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Cross Country 167

ARABIAN NIGHTS

Flying between desert, sea and sky at the World Air Games in Dubai

TRIPLE SEVEN ROOK 2

Marcus King tries out Triple Seven's new EN-B sports wing

The Valič brothers' first wing for Triple Seven was as a complete hit. With good handling and stunning performance, the Rook dominated the podiums of not just EN-B class events but sports competitions too. I reviewed the wing in issue 142 and found "a mile-munching machine that should take any decent pilot a long way and an impressive entrance into the paraglider market." With the announcement of the Rook 2 this past summer I was more than keen to fly Urban and Aljaz's new incarnation. A four-star day was on the cards, and with the latest issue dispatched to the printers we raced to France's Col de Bleyne. It was all looking a bit stable at first but I had a new wing in the bag and it was a lovely sunny early autumn day – I could enjoy a cruise around at the very least.

What it's made of

The first thing that is obvious is the pretty aggressive sharknose. Two nylon rods on each cell wall create the shaping. At the back, large mini-ribs and more nylon rods maintain the shape of the rear of the sail under load. This, of course, can make packing a little trickier but you'll want to concertina pack this wing anyway. The cell count is up from 51 to 57 and there is a very slight increase of aspect by 0.1 to 5.6.

Triple Seven wings now sport a whole new colour scheme – reminiscent of Trekking wings from the 1990s if you're long enough in the tooth to remember them. Striking, but perhaps not to everyone's taste: the review wing came in a mix of blue, black and white. In the blue and black of the wing I was sent I think it looks rather classy but I am sure, like the original, it won't be to everyone's taste.

Korean Dominico cloth is used throughout – N30 used on the top surface and ribs and lighter N20 on the bottom. The ML size I was flying weighs in at 6.1kg, which is reasonably heavy compared to other wings although Triple Seven have now announced a lightweight version that shaves 1.3kg off this.

The wing has a modern three-riser layout, with the Cs bifurcating to D attachment points

◄▲BLUE SKIES
The original Rook was a hit. With the Rook 2 Triple Seven have tweaked the glider up the way a little – more cells and slightly more aspect ratio – but it is still aimed at sporty weekend pilots.
Photos: Charlie King

▲MODERN LIFE
The glider is packed with all the features of an up-to-date performant EN-B glider: sharknose, mini-ribs and nylon rods, 57 cells and an aspect ratio of 5.6. The result is a glider perfect for cruising ridges and munching through the kilometres as you sit back, take the reins and enjoy the ride.

Manufacturer's specification

What Triple 7 say: "A glider made for intermediate pilots dreaming of cross-country flying adventures."
Use: XC flying
Pilot level: experienced and current XC pilots
Sizes (m^2): 23.7, 26.0, 28.3, 30.6
Take-off weight (kg): 65-85, 80-100, 95-115, 110-130
Cells: 57
Aspect ratio: 5.6
Weight (kg): 5.2 - 6.6
Certification: EN B
777gliders.com

across most of the span on the wing, with 191 lines used on the mains. Lines are a mixture of Edelrid and Liros. The main lines and middle cascades are all sheathed with only the very upper cascades unsheathed which seems sensible for this class of wing.

The 13mm webbing riser sets are very nicely finished with blue highlights on the split-A risers and on one of the hook-in points for easy identification. The speed system, which has a kick-down ball, uses quality Harken pulleys.

Let out to play

With gliders up showing there were climbs to be had it was time to launch. The wing rose smoothly with light pressure on the A-risers. As you would expect from a modern EN-B wing, there are no dramas and a small dab of the brakes is enough to keep it overhead.

What's immediately noticeable when you get in the air is the solid feel of the wing. The leading edge is well tensioned and the sharknose seems to help it carve through the turbulence as one, with very little flexing. Searching for the first thermal of the day, there seemed to be little information coming through the brakes and even that coming through the harness was pretty subtle.

The feel of the wing reminds me of the U-Turn Blacklight in this respect. It makes for a comfortable ride but if you are used to a more talkative wing, for example the Mentor 4 Light or perhaps Advance Iota, you may find it a little quiet at first.

The wing likes to turn smoothly and efficiently. I was flying it rather on the light side on this first foray and it wouldn't bank up as well as I would have liked. The reward though was a fantastic climb rate – I quickly climbed away from the ridge. In terms of efficiency it reminded me of the Skywalk Arriba 3, which seems to turn and climb like it's on rails, but the Rook 2 manages without being quite so engaging.

