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April 2016

Editor: Ian Sheppard  
ian.sheppard@aopa.co.uk  
Tel. +44 (0) 7759 455770

Published by:  
First Aerospace Media Ltd  
Hangar 9 Redhill Aerodrome  
Redhill RH1 5JY  
Tel. +44 (0) 1737 200948

Advertising/Subscriptions:  
AOPA UK  
The British Light Aviation Centre  
50A Cambridge Street  
London SW1V 4QQ  
Tel. +44 (0) 20 7834 5631

Head of Advertising: David Impey  
Tel. +44 (0) 7742 605338  
Printing: Holbrooks Printers Ltd

Articles, photographs and news items from AOPA members and other readers are welcomed.

Please send to the Editor. Inclusion of material in *Aircraft Owner & Pilot* cannot be guaranteed, however, and remains at the discretion of the Editor.

Material for consideration for the June 2016 issue should be received no later than Friday 6th May 2016.

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AOPA is a member of the International Council of Aircraft Owner and Pilot Associations.



CONTACT AOPA UK:

CEO: Martin Robinson  
E-mail: info@aopa.co.uk



[www.aopa.co.uk](http://www.aopa.co.uk)

## Chairman's Message

# Engineering Matters



By George Done

In November 2015 the CAA issued a news release stating that they had begun advising owners of general aviation aircraft regarding changes to the maintenance rules of aircraft certified under EASA, i.e. aircraft subject to Part M.

This maintenance regime became fully established in September 2008 and the financial effects of its complexity soon started to impact upon GA aircraft owners, as the additional organisational requirements began to be taken on board by maintainers.

The adverse impact of Part M on the GA industry was eventually recognised by EASA, and a task force, which included representation from IAOPA Europe, was established to revise and liberalise the requirements, with the revisions being formally disseminated last year. It is up to the country NAAs to make the revised maintenance regime work, hence the news release from our own CAA.

### Self-Declarations

These changes will affect many of our members, 53 percent of which own their own aircraft outright with a further 27 percent owning an aircraft share within a group. The remaining 20 percent are non-owner pilots, including many instructors.

The majority of aircraft owned by AOPA members fall into the EASA category, the remainder being non-EASA (Annex II) types subject to UK-specific rules. The CAA intends to consider bringing the latter aircraft into line with the EASA types.

The news release lists three ways for an owner to meet airworthiness requirements, but the main item of concern for both owners and maintainers

is the Minimum Inspection Programme (MIP), which allows owners to self-declare their aircraft maintenance programme. The other routes are sticking with the existing Part M or using a programme based on manufacturer's recommendations. Whichever is adopted, the owner must sign for full responsibility for the MIP if it has not been developed by a maintenance organisation. It is clear that discussion between owner and maintainer on the most suitable approach will be required.

The AOPA Maintenance Working Group was set up in 2009 to address the problems outlined above. It meets three times a year and attendees includes aircraft owners, maintainers and CAA personnel. The discussions allow valuable and sometimes rapid solutions to problems arising in engineering and maintenance. It is due to meet shortly and will attempt to decide on the best future strategy for dealing with the MIP and associated issues. In particular, the evolving relationship between owners and maintainers will be determined.

Not being a maintainer myself, I would hesitate to represent a maintainer's view, but from the owner's point of view, there will be positive gains. Under the new regime, the apparently mandatory 10-year calendar life Cessna seat belt replacement - which cost many owners quite a lot of money in 2009 - would no doubt have been softened by using an 'on condition' approach. It is possible the same approach may be applied in future to propeller maintenance, bringing it into line with the FAA's more relaxed requirements. In the meantime, AOPA will endeavour to keep aircraft owners in the picture as the process develops.

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AVIATION SERVICES

By Ian Sheppard

## 'Harmonisation'? I remember that...

When I started out as a rookie reporter, which was in 1993 at the Royal Aeronautical Society, a lot of focus was going into harmonisation of rules between the US and Europe, and in fact the world. JAR and FAA were moving closer under an ICAO umbrella...

Having completed a PPL in the US before my final year at Bath University (I wanted to practice the theory!) it was clear that there was a need for the UK and Europe to make flying more streamlined and mainstream. So the best thing would have been to have created a single transatlantic regulatory system for pilot licensing, which would have been adopted by the world by now.

Having a family, I didn't fly much for many years but then, working at Fairoaks Airport for ERA in 2009, I got flying again and in 2014 I finally succumbed to getting the dreaded EASA licence!

As I saw it, squeezing licencing into the EU system of Directives and Regulations was nonsense. I'd covered it when it happened to maintenance when EASA was first created in 2003.

So what we have now in the world is a two-speed system of EASA red tape and FAA common sense. See what the Singaporeans prefer and you'll start to understand (see pages 34-35).

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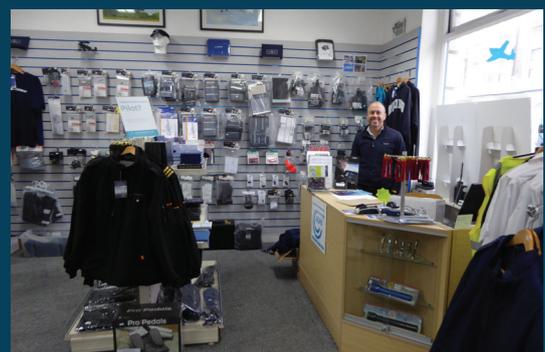
The clubhouse at Kai Tak is full of history and still thriving.



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## Chief Executive's Diary

# Change is in the air...

By Martin Robinson

CEO of AOPA UK



On **30<sup>th</sup> January** PPL/IR Europe had a meeting in the AOPA building at 50A Cambridge Street. Chaired by Paul Sherry, the meeting covered a number of different topics around IFR flying. Generally, both PPL/IR and AOPA are supportive of each other's positions and the relationship is a good one.

Moving into **February**, work began with the reading of the proposed changes to the Basic Regulation EC216/2008 ahead of the GBASF meeting that took place on 4<sup>th</sup> February. The ongoing strategic issues under discussion included things like brownfield sites, CAA fees and changes...

The CAA is still committed to NO Gold plating of EASA rules and to deregulation of the UK rules in line with existing Government policy. It is expected that the revised ANO will be out by August 2016 or shortly thereafter.

Other discussions included what the proposed "growth duty" (a new requirement on all Government departments) will mean for the DfT, and therefore the CAA; VAT on flight training; aviation skills partnership; and PPL (UK) medical requirements.

On **4<sup>th</sup> February** I met with Tony Rapson for one of our regular meetings. Clearly, the fallout from Shoreham is adding to the workload of the CAA General Aviation Unit.

There are likely to be substantial changes to how airshows are organised in the future – few details are available yet but change is 'in the air'. 8.33 kHz radio implementation, the 'Skyway Code' and changes to the ANO were also discussed, along with Skyüber.

**8<sup>th</sup> February** The DfT held another of its regular meetings with industry to discuss ongoing EASA issues. The main focus was input from industry to the DfT on the proposed amendments to the Basic Regulation. The new Article 4 of

the amending legislation gives us what we have been seeking, i.e. regulation that is risk-based and proportionate to the activity in question.

We raised a few issues with the CAA/DfT, which plans on taking the points forward during high level discussions between the Commission and Member States. The amending text will have two readings in the European Parliament and one in the Council. Generally, I feel that the changes to the Basic Regulation will improve the regulatory environment for general aviation across Europe but they will take time to have a real effect.

***"Plan each flight properly, understand the environment in which you fly and, if it all goes wrong on the day, use the 121.5 MHz frequency and seek help early."***

On **9<sup>th</sup> February** I went back to the DfT for a discussion on airspace. The discussion was about how future airspace policy may change and how consultation on airspace change proposals will become more transparent.

In my view the CAA is between 'a rock and a hard place' and needs clear direction from the Government on what the priorities are, for example how much emphasis is being placed on growth, and on the environment.

There is also a suggestion that the Government may introduce an independent noise authority which, if it happens, is just another way of deflecting public concerns over noise!

However, the real problem is additional runway capacity around

London and the impact that will have on airspace, wherever the Government decides to put it. More to come....

**12<sup>th</sup> February** I attended a meeting of the Mid Air Collision Coordination Group (MACCG). Under the working arrangements for this group, airspace infringements and airprox reports are discussed. Unfortunately, the number of infringements has not reduced and airprox events still remain a concern too.

Some of the discussion was about improving situational awareness. AOPA is supportive of improving situational awareness and is keen to see a reduction in the total number of infringements as well as airprox events.

If the number of occurrences is not reduced soon, the CAA is likely to take a much tougher line with pilots who are involved in an airspace infringement.

Over the past couple of years I have seen the number of AOPA members seeking help on infringements reduce significantly – indicating perhaps that AOPA members have been taking notice of articles about infringements.

I feel that commercial air transport (CAT) aircraft using Class G airspace presents a risk to all users of Class G. I know that CAT operations can use Class G and, in their air operator's certificate they must acknowledge and mitigate the potential risks. However, improving situational awareness for *all* airspace users must be a priority for the CAA.

Equally, general aviation must do better, so please make sure you do not join the list of infringers. Plan each flight properly; understand the environment in which you fly and, if it all goes wrong on the day, use the 121.5 MHz frequency and seek help early.

It is no surprise that during the summer months most airproxes and infringements occur, so now is the time to be vigilant and brush up your skills.

On **16<sup>th</sup> February** the AOPA Executive Committee meeting was held. Discussions related to the management of the Association and the headquarters building as well as membership issues, in particular how we can increase the number of new members joining.

**17<sup>th</sup>/18<sup>th</sup> February** I was at Eurocontrol to take part in discussions about the 8.33kHz radio requirements – looking at the impact on general aviation. AOPA has been seeking funding to help reduce the financial impact on members. (The UK CAA has heard our call and has made a formal request for EU funds). Through IAOPA I am also looking at how European funds can be made available as well.

By 1<sup>st</sup> January 2018 all radios will need to be compliant, although EU Member States can choose to derogate from the rules. The main problem, however, is that there is no common European approach. The Dutch have already implemented 8.33 kHz so if you fly to Holland, you will need a 8.33 kHz-capable radio if you cannot remain within Class G airspace. On **19<sup>th</sup> February** I went back to the CAA in Kingsway for a meeting on Class D Airspace. There is some concern that general aviation pilots are not using Class

D for fear of refusal of access. Please let me know your views on Class D (e-mail [martin@aopa.co.uk](mailto:martin@aopa.co.uk)) as we would like to understand this issue better.

**22<sup>nd</sup> February** The DfT held discussions on third-country aircraft. There is little UK DfT support for individuals continuing to own and operate an aircraft on another country's register. However, neither the Commission nor EASA has a legal jurisdiction over other states of registry. Meanwhile the EU/EASA and the US/FAA have not finalised the BASA (Bilateral Aviation Safety Agreement) and therefore it has been agreed that the April 2016 deadline for licensing and ratings will be extended to April 2017.

**25<sup>th</sup> February** I took part in the GA Finance sub-group – high on the agenda was the under recovery of changes the GAU costs about £4.7 million per year and recovers about £3 million – the £1.7 million under recovery comes from air shows (@ £200,000 and Permit aircraft £659,000). More work is being done by the CAA to fully understand the detail. More to come.....

**8<sup>th</sup> March** saw the CAA-run General Aviation Partnership (GAP) gathering for a meeting in Gatwick. Much of the

discussion has been reported already but on fees and charges I asked the CAA to explain why those with Class A aircraft (i.e. most of our members) have to pay so much more for their ARC (Airworthiness Review Certificate) renewal, compared to those operating under Permits to Fly.

The CAA is reviewing this as part of the work they are doing on their 'under-recovery' of costs through charges levied on industry. So, to be clear, I am not asking for permits to cost more but I would like to see a reduction in the cost of an ARC renewal.

On **10<sup>th</sup> March** I attended the conference of the British Business and General Aviation Association (BBGA) at Selsdon Park in south London. I work with Marc Bailey, CEO of the BBGA, on a number of industry committees as AOPA and BBGA share a number of common interests, including infrastructure, flight training, skills and security issues. The conference was well attended and was a useful networking opportunity. Like AOPA, the BBGA has a small but dedicated staff and there is considerable overlap, albeit they have more of a focus on commercial operators. See also report on pages 11-12.

## AOPA Ground School, by Adam Winter

*For the dates of the next course please see the advertisement on page 10.*

Some excellent news from AOPA is that we now provide a full ground school course for the PPL. I started teaching the course last October and the students completed it at the beginning of March; they have all passed the nine exams

The next 'round' is starting mid-March again with Air Law. If you want to join us the details and dates are available on the AOPA [www.aopa.co.uk](http://www.aopa.co.uk) website, at [www.flightgroundschool.co.uk](http://www.flightgroundschool.co.uk) or call me on the number listed far right.



**Adam Winter** has held commercial and instructor ratings for over thirty years while his flying experience ranges from bush flying in Africa and charter in the Caribbean, to the airlines. He is also a qualified secondary physics teacher.

I have held a commercial pilot licence for 30 years, and also have a post graduate degree in secondary education. I flew in Africa and the West Indies as well as a stint in the airlines with Loganair in Scotland.

I taught physics for three years in an East London secondary school. I have always enjoyed teaching and really enjoy PPL the ground school. It is either a part of the PPL where some students feel they are left to their own devices; or it is a disappointing fall back on a rainy day. As for air law, well this is really the 'bad boy' of the exams. At best a bit dull (blame the word 'law') at worst a prerequisite to going solo. It might surprise you to find out it in fact contains very important and practical information, facts, instructions and rules to help keep you and others around you safe. It is the highway code of the air, and as such it has to be respected. Rules for avoiding collisions, rights of way, airport

and runway markings, aerodrome traffic zones and flights in their vicinity. VFR and IMC and the weather conditions that determine them and so much more.

I teach all the topics with an emphasis on the practical as well as the intellectual and interesting content. Learning these subjects in a proper classroom with lots of props and others learning with you is by far the best and most enjoyable way.

"PPL Corner" is to be a new column in this magazine. I'd like to answer any questions you might have about the PPL exams or any practical questions you have. In the next issue I will deal with the question of sunrise and sunset: morning civil twilight and evening civil twilight, official night and day times, UTC (GMT) and local times, solstice, equinox and seasons. Unless you have a better idea! Please send any questions to [adam.winter@aopa.co.uk](mailto:adam.winter@aopa.co.uk). For course enquiries please e-mail me or call 07985 969018. I look forward to meeting you.

