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Chairman's message

Licensing pros and cons

The General Aviation Red Tape Challenge has caused the spotlight to shine brightly on the CAA, leading to much exposure in the aviation press of the resulting recently formed GA Unit headed by Tony Rapson that will take on board the 330 substantive comments received by the RTC. Less newsworthy was the establishment of the Safety and Airspace Regulation Group last July that merged and reorganised safety and airspace oversight functions using a 'Hub' to deliver efficient processes and services to both internal activities and 'customers'. This has already had a beneficial impact on general aviation through pilot licensing activity, as I discovered on visiting Aviation House at Gatwick in person to turn my 'life-time' UK licence into the EASA Part FCL model. On arrival, I was directed into the atrium in which the previous abundance of potted plants and easy chairs have been largely supplanted by four or five individual booths for CAA staff to do the necessary checks and licence printing on a face-to-face basis with pilot customers such as myself. It is extremely heartening to report how smooth and speedy the whole process of converting my licence was. The one-off cost at £65 for both the EASA licence and a UK PPL in the same format, compared with the cost of renewing a UK passport through the Post Office of £81, raised no qualms. The whole business was completed in 40 minutes. Full marks to the CAA and the "Hub Licensing Team" for good project management and getting it right first time. My experience correlates well with other pilots that I have talked to who have also done the same thing. I understand the aim is to achieve a one day turn-round, whether licence conversion is in person, by post or on-line.



This demonstration of efficient administration provided optimism for a rapid and effective outcome of the Red Tape Challenge exercise. However, this rosy view vanished some time later on applying to record on the two licences the recent renewal of my IMC Rating, or IR(R) in EASA terminology. The previous well established and understood process of the instructor signing off the renewal 'in the field' to establish a further 25 month period in which the privileges of the rating can be exercised has now been made more complicated. The instructor has now to complete CAA Form SRG 1157 (on proficiency checks). This and a fee of £89 are handed over to gain the appropriate letters on your licence(s). There are two points to be made here. The first is that the instructor now has an administrative task to take on board that was not there before. The previously well tried and understood process could easily have been continued simply by including reference to the rating in the Certificate of Revalidation date of test and validity boxes on the licence, even though the validity date may have passed.

The second point relates to the fee of £89, highlighted by AOPA's licensing expert, Nick Wilcock, in the October 2013 *General Aviation* (unfortunately overlooked by me 6 months later!). Whichever way you look at it, this is grossly disproportionate compared with the two figures mentioned in the first paragraph above. The lack of transparency in determining fees and charges appeared at least three times on the list of items for consideration appended to CAP 1123 - "CAA response to the GA Red Tape Challenge". The answer, listed under 'CAA Intent' in each case was: "The CAA publishes its scheme of charges annually. These charges are set and agreed with the industry in the Finance Advisory Committee, which includes representation from the GA sector." This bland statement fails to address the real issue, in that red tape is essentially all about unnecessary cost. A flying budget must cover both fixed and variable costs. Too high a proportion of the former affects the continued viability of the activity. In any case, the FAC is not in a position to go into the level of detail required to determine if a particular fee is justifiable on a workload basis or not. This is something that must be driven from within the CAA, and AOPA will continue to play its part in achieving the best outcome possible from the GA Red Tape Challenge.

George Done

Taking Europe by the horns

International AOPA is heavily engaged in establishing an 'Intergroup' in the European Parliament to represent the interests of general aviation, and has hired a former MEP to facilitate the work.

An Intergroup is similar to a 'caucus' on Capitol Hill in Washington, being a collection of politicians united by a common interest. AOPA's GA caucus has been hugely successful in turning back anti-aviation legislation in America, and AOPA is hoping for similar results in Europe.

Intergroups can only be established between Parliaments. The European Parliament breaks up this month for elections and the new MEPs return in September, starting work in October. AOPA has identified supportive MEPs who are likely to return, and has been working hard to put them in the picture.

IAOPA has hired former MEP Ulrich Stockmann to work on the programme. Martin Robinson says: "Like everything meaningful in Europe, this comes at a significant cost to AOPA members, but the expenditure is very necessary. AOPA's international reach means the cost is spread among our members in 27 countries, and we have joined with the European Business Aircraft Association and the European Regional Airports Community to fund this initiative and drive it forward. Ulrich has been able to open

doors to various politicians and officials whom we need to have on side.

"Some of our supporters, like the Chairman of the Transport Committee Brian Simpson, are not standing again, which is unfortunate. Others are likely to be re-elected, but the people we have to concentrate on are those who belong to the centre parties that effectively have the



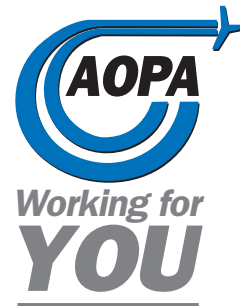
Above: former MEP Ulrich Stockmann

power in the Parliament. The two groups likely to succeed will be the Social Democrats and the Christian Democrats, although the right may gain a larger number of seats.

"Ulrich knows the people and understands how the tribes operate in Brussels. We have identified the big hitters whose support we need and have arranged a number of breakfast meetings. Without an Intergroup, we will have difficulty counterbalancing the European Commission, and that's important because the EC is getting more powers.

"Parliamentary rules don't allow the formation of an Intergroup once it has been elected, so we have a limited timeframe in which to accomplish our goals. The meetings we have had up to now have been extremely positive, but we expect half the MEPs to be elected in September to be new, and we have a great deal of work to do to explain our position to them in the right way."

IAOPA Europe has been running a campaign called 'General Aviation Connecting Europe' to educate MEPs about the contribution GA makes to the economy and the transport infrastructure. ■



Are you legal to fly EASA aircraft?

By Nick Wilcock

Some important changes come into effect on April 8, 2014, thanks to those nice people in Euroland, which will affect the vast majority of UK private pilots with valid licences and ratings who wish to fly as PIC on 'EASA' aeroplanes such as the PA28, C172 etc:

- **United Kingdom PPL holders** - if flying EASA aeroplanes, you are now restricted to 'LAPL-level' privileges only, no matter which additional ratings you might hold. Which means VFR by Day (and Night if you hold a Night Rating) throughout EASA Member States, on SEP Class aeroplanes with no more than 4 PoB and with a MTOW of up to 2000 kg. From 00:01 on Apr 8, 2015, you may not fly any EASA aeroplane as PIC.
- **NPPL (SSEA) holders** - may fly

EASA aeroplanes within the scope of your NPPL privileges until 23:59 on Apr 7, 2015, after which you may not fly *any* EASA aeroplane as PIC.

- **ORS4 No.995** - if you're flying under this exemption, you may fly EASA aeroplanes within the limitations of the SSEA Class Rating until 23:59 on Apr 7, 2015, after which you may not fly *any* EASA aeroplane as PIC.
- **JAR-FCL PPL(A) holders** - may fly EASA aeroplanes within the scope of all existing rating privileges. Due to the recent Article 4(8) amendment of the Aircrew Regulation, this now also includes the IMC rating - because the previous 'conversion with restriction' policy requirement of Article 3 has been replaced by an 'authorisation' policy under Article 4(8).

Please note that if you are a United Kingdom PPL holder and your EASA aeroplane privileges are now restricted to LAPL-level, this does *not* mean that

your rating revalidation requirements are the same as for the LAPL! You are not subject to LAPL 'rolling validity' requirements and must still revalidate your SEP Class Rating as normal.

If you are able to meet the relevant Part-MED requirements, it will probably be worthwhile converting your licence to a Part-FCL licence sooner rather than later to avoid a last minute scramble. But do make sure that everything is valid when you apply for conversion (which can now be done online), otherwise you'll have to send your licence back to Gatwick to have whatever rating wasn't valid at the time of conversion transferred to the front of the licence after you've renewed that rating. Also, although there is no requirement for an Aerobatic Rating for EASA aeroplanes until 00:01 on Apr 8, 2015, if you are intending to conduct aros on EASA aeroplanes after that date it might be worth obtaining the Aerobatic Rating before you apply for conversion in order to reduce cost. CAP 804 gives details of accreditation available for existing aerobatic pilots. ■

Challenging red tape

AOPA has been asked at short notice and at a late stage to evaluate the progress of the Red Tape Challenge (RTC) and deliver an opinion. The RTC has produced an interim report containing 53 recommendations, and AOPA Chief

Executive Martin Robinson was asked to address a joint government-industry meeting on March 13th to appraise progress. In brief, his report says: good as far as it goes, but must do better.

The RTC, set up to improve the lot of general aviation, has reinvented a wheel that AOPA has been turning manfully and often alone for decades. The

difference is that there is now ministerial muscle behind this effort, with Tory Party Chairman Grant Shapps having been instrumental in getting the RTC going. The government professes to be listening – so it's vital that we get the message right, because we may never have this opportunity again.

While Martin praised the amount of effort the RTC has put in, he pointed out that its output at the interim stage lacks focus. Many of its recommendations are 'wish-list' generalisations which ask the CAA to carry on doing what it's already started, while others make amorphous calls for the Authority to alter its culture

and philosophy, something that has been in train ever since Andrew Haines took over as Chief Executive. With such non-specific observations, it is easy for the CAA to point out that it has gone down that road – but the change can't be measured or managed, so the impact of the request is lost.

What's needed is requests for specific action on specific points. Martin Robinson told the March meeting: "While the remit of the Red Tape panel goes beyond red tape, the greatest service it could perform for general aviation is to slash the burden of red tape the industry is staggering under today. What the Red Tape Challenge has not done is challenge any red tape. This report fails to identify specific regulations as either redundant or inefficient. It needs to specify where red tape is strangling general aviation, and ask for it to be cut now."

Many of the RTC's interim



Chief executive's diary:

All change

Change is in the air. The European Parliament breaks up this month for its long drawn-out election process, and when it returns in September we'll have new faces to educate about general aviation – but as you see in these pages, the establishment of an Intergroup in Brussels will give us our strongest-ever foundation. We'll be saying goodbye to some old supporters who are not standing again, such as Brian Simpson, the outgoing Chairman of the Transport Committee, but we hope to benefit in future from the continued backing of people like Timothy Kirkhope, MEP for Yorkshire and the Humber, who are standing for re-election.

We're also losing Mike Smethers, the CAA man who is Chairman of the EASA Board of Management – he finishes his term later this year. I would like to publicly thank Mike for the unprecedented support he has given GA; without his careful guidance it's doubtful, in my mind, that today we would have a European GA road map. Thank you, Mike, for your valuable support. Mike's only drawback is that unfortunately he is an Arsenal fan!

To recap on the last couple of months, on February 17 I met with consultant Ben Stanley to discuss developments with SESAR and other issues relating to work Helios is doing on airspace, which includes a Class G risk study for the CAA, the results of which should be known later this year. I told him that such a study may be difficult given the lack of quantified data with respect to use of Class G. And of course, if you discover a risk regulators are bound to take steps to mitigate the risks! AirProx data does exist, fortunately, and we know

that those that are deemed to be a Category A are a very small proportion of the overall total. Infringement data is another source. Class G airspace is the lifeblood of VFR operations but we must take care of how we use it.

Next day I went to Brussels with Dr Michael Erb, Managing Director of AOPA Germany, to meet people in SESAR, the Single European Sky ATM research project in which AOPA has been involved for almost a decade. I was able to question them about specific GA projects that improve the safety of our operations, with reference to the additional €600 million of funding they have for improving the overall ATM system in Europe. Later that same day I accompanied Ulrich Stockmann, our new lobbyist and facilitator, for a series of meetings with Members of the European Parliament.

On the following day I attended the AOPA Executive Committee meeting in our conference room in Cambridge Street – a meeting well covered in these pages – and on February 20 I was back in Brussels to meet more MEPs along with Ulrich Stockmann and Thomas Mayer from the European Regional Airports Community. It was good to meet once again Timothy Kirkhope MEP, a private pilot and a staunch supporter of GA in the European Parliament.

On February 21 I had a morning meeting at the CAA in Kingsway to take part in FASVIG II – a Future Airspace Implementation group made up of representatives from various airspace users



including the military. In the afternoon I went to Elstree to meet our insurance broker Matthew Bolshaw and Matthew Day from Haywards. These have been long-standing, strong and active supporters of GA at every level – don't forget that when your insurance next comes due, get a quote from Haywards.

On February 24 I was back in Brussels to take part in the European Commission's Industry Consultation Body Single European Sky workshop, which is trying to redefine the SES vision. The suggestion was that SES was about air traffic management, but I pointed out that SES is much more than just ATM. The airlines and Air Navigation Service Providers tend to focus on ATM issues and SESAR, and general aviation is largely ignored. But AOPA must be there to fly the GA flag, or we'd risk being cut out altogether.

Later that day I had a meeting at the European Business Aircraft Association office to co-ordinate the planned breakfast meeting with MEPs. Next day I attended the Industry Consultation Body 151 meeting where items such as the Pilot Common Projects (PCP) and SESAR deployment manager were the hot topics. PCP is Phase 1 of SESAR deployment, covering such things as datalinks and SWIM.

Back in London on February 26 I met Nerys Boswell, assistant to AOPA President Lord Stevens, with a view to putting some pertinent questions to Her Majesty's Government, and later that day I had a visit from Tony Rapson, the new Head of the GA Unit at the CAA. There's a big interview with Tony elsewhere in these pages so I'll simply say that I explained to him what AOPA does and gave him some background on BLAC/AOPA.

On March 3 I met with Philip Clarke from CAA. Philip is an expert on Better Regulation and the role of regulators, with a Cabinet Office civil servant background. Our discussions centre on the important topic of 'Gold Plating', and we will be rolling out a

recommendations are general observations. For example, recommendation 10 says: “the CAA should work to ensure that positive changes in its culture of GA regulation permeate throughout the organisation”. As Chief Executive, Andrew Haines has been working hard to change the CAA’s culture, with significant success. As Martin pointed out, the Authority is well ahead of the Red Tape Challenge here, and while the encouragement is welcome, the identification and removal of red tape should be the focus of the effort.

Similarly, recommendation 23 reads: “the CAA should use impact assessments to conduct a genuine exploration of options, not to justify simplistic make-rule vs do-nothing options”. It’s open to the CAA simply to say, right, we do that – and that’s the end of that road.

consultation by June – so be ready to provide your suggestions.

On March 5 and 6 I attended the EASA Advisory Body meeting in Cologne, where Vincent de Vroey from the Association of European Airlines was re-elected Chairman. We had a presentation from Trevor Woods, the Standardisation chief, which covered issues like SAFA inspections, the checks Europe makes on non-European airlines flying here. During questioning about States’ refusal to deal with audit findings, he was asked what action EASA could take against them. The reply was: “In the unlikely event, States could have the mutual recognition withdrawn and the Commission could take infraction proceedings.”

On March 7 I attended the Department for Transport’s regular EASA Briefing, where the CAA’s Chief Medical Officer Dr Sally Evans gave an update on the progress the CAA has made with EASA on the issue of diabetes, where the UK derogation has been accepted by the Agency subject to some minor rewording. Then on March 11 I attended the AOPA Flying Instructor Committee meeting – unsurprisingly, the main topics are issues affecting ATOs, Flight Instructors and Examiners. On March 13 I attended the Red Tape Challenge meeting, covered elsewhere in these pages, and at time of writing I’m looking ahead to the Airspace Initiative Co-ordination Group meeting in London on March 18, more breakfast meetings with MEPs in Brussels on March 19, a meeting with CAA Chief Executive Andrew Haines on March 20 and the General Aviation Safety Conference in Cyprus from March 21 to 23 – all of which I’ll update you on in my next diary.

The weather’s looking up – let’s hope for a busy, profitable flying season.

Martin Robinson

Martin, who took along a number of files bound in red tape to reinforce his points, said every facet of GA – airfields, flying clubs, private owners, engineers and maintainers, instructors, examiners and more – were beset by red tape. Read Don Cameron’s article on ballooning in this issue of *General Aviation*. Read about how we shot ourselves in the foot by festooning twin-engined aircraft with red tape. Read about how red tape is tying up the Robinson R66 while the industry cries out for it.

Random examples of red tape that needs to be cut includes:

- Training organisations are required to produce a manual in which they have to state how their prime function is to be carried out, and a separate manual to say how they will train people to carry out the prime task. An Aviation Training Organisation is what it says it is – so why is there a need for two manuals?
- Formal flight progress checks are not practical and therefore not required. A plethora of red tape is being heaped on ATOs that will not add to safety but will add costs. Get rid of it.
- Why has the CAA introduced such inflexibility in PPL level examining, in particular requiring the pre-notification and approval by email of skill tests? All Part-ARA requires is that the Authority has an oversight programme, nothing more. There is absolutely no safety case for the pre-notification burden, which adds no value. It’s pointless red tape – get rid of it.
- Why not require examiners to submit a return of tests they had carried out every quarter or six months, thereby slashing a pointless administrative burden?
- Why is it not possible for ATOs, CAMOs and certain aerodromes to self-certificate? Conduct inspection or audits on 10% of the market each year to reduce costs and red tape.
- At Elstree recently the CAA inspection involved three people measuring the runway. Strangely, the runway length has not altered length in generations. Get rid of all pointless red tape surrounding airfield inspections.
- Why do single-engine helicopters require individual type ratings? Safety is not improved by multiple tick-box LPCs which cost the earth. Leave it to pilots, instructors, insurers and aircraft providers; the USA does, with a similar safety record to our own. The number of piston helicopters on the British register has fallen by a third in six years – is that helping GA thrive? Get rid of the pointless red tape.
- Since 1995 the number of piston twins with up to six seats on the UK register



Above: Grant Shapps MP

has fallen from 759 to 393, while in the USA it has remained relatively steady. Why have we surrounded the obtaining and maintaining of a twin rating with so much red tape? Instructors and examiners have given up their

qualifications for lack of trade, while engineers and GA companies have been deprived of their biggest money-spinners. Over-taxation is a major killer, but red tape delivers the *coup de grace*.

Martin told the RTC that had he been given more notice he could have canvassed AOPA’s maintainers working group, Flying Instructor Committee, corporate members – more than 100 flying clubs and schools – members working group and other sub-groups for specific instances of needless

red tape. However, for reasons that are not clear Grant Shapps told him at the launch of the Red Tape Challenge that AOPA had deliberately been kept off the Red Tape panel because it would be asked to challenge its output, and the red tape panel had ignored AOPA. The request for a critique had come from the Department for Transport with only a few days notice – certainly not enough to write a considered response.

History

Some of the RTC recommendations have a history that does not encourage optimism. The request for the government to alter the requirement for the CAA to make a six percent ‘return on investment’ – profit – has come up at virtually every CAA Finance Advisory Committee for a generation. The answer is always the same; talk to the Treasury. And even the airlines, with all their lobbying power, cannot shift the Treasury. Similarly, the request to remove VAT from flight training has repeatedly foundered at the door of the Treasury.

Some recommendations would tend to indicate that the panel has dived headfirst into the semantic pool where the bureaucrats live. Recommendation 14 reads: “the CAA should set out the cultural and organisational measures it will take to protect and reward good management of total system safety in accordance with the risk-based proportionate approach”.

Some recommendations are positive, reflecting the areas of expertise of the panel, but in general it seems the RTC has lost sight of its goal. But there is time to get back on track.