Time to head off. Pushing forward into wind I had expected a bit of a battle but the wing cuts nicely forward as I make my way back past take-off. Stepping on the bar gives a good increase in speed with no real increase in sink up to the kick down position, in fact I had the impression best glide was probably at above trim. Bar pressure is about average for the high-end EN-B class. The glider feels really taut on bar and very comfortable with no obvious pitching as it cuts through the bumps nicely.

Hitting the wall

As I approached St André, conditions were proving to be interesting with a strong westerly wind down low but an easterly blowing up high. This made for choppy conditions in the middle

and, mixed with the stability, the thermals had hard and rough edges. I was flying the wing in the bottom half of the weight range but it coped really well with being smacked against the sides of these walls of turbulent air.

My only slight issue was a slight lack of authority when trying to kick the wing round into a strong lift – I'd recommend flying this wing in the top-half of the weight range or with a seatboard harness, which gives you that extra kick in roll authority and the ability to lock into the 360 all the way round.

Getting low – saved!

After heading north past St André I pushed into the lower hills and got skunked by more stable conditions. I was stuck. Thermals were weak and drifting back towards St André. I tried pushing forward onto the even lower hills but it just wasn't happening – other pilots who had come in lower were scattered in the fields below and I could feel the day shutting down. Then a group of vultures circled in front of me – I joined them and figured I would take it as high as possible and glide towards St André before getting my thumb out to get home.

I glided off thinking I was too low to connect with the main ridge at St Andre. I remembered Jocky Sanderson running an XC course here. Jocky made his students fly out as far as they dared before diving back to the hill and climbing up again – an important skill to learn. It was here the wing shone. I made use of the Rook 2's efficiency in turns to work the weak lift low down and soon climbed into stronger and stronger lift before popping out in front of launch. Back in the game, I climbed enough to take the next long glide over the town and onto the Crêtes des Serres. After scooping me out of trouble, the wing was now revealing its DNA: born in Slovenia, a land of long ridges, it was showing its strength in quick climbs and long glides.

On the Crêtes des Serres I joined a Delta 2 and we were rewarded with an end-of-the-day release

▲SMOOTH OPERATOR
The glider is firmly in the high-end EN-B category. Other gliders in this category include wings like the Advance Iota, Ozone Rush 4 and Nova Mentor 4. All these wings will help you fly at your best because they help you feel comfortable in the air – allowing you to focus on flying the sky while not worrying about what the wing is going to do next.
Photo: Marcus King

Valič Brothers Q&A

We get the lowdown from Triple Seven's research and development team

The leading edge of the Rook 2 seems very solid and helps the wing fly 'as one'. How did you manage this?
Some are surprised but the clean shape of the leading edge has little or nothing to do with our BPI intake technology [sharknose]. With the Rook 2 we designed a new chord and spanwise tensioning system and that really helped create a solid leading edge that optimises the flow of the air towards the upper and lower chambers.

I found there wasn't as much information coming through the brakes as other high-end Bs. Why did you design the wing like this?
More efficient gliders always have more feel through the risers rather than through the brakes. The wings are made to dampen or self correct the adjustments to the moving air through their synergy between mechanical and aerodynamic properties. Any correction with the brakes is at the cost of overall performance so our design path for the Rook 2 was to have the wing with correct pitch response to the surrounding air with the goal of gaining height in the best way possible. Our experience from competition flying is that wings that need lots of correction with the brakes in thermals or even when gliding are never the efficient ones.

With only a very small increase in aspect ratio how did you go about getting more performance out of the new wing?
We believe it has a lot to do with the overall aerodynamics of the wing and its complex internal construction. We have worked hard on the loading of the wing over the canopy with smart use of surface tensioning with straps and diagonal support. This has all resulted in efficient behaviour in real air. This is what makes the Rook 2 one of the best performing gliders on the market.

Flown low in the weight range I found it lacked a little authority in turns. What are your recommended weights for flying the Rook 2? Do the sizes vary much in their characteristics?
The Rook 2 can be flown across the whole range, but of course depending on the conditions you are flying in your optimum weight can vary. If we take MS (26m^2) for instance, for stronger conditions we recommend to be flown from 90kg up, for smoother conditions you can easily use the whole certified weight range.

The wing seems to be particularly efficient when climbing.
Yes. Again, it is the result of lots of different changes within the wing. From the tensioning of the canopy to its final shape and internal construction, all of these are small parts of the puzzle that when put together form the great climber that the Rook 2 is.

