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FEBRUARY 2014

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**Front cover:**  
**Eclipse**  
Peter R March

## Chairman's message

### Change of scene in GA

The holiday period over Christmas and New Year period has followed the usual pattern, with AOPA on hold and little GA flying activity due to the recent terrible weather. Prior to this, however, a great deal was happening. The December 2013 issue of *General Aviation* contained news of exciting new prospects and projects, including the recent appointment of Patrick Ky as Executive Director of EASA – the published interview with him promising a more proportionate and pragmatic approach to GA regulation. Another report covered the Government's General Aviation Red Tape Challenge, initiated by Grant Shapps, Minister Without Portfolio, GA pilot and aircraft owner. A letter from Robert Goodwill, the Parliamentary Under Secretary of State for Transport, outlined a number of measures aimed at improving the future viability of general aviation in the UK. As we are now all aware, one of those measures was to establish a dedicated GA Unit at the CAA.

So the scenery on the GA stage is being shifted around. Change always induces a measure of uneasiness, the law of unexpected consequences sometimes springing unwelcome surprises. Once things settle down, the overall outcome should be good for GA by having brought about most of the intended improvements and benefits.

With regard to the new GA Unit, the CAA in its response to the GA Red Tape Challenge (CAP 1123) provided constructive aims and objectives including taking "...the lead role within the CAA of working with EASA and colleagues in other NAAs in the negotiation and implementation of EASA's GA Safety Strategy..." Excellent! All interested in the wellbeing of general aviation would have also been pleased to note that: "...The Unit will be staffed by GA experts with knowledge and experience appropriate to the sector..." This provided a warm feeling that GA would be properly looked after. The newly appointed Head of the GA Unit, Tony Rapson, is highly experienced in airspace policy matters and has had a long career in the RAF, and will no doubt find himself on a steep learning curve in coming to grips with the multi-faceted activity that is general aviation. He has a good example to follow, namely Andrew Haines, the Chief Executive Officer of the CAA whose prior experience lay in the management of a railway company. Any qualms felt by those with long standing involvement in the aviation industry have been thoroughly laid to rest by Andrew's demonstrated energy and commitment to understanding the world of GA. Let us wish Tony every success in his challenging new position.

Regarding EASA, a hugely welcome sign has been the recent reprieve for the next five years of the UK IMC Rating. Up to that point, the fight to retain the rating for UK PPLs was all but lost. The meeting at EASA on the Cessna SIDs I wrote about in this column in December 2013 was constructive and helpful, providing expectation that the Safety Information Bulletin (SIB) to be circulated for comment would remove the fear (particularly held by AOPA Germany) that a National Aviation Authority could mandate the related maintenance inspections that are listed as recommendations only. This SIB has now been issued, and, in my view, is a masterpiece of civil service prose of which Sir Humphrey would be proud – whilst each page of the SIB states as a footnote "This is for information only. Recommendations are not mandatory", the content does nothing to persuade an NAA not to make the inspections mandatory. We are fortunate in the UK that our own CAA is sticking to the 'recommended' line.

Finally, challenges lie ahead when from September the European Parliament re-constitutes itself with a new set of re-elected and newly elected MEPs, enabling fresh opportunities to improve the viability of general aviation in Europe (see the IAOPA Europe Enews on [www.iaopa.eu](http://www.iaopa.eu) for more detail). The year 2014 is going to be a busy one for AOPA and the work cannot continue without financial support in the form of membership subscriptions. If the occasion arises, please do not hesitate to remind those non-member pilot and owner friends who also benefit from our efforts that they would help the GA cause by also joining AOPA!



*George Done*



# RAF man takes over GA Unit

An RAF Group Captain who is expert in air traffic control and airspace policy is the surprising choice to head up the CAA's new General Aviation Unit.

Tony Rapson, a CAA insider who was seconded to the Department for Transport as the UK's policy lead on the implementation of the Single European Sky legislation, returned to the CAA in January to prepare to take over the GA Unit, which is due to begin work in April.

His appointment was greeted with some disquiet in GA circles, where his apparent lack of experience of general aviation gave cause for concern. But AOPA's Chief Executive Martin Robinson said: "We will do everything we can to support Mr Rapson in his new position. We wish him all the luck in the world, and AOPA looks forward to engaging with him on the issues that matter most."

After a 27-year career in the RAF, including tours in the Ministry of Defence, Air Command Headquarters and as Officer Commanding the London Air Traffic Control Centre (Military), Tony Rapson joined the CAA as an airspace policy expert in 2008. He was instrumental in the development of the Future Airspace Strategy, in the context of the Single European Sky, before moving to the DfT in 2012 to lead negotiations with the European Commission on SES.

The General Aviation Unit was established by the CAA following the Government's Red Tape Challenge consultation into how the CAA regulates GA. The CAA says the GA Unit "will be dedicated to a more proportionate, effective, regulation that supports and

encourages a dynamic general aviation sector for the UK".

AOPA is looking forward to working with the GA unit to make that goal a reality. There are some issues that remain to be explained about the Unit, and Martin Robinson has been asked to meet with planners and policymakers in February. 'General aviation' is as yet undefined in this context, and of course, no-one will want to pay more in charges.

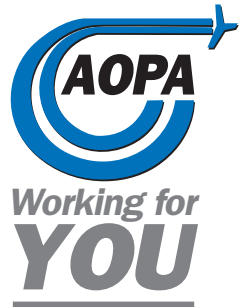
Martin Robinson says: "Whatever the difficulties, we will make every possible

effort to ensure that the GA Unit is a success and that every sector of aviation benefits from it. We welcome Tony Rapson's appointment and very much look forward to working with him.

"We will need to agree how much work the unit needs to do in respect of safety oversight, and this will lead to funding discussions."

At the same time as Tony Rapson's appointment was promulgated, the CAA announced the appointment of Rob Bishton as Head of the CAA's Flight Operations Department. Mr Bishton was previously Group Operations Director of Fastjet Plc, and he had previously occupied several prominent positions with easyJet, including Head of Flight and Aircraft Operations and Chief Pilot, and Astraeus as Director of Flight Operations and Flight Training Manager. He is a current A320 and B737 captain and instructor and was formerly type rated on B757s and 767s. He has also held helicopter type ratings.

Mark Swan, Director of the CAA's Safety and Airspace Regulation Group, said: "I am delighted that we have two such high calibre individuals joining our team. Rob and Tony bring a wealth of relevant knowledge and experience to the CAA which will prove invaluable to the organisation. I am very confident that the aviation industry will benefit from their dedication and focus." ■



**Above: Tony Rapson, the new head of the CAA's General Aviation Unit**

## Challenges for 2014

*By Martin Robinson*

The coming year is likely to be equally busy, if not more busy, than 2013. The European Parliament will begin to dissolve by April as MEPs start their re-election campaigns. By September the next parliament will take over, although it will not start work until about October.

IAOPA Europe will continue its campaign called 'General Aviation Connecting Europe' in partnership with the European Business Aircraft Association as we strive to establish a greater presence in Europe at the political level. AOPA Germany's Managing Director Michael Erb and I have agreed to hire Ulrich Stockmann, a former MEP, for six

or seven months to help us achieve greater visibility in the European Parliament.

We have cultivated many friends in the Parliament who understand GA. At the end of December I attended a two-day conference on transport at the European Parliament and spoke with Jackie Foster MEP and Brian Simpson MEP. Brian, a supporter of GA, is not standing for re-election, which means there will be a new Chair of the Transport Committee. Jackie Foster hopes to be re-elected and intends to stay with Transport.

Talking about the make-up of the next Parliament, the MEPs say the two groups likely to succeed will be the Social Democrats and the Christian Democrats,

although the right may gain a larger number of seats. Across Europe there is a growing belief that the right wing parties are attracting the interest of more people because so many in Europe are unhappy with the political situation.

Over the next seven years, European taxpayers funding of transport-related projects will rise from €8 billion to €26 billion. The parliamentarians are calling for more efficient use of this money. Another funding programme called 'Horizon 20/20 (R&D)' will have €70 billion available, 50% of which will go into transport research and development, of which €7 billion will go to SESAR.

The Commission is still considering taking infringement action against some states for failing to deliver on Functional Airspace Blocks (FABs), the essential foundations of the Single European Sky. Transport ministers signed up to unlock capacity through FABs but states have

failed to deliver, particularly where more than two states have been involved. I believe that Europe made a mistake in trying to rationalise Air Navigation Service Providers; the rules for establishing FABs should have been put in place as well as the legal basis for allowing ANSPs to merge, but the Commission seemed focused on reducing Europe's 67 air traffic control centres. Infrastructure must be a focus for the next Parliament. Other issues for transport will be noise, and alternative fuels. Europe will demand fewer delays and lower environmental impact. Performance-based navigation will grow across all of Europe's airspace, and will affect GA IFR operations. Billions of euros will go into large public transport plans and very little into the non-airline sector

of aviation, but funding for Galileo will indirectly benefit GA. As ever, the focus will be on the airlines. The Commission still fails to appreciate the needs of GA when it comes to airport and airspace access, and this must change.

On a bright note, all over Europe we see important positions being claimed by people who have a greater understanding of general aviation than those who went before – Patrick Ky at EASA, Patrick Gandil at the DGAC France, Angel Luis Arias at DGAC Spain, Andrew Haines at the UK CAA. This can only be a positive trend for GA, and we welcome it.

Here in the UK, the Red Tape Challenge triggered by Grant Shapps MP and endorsed by the senior echelons of the CAA give us hope that the burdens on our sector can be relieved while there is still time. ■

## AOPA assists in Rule 5 case

An AOPA member who is a flying instructor has been fined £140 for low flying after failing to intercede quickly enough when his student flew below 1,000 feet over a built-up area.

The member took advice from AOPA and was assisted in the case by our CEO Martin Robinson. After the case he wrote to Martin saying: "I just wanted to say thank you for all your help... I could not have done it without your guidance. If I can ever repay you for your time and patience, please get in touch. I've been selling AOPA at work and so far had one of my colleges sign up, and I believe I've

## Chief executive's diary:

### Looking back, looking forward

Another new year, and time for an appraisal of what's been achieved and what remains to be done. The contents of the 'in' tray tower over those in the 'out' tray, but we can look back on some significant successes in 2013. Progress is mostly a matter of changing entrenched attitudes, and at EASA, the CAA and elsewhere there is evidence of a growing realisation that inflexible over-regulation is doing tremendous harm to the entire aviation industry, and that things must change.

I've written about our plans and hopes for 2014 elsewhere in these pages, so I won't repeat myself. My greatest wish for the year is for proper flying weather this summer; we've had one good year in five, and we deserve a break.

Going back to November 18th, I attended the final CAA Finance Advisory Committee for 2013. The meeting focussed on the documents that are consulted on with regard to charging proposals that come into effect in April 2014. The new Scheme of Charges needs ministerial approval, which has to be granted prior to April. Of course AOPA remains concerned about the level of charges applied to GA, and we wait with interest to see how the GA Unit will be accommodated in the budget.

Next day I took part in an early discussion about the current PPL syllabus, as it is the CAA's intention to modernise the PPL content and submit an alternative means of an acceptable means of compliance. This is mentioned elsewhere in these pages; more information as we have it.

On November 20th I went to the CAA Board meeting hosted by West London Aero Club at White Waltham, along with other GA representatives. This discussion with CAA Board members was a useful opportunity for a frank exchange of views at the very highest level. I'm confident that the Board is fully behind the new approach to GA and that there will be no turning back.

On November 25th, accompanied by Michael Erb, Managing Director of AOPA Germany, I met with Thomas Mayer and Ulrich Stockmann in Berlin to discuss further political lobbying requirements in Brussels. We arranged to meet again in December in Brussels. We have limited time available if we want to establish the GA 'inter group' to promote our interests at the European Parliament. The parliament will break for elections in April 2014 and re-commence in September, which means we must sort out a sponsor and supporting MEPs quickly. The European Business Aviation Association supports IAOPA in this.

Next day I met in Brussels with two French lobbyists, Philippe Salemis – an AOPA member – and Andre Clodong. They approached me after having read about the departure of our previous lobbyist Lutz Dommel. Their main lobbying activities are in the petro-chemical field. I have asked them to send a proposal to me based on the conversation that we had.

On November 27th I attended the European Commission's Industry Consultation Body. The main points of discussion were the Functional Airspace



Blocks (FABs) and the lack of commitment to them on the part of the member states. Commissioner Siim Kallas is particularly angry because member states have failed to deliver on FABs. I said that the Commission got FABs wrong because they were trying to drive forward a rationalisation of Air Navigation Service Providers rather than creating an environment where ANSPs could merge. The UK's National Air Traffic Services will be running 13 towers in Spain by next year, and that's the best route to rationalisation.

Europe has only 4% more airspace than the USA but has 60 ATC centres compared to their 20, and these are using 33 different computer languages. The EC's approach has invited trouble with ATC unions, too. It takes more than imperious commands to solve all the riddles, especially when recession takes away the urgency and the finance.

By the way, a NATS colleague told me they're having discussions in the USA about a privatised air traffic service. It seems the Americans are seriously looking at splitting the FAA between service provision and regulation, and it appears the US is interested in the EU route fees system! I am sure that will interest the US government when it comes to the FAA budget.

At the beginning of December I attended a two-day conference on transport in the European Parliament. I spoke to Jackie Foster MEP and Brian Simpson MEP, Chairman of the Transport Committee. Brian is not standing for re-election so there will be a new Chairman of Transport. Jackie Foster hopes to be re-elected and intends to stay with Transport.

The consensus is that the two groups likely to succeed in the next Parliament will be the Social Democrats and the Christian



convinced another three.”

The fine came with an additional £520 in CAA costs, a hard blow for someone on a flying instructor's income. But it could have been much worse.

The instructor, who is working towards a commercial career, wrote to the court under AOPA guidance apologising for his lapse and explaining how the error had come about. He had been instructing a student pilot on a low-level navigation exercise during which it was required that the student carry out a co-ordinated turn at low level, maintaining height and getting an appreciation of the effect of the wind. While he had done this exercise many times before, the instructor admitted

**It must be remembered that the instructor had the prosecution hanging over him for six months, during which time he feared for his livelihood**

incorrectly assessing the ability of the student to carry out the task without losing height, and allowing the aircraft to drift below 1,000 feet over a built-up area. He took full responsibility for the situation and expressed his regret. An instructor for several years, during which he has maintained an unblemished record, he has

more than 3,000 hours. Since the incident he had sat down with his fellow instructors and briefed them to ensure they did not make the same mistake. He had

also had a meeting with the CFI, who had given him advice on assessing students' abilities. The letter also disabused the court of any misplaced notion that flying instructors are well paid.

Martin Robinson said after the court case that the fine of £140 was at the low end of expectations, although the CAA's costs claim of £520 in a case where the accused accepted full responsibility seemed excessive.

