The Tecnam 2006 IN SERVICE

Jeremy M Pratt

There are very few good things to be said about driving around the M25 at 05:30 in the morning except that, when not dodging those drivers who have yet to learn the location of their mirrors and indicator controls, it does allow some uninterrupted thinking time. And on the morning in question, I'm thinking of an article in FTN a few months ago about the near-disappearance of twin engine aircraft from the PPL flying scene.

© Tecnam

There was a time, not so long ago (really), when almost every reasonably sized flying school and club had a twin on its fleet and when a club pilot had worked his or her way through a PPL, night and IMC rating and maybe flown a serious touring machine, the next step was to fly the twin. A PPL with a twin rating (or MEP, if you insist), had serious kudos around the club and many private owners aspired to twin ownership as a similar status symbol. But, somehow, it seems that twins have become almost the exclusive preserve of commercial pilot training. How did that happen?

The reason for my musings is that I'm on the way to Gloucester airport (PS guys – you'll always be 'Staverton' to me) to take up an invitation to fly the Tecnam 2006 light twin. The 2006 is the brainchild of Luigi Pascale, who has been designing and building aeroplanes since the 1950s and who founded Tecnam in 1986. The first Tecnam aircraft, the P92, has now sold over 2,500 examples from Tecnam's headquarters just north of Naples, Italy, and further single engine designs followed. Work on the Tecnam 2006 was started in 2006 (see what they did there?), it first flew in 2007 and the first example arrived in the UK in 2010. So, with around four years of operation behind it, now seems a good time to see if the early promise of an economic and practical twin has been realised.

G-TECB outside the hangar at Aeros. *©Flight Training News*

Bare metal over the wing fuel tanks. *©Flight Training News*

Arriving at Aeros' base at Staverton I'm soon joined by Tim Orchard who runs the UK Tecnam dealership and is apparently brave, or foolish, enough to have volunteered to fly with me - a fact all the more remarkable given that Tim and I have flown together before. Maybe examiners of his seniority have nerves of steel as standard. Our first priority (after putting the kettle on, obviously) is to look at the weather and sure enough it's a typical UK spring morning – in other words it's cloudy and raining. The Met Office rainfall radar picture is particularly colourful this morning, and pretty as that is, it doesn't bode well for the next hour or two. So, we head into the hangar to have a proper look over Professor Pascale's baby while we wait for the weather to pick up.

I think it was Bill Lear (of LearJet fame) who said "If it looks right, it flies right", and my first impression of G-TECB, a 2006 that arrived in the UK in December 2013, is that it certainly looks right. The smooth fuselage with its long nose and raked windscreen is topped by a high wing which tapers into sizeable winglets. Even though the wingspan and overall size is only slight larger than many single engine aircraft, the 2006 gives the impression of being a larger aircraft and I'm reminded of a modern-day Partenavia P66, which is not surprising – Prof. Pascale designed that too. Despite what might be expected with the smooth finish and flowing lines, this is actually an all-metal aeroplane and its noticeable that almost all the metal skin at the front of the aircraft has flush rivets, smoothed down so that they're almost invisible under the paintwork. Further back, where the airflow is naturally 'dirtier' and more draggy anyway, the rivet heads stand above the surface. I note with approval the twin pitot heads (one for the EFIS display, one for the standby mechanical ASI) and the dual GPS aerials – this is a twin in more than one sense. At the back of the aeroplane there is a decent size vertical tail and rudder, as you would expect on a multi-engine aeroplane, and an all-moving horizontal tail with an 'anti-balance' tab and trimming surface, not unlike that of the Piper Cherokee/Warrior series. I also take in the long, wide, flaps which promise effective lift (and drag) generation and, curiously, the bare metal finish over and under the wing fuel tanks. I raise a quizzical eyebrow towards Tim, and he deadpans back "That is to comply with EASA's lightning protection requirements". This is apparently something to do with the electrical conductivity of paint, and I'm sure the person who came up with the regulation had good intentions but, I ask you, do you see lots of aeroplanes out there with bare metal over and under the fuel tanks? No, me neither. Tim and I exchange a look which I think I'm going to call 'The EASA eyeroll' – I get to see that a lot. I also take-in the large fuselage roof hatch between the wings. To my great disappointment this turns out to be not a convertible open-air cabin option, but actually an emergency exit (also an EASA requirement). The overall impression is of a high standard of construction and very clean airframe – there are no mystery strakes, slots or fins to spoil the looks and make the pilot wonder what aerodynamic problem the designer is trying to fix. The flowing curves and the sleek lines of the 2006 clearly belong to an era where aeroplanes go faster through aerodynamic efficiency, not bigger engines.

