

Coaching Corner...

Going it alone. Again – naturally. By LAA National Coach, **Chris Thompson** and **David R Bishop**



Above Dave Bishop in his homebuilt Supermarine Mk26 Spitfire.

If you search hard enough in the depths of the Coaching section on the LAA website you will find more than 20 old PCS Coaching articles. Sitting here on a wet Monday with no flying possible, I found them bringing back old memories and an interesting read. These articles are available at <https://tinyurl.com/laa-coaching>.

Back in October 2008, former National Coach, Will Greenwood, wrote an article for this column called *Going it Alone*. Bearing in mind that some 12 years have passed, it occurred to me that it would be interesting to see if anyone else had any feedback on their first solo in a single seater. As an instructor, it is quite a worrying thing to send someone solo, even though you would have flown several (maybe, many) hours with the student before doing so. However, I can assure you that for me, sending someone solo in a single-seat aircraft is another level of terrifying experience!

Having been involved with Dave Bishop's Spitfire, which featured several articles in the mag regarding the traumas he had building it, Dave has gathered his thoughts (below) on his first flight in his 'baby' Mk26.

First solo in my Mk26 Spitfire

Anyone who has obtained a PPL will remember their first solo flight. I've never forgotten mine... I was flying C152

G-ENTW from Southampton Airport with Dave Horton, of Southern Flight Training, in May 1994. It was a lovely evening, and we had just touched down after a successful sortie when Dave said, "Would you like to do your first solo"?

It was completely unexpected, and my reaction was to back pedal and ask if I was ready. He assured me that he wouldn't be asking me if he had any doubts, but then said, "If you don't feel able to do it yet then that's perfectly OK." So, I bottled out, and on my way home I could have kicked myself for not doing it.

It was to be four weeks before the weather was good enough to be asked again. "You bet," I replied. So Dave called up the tower and requested a student first solo and they said 'NO'. They had two inbound airliners and a departure to deal with and they certainly didn't want me up there creating chaos.

Well, eventually it all came together, and then there was the feeling of stage fright as Dave jumped out and shut the door. There I was with an empty seat beside me for the first time. That feeling I can relive even now, and this was followed with the realisation at the top of the climb, 'What the hell am I doing up here'?!

Seven years later, having built a Europa, I went through it all again when I soloed my Monowheel at Kemble. I'd had four or five hours with the late Peter



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Above First solo number two, in my homebuilt Europa Monowheel.

Left My first ever solo was in this C152 – when I was learning to fly at Southampton in 1994.

Thorn, who could just about get into the Europa, but sat there as cool as a cucumber while I did all the things wrong that one can in a 'mono'.

The key thing about both of these experiences was that the instructor and I had flown together in the subject aircraft for a good few hours. He knew my limitations, and I had the benefit of his experience and guidance before I flew solo, and I knew the aeroplane.

Now we get to the Spitfire Mk26. Some readers may recall my build articles, published in *LA* magazine over four issues in 2015, following nearly 10 years of building. Chris Thompson, now our new National Coach, did all

Below Initial preparations for the Mk26 in a Chipmunk at Goodwood.



the test flying for me, and I had been a back-seat passenger on numerous occasions. We are always asked whether passengers can fly in the rear seat and, due to the weight and balance restrictions, we have compiled three simple rules:

- 1) you must weigh less than 65kg
- 2) You must be of small stature
- 3) You must be pretty and female

I'm a lightweight racing snake, and can just about squeeze into the back seat, albeit that I fail rule 3, but there are no instruments and no dual controls. It's rather like sitting in the back of a flexwing microlight with your legs alongside the P1.

The problem we faced this time was how to get me to a point where I could fly the Spit myself. Chris was too big to get into the back seat, and anyway he was probably secretly relieved not to be able to accompany me as his only possible guidance from the back seat would be to coach me, or putting it diplomatically, 'to discuss somewhat loudly'.

Some folk said, "If you can fly that wheelbarrow (the Europa), then you'll have no problem with the Spitfire."

Others suggested a flight in a Pitts might prepare me. Ultimately though, there was no real alternative to having an instructor on board the actual aircraft with me, and that was just not possible.

In the end I took advice and, in 2010, went to Shoreham for six hours of really good training in Chipmunk G-BZGA. However, because the Spit build and subsequent development flying took so long, much of the value of the Chippy lessons was probably lost.

In 2016, I signed up for 12 hours intensive flying training at Goodwood in Super Cub G-DRGL, followed by three more hours in a Decathlon doing a VP Prop conversion at Thruxton. All jolly good stuff, but somehow, we still had to bridge the gap and get to fly the Spitfire.

