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DECEMBER 2014

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AOPA General Aviation

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Chairman's message

End of the regulation mill?

The eagerly anticipated EASA Safety Conference 2014 on General Aviation held in Rome in October is reported on within the pages of this issue of *General Aviation*. It was one of the largest conferences on GA held in Europe, being attended by about 350 delegates representing 250 organisations from 30 countries, with 50 speakers from associations, industry and authorities. The short summary of the main outcomes on the EASA website 'News and Events' provides heart-warming reading. A more proportionate regulatory framework will be created, focusing on safety culture, safety promotion and common sense. What a pleasure it is to see the phrase 'common sense' appear in anything emanating from a regulatory body! The summary concludes… "The Agency is working to make simpler, lighter and better rules a reality for General Aviation…" This opens up exciting prospects of a promising new way forward.

Regulation in aviation has been with us since the first Acts of Parliament relating to control of civil aviation appeared on the Statute Book in the period 1911 to 1919. These were designed to improve safety in the air, largely from a passenger's point of view. Thus, in general aviation, we have had a long time to get used to being regulated and having new regulations thrust upon us. Where these have appeared over-burdensome and a threat to the viability of GA, the industry and aviation associations, and particularly AOPA UK, have fought against them. Initially, in the UK, the battles were with the CAA, and AOPA's unique independence allowed unfettered criticism. Latterly, over the past decade and through IAOPA Europe, they have been directed towards EASA, in concert with many GA stakeholders throughout Europe. It has long been recognised that the battle was being lost by degrees, with continued extra rules and regulations being churned out by the EASA regulation mill. There is no sound evidence to support the philosophy that more regulation equates to more safety, but just how far we have progressed down this track is convincingly portrayed by the situation suffered by the ballooning community (see the article within - "EASA's dead hand") in which a change was made from perfectly safe self-regulation to full EASA oversight in one fell swoop, costing operators a fortune in fees and severely affecting the viability of the activity. Other areas of general aviation such as those in which AOPA is chiefly involved have arrived at the same outcome but more gradually over a longer period of time.

An important speaker at the EASA conference was Grant Shapps MP, who, through the government's Red Tape Challenge, uncovered the huge disquiet in the GA community regarding unnecessary red tape and burdensome administration. Although he is an active pilot and aircraft owner, he came to the scene set by EASA with a fresh outlook. He was astounded to discover there had been such a post in EASA as "Head of Rulemaking", something the rest of us had unthinkingly accepted without comment. Indeed, the post title brings to mind the famous 1949 novel 'Nineteen Eighty-Four' by George Orwell. Incidentally, the story was based in "Airstrip One" - formerly known as Great Britain! The offending post has since been removed following Patrick Ky's appointment to Executive Director.

The afterglow of the EASA conference has created a strong feeling of optimism for the future. It could be said to represent a significant turning point in the fortunes of GA in Europe. There have been similar events in the past that have been held in the same light, the delivery of the Strategic and Regulatory Reviews of General Aviation by the CAA in 2006 being one such turning point. With hindsight, though, many might say this hoped-for "turn for the better" in GA did not live up to expectation. EASA staff have diligently devoted thousands of man-hours in drafting the existing rules and regulations and might not be altogether cooperative in the task of pruning the results of their labour, so there could be difficulties ahead. But let's hope that the desired simpler, lighter and better rules, and plain common sense will eventually win the day. Without doubt, general aviation in Europe has better prospects for its future viability than it has had for more than a decade.

George Done

Shapps moves to liberate GA

The government's response to the Red Tape Challenge on general aviation promises a revolution for the industry, which it intends to transform from a shrinking fringe activity into a world leader that generates thousands of skilled jobs and billions more for the economy.

Tory Party Chairman Grant Shapps MP announced a series of initiatives which not only make practical sense if the industry is to be revitalised, but evince an intention to drive through major and durable change in the relationship between regulator and industry. Backed by the CAA, the government plans to divorce GA regulation from that of commercial air transport and to create rules that address risk and are proportionate to it – and where possible, to write no rules at all. The Air Navigation Order will be rewritten with GA in mind, and a 'star chamber' of all government departments who affect GA – including the Treasury – will meet regularly to drive progress.

Grant Shapps MP (left), Robert Goodwill MP and Andrew Haines at the House of Commons

Joy would be unconfined were it not for the fact that we have ceded control of almost all of aviation to Europe, and nationally, the CAA and the British government can only make unilateral rules for 'Annex 2' homebuilts and permit aircraft. Unless EASA and its 31 subscribing countries can be persuaded to follow the UK's lead, we can only try to influence Europe for the greater good – we are legally bound to do whatever EASA decides. But if Britain cannot influence Europe's direction (see our coverage of the Rome EASA conference in these pages) it won't be for the want of trying by the government and the CAA.

The CAA already has its GA Unit in place, and the government has commissioned a report on the economic value of GA which will inform and underpin its proposals for change. Its findings will be made available before the end of the year.

It was clear that Shapps wants to move ahead further and faster. After he had outlined the proposals at a meeting in the House of Commons with Transport Secretary Robert Goodwill MP and CAA Chief Executive Andrew Haines at his side, Shapps castigated the GA industry for failing to push hard enough for change. GA associations and companies, he said, had been so "captured" by generations of over-regulation that they were reluctant to speak up in their own defence, and to question some of the things they were being routinely asked to do.

At the launch AOPA Chief Executive Martin Robinson said: "He's absolutely right. We've become so used to doing things their way that we have difficulty breaking out of the established mindset. For once, we are running to keep up with the pace of the government.

"But there are two primary obstacles. The first is that serious institutional change requires buy-in from Europe. Europe as a whole is a reluctant partner, and certain states – mostly those with little or no general aviation – are dead against progress.

"Secondly, it relies almost totally on the continued presence of Grant Shapps in a position of power. He is the first senior Minister in generations who has a genuine understanding of the industry, a determination to reverse the downward spiral, and the energy and vision to drive it through. He has shown a commendable keenness to harry the bureaucracies and ask the hard questions – but there's a general election only months away, and no guarantee that he will survive it."

Shapps is promising a full GA strategy by the spring, involving the CAA and the GA community. The outcome of the economic study already commissioned will bolster the strategy – it will update the AOPA-backed research in 2005 which found GA was worth £1.5 billion and employed more than 11,500 people directly. They are also committing to support EASA's GA Road Map, including amending the Basic Regulation; to work with EASA and the CAA to get support for mutual recognition of manufacturing standards; to consider how to simplify legislation for cross-border GA traffic; and to launch a complete review of the Air Navigation Order as it affects general aviation.

The 'Star Chamber', chaired by Grant Shapps, offers a massive boost to GA – but only, one suspects, if Shapps is in the chair. It brings together senior figures in every government department that matters to us; Transport, Business and Industry, Home Office, HMRC, Communities and Local Government, even the Treasury. It will oversee GA strategy, and will meet three times before the next election. Unfocused, it could become a tea-and-biscuits pipeline into the long grass. But with Shapps at the helm, no backsliding will be tolerated.

In the foreword to the response, Shapps and Goodwill say the huge contribution GA makes to the economy has often gone unrecognised. "Instead of protecting and supporting the industry, successive governments have allowed it to become overburdened with regulation," the report says. "As a result, the future of a job-creating sector has been put at risk, potentially compromising the growth of UK aviation and engineering skills and training."

The Ministers add that while they are under no illusions about the amount of work that lies ahead, progress has already been made, and they are determined to "unlock the sector's potential for jobs and growth".

At the non-EASA end of the market, single-seat microlights under 300kg have been deregulated, certification rules for handheld radios have been reduced, PPL exam questions have been reduced to the EASA minimum, and gyroplanes can be used for self-fly hire. Other changes in train include allowing balloon pilots to fly commercially up to the age of 65 (and

ultimately they hope to remove the age limit altogether), submitting to EASA an updated PPL syllabus, and looking at ways of reducing pre-notification periods for GA flights that require customs to one hour. The CAA will be required to put some heat under the search for viable ways to share airspace. They are also beefing up the GA Forum, the 'stakeholder' group, to make it much harder to ignore.

The CAA has already begun to change its internal philosophy to reflect the needs of GA – no mean feat, as AOPA's Martin Robinson says. "Andrew Haines has worked miracles at the CAA to change entrenched attitudes and win GA some breathing space. From our standpoint he has hardly put a foot wrong in the five years he's been Chief Executive, and I believe that even without the phenomenal work of Grant Shapps, Andrew would have got things moving in the right direction. To have these two men in position simultaneously – along with other reformers like Patrick Ky and Robert Goodwill – gives GA real hope for the future."

AOPA's long-standing call for "proportionate, risk-based regulation using robust data" has been picked up as the foundation stone of the change process. The ANO review – see separate panel – is fundamental to achieving the sort of change the government envisages. Access to airspace is another basic requirement, but the government does not rule out charging VFR traffic in controlled airspace, even though that airspace exists for the benefit of commercial traffic.

Proposals to charge air navigation service providers by volume for the airspace they control – to encourage the minimum spread of controlled airspace – are a can of worms. They may conflict with the Charging Regulation, and would be a sure route to the charging of VFR traffic, the government says. It would be better, they conclude, for the CAA to monitor controlled airspace, perhaps more systematically than at present, to ensure it's being used efficiently.

Another of AOPA's long-standing bugbears, the requirement for the CAA to make a 6% profit (or 'return on investment', for the squeamish) has been addressed – the figure has been cut to 3.5%, the norm for similar government services. This should save us some money somewhere; it'll be interesting to see how it manifests itself.

The General and Business Aviation Strategic Forum will take over from the General Aviation Strategic Forum. The tendency to split 'business' and 'general'

Chief executive's diary:

Change and challenge

Everything we've been working towards came together in Rome in October when EASA's Executive Director Patrick Ky opened the Agency's conference on general aviation – an event which crystallised everything EASA has said about changing its whole approach to GA. The conference is well covered in these pages, but the two take-aways were firstly, that change is absolutely vital, and secondly, that EASA is not necessarily in lock-step with industry over the pace and extent of change. There's a lot of work to be done if words are to be satisfactorily transformed into action.

The conference came the day after Grant Shapps had launched the government's response to the Red Tape Challenge at the House of Commons. He's saying the sort of things I thought I might never hear in my lifetime, but again, the devil is in the detail and the implementation will not be without its pitfalls.

The Red Tape Challenge response came on October 13, and a day later Grant Shapps, CAA CEO Andrew Haines and I joined Patrick Ky and 350 others in Rome for the GA conference. Both Grant Shapps and Andrew Haines made strong pitches in general aviation's favour; I was on the opening panel, discussing risk and perceptions of risk in GA. Whether EASA is capable of responding fully to the challenge of creating a proportionate regulatory environment for GA remains to be seen. Patrick Ky has his own demons to slay, and getting 31 EASA countries to agree on anything will tax his diplomatic skills. But all I can say is, thank heavens the job does not fall to his predecessor.

Picking up where I left off in my last Diary, on September 27 we had the International AOPA Europe Regional Assembly in Athens. IAOPA is the only GA organisation that makes policy and co-ordinates tactics in this way. The Regional Meeting is well covered in these pages, so I'll just say that as ever, it was a very valuable exercise that lets us see how regulation is playing out under different national authorities. We are truly blessed in the UK to have such an enlightened regime.

From September 29 to October 2 I attended the Jeppesen Connects event in Berlin. IAOPA has an excellent relationship with Jeppesen, and it was a pleasure to be able to spend some time discussing with their CEO their future plans for general aviation.

On October 9 I was at the National Air Traffic Management Advisory Committee, taking with me James Chan, a knowledgeable and vocal pilot who sits on the AOPA Members Working Group. I will use James more on airspace matters in the future, and he can deputise for me when I'm not able to attend these meetings. James is passionate about airspace and has good understanding. Most of the meeting was spent discussing how the CAA can improve the way it is dealing with airspace and change proposals. NATMAC includes non-aviation people, such as members of the general public who live underneath the areas where we fly. So this is a good point to remind all of us that we need to bear in mind the impact of our activity on our neighbours.

On October 20 I attended the SESAR Strategic Planning Policy group in Brussels. SESAR is Europe's equivalent to the American NextGen system for upgrading air traffic services. On behalf of IAOPA, I presented a request for ADS-B/UAT to be considered as a second enabler for general aviation. Whilst SESAR is an R&D programme, UAT – Universal Access Transmitter, a GA-appropriate datalink developed in the USA – could be a commercial off-the-shelf product for general aviation in Europe. Other airspace users were supportive, and we will again follow up on this matter.

On October 18 we had the AOPA Members Working Group meeting at White Waltham, chaired by Pauline Vahey. This was another lively discussion of topical GA issues such as aerodromes and airspace. I was able to update the group on the Rome conference, which is well covered in these pages. I explained that the subject I had to cover in my presentation was whether general aviation was safe enough. I told the conference that GA is safe, but is not risk-free, and that regulators need to understand what the risks are. I also said that we support moves towards better, simpler, lighter regulations for general aviation. I pointed out that the rules in themselves do not ensure greater safety and that the continuous education of pilots is the best way to reduce accidents. This is where the AOPA Wings programme clearly has an important role to play. If members would like to know more about the scheme please contact the office.

On October 21 I attended the General and Business Aviation Strategic Forum. We were updated on the work of the Red Tape

Saving airfields – but how?

The notion of preserving a network of general aviation aerodromes resonates with pilots, particularly when the pace of loss is accelerating. Manston, Blackpool and Panshanger are among those who have fallen victim to government-imposed pressure to build more houses. Grant Shapps admitted that the government is conflicted in some of the things it intends to deliver, including housing. "The pressure is to have planning decisions delivered more quickly," he said. "There is a desperate need for new housing, but we have committed to starting to talk about the preservation of a strategic network of airfields, which is absolutely vital to the security of the sector. The current position is flawed, the National Planning Policy Framework is flawed because it makes airfields a local issue, with local government deciding the future of landing sites. But the airfield network needs to be a national issue, not a local one."

aviation is something that will not benefit either, but the revised Terms of Reference of the 'GBASF' are welcome, as is the fact that it will report to the CAA's Finance Advisory Committee, to the CEO of the CAA, and to the DfT's Director General of Civil Aviation.

The preservation of a network of airfields – see separate panel – is also a thorny issue; Grant Shapps accepts that the current Planning Policy Framework doesn't do the business (and he had a hand in writing it). The recent loss of Manston, Blackpool, and Shapps's own airfield, Panshanger, illustrates the urgency that needs to be brought to this issue. Whether or not airfields are 'brownfield' sites is currently left to the local authorities, but Grant Shapps believes this is no longer tenable – a 'network' approach requires a national policy. The government also recognises the need to support the aviation engineering industry and technology sector by setting a fair wind for GA, and we can look forward to progress in this field.

The CAA, which is involved in 123 separate work streams in Europe, has made short work of some low-hanging fruit, such as accepting STCs from the US and Canada, but only for Annex 2 aircraft – those that are not regulated by EASA. This, he said, was a first step towards

challenge panel and its relationship with the CAA's own agenda. The CAA is commendably keen to loose the shackles on general aviation, but it can only do so on the parts of GA over which it has control – the so-called Annex 2 aircraft. The trick will be to further free up that end of the business without compromising the rest of GA to the point where its viability is threatened. We need a GA industry, we need airfields and engineers and fuel providers, and not all of GA supports these things financially. Those who do not fly Annex 2 aircraft are relying on the ability of the CAA to influence EASA to change its rules, and while that process is in train, it will take much longer and may not match the pace of the CAA's own liberalisation.

At the same time, the Air Navigation Order is being studied with a view to making amendments – but where the ANO covers EASA aircraft, the UK will not be allowed to amend it as we might like. It would be easy to get the balance wrong and weaken the GA industry as a whole. We need to find a system that allows existing businesses to develop. If we're not careful we could have a national system of Annex 2 aircraft in competition with an EASA-controlled segment of GA, with all the costs and constraints of the European system. The EASA end of the industry puts in the lion's share of the turnover, and we would be throwing a lot of babies out with the bathwater. It's also the EASA sector that pays most of the CAA's GA fees, and the more it shrinks, the greater the burden of fees on the remainder. As an example of what bad regulation can do one only needs to look at the destruction of the light twin market in Europe by JAR-FCL. In the USA, light twins are among the biggest contributors to the industry; here they hardly figure, and the loss affects us all. We support a measured approach to change, with proportionality being the foundation stone for both EASA and CAA regulations in future.

On October 23 I was due to fly with CAA Chief Executive Andrew Haines to visit a couple of our members. However, at that time Blackpool airport was closed and the weather wasn't very good so we decided to rearrange the trip.

I had two appointments on October 31 – the first was to attend the Airspace Infringement Working Group. This important group had not met for some time, and it's a sad fact that infringements remain stubbornly high. The CAA has introduced an online infringement tool which a number of pilots have been required to complete, and some of them failed to reach a satisfactory level. During the discussion I reported that the feedback I'd received from a couple of pilots was that the clock showing the 10-minute countdown timer was distracting. The CAA will have a look at the system and come up with a different kind of warning to tell the pilot he or she has only got one minute left to complete the task. The majority of infringements come from poor pre-flight planning. The old adage of 'failing to plan is to plan to fail' is very true in the case of infringements. Remember, if you become unsure of your position speak to somebody – even if it is 121.5.

Later that same day I met with Messrs Day and Bolshaw, the Haywards Aviation Insurance team that look after our members' interests. We discussed a number of further trends in the insurance market, and we now plan to run a number of articles in the coming months in General Aviation on some of the topics we discussed.

On November 5 I attended the Airspace Safety Initiative Coordination Group, a CAA group looking at how the airspace can be improved from the perspective of airproxes and infringements. The ASICG was responsible for the Electronic Conspicuity Working Group, the ECWG, which I chaired. Its objective was to come up with a set of standards for low-cost, portable electronic devices useful in making GA aircraft more conspicuous. The ECWG Recommendations Paper, 'EC in Class G Airspace' provides an excellent summary of where this issue currently sits, as well as some background as to why the work was initiated. We are looking at how electronic conspicuity (EC) can eventually be achieved for all users of Class G airspace, and it is worth stressing at this point that 'one size fits all' will not work.

It's interesting to note that National Air Traffic Services has invested time and money in developing an ADS-B solution referred to as LPAT ahead of the ECWG work. Therefore, the work of the ECWG may be seen as essential insofar as the recommendations could help in delivery of new standards for all electronic conspicuity devices in the future.

It is agreed that there needs to be a change in regulatory thinking, and there needs to be a degree of assurance that in accepting different standards of certification there must be no negative impact on the current system. This is where R&D funding is required. This will also eventually mean flight trials in order to validate and verify that the overall proposal is safe. This would lead, in time, to a new set of standards that manufacturers could build to.

So while the NATS LPAT device can be considered as an interim device, it should be possible to use the work that has been done so far to further explore the basic EC device.

Martin Robinson

automatic acceptance of STCs for Annex 1 aircraft. EASA has also agreed to lift the arbitrary and unnecessary upper age limit of 65 for commercial balloon pilots, something that had been introduced with no evidence whatever of need. Work is in hand on electronic conspicuity – in a group chaired by AOPA's Martin Robinson – but much can only be achieved after the review of the Air Navigation Order, which must end in legislation. "Much of what we want to do is constrained by legislation," Mr Haines said. Unfortunately, there is no time to fit new legislation into the Parliamentary programme before the next election…

Above: Jeremy Pratt, Martin Robinson and Grant Shapps at the Red Tape Challenge response launch

Our own worst enemy

While Shapps, as a GA pilot, is motivated by understanding of the industry and its problems, progress will be made by convincing his colleagues and the public that there's an industry out there that is being stifled by red tape when it should be inculcating young people with high-tech skills and making billions of pounds for the economy. "They need to be made to understand the potential for jobs and economic growth," Shapps said.

"But I'm frustrated by the slow speed of the government, the slow progress of the quangos, and I am frustrated with the general aviation sector. This is the most GA-friendly government you've ever had. You have a unique alignment of planets – Andrew Haines at the CAA, Robert Goodwill at Transport, Patrick Ky at EASA, all of us recognise the problems that need to be tackled. These factors are unlikely to be in place again. As Minister without Portfolio I believe we should treat GA like any other industry. The film industry, for instance, is a similar size to GA, but while it enjoys many strands of government support, general aviation is burdened by red tape like no other sector, and gets nothing. Yet GA is all about this country's technical future.