And that's just as well because the engines are not big – each wings hosts a Rotax 912S, each capable of producing just short of 100hp and the 912S is an effective combination of tradition and innovation. The four stroke unit has four horizontally opposed cylinders with fins for air-cooling, dual magnetos and dual carburettors. So far, so familiar. However, the cylinder heads are water cooled, which minimises 'shock cooling' when you're throttling right back (which happens a lot in twin-training) or even closing down an engine in-flight. The magnetos send their amps to dual electronic ignition units which deliver their spark at just the right moment, whilst retaining the 'self-contained' safety of traditional magneto ignition. Meanwhile the carburettors automatically adjust the fuel air/mixture with changing altitude (Tim did tell me how they do this, but I'm keeping it to myself until I can patent the idea), so no mixture controls in the cockpit. The Rotax is just as happy burning AVGAS 100LL, UL91 or MOGAS (that's car petrol to you and I) and the fast turning engine output (up to 5800 RPM) is geared down before delivering it's power to the variable pitch propellers. There's plenty of Rotax-powered aircraft out there, (in fact Rotax claim to have delivered around 150,000 aircraft engines since 1973), so it's hardly an untried powerplant and Tim points out some of the Rotax's other merits, not least cost. Do you know how much aircraft spark plugs costs? I admit I didn't and when Tim told me that standard

The Rotax 912S and two-bladed propeller.
©Flight Training News

The key fuel and ignition switches are grouped together just above the windscreen. ©Flight Training News

The 2006 cockpit with throttle quadrant centre.
©Flight Training News

Lycoming or Continental spark plug costs around £16 each I was genuinely shocked – but I checked, and he's quite right of course. Spark plugs for a Rotax? That will be £3.65 please (yes, that is for a 'certified' item, I checked that too). Similarly an oil filter for a Rotax is around £8.50, compared to around £12.50 for one to fit a Lycoming or Continental engine. Talking of oil, the 912S holds a maximum of 3 litres and Tim says that consumption of more than 0.5 litres between checks would be highly unusual. The Rotax unit has a 2000 hour Time Between Overhauls (TBO) and Tim suspects that at that point many commercial operators will choose to simply sell the old unit and buy a new one, at considerably less cost than a 'zero-hours' overhaul for the engines of just about any other comparable twin I can think of.

A quick look inside the cabin reveals four plush leather seats. The front seat drivers have a crew door on the left-hand side, whilst the rear seat passengers have their own wide door under the wing on the right-hand side and I'm certain that most passengers will prefer stepping through their own door rather than climbing onto the wing and over the front seats as required in most other four-seat twins. Behind the rear seats there is a very spacious baggage compartment with a generous 80kg limit.

The first P2006T to come to the UK, G-ZOOG (Tim chose that registration as being the closest he could get to '2006'), is in the hangar next door undergoing its annual check so there's the chance to look over its un-cowled engines and airframe in more detail. Despite being about four years older than TECB and with about four times the airframe hours, G-ZOOG still looks smart and fresh and there's no obvious signs of wear and tear inside or out, which makes me think that the design is robust enough to stand up to daily flying school use.

Guided tour over, we head back to Aeros (via the kettle, of course) to re-check the weather and decide on a plan for the flight. It's evident that conditions are less than perfect for VFR flight, but a major part of my interest is how the aircraft performs in the IFR training environment and the weather promises no shortage of IMC opportunities. Tim does a weight and balance check; like most twins in this class the centre of gravity tends to sit close to the front of the envelope without rear seat passengers, so Aeros carry extra weight in the rear baggage compartment to keep the CG from being too far forward with full fuel and just two on board. G-TECB has an empty weight of around 835kg. With 150 litres of fuel on board, plus Tim and I, our various bags and around 20kg of ballast in the baggage compartment, TECB weighs in at around 1115Kg. Given a maximum permitted weight of 1230kg, that leaves a further 115kg useful load available – so we could happily carry at least one extra passenger and their bags before even thinking about ditching the ballast or reducing the fuel load. With NOTAMS checked, paperwork filled out and a phone call to ATC, we head out to TECB to see what she can do.

