



Reaching for the skies

Skyborne Airline Academy has been established to meet the worldwide need for commercial airline pilots. With the latest generation of equipment and a new philosophy to teaching, LARA's Glenn Sands went to view Skyborne's new approach.

There are those rare occasions when you enter a building or speak with an organisation and it simply oozes professionalism and enthusiasm for its product. Skyborne Airline Academy is one such place. Situated in a quiet corner of the Skypark Flight Centre at Gloucestershire Airport in Cheltenham, the academy is passionate about training the next generation of airline pilots.

But how it goes about teaching its students is unique in the industry. The courses are based on the positive experiences of the instructors when they were trainees years earlier. It has incorporated the good points and removed the negative aspects of what they remember about their training.

Co-founder and CEO Lee Woodward, an airline pilot with three decades of experience within the industry, explained the demand that Skyborne is meeting: “We have all seen the reports and figures that, over the next 10 to 15 years, anything up to 700,000–800,000 pilots will be required worldwide. These are just astronomic. The figures have been batted around for years and, I would say, ten years ago people were sceptical that this number of pilots would be required. Now we are seeing it within the industry and in some parts of the world we are seeing services being cancelled because they don't have pilots.

“So, I think the volumes are real and the airlines we are working with are finding that their pilot intake requirement is huge. We know what the figures are and we have spoken with them directly. Currently, we are in dialogue directly with five airlines about their cadet programme of which we already have one running with IndiGo.”

IndiGo, the low-fare Indian carrier, currently has an annual need for 400-600 cadet pilots per year, and similar figures are anticipated to be needed by other airlines.

Skyborne is just a small part of this operation and provides around 100–144 pilots a year to IndiGo. Woodward explained that Skyborne is also in discussions with a number of UK-based operators.

“It's why we've come into business. We've seen that there is a viable demand for flight training. My two business partners and I believe there's an opportunity to do things differently, certainly here within the UK.

“We've got a huge amount of experience in pilot training with our previous companies and organisations and I think Ian Cooper, [one of the co-founders] and I have recognised there's an opportunity to raise the bar and do things differently.”

A SMARTER WAY

Skyborne has brought features into its training programme that are new and unique to cadet pilots. One of the most prominent of these is the company's approach to risk analysis training. The programme has been developed internally and is in direct response to one of the airlines that the company works with. This airline highlighted that no current flying



At the Gloucestershire-based academy, students have access to some of the most advanced training simulators in the UK. Skyborne installed the UK's first Boeing 737 MAX FTD1 simulator.

training schools could meet their requirement in this area, so Skyborne developed a teaching practice that could be integrated into its student training from day one.

Before they go flying, every pilot will complete a risk analysis tool. This process enables students to identify any risks that might exist, whether that relates to their health on the day, the environment, familiarity with the manoeuvre they are going to complete, the serviceability of the aircraft and even the geography or topography of the airfield they will be flying into.

This level of risk analysis teaches the students a brand new process. They have to complete this risk analysis process in the form of a traffic light system – red, amber and green – that determines the risk of the operation. They have the authority to mitigate the risk and work with their flight instructor to do this. This increases a pilot's basic awareness, in particular self-awareness, for analysing risk before they go into an operation.

"It was felt from an airline perspective that flight schools were not producing enough awareness of risk among their graduates and that the job of educating on this was falling to the airline. This was a comment from one of our customers who is a senior airline executive," explained Woodward.

"I thought this was bizarre. We are working with light single-engine aircraft, on single-pilot operations, which, at the start of your career, is a relatively risky operation. So, making sure that pilots are aware of risk and know how to analyse and mitigate it is very, very important for us, and it just happened to be something our airline client wanted."

Another aspect of training, away from the cockpit, is customer service. Once they begin their training programme, all cadets will receive 12 hours of formal customer service training over three modules. Woodward explained why: "It means that the students get an insight into the role of the airline pilot out in the field and what



Skyborne's fair-weather training base is located at Castellón Airport on Spain's Mediterranean coast. Students will spend six months at the training facility in order to build up their flying hours.

impact the pilot has on customer service – particularly with the locked cockpit door policy. I think sometimes there's a feeling that the pilots can be divorced from the customer experience."

This training involves teaching the students how to use the PA system or simply reminding them to say goodbye to passengers as they leave the aircraft. And it even looks at the basics of how to interact with passengers when just walking through the airport terminals.

