time of partial or full diagonals is more prevalent. There is some particularly crafty 3D diagonal bracing around half the semi-span, outboard of which the number of D attachments is reduced to minimise line drag. Ribs and internal bracing components are reinforced locally, as needed, to distribute line loads into the wing fabric and stiffen the cell openings. A variety of stitch patterns is used throughout the assembly, dependent on the individual component and type of load.

Line material is supplied by Edelrid with Dyneema cores and braided polyester protective sheathing throughout. A single 3:1 cascade is used on the central two lines with a double 4:2:1 on the outer line to even out the spanwise loads. The four risers are constructed in 20mm polyester and cut slightly shorter on the two smaller wing sizes - a userfriendly detail. The two-pulley speed system gives a 3:1 pull on the A risers, linked at 2:1 to the Bs for the first 30mm until they lock to the A's, decambering the wing for the rest of the travel. Cs are a further 2:1 off the Bs, whilst Ds remain static. Hidden snag-proof magnetic keepers on the lightweight brake handles are the most powerful I've seen. They really don't fall off in the rucksack or whilst mushrooming and carrying the wing - don't get 'em near your credit cards though.

The rucksack is the familiar Sky 'Porter', virtually

unchanged for the last few years. Very light, but still durable and comfortable to carry. Single full length zip, draw-cord periphery and flip-over top flap with pockets. Plenty of space for all your kit, and three pairs of compression straps to snug it all tidy together. There are others as good as this, but none better that I've used so far.

On the ground

The mushroomed wing feels strikingly light on the walk to take-off and inflates effortlessly in very little wind. Any couple of exposed ram vents was enough to let me inflate and pull out the whole glider. Once overhead the wing's light weight and the tenacious airfoil section keeps it there in the lightest of breezes with very little fancy footwork needed.

As the wind strengthens another interesting new feature appears. Whilst remaining equally effortless and eager to inflate and get overhead, the Anakis does not rise without being asked, despite the pilot's best intentions and efforts to prevent it - classically snatching him off his feet for an involuntary launch and drag. This really is the Achilles' heel of most EN A and many EN B wings.

With very strong winds I found it best to control any surging of the wall prior to pulling up by holding the wing down with the Cs. I could still keep the wing on the ground with the brakes only, but it was much smoother and easier using the Cs.

Handling

On the critical first take-off my immediate impression was of a comfortable trim speed and surprisingly good glide. Brake travel is of course relatively long, as mandated by the EN requirements, but refreshingly, even with my shortish arms and low hang points, I can stall the wing at full arm's stretch without resorting to any wraps or other daft behaviour - handy for slope landings and aborting launches. Brake control forces are initially light, getting progressively heavier with further application right into the stall, with the light part of the travel being sufficiently effective for most flying to prevent fatigue.

One-brake turns are well co-ordinated enough for general thermalling with no need to pilot the outside wing until bank angles of 45 degrees or more. An armful of brake rapidly applied in level flight at trim speed has the Anakis pulling up into a climbing turn with no tendency to corkscrew or spin.

I especially enjoyed 'park' mode. Slowing right down and S-turning in very small thermal surges had me rapidly above other far higher rated wings, much to their owners' consternation. You really can fly this wing slowly and still make turns even in fairly rough air. Feedback from the tips is very good, giving a strong indication through both the harness and brakes of best turn direction in lift. The outer wingtip gives a particularly clear sense of the edge of small thermals when it is time to tighten up and re-centre.

Despite the high roll stability, turn control through the harness alone is very effective, allowing long periods of hands-free flight - noticeably improving into-wind penetration. I even found I could lazily S off height for an end-of-day bottom landing without using the brakes at all.

Killing the wing on a windy top landing works well with only one C riser and a good pull on the brake on the other side. No need for any brutal heaving or struggling. And that one C will keep the into-wind wing firmly on the deck while you run round the side, bundle the glider up and jump on it. That said, I would recommend using both Cs for certainty in typical UK top landings.

Performance

Sky claims a still-air best glide of 8.5:1 for the Anakis. This is very good for a low-end EN B. However, the figure simply doesn't do justice to the 'real air' performance. Sink rate, glide and penetration are all significantly better than the Anakis' predecessor the Atis 2, also rather surprisingly so on speed bar. Trim speed performance very nearly matches that of the Brontes 2 at similar loading. (And a lot of other gliders I'd best not name here!)

When you give it a bootful of bar the Anakis accelerates and glides well, even into a rough headwind. You get a sensation of hanging off a solid, well-loaded leading edge with plenty of pitch stability - this wing has even more pitch stability on bar than off. The all-important half-bar speed is around 45km/h, though there is no real knee in the performance curve at this point with glide remaining surprisingly flat right up to max speed, just short of 50km/h.

