Learning to fly in turbulent skies

There always seems to be a feast or a famine when it comes to pilot provisioning. Having come out of a period of famine, are we now entering a period of potential over supply? Jo Murray speaks to the pilot training organisations for a more rounded view of pilot training

Volatility and uncertainty in the commercial airline sector is creating turbulence for pilots in both the commercial and the private aviation sectors. "There has been concern, consternation and some slowing down," admits Jeff Roberts, CAE's Group President, Innovation and Civil Training and Services. But does this mean that we are seeing increased interest from airline pilots to seek their fortunes in the private sector which is now battling its own demons?

"Historically, if one sector was up and the other sector was a little softer, we saw people going from segment to segment. When all segments are robust you see some of that as well. And you will certainly see some of that in today's world but I would put forward that you potentially will not see as much of that as long as there is relative equilibrium in the robustness or softness of each of these segments," Roberts maintains. "We do not anticipate that we will see an extraordinary amount of transference from one segment to the other – any more so than we would expect to see previously."

Manfred Brennwald, President and Chief Executive Officer, Swiss Aviation Training, the former Swiss airline training organisation, expects to see a little more movement in Europe. When asked whether there is likely to be a migration out of the airline market in Europe into the private jet arena he responds: "This could well be if we see a growing private jet market. This I could well imagine."

Mike Langley, Director – Commercial and Employment Services, Oxford Aviation Academy

Swiss Aviation Training is in the process of building its expertise in ACJ training for the private jet market given the training required around its very specific fuel systems for long-range operations. "On the Legacy 600, we are heavily in business on our Embraer 145 simulator. On the Lineage 1000 we are mainly active for EMBRAER in Europe, Middle East and Africa," comments Brennwald.

Around 10% of Swiss Aviation Training's expertise is being directed at the private aviation market at present. "But I think this is a very interesting market because the more we see hassle at the airports I think the more private jets will be operated, and this is a big opportunity for training institutions," says Brennwald. "We are not yet as aggressive in the private aircraft market as in the airline market, but this might change."

Transference from one sector to another aside, there are regional issues to consider too. With the mature markets for business aviation feeling the brunt of the poor economic conditions for private aviation – most notably in North America and now Europe – is there a transference of demand for pilot training away from the mature markets and towards the Middle East, Asian and other developing economies?

"North America has probably felt the full impact of the economic slowdown so I think you are seeing a reaction in the aerospace markets that are concurrent with that," Roberts at CAE responds.

CAE has shown itself to be a proponent of collaborative growth patterns and with the newer economies increasingly beckoning for training companies, partnership type arrangements offer both a cost and risk attractive strategy. "We are not necessarily pre-disposed to any one methodology or type of growth pattern. We have entered into some of the emerging or developing markets with partners because we believed that at that point in time, given that market opportunity, that was the most prudent way for us to proceed. As we go forward, depending upon what the market presents, we will assess the various options as to how we would enter that market," comments Roberts.

In the private aviation side of the market, partnerships with manufacturers are as abundant as on the commercial side but when it comes to the operators, the opportunities for partnership are much more limited. "But there are certainly operators of private aircraft that very much want to create a 'partnership' relationship or a 'solutions' type relationship and so we are very enthusiastically embracing that. We've taken and deployed products in their organisation, we've signed multi-year long term agreements whereby we do the training at our facility or theirs and we provide a liaison pilot service," Roberts explains. "Partnerships in private aviation are different to those on the commercial aviation side but there is still ample opportunity."

In the UK, Oxford Aviation Academy has won one of the jewels in the private jet training crown. It has an agreement in place with NetJets Europe for ab initio pilot training to ensure a steady flow of newly qualified pilots into the NetJets fold. Mike Langley, Director – Commercial and Employment Services, Oxford Aviation Academy, explains: "Until two years ago, all our focus was on mainline operations. We had not actually seen the business sector as being something in which we might have a primary interest. Yes, we were conscious of its growth and, yes, we were conscious of the advent of the VLJs but our graduates went into airline operations."

He continues: "NetJets approached us initially. The fact that they were prepared to look at pilots who do not have 1,500 hours each was something of an eye opener as far as we were concerned." Further, he adds: "Here we had not only a non-mainstream airline but also a major corporate operator who was saying it could see potential problems for ensuring its own pilot supply chain and wanted to do something about that. Even for a mainstream airline, that's quite an unusual attitude. For a corporate operator, this was brand new."