“The court obviously saw that this was a brief lapse from someone who normally maintains high standards, and the punishment was proportionate.

“I am satisfied with the outcome. The CAA's prosecutions policy in recent years has become more reasonable and positive, and we no longer have the situation we once had, where they'd sacrifice the odd pilot 'pour encourager les autres'. It must be remembered that the instructor in this case had the prosecution hanging over him for six months, during which time he feared for his livelihood. I am very glad to have been of assistance.” ■

**Right: Martin addresses the IFFR Christmas lunch**

Democrats, although there is a fear that the Right may have a larger number of seats – all across Europe there seems to be a growing belief that the right wing parties have tapped into growing public disenchantment with European institutions.

Over the next seven years European taxpayers' funding of transport-related projects will rise from €8 billion to €26 billion. The parliamentarians are calling for more efficient use of this funding. One funding programme – Horizon 20/20 (R&D) – will have €70 billion available, 50% of which will go into transport research and development, of which €7 billion will go to SESAR. Commentators believe that infrastructure will be the main focus of the next Parliament; other issues on the agenda will be rail and air noise and alternative fuels. Europe's Performance Review Body will demand more aggressive targets on delays and environmental impact.

The Commission is still considering taking infringement action against some states for failing to deliver on FABs. As I have said, I believe Europe made a mistake in trying to rationalise ANSPs. The rules for establishing FABs should have been put in place as well as the legal basis for allow ANSPs to merge.

Billions of euros will go into large public transport plans and very little into the non-airline sector of aviation, but funding of Galileo will indirectly benefit GA. One can see why the urgent need to de-fragment Europe's bottlenecks makes the EC so insistent on the need for FABs.

One way to ensure improved performance may be through giving more power to the Performance Review Body. The problem for GA is that SES II-plus is



99% airline focussed. The Commission still fails to appreciate the needs of GA when it comes to airport and airspace access, particularly at regional airports which cannot survive solely on CAT operations.

I spent another day in Brussels meeting with Brian Davy and Greg Bowles of GAMA to update them on IAOPA's stance on issues of mutual interest. Later that day I met with Ulrich Stockmann and Michael Erb, and we have agreed to hire Herr Stockmann from January 2014 to help us establish the GA inter group for the next Parliament. I went on to Cologne to attend the EASA Advisory Body and met with Patrick Ky, who agreed with me about the need for EASA to publish GA accident trend data. More to follow on this.

I also attended the EBAA event in the European Parliament. During their Chief Executive Fabio Gamba's speech he made reference to working with IAOPA on the 'GA Connecting Europe' campaign and expressed support for the development of the GA inter group. I will meet with Fabio again in January.

On December 9th I met with Philip Clark, the new lead in the CAA on Better Regulation, to discuss the topic of 'gold

plating', which we will continue to debate throughout 2014. If you have example of 'gold plating' that you would like to raise, please send them to martin@aopa.co.uk.

Two days later I was guest speak at the Christmas lunch of the International Fellowship of Flying Rotarians, many of whom are AOPA members. The Rotary Club is a well known international organisation, but much less known is the flying section of International Fellowship of Flying Rotarians, IFFR. Within the flying section, made up of members of various Rotary Clubs who are pilots, are individual 'sections' for many countries throughout the world. Unusually, the UK section is the largest in the world, beating the European countries, Australia and even the USA. IFFR has a number of flying relating activities during the year, and one of the key activities is flying to other sections' weekend meetings, so it is a great opportunity to fly to other countries and meet fellow pilots and learn about flying in their country. If you want more information about the IFFR, contact their secretary, Rodney Spokes at Rodney@spokes.biz.

**Martin Robinson**



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13 December 2013

Dear Martin,

I am writing to thank you for all the support you and your organisation have offered us in our work on the Red Tape Challenge on general aviation so far. I read the latest issue of General Aviation magazine with interest and was delighted to see the level of detail with which you had covered the work we were doing. I know that you and AOPA spend a lot of time considering these issues and wanted to encourage you to carry on doing so – the work that the Government is currently undertaking is down principally to the input of those who use the system on a daily basis and understand the problems that need to be addressed.

Similarly, I wanted to thank you for the advice you sent me on advance notification timescales for general aviation ahead of my meeting with Mark Harper. It was extremely useful to hear your organisation's views and to understand the steps it has taken to deal with these issues including, for example, the immense effort that has gone into creating the online GAR. This kind of background is essential if we are to come to a solution that works for all parties.

At the moment we are still at the start of this work, but reaching even this stage would not have been possible without input from organisations such as yours. I wanted to thank you for this once more, and to encourage you to continue engaging as much as possible.

Grant Shapps MP

*PS: Please pass my personal thanks on to your AOPA colleagues who have been working for a more business-focussed, vibrant GA sector in the UK for many years.*



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## Teaching for the future

AOPA has taken part in preliminary discussions with the CAA on the PPL syllabus, which the Authority would like to update to take account of technology. AOPA has been seeking such a reappraisal for some time and is supportive of the CAA's intentions.

The gap between teaching and practice has been steadily growing as modern kit has found its way into the cockpit even of the smallest aircraft. Some time ago the CAA abandoned the practice of requiring the one-in-sixty rule to be taught, but there are other apparent anachronisms to which we still cling.

Martin Robinson says: "In the real world, as soon as a student gets a licence they go out with an iPad loaded with some excellent electronic navigation system on it, and perhaps with electronic devices which make a quick job of calculating a triangle of velocities. The PPL syllabus hasn't evolved sufficiently to take the new situation into account."

"We need to ask some basic questions. Can useful guidance be given on the use of electronic kit at the PPL stage? Does the whiz-wheel belong in a museum? If changes are to be made, how is EASA to be co-opted?"

AOPA's Nick Wilcock will be attending a group chaired by the CAA's Mike Barnard to discuss these issues. Nick writes "On the subject of pilot navigation, although there are those who probably still think that 'real pilots' navigate by quadrant staff, lodestone and astrolabe, disdainfully regarding the GPS as a tool of Satan, hopefully such folk are now very much in the minority! The programmable electronic calculator has been around for about 40 years and pretty well everyone uses a SatNav in their cars these days, so why not in their aircraft? Although, of course, there will still be a need for some fundamentally basic skills, such as the ability to plot lat/long on a chart and to understand the triangle of velocities, there is a much greater need for pilots to develop sufficiently sound navigational skills to avoid airspace busts – and the secret to this is, as we were so often told during my basic flying training, to plan accurately, to fly accurately and to think ahead. Advances in technology greatly assist pilots in developing these core skills and it is quite unreasonable to insist on pilots having to restrict themselves to the methods of yesteryear."

The co-operation of EASA may be less of an obstacle than it used to be; in its current incarnation the Agency explicitly recognises the expertise of the UK CAA and certain other national authorities and is more disposed to accept advice and suggestion than it has been in the past – or so the theory goes. As long as an acceptable means of compliance with EASA regulations can be found, it should be possible to make sensible changes.

### 100 hours ground school

Nick Wilcock recently suggested to the CAA that the EASA PPL and the LAPL theoretical knowledge requirements should be harmonised as the learning objectives for both licences are identical. As a result, the CAA has now notified EASA that it has raised an 'Alternative Means of Compliance' which removes the requirement for 100 hours of ground training for the PPL. Instead, it will now be left up to ATOs to decide how they will ensure that their applicants are adequately prepared and competent to sit the PPL/LAPL theoretical knowledge exams. ■



# China pushes ahead on GA liberalisation

International AOPA's leading figures are in China making final arrangements for the IAOPA World Assembly, to be held in Beijing later this year. Ahead of the World Assembly, the Chinese government and military have announced long-awaited

concessions on flight planning and requirements for private pilots' licences as part of moves to make general aviation a viable industry in China.

Fang Wen, then Director of AOPA China's International

Department, reports that from December 1, 2013, most general aviation flights in China enjoy a significantly simpler planning process, with military approval for such civil flights no longer required.

"The long awaited alleviation of the 'regulations on the approval and management of general aviation flight mission' was announced on November 18 by the People's Liberation Army general staff department and the Civil Aviation Administration of China," Fang Wen says. "The changes are expected to cut the waiting time for permission to fly from several days to a few hours.

"Under the new procedures, operators of GA flights will still have to file flight plans. More sensitive general aviation operations in nine specific categories – including border areas, prohibited zones and aerial photography over sensitive areas – will continue to require prior approval and the use of transponders."

Chinese airspace is controlled by the

military, and the changes represent a major step forward for civil flying in China. Vast distances, poor infrastructure and lack of highways make general aviation a hugely attractive travel alternative, but the military stranglehold on flying has been a serious obstacle.

Calling the announcement "a great move in the right direction," Fang Wen said further obstacles to the development of GA included lack of ATC facilities, shortage of pilots, maintenance technicians and GA airports, high taxes and zero profit margins. There was a need to allow the market to play a greater role in GA, he added.

"Developing GA airports is they key to the development of GA in China," he says. "Without GA airports, talk of the development of GA is empty. The focus should now be on the establishment of a network of GA airports."

## Licenses

At the same time, China has made it easier for civilians to earn private pilot licenses. Any citizen age 17 with at least a junior high school education will be eligible to apply for training. Training involves a minimum 20 hours dual instruction, 10 hours solo and 10 hours of specialised instruction, such as night flying, for 40 hours of total time. An additional 40 hours of classroom time is also part of the curriculum. They also must pass a physical exam.

Under the old regulations, which date

from 1996, standards for private pilots were essentially the same as for commercial pilots. The change is expected to release pent-up demand for licences, and thus general aviation aircraft, in China.

China's Civil Aviation Authority said it was making the changes "to enable more people to be able to realise their dream of flying." The change is expected to "promote the development of China's general aviation industry, increase the talent pool for professional pilots and play a positive role."

According to the China Daily, there were some 1,610 aircraft registered in China last summer, compared to more than 230,000 in the US. The newspaper quoted Gao Yuanyang, director of a general aviation industry research centre at Beihang University, as saying that difference illustrates the "huge market potential in China".

The Chinese have shown a keen interest in American GA manufacturers and have recently bought such companies as Cirrus, Mooney, Enstrom, Teledyne Continental, Thielert, Brantly and Enstrom, as well as a number of component suppliers.

Chinese general aviation has the advantage of being able to start from scratch with a satellite-based air traffic system, completely bypassing the greatest obstacle to the improvement of the aviation sector in Europe, the bogged-down Single European Sky. The American equivalent, NextGen, is mired in the same sort of morass. ■

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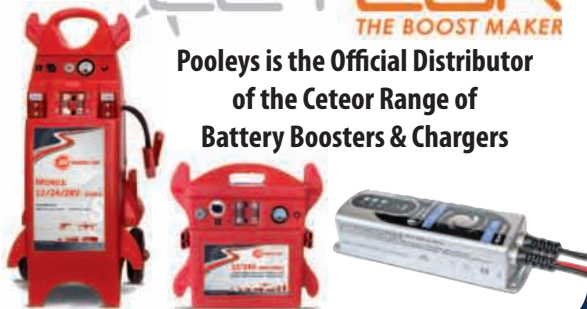




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## EASA overcomes 'Part 61' licence problem

AOPA has welcomed the decision by the CAA to Reissue American pilot certificates, thus saving British pilots who hold FAA tickets from having to fly to the United States to renew their licences.

European pilots who surrender their national licences for an EASA licence are given a new licence number, and if they hold FAA certificates issued on the basis of the old national licence number, these will become invalid. Under American identification rules, pilots have to present themselves in person at an FAA office to get an FAA certificate reissued.

However, EASA has arranged with the Americans to have FAA certificates held by British pilots reissued in Britain, where the work will be done by the CAA. EASA's Head of Rulemaking Jules Kneepkens has written to every national authority in Europe reminding them that EASA has struck a deal with the FAA on this, and urging them to take appropriate action.

"It seems that not all the national aviation authorities of the EASA member states, and pilots potentially affected by these changes, are aware of this particular 'light process'," Mr Kneepkens writes. He adds that the process is available up to October 8th, 2018, and sets out in his letter the requirements stipulated by the FAA.

AOPA CEO Martin Robinson says: "This is a purely bureaucratic change which could have caused serious inconvenience and loss to pilots, and it is very much to the credit of EASA and the FAA that they have recognised the problem and taken steps to alleviate it.

"Under American rules the applicant must present himself or herself in person for identification purposes, so that means many British pilots will have to go to the CAA's main offices at Gatwick during office hours to have FAA certificates reissued. The CAA is looking at using their regional offices in an attempt to be helpful, recognising the distances some people may need to travel to get to Gatwick. Members should contact the CAA to find out where their nearest CAA office is, and agree with CAA that they can do what they need to do closer to home.

More information is available at

[FCLWEB@caa.co.uk](mailto:FCLWEB@caa.co.uk) ■

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DATE OF BIRTH 01-08-49	HEIGHT 73 IN.	WEIGHT 180 LB.	HAIR BROWN
EYES GREEN	SEX M	NATIONALITY USA	
VI. Has been found to be properly qualified and is hereby authorized in accordance with the conditions of issuance on the reverse of this certificate to exercise the privileges of			
RATING AND LIMITATIONS COMMERCIAL PILOT VII. AIRPLANE SINGLE & MULTISENSE LAND INSTRUMENT AIRPLANE			
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# Licensing the new EU/EASA way

*\*By Dr Ian Perry*



I am writing this from a medical viewpoint, as there is a great deal of confusion around and about, concerning who needs what sort of medical certificate and when. I have had a number of unusual discussions with various club CFIs, who themselves have got confused about the various types of licence. A few of them have said that I am wrong, something I would accept if I was, but I am not. I hope by the end of this short piece to have clarified the situation for all of you.

Let us start in a very simple way. Think of the EU/EASA medical certificate business as running in four classes, plus a UK local one. An EU Class One Medical Certificate is for the professional pilot who wants to earn a living flying anything from an Airbus 380 to PA28 air taxi. This system remains basically unchanged. The medical examinations can only be carried out by UK CAA approved Authorised Medical Examiners (AME), only some of whom are permitted to carry out Class One Medical Examinations.

A Class Two Medical Certificate is for private pilots who wish to fly any type of EASA aircraft they can qualify on, anywhere within the EU community, by day, by night or by instruments if they are so rated. (I am not going to discuss IMC or any other type of instrument certification – that is another can of worms best left to those who really understand it). Under the new EU/EASA Medical Class Two rules you can also instruct using this type of medical certificate; you do not necessarily need a Class One. Some clubs

and companies may still require a Class One medical certificate to instruct, but this step down is a major change for the UK CAA. France has always allowed their PPL instructors to fly on a Class Two medical certificate. Class Two medicals are carried out by UK CAA approved medical examiners. A Class One AME can also carry out Class Two examinations, but not the other way round.