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## AOPA: Working for You

# Instructor shortage is worsening



Members of the AOPA Instructor Committee met at 50A Cambridge Street in London on 5th February. Pictured clockwise from right are: Nick Wilcock, Doug Collier (CFI at Cambridge Aero Club), George Done (AOPA chairman), Peter Griffiths, Mark Young (from the CAA), Geoffrey Boot (committee chair, Isle of Man based), Dorothy Pooley (Shoreham), John Pett, and Carol Cooper (CFI at Andrewsfield).

At the latest AOPA Instructor Committee meeting on 5th February various issues were discussed including training standards of pilots coming to fly in the UK having learned to fly overseas. It was noted that many had never done

an overhead join, for example, and R/T standards are often poor.

It was also noted that although ATSOCAS [Air Traffic Services Outside Controlled Airspace] has been in existence for some eight years, "it is still

not understood." At many airfields, too, FISOs are tending to act like proper air traffic controllers.

Flight Instructor Seminars were discussed as was the PPL Ground School now being offered at AOPA's HQ in London by Adam Winter from Elstree.

Slow flight was then discussed with some committee members saying that teaching it was non-sensical after students had just been taught to recover from any warning of a stall. This will be the subject of a future discussion article.

Navigation techniques were discussed, in particular the importance of pilots retaining the basic skills in case their GPS/iPad and other systems failed.

Any Other Business covered the instructor shortage due to renewed airline recruitment, examiners examining students they have taught (it is at 25% of what is required to reach the skill test but may go to 50%), and finally the safety issues of cost-sharing if it is abused.

## Take Your PPL Theory in London!



Following the popularity of the first series of courses, AOPA is pleased to advise that it is running more evening Ground School courses for ab-initio pilots. The PPL Ground School takes place at the AOPA offices at [50A Cambridge Street](https://www.aopa.org/50a-cambridge-street) each Tuesday and Thursday evening, 7-9pm, on the dates shown below. The AOPA office is only five minutes' walk from Victoria Station. All nine subjects required for the PPL (Aeroplanes) is taught over a period of approximately 70 hours. The lecturer is Adam Winter, a highly qualified and experienced flying instructor who works for the Flyers Flying School at Elstree. You can read more about the training and subject matter at [www.flightgroundschool.co.uk](http://www.flightgroundschool.co.uk)

### The programme for 2016

**Air Law** March 15, 17, 22, 24  
**Operations and Procedures** March 29,31  
**Human Performance** April 5, 7  
Revision April 12  
**Exams** April 14  
**Navigation** April 19, 21, 26, 28, May 3, 5  
**Meteorology** May 10, 12, 17, 19, 24, 26  
Revision May 31  
**Exams** June 2

**Aircraft General Knowledge** June 7, 9, 14, 16, 21  
**Principles of Flight** June 23, 28, 30 July 5, 7  
Revision July 12  
**Exams** July 14  
**Performance** July 19,21,26  
**Communication** July 28, August 2  
Revision August 4  
**Exams** August 9

It is not necessary to attend the full course and candidates can select the individual subjects they wish to study from the published dates. You do not have to be a member of AOPA to participate. Further details can be obtained from Mandy at the AOPA office on 0207 8345631 or [mandy@aopa.co.uk](mailto:mandy@aopa.co.uk)

# BBGA annual conference

On 10th March the British Business and General Aviation Association (BBGA) held its annual conference at Selsdon Park, south London.

The overall theme that emerged was that there is work to do to dispel the image of business aviation/GA as being for the rich and privileged rather than a business tool.



Marwan Khalek, BBGA chairman.

Giving the opening address, Marwan Khalek, BBGA chairman (and group CEO, GAMA Aviation, Farnborough and Fairoaks airports), said “people have a negative perception of the industry, one we’re working hard to change.” Meanwhile he thanked the UK CAA for the changes they’d implemented. “They’ve been very engaged – and have listened and been pragmatic...much is down to the leadership of Dame Dierdre [Hutton] and Andrew Haines as CEO.”

He then said that the skills shortage was another priority, with “great work done on apprenticeship schemes” by the BBGA office.



Dame Dierdre Hutton spoke of her seven years heading up the CAA, saying, “Perhaps the best thing that you can do as a regulator is not get in the way of growth. Economic growth is driving growth in the business aviation sector, and it is cautiously optimistic.”



Dame Dierdre Hutton, who chairs the board of the CAA and works closely with CEO Andrew Haines, delivered the opening speech at the BBGA’s annual conference on 10th March.

Thomson Hunter of the Department for Transport’s aviation security directorate then reflected on the risks of operating to certain parts of the world, suggesting that operators check out CAA Safety Notice SN-2014/009, “if you are going anywhere slightly dodgy.”

He said that the Notams on overflying countries that had appeared for the past few years would soon be rationalized, with a link from one “Signpost” Notam to the UK AIP.

He was followed by the UK Border Force’s Greg Easter who said GA was a “model for better use of data received in advance of arrival” and he noted that

there were “around 3,000 private airfields, landing strips and licensed airfields in the UK, all of which we may have to deploy to.” The aim, he said, was “to risk assess 100% of flights notified to us through GA Reports (GARs).”



EBAA president Brian Humphreys.

Phil Lomax, eGAR solution project manager, said that at his “bunker” at Heathrow, his team was creating an eGAR system that would allow “us to clear flights in advance remotely while minimizing inconvenience.”

He said the system was of vital importance as it was the front line for GA (such notification is only the back-up for scheduled operations). He noted that it would be done through the collaborative business portal created with AOPA. “Border Force intends to introduce a gov.uk digital service by October this year. “It will be free and easy to use – I hope! And it will maximize the remote clearance opportunities.”

Thomson Hunter of the UK DfT.



Brian Humphreys, president of the European Business Aviation Association (EBAA), reflected on the “value of business aviation” to the economy. Yet, he said, “We see our sector poorly portrayed and even vilified in the press. The perception study we did was encouraging though.”

“We have to find a way of communicating [better]. We think we know what people think of us, but we don’t. He added the sector serves more than 25,000 city pairs “that scheduled carriers don’t serve. And one in four of the cities has no scheduled connection at all.”

“But how do you get all this across? We’ve got a very good story to tell; and we know that the more people that know about us, the better the impression. We need to focus the message on productivity gains,” said Humphreys.

He said that EBAA wouldn’t adopt a ‘No Plane, No Gain’ mantra that NBAA has used in the U.S. “That wouldn’t work here in Europe. But we need to demonstrate value.”

## London Growth

Richard Koe, founder of WingX Advance, gave a statistical overview of the UK business aircraft fleet and its activity levels, and said that London was “growing” in activity. “In terms of cities London has 13 airports that we track and by far the biggest share of any single city, with Paris next and then Geneva.” He noted that Biggin Hill recorded 18% growth in movements last year (it has all non-scheduled traffic). “These are exciting signs in an otherwise stagnant market,” said Koe.

In the Q&A session, Rod Simpson, an aircraft owner from Redhill Aerodrome, suggested that “getting locals to know the airfield café [the Pilot’s Hub] has opened their eyes. Airfields need to give locals experiences that will change their attitudes.” Simpson also suggested that the business aviation sector “may be missing a trick not focusing on smaller aircraft too, such as Cirrus...as this is where the future jet owners are going to come from.”

Martin Robinson, CEO of AOPA UK, asked BBGA “Who are you trying to convince,” to which Humphreys answered “We really would like to convince the policymakers.”

# Single Engine Commercial Flights Could Start This Year

Single Engine Turbine commercial operations in IMC (instrument meteorological conditions)—so-called “SET-IMC”—could be allowed across Europe by the end of this year, it was revealed in a panel session for media after the BBGA conference. “It is now a question of when not if” SET-IMC is passed, said panel chairman Edwin Brenninkmeyer. He added that Geoff Parker, flight operations policy lead at the CAA, admitted that the CAA may exercise its “exemptive powers” to overcome a likely 12-month delay in formalizing the legislation. So this would be “as soon as the vote goes through” in October.

Brenninkmeyer added that operators could already start using the EASA Opinion to draft manuals to prepare for approval.

Richard Koe, whose company WingX provides statistics on and analysis of the market, said “There is very strong demand for props and pistons—the [Pilatus] PC-12, Socata, Cirrus, with around 2000 aircraft active in Europe. There has been a 16 percent compound annual growth rate over the past 10 years, which is really impressive.” WingX figures show that the PC-12 is by far the most common single-engine turbine operating, and is also well ahead of twins for private flights.

James Dillon-Godfray, business development manager of London Oxford Airport, said, “Everyone is very cost-conscious” and added “We’re very interested in ideas for regular shuttles. Many businesses want to go between their bases several times a week.” He suggested that they would be suited best to short routes which can take 3-4 hours by road or rail. “Some city pairs are very poorly connected by rail.”

A couple of operators in France and Scandinavia have been operating under limited SET-IMC approvals already and have been successful. There will also be lots of opportunities for medevac and (non-defense) special missions; and the SET aircraft can operate from smaller airfields, including grass strips.

Brenninkmeyer said the current proposals were all outlined on the EASA website and suggested the suggested restrictions “aren’t that significant.”

Martin Robinson, CEO of AOPA UK, pointed out that Eurocontrol was already developing new low-level routes “to accommodate these operations.”

SET-IMC panel at the BBGA conference. Pictured right to left are James Dillon-Godfray, London Oxford Airport; Chris Mace of Saxonair, Norwich; Edwin Brenninkmeyer of Biggin Hill-based Oriens Aviation; Neil Harvey of Hunt & Palmer; and Richard Koe, of WingX.



## Pilot Training

# Have you ever thought about becoming an instructor?

**Nick Wilcock outlines what you need to become an instructor. You don't need a CPL but you do need the theory. And you can be paid!**

At a couple of recent AOPA UK committee meetings, we learned that there appears to be a looming shortage of PPL instructors. So I asked around IAOPA (Europe) and several AOPAs advised me that they're also beginning to see a shortage. It's reported that airlines are beginning to recruit again, so perhaps some existing instructors are heading that way - but why are so few people coming forward to replace them, unless they too are hoping to build hours before applying to the airlines?

Perhaps the main reason is that most PPL holders don't actually know what options are available to them as potential instructors, so let's have look at them:

### Do I need a CPL to be paid if I want to teach at my local flying club?

If you hold a Part-FCL PPL, then no you don't! Under FCL.205A(b), the holder of a Part-FCL PPL(A) with instructor or examiner privileges may receive remuneration for the provision of flight instruction for the LAPL(A) or PPL(A).

### Do I need to sit loads of exams?

When EASA launched NPA 2008-17b, the intention was that an instructor only needed to hold the licence or rating for which instruction was being given. So to teach at PPL level, you should only need to hold a PPL. IAOPA warmly welcomed this, but some Member States and, it has to be said, perhaps a few self-interested organisations, objected to this. So EASA was obliged to amend FCL.915.FI(b)(2) (i), requiring FI (Aeroplanes) applicants to have met the requirements for CPL knowledge. Which means passing the CPL exams even if you just want to instruct for the PPL.

### What about the LAPL/FI?

LAPL holders may not include an instructor certificate in their licences; all *ab initio* LAPL instruction has to be provided by at least a PPL/FI. Originally there was to be

an EASA animal termed a Light Aircraft Flight Instructor to support the needs of LAPL training, but with lower training requirements than are required for an FI.

This proposal was also rejected; as a compromise, following observations by certain Member States, the CPL exam requirement does not apply to FIs wishing to instruct only for the LAPL and associated ratings. So if you want to instruct for the LAPL, first persuade your local club to start marketing the LAPL rather more positively. Then, once you meet the pre-course prerequisites, you can start an FI course without needing to sit any more EASA exams.

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## Pre-course prerequisites?

Paraphrasing FCL.915.FI, a PPL-holding applicant for an FI(A) certificate must have:

- Received at least 10 hours of instrument flight instruction on aeroplanes, of which not more than five hours may be instrument ground time in an FSTD.
- Completed 20 hours of VFR cross-country flight as PIC on aeroplanes.
- Except for an FI(A) providing training for the LAPL(A) only, met the requirements for CPL theoretical knowledge.
- Completed at least 200 hours of flight time on aeroplanes or TMGs, of which 150 hours must be as PIC.
- Completed at least 30 hours on single-engine piston powered aeroplanes of which at least five hours must have been completed during the six month period preceding the pre-entry flight test for the FI course.
- As PIC, completed a VFR cross-country flight of at least 300 nm, including two intermediate landings.

So an experienced PPL holder may well find that he/she already meets most of the prerequisites to provide instruction for the LAPL, but then if you're hoping to instruct for the PPL, we come back to the topic of exams.

It's becoming evident that the CPL exam hurdle is the one real obstacle faced by the suitably experienced PPL holder who would like to do some instructing, perhaps on a part-time basis as an escape from the day job. But in previous times, the pre-course requirements included an exam to check that the aspirant FI had the appropriate level of theoretical knowledge, rather than CPL knowledge.

Even the Basic Regulation states that flight instruction must be given by 'appropriately qualified instructors', who meet the theoretical knowledge and experience requirements 'appropriate' for the instruction being given, rather than any commercial level theoretical knowledge requirements.

So we think that it's high time to press-to-test on this and to propose a return to rather more pragmatic previous ways. Hence at the forthcoming EASA FCL Implementation Forum I intend to elicit members' views concerning a proposal for the amendment of FCL.915.FI(b)(2) to include an option of

*'...a pre-course written exam approved by the competent authority and conducted by the ATO, which will confirm that the FI(A) course applicant has demonstrated an appropriate level of theoretical knowledge to be able to exercise instructional privileges for the PPL(A) and LAPL(A).'*

Several European AOPAs are already supportive, as are the UK ATOs with whom I've spoken. AOPA already has the Ground Instructor Course pre-entry written exam, so with a little tweaking and titivating, a pre-FI course exam could be developed pretty quickly from the GIC exam.

## Are there any other instructional qualifications available at PPL level?

Yes, the Class Rating Instructor. A CRI on single pilot aeroplanes may provide training for existing licence holders, such as the 'training flying with an instructor' required for revalidation and may also, if suitably qualified, conduct aerobatic rating training.

Quite a useful qualification, no CPL exams needed and the course itself only requires three hours of flight instruction, plus 25 hours of teaching and learning instruction and 10 hours of technical training.

See CAP 804 Part I Section 4 part J subpart 3 for full details - and if you haven't already done so, download CAP 804 from the link at the end of this article.

A CRI who is an acknowledged expert in a specific field or on a particular aeroplane is a useful person from whom a pilot might seek the relevant training for such purposes.

## What does the FI course include?

Having met the pre-prerequisites and passed the pre-entry flight test, the course itself consists of 25 hours of 'teaching and learning', 100 hours of theoretical knowledge instruction, 30 hours of flight instruction and finally the 'assessment of competence' taken with a Flight Instructor Examiner, which also includes a ground oral examination.

Your own flying skills will need to be of a good standard and the pre-entry flight test will soon identify areas which might perhaps need a little more polish.

