

# Cessna P210N “Silver Eagle”

## a niche aircraft

by David Weston

I bought N67JK because the Cessna P210N “Silver Eagle” was the only aircraft available that was pressurised, turbine-powered, had a maximum weight below two tonnes and had enough headroom to accommodate my height (6’4” or 1.93m). I had coveted a P46T but was disappointed to find that its headroom was not quite enough. I have since come to appreciate that N67JK, although less sleek and modern than other single turbines, plays a strong hand overall. She can cruise up to F230 at 205-210 knots, get to cruising altitude from an MTOW take-off in 20 minutes, dive (at flight idle, with speed brakes, gear and flaps) at 6000 fpm without exceeding

120 KIAS and land to a full stop in just 300 metres. Zero-wind range tops 1000 nautical miles with 1 hour of reserves and the useful load is around 1200lbs. Fuel burn is 24-29 USG/hour and fuel capacity 147 USG.

I learned to fly in 1991. I was running a business in Chertsey and was intrigued by signs on my way to work that pointed to “Fair Oaks Airport”. I had been fascinated by flight since my first experience as an eight-year-old transatlantic passenger, and I just had to find out what went on at this small and historic airfield. One lunchtime, I visited its flying school and found myself being shown over the controls of a very well-appointed Cherokee

160. I was hooked. Five months later I achieved my PPL and bought a 1/6 share in a Cherokee 180, an ex-Hamble trainer with slab wings and the ability to carry quite a load. The panel was sparse – a single VOR and a non-functioning ADF. I persuaded the group to add a Garmin 100 – one of the very first GPS receivers, picked up my IMC rating five months after that and then went on to hand-fly 250 hours in that very basic aircraft, 40 of which were in hard IMC, all over the UK and (VFR) in Europe. Some of these trips had legs of 4 hours or more. The aircraft had no autopilot and very minimal instrumentation. With long-distance IMC and night missions, I was pushing it, but





I was young and inappropriately fearless and the Cherokee never skipped a beat. It was built in 1964, air-raced extensively, landed hard on numerous occasions and is still going strong for its current owners!

In 1996 I moved on to a succession of overseas appointments and managed for the next ten years to keep current or revalidate, flying only around 18 hours in all in the UK, Canada and the UAE. Finally I returned to remain in the UK in 2006, and, confident of staying put, I started looking at new aircraft. I had tried a few hours flying a twin Comanche under instruction many years ago and rather liked the idea of a twin. I fell for the Diamond Twinstar (both the looks and the handling) and ordered a new one. Thielert, at that time the DA42's sole engine manufacturer, went into liquidation before the purchase could be completed, voiding any engine warranties, and I was lucky to escape a massive value hit. That purchase duly cancelled (Diamond Aircraft behaved very honourably), I bought instead a new

Cirrus SR22 Turbo Perspective that was delivered in 2008. It was a well-timed buy; I got US\$2 to the £GB. Six months later, to make the most of the Cirrus, I had added an FAA IR to my 61.75 FAA, completing the training and testing entirely in the UK. I had a lot of fun in my 500 hours over the next six years in the Cirrus, but my wife and I had a problem; she does not feel well at altitude, even with oxygen, and the Cirrus airframe performance dropped off at an alarming rate with even a light spattering of the ice that is all too often hanging around at the F100-F120 levels. The TKS panels did not add much to my confidence, frequently failing to wet out full length against the wings' dihedral. Too often we were faced with a choice between altitude and ice, and after a flight at F120 to Chambery where the glycol ran out, the alternative air intake opened and I had to go to full rich to keep the engine cool as I descended towards warmer air, I realised that I needed a pressurised aircraft, and preferably one with a significant

performance reserve. At F180 there would have been no drama at all. The search began.

Besides the JetProp P46T the only other options I was aware of were the Extra 500, of which hardly any had been built, the TBM850, which I test flew but felt was too much of a commitment in terms of annual fixed costs for the 150 hours per year that I expected to fly, and the PC12 which was always going to feel like turning up in a huge bus when there were usually only two of us on board. I had almost given up when I chanced upon a picture of a Silver Eagle. Up until then I had not known anything about the pressurised version of the Cessna 210 – with its square cross section it just did not look to me like a pressurised airframe. After a lot of research I decided that, despite its rarity, this Silver Eagle conversion might be the perfect aircraft for Europe.

The starting point for the aircraft is a conventionally-powered Cessna P210N. This aircraft was big news in its day. The







P210N was the first successful single-engined pressurised airframe, and the T210 and P210N were the first singles certified for flight in icing conditions and the first such to have the option of on-board radar. Given how long ago that was, and all the aircraft introduced since, it is amazing that the 210 family still has an enthusiastic following. The American aviation journalist Richard Collins kept his P210N from new and flew it nearly 9000 hours. He said “The P210 was probably the most comfortable and useful piston single ever and even with twins included it was close to the top of the list on comfort.” I also concur with Jim Hoddenback, another well-known figure, on the American GA scene, who, when asked why his all-time-favourite aircraft, of the countless types he had flown, was a Cessna 210, said “It’s not because the 210 is the prettiest of them all, and it’s not that the 210 is the fastest, or best flier. It’s because it does so many things well.” The proven premise of the Silver Eagle conversion is that the P210N can, albeit with some effort and expense, be made even better.