Tim gets in first and easily slides across to the right-hand seat, I drop into the left-hand seat and make myself comfortable. At 6ft 3 inches tall in old money, I had wondered if I would have enough legroom in the 2006, but in fact I find that I have to slide the seat quite a long way forward to bring my feet fully onto the rudder pedals. Looking behind its obvious that the rear seat passengers also have lots of legroom to spare and the cabin feels light and roomy throughout. With my seat correctly positioned there's a good view ahead of the high wing and over the nose and my first thought is that if I was facing a full day's instructing in this aeroplane, I wouldn't have any comfort concerns. I note with approval the main fuel and ignition controls grouped together in the central cabin roof. I like this for two reasons:

1. For the instructor, this means being able to easily see and reach these controls, a significant factor during, say, engine shutdown training. There are certain twins out there where the ignition controls are all grouped on the left-hand cabin wall, almost out of reach and sight of the instructor. This adds a certain level of tension if a student develops finger trouble during an in-flight shutdown or re-start – don't ask me how I know.
2. Every aspiring airline pilot knows that real aeroplanes have switches on the cockpit roof.

Below the panel a central pedestal holds the throttle and pitch levels, together with two very impressive carburettor heat levers – although Tim tells me that in all his years flying the 2006, he's only encountered real carburettor icing once, and that was on the ground. The instrument panel itself is dominated by the two flat screens of the Garmin G950 EFIS displays (essentially G1000 without the engine instrumentation), with small standby Attitude Indicator, Altimeter and Airspeed Indicator below. The 'round dial' engine instruments are grouped together on the right-hand side of the panel.

The starting checklist is short and to the point and starting itself is much more akin to starting a car than a traditional aero engine – you press the starter switch and let go. Both engines fire up on the first press of the starter and we're able to complete the short after-start checklist before calling for taxi.

First impression on the move is of being in a much larger aeroplane – and I mean that in a good way. The direct nosewheel steering via the rudder pedals allows precise directional control together and there is a solid, progressive feel to the toe brakes. Visibility is good all round and thanks to the high wing, there's good clearance over obstacles and under the propellers. There's a solid, well-damped feel to taxiing which is probably due at least in part to the 'trailing link' main undercarriage where the hinged 'L' shape of the main undercarriage leg soaks up a lot of the loads placed on it. At the holding point we run through the normal power and pre-take off checks, all aided by the simple systems and logical cockpit layout. A good lookout along the approach path and with clearance from the tower we line-up at the beginning of Gloucester's 22 runway.

For the first take-off I'm not aiming for maximum performance and I bring the throttles up relatively slowly. Nevertheless, acceleration is brisk and direction easily controlled through nosewheel steering. My impression is of a lower noise level than normal for this class of twin – not surprising given that the two-blade propellers are both smaller, and turning several hundred rpm slower, than on comparable aircraft. I haven't been able to compare the external noise of a Tecnam take-off to other twins, but I'd be very surprised if it isn't significantly quieter. The rotate speed of 65 knots comes up quickly and a good pull on the control wheel pitches the 2006 up to the 12 degrees or so pitch angle needed to maintain the recommended climb speed of 84 knots. I worked back the take-off performance later using the Tecnam manual for the actual conditions (including a headwind of about 5 knots) and came up with a take-off distance to 50ft of about 350m - and I can see that this 'book' performance is realistically achievable in real-world flying. This is the sort of take-off performance I might expect from a single-engine training aircraft, but quite a revelation for a twin. With gear and take-off flap tucked away and climb power set we're climbing at around 1000ft per minute (again much in-line with the 'book' figures) and as we turn towards the North West we climb into IMC in search of clearer conditions higher up.

It wouldn't normally be my choice to go straight onto instruments in an aircraft I've never flown before, but the large Garmin screen makes accurate instrument flying as simple as it can be – or at least they would if I could only get my head around the slip indicator. On the Garmin Primary Flight Display, a small triangular pointer shows angle of bank and an additional segment below this pointer shows balance in terms of slip or skid. Keep the two segments of the pointer aligned and you're in balance. Simples. Or at least it would be simples if I could get my head around which pedal to press to bring the damn thing into line. I've had exactly the same problem before with the G1000 fit in the Diamond DA42 and I've got no idea why I struggle with this – I can only put it down to my analogue brain clashing with a digital world. Anyway, the result is we climb through cloud, occasionally in balance, whilst Tim shows stoic endurance in the right hand seat. Passing through 5000ft we're still climbing at 700ft per minute – again very much in line with the 'book' figures – and I'm getting comfortable with the 2006. Pitch attitude is easy to maintain with a fairly 'steep' trim curve, by which I mean a small movement of the pitch trimmer gives a significant change in control pressure. The throttle and pitch (rpm) levers are geared to have a large range of movement in the useable range, so setting an accurate manifold pressure or rpm is straight-forward. The engines are not turbocharged so as we climb higher the throttles are moved forward to maintain climb power.