This is where the flexibility of the LAA Pilot Coaching Scheme provided a solution. Chris had worked with me on some of the aircraft build intricacies for several years and had carried out all the test flying. He had also done quite a lot of display flying in it, so he knew the aircraft very well indeed. He had flown with me in my Europa doing my biennial reviews, and as a coach had supervised me familiarising 'curved Spitfire approaches' and landings in the Europa. Also, he was very aware of my own limitations and shortcomings.

A plan was devised whereby I was thoroughly briefed both on the ground and as a backseat passenger in the Spitfire over a period of several months. The first solo was to be undertaken at Popham, as grass runways are favourable for handling the Spitfire. Runway 21 or 03 was preferred, and only when conditions were ideal – less than 5kt straight down the runway.

It was decided that Chris would communicate directly with me on a dedicated radio to talk through all stages of the flight, and with a second radio he would communicate with Popham Radio throughout, so I wouldn't have to bother with any distracting radio calls. Popham was fully briefed, with safety marshals in golf buggies strategically placed around the airfield in case of any hiccups.

Meanwhile, I did as many pre-flight checks and full-dress rehearsals with accompanying taxiing, lining up, and pre-take-off checks as possible. This was intended to aid familiarity and control procedures, and hopefully further reduce the workload on the first flight. I also maintained solo flying currency in the Europa.

The whole thing finally came together on 19 September 2019. This was to be a first solo the like of which I had never done before – 180hp with lots of torque and a variable pitch prop, and a single-seat aircraft with a very limited view forward when taking off and landing (not a lot better even in level flight).

The brief was to climb straight ahead, turn into the left-hand circuit and continue climbing to 2,000ft, generally circling around in the Popham overhead so Chris could see me. Once comfortable (a relative term!) with the Spitfire's very light handling, I was to make an approach to land, just as I had been doing in the Europa. All very straightforward.

So, there I was, lined up on 03 ready to go, wind straight down the runway at less than 5kt. That first solo feeling was very strong indeed now but no excuses, no bottling out – let's do it.

After any flight I have always done a self-critical appraisal. Sometimes just a think-through, but whenever on a special flight like a biennial flight review or a longer cross-country, I do a written one. The following is my review of the flight which was formed from the basis of the debrief with Chris.



Above Yet more training in a Super Cub and then in this Decathlon. Am I ready yet, Chris?

Pre-flight checks: All carried out OK.

Taxi from hangar: All OK except I taxied with the flaps down – possibly because the Europa's flaps are always down when taxiing because they are linked to the undercarriage – but I did notice before reaching the clubhouse. I will continue to try to remember this as it is considered untidy and in fact may subject the flaps to stone damage.

Engine start and run-up: Still need the check list to refer to and need to rehearse the V.P. prop procedure, i.e. manual exercise plus run-up then Auto settings.

Lining up: This went OK, and I felt the aeroplane was nice and straight when ready to go.

Take off: The take-off run seemed OK. I could see the left-hand grass edging OK and I may have drifted a bit to the right but noticed it and corrected. I didn't know what speed I had but kept adding power slowly as speed built up. I started the run with the stick slightly aft of neutral and began to ease forward to get the tail up.

There seemed a lot of resistance to the push forward. Chris continued to advise from the ground radio to add more power slowly and smoothly.

I don't think I got the tail fully up, but sensed there was some more to go, then took to full power. I think my nose-over experience while practicing early taxiing at Lee-on-Solent four years earlier made me cautious and slow to lift the tail. I used up quite a lot of runway doing it with no conscious idea of how much runway was left due to the zero view forward. I suspect an abort at this stage would have ended up in the hedge! With full power applied, the acceleration was phenomenal!

Lift off: I felt the aircraft lift off and the initial climb attitude seemed very steep, (as Chris had warned me it would be). Checked the stick forwards a bit not realising



how very sensitive the elevators are, resulting in an over correction, which found me looking at the ground. At the same time an uncommanded left roll took place which was unexpected but resisted with aileron. Then an over correction of back stick caused a zoom up and a corresponding steep roll the other way. It felt like a gusty day, but I now know it was gyroscopic reaction from the full power spinning prop, following my over corrections in pitch.

Once these excursions had settled down, the climb was much as expected, and I also began to settle. Chris now advised, "Power back to 24in, set 2400rpm, and brakes/undercarriage up."