So what did that new contract mean for Oxford Aviation Academy? "The one thing that we did provide as part of this contract was the installation of a CRJ200 simulator. In fact there are two. One is going into NetJets in Lisbon and the other one is here. That was primarily to meet the NetJets contract. The other simulators we have here – the 737-400s – are clearly not as well suited to a NetJets type operation as is a CRJ."

NetJets students undertake the same course as any other student going through the flight academy except that the Oxford team tinkers with the course at the margins. "First of all, they do 36 hours in a CRJ simulator as opposed to a 737-400 and their training in that 36 hours will be NetJets focused. Also, we do an additional 10 hours of flying as compared to the normal course and that's five hours of unusual attitudes training and five hours of visual navigation," says Langley, both designed to meet NetJets' specific requirements.

While Roberts at CAE reports that much of the training continues to be sponsored by the aircraft operator, Langley at Oxford Aviation Academy reports a very different view. "Of the 300 *ab initio* students that we trained in 2001, approximately 70% were airline sponsored. If you look at the situation now, it is very, very different. We now have about the same number of students going through the integrated *ab initio* course but, of that, only a handful are on any form of cash sponsorship. Every other student is paying for his or her own training. Whilst a few are going through on some form of mentored scheme – in other words they are pre-selected, and given a conditional job offer before they start the course – they still pay for their own training."

If students are paying for their own training, does that mean the training has been shifted to suit the new demands of the person holding the purse strings? "In 2001, we were in the process of reconfiguring our training anyway because we recognised that the training we then offered, although fully compliant with the new JAA regulations, was not actually well focused on producing a first officer able to fly a 60 tonne jet upon graduation. We had been working with the airlines on a revised training scheme to address this deficiency and were close to launching it when along came 2001 and the airlines effectively stopped all sponsorship. In the event, we went ahead and launched it ourselves anyway so the programme we now run – the Airline Preparation First Officer (APPFO) programme – goes considerably further than the regulations require to get a pilots licence. There is a lot built into the course to make it better suited to training a student so that he or she can go immediately into the right hand seat in a 60 tonne jet, immediately on graduation." As the first NetJets' graduates are also now demonstrating, the concept works equally well at the corporate jet level.

The multi pilot licence (MPL) has been much discussed of late and while this method of training is less immediately applicable in business aviation, Langley agrees that there is no reason why you should not train in that way and there would be a number of advantages in so doing. This method is highly regarded at Swiss Aviation Training.

"The MPL concept is a far more efficient way to train *ab initio* pilots. The conventional method is first to train a private pilot to get his private pilot licence and then to train a commercial pilot to get his commercial pilot licence and

then to undertake training to get instrument rating training and then slowly you start with the multi pilot training," says Brennwald. "A big advantage of MPL is that in the very early stages you start to train the two pilots to interact."

He continues: "I think this is the future. I am quite convinced that in two to three years from now you will only see multi crew pilot licensing for *ab initio* training. Swiss Aviation Training was the first provider of this training in Europe and our first experiences are now paying off as the first class has now completed their MPL course and they have much fewer difficulties in the transition."

Langley at Oxford comments: "The APPFO course we currently run is, in practice, a stepping stone toward the MPL concept, so we are already moving down this road. By undertaking thirty-six hours in a jet sim, for example, more than twice the regulatory requirement, we are achieving two things. First, we are teaching students how to work as a crew and secondly we are teaching them how to operate in a realistic commercial jet environment. The regulations certainly don't require this but this type of training, which we've been doing for six years, is actually a half way step to what's envisaged under the new MPL scheme, and we have been advocates of the MPL concept from its inception. One key problem with the scheme, however, is that the airlines need to be involved in it right from the beginning and thereby hangs a catch. In the UK at least, few airlines plan pilot recruitment far in advance and to get them to adopt a scheme which requires even limited commitment from them some 18 months ahead of recruitment need is going to be a tough nut to crack."