Levelling off at FL80 the first job is to check the cruise performance. With an outside air temperature of +2°C, and power set at 22 inches of manifold pressure and 2000rpm, the indicated airspeed is 122 knots, which the EFIS says is 139 knots true airspeed. This accords well with the 'book' figures when I checked them later and the fuel consumption, from the same table, is around 38 litres per hour.

Total.

I'll repeat that, at 139 knots TAS the 2006 is burning just 38 litres an hour (19 litres a side). I can think of several single engine AVGAS-burners that will use more fuel than that, to carry less and go slower. This really is twin flying at single engine costs.

A few medium turns show good control co-ordination and although the 2006 doesn't handle like a fighter (in fact, I'd be worried if she did) the control response is on a par with any other light twin I can think of. Tim retards the right-hand throttle and there is a noticeable but easily contained yaw towards the 'dead' engine. With the aircraft re-trimmed (the rudder trim is an electric left/right switch just ahead of the trim wheel on the floor), the indicated airspeed is back to around 90-95 knots to maintain level flight and the aircraft is actually beating the 'book' performance by maintaining level flight rather than descending at about 50ft per minute as would be expected. Back on two engines, the first stage of flap can be taken at 122 knots, which leads to a gentle pitch-up, easily contained and trimmed. The undercarriage can be lowered at the same speed and there's little further trim change to establish a sensible instrument approach rate of descent.

The plan had been to look at stalling behaviour next, but we just can't find a gap in the clouds big enough to do this safely, so we go to plan B, namely a return to base via an instrument approach to go into the visual circuit. Little do we realise that this most modern machine is about to have to do its stuff in a decidedly old-fashioned way.

Part 2 of this 'In Service' test will appear in the next edition of FTN.

for your diary

May 2014

10th – CTC Wings Open Day
Southampton
10:00-16:30
www.ctcwings.com

17th – ACA Pilot Academy Training Seminar
London Heathrow Airport
www.beapilotseminars.com

17th – ProPilot ATPL Ground School Open Day
Coventry
09:30-14:30
www.propilot.eu

20th-22nd – EBACE 2014
Geneva
www.ebace.aero

21st – Royal Aeronautical Society Annual Banquet
London
www.aerosociety.com

21st-22nd – CAA Part-FCL ATPL Examinations
Gatwick
www.caa.co.uk

24th – Commercial Pilot Training Open Day with Aeros and ProPilot
Coventry Airport
09:30 - 16:00
www.propilot.eu

29th – 1:500000 Northern England & Northern Ireland Chart Release
www.afeonline.com

29th – ACA Pilot Academy Training Seminar
Bristol Airport
www.beapilotseminars.com

30th May-1st June – AeroExpo
Sywell Aerodrome
www.aeroexpo.co.uk

June 2014

2nd-3rd – Meteorology for Aviators
Exeter
www.metoffice.org

2nd-5th – CAA Part-FCL ATPL Examinations
Gatwick, Oxford, Leicester, Luton
www.caa.co.uk

4th – Weather Decision-making for Pilots
Exeter
www.metoffice.org

5th – ACA Pilot Academy Training Seminar
Manchester
www.beapilotseminars.com

7th – CAE Oxford Aviation Academy Open Day
Oxford
09:30-15:30
www.caeoaa.com

14th – ProPilot ATPL Ground School Open Day
Coventry Airport
09:30 - 14:30
www.propilot.eu

16th-19th – CAA Part-FCL ATPL Examinations
Gatwick
www.caa.co.uk

26th – 1:250000 Sheet 4 The Borders Chart Release
www.afeonline.com

The Tecnam 2006 IN SERVICE part 2

Jeremy M Pratt

The story so far. Having launched into the murky skies above Gloucester (Staverton) and reached FL80 in search of clearer skies for some general handling, it's time to find the airport again. Radar vectors to a GNSS approach was the plan, but things don't always go to plan, of course...