Martin Robinson says: “The backing of Grant Shapps means this is a once-only opportunity to challenge red tape and lift an enormous burden from GA, but the panel has to state specifically where the red tape is and make a case for its removal. That must be the focus of the next few months’ efforts.” ■

Prop strikes and GR 24

By George Done

All pilots know what a prop strike is even though only a tiny proportion may have suffered its misfortune. The term GR 24 may not be so familiar; this is Generic Requirement 24 - "Light Aircraft Piston Engine Overhaul Periods". It is found in the 450 page document CAP 747 -

"Mandatory Requirements for

Aircraft Airworthiness". Aircraft owners normally learn about GR 24 only when their maintainer draws attention to it because the engine in their aeroplane will soon have to start being operated 'on condition'. GR 24 provides a set of requirements that allows an engine to be operated for private flight

purposes beyond the engine manufacturer's recommended calendar life or operating hours limits. For the more popular variants of Lycoming engine, for example, these would be 12 years and 2000 hours, the requirements being generally accepted as sensible and practical.

In December 2012 the CAA introduced a modification to GR 24 that had unforeseen consequences. A small change was introduced into one particular paragraph which stated that a full overhaul of an 'on condition' engine is required following an event that necessitated a full or significant partial engine disassembly to rectify, such as a propeller strike. This meant that sensible discussion between owner, maintainer and engine overhauler as to what was actually necessary to restore the engine to an airworthy state is effectively ruled out. For instance, an engine operated for 100 hours per year (not untypical) would hit the calendar life of 12 years and

enter the 'on condition' regime with only 1200 hours on the clock. It is not uncommon for engines to operate effectively for several hundred more than that before a complete overhaul became absolutely necessary. The cost implications in this case are considerable. The topic ran on the Flyer Forum in 2013 and according to various commentators had resulted in difficulty in achieving satisfactory settlements from insurers in some cases. However, whilst a request for advice has not been received from an AOPA member to date, the problem and its potential for causing financial distress was picked up by pilot/owner Saul Empson of the AOPA Members' Working Group, who suggested the topic was worth reviewing.

No doubt, in the eyes of the CAA, the change must have seemed like a good idea at the time, but it was also a good example of gold plating. Investigation led to behind-the-scenes discussions involving the CAA, the AOPA Maintenance Working Group (which includes a representative from the CAA), the Historic Aircraft Association (HAA) and interested parties from the aviation insurance industry. The outcome has been a further change to GR 24 effective from 28th February 2014 that restores the original and well established procedure - a victory for common sense and an example of the more enlightened approach the CAA is now adopting. It is also a prime example of the benefits and influential contacts that membership of AOPA organisations provides their members with.

Below: certain variants of Lycoming engine could be used beyond the engine manufacturer's recommended calendar life or operating hours limits

IAOPA World Assembly

The AOPA World Assembly will be held this year in Beijing, China, and AOPA China has set up an English-language website at <http://www.aopa.org.cn/zt/iaopa> setting out details of the programme. The Assembly runs from September 9 to 15, and from the website you can download the agenda and get details of the venue, the registration system, visa and accommodation requirements, and the programme for accompanying persons. If you have any questions, you can contact AOPA China through the website - just follow the 'information' link.

Channel Islands airspace

AOPA in the Channel Islands warns of major changes to airspace classifications around the islands which come into effect on March 6, and should make flying in that area easier. The entire airspace, which is currently Class A, becomes Class D from the ground to FL80. Full details of the changes can be downloaded from the Jersey ATC website at <http://www.cicz.co.uk/ae/>.

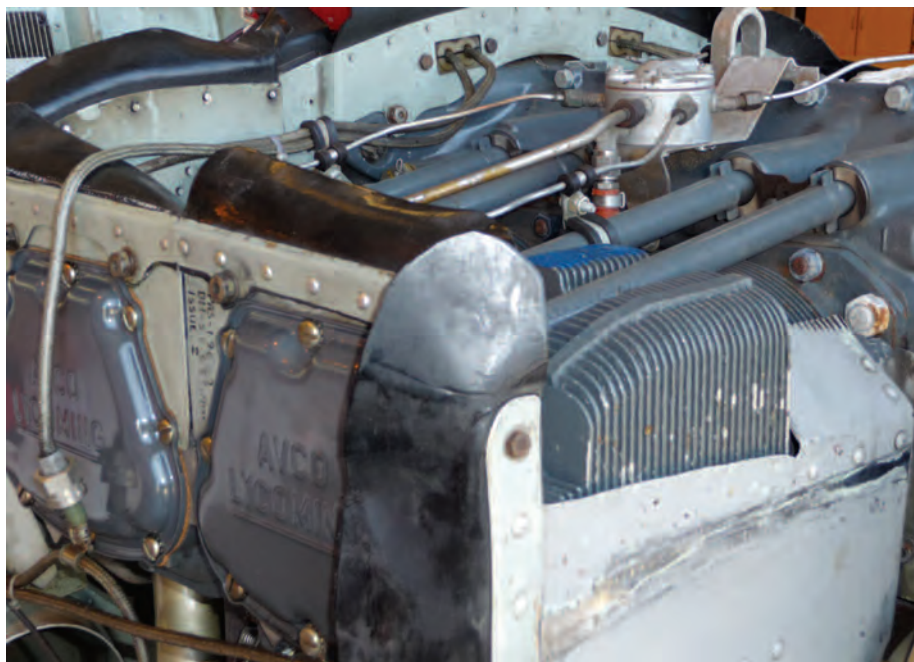
Also from AOPA Channel islands we have details of the Guernsey Air Rally. After a year off in 2013 caused by major works at Guernsey Airport, this popular rally is back on the agenda for 2014. The dates for the rally are Friday 13 to Sunday 15 June. This will be the 42nd time the rally has been staged. More information can be obtained from rally@guernseyaeroclub.com.

Frequency changes

Air Cadet gliding sites which have hitherto shared the BGA 129.975 frequency have been allocated disparate frequencies as follows:

- Wethersfield 614 VGS Essex 124.1
- Kenley 615 VGS Surrey 120.775
- Hullavington 621 VGS 120.775
- Upavon 622 VGS 124.1
- Predannack 626 VGS Cornwall 124.1
- Little Rissington 124.100
- Kirknewton Scotland 124.1
- Arbroath Scotland 124.1

The frequencies are changed by notam and the new VFR charts will carry them when they are published in the coming month.



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Regional airports relief

IAOPA Europe has welcomed the decision of the European Commission to continue to allow national authorities to subsidise small airfields which might otherwise be forced to close for lack of commercial viability. The EC currently allows countries to subsidise airports with less than 700,000 passengers a year, but it had been proposed that this number be reduced to 300,000. In February, however, it was decided to maintain the status quo.

Wearing his hat as IAOPA Senior Vice President Martin Robinson said: "We very much welcome this. Smaller airports are a vital component of Europe's transport system and the Commission has

recognised the need for distant and isolated communities to maintain air links, even if they are not strictly commercially viable."

Not all European states subsidise small airports. Martin says: "In countries like Germany and Switzerland, regional airports are seen as important for transport links and the need for state aid is recognised. Other countries like the UK subsidise specific low-density routes which are deemed to be vital. Smaller airports also serve the business community and thus provide economic benefits to the areas they serve. It is important, however, that they continue to serve general aviation and allow self-handling and proportionate costs to GA operators." ■



Letters to the Editor

Membership

Sir,
I would like, please, to change my AOPA membership status to New Associate. I can no longer fly, having been rumbled by the medics, and no longer own a share in an aircraft, so I have no need of your support services. I would, however, like to continue to support AOPA for the rest of my days because I admire the work you do, and *General Aviation* is a brilliant summary of everything I need to know.

As a measure of my continuing commitment I have elected now for a Direct Debit. I already support GASCo separately.

Graham Perry

Graham: Well done that man... if general aviation had more like you, we could move mountains. Ed

RAF man

Sir,
Am I the only person whose heart dropped on learning the news that an RAF man will be looking after the interests of GA at the CAA? Whilst I am sure Tony Rapson is a nice bloke, I do not see (unless a conversion on the airway to Damascus has occurred) how a 27 year RAF career specialising in 'airspace policy', followed more recently dealing with Eurocontrol and the like for the CAA, can provide the sort of background which will assist the needs of general aviation.

I believe there is some justifiable concern about this appointment, which really needs someone with more than a smidgen of commercial nous. It would be far easier to find someone to pick up on 'airspace policy' than install a commercial instinct in someone after decades of working in the public sector.

Over the years, the CAA has appointed many RAF types, some of whom, it seems, simply 'keep their heads down' and hang on for a CAA pension to bolster their RAF ones. Nice work if you can get it. I only hope Tony Rapson proves me wrong!

Austin Trueman

See the interview with Tony Rapson in these pages. He says most of the right things, and seems determined to do the right thing by general aviation, so I hope you'll join us in giving him the benefit of the doubt. We will of course be keeping a beady eye on him on your behalf... Editor ■



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MAHER DESIGN

IMC: Now the good news

By Nick Wilcock

‘Article 4(8) of the Aircrew Regulation’. As you will have read in the last edition of *General Aviation*, the European Commission voted in favour of adopting the method for continuance of the UK IMC rating which was first proposed by IAOPA Europe to EASA’s rulemakers nearly three years ago. EASA didn’t accept my proposal back then; however, that’s now history as the EC has now recommended to the European Parliament that there have been no notified objections, so by the time you read this we expect the amendment to have been fast-tracked into European Law.

However, rather than keeping things simple, the Eurocrats have imposed a few conditions on the CAA, in order to demonstrate to the rest of Europe that our 40 years of experience with the IMC rating remains valid. On the assumption that the IMC rating / IR (restricted) would continue, AOPA UK had already posed a number of questions to the CAA, so we offered to host an ‘IMC meeting’ with the CAA at our 50A Cambridge Street conference room in January 2014.

Representatives from CAA, LAA, PPL/IR and AOPA met on Jan 22 to discuss the implications of not only the EC’s Art.4(8) vote, but also the forthcoming En-route IFR Rating and the Competency-based Modular IR. Whereas there had been some friction between the groups in earlier times, the synergy at this meeting ensured that issues were identified and solutions proposed, which, assuming they are adopted, will ensure not only the future continuance of new IR(R) issue, but also credit towards the EIR and C-b M IR. In particular, we looked at the following key questions:

- **Data capture.** The EC requires the CAA to prove the safety of the IMCR / IR(R). In order to do this, the CAA obviously needs to know how many IMCR / IR(R) are issued, revalidated or renewed. Currently, examiners are not required to notify the Authority when they revalidate or renew an IMCR / IR(R), so the CAA doesn’t have clear supporting data. We all agreed that it would be sensible for examiners to do so, as for all other ratings and is a small price to pay for IMCR / IR(R) continuance. A formal requirement may already have been introduced by the time you read this; in line with general CAA change this will probably include an on-line method in the near future.

- **IMCR / IR(R) Instructors and Examiners.** Most IMC instruction is delivered by pre-EASA instructors whose privileges included ‘Applied Instruments’ instruction. Under Part-FCL, the previous CAA easement of prerequisites for such privileges, if restricted to the IMCR, had disappeared and FIs would henceforth need 200 hrs of flight time under IFR in order to qualify. However, following the recommendation of AOPA UK’s most senior FIE and the provisions of the Art4(8) amendment, it is virtually certain that the requirements for ‘new’ IMCR / IR(R) instructors will revert to the well-proven ‘removal of no applied instrument restriction’ method which existed under JAR-FCL. Similarly, IMCR / IR(R) examining is likely to be included in the privileges of any examiner who holds the associated instructional privileges, without further requirements. The requirements of Eurocratic administrivia might need to be clarified with regard to the methods by which these instructor and examiner privileges may be indicated in the licence, but we’re working on this; it should be possible to pose a simple solution to EASA’s FCL.013 working group without too much effort.

Changes to the IMCR / IR(R)

During the meeting, we also took the opportunity to discuss proposed changes to the IMCR / IR(R) in order to bring it more up to date:

- **Take-off and landing minima.** With the introduction of Part-FCL, VFR criteria have been relaxed to the ICAO standard. We now have the illogical situation of an IMCR / IR(R) pilot restricted to 1800m visibility under IFR, but only 1500m under VFR if in sight of the surface. Hence the proposal is to align all criteria with those applicable under Single European Rules of the Air, which will simplify things for all concerned.
- **‘Limited Panel’.** The AOPA Members’ Working Group asked us to propose that the ‘limited panel’ requirements for routine IMCR revalidation should be amended to include the option of a ‘Standby Instrument System’. Many of our owners would prefer to revalidate in their own aircraft rather than in some decrepit piece of rental wreckage which happens to have a serviceable turn co-ordinator or turn and slip indicator. The logic of this proposal has been accepted by the CAA and I have

already provided a draft CAP 804 amendment to the Authority. So with luck it should be introduced when the current considerable pressure on the Authority’s time permits.

- **Instrument Approach Criteria.** Unusually and in contrast to any other instrument qualification I’ve held since 1971, the IMCR / IR(R) includes ‘recommended’ rather than ‘mandatory’ minima, as stated in the UK AIP. Although there is no intention to change this situation in the near future, it is something which might possibly be needed if challenged by other Member States. In a future article we will be summarising the current situation, together with implications of ‘CDFA’ v. ‘free-descent’ techniques with regard to instrument approach minima for non-precision approaches. (Yes, I know, you can hardly wait...)

EIR and C-bM IR

Understandably, our PPL/IR colleagues were keen to discuss these forthcoming ratings. However, the Acceptable Means of Compliance and Guidance Material (AMC&GM) for these ratings has yet to be formally promulgated and the CAA currently has a huge volume of work which perhaps has rather greater priority. Nevertheless, we identified the following issues:

- **Theoretical Knowledge Examinations.** Not only must the EIR / C-bM IR exam(s) be drafted, checked and delivered, but ATOs providing theoretical knowledge training must also be approved, as must ATOs providing the associated instrument flight training. With the best will in the world, this cannot happen overnight.
- **Flight Instruction.** As the EIR and C-bM will be Part-FCL ratings, instructors and examiners must meet the same requirements as apply for the existing IR. Although under EASA proposals some instruction might be provided by ‘freelance’ IRIs, all the ATOs to whom I’ve posed the question have stated that they have little interest in such a concept. They have neither the time nor inclination to standardise non-employed freelancers and also expect to make some return to cover the not inconsiderable cost of their course approvals. So the freelance instructor concept might well prove to be ‘legal in concept but unlikely in practice’. But let’s wait and see?
- **Skill Test.** Another significant issue is that the Skill Test material must be produced and distributed to IREs. For



the C-BM IR this is less of an issue, as it will be identical to the current IR Skill Test. But for the EIR, the requirements have still to be distributed. Incidentally, Part-FCL states that *any* IRE can conduct Skill Tests for IRs, so any gold-plating by an Authority which attempts to restrict initial IR Skill Tests to its own staff examiners should be robustly challenged. As should the dinosaur mentality of those IREs who, it seems, still insist upon their beloved bits of tin cluttering up the cockpit; EASA does not require 'screens' plated with CAA gold and accept the use of any view-limiting device. Besides which, any IRE worth his/her salt can immediately detect if a pilot is trying to cheat.

- **3rd Country IR conversion.** EASA accepted in full my proposal for the conversion of '3rd Country' IRs such as the FAA IR, to the C-BM IR. Pilots converting a valid FAA IR, provided that they have 50 hrs flight time under IFR as PIC on aeroplanes, will simply need to fly a C-BM IR Skill Test with an IRE, during which their practical theoretical knowledge will also be assessed *without* the need for any written exams.
- **IMCR / IR(R) conversion to C-BM IR.** Although the AMC&GM have yet to be issued against which the CAA can draft a formal conversion report, we proposed that full recognition should be afforded to pilots who hold a valid IMCR / IR(R) when seeking to upgrade to the C-BM IR. You might have read some speculative views about such credit depending upon who delivered the original IMCR / IR(R) training, but this is of course, utter nonsense. For example, how on earth could a pilot who has been using IMC privileges for over 30 years prove who delivered the training all those years ago? AOPA's view is that a pilot who holds a valid IMCR / IR(R) and has 15 hrs of flight time under IFR as PIC on aeroplanes, should receive the same credit towards C-BM IR flight training as is proposed for the holder of an EIR. Which would mean passing the theoretical knowledge exam(s), 10 hrs of additional IR training and passing the C-BM IR Skill Test.

And finally... Although we've finally succeeded in securing the continuance of new IR(R)s for at least another five years, there is still work to be done to clarify the administrative detail. Those considering whether to train for the IR(R) should be encouraged to do so; nothing has changed with regard to the training requirements or privileges of the IMCR / IR(R). Maintaining IMCR / IR(R) validity in your own (or your group) aeroplane will become simpler, as will upgrading to Europe-wide IFR privileges. So for once there are actually some very encouraging events coming to this theatre shortly! ■

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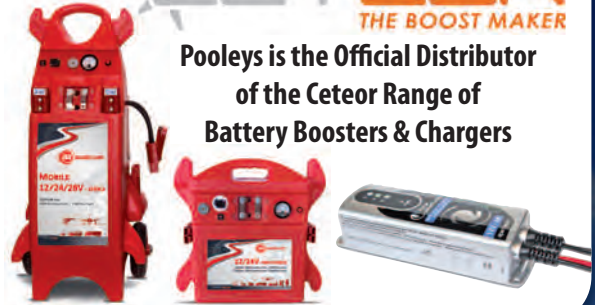
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Left: Executive Committee members Mick Elborn, Charles Henry, Chris Royle and Pauline Vahey
Below: CEO Martin Robinson delivers his state-of-the-industry report to the Executive Committee

The job in hand

Pat Malone reports on the work of the AOPA as reflected in reports to the Executive Committee

The AOPA Executive Committee meets every quarter to co-ordinate the work of the individuals and sub-groups who undertake specific tasks on AOPA's behalf. While the Chief Executive Martin Robinson gives an overview of most of the current issues and explains his work on them, other individuals have specific responsibilities – Nick Wilcock for licensing, AOPA Chairman George Done for engineering, Steve Slater for airfields, John Pett for instructor seminars – while sub-groups such as the Instructor Committee and the Members Working Group bring their fellow executives up to speed on what they're doing. The Executive Committee represents the essential clearing-house for information, making sure the left hand knows what the right hand is up to.

With George Done in the chair, the committee members comprised Martin Robinson, Mick Elborn, Nick Wilcock, Charles Henry, Chris Royle, Pauline Vahey, John Pett and John Walker. In presenting his report, Martin said there was so much going on he'd have time for only "a quick canter" through the programme, and in the event his summary took more than two hours. Much of what he briefed the committee on has been dealt with in these pages, but the salient points included:

- The Intergroup in the European Parliament. International AOPA is funding a highly-respected former MEP, Ulrich Stockmann, to open the doors through which we must pass if we are to get this important group up and running. Martin said that while the cost to AOPA members was significant, the group could be vital to our future.
- The CAA's new GA Unit, how it will be funded and how it will be run. So far there is a lack of clarity as to what it hopes to achieve; Annex II aircraft are already well looked after by their own organisations and everything else was a European responsibility. The GA Unit will apparently look after non-complex GA below two tonnes, but 20 percent of

AOPA members fall outside that definition, and they pay about 30 percent of the CAA's fees. There has effectively been a re-definition of GA, which used to be "everything apart from CAT and the military". Increasingly it is being divided...