Now we come to the confusing bits. There is an EASA Class Three Medical Certificate, but this is only for the Air Traffic Controllers and no-one else. Some Senior AMEs can carry out this type of medical examination, but not all. So now we arrive at the new EASA license, the LAPL – the Light Aircraft Pilots Licence, call it a Class Four medical certificate. It is different for a number of reasons. The acceptable level of medical risk is increased from 1% to 2%. It is valid for single engine piston EASA and UK non-EASA aircraft up to two metric tonnes, including helicopters, with up to four persons on board, VFR etc., for use EU-wide, plus you can use it in Switzerland, Iceland, Norway and Liechtenstein. Touring motor gliders are also included in this group. If you have a UK National PPL, which is the one that your GP signed a medical declaration for, you will have to convert this type of licence by April 8th 2015 to a LAPL, unless you only wish to fly non-EASA aircraft under 2 tonnes in the UK. This means that the majority of UK National PPL holders will have to convert to a LAPL. Anyone with a valid EU/EASA Class Two Medical Certificate does not have to convert to this lower form of licence. This is where there has been a lot of confusion between a UK National PPL (GP medical declaration) and a normal CAA/JAA/EASA / EU PPL (Class Two medical done by an AME). A UK CAA-authorized GP can carry out a LAPL medical, not all GPs as before. The medical is now computer based and there are forms to be filled in, and an EU certificate to be issued. Any UK-authorized AME can do a LAPL medical, and authorised GPs will have to refer a range of medical queries to an AME in the first instance, and not to the UK CAA. This will all result sadly in an increase in costs, as few authorised GPs will carry out this more-involved type of medical examination free of charge, as opposed to a medical declaration. Any referral to an AME will also incur a cost. It is forecast that most GPs will give up this type of declaration/medical, as it will involve too much time and work than before. It will all then have to revert to an AME, as happens everywhere else within the EU. There is no UK GP equivalent in the rest of the EU, where every type of aviation medical can only be done by an AME.

On page 30 of the CAA's periodical 'Clued Up' in the Spring/Summer 2013 edition, there is a whole page on license/rating medical validity. This has been done as there are now a number of types of license, where the validity might seem confusing. The best way to remember it is to ask which type of medical certificate is possessed. The higher the class the more types of licence it will cover. One and Two are easy, as they will be valid for most types. Three has nothing to do with anything unless you are an air trafficker, but when you get to a Four, it is not valid for very much other than a LAPL, which is however now accepted across the EU community. A UK National PPL (GP declaration) is not acceptable outside the UK or by night or on instruments. If your aircraft type becomes EASA recognised you will have to change.

To summarise very briefly, if you fly on a licence issued after your GP signed a medical declaration, and you want to go on flying after April 2015, and the aircraft that you fly is now an EASA recognised aeroplane, you will have to get a LAPL by April 2015, either done by the new breed of UK CAA approved GPs or by any UK authorised AME.

*\*Dr Perry is Consultant in Occupational and Aviation Medicine and a member of the EASA Medical Experts Group.* ■

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# VFR chart changes

Changes to VFR charts have been announced by the CAA. The changes, designed to increase the clarity of the information depicted on the charts, follow a consultation with the aviation industry and will appear in the new half-mil and quarter-mil charts published in March.

The main changes include:

- Addition of boundary tint to all airspace boundaries regardless of classification – that is, all internal boundaries as well as external extremities of controlled airspace.
- Reversal of the colour formatting of airspace classifications boxes i.e. white classification lettering within appropriate classification (blue or magenta) coloured box.
- Re-alignment of all airspace annotations along the leading edges of airspace boundaries, i.e. where adjacent to airspace with higher base level.
- Application of a white halo effect to all aeronautical information annotations that are located over land, and all airspace annotations embedded in airspace boundary tints.
- Removal of duplicate airspace controlling authority names from all airspace annotations, except in the outer extremity of the



relative controlling authority's CAS.

The accompanying graphic shows what the new chart will look like. ■

## Licence deadline approaching

The deadline for converting CAA licences to EASA equivalents is April 8th, 2014. If you have a national licence and you miss that deadline you will still be able to fly, but only using the privileges of an EASA Light Aircraft Pilots Licence. (LAPL) That situation will last until April 7th, 2015, after which you'll not be able to fly any EASA aircraft without an EASA licence.

Flying under LAPL privileges means you'll be limited to single engine piston aeroplanes not exceeding 2,000 kg and with no more than four people on board, flying under VFR. Any instructor or examiner privileges will not be valid in EASA aeroplanes.

If you have a JAA licence, no worries – when your licence reaches its five-year expiry date and you apply for a renewal, you'll automatically get the appropriate EASA ticket. If in the meantime you put your licence in to get a rating attached or something, it will come back as an EASA model.

National licences will remain valid indefinitely for non-EASA aircraft such as microlights and kit-built planes. However, EASA aeroplane licences that are valid for single and/or multi piston-engine aeroplanes are also valid for UK-registered non-EASA single and/or multi piston engine aeroplanes, so in most cases aeroplane pilots should only need an EASA licence.

The CAA has all the necessary information on its website at [www.caa.co.uk/privatepilots](http://www.caa.co.uk/privatepilots) where there's a section headed 'converting UK and JAA licences to Part FCL'. If you encounter any problems you can call Martin Robinson at the AOPA offices for advice and clarification.

The CAA site also has useful information for people who are thinking of training for the PPL, for those who are confused about the difference between an EASA and a non-EASA aircraft, what the requirements are for the various licences and other relevant issues.

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# Laser attacks on aircraft



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## **Stephen Slater** reports on why a wrong move by the CAA may be making matters worse

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**F**lying at night? There is now a new threat for which you should be prepared. Lasers.

So far at least, general aviation aircraft do not appear to have been too frequent a target for laser attacks. However, it might only be a matter of time. In recent years the increased availability of high-intensity laser 'pen' torches has created a serious and growing threat to aircraft and air crews. Misguided, mischievous or plainly criminal targeting of night-time low-flying aircraft has accelerated dramatically.

In the UK, only eight such attacks were reported in 2006. The past two years have seen between 1,500 and 1,900 laser attacks *per year*. These attacks are being made on a wide range of aircraft from general aviation types to civilian and military helicopters and airliners.

Of particular concern is the targeting of airliners in the late stages of approach, at low level and when visual contact with the runway is critical. In recent months, Birmingham, Manchester, Liverpool, East Midlands, Bristol, Heathrow and Gatwick airports have featured prominently in attack reports. Last September, a Boeing 737 reported suffering five separate attacks on a single approach into

Birmingham International.

The effects of any laser attack, flooding the cockpit with bright light and potentially causing flash-blindness, after-image and loss of night vision, pose a significant flight safety hazard. It is particularly critical when emergency services helicopters operating at low level over cities and other conurbations are targeted.

The large curved plexiglass windscreens of helicopters form an additional hazard, as when hit by a laser the light refracts in all directions, flooding the cockpit with potentially blinding flare. One pilot described the effect as "having someone fire a flashgun in your face."

### **Making the law an ass**

Recent changes in legislation, driven by the CAA, have unintentionally made the problem worse. In past years, offenders have been convicted of 'Endangering the

Safety of an Aircraft', an offence which carries a jail sentence. An important precedent was set in 2008 when Judge Tudor Owen sentenced two defendants to six months in custody for endangering a police helicopter. Unlike a lot of his profession, Judge Owen knows a thing or two about flying. Back in his days as a defence barrister, "the Flying Lawyer" frequently represented AOPA members

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**Top: an actual laser attack on a Met Police helicopter during the Olympic Opening Ceremony; the high-intensity blue laser was being shone from a location in Ilford, Essex.**  
Photo: MPSinthesky  
**Right: helicopter pilot Judge Tudor Owen has jailed laser louts**

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**Above: Metropolitan Police helicopters are regular targets for laser attacks**

against inappropriate prosecutions. He learned to fly in de Havilland Chipmunk aircraft with the University of London Air Squadron in the early 1970s and has subsequently owned and flown such aircraft as the Harvard, Yak-11 and Westland Gazelle ex-military helicopter. He is the Master of the Guild of Air Pilots and Air Navigators.

Certainly Judge Owen's knowledge was noted by his fellow senior lawyers. When the defendants appealed against their sentences, the Court of Appeal rejected their claims and gave guidance to other judges on the appropriate sentences for such behaviour.

The Appeal Court noted: "Incidents of this sort have increased rapidly in the last three years. In our judgment the learned judge was right to make it clear that custodial sentences will usually follow when offenders committing this offence are caught."

However, in 2010 the Department for Transport, at the instigation of the CAA, created a new offence, which they felt would make it easier for offenders to be convicted. This new offence, Article 222 of the Air Navigation Order 2009, states: "A person must not in the UK direct or shine any light at any aircraft in flight so as to dazzle or distract the pilot of the aircraft." However, the maximum penalty is merely a fine not exceeding £2,500. That means the courts now have no powers to impose a custodial sentence.

While the authorities still have (and do still use) the option of charging a miscreant with "Endangering an Aircraft", it is perhaps natural that they take the route which makes it easier to gain a conviction.

However, fines are normally based on a proportion of the offenders' declared income, usually low, so the deterrent to criminals is proving minimal.

In February 2010, a 16-year-old admitted shining a laser pen, which he had purchased on eBay for £8, into the cockpit of an easyJet flight from Belfast to Liverpool. He was fined just £250.

Pilots' organisations have been lobbying both the CAA and Department for Transport to change the legislation to include a custodial sentence, a relatively easy process. So far there has been no sign of movement, although both agencies admit that the problem has been growing. Why their sole action so far is corporate hand-wringing rather than action is hard to comprehend.

### Police target

In the UK there are increasing signs that prosecutors, aware of the limited power of the CAA-driven legislation, are reverting to the charge of "endangerment" which carries the custodial penalty. In particular, this is proving the case when lasers are targeted on helicopters used by the police.

While the Metropolitan Police reports that most offenders are either pranksters who did not realise the seriousness of their actions, or residents annoyed at the helicopter's presence, there is disquiet that some criminals are now carrying lasers in an attempt to distract helicopter crews who

## What is a laser?

Laser pointers do have legitimate uses. Smaller examples were designed to aid teachers in highlighting items on screens in the classroom. Larger and more powerful lasers are sold to allow astronomers to highlight specific stars in the night sky for observation. In the latter



case, a purchaser is supposed to sign a document undertaking that they will not use the laser near an airport, or point it close to aircraft. However that has little effect on their misuse and there are signs now that these more powerful 'blue lasers', bought over the internet from China, are coming into increased use.

may be monitoring or helping apprehend them. As the recent tragedy in Glasgow demonstrated, the hazards of operating helicopters at low-level in urban environments at night are high enough, even before a laser attack.

Last October, a 20 year-old man was sentenced at Maidstone Crown Court, to four months in a young offenders' institution after he had targeted the Essex

Police helicopter, which was hovering at about 1,000ft over Sittingbourne. After identifying the general area from where the laser was being shone, thermal imaging was used to direct officers on the ground to the offender's home. The offender, it transpired, had previous convictions for theft, common assault and possessing a prohibited weapon, a stun gun.

It was notable that the defence lawyer's

plea that he was merely "a young man being very foolish and playing around in his bedroom rather than a malicious intent" cut little ice.

In sentencing, Judge Martin Joy said: "I have no doubt whatsoever that this offence is so serious that a non-custodial sentence cannot be justified. Those who commit this kind of offence must be aware that severe sentences will follow."

## How to respond to a laser attack

The airline pilots' union BALPA has published the following guidelines to pilots, if targeted by a laser:

Laser effects on pilots occur in four stages of increasing seriousness – distraction, disruption, disorientation, and incapacitation. Given the many incidents of cockpit illuminations by lasers, the potential for an accident definitely exists, but the fact that there have been no laser-related accidents to date indicates that the hazard can be successfully managed.

- Shield the eyes from the light source with a hand or a hand-held object and avoid looking directly into the beam. It is possible that a laser successfully aimed at the flight deck will be presaged by unsuccessful attempts to do so; these will be seen as extremely bright flashes coming from the ground and/or visible in the sky near the aircraft. Treat these flashes as a warning you are about to be targeted and prepare to shield the eyes. Do not look in the direction of any suspicious light.
- Do not rub the eyes.
- Alert the other crew member(s) to determine whether they have suffered any laser-related effects. If the other front seat pilot has not been affected, he or she should immediately assume or maintain control of the aircraft.
- Manoeuvre to block the laser, if possible and subject to ATC.

*If on approach, consider a go-around.*

- Engage the autopilot.
- After regaining vision, check flight instruments for proper flight status.
- Turn flight deck lighting to maximum brightness to minimise any further illumination effects.
- Immediately report the laser incident to ATC, including the direction and location of the laser source, beam colour and length of exposure (flash, pulsed and/or intentional tracking). Do not look directly into the beam to locate the source.
- As soon as flight safety allows, check for dark/disturbed areas in vision, one eye at a time.
- If incapacitated, contact ATC for priority/emergency handling. Consider autoland.
- If symptoms persist, obtain an eye examination as soon as practicable.
- File an MOR. In the UK, ATC will notify the police. When possible, write down all details for the police.
- If rostered for further flight sectors, consider whether you are physically and psychologically still fit to fly even if your self-assessment indicates no visual impairment. It is for individual flight crew to determine their fitness to fly in such circumstances regardless of operator policy.

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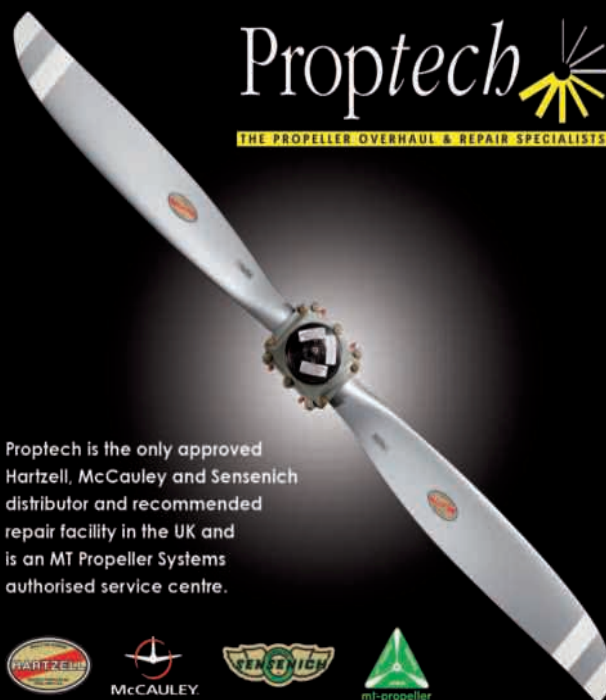


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# Lee on Solent thriving



*Since Lee Flying Association saved RNAS Daedalus from closure it's become a major success story for GA, as **Mike Cross** reports*

**M**uch is happening at the former RNAS aerodrome at Lee on Solent in Hampshire. Established as a seaplane base during the First World War, it went on to become the main training base and administrative headquarters of the Fleet Air Arm. In March 1996 the Royal Navy moved out and operational management became the responsibility of Hampshire Constabulary's Police Air Support Unit, which was based there. Ten years later Defence Estates disposed of the site, with the central part, including the runways, going to the Maritime and Coastguard Agency (MCA), an executive agency of the Department of Transport. The outer areas including the hangars, aprons and the airfield buildings went to South East England Development Agency. In October 2010 Hampshire Police Air Support Unit closed, with operations transferred to the newly formed South East Air Support Unit, covering Hampshire, Surrey and Sussex from two bases at RAF Odiham and Shoreham Airport. Management of the airfield became the

responsibility of Fly BN, part of Britten Norman. The closure of the Regional Development Agencies in March 2012 eventually led to all major parts of the airfield being re-united under the Homes and Communities Agency (HCA).

