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This month, James looks at the weather phenomenon known as windshear, or as he calls it: "one of nature's little tricks, which can ruin your whole day when you fly aeroplanes for a living."



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Are helicopter pilots superhuman? As much as some of them may like to think so, this month Helen debunks some myths about helicopter flying, and reassures us mere mortals that one's name doesn't have to be Clark Kent if you want to give helicopter flying a go.

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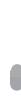
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Europe changes its mind over foreign flight training?

Last June, FTN broke the news that the European Aviation Safety Agency's (EASA) proposal for future pilot licensing included an interpretation of their European Commission defined responsibility that could result in only EASA/JAA flight and type rating instructors being allowed to teach pilots training towards an EASA pilot licence. It would appear however that following lobbying from affected parties the Commission is now reconsidering the issue.

When the proposal was made public last June, several European Flight Training Organisations (FTOs) and Type Rating Training Organisations (TRTOs) wrote a joint letter to EASA outlining the serious negative effects this would have on their businesses should they no longer be able to conduct any EASA/JAA flight training outside of Europe. In the letter they warned EASA that the consequences could be devastating for the European flight training industry, including the loss of 224 non JAArated instructors, who at the time were the number teaching European pilots outside of the EU and who could not, according to the letter's authors, be replaced within Europe. Another consequence cited in the letter was that the 161,000+ flight training hours flown annually outside of Europe would have to now take place within EU airspace which is already saturated, including at least an additional 1/2million takeoffs and landings needing to be accommodated at European airfields. The letter ended by estimating the result would be net loss of around 1,250 pilots per year to the EU airline industry.

Why is it that many of the larger European schools use American-based FTOs to train their student pilots? There are a number of reasons, the key ones are financial in terms of airport, fuel and maintenance charges, as well as the absence of VAT. Further, 'fair weather' bases mean that students can expect less interruption to their flight training. Additionally, access to airspace, which is already close to saturation in some parts of Europe, could become a major issue and FTOs could quickly find themselves unable to book training slots at European airfields. Those FTOs affected would also have to increase their training rates to offset the higher fuel and maintenance costs within the EU, compared to lower costs prevalent in non-European countries such as the US.

The proposal could therefore have effectively called a halt to the current overseas training regime unless the affected FTOs managed to

The proposal could have effectively called a halt to the current overseas training regime

get their instructors to convert to European licences. Taking the UK CAA as an example, the regulator currently permits non-JAA instructors to teach the JAA syllabus as long as there is one JAA-rated instructor for every four FAA instructors teaching at a school. The UK CAA also permits FAA instructors to undertake a shortened conversion course in order to teach JAA licences. This has allowed many of the UK's larger FTOs to take advantage of the more favourable training conditions in the US and elsewhere outside of Europe and as a result many of them use these bases for the initial phase of flight training. With EASA taking control of FCL in the near future however, the UK CAA will no longer be authorised to grant such dispensations.

According to Peter Moxham, British Business and General Aviation (BBGA) representative and member of the EASA consultative team tasked with working through the comments received from industry on the new FCL proposals, one of the five most contentious issues arising from the Notice of Proposed Amendment (NPA) published last June concerns this overseas training issue.

EASA's legal team, says Peter, interpreted the EC Basic Regulation (the legal document that defines the framework in which EASA must work) to mean that to teach a licence or rating, an instructor must hold that licence or rating. This applies to all licences and ratings, from PPL upwards.

A further effect of this requirement concerns simulator and type rating instruction, which for most corporate jet aircraft is only available in

the US. Indeed, says Peter, around 80% of all corporate iet pilot type training currently takes place in North America. Thus, imposition of this rule for TRTOs would result in a substantial increase in training on actual aircraft, given the lack of European-based simulators. This training methodology has long been held to be unacceptably dangerous however, as going back some years to before these type of simulators were readily available there was a relatively high frequency of accidents on training flights and so the practise of training on the real aircraft was gradually frowned upon. Without access to these simulators therefore, pilots will be left unable to train for some flight eventualities which are perfectly safe in a simulator, such as asymmetric flight, engine failure after take-

Continued on page 4



At a time when the media in general seems to be particularly gloomy and doom-laden, 'Clearer Horizons' is our way of directing you to the 'good news' stories in each edition of Flight Training News. The aviation world is well-known for its cyclical nature, and we hope that some of the stories we feature here each month give a pointer to better conditions ahead.

The EU is open to persuasion on pilot licencing pages 3 & 4

UK Met Office forecast a hot and dry flying season page 5

James Willcocks tells FTN how he got his ATPL without financial backing page 10

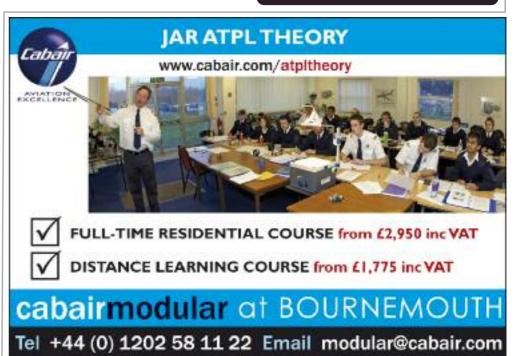
UK CAA support PPL instructor proposals page 13

An attainable PPL IR may be on the way page 16

Aero 09 boasts record exhibitors and attendances, good news for Diamond owners pages 18 & 19

The Caroline Trust is giving away hundreds of flying bursaries to schoolchildren page 26

The JN Somers ATPL Scholarship is on, but hurry! page 27



Europe changes its mind over foreign flight training? Continued from page 3



off, practise forced landings, etc, which could potentially lead to loss of life if undertaken in the aircraft itself.

Many hundreds of comments were received by EASA concerning this removal of EASA flight training overseas, confirmed Peter, almost all pointing out the commercial and safety aspects which would arise.

The Commission stated that they were unaware of the affect that this clause in the Basic Regulation would have on European operators and on the safety issues which would arise

In addition to the NPA comments received, Peter told FTN that lobbying also took place with the European Commission itself and following a visit to Brussels by industry, the Commissioner concerned raised the issue at a meeting with EASA in Cologne shortly afterwards. The Commission stated that they were unaware of the affect that this clause in the Basic Regulation would have on European operators and on the safety issues which would arise. "It has become very obvious to all that some form of agreement has to be found to resolve the situation and at meetings in Cologne at the beginning of April all parties agreed that this had a very high priority," said Peter.

Since then, Peter confirmed that there has been considerable additional discussion between the EC and EASA. As the Basic regulation is already written into European Law it cannot easily be changed. It appears that in this area the Basic Regulation cause and effect had not been properly considered, and additionally the issue was not addressed in any Regulatory Impact Assessment. Further, Peter considers that there is the question of a loss of face from lawyers that they understandably feel will occur with a complete reversal of their proposals and for time being the Basic Regulation is there in full legal force.

The likely outcome is that 'grandfather rights' will be extended for those organisations currently holding approvals for overseas training

Peter considers that the likely outcome is that EASA will propose to the Commission that

'grandfather rights' are extended for those organisations currently holding approvals from the National Authorities of EC Member States to allow training to continue until such time as a full FCL reciprocal agreement is reached between EASA and the third party countries involved. The possibility of this reciprocal agreement being reached early on with the US is remote however, as undoubtedly the issue is politically a hot potato.

The US has long held a protectionist attitude towards its flight training, in as far as it will not allow foreign rated instructors to teach FAA licences outside of the US, and in these times of heightened security, the public concern in the US will most probably be that if the FAA allows foreign schools to train FAA pilots outside of the US, the terrorist threat would be redoubled. It would mean therefore, that any move by the FAA towards a bilateral agreement would be at once a courageous one and by implication, politically unsound.

Peter has stated that EASA intends to propose the grandfather rights action for FTOs currently training European pilots overseas formally to the Commission when submitting the finalised FCL document towards the end of 2009.

In the meantime however the Commissioner responsible in Brussels has retired and EASA are awaiting the formal appointment of the new person in this role – that is the Commissioner responsible for aviation safety, to whom the Agency reports.

The intention of industry, says Peter, is to ensure that the new Commissioner is fully

briefed before the EASA proposals arrive on his/her desk. Industry has already been advised by the Commission that such a meeting will be granted.

Presuming that the present proposals are accepted, what will be the effect?

First, says Peter, existing training organisations caught in this situation will be able to continue as they do at the moment until a Bilateral Air Safety Agreement (BASA) is reached. This does not only apply to North America but anywhere in the world where such approvals have been granted.

Second, no new approvals may be granted by National Authorities where the full FCL requirements are not met, so NAAs such as the UK CAA will no longer be able to act independently.

Third, this does not mean that there will be no further approvals in non-EC countries, but it does mean that only EASA itself will be able to grant any such approvals, and they will be bound by the new requirements.

Peter points out that all the foregoing still has to be agreed by the EC and this can only take place when the final FCL document is submitted for incorporation in European Law and it will be very important to monitor this situation, he says.

With over 11,000 meaningful comments to FCL NPA 17 to be dealt with, EASA has now convened its teams to review the Comment Response Document and these met for the first time on 30 March and spent the whole week on the task of putting together responses.

In that period, Peter says they made a constructive start and probably covered about a quarter of the comments. Many are duplicated and while Peter says he is not at liberty to discuss actual comments on the general document, it is obvious that much feeling was generated, particularly with regard to the overseas training issue and also the newly proposed Leisure Pilot Licence (LPL).

"It is very obvious that this process of creating the Comments Response Document will take some time! It would however be true to say that all comments are receiving proper consideration and where they are accepted, changes are being made. From an industry perspective this is being dealt with very professionally and the resulting document will certainly be much improved," said Peter.

"My guess is that there will have to be further meetings to resolve the remaining issues – Cologne will once again become the dominant force in my life for a while yet!"



Type Rating Training Organisations would also have been negatively affected by EASA's proposals



The European Commission has said that it was unaware of the affect their Basic Regulation would have had on flight safety as well as the negative commercial impact on European FTOs

NEWS BRIEFING

Oxford Aviation Academy receives MPL approval

Just as we were going to press, news reached us that Oxford Aviation Academy had received UK CAA approval for their first Multi-Crew Pilot Licence (MPL) course in partnership with UK airline Flybe.

Anthony Petteford, OAA's Managing Director, told FTN: "We are extremely pleased to have been granted approval for our inaugural MPL course with Flybe. This course marks the single most significant change in airline pilot training methodology for more than 50 years, and OAA is ideally placed to help validate this new training methodology, which we are entirely confident will provide airlines with pilots of the highest calibre.

"OAA sees MPL as a natural evolution of OAA's existing and highly successful ab-initio course, the APPFO, which already incorporates the use of new technology simulation to provide students with multi-pilot jet experience before graduation from Oxford. Our experience with this course means we are confident that MPL will work well. The continuing improvement in high-fidelity simulator technology, allied to the ability to introduce multi-crew techniques much earlier during training than ever before, means we will be able to provide Flybe with graduate pilots who will adapt seamlessly to life as first officers.

"We are equally delighted that Flybe should be the first airline to partner with OAA on the MPL, given the long-standing relationship we have enjoyed with Europe's largest regional carrier, since it commenced operations back in 1979 as Jersey European Airways."

The MPL course is the second of its kind to receive UK CAA approval, following on from the success of Flight Training Europe's MPL course approval earlier this year. It will, however, be the first to be based in the UK and OAA say it will incorporate a number of unique features, for example the use of a complex single engine trainer for initial flight training (a TB20) and a combination of new generation CRJ and Q400 flight simulators for the advanced phases.

OAA also say that their MPL course provides applicants with a money-back guarantee in the event of training failure anywhere in the course, which is mirrored in OAA's other flight training courses. MPL students will also benefit from a ioint sponsorship scheme under which Flybe and OAA will both provide up to £20,000 in funding support to those selected for the MPL course

Application for places on the Flybe MPL course at Oxford Aviation Academy opens 4th May, 2009, and competition for the maximum of 12 places likely to be available is expected to be intense. The selection procedure will be based on a slightly modified version of the standard Skills Assessment process operated by OAA's Centre for Career Development, which will also oversee the entire scheme.

See www.oaa.com for further information

Rise Helicopters gains FTO approval

Following recent Flight Training Organisation (FTO) approval by the UK CAA, Rise Helicopters, based at Gloucestershire Airport, is now offering CPL(H), FI(H) and Type Ratings courses, in addition to their established PPL(H) training course and charter services.

Chief Pilot, Captain James Kenwright, said: "Preparing for the FTO approval certainly kept us on our toes for a while, but I feel that we went through everything in a professional and efficient manner, so that ultimately, obtaining the certificate was a smooth and straight forward transition. We are all very proud and excited to be able to offer these extra training courses.'

Over the past two years, the Rise fleet has grown to a total of 10 aircraft, consisting of three

Jet Rangers, three Robinson R44s and four Robinson R22s. Rise employs 2 full-time and 3 part-time flight instructors, and they also have their own maintenance organisation on site which, they say, greatly reduces the down-time of their aircraft, thereby increasing the aircraft's availability for training, self fly hire and charter.

For more information call 01452 857083 or email fly@risehelicopters.co.uk'"

CAA's Aeronautical charts and data department to move to NATS

The UK CAA and air traffic service provider NATS has confirmed that the department responsible for the production of the UK's aeronautical charts and data will transfer from the CAA to NATS later this year.

The department, which is currently part of the CAA's Directorate of Airspace Policy, is responsible for managing and producing the UK's aeronautical charts and controlling the UK aeronautical co-ordinates database.

According to the CAA, the move follows internationally recommended best practice, as set out by the International Civil Aviation Organisation (ICAO), which states that service provision tasks should be separate from regulation.

Phil Roberts, assistant director of Airspace Policy in the CAA, said: "As well as ensuring that the UK complies with ICAO requirements it will also improve the integrity of the flow of aeronautical data that transfers between the two organisations and it will help to eradicate any inconsistencies in the data sets that currently exist between the CAA and NATS in providing the services.

"The requirement to provide the services will be included in the NATS Licence which means that the CAA, as NATS' regulator, will ensure that the high standards will be maintained," he continued.

The Department will now be part of the NATS Aeronautical Information Services based at Heathrow.

Lance Stuart of NATS Services added: "We will be able to develop the charting service to a level that the CAA in its regulatory role cannot. The move will also reduce the duplication of effort between the two organisations, starting with the construction of a single database.

"We are confident that users will still enjoy the quality of service that they have previously experienced while, over time, they will also see further improvements as we develop the services.

Clear skies predicted for summer flying

According to the UK Met Office, the coming summer is 'odds on for a barbecue summer', meaning a welcome respite for flight training in the UK. According to long-range forecasts, summer temperatures across the UK are likely to be warmer than average and rainfall near or below average for the three months of summer.

Chief Meteorologist at the Met Office, Ewen McCallum, said: "After two disappointingly wet summers, the signs are much more promising this year. We can expect times when temperatures will be above 30 °C; something we hardly saw at all last year."

Although the forecast is for a drier and warmer summer than average that does not mean that the UK will not experience some heavy downpours at times. However, a repeat of the wet summers of 2007 and 2008 is unlikely.

CAA advice on student records

FTN contacted the Personnel Licensing Department of the UK CAA recently to establish what can be done to secure access to student's flight training records in the event of a flight school being placed into administration.

While the CAA states that there is no requirement currently in place for schools to forward student records to them in the event of the school ceasing trading, they nonetheless recommend that this is the best course of action.

As is generally the case when businesses fail, the administrators appointed to deal with the winding-up of the company will seize any assets until such time as they can be sold on to pay creditors' debts.

Unfortunately, for student pilots, this often means that their student record sheets, even

Cessna SkyCatcher programme still on

Despite the crashes of two SkyCatcher prototype aircraft, Cessna has confirmed that the development programme is still on. Over the coming weeks, Cessna said it will gather additional wind tunnel data, then combine that information with what it learned from the recent spin tests to refine the SkyCatcher configuration before flight testing is resumed.

The design of the SkyCatcher was altered slightly after the first accident, with Cessna choosing to increase the size of the tail. But following the second prototype crash on March 19, as it was undergoing an aggressive spin test regime with power on and cross controlled, the aircraft once again entered an unrecoverable spin. The second aircraft was recovered through the deployment of its ballistic recovery system (BRS), but nonetheless received damage when the pilot was unable to disengage the BRS after landing, and the aircraft was dragged across the ground by the parachute before coming to rest in a hedge. The aircraft is currently being repaired.

though they have no intrinsic value, are locked away by the administrator and are not accessible until such time as due process has taken place, which can take a number of weeks.

The CAA therefore recommends that flight schools who are placed into administration should remove the records before the administrators take over and send them to the CAA's Personnel Licensing Department, who have said they are happy to hold on to them until such time as the student has found an alternative school from which to continue their training.

Beijing Pan Am International Academy closed

Beijing Pan Am International Academy in China has closed temporarily. The FTO is understood to be seeking new investors following the refusal of AIG, its majority owner, to invest any further in its development.

According to Beijing Pan Am International Academy chairman Li Zhiyun, AIG had an investment agreement with the school to put in an extra \$15 million last year, but following financial troubles of its own, was unable to do so.