- The Red Tape Challenge – the interim report had been long on pious hopes, short on specifics. It is hoped that the final report will do a lot to identify specific instances of where red tape can be removed. Hopes for a cut in the CAA's six percent profit mandate seemed doomed – it had been attached at every Finance Advisory Committee since the turn of the century and the Treasury didn't want to know.
- The CAA's process for turning Registered Facilities into Approved Training Organisations; AOPA has suggested that manuals should be about five pages long. The CAA has got them down to 84 pages and is nowhere near finished. AOPA had offered the CAA expertise from the Instructor Committee but there had been no response.
- The 'CAA hub' which has done so much to improve handling of licences. Much of the credit went to its head Paul Chinn, but unfortunately he has left the CAA.
- Lack of data on GA. It's time AOPA reprised a report such as that produced eleven years ago by Terry Lober with AOPA backing setting out the true value of GA. The number of aircraft on the register is a poor measure of activity because huge numbers of aircraft are either incomplete or inactive for other reasons. The CAA collects data but doesn't analyse it; medicals could provide the annual number of hours flown, ARCs could show the number of aircraft hours flown. Unless you know the statistics you can't gauge the risks, as AOPA has repeated as nauseam for a decade.
- Gold-plating. International AOPA has fought long and hard to persuade EASA

to allow cost-sharing, and the Agency has agreed to allow six people to share costs, as long as one is the pilot. Some at the CAA want to reduce this to four; AOPA is pressuring them to leave well alone.

- Electronic Conspicuity Working Group. The Department for Transport has announced £300,000 of funding for electronic conspicuity, without referring to the group that's been working on the issue. Does the right hand know what the left hand is doing?
- Airspace Infringement Working Group: overall infringement numbers are not falling even though there's far less activity, and if activity recovers, infringements may well be higher.
- The e-GAR and the Home Office... John Murray has done a sterling job on this for AOPA, and we're in a better position because he had the foresight to attack this issue years ago. Home Office is trying to get Immigration, Borders and Customs into one happy group, but different legislation covers what each can do. Customs cannot ask you for your passenger list, but Immigration wants you to provide it.
- Eurocontrol wants another IAOPA general aviation day and we may organise that with PPL/IR. There was much more; IAOPA has managed to alter European Mandatory Occurrence reporting rules so we no longer have to report every time a stall warner goes off; Vasa Babic is representing IAOPA Europe on a working group looking at terrain warning systems for aircraft below 5000 kg; airspace proposals for Southend and Farnborough.

Airfields

Steve Slater's airfields report threw up a few interesting anomalies – AOPA helps fund Steve's work through the General Aviation

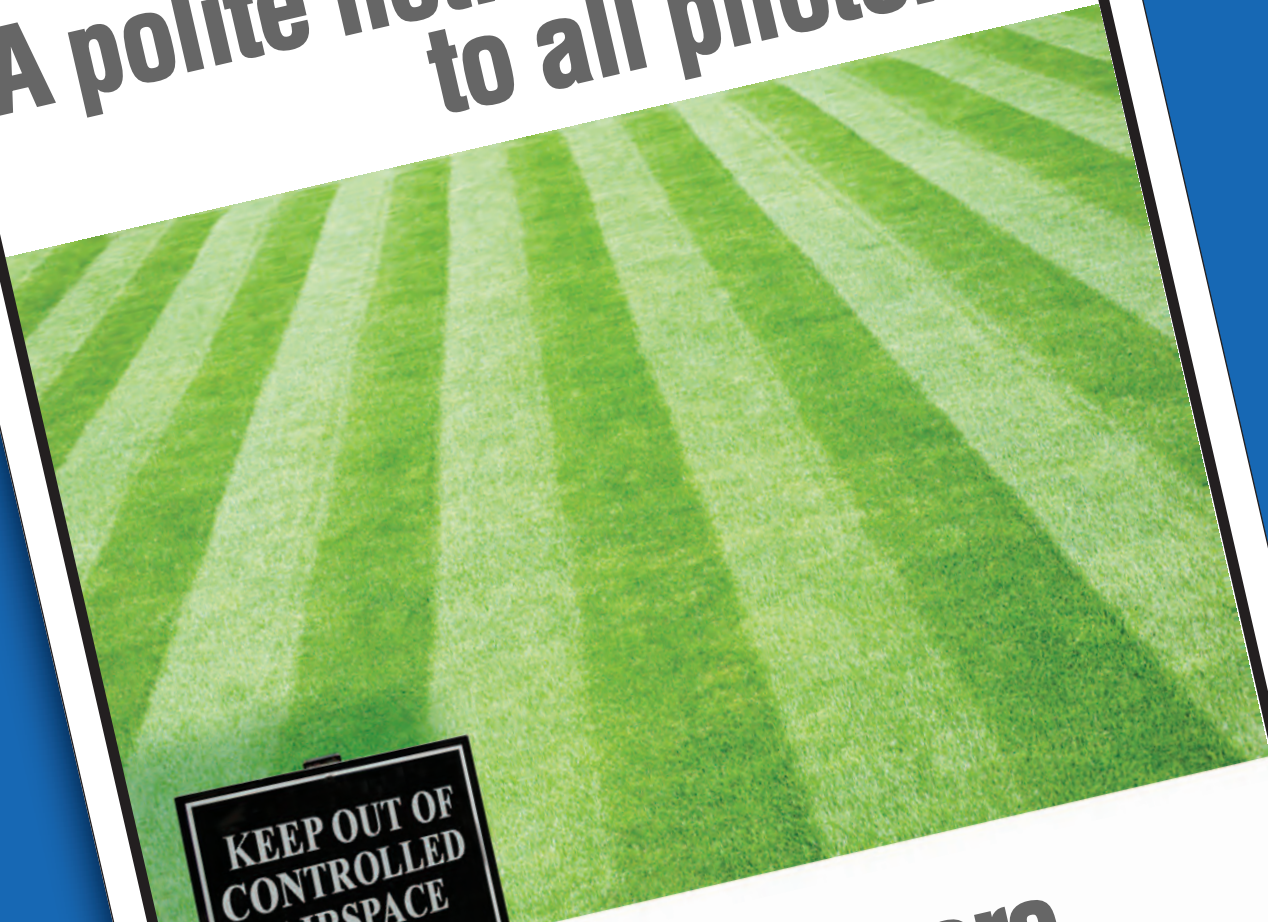


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Awareness Council. Steve reported that while the number of direct requests for airfield planning assistance has fallen over the past three months to around a dozen, it is noteworthy that we are increasingly being asked to respond to requests for assistance from planning officers and that we are being asked to act as an 'interested third party' in dialogues between developers and flying site operators.

As of the end of 2013, the total number of individual airfield, wind turbine or planning based enquiries stands at just under 100 for the year. Between 1998 and the start of 2013, the total number of queries handled by AOPA was around 250.

The additional dialogue with planning officers, developers and flying site operators is a reflection of the fact that applications are increasingly being resubmitted, been taken to appeal by developers or have resulted in the local planning authorities taking extensive legal

advice. The good news is that in recent times, by advocating dialogue between interested parties, a number of compromises have been reached under which developments have been amended to allow airfield operations to operate relatively unhindered. Recent cases at Wellesbourne and at Sherburn in Elmet, where the developers scaled back or realigned properties to allow safe flight operations, are examples.

Steve reported: "A worrying recent case where airspace in the immediate vicinity of a flying site appears to have been for the first time directly tied into a planning ruling has come to light. In November a High Court ruling found against Basingstoke and Deane Council's awarding of a Certificate of Lawful Use to a model aircraft flying site in Old Basing in Hampshire which has operated for over a decade. A local resident

secured the objection, and in the summing up the judge was quoted as querying whether the airspace around the site should also be regarded as a part of the planning decision. If the judge's comment is not refuted, it could create a worrying precedent."

There are also major continuing problems at Panshanger, at Arden Heath near Stratford-upon-Avon, where there's an application to build 80 houses just 300 metres from the strip, at Dunsfold, which has been bought by a property developer; and at Popham, Gorrell Farm, Lundy Island and Coyton in Devon, Lane Farm near Hay on Wye, Moor Farm in Yorkshire and Dorcas Farm in Buckinghamshire, all threatened by wind turbine developments, and at Preston St Michaels where plans for a solar farm have been withdrawn. Elsewhere there are issues to be addressed – at Bicester, now unlicensed and facing possible low flying issues; at White Waltham, where safeguarding and inclusion of the airfield on the Local development Framework are under discussion; at Eddsfield near where an 80-metre met mast is a worry; at Wellesbourne where progress is being made with regard to an adjacent housing development; and at Sherburn, where a major industrial development is proposed and where negotiations seem to be reaching an acceptable compromise. Southend absorbs much attention because of the controlled airspace application and the problems of flying schools on the airfield.

John Pett updated the Executive Committee on the status of Instructor Seminars, which continue to more than break even for the Association despite the discount offered to members. Pauline Vahey gave an overview of the work of the Members Working Group, and Nick Wilcock reported on issues surrounding licensing.

AOPA Chairman George Done handles engineering queries and disputes between aircraft owners and their maintainers. There are half a dozen cases in hand, ranging from disputes over maintenance or invoicing to handling damage, and most take a long time and much negotiation to resolve. ■

**Left: AOPA Chairman Professor George Done presides at the EC
Below: the Executive Committee meets in the basement conference room at AOPA headquarters in Victoria, London**



New dawn for GA at the CAA?

*Tony Rapson heads up the much-heralded GA Unit at the CAA. He talks to **Pat Malone***

The CAA's new GA Unit officially came into being on April 1st, some 24 staff being deployed with the stated intention of cutting red tape, adopting a risk-based system of regulation that is proportionate to the business at hand, delegating oversight as far as possible to user groups, cutting costs, and fostering "a vibrant GA industry" in the UK. Laudable aims, and not simply pious hopes – this initiative is backed by the government, the Department for Transport and the CAA at the highest level. Nothing can possibly go wrong!

It's fair to say the appointment of Tony Rapson (an ex-RAF Group Captain) to head the GA Unit was not greeted with the jubilant ringing of church bells across a grateful nation, but that was largely because GA's experience of RAF brass at the CAA has generally been horrible. The fact that he has little knowledge of GA also counted against him, but we must remember that Andrew Haines came to the CAA Chief Executive's chair not knowing a PA-24 from a PC-24, and he's done the right thing by GA at every turn.

So we applaud loudly as Tony Rapson advances fearlessly on the Augean Stables of GA regulation with his Cabinet-sanctioned shovel in his hands, and we will give him every possible assistance in his task. He's going to need all the help he can get, because even if the job was better sketched out than it is, it would defeat Hercules.

We start with all the questions and none of the answers. What exactly can the UK deregulate, and where does EASA fit in? Why has GA been subdivided so that the GA Unit is primarily dealing with the portion of the industry that pays no CAA fees and is already substantially self-regulating? Who pays, and how much? As yet, we don't know – and they don't know either. Tony Rapson's answer to every hard question is that it's early days yet, they're still in the process of setting up, and we'll cross that bridge when we come to it.

Tony is an air traffic and airspace management expert who until recently was seconded by the CAA to the DfT as policy lead for the implementation of the Single European Sky. He put in 28 years in the RAF, including stints at the MoD, Air



Tony Rapson in his office, the CAA headquarters at Gatwick

Command Headquarters and as Officer Commanding the London Air Traffic Control Centre (Military). He's also got a log book with 170 hours in it, some military, about 75 hours civilian, but his PPL lapsed in the 1980s.

"I went to a school in Basingstoke that had a Combined Cadet Force so I started gliding at 16," he says. "I had an RAF Scholarship and I always wanted to be a

pilot, and I actually started flight training on the Jet Provost. But at the time they were retiring the multi-engined fleet so it was either fast jet or nothing, and I wasn't going to make fast jet. The choice was either a non-flying role or leaving the service, and I wanted to stay in the RAF." He joined the CAA in 2008, and his work on SES gave him first-hand experience of working inside the DfT, coping with



politicians, and dealing with the European Commission, Eurocontrol and, peripherally, EASA. As far as the GA Unit job goes, the only one of the 'desirable criteria' he didn't meet was the 'experienced' bit of 'you will be experienced and passionate about general aviation'.

"I felt I could tick off everything that was required, and the issue was lack of current GA experience," he says. "but when I look at what they were trying to do inside the CAA, with government at home and regulator abroad, I thought I could bring things to that job that are needed. The ideal candidate would have worked in Europe, with the EC and EASA, worked in central government and have an understanding of how the DfT works and how Ministers work, would have worked in the CAA, probably in airworthiness and flight operations and airspace policy, and also have current GA experience. I'd just spent 18 months at the DfT working on Single European Sky, working with the Commission with some crossover into EASA, I understood the way the DfT was set up, I had the policy lead for Single European Sky, and I reasoned that I had a skillset that would be useful. In fact, among the staff of the GA Unit there are many people with current experience of GA, and their expertise will be invaluable."

Andrew Haines and Mark Swan evidently agreed, because Tony got the job, which is to deliver on the CAA's commitment in the Red Tape Challenge response, fostering better, more proportionate regulation and supporting a vibrant GA community. "Deregulate where we can, regulate only where we have to and in a proportionate way," Tony says. "The question I asked myself before accepting the job was 'can change be achieved?' The old adage, 'if nothing changes, nothing changes' is very true. I asked myself what is changing, in Europe, in the CAA, in the UK, that means we can deliver change, we can deliver on those commitments in the Red Tape Challenge. And the fact is that the Red Tape Challenge is there, and being driven by the Minister without Portfolio Grant Shapps, focussing the DfT and their limited resource in this area to do better; we had Andrew Haines's desire even before the Red Tape Challenge to drive down that road – and most importantly perhaps, the change already taking place in the CAA, the move towards risk-based regulation, the Enhanced Safety Performance Programme which will change the way the CAA operates. It all means that the foundations to achieve change are there – it's not just 'let's bung a bunch of people over there and call them a GA unit,' it genuinely is a GA unit."

Community

The biggest change for the CAA is that for the first time it intends to regulate by community, rather than by function. Up to now they've regulated 'airspace' or 'airworthiness' or 'flight operations', and that meant regulating with CAT in mind, and catching the smaller players as collateral damage. In future they will regulate sectors within aviation – or decline to regulate them, as necessary. "It won't be just, this is how we regulate commercial, therefore that's how we're going to regulate everybody," Tony says. "That's a big change for the CAA, and we'll need to manage that change. But coming on the back of changes elsewhere in the CAA, it means there will be change, we can deliver."

What exactly will the GA Unit be overseeing? ICAO defines GA as everything except commercial air transport and the military, but the CAA's definition is narrower: 'airworthiness, operations and associated personnel training and licensing for non-commercial operation of other-than-complex aircraft'. As well as the Annex II aircraft this will encompass piston twins and single-engine turbine aeroplanes up to 5700kg and single-pilot helicopters up to 3175kg. This scope has been specifically designed to align with EU regulatory classification and CAA and industry oversight accountability. The GA Unit will also have oversight of associated design, production, maintenance and PPL-based training organisations, plus GA-aligned non-EASA aerodromes. A small proportion of GA will not be included, but it is a sector that pays a significant portion of the fees that GA forks

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out to the CAA, and AOPA will be looking to ensure that it is not disadvantaged. There seems to be no differentiation between those who do not pay CAA fees and those who do — the owners and pilots of certified aircraft which must use CAMOs, pay ARC fees, pay landing fees, LPC fees and all the other charges that carry a CAA fee component. The GA Unit covers all the sectors that are already largely self-regulating — the permit aircraft, the gliders, the microlight aircraft who are essentially free of direct CAA or EASA control. There's a limited percentage to 'deregulating the deregulated' while potentially increasing costs to those who have a dog in the fight.

Tony's answer to all open questions is: we start from here. "Wherever you draw the line there will always be an issue of people who fall either side of it. We need to make

sure that wherever that line is drawn it does not become a barrier to people growing business and doing things differently. We've gone down the route of a definition that aligns with EASA, and is I accept more towards the recreational end of GA. With

business operators, we need to be clear once we've got the unit up and running where the relationship with the CAA sits. We need to be careful not to make your relationship more difficult because some of it is in the GA Unit, some is outside. This will be on a case by case basis.

"We are where we are, and it's a good starting point. The more complexity we take into the GA Unit from the start — and there's a lot of complexity in there already — the greater the challenges we will have. That's where the line was drawn in the Red Tape Challenge.

"My priority is to get the unit up and running and publish the initial work programme. If in a year's time, two years time, the Unit is bedded down, self-sustaining, accepted as the right way to do business, then perhaps — and I stress perhaps — we can look at whether the line has been drawn in the right place or not. But at the moment, it is where it is."

Money

In its response to the Red Tape Challenge the CAA estimated that the cost of regulating GA is about £3.9 million a year, of which they recoup £3 million in fees. The CAA is still required to make all of its costs back from industry, plus six percent profit. The airlines' constant refrain is that they are cross-subsidising GA, so any diversion of resources to the little end of aviation is unlikely. Similarly, any attempt to reduce CAA profits to the 3.5 percent level required of other regulators — a proposal picked up by the Red Tape Challenge — is likely to fail. The issue has been raised at virtually every CAA Finance Advisory Committee since the Wright Brothers, and the answer never changes —



Tony proudly shows off his flying logbook, with 175 hours total time

nothing to do with us, talk to the Treasury. And nothing moves the Treasury. So we who pay the bulk of CAA charges are understandably nervous.

But on the wider financial issues Tony sees room for flexibility. "The way the schemes and charges are set up in the CAA is for regulation by function. First, we're going to do regulation in a very different way. We need to get the reporting matrix in place so we're reporting against the activity the GA unit is doing to gain financial clarity. We can only answer the question you have posed — who pays, and how much — when we have financial clarity.

"It's a piece of work that will start coming to the fore this autumn as the CAA moves towards its consultation on fees and charges. My starting point is simply that we're talking to the finance department about how we get financial clarity. The GA unit is getting its own budget, but that is within the Safety Regulation Group budgetary process, so for this year there's no change. My priority is to get the unit up and running. Finance is an important problem but it's not today's problem."

Although Airspace Policy remains elsewhere in the CAA it is still of vital importance to GA and the GA Unit will have to engage on airspace policy matters. In terms of funding airspace policy Tony says: "The national regulation of airspace is funded through the en-route charge as permitted by European law, so while Class A airspace users might argue they shouldn't pay for the regulation of Class G that differentiation is not made and as the law permits the cost of the CAA's national airspace regulation is placed on the en-route charge. In the UK of course we

deliver airspace regulation in accordance with the principle set out in the Transport Act to provide airspace, amongst other things, 'to satisfy the requirements of operators and owners of all classes of aircraft.'

The way ahead

Forging the team, changing attitudes within the CAA, publishing the programme of work — these are challenges that Tony must grapple with in the coming months before the GA unit can realistically make progress towards meeting the needs of GA. "I have a huge 'to do' list and I could work down the list ticking stuff off, but that may not be the best way to deliver fundamental change," he says. "We need to do this strategically — what will achieve the best effect, how do we do that."

On the CAA side, as head of the GA Unit Tony Rapson will sit on Mark Swan's Safety and Airspace Regulation Group leadership team, along with those responsible for airspace, aerodromes, ATM, airworthiness, flight operations, ISP (Intelligence, Strategy and Policy) and a general aviation issue can be raised in that forum and enjoy equal billing with everything else. "That's a real change," he says. "Before, by the time a GA issue had to go through section heads, divisional reps and department head to the leadership team — it's now getting the same billing, which shows Andrew Haines and Mark Swan's commitment to ensure GA is accorded the same importance as other elements. When things need unblocking, the issue goes direct to the leadership team. That's an important change in the CAA."