Aeros first 2006, G-ZOOG. ©Ian Seager

There are some days when whatever plans you make, someone or something is going to intervene to make sure you have to re-think. And it's becoming clear that this is going to be one of those days. Using the Garmin moving map display for orientation I turn TECB back in the general direction of Gloucester while Tim handles the radio to arrange for radar vectors to the GNSS approach. But there's a hitch. Radar is off, so we're under a 'procedural' service – ATC separating us from the other aircraft barging around in the clouds by using just our position reports and ETAs to keep us apart. Suddenly I am struck by the mental image of one of those vintage newsreels of WAAFs pushing little aeroplane markers around a huge map with wooden sticks, whilst controllers in the galleries above intone instructions in cut-glass accents: *"G-TECM, Angels 8, buster for 27..."* and so on. I'm sure Gloucester ATC isn't really like that at all, but nevertheless we're asked for our ETA for the NDB at Gloucester, followed by the instruction to proceed to the NDB at FL50, take up the hold, and expect to be there for 15 minutes or so before commencing a procedural ILS.

Tim and I exchange meaningful glances across the cockpit and I'm trying hard to remember when I last did a real-life procedural ILS – it's got to be quite a while. We're back in solid IMC and if I was on my own, now would be the time for the autopilot. TECB has a very capable S-TEC 55X autopilot, and I'm especially pleased to see that it is located top centre in the instrument panel where it's easy for both pilots to see and operate – that's a welcome change to some of the older training twins out there where the autopilot appears to have been added as an afterthought (in fact, it probably was) and hidden in the furthest corners of the panel. The S-TEC 55X has all the features you'd expect – heading and tracking modes, altitude hold, vertical speed control and autotrim. In approach mode, it can be used down to a 200ft decision height on an ILS approach. But that would be cheating (or so Tim assures me). So, I hand fly TECB on instruments and Tim assists by setting up the radio aids, re-checking the ATIS and so on, while I see if I can still track an NDB needle and do the mental gymnastics of an NDB hold entry – both tasks being made more interesting by the 45-50 knots wind blowing across our track. As with so many aspects of instrument flying, the Garmin 950 has ways of making the pilot's life easier. Certainly the large Primary Flight Display (PFD) makes basic instrument flying as simple as it can be, but it also has a few extra tricks up its sleeve – for example, the Horizontal Situation Indicator (HSI) is overlaid with the needle pointing to the NDB. That's very helpful in itself, but the Garmin HSI also has an often overlooked magenta diamond which appears on the outer edge of the compass ring. This marks the current track so, having established the QDM to the beacon, all the pilot has to do is adjust the heading to keep the magenta diamond (and the needle tip or tail) on the required track. I am finding the 2006 to be a good instrument flying platform – stable and easy to trim, but responsive to small correcting inputs on the control wheel. Combine the solid handling characteristics, simple systems operation and Garmin flat screens and you've got a very capable instrument training aeroplane. As if to prove the point, my needle tracking efforts are rewarded with a reasonably swift needle 'swing' as we pass over the NDB and I turn into the hold.

The STEC 55X autopilot. ©Flight Training News

The standby instruments, located just below the 'flat screens'. ©Flight Training News

Our prize for having found the beacon is clearance to descend in the hold down to 3000ft and while I'm keeping an eye on the needle tracking around the compass rose, I also take-in the wind vector which Tim has pulled up on the PFD – even at this level the wind is blowing at around 47 knots. At least with the wind vector displayed, the drift and timing calculations for the hold can be made with some certainty and the moving map on the Multi Function Display (MFD) gives confirmation of how well things are working out. The further good news is that as we head back towards the beacon we're cleared straight outbound for the procedural ILS. Once again, the magenta diamond means that even the much feared 'tracking away from an NDB' ordeal is pretty painless and after 8 miles we turn left to intercept the localiser and make a further descent before hitting the glideslope. Somewhere around this point the wind velocity makes itself known as we pass over a ridge of high ground and find a wind shear zone. There's a certain amount of turbulence and we bounce around a bit, but the 2006 rides the bumps easily and the good control response means that it's a simple matter to regain the required attitude. The first stage of flap is lowered and as the glideslope indicator comes to the centre of the scale, I lower the undercarriage and start the final descent. Whilst I didn't exactly wear out the centreline or the glideslope, maintaining the ILS approach within test tolerances wasn't hard and at around 800 feet a rather soggy Chel-tenham comes into view beneath us. Shortly after, Tim confirms we've passed the middle marker (namely the 'doughnut' of GCHQ, where the spooks listen out for...whatever they listen out for) and Runway 27 becomes visible with a crosswind from the left. Full flap comes down now and I slow to the final approach speed of just 70 knots. Controllability is good throughout the landing flare, I counter the crosswind with a little wing-down attitude (the demonstrated crosswind component is 17 knots but we're nowhere near that) and it's easy to achieve a smooth touchdown, not least with the trailing link gear flattering almost any normal landing by smoothly taking up the touchdown loads.