The ground training is intended to ensure that you can brief a student competently in both flying exercises and technical subjects, before you put them into practice with your FIC instructor in flight.

You will be taught to identify and rectify any student errors in a manner which will encourage your student, rather than the "Look, you numbskull, I've told you how to do it, I've shown you how to do it, I can do it, the aircraft can do it - so why the hell can't you do it?" style which some of us may remember from the bad old days!

Of course you will also learn how to conduct a post-flight debrief for your student in a clear, concise and constructive manner.

## Are there any restrictions on newly-qualified instructors?

Initially, you will be under the supervision of another instructor nominated by your training organisation and you will not be permitted to supervise first solos or first cross-country solos until you have gained more experience. But once you have flown 100 hours of flight instruction, supervised 25 student solo flights and gained the approval of your training organisation, these restrictions will no longer apply.

## Are there any FI revalidation requirements?

Yes. The FI certificate is valid for three years and may only be revalidated if you have met the relevant criteria by completing



There are many places in the UK where you could do an instructor rating. Western Air at Thrupton, for example, or Andrewsfield, Biggin Hill, Redhill, Blackbushe, Leicester, Shoreham, Wellesbourne Mountford, Stapleford, White Waltham, Booker, Liverpool, Prestwick, Goodwood, Southend, Tatenhill, Exeter, Cardiff, Prestwick - and 10 or 15 others. The full list is available at the CAA website or via AOPA.

two of the options of having either 1. conducted 50 hours of flight instruction, 2. received refresher training at an FI seminar or, 3. in the final year of the validity period, passed an assessment of competence. For at least every alternate revalidation, the assessment of competence is a mandatory requirement.

### But will I earn much money?

It's perhaps not fair to accuse training organisations of paying their FIs as little as they can get away with, although at times some FIs might feel that this is indeed the case! In recent years, airline recruiting hasn't been particularly buoyant and there were few financial retention incentives for FIs, given that there were probably more around than the training world really needed.

But things are beginning to change; for example, one popular UK airline has recently announced significant expansion and has placed a pilot supply contract with a major European ATO, which itself has now launched an FI recruitment drive.

Faced with all its FIs rushing off to the airlines, it's indeed likely that instructors' pay might improve. But don't forget that the cost of any pay increase will probably have to be recovered from the customers; to remain competitive, most flying training organisations try to keep their flying rates as low as possible, otherwise prospective trainees will look elsewhere.

If airline recruitment really does take off at the level many predict, training organisations are going to find it much harder to retain their FIs, particularly those who have already obtained CPLs.

Amending the Aircrew Regulation can often take many years, so if we are to avoid a dearth of PPL-level FIs in the coming years, we need to highlight the CPL exam problem to EASA without delay and that's my intention.

Meanwhile, flying clubs can perhaps help themselves by looking more at the LAPL and by encouraging their more experienced PPL holding members to think about becoming LAPL-level FIs. Worth thinking about?

CAP 804: <http://publicapps.caa.co.uk/docs/33/CAP804%20April%202015%20searchable.pdf>

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# Save Our Airfields!

**John Gilder** picks up where Stephen Slater (now CEO of the LAA) left off, and will be explaining the latest work of the General Aviation Awareness Council (GAAC) in each issue of AO&P. Threats to airfields, mainly from housing developers, still dominates the agenda.

Hopefully you have spotted the last edition's 'gremlin', that caused some confusion, omitting the word 'vice' from the headline (I am the new vice chairman, replacing Stephen Slater, and Charles Henry remains firmly as the chair of the GAAC).

At February's Board meeting I reported referrals from 11 airfields since the beginning of December. In Steve Slater's words, "an unprecedented level of activity". Of these, four cases required letters supporting the objector and most led to calls and e-mails with advice. It's been quite an initiation.

Following my report the Board agreed that the GAAC's offer of a 'first aid' response to assist objectors can be misunderstood. Our limited resources dictate that any input should be limited to initial advice and a formal

letter of objection in support of members of contributing organisations as appropriate. Anything beyond this basic service will be subject to pre-agreed charges.

Airfield owners should also be aware that, as a largely voluntary organisation supported only by contributions, we do not have a "fighting fund" to assist in financing appeals or legal action.

The last edition also featured John Walker's list of airfields under threat. Unfortunately it has grown to 17 this month while I have two more and, worryingly, Wellesbourne Mountford is the only overlap between us.

So, it is a worrying time in GA with airfields in 'open season' for the developers. The next round of MoD disposals is unlikely to alter the trend.

One small ray of sunshine was a referral from a County Council requesting technical advice and, since our Board meeting, another two District Councils have also requested guidance. Clearly planners are aware they do not have a full appreciation of aviation matters, a situation too readily exploited by developers.

It is therefore pleasing to report a growing trend within planning authorities for seeking external advice, particularly from the GAAC, as our profile gradually gains recognition in Local Authority planning circles. Hopefully this will lead to more informed decisions that favour our airfield network.

My most recent letter of objection was in respect of a proposal to build two aerials, one being 1,000 ft high, at Richborough Port, about 3km south of Manston. In essence our advice is that a decision on the Development Consent Order based challenge over Manston's future use should come first. This is because if aviation use is to continue, the aerials will be within or very close to the circuit, and will represent an unacceptable risk.

Two other cases involved wind turbines. Several years ago RES, one of the largest players in the market, stated that all the best UK windfarm sites had already been developed and more recently subsidies for wind power have been greatly reduced. However, the pressure for individual turbines continues despite their rather dubious green credentials and commercial viability.

One of the referrals highlighted a worrying planning failure: consent was granted by the Scottish equivalent of an 'inspector' for a turbine only 300 metres from the airfield's

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Wellesbourne Mountford, near Stratford-upon-Avon, is due to close at the end of this year although the tenants are fighting to stop this.

runway threshold, completely ignoring the Government and CAA guidance. The airfield owner was advised to consider legal action.

Among other tasks, we are close to completing a website update. With luck our new webmaster, Andy Symons, will be relaunching the site early in April, so please take a look at [www.gaac.org.uk](http://www.gaac.org.uk).

Another (170 page) item of interest is the report by York Aviation on UK aviation. It makes interesting reading and can be found at: <https://www.gov.uk/government/publications/general-aviation-economic-value>

Travelling to our website meeting I read of Mr Osbourne's plans to increase infrastructure spending to stimulate the economy. Curious to see his plans for aviation I read on - in vain. Perhaps it's because of our industry's historic capacity to self-fund but, in these days of government support for aviation in almost every other country, how can our Government ignore the economic significance of the aviation industry - as now evidenced by the York Report - and fail to support it?

***“Pressure for this change of classification needs to continue until airfields are recognised as community amenities rather than residential development opportunities.”***

The Government's initial response to Sir Gerald Howarth's parliamentary question during the Housing Act debate offered some encouragement that airfields would no longer be classified as "brownfield". However, subsequent ministerial utterances have shown little sign of signifying any real progress, so pressure for this change of classification needs to continue until airfields are recognised as community amenities rather than residential development opportunities.

It's an old idea, but one question worth asking is whether the government should review our national aviation infrastructure and reconsider incorporating some military airfields for the use of civilian traffic? In the light of its failure to attract sufficient military reservists, perhaps it would be a way of stimulating interest from aspiring pilots. With the reduction in military flying and the time taken to train military pilots, it could also be a good route for recruits across the whole aviation spectrum. It would also give the ATC services more practice and could generate some revenue at a time when our military is consistently underfunded.

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# GA News Roundup

## Diamond Seastar

Diamond Aircraft is to manufacture the airframe for the all-composite Dornier Seastar twin-turboprop amphibian. According to Germany-based Dornier Seawings, it selected Diamond due to its experience in composite airframe manufacturing.

Diamond is to build the Seastar's fuselage and one-piece wing at its London, Ontario factory in Canada, and deliver the components to Dornier Seawings' facility in Germany for final assembly and completion. An initial contract covers the production of 10 shipsets and tooling work for planned higher-volume production.



Developed initially by Claudius Dornier Jr., the 12-passenger Seastar amphibian made its first flight as a proof-of-concept aircraft in August 1984. Shortly after FAA certification in June 1991, work on the program was halted due to a shortage of funding, but was resumed in 2009 by Dornier Seawings. The design uses two centerline-mounted Pratt & Whitney Canada PT6A-112s. The aircraft has a 10,141-pound MTOW, 900nm range and 180kt maximum cruise speed.

## Embraer Phenom Success Goes On

The Embraer Phenom 300 was the most-delivered business jet in the world for the third consecutive year in 2015. The São José dos Campos, Brazil-based manufacturer said that 70 aircraft were received by customers around the globe in the year. "We would like to thank our customers for their confidence and continuing relationship, which has enabled the Phenom 300 to enjoy successful acceptance worldwide since its launch," said Marco Tulio Pellegrini, president & CEO, Embraer Executive Jets.



Rich Goodwin performs in his Pitts S2S at Culdrose, 2015.

## CAA to phase in new airshow fees

The UK Civil Aviation Authority (CAA) announced on 18<sup>th</sup> March that the new fees for air shows would be phased in over the next three years.

The CAA says that after an extensive review of air show safety, following the tragic accident at the Shoreham Air Show on 22nd August 2015, "a series of additional safety measures have been introduced that air shows must now meet in order to go ahead, including carrying out enhanced risk assessments. Tougher checks and training requirements for pilots and display directors are also being introduced."

The 2016/17 charges will now be set to recover £100,000 of the expected £200,000 of additional costs, with the remaining £100,000 being absorbed by the CAA. Andrew Haines, CEO of the CAA, said, "We understand that people care passionately about air shows and we want all events to be a success. We are also very clear that we will not compromise on safety. Enhancing the safety of air shows is essential and this extra work must be funded."

The AAIB bulletin (the full report has not been issued yet) can be seen at <https://www.gov.uk/aaib-reports>.

See also the article by British Airshows on pages 22-27 of this issue.

## Mooney Upgrades Acclaim

Mooney recently unveiled the M20V Acclaim Ultra featuring many upgrades to the single-engine piston aircraft, including a pilot's door (previously the type has only ever had just a passenger door). The cabin is now enclosed by composite but the empennage and wings remain metal. The cockpit of the M20V is also improved, drawing on design for the new, all-composite M10J, with the panel featuring oversized soft-touch switches and a keypad for the Garmin G1000 system. The Acclaim is still powered by a 280 hp Continental

TSIO-550-G engine, top speed 242 kts. The typical useful load for the aircraft will be around 1,000 lbs and the range (with extended 100-gallon tanks) as far as 1,275 nm at a cruise speed of 175 kts. With the standard 89-gallon tanks the Ultra can cruise up to 1,100 nm.

New Acclaim Ultra airplanes are already coming off the Mooney production line in Kerrville, Texas, and the company expects to receive certification from the FAA for the upgrades in the second quarter of 2016. The price tag fully equipped stands at \$769,000. Meanwhile the non-turbocharged Ovation will also get the upgrades, and the new designation M20U Ovation Ultra costs \$689,000.

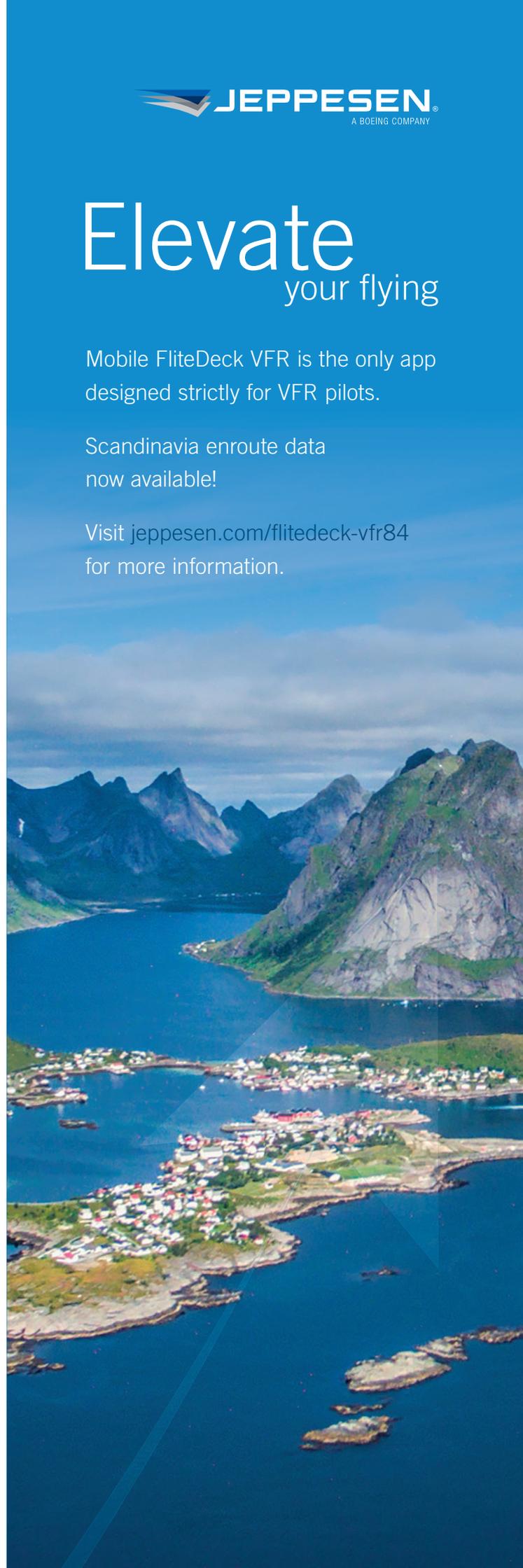
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Isle of Man Director of Civil Aviation, Simon Williams, warned of duplication between what National Aviation Authorities are being expected to do under Part-NCC and the state of registry's role under ICAO. As DCA Williams is in charge of the Isle of Man Aircraft Registry (The increasingly popular 'M' Reg). Seated is Joel Hencks of AeroEx.eu.

## **European Operators Prepare for Part-NCC**

Some non-commercial operators of more than 6,000 business jets and turboprop twins based in Europe are unprepared for EASA's new Part-NCC (non-commercial complex) rules that will set higher safety standards in the industry. That was the message at a conference run by Aeropodium London Heathrow Airport recently.

Beginning August 25, such operators will have to comply with a similar safety framework to that for commercial air operating certificate holders, but on the basis of a "declaration" by an "accountable manager" that they are compliant. The move will affect business and private aircraft registered in an EASA state or those registered in a non-EASA state by an operator that is established or resides in an EASA state.

Preparation for Part-NCC will include having a safety management system (SMS) in place, as well as compliance monitoring, an operations manual, minimum equipment list, record-keeping and various training requirements. Performance and operating limitations and equipment all have to be covered in detail for all aircraft. It all comes under the provisions of EU Regulation 965/2012, but although it concerns EASA it is the national authorities that will administer Part-NCC.