On the other side of the fence, he sees a

partnership with GA through the General Aviation Consultative Committee – which may well be renamed to actually include the word ‘partnership’ – as representing a way forward. “The GA Unit needs to work with the GA community,” he says. “At the moment we have the GACC, and I would like that to evolve into more of a partnership group. You need above that, a group doing strategy – that’s quite easy at the moment because that’s coming out of the Red Tape Challenge, but that will have to be developed so it becomes self-sustaining. Then there’s a place for another group below that which is more of a communications group. At its simplest it’s a collection of email addresses, so we can push information out.

“The membership organisations like AOPA are undoubtedly the big players in this because they are funded by their members and have an element of resource and expertise that is very useful. But the person who speaks for themselves still has a right to be heard.”

How does the CAA guard against the endemic problem of over-reliance on individuals who speak loudly for no-one but themselves, and sometimes have crackpot ideas that harm us all? That’s what almost cost us the IMC rating. The self-aggrandising can thrive, especially if they tell the regulator what he wants to hear.

“It would be wrong for the CAA to act just on the view of one who was in opposition to a thousand,” he said. “We at the CAA have to decide if we need to develop policy on an issue, we then need to share it with experts – the partnership,

the GACC – and then, if we’re changing regulation or even legislation, to do a full consultation. Everybody gets their right of say, and then those replies have to be measured and assessed, and then policy made.”

Understanding data

One of the first jobs of the GA Unit is to better understand the data on GA which in some cases the CAA is already collecting, but which is not collated to provide an accurate picture of GA. “The starting point is understanding what we have now,” Tony says. “The internal changes to the hub process, and the fact that everything is made digital by default, enables us to make use of the data we are already gathering – hours flown from medicals, for instance, or aircraft hours from ARCs. You’ve got to be careful with data – yes, you can do a lot with it, but if all we do is to put a greater requirement on GA to provide more data that’s of no real use or doesn’t drive change, that’s counter-productive.”

The elephant in the room is, of course, EASA. There, too, change is coming about, although it’s jerky and sclerotic and hamstrung by European labour laws which make it all but impossible to get rid of dead wood. With EASA’s effective stranglehold on certified aircraft, can the CAA really expect to engineer beneficial changes?

“We do have influence,” Tony says. “We’ve just agreed with Patrick Ky that the UK will chair the national aviation authority group, and that will fall to me. That is being set up to ensure that

technical issues are not opposed by states when they get up to that level. Patrick Ky wants to achieve organisational reform in EASA, but regardless of what happens with that, he is committed to changing the way GA is regulated, to drive through a more proportionate approach. He needs the support of the member states to do this, to get it through the Management Board and eventually through to Commission decisions, so it’s about influencing the drafting at the development stage, and working with other states to take it through.

“As to the notion of EASA devolving responsibility onto national authorities, that’s a very big issue and it hasn’t got that far yet. There has to be a reality check on what’s achievable. When you get into 28-plus member states, there has to be negotiation, consensus and compromise, and there’s a split in Europe, the more liberal risk-based regulators – in many cases the larger states, but not exclusively – and the smaller old-fashioned tick-box regulation of compliance matrix states. We’ve got to try to bring those two together.

“But if the UK wants to achieve proportionate risk-based regulation for the GA sector, then part of that work is trying to achieve the same through the EASA construct. That has to be done through influence, commitment, dedication and hard work, as opposed to simply saying let’s change the rules, as we can do within the national context.

“Whether I look at the national level or at EASA, all the things you need to achieve change are in place – the only question is how much change can you achieve, and how much resource can you put into it.” ■

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The vanishing twin

Piston twins are disappearing as misguided over-regulation has inevitable consequences. Pat Malone reports

There was a Piper Aztec on eBay in December, and it went for £5,100... far be it from me to say there's one born every minute, but if you knew anything about the history of that particular aircraft you'd have to congratulate the seller on not having to pay to have it removed. Even twins that could one day be made airworthy are languishing for lack of interest – flying examples, too, are struggling to find buyers.

Whatever happened to the once-thriving twin market? There used to be a logical progression for new pilots – PPL, IMC, Night, then the 'B' rating. But private owners and *ab initio* flying schools have got rid of their twins as demand has evaporated, and the vast majority of those who take multi-engine training now are heading for professional careers. Figures compiled by Rod Simpson, editor of Air Britain's *Aviation World* magazine, show that since 1995 the number of piston twins with six seats or fewer on the UK register has fallen from 759 to 393, and the majority of those remaining are with commercial flight training schools.

As the aircraft numbers have dwindled, so the number of instructors has fallen, with new people declining to invest money in multi-engine instructor qualifications and those who have them allowing them to lapse because of the expense of keeping

them up. The affect on the whole of general aviation has been stark, because piston twins generally brought in more money than singles, and the cost has been paid in lost jobs and turnover in maintenance, sales and support services. Contrast the situation in the UK with that in America, where piston twins consume some 70 percent of all avgas sold. How have we contrived to hole our own boat in this way?

Fuel tax is a major killer. In America, avgas costs around 90p a litre, as opposed to £2.10 here. The result is that the thriving general aviation industry in the USA creates more wealth, employs more people and ironically generates more tax for the government than in the UK. Across Europe, the only successful twins are the

Diamond DA42, which burns JetA1 and allows operators to enjoy some of the same tax breaks as the airlines, and the Tecnam P2006T, which has Rotax engines that can run on mogas.

But the destruction of the twin market began with the Joint Airworthiness Regulations in the 1990s. Before the JARs, a twin rating was relatively easy to get and could be kept current by making one multi-engine flight with an instructor every year. While this was deemed by many to be insufficient to assure safety, the cure has effectively killed the patient, and forced those who flew twins over seas or hostile terrain to revert to flying singles. The JARs introduced a requirement for 70 hours PIC before you could even do a twin rating and introduced an annual proficiency check

Top: hundreds of twins have disappeared from the UK since new regulations made them even more difficult and expensive to keep
Right: the CAA decided that engine overhaul and replacement should be based on the calendar age of an engine rather than condition and the number of hours flown



with an instructor – regulations which have been adopted by EASA.

Furthermore, the pointless additional maintenance costs piled on GA by the CAA, the JAA and EASA hit twins particularly hard. The CAA decided that engine overhaul and replacement should be based on the calendar age of an engine rather than condition and the number of hours flown. This applied to commercial aircraft, but most private owners leased their twins to flying clubs to recoup some of their overheads and were caught in the net. No safety reason could be found for the change, but because most light twins were flying relatively few hours it represented a serious multiplication of maintenance costs. Junking two good engines after 12 years costs £50,000 or more, and as a result many of the hundreds of twins lost to the G register went for scrap at that point.

AOPA's CEO Martin Robinson, who unsuccessfully fought against the JAR requirements on multi-engined aircraft back in the nineties, says: "The people who argued for increased currency requirements told me that anyone who could afford to fly twin-engined aircraft could afford the few thousand extra it would cost to keep their licence – the same argument I often hear now whenever they want to increase costs. But as this situation proves, the end result is that they kill the golden goose.

Top right: Tony Arthur, struggling on with an Aztec despite high mandated maintenance costs

Right: Tony's Aztec – lovely to fly, but misguided regulation has made such aircraft a rarity in Britain

Below: despite the sophisticated panel, including S-Tech autopilot, the value of the Aztec is not great

"The effect is felt throughout general aviation, with less flying activity, lost landing fees, fewer instructors working, less avgas sold, less work for engineers. Even beyond the JAR requirements, the EASA CAMO system hammered another nail in the coffin of the legacy twin, and many who were on the edge of viability before the CAMO were tipped over by the EASA requirements. I know people now who flew twins back in the 80s and 90s but who now fly singles on long over-water legs, and that's clearly detrimental to safety."

Struggling on

One who struggles on today with a twin is retired Cornish hotelier Tony Arthur, who has managed to hang in there because his Piper Aztec is on the American register – but he's unlikely to soldier on for much longer. When he bought it ten years ago it cost £500 to fill up; today it costs £1,200. The death-blow will be the Notice 75 requirement for propeller overhaul every six years, however little the aircraft has flown, which means a £5,000 bill which is usually set against a few hundred hours

flying. "In America it's on condition under the supervision of your maintenance organisation, and that's sensible," says Tony. "Here, coming on top of everything else it renders the aircraft unviable."

Tony and his wife Vanda retired in 2003 and bought a derelict chateau in Cognac with a view to turning it into flats. "Getting to and fro from Cornwall took at least 17 hours by road, but it was less than three hours in the Aztec to the nearby Chateaubernard air base," he says. "I needed to take some people with me – masons, joiners and others – so I valued the six seats, and two engines increased safety on the long over-water legs. The Aztec is a great load lifter, able to take six people and 300lbs of baggage.

"Fuel was expensive, but the Channel Islands was en route and the extra AOPA fuel discount there it eased the pain. I could get from Guernsey to

Chateaubernard and back on one tank. It takes 500 litres and burns 100 litres an hour at economy cruise. If you set 145kt you'll get 95 litres per hour, 165 kt gives 110 litres per hour.

"I went to the States to get an FAA licence, which meant I only had to have a revalidation with a US examiner every second year. Even without all the unnecessary stuff, maintenance is expensive – it's very labour intensive to work on and the cost of getting at it is high. But it's very reliable and a joy to fly, with exceptional short-field performance."

Tony leased the aircraft out, but a prop strike last year looked like the end of the road. "The engine was on condition," Tony says, "but the insurers would not shock-load test a time-expired engine, and the cost of zero-timing the engine was prohibitive. If we did it for one engine, the aircraft wasn't worth a penny more unless we zero-timed both, and that looked like the thick end of £35,000. I couldn't get anywhere near a price for it, so it probably meant the scrapheap.

"But I was lucky enough to find a second-hand engine and prop out of an Aztec in a similar position, and eventually I was able to put it back in the air for £10,000. It was a close call, and I have to say next time a big bill threatens, she'll go for spares." ■



EASA and the balloon business

*EASA's inexplicable over-regulation is killing the balloon industry, says **Don Cameron***



Left: Cameron's hot air balloons are slow and uncomplicated flying devices



The hot air balloon industry is small, employing perhaps one thousand people in the UK and ten thousand in the entire EU. But it is now being destroyed by a large and unnecessary increase in the regulatory burden.

Hot-air balloons are simple devices.

They travel slowly and have no complex systems. As a result, they are the safest form of sporting flight and the statistics for general aviation accidents fully confirm this. Unfortunately, since the advent of EASA there has been a steady increase in regulatory burden and associated costs,

quite unrelated to any safety benefit.

Because balloons have a much lower unit cost than other aircraft, the cost of the unnecessary bureaucracy has a disproportionate effect.

The onslaught of this over-regulation has taken time, but it is now beginning to bite.



The ballooning industry is divided into three main sectors: firms offering passenger flights, balloons used for advertising, and balloons used for sport and training. It is this last group which is suffering most, because its number of flights per year is low. That causes each

flight to carry hundreds of pounds of bureaucracy cost. Entry to the sport is now prohibitively expensive, and there are few new pilots.

The number of balloons sold by Cameron Balloons Ltd in the last few years is as follows: 2010, **130**. 2011, **122**.

2012, **106**. 2013, **82**. Because new balloon registrations world-wide are published, we know that other balloon builders are suffering similarly, in some cases more. Both of the British manufacturers have been forced to impose large redundancies in 2013.

The dominant theme of EASA regulation is to treat balloons as if they were airliners. Those who fly light aeroplanes and gliders are suffering inappropriate regulation for the same reason. Of course, balloons do not resemble airliners even slightly and the result is that useless and burdensome rules have replaced the much better British regulation which had been developed by careful negotiation between the British Balloon and Airship Club and the CAA over many years.

EASA claim to consult on their proposed new rules, but it is impossible for us to devote the resources to represent ourselves. At times we have been confronted with 700 page documents.

Some of the problems are as follows:

Manufacturers' Approval

Under the old system, balloon manufacturers were approved by the CAA. Under EASA, a manufacturer now needs four approvals. The company must be separately approved as a design organisation, as a production organisation, as a repair and maintenance organisation, and as an organisation able to certify continuing airworthiness. We were at first astonished to learn that as an approved manufacturer we were no longer allowed to do repairs. Each of these implies the writing of an exposition which will satisfy the bureaucrats and the payment of greatly increased fees. The increase in ongoing useless paperwork imposes a further cost, and all of this expense can only end in the price of the finished product.

Certificate of Airworthiness

Under the old system a certificate of airworthiness, for private flights, was voluntary, although a very good system was operated by the British Balloon and Airship Club and most owners availed themselves of it. BBAC inspectors would usually do an annual inspection free of charge.

Over a period of 40 years, there were no serious accidents that could have been prevented by stronger airworthiness regulation. **The question that must be asked is, how big a field experiment would it take to convince these people?**

The new rule is that a Certificate of Airworthiness is compulsory and we need, in addition, an Airworthiness Review Certificate (ARC). This is a completely pointless certificate to certify that there is a certificate. This is all with accompanying fees. Inspectors now have so much paperwork to do (four hours or so, after an inspection that only takes one hour) that



they are no longer willing to work free and some are resigning.

Once again the balloonist has to pay, pay, pay.

Innovation

One less obvious effect of the voluntary system was that innovation could go ahead unhindered. The United Kingdom made almost all the technical advances in ballooning over forty years and many special flights and records were achieved. Flights such as the first balloon to fly around the world (achieved by Cameron Balloons in 1999) would now be legally impossible.

Medical Examinations

A medical emergency in an aeroplane with a single pilot is a serious matter and could easily be fatal for all on board. Medical examinations make sense for aeroplane pilots (although opinions differ on whether they really are any good at predicting sudden illness in the following year).

But a balloon is completely different. If the pilot ceases to act, it will descend at parachute speed for a landing which will be rough, but survivable, unless there is some very unlucky ground feature.

For an incapacity with a slower onset, it is also quite different in a balloon. If an aeroplane pilot wishes to land quickly, he must find an airport. A balloon, in contrast, can almost always land within the next minute immediately below (if an emergency is bad enough to ignore courtesy to those on the ground, respect for crops etc.).

There should be no medical requirement for balloon pilots at all. The old British system required only a pilot's declaration countersigned by the GP, but now EASA is proposing to require expensive examinations by aviation doctors. Of course the doctors say it is a good idea because it is money for them.

Balloons have been flying for 230 years (more than twice as long as aeroplanes). In all that time, there has never been a case of an accident caused by a pilot's medical condition. **Again, is this a big enough field experiment to prove that the burden is unnecessary?**

Balloon Training

Under the old system, balloon pilots could train by flying with any pilot, with only a few flights with BBAC appointed instructors. Now EASA will require that all instruction must be with approved instructors. Even worse, these instructors must be controlled by an Approved Training Organisation (ATO) which must keep records centrally every time a training flight is made. This creates purposeless expense.

Forming an ATO, which the BBAC is trying to do, means once again the writing of pointless manuals and, of course, the



Above: how many bureaucrats and how much paperwork do you need to do this?

Left: the balloon industry goes up in flames as the civil servants take over

payment of yet more fees by the ATO and by the instructors. These costs will be passed to the trainees. Smaller European countries will not have the resources to do this and their student pilots will have to go to other countries to train. The discouragement of new entrants could not be greater.

Under the old system an exemplary safety record, far superior to aeroplanes, was achieved. **Once again it must be asked is, how big a field experiment would it take to convince these people?**

Licence Renewal

EASA is going to demand that every balloon pilot must periodically make a revalidation flight with an examiner. This will take time and cost and has no justification in the accident rate. But it is what is done with airliners...

And there's more

The new bureaucracy is showing no sign of slowing. There are new announcements at regular intervals. Pilots must obtain a certificate of language proficiency in English (less of a problem for us, but a barrier for some of our customers). Pilots have to attend seminars, at a cost in time and money, instructors and examiners have greater initial and ongoing training requirements and, of course, more fees which they have to recover from students.

The Latest

Only two days after I had finished writing the above, a new burden arrived. The British Civil Aviation Authority (which is now a branch office of EASA) has announced an 'initiative' to demand that we should make audit visits to our UK and overseas suppliers accompanied by a CAA inspector. They add the condition "The costs will be recoverable from the Production Organisation Approval holder." This has been dreamt up, despite there being no safety problem identified in the last 40 years with our existing quality control system that could suggest that it might be useful. In this case, the CAA is "gold plating" the already excessive EASA regulations. ■



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The failure of EASA to certify the Robinson R66 is rapidly turning into a scandal as the Agency piles more and more absurd demands on the manufacturer while racking up astronomical invoices for its 'services'.

In October it will be four years since the FAA certificated the Robinson turbine, and some 500 R66s are now working around the world. EASA's refusal to certify the aircraft – characterised as 'protectionism for Eurocopter' when the delay was first highlighted two years ago – is costing operators in Europe millions at a time when they can ill afford the loss.

While EASA ties the American manufacturer in pedantic knots, it is charging obscenely for the privilege. EASA's bills to Robinson for its work on the R66 are approaching one million

dollars and are increasing by around \$25,000 a month, with no end in sight. In contrast, certification was free in the USA and cost \$170 in South Africa. The CIS (Russia) is the second-priciest certification regime, but even there it totalled \$178,000.

The R66 costs about half as much to buy and run as the competition and has found a ready market in every corner of the globe except Europe. With five seats, it is pitched against Eurocopter's small turbine, the EC120, which is not selling well. Recession-hit operators who want to use the R66 in Europe believe the delay cannot simply be explained away by incompetence on EASA's part – it can only be deliberate, and it can only be politically motivated.

The R66 is Robinson's first turbine helicopter, and operators say there is a pent-up demand for it in Europe. Robinson has an established track record and a strong fan base in Europe – a recent capacity review by Jeremy Parkin's excellent website HeliHub.com found there were 738 R22s and 1,155 R44s in EASA countries. Estimates of potential sales of R66s that could already have been logged range from 500 to 1,000.

Last year, Robinson sold 192 R66s around the world. In contrast, Eurocopter is believed to have shifted only 13 EC120s, some rumoured to be at significant discounts. Enstrom, whose 480 may be thought to compete against the R66, is thought to have made 18 in 2013.

EASA's first blocking tactic centred on a valve in the hydraulic system. Given that this valve had performed flawlessly in the piston-engined Robinson R44 for 26 million hours and had been in service in the Bell JetRanger since the 1960s, the FAA in America grandfathered it onto the R66 during their certification process. EASA, however, demanded proof that the valve would operate without failing for one billion hours – something the Robinson fleet would accomplish in about 400 years.

Canada also refused to accept the FAA's grandfathering, despite the fact that unlike other turbine helicopters, the R66 remains controllable hydraulics-off. So the Feds raised a different piece of paper effectively stating that the valve had complied with their requirements by alternative means, after which the Canadians certified the machine. EASA also accepted the alternative means of compliance on the valve. Nothing was changed in the



EASA and the R66 scandal

hydraulics – the Agency simply accepted a different piece of paper.

But that was just the start. The litany of nit-picking that has occupied the last four years is nothing short of incredible. EASA refused to accept the FAA's test results on tail rotor authority. There were long delays while the results were rewritten in a form EASA would accept. Again, the problem was not with the aircraft and nothing needed to be re-tested – it was purely the way the boxes had been ticked.

Then the Pilots Operating Handbook had to be rewritten because EASA objected to the numbering and sequencing of the paragraphs. Again, there were long delays while the industry discovered what EASA wanted, then got the job done. And again, the problem was nothing to do with the aircraft – EASA has simply decided the paperwork was not to their liking.

