

# HPA rating : the wrong solution?



*A new High Performance Aeroplane qualification has been introduced for non-ATPLs who want to fly certain sophisticated aircraft. Barrie Prescott, one of the first to pass, describes his experiences*

The day before I was due to take my High Performance Aeroplane examination I had an email from the CAA to say I didn't need to do so. The aircraft I had bought – a piston-engined Piper PA-46 Malibu Mirage – had been removed from the list of those for which an HPA was required.

This was a fine kettle of fish. I'd just undergone a 17-week correspondence course, four intermediate exams and a two-day crammer at a cost of £600 for an exam that I didn't know I needed to take when I bought the plane, and which I didn't believe was based on very sound thinking anyway. It hadn't been at all easy – I'm not as young as I used to be, and I've got a life to lead and a business to run – but I'd managed to fit it in. And now, the CAA had decided it was all for nothing.

What did I do? Well, I went ahead with the exam anyway. And I passed. So now, if I ever want an aircraft on the High Performance list, I'm already tooled up. And while I'm sure I'm a better pilot for some of my new-found knowledge, I'm still not a fan of the HPA. A comprehensive type rating should be enough to do the job the HPA rating sets out to do, without filling the pilot's head with reams of information about supersonic flight or how many oxygen masks you need on an A320 at 30,000 feet.

The HPA rating is the JAA's answer to the problems that arise when relatively sophisticated and slippery aircraft fall into the hands of pilots who don't fully understand them, or the environment in which they operate. There have been a number of accidents, particularly in the United States, where pilots have gone straight from a PA-28 into a pressurised aircraft and climbed to 25,000 feet only to find that their plane goes

all white and enters a high-speed dive, which ends with them pulling the wings off when they pop out of low cloud.

The HPA syllabus is entirely theoretical, and the books are several inches thick. It covers a lot of CPL and ATPL ground – although having an HPA counts for nothing in the commercial exams or the IR – including electrical systems, pressurisation, fuel systems, engine performance and management, oxygen equipment, human physiology, the high altitude environment, jetstreams, CAT, standing waves, thunderstorms, icing, principles of radar, transonic aerodynamics, Mach numbers and shockwaves, buffet margin, aerodynamic ceiling and so on.

Now some of that is very interesting and some of it is useful, and some of it is neither interesting nor useful to the pilot of a turbocharged piston-engined Malibu. The electrical stuff I found easy – after all, my company Avialec provides specialised electrical connectors to the aerospace industry, including the Airbus A380, the A350 and the Boeing 787 – and the most useful material concerned engine management and the high-altitude environment. But as I say, I would rather have seen this incorporated into a proper type rating rather than having a separate qualification.

I wasn't exactly coming to high performance aircraft cold. I'm sure many people share aviation experiences like mine – early attempts at flight in a Miles Magister at Elstree and Dunsfold curtailed by a lack of cash, then later, as things improved, family commitments and business life coming first. I trained as an aerospace engineer but found sales to be more interesting, and more lucrative. I set up Avialec at Petersfield, Hampshire in 1983. During a hectic decade of establishing and building the



company I would always find time to look out of the window at a passing aircraft, and by 1996 I was in a position to afford the time to learn to fly. I went to Goodwood Flying Club and learned on the PA-38, then added the IMC and night ratings before taking a twin rating on an Aztec at Bournemouth.

I was in a PA-28 syndicate for a while at Goodwood before I bought a TB20 direct from Socata – they used to provide them to French flying clubs, then take them back and refurbish them to as-new condition, and I was able to choose the colour scheme, the leather interior and the kit while still getting a very good deal.



A little while later I bought a Hawker Hunter with seven fellow syndicate members, while also taking a rotary licence and buying a half share in a JetRanger. I've got about 1,000 hours now, including some solo time in the Hunter.

I sold the TB20 to a chap in Holland – I wanted to keep the registration, G-EGHR, because I'm based at Goodwood and EGHR is its ICAO code, but for some reason that I can't fathom the CAA won't allow it, so it's gone forever. I had always been fond of the PA-46, but I never thought I'd own one – then I saw Derrick Ings' advert for a PA-46 Malibu Mirage based at Fair Oaks and thought it wouldn't hurt just to have a look. It was just a beautiful aircraft and I took to it right away, and very soon I'd done a deal with the owner, Rex Thorn.

(This aircraft, G-VRST, was featured in the April 2004 issue of *General Aviation* – ed.)