The school is believed to be looking at strategic investors, such as overseas flying schools or other aviation companies. The school is only one of a handful in China that has China Civil Aviation Regulation (CCAR) 141 approval from the Civil Aviation Administration of China (CAAC).

According to Li, the school has produced 280 graduates and at its peak it had about 500 students. He says the school has two Cessna Citation CJ1 light business jets, 40 Diamond DA40 single engine piston aircraft and 18 Diamond DA42 Twin Stars.

Name change for Western Australian **Aviation College**

Western Australian Aviation College is to be rebranded the Royal Aero Club of Western Australia (Racwa), following its purchase last year by Racwa. The JAA-approved FTO will trade in Europe as Racwa Aviation College and will continue to offer integrated courses for cadet pilots training towards a 'frozen' ATPL.

The JAA-approved integrated course back in the UK. includes groundschool in the UK followed by flight training and additional groundschool in Perth, and culminates with IR and MCC modules

more For www.racwaac.co.uk

information visit

Wings Over Westminster



Dubai Calling

Resident Parliamentary aviator Lembit Öpik takes a trip to the Middle East, to take an honest look at whether the future of commercial flying is climbing or diving.

I take my work as an MP very seriously, but there are some things I just don't really like doing. One of those is taking international tours with "Parliamentary Select Committees." A Select Committee is a group of about 10 MPs which looks at a particular area of Government activity. I'm on the "Business and Enterprise Select Committee," which covers – well – Business and Enterprise. Part of that agenda is the aviation world, and how it affects UK trade.

It was for this reason that I agreed to go on the Select Committee visit to the Middle East. I wouldn't normally have been so soft, but the Chairman of the committee, Peter Luff MP, is a bit of a bully (and a good friend!). He went on and on about the importance of the trip even though I said I had "other priorities." Eventually, Peter resorted to shouting at me and telling me it was my "duty" to Queen and country to go along. That did the trick. So it was with a mixture of shock and awe that I found myself staring out the window of an Emirates Boeing 777-200 wondering if there was anything more in Dubai than an airport and unaffordable fashion shops.

As soon as I arrived in Dubai, I realised I would've made a mistake if I had not gone. Much as it pains me to compliment a Conservative Member of Parliament, I grudgingly admit that Mr Luff had correctly assessed the usefulness of this trip. He had been almost psychic in his predictions of the tour. Yes, 'Mystic Luff' should have his own astrology column.

Anyway, to "get to the point," as Mr Luff would say, we made the seven hour trip and ended up investigating the activities occurring at Dubai International Airport.

I can tell you now, this visit on its own justified the trip and my findings should provide a strong encouragement to those of you out there reading this in the course of pursuing or aspiring to a career in commercial aviation.

Dubai International Airport is enormous. It's roughly the size of Heathrow with a comparable capacity. But unlike Heathrow it is growing fast! Even as I type it has 24-hour building and extension going on. The current annual passenger throughput is around 40 million and rising. And it could be 80 million in less than 10 years. That's 20 million more than the total population of the United Kingdom! What a lot of planes and people.

I met Dr Mohammed Al Zarouni, Director General; the man in charge of the Dubai Airport Free Trade Zone Authority. This zone is designed to create a favourable trading environment in and around the airport. But is all this expansion really feasible? "We believe that Dubai can act as a global hub for passengers and freight traffic. In a radius of five hours flying from this airport there are billions of people. Our airport has enjoyed double digit growth year on year and we will be able to continue that in the future." There was not a hint of doubt in his voice that the economic

downturn was going to short circuit their plans. In fact, quite the opposite. Dr Al Zarouni continued: "We are constructing an additional airport at the other side of Dubai to handle the anticipated increase in traffic which we project for the years ahead. It will have five runways and be able to handle the low cost airlines as well as other traffic, which will use that airport as part of our expansion strategy." Their plan is to have an annual passenger capacity of, wait for it 240,000,000 – or close to the entire adult population of the United States of America.

To put it in simple terms, their Director General is convinced that aviation is on the way up, and whatever happens in the global economy short term, it's worthwhile running and expanding their "free trade zone" at Dubai, capable of processing some of the most intensive traffic ever seen in global aviation. Not for them the fears of a slump in flying. Not for them a concern that people will stay at home because of the global downturn. And UAE flag-carrier, Emirates Airlines, is a case in point, as one of the world's fastest expanding airlines, with one of the world's newest fleet, it is clearly enjoying acting as the de facto flag carrier for the airport as well.

What a far cry from the seething soothsayers in the United Kingdom who seem to want nothing more than the grounding of our aviation industry. The vapid and uninformed jabberers who pass for journalists these days and the environmental fanatics who seem to ignore the social, economic and cultural benefits of aviation don't want to know any of this. Yet the management in Dubai realise that aviation on its own represents a relatively small part of the threat to climate change and carbon dioxide emissions.

The actual amount of pollution pumped out by aircraft is not that huge compared to our total output as a species. If we replaced pointless petrol powered cars with electric vehicles, and found carbon friendly ways of powering the national grid, then we'd have a reasonably good chance of saving our planet from global warming. By contrast, if no plane ever flew again, the atmosphere would hardly notice the difference, because the impact of planes is miniscule compared to everything else we do.

Of course, everyone agrees we need to improve the greenness off flying when it comes to fuel usage. Airlines already feel that way, because nothing is more motivating than improving the financial bottom line - and the less fuel you use, the cheaper your operations become. But that's worlds apart from simply trying to dump all over international travel in the mistaken belief that this does anything more than grab ill-informed headlines in papers, which long ago abandoned any serious commitment to getting the facts right.



Meanwhile, Dr Mohammed and his team are busy getting to work building one of the most user-friendly airports on earth. They believe in flying and they can see the benefits of free trade and easy travel in the interest of international relations and economic progress.

What does that mean for pilots? Well, if Dubai is right, then it's very good news indeed. In this scenario the signs are that, if anything, there will be a pilot shortage in the next few years. People fully qualified to sit in the pointy end of a Boeing or Airbus will find themselves in great demand, and paid a good salary as a result. And those of us who still regard travel as an adventure and environmentally off-settable privilege, have a lot to look forward to.

As for the UK Government, it's simple. They can carry on their relatively bold and progressive policy of ensuring we have the airport capacity and the pilots to cope with the future. Or we can watch this industry – like so many others – cross the borders of Europe to other countries who "get it" and are planning accordingly.

None of this is difficult. You don't have to be a genius to see what's going on. Policy makers ought to cut the pointless use of fossil fuels while recognising the undeniable advantage of people visiting other parts of our world.

On the other hand, if you still need more convincing, I'll send Peter Luff MP round. He'll lean on you so much that not only will you end up agreeing with the case for airport expansion, you'll also buy a ticket to Dubai. And then like me, you'll discover that, when it comes to flying the world, Dubai airport really does stand to become Global Central.

Lembit Öpik's back catalogue of 'Wings Over Westminster' available free to read at www.ftnonline.co.uk



Aeros business plan continues to grow

Last year we reported on the purchase of flight training organisation Aeros, based at Bristol Filton and Gloucestershire airports in the southwest of England. The school was bought by pilot and entrepreneur Tom Dunn, who stated at the time that the purchase of the school marked the beginning of a new business plan to develop a network of flying schools, maintenance and charter businesses across the UK.

Since the purchase of Aeros, Tom says he and one Cessna 152-R. has continued to grow the existing operation (which includes Pilot Flight Training (PFT) at Wellesbourne airfield in Warwickshire), and at the end of last month Tom announced the purchase of Wellesbourne Aviation, housed next door to PFT.

With PFT and Wellesbourne Aviation based literally next door to each other, Tom has been able to knock through the walls, creating overnight the largest school based on the airfield. The school was previously owned by the Cabair group of flying schools, and Tom says that all staff members, including instructors, who were employed by Cabair at the time of purchase, have been retained.

The combined fleet now totals ten aircraft, including four PA28 Piper Warriors, one PA28 Piper Arrow, a six-seat PA32 Piper Saratoga, two Robin DR200s, one Robin R-2160 aerobat

Aeronautical Charts & Data (AC&D) Directorate of Airspace Policy

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With this fleet of aircraft the Wellesbourne operation is now able to offer a full range of private pilot licences and ratings, including night, IMC, tail dragger and aerobatic training. Additionally, says Tom, they are in the middle of a full refurbishment programme, which will mean they will also be able to offer a comprehensive PPL ground school programme in new purpose built classrooms. All students who were training at Wellesbourne Aviation before its sale have continued to train under the new ownership and Tom says they are extremely busy at the moment.

Meanwhile, the Aeros operation at Gloucestershire and Bristol Filton continues to grow, and Tom says they are expecting to receive imminently Part M sub part G & I approvals from the UK CAA for their maintenance operation. Also, says Tom, they should



The purchase of Wellesbourne Aviation next door to PFT has meant that Tom has been able to combine the two schools into one, creating what is now the largest school at the airfield

allow the organisation to offer charter flights. confirmed in a month or so.

Tom says he is also investing heavily in the Bristol Filton operation, including the construction of a new purpose built training centre, which when complete will mirror the

have their Air Operators Certificate, which will Wellesbourne school in being able to offer a full PPL flying / ground school programme.

The network may still be relatively modest at the moment, but it would appear that Tom's business plan remains on course despite the economic downturn.

Whatever you fly, fly with an **up-to-date** chart **UK CAA VFR charts**

Chart edition available 1:500,000 series 12 March 09 Southern England & Wales 35 Northern England & Northern Ireland 4 June 09 32 2 July 09 Scotland 26 1:250,000 series 12 February 09 England South (sheet no.8) 13 West & South Wales (sheet no.7) 7 30 July 09 England East (sheet no.6) 9 24 September 09 Central England & Wales (sheet no.5) 8 9 April 09 7 3 June 10 The Borders (sheet no.4) Northern Ireland (sheet no.3) 6 7 May 09 6 1 July 10 North Scotland East (sheet no.2) North Scotland West (sheet no.1) 26 August 10 6 :50,000 23 September 10 London Heli Routes 14

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"Try not to crash...?

The engineer looked at me and smiled. "Try not to crash" was all he said as I let the brakes off and the heavily laden B767 started to roll forward under the application of power. As I lined the aircraft up on the centreline, of runway og Left I knew this was going to be a difficult takeoff. Johannesburg is 5600 feet above sea level, where the air is much thinner and therefore takeoff performance is more limiting. Add that to the fact that we were close to the maximum takeoff weight of 186 tonnes and the outside air temperature gauge was reading 40 degrees Celsius. Oh and I nearly forgot, we were expecting Windshear on departure. On the face of it, the engineer's words seemed like good advice.

Windshear is one of nature's little tricks which can ruin your whole day when you fly aeroplanes for a living. The effects of rapidly shifting wind speed and direction during takeoff or landing can produce large and sudden deviations in airspeed that are difficult to counteract. Ouite often associated with adverse weather systems like thunderstorms, these shifts in wind speed are hard to predict as they are invisible until you fly into them. Unfortunately, there is much reliance upon PIREPS (pilot reports) and these are not necessarily authentic indicators of real Windshear conditions. One man's Windshear is another man's turbulence.

I recall many years ago when flying a light, propeller driven aircraft into an airfield that the flying conditions on final approach were certainly sporty, however no worse than moderately turbulent. Looking at the windsock, it was not difficult to see why, as it was in agreement with the Met man's prediction of a strong and gusty wind. While taxiing on to the apron, I was amused to hear the pilot who was now on final approach transmitting to the tower, "Tower, this is XXX, be advised there is VERY SEVERE WIND-SHEAR on finals!" His voice had a certain breathless quality to it and he had obviously just given himself a big fright, but his PIREP was a little over the top. In fact there are only two types of Windshear to be reported, either moderate or severe. There is nothing worse than "severe" – so VERY is not an option.

As the 767 gathered speed, I noted that the acceleration was slow, even though full power was applied and the significant speed of 80 knots seemed to take ages to appear. At this rate, it was going to take a week to get to rotate speed. Due to the heavyweight takeoff, the Vr was pretty huge at 160 knots and our takeoff roll was going to require most of the runway to get airborne. The call of "Vee One" came and went. In my own thoughts I said to myself, there's no going back now ... we were committed to fly. The thrust levers were hard up against the throttle stops and the N1 (power) gauges of both engines were showing maximum; I could see the end of the runway approaching and thought this is going to be close... "ROTATE!" I had already started to increase the back pressure on the control column and now it felt REAL-LY heavy. I could sense the nosegear unstick and see the pitch attitude increasing - the end of the paved surface was really close now.

The call. "Positive Climb", came when we were only 20 feet off the ground with both the

Radio Altimeter and the VSI showing a climb. "Gear Up!" I replied through tightly pursed lips and then I saw the airspeed start to decay. The synthetic voice started calling "WINDSHFAR! WIND-SHEAR!" and the red warning captions displayed on the attitude indicators. I noted that we had barely made 150 feet on the radalt when the Windshear warning started as the airspeed dropped and dropped - I held the attitude close to the

Pitch Limit Indicators (PLIs) and hoped for the best. Brief stickshaker in the programme of the simulator are based on warnings showed we were very close to the stall, but now the radalt started decreasing and outside the flightdeck windows I could see the ground getting awfully close. The pressure from my right arm forcing the thrust levers forward increased, but the engines were already giving their all. The GPWS warnings added their voice to the proceedings with an American accent, "DON'T SINK ... DON'T SINK!" Again, good advice I mused while scanning the radalt, airspeed and VSI all at once. 38 feet was the lowest number I saw on the radio altimeter before we finally began to climb again and the airspeed started to behave itself. Eventually we were accelerating and passing 500 feet on the radalt - sheer luxury! Soon we could start retracting the flaps. Phew! Only THIRTY EIGHT FEET! It was time to make a decision.

160

140

100

"Let's go back and have another go - that was too close to call it a success"

I had made my mind up and the engineer working the simulator instructor panel pressed the motion freeze button. Of course that's the beauty of the 'Sim', it allows us to live and fight another day when in the real case we might be toast. You could be forgiven for thinking that we were 'playing' here, but there was a real reason for our presence in the simulator. I had been asked to come and help the engineers calibrate the windshear settings for the machine as in the recent CAA annual approval test-flight they had been pronounced as too extreme and in some cases 'unsurvivable'. This came as no surprise to me as many of the scenarios installed

real accidents where the aircraft and all on board were lost in the accident which followed. They were denoted Dallas, Tokyo, Philadelphia, etc.

0

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0

0

3

In my discussions with the engineers they told me that the Training Captains of old, made sure there was little chance of the crews surviving the simulated windshear by using the 100% option on the selection panel. Apparently their reasoning here was that the crews would be scared of going anywhere near windshear situations and therefore they would fly safer. In the modern way of training professional pilots this is known as 'negative training' and is definitely at odds with current thinking, hence the $\ensuremath{\mathsf{CAA}}$ finding fault with a machine which emulates unsurvivable scenarios. The philosophy now runs with the principle of allowing crews to fly into a windshear event and then by using the correct flying techniques to keep the shiny side up, fly safely away from the ground again. In the simulated takeoff from Jo'burg, we had survived, but only just and we needed to have a little more of a comfort factor here. To prove it, I flew the departure twice more, using the recommended technique and the aircraft collided with the ground on both occasions - just about in the same position where I had missed it by 38 feet on the first one.

By a clever tweak in the software, it was possible to experience windshear on takeoff, but survive. Don't get me wrong here, the dramatic effects of the 'shear close to the ground were still there, but by rigid adherence to the recommendations of the manufacturer in the Flight Crew Training Manual we had climbed away safely. You would still not describe this as 'a walk in the park', as some of the pitch attitudes required feel and look quite extreme, but Mr Boeing as always is there to help us with the little vellow (amber) PLIs on the attitude indicators. The aim is to select an attitude where the small black wingbars of the aircraft sit on the bottom of the yellow eyebrows and despite some transient stickshaker indications with full power engaged, this will give you the best rate of climb. The technique benefits from practice of course, because normally when we pilots are alerted by the 'shaker, our response is to push forward out of the aerodynamic stall - at such low altitudes this is not an option... The houses get awfully big, awfully quickly.

It is amazing how time passes when you are having fun and soon four hours had been consumed while we explored all of the listed windshear events on the instructor screen. Some of them we deleted as they were of nil training value, for example when they produced such a minor airspeed excursion that there was nothing to confirm a windshear was present. There were a few that were toned down in severity and all were checked under the worst possible conditions. For example, during the approaches we made certain the aircraft was at, or close to, maximum landing weight with high ambient temperature and a high elevation airfield. If all the foregoing proves nothing else, it shows that the authorities are working in the right way to improve training facilities and techniques to enable airline crew to benefit from the experience of flying the simulator every six months during their recurrent checks in a modern, progressive environment.

It is not often that we get time to meet and work with the simulator engineers and I was pleased to be able to take part in some really interesting flying exercises which stretched my poling abilities beyond the norm for some time. In the real world there have been a few occasions when we have delayed our departure until the thunderstorm which has been hovering in the overhead of the airfield has moved away. The recent simulator experience I had will not make me any keener to get airborne in such difficult weather conditions. After all as the old saving goes, "it is always better to be down here wishing you were up there, than the other way round!'