The brakes / undercarriage up operation was rushed and a bit late, due to my being too busy fighting the aeroplane in the initial stages, and I'm afraid the brakes on/off step was forgotten altogether. The result being that wheels rotating at 80mph were being lifted through 90° into the wheel bay. The undercarriage went up OK and REDs noted during travel extinguished as the lock levers both dropped in.

Levelled out: At 2,000ft I flew a lazy turn to the left with the nose sawing nicely around the horizon. Glanced at the turn coordinator and it was spot on rate one and height remained good all around 360°. Then turned to the right and did the same thing, all good.

Later read-out from Sky Demon shows max height variation of 100ft and speed 139kt. I was beginning to enjoy this! The aeroplane handled really well, much easier – and much nicer – than I expected.

Returning to the airfield: Now I was crosswind. A call came from Chris to 'reduce speed to 100kt and lower the gear'... Easing back the throttle ... no change in engine note... looked at the rev counter... again no change. I pulled back still more throttle then looked at the ASI... 80kt, my first realisation of the effect of a constant speed prop, which I had already completely forgotten about.

Above Dave taxiing out at Popham for the biggest 'first solo' of his life.

This all upset my apple cart somewhat and started another round of over corrections, throttle and trim this time. Need to study and take advice on dealing with this (which I have now done).

These factors made the descent phase feel uncomfortable i.e. the flaps 1, flaps 2, then full flap. As the first crosswind join felt ragged and I didn't feel in full control, I raised the gear and flaps and climbed back to height to have another go.

This started to go much better, then came the call from Chris to adjust the trim fully back and ease the stick forward to compensate. I had been briefed that as the speed comes back the aircraft comes 'into trim' and you don't have to worry about it on final. Now, the throttle and trim levers are both on the same quadrant on the left side, with the throttle at a larger radius. I grabbed the throttle lever by mistake and pulled it back, expecting a nose up and a push forward – that didn't happen, of course. Adding power again the aircraft leapt upwards and forwards (it is very powerful) – note to self, must be gentler with the throttle.

All this upset the stable approach and took a bit of sorting out. Then seeing a Chinook rising out of the woods at low level below (not on the Popham frequency), briefly caused another distraction.

The landing: Eventually, however, a stable approach over the silos at 80kt was established for Runway 08 with two Greens down and locked. Picture good, speed 70, full flap, all stable. Easing the speed back to 65 and pegged, with the picture still looking good. Feeling much more at home now that the constant speed prop had given way to a more familiar sound and feel.

The brief was to curve onto 03 to land. The wind was very light and variable. However, maintaining a stable approach, a good picture and height good, I decided not to stir the pudding as I wasn't too sure that I might over correct power or something, so I decided to land on 08. This resulted in a perfect landing with plenty of space still ahead.



Assessment. What do I need to do?

- 1 Get the tail up earlier so I get a better view ahead sooner.
- 2 Be much more aware of the extremely sensitive controls, particularly pitch. Also do some in air familiarising with the trim and its response. Maybe reduce the friction a little bit. (Not too much though as the throttle lever is affected).
- 3 Do something about the terrible radio, which was very distracting (now fixed).
- 4 Spend some airtime setting and adjusting power and manifold settings, and learn more about the variable pitch / constant speed prop by reading up on it and discussing with Chris etc.
- 5 Look at the ASI *and* the manifold pressure gauge when reducing power. The rev counter doesn't change at all so the engine noise doesn't change either!

Since writing this, point (3) is sorted. Point (4) is partially sorted in that I have compiled a detailed set of POH notes all about the MT propeller and its use. Point (5) is my own lack of remembering what I was taught when under high stress flying!

Above Dave and Chris with the Mk26 Spitfire, parked alongside the real McCoy.

Conclusion: Undoubtedly, the first 30 seconds of this flight taught me a lot about how the Spitfire responds to control inputs. Some folk pay for a fairground ride to get a thrill such as the one that I had...

After the landing I was surprised to see that the whole affair seemed to have affected Chris even more than me. He admitted it was the most difficult 'send someone solo' that he had ever done. Apparently, his wife Lynn had to take him out for a drink to get over it.

On a more serious note though, over the several years of taxiing around and doing dress rehearsals, there were a couple of times when I lined up and was seriously tempted to wind it up and go for it. Being a cautious flyer, I resisted, and can honestly say that was the right thing to do. The plan worked out by Chris, and the preparations we made, worked out well on the day. It was a solution uniquely tailored for me, and while I still had to fly the aeroplane solo, there was reassurance and prompting when I needed it most.

Thank you, Chris and the LAA Coaching Scheme, for providing such a flexible facility. ■

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