But the current stumbling block beggars belief. Two and a half years ago it was discovered that there may be quality issues with a batch of nuts from a contractor who supplies dozens of aviation-related manufacturers. There are thousands of these nuts flying around out there, most of them on already-certified aircraft, and EASA is showing little concern over them. (None of the nuts has failed, they're just suspect). The Robinson R66 contains none of these nuts. However, they are a standard fitting and could theoretically be used on an R66 – so EASA is requiring Robinson to come up with a procedure that will satisfy the Agency that it would not be possible for someone out in the field to put a suspect nut on an R66. That is near-impossible, as EASA well knows.

While EASA's bureaucrats have been indulging themselves, the bills for their 'services' have been piling up. The Agency has submitted three invoices to Robinson, for €281,400.85, €180,651.82 and €290,182.95 to cover work done up to the end of 2012. Robinson paid the first two but balked at the third, stating that "an appropriate and fair flat type acceptance fee should be determined" for certification costs. Their appeal to EASA over these costs has failed, and Robinson now has two months to decide whether to appeal to the authority of last resort, the General Council of the EU.

HeliHub.com quotes the comparative cost of certifying the R66 in other countries, including these examples: \$2,709 in Argentina, \$18,759 in Brazil, \$80,650 in Canada, \$7,253 in Chile, \$6,048 in Japan, \$5,875 in Malaysia, and \$6,837 in Mexico.

Robinson Helicopter Company described the EASA bill as being "well over ten times what would be necessary to recover costs" and went on to observe: "There is a conflict of interest between regulation and revenue generation. It is... to the financial benefit of EASA to minimize resources applied to a type acceptance program and to maximize the depth of review and generation of certification review items. In all other countries where aircraft certification cost recovery is implemented, there is a recognition of this conflict, and in the interest of fairness a limit is set on the amount recoverable or the fee is independent of the time taken to complete acceptance. The concept of paying more to receive less is the opposite of normal economic principles. This makes the fee structure fundamentally unfair."

The Board of Appeal dismissed Robinson's case on the grounds that it was powerless. "The Board... is not empowered to question the legality of provisions of an act such as fees regulation... The Board cannot question the 'prices' set by the (European) Union legislator even if it were established that they amount to abuse of the monopolistic



position that the Agency holds in providing the certification tasks that the basic regulation confers upon it."

For charter operators who should have been flying the R66 profitably in Europe for years, for sales and maintenance companies, the costs run into many millions. The R66 has flown around the world, it has landed at the North Pole, and no safety issues have been identified. Those who have flown it say it is powerful, forgiving, and relatively easy to fly, even hydraulics-off. With five seats it is the perfect charter and sightseeing helicopter, where room for two couples is necessary. But operators are reduced to using out-of-production JetRangers or power-limited EC120s for this work because EASA stands in the industry's way.

But what can be done? EASA is answerable to nobody. Dr Norbert Lohl, its Director of Certification, refuses to discuss



the R66 with the industry, and nobody can force him. The European Commission doesn't want to know. The European Parliament is impotent. It's increasingly difficult to refute industry claims that EASA is rotten through and through, populated by untouchable 'public servants' bereft of knowledge and understanding but possessed of a religious reverence for paperwork, pointless box-ticking and extortionate demands for money.

EASA is wallowing in cash, with a surplus of some €20 million to get rid of. It is planning to move from one side of the Rhine to the other in order to give its employees a more congenial working environment – a move which it accepts will soak up most of

Above: Eurocopter's EC120 – not selling well
Left: R66 is Robinson's first turbine helicopter

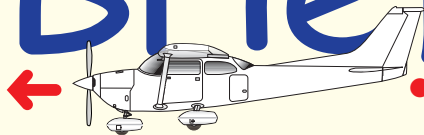
its cash surplus.

The only hope for the industry rests with its new Executive Director, Patrick Ky, who took over from Patrick Goudou towards the end of 2013. Ky has said in interviews that he recognises there are real problems at EASA, but says European labour laws and job guarantees make it difficult to address them.

Ironically, EASA's campaign favouring the EC120 comes at a time when Eurocopter – now renamed Airbus Helicopters – looks like it intends to abandon the lower end of the turbine market and possibly strike the EC120 off its list. The new Chief Executive Guillaume Faury plans to concentrate the company's resources on more sophisticated and costly helicopters. The high level of activity at Eurocopter has caused delays in flagship programmes such as the EC175, the EC145T2 and the AS365N3e Dauphin, and Faury wants to improve productivity in these areas. He is also keen to direct more resources to the X4.

In an interview, Faury made it clear his vision for Airbus Helicopters was profoundly different from his predecessor Lutz Bertling's plans for Eurocopter. "We are selling high-end helicopters," he said, rather than the "best value for money" models Bertling favoured. ■

Briefings



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The Canadian Warplane Heritage Museum's Lancaster (below) will hopefully formate with the BBMF's PA474 (top right) in August

Canadian Legion in Goderich, Ontario, where it had been on outside display. It took eleven years to restore it to flying condition, and it flew again on September 24th, 1988.

The aircraft is dedicated to the memory of P/O Andrew Mynarski and is referred to as the 'Mynarski Memorial Lancaster'. Andrew Mynarski won the Victoria Cross on June 13th 1944 when his Lancaster was shot down in flames by a German night fighter. As the bomber fell he attempted to free the tail gunner trapped in the rear turret of the blazing and out of control aircraft. The tail gunner miraculously survived the crash and lived to tell the story, but Andrew Mynarski died from severe burns.

The BBMF Lancaster PA474 was built at Hawarden in May 1945, just after the war in Europe came to an end. She flew with No 82 Squadron in East and South Africa until 1952, before being used at the Royal College of Aeronautics at Cranfield as a testing platform for experimental aerofoil sections. In 1964 she was adopted by the Air Historical Branch with a view to putting the aircraft on static display in the proposed RAF Museum at Hendon. While still flyable she took part in two films, 'Operation Crossbow' and 'The Guns of Navarone'.

During restoration at Waddington PA474 was flown regularly, and she joined the BBMF Flight in 1973. Restoration work on some part of the aircraft has continued ever since. Since 2007 she has worn the markings of Lancaster EE139, the 'Phantom of the Ruhr', one of only 35 Lancasters to complete more than 100 operational missions.

Bomber Command suffered a casualty rate matched only by the German submarine service; out of a total of 125,000 aircrew, 55,573 were killed – a 44.4% death rate. A further 8,403 were wounded in action and 9,838 became prisoners of war. ■

Two Lancs to fly together

The last two Lancasters still flying will come together in a series of events in England this summer – a meeting unlikely ever to happen again.

The Canadian Warplane Heritage Museum will fly their prized Avro Lancaster to the UK for a month long visit, arriving on August 8th. While here it will lodge with the Battle of Britain Memorial Flight's Lancaster at RAF Coningsby. The pair will make a number of joint appearances.

The Canadian Lancaster will depart from Hamilton, Ontario on August 4th to cross the North Atlantic with stops at Goose Bay, Narsarsuaq and Keflavik. On arrival in England it will undergo a scheduled maintenance inspection before the Canadian crews complete a short training programme with the BBMF in preparation for their joint participation in several air displays and fly pasts involving both aircraft.

These displays will celebrate the exceptionally close British – Canadian relationship and commemorate the sacrifice and dedication of Commonwealth bomber crews, as well as the professionalism of both nations' air forces today.

Canadian Warplane Heritage Museum President and CEO Sqn Ldr (Ret.) David G. Rohrer C.D, who is a current Lancaster pilot, says that this Atlantic crossing and visit to the BBMF in England is a once-in-a-lifetime event as it will not happen again.

Rohrer says: "A rare window of opportunity was identified to bring the last two flying Lancasters in the world together as a special salute to all the veterans of Bomber Command, many of whom are in

their late 80s or older now."

Sqn Ldr Dunc Mason, OC the BBMF, adds: "To see these two aircraft flying at events together will be a unique sight and an opportunity to truly commemorate those who paid the ultimate sacrifice. Lest We Forget."

In all, 7,377 Lancasters were built in the UK and Canada, and about 3,500 of them were lost on operations. The Canadian Lanc was one of 430 Mk Xs built at the Victory Aircraft works at Malton, Toronto, between 1943 and 1945. Later converted to a RCAF 10MR configuration, it suffered a serious accident in 1952 and received a replacement wing centre section from a Lancaster that had flown in combat over Germany. It served as a maritime patrol aircraft with No. 405 Squadron, Greenwood, Nova Scotia, and with No. 107 Rescue Unit in Torbay, Newfoundland and was retired from the RCAF in late 1963.

With help from the Sulley Foundation, it was acquired in 1977 from the Royal



Three Avro Lancaster B.1s of No. 44 Squadron, Royal Air Force, based at Waddington, Lincolnshire, flying above the clouds in 1942



Royal Charter for Guild

GAPAN, the Guild of Air Pilots and Air Navigators, has been accorded a new status by the Queen and will henceforth be known as the Honourable Company of Air Pilots.

The 85-year-old organisation, formed to promote safety and best practice in pilot training, has received a Royal Charter and has been accorded a singular accolade by Her Majesty, becoming only the fourth City company to carry the 'Honourable' title since the seventeenth century. The distinction, which is in the gift of the monarch, has only previously been granted to three companies: The Honourable Company of Master Mariners by King George V, when their Master was Edward, Prince of Wales; The Honourable Artillery

Company, in 1656; and The Honourable East India Company – now defunct.

His Honour Judge Tudor Owen FRAeS, Master of the Air Pilots, unveiled the new name and crest on the nose of a Lockheed Martin F-35 Lightning II. Tudor, – universally known in general aviation as 'Flying Lawyer' or more recently 'Flying Judge' – says: "As an active 21st century organisation, we are very privileged to receive this rarely bestowed historic title."

The Grand Master of the Air Pilots is Prince Andrew, and the Patron is the Duke of Edinburgh. Both pilots, they actively supported the grant of the Royal Charter and new title. Princes William and Harry are helicopter pilots, making the Air Pilots unique among City livery companies in

having active Royal participation in its profession.

Through its charitable activities, education and training, technical committees, aircrew selection, scholarships and sponsorships, advice and recognition of the achievements of fellow aviators worldwide, the Honourable Company of Air Pilots keeps itself at the forefront of the aviation world.

It'll take a bit of getting used to, but apart from the Queen's benediction, the new name is a big improvement on the old. 'GAPAN' was always an unwieldy title – the dwindling band of Air Navigators may however feel a little forsaken, although the new title adds the words 'incorporating Air Navigators' in small letters beneath the main title. ■

Laser lout reward

The FBI in the United States is offering rewards of up to \$10,000 for anyone who helps them catch someone pointing a laser at an aircraft.

The FAA says reported laser incidents have gone up by a factor of ten since it started collecting data in 2006. Last year there were 3,960 reported incidents in America. Federal law imposes a penalty of up to five years in jail – in March, a man in California was sentenced to 30 months in prison for pointing a laser at a small jet.

As reported in the last issue of *General Aviation*, Judge Tudor Owen jailed two men in East London for a laser attack on a police helicopter, but his robust approach has been undermined by the CAA who have introduced a specific offence of pointing a laser at an aircraft, but the maximum punishment is only a fine.

The Worshipful Company of Coachmakers and Coach Harness Makers is introducing introduce a new Tiger Moth flying scholarship in memory of Sir Geoffrey de Havilland. The Coachmakers' Company, a City of

Moth scholarship



London Livery Company, raises and distributes charitable funds in the aerospace, automotive and coach making industries.

Training will take place in the DH82A Tiger Moths of the Cambridge Flying Group at Cambridge Airport. The scholarship invites applications from people of up to 30 years of age who have not previously been awarded any such bursary. The stated aim is to make a significant difference to the applicants' opportunity to learn to fly. No previous flying experience is required.

The scholarship value is approximately £4,500 and is to be match-funded by the winner.

Golden Arrows

The Red Arrows, who made their first-ever public appearance at the Biggin Hill Air Fair in 1965,

will reprise that performance at Biggin on June 14th to mark the anniversary of their 50th display season.

Back then, the team was flying the Folland Gnat, the lead-in jet trainer of the era. They swapped the Gnat for the Hawker Siddeley Hawk. In their time they have performed around 5,000 displays, including many appearances at Biggin.

The June show is not strictly a 'Biggin Hill Air Fair' – it will be called 'The First Festival of Flight' and is a one-day air event.

These are planned to take place on an annual basis for the foreseeable future. As with the Air Fair, the day will incorporate a number of world-class display items, including Spitfires and Hurricanes from Biggin's own Heritage Hangar. There will also be classic car and military vehicle parades, a motor cycle display team, model boats on a special water facility and radio-controlled cars for families. A maximum of 15,000 tickets will be available for sale.

Airport Managing Director Will Curtis says: "While the new event should not be compared with the previous International Air Fair series, our plan is to make it a family-friendly occasion with a variety of good entertainment and no overcrowding. Sales will close when we reach our stated level."

Tickets will be on sale through the Festival website www.BHFOF.co.uk



CTC goes to America

UK-based pilot training company CTC Aviation is ploughing \$7 million into a new training centre in Arizona in co-operation with Lufthansa Flight Training. The facility, in Phoenix, will train up to 200 pilots a year.

CTC believes the American airline industry is poised for further growth and calculates that between now and 2020 the aviation industry worldwide needs to find some 235,000 new pilots. The recovering US airline sector, an increase in the number of pilots training there and new legislation in the US on how pilots are trained will fuel demand for training.

FAA rules now demand that First Officers flying for Part 121 carriers have an ATPL and at least 1500 hours before they can take the right seat. New flight training requirements have also been imposed. While the new FAA requirements have dramatically increased costs to trainee pilots, starting salaries at US regional airlines continue to languish. According to the American Air Line Pilots Association, the average first officer starting salary at 14 US regional carriers is \$21,285 – about £12,700.

CTC works with 50 airlines including British Airways, easyJet and Qatar Airways. During the year to June 2013 it made sales of £41 million, a 46% increase on the same period in 2012.

Bell has unexpectedly unveiled a new helicopter, the Bell 505 JetRanger X, to supersede its iconic but discontinued 206 JetRanger. The helicopter is designed to accommodate five occupants and will sell for around \$1 million.

The aircraft will have Garmin's integrated G1000 glass-panel avionics and a Turbomeca Arrius 2R engine with dual-channel FADEC. Targeted performance numbers include speeds greater than 125 knots, a range greater than 360 nm, a max gross weight of more than 1,500 pounds and hover capabilities above 11,000 feet. First flight of the 505 is expected later this year.

With the 505 Bell seems to be aiming directly at Robinson's R66 and filling a market Eurocopter looks likely to vacate.

Million-dollar Bell?



Malcolm Cook



Lydd to extend runway for 737s

The £25m runway extension at Lydd is expected to be put out for tender shortly, and new terminal will follow when passenger numbers justify expansion. Approval for Lydd's development was hard-won after an eight-year battle for planning permission, and airport bosses are keen to press ahead. The airport is working through more than 60 pre-commencement conditions, including environmental, noise, traffic and other conditions already agreed as part of the planning approval.

Lydd celebrates its 60th anniversary this year and has ambitious plans to increase passenger figures to the levels that once made it one of the busiest in Britain – in 1958 it handled 223,000 passengers. The 294m runway extension, plus a 150m starter extension, will open the airport up to 737-type aircraft.

Lydd now plays on being within easy access of the M20 and just 14 miles south of Ashford, with its high-speed rail link to London in 37 minutes.

And the winner is...



Tecnam has established itself as the world's largest producer of general aviation aircraft, delivering a new aircraft every working day. The Tecnam

P92 worldwide fleet exceeds over 2,500 aircraft, more than 150 twin-engined P2006Ts have been delivered, and the Astore VLA has had its first flight. The P2008JC VLA was certificated by EASA

during 2013, and with other aircraft on offer the company has become a favourite of GA flight training organisations around the world.

This year Tecnam expects EASA certification for the Tecnam P Twenty-Ten, voted the best general aviation aircraft at Aero Friedrichshafen in 2013. With an advanced technology all carbon fibre fuselage with a metal wing and stabilator, the single engine four seater with a Lycoming IO-360-M1a engine provides 180hp and 2700rpm. ■



By 'eck, Gromit...

Britain's only maker of motorcycle sidecars, Watsonian Squire, has relaunched one of its more successful post-war products, the 'Meteor' sidecar originally made from redundant Mosquito drop-tanks.

The company, which has been building sidecars for more than 100 years and was once a major component of UK plc's manufacturing capability, ceased making the Meteor more than sixty years ago when the supply of Moszy drop tanks ran out. Watsonian had got hold of a job lot of tanks from the Air Ministry at the end of the war and made 601 chair-sets before

stopping production of the model in 1949.

Made from stretched and spun plywood, the tanks were light and aerodynamic, perfect for adaptation as sidecar bodies. The modern incarnation, using a mould taken from one of the original plywood bodies, is made from fiberglass on a tubular steel chassis. The picture shows a Watsonian Meteor coupled to a Moto Guzzi V7 Racer in front of de Havilland Mosquito TT35 at the RAF Museum at Cosford.

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Iceland

the aviator's home

For the first time, Iceland is hosting the Regional Meeting of IAOPA Europe in May.

Haraldur Diego sets the scene

Placed on a geographical hotspot, where the two tectonic plates expand away from one another, Iceland provides landscapes like no other. A world like no other, filled with glaciers, active volcanoes, lakes and green pastures. A place where you can go from black, sandy beaches to glaciers in five minutes, and might have to wear your sunglasses in the middle of the night. And, a place that's only two hours flight time from London in a Boeing, a few hours more if you're flying a Cessna.

It is also a home to many pilots, aircraft and even a few airlines. Icelandair and WOW Air fly use Keflavik Airport as their base, transporting people to and from the island. A few Icelandic operators operate into Greenland, and then there is the ACMI operator Air Atlanta Icelandic that flies passengers and freight mostly out of and into Saudi Arabia. Icelandic planes traverse the world every day.

Perhaps due to Iceland's small population of 330,000, the inhabitants like to refer to per capita statistics and proudly proclaim high rankings in many areas. It may be interpreted as a sign of grandiosity, but they like to call it coping mechanism for living in this harsh environment. By those statistics, Iceland has the highest number of jets, airlines, pilot certificates, Linked-In members, and tractors. Admitting no defeat, Iceland comes in number two when it comes to car ownership, next to the US.

Planes, trains and automobiles

Not losing the train of thought here, but this article's focus is on the state of aviation in Iceland, the only European country without a railroad system, and understandably so. The 103,000 square kilometer island is sparsely inhabited, with 80% of the population living on the south-west corner and the rest mostly in towns and villages around the coast. One 1332 km circular road connects most parts of the country and is well utilized over the few summer months by foreign visitors in rental cars (or their own) and a few bicycles. Alongside that ring road you'll find a number of airfields, mostly grass or gravel. Before the connecting road was opened, those airfields served as the main means of transportation between parts of the country – not the railroads, like most of Europe.

Piper Warrior TF-SPA gets close to Eyjafallajökull while planes 1000 miles away were grounded by volcanic ash.

Photo: Ólafur Sigurjónsson

In 1919, the first airplane took to the skies over Iceland. It was an Avro 504K piloted by the Dane Cecil Faber. A bit of a barnstormer probably, he took off from a short farm field in an area called Vatnsmyri (meaning water swamp) in Reykjavik. A few years later, that same piece of land that was used for an airport built by the British, and is now the busiest regional airport in Iceland. Its location has been debated throughout its history, with different political parties either in favour or against the airport. The City Council's current majority is firm in its agenda to make Vatnsmyri an aviation-free zone, even though 70,000 people signed an online petition in favour of the airport in its location. The battle for the airport continues, being a major task for the board of AOPA Iceland and other friends.