The definition of "complex motor-powered aircraft" is an MTOW greater than 5,700 kg (12,566 pounds), more than 19 seats or a certified minimum crew of at least two, as well as any aircraft equipped with one or more turbojet engines or two or more turboprop engines. Helicopters with nine or more seats are also included. Twin Turboprops are still defined as CMPA, but they are exempted from the OPS requirements. The maintenance and training requirements for CMPA remain.

## **Beagle Pups on EASA Permits**

The owners of Beagle Pup aircraft used purely for private purposes are to be offered the opportunity to move their aircraft to EASA Permits to Fly, allowing more freedom for owners to manage the continued airworthiness of their

aircraft, in conjunction with the UK Light Aircraft Association (LAA). The initiative gives Pup owners greater parity with owners of Annex II CAA / LAA Permit Bulldog aircraft and offers rules more in keeping with an aircraft that is long out of production.

According to LAA, EASA has reconsidered its policy on 'orphan' EASA aircraft, announcing that in future any EASA aircraft with a Restricted CofA issued under an SAS (Specific Airworthiness Specification) rather than an active type certificate will be allowed to transition to an EASA Permit to Fly if the owner so chooses.

The list of affected types – all orphan types with minimal realistic product support – includes the Beagle Pup. For others see <https://easa.europa.eu/document-library/specific-airworthiness-specifications>.

See also:

<http://easa.europa.eu/the-agency/faqs/general-aviation-category-orphan-aircraft-faq-how-to-move-an-orphan-aircraft-from-a-Restricted-Certificate-of-Airworthiness-RCoA-to-an-EASA-Permit-to-Fly-PtF>'.

## Airspace Structure Consultation

The CAA has launched a consultation on how decisions are made on proposed changes to the UK's airspace structure and is seeking views from stakeholders, ranging from the aviation industry and general aviation to people affected by aircraft noise, on a series of proposals aimed at making the airspace change process more transparent and give the CAA a more hands-on role.

Its suggested changes are supported by an independent review carried out in 2015 by specialist consultants Helios.

One change under consideration is the creation of an online portal to provide a single access point for anyone to view, comment on and access documents for every UK airspace change proposal.

"The effectiveness of the process could also be improved by additional stages of scrutiny and validation," says the CAA.

The consultation, which is open to everyone, is available until 15 June 2016 and can be accessed at:

[www.consultations.caa.co.uk](http://www.consultations.caa.co.uk)



## Daher further enhances TBM900

France's Daher has unveiled a range of enhancements for its TBM900 single-engine turboprop, for example improved warning identification and flight planning facilitation. They are part of Garmin G1000 avionics updates (V15). Envelope monitoring has been added to the electronic stability and protection system (ESP), along with underspeed protection; new aural alerts for stall, overspeed, landing gear extension and oxygen mask use; an angle-of-attack sensor with cockpit visualization; and two-way wireless link-up from a mobile device that runs the Garmin Pilot application, so flight plans can be synced and GPS, weather, traffic and other information can be uploaded/downloaded. TBM is also including an L-3 data recorder as standard equipment, and the Garmin GRA 55 radar altimeter is an optional extra.

## TB10 Restorations

Cavendish Aviation of Earls Colne Airfield in Essex, UK (EGSR) has announced plans to restore the Socata TB10 series aircraft new as-new condition using their nano-surface technology, Aerocoat. The first aircraft in the official Cavendish Socata range took recently from the company's Earls Colne Airfield base on its maiden test flight.

TB10s are popular around Europe and were designed and built in the French town of Tarbes in the mid-Seventies. Mainstream production ended more than a decade ago.

The Cavendish Socata restoration aircraft will come with the Aerocoat finish, which is hydrophobic "and keeps plane paintwork looking pristine after countless hours in the sky and against all weather conditions."

Cavendish Aviation managing director Steve Allen explained: "The TB series was the plane of choice back in the Eighties and Nineties and pre-dated modern aircraft like Cirrus. Our aim is to get people interested in the TB series again as it's a brilliant heritage aircraft and flies fantastically well.

"Our Cavendish Socata restoration

is a complete overhaul that will give everything, from the engineering systems to interior and paintwork, a near new factory finish." It includes leather seats and yoke with new burgundy carpet and basic avionics to allow pilot preference upgrades.

The first Cavendish Socata restoration is a 1980 TB-10, serial number 58, with a cruising speed of 128 knots.

"A lot of private pilots drive high-end vehicles and we have set out to provide the same experience, giving a luxury feel as well as functionality internally, while our Aerocoat application to the paintwork is the icing on the cake," added Allan, who is a keen pilot.

## GUERNSEY AOPA OFFER

Guernsey Airport is offering a 50% discount on landing fees for those flying under the AOPA Wings Scheme at silver standard or above. If you are accredited and would like to benefit from this discount, please scan a copy of your AOPA Wings Scheme certificate or membership card to [airport@gov.gg](mailto:airport@gov.gg) or telephone +44 (0) 1481 237766 for further information.

All aircraft in the Cavendish Socata range will be sold with a back-to-base one-year warranty with service and next year's annual inspection included in the price, allowing pilots to own a well fitted-out aircraft with fixed flying costs.

Cavendish Aviation is also keen to promote Aerocoat for other aircraft types. The company went to the US last autumn to showcase Aerocoat on a Cirrus SR22 at Farmingdale airfield in New Jersey.

## Less Intense Aerial Activity

The CAA/MoD are currently reviewing the utility of having AIAA (area of intense aerial activity), ARA (advisory radar area), and ATA (aerial tactics area) marked on maps and charts. To that end, an online survey was available until 20<sup>th</sup> March on the FASVIG website. Note also that alterations to the boundaries of Farnborough (North) and Farnborough (East) LARS coverage area are set out in CAA Information Notice IN-2016/12. They follow the establishment of Southend controlled airspace and affects pilots operating out of or near Andrewsfield, Biggin Hill, Boreham Heliport, Lashenden/Headcorn, London City Airport, London Heliport, North Weald, Redhill and Rochester.

## NATS Clarifies AFPEX Plan

NATS has told AOPA that the AFPEX [Aeronautical Flight Plan Exchange Service] service will continue to provide private pilots with an access point to the AFTN network. NATS, in consultation with the CAA, has decided that a fair level for free, private use is 20 transmits and receive messages per day.

In April 2015 NATS wrote to other users about the requirement to start charging, and this led to feedback which NATS said it listened to and discussed with the CAA. Individual letters were sent to aerodromes advising of need to subscribe to continue to use the service.

According to NATS, "Commercial activities where a paid subscription is due include professional maintenance and engineering services, sightseeing or photography flights, licensed CAA training, AOC etc - all activities that generate an income and take part on airfields." NATS continues to offer AFPEX free to private pilots and airfields which meet both criteria even if charging landing fees.

The 100th P-750 XSTOL aircraft from Pacific Aerospace was being exhibited at the Singapore Airshow recently. The aircraft has been delivered to a customer in China where 20 are being assembled from kits from New Zealand. The P-750 is based (originally) on the 1954 Fletcher FU-24.



AgustaWestland exhibited its Project Zero electric tiltrotor demonstrator at the Singapore Airshow in February. The aircraft can at present only fly for 10 minutes but this will increase, says the company, which is also working on a diesel hybrid version that could fly for an hour.

## Volunteer Gliding Petition...

The UK Government has decided to axe 15 of the 25 Volunteer Gliding Squadrons in the UK. A petition has been set up in an attempt to retain the units scheduled for disbandment.

The Air League would appreciate any support you can give. Their aim is to preserve air cadet gliding as we know it today to ensure the next generation of air cadets can have the same opportunities that older generations had at the beginning of their careers in aviation.

The Air Cadet movement is about the air mindedness of the youth of the UK. It is a great organisation and one which many pilots have been associated with as cadets and as a civilian instructors or officers. To support the petition please visit: <https://petition.parliament.uk/petitions/124333/signatures/new>.



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Editor: Nigel Everett

# British Airshows DO have a future...

Article kindly provided by:

**british**   
**airshows**.com



A Mustang / Spitfire pairing graces the Goodwood Revival in 2014.

## ...but we *still* don't know what it is!

When the Hawker Hunter crashed at the Shoreham airshow in August 2015, the immediate consequence was the loss of life and the impact on the families and friends of all those affected. Let us not forget, too, the airshow enthusiasts who had come to enjoy a spectacle but were upset, some traumatised, by the tragedy they witnessed.

It was inevitable that there would be consequences beyond the immediate shock and terrible loss, not only for Shoreham but for all airshows.

The Air Accident Investigation Branch (AAIB) acted very quickly

to impose strict constraints on some elements of airshows. With immediate effect, and while the situation was under review, there were to be no displays at all by the same type of aircraft and no high energy manoeuvres by any vintage jets over land. These new restrictions were generally accepted by the air display fraternity as an understandable but hopefully temporary response.

What many involved in flying, organising and watching airshows had not expected, and have been less willing to accept, is the increase in charges that the CAA say are now necessary to pay

for the investigation in the immediate aftermath, the ongoing research and the implementation and supervision of new regulations.

The reason for the scale of additional income needed to cover the costs became evident when requirements were published for enhanced risk assessments, accreditation of flying display directors and other regulatory changes that would significantly increase the workload of the shows' organisers, who would have to prepare reams of additional documentation, and the CAA who would have to process it.

The proposed changes to the fee structure were published on 1st February in a CAA consultation document (CAP1373b) which allowed just four weeks for responses.

There was then only another month for the 534 responses to be reviewed by the CAA and any changes considered for approval by the Secretary of State for Transport, before the scheduled implementation date of 1st April.

In practice it took the CAA and the Secretary of State just 17 more days to consider the representations and for the CAA to publish a summary with

The crowd at the RAF Cosford Airshow loves the Red Arrows. This year is will take place on 19 June.





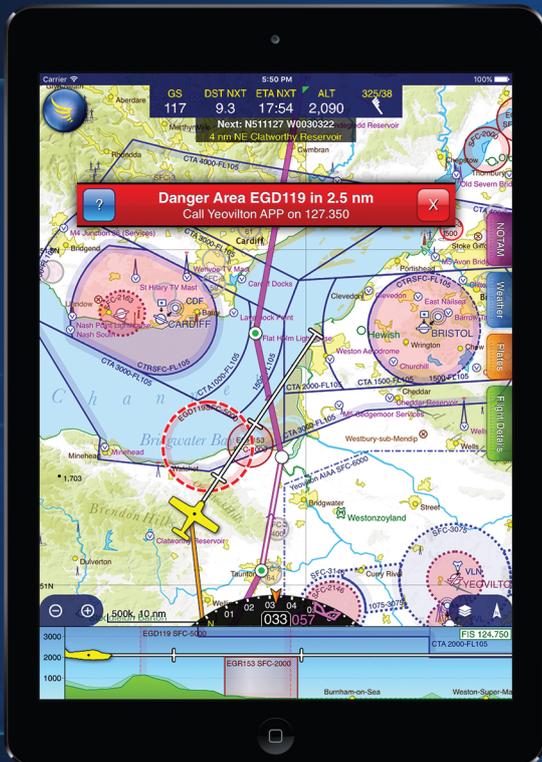
their own responses (CAP 1388) and the revised scheme of charges. The ultimate charges echo the figures in the consultation document but there have

been some concessions on the speed of implementation.

The headline change is a doubling of the fees that pilots have to pay for

Display Authorisation and that shows have to pay for permission to organise an airshow. The increases in the airshow approval fees are on a scale that rises

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The Eurofighter Typhoon / Supermarine Spitfire Synchro Pair at Dunsfold's 'Wings & Wheels' show.

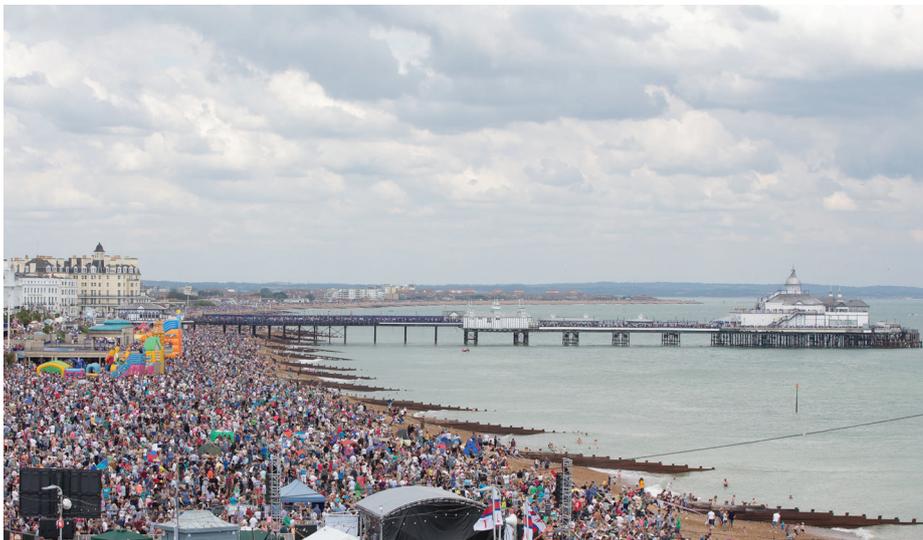
according to the number of displays due to fly. They range from £187 for an airshow with three or fewer displays to £2,695 for the larger shows, making the post-increase totals £374 and £5,390 respectively.

The sting in the tail is a brand new fee, called a 'post event charge' for all shows with seven or more displays. This new fee is also on a rising scale and in the original proposal would have cost a larger show an additional £15,000. Added to the approval fee, that will increase the total payable by a show with 31 or more displays from the original £2,695 to a new £20,390.

Although the doubling of application fees for 2016/17 season has been confirmed following the consultation, the new post-event charge is now to be phased in over three years. Initially, the charge will be at half the levels initially proposed, so the total fee to be paid by the larger shows will increase by 378% to £12,890 rather than £20,390. The remaining half of the originally-proposed increase will be phased in two equal instalments over the following two years.

The immediate outcry against the

The public flocked to the show at Eastbourne last year. 'Airbourne' will take place 11-14 August 2016.



proposed fees by many in the airshow community had been met with a statement from the CAA claiming that the fees were necessary and could be recovered by adding just a few pence to ticket prices.

Although this may be possible for some of the larger shows in future years, the suggestion of the CAA ignored several issues. The first is that the consultation came so late in the airshow planning cycle that most had already set their ticket prices for 2016: indeed some had already sold tickets before the consultation document was published. Despite the phasing of part of the fee, this still leaves these shows with a large unbudgeted expense. The second is that a significant proportion of the 6 million people who watch air displays every year attend free seaside airshows or festivals, where there is no ticket and no comparable way to recover the massive additional costs these shows are being asked to bear.