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Flight training developments from Cessna

by Rod Simpson

Despite the economic slow-down, Cessna has been scoring successes in the flight training market with its classic Skyhawks, all of which are now fitted with Garmin G1000 glass cockpits and can be equipped with Synthetic Vision for North American operations. While the majority of Skyhawks delivered are the Model 172S Skyhawk SP with the 18ohp fuelinjected Lycoming IO-360, Cessna also sells the lower-priced 172R, which has the 160hp -L2A version of the engine and is aimed at training fleet operators. Recent large deliveries of this version have been made to India and China.

At the Sun'n Fun Fly-In in Florida, held in seats. This is claimed as a valuable means of mid-April, Cessna announced an important new order for 13 new Skyhawk SPs from the University of North Dakota to add to the 25 aircraft handed over last year.

The UND flight school has a 120-strong aircraft fleet and plans to fly around 120,000 hours

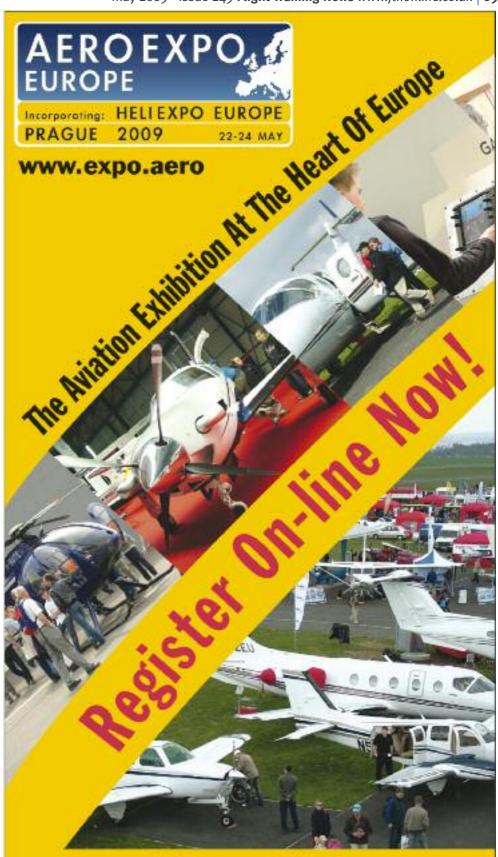
in 2009. Also at the Florida show, Cessna showed a special seating configuration for the Skyhawk, aimed at airline training schools. In place of the traditional fixed rear bench seat of the standard Skyhawk, Cessna offers its CRM (Crew/Cockpit Resource Management) training seat. This is a single seat which slides on track rails and is positioned in the centre of the rear cabin to give the occupant a clear view of the main cockpit area. This allows a second student to observe a training lesson and to participate in the instructional process. Alternatively, for fully flight rated students, the instructor may occupy the rear seat with the two students in the pilot introducing students to the cockpit resource management relationships, which will be essential in their airline careers. When the Skyhawk comes to be sold by the flight school, it will be possible to replace the CRM seat with a conventional bench seat.



The new single rear seat configuration designed for flight school operation



A Cessna 172S Skyhawk SP seen at the recent Sun'n Fun Fly-In at Lakeland



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Aer Lingus opens Blue skies ahead first UK base for charity first UK base

Irish flag carrier Aer Lingus commenced international operations out of its first UK base last month, with 16 pilot graduates from CTC's Wings programme forming a large contingent of the new base's pilots.

The Airbus type-rated pilots were trained through CTC Wings and completed six months of line training with their partner airlines during summer 2008. They were part of a small group of pilots released at the end of the season by their then partner airlines, due to an anticipated downturn in activity during the winter period.

According to the school, this was the first time since the launch of CTC Wings five years ago that CTC pilots were not taken on permanently by their original partner airline. However, through CTC's introduction they are now employed on permanent contracts with Aer Lingus and can look forward to being

part of some exciting growth plans over the coming years. Additionally, say CTC, they have facilitated

opportunities for other CTC Wings pilots this year with Gulf Air, Tiger Airways, Air Malta, easylet and easylet Suisse. Captain Lee Woodward, head of CTC Wings and executive director for CTC said: "Part of our philosophy at CTC has always been to facilitate placement for our trainees and our track record is something we are very proud of. By responding to Aer Lingus in this way we were able to resolve the airline's resourcing requirement and secure jobs for our pilots. We placed over 100 pilots during the first quarter of 2009 through CTC Wings and CTC FlexiCrew. It's fantastic to be able to secure positions with the airlines for our pilots despite the recession."



Steve Kelly, head of HR for Pilots and Cabin Crew for Aer Lingus, said that within the next 12 months the airline expects to grow its new Gatwick operation from four to eight aircraft with a first year investment of £100 million and with in excess of 120 new pilot and cabin crew iobs being created.

Meanwhile, Karen Bath, head of communications for CTC, told FTN that their CTC Wings ATP course re-opened last month and is attracting a large amount of interest. The CTC Wings ATP programme is aimed at pilots who have already attained their "frozen" ATPL and provides airline selection training followed by an Airline Qualification Course (AQC) which includes an initial airline CRM course plus 36 hours of jet airline orientated training on a Boeing or Airbus flight simulator.

Jason Phelan took raising money for charity to a whole different level at the end of April, when he took a head-spinning trip in the back of a Yak 52 aircraft at Compton Abbas Airfield, near Shaftesbury.

Phelan, who works for the UK CAA, was taken up in the skies by Jez Hopkinson, lead pilot of the Yakovlevs, an aerobatic display team that flies four Yak aerobatic aircraft. The flight was part of a challenge to raise cash and awareness for fly2help, a charity that endeavours to help people in tough situations feel better about themselves through aviation.

In total, Phelan, who is not a pilot himself, enjoyed flights in 13 different aerobatic aircraft, spanning 11 counties, and all in the space of only three days, starting Friday, 25 April. And he has already reached his fundraising target.

"There is still quite a bit of money to collect, but I believe it is in the region of £6,000. I hoped I could raise £5,000, and we already reached that on the first day!" he said. "This is something I have been planning for a year, and it is amazing that it is all happening now. After so much planning you just want everything to go right, but it has really flown by - no pun intended.'

On the Friday alone, he endured stomachchurning flights in an Extra 300, a Chipmunk, and Boeing Stearman before his flight in the Yak 52.

"The scenery at Compton Abbas was absolutely fantastic, and the flight was intense. I must have done 11 loops and a tail slide - the first one today. My head is still spinning and my



body is shaking, and I just need a big portion of fish and chips now," he said with a laugh.

Flyzhelp, based at Kemble Airport in Gloucestershire, is a charity for anyone who needs a boost in life - whether they are overcoming a personal tragedy, are terminally ill, or chronically sick - and stimulate self-confidence with the help of general aviation.

"Fly2help works to turn an ordinary day into an extraordinary adventure for many very brave and special people," said Mandy Pantall of fly2help. "But the charity's work, along with the very nature of flying, involves huge costs. It is really through the generous donations and support of others like Jason that we can fund our ambitious aims and share so many blue skies, adventures and smile with those who need them the most."

The challenge also included flights at Goodwood and Shoreham Airfield, in Sussex on Saturday, 26 April, and Headcorn in Kent and Sywell in Northamptonshire on Sunday 27th.

Phelan is already making plans for more fundraising events in the future. To help, visit the website www.justgiving.com/jasonphelan, where you can donate online, or www.fly2help.org or call 01285 770821. For more details on the Yakovlevs Display Team, visit www.yakovlevs.com.

You can get it if you really want

Bournemouth Commercial Flight Training (BCFT), based at Bournemouth International Airport in the Southwest of England, held a graduation party on Wednesday 15 April to celebrate the graduation of the first two students to have completed BCFT's new Jetline course.



BCFT's Jetline course offers modular commercial flight training in a one-stop course. Training is undertaken at BCFT's Bournemouth Airport base and differs from the 'Integrated' training route in that students undertake training in modules rather than as one course, gaining them individual licences and ratings, including: PPL, Night, ATPL theoretical knowledge, CPL, multi-engine piston rating, Instrument Rating and MCC.

The graduation party was held at the newly refurbished cafe/bar at Bournemouth Flying Club. In addition to the Jetline graduates, their friends and relatives, the party also welcomed new ground school students who started their ATPL course on the 6 April.

According to BCFT spokesperson Dena Dove, the two Jetline students, Tom Bennett and Simon Taylor, completed their course in the minimum time, achieving high marks in all the theoretical examinations.

Both students received commemorative BCFT Jetline tankards and certificates, which were presented by the Head of Training Capt. Lance Plews.

off our inaugural Jetline course have already received offers of employment, so some good news for BCFT's first Jetline graduates. We wish Tom and Simon the very best with their future flving careers."

Dena went to say that another student with BCFT, James Willcocks, had, despite no financial backing, ably demonstrated that if you want someone bad enough there is always a way. Here is his story:

My name is James Willcocks.

"I have always had a passion for flying since I had a trial lesson in 1987 aged 12. There are no pilots in my family – so I was breaking new ground! I started flying at Bournemouth Flying Club in 1997 training for a Private Pilot Licence. I funded this by doing 'odd jobs' and refuelling and cleaning aircraft, gaining my PPL in 1998. Once I had achieved the PPL I took a full time

position overseeing Operations at Bournemouth Commercial Flight Training. This was a very busy job and a good education in what goes on 'on the other side of flight train-

Dena commented: "The first two graduates ing'. At the same time I was studying via Distance Learning for my 14 ATPL Theoretical Knowledge examinations. All of this was very demanding and took me 15 months to complete, however I passed all 14 examinations at my first attempt with an average mark of 92%.

Whilst working full time at the School I did my Multi-Engine rating and then I took a job in a factory doing shift work that enabled me to take out a loan and begin my Commercial Pilot Licence; this I did on a part time basis as I still needed to work. It was also very demanding, but with a focussed attitude it proved achievable and I passed on the first attempt after eight weeks.

The next step was the Instrument Rating. I nanaged this by training part time and continuing to work at the factory. Every weekend I trained and the course took me 11 weeks. During the last two weeks I took leave from work and trained full time. I am happy to say this resulted in a first time pass.

I had achieved my goal therefore, and from commencement of the Distance Learning course it took me a total of about four years. It



James Willcocks

was hard work but the modular route allowed me the flexibility to work while I was training and to pay as I trained.

I hope my story gives some inspiration to those of you out there that feel that commercial aviation training is beyond their reach... it can be done!"

Virtual Aviation launches new simulator training centre in Palma Mallorca

Virtual Aviation, a privately-owned UK-based flight simulator training and experience company, is opening a new base in Palma Mallorca, Spain. The new site, located at the headquarters of tourist services provider Globalia, is just 10 minutes' drive from Palma Airport and complements Virtual Aviation's existing simulator facilities at London Gatwick, Heathrow and Manchester airports. A fourth UK base in Southampton in central southern UK is also due to launch this month.

are you up to date?

Aeronautical Information Circulars (AICs)

Aeroplane Bounced Landings – Avoidance and Recovery Techniques (Pink 143) 71/2008 Air Traffic Services Outside Controlled Airspace (Pink 155) 3/2009 Joint Aviation Requirements - Flight Crew Licensing 2 (Helicopter): Cessation of JAR-FCL CPL(H) and ATPL(H) Theoretical Knowledge Interim Arrangements (White 149) 51/2008

(White 149) 51/200 Joint Aviation Requirements - Flight Crew Licensing 1 (Aeroplanes): Revision of Requirements for National Private Pilot's Licence (NPPL) - The Air Navigation (Amendment) (NO. 2) Order 2007

(White 148) 30/2008 Monitoring Codes Around the London Terminal Control Area - the Use of Discrete SSR Codes for Aircraft Operating Outside Controlled Airspace and Monitoring the Relevant Frequency (Yellow 275) 92/2008 UK CAA Process ICAO Standards and Joint Aviation Requirements in Respect of Language Proficiency (White 156) 89/2008 Use of Instrument Landing System (ILS) Facilities in the UK (Pink 134) 12/2008

CAA	Publications

Publication Current Edition/ Version CAP 168 Licencing of Aerodromes Ed 8(Dec 08) CAP 393 Air Navigation Order Third edition incorporate ing amendments up to 3/2008 (12 Sept 08) CAP 413 Radiotelephony Ed18 (12 Mar 09) CAP 413 Supplement – quick reference guide to UK phraseology for commercial air transport pilots May o7 CAP 601 Multi Engine Piston Aeroplane Class Rating Syllabus Issue 2 (18 Dec 03) CAP 637 Visual Aids Handbook Issue 2 (May 07) LASORS 2008 (Feb 08) GASIL 2009/02 (17 March 2009)



CAA Chart Editions

Chart	Current	New
Edition	Edition	Available
1:500,000 series Southern England & Wales	35 (12 Mar 09)	
Northern England & Wales	31 (28 Aug 08)	4 Jun 09 (Ed32)
Scotland	25 (20 Dec 07)	2 Jul 09 (Ed26)
1:250,000 series		
North Scotland West	5 (28 Aug 08)	TBC
North Scotland East	5 (3 Jul 08)	TBC
Northern Ireland	5 (7 June 07)	4 Jun 09 (Ed6)
The Borders	6 (10 Apr 08)	TBC
Central England & Wales	8 (9 Apr 09)	
England East	8 (5 Jun 08)	24 Sept 09 (Ed9)
West & South Wales	6 (2 Aug 2007)	30 Jul 09 (Ed7)

AFE Publications

England South

London Heli Routes

UK VFR Flight Guide 2009	(White cover, Dec o8)	
UK Aeronautical Information Ma	nual 2008 (Photo cover, May 08))
UK En-Route Guide 2005	(Blue cover, 25 Nov of	ï

13 (12 Feb 09)

13 (20 Nov 08)

The company was founded in 1998 to provide aviation enthusiasts with an opportunity to experience life on a jet airliner's flightdeck, and the thrill of flying a jet airliner simulator. The key change to the business came about more recently when they diversified into professional training for commercial pilots

This latest facility houses two state of the art full-flight simulators certified to Level D, which can be used for zero flight time training. This means that commercial pilots can complete 100% of their training in the simulator, without the need to fly real aircraft until their first commercial flight. The two Boeing 737 New Generation machines can also be configured to simulate flying on the B737-700 and B737-800 passenger jets, as well as the Boeing Business Jet (BBJ).

With the opening of their Palma facility, Virtual Aviation is now able to offer a range of services to visitors to the Mallorca region, including bespoke flight simulator training for

commercial pilots; LPC/OPC refresher courses; future flight programmes for those interested in exploring a career as an airline pilot; jet orientation courses to assist pilots changing aircraft types, and flight experiences for those looking to fulfill the dream of flying a jet airliner.

Clients can book from between one to four hours in the simulator either exclusively, or on a shared basis (up to four people). Virtual Aviation also offers open-dated gift vouchers for the aviation enthusiasts to experience life on the flightdeck.

"These advanced simulators, combined with the attractive location of this popular Balearic Isle will be attractive to both professional pilots and serious aviation enthusiasts," said James Stevenson, managing director of Virtual Aviation. "After all, in a locked cockpit-door environment, this is the only way aviation enthusiasts can come close to experiencing the environment of the flightdeck."

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Instrugtoes Helen Krasner



Are helicopter pilots superhuman?

When I tell people that I'm a helicopter pilot they are often extremely impressed. It doesn't seem to be just the fact that I'm a pilot that they find so surprising. It is primarily because they have a notion that helicopters must be extremely difficult to fly. They usually say something like this: "Helicopters, wow! But they're really hard to control! You must have incredibly good coordination. They're much, much harder to learn to fly than planes, aren't they?"

Well, I hate to disillusion everyone, since I rather enjoy being thought of as a super-woman! But helicopters are really not all that difficult to fly. Anyone who has enough co-ordination to drive a car can probably learn to fly a helicopter – though it'll almost definitely take you rather longer to get your PPL(H) than it did to pass your driving test. As to whether they are harder to learn to fly than fixed-wing aircraft, I would say they are not; they are simply different. Having learned to fly both, and started on the PPL(H) course only a year or so after getting my PPL(A), I'm probably in a particularly good position to compare the learning processes for the two licences. So let us take a look at both of them.

Whatever you fly, of course you don't immediately leap into the aircraft, start the engine and take off. You have to check everything first, which means undertaking the aircraft 'walkaround' or 'A' check. Certainly on the Piper PA38 on which I learned, or the Cessna C152 which I subsequently flew for quite a while, this is a very simple process. Basically you check that nothing is missing or loose and that all the controls move as they should. For a helicopter you do the same thing, but there is quite a bit more of it. This is because a helicopter is a far more complex piece of machinery. Without wanting to go into too much detail in an article of this length, there are various bits and pieces that connect the engine and rotor systems, and the rotors themselves have a number of attachments that need to be checked, as does the tail rotor. It's not that complicated, but it can certainly appear so to the new student. I remember arriving at the airfield early in order to have time to do the 'A' check for a helicopter and I really don't recall ever doing that when I was learning to fly aeroplanes.

