

CATCH THE PIGEON!

Paraglider pilot Ruth Kelly gained an NPPL microlight licence, then SSEA, taildragger and aerobatic ratings, but as she revealed in our December 2017 issue, really wanted to get her hands on a Van's RV-8...



Ruth with her Van's RV8. She very sensibly sought the expertise of a suitably qualified instructor for a conversion to type.

(Photo: Neil Wilson)



The RV8 climbs away at 1,500 feet per minute, which is perfect for getting to the altitude to undertake aerobatic training. (Photo: Neil Wilson)

With a mellow snarl, two hundred horses churned the chilly air, and the aircraft danced down the runway, lifting to accelerate in ground effect before surging into the winter sky. Shielded from the slipstream by a perspex bubble, the pilot struggled a little. The Dynon EFIS was unfamiliar and the unaccustomed eye had to search for airspeed and altitude. The manifold pressure gauge – there it was – fluctuated madly and the throttle and propeller controls moved unevenly in her hands. But the flying controls were light and precise, and the merest touch was sufficient to send the machine hurtling round the circuit. The aircraft knew how to fly, and the pilot – her instincts alive – was learning fast.

“Would you like me to call downwind?”

“Please do,” the pilot replied, as she had her hands full.

“Golf Victor Bravo is downwind for go-around on 07.”

It had already been agreed that the pilot’s first approach wouldn’t actually involve landing. As the aircraft passed the wind turbine, she started her turn to starboard.

“Watch your speed,” came the voice in her headset. “Get the flaps down. You’re very high... that’s better”.

Remembering to put the propeller fully fine, turning final and lowering the flaps all the way, the pilot found no time to trim to 75kt as she’d planned. So she fought a little battle with speed control all the way down.

“You’re slow. *YOU’RE SLOW*. Better. Keep that trickle of power on... now round out.”

Slow? The runway was flashing past, much faster than the microlights she’d learned on; faster too than the Super Decathlon the pilot had last flown. Enough. She powered on, raised the drag flaps and roared back into the sky.

“Speed safe... height safe... you can raise the flaps,” intoned the voice from the back.

So started my conversion onto the Van’s RV-8. The voice in the back belonged to a friendly instructor, and the location was Henstridge Airfield, Dorset, where everything had recently clicked very sweetly into place...

GENESIS OF THE DREAM

Readers may recall my piece on aerobatics in the December 2017 edition of *LA*, which saw Isaac Newton coming to the rescue and saving me from (amongst other things)



With 200hp on tap, Ruth found that the RV-8 took some getting used to – “Everything happens very quickly!” (Photo: Neil Wilson)

my first ham-fisted stall turns. I concluded that article with a few fervent words about getting my hands on a Van’s RV, and that tale can now be told...

In fact, I’d nearly bought an RV in January 2017, before the aerobatics episode. But the aircraft in question had a 200hp engine, with a very coarse, fixed-pitch propeller and an extremely forward C of G. The RV’s owner spoke at some length of the difficulties he had in landing it, and in the end I backed away, unsure whether I’d be able to handle the aircraft.

However, my time learning aerobatics in the Super Decathlon worked wonders for my confidence, and by last September I was again on the lookout for a suitable machine.

Two RVs had appeared for sale during the summer, but with asking prices beyond my pocket. So I’d started exploring the possibility of importing one from the US when I suddenly received an email from the owner of an RV-8, G-XRVB, wondering if I might be interested in buying her.

We arranged to meet, went flying and met again, this time with another very knowledgeable RV owner alongside, who helped me give the aircraft a thorough look over. It also had a 200hp engine – an ex-RAF Bulldog Lycoming IO-360 A1B6, complete with a Christen inverted oil system and a two-blade Hartzell CS prop. Furthermore, the battery was mounted behind the passenger seat (one of two optional locations, the other being on the firewall), which helped bring the C of G a bit further aft.

G-XRVB had only around 120 hours on the airframe, a thousand on the engine (250-odd since a top-end overhaul) and was quite tidy. What’s more, I could afford her. Just...

But where exactly would I keep the aircraft? Fortunately, I was already in contact with the very helpful Geoff Jarvis at Henstridge, so I dropped him a speculative note. Bingo! It just happened that a big twin had recently been sold, releasing a whole hangar bay, and there was a chance I could share it with an RV-12.

We paid a visit, liked what we saw and Geoff gave me two weeks to decide. I already had an insurance quote (from Visicover), so it was just a matter of finalising the purchase. A few days later I was the proud-but-slightly-nervous owner of G-XRVB.