It also ignored the many very small shows where a single display might entertain modest numbers at a village fete, private celebration or company

event. Such small displays are essential to the viability of many single-aircraft operators who may be priced out of competing for such functions if they attempt to pass on the 100% fee increase to the customer. The extra income to the CAA from doubling the charges for these very small shows is surely insignificant compared to the huge impact it will have on those events and the pilots flying in them.

The overall impact of the increase in the fees, despite the concessions, will still be felt not just by air enthusiasts, but by whole communities. Many shows are run to raise money for charities. The show at Little Gransden raises funds for Children in Need. The show at Abingdon is one of several that benefit the local air ambulance. Many more are established to benefit military charities. If the fees eat into the margins, or if the shows become unviable, these charities will be the losers.

***"A significant proportion of the 6m people who watch air displays every year attend free... there is no ticket and no comparable way to recover the massive additional costs these shows are being asked to bear."***

The concessions of the CAA include an invitation for the organisers of small and charitable airshows to request 'assistance'. This is against the background that the CAA insist they do not want to see the demise of these shows but it is not yet clear whether, or to what extent, the significant fee increases will be reduced either for the coming season or when the further phased increases are introduced.

The effect on seaside shows may be different. These airshows bring huge benefits to local businesses in the form of increased demand for hotels, restaurants, transport and other services. The businesses, local people and local authorities already provide significant subsidies through contributions from public funds, private donations and sponsorships. Although the burden on

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A Bristol Scout and a Bristol Fighter from the Shuttleworth Collection take flight together at Old Warden.

these shows will be relieved a little by the phasing of the post-event charge, there is no specific reference to seaside and other free shows in the CAA's response nor an invitation for them to apply for the assistance available to small and charitable shows. One of the few ways remaining for the free airshow organisers to compensate for the fee increase would be to reduce the number of paid-for displays.

This likelihood, and the possible closure of other shows, would be a major blow to the broader aircraft community; the companies that employ and train people in engineering to maintain and renovate aircraft; aircraft owners who invest heavily maintaining the country's heritage; the pilots who have to pay to fly and maintain their aircraft and who need to display to offset their costs.

The thrust to make every compartment of public bodies self-financing must be weighed against the benefits of airshows to education, charities, service recruitment and local economies. The CAA has a mandate to be self-funding overall but the amount still being sought by the CAA from the revised increases, with unmanageably little notice, is massive in terms of

airshow affordability, but tiny as a proportion of the CAA's total budget. The phasing will result in a delay before this element of the CAA's role becomes self-financing but this clearly remains the objective.

### CAA Impact Assessment

In their response to the consultation the CAA has undertaken to 'review and revisit' the charging approach including 'a full impact assessment'. It is arguable that such an assessment should have occurred before the consultation document was issued but it does indicate that there is still time for a longer-term holistic approach to be taken to the costs and benefits of airshows.

It would be a pity to reduce the exposure of youngsters to STEM (Science, Technology, Engineering and Maths) subjects at airshows and then have to pay through another budget to promote STEM learning. It would be a shame to risk the removal of opportunities for RAF and other military recruitment, only to have to increase advertising to compensate. And why deny youngsters the opportunity to be inspired by aviation technology and opportunities at airshows, only to have to fund their promotion

through another budget?

There is no dispute that safety is the principal concern and those involved in airshows have not opposed the introduction of further, reasonable safety regulations. Indeed, the third interim report and recommendations of the AAIB following the Shoreham incident have been regarded, in the main, as a measured response to the incident.

Whether or not everyone in the industry agrees with the extent of those changes, the changes introduced earlier and the changes that may be to come, change is certain and the new arrangements will inevitably cost more. The airshow industry would probably find a way to meet fair additional cost, given adequate time and opportunity. But the proposals, even as amended, provide neither.

It would have been possible for the CAA to limit damage to airshows, to the airshow community and to those who depend on airshows for their livelihood by remitting the 'post event' charge for free seaside shows that can't raise ticket prices because there are no tickets. They could have removed the 100% fee increase for shows that have only one or two aircraft, to avoid damage to small operators and to the private display market. And they could have deferred more of the fee increases for everyone else, to give the organisers time to react to the consequences.

The CAA has agreed to discuss airshow-related matters with prominent members of the air display community. Success at this and possible follow-up meetings is imperative to make even safer an industry that, despite very regrettable



The tragic events in Shoreham in August last year have unleashed a whirlwind of speculation but air show organisers are the ones that have another season coming up rapidly, with plans being finalised. So they need to know where they stand and the CAA and AAIB know this.



The Wildcats perform formation aerobatics using a pair of Pitts S2B Specials and can be seen all around the airshow circuit.

and rare exceptions, has an excellent safety record. The measure of success will be the reasonable safety changes that everybody wants and a fee structure that everybody can afford.

There have been suggestions that the proposed changes will result in the end of British airshows. The British airshow is certainly not at an end. The involvement of the military will fluctuate depending on other commitments and their ability to fund teams; perhaps some shows will be lost because their location will not enable them to meet whatever the final safety regulations will become, others on the margin of affordability will fail for economic reasons, especially if costs rise in the way projected.

Despite this, the Great British Airshow will survive. There is too much enthusiasm and dedication on the part of individuals and groups determined to maintain the UK's aviation heritage for any other outcome to be credible. The untiring work by so many to bring the Vulcan back to flight and the sterling efforts of other teams with ambitions to return to the skies another Lancaster, the 'Peoples' Mosquito' and other classic examples of the UK's aviation heritage are witness to that. But it needs a little more understanding. If those involved can manage this, the benefits will be reaped not just by airshow enthusiasts but also by aircraft renovators, STEM educationalists and students, local communities, heritage museums, engineering companies the armed services and many charities.

British airshows do have a future. Exactly what that future might be remains largely in the hands of the CAA and the Secretary of State, for the time being.

The Rendcomb (near Cirencester) based Breitling 'AeroSuperBatics' Wingwalkers displaying at Cudroze last year.



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# I learned about Engine Overhauls

## from that...

**Martin Wellings** offers some guidance on forming a contract for overhaul of your engine, based on his own drawn-out experience.



We are probably unique in the aviation fraternity in not only admitting our mistakes, but publicising them to help others avoid the same errors. This can be a big contributor to safety and sometimes saves on costs as well. So it is with this in mind that, having learned the hard way of the pitfalls that can befall the unwary when it comes to TBO time, I relay this little cautionary tale of what can go wrong.

The story starts back in the summer of 2010 when the engine of my Cessna 182 had passed the recommended TBO time. During the course of a routine inspection by my usual maintenance organisation, they advised that the compressions were getting low and that in the very near future I needed to make arrangements for either a new engine or an overhaul.

This was not a surprise, as I knew the time was coming, so I decided to plan during the summer so that it could be done over the coming winter period. I might add that, being based at Shoreham and doing frequent sorties across the Channel, it does tend to make one that bit more interested in engine reliability!

So at this point you are faced with three choices – buy a brand new engine; get a factory overhauled one; or have your own overhauled. There are pros and cons for each: the new one is obviously the most expensive although, surprisingly, not a great deal more than the factory overhauled one (at around 20 percent extra). Either new or overhauled has the obvious advantage of being the quickest, with minimum down-time, whereas

overhauling your own will probably take around three months.

The other point to consider is that, when buying a factory overhauled engine, there is a one-in-three chance that it has already been overhauled twice, so having your own overhauled does mean that you are working on a known engine.

**“I could write an article just about the legal process, which took a huge amount of personal time, cost and delay in getting my engine back..”**

Due to both the lower price and because I preferred to have my own engine overhauled, I chose this option. I duly contacted a small firm at my local airfield that I had previously used, agreed a price (or so I thought) and arranged to deliver the engine in October so that – even allowing for any unexpected delays – completion would be done by early spring 2011.

My engine was delivered as scheduled, and it just remained for me to be patient and await its completion. In the meantime, while the aircraft was on the ground, I made arrangements for the prop to be overhauled as this was also due under the six-year rule.

### All's Not Well

All pretty straight forward up to this point, and it was only in the approaching spring that I realised that things were running behind. Many of the parts necessary had not even been ordered from the States and, to cut an extremely long story short, despite a great many chasers and promises that completion would only be “around another three weeks,” another year had gone by.

During one of my chasers when my patience had run pretty thin I referred to both the agreed price and timescale, to which I was told that the original price never included any parts and it had been labour only, despite being given a price for the whole job.

### Compromise Agreement

At this point, in order to get my aeroplane back in the air, expediency was the order of the day, and therefore a compromise agreement was reached.

At last, with the engine completion in sight, I made arrangements with my usual maintenance organisation to fit the engine as soon as it was delivered. They asked me what was happening about the Constant Speed Unit. “What about the CSU?,” was my response. I was advised that this also had to be overhauled, so I immediately made enquiries, only to be told by the company that overhauled the engine that this had not been part of the overhaul, and that the CSU would have to be sent away to a specialist company.

## Lessons Learned

Lessons learned were legion. Other than buy a brand new engine, I would still have opted to have my own engine overhauled, because – as I say – it is known and I would rather have this than a factory overhauled one, which could have been someone else's engine that has been overhauled twice previously.

I modestly believe that I should be awarded a PhD in Hindsight for this and other things, so what are the golden rules if I was to do the same job again? They are:

1. Check out the company as to both quality and reliability and particularly that it is licensed by EASA to undertake the work – not all companies are.
2. Don't *assume* anything as to what “an engine overhaul” consists of, as you need to verify exactly what is included in the engine and all the peripherals such as the magnetos, carburettor, CSU, wiring harness etc. – and, last but not least, does it actually include the removal and refit of the engine to and from the airframe? Interestingly, on the issue of the CSU, AOPA's view was that it is normal for it to be considered part of an overhaul, whereas some companies dispute this and consider it extra.
3. Timescale. You really need to tie down any company to quote a specific time for the job; it should take no more than about three months.
4. Ensure that there is a very clear *written* agreement covering every item of the work required. However well you might know the engineering company concerned, as Ronald Reagan said when dealing with the Soviets – “Trust but verify”. A clause should also be added listing your costs in the event that the engine is not returned in the agreed time.

Research the maintenance organisation well and ask for references and evidence of previous good work, and don't be afraid to ensure the contract covers some of the less desirable eventualities. (Picture taken at FlyMoore Engineering at Dunkeswell Aerodrome - which is not connected with this case. Ask someone like Alan Moore at FlyMoore if in doubt about how you should proceed.)



### The Final Straw

So finally, after all the delays and promises, the engine was completed some twenty *months* after commencement. But unfortunately the story does not end there, and there was a final bombshell waiting for me – the final price.

Despite having agreed a revised price, a further sum of around £7,000 was demanded as one of the subcontractors had charged “a bit more than expected”!

Words like straw and camel's back sprang to mind, and indeed this camel had several back problems! There was no way that I was going to pay the additional sum, and therefore I had little choice but to initiate legal proceedings for the recovery of my engine, for damages caused by the delay and adjudication of the correct price for the job.

I could write an article just about the legal process, which took a huge amount of personal time, cost and delay in getting my engine back; in all this added another year and a half until the case finally came to court.

The resolution at court was that the firm could not charge me the additional sum, but as I had not put in precise terms including the timescale in writing, I could only claim a very small sum in damages (i.e. under £1,000) – my solicitors omitted to inform me of this little gem.

### Legal Matters...

These are engine-specific items, but apart from learning all about pitfalls on engine overhauls, I find that I also learned a lot about the legal process, and some interesting items regarding contracts that are also very useful to know anyway.

Many companies now produce their terms and conditions primarily issued as a back covering exercise, but two can play at this game. And now in the course of business, when I have anything that could be a bit complicated and needs to be done by a specific time, I send a formal letter to the service provider setting out exactly what I expect, and when I expect the job to be finished (this is especially useful with solicitors as most in my experience have two operating speeds – slow or very slow!)

And you also have to spell out how much it is going to cost if the work is not done within the agreed period. The key thing here is to agree “time is of the essence” (to use the legal phrase) and specify the cost of failure to deliver within the agreed period. These have to be actual, realistic costs rather than some penalty payment.

So, some valuable lessons learned, so hopefully when your TBO time comes, you can learn from my mistakes.

Finally, I must thank AOPA for the assistance that they gave on some of the technical issues.

# Could airships finally come of age?

*Dr. John McAdam recounts the chequered history of airship development and hopes that the new Airlanders being built at Cardington's giant hangars will usher in a new age.*



The Airlander was developed for use by the US Army but the project was scrapped in 2012. It had flown but has now been converted for civil use.

I was invited to the old and very historic Royal Air Force Cardington station in Bedfordshire, some 60 miles north of London, last year and my first sighting was very evocative of my childhood memory singing ‘The Teddy Bears Picnic’; ‘*If you go down to the woods today, you’re in for a Big surprise...*’

The reason for one’s ‘Big Surprise’ is the astonishing vision and impact of one’s very first sighting of the double hangar, which is the largest purpose-built hangar for aviation related craft in the world today.

The current resident is Hybrid Air Vehicles, the owners, designers and assemblers of the world’s largest aircraft –

the Airlander 10. It is the only company in the world to have designed and built a full-sized hybrid aircraft, with 11 current worldwide patents, and it is working towards a first flight for the Airlander this year.

However, as with most inventions, the old saying – ‘From little Acorns, mighty oak trees grow’, applies, as does the truism about ancient battle fields, ‘They who occupy the high ground have the advantage in that they can observe the enemy positions and determine their strengths and weaknesses...’

Intelligence and observation officers then developed a lighter-than-air hydrogen balloon to lift them upwards

to observe the enemy positions and so achieved the advantage of that ‘Added height above the ground.’

One of the earliest recorded incidents was on the 1<sup>st</sup> August, 1798 when Rear Admiral Horatio Nelson attacked the French fleet during the Battle of the Nile. It was recorded that a defending French Army officer, Captain J.M.J. Coutelle – acknowledged as the world’s first military aviator – commanding his company of ‘Aerostiers’, launched his observation balloon too late to stem the successful attack of the British fleet.

This little acorn was born in the shape of these one-man observations balloons, comprising only a couple of cubic feet

of hydrogen, and like the oak tree it just grew bigger and bigger into an airship like the Hindenburg, whose hydrogen capacity reached seven million cubic feet.