Fixed-wing pilots are often pleasantly surprised to find that it really isn't that hard to control a helicopter in the air

On the first lesson, in both types of aircraft, you usually do some upper air work and this is similar, perhaps surprisingly so, for both helicopters and aeroplanes. In fact, when you are airborne, flying the two is really not that different. In a fixed-wing aircraft you adjust your attitude with the voke or stick, use the rudder pedals to keep yourself in balance and increase or decrease power when you want to climb or descend. In a helicopter things are much the same – the cyclic controls your attitude, the collective your height and the yaw pedals keep the aircraft in balance. Again, this is a bit of an oversimplification but fixed-wing pilots are often pleasantly surprised to find that it really isn't that hard to control a helicopter in the air, even a twitchy little rotary aircraft like the Robinson R22. By the end of a trial lesson in either type of aircraft, many people have pretty much got the hang of flying straight and level and some can even manage gentle turns or other basic manoeuvres.

Eventually however, you have to come in to land and this is very different in the two types of aircraft. It took me ages and ages to learn to land an aeroplane. I think that I was something of a slow learner and I was learning to fly at an airfield with a fairly short, narrow runway, which didn't help. But most other students don't find landing easy either, in the beginning. Landing an aeroplane most definitely takes judgement, co-ordination and above all, practice. You need to be able to estimate your distance from the runway and your height above it and co-ordinate the use of the controls. You must do all this while keeping up your airspeed, since slowing down is something that you most definitely do not want to do! It is particularly hard when you have gusty winds and I still think crosswind landings are perhaps the most challenging manoeuvre in any aircraft.

Compared with this, learning to land a helicopter is a piece of cake. The really, really nice thing is that you can slow the helicopter down before you land it; in fact, that is what you usually do. You use the collective to control your height, but gradually reduce speed using the cyclic until you come to a hover over the point where you want to be. They say that to land an aeroplane you throw yourself at the ground and miss, but I'd add that to land a helicopter you just sedately approach the ground and put down like a feather when you feel like it. I thought it was far less stressful when I was learning to fly... and I still do. And if there is a crosswind? Well, you can just land into wind since helicopters don't need runways. But if you need to follow a particular airfield's circuit, you

simply approach as usual then turn the helicopter into wind as you land.

What about taking off? In an aeroplane, this is relatively easy. You simply taxi down the runway until the aircraft reaches flying speed and then... you're off. But in a helicopter? In this case there really is very much more to it...

Now we come to the one manoeuvre in a helicopter that really is different – hovering. There is nothing quite like it in any other kind of flying machine and it certainly does take most people quite a while to master. And unfortunately you can't do that much flying in a helicopter and certainly not fly solo, until you can do it well, since hovering is the first thing you have to do when you lift off from the ground. The problem is that hovering requires very fine co-ordination of all three controls – the cyclic, collective and pedals. These three all affect each other and all have a certain amount of lag before they act and a different amount of lag in each case!

Students learning to hover, start with one control at a time, then move on to two of them together and finally practise with all three. And practice is essentially what is needed. I have never yet met anyone who couldn't eventually learn to hover; some people take longer than others to acquire the skill, but that applies to all aspects of aviation. Gradually, students go from needing a field about the size of a football pitch on which to practice, to being able to keep control within a much smaller area, to being able to keep the helicopter precisely where they want to. Then the wind picks up... and they have to start all over again!

This means that students learning to fly helicopters frequently take far longer to go solo than their fixed-wing counterparts, for learning to hover holds many people back for a while. But as with many things in aviation, once you have grasped it you wonder what you found so difficult. And getting back to taking off, when you can hover, learning to pick up speed in order to depart in a helicopter is no more difficult than doing the same thing in an aeroplane.

What about emergencies? An engine failure in an aeroplane is bad enough, but you have time to put the aircraft into a glide and find a field in which to land. But in a helicopter!!! Actually in some ways helicopter autorotations are easier than fixed-wing forced landings. If the engine fails, you simply lower the collective to enter autorotation. You then just have to find a flat area on which to land the helicopter – and

it doesn't need to be very big. This fact that helicopters can be put down almost anywhere is a great boon in almost any other type of emergency and also a great advantage in deteriorating weather.

Why then do helicopters have this reputation for being difficult to fly? It is probably because there are so many things you can do with them, if you wish, which really are quite challenging. As already stated, you can land a helicopter practically anywhere. But every confined area landing is different and making an approach to a small clearing surrounded by obstacles with a tailwind is not only not easy... I probably wouldn't do it unless I absolutely had to! Some of the things that helicopters are designed to do are not simple manoeuvres; there is no getting away from it.

On the other hand, the same thing applies to aeroplanes if you want to push them to their – or the pilot's - limits. I remember a somewhat challenging landing one summer, in a C152, on one of the Aran Islands off the coast of Ireland. We had lunch, then realised that the wind had changed. We now had not only a mere 500 undulating metres of runway with a shingle beach at either end, but also quite a strong crosswind. Luckily, I was with an experienced instructor friend and after pacing out the runway carefully, she decided it was within her capabilities. Alone, I'd probably have spent the night there. But if I'd have had a helicopter there would have been no problem at all.

So overall I'm inclined to say that neither type of aircraft is more difficult to learn to fly than the other. They are simply different, that's all. So if you want to learn to fly helicopters, don't let their reputation for being hard to master put you off, for if you have an average amount of intelligence and co-ordination you will be able to learn to fly them. There may be many reasons for choosing one type of aircraft over another, but ease of learning should not be an issue.

So are rotary pilots supermen and women? Well, I rather enjoy having this reputation and I'm sure some of my colleagues do too. Perhaps that's why we often keep quiet and don't protest too much when people want to put us on a pedestal in this way. But this time I'm going to spill the beans. No, we're definitely not superhuman – we've merely had a lot of practice at flying helicopters.

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UK CAA responds to EASA pilot licensing proposals



The future of pilot licensing in Europe lies in the hands of the European Aviation Safety Agency (EASA) and not with Europe's National Aviation Authorities (NAAs).



When EASA assumes full control of European pilot licensing in 2012 therefore, Europe's NAAs will change from regulators in their own right, to enforcers of EASA's new European aviation regulations, and understandably the NAAs wish to be directly involved in the proposals being put forward by EASA.

Last year, EASA published its Notice of Proposed Amendment (NPA) for Pilot Licensing and Medical Certification and invited comments from private pilots, industry and regulators. The consultation period closed on 28 February 2009.

According to EASA spokesperson, Elisabeth Schoffmann, some 11,000 responses to the NPAs were received during the consultation period, and EASA are currently working on producing the Comment Response Document (CRD), due to be published later this year.

In the meantime, the UK Civil Aviation Authority has published a General Comments document on their website, outlining their views on the proposed new pilot licensing and medical certification requirements.

It would appear that much that has been proposed has been met with approval by the UK CAA; they say that they "recognise the considerable effort that the Agency [EASA] has made in producing this substantial body of work and agree with the majority of the proposals."

This is not altogether surprising given the CAA's involvement in developing many of the proposals, but nonetheless there are elements of the new pilot and medical licensing requirements that the UK regulator is concerned about. The concerns the CAA have highlighted include achieving a common European standard of examiner and instructor training which meets current levels set by the CAA; the limited training requirement (10 hours on type) for a Class Rating Instructor (CRI) to change from instructing on a light, single-engine piston aircraft to a high performance turbo prop; the expensive transition of the current, largely unregulated glider pilot licence regime in the UK, which has proven to be one of the safest in the world, to one of full regulatory control; concerns with the lack of post-graduate training medical requirement for Aero-Medical Examiners as well as certain flying limitations on medical certificates, and perhaps most importantly, the CAA is concerned that not enough tine is left in which to safely implement all the new regulations by the current deadline of April 2012.

The CAA's comments are reproduced below.

UK CAA's "Significant comments on the substantive proposals"

Proposals for the Leisure Pilot Licence and associated Medical Certification (Part FCL, Subpart B and Part Medical Subpart C)

The UK CAA strongly supports the proposed LPL and associated medical provisions as proposed by the Agency and considers it is essential that they go forward substantially as drafted. CAA believes fully in the objectives of the

proposed licence as it is provided for in Regulation 216/2008; it is critical to the continuous flying of any UK National Private Pilots Licence holder who currently safely flies an EASA type.

Proposals permitting PPL holders to be remunerated for giving flight instruction (Part FCL, FCL.205.A and FCL 205.H)

The UK CAA strongly supports the proposal at Part-FCL 205.A and H permitting PPL holders to be remunerated for giving flight instruction for the PPL or LPL. The CAA recognises that this would require the notification of a difference to ICAO. The CAA also notes that flying instructors would be able to instruct on a lower medical standard than at present and has proposed mitigation to the associated slight safety disbenefit by suggesting that flying instructors undertake medical assessment at more frequent intervals than would otherwise be required for Class 2 medical certification. Generally the CAA welcomes the intention to enable easier and less costly means to obtain FI rating.

Instrument Meteorological Conditions (IMC) Rating/cloud flying (not covered by NPA)

The UK CAA notes that there is no provision in Part FCL for a rating associated with qualifications for flying in IMC or clouds. We recognise that the current UK IMC rating privileges would be incompatible with the airspace classifications used in some other parts of Europe, but wish to draw attention to the problems the current provisions would cause for 18,000 IMC rating holders and 8000 glider pilots in the UK. The CAA welcomes the work that the Agency has put in hand through the establishment of the rulemaking task FCL.008 to consider this and other aspects of the privileges included in draft requirements for the instrument rating, some of which may be too onerous for PPL holders never wishing to use all those privileges.

Training and qualification standards for instructors and examiners

The UK CAA is very concerned that the standards set out in Part FCL 1.015, and especially the detailed training requirements of the AMC to FCL 1.015 do not define sufficiently high training and Version 1 Page 3 of 5 March 2009 qualification standards for instructors and examiners. The CAA recognises that the proposals in the NPA flow from the principles set down in the Basic Regulation whereby instructors and examiners will no longer remain under the direct control of NAAs, but will be able to conduct flying training and testing in any Member State. However, Industry will want to be assured that the qualification standards applying to examiners and instructors and their implementation are uniformly high, in line with the objectives of Article 2 of the Basic Regulation.

CAA makes a number of detailed comments on how the relevant provisions should be

UK CAA responds to EASA pilot licensing proposals continued from page 13

improved. There are also implications for the way examiners and instructors are overseen, when operating in Member States other than that in which they trained and qualified, which we will comment upon in responding to NPA 2008-22.

Instructors for Very Light Jets (VLJ) and High Performance Single-pilot Aircraft (HPA).

The UK CAA has been concerned for some time that the privileges of a Class Rating Instructor (CRI) can be extended to any single pilot type by just 10 hours experience on the type and, in the NPA proposal one flight with another qualified CRI. CRI ratings are revalidated purely on experience. Hence a SE CRI trained and tested on a C172 for instance could instruct on an aircraft such as the TBM 850 or PC 12 with these minimum requirements and no competency check on a high performance aeroplane. The UK CAA considers this to be unsafe. A CRI should only instruct for single pilot class ratings not designated HPA.

The UK CAA is proposing changes to the Class and Type Rating Instructor privileges such that training on all aircraft designated as HPA would require a properly trained and tested Type Rating Instructor. The UK CAA also considers that the single-pilot class or type rating skill test is inadequate for high performance aircraft and proposes, with the support of other NAAs that the multi-pilot skill test format should be used for types designated HPA.

We make a number of other comments on subpart J, across the whole range of qualifica-

tions, which if taken on board would mark a substantial change to the IRs for instructor requirements. We recognise that the Agency may want to consider all such changes together, perhaps by means of a further rule-making task, in which case the UK CAA would be happy to offer expert participation.

Glider licences

The UK CAA is concerned that there is no provision in Part FCL that provides for a smooth transition from currently unregulated but safe glider flying, which is the case in the UK and some other Member States, to a full regulatory regime requiring licences. In the UK the British Gliding Association has long issued certificates to glider pilots on the basis that ICAO standards are met by the applicant, a situation confirmed by a CAA comparison, and considers that these pilots should not be discriminated against because of the lack of a more formal national UK glider licence.

Comments related to Part Medical

The UK CAA strongly supports the move to ICAO Class 2 based medical rules for PPLs and the transitional measures proposed for existing JAA medical certificate holders.

The UK CAA would like to draw attention to five aspects of the proposals contained in Part Medical on which it has concerns, either because they do not sufficiently assure safety or because they do not reflect best medical practice.

The most important comment relates to:

for your diary

May 2009

2-3	International Microlight Exhibition Popham, Hampshire www.popham-airfield.co.uk	18-19
4	Multiflight Introductory Aviation Evenings Leeds Bradford Intl Airport www.multiflight.com	20 \
5-8	JAR-FCL Examinations ATPL (A), (H) Gatwick, Oxford, Shuttleworth College & Glasgow www.caa.co.uk	20-21
9	Oxford Aviation Training seminar APP First Officer Oxford Airport www.oxfordaviation.net	22 (
9	British Aerobatic Association Beginners Day 2 Leicester www.aerobatics.org.uk	22-24
12-13	JAR-FCL Examinations CPL (A) Gatwick www.caa.co.uk	ا 23-24 ا
12-14	EBACE 2009 9th Annual European Business Aviation Convention & Exhibition Pal Expo Centre, Geneva, Switzerland www.ebace.aero	27-29 C
14-15	JAR-FCL Examinations CPL (H) Gatwick www.caa.co.uk	I
Ju	ne 2009	

1	Multiflight Introductory Aviation Evenings Leeds Bradford Intl Airport www.multiflight.com
1-/	IAR-FCL Examinations ATPL (A), (H)

- 1-4 JAR-FCL Examinations ATPL (A), (H) Gatwick, Oxford, Shuttleworth College & Glasgow www.caa.co.uk
- 6 Cabair First Officer Direct Career Pilot Seminar Cranfield Auditorium www.cabair.com
- 8-9 JAR-FCL Examinations IR (A), (H) Gatwick www.caa.co.uk
- 11 GAPAN Aptitude Testing for Commercial Pilots RAF Cranwell (Guild of Air Pilots and Navigators) 020 7404 4032 www.gapan.org

18-19	Met for Aviators	
	Met Office College.	Exete

- www.metoffice.gov.uk/training Weather Decision Making
- Met Office College, Exeter www.metoffice.gov.uk/training
- -21 British Aerobatic Association Aero Instructors Training Seminar Wellesbourne Mountford, Warwickshire
- www.aerobatics.org.uk British Aerobatic Association On-Track Trophy Competition
- Wellesbourne Mountford Warwickshire www.aerobatics.org.uk
- -24 Aero Expo Prague Letnany/Kbely Airfield, Prague www.expo.aero/prague
- **23-24 Light Aircraft Association Fly-in** Newtown Northen Ireland PPR 02891 813327
- 27-29 Canadian Business Aviation Association 48th Annual Convention and Trade Show Montreal Canada www.cbaa.ca
- n Evenings
 12-14
 Aero Expo London

 Wycombe Airpark
 Www.expo.aero

 , (H)
 15-21
 Paris Airshow

 iollege & Glasgow
 Le Bourget, Paris France

 r Pilot Seminar
 27
 CTC Wings Open Day
 - CTC Crew Training Ctr, Nursling www.ctcwings.com 27 British Aerobatic Association Beginners Day 3
 - Little Gransden, Bedfordshire. www.aerobatics.org.uk

a) Limitations to medical certificates (MED.A.045): The CAA considers that there should be an additional requirement that only the Authority should be able to Version 1 Page 4 of 5 March 2009 remove a limitation on a Class 1 medical certificate; such removal is rare but is of great importance for flight safety.

Other safety concerns relate to:

b) Requirements for the issue of a certificate to an aero medical examiner (AME) (MED.C.010): The CAA considers that the level of qualification and experience required to be a class 2 AME is far too low. The proposed standard could be met by a doctor who has not undertaken any significant postgraduate training. A doctor with such a low level of qualification and experience could not safely work in an unsupervised clinical environment. Completion of higher training is an essential pre-requisite for an AME.

c) Requirements for the extension of AME privileges (MED.C.015): The CAA considers that the level of qualification and experience to be a class 1 AME is far too low. The aviation industry may reasonably expect that regulatory aviation medicine doctors should have qualification and experience similar to clinical care doctors.

Additionally, the CAA is concerned that some proposals do not reflect aeromedical best practice and will be unnecessarily bureaucratic and costly for industry, as follows:

- d) Limitations to medical certificates (MED.A.045): The CAA considers to be excessive the requirement for AeMCs or AMEs to refer any Class 1 applicant with a limitation (other than for correcting lenses) to the Licensing Authority at all revalidation/renewal exams. AMEs should be able to issue a revalidation/renewal medical certificate with a limitation if the underlying condition for which the limitation was applied is unchanged.
- e) Limitations to medical certificates (MED.A.045): The CAA considers that there is no safety reason to prevent a pilot with an Operational multi-pilot limitation (OML) on his certificate flying with another 'OML' limited pilot. The risk of both pilots in a two pilot operation becoming incapacitated simultaneously is negligible.