Tim raises the flaps to the take-off setting and I bring the throttles up to full power. As on the first take-off, acceleration is brisk and the initial climb rate is very much in line with the 'book' figures. We re-position right-hand for runway 22, a task made easier by the fact that the 2006 cockpit is set well forward of the high

An instructor's view of TECB's cockpit. *Photo courtesy Aeros*

Aeros operate both Seneca and 2006s. You pays your money, and you takes your choice... *©Flight Training News*

wing. This means that unlike in some high-wing aircraft, visibility is good even into a turn and so positioning around the circuit, and tracking other circuit traffic, is not difficult. A visual approach to a second touch and go confirms the 2006's good manners and the fairly slow final approach speed of 70 knots, together with the reasonable flap and gear limit (122 knots), mean that I would have no concerns about mixing in the circuit with almost anything from micro-lights to biz-jets, which is just as well because that's the sort of circuit traffic Gloucester hosts most days.

Today, however, we have the circuit to ourselves but as we lift-off from the second touch and go, Tim and I can see a big shower moving in. This doesn't look conducive for VFR flying and as Tim points out, the thing about a visual circuit is that you really should stay visual (ATC can be quite fussy about this too). We keep the circuit reasonably tight and Tim pulls back the left throttle to see if my right foot is working. Just as earlier, the resulting yaw is evident but easily contained - a good combination of classic engine failure symptoms and controllability. I'm also mindful that the liquid cooling of the cylinder heads and the lack of cowl flaps makes management of the simulated 'failed' engine a simple matter. As should be expected from a small twin in this class, once the flap and gear come down a good dollop of power is needed on the 'live' engine to maintain speed on a normal approach angle, but there's plenty of rudder authority available to prevent unwanted yaw and even at the fairly slow final approach speed, there's good control response in the asymmetric condition. As we pass the asymmetric committal height and approach the runway Tim reminds me to close both throttles together in the flare. Just about all multi-engine instructors and examiners do this by instinct – mostly because of the results of forgetting to close the throttle on the 'dead' engine during a simulated asymmetric landing, a situation best characterised as 'entertaining'. No dramas today though, flare and touchdown is straightforward and although I'm not aiming for a 'performance' landing, I have no issue with Tecnam's claimed landing performance (from 50ft) on the day in question of around 330m, with a ground roll of about 215m. That's pretty impressive for a twin that can also carry 4 people at up to 140 knots.

Taxiing in I'm reminded of the 2006's 'big aeroplane' feel through the trailing link main gear and accurate nosewheel steering, and the good visibility all around and of the wings makes manoeuvring hassle-free even in confined spaces. We shut down in front of the Aeros hangar (with no mixture controls it's simply a case of switching the ignition off) and it's time for tea and medals.

So – what of the 2006? It's easy to say I liked the 2006, because I did. That said, I like flying in general and there's not that many aircraft I dislike. More importantly, on objective criteria the 2006 has a lot going for it. She's a good instrument platform and combining the safe and predicable handling with Garmin's 950 avionics and simple engine and systems operation, adds up to a very attractive proposition for IFR training. The good visibility and range of operating speeds also makes a 2006 a good trainer for basic multi-engine flying and the space and comfort of the cabin will be appreciated by both instructors and students. From a financial point-of-view, the 2006 also has a lot to offer. Aeros plan for fuel consumption of 40 litres an hour, but the instructors told me that 36-38 litres per hour is a normal average. Combine this with the low costs of spares and a robust airframe (I looked quite closely over G-ZOOG, with 4 years of flying school operation, and didn't spot any broken fittings or patch-ups) and I suspect running costs are on a par with a Cessna 182 or similar machine. Of course, alongside the advantages of a new aeroplane, with its generally lower maintenance costs, there is the not-inconsiderable outlay of buying new. At list prices, a new 2006 is around a third less than a new Piper Seminole and probably a bit cheaper still than the DA42. There is the caution, though, that the list price for any of these machines will vary significantly depending on options such as avionics fit, autopilot and de-icing. Still, if you're going to spend this amount of money (circa £300K, or €370K, or $500K), I'd sure hope you've done your homework first. When I spoke with Aeros' Finance Director (Jim Cooper) about the 2006 he certainly seemed pretty happy to be a 2006 operator, and if an accountant likes it, that's about as good a vote of confidence as you can get.