During their tenure, Hampshire Constabulary tried to close the airfield to civilian users and Lee Flying Association was formed to fight the closure and champion an aviation future for the airfield, for example through numerous development consultations. With help from AOPA they were successful, and in May 2008 the threat of closure was lifted. The Master Plan for the development of Daedalus includes the regeneration of Daedalus as a viable general aviation airfield.

Since then the airfield has become an Enterprise Zone with the aim of attracting investment from the Marine and Aviation

sectors. Solent Local Enterprise Partnership (LEP) was formed as a partnership between industry and local government to foster this aim. Funding applications have been made, and funds unlocked to enable development to take place.

Lee's location is critical in a number of ways. The main transport infrastructure in the area is the M27 motorway, running east-west a few miles north of the airfield, and the A3 and M3 which run inland from it. The last 20 years have seen jobs moving from towns and cities such as Portsmouth and Gosport to new industrial areas along the M27. The closure of naval establishments in those areas has contributed to the problem, with many of them being converted to housing. As a result Lee on Solent and its adjoining towns of Gosport and Stubbington became dormitory towns, with people commuting to work along the M27 corridor. This put huge demands on the local road infrastructure, which is creaking under the strain in some nearby locations, which will be addressed by funded road improvement

**Top: Consolidated PB5-A N423RS leaves Lee on Solent for restoration at North Weald.**  
Photo: Mike Cross

**Right: Cessna Citation N129CJ at Lee on Solent in October 2013. Construction work on the new Centre for Engineering and Manufacturing Advanced Skills Training progresses in the background.**  
Photo: Terry Coombes/LFA







**Founders of Lee Flying Association David Skertchly (left) and Malcolm Barton (right) receive an AOPA Award on behalf of LFA with current Chairman Jon Butts in 2013.**  
Photo: Debbie Butts/LFA

projects with construction starting in 2014.

The airfield also forms a gap between Lee and Stubbington. The strategy is therefore to create jobs on the airfield site, rather than housing, while retaining an operational airfield to preserve the open space separating Lee from Stubbington. Lee's 1309 metre runway is the only hard runway available to GA on the south coast between Bournemouth and Shoreham. Southampton Eastleigh has no spare capacity for based GA.

Lee on Solent airfield lies on the boundary between the boroughs of Gosport and Fareham. The bulk of the operational area is in Fareham, while the former technical site consisting of accommodation, offices and workshops on the south side is in Gosport. For airfield users the activities of Fareham Borough Council are therefore of most interest.

Britten-Norman's facility at Lee involves MoD contracts, and their operations therefore involve the Military Aviation Authority (MAA). With only one operational entrance to the airfield, to the south of the operational (05/23) runway, road traffic to and from buildings to the north of the runway has had to cross the runway. A new entrance has therefore been created on the north side, off the B3334 Gosport Road. This will enable the airfield to be licensed once runway and taxiway markings have been brought up to standard. At the same time a new Engineering Training Facility for Fareham Technical College is being built on greenfield land in the south-east corner of the airfield. A new entrance road is also being built, a little to the north of the current one at Argus Gate on the south side. This will bring with it new mains services (water, drainage, electricity and sewage). Many years of neglect mean that

the old wartime infrastructure has become unusable, with many areas of the airfield having no electricity, water, or sanitation. The provision of new mains infrastructure is essential to the proposed developments.

The development funding applied for naturally comes with strings, notably deadlines for the completion of construction. One of the projects is the construction of a new Innovation Centre for Aviation, Aerospace and Marine sectors, containing starter units for small businesses which will be built at the south east corner of the airfield, near to the new main road access.

The site owners are currently in consultation with existing and prospective tenants regarding the creation of new serviced plots on the east side, where most of the privately owned aircraft are currently housed. The plan is to build temporary hangars on the west side so these users can be relocated to allow demolition of the old hangars on the east side and the installation of mains services to serviced plots that will be created for new build, principally around the North Apron.

At the same time plans are advanced for resurfacing of the main (23/05) runway in 2014. This work is expected to take several weeks so the currently disused 17/35 will be patched to allow it to be brought into temporary use while 23/05 is resurfaced and repainted. The third runway (10/28) of the old three-runway layout is permanently out of use – MCA built a new hangar for their SAR helicopters alongside it and the western

**Right: Beech Staggerwing NC16S 'The Red Rockette' piloted by owner Capt Bill Chamey over Lee on Solent in 2013. This aircraft served in the Fleet Air Arm as Beech Traveller Mk1 FT466 in the Second World War.**  
Photo: Karl Drage/LFA

portion is now used as an access taxiway.

Sapphire Aviation, who had been operating an FBO facility using three hangars in the south east corner of the airfield, having been unable to secure a nearby plot withdrew from the airfield on 31 Dec 2013 but have indicated that a new plan may be forthcoming.

All in all 2014 is set to be a busy year; the expectation is that over the next few months we will see:

- Licensing and the establishment of an ATZ
- Re-tendering of Airfield Operator contract
- Resurfacing of runway 05/23
- Opening of a new £12m Engineering College for Aviation, Aerospace and Marine Sectors
- Relocation of existing aviation tenants to temporary hangars on the West Side.
- Creation of new serviced plots for aviation investment on East side (currently being marketed, contact LFA for details)
- Construction of a new main access road to Argus Gate on the South Side
- Construction of a new Innovation Centre for Aviation, Aerospace and Marine Sectors

## Contacts

### Lee Flying Association

LFA is happy to assist anyone wanting to locate an aircraft or business at Lee on Solent. Their website contains much information about the airfield, including Visiting Pilot Notes and the Aerodrome Manual.

Website [www.eghf.co.uk](http://www.eghf.co.uk)

e-mail [chairman@eghf.co.uk](mailto:chairman@eghf.co.uk) (Jon Butts)

### Fly BN Ltd

Fly BN is the Aerodrome Operator, Control Tower  
Tel 02392 551714

### Jones Lang LaSalle

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### Solent Enterprise Zone at Daedalus

<http://solentez.co.uk/site/hca/home> ■







# Playing with the big boys – part 2

*GA and CAT still co-exist at Southend, but there are problems, as **George Capon** reports*

Further to the article in *General Aviation* (April 2012) on Stobart's plans for Southend, a lot has changed in the last two years. There is now an ILS on each runway, an extension to the new terminal, new fire engines, improved security around the whole airport, a very smart VIP executive area in the old terminal, and the airport is being brought into the 21st century with the new control tower and radar.

There is now a Holiday Inn on site, and another hotel on the North Side where the owner hopes to convert some HS748s into a restaurant, bar and wedding chapel. The airport and terminal is very popular with the passengers – from arrival in the terminal to getting into the departure lounge is normally 20 minutes, while disembarking from the Airbus 319/320 or ATR to being outside the terminal and on the way home can only take 30 minutes.

Where does this leave the GA pilot? Southend Council, who own the freehold, put into the lease agreement a requirement that the owners were to support GA. Local pilots have had varying experiences whilst inbound or outbound. Air Traffic has had a steep learning curve on integrating CAT and GA, but generally things are settling down. The website [www.southendairport.com](http://www.southendairport.com)

provides very useful information to the visiting GA pilot. Fuel is only £1.9114 per litre plus VAT, and there can be delays in getting fuel if a commercial aircraft requires fuelling at the same time. Landing fees for a C152 or C172 are £24 plus VAT. If you want to practice ILSs, radar vectored or procedural, it's £17.50 plus VAT. Parking fees have recently been introduced for anyone staying more than two hours – it's £8 for up to four hours, £13 for four to eight hours, and £15 for every 24 hour period, plus of course the VAT. Private owners, of which there are only one or two left on the Northern Apron, are paying £191 plus VAT per month. Prior permission is required (PPR) for flights only between 2300-0630 local time, and for instrument approach training, circuit details and qualifying cross country flights at any time. For PPR and notification of student flights, call 01702 538420.

Unfortunately the café in the old terminal is now closed – for refreshments it means exiting the airport and walking to the new terminal five minutes away – or the beach and famous seafront are 10 minutes away in a taxi. Air traffic are still as friendly as they always were, although a lot busier during the commercial departures. A quick look on the website

will ensure that if you time your arrival and departure correctly you will not be delayed. With 1799m of tarmac, there is plenty of room.

The three flying clubs on site are still there, providing every flying fixed wing and helicopter course from trial lessons to instrument ratings and commercial flight training, including FAA. Of course there is the excellent weather record, envied by most other airports. Due to the new terminal being built, Seawing Flying Club, a Corporate AOPA member, had to move premises from the Eastern perimeter road to close to the Charlie hold near the 06 threshold. The Flight Centre beside the Vulcan will have to move in due course. Southend Flying Club, the oldest established Club on the field, has had some parking restrictions put in place. Due to the security fence now surrounding the clubs, pilots access their aircraft accompanied by approved staff. There is talk of a barrier on the main terminal road to charge passengers when being dropped off or picked up. If this goes ahead, it will impact on one of the clubs' members seeking access to their club. The clubs have requested better signage to their facilities, but this has been denied.

Security for the airport has changed the way GA pilots operate from the airfield, having now to go through scanners, produce licenses and passports, wearing high-vis jackets... it can all be a little troublesome. If you time it right you meet the airline pilots and cabin crew doing the same thing.



**Left: Southend's new extended runway has ILS at both ends**

**Right: author George Capon is an experienced instructor at 'London' Southend**

Apparently this is necessary as you walk onto the apron close to the commercial aircraft, which take precedence. There is discussion going on regarding provision of transport to visiting GA.

Traffic reduced markedly after the Olympics, but visiting aircraft and training are returning to the levels they were before the Games. With the improvement of the economy the clubs are reporting a small increase in business, but unfortunately the number of privately owned aircraft has reduced dramatically due to the reduction in available parking and the new parking fees. When trying to talk to the accounts department, instead of them being available during working hours you can only speak to them after 2pm.

Commercial operations have yet to settle down fully, too. A record 970,167 passengers passed through the airport in the calendar year 2013, well ahead of 2012. The main commercial operator, easyJet, is to drop two of its routes this year, the seasonal Newquay operation and its daily Edinburgh service, from 14 June. Belfast was recently withdrawn. Tenerife has been introduced last Friday with strong forward bookings. easyJet currently offers

14 European destinations. Aer Lingus has three daily return services to Dublin, where travellers are able to take advantage of simplified transatlantic connections to the USA. Stobart Group plc has spent £120m on upgrades and is ploughing in another £10m to almost double terminal capacity.

Consultation on the new airspace finished just before Christmas. The airport is trying to control the airspace in generic terms by drawing a line from Clacton to Brentwood to Rochester and Detling to the east of the Isle of Sheppey around the Thames Array wind turbines, outside the D136 complex and to the north of Clacton, with varying altitudes. Thank you to all those in the GA community who submitted comments via the consultative website. AOPA opposed the size of the proposed area and its impact on the GA community – the post-consultation paper is to be produced in the near future. We await it with interest.

In summary, operations have changed at Southend over the last two years – a few for the better and some for the worse. The flying clubs are still there and surviving – unfortunately it is becoming more difficult to operate. I hope that the airport owners intend to follow the operational philosophy of the USA and a few airports in the UK – GA and CAT can operate easily together. It must be remembered that GA has always been at Southend, and always operated in harmony with CAT. ■





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# Commanders on tour



**Sukey Perry** tells the story of an Aero Commander rally from Guernsey to Dubrovnik

There's something compelling about flying in convoy, lining up for take-off, listening to each other on the radio, getting the heads-up on unpronounceable reporting points (as long as you're not in the lead), waiting for the last aircraft to land and taxi to join the row on the grass – all safely down – and then the stories, the laughs and the satisfaction of having made it without easyJet

So there we were, six couples, six Aero Commanders in loose formation, clattering down the Dalmatian coast picking out necklaces of islands through the haze – Hvar, Korcula, Mljet – destination Dubrovnik and the whole purpose of the rally, three nights at the Hotel Villa Dubrovnik.

They say you should never go back, but that's exactly what some of us were doing. Eight years ago we'd flown a couple of Commanders to Vienna and from there to Dubrovnik where we discovered the hotel by chance. It was, back then, a modernist gem tucked into the cliffs south of the city.



**Top left: travelling in convoy – our six Commanders lined up on the grass**

**Left: the rally route map**  
**Below: One of Roman Abramovich's private jets on the apron at Dubrovnik**  
**Bottom left: Commander refuelling at Portoroz, the jumping-off point for Dubrovnik**

It had terraces of oleanders and jasmine, its own rocky beach and a private boat to take you across the bay to town. Every room had a sea view and swifts performed a spellbinding flypast at dawn and again at dusk.

Well, fast forward to 2013, the beach, the boat, the sea views and the swifts are all still there but the rest is gone, rebuilt and turned into something resembling a BUPA clinic. It's lost its soul but if you didn't know it before, it's still special and you certainly can't fault the staff for effort. The trouble is it now comes with a Russian price tag. And the other big trouble for us

was we'd just come from the Hotel Kempinski Palace in Portoroz, Slovenia.

Now if you have the good fortune to land at Portoroz you'll be met by a cheery 'Follow Me' scooter and a glass of plum brandy at reception. Portoroz is good news. So is the Kempinski Palace Hotel – faded grandeur on the outside, brand new makeover on the inside. It was an old spa hotel. The swimming pool is medicinally salted as part of the cure. It stings your eyes, but for people who are convinced they can't float it's a revelation. Breakfast on the terrace of the Crystal Ballroom is also a revelation, especially on a sunny September morning.

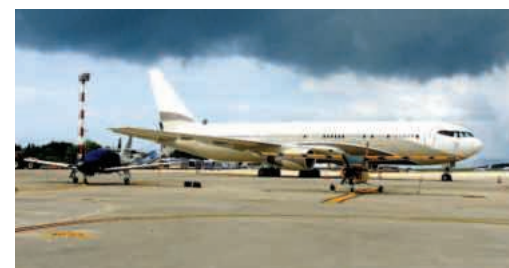
From Portoroz you can walk to Piran, a little fishing village just up the coast. If

you're there between May and October it's quite likely you'll come

across three Mexicans in badly fitting suits who'll sing to you. They tour the restaurants and bars during the season and head back to Mexico for the winter. They sing mournfully and specialise in holding very high notes for a very long time. For this reason they didn't much take to being asked to do "Guantanamera" but actually it would help lift their CD which costs 10 euros. It's easy to get carried away.