UK CAA's responses to: "General subjects on which the explanatory note to NPA Part FCL requested stakeholder comments"

1. Agreement with proposed requirements that differ from ICAO?

The UK CAA generally agrees with the proposed requirements identified in the NPA, subject to some clarification whether all the items do represent differences to ICAO SARPS and/or need to be notified. The most important proposals seem to CAA to be the following:

- a) Crediting of co-pilot flight time on singlepilot aircraft: The CAA notes that Part FCL crediting of co-pilot flight time is in accordance with ICAO if the State authorises it.
- b) The proposal that the LPL, which is a sub-ICAO licence, should be legally acceptable throughout the EU and EEA without further permission: The CAA would welcome confirmation that establishing acceptance of a sub-ICAO licence by all European states through EU legislation is not contrary to ICAO SARPs.

- c) Privileges of a PPL holder to include remuneration for the giving of flight instruction by the holder of a FI rating: the CAA welcomes the intention to enable easier and less costly means to obtain FI rating; some clarifications sought (see detailed comments). To instruct for a CPL would require the FI to hold that licence (FCL 915).
- d) The course for the CPL/IR airships to contain less instrument flying than required by ICAO: the CAA accepts the proposal and agrees that a difference will need to be notified to ICAO;
- e) A separate instrument rating IR(As) to be introduced as the privileges of the Part FCL CPL(As) do not include flight under IFR: the CAA supports the proposal and agrees that a difference will need to be notified to ICAO;
- f) Part FCL requirement for flight instructors on aeroplanes and helicopters not to include theoretical knowledge at CPL level: the CAA recognises that this proposal meets the request of industry to cater for severe shortage of FIs, where time and cost of CPL theoretical knowledge is known to be the major disincentive. The CAA wonders whether it could be argued that LPL instruction falls outside ICAO and thus no difference exists, but notes that there may be a problem for upgrades of LPLs to ICAO standards if FI did not meet SARPs.

2. Transitional arrangements.

The CAA considers that the maximum transitional periods must be permitted to resolve likely problems. It would be incorrect to assume that States are applying JAR-FCL 1, 2 and 3 and that transition to Part FCL would be seamless. Many states are using earlier amendments than used for Part FCL and a number have yet to implement JAR-FCL. There are also national licences with no JAR-FCL or Part FCL equivalent or issued as deviations from JAR-FCL. All states will need to amend current national rules for aircraft other than aeroplanes and helicopters. The CAA strongly urges the Agency to request the Commission to take advantage of the current proposal to amend Regulation 216/2008 [COM (2008) 390] to amend the requirement for all the provisions of the OPS and FCL articles to be fully implemented by 8 April 2012; allowance should be made for some transitional periods. necessary to prevent harm to the industry, to be set in Implementing Rules and extend beyond that date.

3. Whether a number of the Appendices to Part FCL should become AMC material as proposed by the Agency in order to facilitate more flexibility.

The CAA notes that the Agency questions the view taken by the FCL.oo1 Working Group, which argued that it is essential for uniformity of competence that requirements for courses etc. for professional licences should remain within binding legislation. The CAA considers that, although the working group position has merit, and is strongly supported by a number of NAAs, in this specific case it does seriously reduce flexibility to reflect "state of the art and best practice" through updating as required by Article 19 of the Basic Regulation. While the general requirements for theoretical and flying syllabi must be binding, detail of the courses should be in AMC that become binding through the course approval process. However, the CAA view is dependent on satisfactory processes being agreed for the development of AMC material, about which the Authority will comment further when responding to NPA 2008-22.

Source: UK CAA

http://www.caa.co.uk/docs/620/EASA% 20C AA% 20special% 20information% 20bulletin% 20200901.pdf



First Qualification of a DA42 Simulator with **Garmin GFC700 autopilot**

Diamond Simulation has recently delivered its first DA42 aircraft simulator equipped with Garmin GFC700 autopilot to Horizon Swiss Flight Academy in Kloten, Switzerland, following FNPT II approval by the Federal Office of Civil Aviation (FOCA).



Diamond say that their simulator is a very precise replica of the twin engine aircraft Diamond DA42 Twin Star and alongside the new GFC700 autopilot, also features accurate aerodynamics, systems replication and complex aircraft instruments simulation including a sophisticated external visual system (EVS).

The flight dynamic including the aerodynamic model, the engine, prop and gear model, says Diamond, are based on the aircraft reference data from Diamond Aircraft Industries as well as on additional subjective flight tests with the aircraft with experienced DA42 pilots from Diamond Aircraft, Diamond Simulation and customers alike.



Fixed-wing and rotary simulator manufacturer Frasca International has been selected to provide a new King Air B200GT FTD to Serco Group plc as part of the prestigious RAF Cranwell Multi-Activity Contract (MAC).



The new Frasca King Air B200GT FTD will feature the Collins Pro Line 21[™] fully integrated avionics system, an enclosed instructors station, and Frasca's Graphical Instructor Station (GISt). Other features include Frasca's TruVision™ Global visual system with a 220 degree display system and a custom RAF Cranwell visual database. Serco currently operates two additional Frasca B200 FTD's.

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Malaysian college equips with Mechtronix Ascent **Flight Trainer**

Mechtronix Systems has announced the purchase by the GGIFA International Aviation College of an Ascent Flight Trainer configured as a single engine piston Cessna 172R equipped with Garmin 1000 avionics for its new training facility based in Bintulu Sarawak, East Malaysia.

the FNPT to Commercial Pilot License, enclosed IOS area provides for Instrument Rating and PPL courses to both local and inter- instructor and student. The national students. To this end, visual and sound systems the new FTD has been pur- included in the unit are complichased in order to support ant to Full Flight Simulator GGIFA International Aviation Level D requirements. The College's expansion plans.

will feature a 180 x 35 degree of 2009 while seeking qualifivisual system and a Redifun cation with the Department of (RSI) Simulation Image Generator that Mechtronix say FSTD A FNPT II.

The academy plans to use will provide its users with provide exceptional fidelity. Its semiinteraction between easy llege's expansion plans. training academy plans to The Ascent Flight Trainer deploy the unit during spring Civil Aviation (DCA) under JAR



"We look forward to taking delivery of the Mechtronix simulator and see this key purchase as a way to provide the best training in Asia with modern state-of-the-art technology", said President Mr. Dato Morshidi Abdul Rahman of **GGIFA** International Aviation College. "The Ascent Flight Trainer will help us optimize our training curriculum and support our expansion plan."



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AT THE FOREFRONT OF EUROPEAN PILOT TRAINI

What future for European Instrument flying?

Many of Europe's private pilots currently fly with American FAA Instrument Ratings rather than European JAA ones, as it has long been held that the JAA IR is biased towards commercial flying and as a consequence much of the theoretical knowledge requirement is over-complicated and irrelevant for private pilots flying light aircraft. Additionally, with the introduction of pan-European pilot licences and ratings under EASA, the future of the UK's Instrument Meteorological Conditions Rating (IMC), which allows UK pilots and instructors to fly and instruct VFR above cloud, is under threat, and UK pilots are understandably concerned that their safe flying practices will be compromised.

It would appear that EASA has taken these concerns on board however, and following the publication of its Notice of Proposed Amendment (NPA) for Flight Crew Licensing last June, the Agency created FCL.008, a working group made up of industry experts to look into these issues concerning instrument and cloud flying.

Jim Thorpe is a member of FCL.008 and has written the following article outlining his personal views concerning progress the working group has achieved to date, as well as his thoughts as to what the outcome might be for pilots in Europe. He is also chairman of PPL/IR Europe, an organisation dedicated to the interests of pilots operating light aircraft under IFR in Europe, and his comments below were first published in the organisation's magazine **Instrument Pilot**.

While there are unnecessary barriers to obtaining an IR. I sometimes feel we ourselves have been rather complicit in talking up the difficulties whilst reticent about talking up the sense of achievement an IR brings. I am optimistic that this will change, and perhaps change dramatically,

Pilots have undoubtedly been discouraged from getting an IR by the bloated theoretical knowledge requirement; the lack of any natural progression from the PPL; and the focus of the limited number of approved schools on the needs of commercial IR candidates.

in the future. Pilots have undoubtedly been discouraged from getting an IR by the bloated theoretical knowledge requirement; the lack of any natural progression from the PPL; and the focus of the limited number of approved schools on the needs of commercial IR candidates.

The IMC has been a popular and useful qualification in the UK but has carried no credit towards the IR and no validity elsewhere in Europe. The attitudes of the flying schools have been understandable given the limited numbers of PPL IR candidates but of course that is a chicken and egg situation.

The IMC rating posed a real problem. It was very difficult to see how it was going to work in practice in Europe where there is little or no Class A airspace. Elsewhere in Europe even the pilot community saw little need for a sub-ICAO instrument qualification. It became clear that it was up to PPL/IR Europe to draft credible proposals as a basis for discussion of a possible coherent Europe wide structure for PPL instrument flying. A consensus has been reached by the FCL.008 group, which I am very happy indeed to support; let me be absolutely clear, however, that we are only at the first stage of a long process by which proposals become European law. There are many hurdles to overcome and it is possible – although hopefully unlikely - that the proposals could disappear completely for political reasons unconnected with aviation. But worrying about this is for the future.

> Our immediate objective is to help EASA produce - for consultation detailed proposals for instrument flying which are well thought out and have the potential to revitalise the purposeful use of light aircraft as a practical means of transport. I been have hugely impressed by the openness and constructiveness of EASA staff and the representatives of national aviation authorities and

pilot unions notwithstanding considerable initial concerns. This is not to say that there have not been some forceful debates and compromises along the way. An initial problem was a genuine lack of understanding across Europe of how an IMC like qualification might work. Neither was it obvious to all how a number of individual problems, some relatively minor, together created real and unnecessary hurdles for aspiring IR holders. My main initial task was one of explanation. EASA took it as given that there was an issue which needed to be addressed so there was no need to argue at this

An Enroute Instrument Rating (EIR) would give holders the privilege of flying in IMC en route, in any class of airspace, anywhere in Europe level. The prior work done by PPL/IR Europe members in assessing how proposals might work in countries with very different airspace and IR practices was of great help and really the FCL.008 group soon came to accept that the proposals were workable in broad terms.

I don't want to go into too much detail at this stage and must emphasise that this is a personal - not an EASA - view of the future.

First, it is proposed that training and qualification will become based on competence rather than instructional hours flown. Some limited hours based training requirements will remain, not least to ensure ICAO compliance; however, the aim was to keep these to a minimum and place trust in qualified instructors and approved training organisations (ATO) to decide when a candidate was ready to demonstrate competence through a skills test.

What has emerged is an Enroute Instrument Rating (EIR) which will give holders the privilege of flying in IMC en route, in any class of airspace, anywhere in Europe. It will be limited to flight conditions giving a very high probability of enabling departure and arrival to take place in VMC. The expectation is that it will reduce controlled air space infringements, make long journeys safer and more practical, and enable instructors to instruct VFR on top.

Turning to the ICAO compliant IR, its minimum requirements will mirror the ICAO model quite closely. These include instrument time, time with a qualified instructor and time in an ATO. Some of these will be met by the EIR training and subsequent experience flying as pilot in command in IMC using the EIR; however, before the short, compulsory course at the ATO there would be a pre-entry assessment flight and the actual training requirement would be based on individual flying competence. With regard to the theoretical knowledge requirement, we have been involved in a complete review of the syllabus looking at every one of the many hundreds of learning objectives. Here we built on some earlier work of the JAA and it is my belief that the proposed syllabus is now eminently reasonable and very comparable with that of the FAA. There was about 100 years of combined IR and instructing experience round the

Grandfather Rights for holders of the FAA IR and the IMC is of particular concern to many UK pilots

table. When anyone suggested some obscure topic was needed in the syllabus, I admitted I had no idea what it was all about and asked if anyone else could explain it. That lead to some rather furtive looks and speedy acceptance that perhaps the topic was not quite so essential.

The vexed question of grandfather rights for holders of the FAA IR and the IMC is of particular concern to many UK pilots. This is still under discussion: however, it is likely that the IMC will be dealt with by the UK CAA since it is a national qualification. With the needs of the FAA IR holder or a military pilot in mind, we have worked hard to restrict the compulsory minimum training for the full IR. The fall back position for such an experienced pilot is that they could acquire an EASA IR by fulfilling these basic requirements. I would suggest that a pilot who is current could do this with relatively little wasted effort; however, as I say, this is a fall back position and more favourable transitional arrangements may well emerge.

Overall the likely outcome from EASA FCL.008 will be a proposal of huge potential. It should provide a progressive modular approach which would encourage many more pilots to obtain a useful instrument qualification. The amount of effort they need to put in will be more relevant, more enjoyable and more closely reflect their needs. The end point of the ICAO IR will be a qualification entirely equivalent to that obtained by commercial pilots. It is not suggested that this modular approach will be cheaper and it is likely that most young pilots with commercial ambitions will still follow the traditional route with hours based courses at ATOs; however this new route will enable pilots to match their ambitions with financial and time constraints. It should be more flexible in terms of aircraft types and locations where training can take place.

And it should present a huge opportunity for flying schools across Europe both to generate new business and to win back business that presently heads for the USA.

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Flight1 FlightMax Entegra Avidyne EXP5000 PFD interactive courseware

People learn to fly for all sorts of reasons. Some people learn to fly for the sheer pleasure of being airborne; for them a very basic day VFR panel is more than sufficient. Others want to use the aircraft as serious transport tool and their aircraft will be more complex as demands on their capabilities increase. Some, including many FTN readers, are looking for a career and will be learning how to use the latest generation of control and navigation systems. Whatever your needs, it is now possible to equip a small piston-engined touring aircraft with the sort of 'glass cockpit' multifunction displays which were exclusive to the latest generation of jet airliners only a decade ago.



Principal among these are the Garmin G1000 (and more recent -600) and the Avidyne EXP5000 PFD (Primary Flight Display) systems. These displays are truly amazing (particularly for one who learnt on a strictly VFR aircraft whose single VHF comm. unit worked properly for maybe half the time) but the downside is that, unlike an aircraft fitted with the regular 'sixpack' of clockwork instruments, it is no longer possible to simply jump in to an unfamiliar type and fly it after an hour or so of circuit-bashing. You need to learn to operate the systems and that can easily take longer than learning to handle the aircraft.

Clever software providers have cottoned-on to this, and the associated fact that an hour sat at a computer is significantly cheaper than an hour in an aircraft and various training packages for these PFD systems have emerged. FTN reviewed a fine one for the Garmin G1000 a while ago; now it's the turn of Flight1's excellent product for the Avidyne EXP5000, used in various flavours of Cirrus aircraft, among others.

As with so many of these products, there is the option to have a spoken commentary, which essentially recites the text which appears on each lesson page. Presumably this is a boon for pilots with very poor eyesight! The use of sound means progress is at a fixed pace, limited by the time taken to recite the text. The voice, while pleasant and easy to listen to, speaks quite slowly. Not, to be fair, annoyingly or patronisingly slow, like a visitor in an old folks' home, it is more that the commentary is simply unhurried, taking plenty of time to get the lesson across. Impatient soul that I am, it didn't annoy me, so will almost certainly not annoy anybody else. Selecting sound 'off' means you

can progress at your own pace without cutting off the commentary in mid-flow, but some graphics on the page will change in synch with the soundtrack so, if you're waiting for a demo, it'll go at the speed of the commentary whether you listen or not. If you don't realise this, you may easily miss a helpful little bit of animation by moving to the next page before the graphic does its thing. Think twice, therefore, before selecting sound 'off'.

Progress through the course is linear. You can re-set (start again) but there is no obvious way to skip sections and move to an area of interest until a section has been worked through. Once completed, however, you can move freely through material previously covered. This does mean that the student would need to quickly skip through all sections in order to gain access to bits if he were trying to cherry-pick material to learn. This might be fine, but there is another minor flaw in that sort of plan: each lesson comes with a self-test section at the end. In order to progress to the next lesson, you have to pass (get 80%) this before you can move on to the next section. The obvious logic here is that you can't absorb the next lesson unless you are properly familiar with the previous one and this may well be true but again, it may be tiresome if you just want to learn about or review a specific section.

Taking all the above in context, this is a very thorough, welltaught and well-executed training tool and anybody who wishes to get properly to grips with the Avidyne EXP5000 would be well-advised to invest the £80 or so this package costs. Similar money (£70 or thereabouts) will also buy you an add-on for Microsoft Flight Sim (FS2004 and FSX compatible) which adds

another dimension to the operating and learning experience by allowing you to 'fly' an Avidyne-equipped Cirrus SR22 or Piper PA28, PA32 or PA44, complete with integrated dual Garmin GNS430s. I haven't tried it, not least because I don't use FS2004 or FSX, but I'm led to understand it is as good as the standalone training package, which is to say, very good indeed.