"Cutting red tape creates jobs. Since 2010 this government has created more than two million private sector jobs in Britain, while cutting 600,000 public sector jobs. In fact, we have created more jobs than all 26 of the other EU countries put together. It is plain that you can grow jobs, you can create wealth, if you cut pointless red tape.

"But we must ask ourselves whether the GA sector has the right attitude. We have been captured by a sort of industrial Stockholm Syndrome. Where there are 50-50 decisions, we choose to retain regulation when we should be coming down on the other side. For instance, I cannot see any evidence that pilot medicals serve any useful purpose, despite the millions of pounds, the time and the energy we sink into them. But the GA sector is no longer asking what they achieve. What on earth is the point of the 90-day rule? We have changed the regulations to allow the use of pilot-operated lighting, yet some in the industry have said to us that it should not be allowed. I think that government has to press ahead with deregulation even in the absence of a consensus in the sector. But we need backing from the GA sector to drive things far enough, fast enough."

Shapps reserved an element of scorn for the GA industry's inability to put financial resources behind its lobbying. Its claims to be a formidable industry are undermined by its constant pleas of poverty and its unwillingness to put resources into fighting its corner. "Nobody's going to do the £100,000 worth of work that's needed before the next Autumn Statement," he said. "There are all these disparate groups, when everyone in GA should be acting together to fund the lobbying and the work that needs to be done."

Cutting taxes on GA is not currently an option. With austerity the watchword and the government cutting benefits, it would be impossible to sell tax cuts for general aviation to the public, even though the purpose was to increase economic benefit and tax revenues.

The response to the Red Tape Challenge is available online at:

https://www.gov.uk/government/publications/general-aviation-red-tape-challenge-panel-report-government-response ■

ANO goes under review

A 'root and branch' review of how the Air Navigation Order (ANO) affects general aviation has begun, with the CAA looking at how more proportionate, lighter touch regulation can be achieved for GA.

The CAA says it is committed to reforming the regulatory regime for GA, and the first stage of this process will see it examine all the provisions of the ANO relating to general aviation, from licensing requirements to operations and airworthiness rules, with a view to deregulating or delegating where possible in order to simplify compliance for GA pilots and organisations. The CAA points out that an amended ANO will also speed up its ability to introduce reforms it has already identified.

The initial review is expected to be completed by March 2015, followed by a public consultation on initial concepts and a second consultation in September 2015 on the CAA's specific recommendations. Any changes to the ANO will have to be approved by the Department for Transport. DfT officials will be working closely with the CAA throughout the review process.

The CAA says the review will follow the principles it has already adopted in its oversight of GA, which include:

- **only regulate when necessary, and to do so proportionately;**
- **deregulate where possible;**
- **delegate where appropriate;**
- **do not gold-plate, and quickly and efficiently remove gold-plating that already exists;**
- **help create a vibrant and dynamic GA sector in the UK.**

The CAA and AOPA are already jointly engaged in a project to identify and tackle areas where EU regulations have been gold-plated.

Star Chamber sets the agenda

The minutes of the first meeting of the Star Chamber have been made public, and it certainly looks like an outfit that means business. Grant Shapps was in the chair, and present were representatives of all relevant ministries – Defence, Local Government, Transport, Home Office, Revenue and Customs, Business, Innovation and Skills. And of course the CAA was there; only the Treasury was absent, and there's reason to believe they'll be along directly.

The meeting ended with 12 diverse action points for the ministries and CAA covering the preservation of a network of airfields, the training of apprentices, the taxing of avgas, the resolution of GAR issues, the use of military airfields, GPS approaches, and progress on deregulation at the CAA, particularly with regard to EASA.

AOPA Chief Executive Martin Robinson says: "It's clear that while the departments all have reasons for everything, Grant Shapps is determined to overcome inertia and make good on his intention to turning the UK into the place to do business in the GA sector. The Star Chamber is off to a sound start."

Airfields

At the first meeting Mr Shapps spoke of GA's concern that airfields have been disappearing, with local and planning authorities looking on them as purely local assets. Local Government passed the buck to Local Enterprise Partnerships. The next meting will take up the subject of the preservation of a network of airfields in the light of the economic research that is currently under way. Two action points emerged: the Local Government department is to tap up a lead official on Local Enterprise Partnerships who will work with the Transport (DfT) on ways to encourage LEPs to take more effective account of aerodromes in their local plans. In addition, planning issues in relation to GA airfields are to be raised with Local Government Secretary Eric Pickles.

GAR notification

The General Aviation Report filing system is being reformed "imminently", with consultation to come; the Home Office and HMRC discussed with Mr Shapps the way the GAR system had evolved, and it was agreed that ideally, notification periods should be standardised. But there are problems with Border Force staffing and the geographical spread of airfields.

HMRC and the Home Office are to report at the next meeting on progress in bringing about a more consistent and proportionate way of requiring GARs, and moving towards one-hour notification.

Apprenticeships

Mr Shapp s asked for more information on apprenticeships in the GA sector. Business, Innovation and Skills said GA – as opposed to aerospace manufacturing – is not one of the Government's priority sectors in terms of economic development, but said they could work with Transport to determine the level of interest in the GA sector to develop new apprenticeship standards. Apprenticeships, they said, are demand-driven and sector-originated, and had to be applicable across the whole sector, so an apprentice at the smallest workshop should be on the same standard as one at British Aerospace. They rely on industry to propose apprenticeship standards.

Mr Shapps said the UK should do more to encourage flight training in the UK. Most professional pilot training happens abroad despite the fact that English is the industry standard language. HMRC said that the only VAT exemptions for training apply to the non-profit sector, and there would need to be a strong economic case for an exemption. Fuel taxation was also discussed.

Business, Innovation and Skills undertook to work with the DfT department to determine the level of interest in GA to bid to develop new apprenticeship standards; it will also identify the extent to which smaller companies in GA already access support to train apprentices. HMRC is to advise on how aviation fuel tax is calculated.

MoD airfields

Grant Shapps had received a letter regarding the removal of civilian access to Kirknewton airfield, ostensibly because the airfield's operational use had changed and it no longer had the staff, emergency rescue, and air traffic control to guarantee proper safety procedures. The MoD is to investigate the specific case of withdrawn access at Kirknewton and will report back to Grant Shapps' office. The MoD and DfT are to examine how guidance can be improved and promulgated on GA use of military airfields.

CAA

The CAA presented a summary of their current programme, covering the EASA conference in Rome (reported on elsewhere in these pages), its recent achievements, current and future projects, communication strategy, and the structure of the GA industry. The last four action points were laid at the door of the CAA – it must aim to announce deregulation and efficiency measures every 60 days via newsletters and the sector media; it will have follow-up meetings with Grant Shapps to review progress; it is to ascertain the reason for the high cost of producing GPS approaches to airfields; and it is to keep in mind the potential for requesting support at Ministerial level when attempting to propose deregulation to EASA.

Reviewing the Minutes, Martin Robinson said: "They've made an impressive start. Many thorny issues have been grasped. The economic case for removing VAT on professional flight training is incontrovertible – we have driven an entire industry abroad and we need to get it back." ■

EASA – here's where you stand

By ***Nick Wilcock***

Some very significant changes are coming our way, thanks to changes agreed by the EASA Committee at the Commission's October meeting. Most of which will be very welcome and follow our efforts to rectify many of EASA's earlier mistakes. It is also clear that the new attitude at EASA, thanks to Patrick Ky, is one far more inclined to consider the issues faced by the GA world than was perhaps the case hitherto.

IMCR / IR(R) Revalidations

First though, some good news from our own CAA. Some while ago the AOPA Members' Working Group tabled a proposal for members whose aeroplanes were fitted with modern gucci-glass cockpits to fly routine IMCR / IR(R) revalidations in their own aeroplanes, rather than in some unfamiliar piece of rental wreckage which happened to be fitted with a turn co-ordinator or turn and slip indicator. The CAA has now agreed and section 1 (b) of the revalidation test may now be flown using *'any standby instrument system fitted to the aeroplane used for the test, simulating failure of the primary pitch, bank and direction indicating systems'* rather than 'limited panel' *per se*. A change which I'm sure many of you will welcome. The full details can be found in the latest version of CAP 804. Incidentally, EASA has also clarified that credit available towards the Competency-based Modular IR includes *'prior experience of instrument flight time as PIC on aeroplanes, under a rating providing the privileges to fly under IFR and in IMC'* - which of course includes the IMCR / IR(R).

Aircrew Regulation amendment

Although the 8/9 Oct 2014 EASA Committee vote agreed to several amendments to the Aircrew Regulation, these have yet to be ratified by the EU Parliament. However, given the strength of unanimous agreement, it is highly unlikely that the Parliament will vote against the Committee's recommendation; nevertheless, the date of effect of the amendments will be no earlier than 8 Apr 2015. The UK CAA may apply for earlier adoption of certain amendment proposals by way of Article 14 flexibility provisions, but this cannot be guaranteed. But here's most of what we can expect:

- *3rd country private licence conversion derogation extended from Apr 2015 to April 2016*. For those with FAA PPLs and/or IRs, this will now allow sufficient time for the EASA / FAA bilateral agreement to come into effect.
- *LAPL derogation extended from April 2015 to April 2018*. This means that those UK licence holders who are unable to hold an EASA Part-FCL PPL will continue to be able to fly EASA aeroplanes within LAPL restrictions until April 2018 without needing to obtain a LAPL before then, although they can convert earlier if they wish to do so. Note that this does not mean that territorial restrictions of the NPPL will change.
- *Aerobatic rating derogation extended from April 2015 to April 2018.* Although it will not now be a mandatory requirement to hold an Aerobatic Rating to fly aeros on EASA aeroplanes until April 2018, we would still urge those intending to take up aerobatics to take the AOPA / BAeA aerobatic certificate course whether they intend to fly aeros on EASA or non-EASA aeroplanes alike. 'Grandfather' rights for existing aerobatic pilots as stipulated in CAP 804 will be extended to April 2018; also, the extended derogation period will give us more time to work on having the ridiculous "40 hrs PIC since licence issue" prerequisite for the Aerobatic Rating scrapped.
- *Towing and mountain rating derogation extended from April 2015 to April 2018.* Where they exist, national arrangements for these activities will continue until April 2018, although those who wish to acquire these

ratings will be able to do so before then, assuming that they can find someone to train them.

- *'R' Examiners.* Agreement has been reached which will allow certain instructors to sign revalidation entries in Part-FCL licences for pilots revalidating their Class Ratings by experience. In the UK, this will simply mean reintroduction of the former 'R' examiner authorisation.
- *Examining own students.* The ban on Examiners testing applicants for whom they'd already provided flight instruction will be significantly eased. The proposal is that an Examiner will be permitted to test an applicant to whom he/she has given no more than 25% of the mandatory dual training required for the licence or rating. This actually goes rather further than the proposal we'd made to EASA and again is very welcome.
- *Registered Facilities.* The deadline for RFs in existence before Apr 2015 to convert to Approved Training Organisations will be extended from April 2015 to April 2018. The CAA will not be accepting any new applications for RFs though; any new pilot training organisation will have to be an ATO. Both EASA and the CAA have been working on changes to existing RF-to-ATO conversion criteria, so that RFs will be able to become 'non-complex ATOs' with less regulatory burden than is currently the case. EASA completed its draft proposals in November and their Notice of Proposed Amendment may well have appeared by the time you read this. The CAA has checked that their own Alternative Means of Compliance for non-complex ATOs, plus the associated template manual and Standards Document will comply with the NPA; however, they intend to de-mystify much of EASA's phraseology and produce rather more user-friendly documentation. The reason for the CAA's AltMoC is to introduce simpler RF-to-ATO requirements sooner rather than later. Although RFs will also be permitted to conduct LAPL training without becoming ATOs first, they *will* need to convert if they wish to provide training for the MEP Class Rating, EIR and/or CbM IR, FI and/or CRI certificates. Assuming they have the relevant instructors, of course.
- *Class Rating Instructors / Class Rating Examiners.* An unintended consequence of the unique structure of the LAPL is that, because it includes 'privileges' rather than 'ratings', in the eyes of the €urocrat that means that CRIs may not, for example, provide training for a LAPL TMG holder who wishes to include SEP privileges, even though they *may* do so for a PPL TMG holder seeking an SEP Class Rating. A similar situation faces CREs testing such pilots. This is clearly daft and will also be resolved under the forthcoming amendment.

FCL.002 NPA

Once again we've been assured that the tidying up exercise of FCL.002 should yield its Notice of Proposed Amendment 'soon'. However, the Aircrew Regulation amendment proposals have to some extent overtaken FCL.002, so it has been necessary to review the draft NPA yet again, in order to make sure that it won't contradict the amendment proposals.

So it's all good news then?

Well, I would say so. But there are also other matters being discussed, over some of which AOPA has significant reservations. As ever we are keeping a close eye on these, both at national and European level, to ensure that the interests of all our members, whether individual or corporate, are protected as well as can be achieved. And the more members we have, the greater will be the strength of our voice if and when we need to fight your corner for you! So if you're reading this and you're not yet a member, please go to http://www.aopa.co.uk/ and apply to join. ■

SERA put on hold by CAA

The CAA has confirmed that the UK implementation of significant elements of the European Union's Standardised European Rules of the Air – SERA – has been delayed. As a result, there will be no changes to the UK Rules of the Air stemming from SERA that will impact UK pilots. The SERA changes were to have been introduced wholesale on December 4 2014, but as a result of this decision by the CAA, the only rules adopted will be those that are already part of the UK Rules of the Air – so effectively, there will be no change.

The CAA says its decision has been prompted by concerns over the impact of the changes on UK aviation, the need to complete the derogation process with the European Commission, and delays in providing the CAA with the authority to administer the rules seamlessly.

The proposed change to move the UK from quadrantal to semi-circular cruising levels is therefore postponed and will not now happen in December. There will be no changes to minimum height rules, and both VFR and Special VFR flight at night will continue to be permitted.

The CAA has also asked the European Commission for two derogations from SERA. The first would allow the UK's existing clear of cloud rule, governing flight in VMC in controlled airspace, to be maintained. This, it says, "gives flexibility to pilots and air traffic controllers and reduces the need for Special VFR in a control zone". The second derogation seeks to avoid the unintended effect of air traffic control not being able to issue a Special VFR clearance when the ground visibility at the reporting aerodrome is below the specified new criteria, despite a pilot being able to fly in VMC (or under a Special VFR clearance) within a control zone away from the affected aerodrome.

Mark Swan, the CAA's Director of Safety and Airspace said: "While we welcome some of the clarity and consistency that SERA will provide, if implemented in its entirety it would impose considerable restrictions on the GA community which is why we are seeking derogations and deferring the implementation of significant parts of SERA." ■

CAA scraps Annex 2 mod validations

The need for UK regulatory validation for airworthiness design changes that have been originally approved overseas to a range of UK-registered aircraft types is to be scrapped, the CAA has announced. The change is good news for the owners of non-EASA aircraft who can now install any minor modification or change supported by an STC approved by a state with which the UK holds a bilateral agreement, such as the US or Canada, without CAA involvement.

The CAA said the change will eliminate the cost and time involved in validating and approving paperwork. The owner or operator can arrange for installation of the modification as per the approval, then get their maintenance organisation to certify its installation in the aircraft's log-book. The change affects non-EASA aircraft, operating on a National Certificate of Airworthiness, such as Piper Super Cubs.

ATO delay confirmed

The EASA deadline for all Registered Training Facilities (RTFs) to become Approved Training Organisations (ATOs) has been postponed, the CAA has announced.

The long-awaited confirmation comes four months ahead of the original April 2015 deadline and gives the regulator three more years to decide exactly what it wants training schools to do. While the ATO requirements as written are unnecessarily bureaucratic and add costs, some training organisations have already invested considerable time and money in conforming, writing safety manuals and setting up systems which EASA now accepts are over-engineered for many schools and clubs.

AOPA's CEO Martin Robinson says: "We've been pushing hard for a delay in implementation and I'm very pleased that the CAA and EASA have agreed. We will continue pressing for proportionate requirements to be placed upon Registered Facilities – ones which recognise the realities of flight training as we know it."

In announcing the delay, which was confirmed by EASA in October, the CAA said it was "in order to permit work to be carried out to produce a more proportionate alternative set of European rules for private pilot training."

It goes on: "This decision, which acknowledges the difficulties some training schools have faced in meeting the original deadline, will enable schools to continue instructing students for the award of EASA private pilot licences until April 2018, while a more proportionate system is developed and put in place.

"The CAA will continue to work with EASA and members of the UK and European GA communities to develop alternative options, with the ultimate aim of providing a high quality pilot training structure."

Tony Rapson Head of the CAA's General Aviation Unit said "This postponement is not only important in itself, but is also clear evidence of EASA starting to deliver on its commitment for 'Simpler, Lighter, Better Rules for General Aviation."

The CAA said it supports EASA in its development work and remains committed to making sure the transition process from RTF to ATO contains the minimum of regulatory burden. What shape the new regulations will take is uncertain, but a return to the Registered Facilities format has not been ruled out. ■

Medicals – who needs 'em?

Following on from Grant Shapps' questioning of whether the current medical system for PPLs has ever made GA safer, the CAA has begun a consultation on its provision of medical services to the whole aviation industry.

The CAA's Medical Department currently oversees the medical certification process for 16,000 commercial and 30,000 private pilots holding, as well as medical certificates for air traffic controllers.

Full details of the consultation, including how to respond, can be found at www.caa.co.uk/consultations

The CAA is particularly keen to hear views on alternative options to deliver some aero medical services, and says it has an obligation to ensure the aviation industry had access to the most cost effective and efficient medical services possible that are fit for the future.

The consultation will run until 11 December. The CAA is expected to announce a decision on the future of aero medical services in the New Year. ■

Who deserves recognition?

AOPA invites and urges members to submit for consideration the names of worthy candidates for its prestigious achievement and endeavour awards, which recognise the special contributions of individuals and organisations to private aviation. The AOPA Awards are presented every two years and cover almost every facet of GA, seeking to reward the contributions of pilots, instructors, air traffic controllers, engineers, flying schools and aerodromes – in fact anyone or any organisation who has improved the lot of aviators anywhere. Please submit nominations preferably by email to AOPA at info@aopa.co.uk with enough supporting evidence to help a panel of judges form a decision. About 200 words is ideal, but any proposal, short or long, is welcome, and the sooner the better. The awards will be presented at the 2015 AeroExpo at Sywell on 29th to 31st May.

The Achievement and Endeavour Awards are as follows:

Lennox-Boyd Trophy. Awarded to a person, club, group or organisation who has contributed significantly to the furtherance of flight training, club flying or piloting standards. The trophy is a cup in a special presentation box that was originally given to the Association of British Aero Clubs by the late Rt Hon Alan Lennox-Boyd PC CH MP (subsequently Viscount Boyd of Merton) in 1953. In 2013 the trophy was awarded to Mike O'Donoghue of GASCo for his outstanding contribution to general aviation safety.

AOPA Special Award. Awarded to a pilot, controller or engineer, or other person who has made a special contribution to safety, or other areas of general aviation. The trophy is a cup originally presented by the British Precision Pilots Association in 1987. The trophy was awarded in 2013 to Dawn Lindsey for her dedication to the task of planning for the Olympic Airspace system.

Best Aerodrome. Awarded to the aerodrome that has been an outstanding place to visit, offering value for money and helpful service. The trophy is a sword donated to AOPA by Airtour International Ltd (now Pooley's Flight Equipment Ltd) in 1982. The sword was presented to Rochester Airport in 2013 as a result of strong support from users and the local community.

Contribution to the Community. Awarded to a person or organisation who has made an outstanding contribution to the aviation community. The trophy is a cup donated in 1997 by Flyer magazine. In 2013 it was awarded to the Lee Flying Association for its pivotal role in preserving Lee-on-Solent aerodrome for future use by general aviation.

Individual Merit. Awarded to a pilot who has made an outstanding aviation achievement. The trophy is a cup on a granite plinth. It was awarded in 2013 to John Murray, a regular and keen supporter of the AOPA Members Workng Group, for his establishment and development of the on-line GAR system.

Instructor of the Year. Awarded to an instructor who has made a special contribution to the training of student pilots for the PPL or NPPL, or to private pilots for added qualifications. The trophy is an art deco cup donated in 2004 by Virgin Experience Days. It was awarded in 2013 to Alan Evans of the IMC Club based at Bourn as a result of outstanding support from 15 of his students.

