

FLIGHT TEST



What an 'ice' view: An Alpine vista from the Pilatus PC-21.

Left: A view of the 'Chipmunk' in flight from an F-18 entourage.

Gerald Howarth MP, the UK's shadow defence minister and a PPL with a passion for aerobatics, gets his hands on a Swiss thoroughbred and gives his personal opinion on his trainer of choice.

AFTERNOON DELIGHT...

We came down the glacier at 275kt (500km/h) perhaps 50ft (15m) above the ice, banked onto a knife-edge as the valley twisted ahead, soared up an escarpment at hovercraft altitude, over the ridge line and into a half roll with a flick off the top, then pulled to the vertical and topped out at 20,000ft in a crystal clear sky above a breathtaking Alpine vista. Hmm, I thought – there must be worse ways of spending your afternoon.

For one whose aerobatics are usually done in a Chipmunk, flying the Pilatus PC-21 is an education as well as an experience. Flying it in Switzerland, apparently freed of Rule 5-type constraints, is a delight that has left me with indelible memories and a special appreciation of this fantastic aeroplane.

The energy-management skills you deploy in the Chipmunk count for little in the PC-21; there's so much power available that you don't have to pull carefully back on the stick to eke out your momentum around a loop at the risk of flick-rolling off the top, as I did once in a Firefly. You don't have to dip the nose before pulling through – you can just tweak the power lever and

you get out of jail. Magic... and to be able to do so with the Swiss mountains as a backdrop makes it all the more dramatic.

I've always been a Pilatus fan, ever since I flew the PC-9 back in 1987. The Pilatus PC-9 was one of the three aircraft being considered as the new basic trainer for the RAF, the others being the Tucano and the Firecracker. We went to Switzerland to have a look at it, and I got the chance to take it for a spin. I had the best ride of my life – until I flew the PC-21.

There is no doubt in my mind that we should have chosen the PC-9 rather than the Tucano. The problem was that although both aircraft technically met the specification set out in an Air Staff Target, the PC-9 did so with ease while the Tucano, based as it was on the Embraer 312, would do so only after it had been extensively modified by Short Brothers in Belfast.

That left the politicians with the right to choose, and clearly the political advantage derived from putting work into war-torn Belfast won the day.

The members of the Aviation Committee were in the United States when we got word that the

choice was being decided. We sent a message to the prime minister, Margaret Thatcher, backing the PC-9, but the lure of business for Belfast was too great and by the time we were able to intercede the deal was sealed.

Then of course we had all sorts of problems with the Tucano, which only had 20% commonality with the Embraer. We ended up with all those cost overruns, and the aircraft had to be re-engined, which wouldn't have happened with the PC-9.

Appraisal

I've flown both the Tucano and the PC-9, and although I'm not an RAF man or a fast-jet pilot and my appraisal must be treated accordingly, in my opinion the Pilatus has it by a distance.

The Pilatus PC-21 is more capable than the PC-9, and I would have moved heaven and earth to get it for the Military Flight Training System because it is an outstanding aeroplane. I first saw it at the Royal International Air Tattoo (RIAT) in 2002 when they brought it over with only about 12h on the clock.

I was invited to fly it at Pilatus's factory at Stans in



Gerald Howarth MP with test pilot Bill Tyndall.

Switzerland by Kevin Smith through Air Chief Marshal Sir Peter Norris, who is a consultant to the company. The evening before I flew I had a 1h briefing on the aircraft and its systems, and the next day I was provided with a flight suit and a bone dome and sent out to fly.

I was the first non-company man to get time on the PC-21. My aircraft, HB-HZA, was matt black for flight test purposes. I loved the look of it, particularly that long nose. I'm a great believer in the old saying that if it looks right, it'll fly right. The vertical stabiliser looked a little small for the aircraft, I thought, and it's got a bit of a ventral strake that looks like an aerodynamic afterthought, but the handling qualities turned out to be superb.

We climbed in at the dispersal just outside the factory and went through all the rigmarole of strapping into the ejector seat. A fussy chap helped me with

my leg restraints and got me all batted down, and we ran through the oxygen checks and all the rest of it. My own personal addition to every checklist is to make sure I have access to my handkerchief. I got caught out that way once – it's vitally important to be able to find your hanky.

The canopy was closed, the test pilot Bill Tyndall started the engine and said: "It's all yours." In fact, throughout the hour-long sortie that followed he made very few remarks – perhaps 'a bit more boot there,' or something – and the fact that I, a PPL, could fly this aircraft with no more than an hour's briefing speaks volumes for its value as a training platform.

I checked behind to make sure there was nothing I could blow over, then eased forward on the power lever on the quadrant under my left hand. The noise level was low, and taxiing was straightforward. Visibility is superb, almost helicopter-

like. They spent a lot of time getting the rake of the seating right so the instructor in the back could get a good horizontal view over the student's helmet.

Take-off was uneventful. There's a power inhibitor which prevents you over-running the engine on take-off, but we were soon at rotate speed – 93kt – and airborne. Stans is surrounded by mountains on all sides, but no problem – we went straight to 20,000ft and into an aerobatic sequence. I tried some loops and barrel rolls, and again it was all very easy because of the power available. Aerobatics were not a huge challenge, and the handling was perfect, with very little rudder required. The plane felt very comfortable, very smooth, and there was less of an air hiss than I had expected.

Coming down the glacier we seemed almost to be touching the ice, and things were happening very quickly – the aircraft is capable of 370kt max operating speed.

All too soon it was time to get back to Stans. On the way, Bill said to me: "Look behind you," and there was a pair of Swiss F-18s, one behind each wing. They shouldn't be able to creep up on one like that.

Thanks to AOPA's General Aviation for allowing us to reproduce Mr Howarth's report and photographs for the Farnborough *Flight Daily News*.