NEW TECHNIQUES WITH THE TECHNICAL

"But the main point with our training philosophy is teaching the technical approach to being an airline pilot. We use a vertically integrated training, which means we identify the skills, knowledge and aptitudes that are required to be a competent pilot," Woodward explained. Such a technique means that Skyborne already knows what the end picture will look like for the student, which allows the staff to bring that trainee through every stage. The training programme is fully integrated and the student will be with Skyborne for 64 weeks, with training starting on their very first day. Woodward revealed that it's much more than simply being in the cockpit:

"It is basically how the individual conducts themselves, how they behave and their attitude. We develop all of the non-technical skills, but in the aircraft is where we look at specific areas of their character

during operations. We need them to operate that light aircraft as if it's an airliner."

So, the student operates the training aircraft as if it's an Airbus or Boeing airliner. Procedures such as controlled flight into terrain, runway incursions or excursions, mid-air collisions must all be avoided. How to be aware of these dangers are learned and taught in the light training aircraft, as are how students mitigate these dangers as if they were in a real airliner.

Woodward continued: "We have built into our training syllabus very specific approaches to educate and train the pilots, like you would in an airline. Upset prevention recovery training – we've written a brand new, stand-alone training module here, which is absolutely aligned with the industry. In simple terms, if it can be trained the way it's done in an airline, we do it that way. It's simply because we have a lot of experience and knowledge in airline training."

ROOMS FIT FOR BUCK ROGERS

Looking around the training building at Gloucestershire Airport, it's clear by the technology installed inside that the environment is totally geared to producing airline pilots in a way that is unique to Skyborne over similar flying schools in the UK. Woodward explained some of the benefits the students get through technology:

"When a student arrives, they are issued with an iPad that has the entire Bristol >>>





High-tech training facilities along with highly experienced instructors and a training fleet that includes the latest generation Diamond DA42 trainers have quickly established Skyborne Airline Academy as the place of choice for would-be airline pilots.

Ground School syllabus on it. We buy this in from Bristol Ground School and I believe that this product is particularly good. We've also invested in good infrastructure within the building. We have fully interactive screens and wipe boards where instructors can run everything from the Bristol syllabus in PowerPoint through to running YouTube videos. The student can flip it into a wipe board for 'chalk and talk' type training.

"We encourage our students, if they find something on the Internet or in YouTube related to flying training, they can share the video using mirroring that immediately plays on a big screen for the classroom group."

The dynamic training environment is a reflection of Skyborne's chairman Tom Misner, one of the world's leading music sound engineers. He uses a technique called progressive continuous learning (PCL) in his music schools around the world and he's introduced a similar method to teaching students to fly.

Woodward explained the process: "It's about layering and learning and this really is about multiple media to train somebody, in this case a pilot, and in his case a sound engineer. Using all the techniques mentioned, during the ground school phase, we take the pilot out of the classroom and put them in the backseat of a DA42 simulator. They watch a course that is

further ahead, and possibly do an instrument-rating sortie. It gives them a chance to see what's coming down the track. We can also put them into our jet simulator to observe a flight from the spare seat in the cockpit.

"The key point though is they're simply not there to watch and enjoy themselves. They're given a specific task to look for and analyse which matches where they are in the ground school training. That's the layering and what we call PCL."

Talking with the senior staff and instructors at Skyborne, the new PCL approach certainly has their backing, but the proof is what the students themselves think of this method. The professional open-door nature at the heart of Skyborne is evident by Woodward's enthusiasm when discussing 'his' students:

"The feedback so far is that the students are enjoying it and we're delivering on all our goals. It's still early days for us and there's bound to be things that we are going to have to attend to. But we've a very open dialogue with our students. It's not uncommon for a student to pop in and come and have a chat in my office on any particular aspect of the course, whether it's how much they are enjoying it or if they've a particular concern. It's all about getting feedback. In this respect, the most important thing here is that we act on any issues and try to get things right."

KEEPING FOCUSED

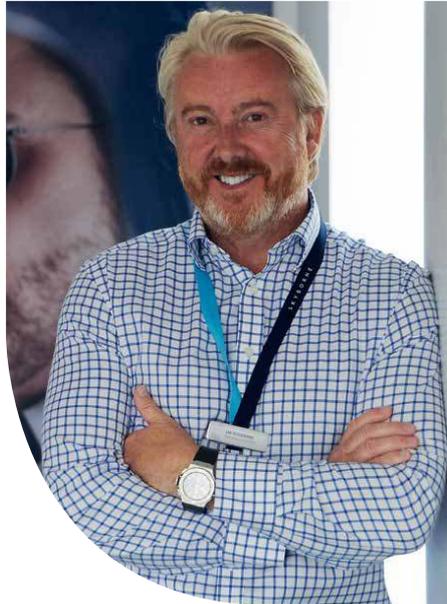
With a worldwide demand for commercial airline pilots, Woodward mentions that Skyborne is already looking ahead to expand its training schools, perhaps overseas. At its current site, which is still relatively new, the student numbers have been capped – not through lack of applications but to ensure each student gets the maximum attention from the instructors. The UK Skyborne Airline Academy is capable of training 120 integrated students and around 40–60 modular students.