One other thing, Flight1's Avidyne EXP5000 interactive courseware does also make a rather good sales tool for Avidyne, or Avidyne-equipped aircraft like the Cirrus. Working through the various tutorials, it is very clear that the capabilities of this sort of kit are clearly quite astonishing. This is not simply some egoboosting toy. Compared to the regular suite of clockwork and gyro instruments, the Avidyne kit is a very sophisticated and powerful tool indeed, with the vital caveat that you take the care and time to learn how to use it properly. Software like Flight1's package here is just the ticket.

Flight1 FlightMax Entegra Avidyne EXP5000 PFD interactive courseware

Flight1 FlightMax Entegra Avidyne Student interactive simulator, (add-on for Microsoft FS2004 and FSX flight simulator)

Both kindly supplied for review by Airplan Flight Equipment and available via:www.afeonline.com



18 | May 2009 - Issue 249 Flight Training News www.ftnonline.co.uk



1826C)

The bi-annual Aero show in Friedrichshafen, southern Germany, has always been seen as an indicator of the health of Europe's General Aviation scene. In the long term this indicator must be on the positive side, as the show has grown over 35 years or so from a smallish event held in a tangle of post-war buildings in the centre of Friedrichshafen, to the current event spread through the modern purpose-built halls of the very impressive 'Messe Friedrichshafen' site, located at Friedrichshafen airport.

The 2009 show, the 17th 'Aero' event, was always going to be closely followed by industry observers for pointers to the current state of European GA, and on the evidence of the numbers, the signs are (perhaps) surprisingly positive. According to the organisers, exhibitor numbers were up 12% on the last 'Aero' at 625 exhibitors. Visitor numbers were put at 46,400 and although the organisers did not provide a 'show-on-show' comparison, this is believed to be slightly up on the 2007 Aero, although visitor numbers seemed to be more concentrated on the Friday and Saturday of the four-day event.

In terms of flight training, the major interest of the show was in Diamond, and the future of their product line without Thielert engines. At a press briefing during the show, Diamond presented a picture of a product line moving ahead and leaving a troubled period behind it following the insolvency of Thielert. Diamond spoke of their Chinese factory developing the capability to build 1000 aircraft a year and although they admitted that the D-Jet program had been delayed, they are still aiming for certification in the 2nd quarter of 2010 with first European deliveries in Autumn 2010. They also confirmed redundancies in Canada and Austria, with 450 contractors leaving the D-Jet program. While Diamond also said that 'recreational' sales had all but ceased at present, they expect a 50-aircraft order from an SE Asia flight school and are currently in talks with two major Indian schools.

They also see potential in Taiwan, Vietnam and in particular China where at present there are just 400 GA aircraft (of which 140 are Diamond models). Turning to the Austro AE300 engine that they have developed to replace the Thielert Centurion model originally fitted to DA4os and DA42s, Diamond were scathing about the Thielert unit, saying that the decision to develop their own engine was taken four years ago in the light of problems with the Centurion engine and in particular its failure to achieve a 2000hour Time Between Overhaul (TBO). Diamond has spent €48m setting up a facility to build up to 1000 Austro engines a year and the Austro engine's transmission is currently certified for a 1000hour TBO (as opposed to 300 hours for the Centurion), the target remains a 2000hour TBO. They also claimed that the Austro engine is on track to improve fuel economy by up to 20%. The Austro engines are likely to be offered with possibilities of a 'Premium Maintenance Program' or a 'power by the hour' program so that operators can have a degree of certainty over maintenance costs. Most significantly for owners and operators of existing Diamond aircraft with Thielert engines, the company says that all existing diamond airframes will be capable of being 'retrofitted' with Austro engines, with approvals expected in about two months time for the DA42, and in December for the DA40.

On their stand Diamond had two new models in particular fitted with Austro engines. One



was the **DA42NG** (Next Generation) on its first public outing – more about this aircraft in the panel opposite. Also on show was the **DA40 'Club Star'** – a version of the DA40 which appears to be designed specifically for VFR and club operations.

Powered by the Austro engine, the Club Star cockpit has 'round dial' flight instruments and what looked like a Garmin GDU 370 series moving map display.

The Club Star is also fitted with a towing hook and the aircraft is expected to sell for about $\notin 200,000$.

The other major news from the show for the flight training industry came from **Thielert Aircraft Engines (TAE)**, with the announcement that responsibility for sales of TAE engines and spare parts has been transferred to a new company known as 'Centurion'. TAE administrator Bruno Külber said that because Centurion is not





affected by insolvency proceedings, it can offer a two-year warranty on TAE engines and parts. He said that this warranty would apply regardless of whether the engine came from a Centurion distributor, service centre or aircraft manufacturer. Herr Külber also said that Centurion would be better placed to supply



replacement and retro-fit engines both for DA40 and DA42 aircraft, as well as for Robin, Piper and Cessna aircraft that have been fitted with TAE units. Herr Külber also stressed that he is under no financial pressure make a quick sale of TAE and can afford to wait for a good deal.

Centurion chairman Jasper Wolffson expanded on the company's plans and in particular the 155hp Centurion 2.0S engine which is under development and planned to be installed in a C172. He said that there would be a 'upgrade path' from the 2.0 centurion engine to the more powerful 2.0S and that development was proceeding at "Full Throttle" – pun intended apparently – for the retrofit option to be available before the end of the year. Herr Wolffson also said that work was underway to extend the service life of Centurion clutches and transmission from 300 hours to 600 hours which would mean a cost saving of around €3,400 and he was also confident that the 1,200hour TBO of the Centurion 2.0 engine should also be increased by the end of the year – although he did not say what the new TBO would be. Turning to the Austro engine, Herr Wolffson poured scorn on the idea that this engine could be retrofitted to Diamond aircraft currently fitted with a TAE Centurion engine. He said that the DA42NG had been specifically designed for the Austro engines, but the DA40 and earlier DA42 models would require "major and complex adjustments of the airframe" to fit the Austro AE300 engine. He cited in particular the need for strengthening work to wings and undercarriage required because of the increased weight of the Austro engine (an extra 50kg), as well as new geometry engine cowlings, "the AE300 is not an alternative to the Centurion" he said. However, Herr Wolffson may have given a clue as to what Centurion see as the major driver for future sales when he spoke of the 2,000 Centurion engines currently in operation and the consequent replacement and spares market. In any event, there was no hint of reconciliation with Diamond and time will tell which company is right about the feasibility of retrofitting existing DA40 and DA42 aircraft with the Austro engine.

Elsewhere at Aero o9, the other major training aircraft interest came from Grob Aircraft, who fell into insolvency in the middle of 2008. After a period of around six months standing idle, the company was purchased in February by H₃ Aerospace - a company operating in the aviation industry with a turnover in the onedigit million euro range. "We intend investing between six and eight million euros in our new company over the next two years, mainly in order to develop new products in the field of aircraft construction," emphasised Johann



Heitzmann has also indicated that the focus of activities will be Grob's traditional core business of building training aircraft.

Grob's good news at the show was the successful closing of a fleet sale of at least 20 G115 aircraft to the UK training organization VT Aerospace, with a whole life contract value in excess of €10 million. VT aerospace currently operates a fleet of 97 Grob Aircraft, the G115 serves as a training platform for the UK Defence Forces. Aircraft deliveries will commence towards the end of 2009 with all aircraft being delivered within a 4 month period. Grob also told FTN that its G120 trainer - essentially a retractable version of the G115, is awaiting a launch customer. Also on the comeback trail, a Robin DR400 diesel represented the hoped-for ture of Robin aircraft.

Lycoming showed off their iE² series engines which offer single lever operation, elecronic ignition and engine data recording capability. Certified initially for operation with 100LL AVGAS, the iE² series will also have the capability to run on unleaded petrol (MOGAS), not surprising given the increasingly widespread expectation that AVGAS supplies will cease at some point in the foreseeable future. Asked by FTN if Lycoming had plans for a Jet A-1 fuelled diesel engine, the guarded response was "We could tell you, but then we'd have to kill you," so that's a yes then.

Elsewhere in the halls Sennheiser announced their new HME and HMEC 26 headsets and UK pilot supplies company Airplan Flight Equipment (AFE) launched their VFR UK Helisites flight guide, due for publication in June.

In the aircraft park outside the halls almost all the GA spectrum was represented from microlight to Legacy mid-size business jet. It was notable how many piston-engine aircraft were fitted with silencers - still a comparative rarity in the UK.

Nearby a new Piper Seneca V with Avidyne 'glass cockpit', oxygen and weather radar represented the top-end of piston engine training aircraft, while the Zeppelin on sight-seeing flights provided a link both to Friedrichshafen's





past and, possibly, its future. From next year Aero will become an annual event in a further show of confidence in GA. Exhibitors and visitors alike were hoping that this confidence will prove to be well-founded.



Diamond DA42NG first impressions





a PA-28 Warrior Cadet

On public display for the first time since receiving EASA certification, Diamond's 'Next Generation' DA42 Twin Star is likely to be the first Austro-engined Diamond aircraft to go into service.





DA42 (MTOW, sea level, ISA conditions). The aircraft on show at Aero og was equipped with ice protection, as evidenced by the 'weeping' wing and tail leading edges, and fluid protection to the Ice protection windscreen and propellers.

FTN also noted that the crosswind limit for the DA42NG has increased by 5 knots to 25 knots. Diamond say that the DA42NG will be delivered with the GFC700 autopilot and the G1000 displays will be prepared for Synthetic Visual Technology (SVT).

sign of the Austro engine installation in place of the previous Theilert TAE engines is the newshape cowlings on each wing that enclose the Austro AE300 turbo-charged engines, each delivering 168HP (compared to 135HP for the TAE engines). The DA42NG has a max take-off weight

At first glance, the most noticeable external

(MTOW) of 1900kg, an increase of around 6% over the TAE-powered DA42. Also noticeable on the inner wing leading edges is a row of vortex Re-designed cowlings around the Austro engines generators, the DA42NG stalling speeds are

around 6 knots faster than the TAE-powered DA42.

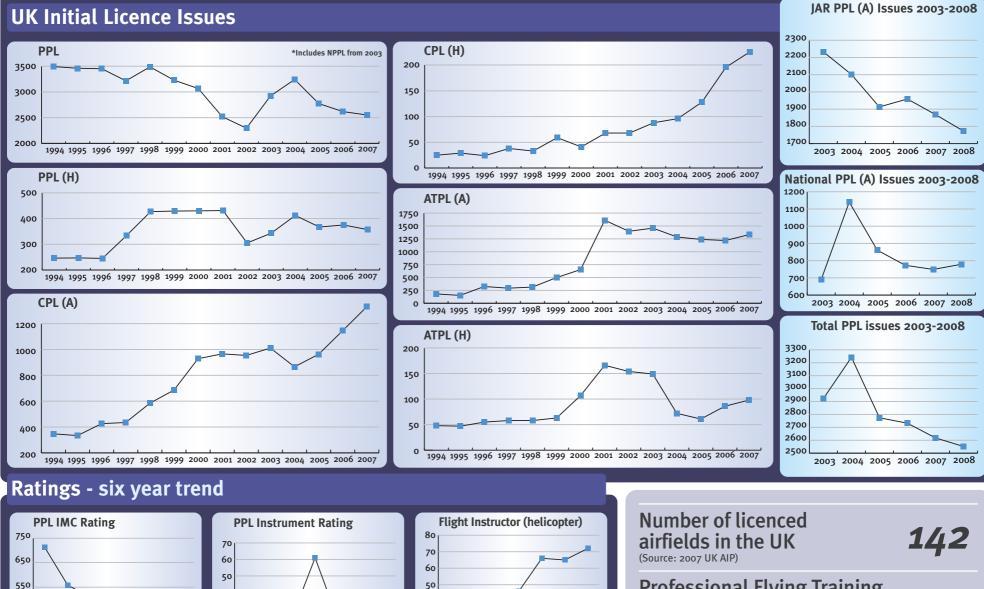
The single-engine ceiling for the DA42NG is 14,000ft and the all-engines service ceiling is unchanged at 18,000ft. Data from Diamond indicates that take-off distances in the DA42NG will be about 40m longer than in the TAE-powered



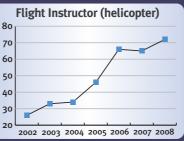


ТТСТТ

UK Initial Licence Issues



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2008	figure	year-on-year change
PPL (A) (includes JAP- PPL and NPPL)	2552	-2.5%
PPL (H)	357	-5.0%
CPL (A)	1331	+16%
ATPL (A)	1333	+9.5%
ATPL (H)	98	+14%

How green is aviation?

All forms of transport combined account for 14% of global greenhouse gas (GHG) emissions.

45

35

25

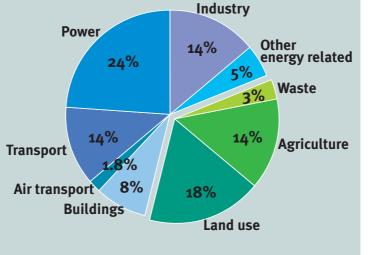
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21

Domestic and international air transport account for 14% of transport-related global greenhouse gas (GHG) emissions.

- Water transport is responsible for 1.5% of global greenhouse gas (GHG) emissions.
- Air transport is responsible for 2% of global greenhouse gas (GHG) emissions. Transport
- Road transport is responsible for **11%** of global greenhouse gas (GHG) emissions.
- **Business and General Aviation uses less** than 1% of the fuel of the airlines and accounts for only **0.016%** of all CO2 emissions. (Source: BBGA)



Professional Flying Training 107 **Organisations UK and ROI** *excluding organisations that are solely TRTOs. (Source: Flight Training News) **Microlight Schools** 107 UK and ROI (Source: Flight Training News)

Helicopter Schools 102 **UK and Ireland**

Current Licence Processing Turnaround

As at the 24 March, the UK CAA were processing licence applications received:

Professional Flight Crew	10 March 2009
Private Flight Crew	10 March 2009
• Instructors	16 March 2009
NPPL Flight Crew	9 March 2009
	(Source: CAA)

Statistic of the month

There are three pilots out of every 1000 people in the US. Out of 67,000 licensed instructors in the US, just 15,000 are active. Only 6% of American pilots are women.

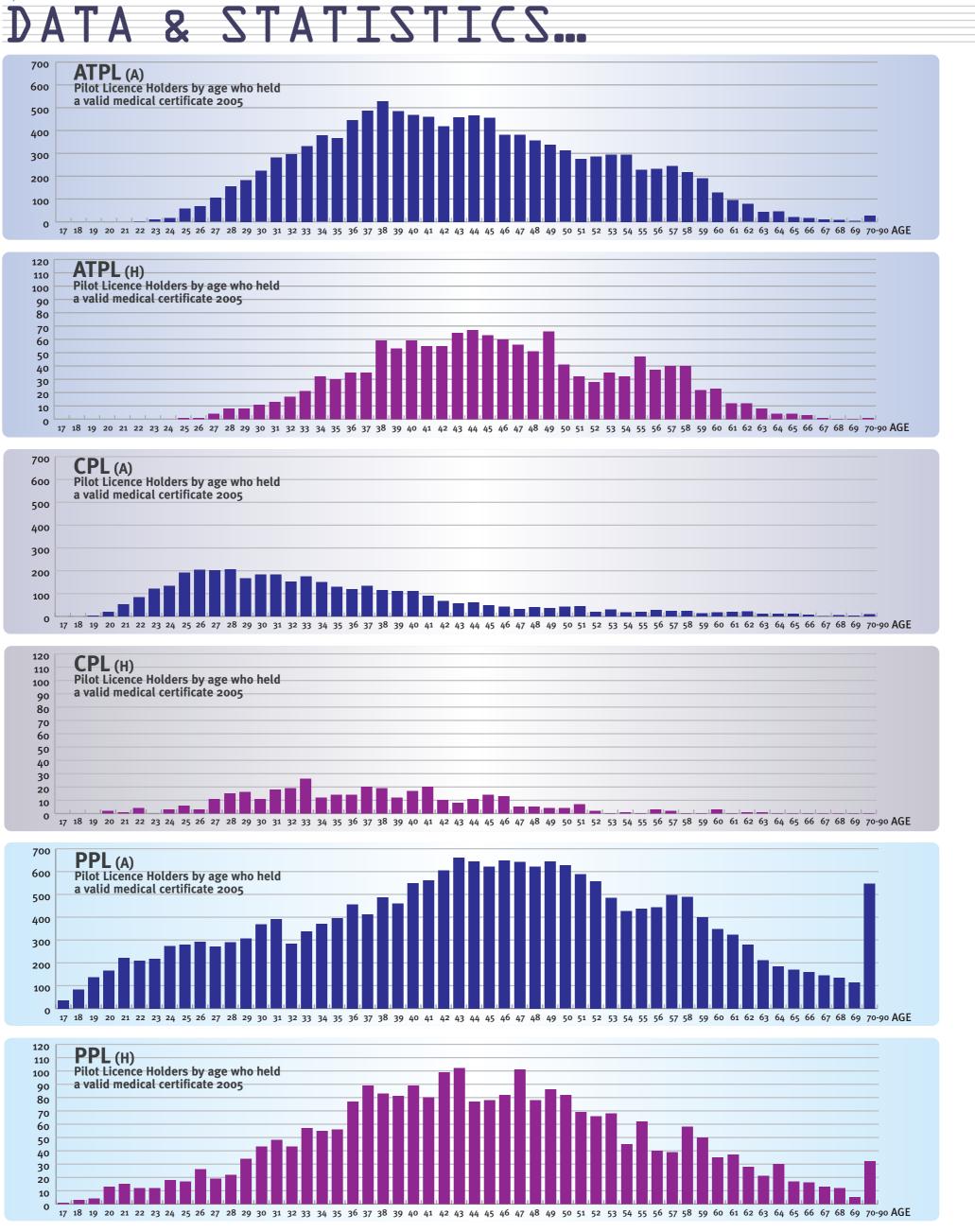
EURO	PEAN GENERAL AVIATION
90,000	pilots engaged in private powered flying
	microlight pilots
	glider pilots
	hang glider and paraglider pilots
	balloon and airship pilots
	General Aviation aircraft
22,000	gliders

(Source: European Community paper on General Aviation)

DATA & STATISTICS...