Big ears are just that, big. When you pull the ears in you really do increase your sink rate, which more than doubles to well over 450fpm. Trim speed increases reassuringly with the ears in and I was quite happy to make steady big ears descents out of a couple of rough, 'magnetic' clouds without adding any speed bar. The ears immediately re-inflate on release without any pilot input.

Stability

Most of my testing was in strong, gusty, spring air, which immediately revealed another surprise for a wing in this class. Even in strong, gusty conditions the Anakis does not constantly pitch back and 'stop' in the gusts - it has both low form drag and very good pitch stability. This is the key to the Anakis' superior 'real-air' performance.

To get into a full, nose down spiral takes a good long heave on the inside brake, preferably aided by weight shift into the turn. Increasing brake or **UK importer:** Sky Paragliders UK, 17 Perryfields, Burgess Hill, West Sussex RH15 8TU, tel: 07767 264211, e-mail: tim@skyparagliding.co.uk, URL: www.sky-cz.com.

leaning in during the spiral tightens it in proportion. Ease off slowly on either and the wing gently levels out. Full marks. At the other end of the scale, slowing right down and trying to provoke an 'inadvertent' spin is a non-starter. (I don't mean that you can't spin it if you really want to, just that it's not going to happen by accident due to clumsy piloting.) This makes it easy to fly round the back of the drag curve and gently S into tight landing areas.

As you would expect from the certification results, inducing asymmetric collapses by pulling one A riser produces only a slight turn towards the collapsed side before the wing spontaneously reinflates with no pilot action at all. Very little height is lost and the total change of heading is typically 45 degrees or less. Very benign.

Wing loading

Towards the end of testing I switched to the Medium size Anakis (I had been flying the Large size at 97kg all-up) to see how it went with a bit of weight on. It went Yee-Ha! The agility really comes to the fore at max weight! There is still good roll damping but the brakes are very powerful and turn reversals can be accomplished extremely rapidly with good energy retention. On a couple of rather crowded days I had to consciously back off a bit as I was becoming something of a menace in the busy thermals.

Optimum loading appears to be around the middle of the certified range. This gives a good balance between easy floating sink rate and outright agility. I mention this since a good many Sky gliders seem to go best well toward the top end, but I am being quite fussy here. The Anakis flies perfectly well throughout the certified range and beyond. If you are light you won't get blown about or lose stability and if you are heavy you won't be nudging at the limits of safety.

Summary

The Anakis, though intended primarily for newly-qualified pilots straight out of school, will also ideally suit those weekend warriors who want easy handling and good passive safety commensurate with their low and irregular flying hours. A glance around at the number

Importer's comment

It seems the Anakis has carved out a new category which we haven't seen the likes of before. Intermediate pilots shouldn't be put off by its LTF1 tag. It is truly the first LTF1 glider that I have flown without pining to get back on my 2-3. Here is a wing that is highly secure yet responsive, along with outrageous performance (top end 1-2 at least), all within the LTF1 class. Several LTF2 pilots have given the Anakis a go and have returned to earth with a smile that has left them pondering, 'Why bother with my 2?' This is a wing that you will not grow out of for a long, long time, if at all. Safety, performance and smiles.

TIM KING, SKY PARAGLIDERS UK

of Atis 2s in the sky clearly shows the broad potential of this type of wing.

That such good passive safety has been achieved with so high a level of performance is in itself impressive, but combined with real, fun-to-fly agility as well is truly outstanding. In short the Anakis completely redefines lowend EN B. Try one and see for yourself! [I had just finished writing this review when I heard that the Anakis M, L, and XL sizes were just certified at LTF 1. Toto, I've a feeling we're not in Kansas anymore!]



Passive safety with good performance, stress free, fun to flv.

The importer wants it back.

Specification

Model		М		XL
No of cells	46	46	46	46
Span (projected, m)	8.87	9.22	9.53	9.92
Area (flat, m²)	22.97	24.85	26.54	28.7
Aspect ratio	4.95:1	4.95:1	4.95:1	4.95:1
Glider weight (kg)	4.4	4.6	4.85	5.2
All-up weight range (kg)	60 - 80	75 - 95	90 - 110	105 - 130
EN certification	В	В	В	В
LTF certification	1-2	1	1	1
Guarantee	1 year materials and workmanship			
Price	£2,395	£2,395	£2,395	£2,395

*For powered use the 24, 26 and 28 sizes also have DULV Standard certification, and DULV Advanced certification when trimmers are fitted.