Whatever course the Skyborne student is on, they will undergo a truly integrated training programme at the academy. While the fundamentals of learning to fly haven't changed, how these future airline pilots are taught in 2019 is very different from when Woodward underwent his pilot training for British Airways. He recalls: "I trained in the UK in 1989 at Oxford Aviation Training School. Over the years they ended up with huge delays because the British weather is so unpredictable, particularly during wintertime. So invariably, on the sunny days, you'd be in the classroom and on unsettled days you were meant to be flying. So, a lot of schools developed fair-weather flying bases to try and improve efficiency. Sites in Australia, South Africa and the US were introduced in an effort to improve continuity. We have our training facility in Spain, where students conduct all their 112.5 hours of single-engine training over a six-month period.

"The downside is that a lot of the schools, over the last 15 years, have moved away from the integrated training method. They went for a procedure where they frontload all of the training ATPL so you are

“We’ve got a huge amount of experience in pilot training with our previous companies and organisations and I think Ian Cooper, [one of the co-founders] and I have recognised there’s an opportunity to raise the bar and do things differently.”

Lee Woodward, CEO and co-founder, Skyborne



putting the students in classrooms for seven to eight months just learning theory, theory, theory on 14 subjects and after all this they start flying.

“What I found in my previous training roles is that student pilots get disillusioned with this. It becomes quite boring and it’s not really what they want to do. Breaking our ground school up into two distinct modules of four months and two months of flying in the middle is a better solution. It’s certainly what the students here appreciate.”

CONNECTED COCKPITS

With the rise in technology within modern commercial airline cockpits, the need to offer the students the latest equipment means Skyborne’s Diamond DA42s are equipped with Garmin 1000 instrumentation flight decks. It’s a similar suite found in any Boeing or Airbus, so the trainee pilot is used to operating multi-function displays and flight management computers at the earliest possible opportunity.

The choice of the Diamond DA42 for Skyborne’s training academy has proved a wise choice and the type’s been adopted by flight training schools around the world. Woodward explains why: “The Diamond is particularly good because of its engine arrangement, which runs on a Full Authority Digital Engine Control (FADEC) arrangement. It’s what you find on any modern Airbus or

787. So again, we’re exposing the trainees to this level of technology and that has to be a good thing.”

The entire student training programme is run in an airline-style scenario with Skyborne’s core goal of creating professional airline pilots present at the get-go, which makes this academy stand out. The electronic monitoring and reporting systems allow the student’s progress to be clearly observed, while allowing the instructors to produce a truly objective performance or competency-based appraisal.

ADVANTAGE SKYBORNE...

For students that graduate from Skyborne, Woodward certainly believes they have an advantage. He explained: “I think we have worked with them to develop their personalities and behaviours, so we are creating people who are more rounded and able to adapt to the airline lifestyle. But they also have an acute awareness of risk, which is what you want in a modern airline pilot.

“I think that if we can provide a user experience that they have enjoyed, whether in the UK or Spain, then we have delivered our goal. And we are managing to deliver training on time, which has become a bit of an issue within our industry at the moment. That’s how I think Skyborne is making a difference.” ■

In a class of its own

Skyborne’s courses for new cadets or more experienced pilots.



Integrated Course

The integrated course is basically the entire training syllabus. A cadet with no flying experience will undergo 64 weeks through to achieving their Airline Pilot Standard Multi-Crew Co-operation (APS MCC). They will achieve all the ATPL ground school and have flown their 112 hours single-engine flying and, on the DA42, will complete their multi-engine CPL over four weeks.



Modular Course

The modular cadet trainee will have completed some of their training at another organisation and have come to the Skyborne Academy through a selection process. The instructors pick up from the point they have reached and take them through to completion. Other pilots who fit into this category are ex-military pilots who have recently left the service and are seeking to move into the commercial airline market. Skyborne has the ability to devise a tailored bridging programme specific to the modular student.