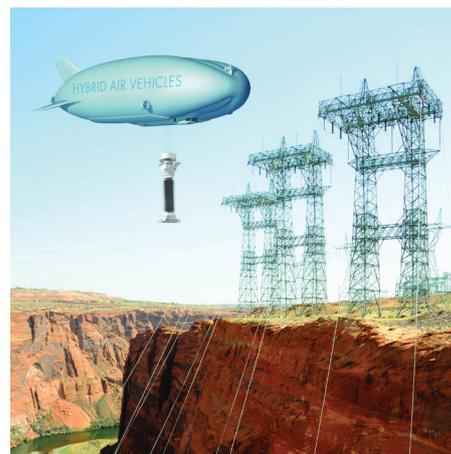
There then developed an international race to determine who could build and operate the biggest, most luxurious and above all cost-effective balloon. An important factor in the design and operation was the type of gas to fill the envelope, and the designers had the choice of either Hydrogen or Helium.

Sir Henry Cavendish first discovered hydrogen in 1766 and he named it 'flammable air' because of its very explosive and volatile nature, where the slightest spark would ignite the gas and consume the airship within seconds – as happened to the Hindenburg, the R101 and many others.

***“The Airlander is a hybrid air vehicle combining the best attributes of a conventional aircraft with airship buoyancy...created by the helium-filled hull.”***

The alternative was to use helium, a very inert and therefore much safer gas although it is twice as heavy as hydrogen, but still much lighter than air. At the turn of the century, in 1900, Count Ferdinand von Zeppelin flew his 410-foot long airship LZ1, designed by Germany's leading airship designer Dr. Hugo Eckener. He calculated that for every 1,000 cubic feet of hydrogen a lift of 68lbs could be achieved, compared to only 60 lbs using helium. Nevertheless, for him safety was of paramount importance and as he stipulated, helium was to be used in his new creation the Hindenburg, the largest flying machine the world had ever seen.

Unfortunately for Dr. Eckener, the United States of America was the only country in the world that could supply helium in large quantities and promptly passed the Helium Control Act of 1927 through Congress, which placed an embargo on this very precious commodity. With this export ban in place, Dr. Eckener was compelled to use the only alternative, hydrogen. So at Naval Air Station-Lakehurst, on 6 May 1937, the Hindenburg disaster became the airship's defining image.



Various applications are being suggested for the Airlander 10 and its big brother, the Airlander 50, as illustrated in these computer-based artist's impressions.

In Great Britain, Barnes Wallis (later to be knighted as Sir Barnes Wallis), who is best known as the inventor of the Bouncing Bomb used in the Dam Busters raids on the Mohne, Sorpe & Eder Dams during World War 2, was Vickers Armstrong's chief designer of the R100 airship, which was constructed and stationed in this very hanger at Cardington.

The R100 was considered a very elegant piece of engineering, simple in design concept and very light for its size, and easy to maintain. In July 1930, despite encountering violent storms en route, this Barnes Wallis R100 creation

made a record-breaking passage to Canada and back.

Despite the success of the Barnes Wallis designed and Vickers Armstrong built airship, the government of the day decided to build the new sister airship, named the R101.

With a complete departure from the proven R100, an alternative designer and builder was chosen to construct the new R101.

It was generally regarded as over-complicated, underpowered and still inflated with the highly volatile and dangerous hydrogen gasbags, as opposed to the much safer inert helium gas.

The scale of the Airlander can be appreciated here, in its earlier Army days.



## Visiting Cardington

I was received at this extremely spacious purpose built hanger at Cardington in Bedfordshire by Christopher Daniels, the 'executive in charge of partnerships and communications'. Dressed in a hard hat and high visibility yellow coat, I was escorted to meet the revolutionary Airlander 10.

Occupying only half of this gigantic hanger, that was built for the famous R100 and R101 airships circa 1930s, the Airlander 10 is still 92 meters long by 44 meters wide by 26 meters high, with an envelope volume of 38,000 cubic meters. With a total weight of 20,000 kg the craft is designed to cruise at 80 knots at a maximum altitude reaching just over 6,000 meters (20,000 feet), carrying a payload up to 10,000 kg.

I asked Christopher Daniels how this Airlander uses lighter-than-air technology to fly. He explained the Airlander is a new breed of hybrid air vehicle combining the best attributes of a conventional aircraft with airship buoyancy, which is the ability to float, and is created by the helium-filled hull.

As a unique part of the design, 60 percent of the lift is produced aerostatically by being lighter than air and a further 40 percent lift is generated aerodynamically by having a wing-shaped hull.

The engines can be rotated to provide an additional 25 percent of thrust up or down to assist landing, take-off and hover. The helium-filled envelope is constructed of a laminated fabric, which is impossible to tear by hand, and is aerodynamically shaped as an elliptical cross-section allied to a cambered longitudinal shape.



These pictures show the previous version of the Airlander, for the US Army, during flight trials. Usefully, they show the craft from various angles.

The Airlander is powered by four 350 hp, 4-litre V8 direct injection, turbo-charged diesel engines that use jet fuel (kerosene). Two engines are mounted forward on the hull and two on the stern for cruise operations. All four turbocharged engines are configured in ducts with blown vanes to allow vectored-thrust for take-off, landing and ground handling operations, similar in operation to cross-channel ferryboats.

I then asked Christopher Daniels what is the payload of the Airlander 10 and he explained that she could accommodate 10 tonnes, but would be used mainly for search & rescue, reconnaissance, communications and humanitarian aid distribution. The larger Airlander 50 will have a much larger payload of 50 tonnes, and is intended primarily for heavy lift and cargo transport.

Both the Airlander 10 and the Airlander 50 have a long payload module, located along the centreline of the underside of the hull, like the keel on a mercantile marine ship. This comprises of a flight deck with a payload compartment at the bow, a mid-body payload beam for externally slung loads and a stern section for fuel tanks and additional payloads.

I told Christopher Daniels that I was familiar with film footage of traditional airships landing and requiring a host of men to secure it to its mooring post. He explained that both Airlander 10 and 50 have much better ground handling capabilities and require far fewer ground crew than historic airships.

Additionally, both marks of Airlander are fitted with integrated mooring-mast attachments which when deployed are connected to a mooring mast, so that the Airlander is free to rotate and face into wind like a weather vane. This allows the Airlander to operate even if wind speeds

Engine tests.





On 10th March HAV announced that the Airlander 10 was “almost complete and ready to leave the hangar.” This picture shows the tether where it can turn into wind safely. Right: It’s the turn of the hangar (at Cardington) to dwarf the craft! Right and below far left, the large new fin being attached...

reach up to 80 knots at ground level, which would not even be possible with conventional fixed wing aircraft.

Popular opinion would say that this Airlander is not a new concept, so why should this one succeed where others have failed?

While I would agree with this to some extent, I would add that the failure in the 1920s airships lay not in the concept or construction but in the dangerous hydrogen gas the designers were compelled to use. Helium is the

only practical alternative to hydrogen but was in short supply as the United States of America, also being in the airship business, placed an export embargo on helium – meaning that European airship builders had no choice but to use hydrogen.

Today, some 100 years later, the situation has changed completely and by using helium, a much safer and inert gas, which is used as a fire suppresser, we can look forward to a safer and trouble-free airship industry.

As I bade farewell to Airlander 10, I saluted the aviation craft of the future as it could and certainly would perform an infinite number of aviation roles, from heavy-lift cargo to trips to inaccessible areas, to search and rescue and surveillance, desert pipeline and electrical cable over-ground inspection, and as a platform for aerial filming and photography.

*Dr. John McAdam PhD, MA, BA (Hons), FRGS is a liveryman of the Honorable Company of Air Pilots.*

The vast Cardington hangars near Bedford were built in the 1930s to house the ill-fated R101 airship, and the privately-designed R100. The latter used the Barnes Wallis geodetic structure and was more robust (as was proven for the Wellington bomber). Anyone wanting to know more should read Slide Rule, the ‘autobiography’ of Neville Shute (who wrote *A Town Like Alice*). Note that some say Shute’s account of the airships is inaccurate and biased.



# WoA Opens GA FBO...

Singapore's Seletar Airport has proved the ideal place to start a general aviation membership club, "WingsOverAsia", which has led to what could be the first private owner-focused FBO outside the US.

It started as a bit of fun – a social network for pilots. And WingsOverAsia is still a social network for pilots, but it has become a lot more than that, thanks to the efforts of founder Ng Yeow Meng and his team.

AO&P caught up with Yeow Meng after the Singapore Airshow in February, up at the WingsOverAsia HQ/clubhouse in an office block on the northwest side of Seletar Airport's 03-21 runway.

The airport is an Asian version of Biggin Hill; it is also a former Spitfire base, has the same runway orientation and is a centre for business aviation, with no scheduled traffic. Seletar has also become a Mecca for aerospace companies, including Rolls-Royce with its giant Trent engine assembly plant.

Yeow Meng and his team were packing everything at their clubhouse into boxes as they were about to move into a vast new S\$15 million FBO facility on the other side of the runway.

Yeow Meng said that the position was fortuitous as there was now talk of the airport building its new terminal right next to WoA's FBO, which he said was making the mainstream bizjet FBOs like Jet Aviation and Hawker Pacific, on the northwest side, somewhat envious as all customs and immigration has to be done at the terminal – which is currently a small, old terminal building near WoA's old clubhouse.

So how did it all happen? "I started it as a blog in 2004 and then founded the company in August 2009, when I left my corporate job – I was an internet software engineer with GE."

The official opening is due to be 30th April.



Yeow Meng obtained his PPL in the US in 1998, in Ohio, "for fun."

"I was broke – I was paying off university loans, but I found a place to rent a Cessna 152 in Malaysia so went across the border to do cheap flying."

At the same time his consultancy work was picking up too, in IT project management. "When I travelled I used the opportunity to take pictures at airfields – and to do the blog – and it started to connect with pilots in

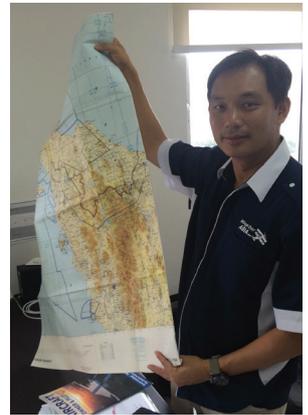


southeast Asia. Then Japan, and China too. It started to develop into an offline social thing too."

Meanwhile, he said, "The blog became very capable – as a social networking site it launched the same year as Facebook. I wanted to be the Facebook of the Aviation world."

Then he started campaigning in relation to the blueprint for Seletar Aerospace Park, "where there were less than ten parking slots for Code A aircraft." He said "the turning point [here] was this lobbying. I had got to know three or four pilots at Seletar. Before they hadn't communicated with each other." Now the GA pilots have a common parking area that WoA manages for the airport. "But we had to justify it – so we encouraged aircraft sharing." The pilot community grew, had BBQs and seminars. "They talked among themselves and said they should share aircraft and we were the platform that facilitated that."

Ng Yeow Meng started Wings Over Asia in 2004 and has never looked back. Starting with a PPL he has since added various ratings and has flown all over the world.



He said the second phase involved the Malaysians. "They all said that it was too strict in Singapore, so we said we have a car and can look after you here [at Seletar]. So we asked the airport for official permission to drive the vehicle and support [visiting aircraft]. We did that for a year or two, and then we got a full handling licence in early 2014." He said that was "a big turning point" for how WoA was viewed in the aviation community.

Today, he said, the airport is not difficult to operate to. "It's just a perception that it's difficult... the landing fee is S\$25 and the passenger service charge is S\$18 each. Parking is S\$300 a month." He said before WoA established a parking area, parking was S\$25 a day and long-term parking 2-3 times that. We pay a lump sum to the airport now and charge our members. It's much cheaper with us so we save our members money. So that was the outcome of the lobbying – they said 'You manage the Code A aircraft', recalled Yeow Meng. WoA now attends monthly meetings with the airport and other tenants.

## Dealerships, Maintenance

As well as the parking and ground handling Yeow Meng also had been developing his flying over the years and has also helped with ferrying, which gave him contacts with the manufacturers –

leading to dealerships in early 2015.

“We’ve just been asked to do some sales representation for Kodiak – previously we were doing Cirrus, and we have Piper and TBM too.” He said that he had demo aircraft for the latter two “But the owners just upgraded to Phenom jet” – WoA tends to get the role of selling on the old aircraft. “I’m very grateful to the OEM reps,” he said. But he said that “the toughest part is finding new pilots – flight training is geared towards commercial pilots, CPL/IR. But we encourage people to join a flying club through our network.”

Most of the pilots in Singapore use the US FAA system, so WoA helps with the administration and has training schemes (outlined on its website in detail) where people can go to the US to train at the flight schools WoA has partnerships with. “We don’t have the resources to offer full flight training ourselves,” he admitted.

## **“We also do flying tours ... the pilots have a lot of fun.”**

There are two other flying clubs in Singapore – the Seletar Flying Club and the Republic of Singapore Flying Club. “One has a 172 and one has a TB10,” he said. “But most Singaporeans go to Johor over in Malaysia [Senai International Airport, JHB/WMKJ]. It’s cheaper because of the exchange rate [to the US dollar].” He added that “there are quite a few good airfields to fly to in Malaysia – Tioman Island isn’t far away, and Malacca.”

### **Ambitious Fly-outs**

He said that all flights in Asian countries require a flight plan and foreign pilots tend to have to fly with a safety pilot to gain local knowledge, and to do a check out. “We also do flying tours every now and then and the pilots really have a lot of fun.” He said that foreign pilots do come out for flying – “one UK pilot recently visited and took a Cirrus up to Thailand for 4-5 days,” he said. “And we have been to Cambodia, Laos, Indonesia – and we even had one trip to Perth in Australia, and once we took 15 aircraft to Clark in the Philippines.”



To signify WoA’s continuing commitment to private light aviators, Yeow Meng has had an aircraft placed on the roof of the new US\$10 million facility. The BMW is one of WoA’s courtesy shuttles.

He said they like to do one big trip and two or three small ones each year. “It slowed down last year a bit because of the hangar [FBO] project.” He said that WoA has staff that help pilots plan their trips, obtain permits etc.

Yeow Meng was a few days away from heading out in the new Kodiak that was parked out the front of the almost completed WoA facility. “Next week I am flying to Papua New Guinea, via Darwin, Cairns and up... we’ve done a lot of ferry flights too, from America and Europe, for our members. We brought a Columbia 350 [now Cessna TTx] back and a Pilatus PC-12, and an Eclipse – it’s pretty much the only one in Asia.”

One of WoA’s members was the new owner for the TBM900 that had been on display at the Singapore Airshow, he said (see image, news section).

With maintenance he said that this was started last year to maintain members aeroplanes. It is now a Piper service centre (this was announced at the Singapore show) and a Garmin service centre too. “We’ve become a one-stop shop now,” said Yeow Meng. “Anything below six tons we fly all over the world – everything from the smallest aircraft to light jets – we sell, fly, deliver, maintain, support permits and ground handling.” He also has agreements with banks that can help finance aircraft.