The other thing you can do from Portoroz is a day trip to Venice – a thirty minute flight to the grass airfield on the Lido and then an easy water taxi ride into town. This is a classy thing to do. And if you can wait for your ice cream until you get back to Slovenia, it's half the price and just as nice. The other good thing about Portoroz is it's a fabulous launching pad for Croatia, which is just next door and which is what we did.

Well, if Hotel Villa Dubrovnik had changed, Dubrovnik ATC and airport had not. They were as brilliant as before. We'd warned them in advance and were made to feel as special as Roman Abramovich







whose private Boeing was parked on the tarmac beside us. We got the full treatment – a bus to the terminal and fast track through passport control. The only glitch was the fuel tanker, which broke down, so we had to postpone refuelling until departure. It then took forever and involved a great deal of paperwork but this turned out to be a piece of cake compared with what was waiting for us at our next stop.

From Dubrovnik we made the shortest sea crossing to Italy, coasting in at Ancona and then over the hills to Lucca. Now, if you have the misfortune to refuel at Lucca



**Top left: rooms with a view – seascape outside the Hotel Villa Dubrovnik**

**Left: Venice Lido, the GA grass strip just across the lagoon from the city**

**Below: a privileged view of Venice, with St Marks Campanile prominent at centre**

you'll be stung with an eye-watering bill – 50% tax – but before that it's quite likely you'll be asked to orbit for half an hour because of parachuting taking place miles away. You might also be told you're Number One when actually you're Number Two but not to worry, it's just a detail. And be prepared for serious form filling and a colossal amount of paperwork involving a lot of people in uniforms and a lot of time.

Apart from that the walled city of Lucca is a lovely place. By chance we were there





for the Luminara di Santa Croce, the Festival of Lights when the town is entirely lit with candles and a four-hour medieval procession makes its way to the cathedral. If you're lucky and can find a restaurant on the route you'll get a seven course Luccese special to see you through.

The other good thing about Lucca is when you leave to head west you fly out over the marble-topped mountains of Carrara to reach the Mediterranean coast and from there you can make your way low level all the way along the Italian and French Rivas. When we did it the weather was kind, the visibility at a thousand feet was perfect and the views spectacular – from Genoa to San Remo, the stinkpots of Monte Carlo and Cannes and then on to Marseilles where we watched the French Navy at play and lifted flamingos off the flats of the Carmargue.

So on to our last stop, Beziers, for lunch and fuel before striking north for home. It had been a great rally. We'd had a good time, eaten a lot, drunk a lot, laughed a lot



**Above: the marble mountains of Carrara, climbing out of Lucca to the west**  
**Left: Commander commanders and their fellow travellers see the sights**  
**Below: Monte Carlo, as seen from low level over the Mediterranean**



plonked itself firmly between us and home.

There's a strange quietness in the cockpit when you're in thick cloud, just the engine droning on and the sound of rain hitting the windscreen. Occasionally the pilots talked to each other as we bounced our way over the Massif Central. "What's it like at 4,500?" "Patchy" (pilot-speak for can't see a thing). And 'patchy' it stayed until just before Rennes when the cloud thinned – time to break out the Werthers Originals – and by Dinard it was time for the Ray Bans. "We have the island in sight."

*\*Sukey Perry is married to Mike Perry, CFI Commander High Performance School Europe*

[www.commanderflying.co.uk](http://www.commanderflying.co.uk) ■

and had just the right amount of minor tension in the air to make landing even sweeter – sporting squalls on approach at Cannes, interesting ATC at Ancona ("you cannot enter my aria, make one eighty") and even more interesting ATC at Lucca, but nothing really heart stopping. And we'd had no call on the spares we'd brought along: tyres, spark plugs, undercarriage seals, inner tubes, a big bag of tools and a big jack (we'd learned the hard way on another Commander rally in Morocco when a burst tyre had meant doing a balancing act on a pile of bricks. Not good. But that's another story).

So we approached rally's end cheerful and intact. We'd had a good run, almost too good, so there was a certain inevitability about the big fat cold front that





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# Total Eclipse

*Sole survivor of the evaporated VLJ market, the Eclipse is a truly impressive personal jet, says **Terry Earl***

In the unexpected morning sunshine the Eclipse presented a fine sight as David Hayman, single-handedly and without undue effort, pulled N843TE out from the very neat and tidy hangar on the west side of Dunkeswell airfield. Manufactured using a technique called 'friction stir weld' the wings and fuselage are almost completely free of rivets, which not only appeals to the eye but of course reduces drag, and perhaps more importantly it also makes for a structure which is very strong, very light and quick and easy to produce.

The Eclipse is slightly smaller than the Citation Mustang which I had flown before but it looked very similar apart from its distinctive, rather bulbous fuselage. Looking into the cabin through to two-piece up/down door I noted two seats at the rear of the cabin with a small baggage space behind – David pointed out that

there could be two further seats fitted ahead of these, the only drawback being that the nearer one of these would make entry to the cabin somewhat awkward. However, today there were just the two of us so we were only concerned with getting into the pilots' seats and, despite the small space, this was achieved by the simple expedient of adjusting the seat positions to allow for easier access.

Once settled in the very comfortable seat it proved easy to adjust for my medium-sized frame, and glancing around the instrument panel I was immediately struck by the simplicity and neatness of the layout – dominated by the three screens of the Avio 2.0 system. I was already familiar with the Garmin 1000 system and had been much impressed by its capability and functionality, so I was looking forward to seeing how the Avio compared.

I was to fly in the right-hand seat, which actually suited me well as it meant that I would have the side control-stick, which I had rarely used before, in my right hand and the throttles in my left; the Primary Flight Display (PFD) on the right-hand side can of course display all the information that is available on the left-hand side. In between these two was the much wider Multi-Function Display (MFD) which could display a mass of information in various well-presented formats. Once we were both settled in the cockpit and David had briefed me on the layout, his fingers tweaked and twiddled various buttons and switches with the result that in moments we had both engines running, had calculated the mass and balance, entered the flight plan and calculated the take-off performance. The checklist was a double-sided A5 card which he used to confirm actions rather than as an 'action list'. The plan was to fly across to Guernsey to make an instrument approach, land and pick up fuel followed by a return to Dunkeswell, with a flight time of around 20 minutes





each way – somewhat quicker than my usual routine in a light twin or single!

We were taking off with half tanks, sufficient for an hour and a half airborne, and this put us some 1000 lbs below the maximum take-off mass of 6000 lbs. After taxiing out in what seemed like a complete absence of sound from the engines, David lined the little jet up on Dunkeswell's runway 22 and after a final check around the cockpit pushed the power levers firmly forward – and in less

Photos: Peter R March



**Top: smooth and quiet in the cruise, the Eclipse is 'a very easy aircraft to fly'**  
**Left: Eclipse comes with two Pratt & Whitney 610F turbofans**  
**Above: David Hayman lends scale to the Total Eclipse in the hangar at Dunkeswell**  
**Above right: Clamshell door with integrated steps makes access easy**

than 10 seconds we had accelerated to the calculated rotate speed of 85 knots and were airborne within about 200 metres. Gear and flaps were quickly retracted and we were soon climbing at just over 3,000 fpm with the speed increasing through 150 knots before settling at 200 knots as we climbed towards our initial level of





FL60. Exeter Radar handed us over to London Control who cleared us to FL170 routing via Berry Head and on towards Guernsey. Once at our cruising level we had a TAS of 330 knots and were using 300 lbs of fuel a side – clearly not as efficient as if we had been at FL370 but we would soon be descending for our approach to Guernsey. Up to this point everything had been as smooth and quiet as one could wish, with David able to shed much of the high work-load in the climb to the autopilot while he handled the radio and monitored aircraft performance and navigation. However, our tranquility was disturbed by a brief encounter with some cumulus build-ups during which it was evident that the Eclipse can give a rather firm ride through turbulence. Happily we were in the clear again soon and commencing our descent for the approach to Guernsey's runway 27, with the radar controller judging our descent rate nicely and placing us on a good intercept heading for the localiser. At this point I accepted David's offer to hand-fly the aircraft, with the speed reducing to around 150 knots ready for the gear and first stage of flap to be selected. The aircraft was already nicely in trim and I only needed to make slight adjustments as we re-configured, reducing the speed to 120 for descent at the final approach fix. Once established on the final approach and with landing clearance being given at four miles I flew the rest of the approach visually, keeping in mind the reported touch-down wind of 240/16. The Vref for the approach was 93 knots so I kept the speed just over 100 until close in, then let the speed



**Top: Avio 2.0 glass cockpit will suit those stepping up from high-performance singles**  
**Above: Much of the conversion course concentrates on learning the systems**  
**Right: Presentation is clear and comprehensive – once you get the hang of it**

reduce to 93 over the threshold at the same time closing the throttles. Taking David's guidance that only a slight flare was needed I checked back gently on the side-stick and the aircraft settled smoothly onto the runway with no apparent drift.

We parked the aircraft on the visitors' apron outside the ASG hangars and took time out for a coffee while the aircraft was refuelled. I admitted to David that I was more impressed with the Eclipse than I had expected, given all the problems it had





# Troubled past, bright future



**T**he Eclipse was conceived in a bygone era when the economy was powering ahead, money was there for the asking and everyone thought it would go on forever. The visionaries looked ahead to a 21st century in which the sky was black with VLJs, while regulators everywhere looked on in consternation, wondering how on earth they would be able to put a stop to it. Then we woke up.

Eclipse Aviation Corporation was set up in 1998 by Vern Raburn, who'd made his pile with Microsoft, and it aimed to bring to market a small twinjet that could be flown by a reasonably competent private pilot and would cost less than \$1 million. Lots went wrong – the original Williams engines weren't powerful enough so they had to redesign the plane to take PW610F turboprops, and one way and another they didn't get FAA certification until 2006, just in time for the global economy to dive headfirst into the toilet.

Eclipse fought on gamely for two years and collapsed into bankruptcy in 2008. The company's assets were bought by businessmen who nursed them back to life as Eclipse Aerospace Inc, offering support services to some 260 Eclipse aircraft already sold while upgrading existing 500s to 550 spec, which meant adding systems redundancy, auto-throttles and anti-skid brakes, among other things. Sikorsky bought a substantial minority stake, injecting confidence into wavering buyers and providing Eclipse with supply chain support that give it real potential.

And while the monkey at the zoo can tell you that the private jet business remains a buyer's market, today's Eclipse is a beguiling package that has a sector to itself – especially so now that Cessna has stopped making the Mustang. Filling the tanks leaves 650 lbs for passengers, and it'll take you 1125 nm in three hours with IFR reserve. Fuel burn can be got down to 320 lbs per hour with the aircraft doing 325 knots true at FL410, going up to around 420 pph at 360 kt. That makes her faster

than a Mustang on about two thirds of the fuel; given the comparative prices of avgas and avtur, it can work out to be cheaper on fuel than a Cessna 172.

N843TE is a 500 Total Eclipse, which is to say it was stripped, refurbished and upgraded by the new Eclipse company. It was one of 1,400 ordered by the ambitious air charter start-up DayJet and repossessed when they went over the weir. She costs \$2.25 million, while the new 550 costs \$2.89 million. Now that the Mustang is off the table, her nearest competition is the Embraer Phenom 100 at \$4.4 million. Even the TBM850 – slower, noisier, unable to fly at same high altitudes and with higher vibration levels – costs \$3.5 million.

Insurance is around £10,000 a year, while maintenance costs come in at around £20,000. (Cardiff Aviation is currently tooling up to do the work and will be operating by the end of March.) For a typical long distance trip; fuel burn is around 600 lbs for the first hour, 500 lbs for the second, 400 lbs for the third. The Eclipse qualifies for the lowest Eurocontrol charges at around £60 an hour. All in, direct operating costs are between £450 and £600 an hour.

Almost 80 percent of Eclipses are owned by private individuals, most of whom do their own flying. The majority have stepped up from the Cirrus, and while it's a big jump it's not out of sight given the rigour of the Eclipse training courses. Anyone who is familiar with a high performance pressurised single with a glass cockpit could look on the Eclipse as the next logical step. Not only can it be looked on as an entry-level jet, but it could so the work of larger private jets; some 80 percent of private jet movements in Europe carry four or fewer people, and a similar percentage are of less than two hours duration, which means that the Eclipse could be used for 80% of all jet flights in Europe at a fraction of the cost of the bigger jets.

had in the past. This particular aircraft, although built as a 500 series had been upgraded almost to the standard of the latest 550 series, the only significant difference being the lack of anti-skid braking. From a handling point of view it certainly compared well with the Mustang, and I found the Avio 2.0 FMS at least as good and in some ways better than the Garmin 1000. David made it clear that Eclipse took the type rating training very seriously – at present this can only be done in Florida, with the course involving 40 hours of simulator training and then a requirement for 25 hours of flying with an approved mentor before an unrestricted type rating is issued. Interestingly, prior to the simulator training trainees have to complete a four hour 'upset' familiarisation

course in an Extra 400. Once qualified on type a two-day recurrent training course has to be completed every year.

Refuelling complete and coffee downed we boarded the aircraft for the flight back to Dunkeswell, and it probably took as long to copy the ATIS and our ATC clearance as it did to start the engines and complete the pre-taxi checks! Arriving at the holding point we were ready for departure and soon lined up for take-off. I was to fly from the start this time and I found the whole process of getting airborne and settling into the departure and climb profile delightfully straightforward, hand-flying the aircraft up to FL180, admittedly with David looking after the radio. I did this to confirm my earlier impression that the Eclipse is a very easy aircraft to fly –

the preferred method of operation, particularly in the climb where things are happening much more quickly than the average GA pilot is accustomed to, is to use the auto-flight system to take the strain. And this is the main purpose of the training regime, to ensure that Eclipse pilots can fully exploit all that the FMS offers – and that in itself takes time to absorb. The other key aspect of the training is to learn to cope with system malfunctions, remembering that single-pilot IFR is challenging enough in a high performance aircraft even when everything is working as it should.

Less than 20 minutes from brakes-off we were approaching Dunkeswell to join visually down-wind for runway 22. I was again hand-flying the aircraft, this time



taking the gear down just below the limiting speed of 200 knots to help reduce to a reasonable speed for the circuit. Turning on to base leg with one stage of flap and at around 110 knots I confirmed that there was no-one ahead of us on the approach and then positioned us on final approach at about two miles out, watching carefully for the displaced threshold which is a particular feature when landing on this already short runway. Reducing to less than 100 knots on late finals I was over the numbers just below our Vref of 95 knots to ensure minimum float before another smooth touch-down. David was very complimentary about my landings, but in truth this is a really easy aircraft to land.