The TB20 is a complex single, and I looked on the Malibu as a reasonably progressive upgrade. As well as the additional complexities like pressurisation, it had more seats and an airstairs door, and in fact G-VRST only had 400 hours total time. It wasn't until after I'd signed for the aircraft that the problems began coming to light.

I thought that all I'd have to do was get a type rating to fly it so I spoke to an outfit at

Bournemouth – but the first question they asked was, have you got your HPA rating? That was the first I'd heard of it. Derrick Ings didn't know about it, and

neither did Rex Thorn – there had been some talk of special training for high performance aircraft, but nobody knew what was happening, and certainly nobody knew they'd include the piston Malibu. But the list of affected aircraft had come out, and along with all the multi-engined turboprops they'd included the PC-12, the PC-9, the PC-7 Mk II, the Extra 400 – and the PA-46. No differentiation between the turbine-powered PA-46 and the piston engine version – if it was a PA-46, you had to do the HPA.

It's a pity that pilots are often treated for legislative purposes as idiots who will stick their hands in a fire unless prevented from doing so by law. It's interesting to note that while all eight of us in the Hunter syndicate have gone solo in the aircraft, none of us flies it without a well-qualified safety pilot. That's because we're grown-ups who are capable of making sensible decisions, and the Hunter is a fast and dangerous aircraft. In the case of high-performance aircraft, the type rating should incorporate whatever is required, and the complexity and capability of the aircraft

should be reflected in the degree of difficulty of the type rating.

I have to say I was not happy. Had I known about the HPA, I would have thought twice about buying the aircraft. It looked an amazingly daunting syllabus for a chap of mature years, and I didn't want to go back to school. I

***'Either I did the HPA or I'd bought an expensive garden ornament'***

couldn't even take three weeks off and work solidly at it – I had to do the full 17-week course. But I'd signed for the aircraft, and however much I objected to it I had no choice – either I did the HPA, or I'd bought an expensive garden ornament.

So I became one of three guinea pigs taking the first HPA courses. On the two-day crammer at the end of the 17 weeks, I found the other two were a PC-12 pilot and a retired ATPL who wanted to fly a Navajo. During the 17 weeks I had made time during the working day, in the evenings and at weekends to deal with the workload, and I don't think Avialec suffered. The most frustrating thing was the fact that I wholeheartedly objected to what I was being forced to do, and even now that I've passed the exam I'm still only slightly less negative about it.

I was aware that while I was doing the work, Derrick Ings had petitioned the CAA to have the piston-engined version of the PA-46 removed from the HPA requirement. He reasoned that they had included the turbo-prop PA-46 Meridian in the high performance list, and the PA-46 Malibu Mirage, a turbo-charged piston-engined aircraft, had simply been caught up in the rulemaking. Sure enough, the CAA agreed with him and amended the list just in time for me to have avoided taking the rating, had I so wished – but having done the work, I thought I might as well take the exam. At least the pressure was off. If I'd failed, nothing would be lost.

But of course I didn't – and neither did my two fellow examinees. But we all agreed that the type rating is the place for what we were being asked to learn. Engine management was particularly important. You can't suddenly drop from 15,000 feet to sea level to conform to an ATC request without shock-cooling your engine. Weight and balance is vital, as are the take-off graphs, the landing graphs – but all that should be in the type rating. The notion that the more you know the better off you are only works up to a point. When you start filling pilots' heads with extraneous information that will never be more than arcana, you're not making them any safer. It's a fact that I now *know* what to do in case of an engine fire, I *know* what to do in case of depressurisation or icing, but I should have learned that in the type rating.

I did the type rating soon after I got the HPA, and while I wouldn't say I whistled through it, it didn't pose any particular problems for me. I probably felt more confident going into it because I had the HPA, and of course it was far more interesting and practical. I'm now fully licensed to fly my Malibu and I have an aircraft I can use for business, getting around our customers all over Europe. I flew to Holland to see Fokker just after I got the type rating, but of course I'm aware that you can't make full use of a plane like the Malibu unless you have an Instrument Rating. I'm following with interest the progress of IAOPA's proposals to reduce the theory requirements for the JAA IR, because I simply don't have the time to take the IR in its current form. Like the HPA, it does not concentrate on the matter in hand, and we all suffer for it. ■



**Top left: HPA-rated Barrie Prescott with his new PA-46 Piper Malibu Mirage**  
**Left: G-VRST as she was featured in GA magazine in April 2004**  
**Below: Malibu Meridian turboprop still requires an HPA rating**  
**Above: Barrie shows off his Hawker Hunter**