The state of GA

As everyone European involved in aviation knows, there are constant challenges for keeping our aircraft in the air and our licences in order. The Icelandic aviation authorities have been in the forefront of accepting every word coming from EASA (and previously JAA) as canonical, implementing rules and regulations unfavourable to aviation. Fortunately, for the last few months, there has a slight heading change in this regard, with the local CAA co-operating earnestly with those affected by the rules, and making necessary adjustments to keep airplanes and pilots flying without compromising safety.

Iceland's economy has not recovered fully since the crash in 2008, but things are heading in the right direction. The krona devalued substantially, making visits to Iceland easier on the wallet and exports more economical. Foreign visitors have even been pleasantly surprised by the prices at high quality restaurants, compared to other cities around the world. Of those restaurants you will find a lot, especially ones that specialise in seafood, but the variety of culinary adventures is extensive. Actor and pilot Harrison Ford has said that the world's best Indian restaurant is located in the centre of Reykjavik.

Because all things related to aviation have to be imported, aircraft, fuel and parts for maintenance have doubled in price compared to 2008. Hence, it has never been more expensive to operate an airplane, except for the pilot's pay which hasn't changed a lot for years. Quite a few airplanes have been sold overseas, and more so after the devaluation. There have also been a few new aircraft been added to the Icelandic register lately, mainly for sightseeing services and flight schools which have been increasingly taking in foreign students because of the favourable exchange rates.

The privately owned airplanes are



mainly homebuilts, helping to lower the average age of the fleet. The age is still high, but mostly comprised of meticulously maintained aircraft which will continue to serve their owners for many years to come.

Weather and volcanoes

Weather plays a big role in the lives of Icelanders. It becomes evident if you ever strike up a conversation with a native or read up on the country. Meteorology even has a special term for the semi-permanent low pressure area found around the strait separating Greenland and Iceland – the Icelandic Low. It is a center of action for atmosphere circulation of the Northern Hemisphere, so if you haven't heard of it, you've probably felt its effects if you live in the UK or Scandinavia.

Hence, Icelandic pilots are used to all sorts of weather conditions. Low visibility and high winds are frequently experienced, halting GA flights more than any regulation or oil price may do. But in those days when VFR conditions prevail, there is no stopping us – except for shortage of cash, and perhaps too much ash.

One might think that an IMC rating is a must for every pilot flying around in these parts, but unfortunately it is not. Attaining

Above: TF-GMG is one of two airworthy Cessna 170s in Iceland, manufactured in 1955 and completely restored recently.

Photo: Baldur Sveinsson

Below: the war between ice and fire gives Iceland's its unique beauty

the IFR rating has not become easier in the last few years, maintaining it another issue, especially when considering that most private airplanes are not equipped to fly in IMC. The fleet is ageing and all the costs relating to owning and operating an airworthy piece of aluminum have never been higher. Still, the fuel costs are lower than in most countries of Europe.

Mountain flying is a term we never use, mainly because you can't get very far in Iceland without being in the vicinity of a mountain. It's just called flying here. The ups and downs of mountain flying is ingrained in flight training and when flying, we are constantly reminded of the terrain around us, especially when winds are blowing.

Although the landscape seems harmless on the surface, there is only a thin crust holding back the furnace below – sometimes giving in to pressure. That happens frequently in Iceland, due to its





location on the boundaries of the North American and Eurasian tectonic plates. The continental drift between the two can be clearly seen in the cracks and faults which traverse the region of Þingvellir, located only 35 km. away from the capital. At an altitude of 1500 feet or so, the scenery is quite spectacular, never failing to impress foreign visitors. The island's landscape is still more impressive when magmatic forces manage to rift the crust and erupt.

Such was the case in April 2010, when the infamous volcano Eyjafjallajökull erupted and began spewing ash into the atmosphere. While most of Europe's airspace was closed because of the ash cloud, the air was clear westwards of the volcano so routes to and from North America were open. Until the winds shifted.

Flight around volcanoes

The Eyjafjallajökull eruption was prelude by a much smaller outburst three weeks earlier, some 10 km. to the east, at Fimmvöruháls. When small-scale eruptions like that one occur, we tend to call them tourist outbursts due to their beauty and docile nature. The event turned out to be a major influx into the aviation community as it seemed to attract every single airplane in airworthy condition, many at the same time. So the pilots had to improvise a few basic traffic rules for the area. Using the local advisory frequency, every pilot gave position reports upon approaching the area. Around the eruption, a clockwise, circular traffic pattern was flown, with at least 500 feet separation on the local QNH and maximum three planes at each level of altitude. For all those flying, this turned out perfectly, with no incidents over the time period except for one ultralight that had a landing mishap on the glacier. The impromptu traffic management system was not at fault in that case, but the pilot's misjudgment of the situation. Landing an airplane on a glacier is not anything people without thorough knowledge and skill should attempt.



Midnight sun

Come summertime, the sun hardly sets but merely touches the horizon, providing endless twilight spread out against the sky. From mid-May until late July, there is no 'civil twilight' in Iceland so pilots can fly day-VFR all night long and wear the Ray Bans at midnight. The many outings



Top: The landscapes of the Western Fjords never fail to astonish pilots. On a clear day, one might see the mountaintops of Greenland from 2000 feet

Centre left: Surtsey is the newest island in the world. Humans are only allowed there for scientific reasons, but pilots are able to fly over at any time. Photo: Haraldur U. Diego

Left: The grass runway of Tungubakkar lies only 7 nm from Reykjavik airport, home of Iceland's largest flying club and of around 20 planes. Photo: Haraldur U. Diego.



Above: Múlakot is the epicenter of aviation for the first weekend of August every year when pilots and planes gather for a three day fly-in
Left: Iceland's entire Yak fleet; piloting the Yak 55 (furthest away), is the 86-year-old aerobic champion Magnús Norðdahl. Photo: Baldur Sveinsson

Bottom left: landing short is not advised at the Westmann Islands, where the north-east wind curls over a 360-ft cliff to make the approach challenging

planned for the summer attract flyers from all over the country, with the largest one being held at Múlakot over the first weekend of August each year. Múlakot is located some 10 km. away from the epic Eyjafjallajökull and can only be described as a pilot's paradise, with a single grass runway, maintained and owned by pilots, some of whom have summerhouses at the field. If it hasn't rained for a while, ash is sometimes blown up into the atmosphere, limiting visibility, even years after the eruption. Those few times, the flight visibility is probably akin to what you encounter flying over Los Angeles on a smoggy day.

Summer is the favourite season for the many photographers visiting from abroad to capture some 'earth porn'. There are though quite a few that are willing to endure the bitter cold of winter capturing the northern lights, unavailable during summer. Flying around the amazing landscape is one of the perks Icelandic pilots live for, hardly ever becoming routine for them. There always seems to be a new angle to the landscape, with different lighting or a change in nature's colours to induce the awe.

Not many locations offer such diverse sceneries within a short flight time. In only



about an hours' time of flying from the capital one could expect to see glaciers, waterfalls, sandy beaches, farmland, geothermal areas and various types of volcanoes. Among other things, it is that diversity that has influenced the decisions of movie and TV series producers to film in Iceland. The popular HBO series *Game of Thrones* was shot at various locations here, the blockbuster *Oblivion* featuring the pilot Tom Cruise and *The Secret Life of Walter Mitty* with Ben Stiller are a few good tributes to Icelandic nature. Those projects have probably done more for the local tourism industry than all promotional campaign efforts combined.

The Aurora Borealis is said to be one of the main reasons for people coming to Iceland, and while they seldom fail to impress, the cultural aspects of the nation living there is still a major influencer of the decision to come visit. The Icelandic music

Top left: The small town of Ísafjörður has one of the more challenging approaches, well-managed by the Fokker 50 and Dash 8s of Air Iceland

Left: few planes are more suitable for Iceland than the Super Cub – TF-KAJ is an outstanding example

scene has been blossoming for years and has produced artists such as Sigur Rós, Björk, and Of Monsters and Men. Listening to the music of Sigur Rós under the dancing Northern Lights has been described as the closest you get to an out of body experience without flat-lining.

Worth fighting for

Icelandic pilots still enjoy a high level freedom as compared to pilots in many other European countries. Most airfields are maintained and operated by the authorities, and although many are privately run, using all of them is free of charge. No ATC or landing charges are collected for most GA aircraft, and fuel prices are still in the lower spectrum of what European pilots are used to.

When foreign pilots visit Iceland, they often mention this freedom with envy. The pilots of Iceland know that this privilege is not to be taken for granted, and continue to preserve it by means of open discussions and by promoting knowledge of the importance of general aviation and its influx on society. International cooperation within the AOPA network has been very constructive in those matters, and hopefully will continue to be so. There is still a lot of work to be done.

Hence, there are many reasons for naming Iceland as one of the best places in the world for flying. The impressive landscape, combined with the freedom to roam the airspace at will makes for an ideal aviator's home. And of course, you are welcome to visit at any time.

**Haraldur Diego has been flying for over 20 years and now serves as a board member of AOPA Iceland. ■*





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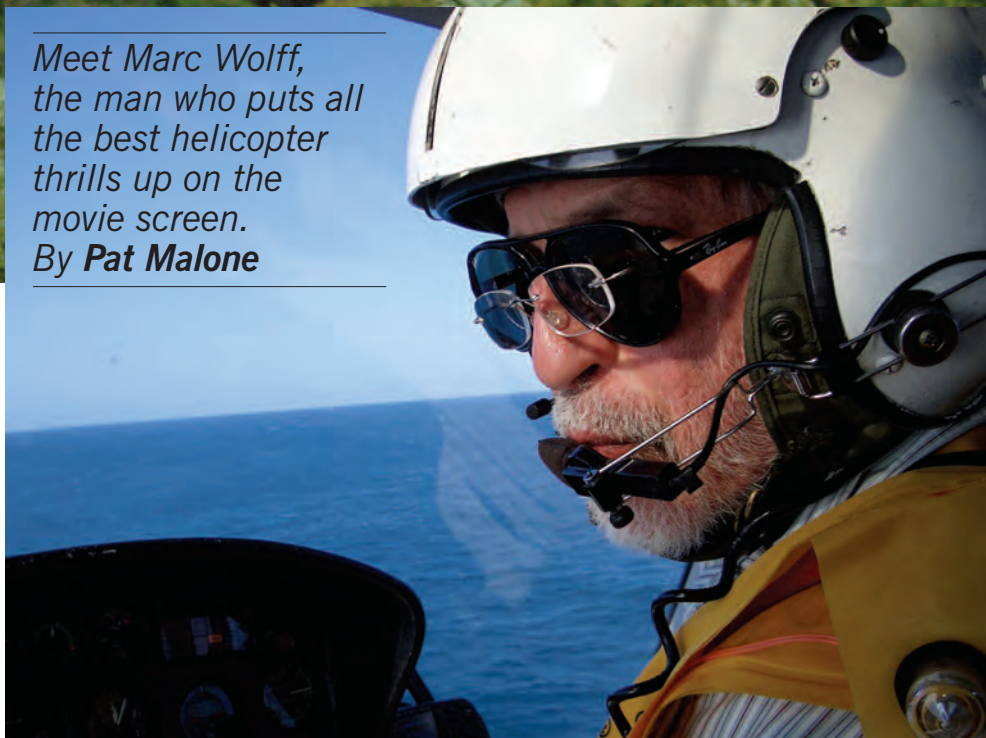


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movie screen.
By **Pat Malone***

You know Marc Wolff. That is to say, you know his work. You're a pilot, so when you're at the cinema and the helicopters appear on the screen your mind follows a different trajectory from those of ordinary folk... you forget the plot, sit forward in your seat and marvel at how those shots were got. The chances are that if ever a helicopter shot sticks in your mind, the man at the stick was Marc Wolff.

Eleven Bond movies, the entire Harry Potter canon, the Star Wars franchise, the Superman series, *Black Hawk Down*, *Air America*, *The Vertical Limit*, *Cliffhanger* – Marc has flown for more than 200 feature



films and hundreds more big-budget commercials or TV shows, and has himself been the subject of an hour-long TV documentary, *Shoot to Thrill*. Dropping 'The Queen' and 'James Bond' into the Olympic Stadium during the opening ceremony might be seen as the pinnacle of his career, but you wouldn't bet on it because he's not done yet.

Marc Wolff is probably the highest-paid helicopter pilot on the planet. He rubs shoulders with the stars, he travels the world first class, and any top film director with serious air work to do looks to see if Marc Wolff is busy. But despite his glamorous life and the unique achievements of his 14,000 hours in the air, Marc is softly-spoken, self-effacing and diffident. Ever-ready to tell a story against himself, he won't mention the 22 awards of the Air Medal and the Bronze Star in Vietnam – you have to find that out for yourself. A naturalised Brit who lives in Cornwall, he was the youngest Captain in the US Army at the age of 21. He can make a helicopter dance and sing but he lives and breathes film-making, speaks the language and makes an art form of reading directors' minds and translating their vision into action. His calmness masks an absolute resolve to get the job done, and both must be an absolute boon to a producer fire-hosing cash at a film crew.

His career began in New Jersey in the early 1960s when Marc, scion of a family of civil engineers who built industrial gantry cranes, rebelled against the office and the workshop and welcomed his draft card, running off to Fort Collins in Colorado to learn to soldier for Uncle Sam. He gave no thought to flying until the day when his platoon, having slogged for two weeks through a Georgia swamp on exercises,

Top left: don't try this at home – Marc dangles a stuntman from a Gazelle on the set of 28 Weeks Later

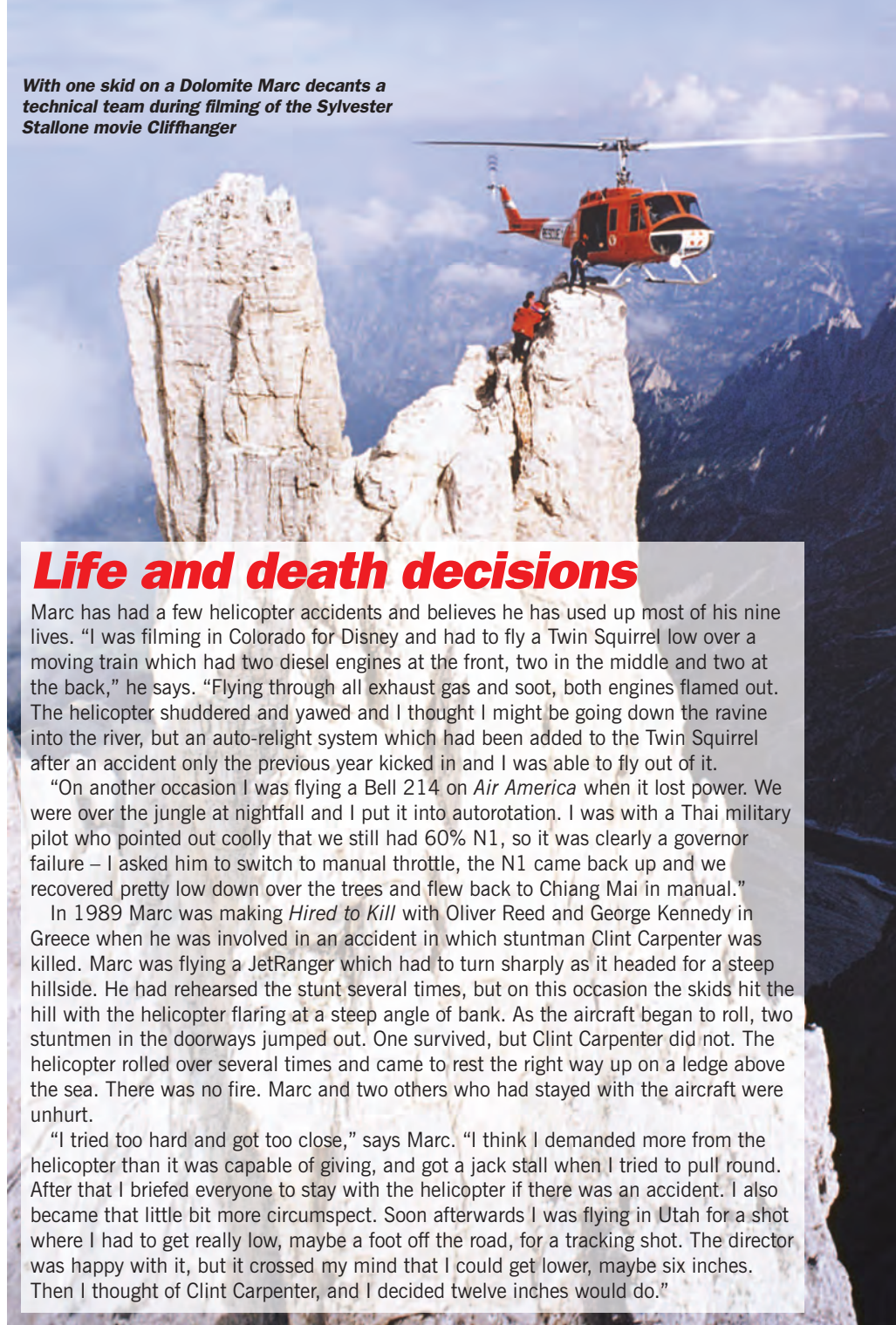
Left: the pilot – the two pairs of glasses are a neat touch

were picked up by helicopter and taken back to where they started from in less than an hour. Helicopters, Marc thought, beat walking.

A friend who had a PPL took Marc for a flight in a Cherokee from Columbus, Georgia, allowing him to handle the controls and piquing his interest further. Marc applied for flight training. "This was October 1967 and helicopters were becoming the big thing in Vietnam," he says. "Later you needed a college degree to fly helicopters but I was in the right place at the right time."

Sent to Fort Wolters in Texas, he learned to fly on the Hughes 269 – something he found not easy, but natural. Marc was not academically minded but had an understanding of engineering, an aptitude for maths and an abiding interest in

With one skid on a Dolomite Marc decants a technical team during filming of the Sylvester Stallone movie *Cliffhanger*



Life and death decisions

Marc has had a few helicopter accidents and believes he has used up most of his nine lives. "I was filming in Colorado for Disney and had to fly a Twin Squirrel low over a moving train which had two diesel engines at the front, two in the middle and two at the back," he says. "Flying through all exhaust gas and soot, both engines flamed out. The helicopter shuddered and yawed and I thought I might be going down the ravine into the river, but an auto-relight system which had been added to the Twin Squirrel after an accident only the previous year kicked in and I was able to fly out of it."

"On another occasion I was flying a Bell 214 on *Air America* when it lost power. We were over the jungle at nightfall and I put it into autorotation. I was with a Thai military pilot who pointed out coolly that we still had 60% N1, so it was clearly a governor failure – I asked him to switch to manual throttle, the N1 came back up and we recovered pretty low down over the trees and flew back to Chiang Mai in manual."

In 1989 Marc was making *Hired to Kill* with Oliver Reed and George Kennedy in Greece when he was involved in an accident in which stuntman Clint Carpenter was killed. Marc was flying a JetRanger which had to turn sharply as it headed for a steep hillside. He had rehearsed the stunt several times, but on this occasion the skids hit the hill with the helicopter flaring at a steep angle of bank. As the aircraft began to roll, two stuntmen in the doorways jumped out. One survived, but Clint Carpenter did not. The helicopter rolled over several times and came to rest the right way up on a ledge above the sea. There was no fire. Marc and two others who had stayed with the aircraft were unhurt.