Overall, Yeow Meng said, “It’s just us – no venture capitalists – I’m still the major shareholder, and I have a business partner.” For the facility, it took him four years but eventually it was backed by a foreign bank. “It took us four years to convince the government that it was worth supporting. They had no idea what GA was about. The big push now is for us to provide charter – but we want to make sure the infrastructure and service quality is good.”



The flying weather is usually better in Singapore!

He noted the high growth now in the region: “For 20 years GA in southeast Asia didn’t grow as no governments or regulators understood the benefits – they saw it as a nuisance. It took a long time to convince them we are safe, understand the regulatory process, and can coexist with the bizjets and the airlines. We tell our members that we’re not helping them so they can be cowboys! You have no choice but to be professional as you’re up there with 737s etc.”

Yeow Meng now has 2,600 hours of flying in his logbook, has an ATP and is a CFI, plus he has done aerobatic training (in Australia) and a seaplane rating. He has a share in a Robin, and used to fly a Pitts. “But I mostly fly turboprops now but I do flip-flop between aircraft a lot,” he said.

He noted that there is little airspace to train in – it is above Seletar and is small, and there is a slot system shared with the flying clubs and the so-called Youth Flying Club, which is effectively Singapore’s air cadets. “There are blocks for the different flying clubs and private flyers, the airspace being 2,500-4,000 ft and then 4,000-10,000ft – but laterally it is less than 5 miles by five miles, and the training area is very near the air base that is west of Seletar. You still need a flight plan as well.” That can be compared with Johor, which is only 10 minutes flying away and has lots of less congested/constrained airspace.



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# Letters



Aerial view of RAF Henlow, which is a grass airfield; and (right) a triplane refuels outside the Henlow Flying Club operations building. Photographs courtesy of Corporal Tom England RAF.



RAF Henlow is playing its part in this process and is ideally placed to assist routine flights by general aviation pilots. The departure of the Chiltern Air Support Unit police helicopters, a few years ago, has allowed their building to be taken over by the Henlow Flying Club. This building is now well equipped, with vending machines in the 'Lounge' and friendly operations staff at the ready to assist with refuelling and bookings.

With two significant airfields that conduct air displays adjacent to RAF Henlow, Old Warden and Duxford, they are not always available for routine customers. Therefore, there remains a gap in the market for an affordable airfield to north of London, which can provide an opportunity for pilots to improve their skills, especially at weekends.

Not many MoD airfields are so readily available at weekends and this is a unique selling point for RAF Henlow. Also, could you imagine flying to RAF Henlow, parking your aircraft and catching a taxi to Old Warden, three miles away, to watch one of their air shows?

There may be a requirement for an additional fee for an Indemnity Administration Charge. In essence, the total charge to a visiting pilot would still only amount to £15.40 (£5.40 landing fee + £10 indemnity).

The cost is a small price to pay for the unique experience of landing at an RAF grass airfield with six different landing directions, accessible to Old Warden (Shuttleworth) air shows and also accessible to readily available train links to London.

If you have any questions please call the airfield manager, Gavin Nicholson, on 01462 851515 (Ext 6150).

Yours, Gavin  
Flight Lieutenant G B Nicholson,  
Airfield Manager, RAF Henlow

Dear Editor,

Please would you consider the following open letter to your readers about a fixed price landing fee at Royal Air Force Henlow, Bedfordshire.

Royal Air Force Henlow's grass airfield in Bedfordshire is pleased to announce that a fixed price landing fee has been agreed at £5.40 including VAT for 2016. Many general aviation pilots may be aware that if permission is granted to land at Ministry of Defence airfields, there is a tariff of charges depending on the size of the aircraft and the nature of the sortie being flown.

This approved fixed price landing fee of £5.40 represents the minimum charge a student pilot would have to pay and now has been extended to any routine general aviation landing at the grass airfield at RAF Henlow.

Details about the airfield and application for prior permission required can be found in the visiting pilots brief on the RAF Henlow website, <http://www.raf.mod.uk/rafhenlow/flyinginfo/index.cfm>.

Within the UK and Republic of Ireland, there are 101 flying training schools. However, north of London there has been a reduction in the number of flying training schools due to the closure of Panshanger Airfield, and this has been compounded by the reduction of facilities for general aviation at RAF Wyton and RAF Honington.

RAF Henlow and Henlow Flying Club, its resident flying training school, are ideally placed to capture a growing market for flight training and general aviation in the area. Historically, the grass airfield supported Hurricanes in WWII and even larger aircraft such as the Lancaster, Halifax and Gloster Meteor have been flown from the airfield.

More recently, the airfield has witnessed routine visits by Chinook and Puma helicopters. Equally, it has welcomed the DH88 Comet, Dragon Rapide, Tiger Moths and Hawker Demon to conduct circuits.

RAF Henlow airfield is relatively free from airspace restrictions, is open from Tuesday to Sunday each week, has Avgas 100LL fuel availability, and has operations staff monitoring the radio (and a fire fighting response vehicle).

These assets mean that the resident flying training school is capturing some of the growing demand for private pilot's licences training on the north side of London. Even so, there is still irreducible spare capacity at RAF Henlow for more visiting aircraft.

A recommendation from the Government in '*General Aviation challenge panel – final report*' made recommendations to reinvigorate general aviation by reducing costs and securing a network of airfields which provide access for general aviation.



Inset left: The author sat in “the famous plane,” G-AWUT, circa 1970. Right, top: G-AWUP on the grass apron of Thruxton aerodrome, circa 1970. Right: G-AWUM at the pumps of Thruxton aerodrome, circa 1970. Far right: DH 82A Tigers in formation over Cambridge airport.

## Early days of the “famous plane”!

All of us easily remember the aircraft we learnt to fly in and so it was with great pleasure that I read the letter “The famous plane!” in the December 2015 issue of *Aircraft Owner & Pilot*, where on page 45, the relatively recent history of the Cessna 150 aircraft, G-AWUT, was illustrated.

My association with this aircraft began over four and a half decades ago, with the story beginning in 1969; a monumental year on three counts.

First, Concorde had its maiden flight from Filton on 9 April 1969 and secondly, Neil Armstrong set foot on the moon on 20 July.

The third event that year was personal; it involved me, as a Combined Cadet Force (CCF) RAF cadet, undergoing the RAF’s two-day selection process a little later that summer at Biggin Hill, the outcome of which was the successful award of a Flying Scholarship.

A year later saw me posted to

Thruxton aerodrome, just up the road from RAF Boscombe Down in Hampshire, ready to undergo my 30 hours of PPL flying training.

Then, as now, the aerodrome had a perimeter motor racing circuit that was used for championship races, playing host to various major racing drivers such as Graham Hill, Jackie Stewart, Jacky Ickx, Emerson Fittipaldi and Jochen Rindt, who won the 30 March 1970 F2 European Championship, just a few

## Reading *Aircraft Owner & Pilot* from a distance...

Dear Sir,  
I notice in this month’s edition of *Aircraft Owner & Pilot* you included a photograph of one of your far distant overseas readers.

I think that as the crow flies I am based a wee bit further away. I attach a photograph of me reading the latest edition at Subang Airport in Kuala Lumpur, Malaysia. I am standing next to the C172 in which I most frequently fly with Air Adventure Flying Club.

I think I have been an AOPA member since about 2002.

Kind Regards,  
Michael Dent





months before my arrival at Thruxton that year. At that time, the flying club had one Cessna 170 and three Cessna 150s at its disposal, namely G-AWUM, G-AWUP and G-AWUT, all decked out in the same livery.

I note from the very first entry in my flying log book, that my initial flight was in G-AWUM at 07:00 on 15 July 1970, followed by a second flight later that morning in G-AWUP, both under the tutelage of Mr. McErlic, one of the flying instructors who had recently emigrated from Rhodesia with his wife, in order to escape the escalating tensions that had developed over the ensuing five years, subsequent to the Unilateral Declaration

of Independence by Rhodesia's Prime Minister, Ian Smith.

My third flight occurred five days later on 20 July in G-AWUT and, thereafter, the bulk of my flying training was undertaken in this, "the famous plane," with my first solo circuit after 5 ¾ hours of dual instruction, culminating some two and half weeks later in a successful GFT on 2 August.

Now that I have learned it is stationed at Redhill Aerodrome, I shall plan a surprise visit some time in 2016, calling in from the Cambridge Flying Group where I currently fly the DH 82A Tiger Moths [pictured above].

**Robert A C Chate**

Dear Sir,

I am most grateful to Roger Bunbury for his very succinct explanation of the risk of stalling when turning 180 degrees from into wind to downwind. I've been flying for over 30 years and have come across this issue a number of times. It is often stated as fact either without an explanation or with a difficult to understand one similar to that of Kristjan Arnason's, who mentioned neither mass nor inertia. I now see I missed those two very important matters. Just proves you never stop learning – thank you again Roger.

**Michael J Newman**

Just a note on behalf of the Airfield Operators Group to say thank you very much for popping our Grass Airfields advert in your February issue.

We hope it will help us spread the word and protect our livelihoods once we eventually get back to "normal" flying again! [With respect to solutions] we've looked in to all sorts of ideas but nothing seems to work. Usually two days and we are back to normal operations as we have really good drainage [at Compton Abbas], but we just haven't had more than two days without rain since November! Its been an awful winter - the worst in 30 years. Hoping we get a good summer!

**Emma, Abbasair**

Dear Sirs / Madam

Please find enclosed my cheque for £70 for my renewal of my membership. Thank you for printing my letter on Manston some months ago, I had flown about 30 years at Manston so it was quite a blow as a member of TG I had spent many happy times there.

At 98 years of age I have looked back to my time as an ATC cadet I had watched Croydon Airfield being bombed and later had flown a number of sorties flying in Airspeed Oxfords over London on A.A traing flights. However I finished up in the Army in the 4<sup>th</sup> Indian Division in Greece (I did not make aircrew) But took up flying in 1966 at Fair Oaks flying Tiger Moths (Spinning and Airos in those days) and Condors and have flown about 22 different aircraft and landed at 95 airfields so I have much to look back on. I find the AOPA magazine very interesting and very usefull for keeping up to date as I still hope to fly with an Instructor and we can practice some steep turns & stalls or whatever takes our fancy.

Yours sincerely  
John Worthy 7259

# Book Reviews

*Nick Wilcock reviews the latest books to arrive at the AOPA office.*

## RAF V-Force 1955-69: Operations Manual

by Andrew Brookes

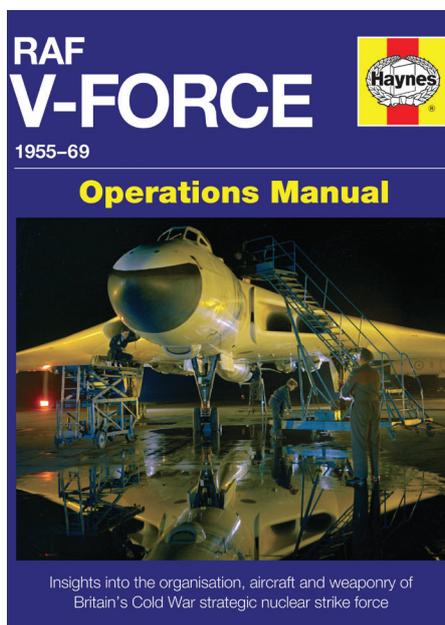
ISBN 978-0-85733-778-8

Haynes Publishing, Sparkford,  
Yeovil, Somerset BA22 7JJ  
hardback 8½ x 11in, 156 pages,  
illustrated, £25

Another of Haynes Publishing's 'Operations Manuals', this new work by Andrew Brookes is actually rather more than the title might suggest. In contrast to many recent publications which have concentrated on the role played by the Vulcan and Victor in the 1982 South Atlantic conflict, this very welcome book considers the entire spectrum of what was arguably the heyday of the RAF's strategic striking power in the 1960s.

The book describes the development not only of the Valiant, Victor, Vulcan and lesser-known Short Sperrin, but also the development of the nuclear weapons intended for the aircraft, mission profiles and the build up of the V-force from its early beginnings into the formidable strategic deterrent force it ultimately became, until the role was relinquished to the Royal Navy's Polaris submarines.

In addition to free-fall nuclear weapons, the air-launched Blue Steel



missile is fully described, as is the Skybolt missile crisis which subsequently lead to the decision to acquire Polaris for the UK. The short-lived Thor IRBM force which complemented the V-force at the beginning of the 1960s from 20 sites in eastern England is also covered in some detail, a part of the RAF's history which is rarely mentioned by most authors.

As an ex-Vulcan pilot myself, I found this book a fascinating insight into the days of the V-force before I was privileged to fly the mighty beast.

Andrew includes not just very readable facts, pitched at precisely the right level for enthusiasts and general readers alike in his typical style, but also contributions from aircrew and groundcrew who were there at the time

and which substantiate the tales I often heard from V-force elders, including the hazards of working with high test hydrogen peroxide used as the oxidant by the Blue Steel's rocket motor.

V-force conventional 'iron bomb' capabilities are also described, including the use of Valiants during the mid-50s Suez crisis, as is the strategic reconnaissance role played by both Valiant and Victor.

Electronic warfare played a very significant part in the V-force's tactics, particularly when the plan was to bomb from the stratosphere, rather than 'down in the weeds' as it was in my day, and this too is fully described, as is the Soviet opposition which would have been encountered if the V-force had ever been launched in anger. The pioneering air-to-air refuelling role of the Valiant is well described, as is the grounding of the entire Valiant fleet and the subsequent development of the Victor tanker force.

When the size of the RAF of today is considered, it is somewhat sobering to note that in the early 1960s, no less than 68 RAF aerodromes were used by the V-force, Thor missile flights and Bloodhound SAM units. Such was the size of the force that during one exercise in the late 1960s, over 100 V-bombers scrambled in less than 4 minutes.

Andrew also provides an accurate historical account of Britain's part in the 1962 Cuban missile crisis, a most welcome counter to many of the exaggerated 'mate of a mate down the pub told me' stories which did the rounds in later years.

The book is well illustrated, although those used to pin-sharp digital photos of today must remember that photos taken in the 1960s usually lacked such resolution. Regrettably some of the maps which have been included have not been printed very clearly, which is rather a pity. Equally the maps of V-force, Thor and Bloodhound locations are somewhat sparse. But those issues apart, overall this is an excellent book which I thoroughly recommend.