Friend of AOPA. Awarded to a person or persons who has or have made a special contribution towards the work of AOPA. The award is normally a tankard for the recipient to keep. In 2013 it was presented to Sean Woodward, Executive Leader Councillor of Fareham Borough Council for his support of the Lee Flying Association in connection with restoring Lee-on-Solent aerodrome to use by general aviation. ■

All right for some

There's one section of general aviation that seems to be doing extremely well, and that's the top end.

JetClub, a private aircraft management company based at Farnborough, says London's growing popularity as a bolt hole for the world's mega-rich is fuelling demand for private jets.

Their research shows that 64 'heavy' jets were delivered to the UK between 2009 and 2013, which represents 15.3% of the total for Europe. The term 'heavy' excludes the piddly little Citations and so forth – the fleet managed by JetClub is dominated by Bombardier Global, Gulfstream and Boeing Business Jets. Austria saw the next highest number, 51, followed by Germany with 43.

The UK figure excludes Isle of Man registrations. JetClub says there are now 100 billionaires in Britain, and 72 of them – 10% of the world's total – live in London. And the number of business jets registered in UK has risen 26% over the past five years, from 298 in 2009 to 376 today. The combined number of business flights into London's five busiest airports increased by 7% over the past year, rising from 106 per day in July 2013 to 113 per day in July 2014. The number of enquiries JetClub has had about its services has risen by 40% in the last three years.

JetClub's Chief Executive Dustin Dryden says: "As well as those living in the capital, we are also seeing more ultra-high net worth individuals visiting London, examples being wealthy individuals from the Middle East with their supercars following the end of Ramadan, and ultra-high net worth Chinese citizens in October during 'Golden Week', China's national holiday. All of this is fuelling demanding private aviation services." ■

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Change is gonna come...

Above: the general aviation conference in Rome was the best-attended event EASA has ever staged

Grant Shapps and Andrew Haines took the battle to Europe at EASA's GA safety conference in Rome with some provocative statements which were met with enthusiasm by much of the general aviation industry and a degree of reluctant acceptance by the bureaucrats.

It was clear that EASA's reforming Executive Director Patrick Ky accepts that fundamental change is necessary, and equally clear not everyone in authority is agreed on the required extent, pace, or possibility of radical change. But where M Ky talks about steady progress over a period of years, Shapps and Haines stressed that the situation is urgent and emergency action is overdue.

EASA say the conference was their most popular ever, with 353 delegates registered – among them AOPA representatives from the UK, France, Germany, Sweden, Norway, Spain, Switzerland and Italy. Over two days, speakers of every nationality berated EASA for driving good GA companies out of business and imposing intolerable burdens on the survivors.

Patrick Ky proved to be a strong critic of his own Agency. "A lot of EASA regulations are seen as too heavy," he said. "I get the biggest number of letters, very few of them nice, from the GA community – you are certainly passionate. And EASA is not answering your expectations. We have the GA Road Map, but we must also change the mindset of the regulators. Their role is to regulate, and most of the GA regulations have a background in commercial air transport. How do we educate those regulators to have a more proportionate attitude to GA? This is one of the most challenging tasks."

That work is already in hand. "In the recent reorganisation of EASA we have created a specific GA department, gathering together all those who are passionate about GA," Ky went on. "We have also put under this department all the rulemaking activities linked to GA – certification, for instance, where rulemakers work together with those who are implementing the rules, so they are not produced in isolation. This will have an impact in the next few years.

"I hope the actions we are starting to take are becoming visible. It's modest, we are not going as fast as the UK, but we are committed to change the way we deal with GA, and to find solutions to the safety problems."

EASA, he said, could no longer afford to recruit more staff – it has been growing at 50 to 70 people a year. "We need now to prioritise our work," M Ky said. "It is our duty in this context of austerity when we do something to ask ourselves what is the impact in terms of safety, in terms of cost, ask ourselves whether we should do this. Otherwise we will continue to do things that don't make any sense.

"I arrived 13 months ago, and we have made progress. Let's organise a conference in one or two years time, to look at two, three or four years of our activity to see if we have delivered. The way to increase safety in GA is to alleviate the regulatory burden we are imposing on this sector. It will take time, but I think we will get there – more slowly than the UK, but I think your initiative shows us the way. We can learn from your example."

Grant Shapps, however, was not ready to accept slow, gradual change. "This is an emergency – it can't wait months or years," he said. "Look at the balloonists, who have been dragged into an EASA regulated area. There is no advantage, but tons of disadvantage, to having EASA regulation. I don't say the national regulator should take it back, I say it should go to their own association, the British Balloon and Airship Club. They are the experts on balloon safety, not EASA.

"Gliders the same. Microlights have been able to operate perfectly well and are far more modern than the Annex 1 aircraft I fly. They are an area where the culture of self-regulation is excellent, and we should not be dragging them into EASA. Give it back to the people who have been running it safely and successfully for years.

"When you regulate, it feels like there's a moral case, you're doing a good thing. You don't consider the wider impact on society. The little loss of freedom in the individual, the person in whom you will not spark the interest in flying, the tiny little loss of GDP – none of this is factored into the equation, and it must now be taken into account." ■

Standing at the crossroads

Grant Shapps's passion for aviation and determination to achieve change was clear from the forceful delivery of his extemporised opening statement to the conference. He began by stressing that general aviation's problem was simple – too much bureaucracy.

Britain has begun to prosper in recent times by slashing red tape, he said. "Four and a half years ago we had one of the world's biggest deficits, ranking with that of Greece, and we were looking at going to the wall if we did not deal with it," he said. "We cut public expenditure in all sorts of areas in the belief that we needed to release business from the red tape and pettifogging rules that made it hard to create jobs. The UK now has the fastest-growing economy in the developed world and we have created over two million jobs in the private sector – that's more than all the other EU countries put together. We have reduced the bureaucratic head count by 600,000 to allow businesses to be more dynamic.

"There's a powerful argument to do that for GA. In Britain we have been literally killing GA for 30, 40, 50 years by coating it in a blanket of bureaucracy intended to drive up safety standards. But we have lost sight of the things that make the GA industry thrive. You can't have an industry if you make it so difficult, complex and expensive to develop new aircraft, to train pilots, if you require so much paper-chasing that it becomes impossible for the average person to get involved. General aviation is the foundation of a thriving aerospace community, providing mechanics and engineers, avionics experts, training pilots, one of the most exportable skills in the world – and we seem to think that it's good enough to be followers, so that if the FAA does something, a decade later we should do the same thing.

"After flying for 15 years, I was shocked to discover there was somebody called the 'Head of Rulemaking'. The fact that we have people whose entire job is to make up rules tells you everything you need to know about regulation in Europe. It's nonsense and it has to end – it makes no sense."

Shapps rehearsed the Red Tape Challenges that have cut administration costs for businesses right across the economy. "We looked at every area of the UK economy from retail to manufacture," he said. "When we looked at GA, what I wasn't expecting was what we got – the largest response of any red tape challenge, with more than 500 separate issues. Some ideas were potty, some made really excellent common sense, and we boiled them down to 280 areas that needed addressing. I asked the excellent Andrew Haines at the CAA to translate them into action. I don't think we're doing it fast enough, but we have made a start. You can do things now that have not been possible before. You can experiment again, build better machines, we're making it possible to do all manner of things that were previously impossible, and with the Transport Secretary Robert Goodwill we have set out the ambition to become the best country in the world to do business in general aviation.

"We want to extend that across Europe. I think we are at a crossroads, a moment of choice. We can decide to release the sector from all the things that are keeping aircraft grounded and stopping people flying, or we can watch the industry continue to wither. How is it that for 40 or 50 years, we had balloons and gliders that flew with exemplary accident records without any major safety concerns, yet now we are told that these areas must be regulated by EASA? What is the advantage? Let them regulate themselves, as they have done successfully for decades."

Above: they might have got the name wrong on the slide, but there was no mistaking the message

Turning to Patrick Ky he added: "I fly an N registered aircraft and I won't have done my job until we're all on the G register again. When my aircraft is signed off, why do I have to send the paperwork to EASA? What about medicals? There's never been a shred of evidence that the current approach does anything for safety. Can you show me that more people die of heart attacks in the air than when driving?

"These are just a few ideas off the top of my head, but we have another 300 that are worth considering, and we want to see Europe going through what Britain has begun. If we do nothing, we won't be having this conference in five or ten years because we will have strangled our industry.

"I'm frustrated with the speed of progress, in government, in the CAA, but the biggest change needs to be in our industry, in ourselves… if we want to cut this sector free, we have to understand that we need to let go, release ourselves from the red tape that we cling on to, make it successful, make it enjoyable, and let it breathe. We can be the best place on earth for GA, and we all need to work to make it so."

During questions, Shapps revealed that he had been prepared to go much further in rebalancing the UK's relationship with EASA. "I considered two radical proposals," he said. "First, should we remove GA entirely from the CAA and have someone else look after it, like the industry bodies? Second, I considered whether to pull the UK out of EASA altogether from the GA perspective. I gave this serious consideration, but actually, the truth is that in the UK our national regulators are often people who have been the least flexible in the past. EASA coming in has actually reduced regulation in some areas, and rather than accepting that reduction, the CAA had gold-plated with additional British regulations.

"We spent a lot of time undoing that, and we now have in the UK, it's fair to say, a national regulator who really gets it, and they have a separate GA unit to take on these issues."

He concluded by paying tribute to Patrick Ky for the work he has begun at EASA. "The difference between the old EASA and the new EASA is Patrick Ky," he said. "We know you have the difficult problem of trying to unravel some of this stuff with all of the 31 EASA states, but I know you are determined to push ahead. ■

What price safety?

How safe should general aviation be? EASA Executive Director Patrick Ky began by saying the accident record in Europe was not good enough. "GA killed 250 people last year in Europe," he said. "Overall the trend is flat at 200 to 250. It's too many… one of the key ideas I would like to keep in mind, we need to decrease the number of people who are killed."

But in his analysis he offered hope that EASA's box-ticking culture had had its day. "When we look at the statistics, most accidents result from poor airmanship. It is not by regulating that we improve airmanship skills. It's training, educating – we need to rely on the actors themselves. But I don't believe we need to do nothing at all."

Others took issue with his approach. While all reasonable steps must be taken to reduce accidents, the people involved in general aviation make informed judgements of the risks and opt to involve themselves in the activity anyway. And in some cases, EASA's current regulations manifestly add to the risks.

The first panel discussion, entitled 'Is general aviation safe enough?' was moderated by M Ky and featured CAA Chief Executive Andrew Haines, IAOPA Senior Vice President Martin Robinson, NTSB Board member Earl Weener, GAMA President Peter Bunce and Finnish Transport Agency Director General Pekka Henttu.

M Ky noted that 200 aircraft had been destroyed in 2013, and 600 badly damaged, while only 170 new aircraft had been bought. So the fleet is shrinking. "Why?" he asked. "Is it because of price? Is it because we are strangling the industry?" He noted that America's GA accident rate was 50 percent better than that of Europe. "Why?" he asked again. "Is it because the regulations are better, the weather is better, the training is better?"

For AOPA, Martin Robinson said part of the reason was that GA pilots were not able to fly enough to maintain the level of proficiency of their American counterparts. The average UK pilot was flying less than 30 hours a year. "The CAMO system put maintenance costs up by 25 to 30 percent," he said. "Pilots have a finite amount of money to spend. There was no evidence that the CAMO route would improve safety, but it reduced proficiency.

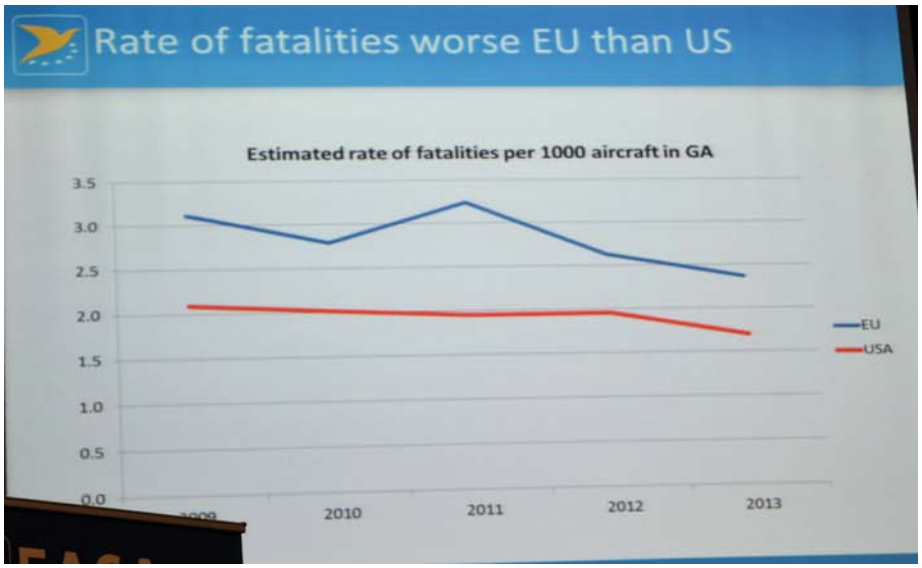
He added that safety should not be confused with absence of risk. "It's difficult to find a definition, but the word 'tolerable' might be useful. We can't be complacent, but tolerable does not mean acceptable. Rules need to be focused on where the risks lie, and they need to be proportionate, open, and transparent."

EASA's approach had militated against safety, he went on. "People are not stupid. Confidence in legitimate safety rules suffers when regulations are badly made. Rules do not reduce fatal accidents caused by pilots' attitude to risk. The biggest human factors are ignorance and arrogance. Ignorance can be addressed, arrogance is more difficult. We cannot legislate to protect people from themselves. But the best safety device is a well-trained pilot, able to appraise risk."

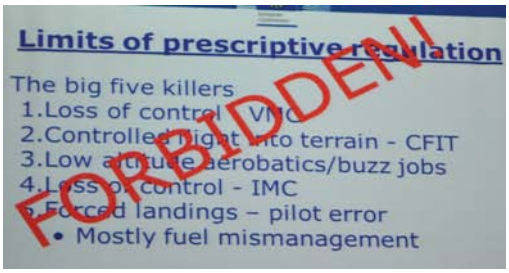
EASA projects such as rewriting the certification rules are misguided, he went on. "There are 163,000 piston aircraft in the US with an average age of 39 years. Their certification and airworthiness rules were developed even earlier, yet accident investigators tell us that certification and airworthiness issues simply don't feature in fatal accident investigations. Why then are we reinventing the certification wheel?"

In a refreshing admission, Pekka Harttu said that Finland had a significantly worse safety record than other countries, yet its GA was very heavily regulated and it had outsourced no tasks. Finland looked enviously at the UK's accident rate and noted that regulation was lighter there, and some tasks were delegated to aviation associations and other bodies. A change of emphasis was needed.

GAMA President Peter Bunce questioned the idea that a zero accident rate was feasible in a viable GA industry. "We will always have machines failing and humans making mistakes," he said. "We have the technology to improve the picture in key areas such as CFIT. We live in an age when young people are very savvy in using technology, but costs explode when you put up certification barriers. Why should



Above right: EASA Executive Director Patrick Ky confers with French DGAC Director General Patrick Gandil
Right: safety panel – Pekka Henttu, Andrew Haines, Earl Weener, Patrick Ky, Peter Bunce, Martin Robinson
Below: why is the fatal accident rate 50 percent better in the USA than in Europe, they ask



Above: EASA accepts that the big killers in GA result from behaviour that is already proscribed

we not allow AOPA members very cheap engine monitors for any aircraft, certified or otherwise? To enhance safety, in the unregulated world modern equipment is being fitted that cannot be fitted in the certified world. Angle of attack indicators are becoming common, technology can tell us where the bad weather is, even where the turbulence is, the technology is available even to install a button that can autoland the aircraft if you get inadvertent entry into IMC.

Every time you certify it costs go up. Retrofitting becomes prohibitive for certified aircraft because of cost, which makes certification itself a safety issue."

EASA's slogan, 'Your safety is our mission', came in for criticism. Martin Robinson said: "Pilots need to take a holistic approach to their own safety. Students could almost believe that if they'd conformed to EASA's regulations, they would be safe. The slogan may suit passengers in the commercial world, but it's wildly misleading in GA."

During the earlier keynote discussion, French DGAC head Patrick Gandil and Grant Shapps had also addressed safety issues. Gandil, himself a GA pilot who flies a Jodel, said: "Safety is a political decision. It is not the same for buses and cars, or very big boats and little sailing ships, and it's impossible to ask private pilots to attain the same level as commercial pilots.

"We must accept what society accepts in every other sport. Skiing is unsafe. The problem is to be reasonable in the difference. We must begin with some hierarchy of risk depending on the activity.

Regulation can be negative. People spend a huge amount of time on administration which would be better spent teaching safety. What are the main reasons for casualties? Meteorology, and poor airmanship. Is it then reasonable to make IFR flying so difficult that pilots are not trained for it, and they die? The British IMC rating is a good solution. We must really work on this, because weather can catch any pilot, even with extremely good preparation."

Secondly, he added, we must ban over-regulation. "Every pilot must easily know the regulations. Now it is impossible for a pilot to know all the regulations, even a professional. We must use the idea of Safety Management Systems, but make pragmatic systems, and we need data with which to make statistics. We must focus on training, and we cannot make absolute regulations for everyone. Our industry is dependent on local conditions – topography, meteorology, density of airfields, there's something very local and we must accept it.

"Generally the authorities are organised for commercial air transport, and this is reasonable because of the responsibility to the passengers. But knowledge of general aviation is mainly in the parties involved, and we must delegate to the parties the management of GA."

Grant Shapps agreed with M Gandil. "We can make GA 100 percent safe," he said. "We can prevent every accident, and the way to do is regulate to the point where it is impossible to fly. That is too often the attitude of regulators. It has been the reality in the UK. We believe individuals are free to take risks. They can rock climb, ski, base jump, ride horses… why do we have a different attitude to GA? It's because we regulate for passengers, as we do for commercial aviation, and it is wrong.

"The UK government believes our citizens should be allowed to take informed risks. This should extend to flying in the Spitfire, which we now allow. They know it's not the same as airline transport, they accept that fact. We will go further. Right now we have legislation going through Parliament to give all of our regulators in the non-economic sphere – people like the CAA, who have only had a mindset of preventing accidents – a responsibility for growth. We have to dump the old attitudes. I'm a pilot, and I don't want to die. But we accept that people can take risks." ■

Above: the UK government believes our citizens should be allowed to take informed risks. This should extend to flying in the Spitfire, which we now allow

Haines's seven-step programme

Nobody went further than Andrew Haines in calling for urgent, radical change. The CAA Chief Executive said: "I want to reject the idea that regulation equals safety – I do not believe it. But we're going to have to be radical to get momentum. There are seven things we need to do urgently:

- We must delegate more back to national authorities. The pace at which EASA can work across 31 states is too slow. We cannot afford to move at the pace of the slowest, most conservative country. We are trying to stop things getting worse – that's not a road to radical improvement.
- We need to raise the bar on regulation. The introduction of an age limit for ballooning was an absurdity. We had to produce all this evidence to remove a regulation for which there was no basis.
- We have to look at what we do as regulators. As an exercise, I decided to see how many PPL exams I could pass by simply skimming the revision notes at the back, without doing any work. I scraped through the first three exams. Are we really preparing pilots to fly?
- Martin Robinson took me to an airfield where there was an aircraft in a shocking state – my inspectors had never seen it. They never get out of the office. The paperwork has become more important than getting out and looking, particularly with regard to Part M. We have to make it easier to adopt modifications which have self-evident safety advantages, for which the safety benefits have already been demonstrated.
- We need to delegate more to the associations, which is where a lot of the expertise lies. And the sector needs to be more ambitious to take this on.
- We must stop reinventing the wheel. There's a lot Europe can learn from the US, but we seem to be insistent on developing our own regimes as a protectionist measure.
- And finally, I would love to have a competence and fitness test for suitability to fly. There are people who self-evidently shouldn't be flying, but we don't have the toolkit that allows you to take their licences away. I think it's a reasonable trade-off, if you're a persistent poor performer."

EASA's dead hand

The effect of EASA's move into the regulation of balloons and gliders was dissected by delegates who decried the cost and pointlessness of the Agency's adoption of what did not need to be adopted.