"I tried too hard and got too close," says Marc. "I think I demanded more from the helicopter than it was capable of giving, and got a jack stall when I tried to pull round. After that I briefed everyone to stay with the helicopter if there was an accident. I also became that little bit more circumspect. Soon afterwards I was flying in Utah for a shot where I had to get really low, maybe a foot off the road, for a tracking shot. The director was happy with it, but it crossed my mind that I could get lower, maybe six inches. Then I thought of Clint Carpenter, and I decided twelve inches would do."

navigation, meteorology and the theoretical aspects of helicopter aviation. "It's technical, but with an allowance for flair," he says. But the reality of the Vietnam War came home to him when a childhood friend was killed there. "Families had the right to ask a serving soldier to accompany their son's body home," he says. "This family chose me. I went up to Delaware where the big Army morgue was and I had to hang around for two days, then I got the train to New Jersey with the coffin. There were terrible scenes because his mother wanted to casket opened so she could see him, but the Army wouldn't allow it because he was in no fit state to be seen, and his mother thought they'd got the wrong body or something... his brother was very anti-war, and I was his friend but I also represented the US military. So it

was all very difficult. I lost a week's training, but I soon made it up."

He moved on to the Bell UH1 Huey, learning formation flying, load lifting, military tactics, advanced techniques, and after nine months of flight training he was given his wings and a month's leave. In December 1968 Lieutenant Wolff flew to Saigon for a twelve-month tour. Posted to Chu Lai, a major airbase 60 miles south of Da Nang, Marc was part of a platoon operating eight Hueys, five of which had to be mission-ready at all times. "It was all very new and exciting," he says. "We were assigned to what they called 'ash and trash', which was all the odd jobs that came up – we didn't do the large-scale formation combat jobs, but we'd go out and recce the roads that had been blown up, provide command and control for

general officers or take them to look at a battle that was going on, or drop listening devices in the jungle to eavesdrop on of Viet Cong movements. I enjoyed it because you were mostly on your own, and rather than just following the other guy you were entirely responsible for the conduct of the flight. We all started out flying as co-pilot and moved to pilot-in-command after about four or five months."

Operations – by day or by night – included flying ammunition into firefights and taking the wounded out, or lifting beleaguered troops out of tiny jungle clearings, often chopping through the undergrowth with the Huey's mighty blades. On occasion Marc would fly the Hughes 369 Loach on baiting missions, flying low over suspected Viet Cong positions to make them reveal themselves by shooting at him. Huey gunships would then be called in to take them on. Most of the time he was flying the Huey. "We'd fly up high and drop like a stone into a battle zone, autorotating out of trim with the VSI against the stop," he says. "Sitting on top of a hill with tracer whipping past your head is an interesting experience... the guys in the back are loading and unloading the helicopter, and you're concerned to know that they're doing it as quickly as possible. When the job was done we'd go out on an erratic course at treetop height, giving

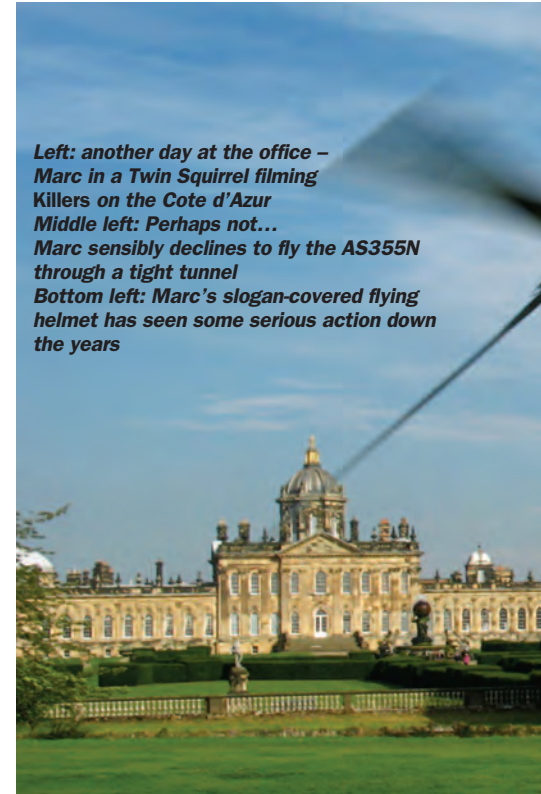
them the smallest opportunity to hit us with small arms.

"Later on, in the 1970s the Viet Cong got better weapons, radar-guided anti-aircraft guns and heat-seeking missiles, but in 1968 they had few sophisticated weapons and weren't properly trained to use them, so our greatest concern was small arms fire between 100 and 500 feet. You get so absorbed in the job – I don't think I was ever frightened except when I was in bed in my hooch and they'd start shelling the base. You never knew whether to get under your mattress, where you'd be safe from anything but a very close shot, or try to run to a shelter and expose yourself to the shrapnel."

Relaxation was strenuous. After a serious whisky-drinking competition Marc

was roused from a stupor to fly a brigade commander to a battle zone. Hung over and seriously unwell, he managed to fly the Huey to the pick-up point but fell out of the helicopter and fainted. The General's driver rushed him, unconscious, to hospital in Chu Lai but Marc came to in time to persuade the driver to take him to a flight surgeon of his own acquaintance. "A blood test then would have been the end of my career," he says.

In July 1969 Marc was promoted Captain – still only 21 years old, he was the youngest Captain in the US Army – and took charge of a section of eight Hueys, with responsibility for the wellbeing of his whole section and for logistical issues such as liaison with engineering and airworthiness of helicopters. As his year-



Left: another day at the office – Marc in a Twin Squirrel filming Killers on the Cote d'Azur
Middle left: Perhaps not... Marc sensibly declines to fly the AS355N through a tight tunnel
Bottom left: Marc's slogan-covered flying helmet has seen some serious action down the years



long tour drew to a close, like every other soldier he was crossing off the days. "Towards the end you became more risk-aware," he says. "Getting killed in your last 30 days somehow seemed a lot worse than getting killed at the start. In those last weeks none of us would fly with new pilots... you wanted your buddy in the left seat, somebody you could absolutely rely on to cover your back."

Captain Wolff was back in the USA by Christmas 1969, and after a month's leave he was taken off flying and sent to Germany in charge of a mechanised infantry company of 200 soldiers. Still only 21 years old, he was never comfortable in the role. "I was too young and inexperienced to be running an outfit like that," he says. "I managed to arrange four hours a month in a Bell 47 to keep my flying pay, but I wasn't doing what I wanted to do and I got soured of the Army."

Below: the WesCam, here at Castle Howard, represented a major breakthrough in aerial filming
Right: Marc flies the WesCam on a Spanish Single Squirrel in the Canary Islands



By Royal Appointment

The most memorable moment of Marc Wolff's flying career came in 2012 when he flew the AW139 from which 'the Queen' and 'James Bond' parachuted over the Olympic Stadium at the climax of the opening ceremony for the London Olympics. The perfect execution of that assignment came at the end of months of planning and rehearsals, and to hear Marc tell it, it was the only time that everything had gone absolutely according to plan.

"I had worked with Danny Boyle on a couple of films, *The Beach*, and *28 Days Later*, and it was a great honour to be asked to work with him making *Happy and Glorious* and *Isles of Wonder*, the films shown at the Olympics opening ceremony," Marc says. He was required to spend a month in Italy converting onto the AW139 and flew it through Tower Bridge during filming, but the most challenging aspect was always going to be the parachute drop into the Stadium. "We did more than 100 practice jumps before deciding we could accurately and safely drop a parachutist between the cables strung across the stadium – we were aiming for an area no more than 100 feet wide."

Happy and Glorious began with Daniel Craig as James Bond meeting the Queen and setting out for the ceremony. "At first, the gag was that the Queen would shoulder Bond aside as he prepared to jump, and would make the jump herself. But the Palace said the Queen never goes anywhere alone, so they would have to jump together. That threw our plans into disarray. It was immediately apparent that trying to thread two parachutists through the cables was a non-starter, but that relieved us of a number of problems because the parachutists would now have to land outside the stadium.

"Planning was complicated. Apart from the participants, we had monthly meetings with various CAA branches, the military, the police and others involved in security – the whole area was covered by an exclusion zone. We also had to interface with Heathrow and London City.

"We had to arrive overhead at 800 feet at a precise point in the pre-recorded video, and the TV cameras all had to see us within a two-second window. That gave the parachutists about ten seconds under canopy of visibility to the cameras. We were still rehearsing at 4pm on the day of the opening because for the first time, we had to do it with the wind in the north. In fact, the best take we did was the 'hero moment'. It was the only time everything came together perfectly, but then, that's what we're paid to do."

Marc applied for a discharge and left the Army in November 1971, making his way to London. "North Sea oil was beginning to boom and there was a shortage of helicopter pilots, so once again I was in the right place," he says. "Flying on the North Sea seemed too regimented so I looked for something else. I had offers from Bristow and Bond, but I like the look of Helicopter Hire, which was run out of Elstree by John Crewsdon and had a big variety of flying. He offered me £2,250 a year, which was £500 less than Bristow, but I took the job."

Crewsdon had a couple of Bell 47s and an Alouette II. His business involved crop spraying, power line patrols, Ordnance Survey work and occasional film flying. John's film credits included *Lawrence of Arabia*, *The Longest Day*, *Dr Strangelove*, *633 Squadron*, *Chitty Chitty Bang Bang*, *Where Eagles Dare*, and the James Bond



Stormbreaker stunt – flying for the movies is a dangerous business
Right: precise flying during an unusual high-speed assassination scene in Stormbreaker

movies *From Russia With Love*, *Goldfinger*, *On Her Majesty's Secret Service* and *For Your Eyes Only*. Crewsdon was later killed in the *Alouette II* when a corroded Jesus nut gave way; Marc had flown some 1500 hours in the helicopter in which John died.

Although he got a sniff of the odd film set, Marc's workload was more prosaic. "I could do 12 hours of crop-spraying in a day," he says. "I must have landed on every peak in Scotland, with two Ordnance Survey men and all their kit. I had a girlfriend in London, but I would disappear to Scotland for months at a time. I flew the *Alouette* with a magnetometer slung underneath, hour after hour, and if you flew outside tiny tolerances you had to do the whole run again at your own expense. It was challenging, and very engrossing.

"We pioneered police helicopter aviation with an Enstrom F28A in 1974, flying over London with an observer responding to any call for help – car thieves, bank robberies, bad guys going out the window when the police went in the door. It was a great success, and on one day I was involved in nine arrests. Flying a single-engine piston helicopter over London had its moments, but we never had an 'incident'. The Enstrom wasn't as forgiving as the Bell 47 – you could get away with anything in the Bell but you had to keep the revs up in the Enstrom. Over the four years I worked for Helicopter Hire the company moved to Southend and I became Chief Pilot and a Director and got some shares, but I felt I was stagnating and looked around for a new challenge.

"I ran into a cameraman I knew, Al Werry, who told me they needed two helicopter pilots for a Bond film. I'd enjoyed the small amount of film work I'd



done for Helicopter Hire – mainly on TV and cinema commercials – because you could fly creatively." Marc found himself flying the action helicopter on *The Spy Who Loved Me*, with Roger Moore and Barbara Bach, on location in Sardinia, with John Crewsdon flying the camera ship. He credits one scene in that film – the helicopter chase down the mountain before Moore's Lotus Esprit drives into the sea – with bringing his flying skills and empathy with movie-making to the attention of producers and directors. In particular it drew him into the James Bond franchise 'family'; he was to work on almost every Bond film thereafter.

A lot of film flying work was ad hoc; the pilot would turn up on the set and be told what needed to be done that day, then he'd go and try to cope. Marc says: "No-one was getting in early enough to solve all the problems before the event. Nobody had arranged to have the roads closed, or got the permissions to go down the river at 20 feet, you just made the best of it on the day. I started to get involved at an early stage, set everything up so that the flying is the last piece of a jigsaw that gets the

Below: inside looking out – an actor's eye view of the camera helicopter on Amelia, off Cape Town
Right: outside looking in – Marc formates the camera ship on Amelia's Lockheed Electra

director exactly what he wants.”

This was the beginning of Flying Pictures, a one-stop shop that gave a director the best possible shot at the pictures he wanted. At the time, the Wescam stabilised camera system was coming onto the market, firstly slung under a Bell 47, later mounted on purpose-built brackets. It was a major step forward in quality, and film-makers increasingly looked to helicopters for stunning shots.

But it was hard work. “I used to go around Soho knocking on doors,” Marc says. “I’d press every buzzer that said ‘film’ and introduce myself – I had ten seconds on the intercom to get myself invited up. Maybe once every 30 or 40 rings I’d get someone who was genuinely interested, but there were some slow-burn responses – months later I’d get a call saying, ‘you came to see me back in January’...”

“I had £50 left in the bank and a mortgage to pay and it didn’t look good. I was in a pub in Primrose Hill and there was a sign, ‘bar staff wanted’. I applied and the lady took me on after testing my ability to tot up a drinks tab. I was to start on the Saturday, but then I got one of

those calls – ‘you came to see me last month...’ – and it was a guy who was shooting a Sandtex commercial in Ireland. Four days work, but I had to go on Friday. So I apologised to the landlady for letting her down, and I made £400 for the job, which tided me over for a good while.”

Marc attempted to get on board the first *Superman* movie – the tag line was ‘You’ll believe a man can fly’. “Nobody would answer my letters, nobody would return my calls,” he says. “But they tried every which way to get the flying scenes right and they couldn’t do it. Finally they turned to Wescam, with whom I had a good relationship, and Wescam recommended me. We flew the Wescam on a Llama, nap of the earth, and the shots were just so stable... then we speeded it up eight or ten times, and there you’ve got a magical background for a high-speed Superman. That was another franchise I stayed with – I’ve done four *Supermen* and a *Supergirl*.

“The franchises, like Bond, Star Wars, or Harry Potter, tend to be very loyal, using the people they come to know and trust – it’s almost like family. There are special effects people working on Bond who are

the fifth generation of their families to have done so. You can’t take anything for granted – producers change, cameramen and directors come and go, and you have to be competitive cost-wise, but you do tend to get first refusal.”

Safety on set was another neglected area. Dozens of people have been killed making movies over the years, many of them in accidents involving helicopters. An example was the death of Vic Morrow and two child actors on the set of *Twilight Zone: The Movie* in 1983 when a misunderstanding led to pyrotechnics being detonated under a helicopter, which crashed on top of them. Marc was not involved in that film. But he says: “I knew I needed someone on set to look after safety, make sure nobody on the ground got injured, make sure nobody injured me. I hired an engineer called Stephen North in 1979, and we still work together today.”

In 1979 Marc was engaged to fly in Norway for a space film set on the ice planet Hoth, which was to become *The Empire Strikes Back*. He was developing his skills at deciphering directors’ thoughts, establishing exactly what their vision was





and how it could be made to come alive safely and efficiently, suggesting solutions to problems, practising his diplomatic skills where vision and reality did not meet. At the same time he was building a worldwide network of helicopter company contacts. "I didn't actually own a helicopter, and in the early days I flew helicopters quite long distances – Greece, Egypt, Iceland, Morocco – for film work. But as helicopters became more common around the world I established relationships with operators so I could always get hold of an aircraft, together with local knowledge and logistics support, wherever a job had to be done."

Since *The Spy Who Loved Me* Marc has worked on more than 200 films and as



Top left: Marc handles co-ordination between director and aerial team on the set of *The Expendables*

Above left: on location at Lukla, Nepal – the world's most dangerous airport – filming *Everest*

Above: flying over a frozen lake in Norway filming the *Star Wars* series

many TV series and major commercials. The 1980s were the heyday of the expensive TV commercial, and Britain was at the forefront of the industry – a lead it seems to have lost. The most expensive ad was made for British Airways, with three JetRangers towing a giant flag. Shot in Australia, it cost over £2 million to make, and as a pleasing nod to those who had helped him along Marc hired John Crewsdon's son, also called John, to fly one of the aircraft.

Apart from the big franchises, Marc's work can be seen on everything from *Good Morning Vietnam* and *Memphis Belle* to *The Omen* and *Mr Bean*. *Bridget Jones*, *Mission: Impossible*, *Indiana Jones*, *Saving Private Ryan*, *Gulliver's Travels*, *Sherlock Holmes*, *Robin Hood* and *Around the World in 80 Days* are all on his list of credits. Some helicopter pilots may particularly remember the helicopter shots or stunts in *Cliffhanger*, *Touching the Void*, *The Vertical Limit* – all Marc Wolff.

His work has brought him into contact with dozens of what we would call the 'superstars' of the film world, but while he has become friendly with some, Marc says that such relationships must remain businesslike. "The actor is there to do a job," he says. "He or she must be totally focussed on their character. I've worked with hundreds of actors, well-known or otherwise, and most of them have been very easy to get along with. I don't live the movie star life. Even the actors who fly helicopters themselves, like Harrison Ford, don't get distracted from the job they have to do on set. I had to teach Sylvester Stallone how to look like he was flying a helicopter, but the only actor who ever asked me for a ride was Robert Redford, and that was for his girlfriend.

"Some people consider film stars to be pampered, but there is nothing I wouldn't do to make an actor's life more comfortable. You want the actor to come on set, in character and ready to give the best possible performance, on cue, every time. You can't have them distracted or below par, even if only for financial reasons – wasted time costs huge amounts of money. They've got to be ready, and do it right."

Marc was always as fascinated by the business of movie-making as by helicopter flying, and over the years he has taken on

**Above: Marc's Agusta 109 at the heart of the action on *The Expendables* in Bulgaria
This photo: who says helicopters and horses don't mix? Filming *Snow White and the Huntsman***





Above: being a movie pilot means you meet all the superstars – even Postman Pat
Top right: Marc gets a briefing from director Ridley Scott before shooting a scene on Body of Lies in Morocco
Below: Marc on the Stormbreaker set, surrounded by the paraphernalia of his business



more responsibility and moved into new areas. He began by working as Aerial Co-ordinator, taking overall charge of stunts like the scene in *Cliffhanger* where a stuntman slides down a cable between two jets, and logistical responsibility for all aircraft; there were 25 of them on *Air America*. From there he progressed to Aerial Unit Director, responsible for some of the filming as well as the action – this was a role he took in films like *Air America*, *Charlotte Gray* and *The Vertical Limit* – before becoming Aerial Unit Director on films like *Harry Potter and the Half Blood Prince* and Second Unit Director on *Amelia*, *The Gunman*, *Doomsday*, and *Flood*. He has also directed big-budget commercials for the likes of Marks & Spencer and Courage.

“Whatever role you’re fulfilling, your job is to be loyal to the director’s vision,” Marc says. “As Second Unit Director on *Unknown* in Berlin I had 110 technical staff and 300 extras, and I had to use them to gather material that the director



would want to use. I can’t indulge my own ideas and tastes – but I love it. I’ve been a commander of troops and a team leader, a problem solver who gets the job done whatever the constraints. I have the same passion for storytelling that motivates the best directors, and when I start talking

about movies I can talk all night. I still get a kick out of flying, and I’m always being asked to do something new so it never palls, but helicopter flying and movies brings together my two passions, which is pretty lucky when you think about it.”