I hope it is already evident that I very much enjoyed flying the Eclipse and was impressed with the whole package. It is smaller than the Mustang and therefore can carry less, but in all other respects it appears to out-perform Cessna's smallest jet. However, now that the Mustang is no longer being produced the competition is the Embraer Phenom – the performance of which may exceed the Eclipse in most areas, but only at significantly greater cost. As for the ease with which a typical GA pilot, say someone with experience of a Cirrus or the like, could successfully convert to operating the Eclipse safely I can only reiterate what I mentioned earlier – single-



**Top: Creature comforts – seat configurations allow for four or six occupants**  
**Above: in the climb, much of the workload was shed to the autopilot**  
**Left: Vref for the approach was 93 knots, and only a slight flare was needed**  
**Below: Smaller than the Mustang, the Eclipse has a 'distinctive, rather bulbous' profile**



pilot operation in IFR can present a real challenge, particularly in a high-performance aircraft in congested airspace. The ability to absorb training, to adapt to different procedures and to think quickly are probably all pre-requisites for the budding Eclipse pilot – as is the need to

accept that the training course is very demanding for the simple reason that to a large extent the future reputation of the Eclipse rests firmly on the shoulders of its pilots. I understand that so far there has only been one accident in some 200,000 hours of operation, and that was a poorly

judged landing which resulted in damage to the aircraft but no injury to its occupants.

In closing I would simply say that if any of my rich friends should decide to buy an Eclipse I would be more than pleased to play a part in its operation... ■



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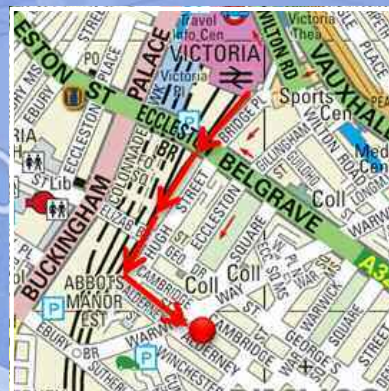
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**Left: Bruce at his day job, fronting heavy metal monsters Iron Maiden**

## Pilots like you

*Flyin' maiden **Liz Moscrop** meets Bruce Dickinson in his new role as vice president of Flying Scholarships for Disabled People*

**"**I t's the only place in the UK that I know of now where you can actually make a proper noise. The numpties and nimbies at (a certain popular British town) are so objectionable about noise that God forbid the wind's blowing the wrong way, or you can't hear the band."

It is an almost hot day in June and rock star Bruce Dickinson is waxing lyrical about Castle Donington – the venue for his gig that night at the 'Download' festival. Musician, airline pilot and entrepreneur,

he is also a thoroughly good egg who is taking time out of a wildly busy schedule to promote the charity for which he has just become vice patron – "Flying Scholarships for the Disabled (FSDP)."

As ever, he is highly entertaining. He continues: "In Hyde Park you can't rustle a crisp bag just so as not to annoy a couple of ancient dowagers who live in million pound apartment blocks round the corner. So really what's left? This is actually it. You've got Glastonbury, but you can't move for yurts and discarded copies of the

Guardian. Here is a special place for heavy metal. Not just metal per se, but every kind of alternative rock that doesn't like to dress up and live in Starbucks. Download is an inclusive festival for anyone who wants to make a really great sounding racket. It covers everything except tennis."

It would take something special to appeal to a man with as much drive as Dickinson has, and FSDP meets that bill. He became involved with the charity when flying for the now defunct airline Astraeus. The carrier had a contract to fly for British Midland to – as he describes – "all the nicest places. Sierra Leone, Kazakhstan etc. Warzones are us." The charity's medical officer Eleanor Ivory also flies for BM's current incarnation flyBMI, and the pair met in the crew room at Heathrow. She persuaded him to go along to the annual FSDP selection process at Cranwell, where he met one of her protégés, Nathan Doidge – the self-professed "world's most disabled pilot." Dickinson says: "Nathan is one of the most profoundly disabled people I've ever met, and also one of naughtiest. He is both cheeky and flies better than some people with all four limbs working. He is an incredible character, and I was so impressed with him. Since then I've got to see the most extraordinary footage where disabled people get themselves into cockpits and do advanced level aerobatics."

Indeed, it would be impossible not to be impressed by Doidge. His blog opens with the words: "'Put him in a home, forget about him and have another baby.' That's what the doctor told my parents when I was born with cerebral palsy. My disability has meant, throughout my life, I've been told I wouldn't be able to do things but I've always enjoyed proving people wrong." Doidge won his pilot's licence in August 2012. DJ Chris Evans was equally taken with him, so much so that he filmed a piece about him for the BBC's "The One Show." Last year Doidge earned the 'Aviator of the Year' sword, which was presented to him by Buzz Aldrin at the annual Aviators' Ball. He was recently spotted (along with Dickinson) at the Royal International Air Tattoo hovering around a bunch of fellow adrenaline junkies planning to fly around the world in a microlight.

Doidge is exceptional even among exceptional folk. He writes: "My hope is all this will enable me to continue challenging people's perceptions, able-bodied or otherwise, of disabled people and what they can and can't do – show, contrary to what most media conveys, a disabled person's life isn't all about 'coping' with their disability. In fact, for most, it's a very small consideration next to all the usual factors involved in not just leading a 'normal' life but living it to the full."





Fellow scholar and this year's "Wings Around the World" trophy winner Mary Doyle shares his sentiments. The cup goes to the female scholar who is judged to have achieved most from the flight training experience. Doyle has cerebral palsy and came to FSDP after a bout of severe depression. She says: "It's not about flying. Obviously flying is massive, and such a big achievement to go solo, which would challenge most people, let alone someone with a disability."

Dickinson adds: "People think FSDP is just about helping people that have a disability to fly. It is far more than that. The flying bit is almost incidental. I went

---

**Above: relaxed ahead of his Donington concert, Bruce discusses his aviation passions**  
**Above right: giving it his all, Iron Maiden's front man rocks Donington**  
**Below: Winners all, from left, Liz Fox, Sean Allerton, Bruce Dickinson, Mary Doyle, Luke Delahunty, Eleanor Ivory**

---

down to a three-day selection at Cranwell, which the RAF is happy to be involved with, and helps out an awful lot. I was astonished at the depth gone into selecting candidates. Rightly so as it costs quite a few thousand quid to give someone the scholarship." He cites the example of an applicant who had lost a leg in a

motorcycle accident, who had retrained as an engineer and seems to have overcome his disability completely. The man was unsuccessful. Dickinson explains: "He was quite jovial about it and completely understood. Another lady said, 'You know what, I've been a failure in just about everything in my life, and if I could tell my kids that I could fly an aeroplane it would make me think they'd see there's something I can be good at.' There is someone who has got a need that can be fulfilled by a scholarship."

Now an ambassador and mentor to incoming scholars, Mary Doyle's life has completely turned around, largely thanks to







**Left: Bruce Dickinson with Spitfire at Duxford – unfortunately, he says, he can't afford one**  
(Picture: Mathys & Squire)

her involvement with the charity. After her divorce she wanted to expand her horizons, and plucked up the courage to apply. She says: "I applied 20 years ago, and bottled the appointment. This time it was amazing. Even going to Cranwell, which is iconic, was fantastic. I was so awestruck when I visited that on the long driveway to the door, I nearly threw my car off the road."

The scholars form strong bonds with each other. Doyle is particularly pally with previous winners Luke Delahunty and Sean Allerton, both ex-soldiers, and the charity's version of a funnier-and-fouler mouthed Ant and Dec when they're flying the FSDP flag. Delahunty, who is paralysed from the chest down, works as a volunteer at Stoke Mandeville Hospital, where he was treated after his accident. Now he teaches wheelchair skills to other people with spinal injuries, and helps them rebuild their lives. He explains, "I met with a friend who had got a scholarship who thought he had a job for me. When he told me what he was doing I said, 'Screw the job, I want to go flying'. I ended up getting a scholarship in 2009." He went to South Africa to learn, which he says was extra challenging, not only because of his disabilities (in terms of the physical aspects of international travel), but also since he was lumped in with regular students in their early twenties, who sailed through the exams.

Before his accident, he was stationed at RAF Honington near Bury St Edmunds. Ironically Allerton, too, too is former RAF gunner. He is also no shirker when it comes to helping others conquer depression after a life changing injury. He acquired his disabilities also after a motorcycle accident, when he was a

pillion passenger. Inspired by the Proclaimers hit '(I'm gonna be) 500 miles', Allerton embarked on his own personal odyssey this year to raise funds for the charities that have supported him, the 'Push 500 Wheelchair Challenge.' The feeling is mutual. The Proclaimers – Craig and Charlie Reid – say on his blog: "Sean is an inspiring figure and his work for charity is something we support and we'd hope others do likewise." To date Allerton has completed two 500-mile rounds, and has just started on the 'Push 1,000' version.

Another ex-scholar worthy of mention is Pauline Gallagher, a 2004 graduate, who is organising 'The Freedom of Flight Relay Challenge' next summer to raise funds for FSDP and Aerobility. The goal is to land at an airfield in each county in the UK, with each leg flown by a disabled pilot, or one under instruction. The idea is to raise awareness of disabled flying in the UK.

Pauline also administers Aerobility operations at Prestwick Flying Club, her local field. She has been involved in the RAF Air Cadets since she was a teenager and is now an officer, working with a local Air Cadet squadron. In April 2011, Pauline flew her first solo flight and continues working toward a PPL.

The pilots feed off each other's energy and are positive about what they can do with their lives after going through the FSDP process. Doyle enthuses: "They are all seriously cool nice people. Dr Eleanor is so encouraging. She never has doubts about our abilities and says things are doable. Having the 20 hours flying with Aerobility at Blackbushe meant that I could take it as far as I wanted to. I flew every day and went as far as I could go. On my last day I went solo. I knew I

couldn't let the team down." She is now completing her PPL using her own funds.

The FSDP crowd are brimming with enthusiasm for the evening's entertainment. Dickinson has given them VIP backstage passes for the show and they are decked out in Iron Maiden T-shirts and raring to go – unlike the man himself, who has spent the last two days resting having caught a nasty bug in Frankfurt on tour. He has cancelled all his other interviews for the last two days, but is determined to rock up to promote the charity, so is sitting in the semi sunshine sipping tea, and obligingly posing for photos with the scholars.

He is most unstarry – until he starts to describe his evening job, and you remember the enormous field of thousands of people you drove past earlier, sluicing around drenched from the morning's downpour, all waiting to hear him sing in a few hours' time. There's a glint in his eye when he starts talking. "This is the Alamo tour. I'm really looking forward to it. It's a big anniversary – 25 years. We've got an absolutely cracking show, and lots of fans have never seen any of this stuff the first time round. The band is now bigger than it ever has been at any stage in its history. Clearly many of those people are not people my age, or even close. They discovered us in 2000 when they were 15 years old. Now all those new people come. This is the way we've survived and got bigger, not just by clinging onto 50-year old fans. We reinvent ourselves for 16 year olds every five to ten years. Most bands of our vintage are playing the vaudeville circuit, and we certainly are not, so we look down. And looking down at the audience of 16 years olds gives us the impression we may still be that old. Of course the following morning I phone up Dr. Eleanor and say 'Dr. Eleanor, I'm not 16 any more am I?' We get aches and pains with the jumping around. Actually we should have a sponsorship with Nurofen."

Witty and creative though he is, Dickinson also has a sharp eye for the business end of the music business, and his entrepreneurial streak shows. He continues: "We operate on the basis we tend to do an old set for a certain generation, then offer an alternative with a new album. We did a new album a couple of years ago, and toured America with this production. Now we are bringing it to Europe. It is not a recreation, but a reinvention of the set we did in 1988 here at Donington, complete with icebergs and everything else. However, technology has moved on, so we've got huge screens and pyrotechnics – stuff big enough to take your hair off."

(In fact the band's party piece that night was to fly a Spitfire over the crowd. It is no



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**Right: If you can't be a pilot, there are other ways of making a living – Bruce on stage**

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wonder they're a huge hit with the aviation community).

Dickinson is off to Brazil, Rio, Paraguay and Chile in September, playing to crowds of up to 90,000 people. But right now his head is very much in his role as vice patron. He would like to see more cooperation between all the aviation charities that help disabled people to fly. FSDP works closely with Aerobility as its training partner. Dickinson believes there could be still stronger links.

His inner entrepreneur comes to the fore. "There seem to be two or three charities that all duplicate certain things, which seems crazy – adding layers of bureaucracy. We should be pooling resources. The charities could help more disabled people, and become more viable in terms of funding themselves. We should take the best of each. We have great links with the RAF, and top-drawer medical capabilities. We should glue everything together and use resources. We could also reach out to traditional pilots to fly our planes and make money that goes straight back to fund the charity."

Eleanor Ivory agrees. "We have close links with other charities, although we don't tend to do joint fundraising, a bit more overlap there would be beneficial. Whatever it takes to help more people. We don't want to lose the core of what FSDP is – we wouldn't want to lose that essence. We would like to send more people abroad and offer more training hours."

She became involved with the charity when she stood in for someone at the selection board. She was hooked from the start. She explains, "I was overwhelmingly inspired and learned things I never thought I'd learn even after 25 years as a doctor. I've learned so much about human beings. I have a massive passion for flying, and the charity connects the two together. On the medical side we have fairly minimal input. We don't want to remind people



about their medical problems, rather we focus on flying and getting to know each other."

Both she and Dr Liz Fox have to make judgements about safety of the pilots depending on their physical abilities. The medical team need to assess people's likelihood of becoming incapacitated, so they don't become a danger to themselves. She says: "My horizons have expanded by my involvement just as much as some of the recipients." Ex-Air Force doctor Fox says: "Cranwell feels like going home. It also helps from an educational point of view. I've learned so much about conditions which I'd only briefly come into contact with before. I'm more confident dealing with people with spinal injuries. It is really humbling. I spend at least an hour with every candidate, which after ten

minutes of usual consultations as a GP is just bliss."

One of the things an amalgamated charity could perhaps help with is life beyond the licence. It is hard to find hand-controlled aircraft, although the installation and certification is relatively simple on club aircraft, such as a PA28. The beauty is that the lever can easily be removed when required. Delahunty tried to persuade a local flying club to add one to a club aircraft, but was met with stony silence. He says: "The ops manager there said, 'No, we cannot adapt a plane for you to fly because nobody else can fly it.' People's attitudes are another big barrier."

Doidge says: "I'd also like to show that everyone in the world, not just disabled people, is in one minority group or another and it's okay to be different, no matter what that difference is."

In Dickinson, FSDP could have the right man at the helm to tackle such issues.

<http://www.fsfdp.org.uk> ■

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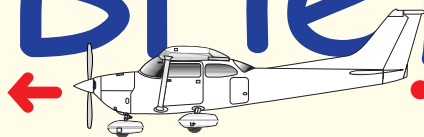
**Below: Mary Doyle, this year's Wings Around the World winner**

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# Briefings



designed a low-cost, ultra-efficient single seat aircraft for the private pilot market. The company is led by Malcolm Bird, a former director of the global silicon chip producer ARM.