N67JK flew under 2400 hours as a standard P210N before conversion. She flew just 20 hours of that total between 2002 and 2014. That made her a very young airframe indeed. The windows are notionally life limited to 13,000 hours and the wing spar caps subject to periodic inspection after 8,000 hours of normal use. These are Cessna recommendations, not FAA airworthiness limitations, however. Fortunately, having been hangered in Arizona, there was almost no corrosion. The conversion swaps out a 450lb 300

horsepower engine for one of 210lb and 450 horsepower driving a reversible 90 inch heated propeller. Tip tanks, a fuselage tank, modern avionics, structural beefing up of the tail, paint, a hand-stitched Scottish leather interior and pneumatic de-icing round out the process. The POH numbers are left largely unchanged in the conversion, with the STC supplement stating merely that the take-off, landing, climb and cruise performance numbers will exceed those of the original aircraft. MTOW is unchanged at 4000lbs, basic empty weight depends on equipment but is typically 2800 lbs. VNE is reduced from 200 to 167 KIAS, with the amber caution zone being deleted from the speed dial (or tape).

The finished result is a 1981 aircraft that looks remarkably fresh and has great functionality. It is still, however, very much a Cessna P210N. I have never flown a piston P210N and cannot therefore comment on what the conversion changes in terms of handling. The P210N is still sought after as a very capable, fast IFR tourer but it is certainly not widely reputed to be “easy to fly”. I can say that I found the step-up from the Cirrus to N67JK to be about as challenging as my ab-initio PPL. In fact it took me 100 hours to become confident. That might be because the Cirrus was a very neutral handler requiring very little rudder and elevator trim work. Throw in the Cirrus’ GFC700 digital autopilot and I have to say that the Cirrus undoubtedly blunted my stick and rudder skills and made the transition harder for me than it might have been had I been a good C152 driver.

The 210 family has a very wide centre of gravity range requiring an extensive trim range and a rudder that needs to be used actively and trimmed for every change in airspeed or power. The engine on N67JK has a significant p-factor effect, too. The control cables run through tight seals in the P210N, contributing to the “truck-like” control feel that is already augmented by the additional rotational inertia around the yaw-axis from the tip tanks and the sheer mass of the loaded aircraft. As with almost all aircraft, however, an experienced pilot will learn to love its characteristics once they become familiar with them.

A key consideration for a European operator is how easy it will be to maintain an aircraft like N67JK outside the USA. Although this aircraft is unusual, her components are very well supported. The Cessna P210N is, after all, just a Cessna, and around 900 of these pressurised versions were built. Many of the airframe parts are common to the much larger 210 population. The engine, a 450hp Rolls Royce M250 variant, is very like those that power a vast number of helicopters around the world and many shops can work on them. The avionics (G500/GTN750/GTN650/GSR56 Iridium/Stormscope/2 G330ES transponders/Trilogy L3 backup PFD/STEC55X Autopilot/Honeywell RDR2000 radar) are all commodity STC / AML stock items. A competent avionics shop will know all these items well. There are at least six of these aircraft in Europe to my knowledge. GAMA at Fair Oaks seem to have become comfortable looking after mine. Overall, I have seen nothing to change my initial view that N67JK

will cost less to operate than my Cirrus did, and show about the same variable cost if one looks ahead to the admittedly expensive major engine overhaul at 3500 hours.

The combination of sturdy landing gear, short-field capability and decent speed at altitude make N67JK a versatile performer. A typical mission for which she is well suited was one I flew last week. My 93-year-old neighbour wanted to visit her son on the Isle of Mull. A pilot friend and I took her to Fairoaks where at 0945 she easily boarded the aircraft (not needing to climb over a wing). We took off and climbed to cruise in the airways at F180, dropping 2 hours and 5 minutes later into low VFR conditions along the sound of Mull, landing in rain on Glenforsa's wet grass runway from the hilly end and stopping comfortably using beta in conditions that would have proved problematic for conventional braking. Having handed over our passenger and enjoyed a leisurely lunch at the hotel, we were back in the south of England by teatime, having flown 900nm that day without any sense of strain. I expect that, technically, one could do the same in



many other aircraft, but I would contend that this aircraft delivers against the brief whilst putting a lot less stress on the pilot.

I intend to keep N67JK. She is a very comfortable aircraft – one in which one can spend four or even five hours without fatigue or discomfort. Jim Thorpe and I flew her with ease from Warsaw to London

in one bound quite recently, having flown her 900 miles the previous day.

Of course we all love our own aircraft, but after 350 hours of flying this one, I can say that she has made me a better pilot than I was and that I still look forward to every flight.



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