Don Cameron said EASA had been a disaster for ballooning, with the increased regulatory burden, none of which had added anything to safety, threatening to kill the sport. "Older balloonists are giving up and younger ones are not entering the sport due to the burdens," he said. "Costs have increased beyond recognition. If the latest pilot licensing proposals had gone ahead, the cost of sport ballooning would have risen even more. It costs about €180 per hour to run a balloon. On top of that it would have taken €360 per hour to satisfy the regulators, a tripling of costs. This does not count the waste of time which would have been caused. Its cancellation is a relief."

None of it was necessary, he added. "Balloons are simple devices – little more than bags of hot air controlled by a few ropes. They have been flying for 231 years and they do not resemble aeroplanes in any way. They have a lower fatal accident rate per million hours than any other form of sporting flight. They do not need regulations that have been developed for aeroplanes. Other sports like sailing, mountaineering and horse riding are more dangerous, but do not have to suffer aeroplane rules.

"Despite this we have always suffered from aeroplane rules, inappropriately applied. In the UK, this had been moderated by detailed negotiation between the CAA and the British Balloon and Airship Club over many years, treating every issue in detail, one by one. But the arrival of EASA has been a disaster. EASA has imposed rules, not only designed for aeroplanes, but for commercial airliners. One burden is imposed after another; one cost after another; one waste of time after another, with no contribution to safety whatever.

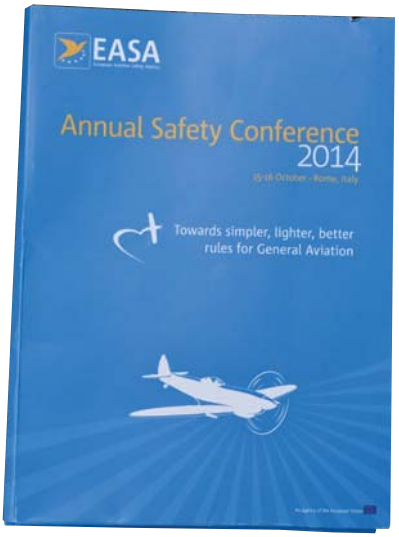
"Where manufacturers needed one approval, we now need four. For each, we must spend hours creating completely stupid expositions, hours in discussion with officials and hours following bureaucratic procedures – and, of course, paying fee after fee after fee. How astonished we were to discover, after we had gained EASA approval to manufacture balloons, that we needed further approvals (and further fees) to repair them, something we had been doing for 30 years.

"There are burdens on maintenance. Part M has been utterly inappropriate for our sport. Inspectors, who worked as volunteers before, now have so much bureaucracy that many have resigned and those that remain will only work for money. The need to have an ARC is complete nonsense – it is a certificate to certify that there is a certificate!

"We had voluntary airworthiness control in the UK for 40 years and there was no accident which greater control could have prevented. Most other European countries had compulsory airworthiness certification. The result was that most of the innovations took place in the UK and the safety culture evolved by the BBAC was the best in Europe. Most of the world records were achieved by British pilots or in British-built balloons. Special-shape balloons were first produced in the UK. Hot-air airships were first produced in the UK. Large balloons for passenger carrying were first produced in the UK. This is not because the British are more intelligent than people in other countries; it is because freedom allowed progress to take place.

"The excellent safety record of balloons has been achieved by learning with friends and passing a check flight. EASA proposed that all instruction must be with a qualified

Above: Don Cameron – "unhappy, even angry with EASA regulations"
Below: 'balloons are little more than bags of hot air controlled by a few ropes'



Right: EASA's conference documents – the significance of the Spitfire on the cover was not explained

Left: front row – Earl Weener, Peter Bunce, Grant Shapps, David Dyer (DfT) Christopher Maxted, Patrick Ky

instructor who will have to be paid. Every instructional flight would be recorded in a central ATO where an administrator would have to be paid. Even after gaining a licence, they wanted regular flights with a paid instructor. Yet they are quite unable to point to an accident record which would make this necessary. This has now been withdrawn, but only after much trouble and expense had been incurred.

"A supreme example of incompetent regulation was the proposal for pilots' medicals. It had been proposed that balloonists should have a Class 2 Aviation medical which costs about €200 and a day's work lost. Balloons have been flying for 231 years and there has never been an accident due to a medical cause. How big a field experiment do they need?

"This is an example of lazy and incompetent regulation. It would take only a few hours to understand the history and the difference in risk between aeroplanes and balloons. But instead of taking that trouble, they proposed regulations with a wave of the hand, costing balloonists hundreds of thousands of euros.

"I have to say that I am totally unhappy, even angry, with the regulations that EASA has produced. But some of what I am hearing over the last few months seems to say that many in EASA now realise how dreadfully wrong they have been and that a lighter touch is needed. The words I hear are good. I can only hope it will be reflected in reality."

World gliding champion Steve Jones, who runs Southern Sailplanes at Membury near Hungerford, startled delegates by saying he quite liked the EASA paperwork regime "because 25 percent of my competitors have given up in frustration." He was of course joking, and was scathing in his appraisal of EASA. "This reduction of competition is not healthy for the future of gliding," he said. "I hope EASA are proud of their achievement. Any reconciliation begins with an apology, but I haven't heard anything like an apology from EASA about this effect on my business.

"Manufacturers have suffered terribly under EASA and now have to have up to five separate approvals, a draconian burden that does not help safety. I find it amazing that manufacturers are not considered suitable to apply an oil can to their aircraft until they fill in a lot of paperwork and pay a lot of money. The cost is high in terms of approval fees, time taken to prepare for audits, and dealing with audits – but ultimately these costs don't help safety.

"The latest changes to the maintenance programmes are tinkering at the edges and will do little to improve the situation. EASA has complained that there was no money. Business will recognise this as a good thing because hopefully it will reduce the number of bureaucrats, make them responsible for what they're doing, and let us get back to where we were ten or twelve years ago where the people who will get sued are responsible for safety.

'Glider safety has got worse, and EASA is responsible' - Steve Jones

"In the last ten years maintenance-related accident figures have not changed at all, but safety has got worse and EASA is responsible. Implementing change is nearly impossible – the time and the costs are prohibitive. If making these small changes is simplified down to a few internal changes, we might kill a few less people each year."

Howard Torode, the British Gliding Association's Technical Committee Chairman, described a scenario where several glider fleets across Europe have been grounded because nations could not conform to new regulations, and where pilots have taken gliders across borders to get services. "We wish to be self-regulating and responsible for what we do," he said. "We stand by our accident record. As and when there's a problem we're prepared to be audited, but we are bored with being audited from afar by people who do not understand gliding." ■

The spirit is willing…

Change is afoot at EASA, but will it be enough to give general aviation a fighting chance? Executive Director Patrick Ky sees the desperate need to row back on regulation, but how much power does he have to effect change? There are 31 countries in EASA, some of whom have little or no general aviation and only a handful of people in their national aviation authorities. How much responsibility could they shoulder, even if they had the will to take new work on?

M Ky gave an insight into some of the difficulties he faces. "We have proposed some measures to alleviate the general aviation sector, and some nations voted against," he said. "Across Europe, it's not necessarily better if it's done at the national level. It's not necessarily too heavy if it's done at EASA. I know some countries that are more constraining on GA than EASA. We are willing to do our part, to make progress, but it is something where we all share the burden and we need to have a European approach. We need the GA community, also, to convince your national authorities they should go this way."


Above: some Italian regulators didn't hang around to hear their profession called into question

And how much support does M Ky enjoy within the Agency? EASA employees can confound any progress if they wish to maintain the status quo, and European labour laws make it very difficult to cut out dead wood or clear logjams. Again and again delegates in Rome said that while there was talk of change from the top, it didn't seem to have filtered down to the people the industry has to deal with every day, who were still as pedantic and unreasonable as ever.

In the conference hall you could tell the bureaucrats from the industry delegates by who applauded and when; enthusiasm among the GA people was matched with stony silence from regulators. Tony Rapson, head of the CAA's GA unit, illustrated the problem with a bit of slapstick when he asked everyone to stand up, then to turn through 360 degrees, then to sit again. Most did, with varying degrees of bemusement, but many sat firmly in their chairs and refused to take part. Getting everyone moving in the right direction is not simply a matter of ordering that it should be so. But the spirit is willing.

Athens hosts IAOPA Europe

IAOPA Europe held its 131st Regional Meeting in Athens in September to bring member AOPAs up to date with what's happening in GA regulation in Europe and across the world. Topics as diverse as UAVs and the resolutions passed by the IAOPA World Assembly in Beijing were debated, and delegates got to see how Greek GA is advancing when they visited the Tatoi air show at a military base outside Athens. ***Pat Malone*** *reports*

Britain's problem, everybody's problem

During the session in which individual AOPAs outlined the most pressing problems on a national basis, the UK's Martin Robinson said the general downward trend in aviation was ultimately the greatest issue to be faced.

"In a healthy industry, pilots in the UK would begin at the most basic level, flying VFR singles after gaining a PPL then moving up to an IMC rating, a night rating, perhaps a twin rating," he said. "That is the way it used to be. As a result of their aspirational approach, pilots increasingly needed engineers, paid for fuel, supported an infrastructure that underpinned the industry.

"The trend now is in the opposite direction. New people are not coming in in numbers. People who have licences are trading down, driven by over-regulation and over-taxation of their traditional sector. They are turning away from those aircraft that support a GA industry, and towards aircraft that make little contribution to it.

"The UK national authority's approach is to further deregulate that which is already lightly regulated or self-regulated, making it even more attractive. If we do not address this, we will see a GA industry in a graveyard spiral. If an owner or pilot steps out of a certified aircraft into a kit-built aircraft, he will undoubtedly be less safe – otherwise what is the point of certification? Yet the regulatory pressure now is to trade down.

"If a pilot and owner trades down from a certified aircraft to a permit aircraft operating from a farmer's field, doing his own maintenance and running on mogas, he becomes an almost total loss to the industry. He no longer contributes to the landing fees, the avgas sales, the engineering company, the £100 hamburger that the GA industry relies on to keep going. The smaller the operator, the smaller his contribution.

"At the same time, there is a lot of pious talk of maintaining a network of airfields for general aviation, but little detail on how it can be done, especially when current policy drives people out of the network. There are ways in which it can be made difficult for private owners to change the use of their property – Germany does this – but it throws up a different set of problems.

"In the UK, we have a senior government minister who strongly and actively supports general aviation, but he has been thrown out of his own airfield, which is being turned into a housing estate in pursuit of a competing government policy.

"The infrastructure is creaking because we are not using it. Overheads increase with reductions in traffic, fixed costs drive up hangarage rates, landing fees, insurance. With our CAA dispersing flight training to farmers' fields, activity reduces further. Training schools at established airfields face less activity, but we have seen no evidence that the policy increases uptake. An already thin market has been spread even more thinly – flight training is really struggling.

"At the same time regulators seek to further divide us, into sport, leisure, training, business aviators, all with different regulations and cost structures. Some of these sectors don't realise that they will become easy meat for the antis, the eco-zealots, the noise campaigners, the local politicians who seek votes if we do not stand together. Some organisations in our industry, to which the regulators lend credence, stood out against our IMC Rating, or positively encourage the salami-slicing of GA. The short-term advantage they perceive is illusory."

Specific short-term problems include Transponder Mandatory Zones, Radio Mandatory Zones, airline IFR operations in Class G airspace in order to reach cheaper airfields, and airspace grabs at Farnborough and Southend. New European rules which require separation of 2,000 feet from cloud in Class D airspace, as against the traditional 1,000 feet, are also making life hard. The government's Department of Transport has awarded a £250,000 contract to York Consulting to evaluate GA's contribution to Briatin's economy. This will update a 2006 report part-funded by AOPA which showed that GA supported 11,000 jobs directly in the UK and was worth £1.5 billion to the economy. "That's bigger than the film industry, which gets massive amounts of government support," Martin said. "We are not supported at all – in fact, we are crushed at every turn. If we are to have a GA industry in the long term, we need fundamental change." ■

Above: round-table discussions continued from 9am until early evening

EASA's ATO muddle

International AOPA has reiterated its advice to Registered Facilities – providers of basic flight training in many countries – to hold off from applying for Approved Training Organisation status until EASA has sorted out problems dogging the conversion.

Many registered Facilities (RFs) have already done the work and spent the money required to attain Approved Training Organisation (ATO) status, but changes now in train mean that time and money has been wasted. There is a broad acceptance at EASA and among national authorities that the system is too complicated and expensive, adds no safety value and must be changed.

Jacob Pedersen of AOPA Denmark told the Regional Meeting: "Metres of documents on a shelf do not a good flying school make, and the thrust now is to reduce the paperwork, delegate more, simplify administration, empower the instructor, collect data that shows what's important, and make the rules more understandable."

An extension of the transition time for RFs to ATOs is up for a vote shortly. The proposal is that the deadline should be moved three years forward from April 2015 to April 2018. During the delay period, RFs will be allowed to train for the EASA Light Aircraft Pilots Licence as well as the PPL. Part of the reason is to reduce audit costs – one long-established flying school in Florida was quoted $39,000 just for the initial audit. The changes could be radical; EASA may even reanimate the whole RF system.

The general aviation sub-group of the EASA's Safety Standards Consultative Committee, which is chaired by AOPA Germany's Dr Michael Erb, has the task of presenting EASA with a list of urgent action items by January 2015. "In EASA terms that's very quick," Jacob said. "The Agency is also establishing a Focal Point Network internally, so one person in each department is dedicated to GA, which will be a great improvement. They are also moving to empower individual staff so they can make sensible decisions rather than sticking to rigid procedures."

EASA is expected shortly to issue 'opinions' to alleviate some problems. On maintenance, EASA will soon publish a list of standard changes and repairs to make life easier for those who want to install new equipment. On certain items there will be no need for consultation or Design organisation involvement, which should keep costs down. There is also an opinion in the works on licences for GA aircraft mechanics, making it simpler for engineers who work with larger aircraft to get GA tickets. Up to now, it's not been worthwhile for them because of all the additional training. EASA is looking to simplified programmes and airworthiness reviews where an owner can self-declare his maintenance programme, with no approval required by the national authority. This is expected to be adopted in the near future.

But some countries, like Denmark, have jumped the gun on ATOs and forced clubs to change ahead of EASA deadlines. Slovenia's Peter Ravnak said this was the situation in his country, where clubs faced closure because they couldn't afford the conversion. Martin Robinson said: "We don't want to adopt a system where any instructor can operate a flying school out of he boot of his car, but we can't go to the opposite extreme either. EASA originally intended that everyone must be an ATO, and we've said all along this is not going to work on PPL level.

"EASA has contended all along that business-owned clubs will be less safe than member-owned clubs because of the profit motive, so they should be regulated more heavily. But that's hunch-based regulation – there's not a shred of evidence to back it up. As they stand, the regulations risk injuring the industry, reducing the number of PPL and IR instructors and increasing the cost. The introduction of Safety Management Systems and Safety Committees, producing meticulous scale diagrams of schools, all of this does nothing but increase costs and depress activity. All along, this was an example of very poor rulemaking." ■

Below: delegates from 15 European AOPAs met in Athens to debate issues and plan tactics

Third country licences

It is also proposed that the deadline for adopting EASA's third-country licence plans for non-commercial pilots be extended by a year to April 2016 to allow problems to be addressed. There is a proposal that any European member state will be allowed to validate a PPL for up to 28 days so pilots can accomplish a "task of specific duration". More clarity is needed.

EASA has made a subtle change in its requirements for credits towards the new instrument flying qualifications – instead of IFR time, applicants are required to log 'instrument flight time', the time spent flying solely with reference to instruments. But over the years they have not been logging every minute they flew through a cloud. The difficulties of addressing this are compounded by the fact that in the UK, thousands of IMC rating holders log only 'instrument flight time' and cannot log any IFR time. So a simple reversion to IFR time is not possible.

EASA's split between ELA 1 and ELA 2 aircraft is another problem. A Cessna 172 can be ELA1, a Cessna 182 is ELA 2. Martin Robinson said: "Just as the JAAs killed off multi-engine ownership, we will further damage to GA as people are driven down to avoid more onerous, expensive and pointless over-regulation. I don't understand why EASA needs to make differences for 450 kg, 1200 kg, 2000 kg or 5400 kg aircraft. The system must be simplified. If they want differences for maintainers, it should be on the basis of composites, wood and fabric, relevant physical differences. At the moment it's completely arbitrary."

Speaking in tongues

ICAO's Language Proficiency requirements are causing havoc in Europe, where they have been introduced in an ad hoc fashion and nobody understands what is required of them. In some countries companies are making obscene profits from this mess – a language proficiency certificate costs €400 in Austria – and it desperately needs to be cleaned up.

Philippe Hauser of AOPA Switzerland is International AOPA's lead on this, and he is meeting with officials at ICAO's European branch office in Paris to try to foster some understanding of the problems that have been caused. IAOPA has maintained all along that the requirement for all pilots to attain Level 4 'conversational' English, while possibly workable for Commercial Air Transport, was hopelessly unsuited to GA.

The issue is one that has yet to trouble British pilots significantly, but it will. Increasingly, smaller French and German airfields are imposing a local language requirement – if you don't speak French or German, you can't use the field. Other countries are showing signs of following. To understand their distaste for the new regulations, imagine there was an ICAO requirement for you to learn conversational Serbo-Croat before you could cross the Channel. At the commercial level, countries have adopted stratagems to take the sting out of these laws – the Chinese are said to bestow 'Level 6 – speaks English like a native' qualifications on all their ATPLs. In case of doubt, general aviation pilots tend not to use the radio, leading to a degradation of safety.

A survey by Philippe Hauser of AOPA Switzerland sought to find out how European countries interpreted ICAO's rules. Twenty countries provided answers. Questions and answers included the following:

Q: At small airfields, is it allowed to speak in another language than stated in the pilot's RT endorsement?
A: Yes (5 countries) No (15)
Q: Is a language proficiency Level 4 in English required for radio communications at small airfields?
A: Yes (14) No (6)
Q: Are pilots allowed to talk in English at small uncontrolled airfields?
A: Yes (17) No (3)

IAOPA points out that in ICAO's Annex 10, Volume II, it is stipulated that RT communications shall be conducted either in the language of the station on the ground or in English, and that English shall be made available when pilots are unable to use the language of the station on the ground. Furthermore, ICAO provisions do not in any way limit the use of a national, regional or local languages but recognise the practical requirement for English to be available for the many pilots who do not speak the national language of a particular state.

Having fought throughout ICAO's processes on this issue to have non-commercial aviation exempted from the requirements, IAOPA is now requesting that beside any national languages, English should be allowed at all stations. And Level 4 conversational English certification should be required only in Class D airspace and above. There is some evidence that ICAO realises its requirement is detrimental to both aviation and safety. ■

Below: AOPA Greece has a recruitment desk at the air show, of which it is a supporter

Parliamo safety?

Denmark is at once the most zealous country in Europe for forcing early compliance with European laws, and the most unwilling to comply with them itself. While it has forced the adoption of Approved Training Organisation regulations which EASA itself is now having second thoughts about, it simply refuses to comply with other EASA stipulations which don't suit it.

Examples are legion. Jacob Pedersen of AOPA Denmark says: "If people have expired privileges and they want to get them back, EASA's FCL regulations are clear – you must do an ATO assessment and make a personal plan. That means it's between you and your instructor how much retraining you need – all very sensible.

"The Danish CAA, however, has issued a statement to say that these are the minimum requirements. In many cases, people with thousands of hours who've been away from flying for a while are having their instructors over-ruled, and are being told they have to do the whole course again from the beginning. If you've flown in the USA for a couple of years, when you come back you have to go through a training course that is more demanding than converting an FAA licence to a European one."

According to the FCL regulation, one European country's radio licence is good for any other. The Danish CAA refuses to recognise this. Jacob says: "In Denmark you need HF radio privileges to get an instrument rating. But if you wish to convert a UK licence to a Danish one you must start from scratch and do the whole HF radio course. When was the last time GA pilots needed HF radio?"

On cost-sharing, EASA has ruled that it is allowed for up to six people in an aircraft, subject to certain caveats. The Danish CAA refuses to recognise this. "The UK has issued unequivocal guidance to say this is now the law," Jacob went on. "Denmark says no, we can't use it. And they can put off adoption for years if they so choose."