Bird said after the half-million milestone was reached: "We are very pleased to have almost all of our existing investors standing by us, and it is equally encouraging to be

welcoming new investors into the company. These are not easy times for fund raising, so it is good to have such broad support as we head towards our target. Interest in helping rebuild Britain's aviation presence is strong, and we plan to be a part of this."

The e-Go will initially go on sale in the UK and US with a price tag of around £50,000 plus VAT.

With a minimum investment of just £500, SyndicateRoom is the UK's first crowdfunding platform to allow amateur investors to invest alongside seasoned investors, known as business "angels".

Gonçalo de Vasconcelos, founder and CEO of SyndicateRoom, says: "Few companies better epitomise the

creative brilliance of British engineering than e-Go. Who else could take Formula One racing car technology, adapt it into a beautiful and groundbreaking aircraft design, and then build and test it on a farm in Cambridgeshire?

"The e-Go aircraft is in the final stages of development, and when it goes on sale its competitive price and remarkable fuel economy will make it a hugely attractive proposition to recreational pilots. A panel of successful professional investors has invested in it already; now everyone can."

See [www.syndicatoroom.com](http://www.syndicatoroom.com) and [www.e-Go.me](http://www.e-Go.me) ■



## £500,000 for e-Go

The e-Go, the first aircraft in decades to be designed and built in Britain, looks to have a secure future after more than £500,000 was raised via crowdfunding in less than a month to support the project.

The online crowdfunding platform SyndicateRoom, through which individuals invest relatively small amounts in start-ups seeking capital, has reported that interest in the e-Go is ahead of expectations and

investors have been piling in.

The e-Go – the first flight of which was reported in the last issue of General Aviation – is also backed by serial technology investors Herman Hauser and Marshalls of Cambridge. The aircraft conforms to regulatory specifications which mean it requires no certification. Based at a farm strip near Cambridge, the designers plan to begin production early in 2015.

e-Go Aeroplanes' team of engineers has

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# Pilot opportunities

CTC Aviation, one of the world's largest pilot training organisations, says the world will need to find over 235,000 new pilots between now and 2020 to meet demand for air travel. CTC, which channels students into more than 50 airlines, says there are currently some 150,000 professional pilots in the world, but retirements and air travel expansion



mean many more will be needed soon. Around the world there are 22,000 commercial jets, and this is forecast to grow to 40,000 by 2030.

How much of this is evidence-based and how much is conjecture is not clear. CTC, which has received 64,800 pilot training applications in the

last ten years, is embarking on a student recruitment drive. It puts the financial investment in the cadet course at £89,800 over two years, including training and accommodation. Salaries, it says, start at between £30,000 and £50,000.



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I'm finally in Alaska, the pilot's dreamland, to fly the skiplanes that I've dreamed about all my life and to land on the otherwise unreachable glaciers of Mount McKinley, at 20,320 feet the highest point in America, where the winds regularly top 100mph. The mountain is set in the six-million-acre Denali National Park, a vast wilderness of jagged peaks and glaciers where aviation is just about the only feasible form of transport.

Talkeetna, the starting point of flights to Mount McKinley, is a small community of 800 Alaskans. The skiplane flight training school, Alaska Floats and Skis, sits by Lake Christiansen, five kilometres from the village. This heavenly lake serves as a runway for seaplanes in summer, and when it's covered with ice during winter it turns into a perfect runway for skiplanes.

But we don't begin with the flying. Founder, owner and Senior Flight Instructor Don Lee sets aside the first day for survivor training, introducing the survival tools and equipment that is being used by all planes flying in this region. He continued with a demonstration of how to use snowshoes, moving on to how to make an igloo and snow tunnel. This is a serious business. As I am to discover, you don't treat the Alaskan winter lightly.

Don also provided me with some useful information on what I might come across and what to do at minus 40 degrees celsius. The essential things to do after an accident or landing in these severe weather conditions are to try to stay calm, light a fire, make water out of ice. The survival equipment that must be present in all skiplanes in this region are – two sleeping bags suitable for minus 40 degrees celsius, two sets of snowshoes, dried food for a minimum of seven days, portable stove, extra polar clothing, signal



## ***Flying on skis in Alaska***

*If you need a new challenge, how about landing on a glacier? **Tufan Sevincl** describes the experience*



rockets, axe, first aid kit, fishhook, compass, four or five lighters, non-wet matches and naturally the top essentials on this list – a gun and ammunition. According to Don, search and rescue helicopters based at Anchorage-Elmendorf

**Top: slow reduction of power brings the aircraft round in a wide arc**

**Above: vital equipment on every Alaskan flight includes sleeping bags and snowshoes**

**Above right: here the snowshoes are lashed to the struts rather than being carried in the plane**

airbase arrive at Talkeetna within an hour of an accident. In summer, the main danger is wild animals – pilots keep guns with them at all times.

The second day of training is all about getting to know the skiplane that I'll be





*Author Tufan (left) with Don Lee and Piper PA-22 in an Alaskan snowfield*

flying. The wings of 135 hp Piper Tripacer (PA22) are edged with vortex generators to improve flight performance. My first important job is to clean the snow off the plane with a brush. Even a small piece of snow would adversely affect the stall

performance of the plane. It's not an easy task at minus 30 degrees, but there wasn't a particle of snow left on the plane after half an hour.

While I was clearing the snow, Don placed a hairdryer under the engine

cowlings to warm the oil. It took two hours of warming before he was satisfied. Alaskan pilots used to empty the engine oil first, warm it up and then load it back into the engine.

As part of the pre-flight the skiplane pilot





has to shake the plane forward and backward by holding the wings struts to ensure the skis have not stuck to the ice. After starting the engine and making sure it was properly warmed up – a process which cannot be rushed – I held the stick back and applied full power, and the plane started moving forward. It took quite a lot of power – if you don't add enough, the plane will not move at all. But you must be careful to reduce power as soon as she starts moving, and to use no more than is necessary. Too little and you get stuck, too much and you lose control.

Having identified the wind direction I started taxiing towards the end of the lake. Taxiing the Tripacer was much easier than I thought – you should merely concentrate on 'energy management', but to begin with it takes all your concentration. Facing into wind, I applied 10 degrees of flap, applied full power and kept the plane straight. The plane slid over the snow with no apparent resistance and lifted off in no distance, climbing over the pine forest in front of us. We flew towards the Susitna River, where my training was to take place. First, we had to identify the condition of the snow and the ice on the river by practising touch and goes with the skis. This is called 'laying tracks', or trial landings, and is a very significant process for skiplanes which must be learned extremely well. When you do not what's under the snow and you attempt to land without first testing it, you could well be committing suicide. Flat lighting because of overcast skies or intermittent sunlight distorts perception of altitude and increases risk. Seaplane pilots are familiar with glassy water landings, where height cannot easily be judged – skiplane pilots have similar difficulties. A touch and go leaves ski marks in the snow, and that becomes your runway. Apart from perception and terrain issues, the most important point to take into consideration



on landing is to keep taxiing with full power so that the plane never stops until you want it to.

After learning how the plane behaves on snow and feeling confident with it I progressed to the second stage of training. One thing I'd point out here is that you need long hours of flying experience in order to get anything out of glacier flying training; I would suggest a minimum of 500 hours. Glacier landings are dangerous, especially for the novice. If you get stuck you may have to wait for days for rescue, or even longer. Furthermore, it's very hard to estimate wind strength and direction – they can change extremely rapidly.

The first thing to do is to fly over the glacier to determine wind direction, then create a runway with a couple of touch and gos. We began flying towards the famous Ruth Glacier of Mt. McKinley, which is 15 km long and 1,000 metres deep.

After taking off from Lake Christiansen I gave the tower my position and flight plan. In this region, you must always report where you're planning to go, how you'll get there and back, and what you intend to do, and give details. A radio problem

means a cancelled flight – it's too dangerous to fly in these mountains without everyone being aware of what you're up to. Apart from rescue considerations, there can be up to 30 tourist skiplanes over the Ruth Glacier at one time.

You simply cannot get enough of this stunning scenery. February is not the tourist season in Alaska, and I felt all alone with my plane, engine and radio. There was a danger that I could fall into daydreaming, but Don's voice, talking about the terrain or the meteorology, makes me focus.

The weather can be extraordinary. It changes from hour to hour, and from valley to valley. Snowstorms or sudden clouds can ambush you. Having flown over the glacier, we found ourselves in a dusty snowstorm for a very short period, possibly the result of a rapid pressure change. I can assure you this was one of the most scary and dangerous moments for me in Alaska. The best response is a 180 degree turn, so you need to create your own safe zone by deciding which way you're going to turn and leaving plenty of room in the valley to do so.

My instructor emphasised the importance of maintaining the same altitude at all





**Above left: pilot's eye view of the Susitna River canyon snaking through the mountains**  
**Above: it's vital to leave enough room on one side to facilitate a quick 180-degree turn**  
**Left: Cessna 180 operating off Lake Christiansen in a blizzard of its own making**

times. The human eye can easily be deceived when it comes to snow, ice and airspeed and objects on the ground may be closer than they appear! Therefore, you must always keep a close eye on the altimeter.

We had to finish glacier training earlier than we intended because of strong winds at our altitude. On our way back, we flew over the cabin of legendary bush pilot Don Sheldon, who pioneered glacier landings in this area in the 1950s. I was thrilled when my instructor told me that we would touch and go on the frozen Susitna River, and practice flying in the narrow Susitna Canyon which stretched out before us like a snake. As we began descending I saw a huge moose moving rapidly on the ice; when he heard the sound of our plane, he started running away.

First I flew over my intended landing area at low altitude to check the hazards and terrain conditions. Wherever I felt safe and convenient, I touched the skis carefully onto the ice. My first touch left a slightly vague trace on the ice, my second a more obvious indentation. On the third pass I completed my landing, following my previous tracks. I taxied with full power for a couple of hundred meters before bringing the plane to a halt. You have to bear in mind that the short blast of power may turn the aircraft downwind – but when turning into the wind, keep moving and turn in a wide arc. Trying to turn too sharply can cause the ski to dig in, resulting in a groundloop or nose-over.

The next stage of training includes flying in the canyon, the most joyful experience

of my time in Alaska. The skis are all covered by snow, and it feels like the plane is touching the frozen river all the way. Flying slowly and with maximum coordination, I had to pay close attention to the possibility of a stall. The canyon began to narrow to the point where I began to worry, but soon thereafter it widened out again, and I climbed to a safer altitude.

I was due to land on two glaciers on two glaciers next day, but there was no flying because of intense snow. This had not been forecast in the TAFs – unreliable forecasting is a major problem in Alaska, with its unique and unpredictable meteorology. The surprise heavy snow meant we hadn't put the plane in the hangar, so it was my job to clean half a metre of snow off the plane next day. As soon as the engine warmed up, we began rolling with full power on a strip which had been packed snow when I first flew, but was now covered with half a metre of new snow. the plane started going forward with full power. After taxiing for a couple of hundred meters, the plane's take-off run was longer, but even so it lifted off quite readily in calm weather. At 1500 feet, I headed the plane north west towards the Talkeetna mountain range, climbing slowly to 10,000 feet. Now I became aware of pain in the toes of my left foot, an initial sign of frostbite. It became worse and worse, and I got more and more angry with myself. Most Alaskan people wear specially designed boots called 'bunny boots' which have an internal layer of air so your feet stay warm at extremely cold temperatures. Bunny boots are used by the US army in colder climates and have air relief valves to empty the expanded air at high altitudes. I thought I wouldn't need

special boots since I wasn't going to be walking in snow, so I put on my trekking boots instead. What an unforgivable mistake! I strongly recommend these boots to all pilots who will be travelling in northern regions.

"Don, I guess my toes are frozen," I said to my instructor. With no hesitation, Don took off his left bunny boot and gave it to me. What a relief, in just ten minutes! After the flight was over, I noticed that my toe had turned white, a sign of the last stage before frostbite. A moment of neglect could have caused serious results.

My next flight was over the Swiftsure glacier, the first glacier I was to land on. The main problem was to determine the wind direction, but I was lucky in that the conditions were relatively calm. The glacier lay at 7,500 feet, and my first task was to lay tracks as a visual reference. Coming round again I saw the long, clear mark I had made and set up a final approach using full flaps for minimum ground run. I approached the 'runway' only marginally above stall speed for the altitude and made my first glacier landing successfully.

Now I look forward to going back to Alaska to complete more advanced stages of flight training in these unique and exceptional surroundings. ■

**Right: after a first taste of glacier flying, Tufan swears he'll be back for more**







## ***Flying the Red Bull Cobra***



R22 pilot **David Monks** has a 'life-changing moment' as he is offered a chance to fly the Red Bull Cobra







**H**angar 7 at Wolfgang Amadeus Mozart International Airport in Salzburg is home to the Flying Bulls, Red Bull's eclectic and fascinating 'air force', a collection which includes everything from a Corsair, some Alphajets and a Mitchell bomber to a Bristol Sycamore, a P-38 Lightning and a suck 'n' blow Cessna 337 – and most of the aircraft are kept in flying condition.

The problem on walking into the hangar is knowing where to look first. To the right in there were two or three actual Formula One cars; the capsule Felix Baumgartner jumped from as close to the moon as he could get; and the world's most immaculate DC-6, with carpet so deep it looks like you're not wearing shoes. There was also the world's most expensive model car, worth a cool five million pounds – it was a replica Lamborghini about a foot or

**Far left: Blacky Schwarz put the Cobra through its paces at Scalaria**

**Left: the author flies the Cobra down the Salzburg runway at 120 knots**

**Above: Brenda Nicoll with the immaculate Red Bull DC-6 in the company hangar at Salzburg**

**Above left: David's R22 G-ZAPY in impressive company in the Red Bull hangar**

**Right: the notice board in the Red Bull hangar says it all**

so long and encrusted in diamonds and other precious stones.

There are so many aircraft packed in its hard to see them all – the Bell Cobra, the Sycamore, an R22, the B105s, a Bell 47, even a hidden Falcon 900 buried at the back amongst the treasures; on it goes. The golden age of aviation, captured in the

world's most immaculate hangar. This collection of hardware is universally respected, admired and regarded as one

of the world's premier assemblages of fixed-wing and rotary aircraft. Each and every aircraft is immaculately presented, polished to perfection and clearly adored by all who are fortunate enough to work with them.

This is home to Blackie Schwarz, Chief Helicopter Pilot at the Flying Bulls. He presides over the helicopter component of this priceless collection, flies all of them, loops some of them and loves each and every one of them. He is the epitome of calm, a man you want on your side in an





aircraft when the chips are down.