## Flight Craft 7: V-Bombers Valiant, Vulcan & Victor

by Dave Windle  
and Martin Bowman

ISBN 978-1-47383-424-8

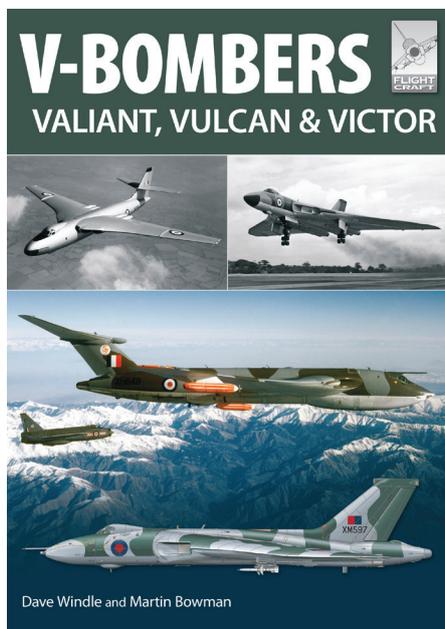
Pen & Sword Books Ltd, 47  
Church Street, Barnsley, South  
Yorkshire S70 2AS  
paperback 8¼ x 11¾ in, 64  
pages, illustrated, £14.99

Pen & Sword's 'Flight Craft' series is intended to provide modelmakers and aircraft enthusiasts with very accurate colour profiles and drawings of a wide selection of aircraft of a particular type, together with the history of the type and a review of available model kits. Thus of the 64 pages of this book, 18 are devoted to colour side elevations of various marks of each of the three V-bombers and a further 18 to good quality photographs and critical assessments of scale model aircraft, all built to very high standards. However, neither the Valiant B.2 'Pathfinder' nor the Vulcan B2(K) tanker are shown in these pages, which seems something of an omission.

In contrast, the first 27 pages of the book are perhaps less satisfactory. Although the history of each V-bomber type is described, there are some glaring omissions such as no mention of the Skybolt saga or the Cuban Missile Crisis. Neither are the V-force's nuclear weapons well described; indeed it is implied that the Scampton wing was armed with WE177B in 1960, some six years before the actual date.

The transfer of the nuclear deterrent task to the Polaris submarine force in 1969 is barely mentioned and although there is little mention of the subsequent tactical nuclear role of the Vulcan in the 13 years leading up to 1982, both the South Atlantic crisis and air-to-air refuelling operations in Gulf War One are given comprehensive coverage.

Mention is made of Victor AAR support for Tornados participating in



the SAC 'Giant Voice' bombing and navigation competition, but very little mention is made of earlier Vulcan participation in 'Giant Voice', and neither is any coverage given to Vulcan participation in the UK equivalent, 'Double Top', nor to the success of Vulcan bombers and later Victor tanker support in Red Flag exercises.

So, in summary I would say that this book can certainly be recommended to modellers and aircraft enthusiasts as indeed is its primary aim. But for a comprehensive history of the UK's V-bomber force, there are better books available.

## A Passion for Flying 50 years in the cockpit

by Group Captain Tom Eeles

ISBN 978-1-47384-564-0

Pen & Sword Books Ltd, 47  
Church Street, Barnsley, South  
Yorkshire S70 2AS  
paperback 6 x 9¼ in, 160 pages,  
illustrated, £12.99

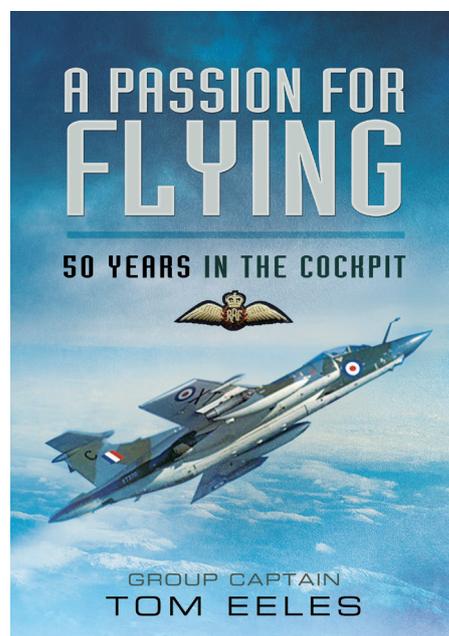
First released in 2008, this is an updated version of Tom Eeles' original book, brought up to date with his more recent flying activities.

The book is an autobiography of Tom's busy life in the cockpit in the days when military aircraft were seen far more often in our skies than they are today

Born into an RAF family, it's hardly surprising that he soon developed a burning desire to become a military pilot. The book covers his time as a Cranwell cadet, through basic and advanced flying training before completing operational conversion onto the Canberra and his first squadron posting to RAF Germany, flying the B(I)8 variant with No. 16 Squadron. But then came the first of his numerous encounters and 2000+ hours flying the Blackburn Buccaneer, initially with the Fleet Air Arm and subsequently, after completing instructor training, as one of those rather brave souls who provided aspirant Buccaneer pilots with sage advice from the rear seat during their first flight on type, there being no 2-stick trainer version of the aircraft.

A tour on the Buccaneer with No. 12 Sqn at RAF Honington followed, then off to instruct on the Hawker Hunter at RAF Brawdy, which included the wonderful summers of 1975 and 1976.

After promotion, Tom was posted to RAF Honington to become the chief flying instructor at the Buccaneer Operational Conversion Unit, which is where I first met him. As Tom describes so aptly, the Buccaneer was difficult to fly and the OCU was a tough school, so the only time I flew with him was in a Hunter T8B a couple of days before my struggle to make the necessary progress came to an end!



Tom's enthusiasm for flying found him sampling several new RAF aircraft types even when on 'ground' or staff tours. Then while at the MoD in London he would still find time to fly with the Air Experience Flight at Cambridge.

After leaving the regular RAF he became a full time reserve flying instructor at Cambridge UAS, then subsequently as a RAF VR pilot giving air experience flights to air cadets, who no doubt benefited hugely from his experience and his passion for flying.

The book should appeal both to both general readers and pilots alike. Written with a dry wit, his accounts of service life give an accurate first-hand description of life as a pilot in the RAF and FAA of the time.

There is also an annex describing flying the Buccaneer from a pilot's perspective in which he explains the aircraft's characteristics very clearly to readers who may have little aviation knowledge, surely the true mark of an expert instructor!

The next time I met him, this time at the Gapan (now Air Pilots) livery dinner some 30 years after that Hunter flight, Tom told me that he was writing this book and suggested that I'd probably enjoy it. He was absolutely right, I certainly did enjoy it and would recommend it without hesitation. A real pilot's book, but one which will also appeal to more general readers.

In the final chapter, Tom describes which aircraft he considered to be the 'Good, Bad and Ugly' of the RAF types he'd flown, and I wholeheartedly agree with his assessments. But you'll have to buy the book to find out more!

# British Military Aviation in the 1970s

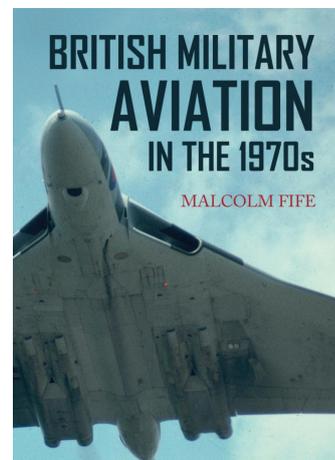
by Malcolm Fife

ISBN 978-1-4456-5281-8

Amberley Publishing, The Hill, Stroud, Gloucestershire GL5 4EP  
paperback 6½ x 9¼ in, 96 pages, illustrated, £14.99

This is a somewhat unusual book, in that all the aircraft photos (of which there are almost 200) are the work of the author himself. Arranged in five main chapters, covering the Royal Air Force, Fleet Air Arm, Army Air Corps, Test and Research Establishments and US Air Force, the book describes the part each aircraft played in the 1970s, together with maps showing the locations of the major airfields in use at the time. It was an era of rather more colourful aircraft of much wider varieties and greater numbers than the relatively few aircraft likely to be seen in Britain's skies 45 years later.

There is an excellent appendix titled *Air stations and aircraft as at Autumn 1973*, which I found of particular interest as it provides a snapshot of the RAF exactly as it was when I was starting my flying training at RAFC Cranwell. Over 1600 aircraft of three dozen types flying from airfields many of which either no longer exist, or have since been



'squaddified' for use by the army.

While generally very accurate, regrettably there are a few errors in the book; for example, in 1976 the Central Flying School moved from Little Rissington to Cranwell (not Valley) and ULAS (not 'London UAS!') was never based at RAF West Malling. But as a flashback to the 1970s, this is an interesting little volume filled with previously unseen photographs, including the rarely seen Army Air Corps Chipmunk resplendent in green and brown camouflage.

Clearly a labour of love to the author, this is a book which will surely be of interest to those who enjoyed the 'sound of freedom' in skies of the 1970s, or would like to have done.



The number of GA airfields closing in the UK is growing at an alarming rate for a number of reasons. Firstly, it is not easy keeping a small airfield going as costs often exceed revenues, and for many private owners it has become a labour of love, but for 2<sup>nd</sup> or 3<sup>rd</sup> generation owners, who are not particularly interested in aviation, the lure of quick profits by selling the airfield to property developers is all too

## Hangar Homes for UK GA airfields

tempting. Coupled with the demand for housing and industrial estates by local councils, who in some cases own or run the airfields, the demise of GA airfields is inevitable as no new GA airfields are being constructed because of lack of space, resistance by local residents and planning restrictions. So how can this trend be reversed or at least slowed? One way is to look across the Atlantic where GA airfields are flourishing because they are combined with residential use in the form of airparks. There are over 600 airparks in the USA, which has undoubtedly helped to sustain those airfields and GA generally in that country. While it may be difficult to envisage residential air parks in the UK for various reasons, there is no reason why hangar homes could not be adopted at suitable GA airfields in the UK, along with other activities on

the airfield, to make them more sustainable and help keep them from closing. This also requires planning authorities to recognise the importance of GA in the community and allowing residential use on airfields will virtually guarantee continued operational use of the airfield.

Hangar Homes Ltd has been set up by Peter Day, a private pilot for over 25 years, since he sold his IT business, which operated a Rockwell Commander. The concept of Hangar Homes is not new, and has been around for many years in the USA and more recently in France, but to date there are none in the UK, which is what Peter's new company has been set up to address. If boat enthusiasts can live on a marina or golfers on a golf course, then why not aviation enthusiasts on a GA airfield? For further information please see [www.hangarhomes.co.uk](http://www.hangarhomes.co.uk).

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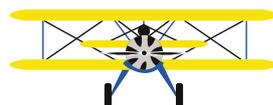
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# The Hong Kong Aviation Club



*On a recent visit to Hong Kong to see the Hong Kong Business Aviation Centre at Chep Lap Kok, Ian Sheppard took the ferry across to Kowloon and visited the clubhouse of the Hong Kong Aviation Club at Kai Tak.*

The Hong Kong Aviation Club remains based at Kai Tak, the old international airport that closed in 1998, and it is the focus of all social activities. The relocation of the main airport from Kai Tak to Chek Lap Kok has resulted in the closure of the famous Kai Tak runway and at present recreational flying is not permitted at CLK.

All flying activities now take place at Shek Kong. The Club continues to provide flight training instruction including aerobatics and is currently running a young eagles program giving the opportunity for young people to experience flying. The HKAC said, "Our prime objective is to continue to promote all aspects of recreational flying."

The end of the Kai Tak runway is now home to a giant modern ferry terminal (see picture below) while construction works for a new metro line/station are taking place close to the club house at present. However helicopters still occasionally use the apron in front of the clubhouse.

Farman Biplane at Chep Lap Kok (HKIA).



The Clubhouse is friendly and well worth a visit although it may move to Shek Kong to be with the aircraft soon, I was told. The old Kai Tak, which I remember landing at in a BA 747 with my father at the controls (and me in the jumpseat), is inaccessible at the moment, apart from the ferry terminal.



## History

The earliest aviation history in Hong Kong is believed to be a balloon flight and parachute jump. Capt. Thomas Baldwin and his younger brother carried out the first reported balloon flight at Happy Valley. Once the balloon had gone up, the young brother jumped and made the first (and first successful!) parachute jump in Hong Kong.

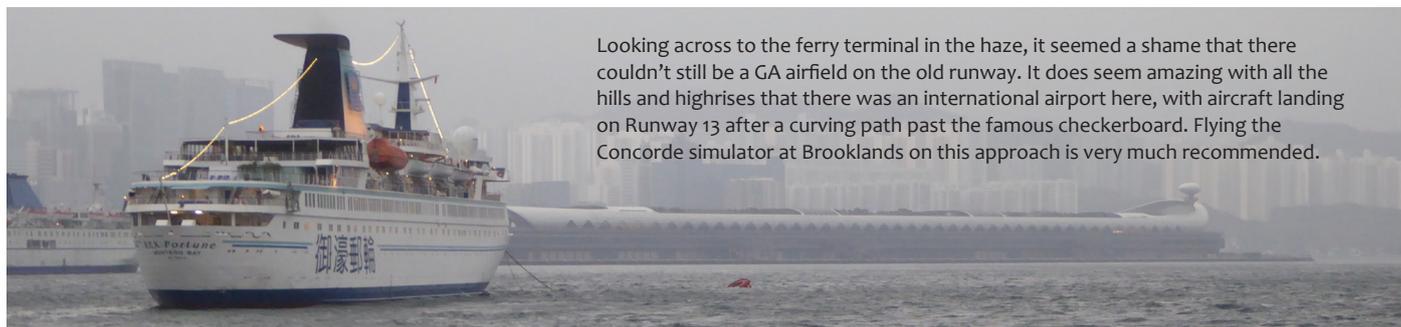
Today Hong Kong continues in the same spirit under the canopy of the Hong Kong Balloon and Airship Club.

On 18th March 1911 at 5.10pm Charles Van den Born took to the air in Hong Kong's first heavier than air flight in a Farman Mk II named Wanda. A replica of this original plane was built and

flown at Chek Lap Kok just before the opening of the new airport. It now hangs in the main entrance hall at the new airport (see image below left).

In 1924 'Crazy Harry Abbott' became the first tenant of Kai Tak and in December 1929 the Hong Kong Flying Club was formed. 1932 saw a rebellion in the Hong Kong Flying Club and in 1933 the Far East Flying Training School was formed. This was joined by a Technical School in 1971.

The Hong Kong Aviation Club was established in 1982, with the amalgamation of the Hong Kong Flying Club, the Aero Club of Hong Kong and the Far East Flying & Technical School.



Looking across to the ferry terminal in the haze, it seemed a shame that there couldn't still be a GA airfield on the old runway. It does seem amazing with all the hills and highrises that there was an international airport here, with aircraft landing on Runway 13 after a curving path past the famous checkerboard. Flying the Concorde simulator at Brooklands on this approach is very much recommended.

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