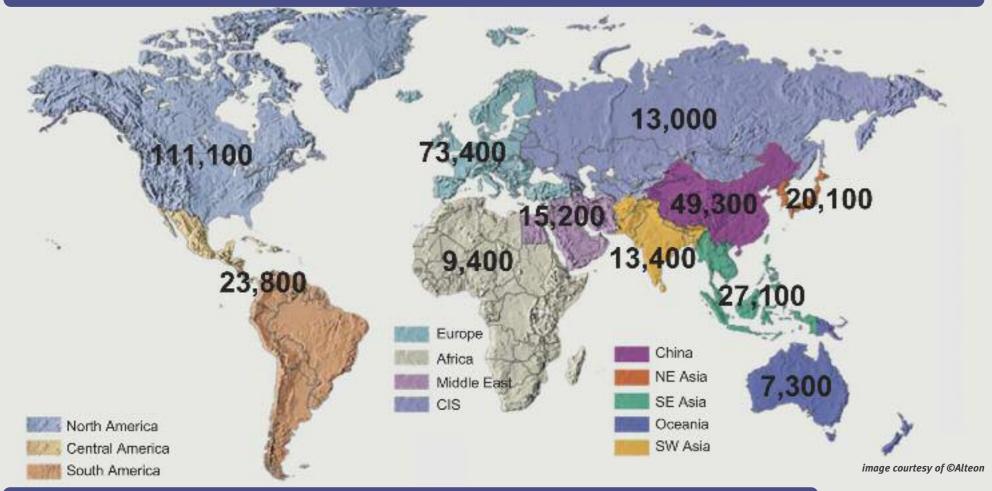
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		DIESEL			Protect the RNLI fi using Maritime ra				8th Oct 2009	28,551	"Ofcom wants to bring 'ma	er10.gov.uk/RNLI-RF-licences/ arket forces' into the maritime and avi- e RNLI will have to pay £250,000 a
_			_								year, and 'smaller search a	ind rescue charities fear they may have ist be rejected wholeheartedly."
Forthco	oming UK a	nd ROI JAR Theoretical k	Knowledg	e exams	Say No To Aviation	n Fuel Tax (a ste	ealth tax t		2nd July 2009	901	http://petitions.numb	er10.gov.uk/aviationtax/
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Exam Month	Closing date for applications	Subjects		Exam Dates	Consultation			Details				Link
JUNE	18/05/09	Principles of Flight, Airframes, Mass and Balance		Mon 1 June	Proposal to incr of ATOL Protecti		2 June 009				to increase rate of ATOL .') on all bookings	http://www.caa.co.uk/applicat ion.aspx?catid=33&pagetype=
		Instrumentation, Operational Procedures, Flight General Navigation, Radio Navigation, Meteorolo	-	Tue 2 June Wed 3 June	Contribution ('A		-				october 2009.	65&appid=11&mode=detail&i d=3526
		Air Law, Human Performance, VFR Communicatio		Thur 4 June	Letter of Intent - Provisional susp		/a				r the CAA to suspend of airworthiness of UK-	http://www.caa.co.uk/default.a spx?catid=1868&pagetype=90
JULY	22/06/09	Communications Principles of Flight, Airframes, Mass and Balance	e, Performance	Mon 6 July	EASA certificate worthiness			register	red exampl	es of an aire	raft type that is regu- n Safety Agency (EASA)	
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JULY	29/06/09	Principles of Flight, Aircraft General, Performance		Mon 13 July	EASA O	pen Co	onsu	ltati	ons			
		Navigation, Meteorology, Operational Procedure: Air Law, Human Performance, VFR Communicatio	s, Ins	Tue 14 July	Consultation		Details					Link
SEPTEMBER	28/08/09	Principles of Flight, Aircraft General, Performance	U	Mon 14 Sept	NPA 2008-22a NPA 2008-22b		Authori	ty and O		n Requiren		http://www.easa.europa .eu/ws_prod/r/r_npa.ph
		Navigation, Meteorology, Operational Procedures Performance, VFR Communications	s, Ali Law, Human	Tue 15 Sept	NPA 2008-220 NPA 2008-22d		B. Auth C. Orga	ority Red nisation	quirements Requirem	s (Part-AR) ents (Part-0		p
		s: Gatwick only		Fuery D. 1	NPA 2008-22e NPA 2008-22f		F. Regu	latory Im	<u> </u>	ssment FCI		
Exam Month	Closing date for applications	Subjects		Exam Dates	NPA 2009-01	30th June 2009	"Opera	tional Sı	uitability C	ertificate"	and "Safety Directives"	http://www.easa.eu.int/ ws_prod/r/r_npa.php
JULY 01/07/09 Principles of Flight, Aircraft General, Performance and Planning Wed 15 July					NPA 2009-02a NPA 2009-02b	31st July 2009				r Operation	ns of Community Operat	
Navigation, Meteorology, Operational Procedures, Air Law, Human Performance, VFR Communications					NPA 2009-020 NPA 2009-02d		B. Draft C. Draft	Opinior Opinion	n and Decis	sion Part-O sion Part-O	PS R (Subpart OPS)	
SEPTEMBER	02/09/09	Principles of Flight, Aircraft General, Performance		Wed 16 Sept	NPA 2009-02e NPA 2009-02f		D. Draft E. Draft	Opinion Opinion	n and Decis n and Decis	ion Part-AR	Coubpart GEN, OPS and and Supplement to Dr	
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MAY	04/05/09				-		System					





DATA & STATISTICS...

Pilot Demand to Support Fleet Growth & Pilot Retirements (2006-2026)



Numbers represent the total pilots needed to support fleet growth & pilot retirements between 2006-2026

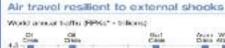
INDUSTRY WATCH

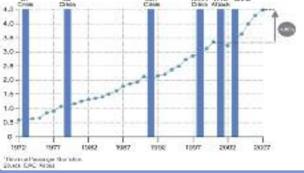
Scheduled services of Association of European Airlines member airlines:

December 2008										
Type of Traffic	Passenge Boarded (Annual Change							
European	18,085.3		-10.9%							
International short/medium h	naul	12,525.4		-4.4%						
Longhaul	5,352.3		-3.1%							
Type of Traffic	Freight To Kms	nne-	Annual Change							
European	61.1		-20.9%							
International short/medium h	144.3		-15.2%							
Longhaul		2,408.1		-21.8%						
General Aviation new aircraft deliveries worldwide January-December 2008										
Category	200	8	2007		Change					
Piston	2,11	9	2,675		-20.8%					

Turboprop	535	439	+16.6%							
Business Jet	1315	1138	+15.6%							
(source, General Aviation Manufacturers Association)										

Airbus Passenger Traffic Data – the long term view





British Airways passenger statistics

March 2009										
	March 2009	March 2008	Change							
Passengers	2,610	2,841	-8.1%							
Load Factor	72.7%	79.3%	-6.4%							

easyJet passenger statistics

March 2009			
	March 2009	March 2008	Change
Passengers	3,494,312	3,240,767	-6.8%
Load Factor	84.7%	87.4%	+2.8%

Ryanair passenger statistics

March 2009	March 2008	Change
4,700,000	4,500,000	+5%
75%	77%	-2%
	4,700,000	4,700,000 4,500,000

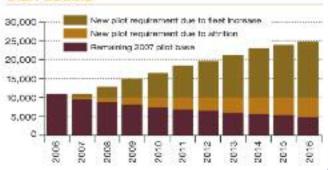
BAA airport passenger statistics

March 2009									
Airport	Passengers A	Change	ge						
Heathrow	65,929.3			-3%					
Gatwick	33,106.1			-6.9 %					
Stansted	21,635.3			-8.1%					
Southampton	1,891.3	1,891.3							
Glasgow	7,908.9		-8.7%						
Edinburgh	8,858.5		-2.8%						
Aberdeen	3,233.2	3,233.2							
UK Nationa	l Air Traf	fic Service	s tra	ffic d	ata				
Type of Flight		Mar 2009	Mar 20	008	Change				
UK Flights	UK Flights			04	-8.9 %				
Transatlantic Arrivals/Departu	ıres	10,100	11,200)	-9.8%				
Other Arrivals/D	epartures	107,517	118,45	3	-9.2%				
Domestic		37,524	40,04	4	-6.3%				

Airbus Pilot Demand Forecast – emerging markets

Indian pilot numbers to nearly triple... lew plict requirement due to first incre 30,000 lew plot requirement due to attrition 25,000 Remaining 2007 pilot base 20.000 15,000 10.000 5.000 2016 2012 2013 2014 2005 2010 2016 2006 2003 2008 201

...Chinese pilot numbers to more than double





We have some new residents on the field, ED, OVAH!" an aerobatic display team called The Titans.

Now, don't get me wrong, they are after all annoyingly good pilots, but what is it about pulling 'G' that seems to scramble a man's brains?

The team leader, an ex fast-jet Johnnie from the RAF who walks with a swagger normally reserved for D-list celebrities and goes by the handle 'Blockbuster', even though his given name is Bertram Wotherington-Smythe, is a classic case in point.

The team set up office on the field about a week ago now and despite the extra income which is undoubtedly a boon in these times of economic hardship, I've got some serious reservations about them being based here at Spread-Eagle airfield.

Going back to the beginning, the first I heard of their arrival was when the radio sprang to life one lazy Tuesday afternoon, when Linus was snoozing at the Ops desk and I was catching up on some long-overdue paperwork in my office.

"SPREAD-EAGLE RADIO FROM TITAN FOR-MATION, OVAH!" barked a voice on the radio, waking Linus up from his afternoon siesta.

"Err... (?) Formation ... this is Spread-Eagle radio... pass your message," yawned Linus in reply.

"SPREAD-EAGLE RADIO, THIS IS TITAN FOR-MATION, FOUR-SHIP YAK DISPLAY TEAM, INBOUND, AIRFIELD INFORMATION REQUEST-

"Err... roger, Titan Formation, runway twotwo, right hand circuit, QFE 994," replied Linus, his interest growing quickly as he realised what was inbound.

"Rrr-ROGER! RUNWAY TWO-TWO, RIGHT-HAND CIRCUIT, QFE 994. VISUAL WITH THE FIELD NOW, PERMISSION FOR STRAIGHT-IN APPROACH WITH OPPOSITION BREAK GO-AROUND, OVAH!"

"Err... roger, Titan Formation, call final." "TITAN FORMATION FINAL!" came the call a

minute later. "Surface wind two-three-zero, 5 knots."

"Rrr-ROGER!"

Curiosity getting the better of me, I had left my office by now and had joined Linus at the radio to see what was going on. Looking out of the Ops window Linus and I spotted the fourship formation team making their final approach at about 150 knots.

Just as they made the threshold of the runway, the radio sparked into life again.

"TITAN FORMATION, OPPOSITION BREAK ... GO-AH!"

Following their leader's command, the two front aircraft broke left and right performing barrel rolls as they went, followed closely by the two trailing aircraft. Re-grouping in the overhead they then proceeded to perform a full aerobatic routine, replete with smoke, derringdo and more noise than I generally appreciate having blasted at me on a Tuesday afternoon,

before landing five minutes later, two abreast concluded, waving in the direction of his three on the runway. Even their shutdown was coordinated as they lined up in front of the clubhouse.

"TITAN FORMATION, CHECKS COMPLETE, SHUTDOWN... NOW-AH!"

"Christ, I bet they even go to the toilet in formation," I muttered to Linus, who by now was fully awake and was gawping at the pilots climbing out of their aircraft with what appeared to be nothing short of hero worship.

A few minutes later and the four of them breezed into the clubhouse, resplendent, or at least I'm sure they thought so, in their black flying suits emblazoned with their 'handles' and team insignia on right and left breast pockets.

"I say... simply great to be here... you must by the 'guvnor, what?" said the tallest of them as he stopped at the desk and plonked his bone dome on the counter.

"Yes, I am the airfield manager," I replied. "Nice little display there... you staying long?"

"Permanently, dear boy. The old comms network must be down between you and your bossman methinks," he intoned in a voice that I'm certain would have me reaching for some migraine pills in due course.

"Think you best give him a call and find out where you're parking our kites - can't have the old girls left out in the cold, dontcherknow," he continued. "We'll be in the bar when you've finished your little tête-á-tête with your bossman and found us some digs. The name's Blockbuster, by the way, and this is Tug, Rooster and Oily," he

comrades, before marching bar-wards with his team in close formation behind him.

"Right, Linus," I said as soon as they were out of earshot. "Get the boss on the phone, there's got to be some mistake here and I'm going to enjoy the look on their faces when I tell them they've got the wrong airfield."

A couple of minutes later and Linus handed the phone over to me.

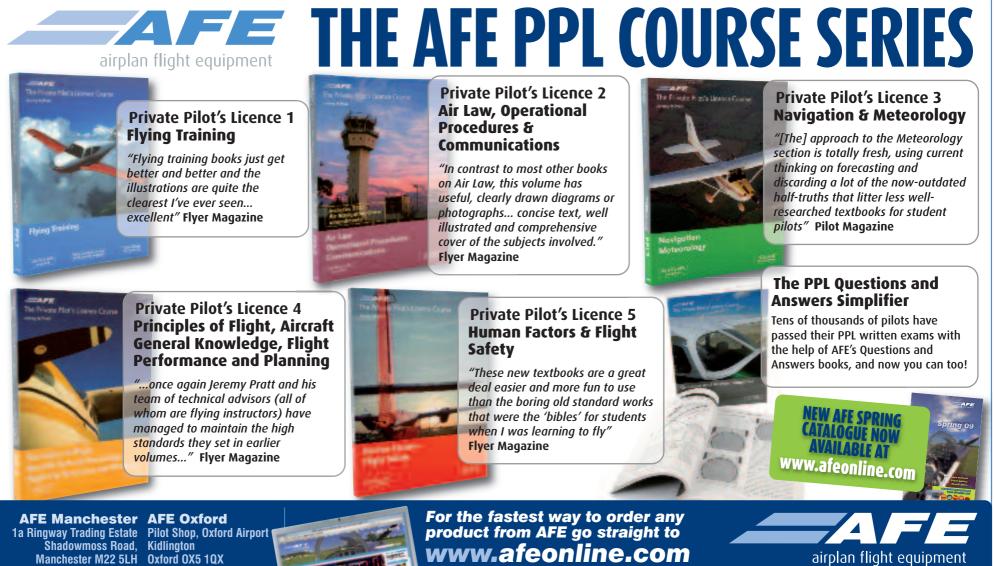
"Afternoon boss," I said, speaking into the phone, "looks like we've got some lost aerobatic pilots up here at the airfield. They claim that they are basing themselves here and that you forgot to tell me."

"Yup, that's the deal. Thought I did tell you actually," replied the boss. "You'll like Blockbuster," he continued. "He's quite a character and a good friend, and his team will add some real kudos to the airfield."

"I want you to let him have your office until I've sorted out a new portacabin for them, and put their aircraft in hangar one. Pull out whatever is in there at the moment and re-house them in the barn. If anyone complains tell them it's the barn or nothing, OK?" he ended, ringing off before I had a chance to reply.

I stood there for a moment staring into the distance, phone hanging from its chord in my hand.

"LINUS!" I yelled, as I started to come to again. "We've got trouble ... " To be continued.



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airplan flight equipment

Rigging of 'flex-wing' microlight aircraft

The 'flex-wing' microlight aircraft was kept in the hangar at the airfield with the wing attached to the monopole. With removed from the trike. On the morning of the incident the aircraft was rigged and flown by two different instructors on six trial lessons and two training flights.

the front strut to the monopole consists of a 'U' channel which is attached to the monopole by an 8mm (M8) bolt. The front strut is secured to the bracket by a keep pin and locking ring, and an over-sleeve assembly connects the bottom of the front strut to the lower strut assembly. To enable the wing to be fitted to the monopole, the monopole can rotate about its connection point on the trike keel. Once the wing has been fitted to the aircraft, the monopole is locked in position by an overcentre catch at the top of the seat frame. On the this microlight type, the Centre of Gravity of the trike is forward of the monopole and in flight the lift loads from the wing are shared between the front strut and monopole, such that there is a tensile load in both of these structures. If the front strut should fail in flight, the front of the trike will drop and a rearwards bending moment will be applied to the monopole, causing it to bend rearwards at the overcentre catch location.