After an agonising wait for a suitable weather window – time put to good use transferring the registration, getting a new radio licence and notifying both the LAA and Van’s about my new baby – G-XRVB flew into Henstridge. In principle, I could’ve leapt straight in and taken to the skies, as I’d been signed off on tailwheel and constant speed prop, and I was just about still current on the Super Decathlon. But for all the progress I’ve made, I remain quite cautious, and so wanted to spend some time with an instructor behind me before letting myself loose.

THE CONVERSION

I had some ideas about people I could ask, but we’d only been resident at Henstridge for a few days when other possibilities emerged. Strolling past an open hangar door, my eye ➤

TRAINING

was taken by a gorgeous Bücker Jungmann, and seconds later I was deep in conversation with ex-RV-7 owner, Annabelle Burroughes.

"Clive!" she suddenly exclaimed. "This lady wants a conversion onto her RV-8."

With these words echoing around the hangar, the tall, smiling figure of Clive Davidson emerged, clutching a kettle.

"Coffee?" he asked.

I was beginning to like this place! Over the next few days, Clive and I spent some time getting to know one another and examining the aeroplane, and I provided copies of my licence, medical certificate and the aircraft's documents. I'd selected "advanced training" as an insurance option, so everything seemed to be in place.

However, Clive expressed some concern about G-XRVB's rear-seat controls. The rear seat in the RV-8 has a stick, rudder pedals and throttle, and it isn't hard to see the ASI and altimeter from there. But there's no rear-seat access to the brakes. Clive suggested that, before taking to the skies, a session or two of taxiing would be time well

spent, building up to a some fast runs down the runway, so that I could get to grips with the ground handling.

That first hour in G-XRVB proved really valuable. The instrument panel was different, featuring a Dynon FlightDek D180 as a combined EFIS and EMS. Everything else was straightforward enough, but it was all new and it was immediately clear to me that it'd take time to train my eyes and hands to go to the right places.

I'd spent time studying all the systems, reading the manuals and creating a checklist which worked for me, so I wasn't starting from scratch. Nevertheless, I really began to appreciate that asking an instructor to leap into the back of an unfamiliar aircraft with an inexperienced pilot is no small matter – there's a lot of trust involved, in both directions, and that takes time to establish.

I soon found how easy it was to get out of shape on the tarmac runway when powering-off. I didn't ground-loop, but there were a few wild fishtailing moments, especially when transitioning from rudder-only to toe-brakes.

Yet, soon enough, we reached a point where we were both happy, and on the next session I found myself lining up on Runway 07.

"One last thing," said Clive. "Whatever happens, we're friends at the end."

Fair enough. Pow! We took off...

Before attempting any landings, we departed the circuit, to spend time getting comfortable with the aeroplane. I already had some time flying an RV-8 from the back, so the feel of the controls came as no great surprise. They're light, precise and well harmonised. But what forcibly struck me, sitting in the front seat for the first time, was the fabulous rate of climb – getting on for 1,500ft per minute – and the speed. With the tachometer showing 2,350rpm and around 23in of manifold pressure, we were tanking along at an indicated 143kt. At 25 square, G-XRVB cruises happily at more than 160kt.

Only the electric elevator trim seemed tricky. Controlled by a switch on the left side of the panel, it works well, but there's not much feel to it. Put together with the lightness of the controls, I found trimming less than easy.

Trimming and maintaining the correct speed on the approach turned out to be harder than Ruth had imagined.

(Photo: Ron Smith)



Using an EFIS was new to Ruth and it took some getting used to – "You need to be able to source information at a glance."

(Photo: Ruth Kelly)



At height, we went on to stall the aeroplane in the usual range of configurations and explored the handling at low speed. The 2017 *Permit Test Flight Record* showed a minimum airspeed of 58kt clean and 53kt with full flaps, which seemed about right. The stall was very benign, with little tendency to drop a wing when clean and slightly more with the flaps down, but all very controllable.

We also explored the local area. Happily there are some useful and prominent features to the north and south of the airfield. Find one of those and head south or north and the airfield soon appears on the nose. As I had learned to fly nearby, most of it was quite familiar—although the noise-abatement arrangements around the airfield, with various villages to avoid over-flying, were new to me.

HIGH OR LOW, FAST OR SLOW

All too soon it was time to rejoin the circuit and have a go at landing. I opted for an overhead join from the south. Having descended from about 5,000ft near Bulbarrow, the first of several challenges made itself apparent. My very slippery aeroplane arrived overhead at about 150kt (I was clinging to the tail!), and I needed both to scrub off 1,000ft and slow down if I was to join the circuit at a manageable speed. No big problem, of course, I just made a very wide descending turn with the throttle closed and arrived on the crosswind more-or-less gracefully.