Just as his experience was blossoming, the CAA decided Marc had to quit. “At 65, the CAA says you can no longer fly a helicopter commercially,” he says. “While most countries treat my sort of flying as aerial work, the UK CAA says that if the director or cameraman is aboard the helicopter, and they do not work directly for Flying Pictures, they are passengers and it is a commercial flight. So that means you need a commercial pilot. Luckily, under EASA the situation changes, and it will be aerial work whichever crew members are on board. So I will be able to continue flying for as long as I can keep my medical.” ■



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New Europe – old Europe



Angus Clark and friends fly across Europe and through some sobering history

This story starts in 2012 with an epic trip to the Ukraine to participate in the first-ever AOPA Ukraine Air Rally. My wife Alisma, and I had flown to Uzerhod in our Robin accompanied by James and Catherine Alexander and Feroz Wadia in James's P28R. We had such a fabulous time the inevitable question was what were we going to do in 2013.

We are all members of the International Fellowship of Flying Rotarians (IFFR), a group of air minded Rotarians with a membership spanning the globe. There are National Sections in many countries of the world stretching from Australasia to America and across Europe. Each Section organises meetings where the others can join in. Looking at the calendar we saw that the Scandinavian Section was going to break new ground by having a meeting in Riga, Latvia. The following weekend the Swiss Section was having a meeting in Lucerne. The plan was hatched – we would do both meetings and fill in the time between them visiting some interesting places.

The stopovers had to be somewhere we had not visited before, they had to be

spaced out to break the journey down into sensible blocks and they had to have some historical interest. We decided on Neubrandenburg in the far east of Germany, Ketrzyn in Northern Poland and Kaunas in Lithuania on the way to Riga and Poznan in Central Poland and Augsburg in Southern Germany on the way to Lucerne.

The planning then started. This fell into two parts – the flying and the sightseeing. First we established whether the airfields were happy to have us and what facilities they offered. The German airfields presented no problem – information was readily available on the web. Those in Poland and Lithuania required a bit more ingenuity. All however had excellent websites although some were not in English. Communication was generally in local languages. I am not a linguist but am well versed in the translation programmes on the web. I always take the precaution however of translating the passage back into English to make sure that what it says is what I meant it to say. Without doing this I could make some strange requests!

The first leg from Netherthorpe to

Above: the Masurian Lakes in Poland – famous for their remarkable beauty

Neubrandenburg was 530nm and normally we would have stopped on the way. The gods or the tailwinds however were with us so we did it non-stop. This was the first trip where I had used SkyDemon for planning. It proved to be an absolute wizard. Its ability to predict the impact of wind on each stage of the flight was uncanny. Our flight time of 3 hr 45 min was within 5 minutes of plan.

The met forecasts were reasonable but we were warned of some CBs and heavy showers on the Continent. When we reached the Dutch coast we began to see dark clouds but these were in distinct blocks. There was little other traffic about and we enjoyed good support from the controllers in both Holland and Germany. As we got nearer to Neubrandenburg Bremen Information warned us of a line of thunderstorms on our track that were moving east. Fortunately there was a sunlit break in the line just short of Neubrandenburg and we got to the other side. Immediately after landing we were offered hangarage. In less than five minutes we were inside before the heavy rain showers arrived. What service! Then it



was to the tower where the controller was equally helpful in fixing up a hotel. James and Feroz were to arrive later in the afternoon while Catherine was to join us in Riga.

Neubrandenburg was chosen as a staging post more for its position than its historical importance of which we had done little research. Our hotel was just outside the old town's walls and when we passed through one of the four impressive

gates into the town we were surprised to find broad boulevards and modern buildings. Yes, there were some old buildings in particular the magnificent brick structure of St Marien Church, but the 'new' dominated. Was this an attempt by the old East German Communist State to create a modern Utopia? The answer came to us outside the Church where a notice referred to the vandalism of 1945. Further research showed that a few days

before the end of World War II, 80% of the old town was burned down by the advancing Red Army. In the course of the fire about 600 people committed suicide. Since then most of the historically important buildings have been rebuilt. St Marien Church has been restored and opened as an arts centre in the 1990s.

Next morning the weather forecast was very much a repeat of the previous day – heavy showers and bright periods. Within 20 minutes of leaving Neubrandenburg we were into Poland. On crossing the border we were immediately given a direct track to the Gdansk VOR 140nm away. As we approached Gdansk we were given another direct track to Ketrzyn, some 120nm distant. When we switched to Ketrzyn we could not get any response. We were not really surprised as all our email communication had been in Polish. Eventually we found a windsock and decided on the runway. We received a very warm welcome although our hosts spoke no English and we spoke no Polish.

So why did we choose to stop at Ketrzyn? It could have been because it was in the heart of the Polish Lake District – the Masurian Lakeland. This is famous for its lakes and forests – an area of remarkable beauty. No, the reason was that it was the site of Hitler's Eastern Front military headquarters – the Wolf's Lair or Wolfsschanze to give it its German name. There were Fuhrer bunkers located in other

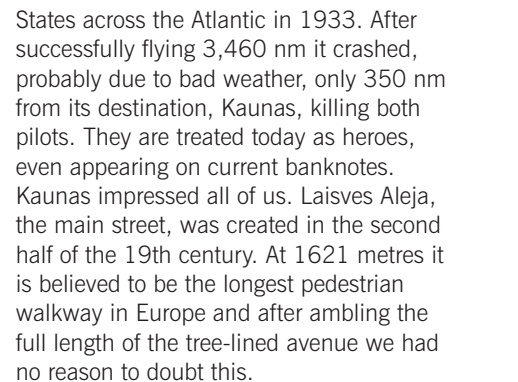


Top left: Hitler's bunker, the Wolfsschanze, scene of the assassination attempt
Left: after dodging showers we had our first view of the Latvian capital Riga
Bottom left: Riga's aviation museum displays a collection of Soviet-era military jets

parts of Europe but from 1941 to the end of 1944 this was the nerve centre of the Nazi war machine. Hitler first arrived here in June 1941. In total he spent more than 800 days at the site during a 4-year period until his final departure in November 1944. In January 1945, the complex was blown up and abandoned 48 hours before the arrival of Soviet forces. Many of the shells of the buildings were intact. Where the explosives had been more effective they had succeeded in only shifting the 2-metre reinforced walls, rather akin to an earthquake, as opposed to demolishing them.

Our English-speaking guide explained that it was a requirement in building the complex that it should not be seen from the ground or the air. Trees assisted in this but camouflage nets were also used. To all intents and purposes this was a self-sufficient town complete with two airfields, railway station, central heating plant, power generators, sewage system, sauna, casino and even a cinema. Over 2,000 people worked here including a detachment of 1,500 guards. In spite of





the confidentiality surrounding the complex it became an open secret amongst the locals that this was Hitler's base. In fact it is probable that the Allies knew of the location of Wolf's Lair by late 1943 – why they didn't bomb it remains a matter of debate among historians. The whole experience was really rather eerie; seeing the site of the attempted assassination of Hitler by Claus von Stauffenberg was particularly special. Had a desk not been in the way of the explosion the European War might have ended earlier. A commemorative plaque in German and Polish nearby reads 'In memory of the resistance against National Socialism'.

Our next leg was a 2-hour flight to Riga. Weather conditions initially were good with scattered cloud. Our route took us east flying just to the south of the border of the Russian enclave of Kaliningrad. After crossing the border into Lithuania we headed north. Flying at a comfortable FL85 we had a panoramic view of the countryside. On crossing the Latvian border the weather deteriorated and we had to avoid some heavy rain showers as we made our way to Riga's old commercial airport at Spilve. Members of the Scandinavian IFFR Section greeted us on arrival and we sampled a typical Scandinavian smorgasbord lunch in the old terminal building. This cathedral of an edifice with its murals and ornate pillars was built in 1954. Internally it has been restored to some of its former glory and is, in part, an aviation orientated museum.

During the weekend we enjoyed a number of interesting visits. An open air museum consisted of reconstructed small villages complete with artisans producing products of times past. The Riga Aircraft Museum contained a fine array of ex-Soviet military aircraft and also some civilian examples. In the evening the streets were alive with music. Some was from the numerous cafés and bars but the most spectacular example was an outdoor classical concert in one of the parks. Certainly the Latvians knew how to enjoy themselves.

The visit, however, that will stay longest in my memory was that to the Museum of Occupation 1941–1991. Through discussions with our guide and the

Above: rain threatens – and that's when a high-wing aircraft comes in handy

Above right: Museum of the Occupation in Riga covers the 1940s to the 1990s

Right: Kaunas airport is one of Europe's oldest, established in 1915

Lower right: impressive Kaunas has the longest pedestrian walkway in Europe

museum visit I began to understand, not simply how dreadful four years of war had been but, how utterly dreadful 50 years of occupation had been. To give the background, in August 1939 Russia and Germany signed a non aggression pact. The treaty included a secret protocol that divided the territories of Romania, Poland, Lithuania, Latvia, Estonia and Finland into Nazi and Soviet 'spheres of influence'. Thus, at the outset of the war in 1940, Latvia was forcibly incorporated into the Soviet Union. It was invaded and occupied by Germany in 1941, giving the citizens a brief spell of hope. The holocaust then began with the extermination of the Jewish population. The country was retaken by the Soviets in 1944 giving it an even briefer period of hope. From the mid 1940s the country was subject to Stalinist purges, with many Latvians being sent to Siberian Gulags. Despite all the Russian pressure Latvian culture survived and eventually in 1991 Latvia once again became independent. Our guide brought home to us how this affected many ordinary people. As we passed the old KGB HQ she pointed out a door that her grandfather had entered, never to be seen again. The museum was a true education of this dark period.

Having had a weekend being well looked after we set off on Sunday morning for the 140nm flight to Kaunas. Here again our destination was an airport that had previously served as the principal commercial airport for a city but was now limited to private flying. It was one of the earliest airports in Europe, having been established in 1915. It was named after two Lithuanian-American pilots, Steponas Darius and Stasys Girenas who flew a Bellanca Pacemaker from the United

Right: Antonov An-2 used for sightseeing at Kobylnica airport, Poznan

States across the Atlantic in 1933. After successfully flying 3,460 nm it crashed, probably due to bad weather, only 350 nm from its destination, Kaunas, killing both pilots. They are treated today as heroes, even appearing on current banknotes. Kaunas impressed all of us. Laisves Aleja, the main street, was created in the second half of the 19th century. At 1621 metres it is believed to be the longest pedestrian walkway in Europe and after ambling the full length of the tree-lined avenue we had no reason to doubt this.

Next day it was back into Poland. On our 290nm leg to Poznan we again passed over the Masurian Lakeland. We not only saw the beauty of the area but also the extensive tourist developments – marinas, a golf course, holiday homes and even a grass airfield. I had chosen the Kobylnica airfield as our Poznan stopping point after looking at its website. They were a thoroughly professional set up, spoke



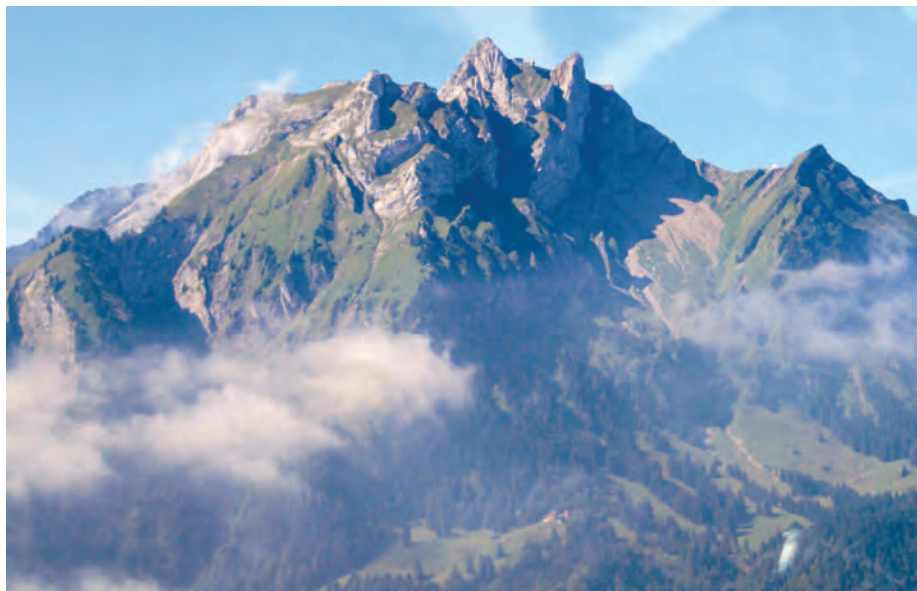
Above: Poznan memorial to anti-communist uprisings in 1956, '68, '70, '76, '80 and '81
Above right: Augsburg airport, our first stop back in Germany

Right: the downwind leg past Mt Pilatus at Alpnach

Bottom right: finals for Alpnach – picking the right valley is all-important

shortly after getting airborne we were advised that these areas were active and that we should avoid them. The alternative was to fly to the west and then come south. When we got close to the diversion point we got the welcome news that we had a crossing clearance. As we approached the German border I noticed on the GPS that we were passing Zagan. I

speculated that this was Sagan of Great Escape fame. A member of my veteran golfers' group, Frank Stone, was one of the few remaining survivors of that camp and had assisted in the escape. To the west of the town was an extensive wooded area and I speculated that this was where the camp had been. On getting back home I discussed this with Frank and he



English, had fuel available and were not too far from the city centre.

Poznan was a harder industrial town than our earlier stopovers. We did our mandatory walk down to the old town to visit St Stanislaus Church – the Bishop Church. This is reckoned to have some of the best examples of Baroque architecture in Poland. On our way there we passed more reminders of post war repression. A dramatic sculpture of two crosses, one with the date 1956 on it and the other with 1968, 1970, 1976, 1980 and 1981 commemorated a succession of uprisings against the Communist regime. We had planned two days in Poznan and decided for the second day to take a train trip to the town of Gniezno. Its Roman Catholic Archbishop is the Primate of Poland. This makes the town's position in Poland similar to that of Canterbury in England. It is clearly a town of immense historical importance but unfortunately the lack of an English speaking guide and the day's torrential rain caused most of this to pass us by.

The heavy rain had thankfully moved on the next day. I had taken the precaution of buying bin bags to put the aircraft covers in as these would be soaking. A check of the notams had shown that there was likely to be military activity on a large area 40 or so miles to the south. Sure enough



confirmed that it was. Sadly he passed away two months later.

We crossed into Germany and after a short distance came into the North West of the Czech Republic. The routing here took us along the crest of the Ore Mountains which rise up to 4000ft. There was scattered cloud around so we climbed to FL85. It was then that we noticed that our careful housekeeping was about to bite us. The bin bags which we had tied tightly

had begun to expand due to the reduced air pressure. Thankfully nothing went pop! We flew back into Germany to the east of Nuremburg and then to the west of

Above: Alpnach airfield, with mountains – not a place to get lost in IMC

Right: at Alpnach we were entertained to our own personal flying display

Below: immaculate Lockheed Orion in the Swiss Museum of Transport



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Munich to our destination, Augsburg. Our afternoon walk took us to the Town Hall or Rathaus. Constructed in the 17th century it is considered to be one of the most significant renaissance style secular buildings north of the Alps. No other word can be used to describe the ceiling of the Golden Hall of the Rathaus but "stunning". The area is 550 sq m and the height of the ceiling 14 m. It is richly

steamers and the iconic bridge in the centre of Lucerne – and yes, I experienced them all again.

The following morning Alisma and I visited the Swiss Museum of Transport. This was a truly exceptional display with all modes of transport covered from bicycles to spacecraft. The schoolboy came out in me as I flew a helicopter and drove a train! In the afternoon we were bused to

leaving Switzerland near Grenchen. This had the added benefit of giving us a full service airport there if we needed to divert.

At around ten the weather began to clear and shortly afterwards we were rolling down the runway. We climbed out towards Lake Lucerne and when we had passed the side of Mount Pilatus – the top still in cloud – we took a turn to the west. We continued climbing to 4500ft and although the weather directly ahead was cloudy there were clear layers above. On passing overhead Grenchen we could see that the cloud levels towards the French border were rising. We climbed on to FL95 and were in the clear. We then set a direct track for Troyes. The cloud was not solid and we had a clear descent into Troyes. James was already there – he gave us the news that there was no fuel as the pump was broken but fuel was available 20nm away on a club airfield at Sezanne.

After a quick lunch we turned to consider my next concern – the weather to the north. Instrument Rated James and crew said goodbye while we pondered what to do. We decided to fly to Sezanne, refuel, and then see how far north we could get. As we progressed past Sezanne the cloud levels began to lower. We continued for a short time and when I was about to backtrack to Troyes I could see a distinct clear layer above the lower level cloud. We climbed up into it and we were soon in that magical area of flying – clear



adorned with large doorways, magnificent murals and has a coffered design.

The next leg to Lucerne was one of the shortest at only 160nm but did entail a trip around the Zurich control zone and a flight over mountain country. We were not looking for a direct crossing of the Zurich control zone but were hoping to get some relief from the need to fly low over high ground. Despite more than one request, no dispensation was given and we were forced to fly at an uncomfortable "not above 3000ft" over more than one ridge. Fortunately the weather was gin-clear. Prior to the trip we had been given detailed instructions from the military as to how we should approach their airfield, Alpnach. It was down the valley to the south of Lucerne, followed by a quick right turn into the valley where the airfield lay. We had to avoid the false trails of the nearby Buochs and Kagiswil airstrips that lay close by, not to mention the 7000ft Pilatus Mountain!

It was great on landing to be greeted by familiar IFFR faces. As we waited for others to arrive we were entertained to a flying display by the base's helicopters, carrying stores and vehicles. Lucerne has particular memories for me. I last visited it on a school trip over 50 years ago. Then there were 12 Francs to the £ compared to the 1.5 now. My memories were of the mountains, cog railways, lakes, paddle

Above: the author samples the hardware at the Pilatus factory in Stans
Right: refuelling at the tiny airfield of Sezanne near Troyes

the Pilatus Aircraft Factory. They operate in niche markets, concentrating on trainers and light transports. Being Swiss the factory was spotless and the eye for detail was evident in everything we saw. It is remarkable that a small company in a relatively small country can compete so successfully on the world stage.

The next day it was onto a steamer for an hour's sail across the lake and then round to the Pilatus cog railway, which is the steepest in the world. A 30-minute trip took us steadily through spectacular views until everything disappeared as we entered the cloud. Disappointingly, that is how it remained. The weather on Sunday morning was of the type that flyers do not wish to wake up to – low cloud and sporadic heavy showers, and this in a mountainous region. Indications were that the low cloud and rain would move through the immediate area quite quickly. I therefore turned my attention to the forecasts for further afield. The plan had been to fly the 220nm to Troyes in France by an almost direct route. The forecast for the north, particularly near Basel, was not good with low cloud and persistent rain. I therefore looked at routing to the south,



blue sky with a white blanket below us. That was how it remained until we reached the Channel, where the cloud began to break up. From there we followed our well trodden path to the east of Southend and to the north of Stansted. After just over five hours flying from Switzerland we were back on home ground at Netherthorpe.

Our 2600nm trip had taken us on a memorable journey through New Europe and Old Europe. This time it was not the cathedrals or churches, the stunning scenery or the aircraft museums that had made our trip so rewarding although that they had all been there. It had been the perspective that we had gained on the conflict of the mid 20th century and its aftermath. For some the Second World War, in a sense, had not lasted six years, but 50. ■

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