There are more examples. Denmark refuses to accept non-Danish medicals. But the most dangerous situation arises in its interpretation of the language proficiency requirements. AOPA Denmark has put two scenarios to the CAA, as follows:

A foreign pilot is approaching an uncontrolled airfield in Class G airspace. He does not have an English language proficiency certificate but he is able to communicate in English. Is he allowed to give position reports in English in order to alert other traffic about his presence?

The answer from the Danish CAA is 'no'. He cannot tell anyone he's there. Jacob says: "The consequence is that we have aircraft landing at uncontrolled airfields without announcing themselves on the radio, even though they are perfectly able to do so and even if good airmanship dictates that they do so in order to prevent collisions."

Scenario 2: The pilot is flying in Class G airspace en route to his destination. The weather is deteriorating and is worse than predicted. Is he allowed to call up on a traffic information frequency and ask in English for the weather at his destination?

The answer from the Danish CAA is 'no'. The pilot has to wait until the situation develops into a full emergency situation before he can call.

"If the pilot was actually to follow this line of action it would be directly contributing to the risk of a fatal accident, and works against all safety practices and good airmanship. We have a huge problem in Denmark, and the way the regulation is applied clearly works against safety." ■

Drone invasion begins

DHL has begun the first UAS delivery service with a drone that delivers medical supplies to the German island of Juist in the North Sea. The drone has no see-and-avoid capability but operates in Class G airspace out of line-of-sight of its controller. DHL has negotiated for the airspace to be restricted by notam.

International AOPA has opposed the use of the Open FIR for drones unless they can achieve a comparable see-and-avoid capability with other users of the airspace, but the potential profits to be had in the UAS industry is firing drones into the air far ahead of safety regulation. The Juist drone weighs around 5kg without its payload.

IAOPA's representative at ICAO, Frank Hofmann, told the Regional Meeting: "The problem is that current technology is unable to detect and avoid. The solution the Remotely Piloted Aircraft industry is proposing is that everybody should pay for a transponder, or everyone should carry ADS-B – these are the only technologies that can work.

"IAOPA has been against the need to require equipage, and that's what we're working towards at the moment. UASs must have the 'detect and avoid' capability built in. Our starting point is that no airspace should be lost to conventional aviation. But there is an enormous amount of money behind the RPA industry and the fear is that they will simply buy airspace and exclude others.

"When regulations are written for these aircraft, it must recognise that the entire system, including the whole of the control chain, must be certified as safe. The fact is that communications will have to be stable and reliable, so we can be absolutely sure they will not be hijacked by some bright kid with a laptop and used for unintended purposes."

At the moment it would be impossible for DHL to start such an operation in Britain, where CAA rules limit unmanned vehicles to operating at least 50 metres from a building or person, and always within sight of the operator. Most states, including China, have line-of-sight rules so the drone must be visible to the operator. CAA sources are on record as saying that the line-of-sight rules "could go away some time in the future when we see a device able to make decisions about avoiding whatever objects are out there".

Martin Robinson said there was a risk that Class G airspace would end up being compartmentalised, as in Japan, where GA aircraft had to be trailered between 'reservations' in which they were confined.

Research in the City of London has established that 42 percent of logistics companies believe they will be using UASs in the near future because of the potential cost savings from lower fuel bills and savings on pilots. The majority envisaged a timeline of 15 years for their introduction. ■

Wins and losses at ICAO

More than half the world's governments have complied with fewer than half of the standards set down by the International Civil Aviation Organisation, according to Frank Hofmann, International AOPA's man at ICAO in Montreal. "Most of your CAAs are not living by their own rules," he said.

The issue is complicated by the fact that EASA is not recognised at ICAO – it only recognises states, and Europe is not a state yet. But EASA has in some cases decided to adopt ICAO Standards and Recommended Practices (SARPS) wholesale. EASA states have in hundreds of cases "filed a difference" which says that they do not intend to comply with the SARPS. Yet now, non-ICAO EASA is enforcing them.

All this makes ICAO more important than ever to AOPA. Frank outlined some of the victories AOPA had recently enjoyed. The proposal for cockpit voice recorders in all turbine aircraft had been defeated for aircraft with six or fewer seats.

Electronic flight bags are permitted without certification. Enhanced vision systems are okay for GA aircraft without STCs as long as operating minima at airports are not lowered as a result. The fight to reform fire and rescue requirements goes on. Work also continues on updating airport databases, partly to reduce the incidence of GA aircraft infringing runways.

Upcoming problems include the probability that following the first Malaysian Airlines loss, tracking devices will be mandated in all aircraft, including GA. Reasonable exemptions must be built in. As a result of the second Malaysian loss, ICAO is also working to define 'conflict zones.' "Is it a religious, political, or geographic area?" Frank asked. "The definition of war is changing. It no longer must involve uniformed armies. It will affect us."

Left: IAOPA's representative at ICAO, Frank Hofmann, reports on his work

Peggy steps down

Peggy van Ootmarsum of AOPA Netherlands is stepping down as AOPA-Europe Treasurer, and the post is being filled by Gerrit Brand, also of AOPA Netherlands. Peggy has been Treasurer for 13 years, and both Secretary General Craig Spence and Senior Vice President Martin Robinson paid tribute to her indefatigable work on the accounts during that time. She leaves the Associations in sound financial health.

International AOPA is funded by each of the national associations to the tune of €2 per member. Of the 73 nations in AOPA, Europe is the most active area outside North America. But Asia-Pacific is growing fast, with Malaysia and Indonesia particularly strong, and Singapore becoming active. South American countries are also beginning to play a more significant part. Craig Spence reported that Argentina is now operating and AOPA Peru has recently been constituted.

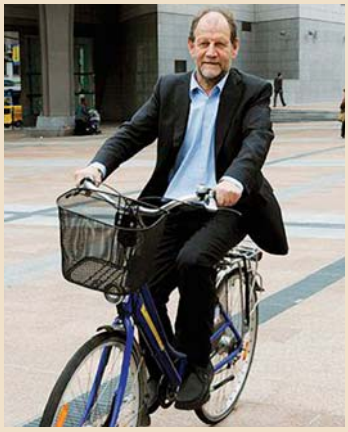
As in Europe, regions are working together more closely. The United States, Canada and Mexico have combined to take the sting out of advanced passenger information requirements for cross-border traffic. A pilot who had previously to make 12 separate actions to inform the requisite authorities now had a single point of data input, after AOPAs in the three countries made a co-ordinated approach to their various security institutions. Australia and New Zealand, with practical help from AOPA US, is working towards the implementation of a WAAS-style system called SBAS – Satellite Based Approach System – after the airlines looked likely to run away with an over-engineered and expensive augmentation system that allowed Cat III landings and was suited only to them. And of course, said Craig, everyone benefitted from IAOPA's permanent presence at ICAO in Montreal. ■

Left: Peggy van Ootmarsum is retiring as IAOPA Europe Treasurer; Gerrit Brand steps up

No friend to GA

Although it's too early to tell, there are fears that the aviation industry – and in particular general aviation – will not prosper from the appointment of a dyed-in-the-wool Green as Chairman of the European Union's Transport Committee.

Michael Cramer is a former teacher who decries car ownership and has travelled only by bicycle or public transport since 1979. During his time as Chairman, he says, he will be "focussing on green matters". He is also a substitute member of the European Parliament's Temporary Committee on climate change.



Sources in Germany say he has been known to describe aviation activities as "criminal". As a Green leader he was instrumental in pushing through flawed emissions regulations which had to be abandoned when they were shown to be unworkable. He has been responsible for introducing the Berlin Wall Trail, a 90-mile cycle path along the route of the Wall, and is in the process of developing a 4,000 mile cycle trail along the full length of the old Iron Curtain.

His appointment comes at a time when Violeta Bulc, a Slovenian shaman who walks on hot coals, has been confirmed as the European Union's new Transport Commissioner.

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Some you win...

Many AOPAs had stories of small victories, and small setbacks, in their relentless campaigns to improve the lot of general aviation in their countries.

- AOPA **Switzerland** has scored a major coup by saving the Dubendorf airbase for aviation. With six partners including the Swiss Air Ambulance and the Swiss Aero Club AOPA founded a joint stock operation and the government has agreed to put them in charge of Dubendorf. Jan Karbe of AOPA Switzerland said: "There is still a lot of work to do. The 2,300 metre concrete runway must be shortened to provide space for an innovation centre and other major works are in prospect."
- Language proficiency requirements for non-commercial pilots are a serious drag on activity everywhere in Europe outside the UK. Philippe Hauser of AOPA Switzerland is meeting ICAO representatives in Paris to discuss the problems.
- Jacob Pedersen reminded members that using the AOPA Aircrew Card could result in discounts of up to 80 percent, especially on airport hotels – but you had to call ahead and ask what the aircrew rate was, then make a booking on that basis. Simply turning up and producing the card was not the best option.
- Billy Costa of AOPA **Greece** said clubs in Greece were prevented from selling avgas because of the non-profit rules. This led to a situation where they were giving fuel away, while charging €200 or €300 for a cup of coffee.
- In **Lebanon**, a long-running campaign by AOPA to get the country to adopt the FAAs had not produced the desired result; Lebanon is to adopt EASA regulations.
- In **Spain**, AOPA has worked with airport operators to improve GA facilities to the point where they can be designated as 'GAFA', or GA Friendly Airport. Charts will in future reflect which airports have attained this status.
- **Iceland** has built its relationship with the CAA to the point where it is now consulted at the first opportunity when changes are proposed – a significant improvement from the old situation. This helped the country avoid the Cessna SID problem that Germany is experiencing.
- AOPA **Sweden** is fighting the case of a member who may have his pilots licence revoked for refusing to pay crippling Swedish fees. Members have been told they may obtain their licences in the Czech Republic, where they cost €20. "And they give you a cup of coffee while you wait," said AOPA Sweden's Lennart Persson. Sweden is also working on getting GPS approaches accepted. ■

Aviation enthusiasts lined up for the chance to walk through a Chinook

Greece: 'the new Florida'

It's hard to overstate the progress general aviation has made in Greece in recent years. Readers may remember that just after the turn of the century, a dozen British plane spotters were arrested and held for five weeks for photographing elderly military aircraft at an air show; originally sentenced to three years in jail, they were freed on appeal. Today, the Greek Air Force and Navy are enthusiastic participants in Athens Flying Week, which has at its heart the Tatoi air show, the biggest and best air show in southern Europe.

General aviation, moribund when the Greek judicial system was trying to figure out what 'plane spotters' were, has been rejuvenated, and AOPA Greece has been at the heart of the transformation. The country now promotes itself as 'the Florida of Europe' and flying clubs and schools have sprung up all over. Thessaloniki Aero Club has been around since 1929 and offers the flying tourist self-fly rentals, while companies like Egnata Aviation and Skies train private and commercial pilots. All had stands at Tatoi, where despite the weather – flying had to be suspended for half an hour on one day – tens of thousands of Athenians turned out to see the flying displays.

Much of this is new in Greece. We've been spoiled by air shows in northern Europe and we're easily jaded; it's heartening to see members of the public getting as enthralled as pilots by the thunderous performance of a Polish MiG 29, a Belgian F-16 or an Airbus. Families crawled all over an Apache and queued to walk through a Chinook.

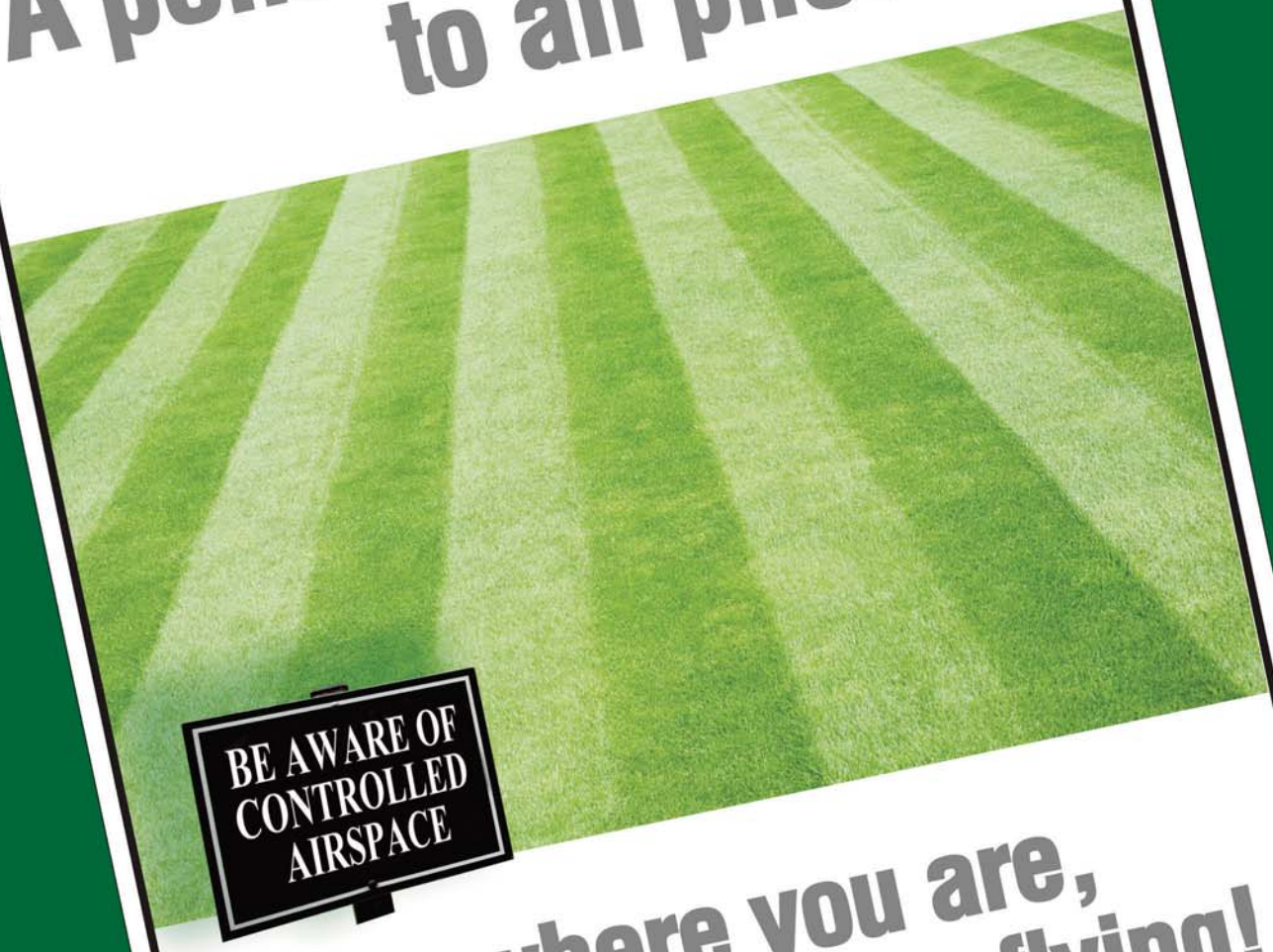
The airspace is being opened up, and the military is relaxing its grip, but it is a slow process and AOPA Greece is driving hard to get the Greek authorities to free up access. Airspace classifications have not yet been adopted, and EASA regulations on issues such as cost-sharing have not been implemented. AOPA Greece is using tools like ICAO audits to force the authorities to act, and as a last resort has been adopting EASA regulations *de facto* and defying the national authorities to move against them. This is not to say there aren't people in positions of authority who are sympathetic to GA and who work to relieve its burdens – several directors of the national CAA have been removed from their posts because of their obstructionism. But there are still bizarre obstacles to GA. Andrei Zincenco of AOPA Romania had been planning to fly to Athens in a DA40 for the AOPA Europe Regional Meeting and had made all the necessary arrangements. On the day of his departure it was clear from weather forecasts that he'd have to stay an extra day before flying back. The Greek military said this was impossible as he'd only booked one night's parking, and they needed a further 48 hours before they could book a second night. Andrei flew scheduled. ■

Right: a Hellenic Air Force Apache attracted an enthusiastic crowd at Tatoi air show

Be Aware:

Accident statistics show that pilots making wrong decisions during a flight is a major factor.*Being unaware of controlled airspace is one example of a poor decision which could have dangerous (fatal) consequences.

A polite notice to all pilots...



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Fast but not furious

After over a year of trying to fit my availability to that of a TBM aircraft, at last I get a chance to test one. These aircraft are in such demand that as soon as they leave the production line at Tarbes and complete their testing they are delivered to their new owners virtually straight away – hence the lack of aircraft available for demonstration from the factory.

Every cloud has a silver lining, though. The original plan was to fly the TBM 850, already an excellent aircraft derived from the TBM 700 but fitted with the later Pratt & Whitney Canada PT6A–66D giving 850 shp for cruise (limited to 700 SHP for take off/go-around) and sporting a Garmin 1000 Integrated Flight Deck. But the delay meant that I was destined to fly the latest creation from DAHER-SOCATA, the superb TBM 900.

The original TBM 700 was conceived when the Mooney Aircraft Company of Kerrville, Texas, was bought by French aviation pioneer Alexandre Coulevaire, who initiated a joint venture between Mooney and SOCATA of Tarbes during the late 1980s to upgrade the Mooney 301, a pressurised 360 hp piston single. Mooney dropped out of the partnership when the cost of adapting the 301 to take the Pratt & Whitney Canada PT6A-64 engine, together with other redesigns and certifications, proved beyond its purse. The end result was that SOCATA alone proceeded with the TBM 700A, with almost twice the power from its 700 shp power plant. By the way, TBM comes from 'TB' for Tarbes and 'M' for Mooney.

SOCATA (its name derived from SOciete de Construction d'Avions de Tourisme d'Affaires) was formed in1965 when Morane-Saulnier, who had been making aircraft since 1911, became a subsidiary of Sud Aviation (later to become

Aerospatiale of Concorde fame). In the past SOCATA was well known for its TB range of aircraft, including the TB10 Tobago and TB20 Trinidad. During the year 2000 Aerospatiale became EADS, making SOCATA a wholly-owned subsidiary of EADS France until 2009 when EADS sold 70% of its SOCATA shares to DAHER, the industrial giant of aerospace and energy fame. Clearly from its history DAHER-SOCATA's TBM 900 has been bred from an excellent pedigree.

Making my way to Tarbes for the long awaited test flight proved somewhat awkward. The Ryanair and Air France schedules did not fit, and the other option of flying to Toulouse and driving to Tarbes in a hire car looked tedious, whereas flying from my local airfield, White Waltham, seemed a much better way to travel. I managed to convince my friend, ex-Concorde Flight Engineer Instructor Trevor Norcott, to join me as a photographer and share the flying. The original plan was to make the journey in DHC- 1 Chipmunk but in the end the only aircraft available to us was another de Havilland product, a DH-82a Tiger Moth. It was quite a trip and worthy of another article to be titled 'Time to Spare – Travel by Air'. Needless to say we arrived at LFDT Tarbes Laloubere airfield a day late, to be met by Philippe De Segovia, Director of TBM's Product Marketing, who was totally at home at LFDT since that is where he operates from as a private pilot.

We were soon on our way South to the other Tarbes airfield, the much larger LFBT Tarbes Lourdes Pyrenees Airport, where Daher-Socata are based. Philippe somehow managed to get us into the facility even though in the rush to get under way from Laloubere to make the slot time for our flight into the test area shared by Airbus I forgot to extract my passport from my flying jacket. Thank goodness we were in France where the people who 'man' the gatehouse have 'pragmatic' as their middle name, or else we would have missed the slot.

Once airside we were able to drive straight to our aircraft, registered as N900XH, which was being prepared for flight by Alain Jaubert. It looked splendid in the afternoon sun and with its doors open it seemed to be inviting us to board, which with only five minutes to our Runway Slot Time we were soon doing. Alain and I boarded through the front pilot access door which used to be an option on previous models but is now standard on the 900. I was soon settled in the pilot seat, and found it easy to adjust into a very comfortable position for

Attractive winglets aid low speed handling and reduce drag
Inset: TBM's progenitor, the Mooney 301
Photographs mostly by Trevor Norcott.

*Former Concorde training captain **Les Brodie** yearns for a spare $3.7 million after test-flying the TBM 900*

height, rake and leg room (the rudder pedals are adjustable too). Much as I expected, it is the sort of aircraft you feel at home in straight away. The only thing that made me feel uneasy was when Alain asked whether I was happy to do all the flying, as he normally worked in the office and his boss had sent him over to assist since no-one else was available – he had been on 'look-see' flights before, so he should be able to help do the radio. Luckily I noticed his cheeky grin and vaguely remembered Philippe telling me that Alain was previously a military helicopter test pilot and was now TBM's head of training, so panic over.