However, speed control in the circuit was one thing which proved unexpectedly difficult to master. The circuit at Henstridge is quite tight and you don't have much time to settle down. Keeping an eye on ground features, maintaining height and a sensible speed, trying to get into trim, and unfamiliar downwind checks and controls all added up to a very high workload. I told my Henstridge pal, Annabelle, that I was struggling a bit and she just laughed.

"Don't you worry," she said, "it's good to have an aeroplane that stretches you a bit. And when you've caught up with her you won't regret it. You'll be so pleased that you bought an RV!"

I certainly had some catching up to do. The best scheme seemed to be to join at no more than 105kt and then get below 95kt (the limiting speed for 20° of flap) as we called downwind. For downwind checks I settled on brakes, mixture, prop, fuel contents sufficient and pump on, and canopy and harness

secure, then lower the first stage of flap. There was just time for all this before turning base, pulling the speed back to below 85kt (limit for the full 40° of flap) and trimming as well as I could, before turning for final approach at 75kt.

Time and again I arrived high or low, fast or slow, and ended up getting flustered, with predictable consequences. We've all heard the old adage, "A good landing starts with a good approach," and I made some fairly chaotic ones before it all started to click into place. Actually, my touchdowns were generally okay as my brother had drummed into me the classic tail-dragger technique of always taking careful note of the attitude of the aircraft on the ground immediately before taking off. As you round out and flare, you adopt that attitude for a three-point landing, and it works. But on some occasions I flared too high, and arrived on the runway with a bit of a crump, or rounded out a little late so that the wheels met the ground before I was ready.

The RV-8 has a strong undercarriage, but it's undamped and very springy. Arrive on the ground with too much vertical speed and it gives it all back to you, and you'll go flying again. Of course, you can always go around or, if you've plenty of runway in front, choose to apply a little power, level off and then land again. Alternatively if you really enjoy pilot-induced oscillations, you can shove the stick forward and hit the ground a little harder and, assuming that you don't break anything, you'll achieve a perfect impersonation of a kangaroo – I don't recommend it!

Once you've managed to set the aeroplane on the ground, you then have the landing roll to manage. We had a few mildly heart-stopping moments, as I discovered the excitement of over-controlling with the rudder, but that also diminished with practice. But you must keep flying until the aeroplane has actually stopped.

In between the circuits we headed off to explore, and to practice side-slipping and forced landings. We may also have thrown in a few aileron and barrel rolls for fun. Then we tried glide approaches, followed by flapless landings. No big problem with that, but I was just shocked at the amount of runway I consumed.

My final landing challenge was the wheeler. The technique is vital for managing crosswinds, but when flying solo the more forward C of G means that stick forces in the flare are higher, making a precise three-

pointer harder to achieve. Consequently, many RV-8 pilots seem to prefer wheelers when solo. The idea is to keep power on and fly the aircraft onto the ground, touching down on the main-gear. The extra speed and prop-wash give more control, helping to keep the aircraft straight in a crosswind. Once the main gear is firmly planted, you close the throttle but keep the tail flying as long as possible. Only when it'll stay up no longer do you smoothly bring the stick back, and then watch out for any tendency to swing into wind, controlling it with the toe brakes if the rudder has insufficient authority.

Quite by luck, my first attempt was a real peach but then it all fell apart and I became quite frustrated after a succession of aborted efforts. You really can't force the aeroplane onto the ground. You need to be calm and relaxed but totally focused, with a swift but light touch – all very zen. It came back together in the end...

FIRST SOLO & BEYOND

My first solo was announced with a classic lack of fanfare. After a couple of sorties we were considering putting the aeroplane to bed, "...unless, of course, you fancy taking it off on your own?"

It was almost a throw-away remark, but I caught my breath, and then with suitably studied nonchalance, said, "Okay. Why not?"

So I did. One of the things I like about tandem seating is that it's less obvious when the passenger seat is empty. It makes the first solo slightly less disconcerting.

The extra performance was noticeable though. The normally-short take-off run was now reduced to a few metres, and I climbed out of the circuit like a rocket.

One short excursion later, I rejoined and lined up on the approach. I needed a lot more nose-up trim, and at first I thought I'd run out. And despite being ready for it, the extra stick force in the flare still caught me out, and I touched down somewhere between a three-point and a wheeler. One small bounce and I was safely down.

Had I finally 'caught the pigeon'? Well, let's say that I'd made a good start. In truth there's always work to do – more to learn and enjoy – and already I was keen to get on with some cross-country flying and aerobic rehearsal. Of which, more anon, perhaps... for now, I'll say only this: the RV-8 is an absolute pleasure to fly! ■



G-XRVB at her new home at Henstridge Airfield in Dorset – it's a very friendly place to fly from. (Photo: Ruth Kelly)