During the eighth flight of the day the instructor and student had performed six to seven 60° banked turns and the aircraft was in a 30° banked turn to the right when they heard a loud 'bang'. The instructor could see that the bracket securing the top of the front strut to the

Figure 1 - Failed front strut bracket

8 mm (M8)

Front strut

bolt

The front strut upper bracket which connects monopole had failed and that the trike had adopted an attitude approximately 10° more nose-down than normal. The instructor took control of the aircraft from the student and made a precautionary landing in a field.

On investigation, it was found that both side faces of the front strut upper bracket had failed where they join the rear face (Figure 1). The rear face of the bracket had also failed across the M8 securing bolt hole. The distortion of the bracket and the direction of failure of the side faces indicated that the bracket had been orientated upside down and had been pulled away from the monopole. There was also a dent in the rear face of the monopole adjacent to the overcentre locking catch and the monopole had bent rearwards, about this point, by approximately 2°. The securing holes in the front strut and over-sleeve were all slightly elongated. When the microlight is correctly rigged the front strut is aligned with the upper bracket (Figure 2). When rigging the aircraft it is possible for the upper bracket to rotate about the M8 securing bolt, such that the bracket is then orientated upside down. During the investigation a bracket on another microlight of the same type was orientated upside down and an attempt was made to fit the front strut without the wing

the bracket in this orientation the distance between the keep pin holes in the bracket and the lower strut assembly was greater than when the bracket was correctly orientated and it was not possible to fit the keep pins. However, the manufacturer has stated that with the wing fitted to the monopole, the side face rear face front strut monopole 8mm (M8) bolt keep pin structure can flex sufficiently to allow the pins to be fitted with

the upper bracket orientated upside down. In this configuration the front **Previous occurrences -** Incorrect fitting strut would then be subject to a tensile preload when the monopole overcentre catch is moved to the engaged position.

Previous occurrences - Bracket failure in flight

In 2006 a similar incident occurred in Australia when the bracket which secures the front strut to the monopole on microlight of the same type failed whilst the pilot was carrying out steep turns. The pilot carried out a precautionary landing. The only other damage to the aircraft was to the monopole which had bent rearwards.

The aircraft manufacturer investigated the failure and concluded that the bracket had been fitted upside down. During that investigation, load tests were carried out on two brackets: one was incorrectly fitted and the second was fitted in the correct orientation. On the bracket which had been fitted upside down the rear face started to bow when a load of 310kgf was applied and there was evidence of cracking along the side faces when the load reached 610kgf. Both side faces subsequently failed when the load reached 640kgf. On the bracket which had been correctly orientated there was evidence of very slight bowing of the rear plate when the load reached 750kgf. However, at a load of 1,100kgf, which was the maximum that could be applied by the test rig, there was no evidence that the bracket was about to fail.

The damage to the brackets which failed during the manufacturer's testing was very similar to the damage on the bracket which failed on the incident aircraft.



of bracket

Following this incident the British Microlight Aircraft Association (BMAA) was informed by one of their members that he had also fitted and flown his microlight with the bracket orientated upside down, although on that occasion the bracket had not failed. The AAIB was informed of other occasions when individuals had incorrectly orientated the brackets on other models of flexwing aircraft, but it had been noted by instructors and corrected before the aircraft were flown.

Immediately following this incident, the BMAA advised their inspectors and members owning this microlight aircraft type of the consequences of flying with the front strut upper bracket orientated upside down. The aircraft manufacturer is considering introducing a modification to prevent the aircraft from being rigged with the bracket incorrectly orientated.

Comment

The evidence indicates that the incident occurred as a result of the aircraft being flown with the bracket orientated upside down. Calculations and tests by the aircraft manufacturer have shown that a correctly orientated bracket can sustain a load 2.25 times greater than a bracket that has been fitted upside down. When fitting the front strut it is likely that an additional tensile load was introduced into the incorrectly orientated bracket. It is probable that this additional tensile load, when combined with the flight loads, caused the bracket to fail in flight.

From an AAIB report

First Helicopter Solo Went Wrong

Monepole

Rear face

Side face

Keep pin

After completing several dual flight exercises, the instructor briefed the student to fly the first solo circuit. The instructor advised the student to apply additional forward and left cyclic during take-off to compensate for the lack of an occupant in the left seat. During the first attempted take-off the helicopter yawed left. The student controlled the yaw by applying right yaw pedal and landed. The instructor returned to the aircraft and, speaking on the intercom, reminded the student to apply forward and left cyclic control. When the instructor had moved away from the aircraft the student resumed the exercise.

yawed more violently to the left while remaining in contact with the ground. The student responded by applying right cyclic and yaw pedal inputs. The student then felt the aircraft "jolt" and responded by applying aft cyclic con-

During the second take-off the helicopter trol, which caused the aircraft to pitch nose up. The student attempted to control this by applying forward and left cyclic and then raised the collective in order to gain height. However, the rear tip of the right skid remained in contact with the ground and the aircraft rolled over onto

its right side, causing damage to the main rotor and a fuel leak. The pilot, whose right arm was trapped in the cockpit, vacated the aircraft with assistance from the instructor, having sustained a broken wrist. The airport fire and rescue service was quickly in attendance but there was no fire.

The instructor commented that, acting on advice to apply additional forward and left cyclic on take-off, the student may have overcompensated for the lack of a left seat occu-

pant. It is likely that during the student's subsequent attempts to control the aircraft the rear tip of the right skid became a pivot point, resulting in dynamic rollover. This condition cannot be stopped by application of opposite cyclic control alone, but may be arrested by lowering the collective control. The instructor intends to reinforce teaching of dynamic rollover and the appropriate techniques for avoiding and recovering from it.

From an AAIB report

SCHOLARSHIPS & SPONSORSHIPS

Caroline Trust

Flight simulators these days are truly impressive at replicating the thrill and the art of flying, and simulator software for gliders are no exception. But nothing beats the real thing, does it?

school and who are eager to experience the thrill of flying in a real glider, but who don't have parents or guardians who have enough spare cash to help, read on, there is always a way.

For schoolchildren in the UK who wish to get airborne without having to lean on poor old Mum and Dad to get the funds to do so, one answer is to get in touch with the Caroline Trust. The Caroline Trust has been running since 2000 and is dedicated to providing young people, especially women, with the opportunity of experiencing the sport of gliding, as well as encouraging and enabling those with disabilities to participate in the sport.

Over the last eight years the Caroline Trust has given away many hundreds of bursaries worth £250 each to schoolchildren across the UK to go and spend at local gliding clubs and learn about flying. It doesn't matter where you live, as there are gliding clubs right across the UK (see the map reproduced right), so there's bound to be one not more than a few miles from where you live.

The bursaries are paid direct to an individual's flying fund at their local gliding club to help them achieve milestones of First Solo. Bronze medal, Basic Instructor rating and so on. In the UK, individuals are allowed to fly solo from the age of 16, and as long as you've got enough hours and experience there is no age restriction thereafter before you can get your instructor rating – indeed, instructors as young as 18 are not unheard of in the UK.

And, according to the Trust, the gliding clubs will often supplement the bursaries themselves, in order to provide individuals with as much chance as possible of achieving their flying goals, so your £250 bursary could ultimately amount to much more.

Additionally, once a year, an award of £300 is made to the cadet who has distinguished themselves in their flying and also contributed the most to their gliding club - gliding is a very social activity, as people have to work together in preparing their gliders before flight. For example, unlike powered aircraft, gliders tend

Those of you reading this who are still at to spend most of their time on the ground parked up in long narrow trailers, in order to protect them from the weather, which can damage their gel coat covering that helps them fly so efficiently without the

assistance of an engine. So when it comes to going flying, the gliders need to be rigged for flight, which means unpacking them from their trailers and fixing on their wings. And a glider wing can be anything up to 10 metres in length, so a little help from fellow club members is generally required! This award therefore, is not only given to those who become the 'ace of the base', but also to those who show the most willing in helping their fellow club members out. The award is presented each year during the British Gliding Association's annual conference.

bursaries run The throughout the year and are open, predominately, 15-16 year olds, to although up to 18 year olds will be considered if they have particular problems in funding their training, and up to 21 year olds for those who wish to become an Instructor. Disabled individuals who wish to experience gliding for the first time can apply irrespective of age.

For further information and to apply for a bursary, visit the Trust's website www.carolinetrust.org.uk



The Caroline Trust **Gliding clubs in the UK**

Civilian Gliding Clubs - excluding University Clubs

ervice Clubs with restricted

SCHOLARSHIPS & SPONSORSHIPS

JN Somers ATPL Scholarship closing date 15 June 2009

In these times of economic hardship, training scholarships and sponsorships are becoming increasingly scarce and flight training has proved no exception this year. Some individuals and companies who were previously happy to donate sums of money to help less fortunate individuals increase their chances of achieving their dreams, have, of late, understandably been cutting back in their donations. It was hardly surprising therefore when the Guild of Air Pilots and Air Navigators (GAPAN) told us earlier this year that the JN Somers ATPL Scholarship would likely be put on hold for the time being.

Just as we were going to press for the April across industry as one of the most prestigious edition however, we were contacted by GAPAN representative Clive Elton who, as a member of the IN Somers ATPL Scholarship interview board, had just been informed that the scholarship was back on for 2010 & 2011, despite fears to the contrary.

The JN Somers ATPL Scholarship is undoubtedly the most generous professional flying training scholarship in the UK. Indeed, it is the only flying training scholarship in the UK that provides full funding toward s a 'frozen' ATPL and as such FTN makes no apology in giving it as much publicity as possible each year. The scholarship has been providing pilots with fully funded courses towards a 'frozen' Air Transport Pilot's Licence and Instrument Rating (including the JOC and MCC module) since 1999. Generously instigated by Mrs Somers in memory of her husband, the late JN 'Nat' Somers, who was a Test Pilot and a member of GAPAN from 1946, the scholarship is widely recognised ic climate.

flying scholarships in the world and as such graduates are virtually guaranteed airline employment.

The scholarship, worth in excess of £80,000. was believed to have been cancelled for this year, but GAPAN received a letter from Mrs Somers at the end beginning of April confirming her intention to provide another two fully funded scholarships over the next two years. Applications for the 2010 scholarship will need to be submitted to GAPAN by 15 June 2009, with Morrisby aptitude tests to be held at City University on 16 July and interviews on 6 August at RAF Cranwell.

The scholarship winner will then commence training early next year at a school to be selected by GAPAN, with graduation in spring of 2011, by which time, says Clive Elton, it is hoped that there will be better airline employment opportunities then in the current depressed economMinimum Age of 18 years and maximum

- 26 years on year of application Holder of Class 1 JAA Medical Certificate
- Educational standards of at least 5 GCSE passes in relevant subjects.(e.g. English, Maths, Science) and at least 2 A level passes or equivalent level of qualification (as determined by the Qualifications Curriculum Authority www.qca.org.uk)
- Evidence of strong motivation towards a career in aviation - evidence of progression towards a PPL will enhance a candidate's application

Training at a JAA approved training organisation tends to commence in the Spring of the year following application at a training organisation considered to be the most suitable available world-wide, selected by GAPAN.

The last winner of the scholarship was Philip Macgregor from Maidstone in Kent, 22-year old Philip studied at Durham and later Northumbria Universities and during that time was an enthusiastic member of the University Air Squadron. to download at www.gapan.org

The minimum entry requirements are as follows: His score at aptitude testing was, according to GAPAN, "truly awesome" matching the highest score they've ever seen - that of a previous J N Somers Scholarship winner. Philip commenced his training at Flight Training Europe, based in Jerez, southern Spain, earlier this year.

The Scholarship is not easily won and is awarded only to those individuals who are recognised as being of the very highest calibre. This even led in 2005 to no Scholarship being awarded at all due to a lack of suitable candidates. This is not to say that potential applicants should be put off applying, as even being short-listed for interview is recognised as a worthy accomplishment and can only bolster a pilot's CV and even an outside chance of winning a Scholarship worth £80,000 is surely worth following. It is a little disappointing therefore, says Clive Elton, that there has been a falling trend in the number of applicants received each year, with less than 150 applying for the last Scholarship.

Applications for the scholarship must be made using GAPAN's application form available

SCHOLARSHIPS & SPONSORSHIPS QUICK REFERENCE GUIDE

	AIRCRAFT TYPE				FLYING TRAINING TYPE							РЕ	0	THER	CONTACT DETAILS			
	FIXED WING	ROTARY	GLIDER BALLOON	ATPL	CPL	R	PPL	GLIDER LICENCE	NPPL	FI(R)	FI(MULTI)	FI(INSTRUMENT)	FI(AEROBATICS)	јос	AEROBATICS PRF-SOLO	ENGINEERNG/	OTHER WOMEN ONLY	
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Glen Stewart Flying Scholarship Trust	•						•											www.flyingscholarships.co.uk
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Airfield Eatery Reviews #2 of a potentially infinite series

Is it possible that airfield greasy spoon cafes are at risk of extinction? There have been a number of stories recently about improved eateries at various GA airfields and last month 'Squawk' itself reported the new '3 Greens' restaurant at Elstree. Following that revelation a freelance FTN spy was in touch urging us to check-out 'The Pad' at Wycombe Air Park (that's Booker to those over a certain age).

We duly sent an uncover reporter heavily disguised as a pilot (gold bars, handlebar moustache, silk scarf, that sort of thing) and can indeed report that The Pad offers comfortable surroundings, good food and service and a nice view of activities across the airfield. More gratifyingly in our view, we can also report that the proprietors seem to have a more traditional view of how an airfield cafe should be run, judging by the sign on the door:.

It's all very well finding these nice places to eat, but we really want to know if there are any establish-

Trouble expected?



ments left out there that still adhere to old-fashioned views of how pilot should be treated and fed. We already have a tantalising story about the original Stansted airport staff cafe, now long gone and unlamented. Back in the present day if you're brave enough to spill the beans (pun intended – honest), we'll check it out. Over to you....



Crafted from black Zirconium (no - we'd never heard of it either but we checked and it does exist), with 4-bar, 18-carat gold inlay, the Captain's ring is a constant reminder to the world at large that you have earned your stripes, even when you're out of uniform.

- the Captain's ring. Yes, really.

Presumably, the Captain's ring will provide a unique opportunity for First Officers to display their ardent admiration for their Captains with ring kissing becoming

Captains, with ring kissing becoming part of the pre-flight checklist. And the fact that Zirconium becomes explosive at high altitude (well, OK, only in powder form) was presumably nothing more than an innocent oversight by the FO who came up with the idea.

Bling alert!

Continuing our series of high fashion pilot accessories (see March's Squawk for details of where to get your hands on a mile high bed), we are delighted to bring

you this month the definitive article in pilot jewellery

CAPTAIN'S RING

And it's all yours for a measly \pm 304. Included in the price is the engraving of one's pilot licence number on the inside of the ring, presumably for foolproof identification following use of the 'Captains only' shower rooms.

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CAPTION COMPETITION A feature of this year's Aero 09 Friedrichshafen show seemed to be an above average

number of very attractive and very under-clothed young women populating the halls and stands. Not surprisingly, rather than being attracted by the opportunity to meet glamorous and dashing pilots, they were there to promote various products and services, although it wasn't always easy to find out exactly what those might be as their product knowledge sometimes seemed a little limited (like our German).

One group of said women were especially visible around the halls in their Canary yellow tops, although we never did learn what they were promoting. So, bearing in



MEANTIME, THE WINNER OF LAST MONTH'S CAPTION COMPETITION WAS ANTHONY PRICE, WHO OFFERED: "I USED TO BE AN R22 UNTIL I STARTED DRINKING RED BULL" mind the boundaries of taste and decency (which we're always willing to cross), we invite captions for this photo stolen from the Friedrichshafen press office.

As always, please send your entries via www.ftnonline.com to receive the undying admiration of your peers.



aeroplanes – what does it mean we wonder? Even allowing for such cynicism, an FTN spy was slightly disturbed to come across a glider trailer recently with a seemingly

Most of us have heard the alternative

description of an aircraft (ie: a hole in the

air you pour money into) - it tends to receive

weary nods of recognition from any aircraft owner. But still people keep buying

prophetic registration: We checked it out and a glider with that registration does exist - it's a very nice DG1000T and as far as we know it's yet to come to any kind of grief. Intrigued, we did a bit more research and subsequent intensive questioning of the UK agent for DG (those very nice people of McLean Aviation at Rufforth, near York) revealed that recently their hanger was graced not just by G-RIEF but also G-RIPE (another DG1000T) and G-MOAN (a Ximango) all together. Just as the collective noun for instructors may be a 'quibble' of instructors, we're wondering if the term for a group of glider pilots should be a 'whinge'

We'd hesitate to describe glider pilots as



we think of them as being optimists, launching into the skies and hoping for enough lift to keep them airborne), but maybe they know something the rest of us don't. In the meantime, other registrations for the inevitable 'funny registration' feature will be G-RATE fully received... Sorry.

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