Alain took me through the scan checks to prepare for start, and just like modern airliner procedures, these actions were verified by electronic check list. The Garmin 1000 set up with its large (15 inch) high-resolution centrally located MFD (Multifunctional Display) and (10.4 inch) PFDs (Primary Flight Displays) in front of each pilot display an amazing amount of information regarding navigation, weather, traffic, engine and aircraft systems data, along with the normal control and performance instruments displayed on the PFDs. If you want the ultimate in

Left: take-off from runway 02 gave a great view of the aircraft's birthplace
Above: TBMs on the Tarbes production line
Below: previously optional pilot door is now standard, so no tripping over passengers
Right: wide access door makes it easy to load cargo or a stretcher
Bottom: "you are invited to board…"

situational awareness you can order the aircraft with Garmin's SVT (Synthetic Vision Technology) which creates a 3D 'virtual reality' image on the PFDs. I have seen this before on a Citation Mustang and it was just like looking out the window – very useful for flying into airfields surrounded by high ground such as Narsarsuaq, Sion and Innsbrück where situational awareness is essential for survival during IMC arrivals and departures. The Garmin 1000, although being clever enough to automatically control the aircraft's pressurisation system, is also both straightforward and instinctive to use, especially if you are familiar with previous Garmin products.

Starting the engine using the aircraft battery to power the Starter/Generator was also straightforward. By pressing the 'start' button and moving the leather-covered Single Engine Control Lever from Feathered Cut-off to Low Idle at 13% Ng. the engine soon stabilises at 52%. The lever is then moved across an H-gate into the taxi position. This action unfeathers the prop,

Above: Garmin 1000 carries a vast amount of information but is intuitive to use
Far left: cabin is spacious for four
Left: after being subjected to more than seven hours in a Tiger Moth, Trevor Norcott savours the comfort of the TBM 900
Below: Alain sets up the Garmin 1000 display – he knows a lot, for an office boy!

and the lever is moved backwards to provide reverse power and forward to select forward thrust, providing very simple engine control (I was pleased to see a Red Manual Override Lever alongside, giving the pilot direct control of the fuel valve should the electronics fail). Fully forward provides Take Off Power of 850 shp, now possible as the electronic engine control unit incorporates a Torque Limiter, winglets, and a modified dorsal fin helps you keep the aircraft straight along the runway at this setting.

The theme of keeping things simple and reducing pilot workload is evident throughout the TBM 900's design, making the aircraft fast but not furious. Along with the fully automatic pressurisation control the fuel is balanced for you; every five minutes on the ground and ten minutes in the air you see the fuel selector move on its own to the other tank. The selector of course can be operated manually by the pilot if required. The electrical system is also fully automatic even under failure conditions. If the starter/generator fails to produce an output then a back-up generator powers the system automatically, and should this fail the battery does the work.

The idea of reducing pilot workload is a very good one as it frees up capacity which

"That's not a steep turn... this is a steep turn..."
Below: steep turn as seen on the standby Attitude Indicator. The Flight Path vector symbol on the main PDF makes height-keeping simple

should allow for greater monitoring and situational awareness. One of the things to be wary of, though, on modern flight decks is human nature's tendency to be lazy. 'Automation Complacency' can set in while sitting in such comfort with the knowledge that most functions are being dealt with automatically, leading to a false sense of security.

A good way of overcoming this is to (if you find you are sitting doing nothing for a long period of time) carry out a FREDA check, just as you were taught in your initial training. For the TBM, F will check for sufficient fuel with no leaks and the operation of the auto fuel balance, R that you have not lost radio contact, E that the electronics are keeping the engine within limits, D that you are navigating correctly or on the correct ATC-prescribed heading, and A that you are at the correct level, using the correct setting, and that the Garmin 1000 has the pressurisation under control.

After we received our clearance involving an SID to the northwest via LMB VOR from R/W 02 we were under way. I found the aircraft easy to taxi (unlike the Rockwell Turbo Commander that I have been operating over the last 11 years, which I still find difficult to keep on the paved surface especially in strong winds) and the Garmin display made finding our way to the 02 threshold a doddle, with an aircraft symbol showing you exactly where you are on the taxi chart displayed on the MFD.

Alain completed the pre-departure checks as we taxied out so we were ready for take off on time for our test area slot. The take off highlighted the high power to weight ratio of the 900 – we were at the 90kts lift off speed in just over 500 metres and after pitching to 10 degrees nose up and raising the gear we were climbing at 2000 feet per minute plus at 130 kts. We were able to climb directly to FL310, and this was achieved in an impressive 17 minutes with the outside air at ISA +6.

I used the state of the art GFC 710 autopilot for the climb. This device is programmed to use the rudder to maintain co-ordinated flight throughout the envelope and with its inbuilt yaw damper automatic flight is very comfortable indeed. With the autopilot engaged I was able to slide back my noise reducing headset to check the ambient noise level, which I found remarkably low for a front mounted turboprop. At FL310 for cruise the torque is kept in the white arc of the gauge, keeping an eye out to ensure that the other parameters remain within limits. The aircraft settled at 187 kts indicated at Mach 0.512 (not fast enough for the need to move fuel aft even at the 900's Mmo* of 0.55) giving 315kts TAS at ISA +6 with a fuel flow of 55 gals/hour. Alain informed me that if we wanted to go to faraway places we could bring back the power to give a fuel flow of 36 gals/hour Long Range Cruise giving a 1,730 nm range with four people on board.

Having sampled the comfort of high altitude cruising in a TBM 900 we then practiced an emergency descent to FL120 by taking the autopilot out and the power lever back to flight idle while pitching down to 25 degrees below the horizon. We soon reached the 266 kt Vmo and in around 4 minutes arrived at FL120. Ironically we heard later that on the very same day that we carried out this manoeuvre on the other side of the Atlantic a TBM and its occupants were sadly lost because of not making an emergency descent, causing the two souls on board to suffer from hypoxia. The circumstances that led to this dreadful accident are still under investigation, but as in any incident a whole chain of events would have joined up to lead up to such an outcome. It just needed something or some person to break that chain. Maybe a simple FREDA check could have saved the day.

At FL120 we put the 900 and me through our paces by carrying out some steep turns along with slow flight and stalling. The steep turns became much more accurate once Alain pointed out the Flight Path Vector Symbol on the PFD. It

Effective flaps allow approach at 90 kts and with propeller reverse landing roll is 500 metres

was just a case of keeping that vector on the horizon bar while selecting 60 degrees of bank and the perfect level steep turn ensued. If only I had that facility on my Beagle Pup 100 for my PPL course 44 years ago things would have been better for me, as I would not have been hit over the head with a flight planning ruler so many times by my instructor.

After the steep turns we investigated slow flight between 90kts and 100kts followed by stalling which I found to be benign both clean and dirty. There are three things that make the 900 stable and safe in this flight regime:

1. The two-feet-high winglets that aid roll stability as well as reduce drag
2. The six inch strake on the left lower fuselage in front of the wing that modifies the airflow over the left inner wing root at high angles of attack. Previous TBMs suffered vortex activity in this area at high incidence that would cause the left wing to drop during a stall. (Strakes or 'moustaches' at the front of the Concorde fuselage had a similar function, modifying fuselage vortices at high incidence which affected directional control)
3. Spoiler assistance for roll control. Philippe de Segovia kindly gave me the history behind this set-up. It stemmed from the requirement for a low stalling speed in the landing configuration for certification. To achieve this without causing too much weight and drag the slotted flaps were brought so far along the wing that the ailerons became proportionally smaller and therefore less effective. Mooney had come up with the solution on their Mooney 301 to have a spoiler linked with the up aileron. The bonus with this arrangement is that you can use the control wheel to keep the wings level during a stall, a no-no for most light aircraft.

I used the autopilot for the STAR and radar vectored ILS approach onto R/W 20 for our return to Tarbes. The equipment seemed just as advanced (or even more advanced with SVT) as I was used to when I flew the B777. We carried out some circuits on R/W 20 and I found the aircraft a delight to handle and to land. Alain demonstrated a short field landing for one of the circuits and from the R/W markings we stopped in around 300 metres. If I had a spare 3.7 million dollars I would certainly get Philippe to order my TBM 900, then depending on my flight time and aircraft background, I would have to train under the umbrella of an Authorised Training Organisation such as Airways Formation based at Agen Airport (LFBA), along with six days of ground school followed by a 50 question multi-choice exam. I would also need to complete a Garmin 1000 training course using a Garmin System Trainer, followed by a Skill Test. Only then could I be issued with an EASA TBM SET (Single Engine Turbine) Class Rating so that I could use my new toy on my own. The FAA training is similar, but using Simcom's Level 5 Simulator in Orlando, Florida, to reduce aircraft time. There is no Class Rating issued at the end but you do need Proof of Training before operating the aircraft.

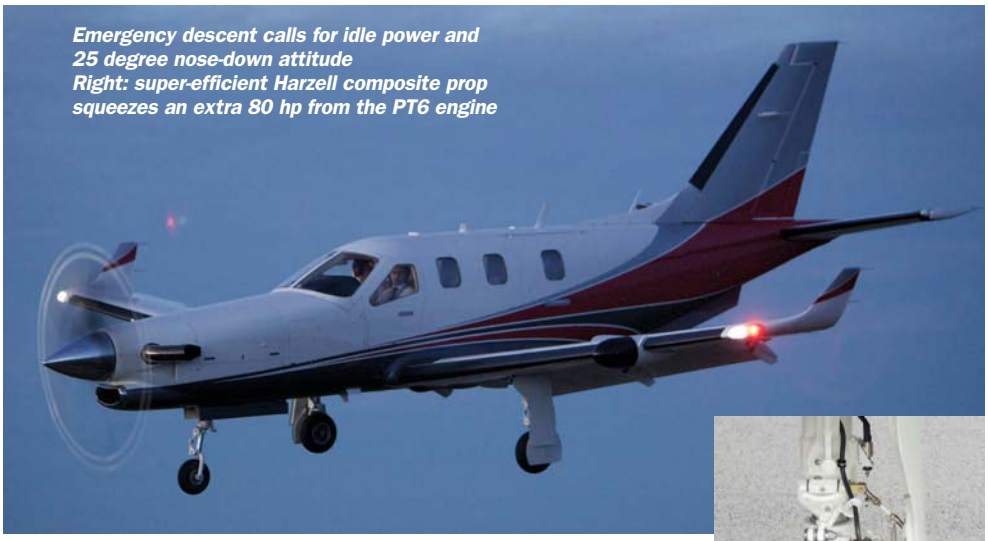
The ability to operate from short fields with unpaved surfaces yet mix with airline traffic at major airports without getting in the way is what makes the TBM 900 such an attractive proposition for both business and private operators. You can arrive much closer to where you want to be, saving travel time and with far less hassle using a small local airport rather than the larger versions that the business jets are compelled to use. The added bonus, of course, is that the operating costs of the TBM are far less than the light business jet.

In France the mini-airline Voldirect has made use of this facility by obtaining a DGAC Air Operators Certificate for their TBMs and offering the public a very fast and convenient means of transport at a much lower cost than their competitors. ICAO and EASA are busy refining the Rules and Regulations associated with Single Engine Public Transport in IMC, and eventually I am sure all countries will allow this type of operation after careful risk analysis.

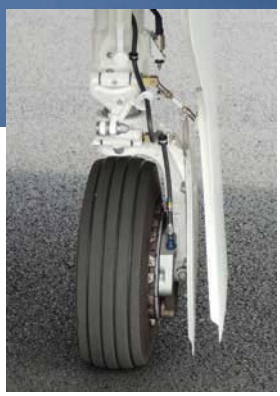
Having crossed the English Channel twice in a 1940 vintage aircraft, I am not the one to comment on SET Public Transport in IMC

Look out for 'Time to Spare Travel by Air' in a future issue of this magazine!

**Mmo is Vmo expressed as a Mach value – Ed* ■



Emergency descent calls for idle power and 25 degree nose-down attitude
Right: super-efficient Harzell composite prop squeezes an extra 80 hp from the PT6 engine



Right: simple and sturdy main gear allows the aircraft to operate from unpaved surfaces

TBM crew after the flight – Trevor Norcott, Alain Jaubert, Les Brodie, Philippe de Segovia

Airfields under pressure

By ***Steve Slater***

The continuing trend of airfield pressures, both from economic and housing threats and from inappropriate developments such as wind turbines, shows no sign of abating. Government policy prioritising land for housing has led to developers attempting to cash in on the land resources.

The General Aviation Awareness Council's role in these cases has been to provide objective responses to those seeking to keep airfields open, while attempting to advise local planning officers both of the importance of GA airfield as a part of their local business, transport and economic infrastructure, and the recognition of this in the National Planning Policy Framework. The GAAC is also actively driving the importance of leisure aviation as a resource and advocating local airfields' role in providing accessible and sustainable flying training.

Planning protection

The government response to the Red Tape Challenge brought good news in terms of recognition of the importance of the GA industry and the need for sustaining a reasonable infrastructure to support it. However, airfields and planning was the one area in which Grant Shapps and his team had failed to address the questions raised. The continuing wish to devolve decision making to Local Planning Authorities and continued CAA inaction in the protection of small and medium-sized airfields is flawed. Unless there is a change of policy, it may be too late to prevent the hemorrhaging of airfield sites.

One means of creating greater protection for airfields would to be require that any change of use should be subject to the scrutiny of a planning enquiry. This is a procedure already used in some EU countries such as Germany. This would at least ensure the debate, and any subsequent decision, would be subject to the measured and objective decision of a Planning Inspector, who is in a better position to offer an overview including airfields' role as a part of the national transport and economic infrastructure.

Serious doubts about the objectivity of local councils often lead to a feeling of a 'fait accompli' once airfields are threatened. A decade ago, it was noted in the Lober Report that 41% of local planning authorities indicated they would offer no proactive protection to offer planning safeguards for flying sites, and only 7% indicated that they would seek to protect flying sites. The involvement of the Planning Inspectorate in any change of use of airfields could significantly enhance the future protection of airfields as a part of the national infrastructure.

A further alternative may be to compel Local Planning Authorities to enter into formal consultation with the CAA as part of the change of use process, and that the CAA should be legally required to make formal comment on any changes of airfield planning status.

Aerodrome Viability

The recent closure of Blackpool airport on financial grounds by Balfour Beatty has focussed attention on the failure of business model generated in the early 2000s of trying to turn what had been successful GA airfields into 'regional airports' aimed at attracting low cost airlines, at the expense of GA operations. In addition to Blackpool, there are worrying signs that other similar operations are showing signs of distress. Perhaps now is the time for the GA sector to step forward in advocating more holistic use of the remaining airfield infrastructure and finding ways of demonstrating that GA offers airport operators a reasonable revenue stream?

GA Consultation

As part of recent inputs to Government, the GAAC made as submission on the current status of GA airfields to the All-Party Transport Select Committee last month. The GAAC has also attended meetings with the Aerodrome Operators Association and Richard Kaberry, the senior consultant for York Aviation, who is carrying out the Government's GA research project.

Airfield closures

While Blackpool, Manston and Panshanger are now officially closed, activities continue to attempt to maintain some scope for their use for GA purposes. At Blackpool, limited operations continue for based operators such as Westair, but no visiting aircraft are being accepted. Negotiations continue with the local council and other interested parties, but concerns are that if no alternative is found by late November, the airfield infrastructure and assets will be dismantled and sold off.

At Manston, much of the infrastructure and resources have been sold and although Thanet District Council have pledged to debate a compulsory purchase order, the site has already been sold to a 'regeneration company' for other land uses. Political pressure to maintain part of site for GA use is ongoing, potentially converting a taxiway to a GA runway, allowing redevelopment of a large part of the remaining site.

Panshanger was closed at the end of September when landowner Mariposa Developments refused to extend the lease of their airfield tenants' contracts, forcing airfield closure and removal of all aircraft. Welwyn Hatfield Borough Council is however being pressurised to maintain airfield planning status, and as part of demonstrating sustainability, we have prepared documents for Save Panshanger and WHDC outlining GA aircraft parking requirements in south east England and contributed to a letter requesting that WHDC prevent Mariposa carrying out any demolition or disruption of landing areas, on safety grounds, till spring 2015. ➔

Right: Wycombe District Council's 'land grab' would mean the loss of the airfield's N/S runway and the end of gliding operations by Booker Gliding Club.

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Wellesbourne

In late July, the owners of the Wellesbourne airfield site presented a 'Scoping Consultation' document to Stratford District Council, presenting their plans for mixed housing and commercial development on the airfield site. We have supported Wellesbourne Matters with a GAAC objection to the proposal, filed with Stratford District Council, reminding them of their commitment as part of their core strategy plan that: "the established flying function of the airfield should be retained due to its importance to the local economy".

Wellesbourne Matters have developed a radical approach to defending the airfield by focussing on fund raising to hire a legal practice, Zyda Law, that normally specialises in representing developers to refute protest group arguments. Among the initiatives they are employing is the development of alternative planning options, combining housing with continued use of the airfield, to demonstrate that the housing developer's option is not the only one available.

Wycombe

The GAAC is closely monitoring concerns that Wycombe District Council are attempting to 'claw back' around 30 acres of land on the south side of the aerodrome, in a similar location to that unsuccessfully proposed for a football stadium in 2011, to develop light industry sites. While Wycombe is already well served by such industrial areas, the council are thought to be using this development to provide justification for an additional southerly spur road from the M40 Handy Cross intersection, which would in turn unlock around 1000 acres of land on the SE of the M40 intersection for potential housing that cannot currently be allocated due to a lack of appropriate road access.

The council are attempting to achieve the airfield 'land grab' by rejecting the renewal of the existing airfield lease, which was taken over by Heli-Air. While the GAAC does not wish to get involved in the likely legal battle between the two parties, were the area of airfield be lost, it would mean the loss of the airfield's N/S runway and the end of gliding operations by Booker Gliding Club.

Good news

Suffolk Coastal District Council have, after a vigorous debate and objections posted by organisations including the National Trust, unanimously approved plans to increase flights at the former US airbase Bentwaters, near Woodbridge. Flights will be limited to historic, classic or vintage aircraft, or piston-engined general aviation planes, or other aircraft below a maximum take-off weight of 15 tonnes. A maximum of 960 aircraft movements a year will be permitted, no more than 40 a week, with no flying between 9pm and 7am.

Above: Rochester Airport is in the final stages of planning approval to redevelop the airfield with a lit tarmac and parallel grass runway, new hangars and admin buildings

Rochester Airport is in the final stages of planning approval for the Council-led plans to redevelop the airfield with a lit tarmac and parallel grass runway, new hangars and admin buildings, as part of a 25-year plan. The planning process is expected to be completed in December and work on redevelopment will begin in 2015.

Wind turbines

The initial planning applications for the two large wind turbine developments at Bullington Cross and South Woodmancott, which threaten operations at Lasham and Popham, have been refused by all three local council planning committees and, as both applications will now either move to public enquiry or be 'called in' by the Secretary of State for direct decision, we have successfully lobbied for the LPA to give grounds for rejection including impact on GA (not just military radar) at Lasham and Popham – and recognition of their 'value and of national policy thereon'. This gives case precedence for both airfields' involvement in likely Public Inquiries or Secretary of State submissions. The GAAC has also offered all three councils assistance in preparing supporting submissions on behalf of the GA community.

The past months have seen the GAAC successfully lead to the removal of two inappropriate wind turbine development proposals in the immediate vicinity of 'farm strip' flying sites in Devon, but three new cases have been come to light. In each case the developer has clearly ignored a visible and long-established flying site, hoping to hoodwink or force through an application without carrying out an appropriate risk analysis or contacting the flying site operator. In each case we have reminded the LPA that the development is in breach of CAA advice and if allowed they place the local authority in a potential position of liability if a resulting incident were to occur.

It was noteworthy that none of these flying sites had been unofficially safeguarded by the submission of plans to the LPA. However the reaction from most 'Flying Farmers' is that they "get nothing but hassle from their LPAs and would rather keep a low profile or they don't want to open a bag of worms." One FFA member stated: "Until there is a more professional attitude from LPAs, and with my own experience, I find it difficult to advise our members to go through that performance."

Oxford RMZ

We were have been made aware of the start of a consultative process by London Oxford Airport regarding the application of a radio mandatory zone (RMZ) for air traffic operations to the north of the airport. https://sites.google.com/site/oxfordairportrmz/home.