On bar the wing needs very little control but many pilots like to use rear riser control. What are your recommendations for controlling the wing on bar?
We stand behind the fact that three liners cannot be efficiently controlled using the C risers. There has been a lot of hype about rear-riser control, but pilots are slowly realising that C-riser steering only deflects the aerofoil. For people who like to rest their hands and feel the wing on their fingers, we recommend they rest them on the B lines – holding from outside and around C lines – as these offer greater support than C lines. At the same time, you can steer and correct the pitch with small input on the B lines without deforming the aerofoil as much as when using C handles.

that gave a strong climb high above the ridge. Hooked in, the Rook 2 climbed easily with very little management needed on the brakes to keep it cored – it was almost too easy. In the climbs this wing gives you lots of time to relax, check airspace, chat with your friends and plan your next move. Then I was off, heading into wind for the long glide forward. I pushed the bar to the limits, happy that it still felt remarkably comfortable. After an 8km glide with the Delta 2 we arrived together neck-and-neck at the next ridge. We weren't flying wingtip to wingtip throughout but both were trying our best to get home so it shows the Rook 2 is up there with a benchmark EN-C wing.

From there I could run home low along the ridges to close my 100km triangle after six-and-half hours in the air – a lovely surprise of a flight so late in the year.

Comp contender

The next day had a similar forecast and I was keen to get out again but with a bit more weight onboard. With extra water I was able to get into the top half of the weight range. This time I felt I had much better authority turning in the stronger lift. It's still not the most dynamic of wings but the brakes have a nice linear travel that lets you accurately place it in the lift. Brake pressure is moderately heavy but not so that it will tire you on a long day out. You will have to try hard to spin this wing: burying the inside brake saw the pressure rise and the turn tighten up but no sign of the wing peeling back.

Once in the core the wing takes very little control, she just happily sits at a bank angle and goes round. What's more, that climb-rate is still maintained with obvious efficiency in the turns.

There was a local comp on and I followed the gaggle to the end of the ridge. The west wind felt strong and that was quickly confirmed as I watched nearly all of them glide to the deck on the next transition. I turned back to the front ridge and climbed fast again. Convergence clouds were setting up in the valley and I spent some time running under them with big ears and bar applied. It's an efficient way of getting away from strong lift and the wing remained stable in the configuration. The ears popped out easily once released.

Back over the landing field I played with some wingovers and spirals. They are easy to control and feel fluid but not exactly dynamic, the linear brakes giving good control of the exits.

Getting to know you

Over the next few flights I got to know the wing's more subtle side on quieter autumn days.

Some more flexible wings may make feeling light lift easier, and the Rook 2's rigidity does make it that bit harder to hook into the cores, but as you get used to the wing this becomes more natural. And it's certainly worth spending the time to get familiar with the wing because it will reward you with efficiency when climbing and gliding. It took me a few hours to get the feel for what the wing was telling me but it rewarded me with good flights on days when most people were going down. In the lighter thermals its climb-rate really shines, a couple of turns and I was usually above the scratching masses with the thermal to myself.

This wing works

After my first flight on the wing I would have struggled to know what to say. It undoubtedly works – I had just flown a 100km triangle at the end of September – but at the same time, for me it lacked a bit of feel when searching out lift and the dynamics I normally like were absent. Talking to our editor I realised this is what is needed for its homeland – cruising on those long Slovenian ridges. Find the core, climb efficiently and effortlessly, glide long, and repeat all day. In fact this is pretty much what you need anywhere in the mountains on good strong days: its solid feel and easy climbing behaviour won't sap your mental energy and mean you can get on with the job in hand.

Like its predecessor, The Rook 2 takes a bit of time to get to know. Time allowed me to see its more subtle side, the side you can turn to when low and scratching. Time to realise just how that efficient climbing performance can help you claw your way out of a hole.

With a solid and carefully crafted feel plus top grade performance the Rook 2 is a true cross-country machine. It's probably best suited to long flights in the larger ranges, when you can climb and boot it, rather than flatlands. I may be proved wrong though as its bigger brother the King has just been flown by Nicole Fedele for the first flight over 400km by a woman, proving the pedigree in Triple Seven's line of wings.

Undoubtedly the Rook 2 is an efficient wing for making the most of those big days, and it's remarkable that the performance of these new high-end Bs is now up there with the 'C' class wings of 2013. XC

Marcus King flew the ML (28.3 m²) size at 102-108 kg over 15 hours in the southern French Alps with an Advance Impress 3 harness

▲IT'S A GROWER

"Solid and carefully crafted" the wing really grew on Marcus and over several flights he got to know it. "It's certainly worth spending the time to get familiar with the wing because it will reward you with efficiency when climbing and gliding. It took me a few hours to get the feel for what the wing was telling me but it rewarded me with good flights on days when most people were going down. In the lighter thermals its climb-rate really shines."