But I think there is another angle to the 2006 beyond its undoubted capability as an IFR trainer, which takes me back to where I started the day, namely wondering where all the PPL multi engine pilots went to. My opinion is that two factors decimated PPL twin flying. One was the advent of JAR rules which made multi flying more complicated and expensive, and a PPL IR all but impossible except for the most determined. Then, over the past few years in particular, fuel costs have rocketed and maintenance costs have risen notably too. The recent good news from EASA (there's a phrase you didn't hear much until recently) means that a PPL IR is once again properly attainable, which is good for twin flying because to operate a twin to its fullest capabilities, an IR is highly desirable. Regarding maintenance and fuel costs – well, check the figures and make up your own mind. And why fly a twin if there is a single that's just as quick (or maybe quicker)? Well, it's the long-running debate about how you feel about flying in a single versus a twin if you're in solid IMC with low cloudbase, or flying over the sea or mountains, or flying at night. Or all three together. And the twin means not just two powerplants, but also two alternators/generators, maybe two suction systems and other systems' redundancy you don't often get with one engine. I think the 2006 scores in all these areas, but also has reasonable operating costs and, unusually for a twin, very impressive take-off and landing performance.

So, because I'm a hopeless optimist (it helps in this business) I'm imagining a potential owner pilot who needs to regularly travel 250 to 300nm sectors in almost all weathers, and at night if necessary, and doesn't want to think too hard about flying over the sea or other inhospitable terrain. This person might also want to use smaller airfields or farm strips where they are more convenient (and cheaper) than a larger airport and this person will almost certainly want a reliable machine which can fly to IR limits and will appeal to non-flyer passengers. This person may also be thinking about a machine that can burn MOGAS when AVGAS is not available and can take advantage of likely future developments such as more GNSS approaches and pilot-controlled lighting (making night flying more practicable). If you're that sort of person, and maybe you previously ruled out a twin, you should have a look at the 2006. I think you'll be impressed.

My thanks to Aeros and Tim Orchard of Tecnam UK: www.aeros.co.uk www.tecnamuk.com

Photo courtesy Aeros

for your diary

June 2014

2nd-3rd – Meteorology for Aviators
Exeter
www.metoffice.org

2nd-5th – CAA Part-FCL ATPL Examinations
Gatwick, Oxford, Leicester, Luton
www.caa.co.uk

4th – Weather Decision-making for Pilots
Exeter
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5th – ACA Pilot Academy Training Seminar
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www.beapilotseminars.com

7th – CAE Oxford Aviation Academy Open Day
Oxford
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14th – ProPilot ATPL Ground School Open Day
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09:30 - 14:30
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16th-19th – CAA Part-FCL ATPL Examinations
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www.caa.co.uk

26th – 1:250000 Sheet 4 The Borders Chart Release
www.afeonline.com

July 2014

7th – 8th UK CAA Examinations
Sepang, Malaysia
www.caa.co.uk

7th – 10th UK CAA Examinations
Gatwick, UK
www.caa.co.uk

7th – 10th UK CAA Examinations
Leicester, UK
www.caa.co.uk

7th – 10th UK CAA Examinations
Oxford, UK
www.caa.co.uk

7th – 10th UK CAA Examinations
Luton, UK
www.caa.co.uk

7th – 10th UK CAA Examinations
Jerez, Spain
www.caa.co.uk

7th – 10th UK CAA Examinations
Orlando, US
www.caa.co.uk

12th Flyer Show
Leeds, UK
http://exhibitions.seager.aero

14th-20th – Farnborough International Airshow
Farnborough
www.farnborough.com

19th – 20th Ince Blundell Flying Club annual fly-in
Ince airfield

21st – 24th UK CAA Examinations
Gatwick, UK
www.caa.co.uk