As this is based on their wish for a known airworthiness environment for traffic flying NDB approaches to runway 19 from the Daventry NDB, it is likely to directly involve and potentially exclude non-radio traffic currently known to be operating from Shennington, Shotteswell, Bicester, Hinton and Enstone as well as several private airfields in the area. It will also potentially impact on airfield utilisation at Chiltern Park, Turweston, Sywell, Wellesbourne and further afield as en-route traffic will almost certainly be affected.

Significant Areas for Sport

Work continues on the future classification by Sport England of flying sites as Significant Areas for Sport (SASP), based on sport flying and competition aerobatic activities, giving additional planning protection. Currently around 15 sites have been identified for consideration by Sport England. However some of these sites have requested a delay while the landowners are consulted as there are clearly implications for future sale of land. ■

Over the Volcano

In the land of ice and fire, they fly into places the rest of us might blanch at. This picture, which comes to us from AOPA Iceland, shows Fáfnir Árnason flying a Cessna 206 low over the Bárðarbunga volcano in central Iceland, which has been erupting since August. It was taken by Baldur Sveinsson from the right seat of a Cap-10 flown by Elías Erlingsson and was shot through the canopy with a 70mm lens. The aircraft were about 300 metres apart, and the Cessna is about the same distance laterally from the lava.

A little bit of local knowledge goes a long way in such circumstances – Baldur says the lava is fairly predictable and the risk manageable. The Cessna is operated by Myflug Air and was full of sightseers who had paid some €1600 for an hour-long helicopter flight from Reykjavik to an airstrip at nearby Mývatn, then on to the volcano in the 206.

The whole area is closed to ground traffic because of the danger that the eruption might move under the Vatnajökull glacier, causing sudden and massive flooding. Having thousands of sightseers on the ground is not an option, which means that the only way to see this close up is from the air.

This is the most closely-studied volcanic eruption ever, with hundreds of geologists and vulcanologists staying in the area, closely monitored by the law and rescue forces at significant cost to the state. And they have plenty to study – underneath the glacier is the second-largest magma dome in the world (after Yellowstone) and since the eruption began the area has been subsiding by about half a metre a day. It has been calculated that by the end of September the volcano had released as much greenhouse gas as all the cars in Iceland would produce in one million years.


TF-MYY

Wessex makes a

*'Hewn from proper girders', the Westland Wessex is rising Phoenix-like from the ashes, as **Rob Lewis** reports*

It's been eleven long years since the last Wessex retired from military service. The final four came back from Cyprus just as the second Gulf war started, and Westland's Finest fell silent while bigger games were played out. That seemed to be the final curtain, but you can't keep a good jet down....

Roll forward a decade, and an enterprising outfit at Biggin Hill hit upon the possibilities of returning some of the airframes to service. Out of 356 airframes produced, maybe a dozen remained in acceptable condition for restoration. As for spares, the MoD inventory had been sold off and contained virtually everything that could be needed.

The Wessex is an interesting design, having started life as the Sikorsky S34 which first flew 60 years ago. This had a single large piston engine, which had to be placed low for C of G reasons. Turbine being so much better led to the S58 single jet, which Westland produced as the Wessex Mk 1 & 3 for the Royal Navy. By the mid 1960s, the RAF ordered the twin turbine Mk 2 eventually serving on nine squadrons.

Pilots liked it. This may seem strange given its rather odd upstairs/downstairs layout, but the old cab is just good fun. Not featuring much (indeed anything) in the way of modern composites, she is built, or rather hewn, from proper girders. Many a longeron and stringer found a happy home in her, along with massive sway braces round the gearbox and a properly agricultural undercarriage. There might be a penalty to pay in excess weight and lots of drag, but to keep the Yin and Yang in balance you get strength and a certain character. After all, there can't be many utility helicopters that could take a Dungannon Wangover! The technique was to do endless monotonous tasking and not notice a change in the wind direction. Return to dispersal and enter incipient vortex ring on short finals. Hit the ground very hard – in excess of 4.5g deceleration – trip the crash switches and bounce out over the perimeter fence in a cloud of fire extinguisher fumes! The only damage was to replace the fire bottles. Don't try this at home...

To look at the design is to realise that the 1960s were indeed the beginnings of liberal experimentation with chemical stimulants. Why else would anyone invent a start sequencer called the Electrically Wound Start Delay Relay? As it says on the tin, pressing the start button causes a small motor to wind a clockwork mechanism which then unwinds, tripping various microswitches to fire up the engine. Not much could go wrong there, then. When high volts arrived at the igniter, it would often not spark, hence all Wessex crews carried a 4B soft pencil. Take out igniter plug, scrape soft graphite on to surface, replace and get one huge spark almost guaranteed to get you home! The other ploy was to pour as much water as possible down the jet pipe to wash the plug, a trick with a very high success rate until a man from Rolls Royce saw it

comeback

This photo: all aboard the FunBus… the Wessex hovers out of dispersal at Biggin Hill Below: Coupled 1350hp Bristol Siddeley (later Rolls Royce) Gnome turbines made it go

happen and became rather stressed. But it did work!

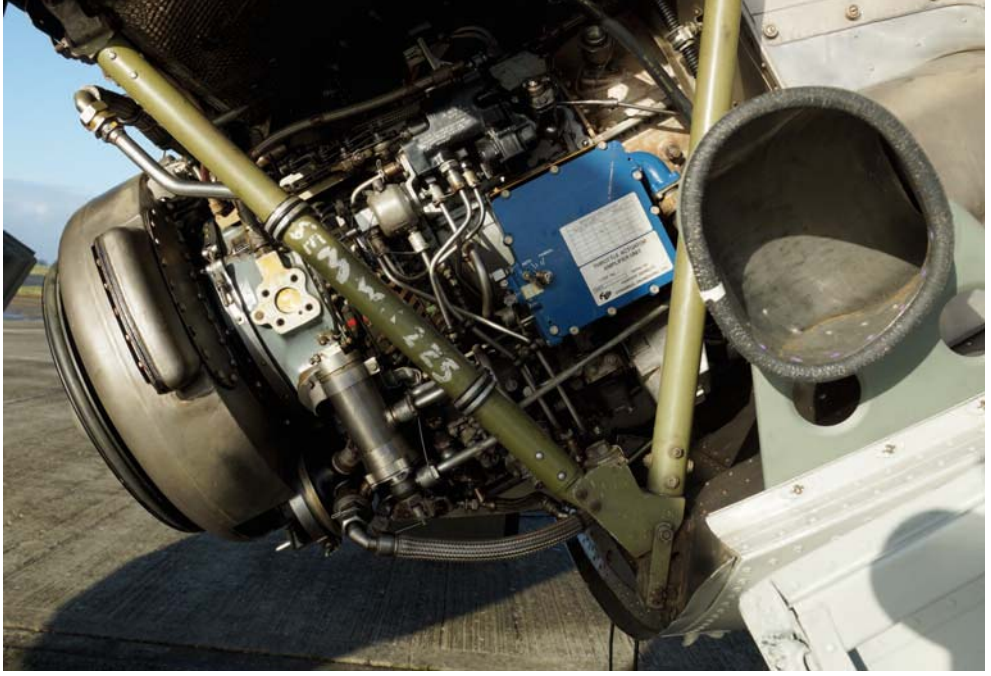
But I hear you say, "What's she like to fly?" Well, remarkably nice, considering the age of the machine. Someone, long ago, described steering the craft as akin to flying a council house whilst peering through the upstairs toilet window. The swine plainly lacked a soul, because no council house has ever uncomplainingly taken the thrashing meted out by generations of pilots to this aircraft. And a beating she could take – a 72 Squadron cab took 27 machine-gun rounds, one through the co-pilot and another knocking out the port engine, and flew on, while another was hit by a hail of bricks in a bomb attack and came back without most windows and sans several chunks out of the rotors. As the advert says, it sure won't let you down.

I digress from the handling. The first obstacle is the long climb up the side to the cockpit. Suitable ledges and holds are provided, and it is always best without the engines running, due to squeezing past the jet pipes which sit about 450oC at idle. Once you have clambered in, and I now realise this was easier 17 years ago when I last did it, you are presented with a magnificent view of the instrument panel and a less than comparable view ahead due to Westlands' use of big windscreen frames. Another limit to forward visibility is the electro-hydraulic windscreen wipers, which often discharge a jet of hydraulic fluid onto the screen and then use their last spasmodic twitches to beat said fluid into an opaque, water repellent pink foam guaranteed to prevent any view at all. Luckily the cockpit doors are all Perspex (and often open in flight), so, combined with a low Vmax and suitable crosswind you are travelling sideways and looking through the door anyway.

The engines have Full Authority Analogue Control – none of your modern digital stuff but the same effect, albeit rather unreliable. There is no manual throttle back up, so the computers have total control of the engines, controlling light up to idle, acceleration, top temperature and anti surge functions. The upside is instant power response, the downside is if the computer thinks it has lost a vital signal like turbine temperature it freezes the throttle and you can't do anything about it. The port motor is started first to run hydraulics and generators, but through a clutch system that disconnects it from the rotors. The starboard donk drives the head directly, and once that is turning, selecting Main Drive couples the first engine to the head. There is a particular sequence of actions to accomplish this without a spectacular gearbox wreck – no Wessex pilot moves the switch without a very careful check! At

RAF Shawbury, a student pilot would take about an hour to do a full start and stop. On the front line, a scramble start would take about 3 minutes.

Once the necessaries are done, she lifts to the hover and sits a little port side down and tail low. It is easy to see why this aircraft made such a good SAR platform as the hover is very stable, although the slab side is interesting in a crosswind, the limit being 30 knots. Transitioning to forward flight gives a rumble passing through translational lift and Safe Single Engine speed is quickly achieved as one motor gives roughly 90% of twin power. Actually there are no percentages on any dial, all are calibrated in direct units, so what would be known as N1 in a newer aircraft is labelled "Compressor RPM 0 – 30000". However the controls are well harmonised with no cross coupling and flight is, in a well rotortuned example, smooth until approaching Vmax at 120 kts. Not fast, but look at the thing and you will appreciate the designers couldn't spell aerodin areodyn aerodinnamic making it slippery, as you can see from forward speed only being four times faster than sideways. The plus side of its Forth Bridge construction philosophy is a cab with great "chuckability" – it can stand on its ear, point straight up or down and is the only aircraft I can think of that can land 500 nose up due to the far aft position of the tailwheel. Of course, someone has landed even more nose up and stuck the tail rotor into (fortuitously soft) ground, landing to



Above: 'hewn from proper girders', the Westland was virtually indestructible Right: the Wessex cockpit is evidence of the design's 1950s origins Below: before there were 'ergonomics', there was the Wessex panel

Wessex was supposed to run away from a nuclear holocaust at 120kt

pick up troops. Didn't break much, but the Squadron boss became slightly excitable.

Of course perfection cannot exist on Earth – as the Garden of Eden had the snake – so Westland's Finest has the odd issue. I am not certain of the collective noun for a large number of limbless hissing reptiles, so I hereby invent the term "A Yeovil of snakes," named for that well known Somerset helicopter factory. There is space to mention only a flavour of the Yeovil – from the amazing ability to collect rainwater through the cockpit roof to deposit on the pilot to the quite splendidly eccentric idea that in a double engine failure, the pilot might also like to do without his attitude indicator, radar altimeter, stability system, compass and just to add a little bouquet garni of extra excitement, the hydraulic boost to the tail rotor pedals. Indeed, a Senior Officer who had not flown the Wessex before, said as I got him to do a practice double engine failure: "Stop, Rob! Everything is broken!" "Actually Sir, this is how it is. Get a grip!" Odd that I never got promoted…

Her biggest problem though is unreliability. This has little to do with age, but more with the era from which she sprang. After all, 1960s cars were terrible, and so generally were the aircraft. She is fantastically complex – DO NOT ask about the Double Datum Overspeed Trip Governor or Decca Flight Log, a real moving map involving paper and a pen on an arm, I kid you not – and generally laid out as a challenge for the engineers. Accessibility was not a key consideration, indeed "Engineers must be flexible" means just that. Spares are fairly plentiful and it is still possible to have the major dynamic components overhauled. There is little reason why the type should not fly on for many years to come.

It's been a good and characterful aircraft, popular with its crews and used in a wide variety of roles. Familiar to many in its yellow rescue colours, it has also been a warplane across the world, serving in Hong Kong, Borneo, Aden, Northern Ireland, Germany and of course the Falklands. Some RN examples were even nuclear armed, carrying an atomic depth charge. That must have been interesting. Presumably the instructions for use ran something like

(1) Drop Atomic Weapon then

(2) Flee at 120 knots.

Interesting times!

Idiosyncratic, ergonomically challenged, wet, slow and unreliable it might be, but utterly vice-free handling, entertaining and always protective of its crews as well, and if you could cut one open written right through the centre you would find the words: "Westland's FunBus. Well Built in Britain" ■

Right: the Wessex looks out over London from its Biggin Hill base

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From Victoria Station take the exit adjacent to platform one, which will bring you out onto Bridge Place, then follow red arrows on the map.

Letters to the Editor

Damyns Hall

Sir,

I am writing to inform and to bring to the attention of your readers and club pilots that Damyns Hall Aerodrome (EGML - A/G Hornchurch Radio on 119.550 mHz.) is a very busy airfield, with mixed GA and microlight, hang glider aero-towing and SLMG/Glider activity daily, even though it does not have an ATZ.

We regularly see and avoid small single and twin-engine aircraft and helicopters flying very close to and overhead Damyns Hall, sometimes lower than 1000 feet cutting through our circuit pattern, thus endangering themselves as well as our circuit traffic.

We have a standard overhead join at 1400 feet on the QNH as the preferred method to arrive and join the circuit. During calm wind conditions, some pilots prefer to use runway 21 for taking off and runway 03 for landing due to obstacles on the threshold of runway 21. This is perfectly acceptable practice, but those who are unable to communicate on radio may find it extremely off-putting to land in the face of traffic that is taking off.

Above: Damyns Hall lies between the M25 and the London City zone

The M25 motorway acts as a line feature that many pilots follow going north or south; the RMZ at Southend Airport funnels traffic along this area, making it very busy on a good weather weekend.

This 'high risk' area is likely to be traversed in less than 2 minutes at about 100 knots, and many pilots may not be paying attention to a non-ATZ airfield and its circuit traffic, while negotiating the bottleneck between London City and Southend Airports.

May I extend a warm and friendly welcome to all your readers to fly to Damyns Hall, where we charge no landing fees, the fuel is cheap and the café is open six days a week.

Our website is www.damynshall.co.uk and www.londonairsports.com

Deepak Mahajan (CFI)
London Airsports Centre
Damyns Hall
Upminster
Essex

Red Tape cutters

Sir,

I thought it worthwhile telling you of the following.

I recently applied to have my PPL converted to an EASA equivalent.

I live in France and have a French medical certificate.

The CAA have blown hot and cold over these for the last few years, so I had some doubt it would be accepted.

Initially it was rejected, so I asked why, and it turns out that the French AME had used an old pre EASA format for recording the results of my examination. The person I discussed it with agreed that this was over-bureaucratic – quote, "too red tapeish" – and agreed that the spirit was correct if not the letter, and accepted it.

Bravo to the CAA medical centre and to all who have campaigned for an end to red tape. I just received my new licence and am very happy.

Ron Turner
Atlantic Air Park.
France

Air racing in the 1950s

The post-war heyday of high-speed air sport remembered by ***David Ogilvy***

Air racing can hold a strong appeal to pilots who enjoy challenges, who wish to test their skills in handling and judgement and, for those who seek it, can offer much more than just travelling from A to B. Unlike other speed contests, though, air races hold relatively little appeal to the viewing public, despite the fact that flying displays are the UK's second most popular spectator attraction. This general lack of interest may seem strange, but it enables a winner to avoid the indignity of being branded a celebrity!

All this applies today in the same way as it did 60 years ago, but there are some significant differences. Although shortly after WW2 there were fewer civil light aircraft and fewer private pilots than there are now, there were many more small aerodromes (the seemingly incurable closure disease had not been invented) and many of the aeroplanes that competed then were those that had achieved successes around the pylons of the 30s. Also, at that time, surprisingly, there were more women racing pilots than there have been since the war and as early as 1931 the Ladies' Handicap, flown from the now-defunct Woodley aerodrome near Reading, drew nine participants. Then there were the many variations on the competitive scene, including the oddest of all, when in May 1933, from Brooklands, the "finishing line" in the Vertical Interception Race was an autogyro circling at 3,000ft and, on a handicap basis, the winner was the first pilot to climb up and pass the machine!

This was the time when the British aircraft industry (comprising a wide range

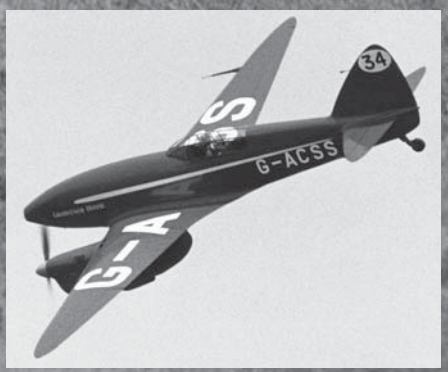
of large and some very small firms) was the unchallenged world leader in design and construction; many of the products had strong sporting potential and a few companies created world record breakers.

Entries for the 1933 event for the King's Cup included seven Comper Swifts and by the following year the overall scene was dominated by the famous de Havilland DH88 Comet designed, built and flown within nine months and three of which were entered for the MacRobertson Air Race from Mildenhall in England to Melbourne in Australia. Initially this attracted no fewer than 64 entrants, but as the complexity of the commitment became clearer most withdrew and, well before the start, the hopefuls were reduced to 20. The unique stories of the Comets, then and subsequently, justify several pages, but as the main purpose here is to concentrate on early post-war racing, we must restrict this space to recording that the overall winner was Comet G-ACSS, Grosvenor House, which covered the 11,333 miles in 70 hours, 54 minutes and 18 seconds, averaging 158.9 mph. This famous machine is now maintained and rightly cosseted by the Shuttleworth Collection at Old Warden.

By the latter half of the 1930s the scene had settled down to a relatively steady and

Group Captain Peter Townsend is flagged off in Hawker Hurricane G-AMAU, 'Last of the Many', in the 1950 King's Cup – the aircraft was entered by Princess Margaret
Inset below: the de Havilland Comet G-ACSS, winner of the 1933 MacRobertson Air Race from England to Australia, now in the care of the Shuttleworth Collection

Photos via Philip Jarrett



even predictable pattern; the types that had been designed previously for racing and records were competing alongside aeroplanes of more general intent. Among the well-known specialist performers of the day were the diminutive Comper Swift, Miles Sparrowhawk and Hawk Speed-Six, and Percival Mew Gull. Fortunately examples of all these reappeared to enliven the race circuits of the 50s.

War, of course, put a halt to all private and sporting flying, but considerable numbers of light aircraft were impressed into temporary military use. Many succumbed, but some survived and reappeared on the civil register to restart the leisure flying movement. Added to these were substantial numbers of Tiger Moths, Magisters, Proctors and others that had been built as Service aircraft and were released as war-surplus equipment at peanut prices; a fly-away Tiger Moth cost £50, or to a recognised flying club, £25. To complete the line-up at the start of the new peacetime era were several pre-war types that had either escaped the call-up or had been considered unsuitable for the needs of the Service. Combined, these groups formed the basis of the entries for the air races of the late 40s and the 50s, but sometimes spice was added with examples of former military operational aeroplanes.

Air races take several forms, but the majority are handicap events around a laid-out course, with large conspicuous pylons as the turning points. In most cases entries are open to all types, but sometimes they are restricted to aircraft within specific weight, power or speed ranges. Occasionally there are one-type scratch races, with (for safety reasons) a strictly restricted number launched at the same time, usually flown around several laps of a short closed-circuit pattern, often all in sight of the base aerodrome. Although generally unappreciated by the public, these can be quite spectacular events!

For the more conventional races open to a variety of aircraft, the handicappers have

Above: Tiger Moth flown to second place in the Norton Griffiths Challenge Trophy by Basil Maile at Fairwood Common, Swansea, on April 30th 1955
Below: Halidax G-AKEC – "25 tons of metal projected by 7,000 rampant horses"

the difficult task of assessing each individual machine, based on the type's known performance, on the information given on the entry form and on a visual inspection. If there are several machines of the same type, there can be many easily recognised differences, one of the most noticeable being whether the aileron gaps have been taped-up, but more crafty modifications, if not declared, can have significant effects on performance and can lead to investigation and disqualification after the race.