Multi crew training is just one way in which pilot training is becoming more modern and increasingly related to the way in which the aircraft are actually operated. Roberts at CAE comments: "All the operators are continuously looking for ways of making their operations two things. The first is more efficient. Everyone is concerned about their operating expense footprint. They are also looking for ways to enhance the safety of their operations. Yes, we are having ongoing dialogue to explore new and innovative ways where we can apply the capabilities that we have to lower our customers' operational expense and make their operations more efficient and to enhance the safety of an already safe operation."

Roberts continues: "The other thing that is interesting is that more attention is now being paid to the green initiative. That plays out well for us because we use a green friendly footprint to deliver training and bring operational efficiencies to our clients," explains Roberts. "Simulation is a very green industry by design."

Apart from being more modern, private pilot training has to take into consideration that being in close quarters with passengers in a private jet is a far cry from being enclosed in a cockpit with 400 passengers behind a closed door. "The operational requirement of the job dictates their competencies," points out Roberts. "There are a tremendous amount of similarities. But there are tremendous differences in terms of performing the job from an infrastructure standpoint, a routing standpoint and a daily activities standpoint but, make no mistake about it, they are both flying very sophisticated, very complicated airplanes in the same airspace and they are both fundamentally conducting the same things. They are tasked with ensuring the safety, comfort and efficient transport of passengers from point A to point B, whether it is in a private airplane or in a commercial airplane."

CAE programmes are tailored to the operational requirements of the various customer bases and the practical application of the operational requirements. "Then we try to enrich the learning experience by developing a level of intimacy and understanding with these pilots that is well beyond what is mandated by the regulations," says Roberts.

Swiss Aviation Training undertakes pilot and maintenance training but in terms of interacting with customers, the training school runs human aspect development courses. "You certainly find some characters who are less ideal for private aviation and others who are perfectly suited to this function," comments Brennwald. "You've got to have the right sort of personality to do this. You've got to be customer focused," agrees Langley.

So how does a pilot training organisation plan for the future market demands on its training programmes given the turbulence in the economic and aviation markets? Does this revolve around airframe and engine OEM order books and therefore future fleet populations, around the diverse aerospace markets or are there regional demands for which a training organisation must cater?

"The good news is that we are unique. We are not part of an organisation that builds airplanes and we are not part of a large holding company," responds Roberts at CAE. "The second thing is that we are the only company that addresses every segment of aviation. That gives us tremendous insights and knowledge around best practices and industry characteristics going forward. The third thing that gives us a unique perspective is that we have the broadest array of applications and solutions to bring to bear in each of those markets. We are not just a training company, a manufacturer of training equipment or a full flight simulator provider. We do everything in terms of supplying or supporting crew members that operate and work in the aerospace and defence spectrum."

He continues: "This allows us to capitalise on the installed base of aircraft in existence. There are 40,000 or more airplanes in service today. There is anything from 10,000 to 15,000 new pilots to service that fleet coming into being every year and this is projected to continue for the next five, 10 or 15 years. Then, of course, although the industry has certainly slowed down from where it was, if you look at the order books that every OEM in every segment of aviation today enjoys, there are a significant number of new airplanes that are forecasted to be delivered. So, to support the installed fleet and the new deliveries, there has to be growth around those numbers."

Langley at Oxford Aviation Academy adds: "The difficulty for us is that we have to be two years ahead of the airlines. We can, with a fair degree of confidence, predict that within two years from now they are going to be screaming out for pilots again. In 2002-2003, life was

quite desperate because none of the airlines were interested in training or recruiting. By the time you got to 2005, we could not provide trained pilots fast enough to meet the airlines' needs. Based on previous experience, one would expect the cycle to repeat itself. Whichever way you look at it, there is going to be a dearth of well qualified pilots."

But today the picture is not quite so rosy. So how do pilots make themselves attractive to the private aviation market in a down cycle? Brennwald at Swiss Aviation Training is clear that if you want to increase chances of getting into this type of operation, further education is a must. "If you are employed by an executive operator, you need to understand economics too," he says categorically.

Pilots have a lot of influence in this market; they are far more than chauffeurs in the sky. This is why understanding aircraft, market economics and the cost of ownership to the operator sets a private jet pilot apart. Partly in recognition of this requirement, OAA's APPFO course now incorporates academic accreditation, in the form of an Air Transport Management degree programme, and specifically aimed at ensuring the new graduate has a sound understanding of airline operations, including economic factors, even before they take up paid employment. ●