When we met he was a busy man, operationally, gearing up for the 'Scalaria' show at Wolfgangsee which would see him fly the EC135, the Cobra and the B105. Scalaria started life in 1924 when Austrian Air Traffic AG, the parent company of Austrian Airlines, began flying from Vienna to Lake Wolfgang in a Junkers F13W seaplane. It developed into the largest seaplane meet in the world and really harks back to the golden age of aviation, when flying boats were de rigueur and everyone dressed up for no real reason; it's still as glamorous but it's now the Scalaria Air Challenge.

If you were a location scout looking for a venue you'd seriously think you were doing a good job finding Lake Wolfgang. It is picture perfect – mirror flat, with the Alps generously providing the mountainous back drop. If you ever get the chance to fly here, take it without hesitation – the countryside is utterly spectacular. Scalaria is staged on the shores of the lake, where there is a building with a unique feature – the roof panels move to let the Red Bull parachute team land inside the building. There's a floating champagne bar out on the lake accessible from the shore, the world's only airworthy Dornier DA-24ATT seaplane is moored on the banks, and on this occasion it was also the World Premiere of the Red Bulls Anthem, written

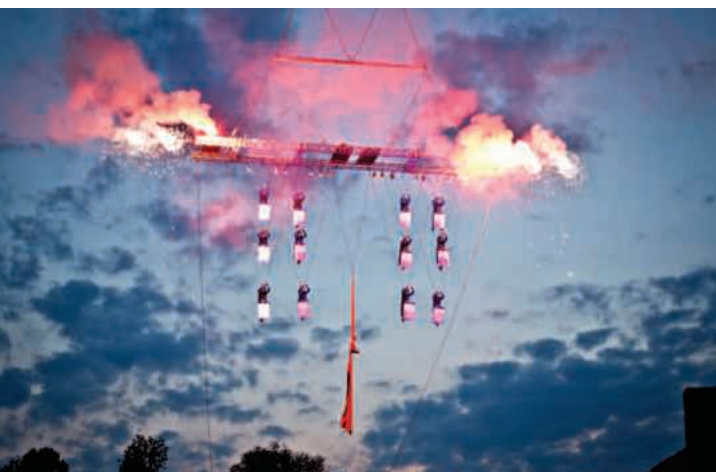
for Blackie by his chum Harold Faltermeyer with Steve Stevens on guitar. (They won a Grammy 25 years ago for the Top Gun theme tune and were both scheduled to premiere the new anthem on the Saturday evening at the Flying Circus.) The dress code was fierce (think white tie, tail coat harking back to the Great Gatsby era, no place for hoodies here!), the event themed specifically to 1924 – an entirely



**Top: the world's only airworthy Dornier DA-24 on Lake Wolfgang for Scalaria**  
**Above: Top Gun musicians Harold Faltermeyer and Steve Stevens premiered the Red Bull theme**  
**Below: Scalaria Air Challenge provides some fantastic tableaux, including the flying opera. The finale to the flying opera provides an unforgettable spectacle**

glamorous affair from start to finish. The sun was shining, there was the proverbial army of staff looking after your every need, there were air displays, parachuting, wing walking, helicopters, water skiing – the Red Bull toybox is apparently bottomless. The World Premier of the Red Bulls Anthem was to take place with the musicians on the top wing of the Dornier while Blacky looped and performed in the B105 above the lake. On the Saturday morning I flew from Wolfgangsee back to Salzburg in a Cessna Caravan seaplane. This was indeed a first for me, as helicopter pilots have a clear aversion to aircraft being anywhere near the water, let alone in the stuff. We landed back at Red Bull to have a look round the hangar. What happened next was amazing as well as being a totally unexpected.

It's clearly the aircraft Blackie has a soft spot for the Bell Cobra, and it was soon wheeled out of the hangar. With me in the front and him in the back, we took off for some mountain flying. My brain was still reeling as we hammered up the runway at 120 knots. The Cobra is the hooligan of the collection, a 150-knot speed machine with a mind-blowing rate of climb. It's officially a TAH IF built by Bell, rebuilt in 2002 by FX Helicopters in the USA, and this is an experimental version flown on the American register. Once it was the backbone of American military in Vietnam, before it was ousted by the AH-64 – it's a real legend in







### Red Bull Bell Cobra

Registration:	N11FX
Manufacturer:	FX Helicopters USA
Year of manufacturer:	2002 (rebuilt/overhauled)
Serial number:	003
Length:	13.69 m
Height:	4.24 m
Max Takeoff weight:	4536kg
Fuel consumption:	400 litre/hour
Horsepower:	1200HP
Max speed:	352 km/h
Cruising speed:	396 km/h
Max endurance:	2 hrs 15 minutes
Engine:	Lycoming T53-L-703

the terms of military hardware, and its twin-engined sister is still used by the Marines. This particular aircraft was scrapped and demilitarised but was found by Chuck Aaron, an American helicopter pilot, and was completely rebuilt. It's been a TV star with celebrity status in its day on a rake of American TV shows flown by Chuck.

It first appeared on Red Bulls' radar in 2004. They quite simply set their heart on and endured the lengthy procedures required to extract it from the USA. The Pentagon holds all the cards when it comes to selling off all American ex-military aircraft, making the acquisition of any piece of their hardware a major task. It finally landed at its new home in Salzburg in 2005.

The 'F' version was the last of the single engine Cobras built, and this is the last airworthy single engine Cobra left in Europe. Blackie mainly flies it in air shows and to frighten the life out of R22 pilots on a sunny Saturday in July. It's clearly the jewel in the crown of the helicopter fleet.

As an R22 pilot, I didn't find it as daunting as you may think. The aircraft is configured as a trainer with dual controls in the front, presented as joysticks on the



left and right as opposed to the conventional cyclic stick and floor-mounted collective lever. Initially I thought these would be alien to operate but turned out to be far more intuitive than I imagined. I had expected to feel very little feedback from the rotor system – something like the B206 with hydraulic assist – but there is far more feedback. Small movements are easy as your arm is resting on the side of the cockpit, allowing you to manoeuvre the joystick full and free. Incidentally, a force of 3000 lbs can be applied through the controls to override the student, but I was

**Above: happy in his work, Blacky Schwarz at the controls of the Red Bull Cobra**

**Left: Cobra pilots David Monks (left) and Red Bull's Blacky Schwarz**

informed by Blackie that if I did try to override his inputs he would just lean forward and hit me – all very straightforward really.

Yaw control on the pedals is uneventful, the Cobra displaying great tail rotor authority due to the length of the fuselage and some of the 1800 shaft horsepower available from the engine. Vne of 190 knots was demonstrated in a fairly reasonable descent, more commonly referred to as a dive. The descent was uneventful, if not brilliant – but it did make you feel like you were in a fighter jet!

It was an unexpected pleasure to be flying in the front of a Cobra at 8,000 feet over the spectacular mountains and glaciers of Austria, in a machine with the ability to transition from forward flight at the mountain to vertical climb over the mountain. It gave the lasting impression that nothing would stop it – a tamed hooligan in the right hands. ■



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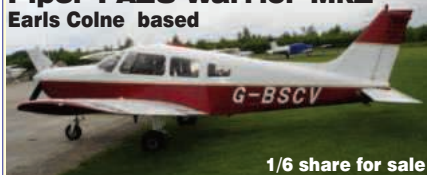
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# ***New trainer on the block***



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*The modern, low-cost PS28 looks good and flies well, but can it supplant the PA28, asks **Geoffrey Boot***

---

As far back as I can remember, training organisations have been pursuing what can only be described as the Holy Grail of a new functional practical training aeroplane with low operating costs to replace the dependency on yesteryear's technology evident in the fleet of Cessnas and Pipers that continue to be the backbone of PPL training in the UK.

It's true that Piper particularly have modernised their aeroplanes. But in real

terms engine technology has not moved forward. With the price of fuel continuing to rise it forms an ever larger proportion of the operating costs. There have been a number of attempts to break the mould, as it were, but success has been limited mainly by the capital financial implications of making the change.

If you buy a Cessna 152 or PA28, depending upon the number of hours on the engine, the airframe is probably going

to be worth what you paid for it in 5 or 10 years time whereas, if you buy into the new genre of training aircraft there is no established second hand market.

We all know that kit-built aeroplanes are starting to dominate the PPL market in

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**Above: PS28's name arose from an earlier collaboration with Piper Aircraft**  
**Below: conventionally built, but presenting a sleek, modern image**

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terms of after-training sales. You get a lot more bang for your bucks and are not restricted when it comes to fitting new technology such as autopilots and glass cockpits.

Enter the PS28 Cruiser, produced by Czech Sport Aircraft, which comes from the kit genre and will be known to a number of kit plane advocates, but now comes as a certified factory built trainer.

Apparently the company worked with Piper Aircraft initially in a collaborative project to produce a cheaper, low maintenance, low operating cost trainer but for one reason or another they parted company. Perhaps a bit tongue in cheek the Cruiser is now branded as a PS28 and comes as type certified for VFR day operations under EASA LSA regulations, which means it can be used in a training environment for NPPL/LAPL/PPL training.

The aeroplane is conventionally constructed of alloy and presents a sleek, modern image. Furthermore it can be delivered, as is the aircraft we looked at, with a full glass cockpit, something that more and more private owners are having fitted in kit aeroplanes. This is undoubtedly an aeroplane for training the new generation of PPL pilots, who will eventually fly kit airplanes complete with glass cockpits.

The aeroplane I flew is the UK demonstrator and was kindly proffered by Compton Abbas Airfield Principal Clive Hughes. Clive said he would like to break away from the PA28s that he presently uses for training and provide something with a more modern feel to it, with low



maintenance and fuel requirements.

Its early days yet but fuel consumption and cost is certainly substantially less than a PA28 as the aircraft will run on avgas or mogas and typically burns around 17 to 18 litres an hour.

To get acceptable performance from a 100 horsepower engine the aircraft is compact but the cockpit is surprisingly roomy and the glass cockpit confirms the modernity and looks to the future rather than the past. I didn't carry out a full flight test programme but experienced the aircraft in trying conditions, with a strong

blustery crosswind over Compton Abbas's grass runway which led to careful taxiing as the aircraft has a free casting nosewheel. This was followed by a testing take off and return to the field for a couple of landings. However, the aeroplane coped well and my overall impression was of excellent visibility with a nice modern feel to it. But as always with the lighter aeroplanes, it is somewhat more frisky and certainly demands more attention than the PA28.

However, experience indicates that training on more demanding aircraft can lead to better future piloting skills. Certainly

**Top right: more and more owners are opting for the full glass cockpit**  
**Bottom right: cockpit is surprisingly roomy for an aircraft this size**  
**Below: PS28 and PA28 operate side by side at Compton Abbas**





anyone who learns to fly on this aircraft will find it an easy transition to kit-built aeroplanes or indeed taildraggers where there is a requirement to use your feet on the rudder.

The technical specifications are listed below, but what are the practicalities in terms of modern appeal to the pilot, operating costs and robustness as far as flying training organisations are concerned? It is a more demanding aeroplane to fly, but first impressions are good, the aeroplane looks modern and functional. The glass cockpit is a plus, but it can be supplied with conventional instrumentation. Engine management is far easier, with the proven Rotax 912. Getting in and out could be easier, but once in there is plenty of space with adjustable rudder pedals having enough range to accommodate a good range of sizes and heights.

When it comes to operating costs, this is where the aeroplane will score. It's already operated by a number of flight training

organisations in Europe so weak points are being exposed and addressed. The nosewheel, for instance, has recently been reinforced – always a suspect part in training aircraft.

However, reverting to my earlier comments, unknown depreciation on the airframe at present to a certain extent counters the reduced fuel consumption.

Clive hopes to market the aircraft working alongside Kairos Aviation who are based at Compton offering a one-stop supply and support resource. They have prepared all the necessary manuals, check lists etc for training purposes and can offer the aircraft flight line ready, including livery etc.

The aeroplane is capable of operating off both hard and grass runways and is in the short field category, landing and taking off in around 350 meters.

I guess like most things the proof of the pudding will be in the eating. Clive continues to operate his conventional



## SportCruiser

### Specifications

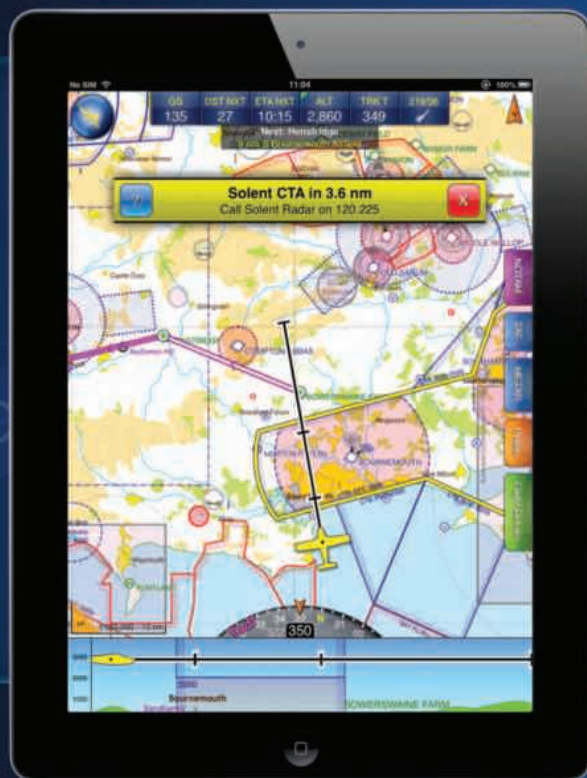
(Data from Kitplanes Magazine)

<b>Seats:</b> Two
<b>Length:</b> 23.3 feet (7.17 metres)
<b>Wingspan:</b> 28.1 feet (8.65 metres)
<b>Wing area:</b> 131.3 sq ft (13.6 sq metres)
<b>Empty weight:</b> 740 lb (335 kg)
<b>Loaded weight:</b> 1320 lb (600 kg)
<b>Useful load:</b> 580 lb (263 kg)
<b>Max. takeoff weight:</b> 1320 lb (600 kg)
<b>Powerplant:</b> Rotax 912ULS fixed pitch, 100 hp
<b>Performance</b>
<b>Cruise speed:</b> 133 mph (214 km/h)
<b>Stall speed:</b> 34 mph (55 km/h)
<b>Range:</b> 630 sm (1020 km)
<b>Rate of climb:</b> 1200 ft/min (6.15 m/s)
<b>Wing loading:</b> 10.05 lb/sq ft (44.12 kg/sq m)
<b>Power/mass:</b> 13.2 lb/hp (120 W/kg)
<b>Price:</b> Circa £80,000 – plus VAT depending on spec (ie glass cockpit).

PA28 along side the PS28, and it will be interesting in five years to have a look at the logistics.

In overall summation. It's a sporty little aircraft that will undoubtedly attract an audience, and worth a look if you are in the market for new training aircraft. ■

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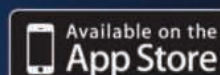


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