All this has remained standard through many years and, as far as I am aware, only two significant changes have occurred in the post-war period. One is the need to hold a Competitor's Licence, which is not difficult to obtain, calling for a minimum of 100 hours as first pilot, although more and appropriate handling experience would be preferable. The other is the introduction of the British Air Racing Championship, awarded to the pilot who gains the highest number of points in a season. On this sensible basis, the recipient may not have won any race, but would have had consistently good results over several events.

Many race entrants are well-heeled and can improve their chances of success by titivating their mounts, but others just go along with what they have or can obtain. In 1950 I was a raw 21-year-old Mosquito pilot in the RAF, always on the lookout for other flying opportunities; for this, on my little 125cc BSA Bantam motor bike I would visit appropriate civil aerodromes and sniff around. In a corner of Blackbushe I found a two-man light aircraft engineering outfit with the 1935 Miles Falcon G-ADFH on a ground run. When the occupant switched off I approached him and for a while we just talked aeroplanes. To my surprise, he said "This needs an air test for its C of A renewal. Can you do it?" No time was wasted and after the flight I suggested

that it would be a very suitable aeroplane to enter in an air race. I said quite honestly that I had not competed but would like to try, to which he replied "Have a go – just pay for the petrol!" That man was Doug Bianchi, the founder of Personal Plane Services, which soon moved to better premises at White Waltham and flourishes today at Wycombe Air Park.

The 'go' was the Daily Express Air Race along the south coast from Hurn (Bournemouth) to Herne Bay. It was a large scale event that attracted 75 entries of all sizes and probably was not the most suitable idea for a novice. The most impressive participant was a civilianised Handley Page Halifax four-engine heavy bomber, G-AKEC, and the thought of being pursued by 25 tons of metal projected through the air by almost 7,000 rampant horses would keep me on the alert. My little mount offered 130 hp. Although the Halifax was the largest, it was not the only former military aircraft to join the fray. The back marker was the Hawker Hurricane G-AMAU, 'Last of the Many', which would cover the route at almost three times the speed of my best hopes. However, all my aims or fears were thrust aside and replaced by frustration when, within ten minutes of being flagged off, the oil pressure chose to back away at an alarming rate and I made a hurried landing at the now long closed Portsmouth airport. As soon as I had switched off, out came a man who announced himself as the Chief Engineer of the local flying club and who instantly set about sorting the problem. An ageing oil pipe had split and almost the whole tankful was spread over the blackened underside of the attractive cream aeroplane. He completed the task and refused to take a penny for his efforts, saying that he was keen to help to keep the pre-war machines flying. There were some very good people about.

Above: Miles M.3A Falcon Major HM496 as flown by the author in the Daily Express air race at Hurn
Below: the author flying Avro Club Cadet G-ACHP near Denham – he entered the aircraft in several air races
Below left: John Cunningham (front left) with fellow pilots after a Kings Cup race

At around this time several pilots felt a need for an organisation that would look after the needs and interests of owners and operators of the older aeroplanes. As one of the instigators of the idea I became caught as honorary secretary of the Vintage Aeroplane Club. Although this involved a reasonable ration of voluntary work, it provided one positive benefit: we found a slightly unairworthy Avro Club Cadet of 1933 brew, G-ACHP, bought it for £75 and, thanks again to Doug Bianchi, paid a similar sum for a new C of A, giving an inexpensive fly-about for members who lacked their own machines. This was a delightful roomy old biplane with good brakes and even adjustable seats; ailerons on upper and lower wings provided just the required manoeuvrability for pylon turns. In exchange for being the new organisation's chore-horse I was given the privilege of entering the newcomer in any air races of my choice. I saw no reason for delay.

**Part 2 of 'Air racing in the 1950s' will appear in the February 2015 issue of* General Aviation. ■

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White Bird flies back from the dead

A dedicated group of aviation engineers in Cornwall has recreated one of history's most mysterious lost aircraft, as ***Pat Malone*** *reports*

It's been called 'the Everest of aviation mysteries' – the disappearance of the aircraft known as the White Bird, bearing two brave and skilful Frenchmen who staked their lives on becoming the first pilots to fly between Paris and New York. Just two weeks before Charles Lindbergh made history, Charles Nungesser and François Coli set out from Paris in pursuit of the same $25,000 prize, determined to win fame and riches or die in the attempt. They didn't win the money.

Eight-five years on, in a hangar in Cornwall the White Bird has been reborn, as anatomically correct as human ingenuity can contrive, as a tribute to two men whose loss is still today a raw wound on the French psyche. Perfect in every known detail, this replica has been hoisted onto the roof of the Peninsula Hotel in Paris, where it points towards the west. In the cockpit they have placed mannequins of Nungesser and Coli, frozen in time.

The replica White Bird, L'Oiseau Blanc, is the finest monument that stands today in memory of the two pioneer aviators. When it was clear that they were lost, the French erected a memorial to them on the Channel coast at of Étretat, where they were last seen leaving French soil. Both men were First World War aviation heroes, Nungesser with no fewer than 40 victories, Coli having lost an eye in a crash in 1918, and the Germans destroyed their memorial in 1942. The French replaced it with an arrow-like shape 80 feet high in 1963, and a statue honouring Nungesser, Coli and Lindbergh stands at Le Bourget airport, from which they left on May 8, 1927, and where Lindbergh arrived on May 21.

This is a very French story, and it has occasioned some comment in France that an English company was given the task of making a replica of L'Oiseau Blanc. The International Group for Historic Aircraft Recovery has called it 'History's Most Important Missing Airplane', a sentiment that is not strong enough for the French. In fact, a number of French concerns tendered for the job of building the replica, but the winners – Gateguards, of Newquay Airport in Cornwall – believe their success is down to their determination to do justice to the memories of Nungesser and Coli.

"We didn't start by asking how much they would pay," says David Hobson, whose company has made dozens of replica aircraft for customers as diverse as the RAF (as gate guardians) and film

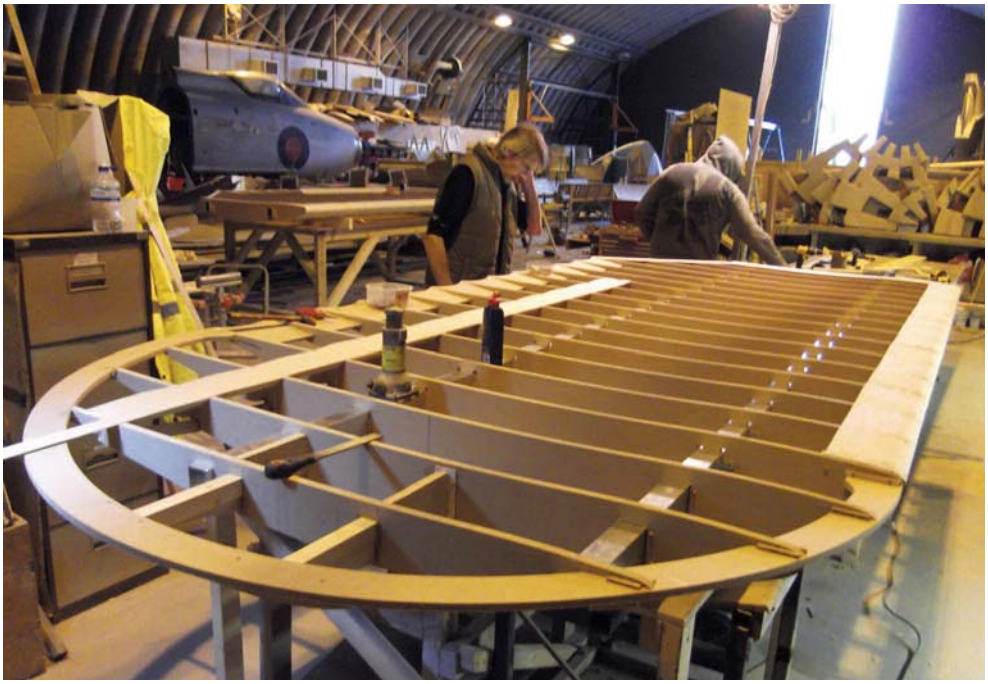
Top: L'Oiseau Blanc flies over Paris again – but only on the end of a crane jib
Above right: Duncan Healey (left) and Dave Hobson with another lifelike creation, the V1
Right: P-51D replicas made for George Lucas, who blew them up

companies – Gateguards' P51 Mustangs were blown up mercilessly in the George Lucas film *Red Tails*, as featured in *General Aviation* magazine in August 2012. "We wanted to know everything they could tell us about the size of rivet heads and the small details. It was obvious to them that our intention was to make the most historically accurate copy of the aircraft that it was humanly possible to make, and that we would spare no trouble to get it right. As pilots, we wanted to do the right thing by two men who deserve honour and recognition for what they attempted to do. We would never short-change their memory."

Getting it right meant building the replica from the inside out – building it like an aeroplane. Just as Leonardo carved up bodies to understand what was happening under the human skin, so Gateguards brought in the makers of real aeroplanes to help build the supporting structure for the mould from which the final replica would be created. Their chosen experts were Rod Bellamy and John Blick from Cornwall Aviation Services – two highly-skilled engineers who build and maintain aircraft old and new at Bodmin airfield, and who had some unique insights to impart as to how their counterparts from the 1920s would have approached their work. Gateguards' Duncan Healey says: "Rod and John could have built us a flying replica, if that had been what was required. But time and time again, the involvement of experienced aircraft engineers showed us the right way forward. We could have done it without them, but we couldn't have done it anywhere near as well."

The idea for this tribute came from Sir Michael Kadoorie, whose family interests include the Peninsula Hotels Group, which owns upmarket hotels in the world's major cities. Many of the group's hotels have an aviation theme – Hong Kong-based Sir Michael numbers aviation among his personal interests and flies his own helicopter. Duncan Healey says: "One of the first ideas was that they should honour Louis Bleriot, but for various reasons it was decided instead to recognise Nungesser and Coli." Gateguards quickly picked up the spirit of the idea, as did James Mercer, the Project Director who was handling the refurbishment of the Peninsula Hotel Paris, and who provided unstinting support to Gateguards throughout.

It was clear from the start that it was not going to be easy. There's nobody left alive who had any involvement with the original, and few records survive. The Levasseur company, which built the plane, had its archives destroyed by the Germans in the Second World War. Only a handful



Left: ribs were designed to stick out exactly as they would have done in 1927
Below: The size of the rivets around the replica cockpit was meticulously calculated. The skull and crossbones was Nungesser's old WW1 squadron logo

Above: the wing was created as though the White Bird would really have to fly
Left: Dave Hobson with wing sections from which the White Bird mould was made
Above right: span extended to take the weight

of postcards, photographs in old magazines and historical documents in museums survive to show what the aircraft was really like.

Dave Hobson says: "It was based on the Levasseur PL.4, which was a torpedo bomber developed for the French Navy in the 1920s, but it was subjected to a lot of major modifications. The PL.4 had three separate open cockpits for the crew, but in the White Bird – which was called the PL.8 – they were converted to a single bay in which Nungesser and Coli could sit side-by-side, in slightly staggered seating. The rest of the cockpit space was taken up with extra fuel tanks. The wingspan had been extended to cope with the weight – at take-off they weighed about 11,000 lbs."

Getting started

The only stipulations made to Gateguards were that the replica should be 75% of the size of the original in order to fit into the open courtyard in the centre of the hotel, and for structural reasons it could not weigh more than one tonne. "Projects like this are always difficult to get under way," Dave Hobson says. "From a few sketches, pictures and some knowledge of the LP.4, we worked up some scale drawings on the basis of what we could see. You can work out the chord, the relative dimensions, the number of ribs, that sort of basic stuff, but you need a feel for the technology of the time, you need to understand how they would have worked on it before you can make a proper replica.

"We were lucky in that John Beattie let us look at the Swordfish at the Fleet Air Arm museum in Yeovilton, and photograph the insides. That was the state of the art at that time, and you could look at it and say, well, that's what they would have done. The difficult part is the work nobody will ever see, under the skin. We wanted the ribs to poke through in precisely the right manner, the contours of the fabric to be exactly right, the look of the hinges had to be just so. You could just cut foam and make a replica, but you wouldn't be proud of it – that's the secret, you have to be very, very proud of it.

"But you work hard for a long time, and you don't see any progress. It's like building a house – getting out of the ground is more than half the work. With these aircraft, all the work goes into the plug from which you make the mould, and that's the bit that eventually just gets thrown away.

"We would spend hours poring over the pictures that were available, then go away and think about it, then go back and spend another hour with the pictures, talk about it, discuss it with Rod and John, try to get a feel for the aircraft. But eventually you've got to stop looking, get the saw out and start cutting wood. We started with the lower wing, which turned out to be something of a false start when we realised we'd made two sets of left wing ribs. But, you know, these things are going to happen, and you have to work out why it doesn't look right."

Left: The fuselage section of the White Bird begins its journey to France
Bottom left: the exhaust streaks and oil stains have been carefully applied by an artist

Some pictures showed what appeared to be V-shaped section close to the roots of the top wings, and for a while David and Duncan were puzzled as to what it could mean. The Eureka moment came when they studied the Swordfish – it had similar cut-outs to allow the wings to be folded. "We realised the White Bird must originally have had folding wings, but they'd taped over the gaps so it appeared to be a solid wing from most angles," David says.

"We were planning to take the fabric up to a wooden trailing edge on the wings, but Rod Bellamy told us they wouldn't have done that in 1927 – they would have run a wire through it, and when the Irish linen was applied and doped it would have made a series of flutings or waves. So we replicated that effect, added handholds on the wingtips, built in the little imperfections that we know would have been there."

To add to the difficulties, new demands kept coming up. "As an afterthought they mentioned, oh, and we want a propeller that goes round," says Duncan. "That meant installing an electric motor, and putting in a gearbox as well, to stop it windmilling. We calculated that a 20mph wind would have turned it at 3,000 rpm, which might have oversped it enough to bring the whole thing down. The gearbox, and the fact that we pretty well blended the pitch out, will do the trick. The French also asked for trace heating in the wings

Right: preparation for the lift took up much of the first day
Centre right: the mobile crane moves into position with the aircraft ready for take-off
Bottom right: The lift begins, with little clearance between the aircraft and the trees

to stop it shedding ice, working nav lights and a Morse light transmitting the letter N for Nungesser, so the wiring became quite complicated."

Follow the money

The prize at which Nungesser and Coli were aiming – and which Lindbergh won – was $25,000 put up by New York hotelier Daniel Orteig for the first non-stop flight between Paris and New York. It's clear that from contemporary reports that Nungesser and Coli had invested everything they had in this attempt and were determined to win the prize, worth perhaps $350,000 today, or perish in the attempt. As he climbed into the plane before take-off, Nungesser took all the change out of his pockets and threw it to the children in the crowd. However this flight turned out, he knew he wasn't going to be needing any small change.

The White Bird was as well suited as any aircraft of the day to the task; it had a watertight boat-like hull – Nungesser and Coli had intended to land next to the Statue of Liberty in New York Harbour – and the wheeled undercarriage was designed to be jettisoned after take-off. With a Lorraine Dietrich engine developing 460hp and 1,056 gallons of fuel on board, the White Bird had a calculated endurance of 42 hours. In flight tests, Nungesser had achieved a maximum speed of 129mpg, without a full load. 40 hours after take-off, a number of people in Newfoundland heard an aero engine above a low overcast. If the White Bird had flown at around 120 knots with a headwind of 20 to 25 mph, it would have flown over Newfoundland after about 40 hours, David says. But there was no prize for reaching America – they had to get to New York.

Nothing more was heard. A crowd of 10,000 had gathered in Manhattan's Battery Park, looking out to the Statue of Liberty, but they did not come. French newspapers in fact reported that Nungesser and Coli had reached New York in triumph… there were near-riots in Paris when it was realised they'd been lying. Their loss was a national tragedy. Two weeks later when Lindbergh flew into this emotional public turmoil it served to expiate the deaths of Nungesser and Coli, and vast French crowds wept openly for his success and their loss.

Time to deliver

With two months to go before delivery day the pressure on Gateguards was intense. "Some of the French never seemed to be

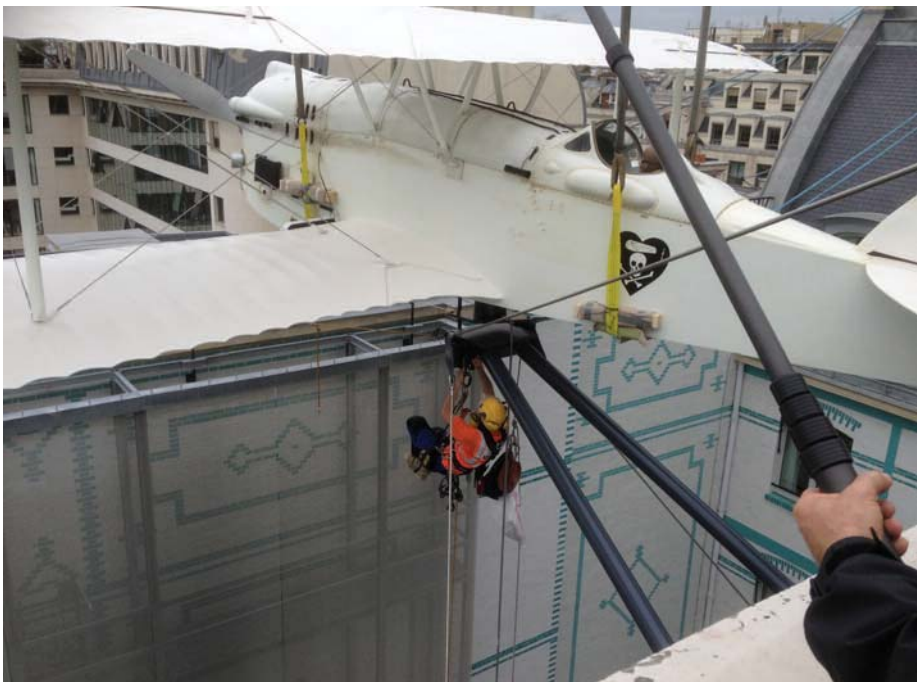
wholly convinced that we would do the right thing," Duncan says. "The pressure was ramping up because we had to fit in with their construction schedule, and it was time to deliver.

"Sir Michael Kadoorie came down to Newquay in his helicopter, and they sent a delegation from Paris, including the company's camera crew. We didn't get any sleep – were they going to like it, or was it all for nothing? We got them outside the hangar and rolled open the doors, they took three steps inside and they just stopped in their tracks. It was just – wow. Our artist had painted the weathering perfectly, the oil drips and exhaust scorches, and muck streaming from the ailerons, and the skull and crossbones emblem of Nungesser's squadron – it was *L'Oiseau Blanc*, just as she had left Paris in 1927.

"From that moment, attitudes changed on every level, and nothing was too much trouble. We went to Paris to see it out into position and it was big news, two national TV camera crews there, and they weren't pleased that we didn't speak French. That Monday morning here were more than 1,000 spectators watching in the street as they began to hoist it up in sections. There wasn't much room and it took a long time to get it above the level of the trees, then all of a sudden they downed tools and said, okay, it's time for lunch. We said, you can't just leave it dangling there… but they waved us away. You English, you're too serious, they said. So we had to watch it twisting in the wind, while we had kittens thinking it was going to get smashed.

"They came back, and within a few minutes they'd hoisted it 300 feet in the air and lowered it down to the frame it rests on – and a couple of hours later the TV crews came back from lunch to find they'd missed the whole thing. Next day their riggers were hoisted up to remove the shackles and get the bolts in, and it looked absolutely stunning."

The penthouse restaurant at the Peninsula Hotel Paris is now called *L'Oiseau Blanc* and its patrons look out on the Gateguards replica as it flies, with its two mannequin crew, towards the sunset, just as Nungesser and Coli did eighty three years ago. It's rather a shame that the White Bird can't be seen from the street, but like the original, the people of Paris know it's there somewhere, and won't forget. ■



Top right: the Eiffel Tower looms into view as the White Bird flies in to land
Right: riggers spent three hours bolting the replica into position and removing shackles
Bottom right: L'Oiseau Blanc in position – the restaurant is the glass-walled penthouse

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